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January 20, 2026

Project/File: 182922679

New Mexico Mining and Minerals Division
Abimbola Ojekanmi
1220 S. St. Francis Dr.
Santa Fe, New Mexico 87595
abimbola.ojekanmi@emnrd.nm.gov

RE: United Nuclear Corporation
Section 27 Mine Supplemental Characterization Update

Dear Abimbola,

On behalf of United Nuclear Corporation (UNC), Stantec is providing the New Mexico Mining and Minerals Division (MMD) and New Mexico Environmental Department (NMED) an update on the Supplemental Characterization Investigation at the Section 27 mine in the Ambrosia Lake area north of Grants, New Mexico.

UNC, Stantec, and subcontractors conducted soil sampling and test pitting activities at the Section 27 mine between October 1 and October 24, 2025. Work included the collection of surface and subsurface soil samples and shipping/transport of them to the analytical and geotechnical laboratories. UNC has received the analytical laboratory results while the Phase I geotechnical results are pending. Phase II geotechnical testing will begin after Phase I data have been received by Stantec and have been reviewed.

Each of the planned surface soil samples (based on the figure submitted to MMD/NMED on February 3, 2025) were collected. Subsurface soil samples were collected at a majority of the planned test pit locations; however, four planned test pits in the arroyo could not be excavated due to saturated sediment conditions. Advancing the test pits under these conditions would have affected equipment stability, field screening, and decontamination procedures. In an attempt to collect these samples during this field season, personnel revisited the site in November and December, but the arroyo sediments remained saturated. Based on experience in the area, UNC anticipates completing the four arroyo test pits in Spring 2026.

UNC will provide MMD and NMED with the *Supplemental Site Characterization Report* after completing the arroyo test pits and receiving the associated analytical and geotechnical results. We anticipate submitting the report in approximately June 2026. UNC will continue to keep MMD and NMED informed regarding site access and the schedule for collecting the remaining samples. Should any delays occur regarding the final submittal of the report, we will also keep MMD and NMED informed.

Reference: **UNC Section 27 Mine Supplemental Characterization Update**

Should you have any questions or wish to discuss further, please contact Chase Forman at (740) 403-1387 or me at (801) 617-3221.

Sincerely,

Kelly Johnson PHD, PG
Site Assessment and Remediation Manager
Stantec Consulting Services Inc.

Cc:

Chase Forman, UNC
Lance Hauer, UNC
Kristen Burt, Stantec
Clinton Chisler, MMD
Yushan Li, NMED
Amber Rheubottom, NMED

Section 27 Mine Supplemental Characterization Field Summary Report

DRAFT

McKinley County, New Mexico

Stantec

Prepared for:
United Nuclear Corporation and General Electric Company

Prepared by:
Stantec Consulting Services Inc.

Date:
August 11, 2026

Project/File:
182922679

Stantec Consulting Services Inc.

Disclaimer

The conclusions in the Report titled Section 27 Supplemental Characterization Field Summary Report are Stantec's professional opinion, as of the time of the Report, and concerning the scope described in the Report. The opinions in the document are based on conditions and information existing at the time the scope of work was conducted and do not take into account any subsequent changes. The Report relates solely to the specific project for which Stantec was retained and the stated purpose for which the Report was prepared. The Report is not to be used or relied on for any variation or extension of the project, or for any other project or purpose, and any unauthorized use or reliance is at the recipient's own risk.

Stantec has received information from United Nuclear Corporation (the "Client") and third parties to prepare the Report. This information has been used in accordance with, and is governed by, the terms set forth in the Alliance Partnership Agreement (APA), Amended and Restated, Version 3.0, between GE and Stantec (GE Contract No. 670107) dated March 25, 2025 (the "Contract").

This Report is intended solely for use by the Client in accordance with the Contract. Stantec's liability with respect to Client's distribution of the Report to third parties shall be governed by the terms outlined in the Contract. Nothing in this disclaimer shall be construed to waive, limit, or expand any confidentiality obligations of either party set forth in the Contract.

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Appendix B Biological Resources Report for the Section 27 Mine near San Mateo, New Mexico – Cedar Creek Associates Inc.
Appendix C Characterization Update Letter and Field Modification Request
Appendix D Compiled Field Test Pit and Hand Auger Logs
Appendix E Daniel B. Stephens & Associates Laboratory Results

Acronyms / Abbreviations

Acronym / Abbreviation	Full Name
ASTM	American Society for Testing and Materials International
AVM	AVM Environmental Services, Inc.
bgs	below ground surface
BLM	Bureau of Land Management
BLM-FFO	Bureau of Land Management's Farmington Field Office
cm	centimeter
cm/sec	centimeter per second
cm^2/sec	square centimeter per second
Cedar Creek	Cedar Creek Associates Inc.
cpm	counts per minute
DBSA	Daniel B. Stephens & Associates
DGPS	differential global positioning system
DOE	Department of Energy
EPA	Environmental Protection Agency
ft	feet/foot
GPS	Global Positioning System
GPRS	Ground Penetrating Radar Services Inc.
HASL	Health and Safety Laboratory
HASP	Health and Safety Plan
IL	investigation level
IO	Isolated Occurrences
mrem/hr	millirem per hour
MMD	New Mexico Mining and Minerals Division
NaI	sodium iodide
NESA	Non-Economic Storage Area
NMED	New Mexico Environment Department
NRHP	National Register of Historic Places
pcf	pounds per cubic foot
pCi/g	picocuries per gram
psf	pounds per square foot
µR/hr	microRoentgen per hour
Ra-226	Radium-226
RAL	Reclamation Action Level
RPP	Radiologic Protection Plan
SAR	sodium adsorption ratio
SIA	site investigation area
Site	Section 27 Mine Site
SSL	Soil Screening Levels
Stantec	Stantec Consulting Services Inc.
TAL	target analyte list
Th-230	thorium-230
UMTRCA	Uranium Mill Tailings Radiation Control Act
UNC	United Nuclear Corporation

Acronym / Abbreviation	Full Name
USCS	Unified Soil Classification System

1 Introduction and Purpose

Stantec Consulting Services Inc. (Stantec) prepared this Supplemental Characterization Field Summary Report (Report) on behalf of United Nuclear Corporation (UNC). UNC and Stantec conducted this work in accordance with the *Section 27 Supplemental Characterization Work Plan*, *Revision 1* (Work Plan), dated May 14, 2024 (Stantec, 2024). The Work Plan was approved via email from Mr. Clint Chisler of the New Mexico Mining and Minerals Division (MMD) on May 22, 2024. The Work Plan details the Section 27 Mine Site (Site) history including past characterization, reclamation activities, and agency communications.

The supplemental characterization efforts were performed to obtain additional data to evaluate the lateral and vertical extent and volume of mining-related materials at the Site using an investigation level (IL) that meets the requirements set forth in the *Joint Guidance for the Cleanup and Reclamation of Existing Uranium Mining Operations in New Mexico* document (Joint Cleanup Guidance) (MMD and NMED, 2016). The primary objective of the supplemental radiological characterization is to delineate the lateral and vertical radiologic contamination boundaries corresponding to the radium-226 (Ra-226) Reclamation Action Level (RAL).

The Joint Cleanup Guidance defines the RAL as:

- An average of 5.0 picocuries per gram (pCi/g) Ra-226 above background over an area of 100 square meters in the first 15 centimeters (cm) of soil below the surface, and
- An average of 15 pCi/g above background over an area of 100 square meters, averaged over 15 cm thick layers of soil more than 15 cm below the surface.

As described in the Work Plan, the identified background value for the Site is 1.54 pCi/g. The surface RAL, applicable to the first 15 cm of soil, is 6.54 pCi/g; the subsurface RAL, applicable to soil 15 cm below ground surface (bgs), is 16.54 pCi/g. The application of the surface and subsurface RALs will be evaluated during remedy design. For this Supplemental Characterization, UNC used the surface RAL of 6.5 pCi/g as the IL.

Stantec also collected samples to characterize the geotechnical properties of the borrow source to be used for backfill and potential cover material and to characterize the physical properties of the mine waste materials.

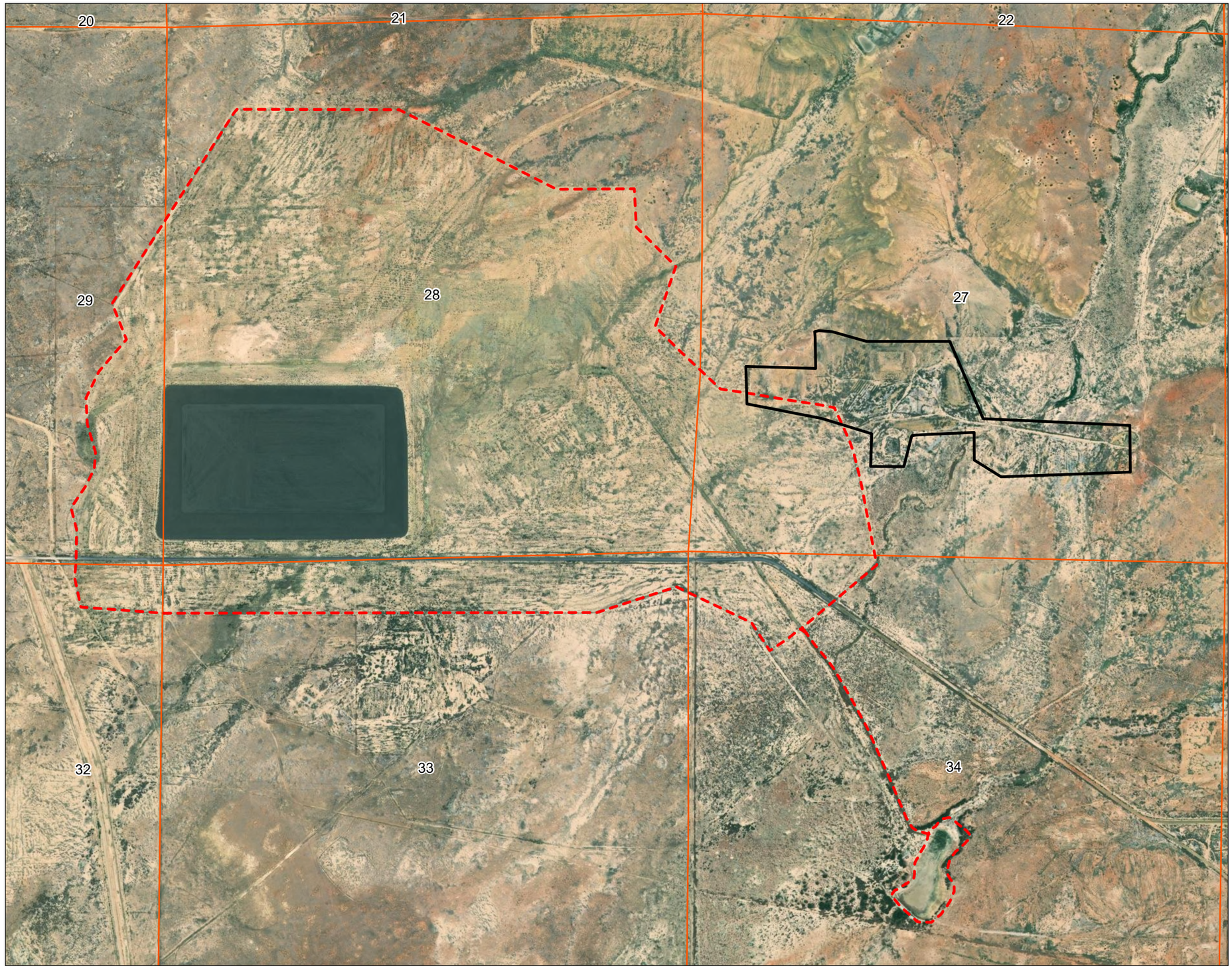
Stantec conducted supplemental characterization field investigation activities at the Site during the following time periods:

- Surface walkover gamma survey – August 2024
- Biological survey – September 2024 and March 2025
- Cultural resources survey – September 2024
- Surface and subsurface sample collection for radiological and geotechnical sample analysis – October 2025 and April 2026

1.1 Site Background

The Site is located approximately 25 miles north of Grants, New Mexico in the Ambrosia Lake District of McKinley County. The Section 27 mine was an underground shaft uranium mine east of the former Ambrosia Lake uranium mill site, also known as the Phillips Mill (**Error! Reference source not found.**). Historical site features included two shafts, three vent holes, two piles of non-economic storage area (NESA) mine materials containing overburden rock, sands, and gravels, one small ore stockpile, two topsoil stockpiles and several small piles of ball mill reject materials (Figure 2). Portions of the Site were found to be impacted by operations associated with the adjacent Phillips Mill site and were previously remediated by the Department of Energy pursuant to the Uranium Mill Tailings Radiation Control Act (UMTRCA; MK-Ferguson Company, 1996 and 1997). The Site is currently inactive, and the historical mining features encompass approximately 14 acres.

UNC produced uranium ore from the Site during operations from 1967 to 1977. The Section 27 mineral lease covered approximately 200 acres and was surrendered in 1988. Closeout reclamation occurred in 2010. Current Site features are shown on Figure 3. UNC owns a small portion of the surface within the Section 27 permit boundary with a corporate entity called Section 27 LLC retaining a majority of surface ownership at the mine. To the best of UNC's knowledge, ownership of the mineral estate is held by Hecla Mining Company.



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Legend

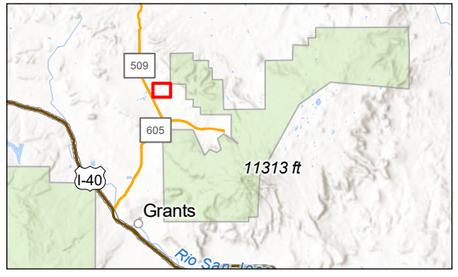
- Section 27 Permit Boundary
- Phillips Mill Excavation Limit
- Approximate Section Boundary and Number

Notes

1. Coordinate System: NAD 1983 StatePlane New Mexico West FIPS 3003 Feet
2. Data Sources: Stantec, BLM
3. Background: 2018 Aerial Imagery
4. PLSS: Public Land Survey System

N

0 600 1,200 Feet



Project Location
14N 9W NM

Prepared by BV on 2026-07-20
IR by KJ on 2026-07-20

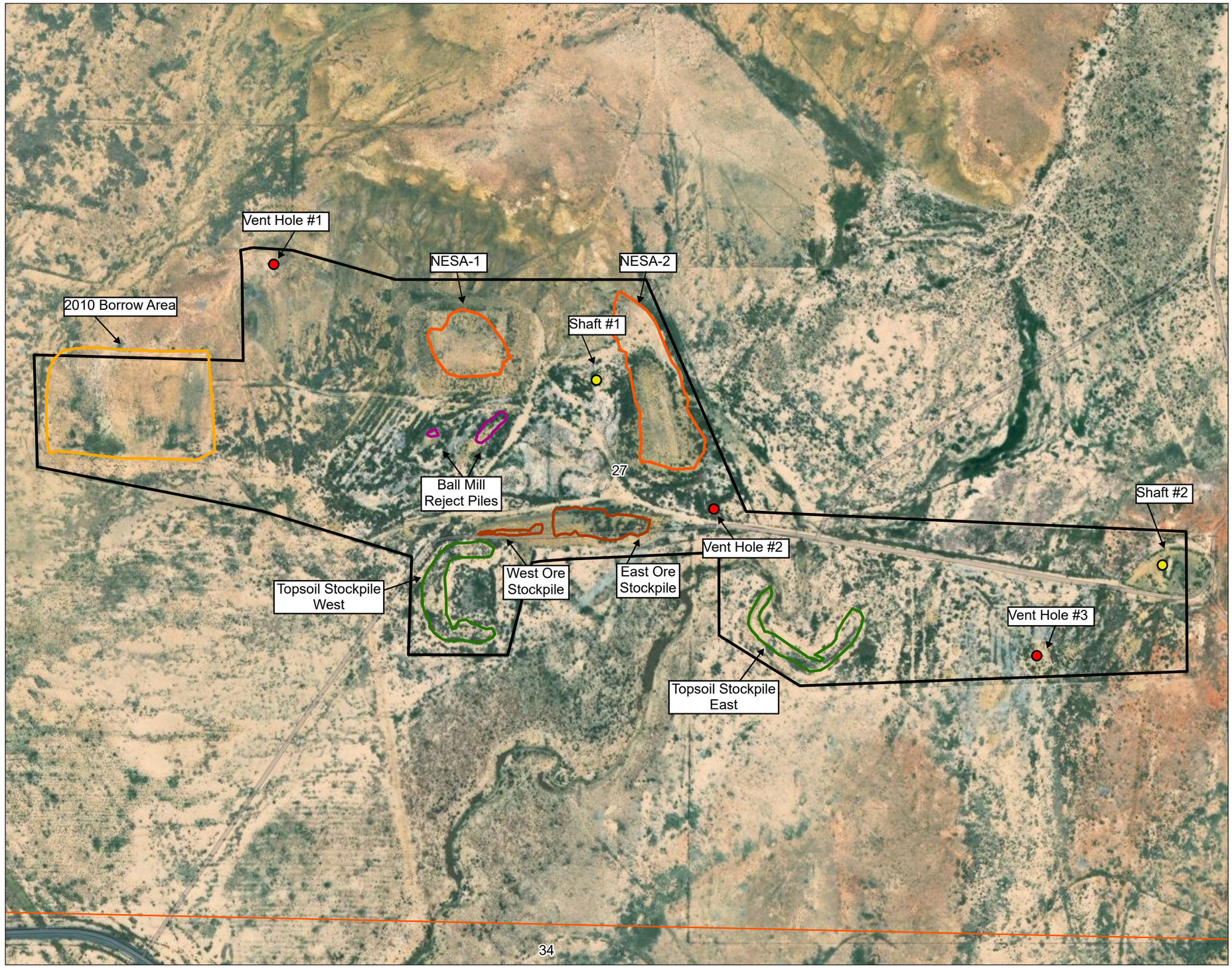
Client/Project 182923822
United Nuclear Corporation
Section 27
Supplemental Characterization

Figure No.
1

Title
Section 27 Site Overview

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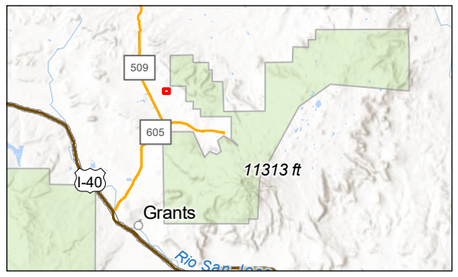
- Section 27 Permit Boundary
- Approximate Section Boundary and Number
- Mine Shaft
- Vent Hole
- Topsoil Stockpile
- Ore Stockpiles
- Ball Mill Reject Piles
- 2010 Borrow Area
- Historical NESA Piles

Notes

1. Coordinate System: NAD 1983 StatePlane New Mexico West FIPS 3003 Feet
2. Data Sources: Stantec, BLM
3. Background: 2018 Aerial Imagery
4. PLSS: Public Land Survey System

N

0 200 400 Feet



Project Location
14N 9W NM

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IR by KJ on 2026-07-21

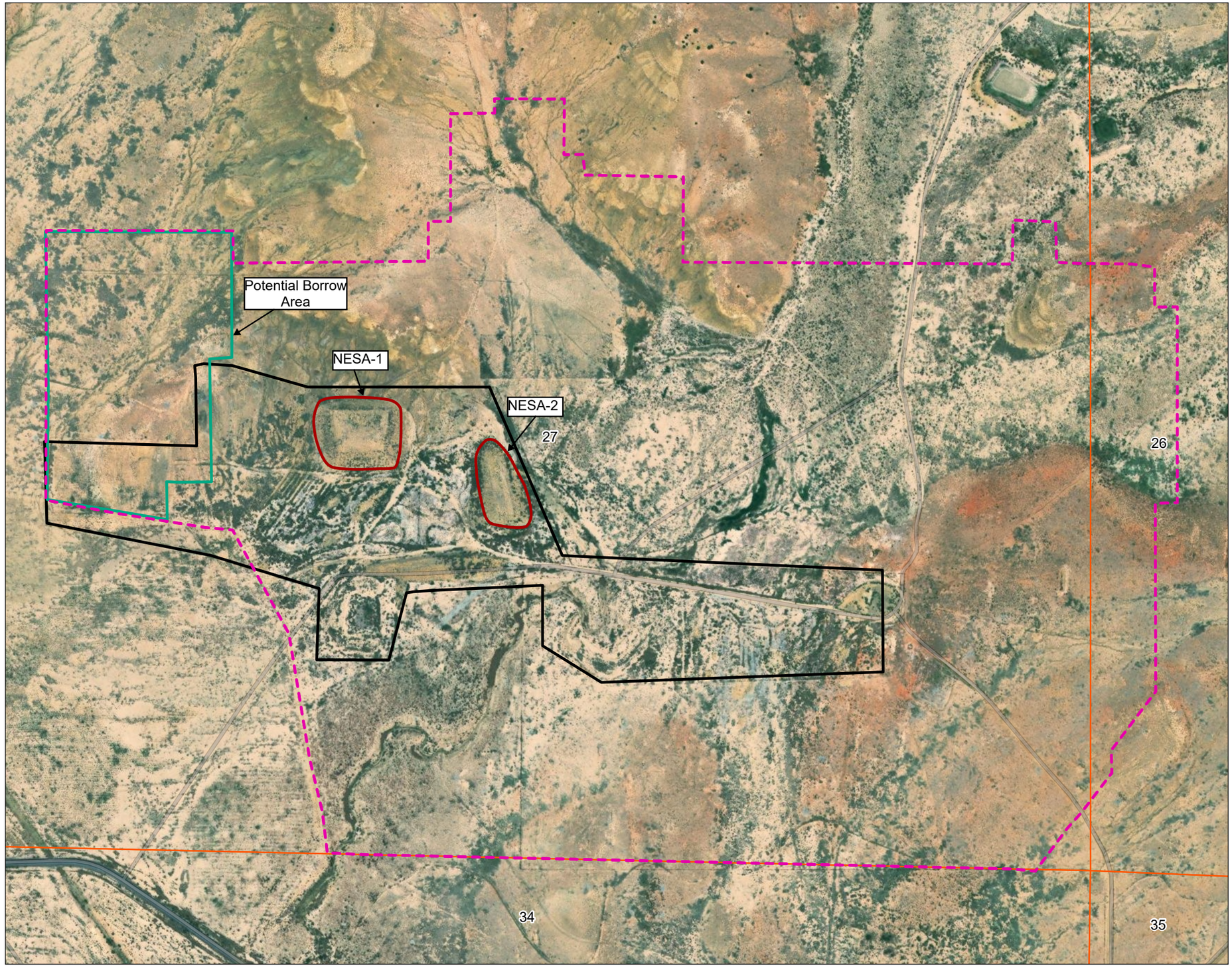
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United Nuclear Corporation
Section 27
Supplemental Characterization

Figure No.
2

Title
Section 27 Historical Features

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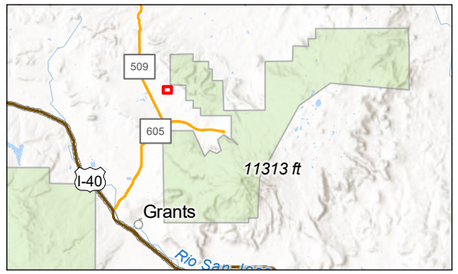
- Section 27 Permit Boundary
- Section 27 Investigation Area Boundary
- Approximate Section Boundary and Number
- Potential Borrow Area
- NESA Piles

Notes

1. Coordinate System: NAD 1983 StatePlane New Mexico West FIPS 3003 Feet
2. Data Sources: Stantec, BLM
3. Background: 2018 Aerial Imagery
4. PLSS: Public Land Survey System

N

0 200 400 Feet



Project Location
14N 9W NM

Prepared by BV on 2026-07-21
IR by KJ on 2026-07-21

Client/Project 182923822
United Nuclear Corporation
Section 27
Supplemental Characterization

Figure No.
3

Title
Section 27 Current Features

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1.1.1 Site Access

The mining-disturbed areas of the Site are located entirely upon privately-owned land. UNC owns a portion of the land and has an executed access agreement with Section 27 LLC for the areas that are outside of the UNC property boundaries. During the supplemental characterization, it was identified that potential mining-related impacts extend east into Section 26 and onto Bureau of Land Management (BLM) land.

1.1.2 Previous Site Investigations Background

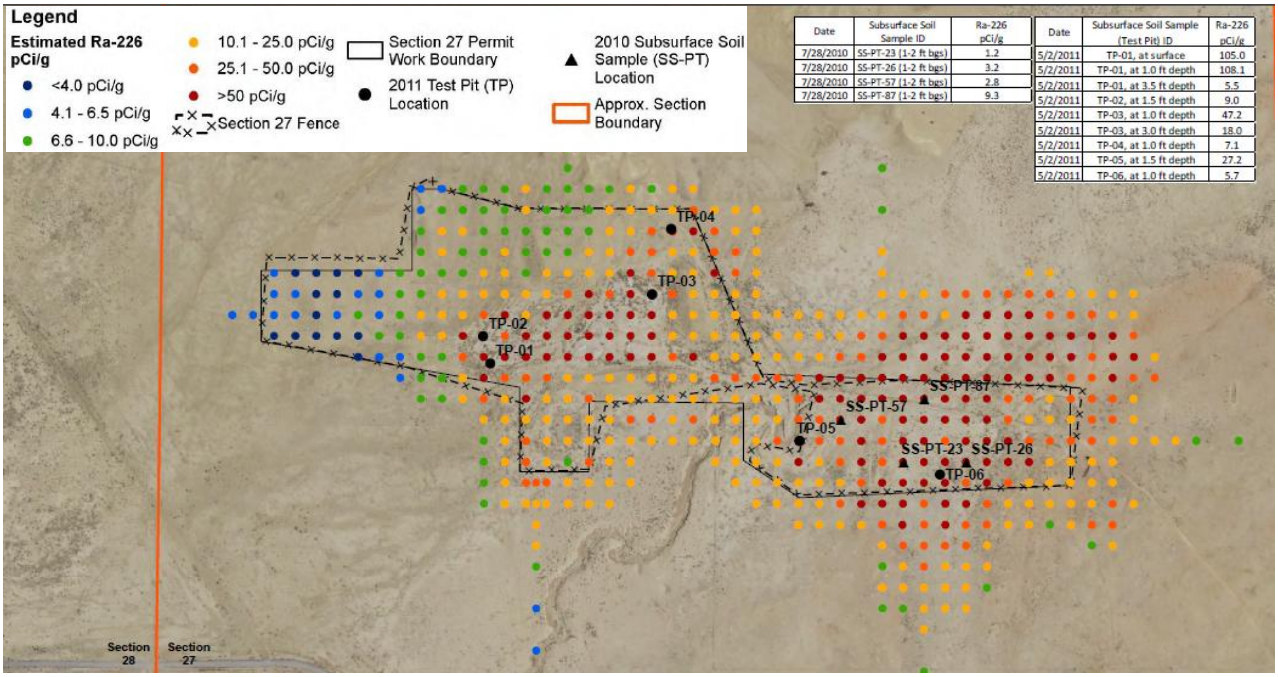
Appendix A of the Work Plan (Stantec, 2024) included a detailed narrative of historical investigation and construction activities at the Site. Site characterization and construction activity details may be found in the following reports:

- *Radiological Characterization of the Ambrosia Lake, New Mexico, Uranium Mill Tailings Remedial Action Site* (Bendix Field Engineering Corporation, 1985)
- *Environmental Assessment of Remedial Action at the Ambrosia Lake Uranium Mill Tailings Site at Ambrosia Lake, New Mexico* (DOE, 1987)
- *Remedial Action Plan and Site Conceptual Design for Stabilization of the Inactive Uranium Mill Tailings Site at Ambrosia Lake, New Mexico* (DOE, 1990)
- *Ambrosia Lake, New Mexico, Final Completion Report* (MK-Ferguson Company, 1996)
- *Vicinity Property Completion Report at AM-001S* (MK-Ferguson Company, 1997)
- *Section 27 Mine Site Assessment* (MWH, 2003)
- *An intensive Cultural Resource Survey of 13.36 ha (33ac) for the Proposed Remediation of the Section 27 Uranium Mine Near Ambrosia Lake in McKinley County, New Mexico* (Lone Mountain Archaeological Services, 2005)
- *Vegetation and Wildlife Evaluations/Revegetation Recommendations* [Cedar Creek Associates Inc. (Cedar Creek), 2006]
- *Revised Final Section 27 Materials Characterization Work Plan* (MWH, 2007a)
- *Section 27 Materials Characterization Report* (MWH, 2007b)
- *Section 27 Closeout Plan* (MWH, 2008)
- *Section 27 Mine Construction Completion Report* (MWH, 2010a)
- *Post-Reclamation Risk Evaluation, Section 27 Mine, New Mexico* (MWH, 2010b)
- *Section 27 Mine Supplemental Closeout Plan* (MWH, 2011)

Radiological characterization of the Site began in the 1980s as part of the assessment of the former Phillips Mill. Windblown mill tailings and other mill-related radiological impacts were found to extend into Section 27 and associated drainage features including the drainage ditch leading to Voght Tank, and Voght Tank itself (Bendix Field Engineering Corporation, 1985). At that time, the Ra-226 to U-238 ratio was used to differentiate mill tailings from ore. Surface and subsurface materials impacted by mill tailings were excavated and placed into the current tailings impoundment by the Department of Energy (DOE) and its contractors (DOE, 1990). The approximate extent of this excavation is shown in Figure 1. Following excavation and consolidation, verification sampling was performed and the average Ra-226 soil concentrations were found to meet the standards for residential use at 40 CFR Part 192 (MK-Ferguson Company, 1996 and 1997).

Prior to 2007 investigation activities, Lone Mountain Archaeological Services conducted a cultural resources survey in 2004 (Lone Mountain Archaeological Services, 2005), and Cedar Creek conducted a Vegetation and Wildlife Evaluation in 2006 (Cedar Creek, 2006). In 2007, site characterization activities commenced to evaluate the vertical and lateral extent of mine waste at the Site and to evaluate borrow sources for use as cover materials and backfill (MWH, 2007b). An initial phase of reclamation in 2010 consolidated material from the area of the Shaft #2, the Ball Mill Reject Pile, East and West Ore Stockpiles, and concrete foundation materials in the area of the NESA-1 (MWH, 2010a). Cover material was placed on the NESA-1. Debris from reclamation activities were placed within NESA-2, including telephone poles, angular metal frames, and the largest pieces of demolished concrete foundation. NESA-2 was then covered with clean materials. The historical features are shown on Figure 2. A post-reclamation verification gamma survey was conducted after completion of the closeout construction activities over the disturbed areas (MWH, 2010b).

During 2010 reclamation activities, soil and material exceeding the gamma exposure rate of 29 microRoentgens per hour (µR/hr) were excavated from Ore Stockpile Areas, Ball Mill Reject Piles and shaft/vent areas (Figure 2) and placed on the existing NESA-1 and NESA-2 (MWH, 2011). Based on the Site correlation study, the 29 µR/hr exposure rate threshold of excavation in the above-mentioned areas was likely to be higher than the equivalent Ra-226 IL that currently meets the *Joint Cleanup Guidance* (MMD and NMED, 2016). Therefore, the 2010 and 2011 post-reclamation gamma radiation survey data provide adequate Ra-226 level estimations in surface and subsurface soil within and near the Site permit boundary as shown in Figure 4 below. The Ra-226 levels in most of the areas both inside and outside the permit boundary are above the current cleanup criteria specified in the *Joint Cleanup Guidance*. The post-reclamation survey lacked data to delineate lateral and vertical extent of radiologic contamination to the IL, primarily outside the permit boundary. Given the updated *Joint Cleanup Guidance* from 2016 and UNC's reevaluation of the post-reclamation data, additional characterization was needed to extend further outside the permit boundary to identify lateral extent of mining-material that exceeds the surface RAL, this boundary is the surface RAL boundary.



Date	Subsurface Soil Sample ID	Ra-226 pCi/g
7/28/2010	SS-PT-23 (1-2 ft bgs)	1.2
7/28/2010	SS-PT-26 (1-2 ft bgs)	3.2
7/28/2010	SS-PT-57 (1-2 ft bgs)	2.8
7/28/2010	SS-PT-87 (1-2 ft bgs)	9.3

Date	Subsurface Soil Sample (Test Pit) ID	Ra-226 pCi/g
5/2/2011	TP-01, at surface	105.0
5/2/2011	TP-01, at 1.0 ft depth	108.1
5/2/2011	TP-01, at 3.5 ft depth	5.5
5/2/2011	TP-02, at 1.5 ft depth	9.0
5/2/2011	TP-03, at 1.0 ft depth	47.2
5/2/2011	TP-03, at 3.0 ft depth	18.0
5/2/2011	TP-04, at 1.0 ft depth	7.1
5/2/2011	TP-05, at 1.5 ft depth	27.2
5/2/2011	TP-06, at 1.0 ft depth	5.7

Figure 4. 2010/2011 Static Gamma Survey and Subsurface Soil Sample and Test Pit Locations and Data

1.2 Report Organization

The remaining sections of this document include the following:

- Section 2 – Presents field methods and procedures
- Section 3 – Discusses results of the surveys and field investigations
- Section 4 – Provides references for cited documents
- Appendices include:
  - Appendix A – Supplemental Radiologic Characterization Report for the UNC Section 27 Mine Site, AVM Environmental Services (AVM) (2026)
  - Appendix B – Biological Resources Report for the Section 27 Mine near San Mateo, New Mexico – Cedar Creek
  - Appendix C – Characterization Update Letter and Field Modification Request
  - Appendix D – Compiled Field Test Pit and Hand Auger Logs
  - Appendix E – Daniel B. Stephens & Associates (DBSA) Laboratory Results for Geotechnical Samples

2 Summary of Site Investigation Activities

This section summarizes the Site investigation activities completed during the supplemental characterization field work. Methods and activities are summarized below. Appendix A includes detailed information for the radiological investigation methods. The field work was completed in accordance with the approved Work Plan, except where deviations from the Work Plan are noted in Section 2.3. In addition to the Work Plan, field efforts followed a site-specific health and safety plan (HASP). The HASP included a radiation protection plan (RPP) developed and implemented by AVM.

Supplemental characterization data were collected within the Section 27 Investigation Area Boundary shown on Figure 3. The lateral extent of the investigation, the Investigation Area Boundary, was identified using step-out gamma scans until the estimated surface soil radium-226 (Ra-226) levels were below the surface RAL (see Section 4.2.4. of Appendix A). The area within the Investigation Area Boundary is the Site Investigation Area (SIA).

2.1 Resource Surveys

Prior biological and cultural resource surveys were limited to the Section 27 mine permit boundary. The surveys did not cover the extent of the anticipated ground disturbing activities required for the supplemental characterization. Given this, it was necessary to extend and update the surveys to identify, record, and evaluate the presence of protected flora and fauna species and cultural properties outside of the permit boundary. The resource surveys were extended across the SIA. The subsections below describe these efforts.

2.1.1 Biological Survey

Cedar Creek conducted a biological resources survey to assess the presence or potential occurrence of special-status species and to evaluate if supplemental characterization field investigation activities would result in adverse impacts requiring additional consultation. The biological resources survey extended across the SIA. Methods and results of the survey are detailed in the *Biological Resource Report for the Section 27 Mine Near San Mateo, New Mexico* (Cedar Creek, 2025). A full copy of the report is included as Appendix B.

The survey included a desktop review of publicly available datasets and on-site field surveys. Qualified biologists conducted the initial Site visit on September 23, 2024, to document vegetation communities, hydrology, wildlife observations, and potential habitat for special-status species within the analysis area. A second Site visit for a dedicated raptor survey was conducted between March 24-25, 2025, by biologist Jesse Dillon, who used binoculars and a spotting scope during morning and evening observation periods. The biological resources survey was completed in compliance with applicable federal and State of New Mexico wildlife protection requirements, including the Endangered Species Act, Bald and Golden Eagle Protection Act, and Migratory Bird Treaty Act. Screening for federally listed species and critical habitat was conducted through the U.S. Fish and Wildlife Service Information, Planning, and Conservation system, and state-level considerations were also addressed using New Mexico Department of Game and Fish and Natural Heritage New Mexico data sources, including the New Mexico Environmental Review Tool and

Critical Habitat Assessment Tool screening tools. Findings from the survey are summarized in Section 3.1.1 below.

2.1.2 Cultural Survey

Alpine Archaeological Consultants, Inc. (Alpine) conducted a Class III intensive pedestrian cultural resource inventory over the SIA between September 10 and 18, 2024. Methods and results of the survey are detailed in the "*A Class III Cultural Resources Inventory of the Section 27 Uranium Mine Site in McKinley County, New Mexico"* (Alpine, 2025) report.

Prior to the survey, Alpine reviewed literature (including conducting a search of New Mexico Cultural Resources Information System records) to identify previous archaeological work/recorded cultural resources within a 1-mile radius of the project area. Following this desktop evaluation, Alpine's archaeologists performed a site inventory that entailed walking transects to cover the survey parcels and identify cultural resources within the defined area of potential effect. Survey transects were no wider than 50 feet (ft). Standard documentation procedures included New Mexico Laboratory of Anthropology forms, Global Positioning System (GPS) mapping, and photographs. The survey did not include subsurface testing or artifact collection due to potential radiological contamination constraints.

The survey was performed in accordance with required federal mandates, including Section 106 of the National Historic Preservation Act of 1966 (54 U.S.C. § 306108), the Archaeological Resources Protection Act of 1979 (as amended), and procedures of the Advisory Council on Historic Preservation (36 CFR 800). Alpine evaluated areas for significance using National Register of Historic Places (NRHP) criteria (36 CFR Part 60), including Criteria A–D and integrity considerations. The survey was conducted to comply with federal and state cultural resource protection requirements associated with mine closure activities, with the BLM serving as the lead federal agency due to the survey extending onto BLM land. Consultation occurred with BLM's Farmington Field Office (BLM-FFO) and the New Mexico State Historic Preservation Office. In accordance with regulatory guidelines governing protection of cultural resources, Alpine's report is not included as an attachment to this document. Findings from the survey are summarized in Section 3.1.2 below.

2.2 Field Investigation

The field investigation included the following activities:

- Radiological investigation including the following:
    - Gamma radiation surveys
    - Gamma scan surveys
    - Gamma static surveys
    - Correlation of site-specific gamma radiation level to surface soil Ra-226 concentration
    - Ex-situ gamma radiation screening
    - Test pits

    - Surface and subsurface soil sample collection for:
        - Evaluating the vertical and lateral extent of Ra-226 above the IL
        - Isotopic sample collection to evaluate the potential presence of mill tailings material at the Site[1]
        - Metals analysis for comparison to New Mexico Environment Department (NMED) Soil Screening Levels
- Geotechnical investigation – composite surface and subsurface sample collection

Stantec and AVM collected walkover radiological survey data in August 2024, and AVM collected step-out radiological data in the following months.

Based on the walkover gamma survey results, UNC and Stantec presented proposed preliminary sample locations during a virtual meeting held with MMD and NMED on October 31, 2024. During that meeting, each of the parties agreed to include additional isotopic surface samples and test pit locations. Stantec presented updated preliminary sample locations to MMD and NMED via email on December 4, 2024 and February 3, 2025. Sample locations were placed to avoid identified cultural resources at the Site and were field-fit based on site access.

In October 2025, Stantec and AVM collected surface and subsurface samples to characterize the material properties of potential borrow source material and mine waste materials. The test pits were excavated using a backhoe to total depths between 5 and 10 feet bgs.

Three categories of test pits were completed:

- Environmental Only
- Geotech Borrow and Environmental
- Geotech Waste and Environmental

Prior to surface disturbing activities, Stantec and Ground Penetrating Radar Services Inc. (GPRS) conducted an onsite utility survey to identify potential utilities within 2 ft bgs and mark any areas that must be avoided. GPRS noted a gas line and a communications line along the south side of the access road (outside the project area), a possible water well within a fenced area, and a possible water line near the water trough. GPRS flagged areas to avoid and suggested a 2-3 ft buffer for any ground disturbing activities. (GPRS, 2025)

Due to Site conditions, four subsurface sample locations could not be sampled via the excavator in October 2025. Sediment in the arroyo on the Site was saturated and access to the area with an excavator was not possible due to unsafe working conditions. Stantec provided an update to the Agencies on January 20, 2026, describing the fall 2025 data collection (Appendix C). Regular assessments of site conditions within

[1] As noted above, mill tailings were previously found to have impacted the Site. While these were remediated to UMTRCA standards in the past, due to the composite sampling and averaging techniques employed at the time to demonstrate compliance, some areas of mill-related contamination may remain at the site. During the UMTRCA remediation, isotopic sampling was employed to differentiate mill tailings from ore (Bendix Field Engineering Corporation, 1985).

the arroyo occurred over the next several months and prevented the progress of sampling due to safety concerns. On March 27, 2026, Stantec provided a Field Modification Request, to advance the four subsurface locations using a hand auger instead of an excavator (also in Appendix C). MMD approved the request on March 31, 2026 and NMED approved the request on April 10, 2026. Stantec and AVM advanced the hand augers and collected samples on April 13, 2026 to complete the supplemental characterization at the Site.

A Stantec geologist or engineer logged the soils in each test pit and hand auger location and collected samples of each material type for laboratory analysis and geotechnical testing. Samples were stored in a locked Conex container onsite until they were shipped to the laboratory for testing. Test pit and hand auger logs are included in Appendix D.

2.2.1 Radiological Investigation

AVM conducted the radiological investigation with support from Stantec. Appendix A includes detailed information regarding the methods and equipment. The radiological investigation is summarized below. As specified in Section 1.0 of this report, the field IL was 6.5 pCi/g. The radiological investigation included:

- Gamma radiologic surveys
    - Gamma static measurements
    - Differential global positioning system (DGPS) based gamma scan surveys
- Ex-situ and in-situ soil screening
- Soil sampling and analysis

The static gamma survey was conducted outside the area of the previous 2010 and 2011 surveys (see Figure 4) and within the arroyo bed. The geo-located gamma scan data was then plotted on aerial maps to provide Ra-226 concentration level estimates in surface soil within the scanned areas. The gamma scan data, along with visual observations, was used to select locations for both surface soil sampling as well as subsurface soil sampling with ex-situ soil screening.

As part of the field efforts, AVM developed a site-specific correlation using regression analysis for the collimated and bare 2-inch by 2-inch (2x2) sodium iodide (NaI) detectors to convert detector gamma radiation levels in counts per minute (cpm) to surface soil Ra-226 concentration (in pCi/g). Correlation locations were determined after the investigation confirmed that elevated levels of Ra-226 in the chosen locations were limited to the surface soil and that sources of lateral gamma radiation shine were minimal.

Instrumentation for direct gamma radiation level measurements included 2x2 NaI scintillation detectors (Eberline SPA-3 and Ludlum 44-10), paired with a Ludlum 2221 or 2241 scale/rate meter. The scale/rate meters were connected to a DGPS of sub-meter accuracy that has data logging and surveying software capabilities.

For the subsurface sample locations, AVM utilized onsite ex-situ gamma soil screening to estimate Ra-226 concentrations in subsurface soils. AVM and Stantec used the ex-situ results as a basis for sample submittal for laboratory analysis. The ex-situ results were also utilized in real time to guide the total completion depths of the test pits. The steps taken in connection with the sampling efforts are described below.

- For areas anticipated to have deeper contamination (historical Ball Mill Reject Pile, Ore Storage and Shaft #2 excavation areas):
    - The initial subsurface soil sample was collected at approximately 1-ft bgs.
    - Where ex-situ gamma measurements exceeded the IL in the initial sample, additional samples were collected at 1-ft depth intervals until gamma levels were below the IL.
- For areas anticipated to have surficial contamination (at subsurface sampling locations where walkover gamma scan results indicated gamma levels would likely be below the IL at 6 inches bgs:
    - The initial soil sample was collected at 6-inches bgs.
    - If ex-situ soil screening measurements exceeded the IL in this initial sample, an additional sample was collected at a depth of 1-ft bgs.
    - If the gamma levels continued to exceed the IL, additional samples were collected at 1-ft intervals until gamma levels were below the IL.

Note that at a single sampling location (TP-32), the hand auger met refusal prior to reaching material with concentrations below the IL. This is not anticipated to materially affect the outcome of the report or the volumetric estimations of impacted material. It should also be noted that for geotechnical sample locations, test pits in some locations were excavated beyond the depth where material concentrations were estimated to be less than the IL in order to evaluate potential borrow material.

Each of the surface samples and selected subsurface samples were analyzed for Ra-226 with a reporting limit of 1.0 pCi/g using DOE Health and Safety Laboratory (HASL) 300, 4.5.2.3/Ga-01-R. Subsurface samples were selected for laboratory analysis to confirm that test pits had reached material identified as being below the IL. Additionally, select surface samples were analyzed for uranium and thorium-230 (Th-230) to evaluate the potential for mill tailings material from the former Phillips Mill to be present at the Site. The isotope study soil samples were analyzed for Ra-226 and uranium using Environmental Protection Agency (EPA) method E200.8/SW6020 and Th-230 by EPA method E908.0. Additionally, several characterization samples from the Site were analyzed for target analyte list (TAL) metals plus uranium to compare these results to NMED Soil Screening Levels for industrial/occupational soil (Target Cancer Morbidity Rate of 1E-05, Non-Cancer Total Hazard Quotient of 1) (NMED, 2022).

2.2.2 Geotechnical Investigation

Stantec collected geotechnical samples from the test pits by filling two 5-gallon buckets and two 1-gallon zip-lock plastic storage bags for each sample. Up to two samples were collected per geotechnical test pit. These samples were logged and visually classified in the field during collection using modified American Society for Testing and Materials International (ASTM) 2488 methods. Geotechnical samples were targeted for collection in areas where radiological constituents are less than the 0.1 millirem per hr (mrem/hr) laboratory handling limit.

Field methods, sample handling, and analysis and quality assurance/quality control were performed as outlined in the Work Plan.

Twenty-one geotechnical samples were delivered to the DBSA Laboratory in Albuquerque, NM. The geotechnical testing program was split into two phases.

Phase 1 testing included the following tests on 21 samples (13 from the potential borrow source area and eight from waste material):

- Sieve Analysis and Hydrometer (ASTM D7928) – particle size distribution
- Moisture Content (ASTM D2974) – soil moisture content of samples
- Atterberg Limits (ASTM D4318) – used to evaluate the shrink-swell potential of clays and clayey soil and its propensity to develop desiccation cracks during cyclical wetting and drying.

The Phase 1 index testing was completed and Unified Soil Classification System (USCS) geotechnical classifications were assigned to each sample.

Phase 2 testing was then commenced and used the material classifications identified in Phase 1 to select samples for specific tests and assign compaction/remold parameters based on potential cover design conditions. The subsequent Phase 2 samples were remolded to approximately 90% maximum dry density of Standard Proctor and up to -2% of optimum water content. Various confining stresses were assigned for strength and consolidation testing to capture a range of potential cover conditions.

Phase 2 testing included the following tests on 19 samples (13 from the potential borrow source area and six from waste material):

- Dispersion testing – Crumb, Pinhole, and Double Hydrometer
- Standard Proctor (ASTM D698) – used to define maximum dry density and optimum moisture content of the soil for specifying the percent compaction and in-place density of the soil.
- Consolidation/swell (D4186/4546) – one-dimensional swell or settlement potential of cohesive soils.
- Strength (Direct Shear) (ASTM D6528) – remolded and recompacted to determine the shear strength of a soil or rock samples for estimates of strength parameters.
- Permeability Falling Head (ASTM D5084) – used to determine the hydraulic conductivity of saturated porous soil material.
- Soil Water Characteristic Curve Testing (ASTM D6836) – 8-point test used to determine the hydrological characteristics of unsaturated soil. A minimum of one sample location per borrow source area was selected for this test.

2.3 Deviations from Work Plan

Higher-than-expected precipitation during Fall 2025 resulted in saturated conditions within the arroyo at the Site, preventing safe access by excavation equipment. Following a temporary work stoppage to monitor the ongoing saturated conditions, UNC and Stantec elected to stop work in November 2025 and monitor site conditions until work could resume safely. Stantec provided an update on the supplemental characterization efforts to MMD and NMED on January 20, 2026 (Appendix C).

Site conditions were re-evaluated multiple times between February and March 2026 to determine whether the samples could be safely collected using the excavator. Based on observed conditions in March 2026, UNC and Stantec determined that the remaining samples could not be collected safely using an excavator, but likely could be completed using hand augers instead. Stantec submitted a field modification request to MMD on March 27, 2026 requesting approval to advance the remaining four subsurface sample locations using a hand auger (Appendix C). MMD approved this request via email on March 31 and NMED approved

the field modification via email on April 10, 2026. The field investigation resumed shortly thereafter and concluded on April 13, 2026.

The Work Plan specified the use of EPA method 901.1 (modified for soil) for gamma spectroscopy analysis. GEL Laboratories utilized DOE HASL 300 4.5.2.3/Ga-01-R for solids as that is their solid standing operating procedure equivalent to the drinking water method EPA 901.1.

3 Results and Interpretation

This section describes the results, data evaluations and interpretations for each activity completed during the supplemental characterization field work.

3.1 Resource Surveys

3.1.1 Biological Survey

As detailed in Appendix B, topography across the Site is comprised of low alluvial hills and silty valley bottoms. Because of these topographies, Cedar Creek did not map wetlands or aquatic features within the analysis area. Results of the vegetation survey include the following:

- Two primary identified vegetation communities (Mixed Shrub Lowlands and Shortgrass Uplands) support 38 identified plant species
- A small 0.1-acre occurrence of saltcedar (*Tamarix ramosissima*) was mapped as a state-listed noxious weed
- No milkweed species were mapped

Wildlife observations were limited to common species such as killdeer and a single golden eagle, and the raptor survey confirmed that no nesting activity occurs in or near the project area. Habitat conditions were typical of the surrounding semi-arid plateau region. Overall, no special-status species or critical habitats were identified during field surveys and site conditions do not indicate constraints that would preclude planned supplemental characterization field investigation activities.

3.1.2 Cultural Resources Survey

Following completion of the Class III inventory, Alpine recorded nine cultural sites that were identified as eligible for inclusion into the NRHP and 23 Isolated Occurrences (IOs) of prehistoric and historical cultural resources across the project area. None of the IOs are recommended as eligible for inclusion into the NRHP. Alpine submitted the cultural resources report to BLM on December 11, 2024. BLM-FFO indicated acceptance of the cultural resources report on August 1, 2025 via an email from Erik Simpson to Charlie Reed of Alpine.

Two of the eligible cultural sites were within the supplemental characterization field investigation area of the planned ground-disturbing activities. Stantec and AVM utilized a recommended 100-ft buffer surrounding the cultural site boundaries and avoided sample collection in the cultural site areas.

3.2 Field Investigation

3.2.1 Radiological Investigation

3.2.1.1 Summary of Radiological Investigation

Appendix A details the results of the radiological investigation at the Site. Results from the soil sampling and additional gamma radiation surveys are summarized in the tables below. A total of 63 surface and subsurface (i.e., test pit and hand auger) locations were sampled as shown on Figure 5. Table 1 shows the sample types and quantity of locations. Radiological investigation results are detailed in Appendix A along with the laboratory results from GEL Laboratories. Overall, the gamma radiation survey indicated that the lateral extent of the mining-related material that exceeds the IL is approximately 207.5 acres. This area is indicated by the RAL Estimated Boundary shown on Figure 6.

Confirmatory subsurface environmental samples were analyzed by GEL Laboratories for Ra-226 and compared to the IL of 6.5 pCi/g. The depth at which samples tested less than the IL are shown in Table 2. As described in Section 1, the evaluation of material that exceeds the surface RAL and subsurface RAL will occur during the design process that follows the future selection of the remedy.

Table 1. Sample Types

Sample Type	Number of Locations
Environmental Only	19
Geotech Borrow and Environmental	10
Geotech Waste and Environmental	6
Environmental Surface Samples	28

Table 2. Test Pit and Hand Auger Locations and Depth to Material with Ra-226 Concentrations Less Than the IL

Test Pit ID	Sample Depth (ft bgs)	Area*
TP-01	0.5	-
TP-02	0.5	-
TP-03	1.0	-
TP-04	1.0	4
TP-05	0.5	-
TP-06	0.5	-
TP-07	0.5	-
TP-08	0.5	-
TP-09	0.5	-
TP-10	0.5	-
TP-11	0.5	-
TP-12	1.5	4

Test Pit ID	Sample Depth (ft bgs)	Area*
TP-13**	0.5	-
TP-14	3.5	1
TP-15	4.5	1
TP-16	2.5	2
TP-17	2.0	2
TP-18	2.5	2
TP-19	3.5	-
TP-20	1.0	4
TP-21	1.0	3
TP-22	0.5	-
TP-23	5.0	-
TP-24	7.0	-

Test Pit ID	Sample Depth (ft bgs)	Area*
HA-25	3.0	-
TP-26	0.5	-
TP-27	0.5	-
HA-28	8.0	-
TP-29	1.0	3
HA-30	8.0	-
TP-31	0.5	-
HA-32	0.5	-
TP-33	0.5	-
TP-34**	0.5	-
TP-35**	0.5	-

* Area of the material exceeding IL on Figure 6
** Indicates that test pits are located outside the surface RAL estimated boundary. Gamma survey data indicate surface soil Ra-226 concentrations are less than IL. Therefore, although samples were taken at 0.5 ft, Figure 6 shows these locations as having an excavation depth of 0.0 ft

N

0 200 400
SCALE IN FEET
CONTOUR INTERVAL = 2 FT

E 2738500 E 2739500 E 2740500 E 2741500 E 2742500
N 1606000 N 1605000 N 1604000 N 1603000

POTENTIAL BORROW AREA
2010 BORROW AREA
CURENT NESA 1
HISTORICAL NESA 1
CURENT NESA 2
HISTORICAL NESA 2
VENT HOLE #1
VENT HOLE #2
VENT HOLE #3
SHAFT #1
SHAFT #2
BALL MILL REJECT PILES
WEST ORE STOCKPILE
EAST ORE STOCKPILE
WEST TOPSOIL STOCKPILE
EAST TOPSOIL STOCKPILE
S27
S26
S34

TP-01 TP-02 TP-03 TP-04 TP-05 TP-06 TP-07 TP-08 TP-09 TP-10 TP-11 TP-12 TP-13 TP-14 TP-15 TP-16 TP-17 TP-18 TP-19 TP-20 TP-21 TP-22 TP-23 TP-24 TP-26 TP-27 TP-29 TP-31 TP-33 TP-34 TP-35
SS-02 SS-03 SS-04 SS-05 SS-06 SS-07 SS-08 SS-09 SS-10 SS-11 SS-12 SS-13 SS-14 SS-15 SS-16 SS-17 SS-18 SS-19 SS-20 SS-21 SS-22 SS-23 SS-24 SS-25 SS-26 SS-27 SS-28
HA-25 HA-28 HA-30 HA-32

LEGEND

- EXISTING GROUND CONTOURS, FT (1400)
- SECTION 27 PERMIT BOUNDARY
- SECTION 27 INVESTIGATION AREA BOUNDARY
- PLSS SECTION BOUNDARIES AND SECTION NUMBERS (S27)
- CURRENT FEATURE BOUNDARY (NESA, POTENTIAL BORROW AREA)
- HISTORICAL FEATURE BOUNDARY (NESA, ORE STOCKPILES, BALL MILL REJECT PILES, 2010 BORROW AREA, TOPSOIL STOCKPILES)
- HISTORICAL FEATURE - VENT HOLE
- HISTORICAL FEATURE - SHAFT
- TEST PITS (TP) - ENVIRONMENTAL ONLY
- TEST PITS (TP) - GEOTECH BORROW AND ENVIRONMENTAL
- TEST PITS (TP) - GEOTECH WASTE AND ENVIRONMENTAL
- HAND AUGERS (HA) - ENVIRONMENTAL ONLY
- SURFACE SAMPLES (SS) - ENVIRONMENTAL ONLY

NOTES:

1. COORDINATE SYSTEM REFERENCE: NAD83 NEW MEXICO STATE PLANES, WEST ZONE, US FOOT. (NM83-WF)

Ref. Dwg. No.	Ref. Dwg. Title

Rev.	Description	Date	By	Chk	Eng.	Appd.
A	ISSUED FOR DRAFT	2026.06.05	CF	KJ	BV	

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Client/Project
SECTION 27 MINE

File Name:	Dwn.	Chkd.	Dsgn.	
FIG 5 SAMPLE LOC R1.dwg	CF	KJ	BV	26.07.21 YY.MM.DD

Title
SECTION 27 MINE
SUPPLEMENTAL CHARACTERIZATION
SAMPLE LOCATIONS

Project No. 182922679
Scale 1" = 200'
FIGURE No. 5
Revision A

C:\Project\Wise-Drive\Stantec\255499000\06.0 DESIGN\6.7 DRAWINGS\Warehouse\CHP\Section 27\FIG 5 SAMPLE LOC R1.dwg
2026/07/21 9:02 AM By: Fowler, Camille

ORIGINAL SHEET - ANSI D

N

0 200 400
SCALE IN FEET
CONTOUR INTERVAL = 5 FT

POTENTIAL BORROW AREA

E 2738500 E 2739500 E 2740500 E 2741500 E 2742500

N 1606000 N 1605000 N 1604000 N 1603000

TP-01 0.5
TP-02 0.5
TP-03 1.0
TP-04 1.0
TP-05 0.5
TP-06 0.5
TP-07 0.5
TP-08 0.5
TP-09 0.5
TP-10 0.5
TP-11 0.5
TP-12 1.5
TP-13 0.0
TP-14 3.5
TP-15 4.5
TP-16 2.5
TP-17 2.0
TP-18 2.5
TP-19 3.5
TP-20 1.0
TP-21 1.0
TP-22 0.5
TP-23 5.0
TP-24 7.0
TP-25 3.0
TP-26 0.5
TP-27 0.5
TP-28 8.0
TP-29 1.0
TP-30 8.0
TP-31 0.5
TP-32 0.5
TP-33 0.5
TP-34 0.0
TP-35 0.0

VENT HOLE #1
VENT HOLE #2
VENT HOLE #3
SHAFT #1
SHAFT #2

AREA 1
AREA 2
AREA 3
AREA 4

CURENT NESA 1
HISTORICAL NESA 1
CURENT NESA 2
HISTORICAL NESA 2

BALL MILL REJECT PILES
WEST ORE STOCKPILE
EAST ORE STOCKPILE
2010 BORROW AREA
WEST TOPSOIL STOCKPILE
EAST TOPSOIL STOCKPILE
ARROYO

LEGEND

- EXISTING GROUND CONTOURS, FT
- BOTTOM OF EXCAVATION CONTOURS, FT
- RAL ESTIMATED BOUNDARY
- LATERAL EXTENT OF IMPACTS
- SECTION 27 PERMIT BOUNDARY
- CURRENT FEATURE BOUNDARY (NESA, POTENTIAL BORROW AREA)
- HISTORICAL FEATURE BOUNDARY (NESA, ORE STOCKPILES, BALL MILL REJECT PILES, 2010 BORROW AREA, TOPSOIL STOCKPILES)
- HISTORICAL FEATURE - VENT HOLE
- HISTORICAL FEATURE - SHAFT
- TP-10 / 0.5 — SAMPLE ID / DEPTH OF MATERIAL THAT EXCEEDS INVESTIGATION LEVEL

NOTES:

1. COORDINATE SYSTEM REFERENCE: NAD83 NEW MEXICO STATE PLANES, WEST ZONE, US FOOT. (NM83-WF)

VOLUME SUMMARY

NAME	2D AREA (ACRE)	CUT VOLUME (C.Y.)
GENERAL AREA	201.6	257,885
ARROYO	1.8	12,176
NESA 1	2.5	46,831
NESA 2	1.6	24,093
TOTAL	207.5	340,985

DEPTH AND AREA OF MATERIAL THAT EXCEEDS INVESTIGATION LEVEL

COLOR	CUT DEPTH RANGE (FT)			AREA (SQFT)
	0.0	--	-0.5	5653808.4
	-0.5	--	-2.0	2267441.3
	-2.0	--	-5.0	884533.3
	-5.0	--	-8.0	24264.5

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PRELIMINARY
NOT TO BE USED FOR CONSTRUCTION

C:\ProjectWise Drive\Stantec\255499200\06.0 DESIGN\6.7 DRAWINGS\Warehouse\CHF\Section 27\FIG 6 EXCAV.dwg
2026/07/21 3:26 PM By: Fowler, Camille

Ref. Dwg. No.	Ref. Dwg. Title

Rev.	Description	Date	By	Chk	Eng.	Appd.
A	ISSUED FOR DRAFT	2026.06.05	CF		BV	

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Client/Project
SECTION 27 MINE

File Name: FIG 6 EXCAV.dwg | Dwn. CF | Chkd. | Dsgn. BV | 26.07.21 YY.MM.DD

Title
SECTION 27
SUPPLEMENTAL CHARACTERIZATION
INVESITIGATION LEVEL EXCEEDANCE
AND VOLUME ESTIMATE

Project No. 182922679
Scale 1" = 200'
FIGURE No. 6
Revision A

ORIGINAL SHEET - ANSI D

Figure 6 indicates the depths of material that exceed the IL in each of the test pit locations. For a majority of the investigation area, the depth of contamination is estimated to be 0.5 ft bgs. Material exceeds the IL to greater depths in the following areas:

- NESA 1 and NESA 2 – the material storage piles were constructed as part of the construction activities at the Site to consolidate and cap waste material. The piles are approximately 23 and 19 ft tall, respectively, when compared to the surrounding landscape.
- Areas 1, 2, and 3 – Depths of material exceeding IL were estimated to be 4, 2.5, and 2 ft bgs, respectively. These were the areas of the historical mining operation and materials were not removed previously because they were not estimated to exceed the cleanup level used for the 2010 construction activities.
- Area 4 – Depths of material exceeding IL were estimated to be 1 to 1.5 ft bgs in this area. This area is west of historical mining operations and generally assumed to be upwind of the Site. Elevated concentrations in this area and the area further west (0.5 ft bgs) were assumed to be the result of wind-transported tailings material from the Phillips Mill.
- Arroyo – Depths of mining-related material are anticipated to extend up to 8 ft bgs in the arroyo based on hand-auger data. HA-28 met refusal at 5.0 ft bgs prior to reaching material that was less than the IL; therefore, the contamination depth was conservatively estimated to extend up to 8 ft bgs in that location based on upstream and downstream hand auger locations.
- TP-19 area – this test pit was adjacent to a historical exploration pit that pre-dated mining operations at the Site (based on review of historical aerial imagery). The depth was estimated to be 3.5 ft bgs in this area based on the data.

The northwestern investigation area (Figure 3) is being considered for potential borrow material during construction (e.g., backfill and cover) activities. As anticipated, the test pits in this area indicate that contamination, where present, is generally surficial (extending less than 0.5 ft bgs). If evaluations of geotechnical material properties indicate this material is suitable for borrow use, soils from this area could be used for borrow following removal of approximately 0.5 ft of surface material.

Table 3 compares results of TAL metals plus uranium analysis to NMED Soil Screening Levels for industrial/occupational soil. The results indicate that no locations identified TAL metals or uranium above NMED industrial levels and therefore the volume estimate is based solely on Ra-226 results.

Table 3. TAL Metals plus Uranium Analysis

Analyte	Sample Location	S27-SS06	S27-SS07	S27-SS17	S27-SS25	S27-TP04	S27-TP08	S27-TP-09-01	S27-TP15	S27-TP-15-01	S27-TP22	S27-HA30
	Depth	0.0'-0.5'	0.0'-0.5'	0.0'-0.5'	0.0'-0.5'	1.0'-2.0'	0.5'-1.0'	0.0'-6.0'	4.5'-5.5'	0.0'-4.0'	0.5'-1.0'	8.0'-9.0'
	Industrial/ Occupational SSL[a]											
Aluminum	1,285,451	7,460	17,400	16,300	6,570	26,400	24,600	23,100	8,240	2,660	23,900	5,730
Antimony	519	<1.83 U	<2.03 U	<2.08 U	<1.93 U	<2.01 U	<2.3 U	<1.9 U	<1.87 U	<1.87 U	<2.09 U	<2.02 U
Arsenic	36	4.36	8.35	6.96	7.79	7.91	9.22	8.09	4.8	9.18	5.6	4.38
Barium	254,671	82.7	78.6	63.5	51.6	104	67.2	66.4	81.9	51.4	108	80.9
Beryllium	2,583	0.431	0.849	0.768	0.5	0.995	0.972	1.02	0.53	0.241	0.872	0.451
Cadmium	1,108	0.0808 J	0.244	0.206	0.0914 J	0.355	0.0846 J	0.14 J	0.0809 J	0.0337 J	0.0896 J	0.0631 J
Calcium	32,444,444	22,400	6,300	8,430	9,990	18,400	13,800	18,000	11,900	14,400	3,490	25,600
Chromium [b]	505	6.79	14.7	13.5	6.2	19.8	16.5	17.3	7.05	1.37	13.8	5.25
Cobalt	388	4.28	8.06	7.02	4.01	8.32	7.78	7.82	4.81	2.44	6.07	3.96
Copper	51,911	6.41	17.6	14.2	7.26	16.4	11.3	14.4	6.54	3.07	9.38	5.03
Iron	908,444	12,500	26,400	23,300	11,200	28,800	25,700	25,600	13,000	7,540	20,200	11,100
Lead [c]	800	8.04	18	16.4	10.9	18	14.5	15.9	8.81	7.12	10.6	6.42
Magnesium	5,677,778	3,820	4,390	3,900	3,150	5,080	5,900	5,860	3,800	701	4,180	2,910
Manganese	160,183	144	303	261	189	191	143	240	174	248	293	257
Mercury [d]	112	0.0267 Hh	0.042 Hh	0.031 Hh	0.0309 Hh	0.0279	0.0254	0.0252	0.0237 J	0.0147 J	0.0266	0.0369
Nickel	25,682	6.51	15.9	14.7	5.87	20.9	13.2	15.2	6.52	1.91	9.58	5.47
Potassium	76,244,444	1,500	4,650	3,780	2,170	4,310	3,960	4,000	1,540	698	4,680	1,130
Selenium	6,489	1.89	5.03	5.53	8.49	3.84	2.98	3.49	2.63	9.77	2.35	2.49
Silver	6,489	<0.458 U	<0.507 U	<0.521 U	<0.482 U	<2.51 U	<0.575 U	<0.475 U	<0.467 U	<0.468 U	<0.523 U	<0.505 U
Sodium	37,311,111	45.2 J	71.1	67.5	52	117	324	371	459	271	90.8	59.9
Thallium	13	0.118 J	0.44	0.378	0.214 J	0.706	0.21 J	0.376 J	0.13 J	0.346 J	0.195 J	0.102 J
Uranium	3,879	1.64	4.76	3.35	53.8	4.01	26.5	2.21	46.9	59	6.53	4.83
Vanadium	6,525	17.6	38.7	33.8	50.4	59.4	32.5	39.4	18	18	32.8	13.6
Zinc	389,333	26.8	66.6	54.9	29	79.7	61.2	62.4	34.1	16	44.8	25.7

[a] Soil Screening Levels (SSLs) are values for an Industrial / Occupational receptor from Table A-1 of New Mexico Environment Department's Risk Assessment Guidance for Site Investigations and Remediation Volume 1: Soil Screening Guidance for Human Health Risk Assessments (NMED, 2022). NMED (2022) SSLs are calculated for a target cancer risk of 1x10-5 and a target hazard quotient of 1. For constituents with both cancer risk-based and noncancer hazard-based SSLs, the lower of the two SSLs is used for screening in this table.
[b] Value is for total chromium
[c] Table A-1 of NMED (2022) does not list an SSL for lead; value shown is from text in Section 5.1 of NMED (2022).
[d] Value is for elemental mercury
Hh = Analytical and preservation holding time exceeded
J = Value is estimated
U = Analyte was analyzed for, but not detected above the minimum detection limit

The gamma radiation measurements in cpm for a bare 2-inch by 2-inch NaI detector were converted to predicted Ra-226 concentrations (activity) in pCi/g using the site-specific correlation, as described in Section 4.2.3 of Appendix A.

Evaluation of the ratios of Ra-226, Th-230, and uranium-238 (U-238) indicates that tailings and other mill-related material are likely present at the Site (Appendix A, Section 5.0). Generally, uranium concentrations in non-processed ore and waste rock are anticipated to be in secular equilibrium with Ra-226 and Th-230. Processing of the ore for uranium at a carbonate-type mill (such as the Phillips Mill operation) preferentially removes uranium, resulting in tailings where U-238, Ra-226, and Th-230 isotopes are not in secular equilibrium. The results indicate uranium concentrations were not in secular equilibrium with Ra-226 or Th-230 in samples from all isotope sampling locations, indicating that tailings material may be present in the samples (Appendix A, Table 6 and Figure 3).

3.2.1.2 Volume Estimate

Stantec estimated the amount of material in the SIA that exceeds the IL of 6.5 pCi/g using gamma surveys, ex-situ soil screening results, laboratory analytical results, historical construction data, and test pit data and observations. As described in Section 1, the evaluation of material that exceeds the surface RAL and subsurface RAL will occur during the design process that follows the future selection of the remedy. Depth data from test pits were used to estimate the vertical extent of contamination across the Site and were extrapolated to calculate a total volume of material exceeding the IL. Figure 6 presents the estimated depths of mining-related material that exceeds the IL, the surface RAL boundary representing the estimated lateral extent of impacts and the interpolated areas included in the volume calculation. Based on this analysis, the total volume of mining and mill-related material at the Site that exceeds the IL is estimated to be 340,985 cubic yards.

3.2.2 Geotechnical Laboratory Testing

Geotechnical testing was performed on 13 samples from potential borrow areas and eight samples from mine waste areas. Table 4 includes the results of Phase 1 and Phase 2 geotechnical testing. The results presented herein are interpreted by the geotechnical laboratory (DBSA) and not by Stantec. Stantec will interpret the data and develop material properties during the design phase of the potential cover. The locations of the geotechnical samples are shown on Figure 5. The laboratory report is included in Appendix E.

3.2.2.1 Index Properties

Soils from the potential borrow areas generally classify as lean clays with various amounts of sand (CL) and some fat clay (CH). Moisture contents ranged from 7.7 to 19.5 percent with an average moisture content of 12.7 percent. Soil fines content ranged from 53.1 to 92.1 percent with an average fines content of 73.8 percent. Clay content ranged from 10.3 to 52.6 percent with an average clay content of 31.9 percent. Plasticity index ranged from 9 to 41 with an average plasticity index of 25.

Soils from the mine waste areas generally classify as sandy lean clays (CL), except for 3 samples that classify as sandy silty clays (CL-ML), fat clays (CH), and sandy silt (ML). Moisture contents ranged from 5.4

to 16.8 percent with an average moisture content of 10.5 percent. Soil fines content ranged from 17.7 to 89.6 percent with an average fines content of 58.9 percent. Clay content ranged from 6.8 to 48.9 percent with an average clay content of 24.6 percent. Plasticity index ranged from 2 to 28 with an average plasticity index of 14.

3.2.2.2 Standard Proctor Compaction

Eight Standard Proctor compaction tests were performed on potential borrow materials and five Standard Proctor compaction tests were performed on mine waste materials.

For potential borrow materials, maximum dry densities ranged from 99.5 to 112.1 pounds per cubic foot (pcf) with an average dry density of 107.3 pcf. Optimum moisture contents ranged from 15.3 to 21.8 percent with an average optimum moisture content of 18.5.

For mine waste materials, maximum dry densities ranged from 102.0 to 114.9 pcf with an average dry density of 109.0 pcf. Optimum moisture contents ranged from 12.2 to 19.0 percent with an average optimum moisture content of 15.6 percent.

3.2.2.3 Hydraulic Conductivity and Soil Water Characteristic Curves

Six falling head permeability tests were performed on potential borrow materials and two falling head permeability tests were performed on mine waste materials. For potential borrow materials, hydraulic conductivities ranged from $1.2x10^{-6}$ to $1.8x10^{-4}$ centimeters per second (cm/sec) with an average hydraulic conductivity of $4.3x10^{-5}$ cm/sec. For the mine waste materials, hydraulic conductivities were $1.3x10^{-6}$ and $2.5x10^{-4}$ cm/sec with an average hydraulic conductivity of $1.3x10^{-4}$ cm/sec.

Soil water characteristic curves were plotted by the laboratory for six potential borrow area samples and two mine waste samples and van Genuchten water retention parameters were determined for all the samples. Soil water characteristic curves and van Genuchten parameters developed by the laboratory are presented in Appendix E.

3.2.2.4 Dispersion Testing

Eight crumb dispersion tests, seven pinhole dispersion tests, and four double hydrometer tests were performed on potential borrow materials. Two samples exhibited a slight dispersive reaction (Grade II-Intermediate) in the crumb test. Five samples were determined to be slightly to moderately dispersive (ND3) in the pinhole dispersion test. All samples were identified as being nondispersive in the double hydrometer test.

One crumb dispersion test, three pinhole dispersion tests, and two double hydrometer tests were performed on mine waste materials. The crumb test sample was determined to be nondispersive. Each of the pinhole test samples were determined to be slightly to moderately dispersive (ND3/ND4). Both of the double hydrometer test samples were determined to be nondispersive.

3.2.2.5 Consolidation Swell Properties

Three consolidation/swell tests were performed on potential borrow materials. The coefficient of consolidation (C_v) ranged from $9.3x10^{-4}$ to $9.6x10^{-3}$ square centimeters per second (cm^2/sec) with an average of $3.9x10^{-3}$ cm^2/sec. Swell pressures ranged from 45.0 to 53.0 pounds per square foot (psf) with an average of 49.0 psf.

Five consolidation/swell tests were performed on mine waste materials. C_v ranged from $2.6x10^{-4}$ to $2.1x10^{-3}$ cm^2/sec with an average of $1.2x10^{-3}$ cm^2/sec. Swell pressures ranged from 41.0 to 52.0 psf with an average of 48.0 psf.

3.2.2.6 Strength Properties

Three direct shear tests were performed on potential borrow materials. Friction angles ranged from 16.0 to 27.0 degrees with an average of 23.0 degrees. Cohesion ranged from 4 to 525 psf with an average of 307 psf.

Three direct shear tests were performed on mine waste materials. Friction angles ranged from 26.0 to 70.0 degrees with an average of 45.0 degrees. Cohesion ranged from 0 to 278 psf with an average of 93 psf.

Table 4. Phase 1 and 2 Geotechnical Laboratory Results Summary

Area	Investigation	Location ID	Sample Number	Top Depth (ft)	Bottom Depth (ft)	Layer Thickness (ft)	Engineering Classification	USCS	Moisture Content, Gravimetric (%)	Atterberg			Particle Size Analysis			Hydrometer		Laboratory Compaction Corrected		Saturated Hydraulic Conductivity[1] (cm/sec)	Dispersion Testing[1, 2]			Strength, Direct Shear[1, 3] friction angle (ϕ', degrees), cohesion (psf)	Consolidation/Swell[1, 4]	
										Liquid Limit	Plastic Limit	Plasticity Index	% Gravel	% Sand	% Fines	% Silt	% Clay	Max Dry Unit Weight (pcf)	Optimum Water Content (%)		Crumb Test	Pinhole Dispersion	Double Hydrometer (%)		Coefficient of Consolidation C_v (cm^2/sec) (Load, psf)	Swell Pressure (psf)
Borrow	2025	TP-01	TP-01-01 (0-6ft)	0	6	6	Lean clay with sand (CL)	CL	9.4	35	18	17	0.0	25.9	74.1	41.0	33.1	109.7	16.3	2.3E-06	2		6.8	16, 525	9.3E-04 (4000)	45
Borrow	2025	TP-02	TP-02-01 (0-7ft)	0	7	7	Lean clay with sand (CL)	CL	9.5	43	18	25	0.2	19.8	80.0	42.1	37.9	99.5	20.0		1	ND3				
Borrow	2025	TP-02	TP-02-02 (7-10ft)	7	10	3	Sandy fat clay (CH)	CH	14.7	52	24	28	2.6	35.7	61.8	49.4	12.4	110.3	17.9	6.7E-05						
Borrow	2025	TP-05	TP-05-01 (0-6.5ft)	0	6.5	6.5	Sandy lean clay (CL)	CL	7.7	27	18	9	1.6	45.3	53.1	36.9	16.1	110.7	15.3	1.8E-04	1	ND3		27, 4	9.6E-03 (1600)	49
Borrow	2025	TP-06	TP-06-01 (0-6ft)	0	6	6	Lean clay with sand (CL)	CL	12.7	40	17	23	0.0	16.6	83.4	48.5	34.9				1					
Borrow	2025	TP-07	TP-07-01 (0-3ft)	0	3	3	Lean clay with sand (CL)	CL	11.4	48	19	29	0.9	21.8	77.2	34.9	42.3					ND1	5.1			
Borrow	2025	TP-07	TP-7-02 (3-10ft)	3	10	7	Fat clay (CH)	CH	19.5	67	26	41	0.1	7.8	92.1	39.6	52.6	103.6	21.6	5.2E-06	1	ND3				
Borrow	2025	TP-09	TP-09-01 (0-6ft)	0	6	6	Lean clay (CL)	CL	10.9	44	19	25	0.0	12.7	87.3	60.8	26.6				1	ND3				
Borrow	2025	TP-13	TP-13-01 (0-4.5ft)	0	4.5	4.5	Sandy lean clay (CL)	CL	14.8	46	18	28	1.5	30.7	67.9	22.9	44.9	112.1	15.9		1					
Borrow	2025	TP-13	TP-13-02 (4.5-10ft)	4.5	10	5.5	Sandy lean clay (CL)	CL	12.6	42	19	23	3.6	32.8	63.6	36.3	27.3			1.3E-06		ND3	10.9			
Borrow	2025	TP-33	TP-33-01 (0-10ft)	0	10	10	Lean clay with sand (CL)	CL	11.7	43	18	25	2.5	24.8	72.7	30.4	42.3	106.8	18.8			ND2		26, 392	1.3E-03 (4000)	53
Borrow	2025	TP-34	TP-34-01 (0-10ft)	0	10	10	Fat clay with sand (CH)	CH	16.8	60	26	34	0.5	26.1	73.4	39.0	34.4				2		10.3			
Borrow	2025	TP-35	TP-35-01 (0-10ft)	0	10	10	Lean clay with sand (CL)	CL	13.5	42	19	23	0.2	26.5	73.2	63.0	10.3	105.4	21.8	1.2E-06						
Waste	2025	TP-08	TP-08-01 (0.5-1ft)	0.5	1	0.5	Sandy lean clay (CL)	CL	16.8	32	16	16	0.0	40.2	59.8	32.6	27.1				1	ND3				
Waste	2025	TP-11	TP-11-01 (0-1ft)	0	1	1	Sandy silty clay (CL-ML)	CL-ML	10.7	27	20	7	0.0	43.2	56.8	39.0	17.8	112.0	14.3			ND4	18.8		5.1E-04 (1600)	48
Waste	2025	TP-12	TP-12-01 (0-2ft)	0	2	2	Fat clay (CH)	CH	10.1	50	22	28	0.3	10.1	89.6	40.7	48.9	102.0	19.0						1.4E-03 (4000)	52
Waste	2025	TP-15	TP-15-01 (0-4ft)	0	4	4	Classification by ASTM 2487 requires Atterberg test		5.4				1.9	80.5	17.7	10.9	6.8	114.9	12.2	2.5E-04				70, 0	2.6E-04 (4000)	50
Waste	2025	TP-15	TP-15-02 (4-5.25ft)	4	5.25	1.25	Sandy silt (ML)	ML	10.3	23	21	2	0.3	49.5	50.2	33.8	16.4	111.7	15.4					38, 0	2.1E-03 (3200)	48
Waste	2025	TP-16	TP-16-01 (0-4ft)	0	4	4	Lean clay with sand (CL)	CL	11.9	37	19	18	0.0	21.0	79.0	47.0	32.0	104.6	17.2	1.3E-06		ND3	7.6	26, 278	1.8E-03 (3200)	41
Waste	2025	TP-29	TP-29-01 (0-1ft)	0	1	1	Sandy lean clay (CL)	CL	10.5	29	17	12	0.0	41.5	58.5	35.0	23.5									
Waste	2025	TP-29	TP-29-02 (1-2.5ft)	1	2.5	1.5	Sandy lean clay (CL)	CL	8.6	30	16	14	0.4	39.7	59.9	35.5	24.4									

1. Samples remolded to 90% maximum dry density and within -2% optimum moisture content.
2. DISPERSION RESULTS

   Pinhole Test

   ND1 = nondispersive clay with very slight to no colloidal erosion under 15-inch or 40-inch head (ASTM test method A)

   ND2 = nondispersive clay with very slight to no colloidal erosion under 15-inch or 40-inch head (ASTM test method A)

   ND4, ND3 = slightly to moderately dispersive clays that erode slowly under 2-inch or 7-inch head (ASTM test method A)

   D1, D2 = dispersive clays that fail rapidly under 50-mm [2-in.] head. (ASTM test method A)

   Double Hydrometer

   <30% = nondispersive, 30 to 50% intermediate, >50% dispersive

   Crumb Test

   Grade 1 = nondispersive

   Grade 2 = intermediate

   Grade 3 = dispersive

   Grade 4 = highly dispersive
3. Specified direct shear confining stresses: 500, 2500, 5000 psf.
4. C_v values estimated for additional load increments and included in Appendix E.

3.3 Agronomic Laboratory Testing

Agronomic testing of nine borrow source samples focused on chemical and physical properties for establishing and sustaining vegetation on the cover. Testing included the following:

- pH
- Electrical conductivity
- Organic matter content
- Determination of percent of sand, silt, and clay
- Chemical analyses (NO_3-N, P, K, Zn, Fe, Mn, Cu, Ca, Mg, Na)
- Sodium adsorption ratio (SAR)
- United States Department of Agriculture soil classification

Table 5 shows the results of the agronomic testing.

A qualified soil scientist from Cedar Creek evaluated the agronomic results from samples collected from the Section 27 borrow areas. The reported findings for physical, chemical and fertility parameters were within suitable ranges to support revegetation establishment and persistence. The laboratory results were also consistent with other agronomic findings for revegetation projects in the region when compared to similar soil types at Section 27. Depending on the harvest depths needed within the borrow source area for the closure plan, it may be recommended to amend borrow soils with nominal organic matter, in the form of compost, to optimize seedling establishment.

Table 5. Agronomic Laboratory Results Summary

Sample Number	Depth (ft)	pH 1:1	EC 1:1 (mmhos/cm)	Lime Estimate	OM (%)	KCl	Olsen Bicarbonate	CA-P	Ammonium Acetate				CEC (meq/100g)[1]	Base Saturation[1]					SAR	DTPA				Soil Texture			
						NO3- (ppm)	P (ppm)	S (ppm)	K (ppm)	Ca (ppm)	Mg (ppm)	Na (ppm)		H (%)	K (%)	Ca (%)	Mg (%)	Na (%)		Zn (ppm)	Fe (ppm)	Mn (ppm)	Cu (ppm)	% Sand	% Silt	% Clay	USDA Class
TP-01-01	0-6	7.1	0.62	HIGH	1.78	2	1.63	98.13	262	4085	507	219	26.28	0	3	78	16	4	0.86	0.2	5.65	0.97	0.9	49	22	28	Sandy Clay Loam
TP-02-01	0-7	7.2	1.49	HIGH	3.32	34	1.59	134.4	908	6205	294	105	36.26	0	6	86	7	1	0.35	0.34	6.68	3.03	1.47	28	25	48	Clay
TP-05-01	0-6.5	7.8	1.44	HIGH	1.31	<1	<1	243.18	99	6343	319	288	35.88	0	1	88	7	3	0.96	0.28	3.26	0.67	0.72	63	18	19	Sandy Loam
TP-06-01	0-6	7.1	1.32	HIGH	2.24	<1	0.84	208.28	314	5147	694	225	33.3	0	2	77	17	3	0.78	0.28	3.79	0.9	0.98	31	33	36	Clay Loam
TP-07-01	0-3	7.6	0.49	HIGH	2.4	8	2.24	140.01	253	6522	539	369	39.36	0	2	83	11	4	1.18	0.09	6.65	0.82	0.8	37	17	46	Clay
TP-7-02	3-10	6.5	2.1	LOW	3.98	3	5.45	727.92	304	5448	1237	845	42	0	2	65	25	9	2.71	0.66	7.31	2.36	1.03	21	25	54	Clay
TP-09-01	0-6	7.2	1.54	HIGH	2.52	9	3.04	251.25	501	15240	614	260	83.73	0	2	91	6	1	0.56	0.25	5.9	1.07	1.19	29	32	39	Clay Loam
TP-13-01	0-4.5	7.1	1.95	HIGH	2.59	<1	<1	514.4	282	9270	1158	951	60.86	0	1	76	16	7	2.49	0.15	7.8	0.92	0.75	33	23	44	Clay
TP-13-02	4.5-10	7.4	1.91	HIGH	2.23	6	8.09	897.39	293	13157	1342	1122	-	-	-	-	-	-	2.5	0.67	14.11	1.56	0.99	23	33	44	Clay

1. When exchangeable sodium exceeds 1,000 ppm, CEC (cation exchange capacity) and BS% (base saturation) are not calculated. At these elevated sodium levels, the extraction procedure may recover not only sodium held on exchange sites, but also soluble sodium salts present in the soil solution. Including this sodium in CEC summations and base saturation calculations would lead to overestimation of CEC and BS%, rendering these values analytically unreliable for interpretation or management decisions.

4 References

Alpine Archaeological Consultants Inc. (Alpine), 2025. A Class III Cultural Resources Inventory of the Section 27 Uranium Mine Site in McKinley County, New Mexico. June.

Bendix Field Engineering Corporation, 1985. Radiological Characterization of the Ambrosia Lake, New Mexico, Uranium Mill Tailings Remedial Action Site. July.

Cedar Creek Associates Inc. (Cedar Creek), 2006. Vegetation & Wildlife Evaluations / Revegetation Recommendations. May.

Cedar Creek, 2025. *Biological Resource Report for the Section 27 Mine Near San Mateo, New Mexico*. October.

Department of Energy (DOE), 1987. Environmental Assessment of Remedial Action at the Ambrosia Lake Uranium Mill Tailings Site at Ambrosia Lake, New Mexico. June.

Department of Energy (DOE), 1990. Remedial Action Plan and Site Conceptual Design for Stabilization of the Inactive Uranium Mill Tailings Site at Ambrosia Lake, New Mexico. September.

Ground Penetrating Radar Services Inc. (GPRS), 2025. Job Summary Report for Section 27. October 7.

Lone Mountain Archaeological Services, 2005. An Intensive Cultural Resource Survey of 13.36 ha (33 ac) for the Proposed Remediation of the Section 27 Uranium Mine Near Ambrosia Lake in McKinley County, New Mexico.

MK-Ferguson Company, 1996. Ambrosia Lake, New Mexico, Final Completion Report. August.

MK-Ferguson Company, 1997. Vicinity Property Completion Report at AM-001S. July.

MWH, 2003. Section 27 Mine Site Assessment.

MWH, 2007a. Revised Final Section 27 Materials Characterization Work Plan. February.

MWH, 2007b. Section 27 Materials Characterization Report. November 8.

MWH, 2008. Section 27 Closeout Plan.

MWH, 2010a. Section 27 Mine Construction Completion Report. September 16.

MWH, 2010b. Post-Reclamation Risk Evaluation, Section 27 Mine, New Mexico.

MWH, 2011. Section 27 Mine Supplemental Closeout Plan. June 24.

New Mexico Energy, Minerals & Natural Resources Department Mining and Minerals Division (MMD) and New Mexico Environment Compliance Section (NMED), 2016. Joint Guidance for the Cleanup and Reclamation of Existing Uranium Mining Operations in New Mexico.

New Mexico Environment Department (NMED), 2022. Risk Assessment Guidance for Site Investigations and Remediation. Volume 1 Soil Screening Guidance for Human Health Risk Assessments. November.

Stantec, 2024. Section 27 Supplemental Characterization Work Plan, Revision 1. May.

Appendices

Appendix A Supplemental Radiologic Characterization Report UNC Section 27 Mine Site

Supplemental Radiologic Characterization Report

UNC Section 27 Mine Site

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Appendices

Appendix A Surface and Subsurface Contamination Field Investigation Documentation (Soil Sample Log Forms, Field Soil Sample Ex-Situ Gamma Radiation Screening Forms)
Appendix B Radiologic Instrument Calibrations, Operational Function Checks, and Detector Correlation Documentation
Appendix C Soil Sample COC and Laboratory Analytical Results Report

1.0 Introduction and Background

This report provides results of the Supplemental Radiologic Characterization (SRC) that was conducted at the Section 27 Uranium Mine Site (Site). The methods and procedures used were consistent with the May 13, 2024 Final Supplemental Characterization Work Plan (Work Plan) and the applicable survey methods described in the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM, EPA 2000). The purpose of this SRC is to augment the previous characterization data to delineate the radiologic contamination boundary based upon an appropriate investigation level, and to characterize the Site by performing radiological surveys and collecting soil samples at the Site.

The Site was an underground shaft uranium mine located approximately 25 miles north of Grants, New Mexico in McKinley County. The Site is located east of the former Ambrosia Lake uranium mill site, also known as the Philips Mill, and the Rio Algom Mill tailings impoundment in the Ambrosia Lake District of McKinley County. Features at the Site prior to closeout construction activities conducted in 2010, included two shafts, three vent holes, two small piles of non-economic mine materials containing overburden rock, sands, and gravels, one small ore stockpile, two topsoil stockpiles and several small piles of ball mill reject materials. The Site is currently inactive, and the mining features identified above encompass approximately 14 acres.

United Nuclear Corporation (UNC) produced uranium ore from the Site during operations from 1970 to 1977. The Section 27 mineral lease covered approximately 200 acres in the southern half of the Site and was surrendered in 1988. Surface ownership at the mine is currently held by AMD Distribution and to the best of UNC's knowledge, ownership of the mineral estate is held by Hecla Mining Company.

The following sections describe the strategy, methods and procedures that were used as a part of the evaluation and the results of the Supplemental Radiological Characterization of the Site.

2.0 Previous Characterization

A Materials Characterization (MC) was conducted at the Site during June - July 2007 which consisted of gamma exposure rate surveys, collection of surface soil samples (<0.5 feet below ground surface (bgs)) and subsurface soil samples (up to 13 feet bgs) for radiologic and chemical analysis. The characterization activities were conducted inside the permit boundary within the following areas:

- Non-Economic Storage (NESA) Piles 1 and 2
- Ore Stockpiles (East and West)
- Topsoil Stockpiles (East and West)
- Ball Mill Reject Piles
- Vent Hole 3

The results of the initial materials characterization are described in detail in the *Section 27 2007 Materials Characterization Report* (MWH, 2007).

Phase 1 Reclamation construction at the Site was conducted between May and July 2010 for reclamation of approximately 10 acres of disturbed areas. Following the Phase 1 Reclamation, a post-reclamation verification gamma survey was performed consisting of static gamma exposure rate measurements. The verification gamma surveys were conducted on the constructed NESA covers, as well as over the areas that had been excavated as part of the Phase I Reclamation (Ball Mill Reject Piles, Ore Stockpiles, miscellaneous piles and Shaft 2 Area). The gamma survey consisted of static exposure rate level measurements at one meter above the ground surface using a micro Roentgen (µR) meter and direct gamma radiation level measurements with a 0.5-inch lead collimated 2x2 sodium iodide (NaI) detector coupled with a Scaler/Ratemeter at each location. Static measurements were collected on a regular (square) grid with 50-foot node spacing. The results of the verification gamma surveys are described in detail in the *Section 27 Construction Completion Report* (MWH, 2010a). The verification gamma survey results indicated that exposure rates were identified slightly above the background range in two areas included in the verification survey; identified as areas southwest and northeast of Vent 3. All other collimated exposure rate measurements were within the range of background levels (MWH, 2010a).

Two supplemental characterization surveys were conducted as part of the verification gamma survey efforts during the construction completion field activities, one in May/July 2010 and one in May 2011 (MWH, 2010b). The May/July 2010 gamma radiation level survey was conducted in two phases (May and July 2010) and consisted of static gamma radiation measurements using a collimated 2x2 NaI scintillation detector via a regular (square) grid casted from a random origin with 100-ft grid node spacing over the entire permit area, which included the reclaimed areas. To characterize gamma exposure rates beyond the permit area boundary, six sampling transects were surveyed: two each to the north and south of the Site, and one each to the west and east. A static gamma exposure rate measurement from waist height (one meter above the ground surface) was obtained at each grid node using a Ludlum Model 19 µR meter. The

collimated 2x2 NaI scintillation detector static gamma radiation level measurements in counts per minute (CPM) were converted into estimated Radium 226 (Ra-226) picocuries per gram (pCi/g) using a Site-specific correlation, which is summarized in Figure 2 of the Section 27 May 2010 Exposure Rate Characterization Survey.

The May 2011 gamma radiation exposure rate survey consisted of exposure rate measurements at 100-ft square grid nodes outside the mine permit boundary Similar to the May/June 2010 survey, static exposure rate measurements at one meter above the ground surface were obtained at each 100-ft grid node using a Ludlum Model 19 µR meter. The exposure rate measurements were conducted to the north, east, and south of the mine permit boundary. The combined results of the 2010 and 2011 supplemental post-reclamation surveys are summarized in *the June 2011 Supplemental Closeout Plan (MWH 2011)*. The exposure rates, µR/hr, were converted to soil Ra-226 in pCi/g using a Site-specific correlation.

The May 2011 characterization survey also consisted of test pits at six locations within the mine permit area boundary to evaluate the vertical extent of contamination (MWH, 2011). At each test pit location, subsurface soil samples were collected initially at approximately one foot depth or shallower if native soil was encountered prior to the one foot depth interval. The soil was screened on-Site to evaluate Ra-226 using ex-situ gamma soil screening based on a correlation between count rate for the gamma meter and soil Ra-226 content developed using three different soils with known concentrations to determine a target count rate at 30 pCi/g. The surface soil gamma survey results for the 2010 and 2011 post-reclamation characterization surveys converted to Ra-226 concentrations were superimposed over the EPA 2011 Airborne Spectral Photometric Environmental Collection Technology (ASPECT) survey performed in the Ambrosia Lake Area, as shown in Figure 2 of the Work Plan. As shown on the figure, the combined 2010 and 2011 post-reclamation characterization survey results are comparable with the EPA 2011 ASPECT survey results. The figure also illustrates that the lateral extent of Ra-226 contamination corresponding to the Ra-226 Reclamation Action Level (RAL) had not yet been fully delineated at the Site.

3.0 Objective of the Supplemental Radiologic Characterization

The objectives of this SRC are to delineate the lateral and vertical extent of radiologic contamination corresponding to the Ra-226 IL in the approximate 170 acres proposed Supplemental Scan Area. The objective also included supplemental vertical extent of contamination in the 2011 previously characterized area. Additionally, a Site-specific correlation for bare 2x2 NaI detectors was developed to convert the results of the SRC gamma radiation surveys in CPM to Ra-226 soil concentration (pCi/g). The Site is a former uranium mine, therefore the surface and subsurface soil is expected to be impacted by radionuclides associated with the uranium decay series, with Ra-226 being the primary Constituent of Concern (COC). Current and anticipated future land use surrounding the Site is grazing and wildlife habitat, which is the designated post-mining land use supported by both UNC and the current land owner.

The SRC was conducted to meet the RALs outlined in the *Joint Cleanup Guidance* (MMD and NMED, 2016) of:

1. An average of 5.0 pCi/g Ra-226 above background over an area of 100 square meters in the first 15 centimeters (cm) of soil below the surface, and

2. An average of 15 pCi/g above background, averaged over 15 cm thick layers of soil more than 15 cm below the surface.

As discussed in the Work Plan, a Ra-226 soil background value of 1.54 pCi/g was established for the Site, which is based on a Ra-226 background study conducted by the U.S. Environmental Protection Agency (EPA) at the West and Central General Services Administration (GSA) background locations near the Site (Weston 2019). Thus, the Site soil Ra-226 RAL is 6.54 pCi/g. The objectives of this SRC are to delineate the lateral and vertical extent of radiologic contamination corresponding to the Site Investigation Level (IL) for Ra-226 of 6.5 pCi/g.

4.0 Field Investigation

Field investigations for the SRC were conducted consistent with the approved Work Plan, and were conducted during the period from August 2024 through April 2026. The SRC was conducted by AVM, a radiological specialist subcontractor in Grants, New Mexico, with oversight from Stantec, in order to characterize the area of the Site beyond the previous survey area shown in Figure 4 of the approved Work Plan. The overall objective of the SRC is to establish the lateral and vertical extent of soil that exceeds the IL. This SRC included the following efforts:

- Scan gamma radiation surveys that extended outward from the boundary of the previously conducted static gamma radiation survey, which generally exceeds the IL, to bound areas above the IL
- Static gamma radiologic survey measurements
- Global Positioning System (GPS) based gamma scan surveys
- Ex-situ and in-situ soil screening
- Soil sampling and analysis

The geo-located gamma scans were conducted to provide Ra-226 concentration level estimates in surface soil and to evaluate the radiologic contamination boundary relative to the IL. Ex-situ gamma radiation soil screening and in-situ gamma radiation level measurements were performed to provide real-time information to estimate subsurface contamination depth. Subsurface soil sampling and analysis was performed to confirm subsurface contamination depth estimated by field ex-situ gamma radiation soil screening. Additionally, gamma radiation static surveys, exposure rate (µR/hr) measurements, and surface soil samples and analyses were performed at selected locations for the development of the Site-specific correlation. Field observations, radiological survey data, sample data, and sample/radiological data from previous Site characterization activities were utilized to estimate and verify the lateral and vertical extent and volume of mining-related materials at the Site.

4.1 Investigation Level

The 6.5 pCi/g IL for Ra-226 specified in the Work Plan is presented in terms of Ra-226 mass activity concentration and is expressed in units of activity per unit mass of soil, pCi/g. The direct gamma radiation surveys using a NaI scintillation detector provide radiation levels in counts per unit time, generally obtained as CPM. A gamma radiation level CPM equivalent to the IL from a Site-specific correlation is useful to guide the field gamma scan activities and estimate the survey boundary relative to the lateral extent of contamination. As discussed in the Work Plan, a site-specific correlation was not available during the field activities for making decisions. As such, a correlation between direct gamma radiation levels in CPM and Ra-226 soil concentrations in pCi/g developed at a similar type of uranium mine site was used to identify a CPM of approximately 23,640 equating to 6.5 pCi/g Ra-226 in surface soil. This correlation factor was initially used for this SRC gamma scan survey to provide a real time estimate of the lateral extent of surface soil contamination during the field gamma scan activities. As discussed in section 4.3 below, a Site-specific

correlation was later developed to convert the gamma survey results in CPM to surface soil Ra-226 concentrations.

4.2 Surface Gamma Radiation Surveys for Lateral Extent of Contamination

The instrument configuration used for direct gamma radiation level measurements during this SRC consisted of 0.5-inch-thick lead collimated and bare 2x2 NaI scintillation detectors (Eberline SPA-3) coupled to a scaler/rate meter (Ludlum 2221/3000). This instrument configuration is widely used for this type of survey and is recommended by the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM). The scaler/rate meters were interfaced with a sub-meter accurate DGPS with surveying software and a data logger/controller for electronically recording the gamma radiation levels to the corresponding geo-location coordinates. The coordinate system used for this work was the State Plane Coordinate System (NAD83, New Mexico West, US Feet). The direct gamma radiation surveys using a NaI scintillation detector provides radiation levels in CPM.

4.2.1 Gamma Radiation Scan Surveys

During this SRC, systematic gamma radiation scan surveys using bare 2x2 NaI detectors were performed consistent with AVM SOP-3 of the Work Plan by scanning along transects at a spacing of 50 feet. The geo-projected transects within the SRC area were digitally created using mapping software and loaded on the field data logger/controller. The gamma scan survey was performed by scanning along these transects with the detector at 12 inches above the ground surface at a scan rate of about three feet per second, with a data collection time interval of two seconds to estimate the level of Ra-226 in surface soil. Although bare detectors do not avoid lateral gamma radiation shine, bare detectors have a large field of view and provide a large scan coverage area for an efficient and conservative lateral extent of contamination assessment. It should be noted that for the arroyo bed, the gamma scan was conducted using the 2x2 NaI detector fitted with a 0.5-inchthick lead collimator to mitigate any radiation shine from the walls of the arroyo.

4.2.2 Gamma Radiation Static Surveys

The gamma static surveys were conducted using the same instrumentation described above consistent with AVM SOP-3 included in the Work Plan. The detector was fitted with a 0.5-inch lead collimator, as needed, to mitigate lateral gamma radiation shine interferences from nearby areas. Gamma static surveys were performed at discrete locations for investigation/confirmation of the scan survey results at any point or location of interest during the SRC to confirm gamma scan measurements near the IL boundary and at each of the correlation sampling points. The detector was held about 12 inches above the ground surface and the scaler/rate meter was set in the count “SCALER MODE” and a one-minute integration count of gamma radiation levels was conducted at each static gamma radiation survey location.

A typical example of a static measurement minimum detection concentration (MDC) calculation based on Site-specific survey and instrumentation parameters is described in AVM SOP-1, which was calculated in

accordance with MARSSIM Section 6.7.1. Based on operational and function check data, and survey parameters for this instrumentation combination used during surveys at similar uranium mine sites, the static gamma measurement MDC for a 2x2 NaI detector was less than 1.0 pCi/g for both bare and collimated detectors, which is well below 50 percent of the Site IL.

4.2.3 Site-specific Gamma Radiation to Surface Soil Ra-226 Correlation

Site-specific correlations were developed for the 2x2 NaI bare and 0.5-inch-thick lead collimated detectors (see AVM SOP-2 in the Work Plan). Co-located gamma static measurements and soil samples analyzed for Ra-226 were selected judgmentally based on gamma radiation levels to confirm that the full range of concentrations is included. A total of 20 sample locations from the Site were used for the bare detector correlation. The previously developed Site-specific collimated detector correlation consisting of 13 samples collected during the 2011 characterization was updated with 16 additional samples collected during this SRC. Surface soil samples collected for gamma scan survey confirmation were included for the correlations if they met the correlation assumptions. For the purposes of this study, the primary correlation assumption is that homogeneous contamination is distributed only in the surface soil (0.0' – 0.5'). The surface soil sampling field forms are included in Appendix A. Using co-located static gamma radiation measurements and surface soil sample Ra-226 analytical results, a linear regression was developed for both bare and collimated 2x2 NaI detectors. The correlation regression analysis and statistical output are shown in Appendix B. Static gamma survey results and laboratory soil sample results are summarized in Table 1. Each of the calculated correlation R^2 values significantly exceed the acceptable minimum of 0.8 R^2 with very low variable p-values (<0.05) and low standard errors, indicating the robustness of the correlations. The regression analysis results were used to convert the 2x2 NaI detector static and scan gamma radiation levels in CPM to equivalent, estimated surface soil Ra-226 concentrations for lateral extent exceeding the IL. The regression equations are summarized as follows:

- **2x2 NaI Bare Detector**
  - Ra-226 pCi/g = (CPM x 0.0005 pCi/g/CPM, slope) – 6.0, intercept or constant, with an R^2 = 0.99, and results into approximately 25,000 CPM equivalent to the 6.5 pCi/g surface soil Ra-226 IL.

- **0.5-inch-thick lead collimated 2x2 NaI Detector**
  - Ra-226 pCi/g = (CPM x 0.0014 pCi/g/CPM, slope) – 4.00, intercept or constant, with an R^2 = 0.99, and results into approximately 7,500 CPM equivalent to the 6.5 pCi/g surface soil Ra-226 IL.

4.2.4 Lateral Extent of Ra-226 Contamination Summary

A DGPS-based systematic gamma radiation scan survey was performed within the approximate 170 acre proposed Supplement Scan Area, which includes the arroyo south of the Site, shown on Figures 3 and 4 of

the Work Plan. The geo-located gamma radiation scan data includes the gamma scan point ID number, date and time, location coordinates, and detector CPM. The scan data was exported from the data logger and the bare detector CPM were converted to equivalent Ra-226 estimates using the previously calculated Site-specific correlation for bare detectors. The gamma radiation scan performed within the arroyo was conducted using a collimated detector to minimize lateral radiation shine from the arroyo walls. The collimated detector CPM data in the arroyo bed were converted to equivalent Ra-226 pCi/g estimates using the updated Site-specific correlation for collimated detectors. Using a mapping software, the data was plotted in graduated color ranges, then reviewed to identify areas that exceeded the Ra-226 IL. Review of the plotted data indicated surface soil Ra-226 levels exceed the IL, primarily in the eastern, northern and northwestern areas of the Site.

Step out gamma scans were performed until the gamma scan showed the estimated surface soil Ra-226 levels were below the IL in the eastern and northern areas. Step out scans were conducted to the west until the Phillips Mill Soil Verification Boundary line was reached in the northwestern corner. The step out gamma scan to delineate lateral extent of Ra-226 levels to the IL comprised of approximately 45 acres. Approximately, a total of approximately 59,000 discrete gamma radiation scan data points were collected within an approximate 215 acre area during this SRC. The gamma radiation scan survey data was plotted using a mapping software and arranged in graduated color ranges based on Ra-226 concentrations, shown on Figure 1. For reference, Figure 1 also shows the results of the static gamma radiation survey data from the 2010 – 2011 characterizations, which covered approximately 95 acres. Based on the plotted scan data, the RAL estimated boundary area of the Site that exceeds the surface IL was fully delineated and is shown in Figure 2, covering approximately 210 acres. Typical gamma scan data exported from the scan system data logger and estimated Ra-226 concentration calculated using the correlation equation are shown in Table 2. Gamma scan survey data collected during this SRC can be provided in an electronic file upon request. Surface soil sampling and one-minute static gamma measurements were collected for Ra-226 analysis near the IL estimated boundary to confirm the surface soil gamma scan results. Field forms and soil sampling logs are included in Appendix A. The soil sampling and gamma static survey results, shown in Figure 3 and summarized in Table 1, show the gamma survey and soil sampling results are comparable.

4.3 Test Pits, Hand Augers, and Ex-Situ Gamma Radiation Soil Screening for Vertical Extent of Contamination

Areas of potentially similar vertical extent of contamination were identified based on the DGPS gamma scan surveys. A total of 32 subsurface soil sample locations, 28 Test Pits (TP)locations and 4 Hand Auger (HA) locations in the arroyo , were selected to estimate the vertical extent of Ra-226 contamination above the Site IL. A one-minute collimated detector static gamma radiation survey was performed at each TP location to estimate the surface soil (0.0’ - 0.5’) Ra-226 levels prior to test pit excavation or the collection of any soil sample. Field forms are included in Appendix A. The one-minute collimated detector static gamma radiation measurement CPM were converted to 0.0’ - 0.5’ soil Ra-226 pCi/g using the Site-specific correlation, which are summarized in Table 3.

Test pit trench excavations, hand auger advancements, and on-site ex-situ gamma radiation soil screening were performed in October 2025 (test pits) and April 2026 (hand augers). These methods were utilized to define the vertical extent of subsurface contamination at the Site. Test Pits were excavated per Section 3.4 of the Work Plan. Four locations planned for test pitting were advanced with a hand auger as described below. The ex-situ gamma radiation soil screening was conducted in accordance with the AVM SOP-4 in the Work Plan, and provides a real-time estimate of Ra-226 concentrations in soil samples. This method is more reliable than the in-situ direct gamma surveys for real-time Ra-226 assessment in soils. The on-Site ex-situ soil screening method consists of selectively measuring the 609 kiloelectron volt (KeV) region gamma radiations of bismuth (Bi)-214, a decay product of Ra-226, as discussed in AVM SOP-4 included in the Work Plan. A single channel analyzer (Ludlum L2221) integrated with a Ludlum 44-20 3x3 NaI scintillation detector was used to measure the 609 keV energy peak region of Bi-214. The soil sample was placed around the plastic lined detector in a heavily shielded counting chamber. The counting chamber lowers the system background counts, thus improving the system's minimum detectable concentration (MDC). A reference soil with the same concentration as the IL of 6.5 pCi/g was prepared and was used for soil screening at the Site.

A backhoe was used to excavate trenches at each test pit location for subsurface soil sample collection. The trench was excavated at approximately one-foot depth intervals. At each interval, a subsurface soil sample was collected from the base of the excavation for ex-situ soil screening. The excavation continued until the on-site ex-situ soil screening indicated that Ra-226 concentrations of the soil samples were below the IL. During the October 2025 field event, Test pit trench excavations and on-Site ex-situ gamma radiation soil screening was performed for the subsurface samples collected at all TP locations, with the exception of four of the five Arroyo bed locations (HA-25, HA-28, HA-30 and HA-32), due to high moisture content of the arroyo bed, causing unsafe conditions for backhoe access. Subsurface soil sampling using a hand auger and on-Site ex-situ gamma radiation soil screening at these four locations was performed in April 2026 when the arroyo bed was considerably drier, but still could not safely be accessed with a backhoe. The sampling nomenclature for these four locations was changed from ‘TP’ to ‘HA’ to indicate hand auger sampling vs test pit excavation by backhoe. The TP/HA field soil screening forms are included in Appendix A. The test pit and hand auger subsurface soil screening data is summarized in Table 4. The subsurface soil samples which screened above or below the 6.5 pCi/g IL are shown in Table 4 based on the field soil screening results.

Although the primary objective of the ex-situ gamma radiation soil screening was to evaluate the Ra-226 concentrations above or below the 6.5 pCi/g IL, Ra-226 concentrations were estimated in each of the subsurface soil samples that were collected and screened. A correlation calibration of the ex-situ soil screening system was performed using 6.6 pCi/g, 25 pCi/g, and 50 pCi/g reference soil samples. This correlation was updated with offsite vendor laboratory soil sample results for the samples that were screened on-site and sent to the laboratory for quality assurance and quality control (QA/QC) confirmation. This updated correlation is included in Appendix B. The estimated Ra-226 concentrations calculated using the updated correlation regression equation [Ra-226 pCi/g = (CPM x 0.0154) – 2.7604, R^2 = 0.939] of the subsurface soil samples are included in Table 4. The vertical extent of Ra-226 above the surface IL and

subsurface Ra-226 level for each excavation depth interval sampled at each of the 32 locations are summarized in Table 5. The results show Ra-226 being above the IL at depths ranging from 0.5' bgs to up to five feet bgs within the Site and up to seven feet bgs within the arroyo bed to the immediate south of the Site.

For the test pit and hand auger subsurface soil investigation, 34 samples out of a total of 82 subsurface soil samples screened on Site were sent to the off-site vendor laboratory (GEL Laboratories LLC in Charleston, SC) for analysis. The 34 samples included at least one sample from each test pit excavation that field screened at a Ra-226 concentration below the surface IL. In addition, 10% (4 samples) of the samples sent to the lab were split in the field and sent to the lab for QA/QC duplicates. These soil samples were analyzed for Ra-226 using DOE HASL 300 Method for confirmation of the on-Site ex-situ soil screening results. The laboratory results report is included in Appendix C and is summarized in Table 4. As shown in Table 4, the estimated Ra-226 levels determined by the on-Site ex-situ soil screening are comparable with the vendor laboratory Ra-226 results and confirms that the Ra-226 levels are above or below the IL.

5.0 Surface Soil Isotopic Investigation

During the SRC, several surface soil samples were collected from various areas of the Site for isotopic (Ra-226, thorium 230 (Th-230) and uranium (U-nat)) analysis. The isotopic analytical results are summarized in Table 6. Also included in Table 6 is the background radioactivity (U-nat, Ra-226 and Th-230) levels in soils of the Ambrosia Lake area not influenced by a tailings pile (DOE 1990 Reference listed in the Work Plan). The soil isotopic activity identified within the uninfluenced area is in equilibrium (Ra-226/U-238 and Th-230/U-238 ratios equal 1.0), indicating that it is not impacted by processed uranium ore/mill tailings. Isotopic activities in most of the surface soil samples from the Site are not in equilibrium, as shown in Table 6, with the Ra-226/U-238 and Th-230/U-238 ratios being significantly elevated in most of the surface soil from the Site.

6.0 Soil Sampling and Analysis

Surface soil correlation samples and subsurface soil samples from the test pit excavations and hand auger samples for on Site ex-situ gamma radiation soil screening were collected consistent with AVM SOP-5, included in the Work Plan. Subsurface soil samples were analyzed by on-Site ex-situ gamma radiation soil screening (AVM SOP-4) to determine if the soil is above or below the Ra-226 IL. Field QA/QC duplicate samples were split at a frequency of 10% of the total number of soil samples collected. A total of 118 surface and subsurface soil samples were collected during the SRC. Field sampling equipment used for soil sampling (which included stainless steel scoops, bowls, spoons, and hand auger barrels) were decontaminated between sample locations. The soil sampling equipment decontamination was conducted by brushing off loose visible soil followed by the as-needed rinsing with distilled water and wiping with clean towels. Excavator buckets were cleaned by removing any loose, visible soil. Soils generated from the excavation of test pits and of hand auger borings were put back into the excavations from which the soil came. Equipment decontamination water/rinsate was poured on top of excess soil from the test pits and hand augers. Personal protection equipment (PPE), such as gloves, were brushed off and scanned for residual contamination and disposed of as solid waste.

A completed Chain-of-Custody (COC) along with the surface soil samples and confirmatory subsurface soil samples were placed in labeled Ziploc bags and packaged in coolers. The samples were shipped to GEL Laboratories for Ra-226 analysis on all samples and isotopic analysis on selected surface soil samples. The soil samples were analyzed for the following:

- Ra-226 using DOE HASL 300, 4.5.2.3/Ga-01-R
- Uranium using SW846 3050B/6020B
- Th-230 using DOE EML HASL-300, Th-01-RC Modified.

The completed laboratory COCs are included with the analytical results reports in Appendix C to this report.

7.0 Quality Assurance and Quality Control Measures

QA/QC measures as specified in the Work Plan were implemented during the SRC to confirm that decisions are made based on data of acceptable quality. All radiologic survey instruments, including personnel and vehicle contamination friskers, are calibrated annually, as specified in AVM SOP-1. Additionally, operational function checks were performed on each of the radiologic instruments daily prior to use in accordance with AVM SOP-1. The calibration and function check documents are included in Appendix B. During this SRC, no instruments were found to be out of calibration or designated as inoperable.

A summary of the NaI detector minimum detectable concentrations is as follows:

- The instrument background measurements for bare 2x2 NaI detectors during daily operational function checks were less than 10,000 CPM as shown in Appendix B. The bare detector field of view (FOV) at 12 inches above the ground surface is conservatively assumed at an area of six feet diameter. The 2x2 NaI detector response factor is determined to be 0.0005 pCi/g/CPM from the linear regression for the site-specific correlation included in Appendix B. Based on the above detector parameters, the Ra-226 minimum detectable concentrations (MDCs) for scan survey at a scan speed of three feet per second calculated as shown in AVM SOP-1 were less than 1.0 pCi/g, which is significantly less than 50% of the 6.54 pCi/g IL.
- The instrument background measurements for collimated 2x2 NaI detectors during daily operational function checks were less than 3,000 CPM as shown in Appendix B. The bare detector FOV at 12 inches above the ground surface is conservatively assumed at an area of three feet diameter. The collimated 2x2 NaI detector response factor is determined to be 0.0014 pCi/g/CPM from the linear regression for the site-specific correlation included in Appendix B. Based on the above detector parameters, the Ra-226 MDCs for static survey calculated as shown in AVM SOP-1 were less than 1.0 pCi/g, significantly less than 50% of the 6.54 pCi/g IL.

The ex-situ soil gamma radiation screening system was calibrated prior to mobilization in the field and daily operational function checks were performed prior to use. The calibration and function check documentation are included in Appendix B. Based on the highest system background (blank) measurements from daily operational function checks and efficiency (pCi/g/CPM), the highest Ra-226 MDC for the screening system calculated, as shown in AVM SOP-4, was less than 0.8 pCi/g, which is significantly less than the 6.5 pCi/g IL. The MDCs during the SRC met the QA objective.

The QA/QC measures also included field QA/QC duplicate soil sampling at a frequency of 10% of the soil samples collected for laboratory analysis. As discussed above, field QA/QC duplicate soil samples were collected and sent to the laboratory for analysis, and the QA/QC duplicate results are included in appropriate summary tables. All eight QA/QC duplicate sample results are within 20% of the original sample results, except for one, which is within 29%, and the result is less than the Reporting Limit (RL).

8.0 References

EPA, 2000. U.S. Environmental Protection Agency (EPA), 2000. Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM).

MWH, 2007. Section 27 Materials Characterization Report, Gallup, New Mexico, November.

MWH, 2010a. Section 27 Construction Completion Report, Gallup, New Mexico, September.

MWH, 2010b. Post-Reclamation Risk Evaluation, Section 27 Mine, New Mexico, October

MWH, 2011. Section 27 Supplemental Closeout Plan

MMD and NMED, 2016. New Mexico Energy, Minerals & Natural Resources Department Mining and Minerals Division (MMD) and New Mexico Environmental Compliance Section (NMED), 2016. Joint Guidance for the Cleanup and Reclamation of Existing Uranium Mining Operations in New Mexico.

Weston, 2019. Weston Solutions, Inc., 2019b. Background Investigation Report for Ambrosia Lake (East, West, and Central GSAs and the Section 10 Mine) and Section 32 and 33 Mine Navajo-Area Abandoned Uranium Mines (NAUM) McKinley County, New Mexico

Tables

Table 1
Section 27 Mine Site - Soil Radiological Characterization
Surface Soil Gamma Radiation Survey and Soil Sampling & Analytical Results

Point ID	Soil Sample ID	Sample Depth	Data Point Coordinate NAD83 StatePlane NM West, Feet		Static Gamma Radiation Survey - Counts Per Minute (cpm)				Vendor Laboratory Analysis Data			
			Northing	Easting	Bare 2x2 Detector	Surface Soil Static Gamma Estimated Ra-226 pCi/g	Collimated (0.5" Pb) 2x2 Detector	Surface Soil Static Gamma Estimated Ra-226 pCi/g	Ra-226 pCi/g	uncertainty (+/-)	MDC	RL
SS-01	S27-SS01	0.0'-0.5'	1606613.07	2739683.56	22500	5.3	7700	6.8	7.5	0.493	0.202	1.0
SS-02	S27-SS02	0.0'-0.5'	1606072.38	2740048.34	24200	6.1	7970	7.2	8.9	0.369	0.127	1.0
SS-03	S27-SS03	0.0'-0.5'	1605991.95	2742094.74	20000	4.0	6910	5.7	5.2	0.348	0.131	1.0
SS-04	S27-SS04	0.0'-0.5'	1605857.41	2739732.86	18400	3.2	5660	3.9	4.6	0.354	0.134	1.0
SS-05	S27-SS05	0.0'-0.5'	1605801.32	2737652.14	33500	10.8	-	-	27.0	0.836	0.273	1.0
SS-06	S27-SS06	0.0'-0.5'	1605790.67	2742230.82	16700	2.4	5510	3.7	3.2	0.28	0.105	1.0
SS-07	S27-SS07	0.0'-0.5'	1605780.86	2737846.46	32600	10.3	-	-	18.8	0.537	0.168	1.0
SS-08	S27-SS08	0.0'-0.5'	1605758.05	2740849.85	18600	3.3	5850	4.2	7.1	0.421	0.141	1.0
SS-09	S27-SS09	0.0'-0.5'	1605740.17	2739002.29	19100	3.6	5510	3.7	5.0	0.335	0.14	1.0
SS-10	S27-SS10	0.0'-0.5'	1605651.32	2739687.28	34000	11.0	12300	13.2	15.8	0.661	0.164	1.0
SS-11	S27-SS11	0.0'-0.5'	1605614.63	2737604.45	32800	10.4	-	-	17.8	0.48	0.147	1.0
SS-12	S27-SS12	0.0'-0.5'	1605498.38	2742289.51	19400	3.7	6110	4.6	4.4	0.466	0.198	1.0
SS-13	S27-SS13	0.0'-0.5'	1605490.06	2741306.79	22400	5.2	7030	5.8	9.6	0.537	0.186	1.0
SS-14	S27-SS14	0.0'-0.5'	1605339.08	2742104.61	21300	4.7	6660	5.3	9.1	0.508	0.155	1.0
SS-15	S27-SS15	0.0'-0.5'	1605348.33	2741201.57	23200	5.6	6840	5.6	10.2	0.474	0.131	1.0
SS-16	S27-SS16	0.0'-0.5'	1605278.71	2737603.62	33600	10.8	-	-	21.3	0.548	0.154	1.0
SS-17	S27-SS17	0.0'-0.5'	1605231.64	2737656.87	32500	10.3	-	-	12.6	0.4	0.118	1.0
SS-18	S27-SS18	0.0'-0.5'	1604975.09	2742499.70	21200	4.6	6970	5.8	6.1	0.38	0.139	1.0
SS-19	S27-SS19	0.0'-0.5'	1604155.24	2742448.24	17200	2.6	-	-	2.0	0.204	0.0821	1.0

Table 1 (cont.)
Section 27 Mine Site - Soil Radiological Characterization
Surface Soil Gamma Radiation Survey and Soil Sampling & Analytical Results

Point ID	Soil Sample ID	Sample Depth	Data Point Coordinate NAD83 StatePlane NM West, Feet		Static Gamma Radiation Survey - Counts Per Minute (cpm)				Vendor Laboratory Analysis Data			
			Northing	Easting	Bare 2x2 Detector	Surface Soil Static Gamma Estimated Ra-226 pCi/g	Collimated (0.5" Pb) 2x2 Detector	Surface Soil Static Gamma Estimated Ra-226 pCi/g	Ra-226 pCi/g	uncertainty (+/-)	MDC	RL
SS-20	S27-SS20	0.0'-0.5'	1604064.64	2742060.44	22000	5.0	6770	5.5	4.8	0.258	0.106	1.0
SS-21	S27-SS21	0.0'-0.5'	1603706.59	2741949.46	158000	73.0	63300	84.6	97.8	1.15	0.325	1.0
SS-22	S27-SS22	0.0'-0.5'	1603510.42	2741755.00	19400	3.7	6390	4.9	7.3	0.306	0.0979	1.0
SS-23	S27-SS23	0.0'-0.5'	1603410.20	2739402.99	23500	5.8	-	-	11.7	0.5	0.155	1.0
SS-24	S27-SS24	0.0'-0.5'	1603370.34	2740306.79	19800	3.9	-	-	6.0	0.375	0.131	1.0
SS-25	S27-SS25	0.0'-0.5'	1603310.82	2740802.02	73200	30.6	27400	34.4	57.3	0.986	0.29	1.0
SS-26	S27-SS26	0.0'-0.5'	1603288.27	2739953.37	17400	2.7	-	-	4.6	0.314	0.124	1.0
SS-27	S27-SS27	0.0'-0.5'	1603134.91	2741505.29	20500	4.3	7220	6.1	6.9	0.338	0.116	1.0
SS-28	S27-SS28	0.0'-0.5'	1603090.39	2739454.27	24300	6.2	-	-	10.9	0.487	0.187	1.0
TP-18	S27-TP18	0.0'-0.5'	1604424.67	2740762.12	465000	226.5	167000	229.8	205.0	2.28	0.565	1.0
TP-19	S27-TP19	0.0'-0.5'	1604361.66	2742232.35	80100	34.1	-	-	45.9	0.772	0.194	1.0
TP-20	S27-TP20	0.0'-0.5'	1604358.97	2738657.97	72600	30.3	28300	35.6	8.2	0.49	0.167	1.0
TP-21	S27-TP21	0.0'-0.5'	1604318.65	2741576.91	108000	48.0	-	-	68.8	0.943	0.25	1.0
TP-24	S27-TP24	0.0'-0.5'	1604234.22	2740118.46	330000	159.0	170000	234.0	156.0	2.18	0.666	1.0
TP-26	S27-TP26	0.0'-0.5'	1603979.57	2738889.81	68000	28.0	24000	29.6	49.3	1.38	0.395	1.0

Table 2
Section 27 Mine Site - Soil Radiological Characterization
Typical Gamma Scan Data Exported from the Scan System Data Logger

ID	Time	Northing[1] (feet)	Easting[1] (feet)	MSL Elevation (feet)	CPM 2x2 Bare NaI Detector	Ra-226 pCi/g[2]	Zone_ID
1	8/5/2024 9:29	1604122.11	2742442.88	7109	19511	3.8	S27_Mine_Site
2	8/5/2024 9:29	1604124.55	2742442.27	7109	18853	3.4	S27_Mine_Site
3	8/5/2024 9:29	1604128.05	2742442.43	7109	19583	3.8	S27_Mine_Site
4	8/5/2024 9:29	1604131.20	2742442.17	7108	21198	4.6	S27_Mine_Site
5	8/5/2024 9:29	1604131.18	2742442.19	7108	18185	3.1	S27_Mine_Site
6	8/5/2024 9:29	1604135.23	2742442.03	7108	18778	3.4	S27_Mine_Site
7	8/5/2024 9:29	1604140.58	2742441.97	7108	19676	3.8	S27_Mine_Site
8	8/5/2024 9:29	1604145.67	2742442.80	7108	19117	3.6	S27_Mine_Site
9	8/5/2024 9:29	1604150.47	2742442.58	7108	18662	3.3	S27_Mine_Site
10	8/5/2024 9:29	1604156.06	2742443.46	7108	19331	3.7	S27_Mine_Site
11	8/5/2024 9:29	1604160.92	2742444.63	7108	18990	3.5	S27_Mine_Site
12	8/5/2024 9:29	1604166.31	2742444.25	7109	19862	3.9	S27_Mine_Site
13	8/5/2024 9:29	1604171.78	2742444.09	7109	21273	4.6	S27_Mine_Site
14	8/5/2024 9:29	1604177.36	2742442.79	7109	19869	3.9	S27_Mine_Site
15	8/5/2024 9:29	1604182.87	2742442.87	7109	18356	3.2	S27_Mine_Site
16	8/5/2024 9:29	1604187.93	2742442.68	7109	18082	3.0	S27_Mine_Site
17	8/5/2024 9:29	1604192.96	2742440.90	7108	21387	4.7	S27_Mine_Site
18	8/5/2024 9:29	1604198.32	2742440.15	7109	18519	3.3	S27_Mine_Site
19	8/5/2024 9:30	1604203.28	2742440.43	7109	18017	3.0	S27_Mine_Site
20	8/5/2024 9:30	1604208.91	2742440.11	7109	19411	3.7	S27_Mine_Site
21	8/5/2024 9:30	1604214.34	2742440.42	7109	21568	4.8	S27_Mine_Site
22	8/5/2024 9:30	1604220.26	2742440.60	7109	20030	4.0	S27_Mine_Site
23	8/5/2024 9:30	1604225.40	2742441.23	7109	19432	3.7	S27_Mine_Site
24	8/5/2024 9:30	1604230.63	2742442.17	7109	18509	3.3	S27_Mine_Site
25	8/5/2024 9:30	1604235.97	2742441.48	7109	18601	3.3	S27_Mine_Site
26	8/5/2024 9:30	1604241.76	2742441.47	7109	18142	3.1	S27_Mine_Site
27	8/5/2024 9:30	1604247.24	2742442.03	7110	19591	3.8	S27_Mine_Site
28	8/5/2024 9:30	1604252.63	2742441.25	7110	21212	4.6	S27_Mine_Site
29	8/5/2024 9:30	1604258.25	2742441.01	7110	22993	5.5	S27_Mine_Site
30	8/5/2024 9:30	1604264.16	2742441.05	7110	19977	4.0	S27_Mine_Site
31	8/5/2024 9:30	1604269.24	2742440.47	7110	20066	4.0	S27_Mine_Site
32	8/5/2024 9:30	1604274.69	2742440.77	7110	23664	5.8	S27_Mine_Site
33	8/5/2024 9:30	1604280.31	2742440.37	7110	21039	4.5	S27_Mine_Site
34	8/5/2024 9:30	1604285.82	2742441.48	7111	20432	4.2	S27_Mine_Site
35	8/5/2024 9:30	1604291.43	2742441.20	7111	20364	4.2	S27_Mine_Site
36	8/5/2024 9:30	1604296.98	2742440.20	7110	20465	4.2	S27_Mine_Site
37	8/5/2024 9:30	1604302.32	2742439.49	7111	20734	4.4	S27_Mine_Site
38	8/5/2024 9:30	1604308.18	2742440.14	7111	21733	4.9	S27_Mine_Site
39	8/5/2024 9:30	1604313.43	2742440.89	7111	20985	4.5	S27_Mine_Site
40	8/5/2024 9:30	1604318.97	2742441.78	7111	21996	5.0	S27_Mine_Site

(1) projection: StatePlane NAD 1983 NM West - Feet

(2) Ra-226 pCi/g determined from surface soil gamma radiation scan using 2x2 NaI detector and Site-specific gamma radiation level (cpm) correlation

Table 3
Section 27 Mine Site - Soil Radiological Characterization
Surface Static Gamma Radiation Survey at Test Pit/Hand Auger Sample Locations

Data Point ID	Survey Date	Data Point Coordinate NAD83 StatePlane NM West, Feet		Static Gamma Radiation Survey Collimated (0.5" PB) 2x2 Detector	
		Northing	Easting	Static Gamma CPM	Surface Soil Static Gamma Estimated Ra-226 pCi/g
TP-01	10/17/2025	1605853.04	2737684.71	10000	10.0
TP-02	10/17/2025	1605830.56	2738408.52	9880	9.8
TP-03	10/18/2025	1605773.44	2740349.99	9050	8.7
TP-04	10/17/2025	1605686.66	2738476.53	10600	10.8
TP-05	10/17/2025	1605684.14	2738105.06	9030	8.6
TP-06	10/17/2025	1605623.32	2737802.72	9830	9.8
TP-07	10/17/2025	1605480.34	2738205.59	9650	9.5
TP-08	10/18/2025	1605443.39	2739957.82	11800	12.5
TP-09	10/17/2025	1605252.88	2737704.89	10000	10.0
TP-10	10/18/2025	1605126.64	2741900.67	6650	5.3
TP-11	10/18/2025	1605041.49	2741159.56	7490	6.5
TP-12	10/21/2025	1605026.62	2738759.90	11900	12.7
TP-13	10/17/2025	1604937.08	2737852.60	4460	2.2
TP-14	10/22/2025	1604920.73	2739410.80	37200	48.1
TP-15	10/22/2025	1604679.59	2739216.03	27100	33.9
TP-16	10/18/2025	1604624.19	2740460.27	14700	16.6
TP-17	10/18/2025	1604624.00	2741160.00	70700	95.0
TP-18	10/21/2025	1604424.67	2740762.12	167000	230
TP-19	10/20/2025	1604361.66	2742232.35	30700	39.0
TP-20	10/21/2025	1604358.97	2738657.97	28300	35.6
TP-21	10/20/2025	1604318.65	2741576.91	40500	52.7
TP-22	10/20/2025	1604320.50	2742002.43	10100	10.1
TP-23	10/21/2025	1604223.62	2740159.90	583000	812
TP-24	10/22/2025	1604234.22	2740118.46	107000	146
HA-25	4/13/2026	1604202.79	2739744.35	12500	13.5
TP-26	10/21/2025	1603979.57	2738889.81	24000	29.6
TP-27	10/20/2025	1603879.83	2740009.28	7550	6.6
HA-28	4/13/2026	1603828.44	2739585.93	8920	8.5
TP-29	10/20/2025	1603824.15	2740860.67	61900	82.7
HA-30	4/13/2026	1603678.70	2739297.30	13500	14.9
TP-31	10/20/2025	1603227.59	2740755.46	14400	16.2
HA-32	4/13/2026	1603077.23	2738863.18	6260	4.8

Table 4

Section 27 Mine Site - Soil Radiological Characterization

Subsurface Soil Sample Field Ex-Situ Screening and Vendor Laboratory Results Summary

Sampling Data				Field Soil Screening Data						Laboratory Data			
Sample ID	Sample Depth (ft)	Sample Date	Sample Time	Screen Date	Sample Weight grams	609 (559-669) Kev Gross Counts CP5M	CPM	Soil Gamma Screening Estimated Ra-226 pCi/g	RAL (< or >)	Sample Sent to Lab	Ra-226 pCi/g	Error Estimate pCi/g	MDC pCi/g
S27-TP01	0.5'-1.0'	10/17/2025	1145	10/17/2025	3000	1475	295	1.8	<	x	1.72	0.244	0.141
S27-TP02	0.5'-1.0'	10/17/2025	1325	10/17/2025	3000	1887	377	3.1	<	x	2.54	0.294	0.126
S27-TP02	1.0'-2.0'	10/17/2025	1345	10/17/2025	3000	2718	544	5.6	<	-	-	-	-
S27-TP03	0.5'-1.0'	10/18/2025	915	10/18/2025	3000	3459	692	7.9	>	-	-	-	-
S27-TP03	1.0'-1.4'	10/18/2025	935	10/18/2025	3000	1922	384	3.2	<	x	3.4	0.341	0.149
S27-TP04	0.5'-1.0'	10/17/2025	1415	10/17/2025	3000	2338	468	4.4	<	-	-	-	-
S27-TP04	1.0'-2.0'	10/17/2025	1430	10/17/2025	3000	2298	460	4.3	<	x	4.6	0.405	0.151
S27-TP05	0.5'-1.0'	10/17/2025	1215	10/17/2025	2930	1811	371	2.9	<	x	5.48	0.402	0.143
S27-TP06	0.5'-1.0'	10/17/2025	1115	10/17/2025	2532	1376	326	2.3	<	x	2.39	0.274	0.161
S27-TP07	0.5'-1.0'	10/17/2025	1355	10/17/2025	3000	1960	392	3.3	<	x	5.91	0.415	0.165
S27-TP08	0.5'-1.0'	10/18/2025	845	10/18/2025	2762	1230	267	1.4	<	x	1.64	0.266	0.133
S27-TP09	0.5'-1.0'	10/17/2025	1000	10/17/2025	3000	1861	372	3.0	<	x	2.21	0.306	0.142
S27-TP10	0.5'-1.0'	10/18/2025	1305	10/18/2025	3000	1493	299	1.8	<	x	1.66	0.278	0.168
S27-TP11	0.5'-1.0'	10/18/2025	1320	10/18/2025	3000	1363	273	1.4	<	x	1.12	0.2	0.1
S27-TP12	0.5'-1.0'	10/21/2025	830	10/21/2025	3000	2402	480	4.6	<	-	-	-	-
S27-TP12	1.0'-1.5'	10/21/2025	845	10/21/2025	3000	2360	472	4.5	<	-	-	-	-
S27-TP12	1.5'-2.0'	10/21/2025	905	10/21/2025	3000	2098	420	3.7	<	x	2.98	0.33	0.145
S27-TP13	0.5'-1.0'	10/17/2025	1445	10/17/2025	3000	1354	271	1.4	<	x	2.0	0.287	0.137
S27-TP14	0.5'-1.0'	10/22/2025	1155	10/22/2025	3000	5210	1042	13.3	>	-	-	-	-
S27-TP14	1.0'-2.0'	10/22/2025	1205	10/22/2025	3000	5480	1096	14.1	>	-	-	-	-
S27-TP14	2.0'-2.5'	10/22/2025	1220	10/22/2025	3000	8195	1639	22.5	>	-	-	-	-
S27-TP14	3.5'-4.0'	10/22/2025	1330	10/22/2025	3000	1307	261	1.3	<	x	1.08	0.252	0.425
S27-TP14	5.0'-5.5'	10/22/2025	1335	10/22/2025	3000	1226	245	1.0	<	-	-	-	-
S27-TP15	4.5'-5.5'	10/22/2025	1440	10/22/2025	3000	1425	285	1.6	<	x	0.803	0.193	0.131
S27-TP15	5.5'-6.5'	10/22/2025	1450	10/22/2025	3000	1634	327	2.3	<	-	-	-	-
S27-TP16	0.5'-1.0'	10/18/2025	1000	10/18/2025	3000	4502	900	11.1	>	-	-	-	-
S27-TP16	1.0'-1.5'	10/18/2025	1015	10/18/2025	3000	1908	382	3.1	<	-	-	-	-
S27-TP16	2.5'-3.0'	10/18/2025	1035	10/18/2025	3000	2199	440	4.0	<	x	1.86	0.29	0.146
S27-TP16	3.5'-4.0'	10/18/2025	1055	10/18/2025	3000	1950	390	3.2	<	x	2.37	0.282	0.144
S27-TP17	1.0'-2.0'	10/18/2025	1135	10/18/2025	3000	3523	705	8.1	>	-	-	-	-

Table 4 (Continued)

Section 27 Mine Site - Soil Radiological Characterization

Subsurface Soil Sample Field Ex-Situ Screening and Vendor Laboratory Results Summary

Sampling Data				Field Soil Screening Data						Laboratory Data			
Sample ID	Sample Depth (ft)	Sample Date	Sample Time	Screen Date	Sample Weight grams	609 (559-669) Kev Gross Counts CP5M	CPM	Soil Gamma Screening Estimated Ra-226 pCi/g	RALL (< or >)	Sample Sent to Lab	Ra-226 pCi/g	Error Estimate pCi/g	MDC pCi/g
S27-TP17	2.0'-3.0'	10/18/2025	1200	10/18/2025	3000	1826	365	2.9	<	x	2.50	0.275	0.127
S27-TP18	1.0'-1.5'	10/21/2025	1100	10/21/2025	3000	2611	522	5.3	<	-	-	-	-
S27-TP18	1.5'-2.0'	10/21/2025	1110	10/21/2025	3000	2977	595	6.4	≈	-	-	-	-
S27-TP18	2.0'-2.5'	10/21/2025	1130	10/21/2025	3000	3094	619	6.8	≈	-	-	-	-
S27-TP18	2.5'-3.0'	10/21/2025	1145	10/21/2025	3000	2365	473	4.5	<	x	2.06	0.276	0.164
S27-TP19	0.5'-1.0'	10/20/2025	1000	10/20/2025	3000	15895	3179	46.2	>	-	-	-	-
S27-TP19	1.5'-2.0'	10/20/2025	1020	10/20/2025	3000	1208	242	1.0	<	-	-	-	-
S27-TP19	2.5'-3.0'	10/20/2025	1035	10/20/2025	3000	3094	618.8	6.8	≈	x	7.69	0.435	0.145
S27-TP19	3.5'-4.0'	10/20/2025	1055	10/20/2025	3000	1115	223	0.7	<	x	0.68	0.146	0.084
S27-TP20	0.5'-1.0'	10/21/2025	930	10/21/2025	3000	6960	1392	18.7	>	-	-	-	-
S27-TP20	1.0'-1.5'	10/21/2025	945	10/21/2025	3000	2133	427	3.8	<	x	2.78	0.328	0.158
S27-TP21	0.5'-1.0'	10/20/2025	845	10/20/2025	3000	9145	1829	25.4	>	-	-	-	-
S27-TP21	1.0'-1.5'	10/20/2025	855	10/20/2025	3000	1528	305.6	1.9	<	x	2.6	0.33	0.154
S27-TP21	1.8'-2.3'	10/20/2025	910	10/20/2025	3000	1170	234	0.8	<	-	-	-	-
S27-TP22	0.5'-1.0'	10/20/2025	940	10/20/2025	3000	1090	218	0.6	<	x	1.1	0.215	0.127
S27-TP23	2.0'-2.5'	10/21/2025	1355	10/21/2025	3000	15530	3106	45.1	>	-	-	-	-
S27-TP23	2.5'-3.0'	10/21/2025	1410	10/21/2025	3000	16351	3270	47.6	>	-	-	-	-
S27-TP23	3.0'-3.5'	10/21/2025	1430	10/21/2025	3000	6800	1360	18.2	>	-	-	-	-
S27-TP23	4.0'-4.5	10/22/2025	820	10/22/2025	3000	4998	1000	12.6	>	-	-	-	-
S27-TP23	5.0'-5.5'	10/22/2025	840	10/22/2025	3000	1775	355	2.7	<	x	1.22	0.219	0.137
S27-TP24	3.0'-4.0'	10/22/2025	940	10/22/2025	3000	7767	1553	21.2	>	-	-	-	-
S27-TP24	4.0'-4.5'	10/22/2025	955	10/22/2025	2324	7070	1414	19.0	>	-	-	-	-
S27-TP24	5.0'-5.5'	10/22/2025	1015	10/22/2025	3000	6520	1304	17.3	>	-	-	-	-
S27-TP24	6.0'-6.5'	10/22/2025	1025	10/22/2025	3000	5230	1046	13.3	>	-	-	-	-
S27-TP24	7.0'-7.5'	10/22/2025	1040	10/22/2025	3000	3293	659	7.4	>	x	1.75	0.277	0.109
S27-HA25	0.5'-1.0'	4/13/2026	930	4/13/2026	3000	3038	608	6.6	≈	-	-	-	-
S27-HA25	1.0'-2.0'	4/13/2026	950	4/13/2026	3000	2908	582	6.2	≈	-	-	-	-
S27-HA25	2.0'-3.0'	4/13/2026	1005	4/13/2026	3000	2781	556	5.8	<	-	-	-	-
S27-HA25	3.0'-4.0'	4/13/2026	1015	4/13/2026	3000	2272	454	4.2	<	x	3.78	0.204	0.071
S27-HA25	4.0'-5.0'	4/13/2026	1025	4/13/2026	3000	2339	468	4.4	<	-	-	-	-

Table 4 (Continued)

Section 27 Mine Site - Soil Radiological Characterization

Subsurface Soil Sample Field Ex-Situ Screening and Vendor Laboratory Results Summary

Sampling Data				Field Soil Screening Data						Laboratory Data			
Sample ID	Sample Depth (ft)	Sample Date	Sample Time	Screen Date	Sample Weight grams	609 (559-669) Kev Gross Counts CP5M	CPM	Soil Gamma Screening Estimated Ra-226 pCi/g	RAL (< or >)	Sample Sent to Lab	Ra-226 pCi/g	Error Estimate pCi/g	MDC pCi/g
S27-TP26	0.5'-1.0'	10/21/2025	1010	10/21/2025	3000	1452	290	1.7	<	x	0.997	0.202	0.124
S27-TP27	0.5'-1.0'	10/20/2025	1310	10/20/2025	3000	1365	273	1.4	<	x	1.34	0.245	0.13
S27-HA28	0.5'-1.0'	4/13/2026	1055	4/13/2026	3000	3447	689	7.9	>	-	-	-	-
S27-HA28	1.0'-2.0'	4/13/2026	1103	4/13/2026	3000	2681	536	5.5	<	-	-	-	-
S27-HA28	2.0'-3.0'	4/13/2026	1112	4/13/2026	3000	3873	775	9.2	>	-	-	-	-
S27-HA28	3.0'-3.8'	4/13/2026	1120	4/13/2026	3000	4186	837	10.1	>	x	20.4	0.467	0.14
S27-HA28	4.0'-5.0'	4/13/2026	1445	4/13/2026	3000	4335	867	10.6	>	-	-	-	-
S27-TP29	0.5'-1.0'	10/20/2025	1200	10/20/2025	2069	6200	1240	16.3	>	-	-	-	-
S27-TP29	1.0'-1.5'	10/20/2025	1220	10/20/2025	3000	1828	366	2.9	<	x	1.73	0.277	0.131
S27-HA30	0.5'-1.0'	4/13/2026	1220	4/13/2026	3000	3179	636	7.0	>	-	-	-	-
S27-HA30	1.0'-2.0'	4/13/2026	1230	4/13/2026	3000	3852	770	9.1	>	-	-	-	-
S27-HA30	2.0'-3.0'	4/13/2026	1235	4/13/2026	3000	4016	803	9.6	>	-	-	-	-
S27-HA30	3.0'-4.0'	4/13/2026	1245	4/13/2026	3000	2571	514	5.2	<	-	-	-	-
S27-HA30	4.0'-5.0'	4/13/2026	1250	4/13/2026	3000	3447	689	7.9	>	-	-	-	-
S27-HA30	5.0'-6.0'	4/13/2026	1300	4/13/2026	3000	6243	1249	16.5	>	-	-	-	-
S27-HA30	6.0'-7.0'	4/13/2026	1315	4/13/2026	3000	7175	1435	19.3	>	-	-	-	-
S27-HA30	7.0'-8.0'	4/13/2026	1330	4/13/2026	3000	2523	505	5.0	<	-	-	-	-
S27-HA30	8.0'-9.0'	4/13/2026	1335	4/13/2026	3000	1932	386	3.2	<	x	1.86	0.169	0.089
S27-TP31	0.5'-1.0'	10/20/2025	1340	10/20/2025	3000	1268	254	1.1	<	x	2.01	0.282	0.131
S27-HA32	0.5'-1.0'	4/13/2026	1400	4/13/2026	3000	1169	234	0.8	<	x	1.27	0.183	0.109
S27-HA32	1.0'-2.0'	4/13/2026	1415	4/13/2026	3000	958	192	0.2	<	-	-	-	-
S27-HA32	2.0'-3.0'	4/13/2026	1425	4/13/2026	3000	1190	238	0.9	<	-	-	-	-

Table 5

Section 27 Mine Site - Soil Radiological Characterization
Surface and Subsurface Soil Ra-226 Level Summary

Data Point ID	Static Gamma CPM	Static Gamma Estimated Ra-226 pCi/g 0.0'-0.5' (surface) Soil [1]	Ex-Situ Soil Screening Estimated Ra-226 pCi/g																	
			0.0'-0.5' Soil (surface)	0.5'-1.0' Soil	1.0'-1.5' Soil	1.5' - 2.0' Soil	2.0'-2.5' Soil	2.5'-3.0' Soil	3.0'-3.5' Soil	3.5'-4.0' Soil	4.0'-4.5' Soil	4.5'-5.0' Soil	5.0'-5.5' Soil	5.5'-6.0' Soil	6.0'-6.5' Soil	6.5'-7.0' Soil	7.0'-7.5' Soil	7.5'-8.0' Soil	8.0'-8.5' Soil	8.5'-9.0' Soil
TP-01	10000	8.6	-	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-02	9880	8.4	-	3.1	5.6		-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-03	9050	7.3	-	7.9	3.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-04	10600	9.4	-	4.4	4.3		-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-05	9030	7.2	-	2.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-06	9830	8.4	-	2.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-07	9650	8.1	-	3.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-08	11800	11	-	1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-09	10000	8.6	-	3.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-10	6650	3.9	-	1.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-11	7490	5.1	-	1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-12	11900	11	-	4.6	4.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-13	4460	0.8	-	1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-14	37200	47	-	13.3	14.1		22.5			1.3			1.0	-	-	-	-	-	-	-
TP-15	27100	33	-	Located on pile. Entire pile profile > RAL.								1.6		2.3		-	-	-	-	-
TP-16	14700	15	-	11.1	3.1	-	-	4.0	-	3.2	-	-	-	-	-	-	-	-	-	-
TP-17	70700	94	-	-	8.1		2.9		-	-	-	-	-	-	-	-	-	-	-	-
TP-18	167000	228	-	-	5.3	6.4	6.8	4.5	-	-	-	-	-	-	-	-	-	-	-	-
TP-19	30700	38	-	46.2	-	1	-	6.8	-	0.7	-	-	-	-	-	-	-	-	-	-
TP-20	28300	34	-	18.7	3.8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-21	40500	51	-	25.4	1.9	0.8		-	-	-	-	-	-	-	-	-	-	-	-	-
TP-22	10100	8.7	-	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-23	583000	811	-	-	-	-	45.1	47.6	18.2	-	12.6	-	2.7	-	-	-	-	-	-	-
TP-24 [2]	107000	144	-	-	-	-	-	-	21.2		19	-	17.3		13.3		2.18	-	-	-
TP-26	24000	28	-	1.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-27	7550	5.2	-	1.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-29	61900	81	-	16.3	2.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TP-31	14400	15	-	1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HA-25 [2]	12500	12	-	6.6	6.2		5.8		4.2		4.4		-	-	-	-	-	-	-	-
HA-28 [2]	8920	7.1	-	7.9	5.5		9.2		10.1		10.6		-	-	-	-	-	-	-	-
HA-30 [2]	13500	14	-	7.0	9.1		9.6		5.2		7.9		16.5		19.3		5.0		3.2	
HA-32 [2]	6260	3.4	-	0.8	0.2		0.9		-	-	-	-	-	-	-	-	-	-	-	-

Note:
(1) Static Gamma Estimated pCi/g levels were estimated from .5" lead collimated detector static gamma measurements.
(2) Subsurface sample location located on arroyo bed.

Table 6
Section 27 Mine Site - Soil Radiological Characterization
Surface Soil Sample Isotopic Data Summary

Surface Soil Sample ID	U-nat µg/kg	U-nat pCi/g	U-238 pCi/g	U-234 pCi/g	Ra-226 pCi/g	Ra-226/U-238 ratio	Th-230 pCi/g	Th-230/U-238 ratio	COMMENT
SS-05	6,860	4.6	2.3	2.3	27	11.9	30.5	13.4	Not in equilibrium, appears to be impacted by tailings material
SS-07	4,760	3.2	1.6	1.6	18.8	11.9	25.5	16.2	Not in equilibrium, appears to be impacted by tailings material
SS-11	6,320	4.3	2.1	2.1	17.8	8.5	19.7	9.4	Not in equilibrium, appears to be impacted by tailings material
SSDS-01 (SS-11 DUP)	6,430	4.4	2.1	2.1	18.8	8.8	19.7	9.3	Not in equilibrium, appears to be impacted by tailings material
SS-16	6,060	4.1	2.0	2.0	21.3	10.6	22.9	11.4	Not in equilibrium, appears to be impacted by tailings material
SS-17	3,350	2.3	1.1	1.1	12.6	11.4	16.5	14.9	Not in equilibrium, appears to be impacted by tailings material
SS-14	3,000	2.0	1.0	1.0	9.1	9.2	11.5	11.6	Not in equilibrium, appears to be impacted by tailings material
SS-21	89,500	60.6	29.6	29.6	97.8	3.3	96.8	3.3	Not in equilibrium, appears to be impacted by tailings material
TP-18	24,900	16.9	8.2	8.2	205	24.9	170	20.6	Not in equilibrium, appears to be impacted by tailings material
TP-19	68,900	46.6	22.8	22.8	45.9	2.0	37.9	1.7	Near equilibrium, May be somewhat impacted by tailings material
TP-20	9,900	6.7	3.3	3.3	8.2	2.5	8.61	2.6	Not in equilibrium, appears to be impacted by tailings material
TP-21	37,900	25.7	12.5	12.5	68.8	5.5	102	8.1	Not in equilibrium, appears to be impacted by tailings material
TP-24	27,300	18.5	9.0	9.0	156	17.3	164	18.1	Not in equilibrium, appears to be impacted by tailings material
TP-26	10,700	7.2	3.5	3.5	49.3	13.9	46.7	13.2	Not in equilibrium, appears to be impacted by tailings material
Ambrosia Lake BKG Soil (DOE 1990, Ambrosia Lake Mill Tailings Phillips RA Plan and Design)	**3.0**	**2.0**	**1.0**	**1.0**	**1.2**	**1.2**	**1.0**	**1.0**	In fairly full equilibrium, Ambrosia Lake area soil not influenced by tailings

Figures

BLM Land

Section 28 | Section 27

Section 33 | Section 34

Section 26

Section 35

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Environmental Services, Inc.

Figure 1
Section 27 Mine Site Supplemental Radiologic Characterization Gamma Survey Data

August 2026

0 375 750 1,500 2,250 3,000 Feet

Legend

Estimated Ra-226 pCi/g

- <4.8 pCi/g (75% of IL)
- 4.9 - 6.5 pCi/g (IL)
- 6.6 - 10.0 pCi/g
- 10.1 - 25.0 pCi/g
- 25.1 - 50.0 pCi/g
- >50 pCi/g

- Radiological Investigation Area
- Eligible Cultural Site Buffer
- BLM Land
- Site Fence
- Phillips Cleanup Boundary
- Phillips Soil Verification Boundary

BLM Land

Section 28 | Section 27

Section 33 | Section 34

Section 26

Section 35

N

W E

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Environmental Services, Inc.

Figure 2
Section 27 Mine Site Supplemental Radiologic Characterization Gamma Survey Data and Lateral RAL Boundary

August 2026

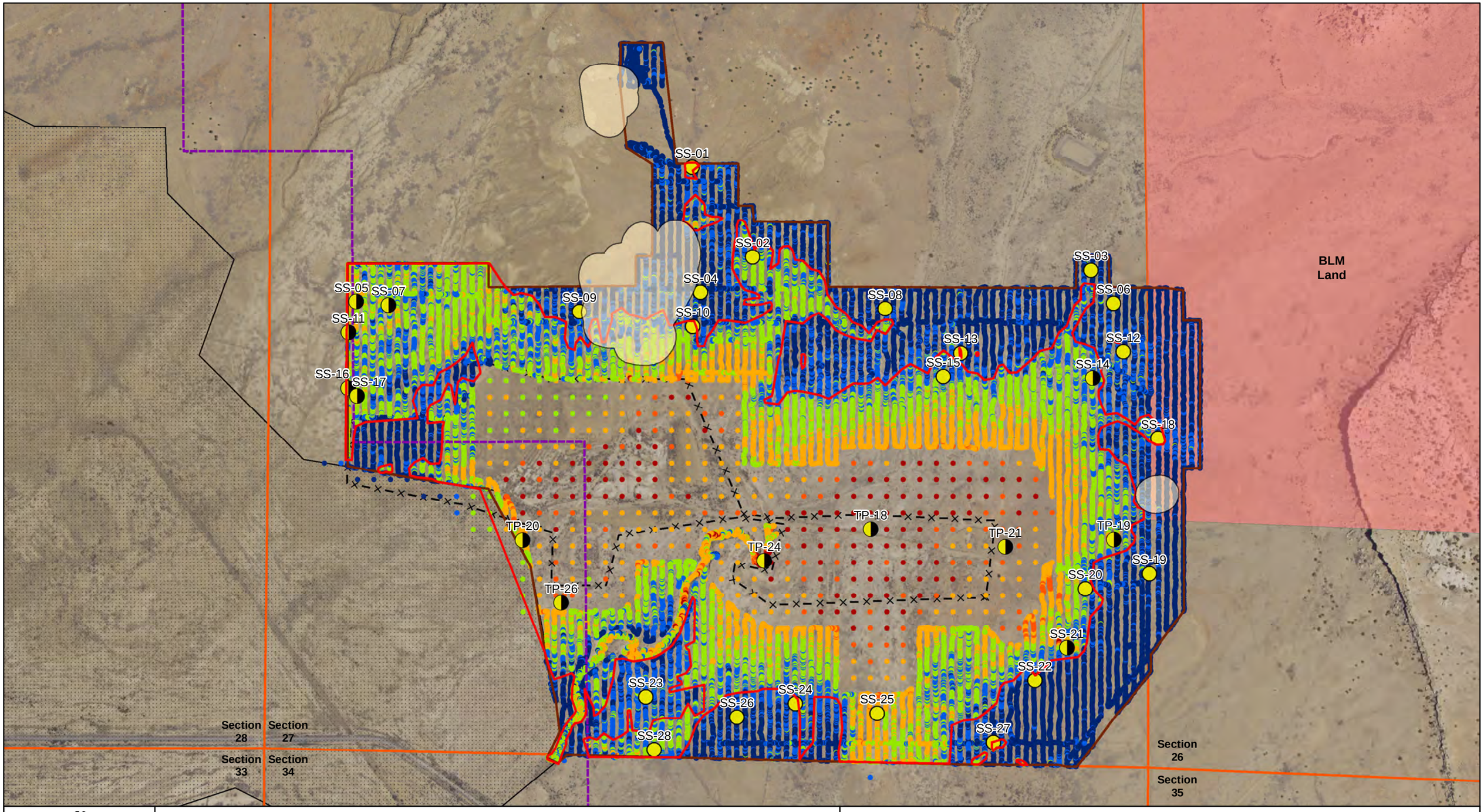
0 375 750 1,500 2,250 3,000 Feet

Legend

Estimated Ra-226 pCi/g

- <4.8 pCi/g (75% of IL)
- 4.9 - 6.5 pCi/g (IL)
- 6.6 - 10.0 pCi/g
- 10.1 - 25.0 pCi/g
- 25.1 - 50.0 pCi/g
- >50 pCi/g

- RAL Estimated Boundary
- Radiological Investigation Area
- BLM Land
- Site Fence
- Phillips Cleanup Boundary
- Phillips Soil Verification Boundary



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AVM Environmental Services, Inc.

Figure 3
Section 27 Mine Site Supplemental Radiologic Characterization
Gamma Survey Data and Surface Soil Sample Locations

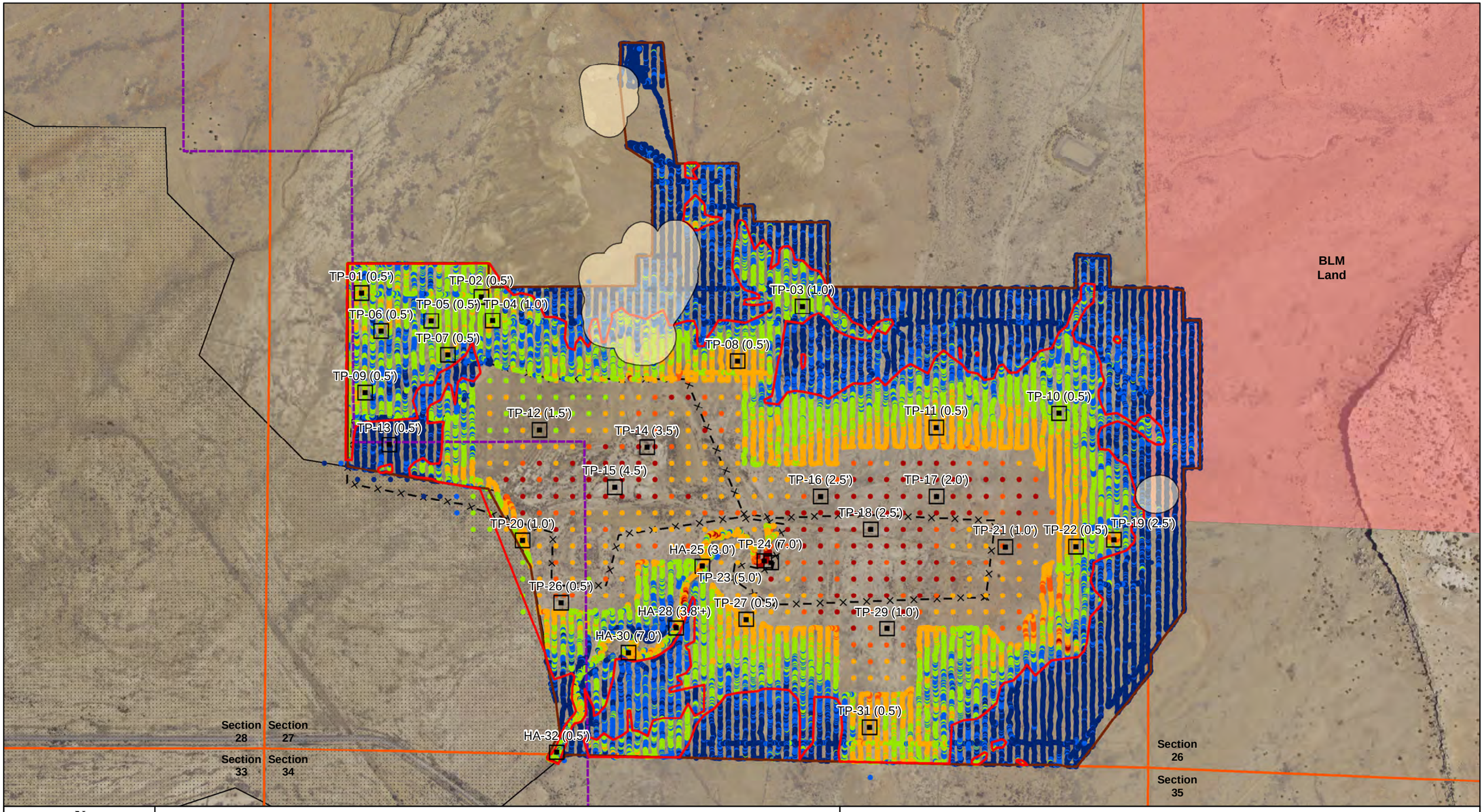
August 2026

0 375 750 1,500 2,250 3,000 Feet

Legend

Estimated Ra-226 pCi/g
- <4.8 pCi/g (75% of IL)
- 4.9 - 6.5 pCi/g (IL)
- 6.6 - 10.0 pCi/g
- 10.1 - 25.0 pCi/g
- 25.1 - 50.0 pCi/g
- >50 pCi/g

- Surface Soil Sample Location
- Surface Soil Sample Location - Isotopic
- RAL Estimated Boundary
- Radiological Investigation Area
- Eligible Cultural Site Buffer
- BLM Land
- Site Fence
- Phillips Cleanup Boundary
- Phillips Soil Verification Boundary



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AVM Environmental Services, Inc.

Figure 4
Section 27 Mine Site Supplemental Radiologic Characterization
Gamma Survey Data and Subsurface Soil Sample Locations

August 2026

0 375 750 1,500 2,250 3,000 Feet

Legend

Estimated Ra-226 pCi/g
- <4.8 pCi/g (75% of IL)
- 4.9 - 6.5 pCi/g (IL)
- 6.6 - 10.0 pCi/g
- 10.1 - 25.0 pCi/g
- 25.1 - 50.0 pCi/g
- >50 pCi/g

2025/2026 Subsurface Sample Location with Contamination Depth

RAL Estimated Boundary

Radiological Investigation Area

Eligible Cultural Site Buffer

BLM Land

Site Fence

Phillips Cleanup Boundary

Phillips Soil Verification Boundary

Appendices

Appendix A

Surface and Subsurface Contamination Field Investigation Documentation (Soil Sample Log Forms, Field Soil Sample Ex-Situ Gamma Radiation Screening Forms)

AVM Environmental Services, Inc.
Field Soil Sample Gamma Radiation Screening Form
Section 27 Mine Site

Instrumentation : Scaler/Ratemeter L2221 S# 68782, Detector L4420 S# 295573
Instrument Calibration Date: 2-17-25/9-30-25, Instrument Function Check Performed: ✓
Survey Area/Unit Description S27 Test Pits

Date/Time	Soil Sample ID	Sample Weight Grams	609 (559-669) Kev Gross Counts, CP5M	Weight Corrected CP5M	CPM	Reference Soil Comparison (< or >)	Comments
10-17-25	Blank	—	390		78		
10-17-25	6.6 pCi/g Ref Soil	3000	2416		483		
10-17-25	S27-TP-09 .5'-1.0' 10-17-25 @1000	3000	1861		372		Sample Cut
10-17-25	S27 TP06 0.5'-1.0' 10-17-25 @1115	2532	1376	1630	326		Sample cut
10-17-25	S27TP-01 .5'-1.0' 10-17-25 @1145	3000	1475		295		Sample cut
10-17-25	S27 TP05 .5'-1.0' 10-17-25 @1215	2930	1811	1854	371		Sample Cut
10-17-25	S27TP02 .5'-1.0 10-17-25 @1325	3000	1887		377		Sample cut
10-17-25	S27 TP02 1'-2.0 10-17-25 @1345	3000	2718		544		
10-17-25	S27 TP07 .5'-1.0 10-17-25 @1355	3000	1960		392		Sample Cut
10-17-25	S27-TP04 .5-1.0 10-17-25 @1415	3000	2338		468		
10-17-25	S27TP04 1.0-2.0 10-17-25 @1430	3000	2298		460		Sample Cut
10-17-25	S27 TP13 0.5'-1.0 10-17-25 @1445	2000	1354		271		Sample Cut, S27-TP-DUP-SOIL @ 1600

Technician Signature _____, Reviewed by _____

AVM Environmental Services, Inc.
Field Soil Sample Gamma Radiation Screening Form
Section 27 Mine Site

Instrumentation : Scaler/Ratemeter LZ221 S#68782 , **Detector** L4420 S# 295573
Instrument Calibration Date: 2-17-25/9-30-25 , **Instrument Function Check Performed:** ✓
Survey Area/Unit Description S27 Test Pits

Date/Time	Soil Sample ID	Sample Weight Grams	609 (559-669) Kev Gross Counts, CP5M	Weight Corrected CP5M	CPM	Reference Soil Comparison (< or >)	Comments
10-13 25	Blank		340		68		
10-13-25	6.6 pCi/g Ref Soil	3000	2196		439		
10-13-25	S27 TP-08 0.5-1.0 @ 845 10-13-25	2762	1270	1336	267		Sample Cut
10-18-25	S27 TP-05 1.0-1.4 @ 935 10-18-25	3000	1922		384		Sample Cut
10-18-25	S27-TP03 0.5-1.0' @ 915 10-18-25	3000	3459		692		~~Sample Cut~~
10-18-25	S27-TP16 2.5-3.0' @ 1035 10-18-25	3000	2199		440		Sample cut
10-18-25	S27-TP16 1.0-1.5' @ 1015 10-18-25	3000	1908		382		
10-18-25	S27 TP16 0.5-1.0 @ 1000 10-18-25	3000	4502		900		
10-18-25	S27 TP16 3.5-4.0 @ 1055 10-18-25	3000	1950		390		Sample cut
10-18-25	S27 TP17 2.0-3.0 @ 1200 10-18-25	3000	1826		365		Sample Cut
10-18-25	S27 TP17 1.0-2.0 @ 1135 10-18-25	3000	3527		705		~~Sample Cut~~ ~~Dup S27-TP0502 @ 1600~~
10-18-25	S27 TP10 .5'-1.0' @ 1305 10-18-25	3000	1493		299		Sample Cut & Dup S27-TP0502 @ 1600
10-18-25	S27 TP11 0.5-1.0 @ 1320 10-18-25	3000	1363		273		Sample Cut

Technician Signature _____, Reviewed by _____

AVM Environmental Services, Inc.
Field Soil Sample Gamma Radiation Screening Form
Section 27 Mine Site

Instrumentation : Scaler/Ratemeter L2221 s#68782, Detector L44-20 S# 295573
Instrument Calibration Date: 2-4725/ 9-30-25, Instrument Function Check Performed: Y
Survey Area/Unit Description S27 Tool Rd.

Date/Time	Soil Sample ID	Sample Weight Grams	609 (559-669) Kev Gross Counts, CP5M	Weight Corrected CP5M	CPM	Reference Soil Comparison (< or >)	Comments
10-20-25	Blank	—	324		65		
10-20-25	6.6 pCi/g Ref Soil	3000	2103		421		
10-20-25	S27TP-21 1.0'-1.5' 10-20-25 @855	3000	1528		306		Sample Cut
10-20-25	S27TP-21 0.5'-1.0' 10-20-25 @845	3000	9145		1829		
10-20-25	S27TP-21 1.8'-2.3' 10-20-25 @910	3000	1170		234		
10-20-25	S27TP-22 0.5'-1.0' 10-20-25 @940	3000	1090		218		Sample Cut
10-20-25	S27TP-19 1.5'-2.0' 10-20-25 @1020	3000	1208		242		
10-20-25	S27TP-19 5'-1.0' 10-20-25 @1000	3000	15895		3179		
10-20-25	S27TP-19 2.5'-3.0' 10-20-25 @1035	3000	3094		619		Sample Cut
10-20-25	S27TP-19 3.5'-4.0' 10-20-25 @1055	3000	1115		223		Sample Cut
10-20-25	S27TP-29 1.0'-1.5' 10-20-25 @1220	3000	1828		366		Sample Cut
10-20-25	S27TP-29 0.5'-1.0' 10-20-25 @1200	3000	6200		1240		
10-20-25	S27TP27 0.5'-1.0' 10-20-25 @1310	3000	1365		273		Sample Cut
10-20-25	S27TP31 0.5'-1.0' 10-20-25 @1340	3000	1268		254		Sample S27TPD503 @ 1600

Technician Signature _____, Reviewed by _____

AVM Environmental Services, Inc.
Field Soil Sample Gamma Radiation Screening Form
Section 27 Mine Site

Instrumentation : Scaler/Ratemeter L2221 SN 68782, Detector 44-20 SN 295573
Instrument Calibration Date: 2-17-25 / 9-30-25, Instrument Function Check Performed: ✓
Survey Area/Unit Description S27 Test Pits

Date/Time	Soil Sample ID	Sample Weight Grams	609 (559-669) Kev Gross Counts, CPSM	Weight Corrected CPSM	CPM	Reference Soil Comparison (< or >)	Comments
10-21-25	Blank	-	390		78		
10-21-25	6.6 Ref Soil	3000	2270		454		
10-21-25	S27TP12 1.0-1.5' 10-21-25 @945	3000	2366		473		
10-21-25	S27TP12 .5-1.0' 10-21-25 @930	3000	2402		480		
10-21-25	S27TP12 1.5-2.0 10-21-25 @905	3000	2048		420		Sample Cut
10-21-25	S27TP20 1.0-1.5 10-21-25 @945	3000	2133		427		Sample Cut
10-21-25	S27TP20 .5-1.0 10-21-25 @930	3000	6960		1392		
10-21-25	S27TP26 .5-1.0 10-21-25 @1010	3000	1452		290		Sample Cut
10-21-25	S27TP18 1.5-2.0 10-21-25 @1110	3000	2977		~~595~~		
10-21-25	S27TP18 ~~1.0-2.0~~ 1.0-1.5' 10-21-25 @1100	3000	2611		522		
10-21-25	S27TP18 2.0-2.5 10-21-25 @1130	3000	3094		619		
10-21-25	S27TP18 2.5-3.0 10-21-25 @1145	3000	2365		~~473~~ 473		Sample Cut
10-21-25	S27TP23 2.5-3.0' 10-21-25 @1410	3000	16351		3270		
10-21-25	S27TP23 2.0-2.5 10-21-25 @1355	3000	15530		3106		
10-21-25	S27TP23 3.0-2.5 10-21-25 @1430	3000	6800		1360		

Technician Signature _____, Reviewed by _____

AVM Environmental Services, Inc.
Field Soil Sample Gamma Radiation Screening Form
Section 27 Mine Site

Instrumentation : Scaler/Ratemeter L2221 SN 68782, Detector L44-20 SN 295573
Instrument Calibration Date: 2-17-25 / 9-24-25, Instrument Function Check Performed: ✓
Survey Area/Unit Description S27 Test Pits

Date/Time	Soil Sample ID	Sample Weight Grams	609 (559-669) Kev Gross Counts, CP5M	Weight Corrected CP5M	CPM	Reference Soil Comparison (< or >)	Comments
10-22-25	Blank		316		63		
10-22-25	6.6 pCi/g Ref Soil	3000	2160		432		
10-22-25	S27TP23 4.0-4.5' @ 10-22-25 830	3000	4998		1000		
10-22-25	S27TP23 5.0-5.5 @ 10-22-25 840	3000	1775		355		Sample Cut
10-22-25	S27TP24 3.0-4.0' @ 10-22-25 940	3000	7767		1553		
10-22-25	S27TP24 4.0-4.5' @ 10-22-25 955	3000	7070		1414		
10-22-25	S27TP24 5.0-5.5 @ 10-22-25 1015	3000	6520		1304		
10-22-25	S27TP24 6.0-6.5 @ 10-22-25 1025	3000	5230		1046		
10-22-25	S27TP24 7.0-7.5' @ 10-22-25 1040	3000	3293		659		Sample Cut
10-22-25	S27TP14 1.0-2.0 @ 10-22-25 1205	3000	~~4530~~ 5420 VF		~~1906~~ 1096 VF		
10-22-25	S27TP14 5-7.0' @ 10-22-25 1155	3000	5210		1042		
10-22-25	S27TP14 2.0-2.5' @ 10-22-25 1220	3000	8195		1639		
10-22-25	S27TP14 5.0-5.5' @ 10-22-25 1235	3000	1226		245		
10-22-25	S27TP14 3.5-4.0' @ 10-22-25 1330	3000	1307		261		Sample cut - Dup OS#4 @ 1600

Technician Signature _____, Reviewed by _____

AVM Environmental Services, Inc.
Field Soil Sample Gamma Radiation Screening Form
Section 27 Mine Site

Instrumentation : Scaler/Ratemeter L2221 S# 68782 , **Detector** L44-20 S# 295573
Instrument Calibration Date: 2-17-25 / 9-30-25 , **Instrument Function Check Performed:** ✓
Survey Area/Unit Description S 27 Test Pits

Date/Time	Soil Sample ID	Sample Weight Grams	609 (559-669) Kev Gross Counts, CP5M	Weight Corrected CP5M	CPM	Reference Soil Comparison (< or >)	Comments
10-22-25	S27TP15 5.5-6.5 10-22-25 @1450	3000	1634		327		
10-22-25	S27TP15 4.5-5.5 10-22-25 @1440	3000	1425		285		Sample Cat

Technician Signature _____, Reviewed by _____

AVM Environmental Services, Inc.
Field Soil Sample Gamma Radiation Screening Form
Section 27 Mine Site

Instrumentation : Scaler/Ratemeter L2221 S# 68782 , **Detector** L4420 S# 295573
Instrument Calibration Date: 2-23-26 / 9-30-25 , **Instrument Function Check Performed:** ~
Survey Area/Unit Description S27 Test Pits

Date/Time	Soil Sample ID	Sample Weight Grams	609 (559-669) Kev Gross Counts, CP5M	Weight Corrected CP5M	CPM	Reference Soil Comparison (< or >)	Comments
4-13-26	Blank	—	324	-	65		
4-13-26	6.6 Ref Soil	3000	2107	-	421		
4-13-26	S27 TP-25 .5-1' 4-13-26 @ 930	3000	3038	-	608		
4-13-26	S27 TP-25 1.0-2.0' 4-13-26 @ 950	3000	2908	-	582		
4-13-26	S27 TP-25 2.0-3.0' 4-13-26 @ 1005	3000	2781	-	556		
4-13-26	S27 TP-25 3.0-4.0 4-13-26 @ 1015	3000	2272	-	454		Lab Cut
4-13-26	S27 TP-25 4.0-5.0 4-13-26 @ 1025	3000	2339	-	468		~~Lab Cut~~ VP
4-13-26	S27 TP28 .5-1.0' 4-13-26 @ 1055	3000	3447	-	689		
4-13-26	S27 TP28 1.0-2.0' 4-13-26 @ 1103	3000	2681	-	536		
4-13-26	S27 TP28 2.0-3.0' 4-13-26 @ 1112	3000	3873	-	775		
4-13-26	S27 TP28 3.0-3.8' 4-13-26 @ 1120	3000	4186		837		Auger Refusal Lab Cut
4-13-26	S27 TP30 .5-1.0' 4-13-26 @ 1220	3000	3179		636		
4-13-26	S27 TP30 1.0-2.0 4-13-26 @ 1230	3000	3852		770		
4-13-26	S27 TP30 2.0-3.0' 4-13-26 @ 1235	3000	4016		803		
4-13-26	S27 TP-30 3.0-4.0 4-13-26 @ 1245	3000	2571		514		

Technician Signature _____ , **Reviewed by** _____

AVM Environmental Services, Inc.
Field Soil Sample Gamma Radiation Screening Form
Section 27 Mine Site

Instrumentation : Scaler/Ratemeter L2221 S# 68782, Detector 44-20 S# 295573
Instrument Calibration Date: 2-20-26/9-30-25, Instrument Function Check Performed: ✓
Survey Area/Unit Description S27 Test Pits.

Date/Time	Soil Sample ID	Sample Weight Grams	609 (559-669) Kev Gross Counts, CP5M	Weight Corrected CP5M	CPM	Reference Soil Comparison (< or >)	Comments
4-13-26	S27TP30 4.0-5.0 @1230 4-13-26	3000	3447		689		
4-13-26	S27TP30 5.0-6.0' @1300 4-13-26	3000	6243		1249		
4-13-26	S27TP30 6.0-7.0' @1315 4-13-26	3000	7175		1435		
4-13-26	S27TP30 7.0-8.0' 1330 4-13-26	3000	2527		505		
4-13-26	S27TP30 8.0-9.0' @1335 4-13-26	3000	1931		386		Lab cut
4-13-26	S27TP32 1.0-2.0' 1405 4-13-26	3000	958		192		
4-13-26	S27TP32 .5-1.0' @1400 4-13-26	3000	1169		234		Lab Cut
4-13-26	S27TP32 2.0'-3.0 @1425 4-13-26	3000	1190		238		
4-13-26	S27TP28 4.0-5.0 @1445 4-13-26	3000	4335		867		

Technician Signature _____, Reviewed by _____

AVM Environmental Services, Inc.
Soil Sample Log Form
Section 27 Mine Site

Sample ID	Sample Date/Time	Sample Depth	Sample Description	Comments/Notes
~~S27-TP21~~ VP				
S27-TP21 @	10-1-25 810	0.0'-0.5'	Topsoil w/ organic - Alluvial	
S27-TP19	10-1-25 830	0.0'-0.5'	Top Soil w/ organics - Alluvial	
S27-SS19	10-1-25 840	0.0'-0.5'	TopSoil w/ organic - Alluvial	c
S27-SS20	10-1-25 850	0.0'-0.5'	TopSoil w/ organic - Alluvial	c
S27-SS21	10-1-25 910	0.0'-0.5'	Sandy w/ Stone/Pebbles light gray	
S27-SS17	10-1-25 1020	0.0'-0.5'	TopSoil w/ organic - Alluvial Dark/Rich	
S27-SS16	10-1-25 1030	0.0'-0.5'	Top Soil w/ organic - Alluvial	
S27-SS11	10-1-25 1040	0.0'-0.5'	light brown Surface w/ organic - Alluvial	
S27-SS05	10-1-25 1050	0.0'-0.5'	light brown Surface w/ organic - Alluvial	
S27-SS07	10-1-25 1100	0.0'-0.5'	light brown Surface w/ organic - Alluvial	
S27-SS22	10-1-25 1200	0.0'-0.5'	Top Soil w/ organic - Alluvial	
S27-SS27	10-1-25 1210	0.0'-0.5'	Top Soil w/ organic - Alluvial	
S27-SS25	10-1-25 1220	0.0'-0.5'	TopSoil w/ organic - Alluvial	
S27-SS24	10-1-25 1230	0.0'-0.5'	TopSoil w/ organic - Alluvial	

AVM Environmental Services, Inc.
Soil Sample Log Form
Section 27 Mine Site

Sample ID	Sample Date/Time	Sample Depth	Sample Description	Comments/Notes
S27-SS26	10-1-25 1240	0.0'-0.5'	TopSoil w/organic - Alluvial	
S27-SS28	10-1-25 1250	0.0'-0.5'	TopSoil w/organic - Alluvial	
S27-SS23	10-1-25 1310	0.0'-0.5'	TopSoil w/organic - Alluvial	
S27-SS09	10-2-25 800	0.0'-0.5'	TopSoil w/organic - Alluvial light brown	
S27-SS01	10-2-25 820	0.0'-0.5'	TopSoil W/heavy organic - Alluvial w/Roots	D
S27-SS02	10-2-25 840	0.0'-0.5'	TopSoil w/organic - Alluvial	
S27-SS04	10-2-25 850	0.0'-0.5'	TopSoil w/organic - Alluvial	
S27-SS10	10-2-25 910	0.0'-0.5'	TopSoil w/organic - Alluvial	
S27-SS08	10-2-25 930	0.0'-0.5'	Pebbles/Cobble Sandy	
S27-SS15	10-2-25 950	0.0'-0.5'	TopSoil w/organic - Alluvial	
S27-SS13	10-2-25 1000	0.0'-0.5'	TopSoil w/organic - Alluvial	
S27-SS03	10-2-25 10:20	0.0'-0.5'	TopSoil w/organic - Alluvial	
S27-SS06	10-2-25 1030	0.0'-0.5'	light brown TOPSoil w/organic - Alluvial	
S27-SS12	10-2-25 1040	0.0'-0.5'	TopSoil w/organic - Alluvial	
S27-SS14	10-2-25 1100	0.0'-0.5'	TopSoil w/organic - Alluvial	

AVM Environmental Services, Inc.
Soil Sample Log Form
Section 27 Mine Site

Sample ID	Sample Date/Time	Sample Depth	Sample Description	Comments/Notes
S27-SS1B	10-2-25 1110	0.0'-0.5'	TOPSoil w/organic - Alluvial	
S27-TP20	10-2-25 1200	0.0'-0.5'	Top Soil w/organic - Alluvial	
S27-TP26	10-2-25 1220	0.0'-0.5'	Top Soil w/organic - Alluvial	
S27-TP24	10-2-25 1240	0.0'-0.5'	arroyo bed	
S27-TP18	10-2-25 1300	0.0'-0.5'	light brown/grey non-compacted sand w/organic	Potential Backfill Very Hot

AVM Environmental Services, Inc.
Gamma Radiation Survey
Static Gamma Radiation Survey Field Form

Instrumentation : Scaler/Ratemeter L2007 # 6838, Detector SPA-3 #30

Instrument Calibration Date: 11-25-24/2-17-25, Instrument Daily Function Check Performed: ✓

2"x2" NaI Detector Collimated ✓ Yes or ✓ No.

Survey Area/Unit Decsription S27 Mine Site

Survey Date/Time	Survey Point ID/Description	Survey Point Coordinate		Gamma Radiation Reading - CPM		Exposure Rate µR/hr	Comments/Notes
		Northing	Easting	Bare	Collimated (0.5"Pb)		
10-1-25	SS-22	1603508	2741753	19400	6390 R	24	
10-1-25	SS-23	1603411	2739402	23500			
10-1-25	SS-24	1603368	2740305	19800			
10-1-25	SS-25	1603312	2740803	73200	27405 R	80	
10-1-25	SS-26	1603288	2739954	17400			
10-1-25	SS-27	1603133	2741508	20500	7720 R	23	
10-1-25	SS-28	1603090	2739454	24300			
10-2-25	TP-18	1604424	2740760	465000	167.000	450	Isotopic
10-1-25	TP-19	1604362	2742231	80100			Isotopic
10-2-25	TP-20	1604360	2738658	72600	28300	75	Isotopic
10-1-25	TP-21	1604325	2741560	108000			Isotopic
10-2-25	TP-24	1604218	2740111	3330000 3003 NF	107000	330	Isotopic
10-2-25	TP-26	1603973	2738896	68000	24000	70	Isotopic

Technician Signature _____, Reviewed by NP

AVM Environmental Services, Inc.
Gamma Radiation Survey
Static Gamma Radiation Survey Field Form

Instrumentation : Scaler/Ratemeter L3002 #6838, Detector SPA.3 #20

Instrument Calibration Date: 11-25-24/2-17-25, Instrument Daily Function Check Performed: ✓

2"x2" NaI Detector Collimated ✓ Yes or ✓ No.

Survey Area/Unit Decsription S27 mine S/G

Survey Date/Time	Survey Point ID/Description	Survey Point Coordinate		Gamma Radiation Reading - CPM		Exposure Rate µR/hr	Comments/Notes
		Northing	Easting	Bare	Collimated (0.5"Pb)		
10-2-25	SS-01	1606623	2739668	22500	7.70K		
10-2-25	SS-02	1606076	2740055	24200	~~79.70K~~ AVM		Coll-7.97
10-2-25	SS-03	1605992	2742104	20000	6910	20	
10-2-25	SS-04	1605858	2739734	18400	~~56.50K~~ 5.65	18	Coll - 5.650
10-1-25	SS-05	1605802	2737650	33500			Isotopic
10-2-25	SS-06	1605790	2742232	16700	5510	17	
10-1-25	SS-07	1605781	2737850	32600			Isotopic
10-2-25	SS-08	1605755	2740852	18600	5850	18	
10-2-25	SS-09	1605740	2739004	19100	5.510K		Coll - 55100
10-2-25	SS-10	1605676	2739683	34000	12300	33	
10-1-25	SS-11	1605613	2737606	32800			Isotopic
10-2-25	SS-12	1605494	2742296	19400	6110	20	
10-2-25	SS-13	1605493	2741304	22400	7030	22	
10-2-25	SS-14	1605343	2742105	21300	6660	21	Isotopic
10-2-25	SS-15	1605339	2741206	23200	6840	23	
10-1-25	SS-16	1605277	2737606	33600			Isotopic
10-1-25	SS-17	1605232	2737654	32500			Isotopic
10-2-25	SS-18	1604981	2742506	21200	6970	21	
10-1-25	SS-19	1604160	2742444	17200			
10-1-25	SS-20	1604074.27	2742054.59	22000	6770*	26	
10-1-25	SS-21	1603709.69	2741957.37	158.000	63306*	160	Isotopic

Technician Signature _____, Reviewed by NP

AVM Environmental Services, Inc.
Soil Sample Log Form
Section 27 Mine Site

Sample ID	Sample Date/Time	Sample Depth	Sample Description	Comments/Notes
S-27 TP-01	10/17/25 11:45	0.5-1.0'	Light brown top soil	
S-27 TP-02	10/17/25 13:25	0.5-1.0'	Light brown top soil, compact, roots small pebbles	
S-27- TP-04	10/17/25 1415	0.5-1.0	Light Brown alluvial, roots compacted	
S-27- TP-05	10/17/25 12:15	0.5-1.0'	Brown top soil, moist, roots	
S-27 - TP-06	10/17/25 11:15	0.5-1.0'	Light Brown Top soil, Silty Moist roots	
S-27 - TP-07	10/17/25 13:55	0.5-1.0'	Light Brown alluvial, roots	
S-27 - TP-09	10/17/25 10:00	0.5-1.0'	Light Brown Top Soil, Silty	
S-27 - TP-09	10/17/25 1430	0.5-1.0'	Light Brown soil, long roots, pebbles	

AVM Environmental Services, Inc.
Soil Sample Log Form
Section 27 Mine Site

Sample ID	Sample Date/Time	Sample Depth	Sample Description	Comments/Notes
TP-25	4/13 9:30	.5-1	Sandy Silt	
TP-25	4/13 9:50	1.0-2.0	Sandy Silt	
TP-25	4/13 10:05	2.0-3.0	Sandy Silt	
TP-25	4/13 10:15	3.0-4.0	More sand than Silt	
TP-25	4/13 10:25	4.0-5.0	Sandy, trace sandstone	
TP-28	4/13 10:55	.5-1	Sandy Silt, loose, brown	
TP-28	4/13 11:03	1.0-2.0	Sandy silt,	
TP-28	4/13 11:12	2.0-3.0	Sandy Silt	Augur refusal @ 3.8'
TP-28	4/13 11:20	3.0-4.0	-PID NOT MEASURE-	
TB-30	4/13 12:20	0.5-1.0	Sandy Silt light brown	
TP-30	4/13 12:30	1.0-2.0	Sandy Silt, moist	
TP-30	4/13 12:35	2.0-3.0	Sandy silt, brown	
TP-30	4/13 12:45	3.0-4.0	Sand, brown	
TP-30	4/13 12:50	4.0-5.0	Sand, rock	
TP-30	4/13 1300	5.0-6.0	Sand, rock	

AVM Environmental Services, Inc.
Soil Sample Log Form
Section 27 Mine Site

Sample ID	Sample Date/Time	Sample Depth	Sample Description	Comments/Notes
TP-30	4/13 1315	6.0-7.0	Sandy, rocky	
TP-30	4/13 1330	7.0-8.0	Sandy, rocky	
TP-30	4/13 1335	8.0-9.0	Sandy, moist	
TP-32	4/13 1400	0.5-1.0	Sandy, ~~moist~~	
TP-32	4/13 1415	1.0-2.0	Sandy silt	
TP-32	4/13 1425	2.0-3.0	Sandy, light brown	
* TP-28	4/13 1445	4.0-5.0	Sandy, gravel	

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or _____ No

Field Engineer/Technician: VP

Site: S-27 Test Pit ID: 01 Date: 10/17/2025

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	10,000	3' away from flag (South)
0.5 1.0'	6100	Light Brown top soil

Notes:

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or ____ No

Field Engineer/Technician: VP

Site: S-27 Test Pit ID: 02 Date: 10/17/2025

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	9880	Light Brown top soil. Compact. roots Small pebbles
0.5-1.0'	7700	
1.0-2.0'	7200	

Notes:

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or ____ No

Field Engineer/Technician: VK

Site: S 27 Test Pit ID: 03 Date: 10/18/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	9,050	Brown soil, small roots, silt
0.5-1.0'	6,960	"
1.0-1.4'	6,920	

Notes:

Sec 27 TP-03

0.5-1.0'

1.0-1.4'

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or _____ No

Field Engineer/Technician: VP

Site: S-27 Test Pit ID: 04 Date: 10/17/05

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	10,600	
0.5-1.0'	8100	Light Brown alluvial, roots
1.0-2.0'	7600	Light Brown, roots

Notes:

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or ____ No

Field Engineer/Technician: VP

Site: S-27 Test Pit ID: 05 Date: 10/17/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	9030	Brown soil, moist, roots
0.5-1.0'	6500	

Notes:

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or _____ No

Field Engineer/Technician: VP

Site: S-27 Test Pit ID: 06 Date: 10/17/2025

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	9830	light Brown Top soil, Silty
0.5-1.0'	6000	

Notes:

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or ____ No

Field Engineer/Technician: VP

Site: S-27 Test Pit ID: 07 Date: 10/17/2025

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	9050	Light Brown alluvial. roots
0.5-1.0'	5310	
1.2'	4970	

Notes:

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or _____ No

Field Engineer/Technician: VP

Site: S 27 Test Pit ID: 08 Date: 10/18/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	11,800	Brown soil, roots, moist, silty
0.5-1.0'	6,400	

Notes:
Sec 27 TP-08
0.5-1.0'
8:45

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or _____ No

Field Engineer/Technician: VP

Site: S-27 Test Pit ID: TP-09 Date: 10-17-2025

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	10,000	Brown (light) Top Soil, Silty
.5-1.0'	7600	
~~3.5'~~	~~8.2~~ no	

Notes:

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" Nal Detector Collimated: ~~XP~~ Yes or _____ No

Field Engineer/Technician: VP

Site: 327 Test Pit ID: 10 Date: 10/18/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	6,650	
0.5	6090	
1.0	5980	

Notes:
327 TP-10 10/18/25
0.5' 13:05
1.0

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or ____ No

Field Engineer/Technician: VP

Site: 327 Test Pit ID: ~~TP~~ 11 Date: 10/18/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	7,490	Brown top soil, Sandy, Silty
0.5'	5,950	
1.0'	5,840	

Notes:

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or ____ No

Field Engineer/Technician: VP

Site: S-27 Test Pit ID: 12 Date: 10/21/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	11,900	0.5"-1.0' light brown top soil
0.5"	10,000	
1.0'	9000	1.5- light brown top soil roots
1.5'	8900	
2.0'	3600	2.0 light brown compact soil

Sample ID	Sample Depth	Sample Date/Time	Description
S-27 TP-12	0.5"-1.0'	8:30 10/21/25	light Brown compact silty
	1.0'-1.5'	8:45 10/21/25	light brown silty roots
	1.5-2.0'	9:05 10/21/25	light brown silty roots

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or _____ No

Field Engineer/Technician: VF

Site: S-27 Test Pit ID: 13 Date: 10/17/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	4460	
0.5-1.0'	4650	light Brown soil, pebbles, long roots

Notes:

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or ____ No

Field Engineer/Technician: VP

Site: 27 Test Pit ID: 14 Date: 10/22/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	37,200	0.0"-1.0' Waste rock + top soil mixed
0.5"	33,500	1.0'-2.5' mixed top soil, less waste rock
1.0'	37,200	4.0' Sandy Soil with Silt, wood debris
2.0'	24,200	4.0-5.5' Sandy soil with some clay, metal debris

Sample ID	Sample Depth	Sample Date/Time	Description
S-27 TP-14	0.5"-1.0'	10/22/25 1155	Brown soil Silty
	1.0-1'10" (2.0)	10/22/25 1205	Brown silty soil
	2.0'-2.5	10/22/25 1220	Brown Silty soil Wood chunks
	~~3.0~~ 3.5-4.0'	10/22/25 1330	Sandy Soil Light Brown
	5.0'-5.5'	10/22/25 1335	Light Brown Sandy Soil

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or _____ No

Field Engineer/Technician: VI

Site: S-27 Test Pit ID: 15 Date: 10/22/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	27,100	
0.5"	23,300	
		* Soil @ 4'
		* Location approx 6' higher than natural elevation

Sample ID	Sample Depth	Sample Date/Time	Description
S-27 TP-15	Composite	10/22/25 1410	Various Samples of pile
S-27 TP-15	4.5'-5.5'	10/22/25 1440	Dark brown Soil
	5.5-6.5	10/22/25 1450	Sandy Soil

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or ____ No

Field Engineer/Technician: VP

Site: S 27 Test Pit ID: 16 Date: 10/18/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	14,700	
0.5-1.0'	26,500	Brown soil, moist, minimal root silty, clay
1.0-1.5	16,900	
1.5-2.0'	14,500	"
2.4'-3.0'	12,400	
3.5'-4.0'	9700	light brown soil, dry, silty

Notes:

S 27 TP-16
0.5'-1.0'
10/18/25 10:05

1.0'-1.5' 10:15
2.5'-3.0' 10:35
3.5'-4.0' 10:55

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or _____ No

Field Engineer/Technician: VP

Site: S 27 Test Pit ID: 17 Date: 10/18/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	70,700	
[redacted]' 1.0'-2.0'	37,800	Brown soil, minimal root. Silty, dry
2.0'-3.0'	19,200	

Notes:

S 27 TP-17 10/18/25

[redacted]' 1.0'-2.0' 11:35

2.0'-3.0' 12:00

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or ____ No

Field Engineer/Technician: VP

Site: S-27 Test Pit ID: 18 Date: 10/21/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	167,000	surface to 0.4 is light grey
1.0'	49,900	3"-4" layer of black soil waste rock
1.5'	38,000	4"-3.0' light brown Compact

Sample ID	Sample Depth	Sample Date/Time	Description
S-27 TP-18	[redacted]" 1.0'-1.5'	10/21/25 11:00	light brown black @ 3"-4"
	1.5-2.0'	10/21/25 11:00	light brown Sandy
	2.0-2.5	10/21/25 11:30	light brown Sandy
	2.5-3.0	10/21/25 11:45	light brown Sandy, Compact

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or _____ No

Field Engineer/Technician: VI

Site: S 27 Test Pit ID: 19 Date: 10/20/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	30,700	0.1 - 1.0' light brown, Sandy metal debris
0.5"	34,800	
1.5'	22,000	
1.8'	13,200	1.0 - Brown Silty Sand
2.25'		2.0 - Greyish
2.80'	12,300	3.0 - Brown, striations of grey
3.25'	8,300	
3.5	7,300	

Sample ID	Sample Depth	Sample Date/Time	Description
S-27 TP-19	0.5' - 1.0"	10/20/25 10:00	light brown soil Sandy metal debris
	1.5' - 2.0'	10/20/25 10:20	light brown soil Sandy
	2.0 - 3.05	10:35	light brown Sandy
	3.5' -	10:55	

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or _____ No

Field Engineer/Technician: VP

Site: S-27 Test Pit ID: 20 Date: 10/21/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	28,300	light brown soil vegitation roots
0.5"	17,000	
1.0'	10,200	
1.5'	10,000	

Sample ID	Sample Depth	Sample Date/Time	Description
S-27 TP-20	0.5'-1.0'	10/21/25 9:30	light brown soil roots Sandy
	1.0'-1.5'	10/21/25 9:40	light brown soil roots Sandy

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" Nal Detector Collimated: X Yes or _____ No

Field Engineer/Technician: VP

Site: S-27 Test Pit ID: 21 Date: 10/20/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	40,500	0.5"-1.0'-Sandy, Light brown
0.5"	25,100	
1.0'	14,200	1-0'-1.5"- Brown, Silty, gray hard pack
1.8'	11,600	
2.3'	8,200	1-8' 2.3' grayish, Sandy

Sample ID	Sample Depth	Sample Date/Time	Description
S-27 TP-21	0.5"-1.0'	10/20/25 8:45	Brown soil, moist sandy
	1.8'-1.8'	8:55	Brown, Sandy
	1.8'-2.3'	9:05	grayish, Sandy

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: ~~No~~ Yes or _____ No

Field Engineer/Technician: VP

Site: S 27 Test Pit ID: 22 Date: 10/20/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	10,100	
0.5'	5,570	0.1-0.5' light brown top soil silty

Sample ID	Sample Depth	Sample Date/Time	Description
S-27 TP-22	0.5"-1.0"	10/20/25 9:40	light brown soil silty

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or ____ No

Field Engineer/Technician: VP

Site: S-27 Test Pit ID: 23 Date: 10/21/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	583,000	0.5-1.0' Black and Grey Ore waste material
0.5"	986,000	
1.0'	980,000	1.0'-2.0' Grey and light brown mix
1:9"	287,000	
2.0'	225,000	2.0-2.5 Slightly grey with light Brown mix
2.2'	216,000	
2.5'	158,000	2.5-3.0 light brown, silty
		3.0-3.5 Big sand, light brown

Sample ID	Sample Depth	Sample Date/Time	Description
S-27 TP-23	No sample	10/21/25	Black + grey ore waste material
S-27 TP-23	2.0-2.5	10/21/25 1355	light brown some compact soil Grey Sandy
S-27 TP-23	2.5-3.0	10/21/25 1410	light brown silty
S-27 TP-23	3.0'-3.5'	10/21/25 1430	light brown Sandy
S-27 TP-23	4.0'-4.5'	10/22/25 0820	light brown Silty ~~Sandy~~

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or ____ No

Field Engineer/Technician: VP

Site: 27 Test Pit ID: 23 Date: 10/22/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
5.0-5.5 0.0-3.0' 3.0-3'10" 4.0-5.5"		Light brown silty clay Waste material Sandy soil Silty clay

Sample ID	Sample Depth	Sample Date/Time	Description
S-27 TP-23	5.0-5.5'	10/22/25 0840	Silty clay Light brown

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or _____ No

Field Engineer/Technician: VP

Site: 27 Test Pit ID: 24 Date: 10/22/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
0.5"	100,000	
1.0'	89,000	
1.5'	97,000	
2.0'	100,000	
3.0'	41,500	
4.0'	36,900	

Sample ID	Sample Depth	Sample Date/Time	Description
S-27 TP-24	1.5-2.0'	10/22/25 0916	Brown soil moist
	2.0'-3.0'	10/22/25 0925	Brown soil less moist
	3.0'-4.0'	10/22/25 0940	Silty light brown roots
	4.0'-4.5'	10/22/25 0955	Silty light brown with gravel layer
	5.0'-5.5	10/22/25 1015	light brown silt

[redacted] [redacted]

Continued on next page

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or _____ No

Field Engineer/Technician: VP

Site: 27 Test Pit ID: 24 Date: 10/22/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
		5.0' - 7.0' Light brown soil dry, gravel layers

Sample ID	Sample Depth	Sample Date/Time	Description
S-27 TP-24	6.0 - 6.5	10/22/25 1025	
S-27 TP-24	7.0 - 7.5	10/22/25 1040	

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or ____ No

Field Engineer/Technician: VP

Site: S-27 Test Pit ID: 26 Date: 10/21/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	24,000	0.0" 0.7" brown clay sandy loose
0.5"	8,600	
1.0'	8,400	0.7" - 1.0' light brown soil

Sample ID	Sample Depth	Sample Date/Time	Description
S-27 TP-26	0.5"-1.0'	10/21/25 10:10	light brown soil small roots sandy

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or _____ No

Field Engineer/Technician: VP

Site: S-27 Test Pit ID: 27 Date: 10/20/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	7,550	0.5-1.8 light brown soil roots, Silty
0.5'	6,100	
1.5'	6,800	
1.8'	6,100	

Sample ID	Sample Depth	Sample Date/Time	Description
S-27 TP-27	0.5-1.8'	10/20/25 13:10	light brown soil Silty, Small roots

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or ____ No

Field Engineer/Technician: VP

Site: S-27 Test Pit ID: 29 Date: 10/20/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	61,900	Surface to 1.0 greyish brown Sandy
0.5"	34,000	
1.25	16,000	
2.0	12,000	1.0-2.0 Silty brown soil
2.5	12,600	
2.8'	10,000	

Sample ID	Sample Depth	Sample Date/Time	Description
S-27 TP-29	0.5"-1.0'	10/20/25 12:00	Light brown, Compact, Silty
	1.0'-2.0'	12:20	Light brown, Silty
	2.0'-2.5'	12:35	Light brown Silty

AVM Environmental Services, Inc.
Test Pit Log

Scaler/Ratemeter: L3003 s# 25036838 Detector: SPA-3 s# 30

2"x2" NaI Detector Collimated: X Yes or ____ No

Field Engineer/Technician: VP

Site: S-27 Test Pit ID: 31 Date: 10/20/25

Depth	Static Gamma CPM, 0.5-Inch Pb Collimated	Test Pit Soil Layer Description:
Surface	14,400	0.5"-1.0' light brown soil roots
0.5"	8,490	
1.0'	7,300	
1.5'	7,000	

Sample ID	Sample Depth	Sample Date/Time	Description
S-27 TP-31	0.5"-1.0'	10/20/25 13:40	light brown soil roots
	~~1.5'~~	~~10/20/25~~	

Appendix B

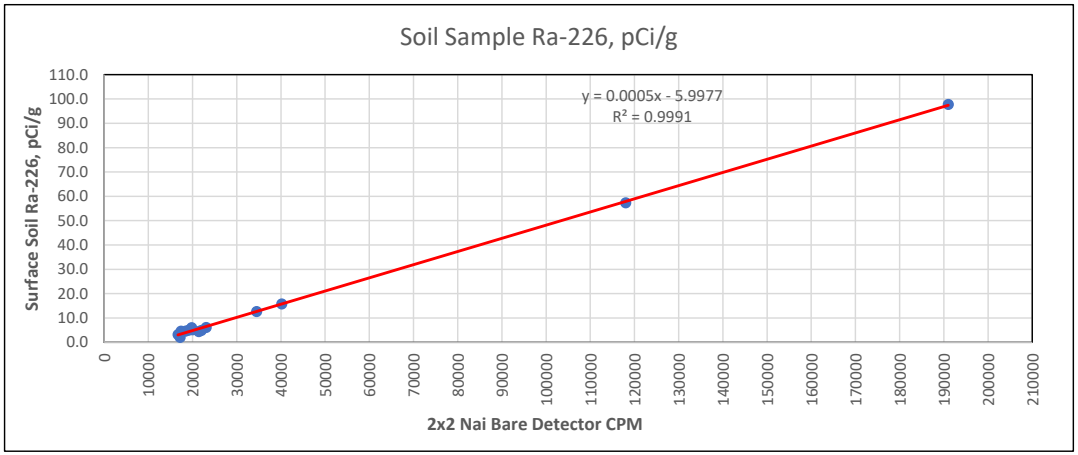
Radiologic Instrument Calibrations, Operational Function Checks, and Detector Correlation Documentation

AVM Environmental Services

2x2 NaI Bare Detector Gamma Radiation Level to Surface Soil Ra-226 Correlation

Field Radiation Survey/Sampling Data for Correlation

Survey Date/Time	Survey Point ID/Description	Gamma Radiation Reading - CPM	Soil Sample Ra-226, pCi/g
10/02/25	SS-03	20000	5.2
10/02/25	SS-04	18400	4.6
10/02/25	SS-06	16700	3.2
10/02/25	SS-09	19100	5.0
10/02/25	SS-10	40200	15.8
10/02/25	SS-12	21400	4.4
10/01/25	SS-17	34500	12.6
10/02/25	SS-18	23100	6.1
10/01/25	SS-19	17200	2.0
10/01/25	SS-20	22000	4.8
10/01/25	SS-21	191000	97.8
10/01/25	SS-24	19800	6.0
10/01/25	SS-25	118000	57.3
10/01/25	SS-26	17400	4.6
10/02/25	TP-18	465000	205.0
10/01/25	TP-19	80100	45.9
10/02/25	TP-20	72600	8.2
10/01/25	TP-21	108000	68.8
10/02/25	TP-24	330000	156.0
10/02/25	TP-26	68000	49.3



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.985030516
R Square	0.970285117
Adjusted R Squ	0.96863429
Standard Error	9.960538446
Observations	20

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	58312.7449	58312.7449	587.7570578	3.3957E-15
Residual	18	1785.82187	99.21232614		
Total	19	60098.56678			

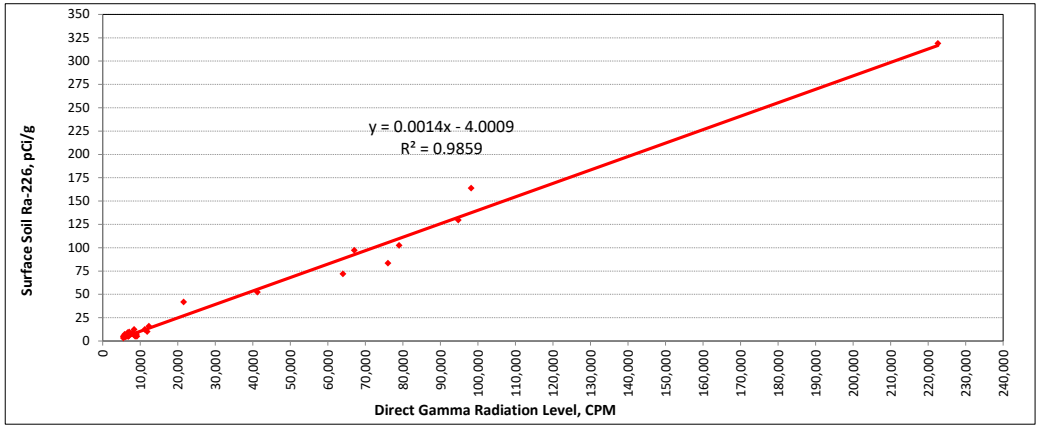
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-1.78139329	2.769679051	-0.643176794	0.528218832	-7.600273054	4.037486471	-7.600273054	4.037486471
X Variable 1	0.000468886	1.93405E-05	24.2437014	3.3957E-15	0.000428253	0.000509519	0.000428253	0.000509519

AVM Environmental Services

2x2 NaI 0.5-inch Thick Lead Collimated Detector Gamma Radiation Level to Surface Soil Ra-226 Correlation

Field Radiation Survey/Sampling Data for Correlation

Date	Rad Survey/Soil Sample ID	Coordinates: NAD83, NM West, Feet		Gamma Radiation Level (0.5" Collimated SPA-3 #30) CPM	Surface Soil Ra-226 pCi/gm
		Northing	Easting		
7/28/2010	SS-28	1,604,124	2,741,160	64,032	71.9
7/28/2010	SS-26	1,604,124	2,740,960	67,040	97.3
7/28/2010	SS-23	1,604,124	2,740,660	79,001	102.6
7/28/2010	SS-5	1,604,024	2,740,660	98,188	163.8
7/28/2010	SS-87	1,604,424	2,740,760	222,601	318.9
7/28/2010	SS-57	1,604,324	2,740,360	41,203	52.3
7/28/2010	SS-56	1,604,324	2,740,260	21,528	41.8
7/28/2010	SS-53	1,604,324	2,739,960	8,633	5.0
7/28/2010	SS-149	1,604,724	2,739,460	94,763	129.5
7/28/2010	SS-148	1,604,724	2,739,360	76,015	83.4
7/29/2010	SS-138	1,604,724	2,738,360	9,086	5.0
7/29/2010	SS-160	1,604,824	2,738,260	8,383	12.4
7/29/2010	SS-161	1,604,824	2,738,360	11,234	12.4
10/2/2025	SS-01	1,606,613	2,739,684	7700	7.5
10/2/2025	SS-02	1,606,072	2,740,048	7970	8.9
10/2/2025	SS-03	1,605,992	2,742,095	6910	5.2
10/2/2025	SS-04	1,605,857	2,739,733	5660	4.6
10/2/2025	SS-06	1,605,791	2,742,231	5510	3.2
10/2/2025	SS-08	1,605,758	2,740,850	5850	7.1
10/2/2025	SS-09	1,605,740	2,739,002	5510	5.0
10/2/2025	SS-10	1,605,651	2,739,687	12300	15.8
10/2/2025	SS-12	1,605,498	2,742,290	6110	4.4
10/2/2025	SS-13	1,605,490	2,741,307	7030	9.6
10/2/2025	SS-14	1,605,339	2,742,105	6660	9.1
10/2/2025	SS-15	1,605,348	2,741,202	11840	10.2
10/2/2025	SS-18	1,604,975	2,742,500	6970	6.1
10/1/2025	SS-20	1,604,065	2,742,060	6770	4.8
10/1/2025	SS-22	1,603,510	2,741,755	8990	7.3
10/1/2025	SS-27	1,603,135	2,741,505	8220	6.9



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.992935462
R Square	0.985920831
Adjusted R Square	0.985399381
Standard Error	8.314820623
Observations	29

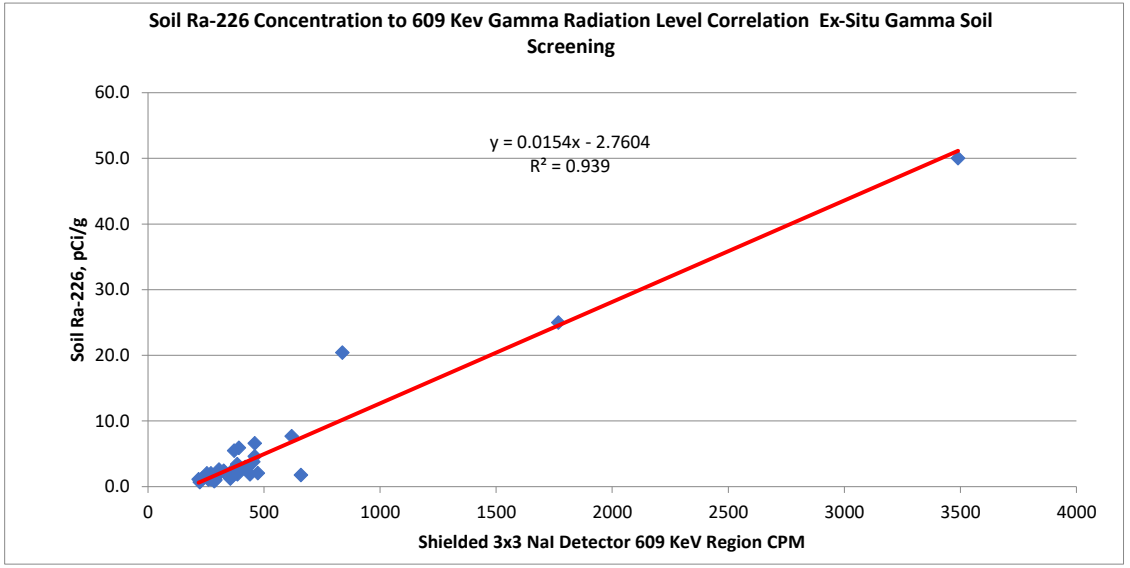
ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	130717.7515	130717.75	1890.7269	1.552E-26
Residual	27	1866.678534	69.136242		
Total	28	132584.4301			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-4.000887897	1.868984457	-2.140675	0.0414858	-7.835727242	-0.166048553	-7.835727242	-0.166048553
X Variable 1	0.0014408	3.31352E-05	43.482489	1.552E-26	0.001372813	0.001508788	0.001372813	0.001508788

AVM Environmental Services
Ex-Situ Soil Screening Gamma Radiation Level to Ra-226 Correlation

Reference Soil ID	Date	Ra-226 pCi/g	Wt gms	609 KeV CP5Min Gross (3x3 NaI Detector)	CPM
Blank	9/30/2025	-	-	328	66
6.6 pCi/g Ra-226 Ref Soil	9/30/2025	6.6	3000	2302	460
25 pCi/g Ra-226 Ref Soil	9/30/2025	25.0	3000	8839	1768
50 pCi/g Ra-226 Ref Soil	9/30/2025	50.0	3000	17450	3490
S27-TP01	10/17/2025	1.7	3000	1475	295
S27-TP02	10/17/2025	2.5	3000	1887	377
S27-TP03	10/18/2025	3.4	3000	1922	384
S27-TP04	10/17/2025	4.6	3000	2298	460
S27-TP05	10/17/2025	5.5	3000	1811	371
S27-TP06	10/17/2025	2.4	3000	1376	326
S27-TP07	10/17/2025	5.9	3000	1960	392
S27-TP08	10/18/2025	1.6	3000	1230	267
S27-TP09	10/17/2025	2.2	3000	1861	372
S27-TP10	10/18/2025	1.7	3000	1493	299
S27-TP11	10/18/2025	1.1	3000	1363	273
S27-TP12	10/21/2025	3.0	3000	2098	420
S27-TP13	10/17/2025	2.0	3000	1354	271
S27-TP14	10/22/2025	1.1	3000	1307	261
S27-TP15	10/22/2025	0.8	3000	1425	285
S27-TP16	10/18/2025	1.9	3000	2199	440
S27-TP16	10/18/2025	2.4	3000	1950	390
S27-TP17	10/18/2025	2.5	3000	1826	365
S27-TP18	10/21/2025	2.1	3000	2365	473
S27-TP19	10/20/2025	7.7	3000	3094	619
S27-TP19	10/20/2025	0.7	3000	1115	223
S27-TP20	10/21/2025	2.8	3000	2133	427
S27-TP21	10/20/2025	2.6	3000	1528	306
S27-TP22	10/20/2025	1.1	3000	1090	218
S27-TP23	10/22/2025	1.2	3000	1775	355
S27-TP24	10/22/2025	1.8	3000	3293	659
S27-TP26	10/21/2025	1.0	3000	1452	290
S27-TP27	10/20/2025	1.3	3000	1365	273
S27-TP29	10/20/2025	1.7	3000	1828	366
S27-TP31	10/20/2025	2.0	3000	1268	254
S27-HA25	4/13/2026	3.8	3000	2272	454
S27-HA28	4/13/2026	20.4	3000	4186	837
S27-HA30	4/13/2026	1.9	3000	1931	386
S27-HA32	4/13/2026	1.3	3000	1169	234



SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.969035975
R Square	0.93903072
Adjusted R Square	0.937288741
Standard Error	2.272931909
Observations	37

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	2784.900157	2784.9002	539.05959	7.57093E-23
Residual	35	180.8176812	5.1662195		
Total	36	2965.717838			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	-2.760352936	0.498350091	-5.538984	3.131E-06	-3.77205741	-1.74864847	-3.77205741	-1.74864847
X Variable 1	0.015446617	0.000665296	23.217657	7.571E-23	0.014095994	0.01679724	0.014095994	0.01679724

CERTIFICATE OF CALIBRATION

www.ludlums.com

LUDLUM MEASUREMENTS, INC.
501 Oak Street
325-235-5494
Sweetwater, TX 79556, U.S.A.

ACCREDITED
CERT # 4084.01

Model No. / Serial No. 500 / 114513

Customer AVM ENVIRONMENTAL SERVICES INC ORDER NO. 20538366/584794

Cal. Date 10-Feb-26 Cal Due Date 10-Feb-27 Cal. Interval 1 Year Procedure 500/Rev B

☐ New Instrument Instrument Received ☑ Within Tolerance ☐ Out of Tol. ☐ Requiring Repair ☐ Other-See Comments

T. 75 °F RH 27 % Alt 705.9 mm Hg ☑ Meter Zeroed ☑ Mechanical Check

PULSE WIDTH Uncertainty within 0.85% of reading

	As Found	As Left	Acceptable Range (µs)
NEG PULSE	1.7	1.7	1.5 - 1.9
POS PULSE	1.5	1.5	< 2.25

PULSE AMPLITUDE (NEGATIVE) Uncertainty within 1.2% of reading

Reference Amplitude	As Found Amplitude Reading	As Left Amplitude Reading	Acceptable Range	Reference Amplitude	As Found Amplitude Reading	As Left Amplitude Reading	Acceptable Range
1 V	1 V	1 V	0.9 - 1.1	4 V	4.1 V	4.1 V	3.6 - 4.4
100 mV	100 mV	100 mV	90 - 110	400 mV	410 mV	410 mV	360 - 440
10 mV	10 mV	10 mV	9 - 11	40 mV	41 mV	41 mV	36 - 44
1 mV	1 mV	1 mV	0.9 - 1.1	4 mV	4.1 mV	4.1 mV	3.6 - 4.4

PULSE AMPLITUDE (POSITIVE) Uncertainty within 1.2% of reading

Reference Amplitude	As Found Amplitude Reading	As Left Amplitude Reading	Acceptable Range
3 V	3 V	3 V	2.7 - 3.3
300 mV	300 mV	300 mV	270 - 330
30 mV	30 mV	30 mV	27 - 33
3 mV	3 mV	3 mV	2.7 - 3.3

PULSE FREQUENCY (PERIOD) Uncertainty within 0.46% of reading

Pulser Range	As Found Period	As Left Period	Acceptable Range
x 10K	6.669	6.669	6.534 - 6.8
x 1K	66.69	66.69	65.34 - 68
x 100	667.1	667.1	653.4 - 680
x 10	6670	6670	6534 - 6800
x 1	66.72	66.72	65.34 - 68
x 0.1	90	90	88.2 - 91.8 Counts

Digital High Voltage Uncertainty within 1.2% of reading

Reference Voltage	As Found Voltage Reading	As Left Voltage Reading	Acceptable Range
500 V			490 - 510
1500 V			1470 - 1530

Analog High Voltage Uncertainty within 1.2% of reading

Reference Voltage	As Found Voltage Reading	As Left Voltage Reading	Acceptable Range
500 V	500	500	475 - 525
2000 V	2000	2000	1900 - 2100

CPM Reading	As Found cpm Reading	As Left cpm Reading	Acceptable Range
MAX	992	992	981 - 999
MIN	0 - 1	0 - 1	0 - 1*

* READING OF 0-99 IS ACCEPTABLE FOR INSTRUMENTS WITH A S/N 100000 AND BELOW OR MAIN BOARD = 5208-066

COMMENTS: CALIBRATED WITH 39" CABLE.

Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques.
All pass/fail determinations are based on the manufacturer's specifications without considering uncertainty factors.
Measurement results represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k=2.
The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323AB-2013
ISO/IEC 17025:2017(E)
State of Texas Calibration License No. LO-1963

Reference Instruments:
Frequency Counter Model BK 1856D S/N 332E18137 Cal Date 30-Dec 25
Oscilloscope Model TENMA 72-6820 S/N 1102645 Cal Date 30-Oct 25
Voltmeter Model FLUKE 83V S/N 94000441 Cal Date 11-Jul 25

Calibrator William Tinsley William Tinsley Title Calibrator Date 10-February 2026
QC'd By Title Final QC Date 11 Feb 26

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AC Inst. Only ☐ Passed Dielectric (Hi-Pot) and Continuity Test ☐ Failed:

www.ludlums.com

CERTIFICATE OF CALIBRATION

LUDLUM MEASUREMENTS, INC.
501 Oak Street
325-235-5494
Sweetwater, TX 79556, U.S.A.

ilac-MRA A2LA ACCREDITED CERT # 4084.01

Model No. / Serial No. 500 / 114513

Customer AVM ENVIRONMENTAL SERVICES INC ORDER NO. 20485975/567484

Cal. Date 6-Jan-25 Cal Due Date 6-Jan-26 Cal. Interval 1 Year Procedure 500/Rev 8

☐ New Instrument Instrument Received ☑ Within Tolerance ☐ Out of Tol. ☐ Requiring Repair ☐ Other-See Comments

T. 74 °F RH 22 % Alt 716.3 mm Hg ☑ Meter Zeroed ☑ Mechanical Check

PULSE WIDTH Uncertainty within 0.85% of reading

	As Found	As Left	Acceptable Range (µs)
NEG PULSE	1.6	1.6	1.5 - 1.9
POS PULSE	1.6	1.6	< 2.25

PULSE AMPLITUDE (NEGATIVE) Uncertainty within 1.2% of reading

Reference Amplitude	As Found Amplitude Reading	As Left Amplitude Reading	Acceptable Range
1 V	1 V	1 V	0.9 - 1.1
100 mV	100 mV	100 mV	90 - 110
10 mV	10 mV	10 mV	9 - 11
1 mV	1 mV	1 mV	0.9 - 1.1

Reference Amplitude	As Found Amplitude Reading	As Left Amplitude Reading	Acceptable Range
4 V	4 V	4 V	3.6 - 4.4
400 mV	410 mV	410 mV	360 - 440
40 mV	41 mV	41 mV	36 - 44
4 mV	4.1 mV	4.1 mV	3.6 - 4.4

PULSE AMPLITUDE (POSITIVE) Uncertainty within 1.2% of reading

Reference Amplitude	As Found Amplitude Reading	As Left Amplitude Reading	Acceptable Range
3 V	3 V	3 V	2.7 - 3.3
300 mV	300 mV	300 mV	270 - 330
30 mV	30 mV	30 mV	27 - 33
3 mV	3 mV	3 mV	2.7 - 3.3

PULSE FREQUENCY (PERIOD) Uncertainty within 0.46% of reading

Pulser Range	As Found Period	As Left Period	Acceptable Range
x 10K	6.669	6.669	6.534 - 6.8
x 1K	666.72	666.72	65.34 - 68
x 100	667.2	667.2	653.4 - 680
x 10	6671	6671	6534 - 6800
x 1	66.73	66.73	65.34 - 68
x 0.1	90	90	88.2 - 91.8 Counts

Digital High Voltage Uncertainty within 1.2% of reading

Reference Voltage	As Found Voltage Reading	As Left Voltage Reading	Acceptable Range
500 V			490 - 510
1500 V			1470 - 1530

Analog High Voltage Uncertainty within 1.2% of reading

Reference Voltage	As Found Voltage Reading	As Left Voltage Reading	Acceptable Range
500 V	500	500	475 - 525
2000 V	2000	2000	1900 - 2100

CPM Reading	As Found cpm Reading	As Left cpm Reading	Acceptable Range
MAX	992	992	981 - 999
MIN	0 - 1	0 - 1	0 - 1*

* READING OF 0-99 IS ACCEPTABLE FOR INSTRUMENTS WITH A S/N 100000 AND BELOW OR MAIN BOARD = 5208-066

COMMENTS:

CAL'D W/ 39" CABLE.

Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques.
All pass/fail determinations are based on the manufacturer's specifications without considering uncertainty factors.
Measurement results represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k=2.
The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323AB-2013
ISO/IEC 17025:2017(E)
State of Texas Calibration License No. LO-1963

Reference Instruments:
Frequency Counter Model BK 1856D S/N 332E 18132 Cal Date 18-Dec 2024
Oscilloscope Model Tektronix 2-6820 S/N 1102645 Cal Date 11-Oct 2024
Voltmeter Model Fluke 83V S/N 94000441 Cal Date 14-Jun 2024

Calibrator William Tinsley William Tinsley Title Calibrator Date 6-January 2025
QC'd By [signature] Title Final QC Date 7 JAN 25

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AC Inst. Only ☑ Passed Dielectric (Hi-Pot) and Continuity Test ☐ Failed:

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501 Oak Street
325-235-5494
Sweetwater, TX 79556, U.S.A.

ACCREDITED
CERT # 4084.01

Model No. / Serial No. 500 / 114513

Customer AVM ENVIRONMENTAL SERVICES INC ORDER NO. 20460064/549833

Date 13-Dec-23 Cal Due Date 13-Dec-24 Cal. Interval 1 Year Procedure 500/REV 8

☐ New Instrument Instrument Received ☑ Within Tolerance ☐ Out of Tol. ☐ Requiring Repair ☐ Other-See Comments

T. 73 °F RH 36 % Alt 714.2 mm Hg ☑ Meter Zeroed ☑ Mechanical Check

PULSE WIDTH Uncertainty within 0.85% of reading

	As Found	As Left	Acceptable Range (µs)
NEG PULSE	1.7	1.7	1.5 - 1.9
POS PULSE	1.7	1.7	< 2.25

PULSE AMPLITUDE (NEGATIVE) Uncertainty within 1.3% of reading

Reference Amplitude	As Found Amplitude Reading	As Left Amplitude Reading	Acceptable Range	Reference Amplitude	As Found Amplitude Reading	As Left Amplitude Reading	Acceptable Range
1 V	1 V	1 V	0.9 - 1.1	4 V	4.1 V	4.1 V	3.6 - 4.4
100 mV	100 mV	100 mV	90 - 110	400 mV	410 mV	410 mV	360 - 440
10 mV	10 mV	10 mV	9 - 11	40 mV	41 mV	41 mV	36 - 44
1 mV	1 mV	1 mV	0.9 - 1.1	4 mV	4.1 mV	4.1 mV	3.6 - 4.4

PULSE AMPLITUDE (POSITIVE) Uncertainty within 1.3% of reading

Reference Amplitude	As Found Amplitude Reading	As Left Amplitude Reading	Acceptable Range
3 V	3 V	3 V	2.7 - 3.3
300 mV	300 mV	300 mV	270 - 330
30 mV	30 mV	30 mV	27 - 33
3 mV	3 mV	3 mV	2.7 - 3.3

PULSE FREQUENCY (PERIOD) Uncertainty within 0.46% of reading

Pulser Range	As Found Period	As Left Period	Acceptable Range
x 10K	6.667	6.667	6.534 - 6.8
x 1K	66.70	66.70	65.34 - 68
x 100	667.2	667.2	653.4 - 680
x 10	6671	6671	6534 - 6800
x 1	66.71	66.71	65.34 - 68
x 0.1	90	90	88.2 - 91.8 Counts

Digital High Voltage Uncertainty within 1.3% of reading

Reference Voltage	As Found Voltage Reading	As Left Voltage Reading	Acceptable Range
500 V			490 - 510
1500 V			1470 - 1530

Analog High Voltage Uncertainty within 1.3% of reading

Reference Voltage	As Found Voltage Reading	As Left Voltage Reading	Acceptable Range
500 V	500	500	475 - 525
2000 V	2000	2000	1900 - 2100

CPM Reading	As Found cpm Reading	As Left cpm Reading	Acceptable Range
MAX	992	992	981 - 999
MIN	0-1	0-1	0 - 1*

* READING OF 0-99 IS ACCEPTABLE FOR INSTRUMENTS WITH A S/N 100000 AND BELOW OR MAIN BOARD = 5208-066

COMMENTS:

CAL'D W/ 39" CABLE.

Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques.
All pass/fail determinations are based on the manufacturer's specifications without considering uncertainty factors.
Measurement results represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k=2.
The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323AB-2013

ISO/IEC 17025:2017(E)
State of Texas Calibration License No. LO-1963

Reference Instruments:
Frequency Counter Model BK 1856D S/N 332L14297 Cal Date 17-Feb 2023
Oscilloscope Model Tektronix 72-6820 S/N 1102645 Cal Date 11-Oct 2023
Voltmeter Model Fluke 83 V S/N 94000441 Cal Date 2-Jun 2023

Calibrator William Tinsley William Tinsley Title Calibrator Date 13-December 2023
QC'd By [signature] Title Final QC Date 14 Dec 23

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AC Inst. Only ☑ Passed Dielectric (Hi-Pot) and Continuity Test ☐ Failed: _____

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Sweetwater, TX 79556, U.S.A.

CERTIFICATE OF CALIBRATION

ACCREDITED
CERT # 4084.01

Customer AVM ENVIRONMENTAL SERVICES INC ORDER NO. 20501145/577861

Mfg. Ludlum Measurements, Inc. Model 19 Serial No. 76248

Mfg. _____ Model _____ Serial No. _____

Cal. Date 20-Aug-25 Cal Due Date 20-Aug-26 Cal. Interval 1 Year Meterface 202-016

Check mark ☑ applies to applicable instr. and/or detector IAW mfg. spec. T. 74 °F RH 43 % Alt 705.9 mm Hg

☐ New Instrument Instrument Received ☒ Within Toler. +-10% ☐ 10-20% ☐ Out of Tol. ☐ Requiring Repair ☐ Other-See comments

☑ Mechanical ck. ☑ Meter Zeroed ☐ Background Subtract ☐ Input Sens. Linearity
☑ F/S Resp. ck ☑ Reset ck. ☐ Window Operation ☑ Geotropism
☑ Audio ck. ☐ Alarm Setting ck. ☑ Batt. ck.

☐ Calibrated in accordance with LMI SOP 14.8 ☒ Calibrated in accordance with LMI SOP 14.9

Instrument Volt Set 800 V Input Sens. 38 mV Det. Oper. _____ V at _____ mV Threshold Dial Ratio _____ = _____ mV

☐ HV Readout (2 points) Ref./Inst. 500 / _____ V Ref./Inst. 1000 / _____ V

COMMENTS:

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source.
Multimeter uncertainty within 1.3% of reading, Gamma uncertainty within 5.0% of reading, Neutron uncertainty within 7.0% of reading, Count rate uncertainty within 5.4% of reading

RANGE/MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT REC'D "AS FOUND READING"	INSTRUMENT METER READING
5000	4000µR/hr	4200 mR/hr	4000 mR/hr
5000	1000µR/hr	1000	1000
500	400µR/hr = 75300CPM	420	400
500	100µR/hr	105	100
250	200µR/hr = 35900CPM	200	200
250	100µR/hr	100	100
50	7530 cpm	44	40
50	1880 cpm	10.5	10
25	3590 cpm	20	20
25	898 cpm	5	5

50, 25 Range(s) Calibrated Electronically

Digital Readout	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING

Log Scale	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING

Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques.
All pass/fail determinations are based on the manufacturer's specifications without considering uncertainty factors.
Measurement results represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k=2.
The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323AB-2013

ISO/IEC 17025:2017(E)
State of Texas Calibration License No. LO-1963

Reference Instruments and/or Sources: Cs-137 S/N: ☐ 059 ☐ 2171CP ☐ 2261CP ☐ 720 ☐ 734 ☐ 781 ☐ 1131 ☐ 1616 ☐ 1696 ☐ 1909 ☐ 1916CP ☐ 2324/2521
☐ 5717CO ☐ 5719CO ☐ 60646 ☐ 70897 ☐ 73410 ☐ E552 ☐ G112 ☒ 2168CP ☐ S-394 ☐ S-1054 ☐ T10081 ☐ T10082 Neutron Am-241 Be ☐ T-304 Ra-226 ☐ Y982
☐ E551 ☐ 5105 ☐ CSV280

☐ Alpha S/N _____ ☐ Beta S/N _____ ☐ Other _____

☐ m 500 S/N 371845 ☐ Oscilloscope S/N _____ ☑ Multimeter S/N 60050420

Calibrator Andrew Fuller Andrew Fuller Title Calibrator Date 20 AUG 25

QC'd By [signature] Title Final QC Date 21 Aug 25

This certificate shall not be reproduced except in full, without the written approval of Ludlum Measurements, Inc.

AC Inst. Only ☐ Passed Dielectric (Hi-Pot) and Continuity Test ☐ Failed: _____

Designer and Manufacturer of Scientific and Industrial Instruments

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CERTIFICATE OF CALIBRATION

LUDLUM MEASUREMENTS, INC.
501 Oak Street
325-235-5494
Sweetwater, TX 79556, U.S.A.

ACCREDITED
CERT # 4084.01

Customer AVM ENVIRONMENTAL SERVICES INC ORDER NO. 20479685/ 563226

Mfg. Ludlum Measurements, Inc. Model 19 Serial No. 76248

M Model Serial No.

Cal. Date 4-Oct-24 Cal Due Date 4-Oct-25 Cal. Interval 1 Year Meterface 202-016

Check mark ☑ applies to applicable instr. and/or detector IAW mfg. spec. T. 73 °F RH 41 % Alt 708.4 mm Hg

☐ New Instrument Instrument Received ☑ Within Toler. +-10% ☐ 10-20% ☐ Out of Tol. ☐ Requiring Repair ☐ Other-See comments

☑ Mechanical ck. ☑ Meter Zeroed ☐ Background Subtract ☐ Input Sens. Linearity
☑ F/S Resp. ck ☑ Reset ck. ☐ Window Operation ☑ Geotropism
☑ Audio ck. ☐ Alarm Setting ck. ☑ Batt. ck.

☐ Calibrated in accordance with LMI SOP 14.8 ☑ Calibrated in accordance with LMI SOP 14.9

Instrument Volt Set 800 V Input Sens. 37 mV Det. Oper. V at mV Threshold Dial Ratio = mV

☑ HV Readout (2 points) Ref./Inst. 500 / V Ref./Inst. 1000 / V

COMMENTS:

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source.
Multimeter uncertainty within 1.3% of reading, Gamma uncertainty within 5.0% of reading, Neutron uncertainty within 7.0% of reading, Count rate uncertainty within 5.4% of reading

RANGE/MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT REC'D "AS FOUND READING"	INSTRUMENT METER READING
5000	4000µR/hr	4000 µR/hr	4000 µR/hr
5000	1000µR/hr	1000	1000
500	400µR/hr = 68,500	400	400
500	100µR/hr	100	100
250	200µR/hr = 35606	210	200
250	100µR/hr	100	100
50	6850 cpm	40	40
50	1712 cpm	10	10
25	3560cpm	21	20
25	890 cpm	5	5

50, 25 Range(s) Calibrated Electronically

Digital Readout	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING

Log Scale	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING

Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques.
All pass/fail determinations are based on the manufacturer's specifications without considering uncertainty factors.
Measurement results represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k=2.
The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323AB-2013

ISO/IEC 17025:2017(E)
State of Texas Calibration License No. LO-1963

Reference Instruments and/or Sources: Cs-137 S/N: ☐ 059 ☐ 2171CP ☐ 2261CP ☐ 720 ☐ 734 ☐ 781 ☐ 1131 ☐ 1616 ☐ 1696 ☐ 1909 ☐ 1916CP ☐ 2324/2521
☐ 5717CO ☐ 5719CO ☐ 60646 ☐ 70897 ☐ 73410 ☐ E552 ☐ G112 ☑ 2168CP ☐ S-394 ☐ S-1054 ☐ T10081 ☐ T10082 Neutron Am-241 Be ☐ T-304 Ra-226 ☐ Y982
☐ E551 ☐ 5105 ☐ CSV280

☐ Alpha S/N ☐ Beta S/N ☐ Other

☑ m 500 S/N 371845 ☐ Oscilloscope S/N ☑ Multimeter S/N 60050420

rator Andrew Fuller Andrew J Fuller Title Calibrator Date 4 OCT 24

QC'd By Title Final QC Date 5 Oct 24

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AC Inst. Only ☐ Passed Dielectric (Hi-Pot) and Continuity Test ☐ Failed:

Designer and Manufacturer of Scientific and Industrial Instruments
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501 Oak Street
325-235-5494
Sweetwater, TX 79556, U.S.A.

ACCREDITED
CERT # 4084.01

Customer AVM ENVIRONMENTAL SERVICES INC ORDER NO. 20457182/547880

Mfg. Ludlum Measurements, Inc. Model 19 Serial No. 76248

M. Model Serial No.

Cal. Date 3-Nov-23 Cal Due Date 3-Nov-24 Cal. Interval 1 Year Meterface 202-1070

Check mark ☑ applies to applicable instr. and/or detector IAW mfg. spec. T. 73 °F RH 37 % Alt 708.1 mm Hg

☐ New Instrument Instrument Received ☐ Within Toler. +-10% ☑ 10-20% ☐ Out of Tol. ☐ Requiring Repair ☐ Other-See comments

☑ Mechanical ck. ☑ Meter Zeroed ☐ Background Subtract ☐ Input Sens. Linearity
☑ F/S Resp. ck ☑ Reset ck. ☐ Window Operation ☑ Geotropism
☑ Audio ck. ☐ Alarm Setting ck. ☑ Batt. ck.

☐ Calibrated in accordance with LMI SOP 14.8 ☑ Calibrated in accordance with LMI SOP 14.9

Instrument Volt Set 800 V Input Sens. 37 mV Det. Oper. 800 V at 37 mV Threshold Dial Ratio = mV

☐ HV Readout (2 points) Ref./Inst. / V Ref./Inst. / V

COMMENTS:

Gamma Calibration: GM detectors positioned perpendicular to source except for M 44-9 in which the front of probe faces source.
Multimeter uncertainty within 1.3% of reading, Gamma uncertainty within 5.0% of reading, Neutron uncertainty within 7.0% of reading, Count rate uncertainty within 5.4% of reading

RANGE/MULTIPLIER	REFERENCE CAL. POINT	INSTRUMENT REC'D "AS FOUND READING"	INSTRUMENT METER READING
5000	4000µR/hr	4200 µR/hr	4000 µR/hr
5000	1000µR/hr	1100	1000
500	400µR/hr = 69800 cpm	410	400
500	100µR/hr	110	100
250	200µR/hr = 33800 cpm	210	200
250	100µR/hr	100	100
50	6980 cpm	42	40
50	1750 cpm	10	10
25	3380 cpm	22	20
25	845 cpm	5	5

Range(s) Calibrated Electronically

Digital Readout	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING

Log Scale	REFERENCE CAL. POINT	INSTRUMENT RECEIVED	INSTRUMENT METER READING

Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology, or to the calibration facilities of other International Standards Organization members, or have been derived from accepted values of natural physical constants or have been derived by the ratio type of calibration techniques.
All pass/fail determinations are based on the manufacturer's specifications without considering uncertainty factors.
Measurement results represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k=2.
The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323AB-2013

ISO/IEC 17025:2017(E)
State of Texas Calibration License No. LO-1983

Reference Instruments and/or Sources: Cs-137 S/N: ☐ 059 ☐ 2171CP ☐ 2261CP ☐ 720 ☐ 734 ☐ 781 ☐ 1131 ☐ 1616 ☐ 1696 ☐ 1909 ☐ 1916CP ☐ 2324/2521 ☐ 5717CO ☐ 5719CO ☐ 60646 ☐ 70897 ☐ 73410 ☐ E552 ☐ G112 ☑ 2168CP ☐ S-394 ☐ S-1054 ☐ T10081 ☐ T10082 Neutron Am-241 Be ☐ T-304 Ra-226 ☐ Y982 ☐ E551 ☐ 5105 ☐ CSV280

☐ Alpha S/N ☐ Beta S/N ☐ Other

☐ m 500 S/N 114520 ☐ Oscilloscope S/N ☑ Multimeter S/N 53950165

Calibrator Sheba Lee Title Calibrator Date 3-Nov-23

QC'd By Title Final QC Date 3Nov23

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AC Inst. Only ☐ Passed Dielectric (Hi-Pot) and Continuity Test ☐ Failed:

AVM Environmental Services Inc.

Scaler/Ratemeter Calibration Form

Model : L2221 S/N: 290801

Reference Instrument/Source: Ludlum Pulser 500, S/N:114513

HV Calibration

HV Test (2 points): Ref/Inst 600/600 Ref/Inst 900/900

Ratemeter Calibration

Instrument Threshold @ 100 (10 mV), WIN: Out, HV 900VDC; Pulser Threshold @ 200 (20mV)

Range/Mode	Range Multiplier	Calibration Point (Pulser Setting) cpm x multiplier	Target CPM (±5%)	As Found Reading		Left or Set Reading
Ratemeter	x1	40x1	38-42	38-41		left
	x1	40x10	380-420	400		"
	x10	40x100	3800-4200	4000		"
	x100	40x1K	38K-42K	40000		"
	x1K	40x10K	380K-420K	400K		"
Digital Ratemeter	-	40x1	38-42	38-41		"
	-	40x10	380-420	394-402		"
	-	40x100	3800-4200	3964-4020		"
	-	40x1K	38K-42K	38K-40K		"
	-	40x10K	380K-420K	397K-402K		"

Threshold/Gain Calibration

WIN OUT

Pulser Amplitude (mV)	Pulser CPM		L2221 Theshold (mv)	Target CPM	L2221 CPM Found		L2221 CPM Left or Set @
10.0	40000		100 (10 mV)	27K -33K	30706		left
20.0	40000		200 (20 mV)	27K -33K	32190		"
30.0	40000		300 (30 mV)	27K -33K	31635		"
40.0	40000		400 (40 mV)	27K -33K	30918		"
50.0	40000		500 (50 mV)	27K -33K	31244		"

Note: Use R174 Gain Control on Power Supply Board to adjust L2221 CPM @75% for Threshold/Gain Calibration

Window Cut-off Points Check

L2221 Threshold set @100 (10.0 mv)

WIN @ 100 (10.0 mV) ✓ WIN @ 400 (40.0 mV) ✓

WIN @ 200 (20.0 mV) ✓ WIN @ 500 (50.0 mV) ✓

Date 2-23-26 Calibrated By

AVM Environmental Services Inc.

Scaler/Ratemeter Calibration Form

Model : L2221 S/N: 290801

Reference Instrument/Source: Ludlum Pulser 500, S/N:114513

HV Calibration

HV Test (2 points): Ref/Inst 600/600 Ref/Inst 900/900

Ratemeter Calibration

Instrument Threshold @ 100 (10 mV), WIN: Out, HV 900VDC; Pulser Threshold @ 200 (20mV)

Range/Mode	Range Multiplier	Calibration Point (Pulser Setting) cpm x multiplier	Target CPM (±5%)	As Found Reading		Left or Set Reading
Ratemeter	x1	40x1	38-42	40		"
	x1	40x10	380-420	400		"
	x10	40x100	3800-4200	4000		"
	x100	40x1K	38K-42K	40000		"
	x1K	40x10K	380K-420K	400000		"
Digital Ratemeter	-	40x1	38-42	41		"
	-	40x10	380-420	416		"
	-	40x100	3800-4200	3960		"
	-	40x1K	38K-42K	39534		"
	-	40x10K	380K-420K	395480		"

Threshold/Gain Calibration

WIN OUT

Pulser Amplitude (mV)	Pulser CPM		L2221 Theshold (mv)	Target CPM	L2221 CPM Found		L2221 CPM Left or Set @
10.0	40000		100 (10 mV)	27K -33K	30550		"
20.0	40000		200 (20 mV)	27K -33K	30714		"
30.0	40000		300 (30 mV)	27K -33K	31110		"
40.0	40000		400 (40 mV)	27K -33K	30431		"
50.0	40000		500 (50 mV)	27K -33K	31085		"

Note: Use R174 Gain Control on Power Supply Board to adjust L2221 CPM @75% for Threshold/Gain Calibration

Window Cut-off Points Check

L2221 Threshold set @100 (10.0 mv)

WIN @ 100 (10.0 mV) ✓ WIN @ 400 (40.0 mV) ✓

WIN @ 200 (20.0 mV) ✓ WIN @ 500 (50.0 mV) ✓

Date 2-17-25 Calibrated By

AVM Environmental Services Inc.

Scaler/Ratemeter Calibration Form

Model : L2221 S/N: 290801

Reference Instrument/Source: Ludlum Pulser 500, S/N:114513

HV Calibration

HV Test (2 points): Ref/Inst 600/600 Ref/Inst 900/900

Ratemeter Calibration

Instrument Threshold @ 100 (10 mV), WIN: Out, HV 900VDC; Pulser Threshold @ 200 (20mV)

Range/Mode	Range Multiplier	Calibration Point (Pulser Setting) cpm x multiplier	Target CPM (±5%)	As Found Reading		Left or Set Reading
Ratemeter	x1	40x1	38-42	40		40
	x1	40x10	380-420	400		400
	x10	40x100	3800-4200	4002		4002
	x100	40x1K	38K-42K	40020		40020
	x1K	40x10K	380K-420K	400220		400220
Digital Ratemeter	-	40x1	38-42	39		39
	-	40x10	380-420	402		402
	-	40x100	3800-4200	4004		4004
	-	40x1K	38K-42K	40026		40026
	-	40x10K	380K-420K	400221		400221

Threshold/Gain Calibration

WIN OUT

Pulser Amplitude (mV)	Pulser CPM		L2221 Theshold (mv)	Target CPM	L2221 CPM Found		L2221 CPM Left or Set @
10.0	40000		100 (10 mV)	27K -33K	31194		31194
20.0	40000		200 (20 mV)	27K -33K	29354		29354
30.0	40000		300 (30 mV)	27K -33K	30765		30765
40.0	40000		400 (40 mV)	27K -33K	30082		30082
50.0	40000		500 (50 mV)	27K -33K	29842		29842

Note: Use R174 Gain Control on Power Supply Board to adjust L2221 CPM @75% for Threshold/Gain Calibration

Window Cut-off Points Check

L2221 Threshold set @100 (10.0 mv)

WIN @ 100 (10.0 mV) ✓ WIN @ 400 (40.0 mV) ✓

WIN @ 200 (20.0 mV) ✓ WIN @ 500 (50.0 mV) ✓

Date 2-19-24 Calibrated By

AVM Environmental Services Inc.
Scaler/Ratemeter Calibration Form

Scaler/Ratemeter Model L3003 S/N 25036838

Calibration Source L500 S# 114513

Threshold (input sensitivity), Found at 10 mV Left or Set at 10 mV

Window, In/Out out Window N/A mV

Pulser Amplitude Set @ 250 mV

Range/Mode	Calibration Point (Pulser Setting) cpm x multiplier	As Found Reading	Left or Set Reading
Ratemeter	40x1	38	38
	40x10	398	398
	40x100	3.98k	3.98k
	40x1k	39.7k	39.7k
Scaler	40x1	40	40
	40x10	398	398
	40x100	3.97k	3.97k
	40x1k	39.7k	39.7k

HV Set @ 900 VDC

Date 11-25-25 Calibrated By

ludlums.com

CERT #4084.01

CALIBRATION CERTIFICATE

Order No: 20475860

LUDLUM MEASUREMENTS, INC.
501 Oak Street
325-235-5494
Sweetwater, TX 79556, USA

Customer: AVM ENVIRONMENTAL SERVICES
1717 DEL NORTE BLVD
Address: GRANTS, NM 87020-2309
USA

Temp: 73.4 °F
Rel. H: 33%
Alt: 712mm Hg

Cal Date: 25-Nov-24
Cal Due Date: 25-Nov-25
Cal Interval: 1 year

Mfg.: Ludlum Measurements, Inc. **Model: 3003** Desc.: survey meter Serial No.: 25036838

Model 3003 Parameters:
- ☑ New Instrument
- Serial No.: 25036838
- ☑ Alarm Setting Ck.
- ☑ Audio Check
- ☑ Battery Check
- ☑ F/S Resp. Check
- ☑ HV Readout
- ☑ Mechanical Check
- ☑ Window Operation
- Firmware: F.4.4.1244
- Ref./Inst.: 600 / 598 V
- Ref./Inst.: 2000 / 2001 V
- Scaler Count: 6 second(s)
- ☑ LMI SOP 14.8
- Primary Units: cpm

Ratemeter

Reference Point	Direct Reading
5 Mcpm	4.98 Mcpm
2 Mcpm	1.99 Mcpm
800 kcpm	798 kcpm
200 kcpm	199 kcpm
80 kcpm	79.7 kcpm
20 kcpm	19.8 kcpm
8 kcpm	7.98 kcpm
2 kcpm	1.99 kcpm
800 cpm	797 cpm
200 cpm	200 cpm

Scaler

Reference Point	Direct Reading
5 Mcpm	498 kcount
2 Mcpm	198 kcount
800 kcpm	79.8 kcount
200 kcpm	19.9 kcount
80 kcpm	7.99 kcount
20 kcpm	1.99 kcount
8 kcpm	798 count
2 kcpm	200 count
800 cpm	80 count
200 cpm	20 count

COMMENTS:
See attachments for all other settings.

Det1. set up for gamma detector.

Det2. set up for typical M44-7.

Ludlum Measurements, Inc. certifies that the above instrument has been calibrated by standards traceable to the National Institute of Standards and Technology.
The pass/fail tolerance of 10% (unless otherwise noted) is based on the manufacturer's specifications without considering uncertainty factors.
Measurement results represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k=2.
Measurement Uncertainties: Voltage measurements 1.4%, Gamma Exposure/Dose 5.6%, Neutron Dose 7.0%, Count rate 5.2%.
The calibration system conforms to the requirements of ANSI/NCSL Z540-1-1994 and ANSI N323AB-2013.

ISO/IEC 17025: 2017 (E)
State of Texas Calibration License No. LO-1963

Reference Instruments and/or Source(s):

Form ID #: AC243825681103

Pulser: 289155 Multimeter: 14670125

Calibrator: ~~Manuela Aguilar~~ Manuela Aguilar Title: Calibrator Date: ~~25-Nov-24~~

QC'd by: Diana Baldez Title: Final QC Date: 26/11/2024

This certificate shall not be reproduced except in full,
without the written approval of Ludlum Measurements, Inc.

www.ludlums.com

Designer and Manufacturer
of
Scientific and Industrial
Instruments

LUDLUM MEASUREMENTS, INC.
501 Oak Street
325-235-5494
Sweetwater, TX 79556, U.S.A.

Modification/Option Functional Check

Customer AVM ENVIRONMENTAL SERVICES ORDER NO. 20475860

This Certifies that option or modification # 4498 - 1024

on the Ludlum Model 3000 Serial No. 258 368 58 has been functionally checked.

Refer to applicable instrument manuals and/or addenda for specific operating instructions.

Check performed by Jonathon Hernandez Date 28-OCT-24

Manuela Aguilar 25-NOV-24

AVM Environmental Services Inc.
Scaler/Ratemeter - Detector Calibration Form

Scaler/Ratemeter: L3003 s# 25036838
Detector: SPA-3 s# 408522-30

Source: U308 Ore in Can s# FC-2 Strength 1%

Scaler/Ratemeter Threshhold set @ 10 mV, Window IN/OUT OUT, Window n/a mV

HV	Reading, CPM (Source)	Reading, CPM (Background)
500	7947	378
550	24939	823
600	53847	1346
650	68921	2022
700	82002	2319
750	93202	2414
800	95097	2537
850	96059	2550
900	96044	2660
950	96402	2632
1000	96414	2514
1050	96253	2496
1100	97555	2597
1150	98884	2700
1200	102357	2753
1250		
1300		
1350		
1400		

Background reading at designated function check location in AVM office.

Count #	Reading (CPM) Bare	Collimated
1	8200	2770
2	8120	2670
3	8190	2800
4	8250	2760
5	8320	2780
Average	8216	2756
FC Range	6573 - 9859	2205 - 3307

Count Readings with 1 percent U_3O_8 can directly under collimated detector on designated function check location in AVM office.

Count #	Reading (CPM)
1	96800
2	97300
3	97600
4	97300
5	97900
Average	97380

HV Set @ 900 VDC (Instrument) 900 VDC (DVM Fluke 8020B)

Input Sensitivity (THR), mV 10

Function Check with 1 percent U_3O_8 ore in can. Can Directly under the detector in the collimator.
Acceptable Function check range is 77904 to 116856 CPM

Notes:

Date 02/17/26 By Victor Patel

AVM Environmental Services Inc.
L2221 SCA/L44-20 Energy Calibration Form

SCA: L2221, SR #290801 Detector: Ludlum 44-20 (3x3 NaI Scintillator)

Calibration Source: Cs-137 Check Source, 5 uCi (August 2008) For 662 KeV Peak Cal

Threshold (input sensitivity) **652**

Window, In/Out **IN** Window **20**

HV Initial 100, At Peak 575

Maximum CPM: 205081 Background CPM: 10

HV Set @ 575 VDC

For Bi-214 609.2 KeV Peak (559 - 659 KeV ROI), Set Threshold @ 559, Window @ 10 mV

Calibration Check w 1% U3O8 Ore Check Source: 15562 CPM

Date 9-30-25 Calibrated By

AVM Environmental Services, Inc.
Field Soil Sample Gamma Radiation Screening Form

Instrumentation : Scaler/Ratemeter L2221 S# 68782, Detector L44-20 S# 295573
Instrument Calibration Date: 2-17-25 9-30-24, Instrument Function Check Performed: X
Survey Area/Unit Decsription Correlation Cal. Blanks

Area exposure rate: 12-14

Date	Soil Sample ID	Sample Weight Grams	609 (559-669) Kev Gross Counts, CP5M	Weight Corrected CP5M	CPM	Reference Soil Compare (< or >)	Comments
9-30-25	Blank	-	328		66		
9-30-25	6.6 pCi/g Ref Soil	3000	2302		460		
9-30-25	25 pCi/g Ref Soil	3000	8839		1768		
9-30-25	50 pCi/g Ref Soil	3000	17450		3490		

Technician Signature _____, Reviewed by _____

AVM Environmental Services Inc.
L2221 SCA/L44-20 Energy Calibration Form

SCA: L2221, SR #290801 Detector: Ludlum 44-20 (3x3 NaI Scintillator)

Calibration Source: Cs-137 Check Source, 5 uCi (August 2008) For 662 KeV Peak Cal

Threshold (input sensitivity) **652**

Window, In/Out **IN** Window **20**

HV Initial 100, At Peak 575

Maximum CPM: 204503 Background CPM: 9

HV Set @ 575 VDC

For Bi-214 609.2 KeV Peak (559 - 659 KeV ROI), Set Threshold @ 559, Window @ 10mV

Calibration Check w 1% U3O8 Ore Check Source: 15656 CPM

BKG = 63 cpm

Date 9-30-24 Calibrated By

AVM Environm. Services, Inc.
Field Soil Sample Gamma Radiation Screening Form
Mt. Taylor Mine Site

Instrumentation : Scaler/Ratemeter L2221 S#68782, Detector L44-20 S#295573
Instrument Calibration Date: 2-19-24 / 9-30-24, Instrument Function Check Performed: ✓
Survey Area/Unit Decsription Mt. Taylor Mine Site - Correlation Calibration

Area exposure rate: 12-14 uR/hr.

Date	Soil Sample ID	Sample Weight Grams	609 (559-669) Kev Gross Counts, CP5M	Weight Corrected CP5M	CPM	Reference Soil Compare (< or >)	Comments
9-30-24	Blank	-	325	-	65		
9-30-24	6.6 pCi/g Ref. Soil	3000	2600	-	520		
9-30-24	25 pCi/g Ref. Soil	3000	9770	-	1954		
9-30-24	50 pCi/g Ref. Soil	3000	18386	-	3677		

Technician Signature _____, Reviewed by _____

AVM Environmental Services Inc.
Scaler/Ratemeter - Detector Calibration Form

Scaler/Ratemeter L3033 s# 25036838
Detector SPA-3 s# 408522-30

Source U308 Ore in Can s# FC-2 Strength 1%

Scaler/Ratemeter Threshhold set @ 10 mV, Window IN/OUT OUT, Window n/a mV

HV Set @ 900 VDC (Instrument) 900 VDC (DVM Fluke 8020B)

Count Readings for Calibration Pad GPB (0.0 ± 0.3 pCi/gm Ra-226)

	Bare (Uncollimated) @ 1'			Collimated @ 1'	
#1	13600	cpm	#1	2890	cpm
#2	13700	cpm	#2	2930	cpm
#3	14000	cpm	#3	2990	cpm
#4	13900	cpm	#4	2930	cpm
#5	14100	cpm	#5	2970	cpm
BKG Average	13860	cpm	BKG Average	2942	cpm

Count Readings for Calibration Pad GPL (87.78 pCi/gm Ra-226)

	Bare (Uncollimated) @ 1'			Collimated @ 1'	
#1	93700	cpm	#1	52700	cpm
#2	94000	cpm	#2	53100	cpm
#3	93900	cpm	#3	53200	cpm
#4	93300	cpm	#4	53200	cpm
#5	94100	cpm	#5	53200	cpm
Gross Average	93800	cpm	Gross Average	53080	cpm
Net Source Pad	79940	cpm	Net Source Pad	50138	cpm
Eff(net cpm/87.78 pCi/gm	911	cpm/pCi/gm	Eff	571	cpm/pCi/gm

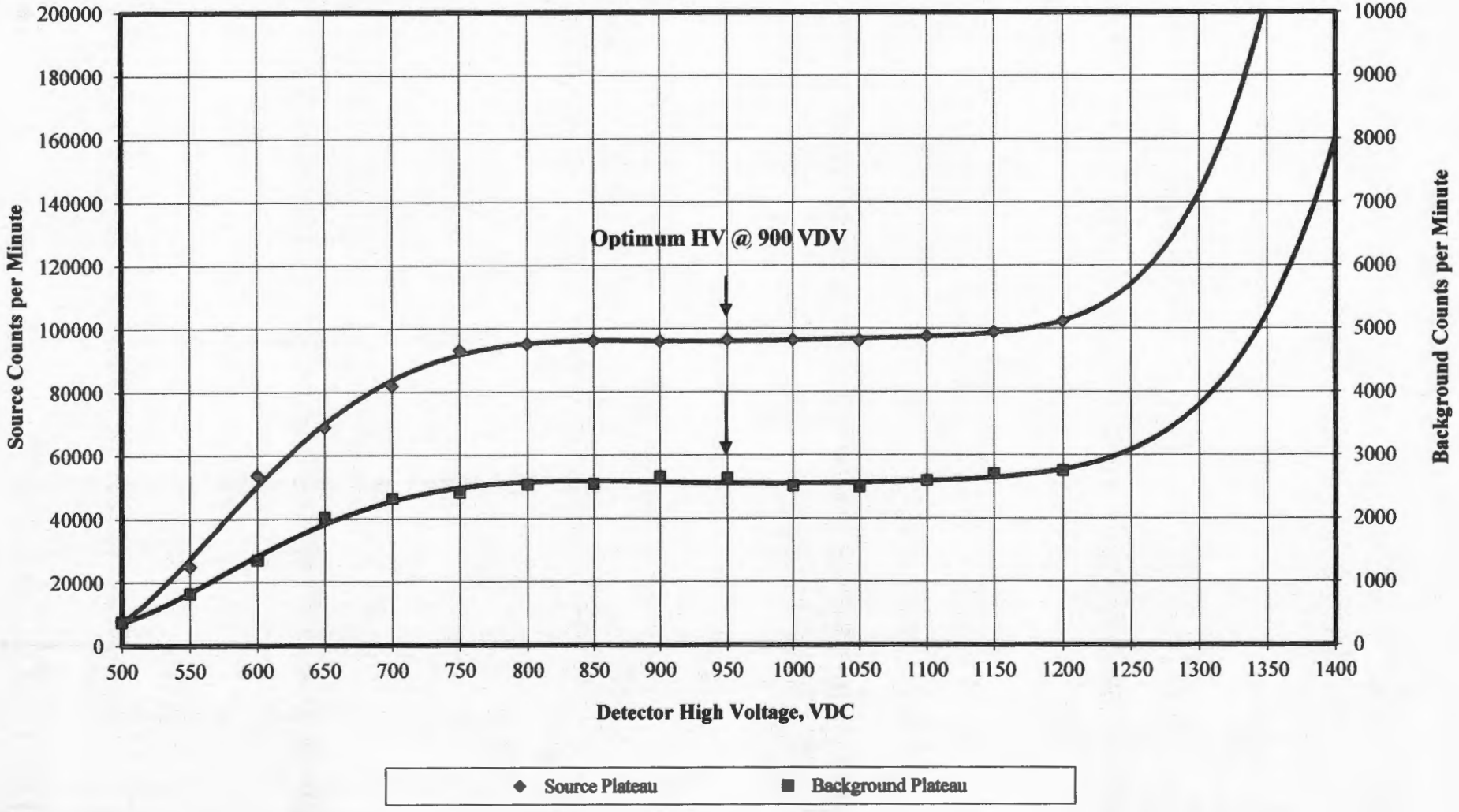
µR/hr Reading for Calibration Pad GPL (87.78 pCi/gm Ra-226)

Ludlum Model 19 serial # 76248

Reading @ 1' 120 µR/hr
1.28E-03 µR/hr/cpm

Date 02/17/26 By Victor Patel

Detector High Voltage Plateau
SPA-3 #408522-30 with Ludlum 3003 #25036838
1% Uranium Ore in Sealed Can
February 2026



AVM Environmental Services Inc.
Scaler/Ratemeter - Detector Calibration Form

Scaler/Ratemeter: L2221 S# 290801
Detector: SPA-3 S# 408522-30

Source: U308 ore in can S# FC-2 Strength 1%

Scaler/Ratemeter Threshhold set @ 10 mV, Window IN/OUT out, Window N/A mV

HV	Reading, CPM (Source)	Reading, CPM (Backgrouad)
500	17200	470
550	37012	738
600	57214	998
650	71774	1379
700	84865	1633
750	93899	1765
800	95561	1837
850	96093	1895
900	97180	2012
950	97636	2018
1000	100155	2037
1050	113726	2090
1100	133647	2249
1150	161780	2497
1200	199910	3198
1250		
1300		
1350		
1400		

Background reading at designated function check location in AVM office.

Count #	Reading (CPM) Bare	Collimated
1	8139	3129
2	8284	3144
3	8301	3004
4	8107	3170
5	8155	3171
Average	8197	3124

FC Range (6524-9786) (2537-3805)

Count Readings with 1 percent U_3O_8 can directly under collimated detector on designated function check location in AVM office.

Count #	Reading (CPM)
1	96354
2	95928
3	96716
4	96662
5	96241
Average	96380

HV Set @ 900 VDC (Instrument) 900 VDC (DVM Fluke 8020B)

Input Sensitivity (THR), mV 10

Function Check with 1 percent U_3O_8 ore in can. Can Directly under the detector in the collimator.
Acceptable Function check range is 77104 to 115656 CPM

Notes:

Date 2-19-24 By

AVM Environmental Services Inc.
Scaler/Ratemeter - Detector Calibration Form

Scaler/Ratemeter L2221 S# 290801
Detector SPA-3 S# 408522-30

Source U308 ore in can S# EC-2 Strength 1%

Scaler/Ratemeter Threshhold set @ 10 mV, Window IN/OUT out, Window N/A mV

HV Set @ 900 VDC (Instrument) 900 VDC (DVM Fluke 8020B)

Count Readings for Calibration Pad GPB (0.0 ± 0.3 pCi/gm Ra-226)

	Bare (Uncollimated) @ 1'		Collimated @ 1'	
#1	11498	cpm	2766	cpm
#2	11820	cpm	2839	cpm
#3	11614	cpm	2849	cpm
#4	11823	cpm	2833	cpm
#5	11777	cpm	2772	cpm
BKG Average	11706	cpm	2812	cpm

Count Readings for Calibration Pad GPL (87.78 pCi/gm Ra-226)

	Bare (Uncollimated) @ 1'		Collimated @ 1'	
#1	90635	cpm	53328	cpm
#2	90696	cpm	53884	cpm
#3	90626	cpm	53443	cpm
#4	90778	cpm	54004	cpm
#5	91414	cpm	53996	cpm
Gross Average	90830	cpm	53731	cpm
Net Source Pad	79123	cpm	50919	cpm
Eff(net cpm/87.78 pCi/gm	901	cpm/pCi/gm	580	cpm/pCi/gm

µR/hr Reading for Calibration Pad GPL (87.78 pCi/gm Ra-226)

Ludlum Model 19 serial # 76248

Reading @ 1' 115 µR/hr
1.27E-03 µR/hr/cpm

Date 2-19-24 By

AVM Environmental Services Inc.
Scaler/Ratemeter - Detector Calibration Form

Scaler/Ratemeter: L2221 SN 290801
Detector: SPA-3 SN 408522-30

Source: 11308 ore in Can SN FC-2 Strength 1%

Scaler/Ratemeter Threshhold set @ 10 mV, Window IN/OUT out, Window N/A mV

HV	Reading, CPM (Source)	Reading, CPM (Background)
500	10524	366
550	23100	586
600	49096	866
650	64452	1175
700	80404	1490
750	91419	1755
800	95515	1898
850	97120	2002
900	98011	2107
950	98858	2122
1000	98978	2200
1050	101235	2279
1100	110176	2451
1150	132748	2715
1200	169665	3147
1250		
1300		
1350		
1400		

Background reading at designated function check location in AVM office.

Count #	Reading (CPM) Bare	Collimated
1	7813	3307
2	7953	3253
3	8097	3119
4	8053	3018
5	8030	3220
Average	7989	3183

FC Range 6391-9587 2546-3820

Count Readings with 1 percent U_3O_8 can directly under collimated detector on designated function check location in AVM office.

Count #	Reading (CPM)
1	96539
2	96706
3	97532
4	97361
5	97408
Average	97109

HV Set @ 900 VDC (Instrument) 900 VDC (DVM Fluke 8020B)

Input Sensitivity (THR), mV 10

Function Check with 1 percent U_3O_8 ore in can. Can Directly under the detector in the collimator.
Acceptable Function check range is 77687 to 116531 CPM

Notes:

Date 2-1-23 By Vicky Patel

AVM Environmental Services Inc.
Scaler/Ratemeter - Detector Calibration Form

Scaler/Ratemeter L2221 S# 290801
Detector SPA-3 S# 408522-30

Source U308 ore in Con S# FC-2 Strength 1%

Scaler/Ratemeter Threshhold set @ 10 mV, Window IN/OUT out, Window N/A mV

HV Set @ 900 VDC (Instrument) 900 VDC (DVM Fluke 8020B)

Count Readings for Calibration Pad GPB (0.0 ± 0.3 pCi/gm Ra-226)

	Bare (Uncollimated)		Collimated	
#1	12793	cpm	3297	cpm
#2	13001	cpm	3243	cpm
#3	12751	cpm	3241	cpm
#4	12757	cpm	3262	cpm
#5	12940	cpm	3259	cpm
BKG Average	12848	cpm	3260	cpm

Count Readings for Calibration Pad GPL (87.78 pCi/gm Ra-226)

	Bare (Uncollimated)		Collimated	
#1	91924	cpm	52696	cpm
#2	92601	cpm	53226	cpm
#3	91622	cpm	53333	cpm
#4	92691	cpm	52895	cpm
#5	92296	cpm	53209	cpm
Gross Average	92227	cpm	53072	cpm
Net Source Pad	79378	cpm	49811	cpm
Eff(net cpm/87.78 pCi/gm	904	cpm/pCi/gm	567	cpm/pCi/gm

Date 2-1-23 By Victor Patel

AVM Environmental Services, Inc.
Ludlum SCA L2221 - 44-20 3x3 NaI Detector Function Check
559 - 659 KeV Gamma Radiation Soil Screening

L2221 #68782

Ludlum 44-20 3x3 NaI Detector, #PR295573

Function Check Source ID: 1% U_3O_8 Ore in Sealed can

Acceptable background Count (cpm) Range (20%) 53 to 79

Acceptable Source Count (cpm) Range (20%) 12484 to 18726

Date	Physical Check	Cal Date	Battery[1] Volts or OK	HV Volts	Threshhold mV [2]	Window mV	Window In/Out	BKG Counts cpm	Source Counrts cpm	Within Acceptable Range Y or N	MDC pCi/gm	Tech
9-30-25	✓	9-30-25	ok	575	559	10	in	66	15605	y	–	VP
10-17-25	✓	09-30-25	OK	583	559	10	in	78	15841	y	–	VP
10-18-25	✓	9-30-25	OK	573	559	10	in	68	15714	y	–	VP
10-20-25	✓	9-30-25	ok	582	559	10	in	65	15637	y	–	VP
10-21-25	✓	9-30-25	ok	574	559	10	in	78	15870	y	–	VP
10-22-25	✓	9-30-25	ok	575	559	10	in	63	15685	y	–	VP
4-13-26	✓	9-30-25	ok	579	559	10	in	65	15387	y	–	VP

Note: (1) Battery Voltage for Ludlum 2221 must be >5.3 volts; (2) Threshhold must be at 10 mV; (3) Window must be IN

AVM Environmental Services, Inc.
Micro R Meter Function Check Form

Micro R Meter: Ludlum 19, SR#76248

Function Check Source ID: 1% U_3O_8 Ore in Sealed can

Function Check @ Calibration 140

Acceptable Function Check Reading (uR/hr) Range (20%) 112 to 168

Date	Physical Check	Cal Date	Battery(1) Volts or OK	BKG Reading uR/hr	Source Reading (2) uR/hr	Within Acceptable Range Y or N	Cal Due	Tech
8-20-25	✓	8-20-25	Ok	10-12	140	Y	8-20-26	VP
10-1-25	✓	8-20-25	ok	10-12	140	Y	8-20-26	VP
10-2-25	✓	8-20-25	ok	8-10	140	Y	8-20-26	VP
10-7-25	✓	8-20-25	OK	10-12	135	Y	8-20-26	VP
10-17-25	✓	8-20-25	ok	8-10	140	Y	8-20-26	VP
10-18-25	✓	8-20-25	ok	8-10	140	Y	8-20-26	VP
10-20-25	✓	8-20-25	ok	10-12	140	Y	8-20-26	VP
10-21-25	✓	8-20-25	ok	8-10	135	Y	8-20-26	VP
10-22-25	✓	8-20-25	ok	10-12	135	Y	8-20-26	VP
10-24-25	✓	8-20-25	ok	10-12	140	Y	8-20-26	VP
4-13-26	✓	8-20-25	ok	10-12	130	Y	8-20-26	VP

Note: (1) Battery Voltage must be within BAT TEST Range (2) Function Check Source must be placed in the circle on the front side of the meter

AVM Environmental Services, Inc.
Micro R Meter Function Check Form

Micro R Meter: Ludlum 19, SR#76248

Function Check Source ID: 1% U_3O_8 Ore in Sealed can

Function Check @ Calibration 135

Acceptable Function Check Reading (uR/hr) Range (20%) 108 to 162

Date	Physical Check	Cal Date	Battery(1) Volts or OK	BKG Reading uR/hr	Source Reading (2) uR/hr	Within Acceptable Range Y or N	Cal Due	Tech
5-12-25	✓	10-4-24	ok	8-10	140	Y	10-4-25	VP
5-13-25	✓	10-4-24	ok	8-10	140	Y	10-4-25	VP
5-14-25	✓	10-4-24	ok	8-10	135	Y	10-4-25	VP
6-6-25	✓	10-4-24	ok	8-10	140	Y	10-4-25	VP
6-19-25	✓	10-4-24	ok	8-10	135	Y	10-4-25	VP
6-30-25	✓	10-4-24	ok	8-12	130	Y	10-4-25	VP
7-28-25	✓	10-4-24	ok	8-10	140	Y	10-4-25	VP
8-4-25	✓	10-4-24	ok	8-10	140	Y	10-4-25	VP

Note: (1) Battery Voltage must be within BAT TEST Range (2) Function Check Source must be placed in the circle on the front side of the meter

AVM Environmental Services, Inc.
Micro R Meter Function Check Form

Micro R Meter: Ludlum 19, SR#76248

Function Check Source ID: 1% U_3O_8 Ore in Sealed can

Function Check @ Calibration 135

Acceptable Function Check Reading (uR/hr) Range (20%) 108 to 162

Date	Physical Check	Cal Date	Battery(1) Volts or OK	BKG Reading uR/hr	Source Reading (2) uR/hr	Within Acceptable Range Y or N	Cal Due	Tech
3-6-25	✓	10-4-24	ok	8-10	140	Y	10-4-25	VP
3-11-25	✓	10-4-24	ok	8-10	140	Y	10-4-25	VP
3-12-25	✓	10-4-24	ok	8-10	135	Y	10-4-25	VP
3-17-25	✓	10-4-24	ok	10-12	140	Y	10-4-25	VP
3-25-25	✓	10-4-24	ok	8-10	140	Y	10-4-25	VP
3-26-25	✓	10-4-24	ok	10-12	135	Y	10-4-25	VP
3-31-25	✓	10-4-24	ok	8-10	140	Y	10-4-25	VP
4-7-25	✓	10-4-24	ok	10-12	135	Y	10-4-25	VP
4-8-25	✓	10-4-24	ok	8-10	135	Y	10-4-25	VP
4-9-25	✓	10-4-24	ok	8-10	140	Y	10-4-25	VP
4-10-25	✓	10-4-24	ok	8-10	140	Y	10-4-25	VP
4-15-25	✓	10-4-24	ok	10-12	130	Y	10-4-25	VP
4-16-25	✓	10-4-24	ok	8-10	135	Y	10-4-25	VP
4-21-25	✓	10-4-24	ok	8-10	140	Y	10-4-25	VP
4-22-25	✓	10-4-24	ok	8-10	135	Y	10-4-25	VP
4-27-25	✓	10-4-24	ok	8-10	130	Y	10-4-25	VP
4-29-25	✓	10-4-24	ok	10-12	135	Y	10-4-25	VP
4-30-25	✓	10-4-24	ok	8-10	140	Y	10-4-25	VP

Note: (1) Battery Voltage must be within BAT TEST Range (2) Function Check Source must be placed in the circle on the front side of the meter

AVM Environmental Services, Inc.
Micro R Meter Function Check Form

Micro R Meter: Ludlum 19, SR#76248

Function Check Source ID: 1% U_3O_8 Ore in Sealed can

Function Check @ Calibration 135

Acceptable Function Check Reading (uR/hr) Range (20%) 108 to 162

Date	Physical Check	Cal Date	Battery(1) Volts or OK	BKG Reading uR/hr	Source Reading (2) uR/hr	Within Acceptable Range Y or N	Cal Due	Tech
12-16-24	✓	10-4-24	ok	8-10	140	Y	10-4-25	VP
12-18-24	✓	10-4-24	ok	8-10	135	Y	10-4-25	VP
12-19-24	✓	10-4-24	ok	8-10	140	Y	10-4-25	VP
12-23-24	✓	10-4-24	ok	8-10	130	Y	10-4-25	VP
1-7-25	✓	10-4-24	ok	8-10	135	Y	10-4-25	VP
1-16-25	✓	10-4-24	ok	8-10	130	Y	10-4-25	VP
1-17-25	✓	10-4-24	ok	8-10	140	Y	10-4-25	VP
1-23-25	✓	10-4-24	ok	8-10	135	Y	10-4-25	VP
1-27-25	✓	10-4-24	ok	8-10	130	Y	10-4-25	VP
2-5-25	✓	10-4-24	ok	8-10	130	Y	10-4-25	VP
2-6-25	✓	10-4-24	ok	8-10	130	Y	10-4-25	VP
2-10-25	✓	10-4-24	ok	10-12	140	Y	10-4-25	VP
2-13-25	✓	10-4-24	ok	8-10	135	Y	10-4-25	VP
2-19-25	✓	10-4-24	ok	8-10	140	Y	10-4-25	VP
2-20-25	✓	10-4-24	ok	8-10	140	Y	10-4-25	VP
2-26-25	✓	10-4-24	ok	8-10	140	Y	10-4-25	VP
3-3-25	✓	10-4-24	ok	8-10	135	Y	10-4-25	VP
3-6-25	✓	10-4-24	ok	8-10	130	Y	10-4-25	VP

Note: (1) Battery Voltage must be within BAT TEST Range (2) Function Check Source must be placed in the circle on the front side of the meter

AVM Environmental Services, Inc.
Micro R Meter Function Check Form

Micro R Meter: Ludlum 19, SR#76248

Function Check Source ID: 1% U_3O_8 Ore in Sealed can

Function Check @ Calibration 135

Acceptable Function Check Reading (uR/hr) Range (20%) 108 to 162

Date	Physical Check	Cal Date	Battery(1) Volts or OK	BKG Reading uR/hr	Source Reading (2) uR/hr	Within Acceptable Range Y or N	Cal Due	Tech
10-14-24	✓	10-4-24	ok	10-12	130	y	10-4-25	VP
10-15-24	✓	10-4-24	ok	8-10	140	y	10-4-25	VP
10-16-24	✓	10-4-24	ok	8-10	140	y	10-4-25	VP
10-21-24	✓	10-4-24	ok	8-10	130	y	10-4-25	VP
10-23-24	✓	10-4-24	ok	8-10	140	y	10-4-25	VP
10-29-24	✓	10-4-24	ok	8-10	130	y	10-4-25	VP
10-31-24	✓	10-4-24	ok	10-12	130	y	10-4-25	VP
11-11-24	✓	10-4-24	ok	8-10	130	y	10-4-25	VP
11-12-24	✓	10-4-24	ok	8-10	130	y	10-4-25	VP
11-18-24	✓	10-4-24	ok	8-10	140	y	10-4-25	VP
11-20-24	✓	10-4-24	ok	8-10	130	y	10-4-25	VP
11-22-24	✓	10-4-24	ok	8-10	140	y	10-4-25	VP
11-25-24	✓	10-4-24	ok	8-10	140	y	10-4-25	VP
11-26-24	✓	10-4-24	ok	8-10	130	y	10-4-25	VP
12-2-24	✓	10-4-24	ok	8-10	140	y	10-4-25	VP
12-4-24	✓	10-4-24	ok	8-10	130	y	10-4-25	VP
12-11-24	✓	10-4-24	ok	8-10	140	y	10-4-25	VP
12-12-24	✓	10-4-24	ok	8-10	130	y	10-4-25	VP

Note: (1) Battery Voltage must be within BAT TEST Range (2) Function Check Source must be placed in the circle on the front side of the meter

AVM Environmental Services, Inc.
Scaler/Ratemeter - 2" x 2" NaI Detector Function Check

Function Check Source ID: 1% U_3O_8 Ore in Sealed can

2" x 2" NaI Detector ID: SPA-3 #30

Acceptable background Count (cpm) Range (20%) 6055 to 9083 (Bare)

Acceptable background Count (cpm) Range (20%) 2150 to 3226 (collimated)

Acceptable Source Count (cpm) Range (20%) 78112 to 117168

Date	Scaler/Ratemeter	Physical Check	Cal Due	Battery(1) Volts or OK	HV Volts	THR mV (2)	Window In or OUT(3)	C.C.(4)	BKG Counts cpm	Source Counrts cpm	Within Acceptable Range Y or N	MDC pCi/gm	Tech
2-17-25	L3003 S#250368838	✓	2-17-26	ok	900	10	out	1	7530 Bare 2740 Coll.	97800	y	—	VP
10-1-25	L3003 S#250368838	✓	2-17-26	ok	900	10	out	1	7410 Bare 2680 Coll.	97300	y	—	VP
10-2-25	L3003 S#250368838	✓	2-17-26	OK	900	10	out	1	7480 Bare 2570 Coll.	98100	y	—	VP
10-7-25	L3003 S#250368838	✓	2-17-26	OK	900	10	out	1	7400 Bare 2740 Coll.	97500	y	—	VP
10-17-25	L3003 S#250368838	✓	2-17-26	OK	900	10	out	1	7520 Bare 2620 Coll.	98100	y	—	VP
10-18-25	L3003 S# 68838	✓	2-17-26	OK	900	10	out	1	7490 Bare 2570 Coll.	98500	y	—	VP
10-20-25	L3003 S# 68838	✓	2-17-26	OK	900	10	out	1	7540 Bare 2640 Coll.	97900	y	—	VP
10-21-25	L3003 S# 6838	✓	2-17-26	ok	900	10	out	1	7570 Bare 2690 Coll.	98300	y	—	VP
10-22-25	L3003 S# 6838	✓	2-17-26	OK	900	10	out	1	7490 Bare 2630 Coll.	97800	y	—	VP
									Bare Coll.				
~~3-11-25~~									Bare Coll.				
									Bare Coll.				
									Bare Coll.				
									Bare Coll.				
									Bare Coll.				
									Bare Coll.				

Note: (1) Battery Voltage for Ludlum 2221 must be >5.3 volts; (2) Threshhold must be at 10.0 mV; (3) Window Position must be OUT; (4) CC on L2241-2 set at 0.001
For L2241-2 Check HV and Threshold using Ludlum 500 pulser.

AVM Environmental Services, Inc.
Scaler/Ratemeter - 2" x 2" Nal Detector Function Check

Function Check Source ID: 1% U_3O_8 Ore in Sealed can

2" x 2" Nal Detector ID: SPA-3 S#408522-30

Acceptable background Count (cpm) Range (20%) 6055 to 9083 (Bare)

Acceptable background Count (cpm) Range (20%) 2150 to 3226 (collimated)

Acceptable Source Count (cpm) Range (20%) 78112 to 117168

Date	Scaler/Ratemeter	Physical Check	Cal Due	Battery[1] Volts or OK	HV Volts	THR mV[2]	Window In or OUT[3]	C.C.[4]	BKG Counts cpm	Source Counrts cpm	Within Acceptable Range Y or N	MDC pCi/gm	Tech
2-17-25	L300 3 S# 25036838	✓	2-17-26	ok	900	10	out	1	7530 Bare / 2790 Coll.	97800	y	–	VP
2-19-25	L300 3 S# 25036838	✓	2-17-26	ok	900	10	out	1	7490 Bare / 2550 Coll.	99800	y	–	VP
2-20-25	L300 3 S#25036838	✓	2-17-26	ok	900	10	out	1	7540 Bare / 2590 Coll.	100000	y	–	VP
2-26-25	L300 3 S#25036838	✓	2-17-26	ok	900	10	out	1	7640 Bare / 2610 Coll.	99900	y	–	VP
3-11-25	L300 3 S#25036830	✓	2-17-26	ok	900	10	out	1	7510 Bare / 2620 Coll.	99900	y	–	VP
3-12-25	L300 3 S#25036830	✓	2-17-26	ok	900	10	out	1	7630 Bare / 2600 Coll.	99300	y	–	VP
3-31-25	L300 3 S#25036830	✓	2-17-26	ok	900	10	out	1	7540 Bare / 2790 Coll.	99100	y	–	VP
4-19-25	L300 3 S#25036830	✓	2-17-26	ok	900	10	out	1	7520 Bare / 2690 Coll.	98400	y	–	VP
5-21-25	L300 3 S#25036830	✓	2-17-26	ok	900	10	out	1	7640 Bare / 2710 Coll.	99820	y	–	VP
5-22-25	L300 3 S#25036830	✓	2-17-26	ok	900	10	out	1	7620 Bare / 2570 Coll.	98770	y	–	VP
5-28-25	L300 3 S#25036830	✓	2-17-26	ok	900	10	out	1	7520 Bare / 2800 Coll.	97660	y	–	VP
5-29-25	L300 3 S#25036830	✓	2-17-26	ok	900	10	out	1	7510 Bare / 2670 Coll.	98200	y	–	VP
6-9-25	L300 3 S#25036830	✓	2-17-26	ok	900	10	out	1	7720 Bare / 2810 Coll.	97700	y	–	VP
6-10-25	L300 3 S#25036830	✓	2-17-26	ok	900	10	out	1	7600 Bare / 2720 Coll.	97600	y	–	VP
6-11-25	L300 3 S#25036830	✓	2-17-26	ok	900	10	out	1	7590 Bare / 2770 Coll.	98100	y	–	VP
6-19-25	L300 3 S#25036830	✓	2-17-26	ok	900	10	out	1	7600 Bare / 2800 Coll.	98110	y	–	VP

Note: (1) Battery Voltage for Ludlum 2221 must be >5.3 volts; (2) Threshhold must be at 10.0 mV; (3) Window Position must be OUT; (4) CC on L2241-2 set at 0.001
For L2241-2 Check HV and Threshold using Ludlum 500 pulser.

AVM Environmental Services, Inc.
Scaler/Ratemeter - 2" x 2" NaI Detector Function Check

Function Check Source ID: 1% U_3O_8 Ore in Sealed can

2" x 2" NaI Detector ID: SPA-3 #30

Acceptable background Count (cpm) Range (20%) 6524 to 9786 (Bare)

Acceptable background Count (cpm) Range (20%) 2537 to 3805 (collimated)

Acceptable Source Count (cpm) Range (20%) 77104 to 115656

Date	Scaler/Ratemeter	Physical Check	Cal Due	Battery[1] Volts or OK	HV Volts	THR mV[2]	Window In or OUT[3]	C.C.[4]	BKG Counts cpm	Source Counrts cpm	Within Acceptable Range Y or N	MDC pCi/gm	Tech
2-19-25	L2221 S#290801	✓	2-17-26	ok	900	10	out	1	8341 Bare / 3130 Coll.	97899	Y	–	VP
3-31-25	L2221 S# 290801	✓	2-17-26	ok	900	10	out	1	8216 Bare / 3224 Coll.	98878	Y	–	VP
4-7-25	L2221 S#290801	✓	2-17-26	ok	900	10	out	1	8334 Bare / 3127 Coll.	96885	Y	–	VP
4-8-25	L2221 S#290801	✓	2-17-26	ok	900	10	out	1	8169 Bare / 3341 Coll.	97946	Y	–	VP
4-9-25	L2221 S#290801	✓	2-17-26	ok	900	10	out	1	8238 Bare / 3235 Coll.	99787	Y	–	VP
4-10-25	L2221 S#290801	✓	2-17-26	ok	900	10	out	1	8411 Bare / 3187 Coll.	98777	Y	–	VP
4-16-25	L2221 S#290801	✓	2-17-26	ok	900	10	out	1	8362 Bare / 3320 Coll.	98641	Y	–	VP
4-21-25	L2221 S#290801	✓	2-17-26	ok	900	10	out	1	8308 Bare / 3162 Coll.	97443	Y	–	VP
4-22-25	L2221 S#290801	✓	2-17-26	ok	900	10	out	1	8314 Bare / 3210 Coll.	98790	Y	–	VP
4-28-25	L2221 S#290801	✓	2-17-26	ok	900	10	out	1	8398 Bare / 3200 Coll.	97314	Y	–	VP
4-29-25	L2221 S# 290801	✓	2-17-26	ok	900	10	out	1	8501 Bare / 3029 Coll.	96776	Y	–	VP
4-30-25	L2221 S#290801	✓	2-17-26	ok	900	10	out	1	8328 Bare / 3209 Coll.	97640	Y	–	VP
5-12-25	L2221 S# 290801	✓	2-17-26	ok	900	10	out	1	8364 Bare / 3280 Coll.	97871	Y	–	VP
5-14-25	L2221 S#290801	✓	2-17-26	ok	900	10	out	1	8153 Bare / 3116 Coll.	97658	Y	–	VP
5-15-25	L2221 S#L290801	✓	2-17-26	ok	900	10	out	1	8107 Bare / 3152 Coll.	97508	Y	–	VP
6-26-25	L2221 S#290801	✓	2-17-26	ok	900	10	out	1	8514 Bare / 8514 Coll.	98064	Y	–	VP

Note: (1) Battery Voltage for Ludlum 2221 must be >5.3 volts; (2) Threshhold must be at 10.0 mV; (3) Window Position must be OUT; (4) CC on L2241-2 set at 0.001
For L2241-2 Check HV and Threshold using Ludlum 500 pulser.

AVM Environmental Services, Inc.
Scaler/Ratemeter - 2" x 2" Nal Detector Function Check

Function Check Source ID: 1% U_3O_8 Ore in Sealed can

2" x 2" Nal Detector ID: SPA-3 S#408522-30

Acceptable background Count (cpm) Range (20%) 6524 to 9786 (Bare)

Acceptable background Count (cpm) Range (20%) 2537 to 3805 (collimated)

Acceptable Source Count (cpm) Range (20%) 77104 to 115656

Date	Scaler/Ratemeter	Physical Check	Cal Due	Battery(1) Volts or OK	HV Volts	THR mV (2)	Window In or OUT(3)	C.C.(4)	BKG Counts cpm	Source Counrts cpm	Within Acceptable Range Y or N	MDC pCi/gm	Tech
10-28-24	L2221 S#290801	✓	2-19-24	ok	900	10	out	1	8134 Bare / 3293 Coll.	97498	✓	—	VP
11-18-24	L2221 S#290801	✓	2-19-24	ok	900	10	out	1	8439 Bare / 3190 Coll.	98377	✓	—	VP
11-22-24	L2221 S#290801	✓	2-19-24	ok	900	10	out	1	8503 Bare / 3273 Coll.	99127	✓	—	VP
11-25-24	L2221 S#290801	✓	2-19-24	ok	900	10	out	1	8411 Bare / 3230 Coll.	98897	✓	—	VP
12-2-24	L2221 S#290801	✓	2-19-24	ok	900	10	out	1	8316 Bare / 3196 Coll.	97663	✓	—	VP
12-4-24	L2221 S#290801	✓	2-19-24	ok	900	10	out	1	8271 Bare / 3240 Coll.	98336	✓	—	VP
12-5-24	L2221 S#290801	✓	2-19-24	ok	900	10	out	1	8377 Bare / 3216 Coll.	98162	✓	—	VP
12-9-24	L2221 S#290801	✓	2-19-24	ok	900	10	out	1	8413 Bare / 3457 Coll.	98760	✓	—	VP
12-11-24	L2221 S#290801	✓	2-19-24	ok	900	10	out	1	8301 Bare / 3241 Coll.	97843	✓	—	VP
1-27-25	L2221 S#290801	✓	2-19-24	ok	900	10	out	1	8841 Bare / 3396 Coll.	99501	✓	—	VP
2-5-25	L2221 S#290801	✓	2-19-24	ok	900	10	out	1	8508 Bare / 3428 Coll.	98671	✓	—	VP
2-6-25	L2221 S#290801	✓	2-19-24	ok	900	10	out	1	8309 Bare / 3293 Coll.	99461	✓	—	VP
2-10-25	L2221 S#290801	✓	2-19-24	ok	900	10	out	1	8448 Bare / 3480 Coll.	98099	✓	—	VP
2-13-25	L2221 S#290801	✓	2-19-24	ok	900	10	out	1	8308 Bare / 3333 Coll.	98664	✓	—	VP
									Bare / Coll.				
									Bare / Coll.				

Note: (1) Battery Voltage for Ludlum 2221 must be >5.3 volts; (2) Threshhold must be at 10.0 mV; (3) Window Position must be OUT; (4) CC on L2241-2 set at 0.001
For L2241-2 Check HV and Threshold using Ludlum 500 pulser.

AVM Environmental Services, Inc.
Scaler/Ratemeter - 2" x 2" NaI Detector Function Check

Function Check Source ID: 1% U_3O_8 Ore in Sealed can

2" x 2" NaI Detector ID: SPA-3 S#408522-20

Acceptable background Count (cpm) Range (20%) 6524 to 9786 (Bare)

Acceptable background Count (cpm) Range (20%) 2537 to 3805 (collimated)

Acceptable Source Count (cpm) Range (20%) 77104 to 115656

Date	Scaler/Ratemeter	Physical Check	Cal Due	Battery[1] Volts or OK	HV Volts	THR mV[2]	Window In or OUT[3]	C.C.[4]	BKG Counts cpm	Source Counrts cpm	Within Acceptable Range Y or N	MDC pCi/gm	Tech
8-28-24	L2221 S#290801	✓	2-19-25	OK	900	10	out	1	8180 Bare / 3342 Coll.	99633	Y	—	VP
8-30-24	L2221 S#290801	✓	2-19-25	OK	900	10	out	1	8151 Bare / 3141 Coll.	94361	Y	—	VP
9-3-24	L2221 S#290801	✓	2-19-25	OK	900	10	out	1	8019 Bare / 3008 Coll.	94435	Y	—	VP
9-4-24	L2221 S#290801	✓	2-19-25	OK	900	10	out	1	8269 Bare / 3172 Coll.	95972	Y	—	VP
9-9-24	L2221 S#290801	✓	2-19-25	OK	900	10	out	1	8289 Bare / 3460 Coll.	96559	Y	—	VP
9-10-24	L2221 S#290801	✓	2-19-25	OK	900	10	out	1	8117 Bare / 3234 Coll.	94663	Y	—	VP
9-11-24	L2221 S#290801	✓	2-19-25	OK	900	10	out	1	8529 Bare / 3263 Coll.	96573	Y	—	VP
9-17-24	L2221 S#290801	✓	2-19-25	OK	900	10	out	1	8079 Bare / 3096 Coll.	97763	Y	—	VP
9-19-24	L2221 S#290801	✓	2-19-25	OK	900	10	out	1	8862 Bare / 3380 Coll.	97608	Y	—	VP
10-7-24	L2221 S#290801	✓	2-19-25	OK	900	10	out	1	8805 Bare / 3179 Coll.	95735	Y	—	VP
10-8-24	L2221 S#290801	✓	2-19-25	OK	900	10	out	1	8140 Bare / 3311 Coll.	97124	Y	—	VP
10-9-24	L2221 S#290801	✓	2-19-25	OK	900	10	out	1	8370 Bare / 3145 Coll.	97321	Y	—	VP
10-15-24	L2221 S#290801	✓	2-19-25	OK	900	10	out	1	8242 Bare / 3290 Coll.	95964	Y	—	VP
10-16-24	L2221 S#290801	✓	2-19-25	OK	900	10	out	1	8345 Bare / 3045 Coll.	95244	Y	—	VP
10-21-24	L2221 S#290801	✓	2-19-25	OK	900	10	out	1	8171 Bare / 3070 Coll.	98844	Y	—	VP
10-23-24	L2221 S#290801	✓	2-19-25	OK	900	10	out	1	8167 Bare / 3314 Coll.	98553	Y	—	VP

Note: (1) Battery Voltage for Ludlum 2221 must be >5.3 volts; (2) Threshhold must be at 10.0 mV; (3) Window Position must be OUT; (4) CC on L2241-2 set at 0.001
For L2241-2 Check HV and Threshold using Ludlum 500 pulser.

Appendix C
Soil Sample COC and Laboratory Analytical Results Report

GEL Laboratories LLC
a member of The GEL Group INC

2040 Savage Road | Charleston, SC 29407
843.556.8171
gel.com

January 14, 2026

Kelly Johnson
Stantec
2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah 84121

Re: Section 27 Supplemental Characterization (182922679)
Work Order: 750007

Dear Kelly Johnson:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on October 30, 2025. This revised data report has been prepared and reviewed in accordance with GEL's standard operating procedures. This report replaces the original version which is noted as SDG number 750007 in the left-hand footer of the data report. This data report has been revised to reflect recalculated data using the Bi-214 609 KeV peak.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. Sample ID was incorrectly marked compared to COC. Client confirmed sample ID via email*750007031(S27-SS12 0.0'-0.5').*

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 1614.

Sincerely,

Christopher Rossmann for
Delaney Stonesmith
Project Manager

Purchase Order: MSA 40422
Enclosures

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

STNT008 Stantec

Client SDG: 750007 GEL Work Order: 750007

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria
** Analyte is a Tracer compound
** Analyte is a surrogate compound
B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL
H Analytical holding time was exceeded
J Value is estimated
N Metals--The Matrix spike sample recovery is not within specified control limits
N/A RPD or %Recovery limits do not apply.
U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
h Preparation or preservation holding time was exceeded

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Delaney Stonesmith.

Reviewed by Chris Rossmann

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: January 14, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP21 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007001	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 08:10		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	6.69%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		37900	13.9	42.1	ug/kg	98.2	2	RM4	11/19/25	2049	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 14, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP19 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007002	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 08:30		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.11%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		68900	13.2	40.1	ug/kg	95.2	2	RM4	11/19/25	2106	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 14, 2026

Company :	Stantec
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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS21 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007005	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 09:10		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	4.58%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		89500	12.6	38.0	ug/kg	90.7	2	RM4	11/19/25	2110	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 14, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS17 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007006	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 10:20		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	8.45%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury	Hh	31.0	7.96	23.7	ug/kg	109	1	JP2	11/03/25	0949	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	344	2080	ug/kg	95.4	1	EM2	11/12/25	1715	2890577	2
Silver	U	ND	104	521	ug/kg	95.4	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		6960	317	937	ug/kg	85.8	2	RM4	11/19/25	2113	2899653	3
Barium		63500	93.7	749	ug/kg	85.8	2					
Beryllium		768	18.7	93.7	ug/kg	85.8	2					
Cadmium		206	18.7	187	ug/kg	85.8	2					
Calcium		8430000	12600	37500	ug/kg	85.8	2					
Chromium		13500	187	562	ug/kg	85.8	2					
Cobalt		7020	56.2	187	ug/kg	85.8	2					
Copper		14200	61.8	375	ug/kg	85.8	2					
Magnesium		3900000	1870	5620	ug/kg	85.8	2					
Nickel		14700	93.7	375	ug/kg	85.8	2					
Potassium		3780000	15000	56200	ug/kg	85.8	2					
Selenium		5530	337	937	ug/kg	85.8	2					
Sodium		67500	15000	46800	ug/kg	85.8	2					
Thallium		378	74.9	375	ug/kg	85.8	2					
Uranium		3350	12.4	37.5	ug/kg	85.8	2					
Vanadium		33800	281	3750	ug/kg	85.8	2					
Zinc		54900	749	3750	ug/kg	85.8	2					
Iron		23300000	61800	187000	ug/kg	85.8	20	RM4	11/19/25	2234	2899653	4
Manganese		261000	1870	9370	ug/kg	85.8	20					
Lead		16400	93.7	375	ug/kg	85.8	2	RM4	11/20/25	1659	2899653	5
Aluminum		16300000	42600	93700	ug/kg	85.8	20	RM4	11/20/25	1713	2899653	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652
SW846 3050B	SW846 3050B Prep	HC1	10/31/25	1130	2890575
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS17 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007006	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

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Company :	Stantec
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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS16 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007007	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 10:30		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	8.81%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		6060	12.6	38.2	ug/kg	87.1	2	RM4	11/19/25	2117	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 14, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS11 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007008	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 10:40		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	10.7%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		6320	14.2	43.2	ug/kg	96.3	2	RM4	11/19/25	2120	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Company :	Stantec
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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS05 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007009	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 10:50		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	10.5%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		6860	13.9	42.0	ug/kg	94.0	2	RM4	11/19/25	2129	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

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Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS07 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007010	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 11:00		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	11.6%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury	Hh	42.0	8.74	26.1	ug/kg	115	1	JP2	11/03/25	0951	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	334	2030	ug/kg	89.6	1	EM2	11/12/25	1727	2890577	2
Silver	U	ND	101	507	ug/kg	89.6	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		8350	361	1070	ug/kg	94.5	2	RM4	11/19/25	2133	2899653	3
Barium		78600	107	855	ug/kg	94.5	2					
Beryllium		849	21.4	107	ug/kg	94.5	2					
Cadmium		244	21.4	214	ug/kg	94.5	2					
Calcium		6300000	14300	42800	ug/kg	94.5	2					
Chromium		14700	214	641	ug/kg	94.5	2					
Cobalt		8060	64.1	214	ug/kg	94.5	2					
Copper		17600	70.6	428	ug/kg	94.5	2					
Magnesium		4390000	2140	6410	ug/kg	94.5	2					
Nickel		15900	107	428	ug/kg	94.5	2					
Potassium		4650000	17100	64100	ug/kg	94.5	2					
Selenium		5030	385	1070	ug/kg	94.5	2					
Sodium		71100	17100	53400	ug/kg	94.5	2					
Thallium		440	85.5	428	ug/kg	94.5	2					
Uranium		4760	14.1	42.8	ug/kg	94.5	2					
Vanadium		38700	321	4280	ug/kg	94.5	2					
Zinc		66600	855	4280	ug/kg	94.5	2					
Iron		26400000	70600	214000	ug/kg	94.5	20	RM4	11/19/25	2254	2899653	4
Manganese		303000	2140	10700	ug/kg	94.5	20					
Lead		18000	107	428	ug/kg	94.5	2	RM4	11/20/25	1701	2899653	5
Aluminum		17400000	48600	107000	ug/kg	94.5	20	RM4	11/20/25	1715	2899653	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep	HC1	10/31/25	1130	2890575
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

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Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS07 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007010	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

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Company :	Stantec
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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS25 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007013	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 12:20		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	6.58%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury	Hh	30.9	7.91	23.6	ug/kg	110	1	JP2	11/03/25	0953	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	318	1930	ug/kg	90.1	1	EM2	11/12/25	1729	2890577	2
Silver	U	ND	96.4	482	ug/kg	90.1	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		7790	303	896	ug/kg	83.8	2	RM4	11/19/25	2136	2899653	3
Barium		51600	89.6	717	ug/kg	83.8	2					
Beryllium		500	17.9	89.6	ug/kg	83.8	2					
Cadmium	J	91.4	17.9	179	ug/kg	83.8	2					
Chromium		6200	179	538	ug/kg	83.8	2					
Cobalt		4010	53.8	179	ug/kg	83.8	2					
Copper		7260	59.2	359	ug/kg	83.8	2					
Magnesium		3150000	1790	5380	ug/kg	83.8	2					
Nickel		5870	89.6	359	ug/kg	83.8	2					
Potassium		2170000	14300	53800	ug/kg	83.8	2					
Selenium		8490	323	896	ug/kg	83.8	2					
Sodium		52000	14300	44800	ug/kg	83.8	2					
Thallium	J	214	71.7	359	ug/kg	83.8	2					
Uranium		53800	11.8	35.9	ug/kg	83.8	2					
Vanadium		50400	269	3590	ug/kg	83.8	2					
Zinc		29000	717	3590	ug/kg	83.8	2					
Calcium		9990000	120000	359000	ug/kg	83.8	20	RM4	11/19/25	2258	2899653	4
Iron		11200000	59200	179000	ug/kg	83.8	20					
Manganese		189000	1790	8960	ug/kg	83.8	20					
Aluminum		6570000	4080	8960	ug/kg	83.8	2	RM4	11/20/25	1708	2899653	5
Lead		10900	89.6	359	ug/kg	83.8	2					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652
SW846 3050B	SW846 3050B Prep	HC1	10/31/25	1130	2890575

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Certificate of Analysis

Report Date: January 14, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS25 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007013	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 14, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SSDS-01 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007018	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 13:20		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	10.6%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		6430	12.5	38.0	ug/kg	84.9	2	RM4	11/19/25	2140	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS06 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007030	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 10:30		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.16%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury	Hh	26.7	7.76	23.2	ug/kg	110	1	JP2	11/03/25	0955	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	303	1830	ug/kg	87.0	1	EM2	11/12/25	1732	2890577	2
Silver	U	ND	91.7	458	ug/kg	87.0	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		4360	327	967	ug/kg	91.7	2	RM4	11/19/25	2143	2899653	3
Barium		82700	96.7	774	ug/kg	91.7	2					
Beryllium		431	19.3	96.7	ug/kg	91.7	2					
Cadmium	J	80.8	19.3	193	ug/kg	91.7	2					
Chromium		6790	193	580	ug/kg	91.7	2					
Cobalt		4280	58.0	193	ug/kg	91.7	2					
Copper		6410	63.8	387	ug/kg	91.7	2					
Magnesium		3820000	1930	5800	ug/kg	91.7	2					
Manganese		144000	193	967	ug/kg	91.7	2					
Nickel		6510	96.7	387	ug/kg	91.7	2					
Potassium		1500000	15500	58000	ug/kg	91.7	2					
Selenium		1890	348	967	ug/kg	91.7	2					
Sodium	J	45200	15500	48400	ug/kg	91.7	2					
Thallium	J	118	77.4	387	ug/kg	91.7	2					
Uranium		1640	12.8	38.7	ug/kg	91.7	2					
Vanadium		17600	290	3870	ug/kg	91.7	2					
Zinc		26800	774	3870	ug/kg	91.7	2					
Calcium		22400000	130000	387000	ug/kg	91.7	20	RM4	11/19/25	2305	2899653	4
Iron		12500000	63800	193000	ug/kg	91.7	20					
Aluminum		7460000	4400	9670	ug/kg	91.7	2	RM4	11/20/25	1710	2899653	5
Lead		8040	96.7	387	ug/kg	91.7	2					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652
SW846 3050B	SW846 3050B Prep	HC1	10/31/25	1130	2890575
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890

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Report Date: January 14, 2026

Company :	Stantec
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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS06 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007030	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Company :	Stantec
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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS14 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007032	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 11:00		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	9.31%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		3000	13.8	41.7	ug/kg	94.5	2	RM4	11/19/25	2146	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Report Date: January 14, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP20 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007034	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 12:00		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.53%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		9900	13.9	42.2	ug/kg	99.6	2	RM4	11/19/25	2150	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Report Date: January 14, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP26 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007035	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 12:20		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.18%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		10700	12.2	37.1	ug/kg	87.9	2	RM4	11/19/25	2153	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Report Date: January 14, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP24 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007036	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 12:40		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	17.4%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		27300	15.7	47.6	ug/kg	98.2	2	RM4	11/19/25	2156	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 14, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP18 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007037	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 13:00		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.72%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		24900	13.6	41.3	ug/kg	97.3	2	RM4	11/19/25	2200	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

QC Summary

Report Date: January 14, 2026

Stantec
2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah

Contact: **Kelly Johnson**

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch 2899653											
QC1206304011 LCS											
Aluminum	188000			198000	ug/kg		106	(80%-120%)	RM4	11/20/25	16:44
Arsenic	4700			4390	ug/kg		93.3	(80%-120%)		11/19/25	20:40
Barium	4700			4880	ug/kg		104	(80%-120%)			
Beryllium	4700			4610	ug/kg		98	(80%-120%)			
Cadmium	4700			4430	ug/kg		94.3	(80%-120%)			
Calcium	188000			202000	ug/kg		107	(80%-120%)			
Chromium	4700			4920	ug/kg		105	(80%-120%)			
Cobalt	4700			4980	ug/kg		106	(80%-120%)			
Copper	4700			5080	ug/kg		108	(80%-120%)			
Iron	188000			202000	ug/kg		107	(80%-120%)			
Lead	4700			4930	ug/kg		105	(80%-120%)		11/20/25	16:44
Magnesium	188000			196000	ug/kg		104	(80%-120%)		11/19/25	20:40

QC Summary

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2899653										
Manganese	4700			5050	ug/kg		107	(80%-120%)	RM4	11/19/25 20:40
Nickel	4700			4990	ug/kg		106	(80%-120%)		
Potassium	188000			189000	ug/kg		101	(80%-120%)		
Selenium	4700			3940	ug/kg		83.9	(80%-120%)		
Sodium	188000			197000	ug/kg		105	(80%-120%)		
Thallium	4700			4780	ug/kg		102	(80%-120%)		
Uranium	4700			4840	ug/kg		103	(80%-120%)		
Vanadium	4700			4750	ug/kg		101	(80%-120%)		
Zinc	4700			4400	ug/kg		93.6	(80%-120%)		
QC1206304010 MB										
Aluminum			U	ND	ug/kg					11/20/25 16:42
Arsenic			U	ND	ug/kg					11/19/25 20:37
Barium			U	ND	ug/kg					
Beryllium			U	ND	ug/kg					
Cadmium			U	ND	ug/kg					

QC Summary

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2899653										
Calcium			U	ND	ug/kg				RM4	11/19/25 20:37
Chromium			U	ND	ug/kg					
Cobalt			U	ND	ug/kg					
Copper			U	ND	ug/kg					
Iron			U	ND	ug/kg					
Lead			J	111	ug/kg					11/20/25 16:42
Magnesium			U	ND	ug/kg					11/19/25 20:37
Manganese			U	ND	ug/kg					
Nickel			U	ND	ug/kg					
Potassium			U	ND	ug/kg					
Selenium			U	ND	ug/kg					
Sodium			U	ND	ug/kg					
Thallium			U	ND	ug/kg					
Uranium			U	ND	ug/kg					

QC Summary

Workorder: **750007**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2899653											
Vanadium				U	ND	ug/kg				RM4	11/19/25 20:37
Zinc				U	ND	ug/kg					
QC1206304012 750007001 MS											
Aluminum	208000		5010000		7730000	ug/kg		N/A	(75%-125%)		11/20/25 16:49
Arsenic	5200		6880		11300	ug/kg		85.4	(75%-125%)		11/19/25 20:53
Barium	5200		51300		56300	ug/kg		N/A	(75%-125%)		
Beryllium	5200		376		5140	ug/kg		91.5	(75%-125%)		
Cadmium	5200	J	72.9		4720	ug/kg		89.3	(75%-125%)		
Calcium	208000		8430000		7330000	ug/kg		N/A	(75%-125%)		
Chromium	5200		4810		11600	ug/kg		130*	(75%-125%)		
Cobalt	5200		2690		7950	ug/kg		101	(75%-125%)		
Copper	5200		8390		12600	ug/kg		80.9	(75%-125%)		
Iron	208000		8860000		11100000	ug/kg		N/A	(75%-125%)		
Lead	5200		9790		15400	ug/kg		108	(75%-125%)		11/20/25 16:49
Magnesium	208000		1440000		1870000	ug/kg		N/A	(75%-125%)		11/19/25 20:53

QC Summary

Workorder: **750007**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2899653											
Manganese	5200		231000		238000	ug/kg		N/A	(75%-125%)	RM4	11/19/25 22:13
Nickel	5200		4380		10300	ug/kg		115	(75%-125%)		11/19/25 20:53
Potassium	208000		1640000		2180000	ug/kg		N/A	(75%-125%)		
Selenium	5200		12700		16000	ug/kg		63.9*	(75%-125%)		
Sodium	208000	J	32900		230000	ug/kg		94.8	(75%-125%)		
Thallium	5200	J	218		5030	ug/kg		92.5	(75%-125%)		
Uranium	5200		37900		36300	ug/kg		N/A	(75%-125%)		
Vanadium	5200		61900		82700	ug/kg		N/A	(75%-125%)		
Zinc	5200		18200		23800	ug/kg		108	(75%-125%)		
QC1206304013 750007001 MSD											
Aluminum	199000		5010000		7910000	ug/kg	2.4	N/A	(0%-20%)		11/20/25 16:51
Arsenic	4980		6880		10700	ug/kg	5.99	76	(0%-20%)		11/19/25 20:56
Barium	4980		51300		59800	ug/kg	6.06	N/A	(0%-20%)		
Beryllium	4980		376		4830	ug/kg	6.24	89.4	(0%-20%)		
Cadmium	4980	J	72.9		4560	ug/kg	3.43	90.1	(0%-20%)		

QC Summary

Workorder: **750007**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%		REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS												
Batch 2899653												
Calcium	199000		8430000		9050000	ug/kg	21	*	N/A	(0%-20%)	RM4	11/19/25 20:56
Chromium	4980		4810		10600	ug/kg	9.43		115	(0%-20%)		
Cobalt	4980		2690		7690	ug/kg	3.4		100	(0%-20%)		
Copper	4980		8390		11400	ug/kg	9.9		60.6*	(0%-20%)		
Iron	199000		8860000		8690000	ug/kg	24.6	*	N/A	(0%-20%)		
Lead	4980		9790		14200	ug/kg	8.04		88.6	(0%-20%)		11/20/25 16:51
Magnesium	199000		1440000		1870000	ug/kg	0.159		N/A	(0%-20%)		11/19/25 20:56
Manganese	4980		231000		215000	ug/kg	10.4		N/A	(0%-20%)		11/19/25 22:16
Nickel	4980		4380		8710	ug/kg	17.2		86.9	(0%-20%)		11/19/25 20:56
Potassium	199000		1640000		2230000	ug/kg	1.91		N/A	(0%-20%)		
Selenium	4980		12700		17300	ug/kg	7.85		93.1	(0%-20%)		
Sodium	199000	J	32900		227000	ug/kg	1.6		97.2	(0%-20%)		
Thallium	4980	J	218		4940	ug/kg	1.86		94.7	(0%-20%)		
Uranium	4980		37900		44300	ug/kg	19.9		N/A	(0%-20%)		

QC Summary

Workorder: **750007**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2899653											
Vanadium	4980		61900		83400	ug/kg	0.82	N/A	(0%-20%)	RM4	11/19/25 20:56
Zinc	4980		18200		24600	ug/kg	3.33	130*	(0%-20%)		
QC1206304014 750007001 PS											
Chromium	50.0		45.7		96.6	ug/L		102	(75%-125%)		11/19/25 21:00
Copper	50.0		79.7		131	ug/L		102	(75%-125%)		
Selenium	50.0		121		163	ug/L		84.2	(75%-125%)		
Zinc	50.0		173		219	ug/L		91.8	(75%-125%)		
QC1206304015 750007001 SDILT											
Aluminum			47600		51400	ug/L	8.01		(0%-20%)		11/20/25 16:56
Arsenic			65.3		68.5	ug/L	4.87		(0%-20%)		11/19/25 21:03
Barium			488		510	ug/L	4.62		(0%-20%)		
Beryllium			3.57	J	3.88	ug/L	8.7		(0%-20%)		
Cadmium		J	0.692	U	ND	ug/L	N/A		(0%-20%)		
Calcium			80000		81900	ug/L	2.39		(0%-20%)		
Chromium			45.7		46.5	ug/L	1.64		(0%-20%)		
Cobalt			25.6		26.8	ug/L	4.78		(0%-20%)		

QC Summary

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2899653										
Copper		79.7		86.6	ug/L	8.58		(0%-20%)	RM4	11/19/25 21:03
Iron		84200		87300	ug/L	3.69		(0%-20%)		
Lead		93.0		102	ug/L	9.47		(0%-20%)		11/20/25 16:56
Magnesium		13700		14600	ug/L	6.08		(0%-20%)		11/19/25 21:03
Manganese		2190		2260	ug/L	3.07		(0%-20%)		11/19/25 22:23
Nickel		41.6		45.4	ug/L	9.25		(0%-20%)		11/19/25 21:03
Potassium		15600		16000	ug/L	2.84		(0%-20%)		
Selenium		121		137	ug/L	14		(0%-20%)		
Sodium	J	313	U	ND	ug/L	N/A		(0%-20%)		
Thallium	J	2.07	U	ND	ug/L	N/A		(0%-20%)		
Uranium		360		373	ug/L	3.67		(0%-20%)		
Vanadium		588		606	ug/L	2.96		(0%-20%)		
Zinc		173	J	195	ug/L	13		(0%-20%)		

QC Summary

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP										
Batch 2890577										
QC1206286308 LCS										
Antimony	43600			43100	ug/kg		98.8	(80%-120%)	EM2	11/12/25 17:13
Silver	8730			9000	ug/kg		103	(80%-120%)		
QC1206286307 MB										
Antimony			U	ND	ug/kg					11/12/25 17:10
Silver			U	ND	ug/kg					
QC1206286309 750007006 MS										
Antimony	54400	U	ND	43900	ug/kg		80.6	(75%-125%)		11/12/25 17:18
Silver	10900	U	ND	10300	ug/kg		94.8	(75%-125%)		
QC1206286310 750007006 MSD										
Antimony	45800	U	ND	36500	ug/kg	18.3	79.6	(0%-20%)		11/12/25 17:20
Silver	9160	U	ND	8720	ug/kg	16.8	95.1	(0%-20%)		
QC1206286312 750007006 SDILT										
Antimony		U	ND	U ND	ug/L	N/A		(0%-20%)		11/12/25 17:25
Silver		U	ND	U ND	ug/L	N/A		(0%-20%)		
Metals Analysis-Mercury										
Batch 2890892										
QC1206286960 LCS										
Mercury	216			248	ug/kg		115	(80%-120%)	JP2	11/03/25 09:37
QC1206286959 MB										
Mercury			U	ND	ug/kg					11/03/25 09:36

QC Summary

Workorder: **750007**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%		REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury													
Batch 2890892													
QC1206286964 750212001 MS													
Mercury	202	U	ND		197	ug/kg			94	(80%-120%)	JP2	11/03/25	10:12
QC1206286965 750212001 MSD													
Mercury	239	U	ND		245	ug/kg	22.1	*	99.9	(0%-20%)		11/03/25	10:13

Notes:

The Qualifiers in this report are defined as follows:

U U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

J J Value is estimated

H H Analytical holding time was exceeded

h h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

QC Summary

Report Date: January 14, 2026
Page 1 of 2

Client : **Stantec**
2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah

Contact: **Kelly Johnson**

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 2893950										
QC1206292665 750007001 DUP										
Thorium-230		102		72.2	pCi/g	34.7*		(0%-20%)	KG3	11/19/2508:22
	Uncert:	+/-5.74		+/-5.28						
	TPU:	+/-16.3		+/-12.6						
**Thorium-229 Tracer	18.8	13.6		8.82	pCi/g		46.8	(15%-125%)		
	Uncert:	+/-2.46		+/-2.73						
	TPU:	+/-3.67		+/-4.04						
QC1206292666 LCS										
Thorium-230	17.2			18.8	pCi/g		109	(75%-125%)	KG3	11/19/2508:22
	Uncert:			+/-2.21						
	TPU:			+/-3.41						
**Thorium-229 Tracer	17.8			13.7	pCi/g		77.2	(15%-125%)		
	Uncert:			+/-2.16						
	TPU:			+/-3.26						
QC1206292664 MB										
Thorium-230			U	0.0660	pCi/g				KG3	11/19/2508:22
	Uncert:			+/-0.306						
	TPU:			+/-0.307						
**Thorium-229 Tracer	17.8			14.3	pCi/g		80.7	(15%-125%)		
	Uncert:			+/-2.05						
	TPU:			+/-3.12						
Rad Gamma Spec										
Batch 2890517										
QC1206286187 750007001 DUP										
Radium-226		68.8		68.1	pCi/g	1.01		(0%-20%)	JE2	11/21/2510:29
	Uncert:	+/-0.943		+/-1.37						
	TPU:	+/-5.82		+/-5.92						
QC1206286188 LCS										
Americium-241	482			502	pCi/g		104	(75%-125%)	JE2	11/21/2510:30
	Uncert:			+/-7.42						
	TPU:			+/-40.4						
Cesium-137	145			128	pCi/g		88	(75%-125%)		
	Uncert:			+/-2.56						
	TPU:			+/-11.2						
Cobalt-60	48.6			44.7	pCi/g		91.8	(75%-125%)		
	Uncert:			+/-1.87						
	TPU:			+/-5.05						
Radium-226			U	0.588	pCi/g					
	Uncert:			+/-0.513						
	TPU:			+/-0.580						
QC1206286186 MB										

QC Summary

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 2890517										
Radium-226			U	-0.0341	pCi/g				JE2	11/21/2509:55
	Uncert:			+/-0.0640						
	TPU:			+/-0.0658						
Batch 2891447										
QC1206287991 750007021 DUP										
Radium-226		4.98		5.00	pCi/g	.361		(0%-20%)	JE2	11/24/2512:28
	Uncert:	+/-0.335		+/-0.359						
	TPU:	+/-0.535		+/-0.564						
QC1206287992 LCS										
Americium-241	482			549	pCi/g		114	(75%-125%)	JE2	11/24/2512:29
	Uncert:			+/-13.0						
	TPU:			+/-64.6						
Cesium-137	145			133	pCi/g		91.5	(75%-125%)		
	Uncert:			+/-2.83						
	TPU:			+/-11.1						
Cobalt-60	48.6			46.1	pCi/g		94.9	(75%-125%)		
	Uncert:			+/-2.03						
	TPU:			+/-5.36						
Radium-226			U	0.946	pCi/g					
	Uncert:			+/-0.963						
	TPU:			+/-1.06						
QC1206287990 MB										
Radium-226			U	0.00243	pCi/g				JE2	11/24/2510:50
	Uncert:			+/-0.0614						
	TPU:			+/-0.0614						

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

U U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
** Indicates analyte is a surrogate/tracer compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

PO Number: MSA 40422
Project #: 182922679
GEL Quote #: GELP25-1221
GEL Project Manager: Delaney Stonesmith

GEL Laboratories LLC
CHEMISTRY RADIOCHEMISTRY RADIOBIOASSAY SPECIALTY ANALYTICS
843.556.8171 | 2040 Savage Road | Charleston, SC 29407 | gel.com

Chain of Custody and Analytical Record
(1) COC Number:
Page: 1 of 4
GEL Work Order Number: 750007

GEL Client Name: Kelly Johnson, Stantec
Phone Number: 801-617-3221
Project/Site Name: Section 27 Supplemental Characterization
Address: Ambrosia Lake, NM
Collected By: Victor Patel
Send Results To: kelly.johnson2@stantec.com, mary.privitera@stantec.com

Turn Around Time Requested. *Rush subject to surcharge.*
Standard: X
Rush (Specify):

Sample ID (Each ID listed will be reported as a unique sample unless otherwise instructed. *For composites - indicate start and stop date/time*)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	(2) Field Filtered	(3) QC Code	(4) Sample Matrix	Should this sample be considered: (7) Radioactive (Y or N)	(8) Potentially Hazardous (Y or N)	Total number of containers	(5) Sample Analysis Requested: Ra-226 (EPA 901.1Mod)	Th-230 (DOE EML HASL 300 Th-01-RC Mod)	Uranium (SW846 6020B)	TAL Metals (6020/7471)	(6) Preservative Type	Comments: Note: extra sample is required for sample specific QC
S27-TP21 0.0'-0.5'	10/1/2025	8:10		G	SO	N		1	X	X	X			
S27-TP19 0.0'-0.5'	10/1/2025	8:30		G	SO	N		1	X	X	X			
S27-SS19 0.0'-0.5'	10/1/2025	8:40		G	SO	N		1	X					
S27-SS20 0.0'-0.5'	10/1/2025	8:50		G	SO	N		1	X					
S27-SS21 0.0'-0.5'	10/1/2025	9:10		G	SO	N		1	X	X	X			
S27-SS17 0.0'-0.5'	10/1/2025	10:20		G	SO	N		1	X	X	X	X		
S27-SS16 0.0'-0.5'	10/1/2025	10:30		G	SO	N		1	X	X	X			
S27-SS11 0.0'-0.5'	10/1/2025	10:40		G	SO	N		1	X	X	X			
S27-SS05 0.0'-0.5'	10/1/2025	10:50		G	SO	N		1	X	X	X			
S27-SS07 0.0'-0.5'	10/1/2025	11:00		G	SO	N		1	X	X	X	X		

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (Signed)	Date	Time
1		10-24-25	1200	Stacy Boone	10/30/25	930
2						
3						

Select Deliverable: [ ] Results and QC Summary [ ] Calibration Summary [ ] Raw Data [ ] Standards Traceability
EDD Required? [X] If yes, specify type. GEL Standard DSS
Required Certification:
Sample Collection Time Zone: [ ] Eastern [ ] Pacific [ ] Central [X] Mountain [ ] Other:
Additional Comments:

For Lab Receiving Use Only: Custody Seal Intact? [ ] Yes [ ] No Cooler Temp: °C
For sample shipping and delivery details, see Sample Receipt & Review form (SRR).

(1) Chain of Custody Number: Client Determined

(2) Field Filtered: For liquid matrices, indicate with a Y for yes the sample was field filtered.

(3) QC Codes: Equipment Blank (EB), Field Reagent Blank, Field Duplicate (DUP), Trip Blank (TB), Matrix Spike (MS), Matrix Spike Duplicate (MSD), Composite (C), Grab (G)

(4) Matrix Codes: Biosolid (SB), Concrete (C), Drinking Water (DW), Fecal (FC), Filter (F), Groundwater (GW), Leachate (L), Misc Liquid (ML), Oil (O), Sediment (SD), Sludge (SL), Soil (SO), Solid Waste (SS), Storm Water (WS), Surface Water (SW), Tissue (T), Urine (U), Vegetation (V), Waste Water (WW), Water (W), Wipe (P)

(6) Preservative Type: Ammonium Acetate (AM), Ascorbic Acid (AA), Hexane (HX), Hydrochloric Acid (HA), Methanol (ME), Nitric Acid (NI), Sodium Hydroxide (SH), Sodium Bisulfate (SBA), Sodium Bisulfite SBI), Sodium Thiosulfate (ST), Sulfuric Acid (SA), Trizma (TZ), Zinc Acetate (ZA). *Leave blank if no preservative is added.*

(7) Radioactive **** If yes, email rso@gel.com prior to shipment for approval. Isotopic data should be included in the email and with the sample shipment.****

(8) Known or Possible Hazards:
Identify the "Source of the Sample" material *(e.g., NPDES discharge, waste material, stormwater, groundwater, Superfund Site etc.)*

RCRA Metals: Arsenic (As), Barium (Ba), Cadmium (Cd), Chromium (Cr), Lead (Pb), Mercury (Hg), Selenium (Se), Silver (Ag), Misc. RCRA (MR)
Is this sample known or suspected to be RCRA Hazardous? *Yes [ ] No [ ]*

Characteristics: Flammable/Ignitable (FL), Corrosive (CO), Reactive (RE)
TSCA Regulated: Polychlorinated biphenyls (PCB)

Listed Waste: Listed Waste (LW) *(F,K,P and U-listed wastes.)* *Waste code(s):*

Other: Other / Unknown (OT) *(i.e.: asbestos, beryllium, High/low pH, irritants, other misc. health hazards, etc.)* *Description:*

Please provide any additional details below regarding handling and/or disposal concerns.

PO Number: MSA 40422
Project #: 182922679
GEL Quote #: GELP25-1221
GEL Project Manager: Delaney Stonesmith

GEL Laboratories LLC
CHEMISTRY RADIOCHEMISTRY RADIOBIOASSAY SPECIALTY ANALYTICS
843.556.8171 | 2040 Savage Road | Charleston, SC 29407 | gel.com

Chain of Custody and Analytical Record
(1) COC Number :
Page: 2 of 4
GEL Work Order Number: 750007

GEL Client Name: Kelly Johnson, Stantec
Phone Number: 801-617-3221
Project/Site Name: Section 27 Supplemental Characterization
Address: Ambrosia Lake, NM
Collected By: Victor Patel
Send Results To: kelly.johnson2@stantec.com, mary.privitera@stantec.com

Turn Around Time Requested. *Rush subject to surcharge.*
Standard: X
Rush (Specify):

Sample ID Each ID listed will be reported as a unique sample unless otherwise instructed. * For composites - indicate start and stop date/time	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	(2) Field Filtered	(3) QC Code	(4) Sample Matrix	Should this sample be considered: (7) Radioactive (Y or N)	(8) Known or possible Hazards	Total number of containers	(5) Sample Analysis Requested: Ra-226 (EPA 901.1Mod)	Th-230 (DOE EML HASL 300 Th-01-RC Mod)	Uranium (SW846 6020B)	TAL Metals (6020/7471)	< (6) Preservative Type
S27-SS22 0.0'-0.5'	10/1/2025	12:00		G	SO	N		1	X				
S27-SS27 0.0'-0.5'	10/1/2025	12:10		G	SO	N		1	X				
S27-SS25 0.0'-0.5'	10/1/2025	12:20		G	SO	N		1	X			X	
S27-SS24 0.0'-0.5'	10/1/2025	12:30		G	SO	Y		1	X				
S27-SS26 0.0'-0.5'	10/1/2025	12:40		G	SO	N		1	X				
S27-SS28 0.0'-0.5'	10/1/2025	12:50		G	SO	N		1	X				
S27-SS23 0.0'-0.5'	10/1/2025	13:10		G	SO	N		1	X				
S27-SSDS-01 0.0'-0.5'	10/1/2025	13:20		G	SO	N		1	X	X	X		
S27-SSDS-02 0.0'-0.5'	10/1/2025	13:30		G	SO	N		1	X				
S27-SSDS-03 0.0'-0.5'	10/1/2025	13:40		G	SO	N		1	X				

Enter Analysis Requested like 8270 PAH or 6010 Metals
Enter total number of container(s) per test below the request on line that corresponds with the sample ID.

Comments
Note: extra sample is required for sample specific QC

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	10.24.25	1200	Stacy Bostic	OCT 30 2025	930
2					
3					

Select Deliverable: [ ] Results and QC Summary [ ]Calibration Summary [ ] Raw Data [ ] Standards Traceability
EDD Required? [X] If yes, specify type. GEL Standard DSS
Required Certification:
Sample Collection Time Zone: [ ] Eastern [ ] Pacific [ ] Central [X] Mountain [ ] Other:
Additional Comments:
For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

For Lab Receiving Use Only: Custody Seal Intact? [ ] Yes [ ] No Cooler Temp: ____ °C

(1) Chain of Custody Number
Client Determined

(2) Field Filtered
For liquid matrices, indicate with a **Y** for yes the sample was field filtered.

(3) QC Codes
Equipment Blank **(EB)** | Matrix Spike **(MS)**
Field Reagent Blank | Matrix Spike Duplicate **(MSD)**
Field Duplicate **(DUP)** | Composite **(C)**
Trip Blank **(TB)** | Grab **(G)**

(4) Matrix Codes
Biosolid **(SB)** | Leachate **(L)** | Soil **(SO)** | Urine **(U)**
Concrete **(C)** | Misc Liquid **(ML)** | Solid Waste **(SS)** | Vegetation **(V)**
Drinking Water **(DW)** | Oil **(O)** | Storm Water **(WS)** | Waste Water **(WW)**
Fecal **(FC)** | Sediment **(SD)** | Surface Water **(SW)** | Water **(W)**
Filter **(F)** | Sludge **(SL)** | Tissue **(T)** | Wipe **(P)**
Groundwater **(GW)**

(6) Preservative Type
Ammonium Acetate **(AM)** | Nitric Acid **(NI)** | Sodium Thiosulfate **(ST)**
Ascorbic Acid **(AA)** | Sodium Hydroxide **(SH)** | Sulfuric Acid **(SA)**
Hexane **(HX)** | Sodium Bisulfate **(SBA)** | Trizma **(TZ)**
Hydrochloric Acid **(HA)** | Sodium Bisulfite **SBI)** | Zinc Acetate **(ZA)**
Methanol **(ME)**
Leave blank if no preservative is added.

(7) Radioactive *** *If yes, email rso@gel.com prior to shipment for approval. Isotopic data should be included in the email and with the sample shipment.* ***

(8) Known or Possible Hazards
Identify the "Source of the Sample" material
(e.g., NPDES discharge, waste material, stormwater, groundwater, Superfund Site etc.)

RCRA Metals
Arsenic **(As)** | Chromium **(Cr)** | Selenium **(Se)**
Barium **(Ba)** | Lead **(Pb)** | Silver **(Ag)**
Cadmium **(Cd)** | Mercury **(Hg)** | Misc. RCRA **(MR)**

Is this sample known or suspected to be RCRA Hazardous?
Yes [ ] No [ ]

Characteristic
Flammable/Ignitable **(FL)**
Corrosive **(CO)**
Reactive **(RE)**

TSCA Regulated
Polychlorinated biphenyls **(PCB)**

Listed Waste
Listed Waste **(LW)**
(F,K,P and U-listed wastes.)
Waste code(s):

Other
Other / Unknown **(OT)**
(i.e.: asbestos, beryllium, High low pH, irritants, other misc. health hazards, etc.)
Description:

Please provide any additional details below regarding handling and/or disposal concerns

PO Number: MSA 40422
Project #: 182922679
GEL Quote #: GELP25-1221
GEL Project Manager: Delaney Stonesmith

GEL Laboratories LLC
CHEMISTRY RADIOCHEMISTRY RADIOBIOASSAY SPECIALTY ANALYTICS
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Chain of Custody and Analytical Record
(1) COC Number :
Page: 3 of 4
GEL Work Order Number: 750007

GEL Client Name: Kelly Johnson, Stantec
Phone Number: 801-617-3221
Project/Site Name: Section 27 Supplemental Characterization
Address: Ambrosia Lake, NM
Collected By: Victor Patel
Send Results To: kelly.johnson2@stantec.com, mary.privitera@stantec.com

Turn Around Time Requested. *Rush subject to surcharge.*
Standard: X
Rush (Specify):

(5) Sample Analysis Requested *Enter Analysis Requested like 8270 PAH or 6010 Metals*

Enter total number of container(s) per test below the request on line that corresponds with the sample ID.

Sample ID Each ID listed will be reported as a unique sample unless otherwise instructed. * For composites - indicate start and stop date/time	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	(2) Field Filtered	(3) QC Code	(4) Sample Matrix	Should this sample be considered: (7) Radioactive (Y or N)	(8) Known or possible Hazards	Total number of containers	Ra-226 (EPA 901.1Mod)	Th-230 (DOE EML HASL 300 Th-01-RC Mod)	Uranium (SW846 6020B)	TAL Metals (6020/7471)	< (6) Preservative Type
S27-SS09 0.0'-0.5'	10/2/2025	8:00		G	SO	N		1	X				
S27-SS01 0.0'-0.5'	10/2/2025	8:20		G	SO	N		1	X				
S27-SS02 0.0'-0.5'	10/2/2025	8:40		G	SO	N		1	X				
S27-SS04 0.0'-0.5'	10/2/2025	8:50		G	SO	N		1	X				
S27-SS10 0.0'-0.5'	10/2/2025	9:10		G	SO	N		1	X				
S27-SS08 0.0'-0.5'	10/2/2025	9:30		G	SO	N		1	X				
S27-SS15 0.0'-0.5'	10/2/2025	9:50		G	SO	N		1	X				
S27-SS13 0.0'-0.5'	10/2/2025	10:00		G	SO	N		1	X				
S27-SS03 0.0'-0.5'	10/2/2025	10:20		G	SO	N		1	X				
S27-SS06 0.0'-0.5'	10/2/2025	10:30		G	SO	N		1	X			X	

Comments
Note: extra sample is required for sample specific QC

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (Signed)	Date	Time
1	10-24-25	1200	1 Stacy Boone	OCT 30 2025	930
2			2		
3			3		

Select Deliverable: [ ] Results and QC Summary [ ]Calibration Summary [ ] Raw Data [ ] Standards Traceability
EDD Required? [X] If yes, specify type. GEL Standard DSS
Required Certification:
Sample Collection Time Zone: [ ] Eastern [ ] Pacific [ ] Central [X] Mountain [ ] Other:
Additional Comments:
For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

For Lab Receiving Use Only: Custody Seal Intact? [ ] Yes [ ] No Cooler Temp: ____ °C

(1) Chain of Custody Number
Client Determined

(2) Field Filtered
For liquid matrices, indicate with a Y for yes the sample was field filtered.

(3) QC Codes
Equipment Blank **(EB)** | Matrix Spike **(MS)**
Field Reagent Blank | Matrix Spike Duplicate **(MSD)**
Field Duplicate **(DUP)** | Composite **(C)**
Trip Blank **(TB)** | Grab **(G)**

(4) Matrix Codes

Biosolid **(SB)**	Leachate **(L)**	Soil **(SO)**	Urine **(U)**
Concrete **(C)**	Misc Liquid **(ML)**	Solid Waste **(SS)**	Vegetation **(V)**
Drinking Water **(DW)**	Oil **(O)**	Storm Water **(WS)**	Waste Water **(WW)**
Fecal **(FC)**	Sediment **(SD)**	Surface Water **(SW)**	Water **(W)**
Filter **(F)**	Sludge **(SL)**	Tissue **(T)**	Wipe **(P)**
Groundwater **(GW)**			

(6) Preservative Type

Ammonium Acetate **(AM)**	Nitric Acid **(NI)**	Sodium Thiosulfate **(ST)**
Ascorbic Acid **(AA)**	Sodium Hydroxide **(SH)**	Sulfuric Acid **(SA)**
Hexane **(HX)**	Sodium Bisulfate **(SBA)**	Trizma **(TZ)**
Hydrochloric Acid **(HA)**	Sodium Bisulfite **SBI)**	Zinc Acetate **(ZA)**
Methanol **(ME)**		

Leave blank if no preservative is added.

(7) Radioactive **** If yes, email rso@gel.com prior to shipment for approval. Isotopic data should be included in the email and with the sample shipment.****

(8) Known or Possible Hazards
Identify the "Source of the Sample" material
(e.g., NPDES discharge, waste material, stormwater, groundwater, Superfund Site etc.)

RCRA Metals
Arsenic **(As)** | Chromium **(Cr)** | Selenium **(Se)**
Barium **(Ba)** | Lead **(Pb)** | Silver **(Ag)**
Cadmium **(Cd)** | Mercury **(Hg)** | Misc. RCRA **(MR)**

Is this sample known or suspected to be RCRA Hazardous?
Yes / / No / /

Characteristic
Flammable/Ignitable **(FL)**
Corrosive **(CO)**
Reactive **(RE)**

TSCA Regulated
Polychlorinated biphenyls **(PCB)**

Listed Waste
Listed Waste **(LW)**
(F,K,P and U-listed wastes.)
Waste code(s):

Other
Other / Unknown **(OT)**
(i.e.: asbestos, beryllium, High low pH, irritants, other misc. health hazards, etc.)
Description:

Please provide any additional details below regarding handling and/or disposal concerns.

PO Number: MSA 40422
Project #: 182922679
GEL Quote #: GELP25-1221
GEL Project Manager: Delaney Stonesmith

GEL Laboratories LLC
CHEMISTRY RADIOCHEMISTRY RADIOBIOASSAY SPECIALTY ANALYTICS
843.556.8171 | 2040 Savage Road | Charleston, SC 29407 | gel.com

Chain of Custody and Analytical Record
(1) COC Number :
Page: 4 of 4
GEL Work Order Number: ~~7000~~ 750007
10/31/25

GEL Client Name: Kelly Johnson, Stantec
Phone Number: 801-617-3221
Project/Site Name: Section 27 Supplemental Characterization
Address: Ambrosia Lake, NM
Collected By: Victor Patel
Send Results To: kelly.johnson2@stantec.com, mary.privitera@stantec.com

Turn Around Time Requested. *Rush subject to surcharge.*
Standard: X
Rush (Specify):

(5) Sample Analysis Requested
Enter Analysis Requested like 8270 PAH or 6010 Metals

Enter total number of container(s) per test below the request on line that corresponds with the sample ID.

Sample ID Each ID listed will be reported as a unique sample unless otherwise instructed. * For composites - indicate start and stop date/time	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	(2) Field Filtered	(3) QC Code	(4) Sample Matrix	Should this sample be considered: (7) Radioactive (Y or N)	(8) Known or possible Hazards	Total number of containers	Ra-226 (EPA 901.1Mod)	Th-230 (DOE EML HASL 300 Th-01-RC Mod)	Uranium (SW846 6020B)	TAL Metals (6020/7471)	< (6) Preservative Type	Comments
S27-SS12 0.0'-0.5'	10/2/2025	10:40		G	SO	N		1	X					Note: extra sample is required for sample specific QC
S27-SS14 0.0'-0.5'	10/2/2025	11:00		G	SO	N		1	X	X	X			
S27-SS18 0.0'-0.5'	10/2/2025	11:10		G	SO	Y		1	X					
S27-TP20 0.0'-0.5'	10/2/2025	12:00		G	SO	N		1	X	X	X			
S27-TP26 0.0'-0.5'	10/2/2025	12:20		G	SO	N		1	X	X	X			
S27-TP24 0.0'-0.5'	10/2/2025	12:40		G	SO	N		1	X	X	X			
S27-TP18 0.0'-0.5'	10/2/2025	13:00		G	SO	N		1	X	X	X			
S27-SSDS-04 0.0'-0.5'	10/2/2025	13:10		G	SO	N		1	X					

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1		10.24.25	1200	Stacy Boone	OCT 30 2025	930
2						
3						

Select Deliverable: [ ] Results and QC Summary [ ]Calibration Summary [ ] Raw Data [ ] Standards Traceability
EDD Required? [X] If yes, specify type. GEL Standard DSS
Required Certification:
Sample Collection Time Zone: [ ] Eastern [ ] Pacific [ ] Central [X] Mountain [ ] Other:
Additional Comments:
For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

For Lab Receiving Use Only: Custody Seal Intact? [ ] Yes [ ] No Cooler Temp: _____ °C

(1) Chain of Custody Number
Client Determined

(2) Field Filtered
For liquid matrices, indicate with a Y for yes the sample was field filtered.

(3) QC Codes
Equipment Blank **(EB)** | Matrix Spike **(MS)**
Field Reagent Blank | Matrix Spike Duplicate **(MSD)**
Field Duplicate **(DUP)** | Composite **(C)**
Trip Blank **(TB)** | Grab **(G)**

(4) Matrix Codes
Biosolid **(SB)** | Leachate **(L)** | Soil **(SO)** | Urine **(U)**
Concrete **(C)** | Misc Liquid **(ML)** | Solid Waste **(SS)** | Vegetation **(V)**
Drinking Water **(DW)** | Oil **(O)** | Storm Water **(WS)** | Waste Water **(WW)**
Fecal **(FC)** | Sediment **(SD)** | Surface Water **(SW)** | Water **(W)**
Filter **(F)** | Sludge **(SL)** | Tissue **(T)** | Wipe **(P)**
Groundwater **(GW)**

(6) Preservative Type
Ammonium Acetate **(AM)** | Nitric Acid **(NI)** | Sodium Thiosulfate **(ST)**
Ascorbic Acid **(AA)** | Sodium Hydroxide **(SH)** | Sulfuric Acid **(SA)**
Hexane **(HX)** | Sodium Bisulfate **(SBA)** | Trizma **(TZ)**
Hydrochloric Acid **(HA)** | Sodium Bisulfite **SBI)** | Zinc Acetate **(ZA)**
Methanol **(ME)**
Leave blank if no preservative is added.

(7) Radioactive *** *If yes, email rso@gel.com prior to shipment for approval. Isotopic data should be included in the email and with the sample shipment.* ***

(8) Known or Possible Hazards
Identify the "Source of the Sample" material
(e.g., NPDES discharge, waste material, stormwater, groundwater, Superfund Site etc.)

RCRA Metals
Arsenic **(As)** | Chromium **(Cr)** | Selenium **(Se)**
Barium **(Ba)** | Lead **(Pb)** | Silver **(Ag)**
Cadmium **(Cd)** | Mercury **(Hg)** | Misc. RCRA **(MR)**

Is this sample known or suspected to be RCRA Hazardous?
Yes [ ] No [ ]

Characteristic
Flammable/Ignitable **(FL)**
Corrosive **(CO)**
Reactive **(RE)**

TSCA Regulated
Polychlorinated biphenyls **(PCB)**

Listed Waste
Listed Waste **(LW)**
(F,K,P and U-listed wastes.)
Waste code(s):

Other
Other / Unknown **(OT)**
(i.e.: asbestos, beryllium, High low pH, irritants, other misc. health hazards, etc.)
Description:

Please provide any additional details below regarding handling and/or disposal concerns

Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: STNT | SDG/AR/COC/Work Order: 750007 | GEL PM:

Received By: STACY BOONE | Date Received at GEL: OCTOBER 30, 2025

Fed Ex Express | FedEx Ground | UPS | Field Services | Courier | Client | Other:

IR Temp gun # IR424 Daily Calibration Performed? Y/N

Tracking Number	Temp (C)	If over 6 °C, check if samples do not require cold preservation (le radiochem only).	Tracking Number	Temp (C)	If over 6 °C, check if samples do not require cold preservation (le radiochem only).
8854 6723 3867	16 c	✓			
3878	16 c	✓			
3845	17 c	✓			
3889	15 c	✓			
3856	15 c	✓			

Received Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
Is COC Hazardous?		✓	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___
Did the client Designate the samples are to be Radioactive?		✓	COC notation or radioactive stickers on containers equal client designation.
Did the RSO classify the samples as Radioactive?		✓	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): ___ CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3
Were there any sample hazards to document?		✓	If yes, select Hazards below. PCBs Flammable Foreign Soil RCRA Asbestos Beryllium Corrosive Other:
Was COC received and reviewed by Lab		✓	Circle Applicable: See additional Comments below. No additional comments needed after review.

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
Shipping containers received intact and sealed	✓			Circle Applicable: Direct client dropoff Seals broken Damaged container Leaking container Other (describe)
Chain of custody documents included with shipment?	✓			Circle Applicable: Client contacted and provided COC COC created upon receipt
Were all samples requiring cold preservation, did they arrive within 0 < 6 °C			✓	Preservation Method: Wet Ice Ice Packs Dry Ice None Other: *all temperatures recorded next to tracking numbers are in Celcius
Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
Samples requiring chemical preservation at proper pH?			✓	Preserved per COC request or list Sample IDs and Containers Affected: If Preservation added, Lot#:
Do any samples require Volatile Analysis? (If yes, answer all three additional questions.)			✓	If Yes, are Encores or Soil Kits present? Yes___ No___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No___ NA___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes___ No___ NA___ Sample IDs and containers affected:
Samples received within holding time?	✓			IDs and tests affected:
Sample ID's on COC match IDs on bottles?			✓	IDs and containers affected: COC ID: S27-SS12 0.0'-0.5' SAMPLE ID: S27-SS17 0.0'-0.5'
Date & time on COC match date & time on bottles?	✓			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
Number of containers received match number indicated on COC?	✓			Circle Applicable: No container count on COC Missing Container (provide details) Other (describe)
Are sample containers identifiable as GEL provided by use of GEL labels?			✓	
COC form is properly signed in relinquished/received sections?	✓			Circle Applicable: Not relinquished Other (describe)

Comments:

COC PM Review Initials: RCT Date: 10/31/25

Comments Required when selected

GL-CHL-SR-001 Rev 8

Outlook

RE: Section 27 Samples Shipping

From Johnson, Kelly <Kelly.Johnson2@stantec.com>
Date Fri 10/31/2025 10:18 AM
To Christopher Rossmann <Christopher.Rossmann@gel.com>; Privitera, Mary <mary.privitera@stantec.com>; Delaney Stonesmith <Delaney.Stone@gel.com>
Cc Burt, Kristen <kristen.burt@stantec.com>; Team Stonesmith <team.stonesmith@gel.com>

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Hi Chris,
Please log as written on the COC. Thank you for identifying this.

Kelly Johnson, PHD, PG
Senior Geochemist

Stantec

From: Christopher Rossmann <Christopher.Rossmann@gel.com>
Sent: Friday, October 31, 2025 5:46 AM
To: Privitera, Mary <mary.privitera@stantec.com>; Johnson, Kelly <Kelly.Johnson2@stantec.com>; Delaney Stonesmith <Delaney.Stone@gel.com>
Cc: Burt, Kristen <kristen.burt@stantec.com>; Team Stonesmith <team.stonesmith@gel.com>
Subject: Re: Section 27 Samples Shipping

Some people who received this message don't often get email from christopher.rossmann@gel.com. Learn why this is important

Good morning Mary,

I can confirm we received all five coolers and we will be sending the login receipts later today. We did have one question about a sample: Sample S27-SS12 0.0'-0.05' on the COC was received with S27-SS1**7** 0.0'-0.05' written on the bag. We were able to differentiate between this sample and actual sample S27-SS17 0.0'-0.05' by the collection data. Would you like us to log the sample as it shows on the COC or as is written on the bag?

Thank you,

Chris Rossmann
Project Manager Assistant

GEL Laboratories LLC EST. 1981

2040 Savage Road, Charleston, SC 29407
Office Main: 843.556.8171 Ext. 4001 | Fax: 843.766.1178

Email: Christopher.Rossmann@gel.com

From: Privitera, Mary <mary.privitera@stantec.com>
Sent: Thursday, October 30, 2025 5:34 PM
To: Christopher Rossmann <Christopher.Rossmann@gel.com>; Johnson, Kelly <Kelly.Johnson2@stantec.com>; Delaney Stonesmith <Delaney.Stone@gel.com>
Cc: Burt, Kristen <kristen.burt@stantec.com>; Team Stonesmith <team.stonesmith@gel.com>
Subject: RE: Section 27 Samples Shipping

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Hi Chris,

Hoping you can confirm receipt of those five coolers. When they get logged in, could you please include me on the confirmation email?

Thanks!
Mary

Mary Privitera
Associate Environmental Scientist
she/her

Stantec

From: Christopher Rossmann <Christopher.Rossmann@gel.com>
Sent: Tuesday, October 28, 2025 8:32 AM
To: Johnson, Kelly <Kelly.Johnson2@stantec.com>; Delaney Stonesmith <Delaney.Stone@gel.com>
Cc: Privitera, Mary <mary.privitera@stantec.com>; Burt, Kristen <kristen.burt@stantec.com>; Team Stonesmith <team.stonesmith@gel.com>
Subject: Re: Section 27 Samples Shipping

Some people who received this message don't often get email from christopher.rossmann@gel.com. Learn why this is important

Hi Kelly,

Thank you for the heads up!

Chris Rossmann
Project Manager Assistant

GEL Laboratories LLC EST. 1981

2040 Savage Road, Charleston, SC 29407
Office Main: 843.556.8171 Ext. 4001 | Fax: 843.766.1178

Email: Christopher.Rossmann@gel.com

From: Johnson, Kelly <Kelly.Johnson2@stantec.com>
Sent: Tuesday, October 28, 2025 11:28 AM
To: Delaney Stonesmith <Delaney.Stone@gel.com>
Cc: Privitera, Mary <mary.privitera@stantec.com>; Burt, Kristen <kristen.burt@stantec.com>; Team Stonesmith <team.stonesmith@gel.com>
Subject: RE: Section 27 Samples Shipping

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Hi Delaney,
Looks like the five coolers are scheduled for delivery on Thursday.

Kelly Johnson, PHD, PG

Senior Geochemist

Stantec

From: Johnson, Kelly
Sent: Friday, October 24, 2025 2:27 PM
To: Delaney Stonesmith <delaney.stone@gel.com>
Cc: Privitera, Mary <mary.privitera@stantec.com>; Burt, Kristen <kristen.burt@stantec.com>; Team Stonesmith <team.stonesmith@gel.com>
Subject: Section 27 Samples Shipping

Hi Delaney,

Our team is shipping the samples on the attached COCs today via FedEx ground from ABQ NM to the 2040 Savage Rd address. Please note the photo COCs are different than those in zip files.

Some samples are marked as radioactive as they contain waste rock from a historical uranium mine. Please note this is not licensed material and we did not fill out the radioactive shipment sample info per the attached email discussion..

Please note, we need to add uranium (6020B) to the following samples:

S27-TP04 1.0'-2.0'	10/17/2025	14:30
S27-TP08 0.5'-1.0'	10/18/2025	8:45
S27-TP22 0.5'-1.0'	10/20/2025	9:40
S27-TP15 4.5'-5.5'	10/22/2025	14:40
S27-SS25 0.0'-0.5'	10/1/2025	12:20
S27-SS06 0.0'-0.5'	10/2/2025	10:30

Please let me know if you have any questions. Looking forward to seeing the lab login.

This should be the only shipment for this project.

Thank you,
Kelly

Kelly Johnson, PHD, PG
Senior Geochemist

Direct: (801) 617-3221
kelly.johnson2@stantec.com

Stantec

With every community, we redefine what's possible.

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Atención: Este correo electrónico proviene de fuera de Stantec. Por favor, tome precauciones adicionales.

Caution: This email originated from outside of Stantec. Please take extra precaution.

Attention: Ce courriel provient de l'extérieur de Stantec. Veuillez prendre des précautions supplémentaires.

Atención: Este correo electrónico proviene de fuera de Stantec. Por favor, tome precauciones adicionales.

List of current GEL Certifications as of 14 January 2026

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	525-24-281-19660
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2023019
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approval	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	NV-C24-00175
New Hampshire NELAP	205424
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2023-152
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of LA	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235
Utah NELAP	SC000122024-45
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Technical Case Narrative
Stantec
SDG #: 750007

Metals

Product: **Determination of Metals by ICP**
Analytical Method: SW846 3050B/6010D
Analytical Procedure: GL-MA-E-013 REV# 34
Analytical Batch: 2890577

Preparation Method: SW846 3050B
Preparation Procedure: GL-MA-E-009 REV# 30
Preparation Batch: 2890575

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750007006	S27-SS17 0.0'-0.5'
750007010	S27-SS07 0.0'-0.5'
750007013	S27-SS25 0.0'-0.5'
750007030	S27-SS06 0.0'-0.5'
1206286307	Method Blank (MB)**ICP**
1206286308	Laboratory Control Sample (LCS)
1206286312	750007006(S27-SS17 0.0'-0.5'L) Serial Dilution (SD)
1206286309	750007006(S27-SS17 0.0'-0.5'S) Matrix Spike (MS)
1206286310	750007006(S27-SS17 0.0'-0.5'SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Preparation/Analytical Method Verification
Method SW-846 3050B is not a total digestion technique for most samples. It is a very strong acid digestion that will dissolve almost all elements that could become environmentally available. By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not usually mobile in the environment.

Product: **Determination of Metals by ICP-MS**
Analytical Method: SW846 3050B/6020B
Analytical Procedure: GL-MA-E-014 REV# 37
Analytical Batch: 2899653

Preparation Method: SW846 3050B
Preparation Procedure: GL-MA-E-009 REV# 30
Preparation Batch: 2899652

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750007001	S27-TP21 0.0’-0.5’
750007002	S27-TP19 0.0’-0.5’
750007005	S27-SS21 0.0’-0.5’
750007006	S27-SS17 0.0’-0.5’
750007007	S27-SS16 0.0’-0.5’
750007008	S27-SS11 0.0’-0.5’
750007009	S27-SS05 0.0’-0.5’
750007010	S27-SS07 0.0’-0.5’
750007013	S27-SS25 0.0’-0.5’
750007018	S27-SSDS-01 0.0’-0.5’
750007030	S27-SS06 0.0’-0.5’
750007032	S27-SS14 0.0’-0.5’
750007034	S27-TP20 0.0’-0.5’
750007035	S27-TP26 0.0’-0.5’
750007036	S27-TP24 0.0’-0.5’
750007037	S27-TP18 0.0’-0.5’
1206304010	Method Blank (MB)**ICP-MS**
1206304011	Laboratory Control Sample (LCS)
1206304015	750007001(S27-TP21 0.0’-0.5’L) Serial Dilution (SD)
1206304012	750007001(S27-TP21 0.0’-0.5’S) Matrix Spike (MS)
1206304013	750007001(S27-TP21 0.0’-0.5’SD) Matrix Spike Duplicate (MSD)
1206304014	750007001(S27-TP21 0.0’-0.5’PS) Post Spike (PS)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement
For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Quality Control (QC) Information

Matrix Spike (MS/MSD) Recovery Statement
The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analytes. The post spike recoveries were within the required control limits. This verifies the absence of a matrix interference in the post-spike digested sample. The recoveries may be attributed to possible sample matrix interference and/or non-homogeneity.

Sample	Analyte	Value
1206304012 (S27-TP21 0.0’-0.5’MS)	Chromium	130* (75%-125%)
	Selenium	63.9* (75%-125%)
1206304013 (S27-TP21 0.0’-0.5’MSD)	Copper	60.6* (75%-125%)
	Zinc	130* (75%-125%)

MS/MSD Relative Percent Difference (RPD) Statement
The RPD values between qualifying analyte results in the MS and MSD were not within the acceptance limits. Sample non-homogeneity and/or possible matrix interferences may be suspected.

Sample	Analyte	Value
1206304012MS and 1206304013MSD (S27-TP21 0.0'-0.5')	Calcium	RPD 21* (0%-20%)
	Iron	RPD 24.6* (0%-20%)

Technical Information

Preparation/Analytical Method Verification
Method SW-846 3050B is not a total digestion technique for most samples. It is a very strong acid digestion that will dissolve almost all elements that could become environmentally available. By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not usually mobile in the environment.

Sample Dilutions
Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples 750007006 (S27-SS17 0.0'-0.5'), 750007010 (S27-SS07 0.0'-0.5'), 750007013 (S27-SS25 0.0'-0.5') and 750007030 (S27-SS06 0.0'-0.5') were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.
The ICPMS solid samples in this SDG were diluted the standard two times.
Sample was diluted to ensure that the analyte concentration of the QC'd sample was within the linear calibration range of the instrument. 750007001 (S27-TP21 0.0'-0.5').

Analyte	750007									
	001	002	005	006	007	008	009	010	013	018
Aluminum				20X				20X	2X	
Arsenic				2X				2X	2X	
Barium				2X				2X	2X	
Beryllium				2X				2X	2X	
Cadmium				2X				2X	2X	
Calcium				2X				2X	20X	
Chromium				2X				2X	2X	
Cobalt				2X				2X	2X	
Copper				2X				2X	2X	
Iron				20X				20X	20X	
Lead				2X				2X	2X	
Magnesium				2X				2X	2X	
Manganese				20X				20X	20X	
Nickel				2X				2X	2X	
Potassium				2X				2X	2X	
Selenium				2X				2X	2X	
Sodium				2X				2X	2X	
Thallium				2X				2X	2X	
Uranium	2X	2X	2X	2X	2X	2X	2X	2X	2X	2X
Vanadium				2X				2X	2X	
Zinc				2X				2X	2X	

Analyte	750007					
	030	032	034	035	036	037
Aluminum	2X					
Arsenic	2X					
Barium	2X					
Beryllium	2X					
Cadmium	2X					
Calcium	20X					
Chromium	2X					
Cobalt	2X					
Copper	2X					
Iron	20X					
Lead	2X					
Magnesium	2X					
Manganese	2X					
Nickel	2X					
Potassium	2X					
Selenium	2X					
Sodium	2X					
Thallium	2X					
Uranium	2X	2X	2X	2X	2X	2X
Vanadium	2X					
Zinc	2X					

Product: **Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**
Analytical Method: SW846 7471B
Analytical Procedure: GL-MA-E-010 REV# 42
Analytical Batch: 2890892

Preparation Method: SW846 7471B Prep
Preparation Procedure: GL-MA-E-010 REV# 42
Preparation Batch: 2890890

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750007006	S27-SS17 0.0’-0.5’
750007010	S27-SS07 0.0’-0.5’
750007013	S27-SS25 0.0’-0.5’
750007030	S27-SS06 0.0’-0.5’
1206286959	Method Blank (MB)**CVAA**
1206286960	Laboratory Control Sample (LCS)
1206286964	750212001(NonSDGS) Matrix Spike (MS)
1206286965	750212001(NonSDGSD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

MS/MSD Relative Percent Difference (RPD) Statement
The RPD values between qualifying analyte results in the MS and MSD were not within the acceptance limits. Sample non-homogeneity and/or possible matrix interferences may be suspected.

Sample	Analyte	Value
1206286964MS and 1206286965MSD (Non SDG 750212001)	Mercury	RPD 22.1* (0%-20%)

Technical Information

Holding Time Specifications
GEL assigns holding times based on the associated methodology. Holding time is measured by comparison of the date and time of sample collection to the date and time of sample preparation and analysis. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration. Samples (See Below) did not meet holding time requirements due to being received after the holding time had expired. The data has been qualified.

Sample	Value
750007006 (S27-SS17 0.0'-0.5')	Received 30-OCT-25, out of holding 29-OCT-25
750007010 (S27-SS07 0.0'-0.5')	Received 30-OCT-25, out of holding 29-OCT-25
750007013 (S27-SS25 0.0'-0.5')	Received 30-OCT-25, out of holding 29-OCT-25

Sample (See Below) did not meet holding time requirements due to insufficient time remaining to meet the hold times.

Sample	Value
750007030 (S27-SS06 0.0'-0.5')	Received 30-OCT-25, within holding, analyzed 03-NOV-25, out of holding 30-OCT-25 and Received 30-OCT-25, within holding, prepped 31-OCT-25, out of holding 30-OCT-25

Radiochemistry

Product: **Alphaspec Th, Solid**
Analytical Method: DOE EML HASL-300, Th-01-RC Modified
Analytical Procedure: GL-RAD-A-038 REV# 20
Analytical Batch: 2893950

Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25

Preparation Batches: 2890395 and 2890396

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750007001	S27-TP21 0.0'-0.5'
750007002	S27-TP19 0.0'-0.5'
750007005	S27-SS21 0.0'-0.5'
750007006	S27-SS17 0.0'-0.5'
750007007	S27-SS16 0.0'-0.5'
750007008	S27-SS11 0.0'-0.5'
750007009	S27-SS05 0.0'-0.5'
750007010	S27-SS07 0.0'-0.5'
750007018	S27-SSDS-01 0.0'-0.5'
750007032	S27-SS14 0.0'-0.5'
750007034	S27-TP20 0.0'-0.5'
750007035	S27-TP26 0.0'-0.5'
750007036	S27-TP24 0.0'-0.5'
750007037	S27-TP18 0.0'-0.5'
1206292664	Method Blank (MB)
1206292665	750007001(S27-TP21 0.0'-0.5') Sample Duplicate (DUP)
1206292666	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Duplication Criteria between QC Sample and Duplicate Sample
The Sample and the Duplicate, (See Below), did not meet the relative percent difference requirement; however, they do meet the relative error ratio requirement with the value listed below.

Sample	Analyte	Value
1206292665 (S27-TP21 0.0'-0.5'DUP)	Thorium-230	RPD 34.7* (0.00%-20.00%) RER 2.89 (0-3)

Product: **Dry Weight**
Preparation Method: ASTM D 2216 (Modified)
Preparation Procedure: GL-OA-E-020 REV# 14
Preparation Batch: 2890395

Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25
Preparation Batch: 2890395

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750007001	S27-TP21 0.0’-0.5’
750007002	S27-TP19 0.0’-0.5’
750007003	S27-SS19 0.0’-0.5’
750007004	S27-SS20 0.0’-0.5’
750007005	S27-SS21 0.0’-0.5’
750007006	S27-SS17 0.0’-0.5’
750007007	S27-SS16 0.0’-0.5’
750007008	S27-SS11 0.0’-0.5’
750007009	S27-SS05 0.0’-0.5’
750007010	S27-SS07 0.0’-0.5’
750007011	S27-SS22 0.0’-0.5’
750007012	S27-SS27 0.0’-0.5’
750007013	S27-SS25 0.0’-0.5’
750007015	S27-SS26 0.0’-0.5’
750007016	S27-SS28 0.0’-0.5’
750007017	S27-SS23 0.0’-0.5’
750007018	S27-SSDS-01 0.0’-0.5’
750007019	S27-SSDS-02 0.0’-0.5’
750007020	S27-SSDS-03 0.0’-0.5’

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Miscellaneous Information

Additional Comments
Sample 750007018 (S27-SSDS-01 0.0’-0.5’) did not meet SOP standards for dryness. The difference between the post-event weights is greater than 0.1%-our sop definition of dryness is less than 0.1% change between those weights. This was missed by the analyst prior to prepping the sample. LIMS will correct the data to the dry weight that was reached.Â

Product: **Dry Weight**
Preparation Method: ASTM D 2216 (Modified)
Preparation Procedure: GL-OA-E-020 REV# 14
Preparation Batch: 2890396

Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25
Preparation Batch: 2890396

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification

750007021	S27-SS09 0.0’-0.5’
750007022	S27-SS01 0.0’-0.5’
750007023	S27-SS02 0.0’-0.5’
750007024	S27-SS04 0.0’-0.5’
750007025	S27-SS10 0.0’-0.5’
750007026	S27-SS08 0.0’-0.5’
750007027	S27-SS15 0.0’-0.5’
750007028	S27-SS13 0.0’-0.5’
750007029	S27-SS03 0.0’-0.5’
750007030	S27-SS06 0.0’-0.5’
750007032	S27-SS14 0.0’-0.5’
750007034	S27-TP20 0.0’-0.5’
750007035	S27-TP26 0.0’-0.5’
750007036	S27-TP24 0.0’-0.5’
750007037	S27-TP18 0.0’-0.5’
750007038	S27-SSDS-04 0.0’-0.5’

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Dry Weight**
Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25
Preparation Batch: 2890278

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750007014	S27-SS24 0.0’-0.5’
750007033	S27-SS18 0.0’-0.5’

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Dry Weight**
Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25

Preparation Batch: 2890397

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750007031	S27-SS12 0.0’-0.5’

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Gamma Ra226, Solid**
Analytical Method: DOE HASL 300, 4.5.2.3/Ga-01-R
Analytical Procedure: GL-RAD-A-013 REV# 29
Analytical Batch: 2890517

Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25
Preparation Batches: 2890278 and 2890395

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750007001	S27-TP21 0.0’-0.5’
750007002	S27-TP19 0.0’-0.5’
750007003	S27-SS19 0.0’-0.5’
750007004	S27-SS20 0.0’-0.5’
750007005	S27-SS21 0.0’-0.5’
750007006	S27-SS17 0.0’-0.5’
750007007	S27-SS16 0.0’-0.5’
750007008	S27-SS11 0.0’-0.5’
750007009	S27-SS05 0.0’-0.5’
750007010	S27-SS07 0.0’-0.5’
750007011	S27-SS22 0.0’-0.5’
750007012	S27-SS27 0.0’-0.5’
750007013	S27-SS25 0.0’-0.5’
750007014	S27-SS24 0.0’-0.5’
750007015	S27-SS26 0.0’-0.5’
750007016	S27-SS28 0.0’-0.5’
750007017	S27-SS23 0.0’-0.5’
750007018	S27-SSDS-01 0.0’-0.5’
750007019	S27-SSDS-02 0.0’-0.5’
750007020	S27-SSDS-03 0.0’-0.5’
1206286186	Method Blank (MB)
1206286187	750007001(S27-TP21 0.0’-0.5’) Sample Duplicate (DUP)
1206286188	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Miscellaneous Information

Additional Comments
Samples in this batch contain a mix of radioactive and non-radioactive materials. Samples were prepared separately based on hazard code and analyzed within the same counting batch. No impact to the data expected. Reporting results.
Per client direction, the Ra-226 results were recalculated using Bi-214 609 KeV energy line.

Product: **Gamma Ra226, Solid**
Analytical Method: DOE HASL 300, 4.5.2.3/Ga-01-R
Analytical Procedure: GL-RAD-A-013 REV# 29
Analytical Batch: 2891447

Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25
Preparation Batches: 2890278, 2890396 and 2890397

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750007021	S27-SS09 0.0’-0.5’
750007022	S27-SS01 0.0’-0.5’
750007023	S27-SS02 0.0’-0.5’
750007024	S27-SS04 0.0’-0.5’
750007025	S27-SS10 0.0’-0.5’
750007026	S27-SS08 0.0’-0.5’
750007027	S27-SS15 0.0’-0.5’
750007028	S27-SS13 0.0’-0.5’
750007029	S27-SS03 0.0’-0.5’
750007030	S27-SS06 0.0’-0.5’
750007031	S27-SS12 0.0’-0.5’
750007032	S27-SS14 0.0’-0.5’
750007033	S27-SS18 0.0’-0.5’
750007034	S27-TP20 0.0’-0.5’
750007035	S27-TP26 0.0’-0.5’
750007036	S27-TP24 0.0’-0.5’
750007037	S27-TP18 0.0’-0.5’
750007038	S27-SSDS-04 0.0’-0.5’
1206287990	Method Blank (MB)
1206287991	750007021(S27-SS09 0.0’-0.5’) Sample Duplicate (DUP)
1206287992	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Recounts
Sample 750007035 (S27-TP26 0.0'-0.5') was recounted due to a peak shift. The recount has been reported.

Miscellaneous Information

Additional Comments
Samples in this batch contain a mix of radioactive and non-radioactive materials. Samples were prepared separately based on hazard code and analyzed within the same counting batch. No impact to the data expected. Reporting results.
Per client direction, the Ra-226 results were recalculated using Bi-214 609 KeV energy line.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

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Metals Analysis

Case Narrative

Metals
Technical Case Narrative
Stantec
SDG #: 750007

Product: **Determination of Metals by ICP**
Analytical Method: SW846 3050B/6010D
Analytical Procedure: GL-MA-E-013 REV# 34
Analytical Batch: 2890577

Product: **Determination of Metals by ICP-MS**
Analytical Method: SW846 3050B/6020B
Analytical Procedure: GL-MA-E-014 REV# 37
Analytical Batch: 2899653

Product: **Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**
Analytical Method: SW846 7471B
Analytical Procedure: GL-MA-E-010 REV# 42
Analytical Batch: 2890892

Preparation Method: SW846 3050B
Preparation Procedure: GL-MA-E-009 REV# 30
Preparation Batches: 2890575 and 2899652

Preparation Method: SW846 7471B Prep
Preparation Procedure: GL-MA-E-010 REV# 42
Preparation Batch: 2890890

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750007001	S27-TP21 0.0’-0.5’
750007002	S27-TP19 0.0’-0.5’
750007005	S27-SS21 0.0’-0.5’
750007006	S27-SS17 0.0’-0.5’
750007007	S27-SS16 0.0’-0.5’
750007008	S27-SS11 0.0’-0.5’
750007009	S27-SS05 0.0’-0.5’
750007010	S27-SS07 0.0’-0.5’
750007013	S27-SS25 0.0’-0.5’
750007018	S27-SSDS-01 0.0’-0.5’
750007030	S27-SS06 0.0’-0.5’
750007032	S27-SS14 0.0’-0.5’
750007034	S27-TP20 0.0’-0.5’
750007035	S27-TP26 0.0’-0.5’
750007036	S27-TP24 0.0’-0.5’
750007037	S27-TP18 0.0’-0.5’
1206286307	Method Blank (MB)**ICP**
1206286308	Laboratory Control Sample (LCS)
1206286312	750007006(S27-SS17 0.0’-0.5’L) Serial Dilution (SD)
1206286309	750007006(S27-SS17 0.0’-0.5’S) Matrix Spike (MS)
1206286310	750007006(S27-SS17 0.0’-0.5’SD) Matrix Spike Duplicate (MSD)
1206304010	Method Blank (MB)**ICP-MS**
1206304011	Laboratory Control Sample (LCS)
1206304015	750007001(S27-TP21 0.0’-0.5’L) Serial Dilution (SD)

1206304012	750007001(S27-TP21 0.0’-0.5’S) Matrix Spike (MS)
1206304013	750007001(S27-TP21 0.0’-0.5’SD) Matrix Spike Duplicate (MSD)
1206304014	750007001(S27-TP21 0.0’-0.5’PS) Post Spike (PS)
1206286959	Method Blank (MB)**CVAA**
1206286960	Laboratory Control Sample (LCS)
1206286964	750212001(NonSDGS) Matrix Spike (MS)
1206286965	750212001(NonSDGSD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement
For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Quality Control (QC) Information

Matrix Spike (MS/MSD) Recovery Statement
The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added.
The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analytes. The post spike recoveries were within the required control limits. This verifies the absence of a matrix interference in the post-spike digested sample. The recoveries may be attributed to possible sample matrix interference and/or non-homogeneity.

Sample	Analyte	Value
1206304012 (S27-TP21 0.0’-0.5’MS)	Chromium	130* (75%-125%)
	Selenium	63.9* (75%-125%)
1206304013 (S27-TP21 0.0’-0.5’MSD)	Copper	60.6* (75%-125%)
	Zinc	130* (75%-125%)

MS/MSD Relative Percent Difference (RPD) Statement

The RPD values between qualifying analyte results in the MS and MSD were not within the acceptance limits. Sample non-homogeneity and/or possible matrix interferences may be suspected.

Sample	Analyte	Value
1206286964MS and 1206286965MSD (Non SDG 750212001)	Mercury	RPD 22.1* (0%-20%)
1206304012MS and 1206304013MSD (S27-TP21 0.0’-0.5’)	Calcium	RPD 21* (0%-20%)
	Iron	RPD 24.6* (0%-20%)

Technical Information

Holding Time Specifications

GEL assigns holding times based on the associated methodology. Holding time is measured by comparison of the date and time of sample collection to the date and time of sample preparation and analysis. Those holding times expressed in hours are calculated in the AlphaLIMS system. Those holding times expressed as days expire at midnight on the day of expiration.
Samples (See Below) did not meet holding time requirements due to being received after the holding time had expired. The data has been qualified.

Sample	Value
750007006 (S27-SS17 0.0'-0.5')	Received 30-OCT-25, out of holding 29-OCT-25
750007010 (S27-SS07 0.0'-0.5')	Received 30-OCT-25, out of holding 29-OCT-25
750007013 (S27-SS25 0.0'-0.5')	Received 30-OCT-25, out of holding 29-OCT-25

Sample (See Below) did not meet holding time requirements due to insufficient time remaining to meet the hold times.

Sample	Value
750007030 (S27-SS06 0.0'-0.5')	Received 30-OCT-25, within holding, analyzed 03-NOV-25, out of holding 30-OCT-25 and Received 30-OCT-25, within holding, prepped 31-OCT-25, out of holding 30-OCT-25

Preparation/Analytical Method Verification
Method SW-846 3050B is not a total digestion technique for most samples. It is a very strong acid digestion that will dissolve almost all elements that could become environmentally available. By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not usually mobile in the environment.

Sample Dilutions
Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.
Samples 750007006 (S27-SS17 0.0'-0.5'), 750007010 (S27-SS07 0.0'-0.5'), 750007013 (S27-SS25 0.0'-0.5') and 750007030 (S27-SS06 0.0'-0.5') were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.
The ICPMS solid samples in this SDG were diluted the standard two times. ICP-MS.
Sample was diluted to ensure that the analyte concentration of the QC'd sample was within the linear calibration range of the instrument. 750007001 (S27-TP21 0.0'-0.5')-ICP-MS.

Analyte	750007									
	001	002	005	006	007	008	009	010	013	018
Aluminum				20X				20X	2X	
Arsenic				2X				2X	2X	
Barium				2X				2X	2X	
Beryllium				2X				2X	2X	
Cadmium				2X				2X	2X	
Calcium				2X				2X	20X	
Chromium				2X				2X	2X	
Cobalt				2X				2X	2X	
Copper				2X				2X	2X	
Iron				20X				20X	20X	
Lead				2X				2X	2X	

Magnesium				2X				2X	2X	
Manganese				20X				20X	20X	
Nickel				2X				2X	2X	
Potassium				2X				2X	2X	
Selenium				2X				2X	2X	
Sodium				2X				2X	2X	
Thallium				2X				2X	2X	
Uranium	2X	2X	2X	2X	2X	2X	2X	2X	2X	2X
Vanadium				2X				2X	2X	
Zinc				2X				2X	2X	

Analyte	**750007**					
	030	**032**	**034**	**035**	**036**	**037**
Aluminum	2X					
Arsenic	2X					
Barium	2X					
Beryllium	2X					
Cadmium	2X					
Calcium	20X					
Chromium	2X					
Cobalt	2X					
Copper	2X					
Iron	20X					
Lead	2X					
Magnesium	2X					
Manganese	2X					
Nickel	2X					
Potassium	2X					
Selenium	2X					
Sodium	2X					
Thallium	2X					
Uranium	2X	2X	2X	2X	2X	2X
Vanadium	2X					
Zinc	2X					

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

STNT008 Stantec

Client SDG: 750007 GEL Work Order: 750007

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria
H Analytical holding time was exceeded
J Value is estimated
N/A
U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
h Preparation or preservation holding time was exceeded

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature:  **Name: Edmund Frampton**

Date: 24 NOV 2025 **Title: Group Leader**

Sample Data Summary

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 21, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Mary Privitera
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP21 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007001	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 08:10		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	6.69%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		37900	13.9	42.1	ug/kg	98.2	2	RM4	11/19/25	2049	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Mary Privitera
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP19 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007002	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 08:30		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.11%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		68900	13.2	40.1	ug/kg	95.2	2	RM4	11/19/25	2106	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Mary Privitera
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS21 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007005	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 09:10		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	4.58%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		89500	12.6	38.0	ug/kg	90.7	2	RM4	11/19/25	2110	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Mary Privitera
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS17 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007006	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 10:20		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	8.45%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury	Hh	31.0	7.96	23.7	ug/kg	109	1	JP2	11/03/25	0949	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	344	2080	ug/kg	95.4	1	EM2	11/12/25	1715	2890577	2
Silver	U	ND	104	521	ug/kg	95.4	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		6960	317	937	ug/kg	85.8	2	RM4	11/19/25	2113	2899653	3
Barium		63500	93.7	749	ug/kg	85.8	2					
Beryllium		768	18.7	93.7	ug/kg	85.8	2					
Cadmium		206	18.7	187	ug/kg	85.8	2					
Calcium		8430000	12600	37500	ug/kg	85.8	2					
Chromium		13500	187	562	ug/kg	85.8	2					
Cobalt		7020	56.2	187	ug/kg	85.8	2					
Copper		14200	61.8	375	ug/kg	85.8	2					
Magnesium		3900000	1870	5620	ug/kg	85.8	2					
Nickel		14700	93.7	375	ug/kg	85.8	2					
Potassium		3780000	15000	56200	ug/kg	85.8	2					
Selenium		5530	337	937	ug/kg	85.8	2					
Sodium		67500	15000	46800	ug/kg	85.8	2					
Thallium		378	74.9	375	ug/kg	85.8	2					
Uranium		3350	12.4	37.5	ug/kg	85.8	2					
Vanadium		33800	281	3750	ug/kg	85.8	2					
Zinc		54900	749	3750	ug/kg	85.8	2					
Iron		23300000	61800	187000	ug/kg	85.8	20	RM4	11/19/25	2234	2899653	4
Manganese		261000	1870	9370	ug/kg	85.8	20					
Lead		16400	93.7	375	ug/kg	85.8	2	RM4	11/20/25	1659	2899653	5
Aluminum		16300000	42600	93700	ug/kg	85.8	20	RM4	11/20/25	1713	2899653	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652
SW846 3050B	SW846 3050B Prep	HC1	10/31/25	1130	2890575
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890

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Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS17 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007006	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Contact:	Mary Privitera
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS16 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007007	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 10:30		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	8.81%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		6060	12.6	38.2	ug/kg	87.1	2	RM4	11/19/25	2117	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS11 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007008	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 10:40		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	10.7%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		6320	14.2	43.2	ug/kg	96.3	2	RM4	11/19/25	2120	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Client Sample ID:	S27-SS05 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007009	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 10:50		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	10.5%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		6860	13.9	42.0	ug/kg	94.0	2	RM4	11/19/25	2129	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Client Sample ID:	S27-SS07 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007010	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 11:00		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	11.6%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury	Hh	42.0	8.74	26.1	ug/kg	115	1	JP2	11/03/25	0951	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	334	2030	ug/kg	89.6	1	EM2	11/12/25	1727	2890577	2
Silver	U	ND	101	507	ug/kg	89.6	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		8350	361	1070	ug/kg	94.5	2	RM4	11/19/25	2133	2899653	3
Barium		78600	107	855	ug/kg	94.5	2					
Beryllium		849	21.4	107	ug/kg	94.5	2					
Cadmium		244	21.4	214	ug/kg	94.5	2					
Calcium		6300000	14300	42800	ug/kg	94.5	2					
Chromium		14700	214	641	ug/kg	94.5	2					
Cobalt		8060	64.1	214	ug/kg	94.5	2					
Copper		17600	70.6	428	ug/kg	94.5	2					
Magnesium		4390000	2140	6410	ug/kg	94.5	2					
Nickel		15900	107	428	ug/kg	94.5	2					
Potassium		4650000	17100	64100	ug/kg	94.5	2					
Selenium		5030	385	1070	ug/kg	94.5	2					
Sodium		71100	17100	53400	ug/kg	94.5	2					
Thallium		440	85.5	428	ug/kg	94.5	2					
Uranium		4760	14.1	42.8	ug/kg	94.5	2					
Vanadium		38700	321	4280	ug/kg	94.5	2					
Zinc		66600	855	4280	ug/kg	94.5	2					
Iron		26400000	70600	214000	ug/kg	94.5	20	RM4	11/19/25	2254	2899653	4
Manganese		303000	2140	10700	ug/kg	94.5	20					
Lead		18000	107	428	ug/kg	94.5	2	RM4	11/20/25	1701	2899653	5
Aluminum		17400000	48600	107000	ug/kg	94.5	20	RM4	11/20/25	1715	2899653	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep	HC1	10/31/25	1130	2890575
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

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Client Sample ID:	S27-SS07 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007010	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS25 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007013	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 12:20		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	6.58%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury	Hh	30.9	7.91	23.6	ug/kg	110	1	JP2	11/03/25	0953	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	318	1930	ug/kg	90.1	1	EM2	11/12/25	1729	2890577	2
Silver	U	ND	96.4	482	ug/kg	90.1	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		7790	303	896	ug/kg	83.8	2	RM4	11/19/25	2136	2899653	3
Barium		51600	89.6	717	ug/kg	83.8	2					
Beryllium		500	17.9	89.6	ug/kg	83.8	2					
Cadmium	J	91.4	17.9	179	ug/kg	83.8	2					
Chromium		6200	179	538	ug/kg	83.8	2					
Cobalt		4010	53.8	179	ug/kg	83.8	2					
Copper		7260	59.2	359	ug/kg	83.8	2					
Magnesium		3150000	1790	5380	ug/kg	83.8	2					
Nickel		5870	89.6	359	ug/kg	83.8	2					
Potassium		2170000	14300	53800	ug/kg	83.8	2					
Selenium		8490	323	896	ug/kg	83.8	2					
Sodium		52000	14300	44800	ug/kg	83.8	2					
Thallium	J	214	71.7	359	ug/kg	83.8	2					
Uranium		53800	11.8	35.9	ug/kg	83.8	2					
Vanadium		50400	269	3590	ug/kg	83.8	2					
Zinc		29000	717	3590	ug/kg	83.8	2					
Calcium		9990000	120000	359000	ug/kg	83.8	20	RM4	11/19/25	2258	2899653	4
Iron		11200000	59200	179000	ug/kg	83.8	20					
Manganese		189000	1790	8960	ug/kg	83.8	20					
Aluminum		6570000	4080	8960	ug/kg	83.8	2	RM4	11/20/25	1708	2899653	5
Lead		10900	89.6	359	ug/kg	83.8	2					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652
SW846 3050B	SW846 3050B Prep	HC1	10/31/25	1130	2890575

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Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS25 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007013	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Contact:	Mary Privitera
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SSDS-01 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007018	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 13:20		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	10.6%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		6430	12.5	38.0	ug/kg	84.9	2	RM4	11/19/25	2140	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Mary Privitera
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS06 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007030	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 10:30		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.16%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury	Hh	26.7	7.76	23.2	ug/kg	110	1	JP2	11/03/25	0955	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	303	1830	ug/kg	87.0	1	EM2	11/12/25	1732	2890577	2
Silver	U	ND	91.7	458	ug/kg	87.0	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		4360	327	967	ug/kg	91.7	2	RM4	11/19/25	2143	2899653	3
Barium		82700	96.7	774	ug/kg	91.7	2					
Beryllium		431	19.3	96.7	ug/kg	91.7	2					
Cadmium	J	80.8	19.3	193	ug/kg	91.7	2					
Chromium		6790	193	580	ug/kg	91.7	2					
Cobalt		4280	58.0	193	ug/kg	91.7	2					
Copper		6410	63.8	387	ug/kg	91.7	2					
Magnesium		3820000	1930	5800	ug/kg	91.7	2					
Manganese		144000	193	967	ug/kg	91.7	2					
Nickel		6510	96.7	387	ug/kg	91.7	2					
Potassium		1500000	15500	58000	ug/kg	91.7	2					
Selenium		1890	348	967	ug/kg	91.7	2					
Sodium	J	45200	15500	48400	ug/kg	91.7	2					
Thallium	J	118	77.4	387	ug/kg	91.7	2					
Uranium		1640	12.8	38.7	ug/kg	91.7	2					
Vanadium		17600	290	3870	ug/kg	91.7	2					
Zinc		26800	774	3870	ug/kg	91.7	2					
Calcium		22400000	130000	387000	ug/kg	91.7	20	RM4	11/19/25	2305	2899653	4
Iron		12500000	63800	193000	ug/kg	91.7	20					
Aluminum		7460000	4400	9670	ug/kg	91.7	2	RM4	11/20/25	1710	2899653	5
Lead		8040	96.7	387	ug/kg	91.7	2					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652
SW846 3050B	SW846 3050B Prep	HC1	10/31/25	1130	2890575
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890

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Certificate of Analysis

Report Date: November 21, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Mary Privitera
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS06 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007030	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Mary Privitera
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS14 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007032	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 11:00		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	9.31%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		3000	13.8	41.7	ug/kg	94.5	2	RM4	11/19/25	2146	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP20 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007034	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 12:00		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.53%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		9900	13.9	42.2	ug/kg	99.6	2	RM4	11/19/25	2150	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP26 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007035	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 12:20		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.18%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		10700	12.2	37.1	ug/kg	87.9	2	RM4	11/19/25	2153	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Mary Privitera
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP24 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007036	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 12:40		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	17.4%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		27300	15.7	47.6	ug/kg	98.2	2	RM4	11/19/25	2156	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Mary Privitera
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP18 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007037	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 13:00		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.72%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		24900	13.6	41.3	ug/kg	97.3	2	RM4	11/19/25	2200	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP21 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007001	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 08:10		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	6.69%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		37900	13.9	42.1	ug/kg	98.2	2	RM4	11/19/25	2049	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Client Sample ID:	S27-TP19 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007002	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 08:30		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.11%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		68900	13.2	40.1	ug/kg	95.2	2	RM4	11/19/25	2106	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Client Sample ID:	S27-SS21 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007005	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 09:10		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	4.58%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		89500	12.6	38.0	ug/kg	90.7	2	RM4	11/19/25	2110	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Client Sample ID:	S27-SS17 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007006	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 10:20		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	8.45%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury	Hh	31.0	7.96	23.7	ug/kg	109	1	JP2	11/03/25	0949	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	344	2080	ug/kg	95.4	1	EM2	11/12/25	1715	2890577	2
Silver	U	ND	104	521	ug/kg	95.4	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		6960	317	937	ug/kg	85.8	2	RM4	11/19/25	2113	2899653	3
Barium		63500	93.7	749	ug/kg	85.8	2					
Beryllium		768	18.7	93.7	ug/kg	85.8	2					
Cadmium		206	18.7	187	ug/kg	85.8	2					
Calcium		8430000	12600	37500	ug/kg	85.8	2					
Chromium		13500	187	562	ug/kg	85.8	2					
Cobalt		7020	56.2	187	ug/kg	85.8	2					
Copper		14200	61.8	375	ug/kg	85.8	2					
Magnesium		3900000	1870	5620	ug/kg	85.8	2					
Nickel		14700	93.7	375	ug/kg	85.8	2					
Potassium		3780000	15000	56200	ug/kg	85.8	2					
Selenium		5530	337	937	ug/kg	85.8	2					
Sodium		67500	15000	46800	ug/kg	85.8	2					
Thallium		378	74.9	375	ug/kg	85.8	2					
Uranium		3350	12.4	37.5	ug/kg	85.8	2					
Vanadium		33800	281	3750	ug/kg	85.8	2					
Zinc		54900	749	3750	ug/kg	85.8	2					
Iron		23300000	61800	187000	ug/kg	85.8	20	RM4	11/19/25	2234	2899653	4
Manganese		261000	1870	9370	ug/kg	85.8	20					
Lead		16400	93.7	375	ug/kg	85.8	2	RM4	11/20/25	1659	2899653	5
Aluminum		16300000	42600	93700	ug/kg	85.8	20	RM4	11/20/25	1713	2899653	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652
SW846 3050B	SW846 3050B Prep	HC1	10/31/25	1130	2890575
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890

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Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS17 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007006	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Contact:	Kristen Burt
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS16 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007007	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 10:30		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	8.81%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		6060	12.6	38.2	ug/kg	87.1	2	RM4	11/19/25	2117	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kristen Burt
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS11 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007008	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 10:40		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	10.7%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		6320	14.2	43.2	ug/kg	96.3	2	RM4	11/19/25	2120	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kristen Burt
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS05 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007009	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 10:50		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	10.5%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		6860	13.9	42.0	ug/kg	94.0	2	RM4	11/19/25	2129	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kristen Burt
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS07 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007010	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 11:00		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	11.6%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury	Hh	42.0	8.74	26.1	ug/kg	115	1	JP2	11/03/25	0951	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	334	2030	ug/kg	89.6	1	EM2	11/12/25	1727	2890577	2
Silver	U	ND	101	507	ug/kg	89.6	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		8350	361	1070	ug/kg	94.5	2	RM4	11/19/25	2133	2899653	3
Barium		78600	107	855	ug/kg	94.5	2					
Beryllium		849	21.4	107	ug/kg	94.5	2					
Cadmium		244	21.4	214	ug/kg	94.5	2					
Calcium		6300000	14300	42800	ug/kg	94.5	2					
Chromium		14700	214	641	ug/kg	94.5	2					
Cobalt		8060	64.1	214	ug/kg	94.5	2					
Copper		17600	70.6	428	ug/kg	94.5	2					
Magnesium		4390000	2140	6410	ug/kg	94.5	2					
Nickel		15900	107	428	ug/kg	94.5	2					
Potassium		4650000	17100	64100	ug/kg	94.5	2					
Selenium		5030	385	1070	ug/kg	94.5	2					
Sodium		71100	17100	53400	ug/kg	94.5	2					
Thallium		440	85.5	428	ug/kg	94.5	2					
Uranium		4760	14.1	42.8	ug/kg	94.5	2					
Vanadium		38700	321	4280	ug/kg	94.5	2					
Zinc		66600	855	4280	ug/kg	94.5	2					
Iron		26400000	70600	214000	ug/kg	94.5	20	RM4	11/19/25	2254	2899653	4
Manganese		303000	2140	10700	ug/kg	94.5	20					
Lead		18000	107	428	ug/kg	94.5	2	RM4	11/20/25	1701	2899653	5
Aluminum		17400000	48600	107000	ug/kg	94.5	20	RM4	11/20/25	1715	2899653	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep	HC1	10/31/25	1130	2890575
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

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Company :	Stantec
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Contact:	Kristen Burt
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS07 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007010	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Contact:	Kristen Burt
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS25 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007013	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 12:20		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	6.58%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury	Hh	30.9	7.91	23.6	ug/kg	110	1	JP2	11/03/25	0953	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	318	1930	ug/kg	90.1	1	EM2	11/12/25	1729	2890577	2
Silver	U	ND	96.4	482	ug/kg	90.1	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		7790	303	896	ug/kg	83.8	2	RM4	11/19/25	2136	2899653	3
Barium		51600	89.6	717	ug/kg	83.8	2					
Beryllium		500	17.9	89.6	ug/kg	83.8	2					
Cadmium	J	91.4	17.9	179	ug/kg	83.8	2					
Chromium		6200	179	538	ug/kg	83.8	2					
Cobalt		4010	53.8	179	ug/kg	83.8	2					
Copper		7260	59.2	359	ug/kg	83.8	2					
Magnesium		3150000	1790	5380	ug/kg	83.8	2					
Nickel		5870	89.6	359	ug/kg	83.8	2					
Potassium		2170000	14300	53800	ug/kg	83.8	2					
Selenium		8490	323	896	ug/kg	83.8	2					
Sodium		52000	14300	44800	ug/kg	83.8	2					
Thallium	J	214	71.7	359	ug/kg	83.8	2					
Uranium		53800	11.8	35.9	ug/kg	83.8	2					
Vanadium		50400	269	3590	ug/kg	83.8	2					
Zinc		29000	717	3590	ug/kg	83.8	2					
Calcium		9990000	120000	359000	ug/kg	83.8	20	RM4	11/19/25	2258	2899653	4
Iron		11200000	59200	179000	ug/kg	83.8	20					
Manganese		189000	1790	8960	ug/kg	83.8	20					
Aluminum		6570000	4080	8960	ug/kg	83.8	2	RM4	11/20/25	1708	2899653	5
Lead		10900	89.6	359	ug/kg	83.8	2					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652
SW846 3050B	SW846 3050B Prep	HC1	10/31/25	1130	2890575

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Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS25 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007013	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kristen Burt
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SSDS-01 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007018	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 13:20		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	10.6%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		6430	12.5	38.0	ug/kg	84.9	2	RM4	11/19/25	2140	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS06 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007030	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 10:30		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.16%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury	Hh	26.7	7.76	23.2	ug/kg	110	1	JP2	11/03/25	0955	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	303	1830	ug/kg	87.0	1	EM2	11/12/25	1732	2890577	2
Silver	U	ND	91.7	458	ug/kg	87.0	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		4360	327	967	ug/kg	91.7	2	RM4	11/19/25	2143	2899653	3
Barium		82700	96.7	774	ug/kg	91.7	2					
Beryllium		431	19.3	96.7	ug/kg	91.7	2					
Cadmium	J	80.8	19.3	193	ug/kg	91.7	2					
Chromium		6790	193	580	ug/kg	91.7	2					
Cobalt		4280	58.0	193	ug/kg	91.7	2					
Copper		6410	63.8	387	ug/kg	91.7	2					
Magnesium		3820000	1930	5800	ug/kg	91.7	2					
Manganese		144000	193	967	ug/kg	91.7	2					
Nickel		6510	96.7	387	ug/kg	91.7	2					
Potassium		1500000	15500	58000	ug/kg	91.7	2					
Selenium		1890	348	967	ug/kg	91.7	2					
Sodium	J	45200	15500	48400	ug/kg	91.7	2					
Thallium	J	118	77.4	387	ug/kg	91.7	2					
Uranium		1640	12.8	38.7	ug/kg	91.7	2					
Vanadium		17600	290	3870	ug/kg	91.7	2					
Zinc		26800	774	3870	ug/kg	91.7	2					
Calcium		22400000	130000	387000	ug/kg	91.7	20	RM4	11/19/25	2305	2899653	4
Iron		12500000	63800	193000	ug/kg	91.7	20					
Aluminum		7460000	4400	9670	ug/kg	91.7	2	RM4	11/20/25	1710	2899653	5
Lead		8040	96.7	387	ug/kg	91.7	2					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652
SW846 3050B	SW846 3050B Prep	HC1	10/31/25	1130	2890575
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890

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Client Sample ID:	S27-SS06 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007030	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS14 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007032	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 11:00		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	9.31%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		3000	13.8	41.7	ug/kg	94.5	2	RM4	11/19/25	2146	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP20 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007034	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 12:00		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.53%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		9900	13.9	42.2	ug/kg	99.6	2	RM4	11/19/25	2150	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP26 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007035	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 12:20		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.18%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		10700	12.2	37.1	ug/kg	87.9	2	RM4	11/19/25	2153	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP24 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007036	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 12:40		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	17.4%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		27300	15.7	47.6	ug/kg	98.2	2	RM4	11/19/25	2156	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kristen Burt
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP18 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007037	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 13:00		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.72%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		24900	13.6	41.3	ug/kg	97.3	2	RM4	11/19/25	2200	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP21 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007001	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 08:10		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	6.69%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		37900	13.9	42.1	ug/kg	98.2	2	RM4	11/19/25	2049	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP19 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007002	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 08:30		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.11%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		68900	13.2	40.1	ug/kg	95.2	2	RM4	11/19/25	2106	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS21 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007005	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 09:10		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	4.58%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		89500	12.6	38.0	ug/kg	90.7	2	RM4	11/19/25	2110	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 21, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS17 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007006	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 10:20		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	8.45%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury	Hh	31.0	7.96	23.7	ug/kg	109	1	JP2	11/03/25	0949	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	344	2080	ug/kg	95.4	1	EM2	11/12/25	1715	2890577	2
Silver	U	ND	104	521	ug/kg	95.4	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		6960	317	937	ug/kg	85.8	2	RM4	11/19/25	2113	2899653	3
Barium		63500	93.7	749	ug/kg	85.8	2					
Beryllium		768	18.7	93.7	ug/kg	85.8	2					
Cadmium		206	18.7	187	ug/kg	85.8	2					
Calcium		8430000	12600	37500	ug/kg	85.8	2					
Chromium		13500	187	562	ug/kg	85.8	2					
Cobalt		7020	56.2	187	ug/kg	85.8	2					
Copper		14200	61.8	375	ug/kg	85.8	2					
Magnesium		3900000	1870	5620	ug/kg	85.8	2					
Nickel		14700	93.7	375	ug/kg	85.8	2					
Potassium		3780000	15000	56200	ug/kg	85.8	2					
Selenium		5530	337	937	ug/kg	85.8	2					
Sodium		67500	15000	46800	ug/kg	85.8	2					
Thallium		378	74.9	375	ug/kg	85.8	2					
Uranium		3350	12.4	37.5	ug/kg	85.8	2					
Vanadium		33800	281	3750	ug/kg	85.8	2					
Zinc		54900	749	3750	ug/kg	85.8	2					
Iron		23300000	61800	187000	ug/kg	85.8	20	RM4	11/19/25	2234	2899653	4
Manganese		261000	1870	9370	ug/kg	85.8	20					
Lead		16400	93.7	375	ug/kg	85.8	2	RM4	11/20/25	1659	2899653	5
Aluminum		16300000	42600	93700	ug/kg	85.8	20	RM4	11/20/25	1713	2899653	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652
SW846 3050B	SW846 3050B Prep	HC1	10/31/25	1130	2890575
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS17 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007006	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS16 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007007	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 10:30		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	8.81%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		6060	12.6	38.2	ug/kg	87.1	2	RM4	11/19/25	2117	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Company :	Stantec
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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS11 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007008	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 10:40		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	10.7%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		6320	14.2	43.2	ug/kg	96.3	2	RM4	11/19/25	2120	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Company :	Stantec
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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS05 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007009	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 10:50		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	10.5%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		6860	13.9	42.0	ug/kg	94.0	2	RM4	11/19/25	2129	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS07 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007010	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 11:00		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	11.6%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury	Hh	42.0	8.74	26.1	ug/kg	115	1	JP2	11/03/25	0951	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	334	2030	ug/kg	89.6	1	EM2	11/12/25	1727	2890577	2
Silver	U	ND	101	507	ug/kg	89.6	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		8350	361	1070	ug/kg	94.5	2	RM4	11/19/25	2133	2899653	3
Barium		78600	107	855	ug/kg	94.5	2					
Beryllium		849	21.4	107	ug/kg	94.5	2					
Cadmium		244	21.4	214	ug/kg	94.5	2					
Calcium		6300000	14300	42800	ug/kg	94.5	2					
Chromium		14700	214	641	ug/kg	94.5	2					
Cobalt		8060	64.1	214	ug/kg	94.5	2					
Copper		17600	70.6	428	ug/kg	94.5	2					
Magnesium		4390000	2140	6410	ug/kg	94.5	2					
Nickel		15900	107	428	ug/kg	94.5	2					
Potassium		4650000	17100	64100	ug/kg	94.5	2					
Selenium		5030	385	1070	ug/kg	94.5	2					
Sodium		71100	17100	53400	ug/kg	94.5	2					
Thallium		440	85.5	428	ug/kg	94.5	2					
Uranium		4760	14.1	42.8	ug/kg	94.5	2					
Vanadium		38700	321	4280	ug/kg	94.5	2					
Zinc		66600	855	4280	ug/kg	94.5	2					
Iron		26400000	70600	214000	ug/kg	94.5	20	RM4	11/19/25	2254	2899653	4
Manganese		303000	2140	10700	ug/kg	94.5	20					
Lead		18000	107	428	ug/kg	94.5	2	RM4	11/20/25	1701	2899653	5
Aluminum		17400000	48600	107000	ug/kg	94.5	20	RM4	11/20/25	1715	2899653	6

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep	HC1	10/31/25	1130	2890575
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS07 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007010	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Company :	Stantec
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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS25 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007013	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 12:20		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	6.58%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury	Hh	30.9	7.91	23.6	ug/kg	110	1	JP2	11/03/25	0953	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	318	1930	ug/kg	90.1	1	EM2	11/12/25	1729	2890577	2
Silver	U	ND	96.4	482	ug/kg	90.1	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		7790	303	896	ug/kg	83.8	2	RM4	11/19/25	2136	2899653	3
Barium		51600	89.6	717	ug/kg	83.8	2					
Beryllium		500	17.9	89.6	ug/kg	83.8	2					
Cadmium	J	91.4	17.9	179	ug/kg	83.8	2					
Chromium		6200	179	538	ug/kg	83.8	2					
Cobalt		4010	53.8	179	ug/kg	83.8	2					
Copper		7260	59.2	359	ug/kg	83.8	2					
Magnesium		3150000	1790	5380	ug/kg	83.8	2					
Nickel		5870	89.6	359	ug/kg	83.8	2					
Potassium		2170000	14300	53800	ug/kg	83.8	2					
Selenium		8490	323	896	ug/kg	83.8	2					
Sodium		52000	14300	44800	ug/kg	83.8	2					
Thallium	J	214	71.7	359	ug/kg	83.8	2					
Uranium		53800	11.8	35.9	ug/kg	83.8	2					
Vanadium		50400	269	3590	ug/kg	83.8	2					
Zinc		29000	717	3590	ug/kg	83.8	2					
Calcium		9990000	120000	359000	ug/kg	83.8	20	RM4	11/19/25	2258	2899653	4
Iron		11200000	59200	179000	ug/kg	83.8	20					
Manganese		189000	1790	8960	ug/kg	83.8	20					
Aluminum		6570000	4080	8960	ug/kg	83.8	2	RM4	11/20/25	1708	2899653	5
Lead		10900	89.6	359	ug/kg	83.8	2					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652
SW846 3050B	SW846 3050B Prep	HC1	10/31/25	1130	2890575

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Company :	Stantec
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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS25 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007013	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SSDS-01 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007018	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 13:20		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	10.6%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		6430	12.5	38.0	ug/kg	84.9	2	RM4	11/19/25	2140	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS06 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007030	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 10:30		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.16%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury	Hh	26.7	7.76	23.2	ug/kg	110	1	JP2	11/03/25	0955	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	303	1830	ug/kg	87.0	1	EM2	11/12/25	1732	2890577	2
Silver	U	ND	91.7	458	ug/kg	87.0	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		4360	327	967	ug/kg	91.7	2	RM4	11/19/25	2143	2899653	3
Barium		82700	96.7	774	ug/kg	91.7	2					
Beryllium		431	19.3	96.7	ug/kg	91.7	2					
Cadmium	J	80.8	19.3	193	ug/kg	91.7	2					
Chromium		6790	193	580	ug/kg	91.7	2					
Cobalt		4280	58.0	193	ug/kg	91.7	2					
Copper		6410	63.8	387	ug/kg	91.7	2					
Magnesium		3820000	1930	5800	ug/kg	91.7	2					
Manganese		144000	193	967	ug/kg	91.7	2					
Nickel		6510	96.7	387	ug/kg	91.7	2					
Potassium		1500000	15500	58000	ug/kg	91.7	2					
Selenium		1890	348	967	ug/kg	91.7	2					
Sodium	J	45200	15500	48400	ug/kg	91.7	2					
Thallium	J	118	77.4	387	ug/kg	91.7	2					
Uranium		1640	12.8	38.7	ug/kg	91.7	2					
Vanadium		17600	290	3870	ug/kg	91.7	2					
Zinc		26800	774	3870	ug/kg	91.7	2					
Calcium		22400000	130000	387000	ug/kg	91.7	20	RM4	11/19/25	2305	2899653	4
Iron		12500000	63800	193000	ug/kg	91.7	20					
Aluminum		7460000	4400	9670	ug/kg	91.7	2	RM4	11/20/25	1710	2899653	5
Lead		8040	96.7	387	ug/kg	91.7	2					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652
SW846 3050B	SW846 3050B Prep	HC1	10/31/25	1130	2890575
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS06 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007030	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS14 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007032	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 11:00		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	9.31%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		3000	13.8	41.7	ug/kg	94.5	2	RM4	11/19/25	2146	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 21, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP20 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007034	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 12:00		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.53%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		9900	13.9	42.2	ug/kg	99.6	2	RM4	11/19/25	2150	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 21, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP26 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007035	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 12:20		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.18%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		10700	12.2	37.1	ug/kg	87.9	2	RM4	11/19/25	2153	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 21, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP24 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007036	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 12:40		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	17.4%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		27300	15.7	47.6	ug/kg	98.2	2	RM4	11/19/25	2156	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: November 21, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP18 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007037	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 13:00		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.72%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Metals Analysis-ICP-MS												
SW846 3050B/6020B Uranium "Dry Weight Corrected"												
Uranium		24900	13.6	41.3	ug/kg	97.3	2	RM4	11/19/25	2200	2899653	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	HC1	11/18/25	0945	2899652

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

Quality Control Summary

QC Summary

Report Date: November 21, 2025

Stantec
2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah

Contact: **Mary Privitera**

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch 2899653											
QC1206304011 LCS											
Aluminum	188000			198000	ug/kg		106	(80%-120%)	RM4	11/20/25	16:44
Arsenic	4700			4390	ug/kg		93.3	(80%-120%)		11/19/25	20:40
Barium	4700			4880	ug/kg		104	(80%-120%)			
Beryllium	4700			4610	ug/kg		98	(80%-120%)			
Cadmium	4700			4430	ug/kg		94.3	(80%-120%)			
Calcium	188000			202000	ug/kg		107	(80%-120%)			
Chromium	4700			4920	ug/kg		105	(80%-120%)			
Cobalt	4700			4980	ug/kg		106	(80%-120%)			
Copper	4700			5080	ug/kg		108	(80%-120%)			
Iron	188000			202000	ug/kg		107	(80%-120%)			
Lead	4700			4930	ug/kg		105	(80%-120%)		11/20/25	16:44
Magnesium	188000			196000	ug/kg		104	(80%-120%)		11/19/25	20:40

QC Summary

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2899653										
Manganese	4700			5050	ug/kg		107	(80%-120%)	RM4	11/19/25 20:40
Nickel	4700			4990	ug/kg		106	(80%-120%)		
Potassium	188000			189000	ug/kg		101	(80%-120%)		
Selenium	4700			3940	ug/kg		83.9	(80%-120%)		
Sodium	188000			197000	ug/kg		105	(80%-120%)		
Thallium	4700			4780	ug/kg		102	(80%-120%)		
Uranium	4700			4840	ug/kg		103	(80%-120%)		
Vanadium	4700			4750	ug/kg		101	(80%-120%)		
Zinc	4700			4400	ug/kg		93.6	(80%-120%)		
QC1206304010 MB										
Aluminum			U	ND	ug/kg					11/20/25 16:42
Arsenic			U	ND	ug/kg					11/19/25 20:37
Barium			U	ND	ug/kg					
Beryllium			U	ND	ug/kg					
Cadmium			U	ND	ug/kg					

QC Summary

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2899653										
Calcium			U	ND	ug/kg				RM4	11/19/25 20:37
Chromium			U	ND	ug/kg					
Cobalt			U	ND	ug/kg					
Copper			U	ND	ug/kg					
Iron			U	ND	ug/kg					
Lead			J	111	ug/kg					11/20/25 16:42
Magnesium			U	ND	ug/kg					11/19/25 20:37
Manganese			U	ND	ug/kg					
Nickel			U	ND	ug/kg					
Potassium			U	ND	ug/kg					
Selenium			U	ND	ug/kg					
Sodium			U	ND	ug/kg					
Thallium			U	ND	ug/kg					
Uranium			U	ND	ug/kg					

QC Summary

Workorder: **750007**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2899653											
Vanadium				U	ND	ug/kg				RM4	11/19/25 20:37
Zinc				U	ND	ug/kg					
QC1206304012 750007001 MS											
Aluminum	208000		5010000		7730000	ug/kg		N/A	(75%-125%)		11/20/25 16:49
Arsenic	5200		6880		11300	ug/kg		85.4	(75%-125%)		11/19/25 20:53
Barium	5200		51300		56300	ug/kg		N/A	(75%-125%)		
Beryllium	5200		376		5140	ug/kg		91.5	(75%-125%)		
Cadmium	5200	J	72.9		4720	ug/kg		89.3	(75%-125%)		
Calcium	208000		8430000		7330000	ug/kg		N/A	(75%-125%)		
Chromium	5200		4810		11600	ug/kg		130*	(75%-125%)		
Cobalt	5200		2690		7950	ug/kg		101	(75%-125%)		
Copper	5200		8390		12600	ug/kg		80.9	(75%-125%)		
Iron	208000		8860000		11100000	ug/kg		N/A	(75%-125%)		
Lead	5200		9790		15400	ug/kg		108	(75%-125%)		11/20/25 16:49
Magnesium	208000		1440000		1870000	ug/kg		N/A	(75%-125%)		11/19/25 20:53

QC Summary

Workorder: **750007**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2899653											
Manganese	5200		231000		238000	ug/kg		N/A	(75%-125%)	RM4	11/19/25 22:13
Nickel	5200		4380		10300	ug/kg		115	(75%-125%)		11/19/25 20:53
Potassium	208000		1640000		2180000	ug/kg		N/A	(75%-125%)		
Selenium	5200		12700		16000	ug/kg		63.9*	(75%-125%)		
Sodium	208000	J	32900		230000	ug/kg		94.8	(75%-125%)		
Thallium	5200	J	218		5030	ug/kg		92.5	(75%-125%)		
Uranium	5200		37900		36300	ug/kg		N/A	(75%-125%)		
Vanadium	5200		61900		82700	ug/kg		N/A	(75%-125%)		
Zinc	5200		18200		23800	ug/kg		108	(75%-125%)		
QC1206304013 750007001 MSD											
Aluminum	199000		5010000		7910000	ug/kg	2.4	N/A	(0%-20%)		11/20/25 16:51
Arsenic	4980		6880		10700	ug/kg	5.99	76	(0%-20%)		11/19/25 20:56
Barium	4980		51300		59800	ug/kg	6.06	N/A	(0%-20%)		
Beryllium	4980		376		4830	ug/kg	6.24	89.4	(0%-20%)		
Cadmium	4980	J	72.9		4560	ug/kg	3.43	90.1	(0%-20%)		

QC Summary

Workorder: **750007**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%		REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS												
Batch 2899653												
Calcium	199000		8430000		9050000	ug/kg	21	*	N/A	(0%-20%)	RM4	11/19/25 20:56
Chromium	4980		4810		10600	ug/kg	9.43		115	(0%-20%)		
Cobalt	4980		2690		7690	ug/kg	3.4		100	(0%-20%)		
Copper	4980		8390		11400	ug/kg	9.9		60.6*	(0%-20%)		
Iron	199000		8860000		8690000	ug/kg	24.6	*	N/A	(0%-20%)		
Lead	4980		9790		14200	ug/kg	8.04		88.6	(0%-20%)		11/20/25 16:51
Magnesium	199000		1440000		1870000	ug/kg	0.159		N/A	(0%-20%)		11/19/25 20:56
Manganese	4980		231000		215000	ug/kg	10.4		N/A	(0%-20%)		11/19/25 22:16
Nickel	4980		4380		8710	ug/kg	17.2		86.9	(0%-20%)		11/19/25 20:56
Potassium	199000		1640000		2230000	ug/kg	1.91		N/A	(0%-20%)		
Selenium	4980		12700		17300	ug/kg	7.85		93.1	(0%-20%)		
Sodium	199000	J	32900		227000	ug/kg	1.6		97.2	(0%-20%)		
Thallium	4980	J	218		4940	ug/kg	1.86		94.7	(0%-20%)		
Uranium	4980		37900		44300	ug/kg	19.9		N/A	(0%-20%)		

QC Summary

Workorder: **750007**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2899653											
Vanadium	4980		61900		83400	ug/kg	0.82	N/A	(0%-20%)	RM4	11/19/25 20:56
Zinc	4980		18200		24600	ug/kg	3.33	130*	(0%-20%)		
QC1206304014 750007001 PS											
Chromium	50.0		45.7		96.6	ug/L		102	(75%-125%)		11/19/25 21:00
Copper	50.0		79.7		131	ug/L		102	(75%-125%)		
Selenium	50.0		121		163	ug/L		84.2	(75%-125%)		
Zinc	50.0		173		219	ug/L		91.8	(75%-125%)		
QC1206304015 750007001 SDILT											
Aluminum			47600		51400	ug/L	8.01		(0%-20%)		11/20/25 16:56
Arsenic			65.3		68.5	ug/L	4.87		(0%-20%)		11/19/25 21:03
Barium			488		510	ug/L	4.62		(0%-20%)		
Beryllium			3.57	J	3.88	ug/L	8.7		(0%-20%)		
Cadmium		J	0.692	U	ND	ug/L	N/A		(0%-20%)		
Calcium			80000		81900	ug/L	2.39		(0%-20%)		
Chromium			45.7		46.5	ug/L	1.64		(0%-20%)		
Cobalt			25.6		26.8	ug/L	4.78		(0%-20%)		

QC Summary

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2899653										
Copper		79.7		86.6	ug/L	8.58		(0%-20%)	RM4	11/19/25 21:03
Iron		84200		87300	ug/L	3.69		(0%-20%)		
Lead		93.0		102	ug/L	9.47		(0%-20%)		11/20/25 16:56
Magnesium		13700		14600	ug/L	6.08		(0%-20%)		11/19/25 21:03
Manganese		2190		2260	ug/L	3.07		(0%-20%)		11/19/25 22:23
Nickel		41.6		45.4	ug/L	9.25		(0%-20%)		11/19/25 21:03
Potassium		15600		16000	ug/L	2.84		(0%-20%)		
Selenium		121		137	ug/L	14		(0%-20%)		
Sodium	J	313	U	ND	ug/L	N/A		(0%-20%)		
Thallium	J	2.07	U	ND	ug/L	N/A		(0%-20%)		
Uranium		360		373	ug/L	3.67		(0%-20%)		
Vanadium		588		606	ug/L	2.96		(0%-20%)		
Zinc		173	J	195	ug/L	13		(0%-20%)		

QC Summary

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP										
Batch 2890577										
QC1206286308 LCS										
Antimony	43600			43100	ug/kg		98.8	(80%-120%)	EM2	11/12/25 17:13
Silver	8730			9000	ug/kg		103	(80%-120%)		
QC1206286307 MB										
Antimony			U	ND	ug/kg					11/12/25 17:10
Silver			U	ND	ug/kg					
QC1206286309 750007006 MS										
Antimony	54400	U	ND	43900	ug/kg		80.6	(75%-125%)		11/12/25 17:18
Silver	10900	U	ND	10300	ug/kg		94.8	(75%-125%)		
QC1206286310 750007006 MSD										
Antimony	45800	U	ND	36500	ug/kg	18.3	79.6	(0%-20%)		11/12/25 17:20
Silver	9160	U	ND	8720	ug/kg	16.8	95.1	(0%-20%)		
QC1206286312 750007006 SDILT										
Antimony		U	ND	U ND	ug/L	N/A		(0%-20%)		11/12/25 17:25
Silver		U	ND	U ND	ug/L	N/A		(0%-20%)		
Metals Analysis-Mercury										
Batch 2890892										
QC1206286960 LCS										
Mercury	216			248	ug/kg		115	(80%-120%)	JP2	11/03/25 09:37
QC1206286959 MB										
Mercury			U	ND	ug/kg					11/03/25 09:36

QC Summary

Workorder: **750007**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%		REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury													
Batch 2890892													
QC1206286964 750212001 MS													
Mercury	202	U	ND		197	ug/kg			94	(80%-120%)	JP2	11/03/25	10:12
QC1206286965 750212001 MSD													
Mercury	239	U	ND		245	ug/kg	22.1	*	99.9	(0%-20%)		11/03/25	10:13

Notes:

The Qualifiers in this report are defined as follows:

U U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

J J Value is estimated

H H Analytical holding time was exceeded

h h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

QC Summary

Report Date: November 21, 2025

Stantec
2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah

Contact: **Kristen Burt**

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch 2899653											
QC1206304011 LCS											
Aluminum	188000			198000	ug/kg		106	(80%-120%)	RM4	11/20/25	16:44
Arsenic	4700			4390	ug/kg		93.3	(80%-120%)		11/19/25	20:40
Barium	4700			4880	ug/kg		104	(80%-120%)			
Beryllium	4700			4610	ug/kg		98	(80%-120%)			
Cadmium	4700			4430	ug/kg		94.3	(80%-120%)			
Calcium	188000			202000	ug/kg		107	(80%-120%)			
Chromium	4700			4920	ug/kg		105	(80%-120%)			
Cobalt	4700			4980	ug/kg		106	(80%-120%)			
Copper	4700			5080	ug/kg		108	(80%-120%)			
Iron	188000			202000	ug/kg		107	(80%-120%)			
Lead	4700			4930	ug/kg		105	(80%-120%)		11/20/25	16:44
Magnesium	188000			196000	ug/kg		104	(80%-120%)		11/19/25	20:40

QC Summary

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2899653										
Manganese	4700			5050	ug/kg		107	(80%-120%)	RM4	11/19/25 20:40
Nickel	4700			4990	ug/kg		106	(80%-120%)		
Potassium	188000			189000	ug/kg		101	(80%-120%)		
Selenium	4700			3940	ug/kg		83.9	(80%-120%)		
Sodium	188000			197000	ug/kg		105	(80%-120%)		
Thallium	4700			4780	ug/kg		102	(80%-120%)		
Uranium	4700			4840	ug/kg		103	(80%-120%)		
Vanadium	4700			4750	ug/kg		101	(80%-120%)		
Zinc	4700			4400	ug/kg		93.6	(80%-120%)		
QC1206304010 MB										
Aluminum			U	ND	ug/kg					11/20/25 16:42
Arsenic			U	ND	ug/kg					11/19/25 20:37
Barium			U	ND	ug/kg					
Beryllium			U	ND	ug/kg					
Cadmium			U	ND	ug/kg					

QC Summary

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch 2899653											
Calcium			U	ND	ug/kg				RM4	11/19/25	20:37
Chromium			U	ND	ug/kg						
Cobalt			U	ND	ug/kg						
Copper			U	ND	ug/kg						
Iron			U	ND	ug/kg						
Lead			J	111	ug/kg					11/20/25	16:42
Magnesium			U	ND	ug/kg					11/19/25	20:37
Manganese			U	ND	ug/kg						
Nickel			U	ND	ug/kg						
Potassium			U	ND	ug/kg						
Selenium			U	ND	ug/kg						
Sodium			U	ND	ug/kg						
Thallium			U	ND	ug/kg						
Uranium			U	ND	ug/kg						

QC Summary

Workorder: **750007**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2899653											
Vanadium				U	ND	ug/kg				RM4	11/19/25 20:37
Zinc				U	ND	ug/kg					
QC1206304012 750007001 MS											
Aluminum	208000		5010000		7730000	ug/kg		N/A	(75%-125%)		11/20/25 16:49
Arsenic	5200		6880		11300	ug/kg		85.4	(75%-125%)		11/19/25 20:53
Barium	5200		51300		56300	ug/kg		N/A	(75%-125%)		
Beryllium	5200		376		5140	ug/kg		91.5	(75%-125%)		
Cadmium	5200	J	72.9		4720	ug/kg		89.3	(75%-125%)		
Calcium	208000		8430000		7330000	ug/kg		N/A	(75%-125%)		
Chromium	5200		4810		11600	ug/kg		130*	(75%-125%)		
Cobalt	5200		2690		7950	ug/kg		101	(75%-125%)		
Copper	5200		8390		12600	ug/kg		80.9	(75%-125%)		
Iron	208000		8860000		11100000	ug/kg		N/A	(75%-125%)		
Lead	5200		9790		15400	ug/kg		108	(75%-125%)		11/20/25 16:49
Magnesium	208000		1440000		1870000	ug/kg		N/A	(75%-125%)		11/19/25 20:53

QC Summary

Workorder: **750007**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2899653											
Manganese	5200		231000		238000	ug/kg		N/A	(75%-125%)	RM4	11/19/25 22:13
Nickel	5200		4380		10300	ug/kg		115	(75%-125%)		11/19/25 20:53
Potassium	208000		1640000		2180000	ug/kg		N/A	(75%-125%)		
Selenium	5200		12700		16000	ug/kg		63.9*	(75%-125%)		
Sodium	208000	J	32900		230000	ug/kg		94.8	(75%-125%)		
Thallium	5200	J	218		5030	ug/kg		92.5	(75%-125%)		
Uranium	5200		37900		36300	ug/kg		N/A	(75%-125%)		
Vanadium	5200		61900		82700	ug/kg		N/A	(75%-125%)		
Zinc	5200		18200		23800	ug/kg		108	(75%-125%)		
QC1206304013 750007001 MSD											
Aluminum	199000		5010000		7910000	ug/kg	2.4	N/A	(0%-20%)		11/20/25 16:51
Arsenic	4980		6880		10700	ug/kg	5.99	76	(0%-20%)		11/19/25 20:56
Barium	4980		51300		59800	ug/kg	6.06	N/A	(0%-20%)		
Beryllium	4980		376		4830	ug/kg	6.24	89.4	(0%-20%)		
Cadmium	4980	J	72.9		4560	ug/kg	3.43	90.1	(0%-20%)		

QC Summary

Workorder: **750007**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%		REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS													
Batch 2899653													
Calcium	199000		8430000		9050000	ug/kg	21	*	N/A	(0%-20%)	RM4	11/19/25	20:56
Chromium	4980		4810		10600	ug/kg	9.43		115	(0%-20%)			
Cobalt	4980		2690		7690	ug/kg	3.4		100	(0%-20%)			
Copper	4980		8390		11400	ug/kg	9.9		60.6*	(0%-20%)			
Iron	199000		8860000		8690000	ug/kg	24.6	*	N/A	(0%-20%)			
Lead	4980		9790		14200	ug/kg	8.04		88.6	(0%-20%)		11/20/25	16:51
Magnesium	199000		1440000		1870000	ug/kg	0.159		N/A	(0%-20%)		11/19/25	20:56
Manganese	4980		231000		215000	ug/kg	10.4		N/A	(0%-20%)		11/19/25	22:16
Nickel	4980		4380		8710	ug/kg	17.2		86.9	(0%-20%)		11/19/25	20:56
Potassium	199000		1640000		2230000	ug/kg	1.91		N/A	(0%-20%)			
Selenium	4980		12700		17300	ug/kg	7.85		93.1	(0%-20%)			
Sodium	199000	J	32900		227000	ug/kg	1.6		97.2	(0%-20%)			
Thallium	4980	J	218		4940	ug/kg	1.86		94.7	(0%-20%)			
Uranium	4980		37900		44300	ug/kg	19.9		N/A	(0%-20%)			

QC Summary

Workorder: **750007**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2899653											
Vanadium	4980		61900		83400	ug/kg	0.82	N/A	(0%-20%)	RM4	11/19/25 20:56
Zinc	4980		18200		24600	ug/kg	3.33	130*	(0%-20%)		
QC1206304014 750007001 PS											
Chromium	50.0		45.7		96.6	ug/L		102	(75%-125%)		11/19/25 21:00
Copper	50.0		79.7		131	ug/L		102	(75%-125%)		
Selenium	50.0		121		163	ug/L		84.2	(75%-125%)		
Zinc	50.0		173		219	ug/L		91.8	(75%-125%)		
QC1206304015 750007001 SDILT											
Aluminum			47600		51400	ug/L	N/A		(0%-20%)		11/20/25 16:56
Arsenic			65.3		68.5	ug/L	N/A		(0%-20%)		11/19/25 21:03
Barium			488		510	ug/L	N/A		(0%-20%)		
Beryllium			3.57	J	3.88	ug/L	N/A		(0%-20%)		
Cadmium		J	0.692	U	ND	ug/L	N/A		(0%-20%)		
Calcium			80000		81900	ug/L	N/A		(0%-20%)		
Chromium			45.7		46.5	ug/L	N/A		(0%-20%)		
Cobalt			25.6		26.8	ug/L	N/A		(0%-20%)		

QC Summary

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2899653										
Copper		79.7		86.6	ug/L	N/A		(0%-20%)	RM4	11/19/25 21:03
Iron		84200		87300	ug/L	N/A		(0%-20%)		
Lead		93.0		102	ug/L	N/A		(0%-20%)		11/20/25 16:56
Magnesium		13700		14600	ug/L	N/A		(0%-20%)		11/19/25 21:03
Manganese		2190		2260	ug/L	N/A		(0%-20%)		11/19/25 22:23
Nickel		41.6		45.4	ug/L	N/A		(0%-20%)		11/19/25 21:03
Potassium		15600		16000	ug/L	N/A		(0%-20%)		
Selenium		121		137	ug/L	N/A		(0%-20%)		
Sodium	J	313	U	ND	ug/L	N/A		(0%-20%)		
Thallium	J	2.07	U	ND	ug/L	N/A		(0%-20%)		
Uranium		360		373	ug/L	N/A		(0%-20%)		
Vanadium		588		606	ug/L	N/A		(0%-20%)		
Zinc		173	J	195	ug/L	N/A		(0%-20%)		

QC Summary

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP										
Batch 2890577										
QC1206286308 LCS										
Antimony	43600			43100	ug/kg		98.8	(80%-120%)	EM2	11/12/25 17:13
Silver	8730			9000	ug/kg		103	(80%-120%)		
QC1206286307 MB										
Antimony			U	ND	ug/kg					11/12/25 17:10
Silver			U	ND	ug/kg					
QC1206286309 750007006 MS										
Antimony	54400	U	ND	43900	ug/kg		80.6	(75%-125%)		11/12/25 17:18
Silver	10900	U	ND	10300	ug/kg		94.8	(75%-125%)		
QC1206286310 750007006 MSD										
Antimony	45800	U	ND	36500	ug/kg	18.3	79.6	(0%-20%)		11/12/25 17:20
Silver	9160	U	ND	8720	ug/kg	16.8	95.1	(0%-20%)		
QC1206286312 750007006 SDILT										
Antimony		U	ND	U ND	ug/L	N/A		(0%-20%)		11/12/25 17:25
Silver		U	ND	U ND	ug/L	N/A		(0%-20%)		
Metals Analysis-Mercury										
Batch 2890892										
QC1206286960 LCS										
Mercury	216			248	ug/kg		115	(80%-120%)	JP2	11/03/25 09:37
QC1206286959 MB										
Mercury			U	ND	ug/kg					11/03/25 09:36

QC Summary

Workorder: **750007**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%		REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury													
Batch 2890892													
QC1206286964 750212001 MS													
Mercury	202	U	ND		197	ug/kg			94	(80%-120%)	JP2	11/03/25	10:12
QC1206286965 750212001 MSD													
Mercury	239	U	ND		245	ug/kg	22.1	*	99.9	(0%-20%)		11/03/25	10:13

Notes:

The Qualifiers in this report are defined as follows:

U U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

J J Value is estimated

H H Analytical holding time was exceeded

h h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

QC Summary

Report Date: November 21, 2025

Stantec
2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah

Contact: **Kelly Johnson**

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch 2899653											
QC1206304011 LCS											
Aluminum	188000			198000	ug/kg		106	(80%-120%)	RM4	11/20/25	16:44
Arsenic	4700			4390	ug/kg		93.3	(80%-120%)		11/19/25	20:40
Barium	4700			4880	ug/kg		104	(80%-120%)			
Beryllium	4700			4610	ug/kg		98	(80%-120%)			
Cadmium	4700			4430	ug/kg		94.3	(80%-120%)			
Calcium	188000			202000	ug/kg		107	(80%-120%)			
Chromium	4700			4920	ug/kg		105	(80%-120%)			
Cobalt	4700			4980	ug/kg		106	(80%-120%)			
Copper	4700			5080	ug/kg		108	(80%-120%)			
Iron	188000			202000	ug/kg		107	(80%-120%)			
Lead	4700			4930	ug/kg		105	(80%-120%)		11/20/25	16:44
Magnesium	188000			196000	ug/kg		104	(80%-120%)		11/19/25	20:40

QC Summary

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2899653										
Manganese	4700			5050	ug/kg		107	(80%-120%)	RM4	11/19/25 20:40
Nickel	4700			4990	ug/kg		106	(80%-120%)		
Potassium	188000			189000	ug/kg		101	(80%-120%)		
Selenium	4700			3940	ug/kg		83.9	(80%-120%)		
Sodium	188000			197000	ug/kg		105	(80%-120%)		
Thallium	4700			4780	ug/kg		102	(80%-120%)		
Uranium	4700			4840	ug/kg		103	(80%-120%)		
Vanadium	4700			4750	ug/kg		101	(80%-120%)		
Zinc	4700			4400	ug/kg		93.6	(80%-120%)		
QC1206304010 MB										
Aluminum			U	ND	ug/kg					11/20/25 16:42
Arsenic			U	ND	ug/kg					11/19/25 20:37
Barium			U	ND	ug/kg					
Beryllium			U	ND	ug/kg					
Cadmium			U	ND	ug/kg					

QC Summary

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch 2899653											
Calcium			U	ND	ug/kg				RM4	11/19/25	20:37
Chromium			U	ND	ug/kg						
Cobalt			U	ND	ug/kg						
Copper			U	ND	ug/kg						
Iron			U	ND	ug/kg						
Lead			J	111	ug/kg					11/20/25	16:42
Magnesium			U	ND	ug/kg					11/19/25	20:37
Manganese			U	ND	ug/kg						
Nickel			U	ND	ug/kg						
Potassium			U	ND	ug/kg						
Selenium			U	ND	ug/kg						
Sodium			U	ND	ug/kg						
Thallium			U	ND	ug/kg						
Uranium			U	ND	ug/kg						

QC Summary

Workorder: **750007**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2899653											
Vanadium				U	ND	ug/kg				RM4	11/19/25 20:37
Zinc				U	ND	ug/kg					
QC1206304012 750007001 MS											
Aluminum	208000		5010000		7730000	ug/kg		N/A	(75%-125%)		11/20/25 16:49
Arsenic	5200		6880		11300	ug/kg		85.4	(75%-125%)		11/19/25 20:53
Barium	5200		51300		56300	ug/kg		N/A	(75%-125%)		
Beryllium	5200		376		5140	ug/kg		91.5	(75%-125%)		
Cadmium	5200	J	72.9		4720	ug/kg		89.3	(75%-125%)		
Calcium	208000		8430000		7330000	ug/kg		N/A	(75%-125%)		
Chromium	5200		4810		11600	ug/kg		130*	(75%-125%)		
Cobalt	5200		2690		7950	ug/kg		101	(75%-125%)		
Copper	5200		8390		12600	ug/kg		80.9	(75%-125%)		
Iron	208000		8860000		11100000	ug/kg		N/A	(75%-125%)		
Lead	5200		9790		15400	ug/kg		108	(75%-125%)		11/20/25 16:49
Magnesium	208000		1440000		1870000	ug/kg		N/A	(75%-125%)		11/19/25 20:53

QC Summary

Workorder: **750007**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2899653											
Manganese	5200		231000		238000	ug/kg		N/A	(75%-125%)	RM4	11/19/25 22:13
Nickel	5200		4380		10300	ug/kg		115	(75%-125%)		11/19/25 20:53
Potassium	208000		1640000		2180000	ug/kg		N/A	(75%-125%)		
Selenium	5200		12700		16000	ug/kg		63.9*	(75%-125%)		
Sodium	208000	J	32900		230000	ug/kg		94.8	(75%-125%)		
Thallium	5200	J	218		5030	ug/kg		92.5	(75%-125%)		
Uranium	5200		37900		36300	ug/kg		N/A	(75%-125%)		
Vanadium	5200		61900		82700	ug/kg		N/A	(75%-125%)		
Zinc	5200		18200		23800	ug/kg		108	(75%-125%)		
QC1206304013 750007001 MSD											
Aluminum	199000		5010000		7910000	ug/kg	2.4	N/A	(0%-20%)		11/20/25 16:51
Arsenic	4980		6880		10700	ug/kg	5.99	76	(0%-20%)		11/19/25 20:56
Barium	4980		51300		59800	ug/kg	6.06	N/A	(0%-20%)		
Beryllium	4980		376		4830	ug/kg	6.24	89.4	(0%-20%)		
Cadmium	4980	J	72.9		4560	ug/kg	3.43	90.1	(0%-20%)		

QC Summary

Workorder: **750007**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%		REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS												
Batch 2899653												
Calcium	199000		8430000		9050000	ug/kg	21	*	N/A	(0%-20%)	RM4	11/19/25 20:56
Chromium	4980		4810		10600	ug/kg	9.43		115	(0%-20%)		
Cobalt	4980		2690		7690	ug/kg	3.4		100	(0%-20%)		
Copper	4980		8390		11400	ug/kg	9.9		60.6*	(0%-20%)		
Iron	199000		8860000		8690000	ug/kg	24.6	*	N/A	(0%-20%)		
Lead	4980		9790		14200	ug/kg	8.04		88.6	(0%-20%)		11/20/25 16:51
Magnesium	199000		1440000		1870000	ug/kg	0.159		N/A	(0%-20%)		11/19/25 20:56
Manganese	4980		231000		215000	ug/kg	10.4		N/A	(0%-20%)		11/19/25 22:16
Nickel	4980		4380		8710	ug/kg	17.2		86.9	(0%-20%)		11/19/25 20:56
Potassium	199000		1640000		2230000	ug/kg	1.91		N/A	(0%-20%)		
Selenium	4980		12700		17300	ug/kg	7.85		93.1	(0%-20%)		
Sodium	199000	J	32900		227000	ug/kg	1.6		97.2	(0%-20%)		
Thallium	4980	J	218		4940	ug/kg	1.86		94.7	(0%-20%)		
Uranium	4980		37900		44300	ug/kg	19.9		N/A	(0%-20%)		

QC Summary

Workorder: **750007**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2899653											
Vanadium	4980		61900		83400	ug/kg	0.82	N/A	(0%-20%)	RM4	11/19/25 20:56
Zinc	4980		18200		24600	ug/kg	3.33	130*	(0%-20%)		
QC1206304014 750007001 PS											
Chromium	50.0		45.7		96.6	ug/L		102	(75%-125%)		11/19/25 21:00
Copper	50.0		79.7		131	ug/L		102	(75%-125%)		
Selenium	50.0		121		163	ug/L		84.2	(75%-125%)		
Zinc	50.0		173		219	ug/L		91.8	(75%-125%)		
QC1206304015 750007001 SDILT											
Aluminum			47600		51400	ug/L	N/A		(0%-20%)		11/20/25 16:56
Arsenic			65.3		68.5	ug/L	N/A		(0%-20%)		11/19/25 21:03
Barium			488		510	ug/L	N/A		(0%-20%)		
Beryllium			3.57	J	3.88	ug/L	N/A		(0%-20%)		
Cadmium		J	0.692	U	ND	ug/L	N/A		(0%-20%)		
Calcium			80000		81900	ug/L	N/A		(0%-20%)		
Chromium			45.7		46.5	ug/L	N/A		(0%-20%)		
Cobalt			25.6		26.8	ug/L	N/A		(0%-20%)		

QC Summary

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2899653										
Copper		79.7		86.6	ug/L	N/A		(0%-20%)	RM4	11/19/25 21:03
Iron		84200		87300	ug/L	N/A		(0%-20%)		
Lead		93.0		102	ug/L	N/A		(0%-20%)		11/20/25 16:56
Magnesium		13700		14600	ug/L	N/A		(0%-20%)		11/19/25 21:03
Manganese		2190		2260	ug/L	N/A		(0%-20%)		11/19/25 22:23
Nickel		41.6		45.4	ug/L	N/A		(0%-20%)		11/19/25 21:03
Potassium		15600		16000	ug/L	N/A		(0%-20%)		
Selenium		121		137	ug/L	N/A		(0%-20%)		
Sodium	J	313	U	ND	ug/L	N/A		(0%-20%)		
Thallium	J	2.07	U	ND	ug/L	N/A		(0%-20%)		
Uranium		360		373	ug/L	N/A		(0%-20%)		
Vanadium		588		606	ug/L	N/A		(0%-20%)		
Zinc		173	J	195	ug/L	N/A		(0%-20%)		

QC Summary

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP										
Batch 2890577										
QC1206286308 LCS										
Antimony	43600			43100	ug/kg		98.8	(80%-120%)	EM2	11/12/25 17:13
Silver	8730			9000	ug/kg		103	(80%-120%)		
QC1206286307 MB										
Antimony			U	ND	ug/kg					11/12/25 17:10
Silver			U	ND	ug/kg					
QC1206286309 750007006 MS										
Antimony	54400	U	ND	43900	ug/kg		80.6	(75%-125%)		11/12/25 17:18
Silver	10900	U	ND	10300	ug/kg		94.8	(75%-125%)		
QC1206286310 750007006 MSD										
Antimony	45800	U	ND	36500	ug/kg	18.3	79.6	(0%-20%)		11/12/25 17:20
Silver	9160	U	ND	8720	ug/kg	16.8	95.1	(0%-20%)		
QC1206286312 750007006 SDILT										
Antimony		U	ND	U ND	ug/L	N/A		(0%-20%)		11/12/25 17:25
Silver		U	ND	U ND	ug/L	N/A		(0%-20%)		
Metals Analysis-Mercury										
Batch 2890892										
QC1206286960 LCS										
Mercury	216			248	ug/kg		115	(80%-120%)	JP2	11/03/25 09:37
QC1206286959 MB										
Mercury			U	ND	ug/kg					11/03/25 09:36

QC Summary

Workorder: **750007**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%		REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury													
Batch 2890892													
QC1206286964 750212001 MS													
Mercury	202	U	ND		197	ug/kg			94	(80%-120%)	JP2	11/03/25	10:12
QC1206286965 750212001 MSD													
Mercury	239	U	ND		245	ug/kg	22.1	*	99.9	(0%-20%)		11/03/25	10:13

Notes:

The Qualifiers in this report are defined as follows:

U U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

J J Value is estimated

H H Analytical holding time was exceeded

h h Preparation or preservation holding time was exceeded

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Radiological Analysis

Case Narrative

Radiochemistry
Technical Case Narrative
Stantec
SDG #: 750007

Product: **Alphaspec Th, Solid**
Analytical Method: DOE EML HASL-300, Th-01-RC Modified
Analytical Procedure: GL-RAD-A-038 REV# 20
Analytical Batch: 2893950

Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25
Preparation Batches: 2890395 and 2890396

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750007001	S27-TP21 0.0'-0.5'
750007002	S27-TP19 0.0'-0.5'
750007005	S27-SS21 0.0'-0.5'
750007006	S27-SS17 0.0'-0.5'
750007007	S27-SS16 0.0'-0.5'
750007008	S27-SS11 0.0'-0.5'
750007009	S27-SS05 0.0'-0.5'
750007010	S27-SS07 0.0'-0.5'
750007018	S27-SSDS-01 0.0'-0.5'
750007032	S27-SS14 0.0'-0.5'
750007034	S27-TP20 0.0'-0.5'
750007035	S27-TP26 0.0'-0.5'
750007036	S27-TP24 0.0'-0.5'
750007037	S27-TP18 0.0'-0.5'
1206292664	Method Blank (MB)
1206292665	750007001(S27-TP21 0.0'-0.5') Sample Duplicate (DUP)
1206292666	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Duplication Criteria between QC Sample and Duplicate Sample
The Sample and the Duplicate, (See Below), did not meet the relative percent difference requirement; however, they do meet the relative error ratio requirement with the value listed below.

Sample	Analyte	Value
1206292665 (S27-TP21 0.0'-0.5'DUP)	Thorium-230	RPD 34.7* (0.00%-20.00%) RER 2.89 (0-3)

Product: **Dry Weight**
Preparation Method: ASTM D 2216 (Modified)
Preparation Procedure: GL-OA-E-020 REV# 14
Preparation Batch: 2890395

Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25
Preparation Batch: 2890395

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750007001	S27-TP21 0.0'-0.5'
750007002	S27-TP19 0.0'-0.5'
750007003	S27-SS19 0.0'-0.5'
750007004	S27-SS20 0.0'-0.5'
750007005	S27-SS21 0.0'-0.5'
750007006	S27-SS17 0.0'-0.5'
750007007	S27-SS16 0.0'-0.5'
750007008	S27-SS11 0.0'-0.5'
750007009	S27-SS05 0.0'-0.5'
750007010	S27-SS07 0.0'-0.5'
750007011	S27-SS22 0.0'-0.5'
750007012	S27-SS27 0.0'-0.5'
750007013	S27-SS25 0.0'-0.5'
750007015	S27-SS26 0.0'-0.5'
750007016	S27-SS28 0.0'-0.5'
750007017	S27-SS23 0.0'-0.5'
750007018	S27-SSDS-01 0.0'-0.5'
750007019	S27-SSDS-02 0.0'-0.5'
750007020	S27-SSDS-03 0.0'-0.5'

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Miscellaneous Information

Additional Comments
Sample 750007018 (S27-SSDS-01 0.0'-0.5') did not meet SOP standards for dryness. The difference between the post-event weights is greater than 0.1%-our sop definition of dryness is less than 0.1% change between those weights. This was missed by the analyst prior to prepping the sample. LIMS will correct the data to the dry weight that was reached.Â

Product: **Dry Weight**
Preparation Method: ASTM D 2216 (Modified)
Preparation Procedure: GL-OA-E-020 REV# 14
Preparation Batch: 2890396

Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25
Preparation Batch: 2890396

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750007021	S27-SS09 0.0'-0.5'
750007022	S27-SS01 0.0'-0.5'
750007023	S27-SS02 0.0'-0.5'
750007024	S27-SS04 0.0'-0.5'
750007025	S27-SS10 0.0'-0.5'
750007026	S27-SS08 0.0'-0.5'
750007027	S27-SS15 0.0'-0.5'
750007028	S27-SS13 0.0'-0.5'
750007029	S27-SS03 0.0'-0.5'
750007030	S27-SS06 0.0'-0.5'
750007032	S27-SS14 0.0'-0.5'
750007034	S27-TP20 0.0'-0.5'
750007035	S27-TP26 0.0'-0.5'
750007036	S27-TP24 0.0'-0.5'
750007037	S27-TP18 0.0'-0.5'
750007038	S27-SSDS-04 0.0'-0.5'

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Dry Weight**
Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25
Preparation Batch: 2890278

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750007014	S27-SS24 0.0'-0.5'
750007033	S27-SS18 0.0'-0.5'

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Dry Weight**
Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25
Preparation Batch: 2890397

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750007031	S27-SS12 0.0'-0.5'

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Gamma Ra226, Solid**
Analytical Method: DOE HASL 300, 4.5.2.3/Ga-01-R
Analytical Procedure: GL-RAD-A-013 REV# 29
Analytical Batch: 2890517

Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25
Preparation Batches: 2890278 and 2890395

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750007001	S27-TP21 0.0'-0.5'
750007002	S27-TP19 0.0'-0.5'
750007003	S27-SS19 0.0'-0.5'
750007004	S27-SS20 0.0'-0.5'
750007005	S27-SS21 0.0'-0.5'
750007006	S27-SS17 0.0'-0.5'
750007007	S27-SS16 0.0'-0.5'
750007008	S27-SS11 0.0'-0.5'
750007009	S27-SS05 0.0'-0.5'
750007010	S27-SS07 0.0'-0.5'
750007011	S27-SS22 0.0'-0.5'
750007012	S27-SS27 0.0'-0.5'

750007013	S27-SS25 0.0’-0.5’
750007014	S27-SS24 0.0’-0.5’
750007015	S27-SS26 0.0’-0.5’
750007016	S27-SS28 0.0’-0.5’
750007017	S27-SS23 0.0’-0.5’
750007018	S27-SSDS-01 0.0’-0.5’
750007019	S27-SSDS-02 0.0’-0.5’
750007020	S27-SSDS-03 0.0’-0.5’
1206286186	Method Blank (MB)
1206286187	750007001(S27-TP21 0.0’-0.5’) Sample Duplicate (DUP)
1206286188	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Miscellaneous Information

Additional Comments
Samples in this batch contain a mix of radioactive and non-radioactive materials. Samples were prepared separately based on hazard code and analyzed within the same counting batch. No impact to the data expected. Reporting results.
Per client direction, the Ra-226 results were recalculated using Bi-214 609 KeV energy line.

Product: **Gamma Ra226, Solid**
Analytical Method: DOE HASL 300, 4.5.2.3/Ga-01-R
Analytical Procedure: GL-RAD-A-013 REV# 29
Analytical Batch: 2891447

Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25
Preparation Batches: 2890278, 2890396 and 2890397

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750007021	S27-SS09 0.0’-0.5’
750007022	S27-SS01 0.0’-0.5’
750007023	S27-SS02 0.0’-0.5’
750007024	S27-SS04 0.0’-0.5’
750007025	S27-SS10 0.0’-0.5’
750007026	S27-SS08 0.0’-0.5’
750007027	S27-SS15 0.0’-0.5’
750007028	S27-SS13 0.0’-0.5’
750007029	S27-SS03 0.0’-0.5’
750007030	S27-SS06 0.0’-0.5’
750007031	S27-SS12 0.0’-0.5’
750007032	S27-SS14 0.0’-0.5’

750007033	S27-SS18 0.0’-0.5’
750007034	S27-TP20 0.0’-0.5’
750007035	S27-TP26 0.0’-0.5’
750007036	S27-TP24 0.0’-0.5’
750007037	S27-TP18 0.0’-0.5’
750007038	S27-SSDS-04 0.0’-0.5’
1206287990	Method Blank (MB)
1206287991	750007021(S27-SS09 0.0’-0.5’) Sample Duplicate (DUP)
1206287992	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Recounts
Sample 750007035 (S27-TP26 0.0’-0.5’) was recounted due to a peak shift. The recount has been reported.

Miscellaneous Information

Additional Comments
Samples in this batch contain a mix of radioactive and non-radioactive materials. Samples were prepared separately based on hazard code and analyzed within the same counting batch. No impact to the data expected. Reporting results.
Per client direction, the Ra-226 results were recalculated using Bi-214 609 KeV energy line.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Moisture LogBook

Batch: 2890278
Analyst: MU1
Date/Time: 30-OCT-2025
Procedure Code:___PREPDDRY WEIGHT
Procedure Description: Dry Soil Prep GL-RAD-A-021 Dry Weight-Percent Moisture
Lab Sop: GL-RAD-A-021 GL-OA-E-020

Sample St	Sample Id	Rpd(%)
DUP	1206285715	**15.699**

Sample Id	Sample Type	Original Hsn	Balance	Run Time	Container Wt	Initial Wt	Final Wt (g)	Net Initial Wt (g)	Net Final Wt (g)	Moisture (%)
750007014	SAMPLE		SP-C238839655	16:43	65.54	311.74	294.94	246.2	229.4	6.823
750007033	SAMPLE		SP-C238839655	16:43	65.45	306.92	288.69	241.47	223.24	7.549
750021020	SAMPLE		SP-C238839655	16:43	65.65	283.63	268.93	217.98	203.28	6.743
750021031	SAMPLE		SP-C238839655	16:43	65.68	396.9	375.53	331.22	309.85	6.451
750033005	SAMPLE		SP-C238839655	16:43	65.67	350.05	333.09	284.38	267.42	5.963
750033006	SAMPLE		SP-C238839655	16:43	65.44	330.98	292.86	265.54	227.42	14.355
750033007	SAMPLE		SP-C238839655	16:43	65.7	349.63	333.54	283.93	267.84	5.666
750033008	SAMPLE		SP-C238839655	16:43	65.61	369.96	346.87	304.35	281.26	7.586
750033009	SAMPLE		SP-C238839655	16:43	65.46	365.31	336.89	299.85	271.43	9.478
750033010	SAMPLE		SP-C238839655	16:43	65.72	380.25	363.67	314.53	297.95	5.271
750033011	SAMPLE		SP-C238839655	16:43	65.71	387.22	358.71	321.51	293	8.867
750033021	SAMPLE		SP-C238839655	16:43	65.65	336.59	315.89	270.94	250.24	7.64
750033022	SAMPLE		SP-C238839655	16:43	65.56	368.62	340.89	303.06	275.33	9.15
1206285715	DUP	750033010	SP-C238839655	16:43	2.59	21.24	20.4	18.65	17.81	4.504

Comments:

A) Result = (Net Initial - Net Final) /Net Initial * 100

Note: Aliquot is used for the determination of the effective MDL and PQL in LIMS

Moisture LogBook

Batch: 2890395
Analyst: MU1
Date/Time: 30-OCT-2025
Procedure Code:___PREPDDRY WEIGHT
Procedure Description: Dry Soil Prep GL-RAD-A-021 Dry Weight-Percent Moisture
Lab Sop: GL-RAD-A-021 GL-OA-E-020

Sample St	Sample Id	Rpd(%)
DUP	1206285931	**13.037**

Sample Id	Sample Type	Original Hsn	Balance	Run Time	Container Wt	Initial Wt	Final Wt (g)	Net Initial Wt (g)	Net Final Wt (g)	Moisture (%)
750007001	SAMPLE		SP-C234673837	16:42	66.15	302.6	286.78	236.45	220.63	6.69
750007002	SAMPLE		SP-C234673837	16:42	65.98	297.58	285.74	231.6	219.76	5.112
750007003	SAMPLE		SP-C234673837	16:42	65.76	297.06	273.49	231.3	207.73	10.19
750007004	SAMPLE		SP-C234673837	16:42	65.92	346.34	321.56	280.42	255.64	8.836
750007005	SAMPLE		SP-C234673837	16:42	65.72	406.25	390.65	340.53	324.93	4.581
750007006	SAMPLE		SP-C234673837	16:42	65.85	362.56	337.48	296.71	271.63	8.452
750007007	SAMPLE		SP-C234673837	16:42	65.74	375.64	348.33	309.9	282.59	8.812
750007008	SAMPLE		SP-C234673837	16:42	65.94	323.97	296.34	258.03	230.4	10.708
750007009	SAMPLE		SP-C234673837	16:42	66.11	295.02	270.91	228.91	204.8	10.532
750007010	SAMPLE		SP-C234673837	16:42	66.11	362.17	327.89	296.06	261.78	11.578
750007011	SAMPLE		SP-C234673837	16:42	66.19	340.23	317.13	274.04	250.94	8.429
750007012	SAMPLE		SP-C234673837	16:42	66.15	256.25	227.77	190.1	161.62	14.981
750007013	SAMPLE		SP-C234673837	16:42	66.11	402.54	380.41	336.43	314.3	6.577
750007015	SAMPLE		SP-C234673837	16:42	65.77	333.74	314.74	267.97	248.97	7.09
750007016	SAMPLE		SP-C234673837	16:42	65.97	336.57	311.37	270.6	245.4	9.312
750007017	SAMPLE		SP-C234673837	16:42	65.87	315.7	296.11	249.83	230.24	7.841
750007018	SAMPLE		SP-C234673837	16:42	65.93	332.84	304.53	266.91	238.6	10.606
750007019	SAMPLE		SP-C234673837	16:42	66.1	366.38	346.68	300.28	280.58	6.56
750007020	SAMPLE		SP-C234673837	16:42	65.74	292.63	271	226.89	205.26	9.533

Sample Id	Sample Type	Original Hsn	Balance	Run Time	Container Wt	Initial Wt	Final Wt (g)	Net Initial Wt (g)	Net Final Wt (g)	Moisture (%)
1206285931	DUP	750007001	SP-C234673837	16:42	2.59	13.66	13.01	11.07	10.42	5.871

Comments:

A) Result = (Net Initial - Net Final) /Net Initial * 100

Note: Aliquot is used for the determination of the effective MDL and PQL in LIMS

Evaporative Loss LogBook **GEL Laboratories, LLC.**

Moisture LogBook

Batch: 2890396
Analyst: MU1
Date/Time: 31-OCT-2025
Procedure Code:___PREPDDRY WEIGHT
Procedure Description: Dry Soil Prep GL-RAD-A-021 Dry Weight-Percent Moisture
Lab Sop: GL-RAD-A-021 GL-OA-E-020

Sample St	Sample Id	Rpd(%)
DUP	1206285932	**2.478**

Sample Id	Sample Type	Original Hsn	Balance	Run Time	Container Wt	Initial Wt	Final Wt (g)	Net Initial Wt (g)	Net Final Wt (g)	Moisture (%)
750007021	SAMPLE		SP-C238839655	08:25	66.04	379.4	347.91	313.36	281.87	10.049
750007022	SAMPLE		SP-C238839655	08:25	66.21	333.96	300.97	267.75	234.76	12.321
750007023	SAMPLE		SP-C238839655	08:25	65.62	351.34	326.2	285.72	260.58	8.798
750007024	SAMPLE		SP-C238839655	08:25	65.55	342.83	317.73	277.28	252.18	9.052
750007025	SAMPLE		SP-C238839655	08:25	65.58	310.29	276.85	244.71	211.27	13.665
750007026	SAMPLE		SP-C238839655	08:25	66.06	417.46	395.09	351.4	329.03	6.365
750007027	SAMPLE		SP-C238839655	08:25	66	357.79	343.45	291.79	277.45	4.914
750007028	SAMPLE		SP-C238839655	08:25	65.67	386.49	367.34	320.82	301.67	5.969
750007029	SAMPLE		SP-C238839655	08:25	65.72	350.16	335.2	284.44	269.48	5.259
750007030	SAMPLE		SP-C238839655	08:25	66.14	353.22	338.4	287.08	272.26	5.162
750007032	SAMPLE		SP-C238839655	08:25	65.6	328.24	303.8	262.64	238.2	9.305
750007034	SAMPLE		SP-C238839655	08:25	65.66	358.12	341.94	292.46	276.28	5.532
750007035	SAMPLE		SP-C238839655	08:25	65.51	363.45	348.02	297.94	282.51	5.178
750007036	SAMPLE		SP-C238839655	08:25	65.71	343.33	294.94	277.62	229.23	17.43
750007037	SAMPLE		SP-C238839655	08:25	65.78	327.94	312.95	262.16	247.17	5.717
750007038	SAMPLE		SP-C238839655	08:25	65.41	332.37	296.82	266.96	231.41	13.316
1206285932	DUP	750007030	SP-C238839655	08:25	2.6	23.45	22.4	20.85	19.8	5.035

Comments:

A) Result = (Net Initial - Net Final) /Net Initial * 100

Note: Aliquot is used for the determination of the effective MDL and PQL in LIMS

GEL Laboratories, LLC.

Moisture LogBook

Batch: 2890397
Analyst: MU1
Date/Time: 31-OCT-2025
Procedure Code:___PREPDDRY WEIGHT
Procedure Description: Dry Soil Prep GL-RAD-A-021 Dry Weight-Percent Moisture
Lab Sop: GL-RAD-A-021 GL-OA-E-020

Sample St	Sample Id	Rpd(%)
DUP	1206285933	**1.051**

Sample Id	Sample Type	Original Hsn	Balance	Run Time	Container Wt	Initial Wt	Final Wt (g)	Net Initial Wt (g)	Net Final Wt (g)	Moisture (%)
750007031	SAMPLE		SP-C238839655	16:09	65.9	357.63	328.12	291.73	262.22	10.115
750021022	SAMPLE		SP-C238839655	16:09	66.01	418.27	391.1	352.26	325.09	7.713
750021023	SAMPLE		SP-C238839655	16:09	65.86	374.26	336.64	308.4	270.78	12.198
750021024	SAMPLE		SP-C238839655	16:09	65.74	364.48	320.2	298.74	254.46	14.822
750021025	SAMPLE		SP-C238839655	16:09	65.33	357.29	314.02	291.96	248.69	14.82
750021026	SAMPLE		SP-C238839655	16:09	65.67	404.4	367.08	338.73	301.41	11.017
750021027	SAMPLE		SP-C238839655	16:09	65.99	403.31	381.53	337.32	315.54	6.456
750021028	SAMPLE		SP-C238839655	16:09	65.87	439.37	422.41	373.5	356.54	4.54
750021029	SAMPLE		SP-C238839655	16:09	66.31	452.09	416.91	385.78	350.6	9.119
750021030	SAMPLE		SP-C238839655	16:09	65.44	452.38	422.91	386.94	357.47	7.616
750021032	SAMPLE		SP-C238839655	16:09	65.57	414.89	403.29	349.32	337.72	3.32
750021033	SAMPLE		SP-C238839655	16:09	65.6	338.81	319.58	273.21	253.98	7.038
750021034	SAMPLE		SP-C238839655	16:09	65.36	413.49	402.13	348.13	336.77	3.263
1206285933	DUP	750021033	SP-C238839655	16:09	2.57	22.24	20.87	19.67	18.3	6.964

Comments:

A) Result = (Net Initial - Net Final) /Net Initial * 100

Note: Aliquot is used for the determination of the effective MDL and PQL in LIMS

GEL LABORATORIES LLC

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Qualifier Definition Report
for

STNT008 Stantec

Client SDG: 750007 GEL Work Order: 750007

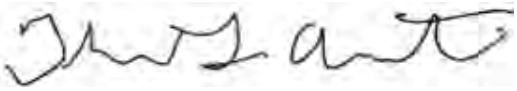
The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria
** Analyte is a Tracer compound
U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature:  **Name: Theresa Austin**

Date: 13 JAN 2026 **Title: Group - Rad Data Validatior**

Sample Data Summary

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP21 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007001	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 08:10		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	6.69%		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec Th, Solid "Dry Weight Corrected"													
Thorium-230		102	+/-5.74	0.799	1.00	pCi/g			KG3	11/18/25	1356	2893950	1
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		68.8	+/-0.943	0.250	1.00	pCi/g			JE2	11/21/25	0754	2890517	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1642	2890395

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE HASL 300, 4.5.2.3/Ga-01-R	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Solid "Dry Weight Corrected"	13.6 pCi/g	18.4	73.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP19 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007002	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 08:30		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.11%		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec Th, Solid "Dry Weight Corrected"													
Thorium-230		37.9	+/-3.23	0.580	1.00	pCi/g			KG3	11/18/25	1356	2893950	1
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		45.9	+/-0.772	0.194	1.00	pCi/g			JE2	11/21/25	0755	2890517	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1642	2890395

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE HASL 300, 4.5.2.3/Ga-01-R	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Solid "Dry Weight Corrected"	16.3 pCi/g	18.5	87.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS19 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007003	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 08:40		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		2.03	+/-0.204	0.0821	1.00	pCi/g			JE2	11/21/25	0756	2890517	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1642	2890395

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS20 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007004	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 08:50		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		4.84	+/-0.258	0.106	1.00	pCi/g			JE2	11/21/25	0803	2890517	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1642	2890395

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

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Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS21 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007005	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 09:10		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	4.58%		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec Th, Solid "Dry Weight Corrected"													
Thorium-230		96.8	+/-5.17	0.603	1.00	pCi/g			KG3	11/18/25	1356	2893950	1
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		97.8	+/-1.15	0.325	1.00	pCi/g			JE2	11/21/25	0805	2890517	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1642	2890395

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE HASL 300, 4.5.2.3/Ga-01-R	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Solid "Dry Weight Corrected"	15.6 pCi/g	18.1	86.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

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Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS17 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007006	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 10:20		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	8.45%		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec Th, Solid "Dry Weight Corrected"													
Thorium-230		16.5	+/-2.41	0.701	1.00	pCi/g			KG3	11/18/25	1356	2893950	1
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		12.6	+/-0.400	0.118	1.00	pCi/g			JE2	11/21/25	0805	2890517	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1642	2890395

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE HASL 300, 4.5.2.3/Ga-01-R	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Solid "Dry Weight Corrected"	12.9 pCi/g	18.2	70.6	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS16 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007007	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 10:30		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	8.81%		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec Th, Solid "Dry Weight Corrected"													
Thorium-230		22.9	+/-3.70	1.25	1.00	pCi/g			KG3	11/18/25	1356	2893950	1
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		21.3	+/-0.548	0.154	1.00	pCi/g			JE2	11/21/25	0849	2890517	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1642	2890395

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE HASL 300, 4.5.2.3/Ga-01-R	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Solid "Dry Weight Corrected"	7.60 pCi/g	18.8	40.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS11 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007008	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 10:40		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	10.7%		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec Th, Solid "Dry Weight Corrected"													
Thorium-230		19.7	+/-2.64	0.855	1.00	pCi/g			KG3	11/18/25	1356	2893950	1
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		17.8	+/-0.480	0.147	1.00	pCi/g			JE2	11/21/25	0849	2890517	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1642	2890395

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE HASL 300, 4.5.2.3/Ga-01-R	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Solid "Dry Weight Corrected"	13.7 pCi/g	19.2	71.7	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

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Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS05 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007009	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 10:50		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	10.5%		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec Th, Solid "Dry Weight Corrected"													
Thorium-230		30.5	+/-3.58	0.918	1.00	pCi/g			KG3	11/18/25	1356	2893950	1
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		27.0	+/-0.836	0.273	1.00	pCi/g			JE2	11/21/25	0849	2890517	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1642	2890395

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE HASL 300, 4.5.2.3/Ga-01-R	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Solid "Dry Weight Corrected"	9.92 pCi/g	17.8	55.9	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS07 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007010	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 11:00		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	11.6%		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec Th, Solid "Dry Weight Corrected"													
Thorium-230		25.5	+/-3.03	0.717	1.00	pCi/g			KG3	11/18/25	1356	2893950	1
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		18.8	+/-0.537	0.168	1.00	pCi/g			JE2	11/21/25	0850	2890517	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1642	2890395

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE HASL 300, 4.5.2.3/Ga-01-R	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Solid "Dry Weight Corrected"	11.5 pCi/g	18.1	63.5	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS22 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007011	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 12:00		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		7.34	+/-0.306	0.0979	1.00	pCi/g			JE2	11/21/25	0855	2890517	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1642	2890395

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS27 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007012	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 12:10		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		6.89	+/-0.338	0.116	1.00	pCi/g			JE2	11/21/25	0855	2890517	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1642	2890395

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Report Date: January 13, 2026

Company :	Stantec
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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS25 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007013	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 12:20		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	6.58%		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		57.3	+/-0.986	0.290	1.00	pCi/g			JE2	11/21/25	0944	2890517	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1642	2890395

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS24 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007014	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 12:30		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		5.98	+/-0.375	0.131	1.00	pCi/g			JE2	11/21/25	0945	2890517	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1643	2890278

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Company :	Stantec
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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS26 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007015	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 12:40		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		4.60	+/-0.314	0.124	1.00	pCi/g			JE2	11/21/25	0946	2890517	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1642	2890395

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Company :	Stantec
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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS28 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007016	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 12:50		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		10.9	+/-0.487	0.187	1.00	pCi/g			JE2	11/21/25	0946	2890517	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1642	2890395

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Company :	Stantec
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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS23 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007017	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 13:10		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		11.7	+/-0.500	0.155	1.00	pCi/g			JE2	11/21/25	0954	2890517	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1642	2890395

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SSDS-01 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007018	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 13:20		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	10.6%		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec Th, Solid "Dry Weight Corrected"													
Thorium-230		19.7	+/-3.08	1.07	1.00	pCi/g			KG3	11/18/25	1356	2893950	1
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		18.8	+/-0.736	0.232	1.00	pCi/g			JE2	11/21/25	1027	2890517	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1642	2890395

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE HASL 300, 4.5.2.3/Ga-01-R	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Solid "Dry Weight Corrected"	9.67 pCi/g	18.8	51.3	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Company :	Stantec
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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SSDS-02 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007019	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 13:30		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		54.5	+/-1.25	0.370	1.00	pCi/g			JE2	11/21/25	1028	2890517	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1642	2890395

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SSDS-03 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007020	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	01-OCT-25 13:40		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		10.7	+/-0.550	0.201	1.00	pCi/g			JE2	11/21/25	1029	2890517	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1642	2890395

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS09 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007021	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 08:00		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		4.98	+/-0.335	0.140	1.00	pCi/g			JE2	11/24/25	1011	2891447	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	0825	2890396

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS01 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007022	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 08:20		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		7.50	+/-0.493	0.202	1.00	pCi/g			JE2	11/24/25	1012	2891447	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	0825	2890396

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Company :	Stantec
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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS02 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007023	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 08:40		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		8.92	+/-0.369	0.127	1.00	pCi/g			JE2	11/24/25	1012	2891447	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	0825	2890396

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS04 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007024	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 08:50		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		4.58	+/-0.354	0.134	1.00	pCi/g			JE2	11/24/25	1048	2891447	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	0825	2890396

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Company :	Stantec
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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS10 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007025	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 09:10		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		15.8	+/-0.661	0.164	1.00	pCi/g			JE2	11/24/25	1048	2891447	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	0825	2890396

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS08 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007026	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 09:30		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		7.10	+/-0.421	0.141	1.00	pCi/g			JE2	11/24/25	1049	2891447	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	0825	2890396

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Company :	Stantec
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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS15 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007027	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 09:50		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		10.2	+/-0.474	0.131	1.00	pCi/g			JE2	11/24/25	1223	2891447	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	0825	2890396

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS13 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007028	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 10:00		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		9.59	+/-0.537	0.186	1.00	pCi/g			JE2	11/24/25	1224	2891447	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	0825	2890396

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS03 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007029	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 10:20		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		5.20	+/-0.348	0.131	1.00	pCi/g			JE2	11/24/25	1224	2891447	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	0825	2890396

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS06 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007030	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 10:30		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.16%		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		3.16	+/-0.280	0.105	1.00	pCi/g			JE2	11/24/25	1224	2891447	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	0825	2890396

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS12 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007031	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 10:40		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		4.44	+/-0.466	0.198	1.00	pCi/g			JE2	11/24/25	1225	2891447	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS14 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007032	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 11:00		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	9.31%		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec Th, Solid "Dry Weight Corrected"													
Thorium-230		11.5	+/-2.05	0.779	1.00	pCi/g			KG3	11/18/25	1356	2893950	1
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		9.06	+/-0.508	0.155	1.00	pCi/g			JE2	11/24/25	1225	2891447	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	0825	2890396

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE HASL 300, 4.5.2.3/Ga-01-R	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Solid "Dry Weight Corrected"	12.0 pCi/g	18.5	64.6	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SS18 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007033	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 11:10		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		6.11	+/-0.380	0.139	1.00	pCi/g			JE2	11/24/25	1225	2891447	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1643	2890278

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP20 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007034	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 12:00		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.53%		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec Th, Solid "Dry Weight Corrected"													
Thorium-230		8.61	+/-1.49	0.649	1.00	pCi/g			KG3	11/18/25	1356	2893950	1
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		8.23	+/-0.490	0.167	1.00	pCi/g			JE2	11/24/25	1226	2891447	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	0825	2890396

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE HASL 300, 4.5.2.3/Ga-01-R	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Solid "Dry Weight Corrected"	16.8 pCi/g	17.9	93.6	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP26 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007035	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 12:20		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.18%		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec Th, Solid "Dry Weight Corrected"													
Thorium-230		46.7	+/-3.91	0.805	1.00	pCi/g			KG3	11/18/25	1356	2893950	1
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		49.3	+/-1.38	0.395	1.00	pCi/g			JE2	11/24/25	1634	2891447	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	0825	2890396

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE HASL 300, 4.5.2.3/Ga-01-R	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Solid "Dry Weight Corrected"	12.8 pCi/g	17.8	72	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP24 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007036	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 12:40		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	17.4%		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec Th, Solid "Dry Weight Corrected"													
Thorium-230		164	+/-6.07	0.611	1.00	pCi/g			KG3	11/19/25	0822	2893950	1
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		156	+/-2.18	0.666	1.00	pCi/g			JE2	11/24/25	1227	2891447	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	0825	2890396

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE HASL 300, 4.5.2.3/Ga-01-R	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Solid "Dry Weight Corrected"	15.4 pCi/g	18.4	83.7	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP18 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007037	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 13:00		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	5.72%		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Alpha Spec Analysis													
Alphaspec Th, Solid "Dry Weight Corrected"													
Thorium-230		170	+/-6.55	0.679	1.00	pCi/g			KG3	11/19/25	0822	2893950	1
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		205	+/-2.28	0.565	1.00	pCi/g			JE2	11/24/25	1227	2891447	2

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	0825	2890396

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE EML HASL-300, Th-01-RC Modified	
2	DOE HASL 300, 4.5.2.3/Ga-01-R	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Thorium-229 Tracer	Alphaspec Th, Solid "Dry Weight Corrected"	14.9 pCi/g	18.7	79.7	(15%-125%)

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-SSDS-04 0.0'-0.5'	Project:	STNT00225
Sample ID:	750007038	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	02-OCT-25 13:10		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		14.4	+/-0.684	0.208	1.00	pCi/g			JE2	11/24/25	1228	2891447	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	0825	2890396

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

Quality Control Data

QC Summary

Report Date: January 13, 2026

Stantec
2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah

Contact: **Kelly Johnson**

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Alpha Spec										
Batch 2893950										
QC1206292665 750007001 DUP										
Thorium-230		102		72.2	pCi/g	34.7 *		(0%-20%)	KG3	11/19/25 08:22
	Uncertainty	+/-5.74		+/-5.28						
**Thorium-229 Tracer	18.8	13.6		8.82	pCi/g		46.8	(15%-125%)		
	Uncertainty	+/-2.46		+/-2.73						
QC1206292666 LCS										
Thorium-230	17.2			18.8	pCi/g		109	(75%-125%)		11/19/25 08:22
	Uncertainty			+/-2.21						
**Thorium-229 Tracer	17.8			13.7	pCi/g		77.2	(15%-125%)		
	Uncertainty			+/-2.16						
QC1206292664 MB										
Thorium-230			U	0.0660	pCi/g					11/19/25 08:22
	Uncertainty			+/-0.306						
**Thorium-229 Tracer	17.8			14.3	pCi/g		80.7	(15%-125%)		
	Uncertainty			+/-2.05						
Rad Gamma Spec										
Batch 2890517										
QC1206286187 750007001 DUP										
Radium-226		68.8		68.1	pCi/g	1.01		(0%-20%)	JE2	11/21/25 10:29
	Uncertainty	+/-0.943		+/-1.37						
QC1206286188 LCS										
Americium-241	482			502	pCi/g		104	(75%-125%)		11/21/25 10:30
	Uncertainty			+/-7.42						
Cesium-137	145			128	pCi/g		88	(75%-125%)		
	Uncertainty			+/-2.56						
Cobalt-60	48.6			44.7	pCi/g		91.8	(75%-125%)		
	Uncertainty			+/-1.87						
Radium-226			U	0.588	pCi/g					
	Uncertainty			+/-0.513						

QC Summary

Workorder: **750007**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 2890517										
QC1206286186 MB										
Radium-226			U	-0.0341	pCi/g				JE2	11/21/25 09:55
	Uncertainty			+/-0.0640						
Batch 2891447										
QC1206287991 750007021 DUP										
Radium-226		4.98		5.00	pCi/g	0.361		(0%-20%)	JE2	11/24/25 12:28
	Uncertainty	+/-0.335		+/-0.359						
QC1206287992 LCS										
Americium-241	482			549	pCi/g		114	(75%-125%)		11/24/25 12:29
	Uncertainty			+/-13.0						
Cesium-137	145			133	pCi/g		91.5	(75%-125%)		
	Uncertainty			+/-2.83						
Cobalt-60	48.6			46.1	pCi/g		94.9	(75%-125%)		
	Uncertainty			+/-2.03						
Radium-226			U	0.946	pCi/g					
	Uncertainty			+/-0.963						
QC1206287990 MB										
Radium-226			U	0.00243	pCi/g					11/24/25 10:50
	Uncertainty			+/-0.0614						

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

U U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

GEL Laboratories LLC
a member of The GEL Group INC

2040 Savage Road | Charleston, SC 29407
843.556.8171
gel.com

January 14, 2026

Kelly Johnson
Stantec
2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah 84121

Re: Section 27 Supplemental Characterization (182922679)
Work Order: 750021

Dear Kelly Johnson:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on October 30, 2025. This revised data report has been prepared and reviewed in accordance with GEL's standard operating procedures. This report replaces the original version which is noted as SDG number 750021 in the left-hand footer of the data report. This data report has been revised to reflect recalculated data using the Bi-214 609 KeV peak.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 1614.

Sincerely,

Christopher Rossmann for
Delaney Stonesmith
Project Manager

Purchase Order: MSA 40422
Enclosures

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

STNT008 Stantec

Client SDG: 750021 GEL Work Order: 750021

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a Tracer compound

** Analyte is a surrogate compound

B Either presence of analyte detected in the associated blank, or MDL/IDL < sample value < PQL

J Value is estimated

N Metals--The Matrix spike sample recovery is not within specified control limits

N/A RPD or %Recovery limits do not apply.

U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

UI Gamma Spectroscopy--Uncertain identification

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Delaney Stonesmith.

Reviewed by Chris Rossmann

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: January 14, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP04 1.0'-2.0'	Project:	STNT00225
Sample ID:	750021007	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	17-OCT-25 14:30		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	9.34%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury		27.9	8.34	24.9	ug/kg	113	1	JP2	11/03/25	0956	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	331	2010	ug/kg	90.9	1	EM2	11/12/25	1745	2890586	2
Silver	U	ND	501	2510	ug/kg	90.9	5	EM2	11/13/25	1001	2890586	3
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		7910	361	1070	ug/kg	96.9	2	RM4	11/13/25	2351	2890585	4
Barium		104000	107	855	ug/kg	96.9	2					
Beryllium		995	21.4	107	ug/kg	96.9	2					
Cadmium		355	21.4	214	ug/kg	96.9	2					
Chromium		19800	214	641	ug/kg	96.9	2					
Cobalt		8320	64.1	214	ug/kg	96.9	2					
Lead		18000	107	428	ug/kg	96.9	2					
Magnesium		5080000	2140	6410	ug/kg	96.9	2					
Manganese		191000	214	1070	ug/kg	96.9	2					
Nickel		20900	107	428	ug/kg	96.9	2					
Potassium		4310000	17100	64100	ug/kg	96.9	2					
Sodium		117000	17100	53400	ug/kg	96.9	2					
Thallium		706	85.5	428	ug/kg	96.9	2					
Uranium		4010	14.1	42.8	ug/kg	96.9	2					
Vanadium		59400	321	4280	ug/kg	96.9	2					
Selenium		3840	385	1070	ug/kg	96.9	2	RM4	11/18/25	1257	2890585	5
Zinc		79700	855	4280	ug/kg	96.9	2					
Aluminum		26400000	24300	53400	ug/kg	96.9	10	RM4	11/18/25	1555	2890585	6
Calcium		18400000	71600	214000	ug/kg	96.9	10					
Iron		28800000	35300	107000	ug/kg	96.9	10					
Copper		16400	70.5	428	ug/kg	96.9	2	RM4	11/19/25	0817	2890585	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep	CJ3	10/31/25	1725	2890584
SW846 3050B	ICP-MS 3050BS PREP	CJ3	10/31/25	1550	2890583
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890

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Report Date: January 14, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP04 1.0'-2.0'	Project:	STNT00225
Sample ID:	750021007	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6010D	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	SW846 3050B/6020B	
7	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP08 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021010	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	18-OCT-25 08:45		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	14.9%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury		25.4	8.06	24.1	ug/kg	102	1	JP2	11/03/25	0958	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	379	2300	ug/kg	97.8	1	EM2	11/12/25	1757	2890586	2
Silver	U	ND	115	575	ug/kg	97.8	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		9220	372	1100	ug/kg	93.6	2	RM4	11/14/25	0009	2890585	3
Barium		67200	110	880	ug/kg	93.6	2					
Beryllium		972	22.0	110	ug/kg	93.6	2					
Cadmium	J	84.6	22.0	220	ug/kg	93.6	2					
Chromium		16500	220	660	ug/kg	93.6	2					
Cobalt		7780	66.0	220	ug/kg	93.6	2					
Copper		11300	72.6	440	ug/kg	93.6	2					
Lead		14500	110	440	ug/kg	93.6	2					
Magnesium		5900000	2200	6600	ug/kg	93.6	2					
Manganese		143000	220	1100	ug/kg	93.6	2					
Nickel		13200	110	440	ug/kg	93.6	2					
Potassium		3960000	17600	66000	ug/kg	93.6	2					
Sodium		324000	17600	55000	ug/kg	93.6	2					
Thallium	J	210	88.0	440	ug/kg	93.6	2					
Uranium		26500	14.5	44.0	ug/kg	93.6	2					
Vanadium		32500	330	4400	ug/kg	93.6	2					
Selenium		2980	396	1100	ug/kg	93.6	2	RM4	11/18/25	1313	2890585	4
Zinc		61200	880	4400	ug/kg	93.6	2					
Aluminum		24600000	25000	55000	ug/kg	93.6	10	RM4	11/18/25	1605	2890585	5
Calcium		13800000	73700	220000	ug/kg	93.6	10					
Iron		25700000	36300	110000	ug/kg	93.6	10					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	CJ3	10/31/25	1550	2890583
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890
SW846 3050B	SW846 3050B Prep	CJ3	10/31/25	1725	2890584

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP08 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021010	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP22 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021019	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	20-OCT-25 09:40		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	7.94%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury		26.6	7.55	22.6	ug/kg	104	1	JP2	11/03/25	1000	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	345	2090	ug/kg	96.3	1	EM2	11/12/25	1759	2890586	2
Silver	U	ND	105	523	ug/kg	96.3	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		5600	343	1020	ug/kg	93.5	2	RM4	11/14/25	0013	2890585	3
Barium		108000	102	812	ug/kg	93.5	2					
Beryllium		872	20.3	102	ug/kg	93.5	2					
Cadmium	J	89.6	20.3	203	ug/kg	93.5	2					
Calcium		3490000	13600	40600	ug/kg	93.5	2					
Chromium		13800	203	609	ug/kg	93.5	2					
Cobalt		6070	60.9	203	ug/kg	93.5	2					
Copper		9380	67.0	406	ug/kg	93.5	2					
Lead		10600	102	406	ug/kg	93.5	2					
Magnesium		4180000	2030	6090	ug/kg	93.5	2					
Nickel		9580	102	406	ug/kg	93.5	2					
Potassium		4680000	16200	60900	ug/kg	93.5	2					
Sodium		90800	16200	50800	ug/kg	93.5	2					
Thallium	J	195	81.2	406	ug/kg	93.5	2					
Uranium		6530	13.4	40.6	ug/kg	93.5	2					
Vanadium		32800	305	4060	ug/kg	93.5	2					
Selenium		2350	365	1020	ug/kg	93.5	2	RM4	11/18/25	1315	2890585	4
Zinc		44800	812	4060	ug/kg	93.5	2					
Aluminum		23900000	23100	50800	ug/kg	93.5	10	RM4	11/18/25	1607	2890585	5
Iron		20200000	33500	102000	ug/kg	93.5	10					
Manganese		293000	1020	5080	ug/kg	93.5	10					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890
SW846 3050B	SW846 3050B Prep	CJ3	10/31/25	1725	2890584
SW846 3050B	ICP-MS 3050BS PREP	CJ3	10/31/25	1550	2890583

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Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP22 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021019	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP15 4.5'-5.5'	Project:	STNT00225
Sample ID:	750021033	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	22-OCT-25 14:40		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	7.04%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury	J	23.7	8.61	25.7	ug/kg	120	1	JP2	11/03/25	1001	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	308	1870	ug/kg	86.8	1	EM2	11/12/25	1812	2890592	2
Silver	U	ND	93.4	467	ug/kg	86.8	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Aluminum		8240000	4440	9760	ug/kg	90.7	2	RM4	11/14/25	0030	2890591	3
Arsenic		4800	330	976	ug/kg	90.7	2					
Barium		81900	97.6	781	ug/kg	90.7	2					
Beryllium		530	19.5	97.6	ug/kg	90.7	2					
Cadmium	J	80.9	19.5	195	ug/kg	90.7	2					
Chromium		7050	195	586	ug/kg	90.7	2					
Cobalt		4810	58.6	195	ug/kg	90.7	2					
Copper		6540	64.4	390	ug/kg	90.7	2					
Lead		8810	97.6	390	ug/kg	90.7	2					
Magnesium		3800000	1950	5860	ug/kg	90.7	2					
Manganese		174000	195	976	ug/kg	90.7	2					
Nickel		6520	97.6	390	ug/kg	90.7	2					
Potassium		1540000	15600	58600	ug/kg	90.7	2					
Sodium		459000	15600	48800	ug/kg	90.7	2					
Thallium	J	130	78.1	390	ug/kg	90.7	2					
Uranium		46900	12.9	39.0	ug/kg	90.7	2					
Vanadium		18000	293	3900	ug/kg	90.7	2					
Selenium		2630	351	976	ug/kg	90.7	2	RM4	11/18/25	1717	2890591	4
Zinc		34100	781	3900	ug/kg	90.7	2					
Calcium		11900000	65400	195000	ug/kg	90.7	10	RM4	11/18/25	1737	2890591	5
Iron		13000000	32200	97600	ug/kg	90.7	10					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	CJ3	10/31/25	1550	2890589
SW846 3050B	SW846 3050B Prep	CJ3	10/31/25	1725	2890590
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP15 4.5'-5.5'	Project:	STNT00225
Sample ID:	750021033	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Report Date: January 14, 2026

Contact: Kelly Johnson
Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP09 0.5'-1.0'
Sample ID: 750021001
Matrix: Soil
Collect Date: 17-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 6.46%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		2.21	+/-0.306	0.142	+/-0.358	1.00	pCi/g			JE2	11/25/25	0451	2890518	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP06 0.5'-1.0'
Sample ID: 750021002
Matrix: Soil
Collect Date: 17-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 14.5%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		2.39	+/-0.274	0.161	+/-0.341	1.00	pCi/g			JE2	11/25/25	0503	2890518	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP01 0.5'-1.0'
Sample ID: 750021003
Matrix: Soil
Collect Date: 17-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 4.26%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		1.72	+/-0.244	0.141	+/-0.283	1.00	pCi/g			JE2	11/25/25	0503	2890518	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson
Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP05 0.5'-1.0'
Sample ID: 750021004
Matrix: Soil
Collect Date: 17-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 15.9%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		5.48	+/-0.402	0.143	+/-0.663	1.00	pCi/g			JE2	11/25/25	0510	2890518	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP02 0.5'-1.0'
Sample ID: 750021005
Matrix: Soil
Collect Date: 17-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 9.48%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		2.54	+/-0.294	0.126	+/-0.372	1.00	pCi/g			JE2	11/25/25	0510	2890518	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Certificate of Analysis

Company : Stantec
Address : 2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah 84121

Report Date: January 14, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP07 0.5'-1.0'
Sample ID: 750021006
Matrix: Soil
Collect Date: 17-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 10.1%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		5.91	+/-0.415	0.165	+/-0.644	1.00	pCi/g			JE2	11/25/25	0550	2890518	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP04 1.0'-2.0'
Sample ID: 750021007
Matrix: Soil
Collect Date: 17-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 9.34%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids														
"As Received"														
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		4.60	+/-0.405	0.151	+/-0.558	1.00	pCi/g			JE2	11/25/25	0551	2890518	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP13 0.5'-1.0'
Sample ID: 750021008
Matrix: Soil
Collect Date: 17-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 9.89%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		2.00	+/-0.287	0.137	+/-0.333	1.00	pCi/g			JE2	11/25/25	0610	2890518	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TPDS01 0.5'-1.0'
Sample ID: 750021009
Matrix: Soil
Collect Date: 17-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 9.75%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		1.71	+/-0.293	0.159	+/-0.327	1.00	pCi/g			JE2	11/25/25	0611	2890518	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP08 0.5'-1.0'
Sample ID: 750021010
Matrix: Soil
Collect Date: 18-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 14.9%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids														
"As Received"														
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		1.64	+/-0.266	0.133	+/-0.298	1.00	pCi/g			JE2	11/25/25	0611	2890518	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson
Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP03 1.0'-1.4'
Sample ID: 750021011
Matrix: Soil
Collect Date: 18-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 8.63%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		3.40	+/-0.341	0.149	+/-0.479	1.00	pCi/g			JE2	11/25/25	0651	2890518	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP16 2.5'-3.0'
Sample ID: 750021012
Matrix: Soil
Collect Date: 18-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 9.81%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		1.86	+/-0.290	0.146	+/-0.333	1.00	pCi/g			JE2	11/25/25	0706	2890518	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP16 3.5'-4.0'
Sample ID: 750021013
Matrix: Soil
Collect Date: 18-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 10.7%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		2.37	+/-0.282	0.144	+/-0.354	1.00	pCi/g			JE2	11/25/25	0708	2890518	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
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Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP17 2.0'-3.0'
Sample ID: 750021014
Matrix: Soil
Collect Date: 18-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 8.71%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		2.50	+/-0.275	0.127	+/-0.345	1.00	pCi/g			JE2	11/25/25	0709	2890518	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP10 0.5'-1.0'
Sample ID: 750021015
Matrix: Soil
Collect Date: 18-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 7.5%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		1.66	+/-0.278	0.168	+/-0.311	1.00	pCi/g			JE2	11/25/25	0709	2890518	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP11 0.5'-1.0'
Sample ID: 750021016
Matrix: Soil
Collect Date: 18-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 4.08%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		1.12	+/-0.200	0.100	+/-0.227	1.00	pCi/g			JE2	11/25/25	0710	2890518	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TPDS02 0.5'-1.0'
Sample ID: 750021017
Matrix: Soil
Collect Date: 18-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 7.38%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		1.62	+/-0.233	0.143	+/-0.269	1.00	pCi/g			JE2	11/25/25	0710	2890518	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP21 1.0'-1.5'
Sample ID: 750021018
Matrix: Soil
Collect Date: 20-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 9.67%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		2.60	+/-0.330	0.154	+/-0.419	1.00	pCi/g			JE2	11/25/25	0711	2890518	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson
Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP22 0.5'-1.0'
Sample ID: 750021019
Matrix: Soil
Collect Date: 20-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 7.94%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids														
"As Received"														
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		1.10	+/-0.215	0.127	+/-0.234	1.00	pCi/g			JE2	11/25/25	0714	2890518	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP19 2.5'-3.0'
Sample ID: 750021020
Matrix: Soil
Collect Date: 20-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 6.74%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		7.69	+/-0.435	0.145	+/-0.786	1.00	pCi/g			JE2	11/25/25	0715	2890518	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1643	2890278

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Certificate of Analysis

Company : Stantec
Address : 2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah 84121

Report Date: January 14, 2026

Contact: Kelly Johnson
Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP19 3.5'-4.0'
Sample ID: 750021021
Matrix: Soil
Collect Date: 20-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 3.33%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		0.677	+/-0.146	0.0844	+/-0.161	1.00	pCi/g			JE2	11/24/25	0726	2890521	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP29 1.0'-1.5'
Sample ID: 750021022
Matrix: Soil
Collect Date: 20-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 7.71%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		1.73	+/-0.277	0.131	+/-0.313	1.00	pCi/g			JE2	11/24/25	0727	2890521	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP27 0.5'-1.0'
Sample ID: 750021023
Matrix: Soil
Collect Date: 20-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 12.2%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		1.34	+/-0.245	0.130	+/-0.271	1.00	pCi/g			JE2	11/24/25	0727	2890521	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP31 0.5'-1.0'
Sample ID: 750021024
Matrix: Soil
Collect Date: 20-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 14.8%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		2.01	+/-0.282	0.131	+/-0.328	1.00	pCi/g			JE2	11/24/25	0728	2890521	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TPDS03 0.5'-1.0'
Sample ID: 750021025
Matrix: Soil
Collect Date: 20-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 14.8%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		1.98	+/-0.215	0.117	+/-0.272	1.00	pCi/g			JE2	11/24/25	0728	2890521	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP12 1.5'-2.0'
Sample ID: 750021026
Matrix: Soil
Collect Date: 21-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 11%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		2.98	+/-0.330	0.145	+/-0.444	1.00	pCi/g			JE2	11/24/25	0728	2890521	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP20 1.0'-1.5'
Sample ID: 750021027
Matrix: Soil
Collect Date: 21-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 6.46%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		2.78	+/-0.328	0.158	+/-0.410	1.00	pCi/g			JE2	11/24/25	0729	2890521	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP26 0.5'-1.0'
Sample ID: 750021028
Matrix: Soil
Collect Date: 21-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 4.54%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		0.997	+/-0.202	0.124	+/-0.219	1.00	pCi/g			JE2	11/24/25	0729	2890521	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson
Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP18 2.5'-3.0'
Sample ID: 750021029
Matrix: Soil
Collect Date: 21-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 9.12%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		2.06	+/-0.276	0.164	+/-0.327	1.00	pCi/g			JE2	11/24/25	0745	2890521	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Salt Lake City, Utah 84121

Report Date: January 14, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP23 5.0'-5.5'
Sample ID: 750021030
Matrix: Soil
Collect Date: 22-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 7.62%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		1.22	+/-0.219	0.137	+/-0.242	1.00	pCi/g			JE2	11/24/25	0746	2890521	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson
Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP24 7.0'-7.5'
Sample ID: 750021031
Matrix: Soil
Collect Date: 22-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 6.45%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		1.75	+/-0.277	0.109	+/-0.319	1.00	pCi/g			JE2	11/24/25	0746	2890521	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1643	2890278

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP14 3.5'-4.0'
Sample ID: 750021032
Matrix: Soil
Collect Date: 22-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 3.32%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		1.08	+/-0.252	0.425	+/-0.558	1.00	pCi/g			JE2	11/24/25	0747	2890521	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Report Date: January 14, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TP15 4.5'-5.5'
Sample ID: 750021033
Matrix: Soil
Collect Date: 22-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 7.04%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids														
"As Received"														
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		0.803	+/-0.193	0.131	+/-0.204	1.00	pCi/g			JE2	11/24/25	0748	2890521	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

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Salt Lake City, Utah 84121

Report Date: January 14, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-TPDS04 3.5'-4.0'
Sample ID: 750021034
Matrix: Soil
Collect Date: 22-OCT-25
Receive Date: 30-OCT-25
Collector: Client
Moisture: 3.26%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		0.806	+/-0.156	0.111	+/-0.171	1.00	pCi/g			JE2	11/24/25	0805	2890521	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

QC Summary

Report Date: January 14, 2026

Stantec
2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah

Contact: **Kelly Johnson**

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
QC1206286326 LCS										
Aluminum	178000			186000	ug/kg		104	(80%-120%)	RM4	11/18/25 15:49
Arsenic	4450			4410	ug/kg		99.1	(80%-120%)		11/13/25 23:48
Barium	4450			4700	ug/kg		106	(80%-120%)		
Beryllium	4450			4650	ug/kg		105	(80%-120%)		
Cadmium	4450			4470	ug/kg		100	(80%-120%)		
Calcium	178000			201000	ug/kg		113	(80%-120%)		
Chromium	4450			4850	ug/kg		109	(80%-120%)		
Cobalt	4450			4870	ug/kg		110	(80%-120%)		
Copper	4450			5030	ug/kg		113	(80%-120%)		
Iron	178000			185000	ug/kg		104	(80%-120%)		11/18/25 15:49
Lead	4450			4840	ug/kg		109	(80%-120%)		11/13/25 23:48
Magnesium	178000			190000	ug/kg		107	(80%-120%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Manganese	4450			4870	ug/kg		110	(80%-120%)	RM4	11/13/25 23:48
Nickel	4450			4930	ug/kg		111	(80%-120%)		
Potassium	178000			182000	ug/kg		103	(80%-120%)		
Selenium	4450			3870	ug/kg		87	(80%-120%)		11/18/25 13:06
Sodium	178000			190000	ug/kg		107	(80%-120%)		11/13/25 23:48
Thallium	4450			4760	ug/kg		107	(80%-120%)		
Uranium	4450			4650	ug/kg		105	(80%-120%)		
Vanadium	4450			4450	ug/kg		100	(80%-120%)		
Zinc	4450			4270	ug/kg		96	(80%-120%)		11/18/25 13:06
QC1206286325 MB										
Aluminum			U	ND	ug/kg					11/18/25 15:47
Arsenic			U	ND	ug/kg					11/13/25 23:44
Barium			U	ND	ug/kg					
Beryllium			U	ND	ug/kg					
Cadmium			U	ND	ug/kg					

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Calcium			U	ND	ug/kg				RM4	11/13/25 23:44
Chromium			U	ND	ug/kg					
Cobalt			U	ND	ug/kg					
Copper			U	ND	ug/kg					
Iron			U	ND	ug/kg					11/18/25 15:47
Lead			U	ND	ug/kg					11/13/25 23:44
Magnesium			U	ND	ug/kg					
Manganese			U	ND	ug/kg					
Nickel			U	ND	ug/kg					
Potassium			U	ND	ug/kg					
Selenium			U	ND	ug/kg					11/18/25 12:49
Sodium			U	ND	ug/kg					11/13/25 23:44
Thallium			U	ND	ug/kg					
Uranium			U	ND	ug/kg					

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Vanadium			U	ND	ug/kg				RM4	11/13/25 23:44
Zinc			U	ND	ug/kg					11/18/25 12:49
QC1206286327 750021007 MS										
Aluminum	213000	26400000		31700000	ug/kg		N/A	(75%-125%)		11/18/25 15:58
Arsenic	5330	7910		13700	ug/kg		109	(75%-125%)		11/13/25 23:55
Barium	5330	104000		120000	ug/kg		N/A	(75%-125%)		
Beryllium	5330	995		6080	ug/kg		95.4	(75%-125%)		
Cadmium	5330	355		5310	ug/kg		92.8	(75%-125%)		
Calcium	213000	18400000		22700000	ug/kg		N/A	(75%-125%)		11/18/25 15:58
Chromium	5330	19800		29600	ug/kg		185*	(75%-125%)		11/13/25 23:55
Cobalt	5330	8320		14900	ug/kg		124	(75%-125%)		
Copper	5330	16400		22200	ug/kg		109	(75%-125%)		11/19/25 08:18
Iron	213000	28800000		32100000	ug/kg		N/A	(75%-125%)		11/18/25 15:58
Lead	5330	18000		24000	ug/kg		113	(75%-125%)		11/13/25 23:55
Magnesium	213000	5080000		6070000	ug/kg		N/A	(75%-125%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Manganese	5330	191000		265000	ug/kg		N/A	(75%-125%)	RM4	11/13/25 23:55
Nickel	5330	20900		27400	ug/kg		122	(75%-125%)		
Potassium	213000	4310000		5130000	ug/kg		N/A	(75%-125%)		
Selenium	5330	3840		8410	ug/kg		85.7	(75%-125%)		11/18/25 13:00
Sodium	213000	117000		344000	ug/kg		106	(75%-125%)		11/13/25 23:55
Thallium	5330	706		5810	ug/kg		95.8	(75%-125%)		
Uranium	5330	4010		9540	ug/kg		104	(75%-125%)		
Vanadium	5330	59400		75100	ug/kg		N/A	(75%-125%)		
Zinc	5330	79700		85400	ug/kg		N/A	(75%-125%)		11/18/25 13:00
QC1206286328 750021007 MSD										
Aluminum	213000	26400000		33400000	ug/kg	5.49	N/A	(0%-20%)		11/18/25 16:00
Arsenic	5320	7910		14500	ug/kg	5.36	124	(0%-20%)		11/13/25 23:58
Barium	5320	104000		120000	ug/kg	0.313	N/A	(0%-20%)		
Beryllium	5320	995		6140	ug/kg	0.899	96.6	(0%-20%)		
Cadmium	5320	355		5450	ug/kg	2.66	95.7	(0%-20%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Calcium	213000	18400000		25600000	ug/kg	11.9	N/A	(0%-20%)	RM4	11/18/25 16:00
Chromium	5320	19800		31100	ug/kg	4.79	212*	(0%-20%)		11/13/25 23:58
Cobalt	5320	8320		14900	ug/kg	0.0547	124	(0%-20%)		
Copper	5320	16400		22600	ug/kg	1.61	116	(0%-20%)		11/19/25 08:20
Iron	213000	28800000		31400000	ug/kg	2.34	N/A	(0%-20%)		11/18/25 16:00
Lead	5320	18000		25800	ug/kg	7	146*	(0%-20%)		11/13/25 23:58
Magnesium	213000	5080000		6280000	ug/kg	3.37	N/A	(0%-20%)		
Manganese	5320	191000		246000	ug/kg	7.13	N/A	(0%-20%)		
Nickel	5320	20900		28500	ug/kg	3.92	142*	(0%-20%)		
Potassium	213000	4310000		5410000	ug/kg	5.42	N/A	(0%-20%)		
Selenium	5320	3840		8960	ug/kg	6.33	96.1	(0%-20%)		11/18/25 13:02
Sodium	213000	117000		360000	ug/kg	4.6	114	(0%-20%)		11/13/25 23:58
Thallium	5320	706		6250	ug/kg	7.27	104	(0%-20%)		
Uranium	5320	4010		10700	ug/kg	11	125	(0%-20%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Vanadium	5320	59400		79000	ug/kg	4.97	N/A	(0%-20%)	RM4	11/13/25 23:58
Zinc	5320	79700		88000	ug/kg	2.98	N/A	(0%-20%)		11/18/25 13:02
QC1206286329 750021007 PS										
Chromium	50.0	185		234	ug/L		97.1	(75%-125%)		11/14/25 00:02
Lead	50.0	168		215	ug/L		92.9	(75%-125%)		
Nickel	50.0	196		240	ug/L		88.7	(75%-125%)		
QC1206286330 750021007 SDILT										
Aluminum		247000		258000	ug/L	4.22		(0%-20%)		11/18/25 16:03
Arsenic		74.0		79.8	ug/L	7.82		(0%-20%)		11/14/25 00:05
Barium		973		982	ug/L	.953		(0%-20%)		
Beryllium		9.31		10.4	ug/L	11.3		(0%-20%)		
Cadmium		3.32	J	4.05	ug/L	21.8		(0%-20%)		
Calcium		172000		178000	ug/L	3.65		(0%-20%)		11/18/25 16:03
Chromium		185		199	ug/L	7.65		(0%-20%)		11/14/25 00:05
Cobalt		77.9		85.3	ug/L	9.53		(0%-20%)		
Copper		154		172	ug/L	11.9		(0%-20%)		11/19/25 08:22

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Iron		269000		283000	ug/L	5.2		(0%-20%)	RM4	11/18/25 16:03
Lead		168		180	ug/L	7.17		(0%-20%)		11/14/25 00:05
Magnesium		47500		49400	ug/L	3.98		(0%-20%)		
Manganese		1780		1930	ug/L	8.36		(0%-20%)		
Nickel		196		226	ug/L	15.4		(0%-20%)		
Potassium		40300		40900	ug/L	1.4		(0%-20%)		
Selenium		36.0	J	33.5	ug/L	6.98		(0%-20%)		11/18/25 13:11
Sodium		1090	J	1160	ug/L	5.62		(0%-20%)		11/14/25 00:05
Thallium		6.61	J	7.07	ug/L	6.9		(0%-20%)		
Uranium		37.6		38.9	ug/L	3.54		(0%-20%)		
Vanadium		556		588	ug/L	5.84		(0%-20%)		
Zinc		745		863	ug/L	15.7		(0%-20%)		11/18/25 13:11
Batch 2890591										
QC1206286344 LCS										
Aluminum	187000			202000	ug/kg		108	(80%-120%)	RM4	11/14/25 00:26
Arsenic	4680			4480	ug/kg		95.6	(80%-120%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890591										
Barium	4680			4800	ug/kg		102	(80%-120%)	RM4	11/14/25 00:26
Beryllium	4680			4710	ug/kg		101	(80%-120%)		
Cadmium	4680			4520	ug/kg		96.6	(80%-120%)		
Calcium	187000			204000	ug/kg		109	(80%-120%)		11/18/25 17:11
Chromium	4680			4920	ug/kg		105	(80%-120%)		11/14/25 00:26
Cobalt	4680			4950	ug/kg		106	(80%-120%)		
Copper	4680			5160	ug/kg		110	(80%-120%)		
Iron	187000			205000	ug/kg		109	(80%-120%)		
Lead	4680			4840	ug/kg		103	(80%-120%)		
Magnesium	187000			195000	ug/kg		104	(80%-120%)		
Manganese	4680			4960	ug/kg		106	(80%-120%)		
Nickel	4680			4990	ug/kg		107	(80%-120%)		
Potassium	187000			187000	ug/kg		99.6	(80%-120%)		
Selenium	4680			3950	ug/kg		84.3	(80%-120%)		11/18/25 17:11

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890591										
Sodium	187000			194000	ug/kg		103	(80%-120%)	RM4	11/14/25 00:26
Thallium	4680			4760	ug/kg		102	(80%-120%)		
Uranium	4680			4680	ug/kg		100	(80%-120%)		
Vanadium	4680			4600	ug/kg		98.2	(80%-120%)		
Zinc	4680			4240	ug/kg		90.6	(80%-120%)		11/18/25 17:11
QC1206286343 MB										
Aluminum			U	ND	ug/kg					11/14/25 00:23
Arsenic			U	ND	ug/kg					
Barium			U	ND	ug/kg					
Beryllium			U	ND	ug/kg					
Cadmium			U	ND	ug/kg					
Calcium			U	ND	ug/kg					11/18/25 17:09
Chromium			U	ND	ug/kg					11/14/25 00:23
Cobalt			U	ND	ug/kg					
Copper			U	ND	ug/kg					

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890591										
Iron			U	ND	ug/kg				RM4	11/14/25 00:23
Lead			U	ND	ug/kg					
Magnesium			U	ND	ug/kg					
Manganese			U	ND	ug/kg					
Nickel			U	ND	ug/kg					
Potassium			U	ND	ug/kg					
Selenium			U	ND	ug/kg					11/18/25 17:09
Sodium			U	ND	ug/kg					11/14/25 00:23
Thallium			U	ND	ug/kg					
Uranium			U	ND	ug/kg					
Vanadium			U	ND	ug/kg					
Zinc			U	ND	ug/kg					11/18/25 17:09
QC1206286345 750021033 MS										
Aluminum	200000	8240000		9840000	ug/kg		N/A	(75%-125%)		11/14/25 00:34
Arsenic	5000	4800		9710	ug/kg		98.2	(75%-125%)		

QC Summary

Workorder: **750021**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2890591											
Barium	5000		81900		110000	ug/kg		N/A	(75%-125%)	RM4	11/14/25 00:34
Beryllium	5000		530		5360	ug/kg		96.7	(75%-125%)		
Cadmium	5000	J	80.9		4860	ug/kg		95.6	(75%-125%)		
Calcium	200000		11900000		10800000	ug/kg		N/A	(75%-125%)		11/18/25 17:39
Chromium	5000		7050		12700	ug/kg		113	(75%-125%)		11/14/25 00:34
Cobalt	5000		4810		9870	ug/kg		101	(75%-125%)		
Copper	5000		6540		10900	ug/kg		87.2	(75%-125%)		
Iron	200000		13000000		12900000	ug/kg		N/A	(75%-125%)		11/18/25 17:39
Lead	5000		8810		12400	ug/kg		71.2*	(75%-125%)		11/14/25 00:34
Magnesium	200000		3800000		3900000	ug/kg		N/A	(75%-125%)		
Manganese	5000		174000		174000	ug/kg		N/A	(75%-125%)		
Nickel	5000		6520		11300	ug/kg		96.3	(75%-125%)		
Potassium	200000		1540000		1840000	ug/kg		N/A	(75%-125%)		
Selenium	5000		2630		6900	ug/kg		85.5	(75%-125%)		11/18/25 17:20

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%		REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2890591											
Sodium	200000	459000		641000	ug/kg			91.1	(75%-125%)	RM4	11/14/25 00:34
Thallium	5000	130	J	4910	ug/kg			95.7	(75%-125%)		
Uranium	5000	46900		48800	ug/kg			N/A	(75%-125%)		
Vanadium	5000	18000		24300	ug/kg			125	(75%-125%)		
Zinc	5000	34100		37600	ug/kg			N/A	(75%-125%)		11/18/25 17:20
QC1206286346 750021033 MSD											
Aluminum	209000	8240000		10200000	ug/kg	3.48		N/A	(0%-20%)		11/14/25 00:37
Arsenic	5230	4800		9630	ug/kg	0.841		92.2	(0%-20%)		
Barium	5230	81900		80600	ug/kg	31.1	*	N/A	(0%-20%)		
Beryllium	5230	530		5280	ug/kg	1.54		90.8	(0%-20%)		
Cadmium	5230	80.9	J	5070	ug/kg	4.27		95.4	(0%-20%)		
Calcium	209000	11900000		12900000	ug/kg	18.4		N/A	(0%-20%)		11/18/25 17:42
Chromium	5230	7050		13000	ug/kg	2.6		114	(0%-20%)		11/14/25 00:37
Cobalt	5230	4810		9600	ug/kg	2.75		91.5	(0%-20%)		
Copper	5230	6540		11000	ug/kg	0.662		84.7	(0%-20%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890591										
Iron	209000	13000000		13100000	ug/kg	1.72	N/A	(0%-20%)	RM4	11/18/25 17:42
Lead	5230	8810		12300	ug/kg	0.483	66.9*	(0%-20%)		11/14/25 00:37
Magnesium	209000	3800000		4100000	ug/kg	5.22	N/A	(0%-20%)		
Manganese	5230	174000		179000	ug/kg	3.09	N/A	(0%-20%)		
Nickel	5230	6520		11300	ug/kg	0.632	90.6	(0%-20%)		
Potassium	209000	1540000		1880000	ug/kg	2.46	N/A	(0%-20%)		
Selenium	5230	2630		7190	ug/kg	4.09	87.2	(0%-20%)		11/18/25 17:22
Sodium	209000	459000		633000	ug/kg	1.25	83.2	(0%-20%)		11/14/25 00:37
Thallium	5230	130	J	5000	ug/kg	1.7	93	(0%-20%)		
Uranium	5230	46900		47900	ug/kg	1.83	N/A	(0%-20%)		
Vanadium	5230	18000		24800	ug/kg	1.88	129*	(0%-20%)		
Zinc	5230	34100		37700	ug/kg	0.224	N/A	(0%-20%)		11/18/25 17:22
QC1206286347 750021033 PS										
Lead	50.0	90.2		136	ug/L		90.7	(75%-125%)		11/14/25 00:41
Vanadium	50.0	185		229	ug/L		88.7	(75%-125%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890591										
QC1206286348 750021033 SDILT										
Aluminum		84400		82100	ug/L	2.69		(0%-20%)	RM4	11/14/25 00:44
Arsenic		49.2	J	49.4	ug/L	.5		(0%-20%)		
Barium		839		847	ug/L	.999		(0%-20%)		
Beryllium		5.43		6.43	ug/L	18.4		(0%-20%)		
Cadmium	J	0.829	J	1.33	ug/L	59.8		(0%-20%)		
Calcium		121000		126000	ug/L	3.93		(0%-20%)		11/18/25 17:46
Chromium		72.2		75.6	ug/L	4.73		(0%-20%)		11/14/25 00:44
Cobalt		49.3		52.1	ug/L	5.76		(0%-20%)		
Copper		66.9		74.4	ug/L	11.2		(0%-20%)		
Iron		133000		138000	ug/L	4.06		(0%-20%)		11/18/25 17:46
Lead		90.2		95.9	ug/L	6.36		(0%-20%)		11/14/25 00:44
Magnesium		38900		38900	ug/L	.0859		(0%-20%)		
Manganese		1780		1820	ug/L	2.37		(0%-20%)		
Nickel		66.8		72.0	ug/L	7.68		(0%-20%)		

QC Summary

Workorder: **750021**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2890591											
Potassium			15800		16400	ug/L	3.82		(0%-20%)	RM4	11/14/25 00:44
Selenium			26.9	J	26.0	ug/L	3.6		(0%-20%)		11/18/25 17:26
Sodium			4710		4890	ug/L	3.93		(0%-20%)		11/14/25 00:44
Thallium		J	1.33	U	ND	ug/L	N/A		(0%-20%)		
Uranium			480		454	ug/L	5.51		(0%-20%)		
Vanadium			185	J	180	ug/L	2.67		(0%-20%)		
Zinc			349		383	ug/L	9.59		(0%-20%)		11/18/25 17:26
Metals Analysis-ICP											
Batch 2890586											
QC1206286332 LCS											
Antimony	48100				47500	ug/kg		98.9	(80%-120%)	EM2	11/12/25 17:43
Silver	9620				9990	ug/kg		104	(80%-120%)		
QC1206286331 MB											
Antimony				U	ND	ug/kg					11/12/25 17:39
Silver				U	ND	ug/kg					
QC1206286333 750021007 MS											
Antimony	47500	U	ND		33600	ug/kg		70.8*	(75%-125%)		11/12/25 17:47
Silver	9490	U	ND		10400	ug/kg		110	(75%-125%)		11/13/25 10:04

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP										
Batch 2890586										
QC1206286334 750021007 MSD										
Antimony	51400 U	ND		40000	ug/kg	17.2	77.8	(0%-20%)	EM2	11/12/25 17:50
Silver	10300 U	ND		11600	ug/kg	10.5	113	(0%-20%)		11/13/25 10:06
QC1206286335 750021007 PS										
Antimony	500 U	ND		491	ug/L		98.1	(75%-125%)		11/12/25 17:52
QC1206286336 750021007 SDILT										
Antimony	U	ND	U	ND	ug/L	N/A		(0%-20%)		11/12/25 17:54
Silver	U	ND	U	ND	ug/L	N/A		(0%-20%)		11/13/25 10:11
Batch 2890592										
QC1206286350 LCS										
Antimony	42900			43000	ug/kg		100	(80%-120%)	EM2	11/12/25 18:10
Silver	8580			9040	ug/kg		105	(80%-120%)		
QC1206286349 MB										
Antimony			U	ND	ug/kg					11/12/25 18:07
Silver			U	ND	ug/kg					
QC1206286351 750021033 MS										
Antimony	45200 U	ND		36400	ug/kg		80.5	(75%-125%)		11/12/25 18:15
Silver	9040 U	ND		9120	ug/kg		101	(75%-125%)		
QC1206286352 750021033 MSD										
Antimony	46900 U	ND		36700	ug/kg	0.83	78.1	(0%-20%)		11/12/25 18:17

QC Summary

Workorder: **750021**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%		REC%	Range	Anlst	Date Time
Metals Analysis-ICP												
Batch 2890592												
Silver	9390	U	ND		9220	ug/kg	1.1		98.3	(0%-20%)	EM2	11/12/25 18:17
QC1206286354 750021033 SDILT												
Antimony		U	ND	U	ND	ug/L	N/A			(0%-20%)		11/12/25 18:22
Silver		U	ND	U	ND	ug/L	N/A			(0%-20%)		
Metals Analysis-Mercury												
Batch 2890892												
QC1206286960 LCS												
Mercury	216				248	ug/kg			115	(80%-120%)	JP2	11/03/25 09:37
QC1206286959 MB												
Mercury				U	ND	ug/kg						11/03/25 09:36
QC1206286964 750212001 MS												
Mercury	202	U	ND		197	ug/kg			94	(80%-120%)		11/03/25 10:12
QC1206286965 750212001 MSD												
Mercury	239	U	ND		245	ug/kg	22.1	*	99.9	(0%-20%)		11/03/25 10:13

Notes:

The Qualifiers in this report are defined as follows:

U U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

J J Value is estimated

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

QC Summary

Report Date: January 14, 2026
Page 1 of 2

Client : **Stantec**
2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah

Contact: **Kelly Johnson**

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 2890518										
QC1206286190 750021001 DUP										
Radium-226		2.21		2.11	pCi/g	4.64		(0%-20%)	JE2	11/25/2507:16
Uncert:		+/-0.306		+/-0.280						
TPU:		+/-0.358		+/-0.332						
QC1206286191 LCS										
Americium-241	482			518	pCi/g		107	(75%-125%)	JE2	11/25/2507:31
Uncert:				+/-5.67						
TPU:				+/-44.7						
Cesium-137	145			143	pCi/g		98.6	(75%-125%)		
Uncert:				+/-2.88						
TPU:				+/-13.4						
Cobalt-60	48.6			46.0	pCi/g		94.7	(75%-125%)		
Uncert:				+/-1.96						
TPU:				+/-4.85						
Radium-226				1.55	pCi/g					
Uncert:				+/-1.26						
TPU:				+/-1.45						
QC1206286189 MB										
Radium-226			U	0.00732	pCi/g				JE2	11/25/2506:04
Uncert:				+/-0.0618						
TPU:				+/-0.0618						
Batch 2890521										
QC1206286199 750021021 DUP										
Radium-226		0.677		0.601	pCi/g	12		(0%-20%)	JE2	11/24/2509:26
Uncert:		+/-0.146		+/-0.143						
TPU:		+/-0.161		+/-0.152						
QC1206286200 LCS										
Americium-241	482			531	pCi/g		110	(75%-125%)	JE2	11/24/2510:01
Uncert:				+/-15.7						
TPU:				+/-77.3						
Cesium-137	145			129	pCi/g		88.9	(75%-125%)		
Uncert:				+/-2.73						
TPU:				+/-11.0						
Cobalt-60	48.6			44.4	pCi/g		91.4	(75%-125%)		
Uncert:				+/-2.06						
TPU:				+/-6.15						
Radium-226			U	-0.136	pCi/g					
Uncert:				+/-0.588						
TPU:				+/-0.591						
QC1206286198 MB										
Radium-226			UI	0.000	pCi/g				JE2	11/24/2509:26

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 2890521										
				Uncert:			+/-0.0821			
				TPU:			+/-0.105			

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

U	U	Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
UI	UI	Gamma Spectroscopy--Uncertain identification

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
** Indicates analyte is a surrogate/tracer compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

PO Number: MSA 40422
Project #: 182922679
GEL Quote #: GELP25-1221
GEL Project Manager: Delaney Stonesmith

GEL Laboratories LLC
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Chain of Custody and Analytical Record
(1) COC Number:
Page: 1 of 4
GEL Work Order Number: 750021

GEL Client Name: Kelly Johnson, Stantec
Phone Number: 801-617-3221
Project/Site Name: Section 27 Supplemental Characterization
Address: Ambrosia Lake, NM
Collected By: Victor Patel
Send Results To: kelly.johnson2@stantec.com, mary.privitera@stantec.com

Turn Around Time Requested. *Rush subject to surcharge.*
Standard: X
Rush (Specify):

(5) Sample Analysis Requested — *Enter Analysis Requested like 8270 PAH or 6010 Metals*

Enter total number of container(s) per test below the request on line that corresponds with the sample ID.

Sample ID (Each ID listed will be reported as a unique sample unless otherwise instructed. *For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	(2) Field Filtered	(3) QC Code	(4) Sample Matrix	Should this sample be considered: (7) Radioactive (Y or N)	Should this sample be considered: (8) Known or Possible Hazards	Total number of containers	Ra-226 (EPA 901.1Mod)	Th-230 (DOE EML HASL 300 Th-01-RC Mod)	Uranium (SW846 6020B)	TAL Metals (6020/7471)	< (6) Preservative Type
S27-TP09 0.5'-1.0'	10/17/2025	10:00		G	SO	N		1	X				
S27-TP06 0.5'-1.0'	10/17/2025	11:15		G	SO	N		1	X				
S27-TP01 0.5'-1.0'	10/17/2025	11:45		G	SO	N		1	X				
S27-TP05 0.5'-1.0'	10/17/2025	12:15		G	SO	N		1	X				
S27-TP02 0.5'-1.0'	10/17/2025	13:25		G	SO	N		1	X				
S27-TP07 0.5'-1.0'	10/17/2025	13:55		G	SO	N		1	X				
S27-TP04 1.0'-2.0'	10/17/2025	14:30		G	SO	N		1	X			X	
S27-TP13 0.5'-1.0'	10/17/2025	14:45		G	SO	N		1	X				
S27-TPDS01 0.5'-1.0'	10/17/2025	16:00		G	SO	N		1	X				
S27-TP08 0.5'-1.0'	10/18/2025	8:45		G	SO	N		1	X			X	

Comments: Note: extra sample is required for sample specific QC

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1		10-24-25	1230	Stacy Beck	10/30/25	930
2						
3						

Select Deliverable: [ ] Results and QC Summary [ ] Calibration Summary [ ] Raw Data [ ] Standards Traceability
EDD Required? [X] If yes, specify type. GEL Standard DSS
Required Certification:
Sample Collection Time Zone: [ ] Eastern [ ] Pacific [ ] Central [X] Mountain [ ] Other:
Additional Comments:

For Lab Receiving Use Only: Custody Seal Intact? [ ] Yes [ ] No Cooler Temp: °C
For sample shipping and delivery details, see Sample Receipt & Review form (SRR).

(1) Chain of Custody Number: Client Determined

(2) Field Filtered: For liquid matrices, indicate with a Y for yes the sample was field filtered

(3) QC Codes: Equipment Blank (EB), Field Reagent Blank, Field Duplicate (DUP), Trip Blank (TB), Matrix Spike (MS), Matrix Spike Duplicate (MSD), Composite (C), Grab (G)

(4) Matrix Codes: Biosolid (SB), Concrete (C), Drinking Water (DW), Fecal (FC), Filter (F), Groundwater (GW), Leachate (L), Misc Liquid (ML), Oil (O), Sediment (SD), Sludge (SL), Soil (SO), Solid Waste (SS), Storm Water (WS), Surface Water (SW), Tissue (T), Urine (U), Vegetation (V), Water (W), Waste Water (WW), Wipe (P)

(6) Preservative Type: Ammonium Acetate (AM), Ascorbic Acid (AA), Hexane (HX), Hydrochloric Acid (HA), Methanol (ME), Nitric Acid (NI), Sodium Hydroxide (SH), Sodium Bisulfate (SBA), Sodium Bisulfite SBI), Sodium Thiosulfate (ST), Sulfuric Acid (SA), Trizma (TZ), Zinc Acetate (ZA). *Leave blank if no preservative is added.*

(7) Radioactive: **** If yes, email rso@gel.com prior to shipment for approval. Isotopic data should be included in the email and with the sample shipment. ****

(8) Known or Possible Hazards:
Identify the "Source of the Sample" material *(e.g., NPDES discharge, waste material, stormwater, groundwater, Superfund Site etc.)*

RCRA Metals: Arsenic (As), Barium (Ba), Cadmium (Cd), Chromium (Cr), Lead (Pb), Mercury (Hg), Selenium (Se), Silver (Ag), Misc. RCRA (MR)
Is this sample known or suspected to be RCRA Hazardous? Yes [ ] No [ ]

Characteristics: Flammable/Ignitable (FL), Corrosive (CO), Reactive (RE)

TSCA Regulated: Polychlorinated biphenyls (PCB)

Listed Waste: Listed Waste (LW) *(F,K,P and U-listed wastes.)* *Waste code(s):*

Other: Other / Unknown (OT) *(i.e.: asbestos, beryllium, High/low pH, irritants, other misc. health hazards, etc.)* *Description:*

Please provide any additional details below regarding handling and/or disposal concerns.

PO Number: MSA 40422
Project #: 182922679
GEL Quote #: GELP25-1221
GEL Project Manager: Delaney Stonesmith

GEL Laboratories LLC
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Chain of Custody and Analytical Record
(1) COC Number:
Page: 2 of 4
GEL Work Order Number: 750021

GEL Client Name: Kelly Johnson, Stantec
Phone Number: 801-617-3221
Project/Site Name: Section 27 Supplemental Characterization
Address: Ambrosia Lake, NM
Collected By: Victor Patel
Send Results To: kelly.johnson2@stantec.com, mary.privitera@stantec.com

Turn Around Time Requested. *Rush subject to surcharge.*
Standard: X
Rush (Specify):

(5) Sample Analysis Requested *Enter Analysis Requested like 8270 PAH or 6010 Metals*

Enter total number of container(s) per test below the request on line that corresponds with the sample ID.

Sample ID (Each ID listed will be reported as a unique sample unless otherwise instructed. * For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	(2) Field Filtered	(3) QC Code	(4) Sample Matrix	Should this sample be considered: (7) Radioactive (Y or N)	Should this sample be considered: (8) Known or Possible Hazard(s)	Total number of containers	Ra-226 (EPA 901.1 Mod)	Th-230 (DOE EML HASL 300 Th-01-RC Mod)	Uranium (SW846 6020B)	TAL Metals (6020/7471)	(6) Preservative Type / Comments
S27-TP03 1.0'-1.4'	10/18/2025	9:35		G	SO	N		1	X				
S27-TP16 2.5'-3.0'	10/18/2025	10:35		G	SO	N		1	X				
S27-TP16 3.5'-4.0'	10/18/2025	10:55		G	SO	N		1	X				
S27-TP17 2.0'-3.0'	10/18/2025	12:00		G	SO	N		1	X				
S27-TP10 0.5'-1.0'	10/18/2025	13:05		G	SO	N		1	X				
S27-TP11 0.5'-1.0'	10/18/2025	13:20		G	SO	N		1	X				
S27-TPDS02 0.5'-1.0'	10/18/2025	16:00		G	SO	N		1	X				
S27-TP21 1.0'-1.5'	10/20/2025	8:55		G	SO	N		1	X				
S27-TP22 0.5'-1.0'	10/20/2025	9:40		G	SO	N		1	X			X	
S27-TP19 2.5'-3.0'	10/20/2025	10:35		G	SO	Y		1	X				

Comments: Note: extra sample is required for sample specific QC

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	[signature]	10.24.25	1230	[signature] Stacy Boone	OCT 30 2025	930
2						
3						

Select Deliverable: [ ] Results and QC Summary [ ] Calibration Summary [ ] Raw Data [ ] Standards Traceability
EDD Required? [X] If yes, specify type. GEL Standard DSS
Required Certification:
Sample Collection Time Zone: [ ] Eastern [ ] Pacific [ ] Central [X] Mountain [ ] Other:
Additional Comments:
For sample shipping and delivery details, see Sample Receipt & Review form (SRR).

For Lab Receiving Use Only: Custody Seal Intact? [ ] Yes [ ] No Cooler Temp: °C

(1) Chain of Custody Number: Client Determined

(2) Field Filtered: For liquid matrices, indicate with a Y for yes the sample was field filtered.

(3) QC Codes: Equipment Blank (EB), Field Reagent Blank, Field Duplicate (DUP), Trip Blank (TB), Matrix Spike (MS), Matrix Spike Duplicate (MSD), Composite (C), Grab (G)

(4) Matrix Codes: Brosolid (SB), Concrete (C), Drinking Water (DW), Fecal (FC), Filter (F), Groundwater (GW), Leachate (L), Misc Liquid (ML), Oil (O), Sediment (SD), Sludge (SL), Soil (SO), Solid Waste (SS), Storm Water (WS), Tissue (T), Urine (U), Vegetation (V), Waste Water (WW), Water (W), Wipe (P)

(6) Preservative Type: Ammonium Acetate (AM), Ascorbic Acid (AA), Hexane (HX), Hydrochloric Acid (HA), Methanol (ME), Nitric Acid (NI), Sodium Hydroxide (SH), Sodium Bisulfate (SBA), Sodium Bisulfite SBI), Sodium Thiosulfate (ST), Sulfuric Acid (SA), Trizma (TZ), Zinc Acetate (ZA). *Leave blank if no preservative is added.*

(7) Radioactive **** If yes, email rso@gel.com prior to shipment for approval. Isotopic data should be included in the email and with the sample shipment.****

(8) Known or Possible Hazards:
Identify the "Source of the Sample" material *(e.g., NPDES discharge, waste material, stormwater, groundwater, Superfund Site etc.)*

RCRA Metals: Arsenic (As), Barium (Ba), Cadmium (Cd), Chromium (Cr), Lead (Pb), Mercury (Hg), Selenium (Se), Silver (Ag), Misc. RCRA (MR)
Is this sample known or suspected to be RCRA Hazardous? Yes [ ] No [ ]

Characteristics: Flammable/Ignitable (FL), Corrosive (CO), Reactive (RE)
TSCA Regulated: Polychlorinated biphenyls (PCB)

Listed Waste: Listed Waste (LW) *(F,K,P and U-listed wastes.)* *Waste code(s):*

Other: Other / Unknown (OT) *(i.e.: asbestos, beryllium, High/low pH, irritants, other misc. health hazards, etc.)* *Description:*

Please provide any additional details below regarding handling and/or disposal concerns.

PO Number: MSA 40422
Project #: 182922679
GEL Quote #: GELP25-1221
GEL Project Manager: Delaney Stonesmith

GEL Laboratories LLC
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Chain of Custody and Analytical Record
(1) COC Number :
Page: 3 of 4
GEL Work Order Number: 750021

GEL Client Name: Kelly Johnson, Stantec
Phone Number: 801-617-3221
Project/Site Name: Section 27 Supplemental Characterization
Address: Ambrosia Lake, NM
Collected By: Victor Patel
Send Results To: kelly.johnson2@stantec.com, mary.privitera@stantec.com

Turn Around Time Requested.
Rush subject to surcharge.
Standard: X
Rush (Specify):

(5) Sample Analysis Requested
Enter Analysis Requested like 8270 PAH or 6010 Metals

Enter total number of container(s) per test below the request on line that corresponds with the sample ID.

Sample ID Each ID listed will be reported as a unique sample unless otherwise instructed. * For composites - indicate start and stop date/time	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	(2) Field Filtered	(3) QC Code	(4) Sample Matrix	Should this sample be considered: (7) Radioactive (Y or N)	(8) Known or possible Hazards	Total number of containers	Ra-226 (EPA 901.1Mod)	Th-230 (DOE EML HASL 300 Th-01-RC Mod)	Uranium (SW846 6020B)	TAL Metals (6020/7471)	< (6) Preservative Type
S27-TP19 3.5'-4.0'	10/20/2025	10:55		G	SO	N		1	X				
S27-TP29 1.0'-1.5'	10/20/2025	12:20		G	SO	N		1	X				
S27-TP27 0.5'-1.0'	10/20/2025	13:10		G	SO	N		1	X				
S27-TP31 0.5'-1.0'	10/20/2025	13:40		G	SO	N		1	X				
S27-TPDS03 0.5'-1.0'	10/20/2025	16:00		G	SO	N		1	X				
S27-TP12 1.5'-2.0'	10/21/2025	9:05		G	SO	N		1	X				
S27-TP20 1.0'-1.5'	10/21/2025	9:45		G	SO	N		1	X				
S27-TP26 0.5'-1.0'	10/21/2025	10:10		G	SO	N		1	X				
S27-TP18 2.5'-3.0'	10/21/2025	11:45		G	SO	N		1	X				
S27-TP23 5.0'-5.5'	10/22/2025	8:40		G	SO	N		1	X				

Comments
Note: extra sample is required for sample specific QC

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time		Received by (signed)	Date	Time
1		10.24.25	1230	1	Stacy Boone	OCT 30 2025	930
2				2			
3				3			

Select Deliverable: [ ] Results and QC Summary [ ]Calibration Summary [ ] Raw Data [ ] Standards Traceability
EDD Required? [X] If yes, specify type. GEL Standard DSS
Required Certification:
Sample Collection Time Zone: [ ] Eastern [ ] Pacific [ ] Central [X] Mountain [ ] Other:
Additional Comments:
For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

For Lab Receiving Use Only: Custody Seal Intact? [ ] Yes [ ] No Cooler Temp: ____°C

(1) Chain of Custody Number
Client Determined

(2) Field Filtered
For liquid matrices, indicate with a **Y** for yes the sample was field filtered.

(3) QC Codes
Equipment Blank **(EB)** | Matrix Spike **(MS)**
Field Reagent Blank | Matrix Spike Duplicate **(MSD)**
Field Duplicate **(DUP)** | Composite **(C)**
Trip Blank **(TB)** | Grab **(G)**

(4) Matrix Codes
Biosolid **(SB)** | Leachate **(L)** | Soil **(SO)** | Urine **(U)**
Concrete **(C)** | Misc Liquid **(ML)** | Solid Waste **(SS)** | Vegetation **(V)**
Drinking Water **(DW)** | Oil **(O)** | Storm Water **(WS)** | Waste Water **(WW)**
Fecal **(FC)** | Sediment **(SD)** | Surface Water **(SW)** | Water **(W)**
Filter **(F)** | Sludge **(SL)** | Tissue **(T)** | Wipe **(P)**
Groundwater **(GW)**

(6) Preservative Type
Ammonium Acetate **(AM)** | Nitric Acid **(NI)** | Sodium Thiosulfate **(ST)**
Ascorbic Acid **(AA)** | Sodium Hydroxide **(SH)** | Sulfuric Acid **(SA)**
Hexane **(HX)** | Sodium Bisulfate **(SBA)** | Trizma **(TZ)**
Hydrochloric Acid **(HA)** | Sodium Bisulfite **SBI)** | Zinc Acetate **(ZA)**
Methanol **(ME)**
Leave blank if no preservative is added.

(7) Radioactive *** *If yes, email rso@gel.com prior to shipment for approval. Isotopic data should be included in the email and with the sample shipment.****

(8) Known or Possible Hazards
Identify the "Source of the Sample" material
(e.g., NPDES discharge, waste material, stormwater, groundwater, Superfund Site etc.)

RCRA Metals
Arsenic **(As)** | Chromium **(Cr)** | Selenium **(Se)**
Barium **(Ba)** | Lead **(Pb)** | Silver **(Ag)**
Cadmium **(Cd)** | Mercury **(Hg)** | Misc. RCRA **(MR)**

Is this sample known or suspected to be RCRA Hazardous?
Yes [ ] No [ ]

Characteristic
Flammable/Ignitable **(FL)**
Corrosive **(CO)**
Reactive **(RE)**

TSCA Regulated
Polychlorinated biphenyls **(PCB)**

Listed Waste
Listed Waste **(LW)**
(F,K,P and U-listed wastes.)
Waste code(s):

Other
Other / Unknown **(OT)**
(i.e.: asbestos, beryllium, High low pH, irritants, other misc. health hazards, etc.)
Description:

Please provide any additional details below regarding handling and/or disposal concerns.

PO Number: MSA 40422
Project #: 182922679
GEL Quote #: GELP25-1221
GEL Project Manager: Delaney Stonesmith

GEL Laboratories LLC
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Chain of Custody and Analytical Record
(1) COC Number :
Page: 4 of 4
GEL Work Order Number: 750021

GEL Client Name: Kelly Johnson, Stantec
Phone Number: 801-617-3221
Project/Site Name: Section 27 Supplemental Characterization
Address: Ambrosia Lake, NM
Collected By: Victor Rubel
Send Results To: kelly.johnson2@stantec.com, mary.privitera@stantec.com

Turn Around Time Requested. *Rush subject to surcharge.*
Standard: X
Rush (Specify):

(5) Sample Analysis Requested *Enter Analysis Requested like 8270 PAH or 6010 Metals*

Enter total number of container(s) per test below the request on line that corresponds with the sample ID.

Sample ID Each ID listed will be reported as a unique sample unless otherwise instructed * For composites - indicate start and stop date/time	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	(2) Field Filtered	(3) QC Code	(4) Sample Matrix	Should this sample be considered: (7) Radioactive (Y or N)	(8) Known or possible Hazards	Total number of containers	Ra-226 (EPA 901.1Mod)	Th-230 (DOE EML HASL 300 Th-01-RC Mod)	Uranium (SW846 6020B)	TAL Metals (6020/7471)	< (6) Preservative Type
S27-TP24 7.0'-7.5'	10/22/2025	10:40		G	SO	Y		1	X				
S27-TP14 3.5'-4.0'	10/22/2025	13:30		G	SO	N		1	X				
S27-TP15 4.5'-5.5'	10/22/2025	14:40		G	SO	N		1	X			X	
S27-TPDS04 3.5'-4.0'	10/22/2025	16:00		G	SO	N		1	X				

Comments
Note: extra sample is required for sample specific QC

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1	10.24.25	1230	1 Stacy Boone	OCT 30 2025	930
2			2		
3			3		

Select Deliverable: [ ] Results and QC Summary [ ]Calibration Summary [ ] Raw Data [ ] Standards Traceability
EDD Required? [X] If yes, specify type. GEL Standard DSS
Required Certification:
Sample Collection Time Zone: [ ] Eastern [ ] Pacific [ ] Central [X] Mountain [ ] Other:
Additional Comments:
For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

For Lab Receiving Use Only: Custody Seal Intact? [ ] Yes [ ] No Cooler Temp: _____ °C

(1) Chain of Custody Number
Client Determined

(2) Field Filtered
For liquid matrices, indicate with a **Y** for yes the sample was field filtered.

(3) QC Codes
Equipment Blank **(EB)** | Matrix Spike **(MS)**
Field Reagent Blank | Matrix Spike Duplicate **(MSD)**
Field Duplicate **(DUP)** | Composite **(C)**
Trip Blank **(TB)** | Grab **(G)**

(4) Matrix Codes
Biosolid **(SB)** | Leachate **(L)** | Soil **(SO)** | Urine **(U)**
Concrete **(C)** | Misc Liquid **(ML)** | Solid Waste **(SS)** | Vegetation **(V)**
Drinking Water **(DW)** | Oil **(O)** | Storm Water **(WS)** | Waste Water **(WW)**
Fecal **(FC)** | Sediment **(SD)** | Surface Water **(SW)** | Water **(W)**
Filter **(F)** | Sludge **(SL)** | Tissue **(T)** | Wipe **(P)**
Groundwater **(GW)**

(6) Preservative Type
Ammonium Acetate **(AM)** | Nitric Acid **(NI)** | Sodium Thiosulfate **(ST)**
Ascorbic Acid **(AA)** | Sodium Hydroxide **(SH)** | Sulfuric Acid **(SA)**
Hexane **(HX)** | Sodium Bisulfate **(SBA)** | Trizma **(TZ)**
Hydrochloric Acid **(HA)** | Sodium Bisulfite **SBI)** | Zinc Acetate **(ZA)**
Methanol **(ME)**
Leave blank if no preservative is added.

(7) Radioactive **** If yes, email rso@gel.com prior to shipment for approval. Isotopic data should be included in the email and with the sample shipment.****

(8) Known or Possible Hazards
Identify the "Source of the Sample" material
(e.g., NPDES discharge, waste material, stormwater, groundwater, Superfund Site etc.)

RCRA Metals
Arsenic **(As)** | Chromium **(Cr)** | Selenium **(Se)**
Barium **(Ba)** | Lead **(Pb)** | Silver **(Ag)**
Cadmium **(Cd)** | Mercury **(Hg)** | Misc. RCRA **(MR)**

Is this sample known or suspected to be RCRA Hazardous?
Yes / / No / /

Characteristic
Flammable/Ignitable **(FL)**
Corrosive **(CO)**
Reactive **(RE)**

TSCA Regulated
Polychlorinated biphenyls **(PCB)**

Listed Waste
Listed Waste **(LW)**
(F,K,P and U-listed wastes.)
Waste code(s):

Other
Other / Unknown **(OT)**
(i.e.: asbestos, beryllium, High low pH, irritants, other misc. health hazards, etc.)
Description:

Please provide any additional details below regarding handling and/or disposal concerns.

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: STNT | SDG/AR/COC/Work Order: 750021 | GEL PM:

Received By: STACY BOONE | Date Received at GEL: OCTOBER 30, 2025

Circle Applicable: FedEx Express | FedEx Ground | UPS | Field Services | Courier | Client | Other:

IR Temp gun #: IR424 | Daily Calibration Performed? Y/N

Tracking Number	Temp (C)	If over 6 °C, check if samples do not require cold preservation (ie radiochem only).	Tracking Number	Temp (C)	If over 6 °C, check if samples do not require cold preservation (ie radiochem only).
8854 6723 3867	16 c	✓			
3878	16 c	✓			
3845	17 c	✓			
3889	15 c	✓			
3856	15 c	✓			

Received Hazard Information	Yes	No	
Shipped as DOT Hazardous?		✓	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___
Did the client designate the samples are to be received as radioactive?		✓	COC notation or radioactive stickers on containers equal client designation.
Did the RSO classify the samples as radioactive?		✓	Maximum Net Counts Observed* (Observed Counts - Area Background Counts): ___ CPM / mR/Hr Classified as: Rad 1 Rad 2 Rad 3
Were there any other sample hazards to document?		✓	If yes, select Hazards below. PCBs Flammable Foreign Soil RCRA Asbestos Beryllium Corrosive Other:
Has SDS been received and reviewed by Lab?		✓	Circle Applicable: See additional Comments below. No additional comments needed after review.

Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
Shipping containers received intact and sealed?	✓			Circle Applicable: Direct client dropoff Seals broken Damaged container Leaking container Other (describe)
Chain of custody documents included with shipment?	✓			Circle Applicable: Client contacted and provided COC COC created upon receipt
Did all samples requiring cold preservation, did they arrive within 0 < 6 °C			✓	Preservation Method: Wet Ice Ice Packs Dry Ice None Other: *all temperatures recorded next to tracking numbers are in Celcius
Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
Samples requiring chemical preservation at proper pH?			✓	Preserved per COC request or list Sample IDs and Containers Affected: If Preservation added, Lot#:
Do any samples require Volatile Analysis? (If yes, answer all three additional questions.)			✓	If Yes, are Encores or Soil Kits present? Yes___ No___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No___ NA___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes___ No___ NA___ Sample IDs and containers affected:
Samples received within holding time?	✓			IDs and tests affected:
Sample ID's on COC match IDs on bottles?			✓	IDs and containers affected: COC ID: S27-SS12 0.0'-0.5' SAMPLE ID: S27-SS17 0.0'-0.5'
Date & time on COC match date & time on bottles?	✓			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
Number of containers received match number indicated on COC?	✓			Circle Applicable: No container count on COC Missing Container (provide details) Other (describe)
Are sample containers identifiable as GEL provided by use of GEL labels?			✓	
COC form is properly signed in relinquished/received sections?	✓			Circle Applicable: Not relinquished Other (describe)

Comments:

PM Review: Initials RD Date 10/31/25

Sample Receipt Form Required when selected

GL-CHL-SR-001 Rev 8

List of current GEL Certifications as of 14 January 2026

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	525-24-281-19660
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2023019
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approval	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	NV-C24-00175
New Hampshire NELAP	205424
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2023-152
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of LA	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235
Utah NELAP	SC000122024-45
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Technical Case Narrative
Stantec
SDG #: 750021

Metals

Product: **Determination of Metals by ICP**
Analytical Method: SW846 3050B/6010D
Analytical Procedure: GL-MA-E-013 REV# 34
Analytical Batch: 2890586

Preparation Method: SW846 3050B
Preparation Procedure: GL-MA-E-009 REV# 30
Preparation Batch: 2890584

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750021007	S27-TP04 1.0’-2.0’
750021010	S27-TP08 0.5’-1.0’
750021019	S27-TP22 0.5’-1.0’
1206286331	Method Blank (MB)**ICP**
1206286332	Laboratory Control Sample (LCS)
1206286336	750021007(S27-TP04 1.0’-2.0’L) Serial Dilution (SD)
1206286333	750021007(S27-TP04 1.0’-2.0’S) Matrix Spike (MS)
1206286334	750021007(S27-TP04 1.0’-2.0’SD) Matrix Spike Duplicate (MSD)
1206286335	750021007(S27-TP04 1.0’-2.0’PS) Post Spike (PS)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Matrix Spike (MS/MSD) Recovery Statement
The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analyte. The post spike recovery was within the required control limits. This verifies the absence of a matrix interference in the post-spike digested sample. The recovery may be attributed to possible sample matrix interference and/or non-homogeneity.

Sample	Analyte	Value
1206286333 (S27-TP04 1.0’-2.0’MS)	Antimony	70.8* (75%-125%)

Technical Information

Preparation/Analytical Method Verification
Method SW-846 3050B is not a total digestion technique for most samples. It is a very strong acid digestion that will

dissolve almost all elements that could become environmentally available. By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not usually mobile in the environment.

Sample Dilutions
Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample required dilution in order to minimize suppression of silver due to matrix interferences. 750021007 (S27-TP04 1.0'-2.0').

Analyte	**750021**
	007
Silver	5X

Product: **Determination of Metals by ICP**
Analytical Method: SW846 3050B/6010D
Analytical Procedure: GL-MA-E-013 REV# 34
Analytical Batch: 2890592

Preparation Method: SW846 3050B
Preparation Procedure: GL-MA-E-009 REV# 30
Preparation Batch: 2890590

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750021033	S27-TP15 4.5'-5.5'
1206286349	Method Blank (MB)**ICP**
1206286350	Laboratory Control Sample (LCS)
1206286354	750021033(S27-TP15 4.5'-5.5'L) Serial Dilution (SD)
1206286351	750021033(S27-TP15 4.5'-5.5'S) Matrix Spike (MS)
1206286352	750021033(S27-TP15 4.5'-5.5'SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Preparation/Analytical Method Verification
Method SW-846 3050B is not a total digestion technique for most samples. It is a very strong acid digestion that will dissolve almost all elements that could become environmentally available. By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not usually mobile in the environment.

Product: **Determination of Metals by ICP-MS**
Analytical Method: SW846 3050B/6020B
Analytical Procedure: GL-MA-E-014 REV# 37

Analytical Batch: 2890585

Preparation Method: SW846 3050B
Preparation Procedure: GL-MA-E-009 REV# 30
Preparation Batch: 2890583

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750021007	S27-TP04 1.0’-2.0’
750021010	S27-TP08 0.5’-1.0’
750021019	S27-TP22 0.5’-1.0’
1206286325	Method Blank (MB)**ICP-MS**
1206286326	Laboratory Control Sample (LCS)
1206286330	750021007(S27-TP04 1.0’-2.0’L) Serial Dilution (SD)
1206286327	750021007(S27-TP04 1.0’-2.0’S) Matrix Spike (MS)
1206286328	750021007(S27-TP04 1.0’-2.0’SD) Matrix Spike Duplicate (MSD)
1206286329	750021007(S27-TP04 1.0’-2.0’PS) Post Spike (PS)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

CRDL/PQL Requirements
The CRDL standard recoveries for SW846 6020B met the advisory control limits with the exception of calcium. Client sample concentrations were greater than two times the CRDL; therefore the data were not adversely affected. 750021019 (S27-TP22 0.5’-1.0’).

ICSA/ICSAB Statement
For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Quality Control (QC) Information

Matrix Spike (MS/MSD) Recovery Statement
The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analytes. The post spike recoveries were within the required control limits. This verifies the absence of a matrix interference in the post-spike digested sample. The recoveries may be attributed to possible sample matrix interference and/or non-homogeneity.

Sample	Analyte	Value
1206286327 (S27-TP04 1.0’-2.0’MS)	Chromium	185* (75%-125%)
1206286328 (S27-TP04 1.0’-2.0’MSD)	Chromium	212* (75%-125%)
	Lead	146* (75%-125%)
	Nickel	142* (75%-125%)

Technical Information

Preparation/Analytical Method Verification
Method SW-846 3050B is not a total digestion technique for most samples. It is a very strong acid digestion that will dissolve almost all elements that could become environmentally available. By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not usually mobile in the environment.

Sample Dilutions
Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.
The ICPMS solid samples in this SDG were diluted the standard two times.

Analyte	750021		
	007	**010**	**019**
Aluminum	10X	10X	10X
Arsenic	2X	2X	2X
Barium	2X	2X	2X
Beryllium	2X	2X	2X
Cadmium	2X	2X	2X
Calcium	10X	10X	2X
Chromium	2X	2X	2X
Cobalt	2X	2X	2X
Copper	2X	2X	2X
Iron	10X	10X	10X
Lead	2X	2X	2X
Magnesium	2X	2X	2X
Manganese	2X	2X	10X
Nickel	2X	2X	2X
Potassium	2X	2X	2X
Selenium	2X	2X	2X
Sodium	2X	2X	2X
Thallium	2X	2X	2X
Uranium	2X	2X	2X
Vanadium	2X	2X	2X
Zinc	2X	2X	2X

Product: **Determination of Metals by ICP-MS**
Analytical Method: SW846 3050B/6020B
Analytical Procedure: GL-MA-E-014 REV# 37
Analytical Batch: 2890591

Preparation Method: SW846 3050B
Preparation Procedure: GL-MA-E-009 REV# 30
Preparation Batch: 2890589

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750021033	S27-TP15 4.5’-5.5’
1206286343	Method Blank (MB)**ICP-MS**
1206286344	Laboratory Control Sample (LCS)
1206286348	750021033(S27-TP15 4.5’-5.5’L) Serial Dilution (SD)
1206286345	750021033(S27-TP15 4.5’-5.5’S) Matrix Spike (MS)
1206286346	750021033(S27-TP15 4.5’-5.5’SD) Matrix Spike Duplicate (MSD)
1206286347	750021033(S27-TP15 4.5’-5.5’PS) Post Spike (PS)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

ICSA/ICSAB Statement
For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Quality Control (QC) Information

Matrix Spike (MS/MSD) Recovery Statement
The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analytes. The post spike recoveries were within the required control limits. This verifies the absence of a matrix interference in the post-spike digested sample. The recoveries may be attributed to possible sample matrix interference and/or non-homogeneity.

Sample	Analyte	Value
1206286345 (S27-TP15 4.5’-5.5’MS)	Lead	71.2* (75%-125%)
1206286346 (S27-TP15 4.5’-5.5’MSD)	Lead	66.9* (75%-125%)
	Vanadium	129* (75%-125%)

MS/MSD Relative Percent Difference (RPD) Statement
The RPD values between qualifying analyte results in the MS and MSD were not within the acceptance limits. Sample non-homogeneity and/or possible matrix interferences may be suspected.

Sample	Analyte	Value
1206286345MS and 1206286346MSD (S27-TP15 4.5’-5.5’)	Barium	RPD 31.1* (0%-20%)

Technical Information

Preparation/Analytical Method Verification
Method SW-846 3050B is not a total digestion technique for most samples. It is a very strong acid digestion that will dissolve almost all elements that could become environmentally available. By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not usually mobile in the environment.

Sample Dilutions
Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.
The ICPMS solid samples in this SDG were diluted the standard two times.

Analyte	**750021**
	033
Aluminum	2X
Arsenic	2X
Barium	2X
Beryllium	2X
Cadmium	2X
Calcium	10X
Chromium	2X
Cobalt	2X
Copper	2X
Iron	10X
Lead	2X
Magnesium	2X
Manganese	2X
Nickel	2X
Potassium	2X
Selenium	2X
Sodium	2X
Thallium	2X
Uranium	2X
Vanadium	2X
Zinc	2X

Product: **Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**
Analytical Method: SW846 7471B
Analytical Procedure: GL-MA-E-010 REV# 42
Analytical Batch: 2890892

Preparation Method: SW846 7471B Prep
Preparation Procedure: GL-MA-E-010 REV# 42
Preparation Batch: 2890890

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750021007	S27-TP04 1.0'-2.0'
750021010	S27-TP08 0.5'-1.0'
750021019	S27-TP22 0.5'-1.0'
750021033	S27-TP15 4.5'-5.5'
1206286959	Method Blank (MB)**CVAA**

1206286960	Laboratory Control Sample (LCS)
1206286964	750212001(NonSDGS) Matrix Spike (MS)
1206286965	750212001(NonSDGSD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

MS/MSD Relative Percent Difference (RPD) Statement
The RPD values between qualifying analyte results in the MS and MSD were not within the acceptance limits. Sample non-homogeneity and/or possible matrix interferences may be suspected.

Sample	Analyte	Value
1206286964MS and 1206286965MSD (Non SDG 750212001)	Mercury	RPD 22.1* (0%-20%)

Radiochemistry

Product: **Dry Weight**
Preparation Method: ASTM D 2216 (Modified)
Preparation Procedure: GL-OA-E-020 REV# 14
Preparation Batch: 2890275

Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25
Preparation Batch: 2890275

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750021001	S27-TP09 0.5’-1.0’
750021002	S27-TP06 0.5’-1.0’
750021003	S27-TP01 0.5’-1.0’
750021004	S27-TP05 0.5’-1.0’
750021005	S27-TP02 0.5’-1.0’
750021006	S27-TP07 0.5’-1.0’
750021007	S27-TP04 1.0’-2.0’
750021008	S27-TP13 0.5’-1.0’
750021009	S27-TPDS01 0.5’-1.0’
750021010	S27-TP08 0.5’-1.0’
750021011	S27-TP03 1.0’-1.4’
750021012	S27-TP16 2.5’-3.0’
750021013	S27-TP16 3.5’-4.0’
750021014	S27-TP17 2.0’-3.0’
750021015	S27-TP10 0.5’-1.0’
750021016	S27-TP11 0.5’-1.0’

750021017	S27-TPDS02 0.5’-1.0’
750021018	S27-TP21 1.0’-1.5’
750021019	S27-TP22 0.5’-1.0’
750021021	S27-TP19 3.5’-4.0’
1206285712	750021007(S27-TP04 1.0’-2.0’) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Dry Weight**
Preparation Method: ASTM D 2216 (Modified)
Preparation Procedure: GL-OA-E-020 REV# 14
Preparation Batch: 2890397

Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25
Preparation Batch: 2890397

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750021022	S27-TP29 1.0’-1.5’
750021023	S27-TP27 0.5’-1.0’
750021024	S27-TP31 0.5’-1.0’
750021025	S27-TPDS03 0.5’-1.0’
750021026	S27-TP12 1.5’-2.0’
750021027	S27-TP20 1.0’-1.5’
750021028	S27-TP26 0.5’-1.0’
750021029	S27-TP18 2.5’-3.0’
750021030	S27-TP23 5.0’-5.5’
750021032	S27-TP14 3.5’-4.0’
750021033	S27-TP15 4.5’-5.5’
750021034	S27-TPDS04 3.5’-4.0’

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Dry Weight**
Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25
Preparation Batch: 2890278

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750021020	S27-TP19 2.5’-3.0’
750021031	S27-TP24 7.0’-7.5’

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Gamma Ra226, Solid**
Analytical Method: DOE HASL 300, 4.5.2.3/Ga-01-R
Analytical Procedure: GL-RAD-A-013 REV# 29
Analytical Batch: 2890518

Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25
Preparation Batches: 2890275 and 2890278

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750021001	S27-TP09 0.5’-1.0’
750021002	S27-TP06 0.5’-1.0’
750021003	S27-TP01 0.5’-1.0’
750021004	S27-TP05 0.5’-1.0’
750021005	S27-TP02 0.5’-1.0’
750021006	S27-TP07 0.5’-1.0’
750021007	S27-TP04 1.0’-2.0’
750021008	S27-TP13 0.5’-1.0’
750021009	S27-TPDS01 0.5’-1.0’
750021010	S27-TP08 0.5’-1.0’
750021011	S27-TP03 1.0’-1.4’
750021012	S27-TP16 2.5’-3.0’
750021013	S27-TP16 3.5’-4.0’
750021014	S27-TP17 2.0’-3.0’
750021015	S27-TP10 0.5’-1.0’
750021016	S27-TP11 0.5’-1.0’
750021017	S27-TPDS02 0.5’-1.0’
750021018	S27-TP21 1.0’-1.5’
750021019	S27-TP22 0.5’-1.0’

750021020	S27-TP19 2.5’-3.0’
1206286189	Method Blank (MB)
1206286190	750021001(S27-TP09 0.5’-1.0’) Sample Duplicate (DUP)
1206286191	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Miscellaneous Information

Additional Comments
Samples in this batch contain a mix of radioactive and non-radioactive materials. Samples were prepared separately based on hazard code and analyzed within the same counting batch. No impact to the data expected. Reporting results.
Per client direction, the Ra-226 results were recalculated using Bi-214 609 keV energy line.

Product: **Gamma Ra226, Solid**
Analytical Method: DOE HASL 300, 4.5.2.3/Ga-01-R
Analytical Procedure: GL-RAD-A-013 REV# 29
Analytical Batch: 2890521

Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25
Preparation Batches: 2890275, 2890278 and 2890397

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750021021	S27-TP19 3.5’-4.0’
750021022	S27-TP29 1.0’-1.5’
750021023	S27-TP27 0.5’-1.0’
750021024	S27-TP31 0.5’-1.0’
750021025	S27-TPDS03 0.5’-1.0’
750021026	S27-TP12 1.5’-2.0’
750021027	S27-TP20 1.0’-1.5’
750021028	S27-TP26 0.5’-1.0’
750021029	S27-TP18 2.5’-3.0’
750021030	S27-TP23 5.0’-5.5’
750021031	S27-TP24 7.0’-7.5’
750021032	S27-TP14 3.5’-4.0’
750021033	S27-TP15 4.5’-5.5’
750021034	S27-TPDS04 3.5’-4.0’
1206286198	Method Blank (MB)
1206286199	750021021(S27-TP19 3.5’-4.0’) Sample Duplicate (DUP)
1206286200	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Miscellaneous Information

Additional Comments
Samples in this batch contain a mix of radioactive and non-radioactive materials. Samples were prepared separately based on hazard code and analyzed within the same counting batch. No impact to the data expected. Reporting results.
Per client direction, the Ra-226 results were recalculated using Bi-214 609 keV energy line.

Qualifier Information

Qualifier	Reason	Analyte	Sample
UI	Results are considered a false positive due to low abundance.	Radium-226	1206286198 (MB)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

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Metals Analysis

Case Narrative

Metals
Technical Case Narrative
Stantec
SDG #: 750021

Product: **Determination of Metals by ICP**
Analytical Method: SW846 3050B/6010D
Analytical Procedure: GL-MA-E-013 REV# 34
Analytical Batches: 2890586 and 2890592

Product: **Determination of Metals by ICP-MS**
Analytical Method: SW846 3050B/6020B
Analytical Procedure: GL-MA-E-014 REV# 37
Analytical Batches: 2890585 and 2890591

Product: **Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**
Analytical Method: SW846 7471B
Analytical Procedure: GL-MA-E-010 REV# 42
Analytical Batch: 2890892

Preparation Method: SW846 3050B
Preparation Procedure: GL-MA-E-009 REV# 30
Preparation Batches: 2890583, 2890584, 2890589 and 2890590

Preparation Method: SW846 7471B Prep
Preparation Procedure: GL-MA-E-010 REV# 42
Preparation Batch: 2890890

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750021007	S27-TP04 1.0’-2.0’
750021010	S27-TP08 0.5’-1.0’
750021019	S27-TP22 0.5’-1.0’
750021033	S27-TP15 4.5’-5.5’
1206286331	Method Blank (MB)**ICP**
1206286349	Method Blank (MB)**ICP**
1206286332	Laboratory Control Sample (LCS)
1206286350	Laboratory Control Sample (LCS)
1206286336	750021007(S27-TP04 1.0’-2.0’L) Serial Dilution (SD)
1206286354	750021033(S27-TP15 4.5’-5.5’L) Serial Dilution (SD)
1206286333	750021007(S27-TP04 1.0’-2.0’S) Matrix Spike (MS)
1206286351	750021033(S27-TP15 4.5’-5.5’S) Matrix Spike (MS)
1206286334	750021007(S27-TP04 1.0’-2.0’SD) Matrix Spike Duplicate (MSD)
1206286352	750021033(S27-TP15 4.5’-5.5’SD) Matrix Spike Duplicate (MSD)
1206286335	750021007(S27-TP04 1.0’-2.0’PS) Post Spike (PS)
1206286325	Method Blank (MB)**ICP-MS**
1206286343	Method Blank (MB)**ICP-MS**
1206286326	Laboratory Control Sample (LCS)
1206286344	Laboratory Control Sample (LCS)
1206286330	750021007(S27-TP04 1.0’-2.0’L) Serial Dilution (SD)
1206286348	750021033(S27-TP15 4.5’-5.5’L) Serial Dilution (SD)
1206286327	750021007(S27-TP04 1.0’-2.0’S) Matrix Spike (MS)
1206286345	750021033(S27-TP15 4.5’-5.5’S) Matrix Spike (MS)
1206286328	750021007(S27-TP04 1.0’-2.0’SD) Matrix Spike Duplicate (MSD)

1206286346	750021033(S27-TP15 4.5’-5.5’SD) Matrix Spike Duplicate (MSD)
1206286329	750021007(S27-TP04 1.0’-2.0’PS) Post Spike (PS)
1206286347	750021033(S27-TP15 4.5’-5.5’PS) Post Spike (PS)
1206286959	Method Blank (MB)**CVAA**
1206286960	Laboratory Control Sample (LCS)
1206286964	750212001(NonSDGS) Matrix Spike (MS)
1206286965	750212001(NonSDGSD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

CRDL/PQL Requirements

The CRDL standard recoveries for SW846 6020B met the advisory control limits with the exception of calcium. Client sample concentrations were greater than two times the CRDL; therefore the data were not adversely affected. 750021019 (S27-TP22 0.5’-1.0’)-ICP-MS.

ICSA/ICSAB Statement
For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Quality Control (QC) Information

Matrix Spike (MS/MSD) Recovery Statement
The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analytes. The post spike recoveries were within the required control limits. This verifies the absence of a matrix interference in the post-spike digested sample. The recoveries may be attributed to possible sample matrix interference and/or non-homogeneity.

Sample	Analyte	Value
1206286327 (S27-TP04 1.0’-2.0’MS)	Chromium	185* (75%-125%)
1206286328 (S27-TP04 1.0’-2.0’MSD)	Chromium	212* (75%-125%)
	Lead	146* (75%-125%)
	Nickel	142* (75%-125%)
1206286333 (S27-TP04 1.0’-2.0’MS)	Antimony	70.8* (75%-125%)
1206286345 (S27-TP15 4.5’-5.5’MS)	Lead	71.2* (75%-125%)
1206286346 (S27-TP15 4.5’-5.5’MSD)	Lead	66.9* (75%-125%)
	Vanadium	129* (75%-125%)

MS/MSD Relative Percent Difference (RPD) Statement

The RPD values between qualifying analyte results in the MS and MSD were not within the acceptance limits. Sample non-homogeneity and/or possible matrix interferences may be suspected.

Sample	Analyte	Value
1206286345MS and 1206286346MSD (S27-TP15 4.5’-5.5’)	Barium	RPD 31.1* (0%-20%)
1206286964MS and 1206286965MSD (Non SDG 750212001)	Mercury	RPD 22.1* (0%-20%)

Technical Information

Preparation/Analytical Method Verification

Method SW-846 3050B is not a total digestion technique for most samples. It is a very strong acid digestion that will dissolve almost all elements that could become environmentally available. By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not usually mobile in the environment.

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Sample required dilution in order to minimize suppression of silver due to matrix interferences. 750021007 (S27-TP04 1.0’-2.0’)-ICP.
Samples were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.
The ICPMS solid samples in this SDG were diluted the standard two times. ICP-MS.

Analyte	750021			
	007	010	019	033
Aluminum	10X	10X	10X	2X
Arsenic	2X	2X	2X	2X
Barium	2X	2X	2X	2X
Beryllium	2X	2X	2X	2X
Cadmium	2X	2X	2X	2X
Calcium	10X	10X	2X	10X
Chromium	2X	2X	2X	2X
Cobalt	2X	2X	2X	2X
Copper	2X	2X	2X	2X
Iron	10X	10X	10X	10X
Lead	2X	2X	2X	2X
Magnesium	2X	2X	2X	2X
Manganese	2X	2X	10X	2X
Nickel	2X	2X	2X	2X
Potassium	2X	2X	2X	2X
Selenium	2X	2X	2X	2X
Silver	5X			
Sodium	2X	2X	2X	2X
Thallium	2X	2X	2X	2X
Uranium	2X	2X	2X	2X
Vanadium	2X	2X	2X	2X
Zinc	2X	2X	2X	2X

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

STNT008 Stantec

Client SDG: 750021 GEL Work Order: 750021

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria
J Value is estimated
N/A
U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature:  **Name: Edmund Frampton**

Date: 24 NOV 2025 **Title: Group Leader**

Sample Data Summary

GEL LABORATORIES LLC
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Certificate of Analysis

Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Mary Privitera
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP04 1.0'-2.0'	Project:	STNT00225
Sample ID:	750021007	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	17-OCT-25 14:30		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	9.34%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury		27.9	8.34	24.9	ug/kg	113	1	JP2	11/03/25	0956	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	331	2010	ug/kg	90.9	1	EM2	11/12/25	1745	2890586	2
Silver	U	ND	501	2510	ug/kg	90.9	5	EM2	11/13/25	1001	2890586	3
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		7910	361	1070	ug/kg	96.9	2	RM4	11/13/25	2351	2890585	4
Barium		104000	107	855	ug/kg	96.9	2					
Beryllium		995	21.4	107	ug/kg	96.9	2					
Cadmium		355	21.4	214	ug/kg	96.9	2					
Chromium		19800	214	641	ug/kg	96.9	2					
Cobalt		8320	64.1	214	ug/kg	96.9	2					
Lead		18000	107	428	ug/kg	96.9	2					
Magnesium		5080000	2140	6410	ug/kg	96.9	2					
Manganese		191000	214	1070	ug/kg	96.9	2					
Nickel		20900	107	428	ug/kg	96.9	2					
Potassium		4310000	17100	64100	ug/kg	96.9	2					
Sodium		117000	17100	53400	ug/kg	96.9	2					
Thallium		706	85.5	428	ug/kg	96.9	2					
Uranium		4010	14.1	42.8	ug/kg	96.9	2					
Vanadium		59400	321	4280	ug/kg	96.9	2					
Selenium		3840	385	1070	ug/kg	96.9	2	RM4	11/18/25	1257	2890585	5
Zinc		79700	855	4280	ug/kg	96.9	2					
Aluminum		26400000	24300	53400	ug/kg	96.9	10	RM4	11/18/25	1555	2890585	6
Calcium		18400000	71600	214000	ug/kg	96.9	10					
Iron		28800000	35300	107000	ug/kg	96.9	10					
Copper		16400	70.5	428	ug/kg	96.9	2	RM4	11/19/25	0817	2890585	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep	CJ3	10/31/25	1725	2890584
SW846 3050B	ICP-MS 3050BS PREP	CJ3	10/31/25	1550	2890583
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890

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Certificate of Analysis

Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Mary Privitera
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP04 1.0'-2.0'	Project:	STNT00225
Sample ID:	750021007	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6010D	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	SW846 3050B/6020B	
7	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Mary Privitera
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP08 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021010	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	18-OCT-25 08:45		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	14.9%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury		25.4	8.06	24.1	ug/kg	102	1	JP2	11/03/25	0958	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	379	2300	ug/kg	97.8	1	EM2	11/12/25	1757	2890586	2
Silver	U	ND	115	575	ug/kg	97.8	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		9220	372	1100	ug/kg	93.6	2	RM4	11/14/25	0009	2890585	3
Barium		67200	110	880	ug/kg	93.6	2					
Beryllium		972	22.0	110	ug/kg	93.6	2					
Cadmium	J	84.6	22.0	220	ug/kg	93.6	2					
Chromium		16500	220	660	ug/kg	93.6	2					
Cobalt		7780	66.0	220	ug/kg	93.6	2					
Copper		11300	72.6	440	ug/kg	93.6	2					
Lead		14500	110	440	ug/kg	93.6	2					
Magnesium		5900000	2200	6600	ug/kg	93.6	2					
Manganese		143000	220	1100	ug/kg	93.6	2					
Nickel		13200	110	440	ug/kg	93.6	2					
Potassium		3960000	17600	66000	ug/kg	93.6	2					
Sodium		324000	17600	55000	ug/kg	93.6	2					
Thallium	J	210	88.0	440	ug/kg	93.6	2					
Uranium		26500	14.5	44.0	ug/kg	93.6	2					
Vanadium		32500	330	4400	ug/kg	93.6	2					
Selenium		2980	396	1100	ug/kg	93.6	2	RM4	11/18/25	1313	2890585	4
Zinc		61200	880	4400	ug/kg	93.6	2					
Aluminum		24600000	25000	55000	ug/kg	93.6	10	RM4	11/18/25	1605	2890585	5
Calcium		13800000	73700	220000	ug/kg	93.6	10					
Iron		25700000	36300	110000	ug/kg	93.6	10					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	CJ3	10/31/25	1550	2890583
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890
SW846 3050B	SW846 3050B Prep	CJ3	10/31/25	1725	2890584

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Certificate of Analysis

Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Mary Privitera
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP08 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021010	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Mary Privitera
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP22 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021019	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	20-OCT-25 09:40		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	7.94%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury		26.6	7.55	22.6	ug/kg	104	1	JP2	11/03/25	1000	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	345	2090	ug/kg	96.3	1	EM2	11/12/25	1759	2890586	2
Silver	U	ND	105	523	ug/kg	96.3	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		5600	343	1020	ug/kg	93.5	2	RM4	11/14/25	0013	2890585	3
Barium		108000	102	812	ug/kg	93.5	2					
Beryllium		872	20.3	102	ug/kg	93.5	2					
Cadmium	J	89.6	20.3	203	ug/kg	93.5	2					
Calcium		3490000	13600	40600	ug/kg	93.5	2					
Chromium		13800	203	609	ug/kg	93.5	2					
Cobalt		6070	60.9	203	ug/kg	93.5	2					
Copper		9380	67.0	406	ug/kg	93.5	2					
Lead		10600	102	406	ug/kg	93.5	2					
Magnesium		4180000	2030	6090	ug/kg	93.5	2					
Nickel		9580	102	406	ug/kg	93.5	2					
Potassium		4680000	16200	60900	ug/kg	93.5	2					
Sodium		90800	16200	50800	ug/kg	93.5	2					
Thallium	J	195	81.2	406	ug/kg	93.5	2					
Uranium		6530	13.4	40.6	ug/kg	93.5	2					
Vanadium		32800	305	4060	ug/kg	93.5	2					
Selenium		2350	365	1020	ug/kg	93.5	2	RM4	11/18/25	1315	2890585	4
Zinc		44800	812	4060	ug/kg	93.5	2					
Aluminum		23900000	23100	50800	ug/kg	93.5	10	RM4	11/18/25	1607	2890585	5
Iron		20200000	33500	102000	ug/kg	93.5	10					
Manganese		293000	1020	5080	ug/kg	93.5	10					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890
SW846 3050B	SW846 3050B Prep	CJ3	10/31/25	1725	2890584
SW846 3050B	ICP-MS 3050BS PREP	CJ3	10/31/25	1550	2890583

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Certificate of Analysis

Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Mary Privitera
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP22 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021019	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Mary Privitera
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP15 4.5'-5.5'	Project:	STNT00225
Sample ID:	750021033	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	22-OCT-25 14:40		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	7.04%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury	J	23.7	8.61	25.7	ug/kg	120	1	JP2	11/03/25	1001	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	308	1870	ug/kg	86.8	1	EM2	11/12/25	1812	2890592	2
Silver	U	ND	93.4	467	ug/kg	86.8	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Aluminum		8240000	4440	9760	ug/kg	90.7	2	RM4	11/14/25	0030	2890591	3
Arsenic		4800	330	976	ug/kg	90.7	2					
Barium		81900	97.6	781	ug/kg	90.7	2					
Beryllium		530	19.5	97.6	ug/kg	90.7	2					
Cadmium	J	80.9	19.5	195	ug/kg	90.7	2					
Chromium		7050	195	586	ug/kg	90.7	2					
Cobalt		4810	58.6	195	ug/kg	90.7	2					
Copper		6540	64.4	390	ug/kg	90.7	2					
Lead		8810	97.6	390	ug/kg	90.7	2					
Magnesium		3800000	1950	5860	ug/kg	90.7	2					
Manganese		174000	195	976	ug/kg	90.7	2					
Nickel		6520	97.6	390	ug/kg	90.7	2					
Potassium		1540000	15600	58600	ug/kg	90.7	2					
Sodium		459000	15600	48800	ug/kg	90.7	2					
Thallium	J	130	78.1	390	ug/kg	90.7	2					
Uranium		46900	12.9	39.0	ug/kg	90.7	2					
Vanadium		18000	293	3900	ug/kg	90.7	2					
Selenium		2630	351	976	ug/kg	90.7	2	RM4	11/18/25	1717	2890591	4
Zinc		34100	781	3900	ug/kg	90.7	2					
Calcium		11900000	65400	195000	ug/kg	90.7	10	RM4	11/18/25	1737	2890591	5
Iron		13000000	32200	97600	ug/kg	90.7	10					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	CJ3	10/31/25	1550	2890589
SW846 3050B	SW846 3050B Prep	CJ3	10/31/25	1725	2890590
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890

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Certificate of Analysis

Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Mary Privitera
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP15 4.5'-5.5'	Project:	STNT00225
Sample ID:	750021033	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kristen Burt
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP04 1.0'-2.0'	Project:	STNT00225
Sample ID:	750021007	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	17-OCT-25 14:30		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	9.34%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury		27.9	8.34	24.9	ug/kg	113	1	JP2	11/03/25	0956	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	331	2010	ug/kg	90.9	1	EM2	11/12/25	1745	2890586	2
Silver	U	ND	501	2510	ug/kg	90.9	5	EM2	11/13/25	1001	2890586	3
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		7910	361	1070	ug/kg	96.9	2	RM4	11/13/25	2351	2890585	4
Barium		104000	107	855	ug/kg	96.9	2					
Beryllium		995	21.4	107	ug/kg	96.9	2					
Cadmium		355	21.4	214	ug/kg	96.9	2					
Chromium		19800	214	641	ug/kg	96.9	2					
Cobalt		8320	64.1	214	ug/kg	96.9	2					
Lead		18000	107	428	ug/kg	96.9	2					
Magnesium		5080000	2140	6410	ug/kg	96.9	2					
Manganese		191000	214	1070	ug/kg	96.9	2					
Nickel		20900	107	428	ug/kg	96.9	2					
Potassium		4310000	17100	64100	ug/kg	96.9	2					
Sodium		117000	17100	53400	ug/kg	96.9	2					
Thallium		706	85.5	428	ug/kg	96.9	2					
Uranium		4010	14.1	42.8	ug/kg	96.9	2					
Vanadium		59400	321	4280	ug/kg	96.9	2					
Selenium		3840	385	1070	ug/kg	96.9	2	RM4	11/18/25	1257	2890585	5
Zinc		79700	855	4280	ug/kg	96.9	2					
Aluminum		26400000	24300	53400	ug/kg	96.9	10	RM4	11/18/25	1555	2890585	6
Calcium		18400000	71600	214000	ug/kg	96.9	10					
Iron		28800000	35300	107000	ug/kg	96.9	10					
Copper		16400	70.5	428	ug/kg	96.9	2	RM4	11/19/25	0817	2890585	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep	CJ3	10/31/25	1725	2890584
SW846 3050B	ICP-MS 3050BS PREP	CJ3	10/31/25	1550	2890583
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890

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Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kristen Burt
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP04 1.0'-2.0'	Project:	STNT00225
Sample ID:	750021007	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6010D	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	SW846 3050B/6020B	
7	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kristen Burt
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP08 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021010	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	18-OCT-25 08:45		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	14.9%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury		25.4	8.06	24.1	ug/kg	102	1	JP2	11/03/25	0958	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	379	2300	ug/kg	97.8	1	EM2	11/12/25	1757	2890586	2
Silver	U	ND	115	575	ug/kg	97.8	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		9220	372	1100	ug/kg	93.6	2	RM4	11/14/25	0009	2890585	3
Barium		67200	110	880	ug/kg	93.6	2					
Beryllium		972	22.0	110	ug/kg	93.6	2					
Cadmium	J	84.6	22.0	220	ug/kg	93.6	2					
Chromium		16500	220	660	ug/kg	93.6	2					
Cobalt		7780	66.0	220	ug/kg	93.6	2					
Copper		11300	72.6	440	ug/kg	93.6	2					
Lead		14500	110	440	ug/kg	93.6	2					
Magnesium		5900000	2200	6600	ug/kg	93.6	2					
Manganese		143000	220	1100	ug/kg	93.6	2					
Nickel		13200	110	440	ug/kg	93.6	2					
Potassium		3960000	17600	66000	ug/kg	93.6	2					
Sodium		324000	17600	55000	ug/kg	93.6	2					
Thallium	J	210	88.0	440	ug/kg	93.6	2					
Uranium		26500	14.5	44.0	ug/kg	93.6	2					
Vanadium		32500	330	4400	ug/kg	93.6	2					
Selenium		2980	396	1100	ug/kg	93.6	2	RM4	11/18/25	1313	2890585	4
Zinc		61200	880	4400	ug/kg	93.6	2					
Aluminum		24600000	25000	55000	ug/kg	93.6	10	RM4	11/18/25	1605	2890585	5
Calcium		13800000	73700	220000	ug/kg	93.6	10					
Iron		25700000	36300	110000	ug/kg	93.6	10					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	CJ3	10/31/25	1550	2890583
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890
SW846 3050B	SW846 3050B Prep	CJ3	10/31/25	1725	2890584

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Certificate of Analysis

Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kristen Burt
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP08 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021010	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kristen Burt
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP22 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021019	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	20-OCT-25 09:40		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	7.94%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury		26.6	7.55	22.6	ug/kg	104	1	JP2	11/03/25	1000	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	345	2090	ug/kg	96.3	1	EM2	11/12/25	1759	2890586	2
Silver	U	ND	105	523	ug/kg	96.3	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		5600	343	1020	ug/kg	93.5	2	RM4	11/14/25	0013	2890585	3
Barium		108000	102	812	ug/kg	93.5	2					
Beryllium		872	20.3	102	ug/kg	93.5	2					
Cadmium	J	89.6	20.3	203	ug/kg	93.5	2					
Calcium		3490000	13600	40600	ug/kg	93.5	2					
Chromium		13800	203	609	ug/kg	93.5	2					
Cobalt		6070	60.9	203	ug/kg	93.5	2					
Copper		9380	67.0	406	ug/kg	93.5	2					
Lead		10600	102	406	ug/kg	93.5	2					
Magnesium		4180000	2030	6090	ug/kg	93.5	2					
Nickel		9580	102	406	ug/kg	93.5	2					
Potassium		4680000	16200	60900	ug/kg	93.5	2					
Sodium		90800	16200	50800	ug/kg	93.5	2					
Thallium	J	195	81.2	406	ug/kg	93.5	2					
Uranium		6530	13.4	40.6	ug/kg	93.5	2					
Vanadium		32800	305	4060	ug/kg	93.5	2					
Selenium		2350	365	1020	ug/kg	93.5	2	RM4	11/18/25	1315	2890585	4
Zinc		44800	812	4060	ug/kg	93.5	2					
Aluminum		23900000	23100	50800	ug/kg	93.5	10	RM4	11/18/25	1607	2890585	5
Iron		20200000	33500	102000	ug/kg	93.5	10					
Manganese		293000	1020	5080	ug/kg	93.5	10					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890
SW846 3050B	SW846 3050B Prep	CJ3	10/31/25	1725	2890584
SW846 3050B	ICP-MS 3050BS PREP	CJ3	10/31/25	1550	2890583

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Certificate of Analysis

Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kristen Burt
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP22 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021019	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kristen Burt
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP15 4.5'-5.5'	Project:	STNT00225
Sample ID:	750021033	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	22-OCT-25 14:40		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	7.04%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury	J	23.7	8.61	25.7	ug/kg	120	1	JP2	11/03/25	1001	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	308	1870	ug/kg	86.8	1	EM2	11/12/25	1812	2890592	2
Silver	U	ND	93.4	467	ug/kg	86.8	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Aluminum		8240000	4440	9760	ug/kg	90.7	2	RM4	11/14/25	0030	2890591	3
Arsenic		4800	330	976	ug/kg	90.7	2					
Barium		81900	97.6	781	ug/kg	90.7	2					
Beryllium		530	19.5	97.6	ug/kg	90.7	2					
Cadmium	J	80.9	19.5	195	ug/kg	90.7	2					
Chromium		7050	195	586	ug/kg	90.7	2					
Cobalt		4810	58.6	195	ug/kg	90.7	2					
Copper		6540	64.4	390	ug/kg	90.7	2					
Lead		8810	97.6	390	ug/kg	90.7	2					
Magnesium		3800000	1950	5860	ug/kg	90.7	2					
Manganese		174000	195	976	ug/kg	90.7	2					
Nickel		6520	97.6	390	ug/kg	90.7	2					
Potassium		1540000	15600	58600	ug/kg	90.7	2					
Sodium		459000	15600	48800	ug/kg	90.7	2					
Thallium	J	130	78.1	390	ug/kg	90.7	2					
Uranium		46900	12.9	39.0	ug/kg	90.7	2					
Vanadium		18000	293	3900	ug/kg	90.7	2					
Selenium		2630	351	976	ug/kg	90.7	2	RM4	11/18/25	1717	2890591	4
Zinc		34100	781	3900	ug/kg	90.7	2					
Calcium		11900000	65400	195000	ug/kg	90.7	10	RM4	11/18/25	1737	2890591	5
Iron		13000000	32200	97600	ug/kg	90.7	10					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	CJ3	10/31/25	1550	2890589
SW846 3050B	SW846 3050B Prep	CJ3	10/31/25	1725	2890590
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890

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Certificate of Analysis

Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kristen Burt
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP15 4.5'-5.5'	Project:	STNT00225
Sample ID:	750021033	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP04 1.0'-2.0'	Project:	STNT00225
Sample ID:	750021007	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	17-OCT-25 14:30		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	9.34%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury		27.9	8.34	24.9	ug/kg	113	1	JP2	11/03/25	0956	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	331	2010	ug/kg	90.9	1	EM2	11/12/25	1745	2890586	2
Silver	U	ND	501	2510	ug/kg	90.9	5	EM2	11/13/25	1001	2890586	3
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		7910	361	1070	ug/kg	96.9	2	RM4	11/13/25	2351	2890585	4
Barium		104000	107	855	ug/kg	96.9	2					
Beryllium		995	21.4	107	ug/kg	96.9	2					
Cadmium		355	21.4	214	ug/kg	96.9	2					
Chromium		19800	214	641	ug/kg	96.9	2					
Cobalt		8320	64.1	214	ug/kg	96.9	2					
Lead		18000	107	428	ug/kg	96.9	2					
Magnesium		5080000	2140	6410	ug/kg	96.9	2					
Manganese		191000	214	1070	ug/kg	96.9	2					
Nickel		20900	107	428	ug/kg	96.9	2					
Potassium		4310000	17100	64100	ug/kg	96.9	2					
Sodium		117000	17100	53400	ug/kg	96.9	2					
Thallium		706	85.5	428	ug/kg	96.9	2					
Uranium		4010	14.1	42.8	ug/kg	96.9	2					
Vanadium		59400	321	4280	ug/kg	96.9	2					
Selenium		3840	385	1070	ug/kg	96.9	2	RM4	11/18/25	1257	2890585	5
Zinc		79700	855	4280	ug/kg	96.9	2					
Aluminum		26400000	24300	53400	ug/kg	96.9	10	RM4	11/18/25	1555	2890585	6
Calcium		18400000	71600	214000	ug/kg	96.9	10					
Iron		28800000	35300	107000	ug/kg	96.9	10					
Copper		16400	70.5	428	ug/kg	96.9	2	RM4	11/19/25	0817	2890585	7

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	SW846 3050B Prep	CJ3	10/31/25	1725	2890584
SW846 3050B	ICP-MS 3050BS PREP	CJ3	10/31/25	1550	2890583
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890

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Certificate of Analysis

Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP04 1.0'-2.0'	Project:	STNT00225
Sample ID:	750021007	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6010D	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	
6	SW846 3050B/6020B	
7	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP08 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021010	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	18-OCT-25 08:45		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	14.9%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury		25.4	8.06	24.1	ug/kg	102	1	JP2	11/03/25	0958	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	379	2300	ug/kg	97.8	1	EM2	11/12/25	1757	2890586	2
Silver	U	ND	115	575	ug/kg	97.8	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		9220	372	1100	ug/kg	93.6	2	RM4	11/14/25	0009	2890585	3
Barium		67200	110	880	ug/kg	93.6	2					
Beryllium		972	22.0	110	ug/kg	93.6	2					
Cadmium	J	84.6	22.0	220	ug/kg	93.6	2					
Chromium		16500	220	660	ug/kg	93.6	2					
Cobalt		7780	66.0	220	ug/kg	93.6	2					
Copper		11300	72.6	440	ug/kg	93.6	2					
Lead		14500	110	440	ug/kg	93.6	2					
Magnesium		5900000	2200	6600	ug/kg	93.6	2					
Manganese		143000	220	1100	ug/kg	93.6	2					
Nickel		13200	110	440	ug/kg	93.6	2					
Potassium		3960000	17600	66000	ug/kg	93.6	2					
Sodium		324000	17600	55000	ug/kg	93.6	2					
Thallium	J	210	88.0	440	ug/kg	93.6	2					
Uranium		26500	14.5	44.0	ug/kg	93.6	2					
Vanadium		32500	330	4400	ug/kg	93.6	2					
Selenium		2980	396	1100	ug/kg	93.6	2	RM4	11/18/25	1313	2890585	4
Zinc		61200	880	4400	ug/kg	93.6	2					
Aluminum		24600000	25000	55000	ug/kg	93.6	10	RM4	11/18/25	1605	2890585	5
Calcium		13800000	73700	220000	ug/kg	93.6	10					
Iron		25700000	36300	110000	ug/kg	93.6	10					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	CJ3	10/31/25	1550	2890583
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890
SW846 3050B	SW846 3050B Prep	CJ3	10/31/25	1725	2890584

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Certificate of Analysis

Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP08 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021010	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP22 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021019	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	20-OCT-25 09:40		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	7.94%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury		26.6	7.55	22.6	ug/kg	104	1	JP2	11/03/25	1000	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	345	2090	ug/kg	96.3	1	EM2	11/12/25	1759	2890586	2
Silver	U	ND	105	523	ug/kg	96.3	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Arsenic		5600	343	1020	ug/kg	93.5	2	RM4	11/14/25	0013	2890585	3
Barium		108000	102	812	ug/kg	93.5	2					
Beryllium		872	20.3	102	ug/kg	93.5	2					
Cadmium	J	89.6	20.3	203	ug/kg	93.5	2					
Calcium		3490000	13600	40600	ug/kg	93.5	2					
Chromium		13800	203	609	ug/kg	93.5	2					
Cobalt		6070	60.9	203	ug/kg	93.5	2					
Copper		9380	67.0	406	ug/kg	93.5	2					
Lead		10600	102	406	ug/kg	93.5	2					
Magnesium		4180000	2030	6090	ug/kg	93.5	2					
Nickel		9580	102	406	ug/kg	93.5	2					
Potassium		4680000	16200	60900	ug/kg	93.5	2					
Sodium		90800	16200	50800	ug/kg	93.5	2					
Thallium	J	195	81.2	406	ug/kg	93.5	2					
Uranium		6530	13.4	40.6	ug/kg	93.5	2					
Vanadium		32800	305	4060	ug/kg	93.5	2					
Selenium		2350	365	1020	ug/kg	93.5	2	RM4	11/18/25	1315	2890585	4
Zinc		44800	812	4060	ug/kg	93.5	2					
Aluminum		23900000	23100	50800	ug/kg	93.5	10	RM4	11/18/25	1607	2890585	5
Iron		20200000	33500	102000	ug/kg	93.5	10					
Manganese		293000	1020	5080	ug/kg	93.5	10					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890
SW846 3050B	SW846 3050B Prep	CJ3	10/31/25	1725	2890584
SW846 3050B	ICP-MS 3050BS PREP	CJ3	10/31/25	1550	2890583

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Certificate of Analysis

Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP22 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021019	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP15 4.5'-5.5'	Project:	STNT00225
Sample ID:	750021033	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	22-OCT-25 14:40		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	7.04%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury	J	23.7	8.61	25.7	ug/kg	120	1	JP2	11/03/25	1001	2890892	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	308	1870	ug/kg	86.8	1	EM2	11/12/25	1812	2890592	2
Silver	U	ND	93.4	467	ug/kg	86.8	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Aluminum		8240000	4440	9760	ug/kg	90.7	2	RM4	11/14/25	0030	2890591	3
Arsenic		4800	330	976	ug/kg	90.7	2					
Barium		81900	97.6	781	ug/kg	90.7	2					
Beryllium		530	19.5	97.6	ug/kg	90.7	2					
Cadmium	J	80.9	19.5	195	ug/kg	90.7	2					
Chromium		7050	195	586	ug/kg	90.7	2					
Cobalt		4810	58.6	195	ug/kg	90.7	2					
Copper		6540	64.4	390	ug/kg	90.7	2					
Lead		8810	97.6	390	ug/kg	90.7	2					
Magnesium		3800000	1950	5860	ug/kg	90.7	2					
Manganese		174000	195	976	ug/kg	90.7	2					
Nickel		6520	97.6	390	ug/kg	90.7	2					
Potassium		1540000	15600	58600	ug/kg	90.7	2					
Sodium		459000	15600	48800	ug/kg	90.7	2					
Thallium	J	130	78.1	390	ug/kg	90.7	2					
Uranium		46900	12.9	39.0	ug/kg	90.7	2					
Vanadium		18000	293	3900	ug/kg	90.7	2					
Selenium		2630	351	976	ug/kg	90.7	2	RM4	11/18/25	1717	2890591	4
Zinc		34100	781	3900	ug/kg	90.7	2					
Calcium		11900000	65400	195000	ug/kg	90.7	10	RM4	11/18/25	1737	2890591	5
Iron		13000000	32200	97600	ug/kg	90.7	10					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	CJ3	10/31/25	1550	2890589
SW846 3050B	SW846 3050B Prep	CJ3	10/31/25	1725	2890590
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	PB1	10/31/25	1415	2890890

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Certificate of Analysis

Report Date: November 20, 2025

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP15 4.5'-5.5'	Project:	STNT00225
Sample ID:	750021033	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	
5	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

Quality Control Summary

QC Summary

Report Date: November 20, 2025

Stantec
2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah

Contact: **Mary Privitera**

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch 2890585											
QC1206286326 LCS											
Aluminum	178000			186000	ug/kg		104	(80%-120%)	RM4	11/18/25	15:49
Arsenic	4450			4410	ug/kg		99.1	(80%-120%)		11/13/25	23:48
Barium	4450			4700	ug/kg		106	(80%-120%)			
Beryllium	4450			4650	ug/kg		105	(80%-120%)			
Cadmium	4450			4470	ug/kg		100	(80%-120%)			
Calcium	178000			201000	ug/kg		113	(80%-120%)			
Chromium	4450			4850	ug/kg		109	(80%-120%)			
Cobalt	4450			4870	ug/kg		110	(80%-120%)			
Copper	4450			5030	ug/kg		113	(80%-120%)			
Iron	178000			185000	ug/kg		104	(80%-120%)		11/18/25	15:49
Lead	4450			4840	ug/kg		109	(80%-120%)		11/13/25	23:48
Magnesium	178000			190000	ug/kg		107	(80%-120%)			

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Manganese	4450			4870	ug/kg		110	(80%-120%)	RM4	11/13/25 23:48
Nickel	4450			4930	ug/kg		111	(80%-120%)		
Potassium	178000			182000	ug/kg		103	(80%-120%)		
Selenium	4450			3870	ug/kg		87	(80%-120%)		11/18/25 13:06
Sodium	178000			190000	ug/kg		107	(80%-120%)		11/13/25 23:48
Thallium	4450			4760	ug/kg		107	(80%-120%)		
Uranium	4450			4650	ug/kg		105	(80%-120%)		
Vanadium	4450			4450	ug/kg		100	(80%-120%)		
Zinc	4450			4270	ug/kg		96	(80%-120%)		11/18/25 13:06
QC1206286325 MB										
Aluminum			U	ND	ug/kg					11/18/25 15:47
Arsenic			U	ND	ug/kg					11/13/25 23:44
Barium			U	ND	ug/kg					
Beryllium			U	ND	ug/kg					
Cadmium			U	ND	ug/kg					

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Calcium			U	ND	ug/kg				RM4	11/13/25 23:44
Chromium			U	ND	ug/kg					
Cobalt			U	ND	ug/kg					
Copper			U	ND	ug/kg					
Iron			U	ND	ug/kg					11/18/25 15:47
Lead			U	ND	ug/kg					11/13/25 23:44
Magnesium			U	ND	ug/kg					
Manganese			U	ND	ug/kg					
Nickel			U	ND	ug/kg					
Potassium			U	ND	ug/kg					
Selenium			U	ND	ug/kg					11/18/25 12:49
Sodium			U	ND	ug/kg					11/13/25 23:44
Thallium			U	ND	ug/kg					
Uranium			U	ND	ug/kg					

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Vanadium			U	ND	ug/kg				RM4	11/13/25 23:44
Zinc			U	ND	ug/kg					11/18/25 12:49
QC1206286327 750021007 MS										
Aluminum	213000	26400000		31700000	ug/kg		N/A	(75%-125%)		11/18/25 15:58
Arsenic	5330	7910		13700	ug/kg		109	(75%-125%)		11/13/25 23:55
Barium	5330	104000		120000	ug/kg		N/A	(75%-125%)		
Beryllium	5330	995		6080	ug/kg		95.4	(75%-125%)		
Cadmium	5330	355		5310	ug/kg		92.8	(75%-125%)		
Calcium	213000	18400000		22700000	ug/kg		N/A	(75%-125%)		11/18/25 15:58
Chromium	5330	19800		29600	ug/kg		185*	(75%-125%)		11/13/25 23:55
Cobalt	5330	8320		14900	ug/kg		124	(75%-125%)		
Copper	5330	16400		22200	ug/kg		109	(75%-125%)		11/19/25 08:18
Iron	213000	28800000		32100000	ug/kg		N/A	(75%-125%)		11/18/25 15:58
Lead	5330	18000		24000	ug/kg		113	(75%-125%)		11/13/25 23:55
Magnesium	213000	5080000		6070000	ug/kg		N/A	(75%-125%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Manganese	5330	191000		265000	ug/kg		N/A	(75%-125%)	RM4	11/13/25 23:55
Nickel	5330	20900		27400	ug/kg		122	(75%-125%)		
Potassium	213000	4310000		5130000	ug/kg		N/A	(75%-125%)		
Selenium	5330	3840		8410	ug/kg		85.7	(75%-125%)		11/18/25 13:00
Sodium	213000	117000		344000	ug/kg		106	(75%-125%)		11/13/25 23:55
Thallium	5330	706		5810	ug/kg		95.8	(75%-125%)		
Uranium	5330	4010		9540	ug/kg		104	(75%-125%)		
Vanadium	5330	59400		75100	ug/kg		N/A	(75%-125%)		
Zinc	5330	79700		85400	ug/kg		N/A	(75%-125%)		11/18/25 13:00
QC1206286328 750021007 MSD										
Aluminum	213000	26400000		33400000	ug/kg	5.49	N/A	(0%-20%)		11/18/25 16:00
Arsenic	5320	7910		14500	ug/kg	5.36	124	(0%-20%)		11/13/25 23:58
Barium	5320	104000		120000	ug/kg	0.313	N/A	(0%-20%)		
Beryllium	5320	995		6140	ug/kg	0.899	96.6	(0%-20%)		
Cadmium	5320	355		5450	ug/kg	2.66	95.7	(0%-20%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Calcium	213000	18400000		25600000	ug/kg	11.9	N/A	(0%-20%)	RM4	11/18/25 16:00
Chromium	5320	19800		31100	ug/kg	4.79	212*	(0%-20%)		11/13/25 23:58
Cobalt	5320	8320		14900	ug/kg	0.0547	124	(0%-20%)		
Copper	5320	16400		22600	ug/kg	1.61	116	(0%-20%)		11/19/25 08:20
Iron	213000	28800000		31400000	ug/kg	2.34	N/A	(0%-20%)		11/18/25 16:00
Lead	5320	18000		25800	ug/kg	7	146*	(0%-20%)		11/13/25 23:58
Magnesium	213000	5080000		6280000	ug/kg	3.37	N/A	(0%-20%)		
Manganese	5320	191000		246000	ug/kg	7.13	N/A	(0%-20%)		
Nickel	5320	20900		28500	ug/kg	3.92	142*	(0%-20%)		
Potassium	213000	4310000		5410000	ug/kg	5.42	N/A	(0%-20%)		
Selenium	5320	3840		8960	ug/kg	6.33	96.1	(0%-20%)		11/18/25 13:02
Sodium	213000	117000		360000	ug/kg	4.6	114	(0%-20%)		11/13/25 23:58
Thallium	5320	706		6250	ug/kg	7.27	104	(0%-20%)		
Uranium	5320	4010		10700	ug/kg	11	125	(0%-20%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Vanadium	5320	59400		79000	ug/kg	4.97	N/A	(0%-20%)	RM4	11/13/25 23:58
Zinc	5320	79700		88000	ug/kg	2.98	N/A	(0%-20%)		11/18/25 13:02
QC1206286329 750021007 PS										
Chromium	50.0	185		234	ug/L		97.1	(75%-125%)		11/14/25 00:02
Lead	50.0	168		215	ug/L		92.9	(75%-125%)		
Nickel	50.0	196		240	ug/L		88.7	(75%-125%)		
QC1206286330 750021007 SDILT										
Aluminum		247000		258000	ug/L	4.22		(0%-20%)		11/18/25 16:03
Arsenic		74.0		79.8	ug/L	7.82		(0%-20%)		11/14/25 00:05
Barium		973		982	ug/L	.953		(0%-20%)		
Beryllium		9.31		10.4	ug/L	11.3		(0%-20%)		
Cadmium		3.32	J	4.05	ug/L	21.8		(0%-20%)		
Calcium		172000		178000	ug/L	3.65		(0%-20%)		11/18/25 16:03
Chromium		185		199	ug/L	7.65		(0%-20%)		11/14/25 00:05
Cobalt		77.9		85.3	ug/L	9.53		(0%-20%)		
Copper		154		172	ug/L	11.9		(0%-20%)		11/19/25 08:22

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Iron		269000		283000	ug/L	5.2		(0%-20%)	RM4	11/18/25 16:03
Lead		168		180	ug/L	7.17		(0%-20%)		11/14/25 00:05
Magnesium		47500		49400	ug/L	3.98		(0%-20%)		
Manganese		1780		1930	ug/L	8.36		(0%-20%)		
Nickel		196		226	ug/L	15.4		(0%-20%)		
Potassium		40300		40900	ug/L	1.4		(0%-20%)		
Selenium		36.0	J	33.5	ug/L	6.98		(0%-20%)		11/18/25 13:11
Sodium		1090	J	1160	ug/L	5.62		(0%-20%)		11/14/25 00:05
Thallium		6.61	J	7.07	ug/L	6.9		(0%-20%)		
Uranium		37.6		38.9	ug/L	3.54		(0%-20%)		
Vanadium		556		588	ug/L	5.84		(0%-20%)		
Zinc		745		863	ug/L	15.7		(0%-20%)		11/18/25 13:11
Batch 2890591										
QC1206286344 LCS										
Aluminum	187000			202000	ug/kg		108	(80%-120%)	RM4	11/14/25 00:26
Arsenic	4680			4480	ug/kg		95.6	(80%-120%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890591										
Barium	4680			4800	ug/kg		102	(80%-120%)	RM4	11/14/25 00:26
Beryllium	4680			4710	ug/kg		101	(80%-120%)		
Cadmium	4680			4520	ug/kg		96.6	(80%-120%)		
Calcium	187000			204000	ug/kg		109	(80%-120%)		11/18/25 17:11
Chromium	4680			4920	ug/kg		105	(80%-120%)		11/14/25 00:26
Cobalt	4680			4950	ug/kg		106	(80%-120%)		
Copper	4680			5160	ug/kg		110	(80%-120%)		
Iron	187000			205000	ug/kg		109	(80%-120%)		
Lead	4680			4840	ug/kg		103	(80%-120%)		
Magnesium	187000			195000	ug/kg		104	(80%-120%)		
Manganese	4680			4960	ug/kg		106	(80%-120%)		
Nickel	4680			4990	ug/kg		107	(80%-120%)		
Potassium	187000			187000	ug/kg		99.6	(80%-120%)		
Selenium	4680			3950	ug/kg		84.3	(80%-120%)		11/18/25 17:11

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890591										
Sodium	187000			194000	ug/kg		103	(80%-120%)	RM4	11/14/25 00:26
Thallium	4680			4760	ug/kg		102	(80%-120%)		
Uranium	4680			4680	ug/kg		100	(80%-120%)		
Vanadium	4680			4600	ug/kg		98.2	(80%-120%)		
Zinc	4680			4240	ug/kg		90.6	(80%-120%)		11/18/25 17:11
QC1206286343 MB										
Aluminum			U	ND	ug/kg					11/14/25 00:23
Arsenic			U	ND	ug/kg					
Barium			U	ND	ug/kg					
Beryllium			U	ND	ug/kg					
Cadmium			U	ND	ug/kg					
Calcium			U	ND	ug/kg					11/18/25 17:09
Chromium			U	ND	ug/kg					11/14/25 00:23
Cobalt			U	ND	ug/kg					
Copper			U	ND	ug/kg					

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890591										
Iron			U	ND	ug/kg				RM4	11/14/25 00:23
Lead			U	ND	ug/kg					
Magnesium			U	ND	ug/kg					
Manganese			U	ND	ug/kg					
Nickel			U	ND	ug/kg					
Potassium			U	ND	ug/kg					
Selenium			U	ND	ug/kg					11/18/25 17:09
Sodium			U	ND	ug/kg					11/14/25 00:23
Thallium			U	ND	ug/kg					
Uranium			U	ND	ug/kg					
Vanadium			U	ND	ug/kg					
Zinc			U	ND	ug/kg					11/18/25 17:09
QC1206286345 750021033 MS										
Aluminum	200000	8240000		9840000	ug/kg		N/A	(75%-125%)		11/14/25 00:34
Arsenic	5000	4800		9710	ug/kg		98.2	(75%-125%)		

QC Summary

Workorder: **750021**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2890591											
Barium	5000		81900		110000	ug/kg		N/A	(75%-125%)	RM4	11/14/25 00:34
Beryllium	5000		530		5360	ug/kg		96.7	(75%-125%)		
Cadmium	5000	J	80.9		4860	ug/kg		95.6	(75%-125%)		
Calcium	200000		11900000		10800000	ug/kg		N/A	(75%-125%)		11/18/25 17:39
Chromium	5000		7050		12700	ug/kg		113	(75%-125%)		11/14/25 00:34
Cobalt	5000		4810		9870	ug/kg		101	(75%-125%)		
Copper	5000		6540		10900	ug/kg		87.2	(75%-125%)		
Iron	200000		13000000		12900000	ug/kg		N/A	(75%-125%)		11/18/25 17:39
Lead	5000		8810		12400	ug/kg		71.2*	(75%-125%)		11/14/25 00:34
Magnesium	200000		3800000		3900000	ug/kg		N/A	(75%-125%)		
Manganese	5000		174000		174000	ug/kg		N/A	(75%-125%)		
Nickel	5000		6520		11300	ug/kg		96.3	(75%-125%)		
Potassium	200000		1540000		1840000	ug/kg		N/A	(75%-125%)		
Selenium	5000		2630		6900	ug/kg		85.5	(75%-125%)		11/18/25 17:20

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890591										
Sodium	200000	459000		641000	ug/kg		91.1	(75%-125%)	RM4	11/14/25 00:34
Thallium	5000	130	J	4910	ug/kg		95.7	(75%-125%)		
Uranium	5000	46900		48800	ug/kg		N/A	(75%-125%)		
Vanadium	5000	18000		24300	ug/kg		125	(75%-125%)		
Zinc	5000	34100		37600	ug/kg		N/A	(75%-125%)		11/18/25 17:20
QC1206286346 750021033 MSD										
Aluminum	209000	8240000		10200000	ug/kg	3.48	N/A	(0%-20%)		11/14/25 00:37
Arsenic	5230	4800		9630	ug/kg	0.841	92.2	(0%-20%)		
Barium	5230	81900		80600	ug/kg	31.1 *	N/A	(0%-20%)		
Beryllium	5230	530		5280	ug/kg	1.54	90.8	(0%-20%)		
Cadmium	5230	80.9	J	5070	ug/kg	4.27	95.4	(0%-20%)		
Calcium	209000	11900000		12900000	ug/kg	18.4	N/A	(0%-20%)		11/18/25 17:42
Chromium	5230	7050		13000	ug/kg	2.6	114	(0%-20%)		11/14/25 00:37
Cobalt	5230	4810		9600	ug/kg	2.75	91.5	(0%-20%)		
Copper	5230	6540		11000	ug/kg	0.662	84.7	(0%-20%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890591										
Iron	209000	13000000		13100000	ug/kg	1.72	N/A	(0%-20%)	RM4	11/18/25 17:42
Lead	5230	8810		12300	ug/kg	0.483	66.9*	(0%-20%)		11/14/25 00:37
Magnesium	209000	3800000		4100000	ug/kg	5.22	N/A	(0%-20%)		
Manganese	5230	174000		179000	ug/kg	3.09	N/A	(0%-20%)		
Nickel	5230	6520		11300	ug/kg	0.632	90.6	(0%-20%)		
Potassium	209000	1540000		1880000	ug/kg	2.46	N/A	(0%-20%)		
Selenium	5230	2630		7190	ug/kg	4.09	87.2	(0%-20%)		11/18/25 17:22
Sodium	209000	459000		633000	ug/kg	1.25	83.2	(0%-20%)		11/14/25 00:37
Thallium	5230	130	J	5000	ug/kg	1.7	93	(0%-20%)		
Uranium	5230	46900		47900	ug/kg	1.83	N/A	(0%-20%)		
Vanadium	5230	18000		24800	ug/kg	1.88	129*	(0%-20%)		
Zinc	5230	34100		37700	ug/kg	0.224	N/A	(0%-20%)		11/18/25 17:22
QC1206286347 750021033 PS										
Lead	50.0	90.2		136	ug/L		90.7	(75%-125%)		11/14/25 00:41
Vanadium	50.0	185		229	ug/L		88.7	(75%-125%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890591										
QC1206286348 750021033 SDILT										
Aluminum		84400		82100	ug/L	2.69		(0%-20%)	RM4	11/14/25 00:44
Arsenic		49.2	J	49.4	ug/L	.5		(0%-20%)		
Barium		839		847	ug/L	.999		(0%-20%)		
Beryllium		5.43		6.43	ug/L	18.4		(0%-20%)		
Cadmium	J	0.829	J	1.33	ug/L	59.8		(0%-20%)		
Calcium		121000		126000	ug/L	3.93		(0%-20%)		11/18/25 17:46
Chromium		72.2		75.6	ug/L	4.73		(0%-20%)		11/14/25 00:44
Cobalt		49.3		52.1	ug/L	5.76		(0%-20%)		
Copper		66.9		74.4	ug/L	11.2		(0%-20%)		
Iron		133000		138000	ug/L	4.06		(0%-20%)		11/18/25 17:46
Lead		90.2		95.9	ug/L	6.36		(0%-20%)		11/14/25 00:44
Magnesium		38900		38900	ug/L	.0859		(0%-20%)		
Manganese		1780		1820	ug/L	2.37		(0%-20%)		
Nickel		66.8		72.0	ug/L	7.68		(0%-20%)		

QC Summary

Workorder: **750021**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2890591											
Potassium			15800		16400	ug/L	3.82		(0%-20%)	RM4	11/14/25 00:44
Selenium			26.9	J	26.0	ug/L	3.6		(0%-20%)		11/18/25 17:26
Sodium			4710		4890	ug/L	3.93		(0%-20%)		11/14/25 00:44
Thallium		J	1.33	U	ND	ug/L	N/A		(0%-20%)		
Uranium			480		454	ug/L	5.51		(0%-20%)		
Vanadium			185	J	180	ug/L	2.67		(0%-20%)		
Zinc			349		383	ug/L	9.59		(0%-20%)		11/18/25 17:26
Metals Analysis-ICP											
Batch 2890586											
QC1206286332 LCS											
Antimony	48100				47500	ug/kg		98.9	(80%-120%)	EM2	11/12/25 17:43
Silver	9620				9990	ug/kg		104	(80%-120%)		
QC1206286331 MB											
Antimony				U	ND	ug/kg					11/12/25 17:39
Silver				U	ND	ug/kg					
QC1206286333 750021007 MS											
Antimony	47500	U	ND		33600	ug/kg		70.8*	(75%-125%)		11/12/25 17:47
Silver	9490	U	ND		10400	ug/kg		110	(75%-125%)		11/13/25 10:04

QC Summary

Workorder: **750021**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP											
Batch 2890586											
QC1206286334 750021007 MSD											
Antimony	51400	U	ND		40000	ug/kg	17.2	77.8	(0%-20%)	EM2	11/12/25 17:50
Silver	10300	U	ND		11600	ug/kg	10.5	113	(0%-20%)		11/13/25 10:06
QC1206286335 750021007 PS											
Antimony	500	U	ND		491	ug/L		98.1	(75%-125%)		11/12/25 17:52
QC1206286336 750021007 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A		(0%-20%)		11/12/25 17:54
Silver		U	ND	U	ND	ug/L	N/A		(0%-20%)		11/13/25 10:11
Batch 2890592											
QC1206286350 LCS											
Antimony	42900				43000	ug/kg		100	(80%-120%)	EM2	11/12/25 18:10
Silver	8580				9040	ug/kg		105	(80%-120%)		
QC1206286349 MB											
Antimony				U	ND	ug/kg					11/12/25 18:07
Silver				U	ND	ug/kg					
QC1206286351 750021033 MS											
Antimony	45200	U	ND		36400	ug/kg		80.5	(75%-125%)		11/12/25 18:15
Silver	9040	U	ND		9120	ug/kg		101	(75%-125%)		
QC1206286352 750021033 MSD											
Antimony	46900	U	ND		36700	ug/kg	0.83	78.1	(0%-20%)		11/12/25 18:17

QC Summary

Workorder: **750021**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%		REC%	Range	Anlst	Date Time
Metals Analysis-ICP												
Batch 2890592												
Silver	9390	U	ND		9220	ug/kg	1.1		98.3	(0%-20%)	EM2	11/12/25 18:17
QC1206286354 750021033 SDILT												
Antimony		U	ND	U	ND	ug/L	N/A			(0%-20%)		11/12/25 18:22
Silver		U	ND	U	ND	ug/L	N/A			(0%-20%)		
Metals Analysis-Mercury												
Batch 2890892												
QC1206286960 LCS												
Mercury	216				248	ug/kg			115	(80%-120%)	JP2	11/03/25 09:37
QC1206286959 MB												
Mercury				U	ND	ug/kg						11/03/25 09:36
QC1206286964 750212001 MS												
Mercury	202	U	ND		197	ug/kg			94	(80%-120%)		11/03/25 10:12
QC1206286965 750212001 MSD												
Mercury	239	U	ND		245	ug/kg	22.1	*	99.9	(0%-20%)		11/03/25 10:13

Notes:

The Qualifiers in this report are defined as follows:

U U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

J J Value is estimated

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

QC Summary

Report Date: November 20, 2025

Stantec
2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah

Contact: **Kristen Burt**

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch 2890585											
QC1206286326 LCS											
Aluminum	178000			186000	ug/kg		104	(80%-120%)	RM4	11/18/25	15:49
Arsenic	4450			4410	ug/kg		99.1	(80%-120%)		11/13/25	23:48
Barium	4450			4700	ug/kg		106	(80%-120%)			
Beryllium	4450			4650	ug/kg		105	(80%-120%)			
Cadmium	4450			4470	ug/kg		100	(80%-120%)			
Calcium	178000			201000	ug/kg		113	(80%-120%)			
Chromium	4450			4850	ug/kg		109	(80%-120%)			
Cobalt	4450			4870	ug/kg		110	(80%-120%)			
Copper	4450			5030	ug/kg		113	(80%-120%)			
Iron	178000			185000	ug/kg		104	(80%-120%)		11/18/25	15:49
Lead	4450			4840	ug/kg		109	(80%-120%)		11/13/25	23:48
Magnesium	178000			190000	ug/kg		107	(80%-120%)			

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Manganese	4450			4870	ug/kg		110	(80%-120%)	RM4	11/13/25 23:48
Nickel	4450			4930	ug/kg		111	(80%-120%)		
Potassium	178000			182000	ug/kg		103	(80%-120%)		
Selenium	4450			3870	ug/kg		87	(80%-120%)		11/18/25 13:06
Sodium	178000			190000	ug/kg		107	(80%-120%)		11/13/25 23:48
Thallium	4450			4760	ug/kg		107	(80%-120%)		
Uranium	4450			4650	ug/kg		105	(80%-120%)		
Vanadium	4450			4450	ug/kg		100	(80%-120%)		
Zinc	4450			4270	ug/kg		96	(80%-120%)		11/18/25 13:06
QC1206286325 MB										
Aluminum			U	ND	ug/kg					11/18/25 15:47
Arsenic			U	ND	ug/kg					11/13/25 23:44
Barium			U	ND	ug/kg					
Beryllium			U	ND	ug/kg					
Cadmium			U	ND	ug/kg					

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Calcium			U	ND	ug/kg				RM4	11/13/25 23:44
Chromium			U	ND	ug/kg					
Cobalt			U	ND	ug/kg					
Copper			U	ND	ug/kg					
Iron			U	ND	ug/kg					11/18/25 15:47
Lead			U	ND	ug/kg					11/13/25 23:44
Magnesium			U	ND	ug/kg					
Manganese			U	ND	ug/kg					
Nickel			U	ND	ug/kg					
Potassium			U	ND	ug/kg					
Selenium			U	ND	ug/kg					11/18/25 12:49
Sodium			U	ND	ug/kg					11/13/25 23:44
Thallium			U	ND	ug/kg					
Uranium			U	ND	ug/kg					

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Vanadium			U	ND	ug/kg				RM4	11/13/25 23:44
Zinc			U	ND	ug/kg					11/18/25 12:49
QC1206286327 750021007 MS										
Aluminum	213000	26400000		31700000	ug/kg		N/A	(75%-125%)		11/18/25 15:58
Arsenic	5330	7910		13700	ug/kg		109	(75%-125%)		11/13/25 23:55
Barium	5330	104000		120000	ug/kg		N/A	(75%-125%)		
Beryllium	5330	995		6080	ug/kg		95.4	(75%-125%)		
Cadmium	5330	355		5310	ug/kg		92.8	(75%-125%)		
Calcium	213000	18400000		22700000	ug/kg		N/A	(75%-125%)		11/18/25 15:58
Chromium	5330	19800		29600	ug/kg		185*	(75%-125%)		11/13/25 23:55
Cobalt	5330	8320		14900	ug/kg		124	(75%-125%)		
Copper	5330	16400		22200	ug/kg		109	(75%-125%)		11/19/25 08:18
Iron	213000	28800000		32100000	ug/kg		N/A	(75%-125%)		11/18/25 15:58
Lead	5330	18000		24000	ug/kg		113	(75%-125%)		11/13/25 23:55
Magnesium	213000	5080000		6070000	ug/kg		N/A	(75%-125%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Manganese	5330	191000		265000	ug/kg		N/A	(75%-125%)	RM4	11/13/25 23:55
Nickel	5330	20900		27400	ug/kg		122	(75%-125%)		
Potassium	213000	4310000		5130000	ug/kg		N/A	(75%-125%)		
Selenium	5330	3840		8410	ug/kg		85.7	(75%-125%)		11/18/25 13:00
Sodium	213000	117000		344000	ug/kg		106	(75%-125%)		11/13/25 23:55
Thallium	5330	706		5810	ug/kg		95.8	(75%-125%)		
Uranium	5330	4010		9540	ug/kg		104	(75%-125%)		
Vanadium	5330	59400		75100	ug/kg		N/A	(75%-125%)		
Zinc	5330	79700		85400	ug/kg		N/A	(75%-125%)		11/18/25 13:00
QC1206286328 750021007 MSD										
Aluminum	213000	26400000		33400000	ug/kg	5.49	N/A	(0%-20%)		11/18/25 16:00
Arsenic	5320	7910		14500	ug/kg	5.36	124	(0%-20%)		11/13/25 23:58
Barium	5320	104000		120000	ug/kg	0.313	N/A	(0%-20%)		
Beryllium	5320	995		6140	ug/kg	0.899	96.6	(0%-20%)		
Cadmium	5320	355		5450	ug/kg	2.66	95.7	(0%-20%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Calcium	213000	18400000		25600000	ug/kg	11.9	N/A	(0%-20%)	RM4	11/18/25 16:00
Chromium	5320	19800		31100	ug/kg	4.79	212*	(0%-20%)		11/13/25 23:58
Cobalt	5320	8320		14900	ug/kg	0.0547	124	(0%-20%)		
Copper	5320	16400		22600	ug/kg	1.61	116	(0%-20%)		11/19/25 08:20
Iron	213000	28800000		31400000	ug/kg	2.34	N/A	(0%-20%)		11/18/25 16:00
Lead	5320	18000		25800	ug/kg	7	146*	(0%-20%)		11/13/25 23:58
Magnesium	213000	5080000		6280000	ug/kg	3.37	N/A	(0%-20%)		
Manganese	5320	191000		246000	ug/kg	7.13	N/A	(0%-20%)		
Nickel	5320	20900		28500	ug/kg	3.92	142*	(0%-20%)		
Potassium	213000	4310000		5410000	ug/kg	5.42	N/A	(0%-20%)		
Selenium	5320	3840		8960	ug/kg	6.33	96.1	(0%-20%)		11/18/25 13:02
Sodium	213000	117000		360000	ug/kg	4.6	114	(0%-20%)		11/13/25 23:58
Thallium	5320	706		6250	ug/kg	7.27	104	(0%-20%)		
Uranium	5320	4010		10700	ug/kg	11	125	(0%-20%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Vanadium	5320	59400		79000	ug/kg	4.97	N/A	(0%-20%)	RM4	11/13/25 23:58
Zinc	5320	79700		88000	ug/kg	2.98	N/A	(0%-20%)		11/18/25 13:02
QC1206286329 750021007 PS										
Chromium	50.0	185		234	ug/L		97.1	(75%-125%)		11/14/25 00:02
Lead	50.0	168		215	ug/L		92.9	(75%-125%)		
Nickel	50.0	196		240	ug/L		88.7	(75%-125%)		
QC1206286330 750021007 SDILT										
Aluminum		247000		258000	ug/L	N/A		(0%-20%)		11/18/25 16:03
Arsenic		74.0		79.8	ug/L	N/A		(0%-20%)		11/14/25 00:05
Barium		973		982	ug/L	N/A		(0%-20%)		
Beryllium		9.31		10.4	ug/L	N/A		(0%-20%)		
Cadmium		3.32	J	4.05	ug/L	N/A		(0%-20%)		
Calcium		172000		178000	ug/L	N/A		(0%-20%)		11/18/25 16:03
Chromium		185		199	ug/L	N/A		(0%-20%)		11/14/25 00:05
Cobalt		77.9		85.3	ug/L	N/A		(0%-20%)		
Copper		154		172	ug/L	N/A		(0%-20%)		11/19/25 08:22

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Iron		269000		283000	ug/L	N/A		(0%-20%)	RM4	11/18/25 16:03
Lead		168		180	ug/L	N/A		(0%-20%)		11/14/25 00:05
Magnesium		47500		49400	ug/L	N/A		(0%-20%)		
Manganese		1780		1930	ug/L	N/A		(0%-20%)		
Nickel		196		226	ug/L	N/A		(0%-20%)		
Potassium		40300		40900	ug/L	N/A		(0%-20%)		
Selenium		36.0	J	33.5	ug/L	N/A		(0%-20%)		11/18/25 13:11
Sodium		1090	J	1160	ug/L	N/A		(0%-20%)		11/14/25 00:05
Thallium		6.61	J	7.07	ug/L	N/A		(0%-20%)		
Uranium		37.6		38.9	ug/L	N/A		(0%-20%)		
Vanadium		556		588	ug/L	N/A		(0%-20%)		
Zinc		745		863	ug/L	N/A		(0%-20%)		11/18/25 13:11
Batch 2890591										
QC1206286344 LCS										
Aluminum	187000			202000	ug/kg		108	(80%-120%)	RM4	11/14/25 00:26
Arsenic	4680			4480	ug/kg		95.6	(80%-120%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890591										
Barium	4680			4800	ug/kg		102	(80%-120%)	RM4	11/14/25 00:26
Beryllium	4680			4710	ug/kg		101	(80%-120%)		
Cadmium	4680			4520	ug/kg		96.6	(80%-120%)		
Calcium	187000			204000	ug/kg		109	(80%-120%)		11/18/25 17:11
Chromium	4680			4920	ug/kg		105	(80%-120%)		11/14/25 00:26
Cobalt	4680			4950	ug/kg		106	(80%-120%)		
Copper	4680			5160	ug/kg		110	(80%-120%)		
Iron	187000			205000	ug/kg		109	(80%-120%)		
Lead	4680			4840	ug/kg		103	(80%-120%)		
Magnesium	187000			195000	ug/kg		104	(80%-120%)		
Manganese	4680			4960	ug/kg		106	(80%-120%)		
Nickel	4680			4990	ug/kg		107	(80%-120%)		
Potassium	187000			187000	ug/kg		99.6	(80%-120%)		
Selenium	4680			3950	ug/kg		84.3	(80%-120%)		11/18/25 17:11

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890591										
Sodium	187000			194000	ug/kg		103	(80%-120%)	RM4	11/14/25 00:26
Thallium	4680			4760	ug/kg		102	(80%-120%)		
Uranium	4680			4680	ug/kg		100	(80%-120%)		
Vanadium	4680			4600	ug/kg		98.2	(80%-120%)		
Zinc	4680			4240	ug/kg		90.6	(80%-120%)		11/18/25 17:11
QC1206286343 MB										
Aluminum			U	ND	ug/kg					11/14/25 00:23
Arsenic			U	ND	ug/kg					
Barium			U	ND	ug/kg					
Beryllium			U	ND	ug/kg					
Cadmium			U	ND	ug/kg					
Calcium			U	ND	ug/kg					11/18/25 17:09
Chromium			U	ND	ug/kg					11/14/25 00:23
Cobalt			U	ND	ug/kg					
Copper			U	ND	ug/kg					

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890591										
Iron			U	ND	ug/kg				RM4	11/14/25 00:23
Lead			U	ND	ug/kg					
Magnesium			U	ND	ug/kg					
Manganese			U	ND	ug/kg					
Nickel			U	ND	ug/kg					
Potassium			U	ND	ug/kg					
Selenium			U	ND	ug/kg					11/18/25 17:09
Sodium			U	ND	ug/kg					11/14/25 00:23
Thallium			U	ND	ug/kg					
Uranium			U	ND	ug/kg					
Vanadium			U	ND	ug/kg					
Zinc			U	ND	ug/kg					11/18/25 17:09
QC1206286345 750021033 MS										
Aluminum	200000	8240000		9840000	ug/kg		N/A	(75%-125%)		11/14/25 00:34
Arsenic	5000	4800		9710	ug/kg		98.2	(75%-125%)		

QC Summary

Workorder: **750021**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2890591											
Barium	5000		81900		110000	ug/kg		N/A	(75%-125%)	RM4	11/14/25 00:34
Beryllium	5000		530		5360	ug/kg		96.7	(75%-125%)		
Cadmium	5000	J	80.9		4860	ug/kg		95.6	(75%-125%)		
Calcium	200000		11900000		10800000	ug/kg		N/A	(75%-125%)		11/18/25 17:39
Chromium	5000		7050		12700	ug/kg		113	(75%-125%)		11/14/25 00:34
Cobalt	5000		4810		9870	ug/kg		101	(75%-125%)		
Copper	5000		6540		10900	ug/kg		87.2	(75%-125%)		
Iron	200000		13000000		12900000	ug/kg		N/A	(75%-125%)		11/18/25 17:39
Lead	5000		8810		12400	ug/kg		71.2*	(75%-125%)		11/14/25 00:34
Magnesium	200000		3800000		3900000	ug/kg		N/A	(75%-125%)		
Manganese	5000		174000		174000	ug/kg		N/A	(75%-125%)		
Nickel	5000		6520		11300	ug/kg		96.3	(75%-125%)		
Potassium	200000		1540000		1840000	ug/kg		N/A	(75%-125%)		
Selenium	5000		2630		6900	ug/kg		85.5	(75%-125%)		11/18/25 17:20

QC Summary

Workorder: **750021**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%		REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS												
Batch 2890591												
Sodium	200000		459000		641000	ug/kg			91.1	(75%-125%)	RM4	11/14/25 00:34
Thallium	5000	J	130		4910	ug/kg			95.7	(75%-125%)		
Uranium	5000		46900		48800	ug/kg			N/A	(75%-125%)		
Vanadium	5000		18000		24300	ug/kg			125	(75%-125%)		
Zinc	5000		34100		37600	ug/kg			N/A	(75%-125%)		11/18/25 17:20
QC1206286346 750021033 MSD												
Aluminum	209000		8240000		10200000	ug/kg	3.48		N/A	(0%-20%)		11/14/25 00:37
Arsenic	5230		4800		9630	ug/kg	0.841		92.2	(0%-20%)		
Barium	5230		81900		80600	ug/kg	31.1	*	N/A	(0%-20%)		
Beryllium	5230		530		5280	ug/kg	1.54		90.8	(0%-20%)		
Cadmium	5230	J	80.9		5070	ug/kg	4.27		95.4	(0%-20%)		
Calcium	209000		11900000		12900000	ug/kg	18.4		N/A	(0%-20%)		11/18/25 17:42
Chromium	5230		7050		13000	ug/kg	2.6		114	(0%-20%)		11/14/25 00:37
Cobalt	5230		4810		9600	ug/kg	2.75		91.5	(0%-20%)		
Copper	5230		6540		11000	ug/kg	0.662		84.7	(0%-20%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890591										
Iron	209000	13000000		13100000	ug/kg	1.72	N/A	(0%-20%)	RM4	11/18/25 17:42
Lead	5230	8810		12300	ug/kg	0.483	66.9*	(0%-20%)		11/14/25 00:37
Magnesium	209000	3800000		4100000	ug/kg	5.22	N/A	(0%-20%)		
Manganese	5230	174000		179000	ug/kg	3.09	N/A	(0%-20%)		
Nickel	5230	6520		11300	ug/kg	0.632	90.6	(0%-20%)		
Potassium	209000	1540000		1880000	ug/kg	2.46	N/A	(0%-20%)		
Selenium	5230	2630		7190	ug/kg	4.09	87.2	(0%-20%)		11/18/25 17:22
Sodium	209000	459000		633000	ug/kg	1.25	83.2	(0%-20%)		11/14/25 00:37
Thallium	5230	130	J	5000	ug/kg	1.7	93	(0%-20%)		
Uranium	5230	46900		47900	ug/kg	1.83	N/A	(0%-20%)		
Vanadium	5230	18000		24800	ug/kg	1.88	129*	(0%-20%)		
Zinc	5230	34100		37700	ug/kg	0.224	N/A	(0%-20%)		11/18/25 17:22
QC1206286347 750021033 PS										
Lead	50.0	90.2		136	ug/L		90.7	(75%-125%)		11/14/25 00:41
Vanadium	50.0	185		229	ug/L		88.7	(75%-125%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890591										
QC1206286348 750021033 SDILT										
Aluminum		84400		82100	ug/L	N/A		(0%-20%)	RM4	11/14/25 00:44
Arsenic		49.2	J	49.4	ug/L	N/A		(0%-20%)		
Barium		839		847	ug/L	N/A		(0%-20%)		
Beryllium		5.43		6.43	ug/L	N/A		(0%-20%)		
Cadmium	J	0.829	J	1.33	ug/L	N/A		(0%-20%)		
Calcium		121000		126000	ug/L	N/A		(0%-20%)		11/18/25 17:46
Chromium		72.2		75.6	ug/L	N/A		(0%-20%)		11/14/25 00:44
Cobalt		49.3		52.1	ug/L	N/A		(0%-20%)		
Copper		66.9		74.4	ug/L	N/A		(0%-20%)		
Iron		133000		138000	ug/L	N/A		(0%-20%)		11/18/25 17:46
Lead		90.2		95.9	ug/L	N/A		(0%-20%)		11/14/25 00:44
Magnesium		38900		38900	ug/L	N/A		(0%-20%)		
Manganese		1780		1820	ug/L	N/A		(0%-20%)		
Nickel		66.8		72.0	ug/L	N/A		(0%-20%)		

QC Summary

Workorder: **750021**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2890591											
Potassium			15800		16400	ug/L	N/A		(0%-20%)	RM4	11/14/25 00:44
Selenium			26.9	J	26.0	ug/L	N/A		(0%-20%)		11/18/25 17:26
Sodium			4710		4890	ug/L	N/A		(0%-20%)		11/14/25 00:44
Thallium		J	1.33	U	ND	ug/L	N/A		(0%-20%)		
Uranium			480		454	ug/L	N/A		(0%-20%)		
Vanadium			185	J	180	ug/L	N/A		(0%-20%)		
Zinc			349		383	ug/L	N/A		(0%-20%)		11/18/25 17:26
Metals Analysis-ICP											
Batch 2890586											
QC1206286332 LCS											
Antimony	48100				47500	ug/kg		98.9	(80%-120%)	EM2	11/12/25 17:43
Silver	9620				9990	ug/kg		104	(80%-120%)		
QC1206286331 MB											
Antimony				U	ND	ug/kg					11/12/25 17:39
Silver				U	ND	ug/kg					
QC1206286333 750021007 MS											
Antimony	47500	U	ND		33600	ug/kg		70.8*	(75%-125%)		11/12/25 17:47
Silver	9490	U	ND		10400	ug/kg		110	(75%-125%)		11/13/25 10:04

QC Summary

Workorder: **750021**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP											
Batch 2890586											
QC1206286334 750021007 MSD											
Antimony	51400	U	ND		40000	ug/kg	17.2	77.8	(0%-20%)	EM2	11/12/25 17:50
Silver	10300	U	ND		11600	ug/kg	10.5	113	(0%-20%)		11/13/25 10:06
QC1206286335 750021007 PS											
Antimony	500	U	ND		491	ug/L		98.1	(75%-125%)		11/12/25 17:52
QC1206286336 750021007 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A		(0%-20%)		11/12/25 17:54
Silver		U	ND	U	ND	ug/L	N/A		(0%-20%)		11/13/25 10:11
Batch 2890592											
QC1206286350 LCS											
Antimony	42900				43000	ug/kg		100	(80%-120%)	EM2	11/12/25 18:10
Silver	8580				9040	ug/kg		105	(80%-120%)		
QC1206286349 MB											
Antimony				U	ND	ug/kg					11/12/25 18:07
Silver				U	ND	ug/kg					
QC1206286351 750021033 MS											
Antimony	45200	U	ND		36400	ug/kg		80.5	(75%-125%)		11/12/25 18:15
Silver	9040	U	ND		9120	ug/kg		101	(75%-125%)		
QC1206286352 750021033 MSD											
Antimony	46900	U	ND		36700	ug/kg	0.83	78.1	(0%-20%)		11/12/25 18:17

QC Summary

Workorder: **750021**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%		REC%	Range	Anlst	Date Time
Metals Analysis-ICP												
Batch 2890592												
Silver	9390	U	ND		9220	ug/kg	1.1		98.3	(0%-20%)	EM2	11/12/25 18:17
QC1206286354 750021033 SDILT												
Antimony		U	ND	U	ND	ug/L	N/A			(0%-20%)		11/12/25 18:22
Silver		U	ND	U	ND	ug/L	N/A			(0%-20%)		
Metals Analysis-Mercury												
Batch 2890892												
QC1206286960 LCS												
Mercury	216				248	ug/kg			115	(80%-120%)	JP2	11/03/25 09:37
QC1206286959 MB												
Mercury				U	ND	ug/kg						11/03/25 09:36
QC1206286964 750212001 MS												
Mercury	202	U	ND		197	ug/kg			94	(80%-120%)		11/03/25 10:12
QC1206286965 750212001 MSD												
Mercury	239	U	ND		245	ug/kg	22.1	*	99.9	(0%-20%)		11/03/25 10:13

Notes:

The Qualifiers in this report are defined as follows:

U U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

J J Value is estimated

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

QC Summary

Report Date: November 20, 2025

Stantec
2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah

Contact: **Kelly Johnson**

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch 2890585											
QC1206286326 LCS											
Aluminum	178000			186000	ug/kg		104	(80%-120%)	RM4	11/18/25	15:49
Arsenic	4450			4410	ug/kg		99.1	(80%-120%)		11/13/25	23:48
Barium	4450			4700	ug/kg		106	(80%-120%)			
Beryllium	4450			4650	ug/kg		105	(80%-120%)			
Cadmium	4450			4470	ug/kg		100	(80%-120%)			
Calcium	178000			201000	ug/kg		113	(80%-120%)			
Chromium	4450			4850	ug/kg		109	(80%-120%)			
Cobalt	4450			4870	ug/kg		110	(80%-120%)			
Copper	4450			5030	ug/kg		113	(80%-120%)			
Iron	178000			185000	ug/kg		104	(80%-120%)		11/18/25	15:49
Lead	4450			4840	ug/kg		109	(80%-120%)		11/13/25	23:48
Magnesium	178000			190000	ug/kg		107	(80%-120%)			

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Manganese	4450			4870	ug/kg		110	(80%-120%)	RM4	11/13/25 23:48
Nickel	4450			4930	ug/kg		111	(80%-120%)		
Potassium	178000			182000	ug/kg		103	(80%-120%)		
Selenium	4450			3870	ug/kg		87	(80%-120%)		11/18/25 13:06
Sodium	178000			190000	ug/kg		107	(80%-120%)		11/13/25 23:48
Thallium	4450			4760	ug/kg		107	(80%-120%)		
Uranium	4450			4650	ug/kg		105	(80%-120%)		
Vanadium	4450			4450	ug/kg		100	(80%-120%)		
Zinc	4450			4270	ug/kg		96	(80%-120%)		11/18/25 13:06
QC1206286325 MB										
Aluminum			U	ND	ug/kg					11/18/25 15:47
Arsenic			U	ND	ug/kg					11/13/25 23:44
Barium			U	ND	ug/kg					
Beryllium			U	ND	ug/kg					
Cadmium			U	ND	ug/kg					

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Calcium			U	ND	ug/kg				RM4	11/13/25 23:44
Chromium			U	ND	ug/kg					
Cobalt			U	ND	ug/kg					
Copper			U	ND	ug/kg					
Iron			U	ND	ug/kg					11/18/25 15:47
Lead			U	ND	ug/kg					11/13/25 23:44
Magnesium			U	ND	ug/kg					
Manganese			U	ND	ug/kg					
Nickel			U	ND	ug/kg					
Potassium			U	ND	ug/kg					
Selenium			U	ND	ug/kg					11/18/25 12:49
Sodium			U	ND	ug/kg					11/13/25 23:44
Thallium			U	ND	ug/kg					
Uranium			U	ND	ug/kg					

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Vanadium			U	ND	ug/kg				RM4	11/13/25 23:44
Zinc			U	ND	ug/kg					11/18/25 12:49
QC1206286327 750021007 MS										
Aluminum	213000	26400000		31700000	ug/kg		N/A	(75%-125%)		11/18/25 15:58
Arsenic	5330	7910		13700	ug/kg		109	(75%-125%)		11/13/25 23:55
Barium	5330	104000		120000	ug/kg		N/A	(75%-125%)		
Beryllium	5330	995		6080	ug/kg		95.4	(75%-125%)		
Cadmium	5330	355		5310	ug/kg		92.8	(75%-125%)		
Calcium	213000	18400000		22700000	ug/kg		N/A	(75%-125%)		11/18/25 15:58
Chromium	5330	19800		29600	ug/kg		185*	(75%-125%)		11/13/25 23:55
Cobalt	5330	8320		14900	ug/kg		124	(75%-125%)		
Copper	5330	16400		22200	ug/kg		109	(75%-125%)		11/19/25 08:18
Iron	213000	28800000		32100000	ug/kg		N/A	(75%-125%)		11/18/25 15:58
Lead	5330	18000		24000	ug/kg		113	(75%-125%)		11/13/25 23:55
Magnesium	213000	5080000		6070000	ug/kg		N/A	(75%-125%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Manganese	5330	191000		265000	ug/kg		N/A	(75%-125%)	RM4	11/13/25 23:55
Nickel	5330	20900		27400	ug/kg		122	(75%-125%)		
Potassium	213000	4310000		5130000	ug/kg		N/A	(75%-125%)		
Selenium	5330	3840		8410	ug/kg		85.7	(75%-125%)		11/18/25 13:00
Sodium	213000	117000		344000	ug/kg		106	(75%-125%)		11/13/25 23:55
Thallium	5330	706		5810	ug/kg		95.8	(75%-125%)		
Uranium	5330	4010		9540	ug/kg		104	(75%-125%)		
Vanadium	5330	59400		75100	ug/kg		N/A	(75%-125%)		
Zinc	5330	79700		85400	ug/kg		N/A	(75%-125%)		11/18/25 13:00
QC1206286328 750021007 MSD										
Aluminum	213000	26400000		33400000	ug/kg	5.49	N/A	(0%-20%)		11/18/25 16:00
Arsenic	5320	7910		14500	ug/kg	5.36	124	(0%-20%)		11/13/25 23:58
Barium	5320	104000		120000	ug/kg	0.313	N/A	(0%-20%)		
Beryllium	5320	995		6140	ug/kg	0.899	96.6	(0%-20%)		
Cadmium	5320	355		5450	ug/kg	2.66	95.7	(0%-20%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Calcium	213000	18400000		25600000	ug/kg	11.9	N/A	(0%-20%)	RM4	11/18/25 16:00
Chromium	5320	19800		31100	ug/kg	4.79	212*	(0%-20%)		11/13/25 23:58
Cobalt	5320	8320		14900	ug/kg	0.0547	124	(0%-20%)		
Copper	5320	16400		22600	ug/kg	1.61	116	(0%-20%)		11/19/25 08:20
Iron	213000	28800000		31400000	ug/kg	2.34	N/A	(0%-20%)		11/18/25 16:00
Lead	5320	18000		25800	ug/kg	7	146*	(0%-20%)		11/13/25 23:58
Magnesium	213000	5080000		6280000	ug/kg	3.37	N/A	(0%-20%)		
Manganese	5320	191000		246000	ug/kg	7.13	N/A	(0%-20%)		
Nickel	5320	20900		28500	ug/kg	3.92	142*	(0%-20%)		
Potassium	213000	4310000		5410000	ug/kg	5.42	N/A	(0%-20%)		
Selenium	5320	3840		8960	ug/kg	6.33	96.1	(0%-20%)		11/18/25 13:02
Sodium	213000	117000		360000	ug/kg	4.6	114	(0%-20%)		11/13/25 23:58
Thallium	5320	706		6250	ug/kg	7.27	104	(0%-20%)		
Uranium	5320	4010		10700	ug/kg	11	125	(0%-20%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Vanadium	5320	59400		79000	ug/kg	4.97	N/A	(0%-20%)	RM4	11/13/25 23:58
Zinc	5320	79700		88000	ug/kg	2.98	N/A	(0%-20%)		11/18/25 13:02
QC1206286329 750021007 PS										
Chromium	50.0	185		234	ug/L		97.1	(75%-125%)		11/14/25 00:02
Lead	50.0	168		215	ug/L		92.9	(75%-125%)		
Nickel	50.0	196		240	ug/L		88.7	(75%-125%)		
QC1206286330 750021007 SDILT										
Aluminum		247000		258000	ug/L	N/A		(0%-20%)		11/18/25 16:03
Arsenic		74.0		79.8	ug/L	N/A		(0%-20%)		11/14/25 00:05
Barium		973		982	ug/L	N/A		(0%-20%)		
Beryllium		9.31		10.4	ug/L	N/A		(0%-20%)		
Cadmium		3.32	J	4.05	ug/L	N/A		(0%-20%)		
Calcium		172000		178000	ug/L	N/A		(0%-20%)		11/18/25 16:03
Chromium		185		199	ug/L	N/A		(0%-20%)		11/14/25 00:05
Cobalt		77.9		85.3	ug/L	N/A		(0%-20%)		
Copper		154		172	ug/L	N/A		(0%-20%)		11/19/25 08:22

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890585										
Iron		269000		283000	ug/L	N/A		(0%-20%)	RM4	11/18/25 16:03
Lead		168		180	ug/L	N/A		(0%-20%)		11/14/25 00:05
Magnesium		47500		49400	ug/L	N/A		(0%-20%)		
Manganese		1780		1930	ug/L	N/A		(0%-20%)		
Nickel		196		226	ug/L	N/A		(0%-20%)		
Potassium		40300		40900	ug/L	N/A		(0%-20%)		
Selenium		36.0	J	33.5	ug/L	N/A		(0%-20%)		11/18/25 13:11
Sodium		1090	J	1160	ug/L	N/A		(0%-20%)		11/14/25 00:05
Thallium		6.61	J	7.07	ug/L	N/A		(0%-20%)		
Uranium		37.6		38.9	ug/L	N/A		(0%-20%)		
Vanadium		556		588	ug/L	N/A		(0%-20%)		
Zinc		745		863	ug/L	N/A		(0%-20%)		11/18/25 13:11
Batch 2890591										
QC1206286344 LCS										
Aluminum	187000			202000	ug/kg		108	(80%-120%)	RM4	11/14/25 00:26
Arsenic	4680			4480	ug/kg		95.6	(80%-120%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890591										
Barium	4680			4800	ug/kg		102	(80%-120%)	RM4	11/14/25 00:26
Beryllium	4680			4710	ug/kg		101	(80%-120%)		
Cadmium	4680			4520	ug/kg		96.6	(80%-120%)		
Calcium	187000			204000	ug/kg		109	(80%-120%)		11/18/25 17:11
Chromium	4680			4920	ug/kg		105	(80%-120%)		11/14/25 00:26
Cobalt	4680			4950	ug/kg		106	(80%-120%)		
Copper	4680			5160	ug/kg		110	(80%-120%)		
Iron	187000			205000	ug/kg		109	(80%-120%)		
Lead	4680			4840	ug/kg		103	(80%-120%)		
Magnesium	187000			195000	ug/kg		104	(80%-120%)		
Manganese	4680			4960	ug/kg		106	(80%-120%)		
Nickel	4680			4990	ug/kg		107	(80%-120%)		
Potassium	187000			187000	ug/kg		99.6	(80%-120%)		
Selenium	4680			3950	ug/kg		84.3	(80%-120%)		11/18/25 17:11

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890591										
Sodium	187000			194000	ug/kg		103	(80%-120%)	RM4	11/14/25 00:26
Thallium	4680			4760	ug/kg		102	(80%-120%)		
Uranium	4680			4680	ug/kg		100	(80%-120%)		
Vanadium	4680			4600	ug/kg		98.2	(80%-120%)		
Zinc	4680			4240	ug/kg		90.6	(80%-120%)		11/18/25 17:11
QC1206286343 MB										
Aluminum			U	ND	ug/kg					11/14/25 00:23
Arsenic			U	ND	ug/kg					
Barium			U	ND	ug/kg					
Beryllium			U	ND	ug/kg					
Cadmium			U	ND	ug/kg					
Calcium			U	ND	ug/kg					11/18/25 17:09
Chromium			U	ND	ug/kg					11/14/25 00:23
Cobalt			U	ND	ug/kg					
Copper			U	ND	ug/kg					

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890591										
Iron			U	ND	ug/kg				RM4	11/14/25 00:23
Lead			U	ND	ug/kg					
Magnesium			U	ND	ug/kg					
Manganese			U	ND	ug/kg					
Nickel			U	ND	ug/kg					
Potassium			U	ND	ug/kg					
Selenium			U	ND	ug/kg					11/18/25 17:09
Sodium			U	ND	ug/kg					11/14/25 00:23
Thallium			U	ND	ug/kg					
Uranium			U	ND	ug/kg					
Vanadium			U	ND	ug/kg					
Zinc			U	ND	ug/kg					11/18/25 17:09
QC1206286345 750021033 MS										
Aluminum	200000	8240000		9840000	ug/kg		N/A	(75%-125%)		11/14/25 00:34
Arsenic	5000	4800		9710	ug/kg		98.2	(75%-125%)		

QC Summary

Workorder: **750021**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2890591											
Barium	5000		81900		110000	ug/kg		N/A	(75%-125%)	RM4	11/14/25 00:34
Beryllium	5000		530		5360	ug/kg		96.7	(75%-125%)		
Cadmium	5000	J	80.9		4860	ug/kg		95.6	(75%-125%)		
Calcium	200000		11900000		10800000	ug/kg		N/A	(75%-125%)		11/18/25 17:39
Chromium	5000		7050		12700	ug/kg		113	(75%-125%)		11/14/25 00:34
Cobalt	5000		4810		9870	ug/kg		101	(75%-125%)		
Copper	5000		6540		10900	ug/kg		87.2	(75%-125%)		
Iron	200000		13000000		12900000	ug/kg		N/A	(75%-125%)		11/18/25 17:39
Lead	5000		8810		12400	ug/kg		71.2*	(75%-125%)		11/14/25 00:34
Magnesium	200000		3800000		3900000	ug/kg		N/A	(75%-125%)		
Manganese	5000		174000		174000	ug/kg		N/A	(75%-125%)		
Nickel	5000		6520		11300	ug/kg		96.3	(75%-125%)		
Potassium	200000		1540000		1840000	ug/kg		N/A	(75%-125%)		
Selenium	5000		2630		6900	ug/kg		85.5	(75%-125%)		11/18/25 17:20

QC Summary

Workorder: **750021**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%		REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS												
Batch 2890591												
Sodium	200000		459000		641000	ug/kg			91.1	(75%-125%)	RM4	11/14/25 00:34
Thallium	5000	J	130		4910	ug/kg			95.7	(75%-125%)		
Uranium	5000		46900		48800	ug/kg			N/A	(75%-125%)		
Vanadium	5000		18000		24300	ug/kg			125	(75%-125%)		
Zinc	5000		34100		37600	ug/kg			N/A	(75%-125%)		11/18/25 17:20
QC1206286346 750021033 MSD												
Aluminum	209000		8240000		10200000	ug/kg	3.48		N/A	(0%-20%)		11/14/25 00:37
Arsenic	5230		4800		9630	ug/kg	0.841		92.2	(0%-20%)		
Barium	5230		81900		80600	ug/kg	31.1	*	N/A	(0%-20%)		
Beryllium	5230		530		5280	ug/kg	1.54		90.8	(0%-20%)		
Cadmium	5230	J	80.9		5070	ug/kg	4.27		95.4	(0%-20%)		
Calcium	209000		11900000		12900000	ug/kg	18.4		N/A	(0%-20%)		11/18/25 17:42
Chromium	5230		7050		13000	ug/kg	2.6		114	(0%-20%)		11/14/25 00:37
Cobalt	5230		4810		9600	ug/kg	2.75		91.5	(0%-20%)		
Copper	5230		6540		11000	ug/kg	0.662		84.7	(0%-20%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890591										
Iron	209000	13000000		13100000	ug/kg	1.72	N/A	(0%-20%)	RM4	11/18/25 17:42
Lead	5230	8810		12300	ug/kg	0.483	66.9*	(0%-20%)		11/14/25 00:37
Magnesium	209000	3800000		4100000	ug/kg	5.22	N/A	(0%-20%)		
Manganese	5230	174000		179000	ug/kg	3.09	N/A	(0%-20%)		
Nickel	5230	6520		11300	ug/kg	0.632	90.6	(0%-20%)		
Potassium	209000	1540000		1880000	ug/kg	2.46	N/A	(0%-20%)		
Selenium	5230	2630		7190	ug/kg	4.09	87.2	(0%-20%)		11/18/25 17:22
Sodium	209000	459000		633000	ug/kg	1.25	83.2	(0%-20%)		11/14/25 00:37
Thallium	5230	130	J	5000	ug/kg	1.7	93	(0%-20%)		
Uranium	5230	46900		47900	ug/kg	1.83	N/A	(0%-20%)		
Vanadium	5230	18000		24800	ug/kg	1.88	129*	(0%-20%)		
Zinc	5230	34100		37700	ug/kg	0.224	N/A	(0%-20%)		11/18/25 17:22
QC1206286347 750021033 PS										
Lead	50.0	90.2		136	ug/L		90.7	(75%-125%)		11/14/25 00:41
Vanadium	50.0	185		229	ug/L		88.7	(75%-125%)		

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2890591										
QC1206286348 750021033 SDILT										
Aluminum		84400		82100	ug/L	N/A		(0%-20%)	RM4	11/14/25 00:44
Arsenic		49.2	J	49.4	ug/L	N/A		(0%-20%)		
Barium		839		847	ug/L	N/A		(0%-20%)		
Beryllium		5.43		6.43	ug/L	N/A		(0%-20%)		
Cadmium	J	0.829	J	1.33	ug/L	N/A		(0%-20%)		
Calcium		121000		126000	ug/L	N/A		(0%-20%)		11/18/25 17:46
Chromium		72.2		75.6	ug/L	N/A		(0%-20%)		11/14/25 00:44
Cobalt		49.3		52.1	ug/L	N/A		(0%-20%)		
Copper		66.9		74.4	ug/L	N/A		(0%-20%)		
Iron		133000		138000	ug/L	N/A		(0%-20%)		11/18/25 17:46
Lead		90.2		95.9	ug/L	N/A		(0%-20%)		11/14/25 00:44
Magnesium		38900		38900	ug/L	N/A		(0%-20%)		
Manganese		1780		1820	ug/L	N/A		(0%-20%)		
Nickel		66.8		72.0	ug/L	N/A		(0%-20%)		

QC Summary

Workorder: **750021**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2890591											
Potassium			15800		16400	ug/L	N/A		(0%-20%)	RM4	11/14/25 00:44
Selenium			26.9	J	26.0	ug/L	N/A		(0%-20%)		11/18/25 17:26
Sodium			4710		4890	ug/L	N/A		(0%-20%)		11/14/25 00:44
Thallium		J	1.33	U	ND	ug/L	N/A		(0%-20%)		
Uranium			480		454	ug/L	N/A		(0%-20%)		
Vanadium			185	J	180	ug/L	N/A		(0%-20%)		
Zinc			349		383	ug/L	N/A		(0%-20%)		11/18/25 17:26
Metals Analysis-ICP											
Batch 2890586											
QC1206286332 LCS											
Antimony	48100				47500	ug/kg		98.9	(80%-120%)	EM2	11/12/25 17:43
Silver	9620				9990	ug/kg		104	(80%-120%)		
QC1206286331 MB											
Antimony				U	ND	ug/kg					11/12/25 17:39
Silver				U	ND	ug/kg					
QC1206286333 750021007 MS											
Antimony	47500	U	ND		33600	ug/kg		70.8*	(75%-125%)		11/12/25 17:47
Silver	9490	U	ND		10400	ug/kg		110	(75%-125%)		11/13/25 10:04

QC Summary

Workorder: **750021**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis-ICP											
Batch 2890586											
QC1206286334 750021007 MSD											
Antimony	51400	U	ND		40000	ug/kg	17.2	77.8	(0%-20%)	EM2	11/12/25 17:50
Silver	10300	U	ND		11600	ug/kg	10.5	113	(0%-20%)		11/13/25 10:06
QC1206286335 750021007 PS											
Antimony	500	U	ND		491	ug/L		98.1	(75%-125%)		11/12/25 17:52
QC1206286336 750021007 SDILT											
Antimony		U	ND	U	ND	ug/L	N/A		(0%-20%)		11/12/25 17:54
Silver		U	ND	U	ND	ug/L	N/A		(0%-20%)		11/13/25 10:11
Batch 2890592											
QC1206286350 LCS											
Antimony	42900				43000	ug/kg		100	(80%-120%)	EM2	11/12/25 18:10
Silver	8580				9040	ug/kg		105	(80%-120%)		
QC1206286349 MB											
Antimony				U	ND	ug/kg					11/12/25 18:07
Silver				U	ND	ug/kg					
QC1206286351 750021033 MS											
Antimony	45200	U	ND		36400	ug/kg		80.5	(75%-125%)		11/12/25 18:15
Silver	9040	U	ND		9120	ug/kg		101	(75%-125%)		
QC1206286352 750021033 MSD											
Antimony	46900	U	ND		36700	ug/kg	0.83	78.1	(0%-20%)		11/12/25 18:17

QC Summary

Workorder: **750021**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%		REC%	Range	Anlst	Date Time
Metals Analysis-ICP												
Batch 2890592												
Silver	9390	U	ND		9220	ug/kg	1.1		98.3	(0%-20%)	EM2	11/12/25 18:17
QC1206286354 750021033 SDILT												
Antimony		U	ND	U	ND	ug/L	N/A			(0%-20%)		11/12/25 18:22
Silver		U	ND	U	ND	ug/L	N/A			(0%-20%)		
Metals Analysis-Mercury												
Batch 2890892												
QC1206286960 LCS												
Mercury	216				248	ug/kg			115	(80%-120%)	JP2	11/03/25 09:37
QC1206286959 MB												
Mercury				U	ND	ug/kg						11/03/25 09:36
QC1206286964 750212001 MS												
Mercury	202	U	ND		197	ug/kg			94	(80%-120%)		11/03/25 10:12
QC1206286965 750212001 MSD												
Mercury	239	U	ND		245	ug/kg	22.1	*	99.9	(0%-20%)		11/03/25 10:13

Notes:

The Qualifiers in this report are defined as follows:

U U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

J J Value is estimated

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Radiological Analysis

Case Narrative

Radiochemistry
Technical Case Narrative
Stantec
SDG #: 750021

Product: **Dry Weight**
Preparation Method: ASTM D 2216 (Modified)
Preparation Procedure: GL-OA-E-020 REV# 14
Preparation Batch: 2890275

Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25
Preparation Batch: 2890275

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750021001	S27-TP09 0.5’-1.0’
750021002	S27-TP06 0.5’-1.0’
750021003	S27-TP01 0.5’-1.0’
750021004	S27-TP05 0.5’-1.0’
750021005	S27-TP02 0.5’-1.0’
750021006	S27-TP07 0.5’-1.0’
750021007	S27-TP04 1.0’-2.0’
750021008	S27-TP13 0.5’-1.0’
750021009	S27-TPDS01 0.5’-1.0’
750021010	S27-TP08 0.5’-1.0’
750021011	S27-TP03 1.0’-1.4’
750021012	S27-TP16 2.5’-3.0’
750021013	S27-TP16 3.5’-4.0’
750021014	S27-TP17 2.0’-3.0’
750021015	S27-TP10 0.5’-1.0’
750021016	S27-TP11 0.5’-1.0’
750021017	S27-TPDS02 0.5’-1.0’
750021018	S27-TP21 1.0’-1.5’
750021019	S27-TP22 0.5’-1.0’
750021021	S27-TP19 3.5’-4.0’
1206285712	750021007(S27-TP04 1.0’-2.0’) Sample Duplicate (DUP)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Dry Weight**
Preparation Method: ASTM D 2216 (Modified)

Preparation Procedure: GL-OA-E-020 REV# 14
Preparation Batch: 2890397

Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25
Preparation Batch: 2890397

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750021022	S27-TP29 1.0’-1.5’
750021023	S27-TP27 0.5’-1.0’
750021024	S27-TP31 0.5’-1.0’
750021025	S27-TPDS03 0.5’-1.0’
750021026	S27-TP12 1.5’-2.0’
750021027	S27-TP20 1.0’-1.5’
750021028	S27-TP26 0.5’-1.0’
750021029	S27-TP18 2.5’-3.0’
750021030	S27-TP23 5.0’-5.5’
750021032	S27-TP14 3.5’-4.0’
750021033	S27-TP15 4.5’-5.5’
750021034	S27-TPDS04 3.5’-4.0’

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Dry Weight**
Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25
Preparation Batch: 2890278

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750021020	S27-TP19 2.5’-3.0’
750021031	S27-TP24 7.0’-7.5’

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Gamma Ra226, Solid**
Analytical Method: DOE HASL 300, 4.5.2.3/Ga-01-R
Analytical Procedure: GL-RAD-A-013 REV# 29
Analytical Batch: 2890518

Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25
Preparation Batches: 2890275 and 2890278

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750021001	S27-TP09 0.5'-1.0'
750021002	S27-TP06 0.5'-1.0'
750021003	S27-TP01 0.5'-1.0'
750021004	S27-TP05 0.5'-1.0'
750021005	S27-TP02 0.5'-1.0'
750021006	S27-TP07 0.5'-1.0'
750021007	S27-TP04 1.0'-2.0'
750021008	S27-TP13 0.5'-1.0'
750021009	S27-TPDS01 0.5'-1.0'
750021010	S27-TP08 0.5'-1.0'
750021011	S27-TP03 1.0'-1.4'
750021012	S27-TP16 2.5'-3.0'
750021013	S27-TP16 3.5'-4.0'
750021014	S27-TP17 2.0'-3.0'
750021015	S27-TP10 0.5'-1.0'
750021016	S27-TP11 0.5'-1.0'
750021017	S27-TPDS02 0.5'-1.0'
750021018	S27-TP21 1.0'-1.5'
750021019	S27-TP22 0.5'-1.0'
750021020	S27-TP19 2.5'-3.0'
1206286189	Method Blank (MB)
1206286190	750021001(S27-TP09 0.5'-1.0') Sample Duplicate (DUP)
1206286191	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Miscellaneous Information

Additional Comments
Samples in this batch contain a mix of radioactive and non-radioactive materials. Samples were prepared separately based on hazard code and analyzed within the same counting batch. No impact to the data expected. Reporting results.
Per client direction, the Ra-226 results were recalculated using Bi-214 609 keV energy line.

Product: **Gamma Ra226, Solid**
Analytical Method: DOE HASL 300, 4.5.2.3/Ga-01-R
Analytical Procedure: GL-RAD-A-013 REV# 29
Analytical Batch: 2890521

Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 25
Preparation Batches: 2890275, 2890278 and 2890397

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
750021021	S27-TP19 3.5'-4.0'
750021022	S27-TP29 1.0'-1.5'
750021023	S27-TP27 0.5'-1.0'
750021024	S27-TP31 0.5'-1.0'
750021025	S27-TPDS03 0.5'-1.0'
750021026	S27-TP12 1.5'-2.0'
750021027	S27-TP20 1.0'-1.5'
750021028	S27-TP26 0.5'-1.0'
750021029	S27-TP18 2.5'-3.0'
750021030	S27-TP23 5.0'-5.5'
750021031	S27-TP24 7.0'-7.5'
750021032	S27-TP14 3.5'-4.0'
750021033	S27-TP15 4.5'-5.5'
750021034	S27-TPDS04 3.5'-4.0'
1206286198	Method Blank (MB)
1206286199	750021021(S27-TP19 3.5'-4.0') Sample Duplicate (DUP)
1206286200	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Miscellaneous Information

Additional Comments
Samples in this batch contain a mix of radioactive and non-radioactive materials. Samples were prepared separately based on hazard code and analyzed within the same counting batch. No impact to the data expected. Reporting results.
Per client direction, the Ra-226 results were recalculated using Bi-214 609 keV energy line.

Qualifier Information

Qualifier	Reason	Analyte	Sample
UI	Results are considered a false positive due to low abundance.	Radium-226	1206286198 (MB)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Moisture LogBook

Batch: 2890275
Analyst: ZD1
Date/Time: 31-OCT-2025
Procedure Code:___PREPDDRY WEIGHT
Procedure Description: Dry Soil Prep GL-RAD-A-021 Dry Weight-Percent Moisture
Lab Sop: GL-RAD-A-021 GL-OA-E-020

Sample St	Sample Id	Rpd(%)
DUP	1206285712	**3.268**

Sample Id	Sample Type	Original Hsn	Balance	Run Time	Container Wt	Initial Wt	Final Wt (g)	Net Initial Wt (g)	Net Final Wt (g)	Moisture (%)
750021001	SAMPLE		SP-C238839655	16:03	66.14	457.44	432.18	391.3	366.04	6.455
750021002	SAMPLE		SP-C238839655	16:03	66.1	356.06	313.9	289.96	247.8	14.539
750021003	SAMPLE		SP-C238839655	16:03	66.1	441.8	425.81	375.7	359.71	4.256
750021004	SAMPLE		SP-C238839655	16:03	66.01	389.6	338.18	323.59	272.17	15.89
750021005	SAMPLE		SP-C238839655	16:03	66.2	453.93	417.16	387.73	350.96	9.483
750021006	SAMPLE		SP-C238839655	16:03	66	409.68	374.89	343.68	308.89	10.122
750021007	SAMPLE		SP-C238839655	16:03	66.07	389.81	359.56	323.74	293.49	9.343
750021008	SAMPLE		SP-C238839655	16:03	66.16	377.48	346.69	311.32	280.53	9.89
750021009	SAMPLE		SP-C238839655	16:03	66.02	387.28	355.95	321.26	289.93	9.752
750021010	SAMPLE		SP-C238839655	16:03	66.11	331.05	291.66	264.94	225.55	14.867
750021011	SAMPLE		SP-C238839655	16:03	66.11	459.68	425.7	393.57	359.59	8.633
750021012	SAMPLE		SP-C238839655	16:03	65.89	378.32	347.68	312.43	281.79	9.807
750021013	SAMPLE		SP-C238839655	16:03	66.24	428.83	389.96	362.59	323.72	10.72
750021014	SAMPLE		SP-C238839655	16:03	66.15	441.47	408.78	375.32	342.63	8.709
750021015	SAMPLE		SP-C238839655	16:03	66.12	427.23	400.16	361.11	334.04	7.496
750021016	SAMPLE		SP-C238839655	16:03	66.03	458.7	442.68	392.67	376.65	4.079
750021017	SAMPLE		SP-C238839655	16:03	65.96	417.71	391.75	351.75	325.79	7.38
750021018	SAMPLE		SP-C238839655	16:03	65.9	362.65	333.96	296.75	268.06	9.668
750021019	SAMPLE		SP-C238839655	16:03	66	462.18	430.72	396.18	364.72	7.94

Sample Id	Sample Type	Original Hsn	Balance	Run Time	Container Wt	Initial Wt	Final Wt (g)	Net Initial Wt (g)	Net Final Wt (g)	Moisture (%)
750021021	SAMPLE		SP-C238839655	16:03	66.12	493.78	479.55	427.66	413.43	3.327
1206285712	DUP	750021007	SP-C238839655	16:03	2.58	14.08	13.04	11.5	10.46	9.043

Comments:

A) Result = (Net Initial - Net Final) /Net Initial * 100

Note: Aliquot is used for the determination of the effective MDL and PQL in LIMS

Moisture LogBook

Batch: 2890278
Analyst: MU1
Date/Time: 30-OCT-2025
Procedure Code:___PREPDDRY WEIGHT
Procedure Description: Dry Soil Prep GL-RAD-A-021 Dry Weight-Percent Moisture
Lab Sop: GL-RAD-A-021 GL-OA-E-020

Sample St	Sample Id	Rpd(%)
DUP	1206285715	**15.699**

Sample Id	Sample Type	Original Hsn	Balance	Run Time	Container Wt	Initial Wt	Final Wt (g)	Net Initial Wt (g)	Net Final Wt (g)	Moisture (%)
750007014	SAMPLE		SP-C238839655	16:43	65.54	311.74	294.94	246.2	229.4	6.823
750007033	SAMPLE		SP-C238839655	16:43	65.45	306.92	288.69	241.47	223.24	7.549
750021020	SAMPLE		SP-C238839655	16:43	65.65	283.63	268.93	217.98	203.28	6.743
750021031	SAMPLE		SP-C238839655	16:43	65.68	396.9	375.53	331.22	309.85	6.451
750033005	SAMPLE		SP-C238839655	16:43	65.67	350.05	333.09	284.38	267.42	5.963
750033006	SAMPLE		SP-C238839655	16:43	65.44	330.98	292.86	265.54	227.42	14.355
750033007	SAMPLE		SP-C238839655	16:43	65.7	349.63	333.54	283.93	267.84	5.666
750033008	SAMPLE		SP-C238839655	16:43	65.61	369.96	346.87	304.35	281.26	7.586
750033009	SAMPLE		SP-C238839655	16:43	65.46	365.31	336.89	299.85	271.43	9.478
750033010	SAMPLE		SP-C238839655	16:43	65.72	380.25	363.67	314.53	297.95	5.271
750033011	SAMPLE		SP-C238839655	16:43	65.71	387.22	358.71	321.51	293	8.867
750033021	SAMPLE		SP-C238839655	16:43	65.65	336.59	315.89	270.94	250.24	7.64
750033022	SAMPLE		SP-C238839655	16:43	65.56	368.62	340.89	303.06	275.33	9.15
1206285715	DUP	750033010	SP-C238839655	16:43	2.59	21.24	20.4	18.65	17.81	4.504

Comments:

A) Result = (Net Initial - Net Final) /Net Initial * 100

Note: Aliquot is used for the determination of the effective MDL and PQL in LIMS

Moisture LogBook

Batch: 2890397
Analyst: MU1
Date/Time: 31-OCT-2025
Procedure Code:___PREPDDRY WEIGHT
Procedure Description: Dry Soil Prep GL-RAD-A-021 Dry Weight-Percent Moisture
Lab Sop: GL-RAD-A-021 GL-OA-E-020

Sample St	Sample Id	Rpd(%)
DUP	1206285933	**1.051**

Sample Id	Sample Type	Original Hsn	Balance	Run Time	Container Wt	Initial Wt	Final Wt (g)	Net Initial Wt (g)	Net Final Wt (g)	Moisture (%)
750007031	SAMPLE		SP-C238839655	16:09	65.9	357.63	328.12	291.73	262.22	10.115
750021022	SAMPLE		SP-C238839655	16:09	66.01	418.27	391.1	352.26	325.09	7.713
750021023	SAMPLE		SP-C238839655	16:09	65.86	374.26	336.64	308.4	270.78	12.198
750021024	SAMPLE		SP-C238839655	16:09	65.74	364.48	320.2	298.74	254.46	14.822
750021025	SAMPLE		SP-C238839655	16:09	65.33	357.29	314.02	291.96	248.69	14.82
750021026	SAMPLE		SP-C238839655	16:09	65.67	404.4	367.08	338.73	301.41	11.017
750021027	SAMPLE		SP-C238839655	16:09	65.99	403.31	381.53	337.32	315.54	6.456
750021028	SAMPLE		SP-C238839655	16:09	65.87	439.37	422.41	373.5	356.54	4.54
750021029	SAMPLE		SP-C238839655	16:09	66.31	452.09	416.91	385.78	350.6	9.119
750021030	SAMPLE		SP-C238839655	16:09	65.44	452.38	422.91	386.94	357.47	7.616
750021032	SAMPLE		SP-C238839655	16:09	65.57	414.89	403.29	349.32	337.72	3.32
750021033	SAMPLE		SP-C238839655	16:09	65.6	338.81	319.58	273.21	253.98	7.038
750021034	SAMPLE		SP-C238839655	16:09	65.36	413.49	402.13	348.13	336.77	3.263
1206285933	DUP	750021033	SP-C238839655	16:09	2.57	22.24	20.87	19.67	18.3	6.964

Comments:

A) Result = (Net Initial - Net Final) /Net Initial * 100

Note: Aliquot is used for the determination of the effective MDL and PQL in LIMS

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

STNT008 Stantec

Client SDG: 750021 GEL Work Order: 750021

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria
** Analyte is a Tracer compound
U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
UI Gamma Spectroscopy--Uncertain identification

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature:  **Name: Theresa Austin**

Date: 13 JAN 2026 **Title: Group - Rad Data Validatior**

Sample Data Summary

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP09 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021001	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	17-OCT-25 10:00		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		2.21	+/-0.306	0.142	1.00	pCi/g			JE2	11/25/25	0451	2890518	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP06 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021002	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	17-OCT-25 11:15		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		2.39	+/-0.274	0.161	1.00	pCi/g			JE2	11/25/25	0503	2890518	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP01 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021003	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	17-OCT-25 11:45		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		1.72	+/-0.244	0.141	1.00	pCi/g			JE2	11/25/25	0503	2890518	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP05 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021004	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	17-OCT-25 12:15		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		5.48	+/-0.402	0.143	1.00	pCi/g			JE2	11/25/25	0510	2890518	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP02 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021005	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	17-OCT-25 13:25		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		2.54	+/-0.294	0.126	1.00	pCi/g			JE2	11/25/25	0510	2890518	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP07 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021006	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	17-OCT-25 13:55		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		5.91	+/-0.415	0.165	1.00	pCi/g			JE2	11/25/25	0550	2890518	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP04 1.0'-2.0'	Project:	STNT00225
Sample ID:	750021007	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	17-OCT-25 14:30		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	9.34%		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		4.60	+/-0.405	0.151	1.00	pCi/g			JE2	11/25/25	0551	2890518	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP13 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021008	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	17-OCT-25 14:45		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		2.00	+/-0.287	0.137	1.00	pCi/g			JE2	11/25/25	0610	2890518	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TPDS01 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021009	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	17-OCT-25 16:00		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		1.71	+/-0.293	0.159	1.00	pCi/g			JE2	11/25/25	0611	2890518	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP08 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021010	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	18-OCT-25 08:45		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	14.9%		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		1.64	+/-0.266	0.133	1.00	pCi/g			JE2	11/25/25	0611	2890518	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP03 1.0'-1.4'	Project:	STNT00225
Sample ID:	750021011	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	18-OCT-25 09:35		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		3.40	+/-0.341	0.149	1.00	pCi/g			JE2	11/25/25	0651	2890518	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP16 2.5'-3.0'	Project:	STNT00225
Sample ID:	750021012	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	18-OCT-25 10:35		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		1.86	+/-0.290	0.146	1.00	pCi/g			JE2	11/25/25	0706	2890518	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP16 3.5'-4.0'	Project:	STNT00225
Sample ID:	750021013	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	18-OCT-25 10:55		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		2.37	+/-0.282	0.144	1.00	pCi/g			JE2	11/25/25	0708	2890518	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Company :	Stantec
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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP17 2.0'-3.0'	Project:	STNT00225
Sample ID:	750021014	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	18-OCT-25 12:00		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		2.50	+/-0.275	0.127	1.00	pCi/g			JE2	11/25/25	0709	2890518	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP10 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021015	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	18-OCT-25 13:05		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		1.66	+/-0.278	0.168	1.00	pCi/g			JE2	11/25/25	0709	2890518	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP11 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021016	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	18-OCT-25 13:20		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		1.12	+/-0.200	0.100	1.00	pCi/g			JE2	11/25/25	0710	2890518	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TPDS02 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021017	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	18-OCT-25 16:00		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		1.62	+/-0.233	0.143	1.00	pCi/g			JE2	11/25/25	0710	2890518	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP21 1.0'-1.5'	Project:	STNT00225
Sample ID:	750021018	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	20-OCT-25 08:55		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		2.60	+/-0.330	0.154	1.00	pCi/g			JE2	11/25/25	0711	2890518	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP22 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021019	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	20-OCT-25 09:40		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	7.94%		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		1.10	+/-0.215	0.127	1.00	pCi/g			JE2	11/25/25	0714	2890518	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP19 2.5'-3.0'	Project:	STNT00225
Sample ID:	750021020	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	20-OCT-25 10:35		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		7.69	+/-0.435	0.145	1.00	pCi/g			JE2	11/25/25	0715	2890518	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1643	2890278

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP19 3.5'-4.0'	Project:	STNT00225
Sample ID:	750021021	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	20-OCT-25 10:55		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		0.677	+/-0.146	0.0844	1.00	pCi/g			JE2	11/24/25	0726	2890521	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	ZD1	10/31/25	1603	2890275

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP29 1.0'-1.5'	Project:	STNT00225
Sample ID:	750021022	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	20-OCT-25 12:20		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		1.73	+/-0.277	0.131	1.00	pCi/g			JE2	11/24/25	0727	2890521	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

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Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP27 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021023	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	20-OCT-25 13:10		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		1.34	+/-0.245	0.130	1.00	pCi/g			JE2	11/24/25	0727	2890521	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP31 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021024	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	20-OCT-25 13:40		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		2.01	+/-0.282	0.131	1.00	pCi/g			JE2	11/24/25	0728	2890521	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TPDS03 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021025	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	20-OCT-25 16:00		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		1.98	+/-0.215	0.117	1.00	pCi/g			JE2	11/24/25	0728	2890521	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP12 1.5'-2.0'	Project:	STNT00225
Sample ID:	750021026	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	21-OCT-25 09:05		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		2.98	+/-0.330	0.145	1.00	pCi/g			JE2	11/24/25	0728	2890521	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP20 1.0'-1.5'	Project:	STNT00225
Sample ID:	750021027	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	21-OCT-25 09:45		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		2.78	+/-0.328	0.158	1.00	pCi/g			JE2	11/24/25	0729	2890521	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP26 0.5'-1.0'	Project:	STNT00225
Sample ID:	750021028	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	21-OCT-25 10:10		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		0.997	+/-0.202	0.124	1.00	pCi/g			JE2	11/24/25	0729	2890521	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP18 2.5'-3.0'	Project:	STNT00225
Sample ID:	750021029	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	21-OCT-25 11:45		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		2.06	+/-0.276	0.164	1.00	pCi/g			JE2	11/24/25	0745	2890521	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP23 5.0'-5.5'	Project:	STNT00225
Sample ID:	750021030	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	22-OCT-25 08:40		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		1.22	+/-0.219	0.137	1.00	pCi/g			JE2	11/24/25	0746	2890521	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP24 7.0'-7.5'	Project:	STNT00225
Sample ID:	750021031	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	22-OCT-25 10:40		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		1.75	+/-0.277	0.109	1.00	pCi/g			JE2	11/24/25	0746	2890521	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/30/25	1643	2890278

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP14 3.5'-4.0'	Project:	STNT00225
Sample ID:	750021032	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	22-OCT-25 13:30		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		1.08	+/-0.252	0.425	1.00	pCi/g			JE2	11/24/25	0747	2890521	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TP15 4.5'-5.5'	Project:	STNT00225
Sample ID:	750021033	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	22-OCT-25 14:40		
Receive Date:	30-OCT-25		
Collector:	Client		
Moisture:	7.04%		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		0.803	+/-0.193	0.131	1.00	pCi/g			JE2	11/24/25	0748	2890521	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

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Certificate of Analysis

Report Date: January 13, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-TPDS04 3.5'-4.0'	Project:	STNT00225
Sample ID:	750021034	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	22-OCT-25 16:00		
Receive Date:	30-OCT-25		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		0.806	+/-0.156	0.111	1.00	pCi/g			JE2	11/24/25	0805	2890521	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	MU1	10/31/25	1609	2890397

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

Quality Control Data

GEL LABORATORIES LLC
2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: January 13, 2026

Stantec
2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah

Contact: **Kelly Johnson**

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 2890518										
QC1206286190 750021001 DUP										
Radium-226		2.21		2.11	pCi/g	4.64		(0%-20%)	JE2	11/25/25 07:16
	Uncertainty	+/-0.306		+/-0.280						
QC1206286191 LCS										
Americium-241	482			518	pCi/g		107	(75%-125%)		11/25/25 07:31
	Uncertainty			+/-5.67						
Cesium-137	145			143	pCi/g		98.6	(75%-125%)		
	Uncertainty			+/-2.88						
Cobalt-60	48.6			46.0	pCi/g		94.7	(75%-125%)		
	Uncertainty			+/-1.96						
Radium-226				1.55	pCi/g					
	Uncertainty			+/-1.26						
QC1206286189 MB										
Radium-226			U	0.00732	pCi/g					11/25/25 06:04
	Uncertainty			+/-0.0618						
Batch 2890521										
QC1206286199 750021021 DUP										
Radium-226		0.677		0.601	pCi/g	12		(0%-20%)	JE2	11/24/25 09:26
	Uncertainty	+/-0.146		+/-0.143						
QC1206286200 LCS										
Americium-241	482			531	pCi/g		110	(75%-125%)		11/24/25 10:01
	Uncertainty			+/-15.7						
Cesium-137	145			129	pCi/g		88.9	(75%-125%)		
	Uncertainty			+/-2.73						
Cobalt-60	48.6			44.4	pCi/g		91.4	(75%-125%)		
	Uncertainty			+/-2.06						
Radium-226			U	-0.136	pCi/g					
	Uncertainty			+/-0.588						

QC Summary

Workorder: **750021**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gamma Spec											
Batch 2890521											
QC1206286198 MB											
Radium-226			UI	0.000	pCi/g				JE2	11/24/25	09:26
	Uncertainty			+/-0.0821							

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

U U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

UI UI Gamma Spectroscopy--Uncertain identification

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

GEL Laboratories LLC
a member of The GEL Group INC

2040 Savage Road | Charleston, SC 29407
843.556.8171
gel.com

May 18, 2026

Kelly Johnson
Stantec
2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah 84121

Re: Section 27 Supplemental Characterization (182922679)
Work Order: 773511

Dear Kelly Johnson:

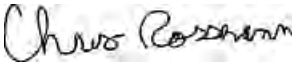
GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on April 20, 2026. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 1614.

Sincerely,



Christopher Rossmann for
Delaney Stonesmith
Project Manager

Purchase Order: MSA 40422
Enclosures

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis Report
for

STNT008 Stantec

Client SDG: 773511 GEL Work Order: 773511

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a Tracer compound

** Analyte is a surrogate compound

J Value is estimated

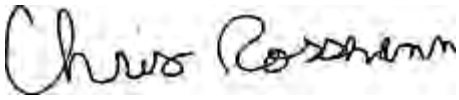
U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

UI Gamma Spectroscopy--Uncertain identification

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Delaney Stonesmith.



Reviewed by _____

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: May 18, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-HA30 8.0'-9.0'	Project:	STNT00225
Sample ID:	773511004	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	13-APR-26 13:35		
Receive Date:	20-APR-26		
Collector:	Client		
Moisture:	8.91%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury		36.9	8.20	24.5	ug/kg	112	1	JP2	05/01/26	0850	2987814	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	334	2020	ug/kg	92.1	1	HS2	05/04/26	1120	2981148	2
Silver	U	ND	101	505	ug/kg	92.1	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Aluminum		5730000	4470	9820	ug/kg	89.4	2	BB2	05/13/26	1753	2981147	3
Arsenic		4380	332	982	ug/kg	89.4	2					
Barium		80900	98.2	786	ug/kg	89.4	2					
Beryllium		451	19.6	98.2	ug/kg	89.4	2					
Cadmium	J	63.1	19.6	196	ug/kg	89.4	2					
Chromium		5250	196	589	ug/kg	89.4	2					
Cobalt		3960	58.9	196	ug/kg	89.4	2					
Copper		5030	64.8	393	ug/kg	89.4	2					
Lead		6420	98.2	393	ug/kg	89.4	2					
Magnesium		2910000	1960	5890	ug/kg	89.4	2					
Nickel		5470	98.2	393	ug/kg	89.4	2					
Potassium		1130000	15700	58900	ug/kg	89.4	2					
Selenium		2490	353	982	ug/kg	89.4	2					
Sodium		59900	15700	49100	ug/kg	89.4	2					
Thallium	J	102	78.6	393	ug/kg	89.4	2					
Uranium		4830	13.0	39.3	ug/kg	89.4	2					
Vanadium		13600	295	3930	ug/kg	89.4	2					
Zinc		25700	786	3930	ug/kg	89.4	2					
Calcium		25600000	65800	196000	ug/kg	89.4	10	BB2	05/16/26	1226	2981147	4
Iron		11100000	32400	98200	ug/kg	89.4	10					
Manganese		257000	982	4910	ug/kg	89.4	10					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	HC1	04/30/26	1630	2987803
SW846 3050B	SW846 3050B Prep	ES3	04/21/26	0800	2981146
SW846 3050B	ICP-MS 3050BS PREP	ES3	04/21/26	0800	2981145

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Certificate of Analysis

Report Date: May 18, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-HA30 8.0'-9.0'	Project:	STNT00225
Sample ID:	773511004	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Stantec
Address : 2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah 84121

Report Date: May 18, 2026

Contact: Kelly Johnson
Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-HA28 3.0'-3.8'
Sample ID: 773511001
Matrix: Soil
Collect Date: 13-APR-26
Receive Date: 20-APR-26
Collector: Client
Moisture: 16%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		20.4	+/-0.467	0.140	+/-1.94	1.00	pCi/g			MJH1	05/13/26	0527	2987339	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AC1	04/20/26	1404	2981130

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

GEL LABORATORIES LLC

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Certificate of Analysis

Company : Stantec
Address : 2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah 84121

Report Date: May 18, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-HA25 3.0'-4.0'
Sample ID: 773511002
Matrix: Soil
Collect Date: 13-APR-26
Receive Date: 20-APR-26
Collector: Client
Moisture: 14.9%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		3.78	+/-0.204	0.0707	+/-0.376	1.00	pCi/g			MJH1	05/13/26	0528	2987339	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AC1	04/20/26	1404	2981130

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Stantec
Address : 2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah 84121

Report Date: May 18, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-HA32 0.5'-1.0'
Sample ID: 773511003
Matrix: Soil
Collect Date: 13-APR-26
Receive Date: 20-APR-26
Collector: Client
Moisture: 11.7%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		1.27	+/-0.183	0.109	+/-0.213	1.00	pCi/g			MJH1	05/13/26	0528	2987339	1

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AC1	04/20/26	1404	2981130

The following Analytical Methods were performed

Method	Description
1	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Company : Stantec
Address : 2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah 84121

Report Date: May 18, 2026

Contact: Kelly Johnson

Project: Section 27 Supplemental Characterization (182922679)

Client Sample ID: S27-HA30 8.0'-9.0'
Sample ID: 773511004
Matrix: Soil
Collect Date: 13-APR-26
Receive Date: 20-APR-26
Collector: Client
Moisture: 8.91%

Project: STNT00225
Client ID: STNT008

Parameter	Qualifier	Result	Uncertainty	MDC	TPU	RL	Units	PF	DF	Analyst	Date	Time	Batch	Mtd.
Gravimetric Solids														
"As Received"														
Rad Gamma Spec Analysis														
Gamma Ra226, Solid "Dry Weight Corrected"														
Radium-226		1.86	+/-0.169	0.0887	+/-0.230	1.00	pCi/g			MJH1	05/13/26	0528	2987339	2

The following Prep Methods were performed

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AC1	04/20/26	1404	2981130

The following Analytical Methods were performed

Method	Description
1	ASTM D 2216 (Modified)
2	DOE HASL 300, 4.5.2.3/Ga-01-R

Surrogate/Tracer Recovery	Test	Batch ID	Recovery%	Acceptable Limits

Notes:

The MDC is a sample specific MDC.
TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
Lc/LC: Critical Level
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Mtd.: Method
PF: Prep Factor
RL: Reporting Limit
TPU: Total Propagated Uncertainty

GEL LABORATORIES LLC
2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: May 18, 2026

Stantec
2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah

Contact: **Kelly Johnson**

Workorder: **773511**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis - ICPMS											
Batch 2981147											
QC1206442207 LCS											
Aluminum	184000			190000	ug/kg		103	(80%-120%)	BB2	05/13/26	17:49
Arsenic	4600			4090	ug/kg		88.8	(80%-120%)			
Barium	4600			4780	ug/kg		104	(80%-120%)			
Beryllium	4600			4400	ug/kg		95.7	(80%-120%)			
Cadmium	4600			3980	ug/kg		86.6	(80%-120%)			
Calcium	184000			201000	ug/kg		109	(80%-120%)			
Chromium	4600			4590	ug/kg		99.6	(80%-120%)			
Cobalt	4600			4650	ug/kg		101	(80%-120%)			
Copper	4600			4830	ug/kg		105	(80%-120%)			
Iron	184000			188000	ug/kg		102	(80%-120%)			
Lead	4600			4580	ug/kg		99.4	(80%-120%)			
Magnesium	184000			190000	ug/kg		103	(80%-120%)			

QC Summary

Workorder: **773511**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2981147										
Manganese	4600			4630	ug/kg		101	(80%-120%)	BB2	05/13/26 17:49
Nickel	4600			4660	ug/kg		101	(80%-120%)		
Potassium	184000			178000	ug/kg		96.5	(80%-120%)		
Selenium	4600			3710	ug/kg		80.6	(80%-120%)		
Sodium	184000			191000	ug/kg		104	(80%-120%)		
Thallium	4600			4260	ug/kg		92.5	(80%-120%)		
Uranium	4600			4620	ug/kg		100	(80%-120%)		
Vanadium	4600			4360	ug/kg		94.7	(80%-120%)		
Zinc	4600			4150	ug/kg		90.2	(80%-120%)		
QC1206442206 MB										
Aluminum			U	ND	ug/kg					05/13/26 17:46
Arsenic			U	ND	ug/kg					
Barium			U	ND	ug/kg					
Beryllium			U	ND	ug/kg					
Cadmium			U	ND	ug/kg					

QC Summary

Workorder: **773511**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2981147										
Calcium			U	ND	ug/kg				BB2	05/13/26 17:46
Chromium			U	ND	ug/kg					
Cobalt			U	ND	ug/kg					
Copper			U	ND	ug/kg					
Iron			U	ND	ug/kg					
Lead			U	ND	ug/kg					
Magnesium			U	ND	ug/kg					
Manganese			U	ND	ug/kg					
Nickel			U	ND	ug/kg					
Potassium			U	ND	ug/kg					
Selenium			U	ND	ug/kg					
Sodium			U	ND	ug/kg					
Thallium			U	ND	ug/kg					
Uranium			U	ND	ug/kg					

QC Summary

Workorder: **773511**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2981147											
Vanadium				U	ND	ug/kg				BB2	05/13/26 17:46
Zinc				U	ND	ug/kg					
QC1206442208 773511004 MS											
Aluminum	197000		5730000		8830000	ug/kg		N/A	(75%-125%)		05/13/26 17:56
Arsenic	4920		4380		9230	ug/kg		98.6	(75%-125%)		
Barium	4920		80900		113000	ug/kg		N/A	(75%-125%)		
Beryllium	4920		451		5020	ug/kg		93	(75%-125%)		
Cadmium	4920	J	63.1		4440	ug/kg		88.9	(75%-125%)		
Calcium	197000		25600000		8770000	ug/kg		N/A	(75%-125%)		05/16/26 12:29
Chromium	4920		5250		12100	ug/kg		140*	(75%-125%)		05/13/26 17:56
Cobalt	4920		3960		9160	ug/kg		106	(75%-125%)		
Copper	4920		5030		10700	ug/kg		115	(75%-125%)		
Iron	197000		11100000		12100000	ug/kg		N/A	(75%-125%)		05/16/26 12:29
Lead	4920		6420		11500	ug/kg		104	(75%-125%)		05/13/26 17:56
Magnesium	197000		2910000		3560000	ug/kg		N/A	(75%-125%)		

QC Summary

Workorder: **773511**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%		REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS												
Batch 2981147												
Manganese	4920		257000		178000	ug/kg			N/A	(75%-125%)	BB2	05/16/26 12:29
Nickel	4920		5470		11000	ug/kg			113	(75%-125%)		05/13/26 17:56
Potassium	197000		1130000		1640000	ug/kg			N/A	(75%-125%)		
Selenium	4920		2490		6740	ug/kg			86.4	(75%-125%)		
Sodium	197000		59900		270000	ug/kg			107	(75%-125%)		
Thallium	4920	J	102		4590	ug/kg			91.2	(75%-125%)		
Uranium	4920		4830		9750	ug/kg			99.9	(75%-125%)		
Vanadium	4920		13600		23000	ug/kg			191	* (75%-125%)		
Zinc	4920		25700		33500	ug/kg			N/A	(75%-125%)		
QC1206442209 773511004 MSD												
Aluminum	210000		5730000		8640000	ug/kg	2.16		N/A	(0%-20%)		05/13/26 17:59
Arsenic	5240		4380		9330	ug/kg	1.12		94.5	(0%-20%)		
Barium	5240		80900		88500	ug/kg	24.3	*	N/A	(0%-20%)		
Beryllium	5240		451		5220	ug/kg	3.92		91.2	(0%-20%)		
Cadmium	5240	J	63.1		4650	ug/kg	4.63		87.5	(0%-20%)		

QC Summary

Workorder: **773511**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2981147											
Calcium	210000		25600000		8690000	ug/kg	0.904	N/A	(0%-20%)	BB2	05/16/26 12:32
Chromium	5240		5250		12300	ug/kg	1.82	136*	(0%-20%)		05/13/26 17:59
Cobalt	5240		3960		9140	ug/kg	0.199	98.9	(0%-20%)		
Copper	5240		5030		10300	ug/kg	3.08	101	(0%-20%)		
Iron	210000		11100000		12300000	ug/kg	1.57	N/A	(0%-20%)		05/16/26 12:32
Lead	5240		6420		11400	ug/kg	1.32	94.6	(0%-20%)		05/13/26 17:59
Magnesium	210000		2910000		3490000	ug/kg	2.02	N/A	(0%-20%)		
Manganese	5240		257000		165000	ug/kg	7.9	N/A	(0%-20%)		05/16/26 12:32
Nickel	5240		5470		11000	ug/kg	0.55	105	(0%-20%)		05/13/26 17:59
Potassium	210000		1130000		1640000	ug/kg	0.0433	N/A	(0%-20%)		
Selenium	5240		2490		6650	ug/kg	1.33	79.5	(0%-20%)		
Sodium	210000		59900		272000	ug/kg	0.71	101	(0%-20%)		
Thallium	5240	J	102		4900	ug/kg	6.49	91.5	(0%-20%)		
Uranium	5240		4830		9400	ug/kg	3.57	87.3	(0%-20%)		

QC Summary

Workorder: **773511**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2981147											
Vanadium	5240		13600		23500	ug/kg	2.35	190*	(0%-20%)	BB2	05/13/26 17:59
Zinc	5240		25700		32000	ug/kg	4.54	N/A	(0%-20%)		
QC1206442210 773511004 PS											
Chromium	50.0		53.4		101	ug/L		95.6	(75%-125%)		05/13/26 18:03
Vanadium	50.0		138		187	ug/L		97.3	(75%-125%)		
QC1206442211 773511004 SDILT											
Aluminum			58300		61000	ug/L	4.64		(0%-20%)		05/13/26 18:06
Arsenic			44.6	J	46.1	ug/L	3.36		(0%-20%)		
Barium			824		827	ug/L	.286		(0%-20%)		
Beryllium			4.59		5.74	ug/L	25		(0%-20%)		
Cadmium		J	0.643	U	ND	ug/L	N/A		(0%-20%)		
Calcium			261000		259000	ug/L	.562		(0%-20%)		05/16/26 12:35
Chromium			53.4		56.7	ug/L	6.06		(0%-20%)		05/13/26 18:06
Cobalt			40.4		43.0	ug/L	6.65		(0%-20%)		
Copper			51.3		58.1	ug/L	13.3		(0%-20%)		
Iron			113000		113000	ug/L	.0181		(0%-20%)		05/16/26 12:35

QC Summary

Workorder: **773511**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2981147										
Lead		65.4		69.4	ug/L	6.25		(0%-20%)	BB2	05/13/26 18:06
Magnesium		29600		32500	ug/L	9.54		(0%-20%)		
Manganese		2610		2610	ug/L	.297		(0%-20%)		05/16/26 12:35
Nickel		55.8		60.2	ug/L	7.99		(0%-20%)		05/13/26 18:06
Potassium		11500		12000	ug/L	4.59		(0%-20%)		
Selenium		25.4	J	22.8	ug/L	10.2		(0%-20%)		
Sodium		610	U	ND	ug/L	N/A		(0%-20%)		
Thallium	J	1.04	U	ND	ug/L	N/A		(0%-20%)		
Uranium		49.2		49.7	ug/L	1.03		(0%-20%)		
Vanadium		138	J	140	ug/L	1		(0%-20%)		
Zinc		262		287	ug/L	9.84		(0%-20%)		
Metals Analysis-ICP										
Batch 2981148										
QC1206442213 LCS										
Antimony	48600			50500	ug/kg		104	(80%-120%)	HS2	05/04/26 11:18
Silver	9730			10200	ug/kg		105	(80%-120%)		

QC Summary

Workorder: 773511

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%		REC%	Range	Anlst	Date Time
Metals Analysis-ICP												
Batch 2981148												
QC1206442212 MB												
Antimony				U	ND	ug/kg					HS2	05/04/26 11:15
Silver				U	ND	ug/kg						
QC1206442214 773511004 MS												
Antimony	51900	U	ND		54400	ug/kg			105	(75%-125%)		05/04/26 11:22
Silver	10400	U	ND		10800	ug/kg			104	(75%-125%)		
QC1206442215 773511004 MSD												
Antimony	46700	U	ND		49400	ug/kg	9.63		106	(0%-20%)		05/04/26 11:25
Silver	9340	U	ND		10000	ug/kg	7.55		107	(0%-20%)		
QC1206442217 773511004 SDILT												
Antimony		U	ND	U	ND	ug/L	N/A			(0%-20%)		05/04/26 11:29
Silver		U	ND	U	ND	ug/L	N/A			(0%-20%)		
Metals Analysis-Mercury												
Batch 2987814												
QC1206454110 774457001 DUP												
Mercury			45.5		45.7	ug/kg	0.241	^		(+/-21.5)	JP2	05/01/26 09:16
QC1206454106 LCS												
Mercury	239				241	ug/kg			101	(80%-120%)		05/01/26 08:45
QC1206454105 MB												
Mercury				U	ND	ug/kg						05/01/26 08:44

GEL LABORATORIES LLC

2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Workorder: **773511**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis-Mercury										
Batch 2987814										
QC1206454111 774457001 MS										
Mercury	206	45.5		250	ug/kg		99.4	(80%-120%)	JP2	05/01/26 09:18

Notes:

The Qualifiers in this report are defined as follows:

U U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

J J Value is estimated

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Client : **Stantec**
2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah

Contact: **Kelly Johnson**

Workorder: **773511**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 2987339										
QC1206453323 773511001 DUP										
Radium-226		20.4		19.8	pCi/g	2.84		(0%-20%)	MJH1	05/13/2607:53
	Uncert:	+/-0.467		+/-0.521						
	TPU:	+/-1.94		+/-1.83						
QC1206453324 LCS										
Americium-241	482			474	pCi/g		98.5	(75%-125%)	MJH1	05/13/2609:31
	Uncert:			+/-5.41						
	TPU:			+/-44.6						
Cesium-137	144			127	pCi/g		88	(75%-125%)		
	Uncert:			+/-1.74						
	TPU:			+/-10.5						
Cobalt-60	45.7			39.7	pCi/g		86.9	(75%-125%)		
	Uncert:			+/-1.21						
	TPU:			+/-4.70						
Radium-226			U	0.187	pCi/g					
	Uncert:			+/-0.346						
	TPU:			+/-0.356						
QC1206453322 MB										
Radium-226			UI	0.000	pCi/g				MJH1	05/13/2605:29
	Uncert:			+/-0.0595						
	TPU:			+/-0.0673						

Notes:

TPU and Counting Uncertainty are calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

U	U	Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
UI	UI	Gamma Spectroscopy--Uncertain identification

GEL LABORATORIES LLC

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QC Summary

Workorder: **773511**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
** Indicates analyte is a surrogate/tracer compound.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptence criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

77351

PO Number: MSA 40422
Project #: 182922679
GEL Quote #: GELP25-1221
GEL Project Manager: Delaney Stonesmith

GEL Laboratories LLC
CHEMISTRY RADIOCHEMISTRY RADIOBIOASSAY SPECIALTY ANALYTICS
843.556.8171 | 2040 Savage Road | Charleston, SC 29407 | gel.com

Chain of Custody and Analytical Record
(1) COC Number: 1
Page: 1 of 1
GEL Work Order Number: GELP25-

GEL Client Name: Kelly Johnson, Stantec
Phone Number: 801-617-3221
Project/Site Name: Section 27 Supplemental Characterization
Address: Ambrosia Lake, NM
Collected By: Jessie Shepard
Send Results To: kelly.johnson2@stantec.com, mary.privitera@stantec.com

Turn Around Time Requested. *Rush subject to surcharge.*
Standard: X
Rush (Specify):

(5) Sample Analysis Requested — *Enter Analysis Requested like 8270 PAH or 6010 Metals*

Enter total number of container(s) per test below the request on line that corresponds with the sample ID.

Sample ID (Each ID listed will be reported as a unique sample unless otherwise instructed. * For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	(2) Field Filtered	(3) QC Code	(4) Sample Matrix	Should this sample be considered: (7) Radioactive (Y or N)	(8) Known or possible Hazards	Total number of containers	Ra-226 (EPA 901.1Mod)	TAL Metals (6020/7471)	Uranium (SW846 6020B)	< (6) Preservative Type
S27-TP28 3.0'-3.8'	4/13/2026	1120	N	C	SO	Y		1	X	X	X	Sample is 22 uR/hr
S27-TP25 3.0'-4.0'	4/13/2026	1015	N	C	SO	N		1	X			Utilize Bi-214 609 KeV peak for Ra-226 gamma calc, all samples
S27-TP32 0.5'-1.0'	4/13/2026	1400	N	C	SO	N		1	X			
S27-TP30 8.0'-9.0'	4/13/2026	1335	N	C	SO	N		1	X	X	X	
			N	C	SO	N						
			N	C	SO	N						
			N	C	SO	N						
			N	C	SO	N						
			N	C	SO	N						
			N	C	SO	N						

Comments
Note: extra sample is required for sample specific QC

Chain of Custody Signatures

	Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1		4/14/26	08:15		4/20/26	930
2						
3						

Select Deliverable: [X] Results and QC Summary [ ] Calibration Summary [ ] Raw Data [ ] Standards Traceability
EDD Required? [X] If yes, specify type. GEL Standard DSS
Required Certification: ELAP
Sample Collection Time Zone: [ ] Eastern [ ] Pacific [ ] Central [X] Mountain [ ] Other:
Additional Comments: *Level 2 report*

For Lab Receiving Use Only: Custody Seal Intact? [ ] Yes [ ] No ***Cooler Temp:*** 19 °C
For sample shipping and delivery details, see Sample Receipt & Review form (SRR.)

(1) Chain of Custody Number
Client Determined

(2) Field Filtered
For liquid matrices, indicate with a Y for yes the sample was field filtered.

(3) QC Codes
Equipment Blank **(EB)** | Matrix Spike **(MS)**
Field Reagent Blank | Matrix Spike Duplicate **(MSD)**
Field Duplicate **(DUP)** | Composite **(C)**
Trip Blank **(TB)** | Grab **(G)**

(4) Matrix Codes
Biosolid **(SB)** | Leachate **(L)** | Soil **(SO)** | Urine **(U)**
Concrete **(C)** | Misc Liquid **(ML)** | Solid Waste **(SS)** | Vegetation **(V)**
Drinking Water **(DW)** | Oil **(O)** | Storm Water **(WS)** | Waste Water **(WW)**
Fecal **(FC)** | Sediment **(SD)** | Surface Water **(SW)** | Water **(W)**
Filter **(F)** | Sludge **(SL)** | Tissue **(T)** | Wipe **(P)**
Grouadwater **(GW)**

(6) Preservative Type
Ammonium Acetate **(AM)** | Nitric Acid **(NI)** | Sodium Thiosulfate **(ST)**
Ascorbic Acid **(AA)** | Sodium Hydroxide **(SH)** | Sulfuric Acid **(SA)**
Hexane **(HX)** | Sodium Bisulfate **(SBA)** | Trizma **(TZ)**
Hydrochloric Acid **(HA)** | Sodium Bisulfite **SBI)** | Zinc Acetate **(ZA)**
Methanol **(ME)**
Leave blank if no preservative is added.

(7) Radioactive **** If yes, email rso@gel.com prior to shipment for approval. Isotopic data should be included in the email and with the sample shipment.****

(8) Known or Possible Hazards
Identify the "Source of the Sample" material
(e.g., NPDES discharge, waste material, stormwater, groundwater, Superfund Site etc.)
natural waste material

RCRA Metals
Arsenic **(As)** | Chromium **(Cr)** | Selenium **(Se)**
Barium **(Ba)** | Lead **(Pb)** | Silver **(Ag)**
Cadmium **(Cd)** | Mercury **(Hg)** | Misc. RCRA **(MR)**

Is this sample known or suspected to be RCRA Hazardous?
Yes [ ] No [X]

Characteristic
Flammable/Ignitable **(FL)**
Corrosive **(CO)**
Reactive **(RE)**

TSCA Regulated
Polychlorinated biphenyls **(PCB)**

Listed Waste
Listed Waste **(LW)**
(F,K,P and U-listed wastes.)
Waste code(s):

Other
Other / Unknown **(OT)**
(i.e.: asbestos, beryllium, High/low pH, irritants, other misc. health hazards, etc.)
Description:
Natural uranium waste rock. NOT LW

Please provide any additional details below regarding handling and/or disposal concerns.
PLEASE HOLD SAMPLES UNTIL STANTEC PROVIDES GO-AHEAD TO ANALYZE

GEL Laboratories LLC

SAMPLE RECEIPT & REVIEW FORM

Client: STNT | SDG/AR/COC/Work Order: 773511 | GEL PM: Stonesmith

Received By: Mike Mina | Date Received at GEL: 04/26/26

Carrier (Circle Applicable)
(FedEx Express) FedEx Ground UPS Field Services Courier Client Other:

IR Temp gun # IR1-04 Daily Calibration Performed? (Y) N

Tracking Number	Temp (C)	If over 6 °C, check if samples do not require cold preservation (ie radiochem only).	Tracking Number	Temp (C)	If over 6 °C, check if samples do not require cold preservation (ie radiochem only).
8706 4564 4521	19.2	✓			

Suspected Hazard Information	Yes	No	*If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation.
A) Shipped as a DOT Hazardous?		✓	Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___
B) Did the client designate the samples are to be received as radioactive?	✓		COC notation or radioactive stickers on containers equal client designation.
C) Did the RSO classify the samples as radioactive?	✓		Maximum Net Counts Observed* (Observed Counts - Area Background Counts): 0 CPM mR/Hr. Classified as: (Rad 1) Rad 2 Rad 3
D) Are there any sample hazards to document?		✓	If yes, select Hazards below. PCBs Flammable Foreign Soil RCRA Asbestos Beryllium Corrosive Other:
E) Was a SDS received and reviewed by Lab Safety?		✓	Circle Applicable: See additional Comments below. No additional comments needed after review.

	Sample Receipt Criteria	Yes	NA	No	Comments/Qualifiers (Required for Non-Conforming Items)
1	Shipping containers received intact and sealed?	✓			Circle Applicable: Direct client dropoff Seals broken Damaged container Leaking container Other (describe)
2	Chain of custody documents included with shipment?	✓			Circle Applicable: Client contacted and provided COC COC created upon receipt
3	If there are samples requiring cold preservation, did they arrive within (0 < 6 °C)?		✓		Preservation Method: Wet Ice Ice Packs Dry Ice (None) Other: *all temperatures recorded next to tracking numbers are in Celcius
4	Sample containers intact and sealed?	✓			Circle Applicable: Seals broken Damaged container Leaking container Other (describe)
5	Samples requiring chemical preservation at proper pH?			✓	Preserved per COC request or list Sample IDs and Containers Affected: If Preservation added, Lot#:
6	Do any samples require Volatile Analysis? (If yes, answer all three additional questions.)			✓	If Yes, are Encores or Soil Kits present? Yes___ No___ (If yes, take to VOA Freezer) Do liquid VOA vials contain acid preservation? Yes___ No___ NA___ (If unknown, select No) Are liquid VOA vials free of headspace? Yes___ No___ NA___ Sample IDs and containers affected:
7	Samples received within holding time?	✓			IDs and tests affected:
8	Sample IDs on COC match IDs on bottles?	✓			IDs and containers affected:
9	Date & time on COC match date & time on bottles?	✓			Circle Applicable: No dates on containers No times on containers COC missing info Other (describe)
10	Number of containers received match number indicated on COC?	✓			Circle Applicable: No container count on COC Missing Container (provide details) Other (describe)
11	Are sample containers identifiable as GEL provided by use of GEL labels?			✓	
12	COC form is properly signed in relinquished/received sections?	✓			Circle Applicable: Not relinquished Other (describe)

Comments:

PM (or PMA) review: Initials CR Date 4/27/26

☐ Nonconformance Form required when applicable

GL-CHL-SR-001 Rev 8

Outlook

RE: GEL Sample Receipt 773511 for Section 27 Supplemental Characterization (182922679)

From Johnson, Kelly <Kelly.Johnson2@stantec.com>
Date Thu 5/14/2026 3:37 PM
To Delaney Stonesmith <Delaney.Stone@gel.com>; Team Stonesmith <team.stonesmith@gel.com>; Privitera, Mary <mary.privitera@stantec.com>

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Hi Delaney and team.
I'm sorry to request this at this point in the analyses – Our sample IDs for this set need to be updated if possible so the reporting (EDD and lab report) indicates an updated ID.

Is it possible to change them or flag a secondary ID?

Login Sample ID	Updated Sample ID
S27-TP28 3.0'-3.8'	S27-HA28 3.0'-3.8'
S27-TP25 3.0'-4.0'	S27-HA25 3.0'-4.0'
S27-TP32 0.5'-1.0'	S27-HA32 0.5'-1.0'
S27-TP30 8.0'-9.0'	S27-HA30 8.0'-9.0'

Kelly Johnson, PHD, PG
Site Assessment and Remediation Manager

Stantec

From: Delaney Stonesmith <Delaney.Stone@gel.com>
Sent: Wednesday, April 29, 2026 8:39 AM
To: Johnson, Kelly <Kelly.Johnson2@stantec.com>; Team Stonesmith <team.stonesmith@gel.com>; Privitera, Mary <mary.privitera@stantec.com>
Subject: RE: GEL Sample Receipt 773511 for Section 27 Supplemental Characterization (182922679)

Hi Kelly,

We have released the samples for analysis and confirmed with the lab that they will use the Bi-214 609 KeV peak for the Ra-226 evaluation.

Please do not hesitate to reach out if you need anything else!

Thank you!
Delaney Stonesmith

GEL Laboratories LLC
Project Manager
843-852-5814

** Please note that my team email has changed to team.stonesmith@gel.com **

From: Johnson, Kelly <Kelly.Johnson2@stantec.com>
Sent: Wednesday, April 29, 2026 10:22 AM
To: Delaney Stonesmith <Delaney.Stone@gel.com>; Team Stonesmith <team.stonesmith@gel.com>; Privitera, Mary <mary.privitera@stantec.com>
Subject: RE: GEL Sample Receipt 773511 for Section 27 Supplemental Characterization (182922679)

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Hi Delaney,
Please proceed with the sample analysis. Please confirm with your team that they will use the Bi-214 609 KeV peak for the Ra-226 evaluation.

Thank you,
Kelly

Kelly Johnson, PHD, PG
Site Assessment and Remediation Manager

Stantec

From: Delaney Stonesmith <Delaney.Stone@gel.com>
Sent: Tuesday, April 21, 2026 7:24 AM
To: Johnson, Kelly <Kelly.Johnson2@stantec.com>; Team Stonesmith <team.stonesmith@gel.com>; Privitera, Mary <mary.privitera@stantec.com>
Subject: RE: GEL Sample Receipt 773511 for Section 27 Supplemental Characterization (182922679)

Hi Kelly,

We have placed the samples on hold.

Thank you!
Delaney Stonesmith

GEL Laboratories LLC
Project Manager
843-852-5814

** Please note that my team email has changed to team.stonesmith@gel.com **

From: Johnson, Kelly <Kelly.Johnson2@stantec.com>
Sent: Tuesday, April 21, 2026 9:23 AM
To: Team Stonesmith <team.stonesmith@gel.com>; Privitera, Mary <mary.privitera@stantec.com>
Subject: RE: GEL Sample Receipt 773511 for Section 27 Supplemental Characterization (182922679)

[EXTERNAL EMAIL] DO NOT CLICK links or attachments unless you recognize the sender and know the content is safe.

Hi Delaney and Team – can you hold off on analyzing these samples until next week? The request was on the COC.

Kelly Johnson, PHD, PG
Site Assessment and Remediation Manager

Stantec

From: GEL Data <data@gellaboratories.com>
Sent: Tuesday, April 21, 2026 7:20 AM
To: Johnson, Kelly <Kelly.Johnson2@stantec.com>; Privitera, Mary <mary.privitera@stantec.com>; Johnson, Kelly <Kelly.Johnson2@stantec.com>
Subject: GEL Sample Receipt 773511 for Section 27 Supplemental Characterization (182922679)

GEL Laboratories, LLC received sample(s) on April 20, 2026. The final data is due to report on May 18, 2026. Please review the attached PDF. Should you find any discrepancies within the document, please call or email your project manager Delaney Stonesmith.

Do not reply to data@gellaboratories.com as this email address is not monitored. Please contact your project manager, Delaney Stonesmith, at Team.Stonesmith@gel.com regarding this message or its attachments.

Caution: This email originated from outside of Stantec. Please take extra precaution.

Attention: Ce courriel provient de l'extérieur de Stantec. Veuillez prendre des précautions supplémentaires.

Atención: Este correo electrónico proviene de fuera de Stantec. Por favor, tome precauciones adicionales.

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Atención: Este correo electrónico proviene de fuera de Stantec. Por favor, tome precauciones adicionales.

Caution: This email originated from outside of Stantec. Please take extra precaution.

Attention: Ce courriel provient de l'extérieur de Stantec. Veuillez prendre des précautions supplémentaires.

Atención: Este correo electrónico proviene de fuera de Stantec. Por favor, tome precauciones adicionales.

List of current GEL Certifications as of 18 May 2026

State	Certification
Alabama	42200
Alaska	17-018
Alaska Drinking Water	SC00012
Arkansas	88-00651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	525-24-281-19660
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	KY90129
Kentucky Wastewater	KY90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2025022
Maryland	270
Massachusetts	M-SC012
Massachusetts PFAS Approval	Letter
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	NV-C24-00175
New Hampshire NELAP	205424
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	2026-139
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
Sanitation Districts of LA	9255651
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235
Utah NELAP	SC000122026-50
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

Technical Case Narrative
Stantec
SDG #: 773511

Metals

Product: Determination of Metals by ICP
Analytical Method: SW846 3050B/6010D
Analytical Procedure: GL-MA-E-013 REV# 35
Analytical Batch: 2981148

Preparation Method: SW846 3050B
Preparation Procedure: GL-MA-E-009 REV# 30
Preparation Batch: 2981146

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
773511004	S27-HA30 8.0'-9.0'
1206442212	Method Blank (MB)**ICP Batch 2981148**
1206442213	Laboratory Control Sample (LCS)
1206442217	773511004(S27-HA30 8.0'-9.0'L) Serial Dilution (SD)
1206442214	773511004(S27-HA30 8.0'-9.0'S) Matrix Spike (MS)
1206442215	773511004(S27-HA30 8.0'-9.0'SD) Matrix Spike Duplicate (MSD)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Technical Information

Preparation/Analytical Method Verification
Method SW-846 3050B is not a total digestion technique for most samples. It is a very strong acid digestion that will dissolve almost all elements that could become environmentally available. By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not usually mobile in the environment.

Product: Determination of Metals by ICP-MS
Analytical Method: SW846 3050B/6020B
Analytical Procedure: GL-MA-E-014 REV# 38
Analytical Batch: 2981147

Preparation Method: SW846 3050B
Preparation Procedure: GL-MA-E-009 REV# 30
Preparation Batch: 2981145

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
773511004	S27-HA30 8.0'-9.0'
1206442206	Method Blank (MB)**ICP-MS Batch 2981147**
1206442207	Laboratory Control Sample (LCS)
1206442211	773511004(S27-HA30 8.0'-9.0'L) Serial Dilution (SD)
1206442208	773511004(S27-HA30 8.0'-9.0'S) Matrix Spike (MS)
1206442209	773511004(S27-HA30 8.0'-9.0'SD) Matrix Spike Duplicate (MSD)
1206442210	773511004(S27-HA30 8.0'-9.0'PS) Post Spike (PS)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

CRDL/PQL Requirements
For SW846 6020B, CRDL standard recoveries met advisory control limits with the exception of the analytes. Client sample concentrations were greater than two times the CRDL; therefore, the data were not adversely affected.

ICSA/ICSAB Statement
For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Quality Control (QC) Information

Matrix Spike (MS/MSD) Recovery Statement
The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added. The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analytes. The post spike recoveries were within the required control limits. This verifies the absence of a matrix interference in the post-spike digested sample. The recoveries may be attributed to possible sample matrix interference and/or non-homogeneity.

Sample	Analyte	Value
1206442208 (S27-HA30 8.0'-9.0'MS)	Chromium	140* (75%-125%)
	Vanadium	191* (75%-125%)
1206442209 (S27-HA30 8.0'-9.0'MSD)	Chromium	136* (75%-125%)
	Vanadium	190* (75%-125%)

MS/MSD Relative Percent Difference (RPD) Statement
The RPD values between qualifying analyte results in the MS and MSD were not within the acceptance limits. Sample non-homogeneity and/or possible matrix interferences may be suspected.

Sample	Analyte	Value
1206442208MS and 1206442209MSD (S27-HA30 8.0'-9.0')	Barium	RPD 24.3* (0%-20%)

Technical Information

Preparation/Analytical Method Verification
Method SW-846 3050B is not a total digestion technique for most samples. It is a very strong acid digestion that will dissolve almost all elements that could become environmentally available. By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not usually mobile in the environment.

Sample Dilutions
Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range. Samples were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.
The ICPMS solid samples associated with this SDG were diluted two times in accordance with the standard analytical procedure.

Analyte	**773511**
	004
Aluminum	2X
Arsenic	2X
Barium	2X
Beryllium	2X
Cadmium	2X
Calcium	10X
Chromium	2X
Cobalt	2X
Copper	2X
Iron	10X
Lead	2X
Magnesium	2X
Manganese	10X
Nickel	2X
Potassium	2X
Selenium	2X
Sodium	2X
Thallium	2X
Uranium	2X
Vanadium	2X
Zinc	2X

Product: **Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**
Analytical Method: SW846 7471B
Analytical Procedure: GL-MA-E-010 REV# 43
Analytical Batch: 2987814

Preparation Method: SW846 7471B Prep
Preparation Procedure: GL-MA-E-010 REV# 43
Preparation Batch: 2987803

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
773511004	S27-HA30 8.0’-9.0’
1206454105	Method Blank (MB)**CVAA Batch 2987814**
1206454106	Laboratory Control Sample (LCS)
1206454110	774457001(NonSDGD) Sample Duplicate (DUP)
1206454111	774457001(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Radiochemistry

Product: **Dry Weight**
Preparation Method: ASTM D 2216 (Modified)
Preparation Procedure: GL-OA-E-020 REV# 14
Preparation Batch: 2981130

Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 26
Preparation Batch: 2981130

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
773511001	S27-HA28 3.0’-3.8’
773511002	S27-HA25 3.0’-4.0’
773511003	S27-HA32 0.5’-1.0’
773511004	S27-HA30 8.0’-9.0’

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Gamma Ra226, Solid**
Analytical Method: DOE HASL 300, 4.5.2.3/Ga-01-R
Analytical Procedure: GL-RAD-A-013 REV# 29
Analytical Batch: 2987339

Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 26
Preparation Batch: 2981130

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
773511001	S27-HA28 3.0'-3.8'
773511002	S27-HA25 3.0'-4.0'
773511003	S27-HA32 0.5'-1.0'
773511004	S27-HA30 8.0'-9.0'
1206453322	Method Blank (MB) **Batch 2987339**
1206453323	773511001(S27-HA28 3.0'-3.8') Sample Duplicate (DUP)
1206453324	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Qualifier Information

Qualifier	Reason	Analyte	Sample
UI	Results are considered a false positive due to low abundance.	Radium-226	1206453322 (MB)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

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Metals Analysis

Case Narrative

Metals
Technical Case Narrative
Stantec
SDG #: 773511

Product: **Determination of Metals by ICP**
Analytical Method: SW846 3050B/6010D
Analytical Procedure: GL-MA-E-013 REV# 35
Analytical Batch: 2981148

Product: **Determination of Metals by ICP-MS**
Analytical Method: SW846 3050B/6020B
Analytical Procedure: GL-MA-E-014 REV# 38
Analytical Batch: 2981147

Product: **Mercury Analysis Using the Perkin Elmer Automated Mercury Analyzer**
Analytical Method: SW846 7471B
Analytical Procedure: GL-MA-E-010 REV# 43
Analytical Batch: 2987814

Preparation Method: SW846 3050B
Preparation Procedure: GL-MA-E-009 REV# 30
Preparation Batches: 2981145 and 2981146

Preparation Method: SW846 7471B Prep
Preparation Procedure: GL-MA-E-010 REV# 43
Preparation Batch: 2987803

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
773511004	S27-HA30 8.0’-9.0’
1206442212	Method Blank (MB)**ICP Batch 2981148**
1206442213	Laboratory Control Sample (LCS)
1206442217	773511004(S27-HA30 8.0’-9.0’L) Serial Dilution (SD)
1206442214	773511004(S27-HA30 8.0’-9.0’S) Matrix Spike (MS)
1206442215	773511004(S27-HA30 8.0’-9.0’SD) Matrix Spike Duplicate (MSD)
1206442206	Method Blank (MB)**ICP-MS Batch 2981147**
1206442207	Laboratory Control Sample (LCS)
1206442211	773511004(S27-HA30 8.0’-9.0’L) Serial Dilution (SD)
1206442208	773511004(S27-HA30 8.0’-9.0’S) Matrix Spike (MS)
1206442209	773511004(S27-HA30 8.0’-9.0’SD) Matrix Spike Duplicate (MSD)
1206442210	773511004(S27-HA30 8.0’-9.0’PS) Post Spike (PS)
1206454105	Method Blank (MB)**CVAA Batch 2987814**
1206454106	Laboratory Control Sample (LCS)
1206454110	774457001(NonSDGD) Sample Duplicate (DUP)
1206454111	774457001(NonSDGS) Matrix Spike (MS)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Calibration Information

CRDL/PQL Requirements

For SW846 6020B, CRDL standard recoveries met advisory control limits with the exception of the analytes. Client sample concentrations were greater than two times the CRDL; therefore, the data were not adversely affected.
ICP-MS.

ICSA/ICSAB Statement

For the ICP-MS analysis, the ICSA solution contains analyte concentrations which are verified trace impurities indigenous to the purchased standard.

Quality Control (QC) Information

Matrix Spike (MS/MSD) Recovery Statement

The percent recoveries (%R) obtained from the MS/MSD analyses are evaluated when the sample concentration is less than four times (4X) the spike concentration added.
The MS/MSD (See Below) did not meet the recommended quality control acceptance criteria for percent recoveries for the following applicable analytes. The post spike recoveries were within the required control limits. This verifies the absence of a matrix interference in the post-spike digested sample. The recoveries may be attributed to possible sample matrix interference and/or non-homogeneity.

Sample	Analyte	Value
1206442208 (S27-HA30 8.0'-9.0'MS)	Chromium	140* (75%-125%)
	Vanadium	191* (75%-125%)
1206442209 (S27-HA30 8.0'-9.0'MSD)	Chromium	136* (75%-125%)
	Vanadium	190* (75%-125%)

MS/MSD Relative Percent Difference (RPD) Statement

The RPD values between qualifying analyte results in the MS and MSD were not within the acceptance limits. Sample non-homogeneity and/or possible matrix interferences may be suspected.

Sample	Analyte	Value
1206442208MS and 1206442209MSD (S27-HA30 8.0'-9.0')	Barium	RPD 24.3* (0%-20%)

Technical Information

Preparation/Analytical Method Verification

Method SW-846 3050B is not a total digestion technique for most samples. It is a very strong acid digestion that will dissolve almost all elements that could become environmentally available. By design, elements bound in silicate structures are not normally dissolved by this procedure as they are not usually mobile in the environment.

Sample Dilutions

Dilutions may be required for many reasons, including to minimize matrix interferences or to bring over range target analyte concentrations into the linear calibration range.
Samples ICP-MS were diluted to ensure that the analyte concentrations were within the linear calibration range of the instrument.
The ICPMS solid samples associated with this SDG were diluted two times in accordance with the standard analytical procedure. ICP-MS.

Analyte	773511
	004
Aluminum	2X
Arsenic	2X
Barium	2X
Beryllium	2X
Cadmium	2X
Calcium	10X
Chromium	2X
Cobalt	2X
Copper	2X
Iron	10X
Lead	2X
Magnesium	2X
Manganese	10X
Nickel	2X
Potassium	2X
Selenium	2X
Sodium	2X
Thallium	2X
Uranium	2X
Vanadium	2X
Zinc	2X

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

STNT008 Stantec

Client SDG: 773511 GEL Work Order: 773511

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria
J Value is estimated
U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature:  **Name: Alan Stanley**

Date: 18 MAY 2026 **Title: Analyst III - Team Leader**

Sample Data Summary

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: May 18, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-HA30 8.0'-9.0'	Project:	STNT00225
Sample ID:	773511004	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	13-APR-26 13:35		
Receive Date:	20-APR-26		
Collector:	Client		
Moisture:	8.91%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
SW846 7471B Mercury, Solid "Dry Weight Corrected"												
Mercury		36.9	8.20	24.5	ug/kg	112	1	JP2	05/01/26	0850	2987814	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Antimony	U	ND	334	2020	ug/kg	92.1	1	HS2	05/04/26	1120	2981148	2
Silver	U	ND	101	505	ug/kg	92.1	1					
Metals Analysis-ICP-MS												
SW846 3050B/6020B Metals, Solid "Dry Weight Corrected"												
Aluminum		5730000	4470	9820	ug/kg	89.4	2	BB2	05/13/26	1753	2981147	3
Arsenic		4380	332	982	ug/kg	89.4	2					
Barium		80900	98.2	786	ug/kg	89.4	2					
Beryllium		451	19.6	98.2	ug/kg	89.4	2					
Cadmium	J	63.1	19.6	196	ug/kg	89.4	2					
Chromium		5250	196	589	ug/kg	89.4	2					
Cobalt		3960	58.9	196	ug/kg	89.4	2					
Copper		5030	64.8	393	ug/kg	89.4	2					
Lead		6420	98.2	393	ug/kg	89.4	2					
Magnesium		2910000	1960	5890	ug/kg	89.4	2					
Nickel		5470	98.2	393	ug/kg	89.4	2					
Potassium		1130000	15700	58900	ug/kg	89.4	2					
Selenium		2490	353	982	ug/kg	89.4	2					
Sodium		59900	15700	49100	ug/kg	89.4	2					
Thallium	J	102	78.6	393	ug/kg	89.4	2					
Uranium		4830	13.0	39.3	ug/kg	89.4	2					
Vanadium		13600	295	3930	ug/kg	89.4	2					
Zinc		25700	786	3930	ug/kg	89.4	2					
Calcium		25600000	65800	196000	ug/kg	89.4	10	BB2	05/16/26	1226	2981147	4
Iron		11100000	32400	98200	ug/kg	89.4	10					
Manganese		257000	982	4910	ug/kg	89.4	10					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 7471B Prep	SW846 7471B Mercury Prep Soil	HC1	04/30/26	1630	2987803
SW846 3050B	SW846 3050B Prep	ES3	04/21/26	0800	2981146
SW846 3050B	ICP-MS 3050BS PREP	ES3	04/21/26	0800	2981145

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: May 18, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-HA30 8.0'-9.0'	Project:	STNT00225
Sample ID:	773511004	Client ID:	STNT008

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471B	
2	SW846 3050B/6010D	
3	SW846 3050B/6020B	
4	SW846 3050B/6020B	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

Quality Control Summary

QC Summary

Report Date: May 18, 2026

Stantec
2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah

Contact: **Kelly Johnson**

Workorder: **773511**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2981147										
QC1206442207 LCS										
Aluminum	184000			190000	ug/kg		103	(80%-120%)	BB2	05/13/26 17:49
Arsenic	4600			4090	ug/kg		88.8	(80%-120%)		
Barium	4600			4780	ug/kg		104	(80%-120%)		
Beryllium	4600			4400	ug/kg		95.7	(80%-120%)		
Cadmium	4600			3980	ug/kg		86.6	(80%-120%)		
Calcium	184000			201000	ug/kg		109	(80%-120%)		
Chromium	4600			4590	ug/kg		99.6	(80%-120%)		
Cobalt	4600			4650	ug/kg		101	(80%-120%)		
Copper	4600			4830	ug/kg		105	(80%-120%)		
Iron	184000			188000	ug/kg		102	(80%-120%)		
Lead	4600			4580	ug/kg		99.4	(80%-120%)		
Magnesium	184000			190000	ug/kg		103	(80%-120%)		

QC Summary

Workorder: **773511**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2981147										
Manganese	4600			4630	ug/kg		101	(80%-120%)	BB2	05/13/26 17:49
Nickel	4600			4660	ug/kg		101	(80%-120%)		
Potassium	184000			178000	ug/kg		96.5	(80%-120%)		
Selenium	4600			3710	ug/kg		80.6	(80%-120%)		
Sodium	184000			191000	ug/kg		104	(80%-120%)		
Thallium	4600			4260	ug/kg		92.5	(80%-120%)		
Uranium	4600			4620	ug/kg		100	(80%-120%)		
Vanadium	4600			4360	ug/kg		94.7	(80%-120%)		
Zinc	4600			4150	ug/kg		90.2	(80%-120%)		
QC1206442206 MB										
Aluminum			U	ND	ug/kg					05/13/26 17:46
Arsenic			U	ND	ug/kg					
Barium			U	ND	ug/kg					
Beryllium			U	ND	ug/kg					
Cadmium			U	ND	ug/kg					

QC Summary

Workorder: **773511**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2981147										
Calcium			U	ND	ug/kg				BB2	05/13/26 17:46
Chromium			U	ND	ug/kg					
Cobalt			U	ND	ug/kg					
Copper			U	ND	ug/kg					
Iron			U	ND	ug/kg					
Lead			U	ND	ug/kg					
Magnesium			U	ND	ug/kg					
Manganese			U	ND	ug/kg					
Nickel			U	ND	ug/kg					
Potassium			U	ND	ug/kg					
Selenium			U	ND	ug/kg					
Sodium			U	ND	ug/kg					
Thallium			U	ND	ug/kg					
Uranium			U	ND	ug/kg					

QC Summary

Workorder: **773511**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2981147											
Vanadium				U	ND	ug/kg				BB2	05/13/26 17:46
Zinc				U	ND	ug/kg					
QC1206442208 773511004 MS											
Aluminum	197000		5730000		8830000	ug/kg		N/A	(75%-125%)		05/13/26 17:56
Arsenic	4920		4380		9230	ug/kg		98.6	(75%-125%)		
Barium	4920		80900		113000	ug/kg		N/A	(75%-125%)		
Beryllium	4920		451		5020	ug/kg		93	(75%-125%)		
Cadmium	4920	J	63.1		4440	ug/kg		88.9	(75%-125%)		
Calcium	197000		25600000		8770000	ug/kg		N/A	(75%-125%)		05/16/26 12:29
Chromium	4920		5250		12100	ug/kg		140*	(75%-125%)		05/13/26 17:56
Cobalt	4920		3960		9160	ug/kg		106	(75%-125%)		
Copper	4920		5030		10700	ug/kg		115	(75%-125%)		
Iron	197000		11100000		12100000	ug/kg		N/A	(75%-125%)		05/16/26 12:29
Lead	4920		6420		11500	ug/kg		104	(75%-125%)		05/13/26 17:56
Magnesium	197000		2910000		3560000	ug/kg		N/A	(75%-125%)		

QC Summary

Workorder: **773511**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%		REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS												
Batch 2981147												
Manganese	4920		257000		178000	ug/kg			N/A	(75%-125%)	BB2	05/16/26 12:29
Nickel	4920		5470		11000	ug/kg			113	(75%-125%)		05/13/26 17:56
Potassium	197000		1130000		1640000	ug/kg			N/A	(75%-125%)		
Selenium	4920		2490		6740	ug/kg			86.4	(75%-125%)		
Sodium	197000		59900		270000	ug/kg			107	(75%-125%)		
Thallium	4920	J	102		4590	ug/kg			91.2	(75%-125%)		
Uranium	4920		4830		9750	ug/kg			99.9	(75%-125%)		
Vanadium	4920		13600		23000	ug/kg			191	* (75%-125%)		
Zinc	4920		25700		33500	ug/kg			N/A	(75%-125%)		
QC1206442209 773511004 MSD												
Aluminum	210000		5730000		8640000	ug/kg	2.16		N/A	(0%-20%)		05/13/26 17:59
Arsenic	5240		4380		9330	ug/kg	1.12		94.5	(0%-20%)		
Barium	5240		80900		88500	ug/kg	24.3	*	N/A	(0%-20%)		
Beryllium	5240		451		5220	ug/kg	3.92		91.2	(0%-20%)		
Cadmium	5240	J	63.1		4650	ug/kg	4.63		87.5	(0%-20%)		

QC Summary

Workorder: **773511**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2981147											
Calcium	210000		25600000		8690000	ug/kg	0.904	N/A	(0%-20%)	BB2	05/16/26 12:32
Chromium	5240		5250		12300	ug/kg	1.82	136*	(0%-20%)		05/13/26 17:59
Cobalt	5240		3960		9140	ug/kg	0.199	98.9	(0%-20%)		
Copper	5240		5030		10300	ug/kg	3.08	101	(0%-20%)		
Iron	210000		11100000		12300000	ug/kg	1.57	N/A	(0%-20%)		05/16/26 12:32
Lead	5240		6420		11400	ug/kg	1.32	94.6	(0%-20%)		05/13/26 17:59
Magnesium	210000		2910000		3490000	ug/kg	2.02	N/A	(0%-20%)		
Manganese	5240		257000		165000	ug/kg	7.9	N/A	(0%-20%)		05/16/26 12:32
Nickel	5240		5470		11000	ug/kg	0.55	105	(0%-20%)		05/13/26 17:59
Potassium	210000		1130000		1640000	ug/kg	0.0433	N/A	(0%-20%)		
Selenium	5240		2490		6650	ug/kg	1.33	79.5	(0%-20%)		
Sodium	210000		59900		272000	ug/kg	0.71	101	(0%-20%)		
Thallium	5240	J	102		4900	ug/kg	6.49	91.5	(0%-20%)		
Uranium	5240		4830		9400	ug/kg	3.57	87.3	(0%-20%)		

QC Summary

Workorder: **773511**

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS											
Batch 2981147											
Vanadium	5240		13600		23500	ug/kg	2.35	190*	(0%-20%)	BB2	05/13/26 17:59
Zinc	5240		25700		32000	ug/kg	4.54	N/A	(0%-20%)		
QC1206442210 773511004 PS											
Chromium	50.0		53.4		101	ug/L		95.6	(75%-125%)		05/13/26 18:03
Vanadium	50.0		138		187	ug/L		97.3	(75%-125%)		
QC1206442211 773511004 SDILT											
Aluminum			58300		61000	ug/L	4.64		(0%-20%)		05/13/26 18:06
Arsenic			44.6	J	46.1	ug/L	3.36		(0%-20%)		
Barium			824		827	ug/L	.286		(0%-20%)		
Beryllium			4.59		5.74	ug/L	25		(0%-20%)		
Cadmium		J	0.643	U	ND	ug/L	N/A		(0%-20%)		
Calcium			261000		259000	ug/L	.562		(0%-20%)		05/16/26 12:35
Chromium			53.4		56.7	ug/L	6.06		(0%-20%)		05/13/26 18:06
Cobalt			40.4		43.0	ug/L	6.65		(0%-20%)		
Copper			51.3		58.1	ug/L	13.3		(0%-20%)		
Iron			113000		113000	ug/L	.0181		(0%-20%)		05/16/26 12:35

QC Summary

Workorder: **773511**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date Time
Metals Analysis - ICPMS										
Batch 2981147										
Lead		65.4		69.4	ug/L	6.25		(0%-20%)	BB2	05/13/26 18:06
Magnesium		29600		32500	ug/L	9.54		(0%-20%)		
Manganese		2610		2610	ug/L	.297		(0%-20%)		05/16/26 12:35
Nickel		55.8		60.2	ug/L	7.99		(0%-20%)		05/13/26 18:06
Potassium		11500		12000	ug/L	4.59		(0%-20%)		
Selenium		25.4	J	22.8	ug/L	10.2		(0%-20%)		
Sodium		610	U	ND	ug/L	N/A		(0%-20%)		
Thallium	J	1.04	U	ND	ug/L	N/A		(0%-20%)		
Uranium		49.2		49.7	ug/L	1.03		(0%-20%)		
Vanadium		138	J	140	ug/L	1		(0%-20%)		
Zinc		262		287	ug/L	9.84		(0%-20%)		
Metals Analysis-ICP										
Batch 2981148										
QC1206442213 LCS										
Antimony	48600			50500	ug/kg		104	(80%-120%)	HS2	05/04/26 11:18
Silver	9730			10200	ug/kg		105	(80%-120%)		

QC Summary

Workorder: 773511

Parmname	NOM		Sample	Qual	QC	Units	RPD/D%		REC%	Range	Anlst	Date Time
Metals Analysis-ICP												
Batch 2981148												
QC1206442212 MB												
Antimony				U	ND	ug/kg					HS2	05/04/26 11:15
Silver				U	ND	ug/kg						
QC1206442214 773511004 MS												
Antimony	51900	U	ND		54400	ug/kg			105	(75%-125%)		05/04/26 11:22
Silver	10400	U	ND		10800	ug/kg			104	(75%-125%)		
QC1206442215 773511004 MSD												
Antimony	46700	U	ND		49400	ug/kg	9.63		106	(0%-20%)		05/04/26 11:25
Silver	9340	U	ND		10000	ug/kg	7.55		107	(0%-20%)		
QC1206442217 773511004 SDILT												
Antimony		U	ND	U	ND	ug/L	N/A			(0%-20%)		05/04/26 11:29
Silver		U	ND	U	ND	ug/L	N/A			(0%-20%)		
Metals Analysis-Mercury												
Batch 2987814												
QC1206454110 774457001 DUP												
Mercury			45.5		45.7	ug/kg	0.241	^		(+/-21.5)	JP2	05/01/26 09:16
QC1206454106 LCS												
Mercury	239				241	ug/kg			101	(80%-120%)		05/01/26 08:45
QC1206454105 MB												
Mercury				U	ND	ug/kg						05/01/26 08:44

QC Summary

Workorder: **773511**

Parmname	NOM	Sample	Qual	QC	Units	RPD/D%	REC%	Range	Anlst	Date	Time
Metals Analysis-Mercury											
Batch 2987814											
QC1206454111 774457001 MS											
Mercury	206	45.5		250	ug/kg		99.4	(80%-120%)	JP2	05/01/26	09:18

Notes:

The Qualifiers in this report are defined as follows:

U U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

J J Value is estimated

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Radiological Analysis

Case Narrative

Radiochemistry
Technical Case Narrative
Stantec
SDG #: 773511

Product: **Dry Weight**
Preparation Method: ASTM D 2216 (Modified)
Preparation Procedure: GL-OA-E-020 REV# 14
Preparation Batch: 2981130

Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 26
Preparation Batch: 2981130

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
773511001	S27-HA28 3.0'-3.8'
773511002	S27-HA25 3.0'-4.0'
773511003	S27-HA32 0.5'-1.0'
773511004	S27-HA30 8.0'-9.0'

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Product: **Gamma Ra226, Solid**
Analytical Method: DOE HASL 300, 4.5.2.3/Ga-01-R
Analytical Procedure: GL-RAD-A-013 REV# 29
Analytical Batch: 2987339

Preparation Method: Dry Soil Prep
Preparation Procedure: GL-RAD-A-021 REV# 26
Preparation Batch: 2981130

The following samples were analyzed using the above methods and analytical procedure(s).

GEL Sample ID#	Client Sample Identification
773511001	S27-HA28 3.0'-3.8'
773511002	S27-HA25 3.0'-4.0'
773511003	S27-HA32 0.5'-1.0'
773511004	S27-HA30 8.0'-9.0'
1206453322	Method Blank (MB) **Batch 2987339**
1206453323	773511001(S27-HA28 3.0'-3.8') Sample Duplicate (DUP)
1206453324	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on a "dry weight" basis.

Data Summary:

There are no exceptions, anomalies or deviations from the specified methods. All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable.

Qualifier Information

Qualifier	Reason	Analyte	Sample
UI	Results are considered a false positive due to low abundance.	Radium-226	1206453322 (MB)

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

Moisture LogBook

Batch: 2981130
Analyst: AC1
Date/Time: 20-APR-2026
Procedure Code:___PREPDDRY WEIGHT
Procedure Description: Dry Soil Prep GL-RAD-A-021 Dry Weight-Percent Moisture
Lab Sop: GL-RAD-A-021 GL-OA-E-020

Sample St	Sample Id	Rpd(%)
DUP	1206442186	**.127**

Sample Id	Sample Type	Original Hsn	Balance	Run Time	Container Wt	Initial Wt	Final Wt (g)	Net Initial Wt (g)	Net Final Wt (g)	Moisture (%)
773511001	SAMPLE		SP-C238839655	14:04	65.22	460.09	397.07	394.87	331.85	15.959
773511002	SAMPLE		SP-C238839655	14:04	65.67	407.84	356.75	342.17	291.08	14.931
773511003	SAMPLE		SP-C238839655	14:04	65.22	450.05	405.1	384.83	339.88	11.68
773511004	SAMPLE		SP-C238839655	14:04	65.65	377.48	349.7	311.83	284.05	8.908
1206442186	DUP	773511004	SP-C238839655	14:04	2.56	26.05	23.96	23.49	21.4	8.897

Comments:

A) Result = (Net Initial - Net Final) /Net Initial * 100

Note: Aliquot is used for the determination of the effective MDL and PQL in LIMS

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Qualifier Definition Report
for

STNT008 Stantec

Client SDG: 773511 GEL Work Order: 773511

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria
** Analyte is a Tracer compound
U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.
UI Gamma Spectroscopy--Uncertain identification

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature:  **Name: Kate Gellatly**

Date: 15 MAY 2026 **Title: Analyst 1 PT**

Sample Data Summary

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: May 15, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-HA28 3.0'-3.8'	Project:	STNT00225
Sample ID:	773511001	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	13-APR-26 11:20		
Receive Date:	20-APR-26		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		20.4	+/-0.467	0.140	1.00	pCi/g			MJH1	05/13/26	0527	2987339	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AC1	04/20/26	1404	2981130

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: May 15, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-HA25 3.0'-4.0'	Project:	STNT00225
Sample ID:	773511002	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	13-APR-26 10:15		
Receive Date:	20-APR-26		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		3.78	+/-0.204	0.0707	1.00	pCi/g			MJH1	05/13/26	0528	2987339	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AC1	04/20/26	1404	2981130

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: May 15, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-HA32 0.5'-1.0'	Project:	STNT00225
Sample ID:	773511003	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	13-APR-26 14:00		
Receive Date:	20-APR-26		
Collector:	Client		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		1.27	+/-0.183	0.109	1.00	pCi/g			MJH1	05/13/26	0528	2987339	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AC1	04/20/26	1404	2981130

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: May 15, 2026

Company :	Stantec
Address :	2890 East Cottonwood Parkway Suite 300 Salt Lake City, Utah 84121
Contact:	Kelly Johnson
Project:	Section 27 Supplemental Characterization (182922679)

Client Sample ID:	S27-HA30 8.0'-9.0'	Project:	STNT00225
Sample ID:	773511004	Client ID:	STNT008
Matrix:	Soil		
Collect Date:	13-APR-26 13:35		
Receive Date:	20-APR-26		
Collector:	Client		
Moisture:	8.91%		

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gamma Spec Analysis													
Gamma Ra226, Solid "Dry Weight Corrected"													
Radium-226		1.86	+/-0.169	0.0887	1.00	pCi/g			MJH1	05/13/26	0528	2987339	1

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
Dry Soil Prep	Dry Soil Prep GL-RAD-A-021	AC1	04/20/26	1404	2981130

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	DOE HASL 300, 4.5.2.3/Ga-01-R	

Notes:
Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

Quality Control Data

GEL LABORATORIES LLC
2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com

QC Summary

Report Date: May 15, 2026

Stantec
2890 East Cottonwood Parkway
Suite 300
Salt Lake City, Utah

Contact: **Kelly Johnson**

Workorder: **773511**

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date Time
Rad Gamma Spec										
Batch 2987339										
QC1206453323 773511001 DUP										
Radium-226		20.4		19.8	pCi/g	2.84		(0%-20%)	MJH1	05/13/26 07:53
	Uncertainty	+/-0.467		+/-0.521						
QC1206453324 LCS										
Americium-241	482			474	pCi/g		98.5	(75%-125%)		05/13/26 09:31
	Uncertainty			+/-5.41						
Cesium-137	144			127	pCi/g		88	(75%-125%)		
	Uncertainty			+/-1.74						
Cobalt-60	45.7			39.7	pCi/g		86.9	(75%-125%)		
	Uncertainty			+/-1.21						
Radium-226			U	0.187	pCi/g					
	Uncertainty			+/-0.346						
QC1206453322 MB										
Radium-226			UI	0.000	pCi/g					05/13/26 05:29
	Uncertainty			+/-0.0595						

Notes:

Counting Uncertainty is calculated at the 95% confidence level (1.96-sigma).

The Qualifiers in this report are defined as follows:

U U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

UI UI Gamma Spectroscopy--Uncertain identification

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Appendix B Biological Resources Report for the Section 27 Mine near San Mateo, New Mexico – Cedar Creek Associates Inc.

Biological Resource Report

for the Section 27 Mine

near San Mateo, New Mexico

December, 2024

Revised October, 2025

Presented to:

General Electric

Prepared by:

Cedar Creek Associates Inc.
PO Box 272150
Fort Collins, CO 80527

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Figure 1 Project Area Boundary

Figure 2 Observed Land Cover

Figure 3 Mapped Noxious Weeds

APPENDICES

Appendix A Special Status Species Queries

Appendix B Special Status Species Screening

Appendix C Field Photos

ACRONYMS AND ABBREVIATIONS

amsl	above mean sea level
BGEPA	Bald and Golden Eagle Protection Act
Cedar Creek	Cedar Creek Associates Inc.
CHAT	Critical Habitat Assessment Tool
ERT	Environmental Review Tool
ESA	Endangered Species Act
GE	General Electric
GIS	Geographic Information System
IPaC	Information, Planning, and Conservation System
NHD	National Hydrology Dataset
NHNM	Natural Heritage New Mexico
NMDGF	New Mexico Department of Game and Fish
NRCS	Natural Resources Conservation Service
NWI	National Wetland Inventory
SGCN	Species of Greatest Conservation Need
USFWS	United States Fish and Wildlife Service
USGS	United States Geologic Survey

1.0 INTRODUCTION

This biological resource report describes vegetation, wildlife, hydrology, and special status species in and around the Section 27 Mine. This abandoned mine site is located north of Grants, NM on private lands. The legal description of the Section 27 Abandoned Mine property is Section 27 Township 14 North, Range 9 West New Mexico Principal Meridian, New Mexico.

Cedar Creek Associates Inc. (Cedar Creek) was retained by General Electric (GE) to prepare this biological resource report for the project. The purpose of the report is to record the presence of all observed species and their habitats, and to complete a screening of the potential for special status species or their critical habitat to occur in the vicinity of the project. For the purpose of this report, special status species are defined as species designated by the United States Fish and Wildlife Service (USFWS) as Endangered, Threatened, proposed for listing, or Candidate for listing under the Endangered Species Act (ESA); species protected under the Bald and Golden Eagle Protection Act (BGEPA); designated state protected species by the Natural Heritage New Mexico (NHNM) and New Mexico Department of Game and Fish (NMDGF). Critical habitat is defined as designated or proposed critical habitat as identified by the USFWS under the ESA.

The remaining sections of this report describe the sources of information and methods to inventory biological resources (Section 2); the results of the vegetation and wildlife inventory (Section 3); a screening of the potential for special status species to be present on site in addition to project impacts (Section 4); and a list of references cited throughout this document (Section 5).

2.0 METHODS

2.1 Analysis Area

To account for planned activities, a 30.5-meter (100-foot) buffer area was applied to the mine lease boundary to define the analysis area (Figure 1). This analysis area is the area within which special status species will be studied and clearance surveys will occur.

2.2 Data Sources and Mapping

Publicly available Geographic Information System (GIS) data was reviewed and compiled for the analysis areas from the following sources:

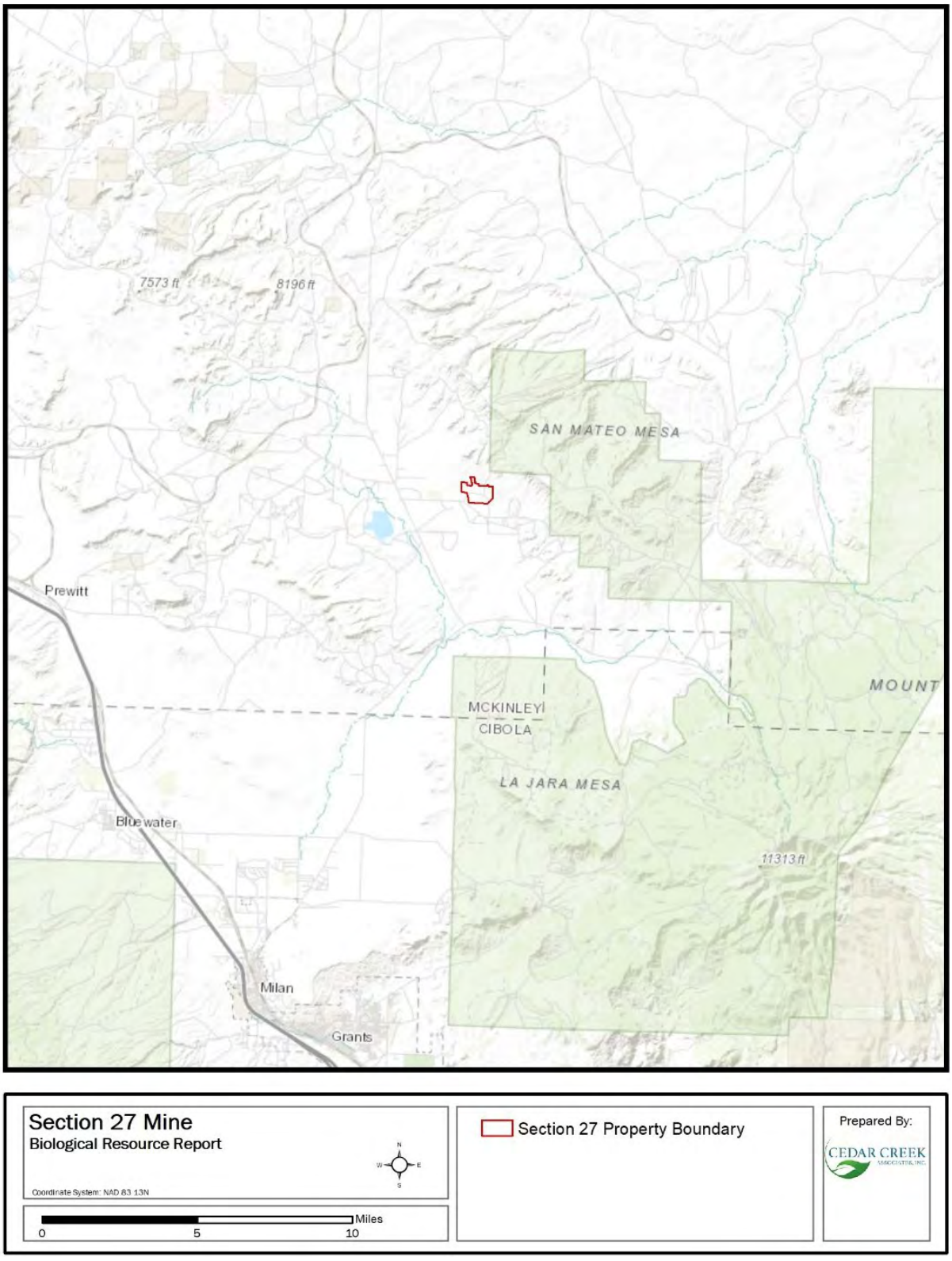
- United States Geologic Survey (USGS) National Hydrology Dataset (NHD) and Watershed Boundary Datasets (https://www.usgs.gov/national-hydrography/access-national-hydrography-products)
- USFWS National Wetland Inventory (NWI) dataset (https://www.fws.gov/program/national-wetlands-inventory)
- New Mexico GIS Data, including administrative boundaries and applicable data for hydrology, lands, vegetation, and wildlife (https://gbp-blm-egis.hub.arcgis.com/pages/newmexico)
- New Mexico online Critical Habitat Assessment Tool (CHAT) from NMDGF (https://nmert.org/content/map?savedmap=4967)

ESA-listed, proposed, or candidate species, and designated or proposed critical habitat considered for evaluation were identified in a USFWS Information, Planning, and Conservation System (IPaC) online query report generated for the analysis area (Appendix A).

Plants and animals that are considered threatened, endangered, or special status by NMDGF were identified through the New Mexico Environmental Review Tool (ERT), which draws upon the expertise and information from NMDGF, NHNM, the New Mexico Rare Plant Technical Council, and NatureServe. The response from the NMDGF ERT described estimated and potential occurrences for various species of importance within 2000 meters of the analysis area (Appendix A).

The site visit was conducted on September 23rd, 2024, to map vegetation communities, survey for special status species and their habitats, evaluate hydrology, and record incidental occurrences of wildlife and their sign. The survey was conducted within the lease boundary and buffer zone, but general observations of vegetation communities and land cover were also noted in the surrounding area.

Figure 1. Project Area Boundary



3.0 RESULTS

3.1 Geographic Setting and Physical Features

The analysis area is located west of San Mateo, New Mexico, north of State Highway 605. The project site is in the Semiarid Tablelands ecoregion of the Arizona/New Mexico Plateau. Topography across the Section 27 site is comprised of low alluvial hills and silty valley bottoms. The elevation of this site is 7,030-7,120 feet above mean sea level (amsl). Soils across the site are mostly slope alluvium derived from sandstone and shale and stream alluvium derived from calcareous sandstone.

Representative photographs depicting soils, notable features, and habitat conditions in the area are provided in Appendix C. The site contains large anthropogenic disturbance features related to historic mining activities.

3.2 Hydrology

The analysis area is within the San Mateo Creek watershed (USGS Hydrologic Unit Code 1302020703). This watershed encompasses 832.3 square kilometers (205,666 acres) within the greater Rio Grande Watershed. An unnamed ephemeral arroyo bisects the project area, dissipating to the SW, and originates several miles to the northeast on San Mateo Mesa. Based on mapping data file sources, there are no wetlands or other aquatic features mapped within the analysis area. No aquatic features or channels were observed during the site visit by Cedar Creek.

3.3 Vegetation

3.3.1 General Land Cover and Plant Inventory

Land cover within the analysis area can be characterized into two types:

- **Mixed Shrub Lowlands** – Broad low-lying areas dominated by fourwing saltbush, kochia, and occasional western wheatgrass. Soils are siltier than the surrounding uplands and are derived from slope alluvium from shale and sandstone. This community covers approximately 193 acres of the project area.
- **Shortgrass Uplands** – Upland areas consist of low hills and mesa toe slopes covered with various warm season perennial grasses and occasional snakeweed, rabbitbrush, or fourwing saltbush. Soils are loamy slope alluvium derived from

sandstone and shale. This community covers approximately 149 acres of the project area.

Qualified biologists traversed the analysis area, recording all plant species observed (Table 1). Overall, a total of 38 plant species were identified within the analysis area, 28 of which were native and perennial. No special status plant species were observed.

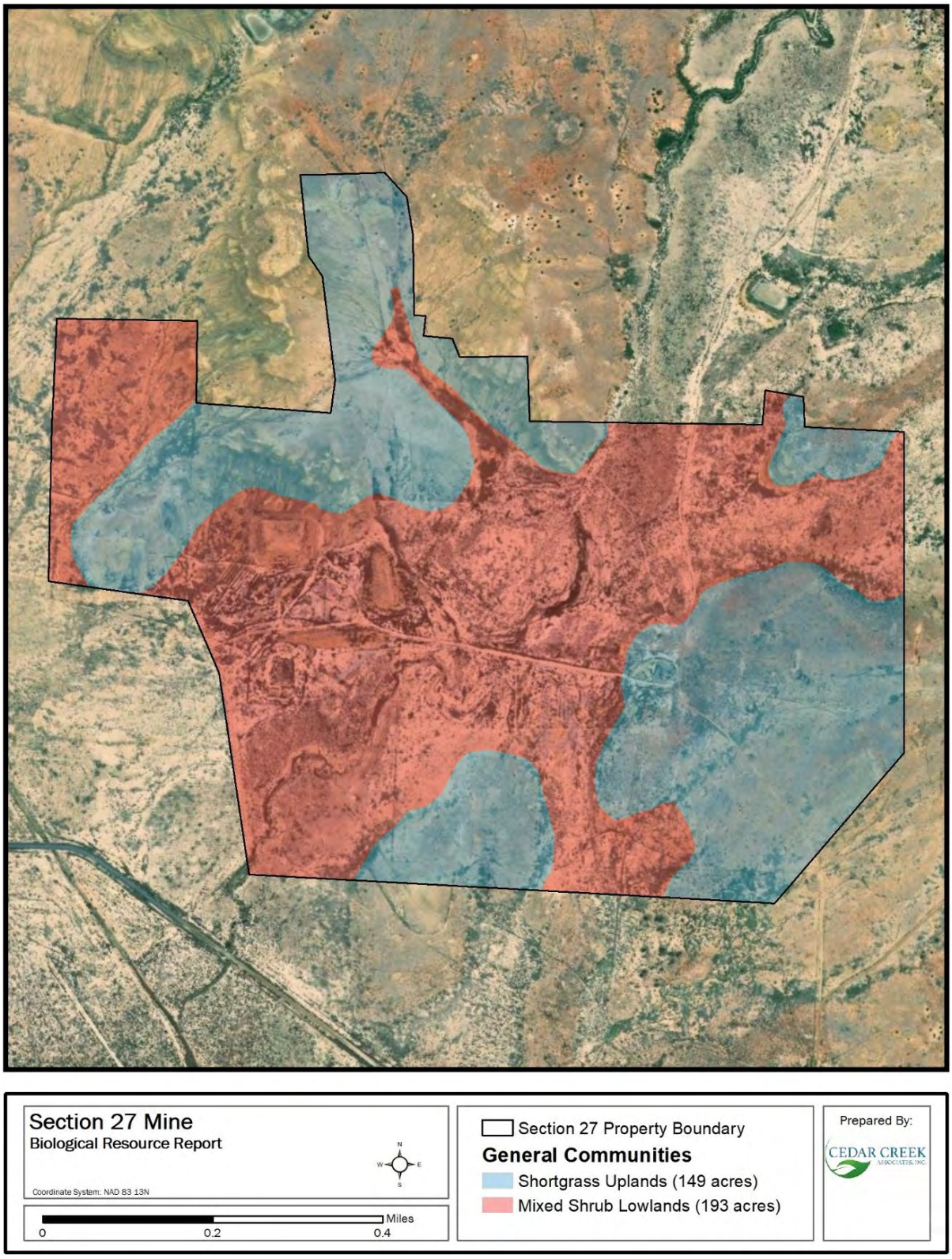
The botanist searched specifically for any potential special status species and milkweed species (*Asclepias sp.*). Milkweeds are host plants for the USFWS candidate species Monarch Butterfly (*Danaus plexippus*). After a comprehensive search, no special status species and no milkweed species were observed.

Table 1. Plant species observed

Observed Plant Speceies				
		Area ——>	Upland	Lowland
Grasses				
P	*Achnatherum hymenoides*	Indian Ricegrass	x	-
P	*Aristida purpurea*	Purple Threeawn	x	-
P	*Bouteloua gracilis*	Blue Grama	x	x
P	*Elymus canadensis*	Nodding Wild Rye	-	x
P	*Elymus Elymoides*	Squierreltail Bottlebrush	x	x
P	*Hilaria jamesii*	Galleta	x	-
P	*Hordeum jubatum*	Fox-Tail Barley	-	x
P	*Muhlenbergia asperifolia*	False Buffalograss	-	x
P	*Pascopyrum smithii*	Western Wheatgrass	-	x
P	*Sporobolus airoides*	Alkali Sacaton	-	x
P	*Sporobolus giganteus*	Giant Dropseed	x	x
P	*Sporobolus cryptandrus*	Sand Dropseed	x	x
Forbs				
P	*Artemisia dracunculus*	Terragon	x	x
A	*Atriplex sp.*	Burningbush	-	x
A	*Chenopodium sp.*	Goosefoot	x	x
A	*Descurainia sophia*	Herb-Sophia	-	x
A	*Dimorphocarpa wislizeni*	Spectacle Pod	x	x
A	*Dyssodia papposa*	Fetid Marigold	-	x
A	*Helianthus annuus*	Annual Sunflower	x	x
P	*Heterotheca villosa*	Hairy False Golden-Aster	x	-
A	*Kochia scoparia*	Burningbush	-	x
P	*Lepidium draba*	Whitetop	-	x
P	*Machaeranthera canescens*	Hoary Tansyaster	x	-
A	*Salsola tragus*	Russian Thistle	x	x
P	*Sphaeralcea coccinea*	Scarlet globemallow	-	x
P	*Sphaeralcea grossulariifolia*	Currant-Leaf Globe-Mallow	x	-
Shrubs, Sub-shrubs, Cacti & Trees				
P	*Artemisia tridentata*	Big Sagebrush	x	x
P	*Artemisia frigida*	Fringed Sage	x	-
P	*Atriplex canescens*	Fourwing Saltbush	x	x
P	*Cylindropuntia whipplei*	Whipple Cholla	x	-
P	*Ephedra viridis*	Joint-fir	x	-
P	*Ericameria nauseosus*	Rubber Rabbitbrush	x	x
P	*Gutierrezia sarothrae*	Broom Snakeweed	x	x
P	*Juniperus monosperma*	One-seed Juniper	x	-
P	*Lycium palidum*	Wolfberry	x	x
P	*Opuntia polycantha*	Plains Pricklypear	x	-
Nw	*Tamarix ramosissima*	Saltcedar	-	x
P	*Yucca glabrata*	Small Soapweed	x	-
			Totals	
Summary By Lifeform:		Perennial Grasses	7	9
		Annual Grasses	-	-
		Perennial Forbs	4	3
		Annual & Biennial Forbs	4	8
		Noxious / Aggressive Weeds	-	1
		Trees & Shrubs & Sub-shrubs	11	5

P=Perennial A=Annual B=Biennial Nw=Noxious Weed

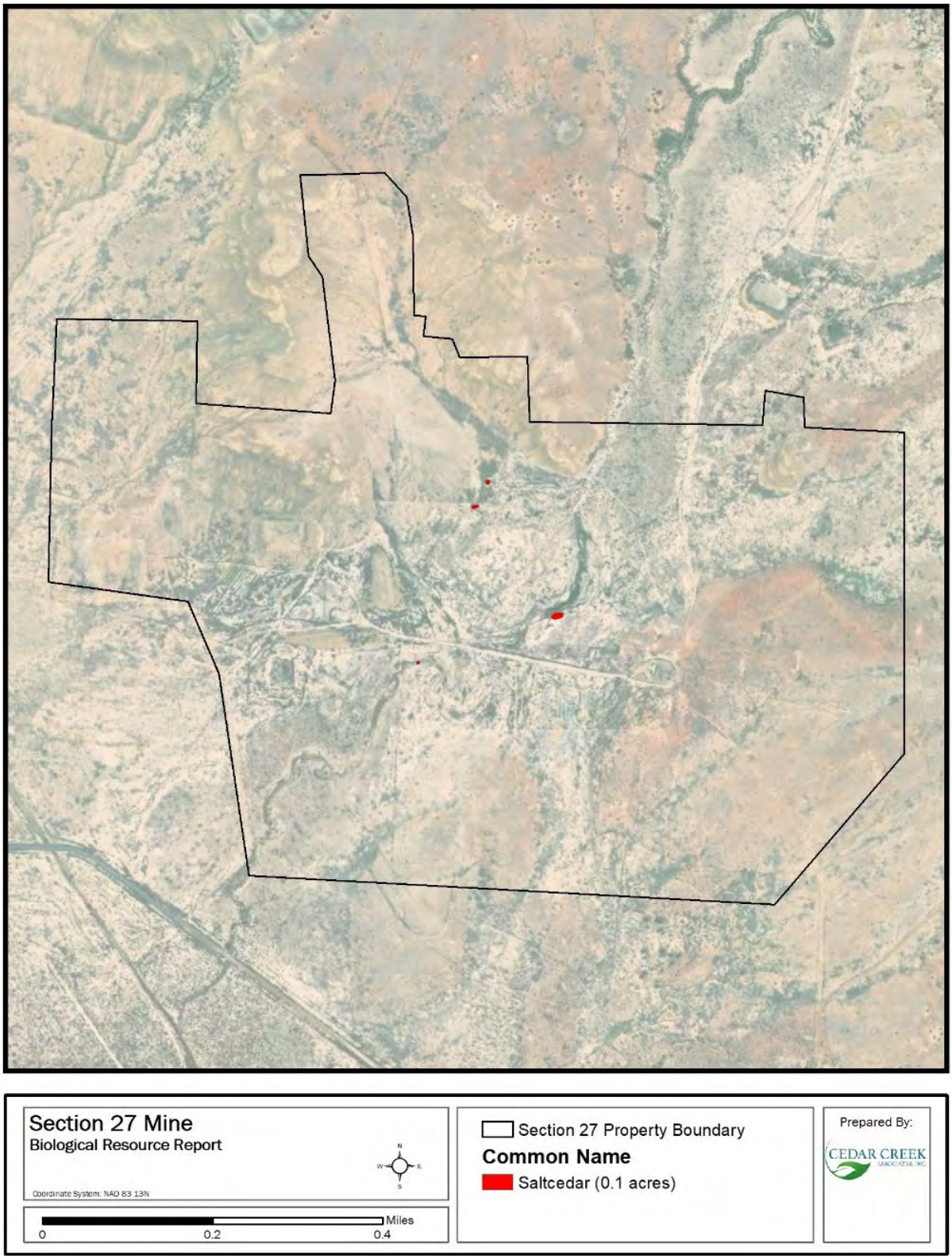
Figure 2. Observed Land Cover



3.3.2 Noxious Weeds

Noxious weeds, as classified by the state of New Mexico, were mapped within the analysis area. A total of 0.1 acres of saltcedar (*Tamarix ramosissima*), a class C species was mapped within the project area (Figure 3). Class C species have a widespread distribution, and control should be considered on a case-by-case basis (Beck 2021).

Figure 3. Mapped Noxious Weeds



3.4 Wildlife

The analysis area is within a region of the Colorado Plateau which hosts many high desert habitats that can support dune and sand-specialist species and riparian specialists. However, there is no riparian or sand dune habitat within the analysis areas. There is no critical habitat in the analysis area (see Appendix A for related queries).

During the site visit several killdeer were observed rushing around the project area. One golden eagle was observed perched atop a transmission pole. While not observed during the site visit, mule deer and elk are known to inhabit the region and are likely to pass through the property.

3.4.1 Raptor Study

A qualified biologist (Jesse Dillon) positioned themselves in a good vantage point to observe potential habitat and raptor activity within the project area. The biologist used binoculars and a scope to observe raptor activity and visually scan cliff and tree habitat for raptor nests. The survey occurred in morning (from 6:45 to 10:00 am) and early evening hours (from 4:00pm to 6:30 pm) on March 24th and 25th, 2025. The weather conditions were calm, with winds below 5 miles per hour, and sunny. The temperatures were cool in mornings (25-35° F) and warm in the evenings (65-75° F). Overall, the conditions were suitable for raptor activity.

Raptors, such as ravens (*Corvus corax*), were observed flying through the site in a general northeast/southwest direction. A single raven was observed in close proximity to the site, where it stopped briefly on power pole along the access road, before continuing offsite. Following the surveys, it was determined that there were no raptor nests in the vicinity of the project that would preclude implementation of the planned site characterization.

4.0 SPECIAL STATUS SPECIES SCREENING

The potential for special status species to occur within the analysis area was based on a review of current science regarding the ecology, natural histories, and known geographical and elevational ranges for each of the species. This information was considered in conjunction with observations from the site visit to identify habitat types and evaluate the potential for special-status species to be present in the analysis area. Appendix B presents an analysis of project impacts with a comparison of species habitat requisites and site characteristics. Sources used to complete this analysis are outlined above in section 2.2.

Based on the evaluation presented in Appendix B, project activities will have no direct impacts on the 70 New Mexico state list or ESA-listed and candidate species. While there is potential for several of these species to occupy the analysis area, none were observed. Contributing to the findings of no impact is the determination that habitats found within the project area are ubiquitous throughout the region and are not uncommon.

4.1 Additional Considerations

Other wildlife species that may forage in the area could include raptors, such as bald eagles, or ferruginous hawks (BGEPA and NESL protected species).

Small passerine birds protected by the Migratory Bird Treaty Act (MBTA), whose nesting preferences include short statured shrubs, juniper woodlands, or grasslands, may nest in the analysis areas. Pedestrian activities within the site boundaries would present no significant impact to nesting bird species. Nest clearance surveys shall be completed by a qualified biologist for any ground disturbing activities (including vegetation grubbing) during the nesting season (February 1 – August 31). If an active nest is found, a 100-foot buffer for ground disturbing activities shall apply until the birds have fledged the nest.

5.0 REFERENCES

Beck, Leslie et al. 2021. Noxious and Troublesome Weeds of New Mexico. New Mexico State University. College of Agricultural, Consumer and Environmental Sciences. Las Cruces New Mexico. Cooperative Extension Service. Circular 698.

Jepsen, S., D. F. Schweitzer, B. Young, N. Sears, M. Ormes, and S. H. Black. 2015. Conservation Status and Ecology of Monarchs in the United States. Arlington, Virginia and Portland, Oregon: NatureServe and Xerces Society for Invertebrate Conservation. 36 pp.

NRCS. 2024. Custom Soil Resource Report for McKinley County Area, New Mexico, McKinley County and Parts of Cibola and San Juan Counties. Accessed 2024.

USFWS. 2017. Southwestern willow flycatcher (*Empidonax traillii extimus*) 5-Year Review. December 29.

USFWS 2020. Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the Western Distinct Population Segment of the Yellow-Billed Cuckoo; Proposed Rule. U.S. Department of Interior. February 27, 2020. Federal Register, 85:11458-11594.

Appendix A

Special Status Species Queries

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New Mexico Ecological Services Field Office
2105 Osuna Road Ne
Albuquerque, NM 87113-1001
Phone: (505) 346-2525 Fax: (505) 346-2542

In Reply Refer To: 12/09/2024 17:32:06 UTC
Project Code: 2025-0029063
Project Name: Section 27 Mine

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

Thank you for your recent request for information on federally listed species and important wildlife habitats that may occur in your project area. The U.S. Fish and Wildlife Service (Service) has responsibility for certain species of New Mexico wildlife under the Endangered Species Act (ESA) of 1973 as amended (16 USC 1531 et seq.), the Migratory Bird Treaty Act as amended (16 USC 701-715), and the Bald and Golden Eagle Protection Act as amended (16 USC 668-668(c)). We are providing the following guidance to assist you in determining which federally imperiled species may or may not occur within your project area, and to recommend some conservation measures that can be included in your project design.

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the ESA of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the ESA, the accuracy of this species list should be verified after 90 days. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the ESA is to provide a means whereby threatened and endangered species and

the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the ESA and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (NEPA; 42 USC 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf.

Candidate Species and Other Sensitive Species

A list of candidate and other sensitive species in your area is also attached. Candidate species and other sensitive species are species that have no legal protection under the ESA, although we recommend that candidate and other sensitive species be included in your surveys and considered for planning purposes. The Service monitors the status of these species. If significant declines occur, these species could potentially be listed. Therefore, actions that may contribute to their decline should be avoided.

Lists of sensitive species including State-listed endangered and threatened species are compiled by New Mexico State agencies. These lists, along with species information, can be found at the following websites.

Biota Information System of New Mexico (BISON-M): www.bison-m.org

New Mexico State Forestry. The New Mexico Endangered Plant Program: https://www.emnrd.nm.gov/sfd/rare-plants/

New Mexico Rare Plant Technical Council, New Mexico Rare Plants: nmrareplants.unm.edu

Natural Heritage New Mexico, online species database: nhnm.unm.edu

WETLANDS AND FLOODPLAINS

Under Executive Orders 11988 and 11990, Federal agencies are required to minimize the destruction, loss, or degradation of wetlands and floodplains, and preserve and enhance their natural and beneficial values. These habitats should be conserved through avoidance, or mitigated to ensure that there would be no net loss of wetlands function and value.

We encourage you to use the National Wetland Inventory (NWI) maps in conjunction with ground-truthing to identify wetlands occurring in your project area. The Service's NWI program website, www.fws.gov/wetlands/Data/Mapper.html, integrates digital map data with other resource information. We also recommend you contact the U.S. Army Corps of Engineers for permitting requirements under section 404 of the Clean Water Act if your proposed action could impact floodplains or wetlands.

MIGRATORY BIRDS

In addition to responsibilities to protect threatened and endangered species under the ESA, there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the Service (50 CFR 10.12 and 16 USC 668(a)). For more information regarding these Acts, see https://www.fws.gov/program/migratory-bird-permit/what-we-do.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a Federal nexus) or a Bird/Eagle Conservation Plan (when there is no Federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see https://www.fws.gov/library/collections/threats-birds. We also recommend review of the Birds of Conservation Concern list (https://www.fws.gov/media/birds-conservation-concern-2021) to fully evaluate the effects to the birds at your site. This list identifies migratory and non-migratory bird species (beyond those already designated as federally threatened or endangered) that represent top conservation priorities for the Service, and are potentially threatened by disturbance, habitat impacts, or other project development activities.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 thereby provides additional protection for both migratory birds and migratory bird habitat. Please visit https://www.fws.gov/partner/council-conservation-migratory-birds for information regarding the implementation of Executive Order 13186.

We suggest you contact the New Mexico Department of Game and Fish, and the New Mexico Energy, Minerals, and Natural Resources Department, Forestry Division for information regarding State protected and at-risk species fish, wildlife, and plants.

For further consultation with the Service we recommend submitting inquiries or assessments electronically to our incoming email box at nmesfo@fws.gov, where it will be more promptly routed to the appropriate biologist for review.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

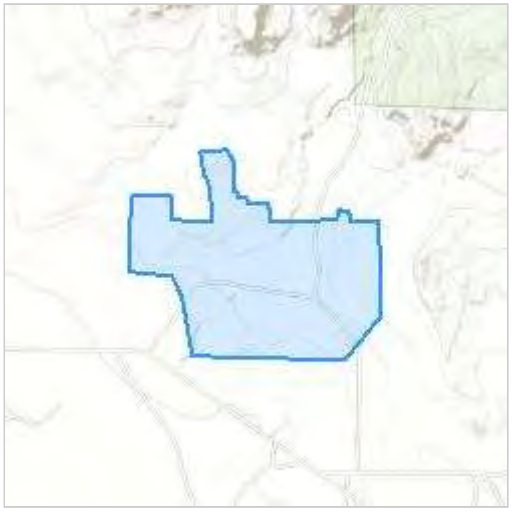
This species list is provided by:

New Mexico Ecological Services Field Office
2105 Osuna Road Ne
Albuquerque, NM 87113-1001
(505) 346-2525

PROJECT SUMMARY

Project Code: 2025-0029063
Project Name: Section 27 Mine
Project Type: Management Plans Land Management/Restoration
Project Description: Abandoned uranium mine
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@35.411711100000005,-107.7758106221093,14z



Counties: McKinley County, New Mexico

ENDANGERED SPECIES ACT SPECIES

There is a total of 5 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Mexican Wolf *Canis lupus baileyi* Population: Wherever found, except where listed as an experimental population No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3916	Endangered

BIRDS

NAME	STATUS
Mexican Spotted Owl *Strix occidentalis lucida* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8196	Threatened
Yellow-billed Cuckoo *Coccyzus americanus* Population: Western U.S. DPS There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

INSECTS

NAME	STATUS
Monarch Butterfly *Danaus plexippus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

FLOWERING PLANTS

NAME	STATUS
Zuni Fleabane *Erigeron rhizomatus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5700	Threatened

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Cedar Creek Associates Inc.
Name: Scott Massed
Address: 9401 N County Road 19
City: Fort Collins
State: CO
Zip: 80524
Email scott.massed.a@gmail.com
Phone: 8023490760

PROJECT INFORMATION

Project Title:	Section 27 Mine
Project Type:	(NO PROJECT REVIEW) SPECIES LIST ONLY
Latitude/Longitude (DMS):	35.410618 / -107.775380
County(s):	MCKINLEY
Project Description:	Preliminary screening for the Section 27 Mine.

REQUESTOR INFORMATION

Project Organization:	
Contact Name:	Scott Massed
Email Address:	smassed@cedarcreek.app
Organization:	Cedar Creek Associates Inc.
Address:	9401 N County Road 19, Fort Collins CO 80524
Phone:	8023490760

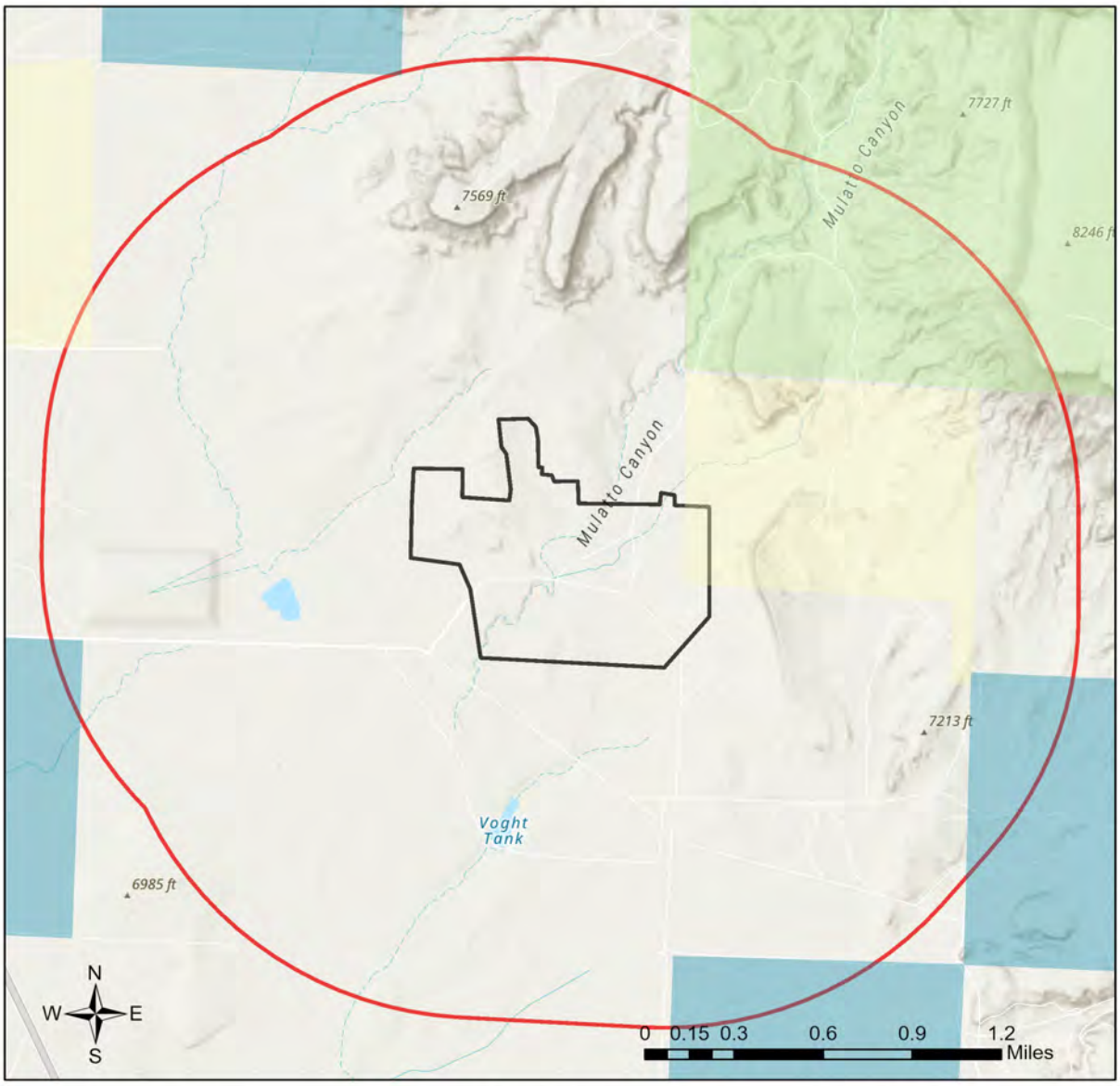
OVERALL STATUS

The information contained within this report comprises the recommendations of the New Mexico Department of Game and Fish (Department) for management and mitigation of proposed project impacts to wildlife and habitat resources; see the Project Recommendations section below for further details. No further consultation with the Department is required based on the project's location and, with implementation of mitigation measures described in the Project Recommendations section below, no adverse effects to wildlife or important habitats are anticipated. However, a Department biologist may be in touch within 30 days if they determine that further review is required.

About this report:

- This environmental review is based on the project description and location that was entered. The report must be updated if the project type, area, or operational components are modified.
- This is a preliminary environmental screening assessment and report. It is not a substitute for the potential wildlife knowledge gained by having a biologist conduct a field survey of the project area. Federal status and plant data are provided as a courtesy to users. The review is also not intended to replace consultation required under the federal Endangered Species Act (ESA), including impact analyses for federal resources from the U.S. Fish and Wildlife Service (USFWS) using their Information for Planning and Consultation tool.
- This report contains information on wildlife species protected under the ESA and the Wildlife Conservation Act (WCA), Species of Greatest Conservation Need (SGCN), and Species of Economic and Recreational Importance (SERI). Species listed under the ESA are protected from take at the federal level and under the WCA are protected from take at the state level. SGCN are identified in the State Wildlife Action Plan (SWAP) for New Mexico; all of these species are considered to be of conservation concern but not all of them are protected from take at the state or federal level. The harvest of all SERI is regulated at the state level. The Department has no authority to designate critical habitat for species listed under the WCA; only the USFWS can designate critical habitat for species listed under the ESA.
- The New Mexico Environmental Review Tool (ERT) utilizes species observation locations and species habitat suitability models, both of which are subject to ongoing change and refinement. Inclusion or omission of a species within a report cannot guarantee species presence or absence within your project area. To determine occurrence of any species listed in this report, or other wildlife that may be present within your project area, onsite surveys conducted by a qualified biologist during appropriate, species-specific survey timelines may be necessary.
- The Department encourages use of the ERT to modify proposed projects for avoidance, minimization, or mitigation of wildlife impacts. However, the ERT is not intended to be used in a repeatedly iterative fashion to adjust project attributes until a previously determined recommendation is generated. The ERT serves to assess impacts once project details are developed. The New Mexico Crucial Habitat Assessment Tool, the data layers from which are included in the ERT, is the appropriate system for advising early-stage project planning and design to avoid areas of anticipated wildlife concerns and associated regulatory requirements.

Section 27 Mine



- Buffered Project Boundary
- Project_Boundary
- Bureau of Land Management
- City Land
- County Land
- Department of Defense
- Department of Energy
- NM Department of Game & Fish
- NM State Forestry Division
- NM State Parks
- National Park Service
- Other Federal Agency
- Other Federal Agency
- State Land Office
- State of New Mexico
- Tribal Land
- U.S. Army Corps of Engineers
- U.S. Bureau of Reclamation
- U.S. Department of Agriculture
- U.S. Fish and Wildlife Service
- U.S. Forest Service
- U.S. Natural Resources Conservation Service

NHNM, USGS, USFS, US Census Bureau, NMDGF
Esri, NASA, NGA, USGS, FEMA
Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, USFWS

Special Status Animal Species Potentially within 2000 Meters of Project Area

Common Name	Scientific Name	USFWS (ESA)	NMDGF (WCA)	NMDGF SGCN/SERI	USFS	USFS SCC	BLM
Mountain Treefrog	Hyla wrightorum			SGCN			
Boreal Chorus Frog	Pseudacris maculata			SGCN			
Northern Leopard Frog	Lithobates pipiens			SGCN	Sensitive Species	USFS R3 SCC	BLM SENSITIVE
Eared Grebe	Podiceps nigricollis			SGCN			
Clark's Grebe	Aechmophorus clarkii			SGCN			
American Bittern	Botaurus lentiginosus			SGCN			BLM WATCH
Bald Eagle	Haliaeetus leucocephalus		T	SGCN	Sensitive Species		BLM SENSITIVE
Peregrine Falcon	Falco peregrinus		T	SGCN			BLM WATCH
Mountain Plover	Charadrius montanus			SGCN	Sensitive Species		BLM WATCH
Flammulated Owl	Otus flammeolus			SGCN			BLM WATCH
Western Burrowing Owl	Athene cunicularia hypugaea			SGCN	Sensitive Species	USFS R3 SCC	BLM SENSITIVE
Common Nighthawk	Chordeiles minor			SGCN			
Lewis's Woodpecker	Melanerpes lewis			SGCN		USFS R3 SCC	BLM WATCH
Williamson's Sapsucker	Sphyrapicus thyroideus			SGCN			
Olive-Sided Flycatcher	Contopus cooperi			SGCN			
Bank Swallow	Riparia riparia			SGCN			
Pinyon Jay	Gymnorhinus cyanocephalus			SGCN		USFS R3 SCC	BLM SENSITIVE
Clark's Nutcracker	Nucifraga columbiana			SGCN			
Juniper Titmouse	Baeolophus ridgwayi			SGCN		USFS R3 SCC	BLM WATCH
Pygmy Nuthatch	Sitta pygmaea			SGCN			
Western Bluebird	Sialia mexicana			SGCN			
Mountain Bluebird	Sialia currucoides			SGCN			
Loggerhead Shrike	Lanius ludovicianus			SGCN		USFS R3 SCC	BLM WATCH

Special Status Animal Species Potentially within 2000 Meters of Project Area

Common Name	Scientific Name	USFWS (ESA)	NMDGF (WCA)	NMDGF SGCN/SERI	USFS	USFS SCC	BLM
Gray Vireo	Vireo vicinior		T	SGCN	Sensitive Species	USFS R3 SCC	BLM WATCH
Virginia's Warbler	Leiothlypis virginiae			SGCN			BLM SENSITIVE
Black-Throated Gray Warbler	Setophaga nigrescens			SGCN			BLM WATCH
Grace's Warbler	Setophaga graciae			SGCN		USFS R3 SCC	BLM WATCH
Black-Chinned Sparrow	Spizella atrogularis			SGCN			BLM WATCH
Vesper Sparrow	Pooecetes gramineus			SGCN			
Chestnut-Collared Longspur	Calcarius ornatus			SGCN			BLM SENSITIVE
Cassin's Finch	Haemorhous cassinii			SGCN			BLM WATCH
Evening Grosbeak	Coccothraustes vespertinus			SGCN			
Spotted Bat	Euderma maculatum		T	SGCN	Sensitive Species	USFS R3 SCC	BLM SENSITIVE
Pale Townsend's Big-Eared Bat	Corynorhinus townsendii pallescens			SGCN	Sensitive Species	USFS R3 SCC	BLM SENSITIVE
Gunnison's Prairie Dog	Cynomys gunnisoni			SGCN	Sensitive Species		BLM SENSITIVE
Mountain Lion	Puma concolor			SGCN			
Elk	Cervus canadensis			SGCN			
Mule Deer	Odocoileus hemionus			SGCN			

Common Name hyperlink takes you to species account in bison-m.org; Scientific Name hyperlink takes you to information in NatureServe Explorer; ESA = Endangered Species Act, C = Candidate, LE = Listed Endangered, LT = Listed Threatened, XN = Non-essential Experimental Population, for other ESA codes see this website; WCA = Wildlife Conservation Act, E = Endangered, T = Threatened; SERI = Species of Economic and Recreational Importance; SGCN = Species of Greatest Conservation Need; USFS = U.S. Forest Service, Sensitive Species = A species likely to occur on USFS lands that is of concern for a potential reduction in population viability; SCC = Species of Conservation Concern; BLM = Bureau of Land Management, BLM SENSITIVE = A species that occurs on BLM lands and whose viability is at risk, BLM WATCH = Species that may be added to the sensitive species list in future pending new information regarding species status.

Project Recommendations

This report includes a preliminary species list that may be used during early stages of project or conservation planning. Even if this report indicates that your proposed project location would require a custom review from a biologist, **no review will be returned** until additional project details are provided. **To obtain a project review**, please submit additional details regarding the **type** of project, project **objectives**, anticipated project **duration**, **timing** of project construction, the composition and dimensions/quantities of **materials** that will be utilized for project implementation, any **equipment** that will be used, anticipated **ground disturbance** that will occur, wildlife surveys or observations that have occurred on or near the project site, and **any other relevant details** regarding potential effects of project activities on wildlife or wildlife habitat. **Photographs** of the project site are especially useful.

Although this project report may include management recommendations based on the project location, additional conservation measures may be needed. The Department can not fully assess potential effects and associated management recommendations until a **project type and description** have been submitted and an appropriate **impact buffer** for that project type has been applied. Also, the species list within this report represents an estimation of special status species that could be present at the site of a small-scale project. Species lists for projects that occur across **broader geographic scales** (e.g., one or more counties, multiple habitat types) are more appropriately obtained from the **Department's Biota Information System of New Mexico (BISON-M) database**. Species lists generated by the ERT may contain modeled species distributions in order to predict species occurrences within areas that lack previous wildlife inventories or surveys. This list can be refined using occurrence-based information within BISON-M regarding wildlife-habitat relationships and biological needs for species that might be present within the project footprint.

Burrowing owl (*Athene cunicularia*) may occur within your project area. Burrowing owls are protected from take by the Migratory Bird Treaty Act and under New Mexico state statute. Before any ground disturbing activities occur, the Department recommends that a preliminary burrowing owl survey be conducted by a qualified biologist using the Department's Burrowing Owl Survey Protocol. Should burrowing owls be documented in the project area, please contact the Department or USFWS for further recommendations regarding relocation or avoidance of impacts.

Prairie dog colonies may occur within the vicinity of your project area. Both black-tailed prairie dogs (*Cynomys ludovicianus*) and Gunnison's prairie dogs (*Cynomys gunnisoni*) are designated as New Mexico SGCN, and their colonies provide important habitat for other grassland wildlife. Wherever possible, occupied prairie dog colonies should be left undisturbed, and all project activities should be directed off the colony. Any burrows that are located on the project site should be surveyed by a qualified biologist to determine whether burrows are active or inactive and whether burrowing owls may be utilizing the site. Colonies within the range of the black-tailed prairie dog can be surveyed by a qualified biologist diurnally, year-round using binoculars. Colonies within the range of the Gunnison's prairie dog can be surveyed by a qualified biologist diurnally, using binoculars during the warmer months from April through October and by searching for fairly fresh scat and lack of cobwebs or debris at the mouths of burrows during the cold months (November through March). If ground-disturbing activities cannot be relocated off the prairie dog colony, or if project activities involve control of prairie dogs, the Department recommends live-trapping and relocation of prairie dogs. The Department can provide recommendations regarding suitability of potential translocation areas and procedures.

Disclaimers regarding recommendations:

- The Department provides technical guidance to support the persistence of all protected species of native fish and wildlife, including game and nongame wildlife species. Species listed within this report include those that have been documented to occur within the project area, and others that may not have been documented but are projected to occur within the project vicinity.
- Recommendations are provided by the Department under the authority of § 17-1-5.1 New Mexico Statutes Annotated 1978, to provide "communication and consultation with federal and other state agencies, local governments and communities, private organizations and affected interests responsible for habitat, wilderness, recreation, water quality and environmental protection to ensure comprehensive conservation services for hunters, anglers and nonconsumptive wildlife users".
- The Department has no authority for management of plants or Important Plant Areas. The New Mexico Endangered Plant Program, under the Energy, Minerals, and Natural Resources Department's Forestry Division, identifies and develops conservation measures necessary to ensure the survival of plant species within New Mexico. Plant status information is provided within this report as a courtesy to users. Recommendations provided within the ERT may not be sufficient to preclude impacts to rare or sensitive plants, unless conservation measures are identified in coordination with the Endangered Plant Program.
- Additional coordination and/or consultation may also be necessary under the federal ESA or National Environmental Policy Act (NEPA). Further site-specific mitigation recommendations may be proposed during ESA consultation and/or NEPA analyses or through coordination with affected federal agencies.

Appendix B

Special Status Species Screening

Species	State Status	Federal Status	Habitat Requisites	Site Characteristics	Determination
Birds					
Yellow-Billed Cuckoo, *Coccyzus americanus*		Threatened	Lowland riparian woodlands, Madrean evergreen woodlands, or mesquite bosques.	No suitable habitat in the project area.	No Impacts
Eared Grebe, Podiceps nigricollis	SGNC		Nests in areas with seasonal to permanent water: marsh, marshy section of lake, sewage pond, fishpond, newly flooded area, reservoir, river backwaters.	No suitable habitat in the project area.	No Impacts
Clark's Grebe, Aechmophorus clarkii	SGNC		Nests among tall plants growing in water on edge of large areas of open water.	No suitable habitat in the project area.	No Impacts
American Bittern, Botaurus lentiginosus	SGNC	Watch	Lake and pond edges where cattails, sedges, or bulrushes are plentiful and marshes where there are patches of open water and aquatic-bed vegetation.	No suitable habitat in the project area.	No Impacts
Bald Eagle, Haliaeetus leucocephalus	SGNC	Sensitive	Nests usually are in tall trees or on pinnacles or cliffs near water. Areas close (within 4 km) to large bodies of water abundant with large fish.	No suitable habitat in the project area.	No Impacts
Peregrine Falcon, *Falco peregrinus*	SGNC	Watch	Mountain and canyon habitats, including high elevation areas above 10,000 ft. Usually associated with water. Nesting in cliffs.	Habitat present and abundant throughout the region. Removal of habitat within the project area will have no impact on habitat availability.	No Impacts
Mountain Plover, *Charadrius montanus*	SGNC	Sensitive	Flat to slightly rolling expanses of grassland, semi-desert, or badland, in an area with short, sparse vegetation, and large bare areas. Migration habitat is similar.	No suitable habitat in the project area.	No Impacts

Species	State Status	Federal Status	Habitat Requisites	Site Characteristics	Determination
Flammulated Owl, *Otus flammeolus*	SGNC	Watch	Open ponderosa pine forest, mixed conifer forest. Open forest stands with large trees and snags for nesting, with adjacent openings that provide edge habitat for foraging.	No suitable habitat in the project area.	No Impacts
Western Burrowing Owl, *Athene cunicularia hypugaea*	SGNC	Sensitive	Open, well-drained terrain with short, sparse vegetation, and underground burrows or burrow-like features.	Habitat present and abundant throughout the region. Removal of habitat within the project area will have no impact on habitat availability.	No Impacts
Common Nighthawk, *Chordeiles minor*	SGNC		Common Nighthawks will lay their eggs in a scrape on bare ground in any open habitat.	Habitat present and abundant throughout the region. Removal of habitat within the project area will have no impact on habitat availability.	No Impacts
Lewis's Woodpecker, *Melanerpes lewis*	SGNC	Watch	Open ponderosa pine forests, oak woodlands, and riparian areas.	No suitable habitat in the project area.	No Impacts
Williamson's Sapsucker, *Sphyrapicus thyroideus*	SGNC		Spruce-fir, Douglas-fir, ponderosa pine forests, and areas where quaking aspen is present.	No suitable habitat in the project area.	No Impacts
Olive-Sided Flycatcher, *Contopus cooperi*	SGNC		Openings and edges in coniferous forest habitat and mixed confer, late-successional forest.	No suitable habitat in the project area.	No Impacts
Bank Swallow, *Riparia riparia*	SGNC		They live in colonies in vertical cliffs and dirt banks along rivers and streams.	No suitable habitat in the project area.	No Impacts

Species	State Status	Federal Status	Habitat Requisites	Site Characteristics	Determination
Pinyon Jay, *Gymnorhinus cyanocephalus*	SGNC	Sensitive	Pinyon-juniper habitat due to the species' tightly co-evolved relationship with pinyon pines.	No Pinyon pine observed on-site. Habitat present and abundant throughout the region. Removal of any habitat within the project area will have no impact on habitat availability.	No Impacts
Clark's Nutcracker, *Nucifraga columbiana*	SGNC		Open coniferous forests at anywhere from 3,000 to 12,000 feet.	No suitable habitat in the project area.	No Impacts
Juniper Titmouse, *Baeolophus ridgwayi*	SGNC	Watch	Open, mixed woodland areas at mid-elevations, and juniper dominant areas.	Habitat present and abundant throughout the region. Removal of habitat within the project area will have no impact on habitat availability.	No Impacts
Pygmy Nuthatch, *Sitta pygmaea*	SGNC		Long-needle pine forests, especially in Ponderosa. Found at their highest density in old-growth forests that are undisturbed and contain numerous dead pines.	No suitable habitat in the project area.	No Impacts
Western Bluebird, *Sialia mexicana*	SGNC		Open Pinyon-juniper and pine-oak habitats, extending in lower numbers into coniferous forest.	Habitat present and abundant throughout the region. Removal of habitat within the project area will have no impact on habitat availability.	No Impacts

Species	State Status	Federal Status	Habitat Requisites	Site Characteristics	Determination
Mountain Bluebird, *Sialia currucoides*	SGNC		Sparsely treed grasslands or open woodlands. They require cavities for nesting.	Habitat present and abundant throughout the region. Removal of habitat within the project area will have no impact on habitat availability.	No Impacts
Loggerhead Shrike, *Lanius ludovicianus*	SGNC	Watch	Widely spaced shrubs and low trees, interspersed with short grasses, forbs, and bare ground.	Habitat present and abundant throughout the region. Removal of habitat within the project area will have no impact on habitat availability.	No Impacts
Gray Vireo, *Vireo vicinior*	SGNC	Sensitive	Pinyon and juniper stands at 5,800-7,200 ft. Mixture of open savannas and slightly more closed-canopy woodland areas, with a wide variety of understory shrubs and grasses.	Habitat present and abundant throughout the region. Removal of habitat within the project area will have no impact on habitat availability.	No Impacts
Virginia's Warbler, *Leiothlypis virginiae*	SGNC	Sensitive	Arid montane woodlands, oak thickets, pinyon-juniper, coniferous scrub, chaparral, and brushy steep mountain slopes within or near dry coniferous woodlands.	No suitable habitat in the project area.	No Impacts
Black-Throated Gray Warbler, *Setophaga nigrescens*	SGNC	Watch	Semi-arid woodlands, dry open forests, mixed moist forests, shrublands, and chaparral. Conifers, live oaks, and mixed pinyon-juniper woodlands.	Habitat present and abundant throughout the region. Removal of habitat within the project area will have no impact on habitat availability.	No Impacts
Grace's Warbler, *Setophaga graciae*	SGNC	Watch	Ponderosa pine forest habitat and pineoak woodlands.	No suitable habitat in the project area.	No Impacts

Species	State Status	Federal Status	Habitat Requisites	Site Characteristics	Determination
Black-Chinned Sparrow, *Spizella atrogularis*	SGNC	Watch	Arid shrublands on rugged, rocky slopes. Moderately dense shrubs from 3-7 ft tall mixed with rocky outcroppings, a large grass component, and scattered large shrubs or trees.	Habitat present and abundant throughout the region. Removal of habitat within the project area will have no impact on habitat availability.	No Impacts
Vesper Sparrow, *Pooecetes gramineus*	SGNC		Open habitats including old fields, shrub-steppe, grasslands, and cultivated crop fields.	Habitat present and abundant throughout the region. Removal of habitat within the project area will have no impact on habitat availability.	No Impacts
Chestnut-Collared Longspur, *Calcarius ornatus*	SGNC	Sensitive	Breeds in short and mixed grass prairies; winters in arid and semi-arid grasslands.	Habitat present and abundant throughout the region. Removal of habitat within the project area will have no impact on habitat availability.	No Impacts
Cassin's Finch, *Haemorhous cassinii*	SGNC		Mixed conifer forests at higher elevations, wintering at lower elevations.	No suitable habitat in the project area.	No Impacts
Evening Grosbeak, *Coccothraustes vespertinus*	SGNC		Nests in coniferous forests; visits deciduous woodlands and suburban areas in winter.	No suitable habitat in the project area.	No Impacts
Mammals					
Spotted Bat, *Euderma maculatum*	SGNC	Sensitive	Dependant on large, isolated cliffs for roosting. Foraging habitat can include forest openings and subalpine mountain meadows in spruce, pine, pinyon-juniper woodlands, and large riverine/riparian areas.	No potential roosting habitat in the project area. Foraging habitat is locally abundant and not restricted to the project area.	No Impacts

Species	State Status	Federal Status	Habitat Requisites	Site Characteristics	Determination
Pale Townsend's Big-Eared Bat, *Corynorhinus townsendii pallescens*	SGNC	Sensitive	Requires spacious cavern-like structures for roosting during all stages of its life cycle. Forages in edge habitats along streams, adjacent to and within a variety of wooded habitats	Caverns and caves are not present within the project area.	No Impacts
Gunnison's Prairie Dog, *Cynomys gunnisoni*	SGNC	Sensitive	Limited to the high mountain valleys and plateaus in the southern Rocky Mountains, and it is found inhabiting a variety of elevations, topography, and vegetation types.	Habitat present and abundant throughout the region. Removal of habitat within the project area will have no impact on habitat availability.	No Impacts
Mountain Lion, *Puma concolor*	SGNC		Inhabit rough mountainous and canyon country, avoiding low deserts and eastern plains. Tends to follow prey populations of mule deer.	Although likely to pass through the project area, the habitat is locally abundant and not restricted to the project area.	No Impacts
Elk, *Cervus canadensis*	SGNC		Often found in open grasslands or meadows near forest edges. In mountain regions, they generally stay in higher elevations during warmer months and migrate to lower elevations in the winter.	Although likely to pass through the project area, the habitat is locally abundant and not restricted to the project area.	No Impacts
Mule Deer, *Odocoileus hemionus*	SGNC		Found from above the timberline to low-elevation short grasslands. During winter, deer that use higher elevations usually migrate to lower elevations where food is more easily obtainable and deep snow does not limit their movements.	Although likely to pass through the project area, the habitat is locally abundant and not restricted to the project area.	No Impacts

Species	State Status	Federal Status	Habitat Requisites	Site Characteristics	Determination
Mexican Wolf, *Canis lupus baileyii*		Endangered	Prefer mountain woodlands with a favorable combination of cover, water, and available prey.	Habitat within the project area is not favorable but could provide cover for maigrating individuals.	No Impacts
Amphibians					
Mountain Tree Frog, *Hyla wrightorum*	SGNC		Montane streams, wet meadows, ciénegas, roadside ditches, and livestock tanks in oak, pine-oak, ponderosa pine, Douglas-fir, and other forest types, mostly above 5,000 feet.	No suitable moist or mesic habitats are found within the project area.	No Impacts
Boreal Chorus Frog, *Pseudacris maculata*	SGNC		forest openings around woodland ponds. They will breed in almost any fishless pond with at least 10 cm of water.	No suitable moist or mesic habitats are found within the project area.	No Impacts
Northern Leopard Frog, *Lithobates pipiens*	SGNC	Sensitive	Springs, slow streams, marshes, bogs, ponds, canals, flood plains, reservoirs, and lakes.	No suitable moist or mesic habitats are found within the project area.	No Impacts
Insects					
Monarch Butterfly, *Danaus Plexippus*		Candidate	Found wherever milweeds are present. Milkweeds are generally associated with mesic areas, such as pastures, meadows, and wetlands	No milkweed species found during site surveys. No critical habitat is designated within the project area.	No Impacts
Plants					
Goodding's Onion, *Allium gooddingii*	Imperiled	Sensitive	At the base of steep slopes and moist drainage bottoms in the shade of spruce-fir and mixed conifer forest and aspen between 6,500 and 9,400 ft.	No suitable habitat in the project area.	No Impacts
Pygmy sagebrush, *Artemisia pygmaea*	Limmited Distribution		Dry, barren soils often on white clay or shale, tolerant of alkalai.	No suitable habitat in the project area.	No Impacts

Species	State Status	Federal Status	Habitat Requisites	Site Characteristics	Determination
American hart's-tongue fern, *Asplenium scolopendrium var. americanum*	Critically Imperiled	Threatened	Calcareous rocks in sinkholes, at cave entrances, and on cool, moist talus; always in deep shade.	No suitable habitat in the project area.	No Impacts
Zuni Milkvetch, *Astragalus accumbens*	Vulnerable		Gravelly clay banks and knolls, in dry, alkaline soils derived from sandstone, in piñon-juniper woodlands; 1,890-2,410 m (6,200-7,900 ft).	No suitable habitat in the project area.	No Impacts
Chuska Mt Milkvetch, *Astragalus chuskanus*	Vulnerable		Degraded Chuska sandstone in openings of Ponderosa pine and montane coniferous forest above 1,650 m (5,500 ft).	No suitable habitat in the project area.	No Impacts
Clifford's Milkvetch, *Astragalus cliffordii*	Critically Imperiled		Rim rock ledges of the Mesa Verde Group, in sagebrush and pinyon-juniper woodland; 2,070 m (6,800 ft).	No suitable habitat or soils in the project area.	No Impacts
Heil's Milkvetch, *Astragalus heilii*	Critically Imperiled		Rim rock ledges of the Mesa Verde Group, in piñon-juniper woodland; 2,195 m (7,200 ft). very narrow endemic known only from the type location on the Navajo Nation near Borrego Pass.	No suitable habitat or soils in the project area.	No Impacts
Chaco Milkvetch, *Astragalus micromerius*	Vulnerable	Sensitive	Gypseous or limy sandstones in piñon-juniper woodland (6,600-7,300 ft). This endemic Associated with outcrops of sandstone that are blended with Todilto gypsum or limestone.	No suitable soils in the project area.	No Impacts
Naturita Milkvetch, *Astragalus naturitensis*	Critically Imperiled		Sandstone ledges and rimrock along canyons in piñon-juniper woodland (5,400-6,200 ft).	No suitable habitat in the project area.	No Impacts

Species	State Status	Federal Status	Habitat Requisites	Site Characteristics	Determination
Paiute Suncup, *Chylismia scapoidea*	Apparently Secure		Widespread and locally abundant in northwestern New Mexico. Shrublands, Pinyon/Juniper woodlands, sand, and rocks.	No suitable habitat in the project area.	No Impacts
Acoma Fleabane, *Erigeron acomanus*	Critically Imperiled	Sensitive	Shaded, sandy slopes accumulated at the bases of cliffs of Zuni sandstone and Entrada sandstone in pinyon-juniper woodland (6,900-7,100 ft). Very narrow endemic.	No suitable habitat in the project area.	No Impacts
Zuni Fleabane, *Erigeron rhizomatus*	Critically Imperiled	Threatened	Nearly barren detrital clay hillsides with soils derived from shales of the Chinle or Baca formations. Moderate to steep slopes in open pinyon-juniper woodlands and ponderosa pine forests at 7,300-8,300 ft.	No suitable soils in the project area.	No Impacts
Sivinski's Fleabane, *Erigeron sivinskii*	Imperiled	Sensitive	Chinle shale in piñon-juniper woodland and Great Basin desert scrub (6,100-7,400 ft).	No suitable soils in the project area.	No Impacts
Clipped Wild Buckwheat, *Eriogonum lachnogynum var. colobum*	Imperiled	Sensitive	Open sandy or gypseous limestone ridges and edges of mesas in piñon-juniper woodland (6,820-7,540 ft). Presently known only from outcrops of Todilto limestone between Prewitt and Thoreau in McKinley County.	No suitable soils in the project area.	No Impacts
Sarah's Wild Buckwheat, *Eriogonum lachnogynum var. sarahiae*	Critically Imperiled		Open sandy limestone ridges and edges of mesas in piñon-juniper woodland at 5,900-7,540 ft.	No suitable soils in the project area.	No Impacts

Species	State Status	Federal Status	Habitat Requisites	Site Characteristics	Determination
Pecos Sunflower, *Helianthus paradoxus*	Imperiled	Threatened	Requires saturated saline soils of desert wetlands. Desert springs or the wetlands created from modifying desert springs (3,300-6,600 ft).	No suitable habitat in the project area.	No Impacts
Lost Sunflower, *Helianthus praetermissus*	Possibly Extirpated		Perhaps wet ground based on the collection locality for the only specimen. This species is known only from the type specimen collected in 1851 on the Sitgreaves expedition.	No suitable habitat in the project area.	No Impacts
Narrow-Leaved Blazingstar, *Mentzelia filifolia*	Critically Imperiled		Road cuts and shale slopes of the upper Chinle Fomation in pinion-juniper woodland (6,400-7,500 ft).	No suitable soils in the project area.	No Impacts
Todilto Stickleaf, *Mentzelia todiltoensis*	Vulnerable	Sensitive	Outcrops of gypsum in the Todilto Formation (5,600-5,840 ft).	No suitable habitat in the project area.	No Impacts
Navajo Muhly, *Muhlenbergia arsenei*	Vulnerable		On limestone rock outcrops in piñon-juniper woodland (4,600-6,500 ft).	No suitable habitat in the project area.	No Impacts
Clifford's Groundsel, *Packera cliffordii*	Imperiled		Limy mudstones or sandy soils (sometimes gypseous) in piñon-juniper woodland up to mixed conifer forest (7,380-7,700 ft).	No suitable habitat in the project area.	No Impacts
Cinder Phacelia, *Phacelia serrata*	Imperiled		Deep volcanic cinders associated with volcanic cones, roadcuts and abandoned quarries, near ponderosa pine and piñon-juniper woodlands (5,900-7,200 ft).	No suitable habitat in the project area.	No Impacts

Species	State Status	Federal Status	Habitat Requisites	Site Characteristics	Determination
Sivinski's Scorpionweed, *Phacelia sivinskii*	Vulnerable		Restricted to gypsum from the Upper Jurassic Todilto Formation of northwestern and north-central New Mexico in sparse juniper/desert scrub communities (5,900-6,450 ft).	No suitable soils in the project area.	No Impacts
Laguna Fame Flower, *Phemeranthus brachypodius*	Critically Imperiled		Very shallow pockets of calcareous silt to clay soils overlying limestone or travertine, or fine silty sand overlying calcareous sandstones; open piñon-juniper woodland with little understory and scattered cacti and shrubs or Chihuahuan desert scrub.	No suitable habitat in the project area.	No Impacts
Navajo Bladderpod, *Physaria navajoensis*	Critically Imperiled		Mesa rims of Todilto limestone in sparse piñon-juniper woodland (7,200-7,600 ft).	No suitable habitat in the project area.	No Impacts
Yeso Twinpod, *Physaria newberryi var. yesicola*	Critically Imperiled	Sensitive	Sandy gypsum and silty strata of the Yeso Formation in short grass steppe and juniper savanna (5,700-6,900 ft). Forms large mounds in nearly barren badlands.	No suitable soils in the project area.	No Impacts
Parish's Alkali Grass, *Puccinellia parishii*	Critically Imperiled	Sensitive	Alkaline springs, seeps, and seasonally wet areas that occur at the heads of drainages or on gentle slopes (2,600-7,200 ft) range-wide.	No suitable habitat in the project area.	No Impacts
Grama Grass Cactus, *Sclerocactus papyracanthus*	Apparently Secure		Grows in pinyon-juniper woodlands and in Found in desert grasslands and is almost always associated with blue grama (5000-7200 ft).	No suitable habitat in the project area.	No Impacts

Species	State Status	Federal Status	Habitat Requisites	Site Characteristics	Determination
Pygmy False Fameflower, *Talinum brevifolium*	Unranked		Dry rocky slopes and ledges in sand pockets (5200-7000 ft).	No suitable habitat in the project area.	No Impacts

Appendix C

Field Photos

Figure 1. Overview of the shortgrass uplands

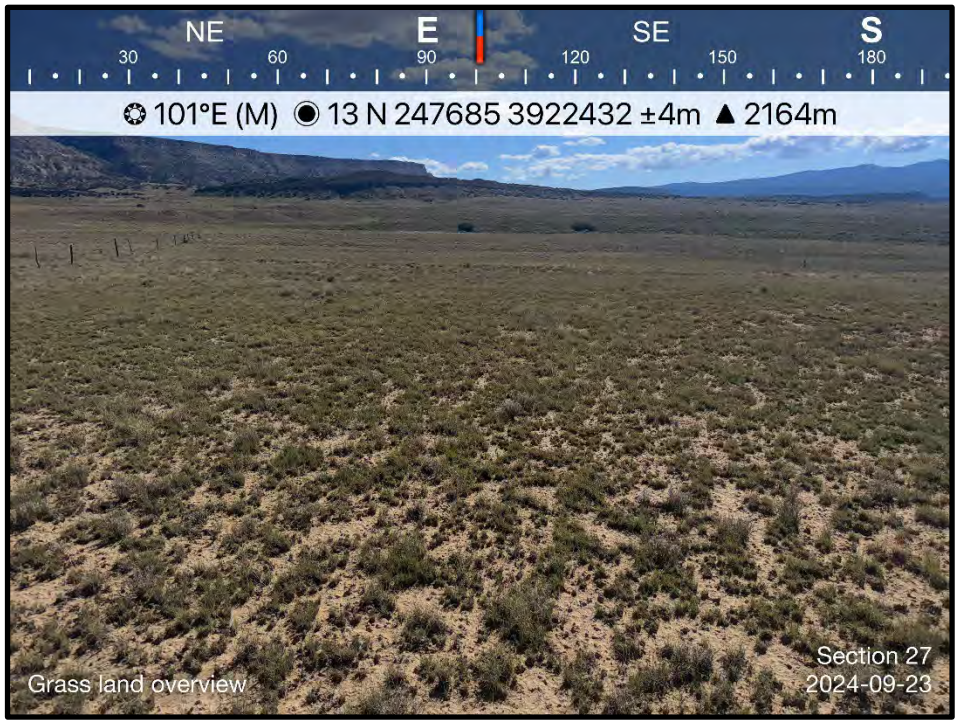


Figure 2. View of the mesic area mapped in the north central part of the project area



Figure 3. Overview of the mixed shrub lowlands

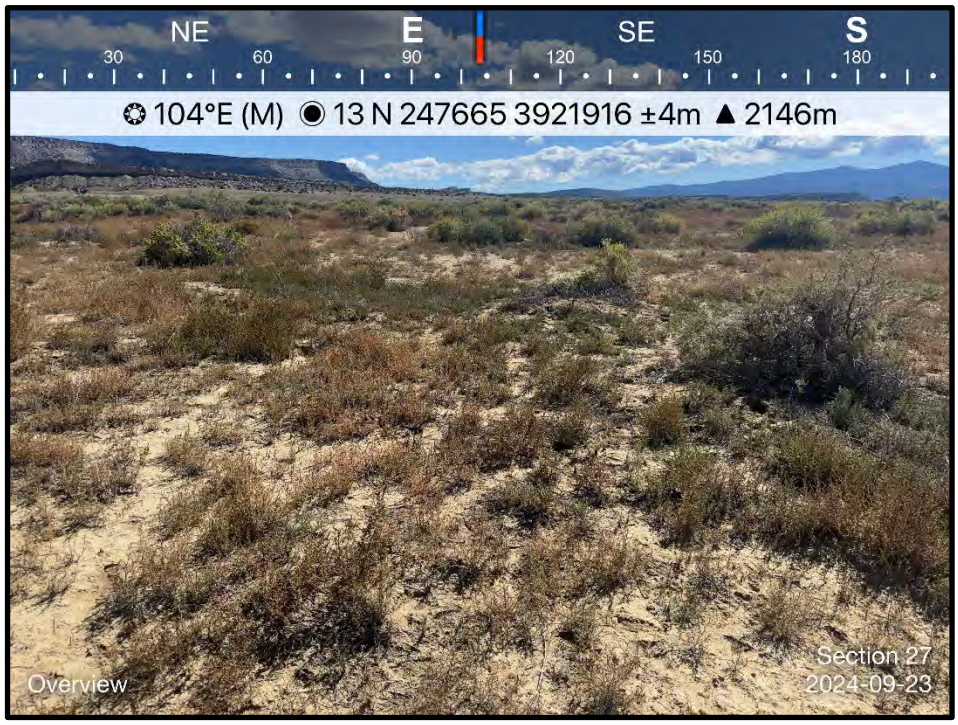


Figure 4. Overview of the mixed shrub lowlands dominated by fourwing saltbush and kochia



Figure 5. A winterfat dominated part of the project area

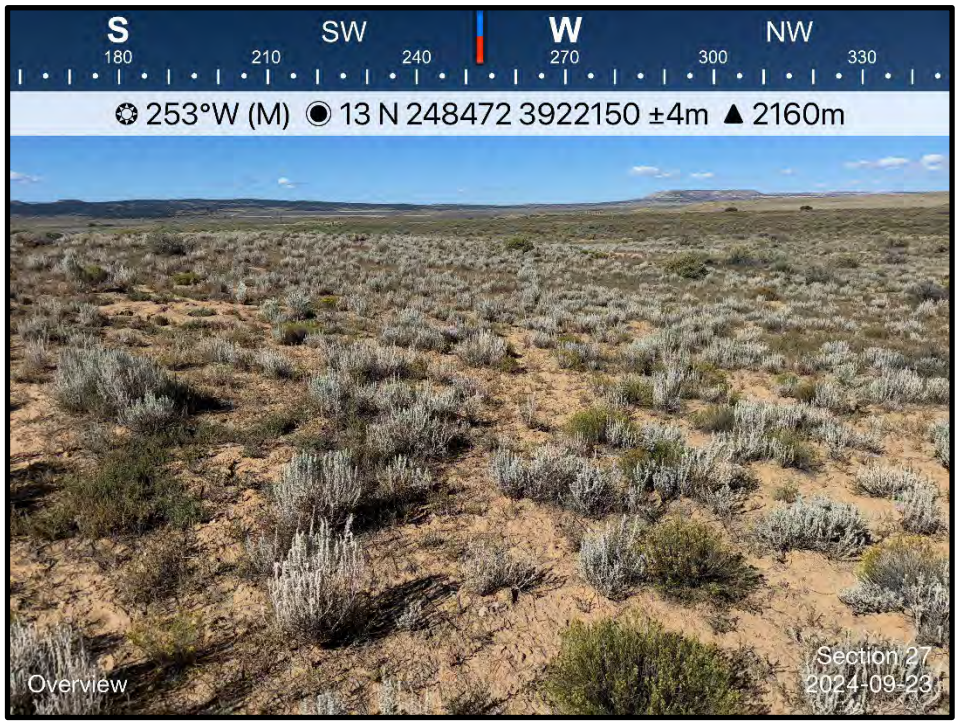


Figure 6. Overview of the northeastern pile

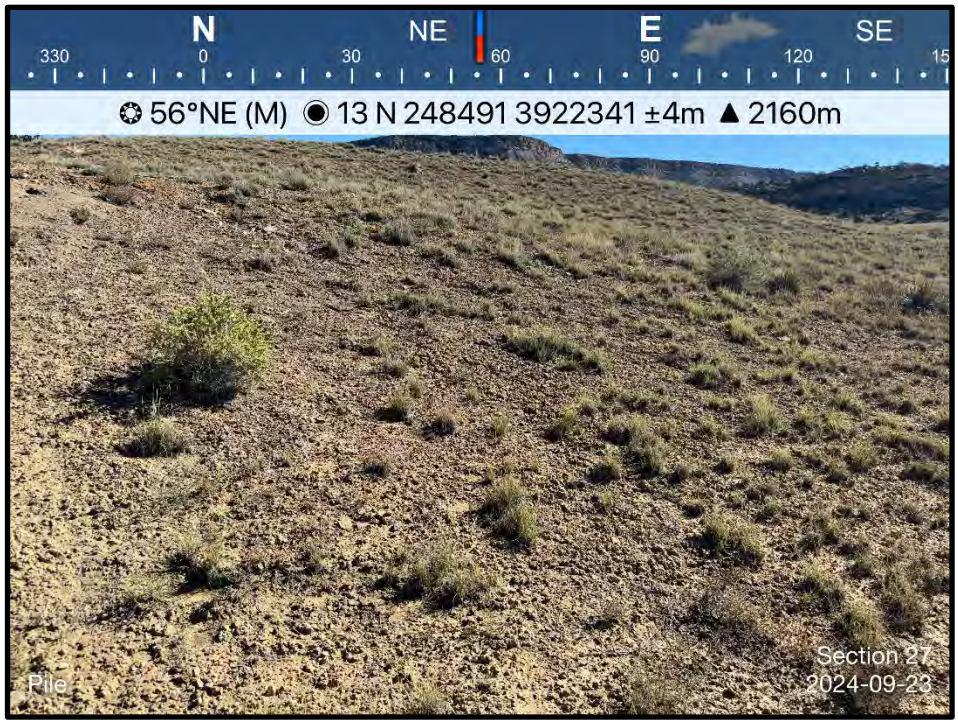
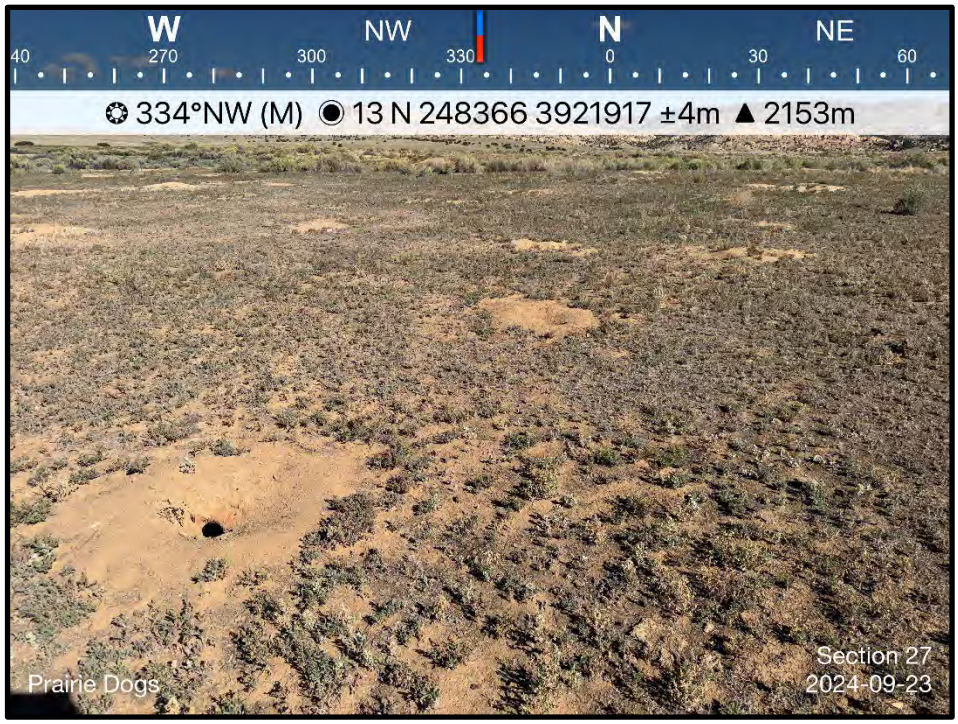


Figure 7. View of the main arroyo that bisects the project area from the north to the south



Figure 8. Overview of prarie dog burrows on the southwest side of the project area



Appendix C Characterization Update Letter and Field Modification Request

Stantec Consulting Services Inc.
2890 East Cottonwood Parkway
Suite 300
Salt Lake City UT 84121-7283

March 27, 2026

Project/File: 182922679

New Mexico Mining and Minerals Division
Abimbola Ojekanmi
1220 S. St. Francis Dr.
Santa Fe, New Mexico 87595
abimbola.ojekanmi@emnrd.nm.gov

RE: United Nuclear Corporation
Section 27 Mine Supplemental Characterization - Field Modification Request

Dear Abimbola,

On behalf of United Nuclear Corporation (UNC), Stantec is providing the New Mexico Mining and Minerals Division (MMD) and New Mexico Environmental Department (NMED) a Field Modification Request related to the Supplemental Characterization Investigation at the Section 27 mine in the Ambrosia Lake area north of Grants, New Mexico.

As described in the *Section 27 Mine Supplemental Characterization Update* letter provided to MMD on January 20, 2026, there are four remaining planned test pits that require data collection in one of the arroyos in the southwestern portion of the Section 27 mine area. UNC respectfully requests concurrence from MMD to complete the remaining four subsurface sample locations in the arroyo using a hand auger rather than an excavator.

UNC proposes to use a hand auger to advance the remaining subsurface sampling locations. The use of a hand auger will alleviate safety concerns associated with mobilizing heavy equipment within the arroyo, including the risk of equipment becoming stuck or causing unnecessary disturbance within both the arroyo as well as along its banks. In addition, this approach will expedite completion of the current field program and better align the sampling results with the anticipated Phase 2 geotechnical sample analysis timeline so that reporting may proceed.

During a recent site visit to Section 27, field staff successfully advanced hand augers to approximately five (5) feet below ground surface within the arroyo to conduct moisture content testing and evaluate whether test pitting could be safely implemented. These observations provide confidence that the remaining subsurface sample locations can be completed without the use of an excavator.

If field-screening at the refusal depth indicates that materials are identified above the applicable investigation level, and it is confirmed that additional data are needed from the location, UNC will return to

Reference: UNC Section 27 Mine Supplemental Characterization Update

the site to complete additional sampling using a backhoe excavator or similar equipment, subject to site conditions.

UNC respectfully requests expedited review and approval of this Field Modification Request by Friday, April 3, 2026 to maintain overall project momentum.

Should you have any questions or wish to discuss further, please contact Chase Forman at (740) 403-1387 or me at (801) 617-3221. UNC appreciates MMD's and NMED's continued coordination and oversight on this work.

Sincerely,

Kelly Johnson PHD, PG
Site Assessment and Remediation Manager
Stantec Consulting Services Inc.

Cc:

Chase Forman, UNC
Lance Hauer, UNC
Kristen Burt, Stantec
Clinton Chisler, MMD
Yushan Li, NMED
Amber Rheubottom, NMED

From:	Ojekanmi, Abimbola, EMNRD
To:	Johnson, Kelly
Cc:	Forman, Chase (GE Aerospace, US); Hauer, Lance M (GE Aerospace); Burt, Kristen; Chisler, Clinton, EMNRD; Rheubottom, Amber, ENV; Li, Yushan, ENV
Subject:	RE: [EXTERNAL] UNC - Section 27 Mine Supplemental Characterization - Field Modification Request
Date:	Tuesday, March 31, 2026 9:00:50 AM
Attachments:	image001.png image002.png image003.png image004.png

Hi Kelly,

NM-MMD do not have any concern regarding the plan to use hand auger; except for the safety implications of hand digging. Meanwhile, since this is just additional 4 holes, I think we are okay.

We appreciate Stantec team for the great work being completed out there.

Regards

Abimbola Ojekanmi |UMRC| MARP
MMD | EMNRD| (505) 490-0726

From: Johnson, Kelly <Kelly.Johnson2@stantec.com>
Sent: Friday, March 27, 2026 2:07 PM
To: Ojekanmi, Abimbola, EMNRD <Abimbola.Ojekanmi@emnrd.nm.gov>
Cc: Forman, Chase (GE Aerospace, US) <chase.forman@geaerospace.com>; Hauer, Lance M (GE Aerospace) <lance.hauer@geaerospace.com>; Burt, Kristen <kristen.burt@stantec.com>; Chisler, Clinton, EMNRD <Clinton.Chisler@emnrd.nm.gov>; Rheubottom, Amber, ENV <Amber.Rheubottom@env.nm.gov>; Li, Yushan, ENV <Yushan.Li@env.nm.gov>; Johnson, Kelly <Kelly.Johnson2@stantec.com>
Subject: [EXTERNAL] UNC - Section 27 Mine Supplemental Characterization - Field Modification Request

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Hi Abimbola,

Attached is a Field Modification Request related to completion of the Supplemental Characterization activities at the Section 27 Mine in Ambrosia Lake, New Mexico. The request proposes a change to the field equipment specified in the approved *Supplemental Characterization Work Plan*. Specifically, UNC is

requesting approval to use a hand auger to complete the four remaining subsurface investigation locations in the arroyo at the site.

Please review the request and let us know if you have any questions. We kindly request a response by April 3, 2026.

Regards,
Kelly

Kelly Johnson, PHD, PG
Site Assessment and Remediation Manager

Direct: (801) 617-3221
kelly.johnson2@stantec.com

With every community, we redefine what's possible.

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Attention: Ce courriel provient de l'extérieur de Stantec. Veuillez prendre des précautions supplémentaires.

Atención: Este correo electrónico proviene de fuera de Stantec. Por favor, tome precauciones adicionales.

From:	Rheubottom, Amber, ENV
To:	Johnson, Kelly; Ojekanmi, Abimbola, EMNRD
Cc:	Forman, Chase (GE Aerospace, US); Hauer, Lance M (GE Aerospace); Burt, Kristen; Chisler, Clinton, EMNRD; Li, Yushan, ENV
Subject:	RE: [EXTERNAL] UNC - Section 27 Mine Supplemental Characterization Update
Date:	Friday, April 10, 2026 10:04:04 AM
Attachments:	image002.png image003.png image004.png image005.png image006.png image007.png

Thank you for this . Please keep an eye on the arroyo as this project progresses and NMED will do the same. NMED approves of the work moving forward.

= Totsiens

**/\/\/\

Kelly Johnson, PHD, PG
Site Assessment and Remediation Manager

From: Rheubottom, Amber, ENV <Amber.Rheubottom@env.nm.gov>
Sent: Friday, April 10, 2026 9:19 AM
To: Johnson, Kelly <Kelly.Johnson2@stantec.com>; Ojekanmi, Abimbola, EMNRD <abimbola.ojekanmi@emnrd.nm.gov>
Cc: Forman, Chase (GE Aerospace, US) <chase.forman@geaerospace.com>; Hauer, Lance M (GE Aerospace) <lance.hauer@geaerospace.com>; Burt, Kristen <kristen.burt@stantec.com>; Chisler, Clinton, EMNRD <Clinton.Chisler@emnrd.nm.gov>; Li, Yushan, ENV <yushan.li@env.nm.gov>
Subject: RE: [EXTERNAL] UNC - Section 27 Mine Supplemental Characterization Update

NMED conditionally approves the characterization update. Please provide a figure showing the saturated area – a quick circle on a map of the sampling locations will be fine. Following submittal of that, NMED will provide final approval.

= Totsiens

**/\/\/\

Atención: Este correo electrónico proviene de fuera de Stantec. Por favor, tome precauciones adicionales.

Appendix D Compiled Field Test Pit and Hand Auger Logs

Test Pit ID: TP-08

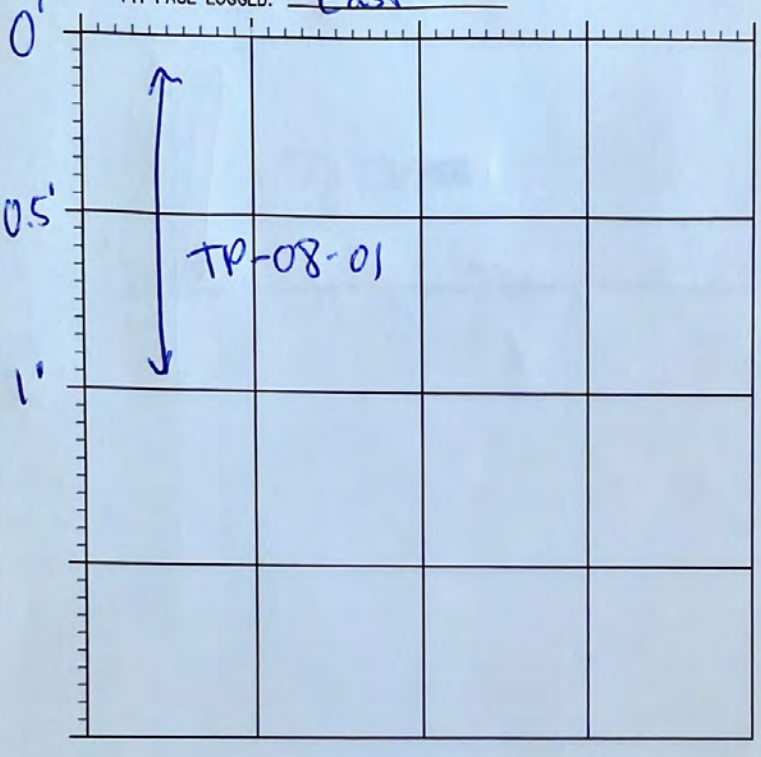
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP-_____

GENERAL LOCATION: Loc 9
PIT TREND: N to S
PIT FACE LOGGED: East

DATE: 10/18/25
FIELD GEOLOGIST: M. Hammond

NORTHING: _____
EASTING: _____



TEST PIT LOG

LEGEND

----- SOIL HORIZON
----- HORIZON CONTRACT
▽ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-08-01	0.5-1'	08:55	ML

Pit Width: 2'
Pit Length: _____
Pit Depth: 1'
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		silt, moist, firm, 10YR 4/4 dark yellowish brown, low-plast

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-_____

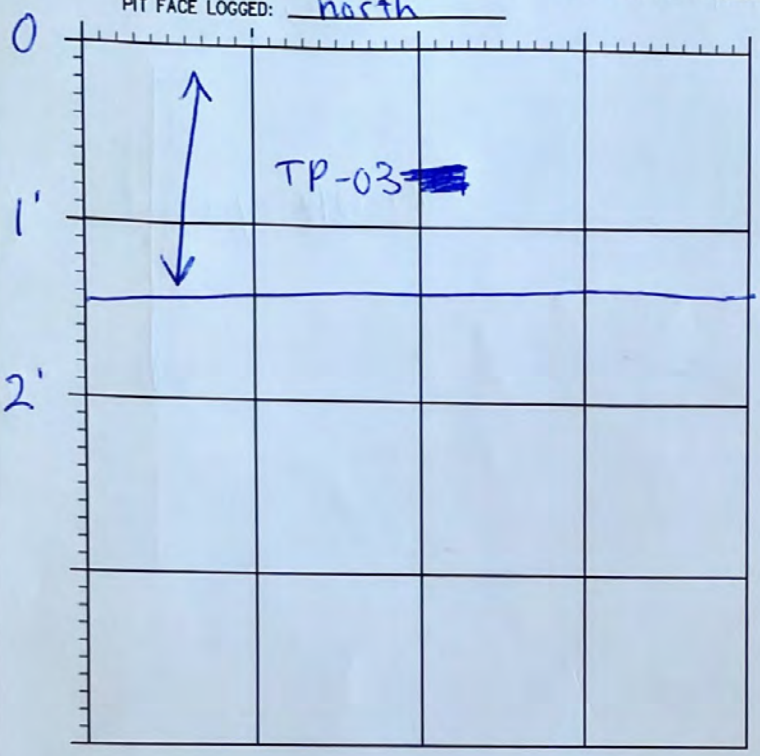
weather: 30°F clear, sunny

Surface: 11,800 cpm
0.5-1.0': 6,400 cpm

FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Test Pit ID: TP-03
Sheet NO.: TP-

GENERAL LOCATION: Loc 10
PIT TREND: east to west
PIT FACE LOGGED: north
DATE: 10/18/25
FIELD GEOLOGIST: M. Hammond
NORTHING:
EASTING:



TEST PIT LOG

LEGEND

----- SOIL HORIZON
——— HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-03	1-1.4'	09:30	ML

Pit Width: 2'
Pit Length:
Pit Depth: 1.4'
GW Depth:

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		silt w/sand, moist, firm, 10YR 4/4 dark yellowish brown, low-plast, very fine-sand

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-

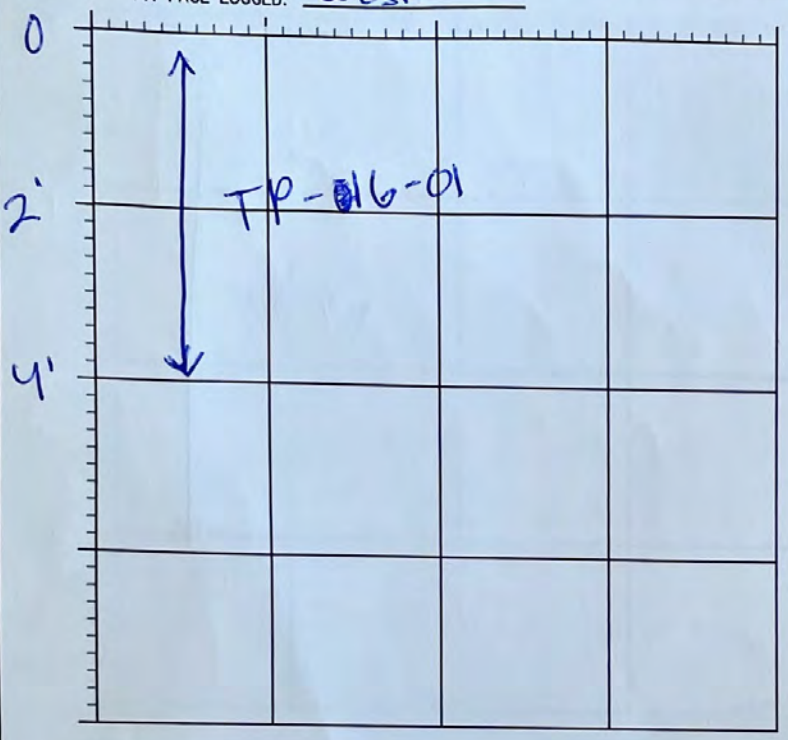
Weather 32°
clear, sunny

Surface: 9,050 cpm
0.5 - 1.0' : ~~6,900~~ 6950 cpm
1.0 - 1.4' = 6920 cpm

FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Test Pit ID: TP-16
Sheet NO.: TP-

GENERAL LOCATION: Loc 11
PIT TREND: SE to NW
PIT FACE LOGGED: West
DATE: 10/18/25
FIELD GEOLOGIST: M. Hammond
NORTHING:
EASTING:



TEST PIT LOG

LEGEND

----- SOIL HORIZON
_____ HORIZON CONTRACT
▽ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-16-01	0-4'	11:15	ML

Pit Width: 3'
Pit Length:
Pit Depth: 4'
GW Depth:

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		silt, moist, firm, med-plast, 10 YR 4/3 brown 0-2'
ML		silt, dry, hard, non-plast, 10 YR 5/4 yellowish brown 2'-

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-

Surface: 14,700 cpm
0.5-1.0': 26,500 cpm
1.0-1.5': 16,900 cpm
1.5'-2.0': 14,500 cpm
2.0-2.5': 12,400 cpm
2.5-3.0': 11,500 cpm
3.5'-4.0': 9,700 cpm

Weather 40°F clear, sunny
5-10 mph wind from NW

FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

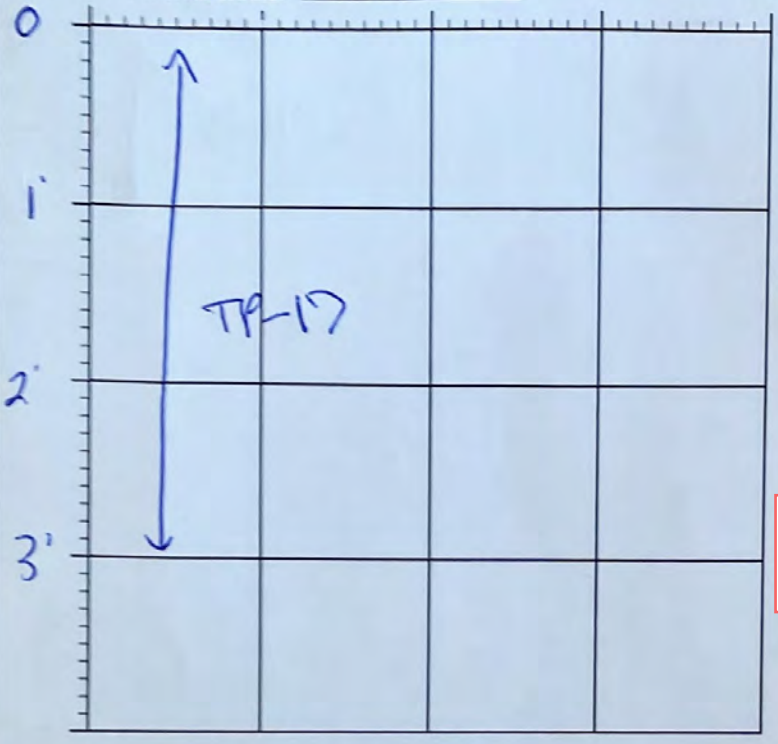
Test Pit ID: TP-[redacted]17

Sheet NO.: TP-_____

GENERAL LOCATION: Loc 12
PIT TREND: SE to NW
PIT FACE LOGGED: west

DATE: 10/18/25
FIELD GEOLOGIST: M. Hammond

NORTHING: _____
EASTING: _____



TEST PIT LOG

LEGEND

----- SOIL HORIZON
_____ HORIZON CONTACT
▽ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-17[redacted]			SM

Missing info. Was there a sample taken here?

Pit Width: _____
Pit Length: _____
Pit Depth: _____
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
SM		silty sand, dry, loose, 10YR 6/4 light yellowish brown, very fine 0-1.5'
SM		silty sand, dry, dense, 10YR 5/4 yellowish brown, very fine 1.5'-

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-_____

Surface: 70,700 cpm
1'-2': 37,800 cpm
2'-3': 19,200 cpm

weather: 45°F clear, sunny 10 mph wind form NW

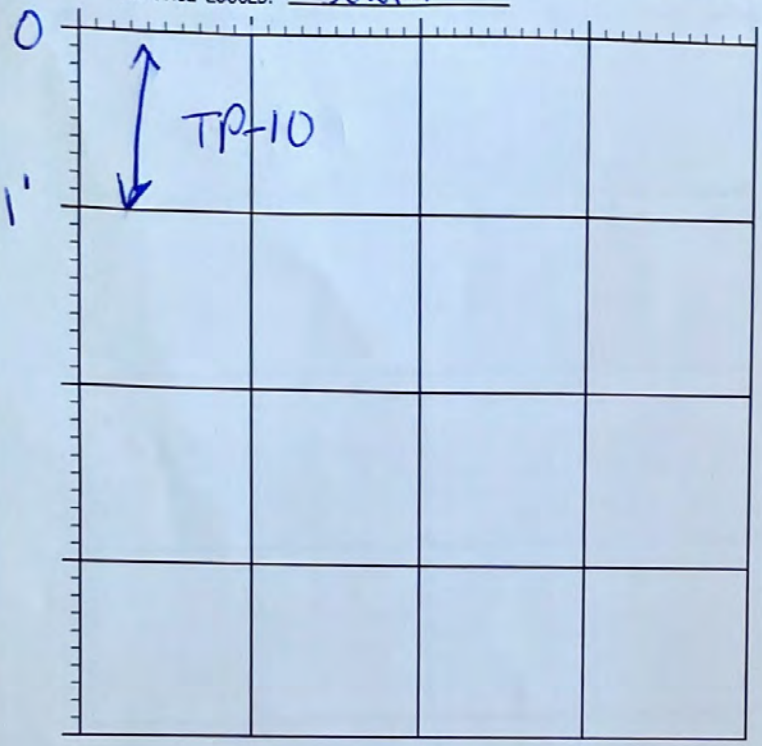
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Test Pit ID: TP-10
Sheet NO.: TP-_____

GENERAL LOCATION: Loc 13
PIT TREND: E to W
PIT FACE LOGGED: South

DATE: 10/18/25
FIELD GEOLOGIST: M. Hammond

NORTHING: _____
EASTING: _____



TEST PIT LOG

LEGEND

----- SOIL HORIZON
_____ HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-10	0.5-1.0'	13:10	ML

Pit Width: 2'
Pit Length: _____
Pit Depth: 1'
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		Silt, moist, soft, low-plast, 10YR 4/4 dark yellowish brown

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-_____

Surface: 6,650 cpm
0.5' : 6,090 cpm
1.0' - 5,980 cpm

weather: 50°F
clear, sunny
10-15 mph winds
from NW

Test Pit ID: TP-11

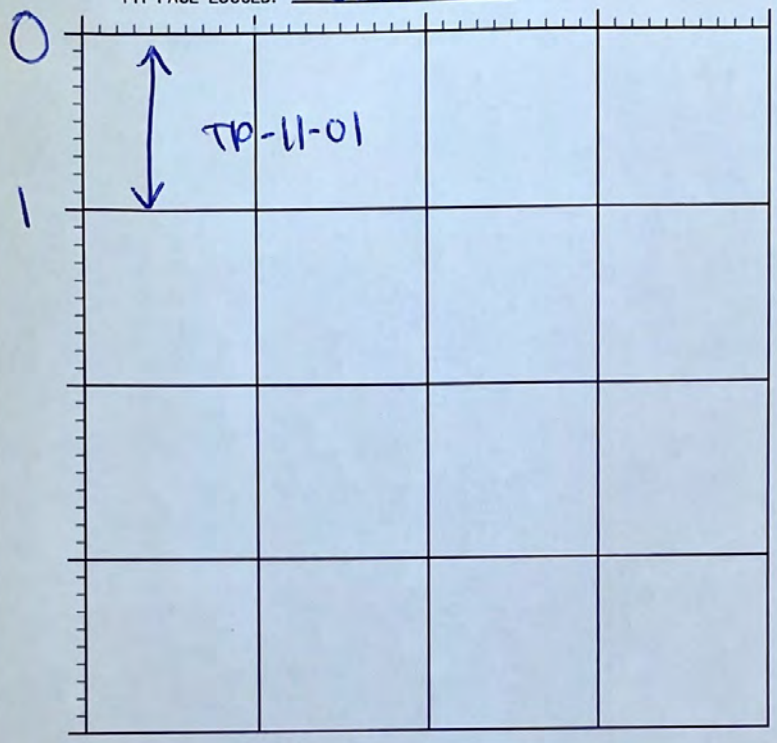
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP-

GENERAL LOCATION: Loc 14
PIT TREND: east to west
PIT FACE LOGGED: south

DATE: 10/18/25
FIELD GEOLOGIST: M. Hammond

NORTHING:
EASTING:



TEST PIT LOG

LEGEND

----- SOIL HORIZON
----- HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-11-01	0-1'	13:30	SM

Pit Width: 2'
Pit Length:
Pit Depth: 1'
GW Depth:

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
SM		Silty sand, loose, moist, 10 YR 4/4 dark yellowish brown, very fine-sand

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-

Surface: 7,490
0.5': 5,950
1.0': 5,840

Weather:
55° F
clear, sunny
15 mph wind
from NW

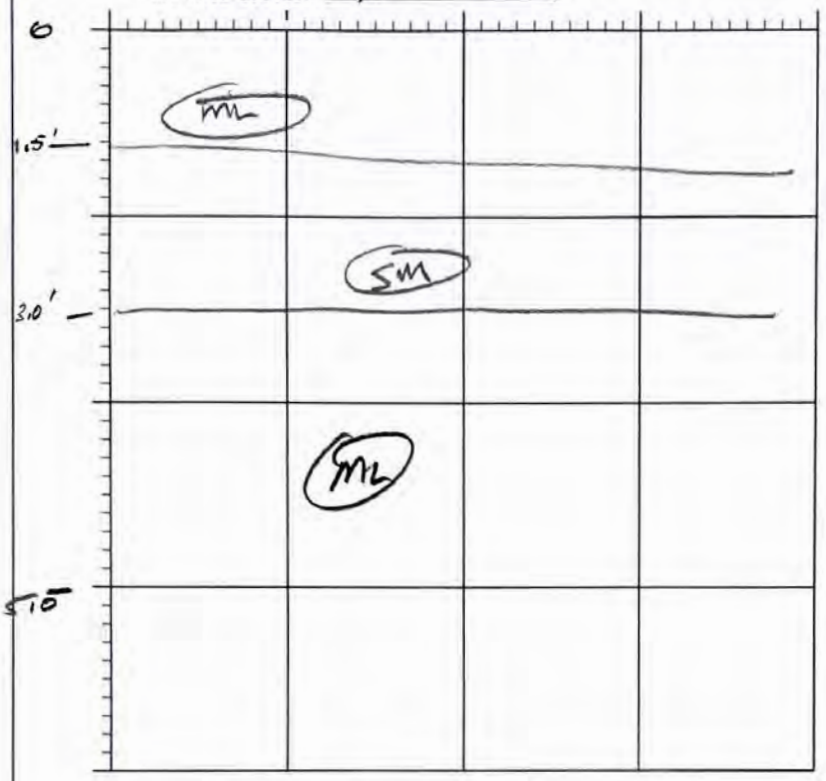
ID updated to HA-25

Test Pit ID: TP-25

FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP-

GENERAL LOCATION: Section 27
DATE: 4/13/2026
NORTHING: Avm to Provide
PIT TREND: N/A
FIELD GEOLOGIST: J. Shepard
EASTING: Avm to Provide
PIT FACE LOGGED: N/A



TEST PIT LOG

LEGEND

- ----- SOIL HORIZON
- ------ HORIZON CONTRACT
- ⧖ GROUNDWATER LEVEL
- ⊠ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-25-1	0.5-1.0	0930	ENV
TP-25-2	1.0-2.0	0950	ENV
TP-25-3	2.0-3.0	10:05	ENV
TP-25-4	3.0-4.0	10:15	ENV
TP-25-5	4.0-5.0	10:25	ENV

Pit Width:
Pit Length:
Pit Depth:
GW Depth:
NA

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML	0-1.5	Sandy Silt, dry, loose, md to dark yellowish brown, fine grained, NP
SM	1.5-3.0	silty-sand, dark brown, moist, NP
ML	3.0-4.0	Sandy Silt, moist, trace clay, medium plasticity
ML	4.0-5.0	Same as layer above w/ trace gravel

Surface CPM: 12,500

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-

Total Depth = 5.0'
Sample taken from 3.0' to 4.0' interval. (1) Quart size bag

ID updated to HA-28

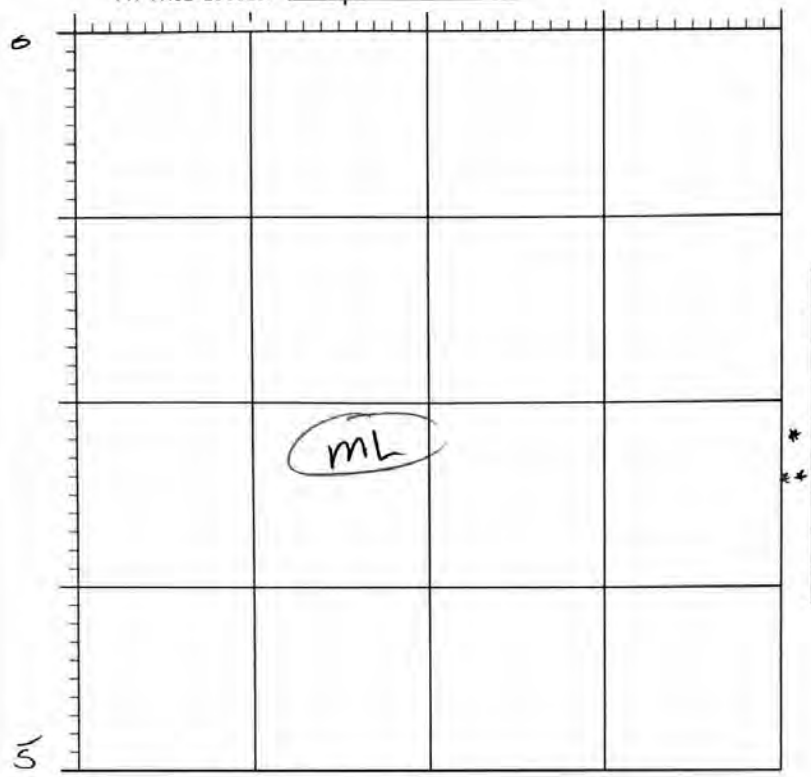
Test Pit ID: TP-28

FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP-

GENERAL LOCATION: Section 27
DATE: 4/13/26
NORTHING: Adm to Provide
PIT TREND: N/A
FIELD GEOLOGIST: J. Shepard
EASTING: Adm to Provide
PIT FACE LOGGED: N/A

TEST PIT LOG Hand Auger



LEGEND

- SOIL HORIZON
- HORIZON CONTRACT
- GROUNDWATER LEVEL
- SAMPLE

	SAMPLE No.	DEPTH	TIME	TYPE
	TP-28-1	0.5-1.0	10:55	ENV
	TP-28-2	1.0-2.0	11:03	ENV
	TP-28-3	2.0-3.0	11:12	ENV
*	TP-28-4	3.0-3.8	11:20	ENV
**	TP-28-5	4.0-5.0	14:45	ENV

Pit Width: N/A
Pit Length:
Pit Depth:
GW Depth:

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML	0-1.5	Sandy silt, dry, loose, md to dark yellowish brown, NP, fine grained
	1.5-2.5	Same as above, transition to dark brown
*	2.5-3.0	" few gravel, slightly moist
	3.0-3.8	" ", moist, trace clay, md plasticity
ML	4.0-5.0	Sandy silt, moist, dark brown, loose, NP

Surface CPM: 8920

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-

* refusal @ 3.8'

** offset ≈ 1.5' due south, Auger refusal @ 5.0'

Total Depth = 5.0'

Sample taken from 3.0' to 3.8' interval. (1) Quart size sample

ID updated to HA-30

FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Test Pit ID: TP-30

Sheet NO.: TP-

GENERAL LOCATION: Section 27

PIT TREND: N/A

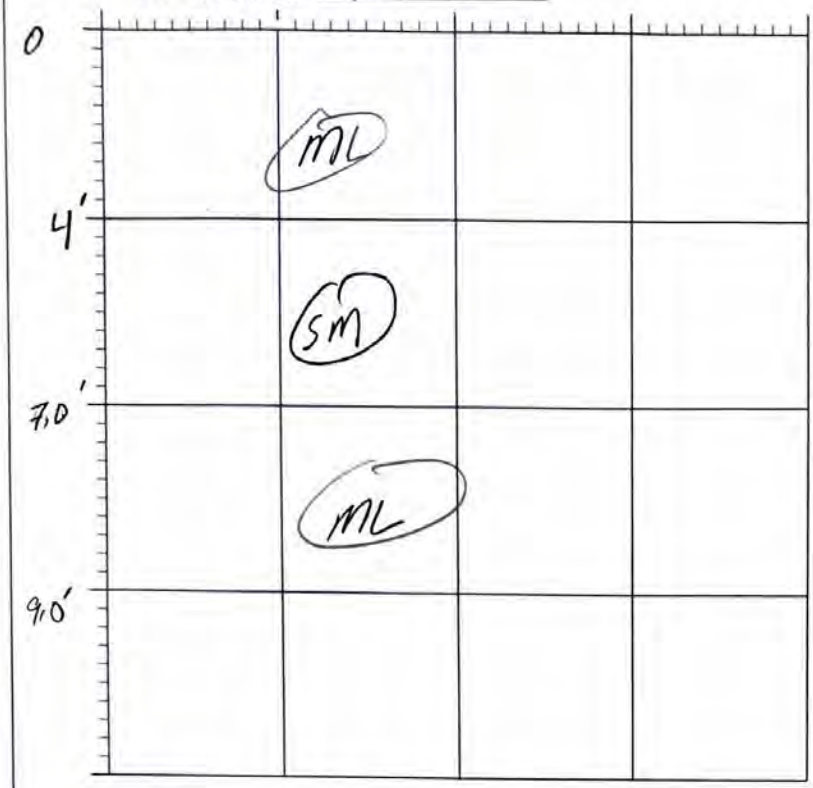
PIT FACE LOGGED: N/A

DATE: 4/13/26

FIELD GEOLOGIST: J. Shepard

NORTHING: Avm to Provide

EASTING: Avm to Provide



TEST PIT LOG (Hand Auger)

LEGEND

----- SOIL HORIZON
----- HORIZON CONTRACT
▽ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-30-1	0.5-1.0	12:20	ENV
TP-30-2	1.0-2.0	12:30	ENV
TP-30-3	2.0-3.0	12:35	ENV
TP-30-4	3.0-4.0	12:45	ENV
TP-30-5	4.0-5.0	12:50	ENV
TP-30-6	5.0-6.0	13:00	ENV
TP-30-7	6.0-7.0	13:15	ENV
TP-30-8	7.0-8.0	13:30	ENV
TP-30-9	8.0-9.0	13:35	

Pit Width: NA

Pit Length:

Pit Depth:

GW Depth:

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML	0-1.0	Sandy silt, loose, dry, mod to dark yellowish brown, fine grained, NP
	1.0-2.0	" " transitions to dark brown and slightly moist
	2.0-4.0	transition to moist.
SM	4.0-5.0	Poorly graded sands w/ few gravel, ms grained, moist
	5.0-6.0	" ", trace clay
	6.0-7.0	" " moderate gravel
ML	7.0-9.0	Sandy Silt, loose, fine grained, NP, moist

Surface CPM: 13,500

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-

Total Depth 9.0'

ENV sample taken from 8.0'-9.0' interval. 1 quart size bag

ID Updated to HA-32

FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Test Pit ID: TP-32

Sheet NO.: TP-

GENERAL LOCATION: Section 27

DATE: 4/13/26

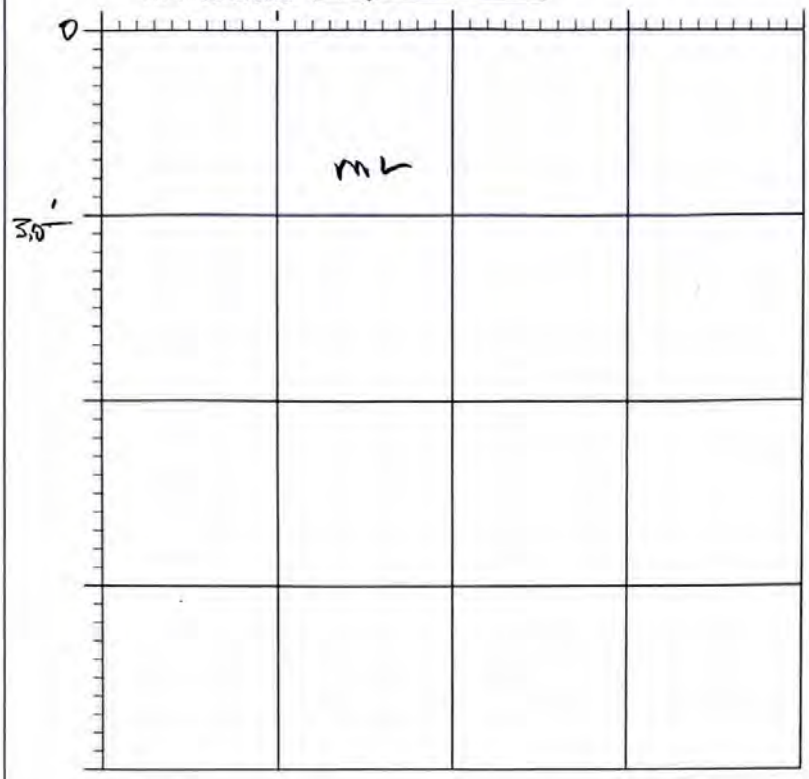
NORTHING: Avm to Provide

PIT TREND: N/A

FIELD GEOLOGIST: J. Shepard

EASTING: Avm to Provide

PIT FACE LOGGED: N/A



TEST PIT LOG (Hand Auger)

LEGEND

----- SOIL HORIZON
----- HORIZON CONTRACT
▽ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-32-1	0.5-1.0	14:00	ENV
TP-32-2	1.0-2.0	14:15	ENV
TP-32-4	2-3.0	14:25	ENV

Pit Width: N/A

Pit Length:

Pit Depth:

GW Depth:

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML	0-3	silty sand, mp dense yellowish brown, moist md-fine grained, NP

Surface CPM: 6,200

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-

Total depth = 3.0'

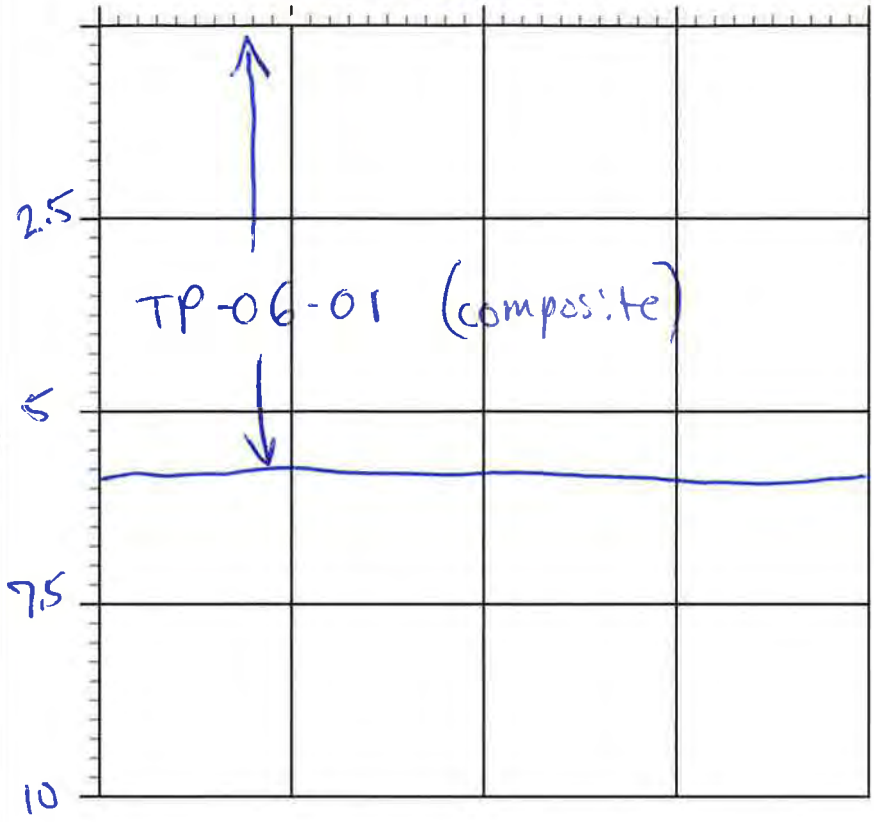
ENV sample from 0.5' to 1.0' interval, (1) Quart size bag sample

Test Pit ID: TP-01

FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP-

GENERAL LOCATION: Lot 3
PIT TREND: East to West
PIT FACE LOGGED: North
DATE: 10/17/25
FIELD GEOLOGIST: M. Hammond
NORTHING:
EASTING:



TEST PIT LOG

LEGEND

------ SOIL HORIZON
------ HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-01-01	0-6'	12:05	Geo
lab - GEL			
TP-01	0.5-1	11:45	ENV

Pit Width: 3'
Pit Length:
Pit Depth: 6'
GW Depth:

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		Sandy silt, dry, loose, 10YR 5/4 yellowish brown Surface: 10,000 cpm 0.5-1.0': 6,100 cpm Environmental (1) bag per sample Geotech Borrow (3) 5-gallon buckets and (1) bag per sample

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-

Stopped @ 6' due to backhoe limitations

weather 50° F
sunny, clear

Test Pit ID: _____

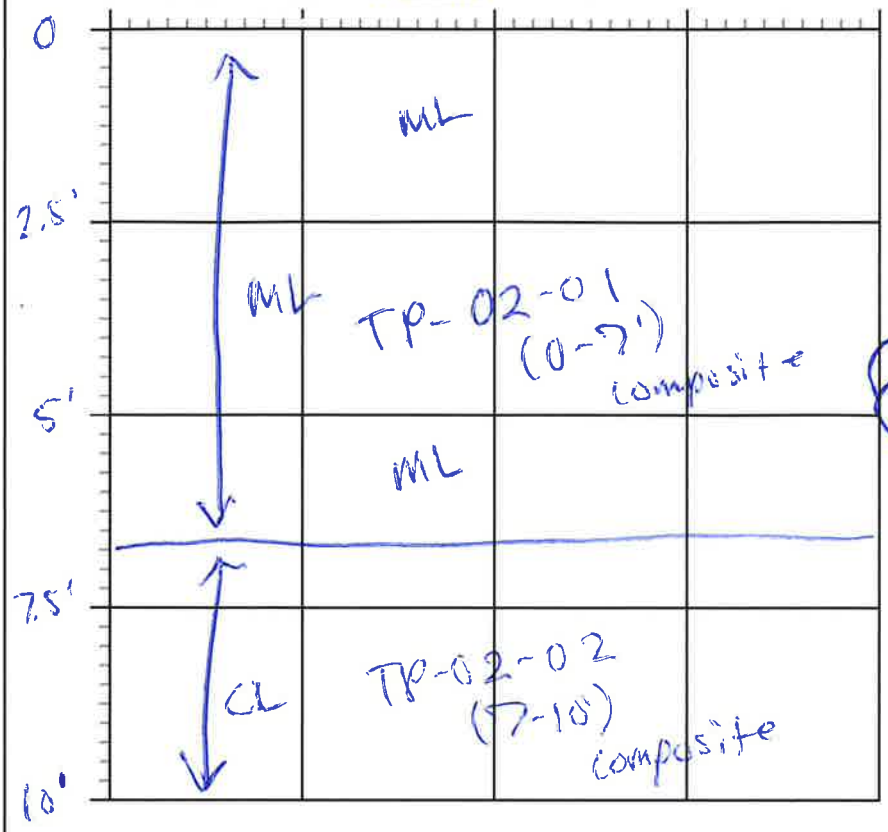
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP- TP-02

GENERAL LOCATION: Loc 5
PIT TREND: east to west
PIT FACE LOGGED: north

DATE: 10/23/25
FIELD GEOLOGIST: M. Hammond

NORTHING: _____
EASTING: _____



TEST PIT LOG

LEGEND

----- SOIL HORIZON
------ HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-02-01	0-7'	14:40	Geo/Env
TP-02-02	7'-10'	14:50	Geo/Env
Lab GEL			

Pit Width: 3'
Pit Length: _____
Pit Depth: 10'
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		Silt, dry, hard, non-plast, 10YR 5/4 yellowish brown
CL		clay with silt, dry, hard, non-plast, 10YR 4/2 dark grayish brown
		reached TD @ 10'

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT- _____

Geotech Borrow and Environmental
(3) 5-gallon buckets (1) small bag
(1) large bag

weather: 70°F
windy, cloudy
~10 mph from SW

Test Pit ID: TP-03

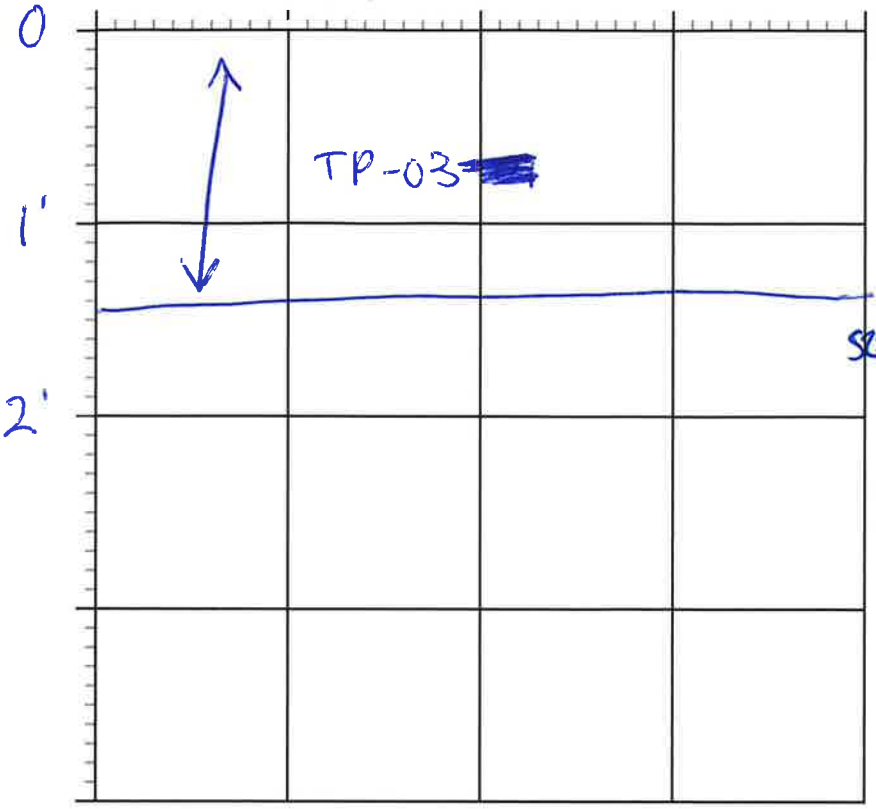
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP- _____

GENERAL LOCATION: Loc 10
PIT TREND: east to west
PIT FACE LOGGED: north

DATE: 10/18/25
FIELD GEOLOGIST: M. Hammond

NORTHING: _____
EASTING: _____



TEST PIT LOG

LEGEND

- ----- SOIL HORIZON
- ------ HORIZON CONTRACT
- ▽ GROUNDWATER LEVEL
- ☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
SEA TP-03	1-1.4'	09:30	[redacted]
Lab - GEL			

Pit Width: 2'
Pit Length: _____
Pit Depth: 1.4'
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		silt w/sand, moist, firm, 10YR 4/4 dark yellowish brown, low-plast, very fine-sand Environmental only (1) bag per sample

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT- _____

Surface: 9,050 cpm
0.5 - 1.0': ~~6,900~~ 6950 cpm
1.0 - 1.4' = 6920 cpm

TD @ 1.4' due to ex-situ reading

Weather 32°
clear, sunny

Test Pit ID: TP-04

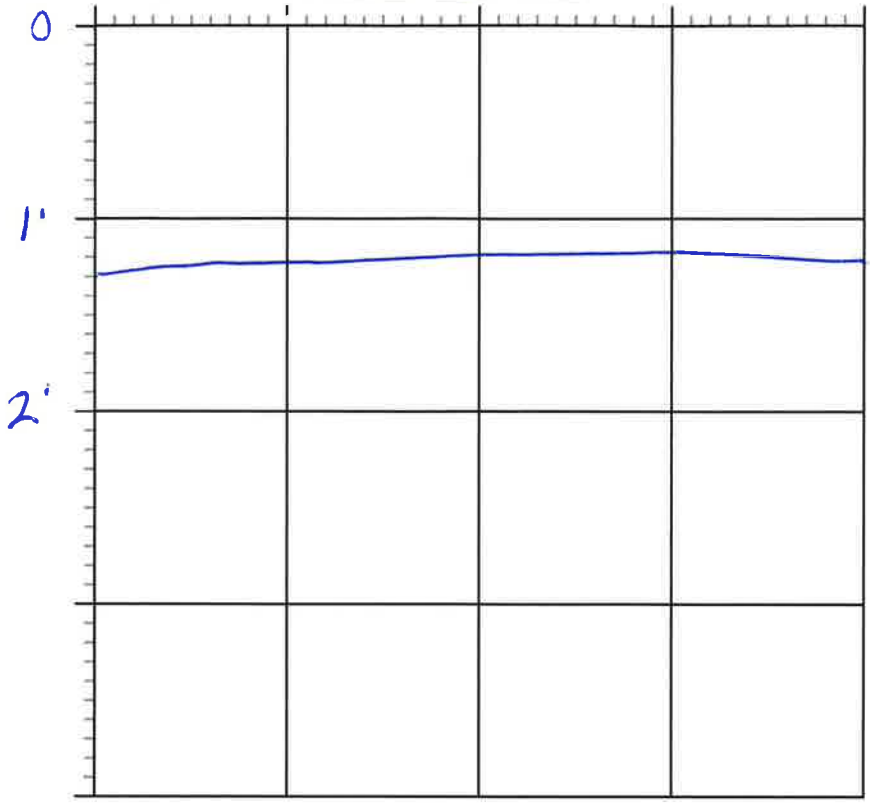
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP-

GENERAL LOCATION: Loc 7
PIT TREND: north to south
PIT FACE LOGGED: west

DATE: 10/17/25
FIELD GEOLOGIST: M. Hammond

NORTHING:
EASTING:



TEST PIT LOG

LEGEND

----- SOIL HORIZON
------- HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
~~TP-04~~	~~0.5-1.25'~~	~~2:35~~	~~ENV~~
166 - GEL			
~~527~~ TP-04	1.0-2.0	14:30	ENV

Pit Width: 2'
Pit Length:
Pit Depth: 1.25'
GW Depth:

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
~~CH~~		~~clay, brown~~
ML		silt, moist, brown

Environmental
(1) bag per sample

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-

Surface : 10,600
0.5-1' : 8,100
1-2' : 7,600

TD @ 1.25' due to ex-situ reading

weather 55° F
clear, sunny

Test Pit ID: _____

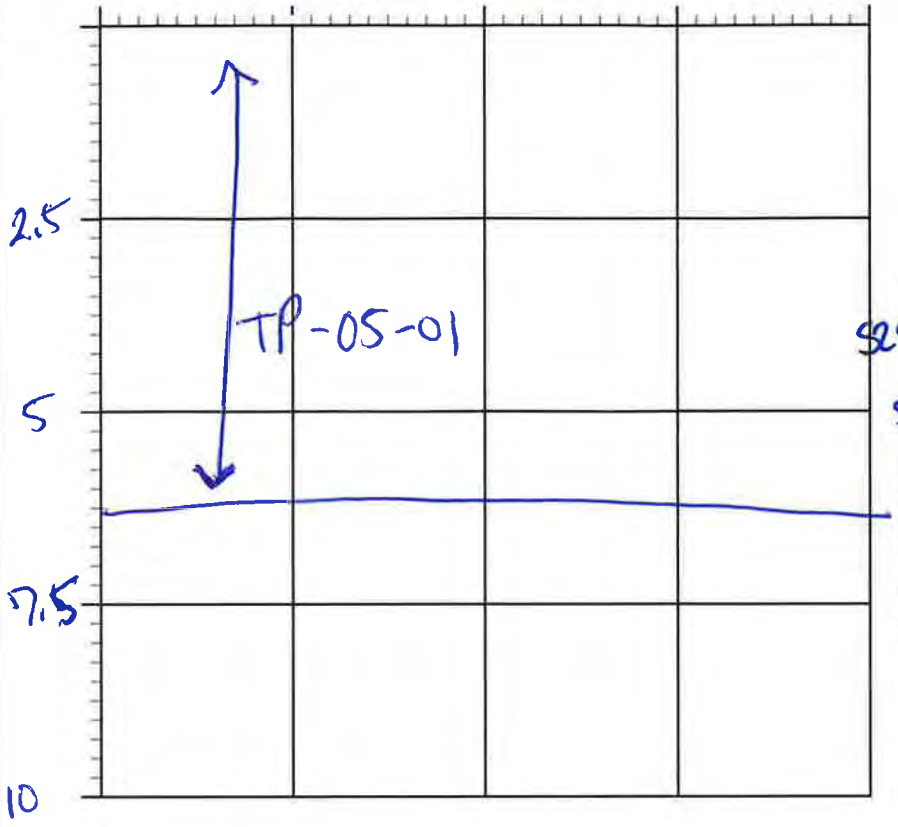
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP- TP-05

GENERAL LOCATION: Loc 4
PIT TREND: east to west
PIT FACE LOGGED: north

DATE: 10/12/25
FIELD GEOLOGIST: M. Hammond

NORTHING: _____
EASTING: _____



TEST PIT LOG

LEGEND

----- SOIL HORIZON
------ HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-05-01	0-6.5'	12:35	Geo
lab - GEL			
TP-05	0.5-1.0	12:15	ENV

Pit Width: 3'
Pit Length: _____
Pit Depth: 6.5'
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		Sandy silt, dry, loose, 10 YR 5/4 yellowish brown, very fine sand Surface: 9,030 cpm 0.5-1.0': 6,500 cpm Environmental (1) bag Geotech Borrow (3) 5 gallon buckets (1) bag

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT- _____

Stopped @ 6.5' due to backhoe limitations

weather 52°F clear, sunny

Test Pit ID: TP-[redacted]06

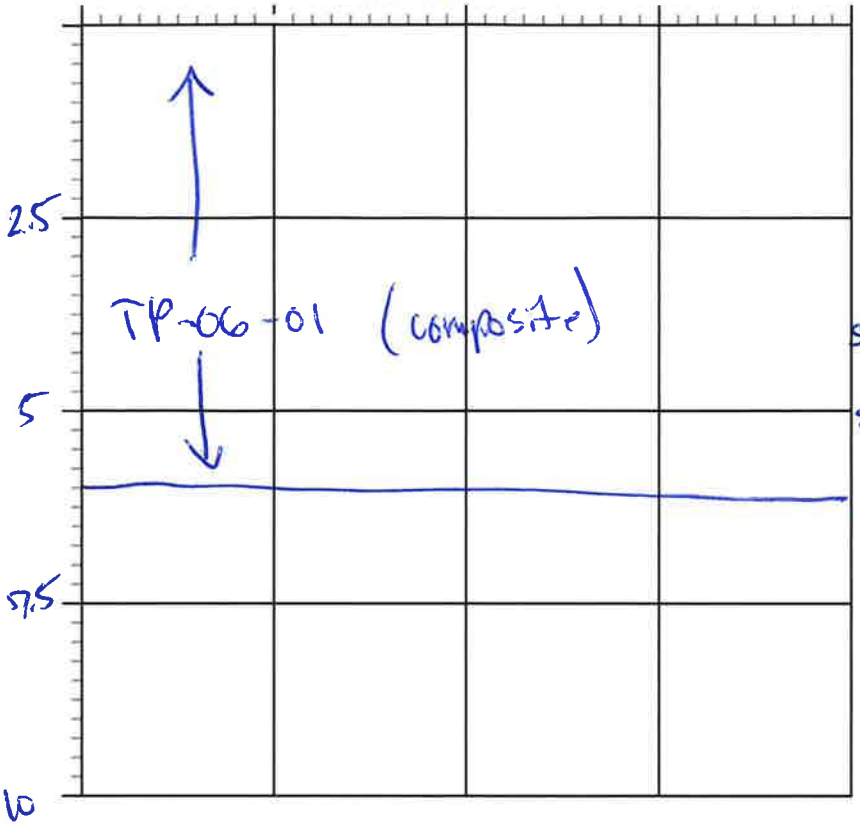
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP-_____

GENERAL LOCATION: Loc 2
PIT TREND: NE to SW
PIT FACE LOGGED: north

DATE: 10/17/25
FIELD GEOLOGIST: M. Hammond

NORTHING: _____
EASTING: _____



TEST PIT LOG

LEGEND

----- SOIL HORIZON
------ HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-06-01	0-6'	11:35	Geo
lab - GEL			
TP-06	0.5-1.0	11:15	ENV

Pit Width: 3'
Pit Length: _____
Pit Depth: 6'
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		Sandy silt, dry, loose, 4/4 10YR dark yellowish brown, very fine sand

Surface: 9,830 cpm
0.5-1.0': 6,000 cpm

Geotech Borrow + (3) 5-gallon buckets and (1) bag per sample
Environmental (1) bag per sample

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-_____

Weather - 50° F sunny, clear

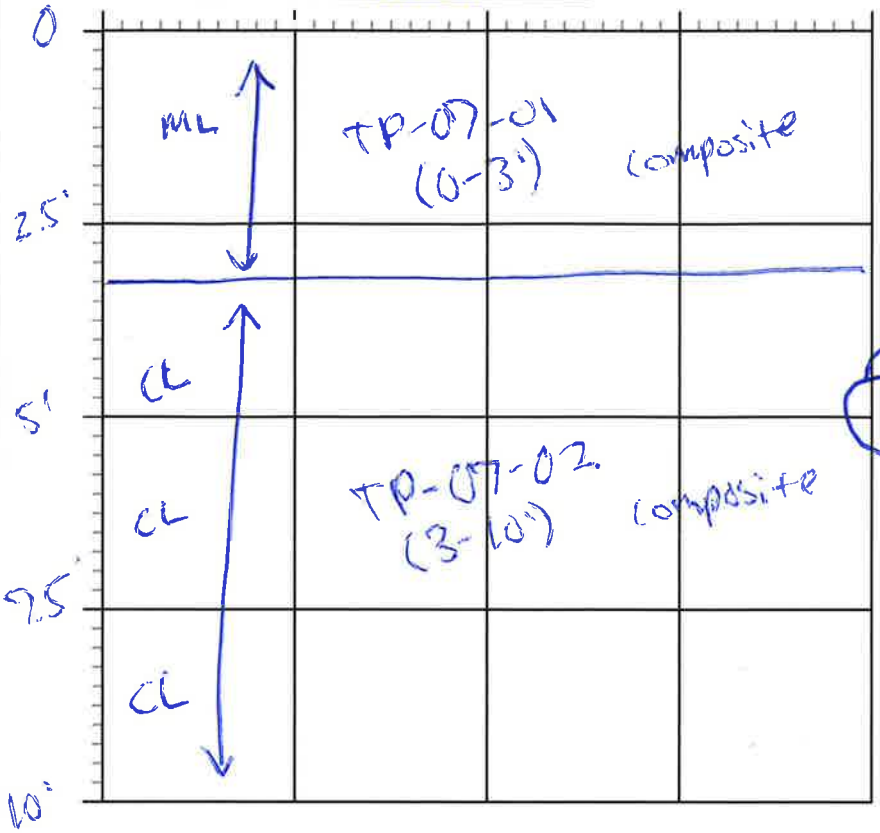
Trench stopped at ~6' due to hard soil, backhoe doesn't have teeth in scooper

Test Pit ID: TP-07

FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP- [redacted]

GENERAL LOCATION: Loc 6 | DATE: 10/23/25 | NORTHING: _____
PIT TREND: east to west | FIELD GEOLOGIST: M. Hammond | EASTING: _____
PIT FACE LOGGED: north



TEST PIT LOG

LEGEND

----- SOIL HORIZON
------ HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-07-01	0-3'	15:15	Geo/Env
TP-07-02	3'-10'	15:30	Geo/Env
Lab-GEL			

Pit Width: 3'
Pit Length: _____
Pit Depth: 10'
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		Silt, dry, hard, non-plast, 10YR 4/4 dark yellowish brown
CL		Clay with silt, hard, dry, non-plast, 10YR 4/2 dark grayish brown
		TD @ 10'

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT- _____

Surface: 9,650 cpm
0.5-1.0': 5,310 cpm
1.2': 4,970 cpm

Geotech Burrow and (3) 5-gallon buckets
(1) Large bag

Environmental (1) small bag

Weather: 72° F, cloudy, windy ~15 mph from NW

Test Pit ID: TP-08

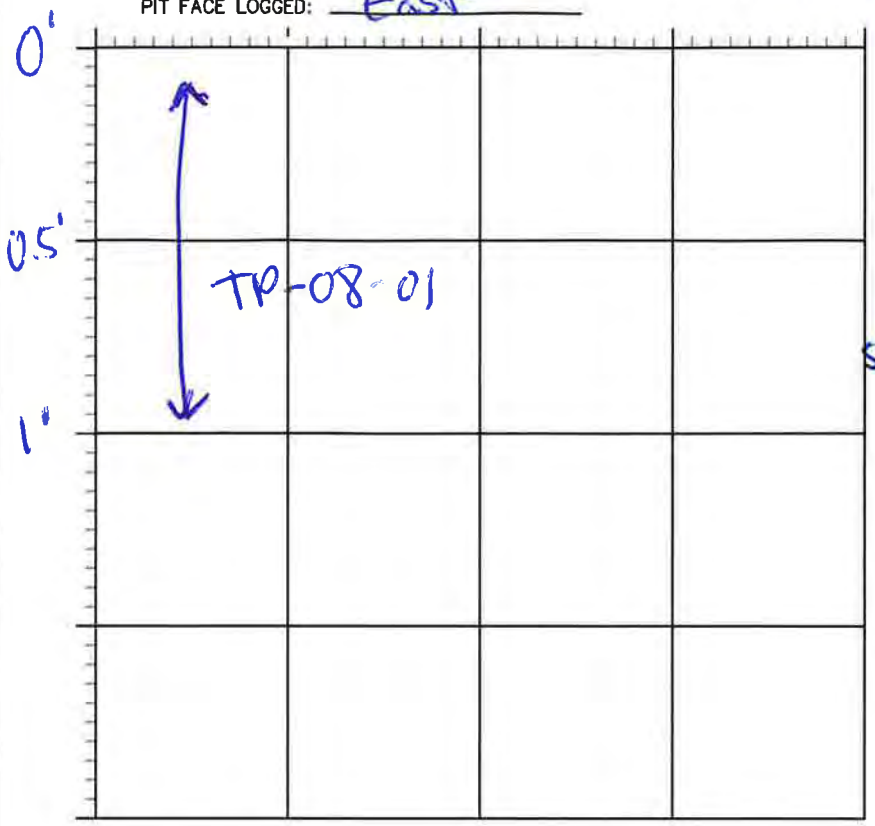
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP-

GENERAL LOCATION: Loc 9
PIT TREND: N to S
PIT FACE LOGGED: East

DATE: 10/18/25
FIELD GEOLOGIST: M. Hammond

NORTHING:
EASTING:



TEST PIT LOG

LEGEND

----- SOIL HORIZON
------ HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-08-01	0.5-1'	08:55	Geo
Lab - GEL			

Pit Width: 2'
Pit Length:
Pit Depth: 1'
GW Depth:

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		Silt, moist, firm, 10YR 4/4 dark yellowish brown, low-plast

Environmental and Geotech Waste
(1) bag (3) 5-gallon buckets and (1) bag per sample

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-

weather: 30°F clear, sunny

Surface: 11,800 cpm
0.5-1.0': 6,400 cpm

TD @ 1' due to ex-situ reading

Test Pit ID: TP-09

FIELD SAMPLE DATA SHEET (FSDS)

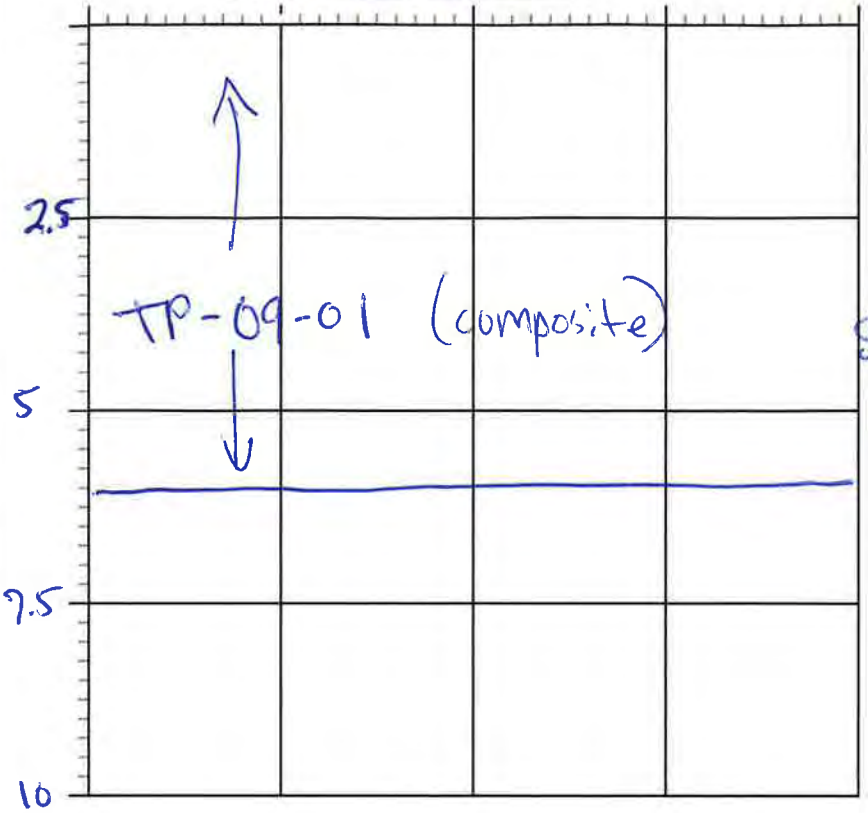
TEST PIT LOGGING

Sheet NO.: TP-

GENERAL LOCATION: Loc 1
PIT TREND: NE - SW
PIT FACE LOGGED: north

DATE: 10/17/25
FIELD GEOLOGIST: M. Hammond

NORTHING:
EASTING:



TEST PIT LOG

LEGEND

------ SOIL HORIZON
------ HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-09-01	0-6'	10:55	Geo
lab - GEL			
TP-09	0.5-1	10:00	ENV

Pit Width: 3'
Pit Length:
Pit Depth: 6'
GW Depth:

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		sandy silt, dry, loose, 4/3 10YR brown, very fine sand Surface: 10,000 cpm 0.5-1.0': 7,600 cpm Geotech Borrow + (3) 5-gallon buckets and (1) large bag per sample Environmental (1) bag per sample

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-

weather 48°F clear, sunny

environmental sample 6"-12" @ 10:20 am 3,000 rad

backhoe could not go past 6', hard soil, no teeth on scooper

Test Pit ID: TP-10

FIELD SAMPLE DATA SHEET (FSDS)

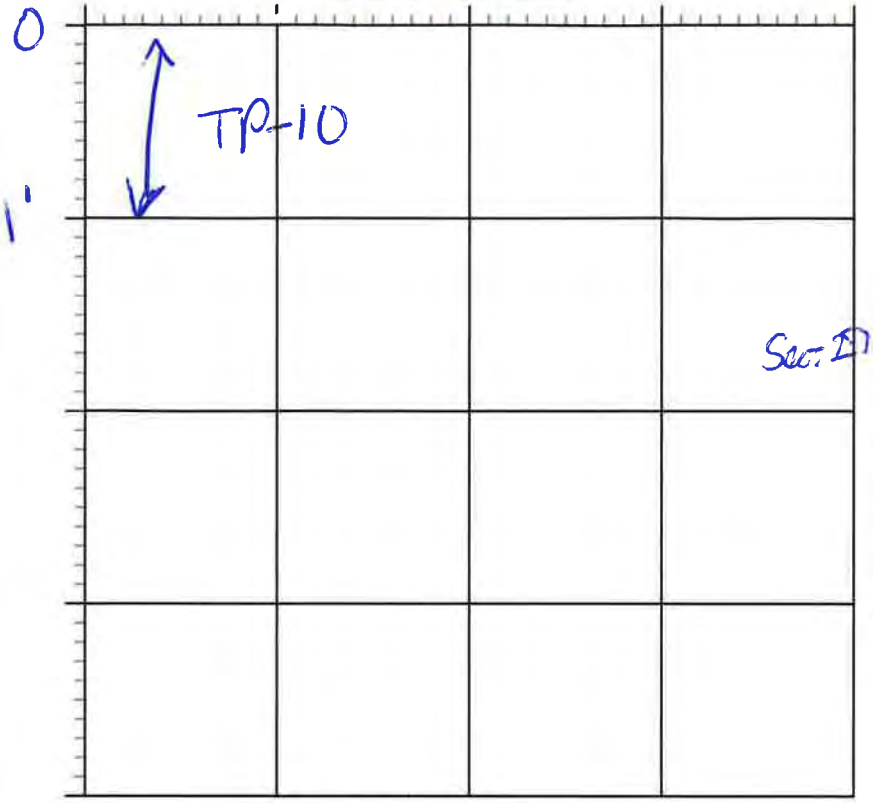
TEST PIT LOGGING

Sheet NO.: TP-_____

GENERAL LOCATION: Loc 13
PIT TREND: E to W
PIT FACE LOGGED: South

DATE: 10/18/25
FIELD GEOLOGIST: M. Hammond

NORTHING: _____
EASTING: _____



TEST PIT LOG

LEGEND

----- SOIL HORIZON
------ HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-10	0.5-1.0'	13:10	[redacted]
	Lab-GEL		

Pit Width: 2'
Pit Length: _____
Pit Depth: 1'
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		Silt, moist, soft, low-plast, 10 YR 4/4 dark yellowish brown Environmental only (1) bag per sample

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-_____

Surface: 6,650 cpm
0.5' [redacted]: 6,090 cpm
1.0' - 5,980 cpm

TD @ 1' due to ex-situ reading

weather: 50°F clear, sunny 10-15 mph winds from NW

Test Pit ID: TP-11

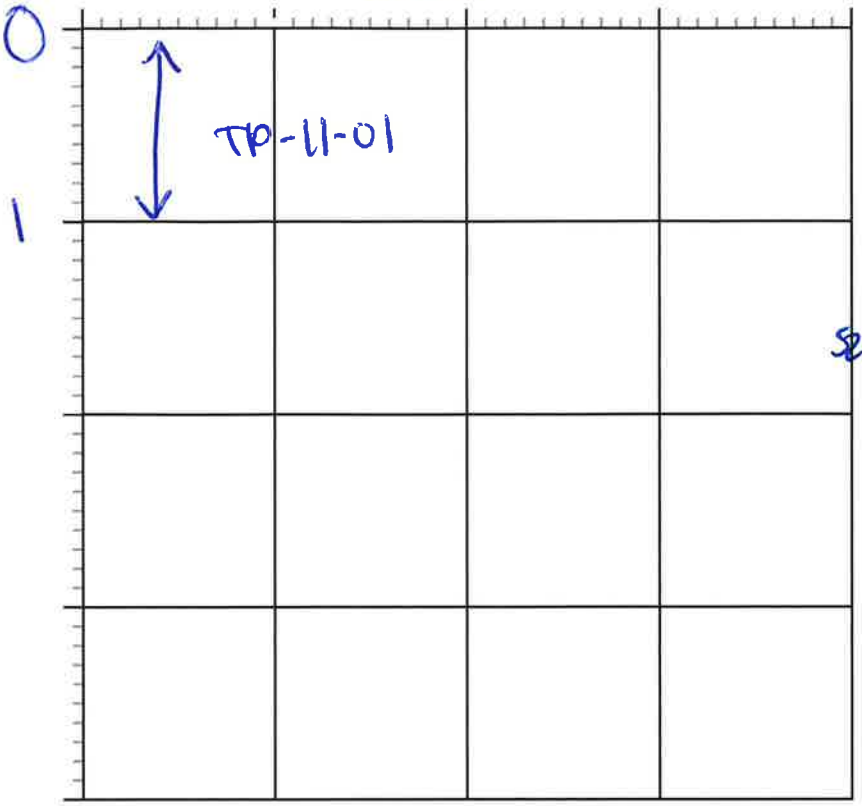
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP-

GENERAL LOCATION: Loc 14
PIT TREND: east to west
PIT FACE LOGGED: South

DATE: 10/18/25
FIELD GEOLOGIST: M. Hammond

NORTHING:
EASTING:



TEST PIT LOG

LEGEND

----- SOIL HORIZON
----- HORIZON CONTRACT
▽ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
S2 TP-11-01	0-1'	13:30	~~S~~ Geo
lab - GEL			
S2-TP-01	0.5-1.0	13:20	ENV

Pit Width: 2'
Pit Length:
Pit Depth: 1'
GW Depth:

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
SM		Silty sand, loose, moist, 10 YR 4/4 dark yellowish brown, very fine-sand

Environmental
(1) bag

Geotech Waste
(3) 5-gallon buckets
(1) bag

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-

Surface: 7,490
0.5': 5,950
1.0': 5,840

TD @ 1' due to excessive reading

Weather:
55° F
clear, sunny
15 mph wind from NW

Test Pit ID: TP-12

FIELD SAMPLE DATA SHEET (FSDS)

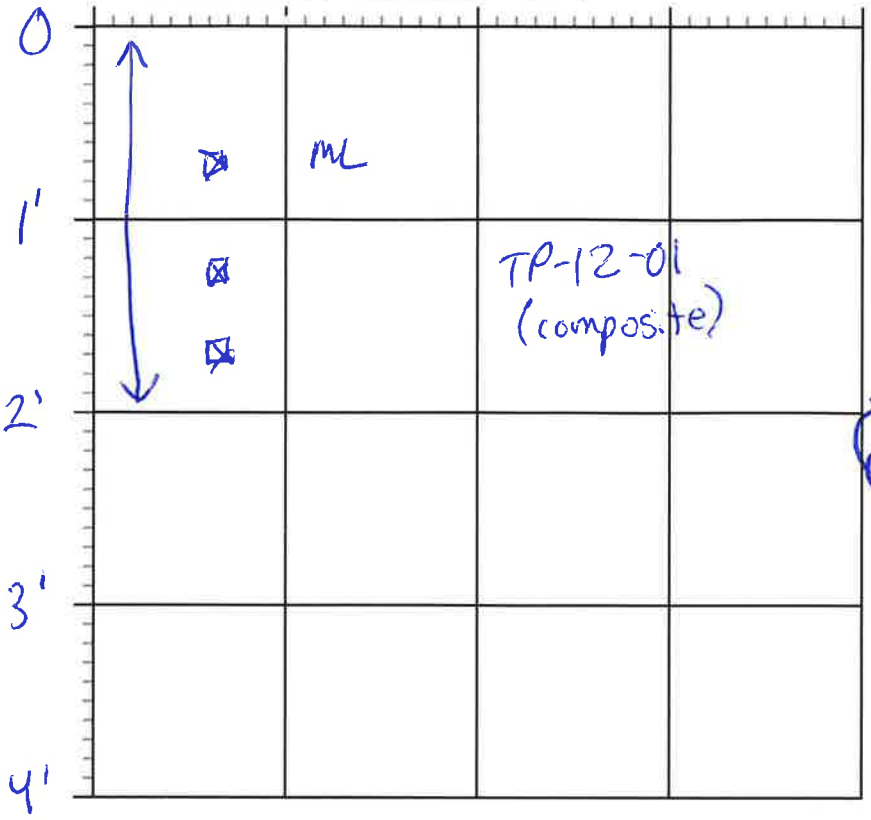
TEST PIT LOGGING

Sheet NO.: TP-_____

GENERAL LOCATION: Loc 21
PIT TREND: west to east
PIT FACE LOGGED: north

DATE: 10/21/25
FIELD GEOLOGIST: M. Hammond

NORTHING: _____
EASTING: _____



TEST PIT LOG

LEGEND

----- SOIL HORIZON
------ HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
Sec 27 TP-12	0.5-1.0'	08:30	~~ME~~ E inv
Sec 27 TP-12	1.0-1.5'	08:45	~~ME~~ E inv
Sec 27 TP-12	1.5-2.0'	09:05	~~ME~~ E inv
TP-12-01	0.0-2.0'	09:05	~~ME~~ Geo

Lab: GEL

Pit Width: 2'
Pit Length: _____
Pit Depth: 2'
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		silt, dry, firm to hard, non-plast, 10YR 4/4 dark yellowish brown 0'-2' TD @ 2' due to ex-situ reading

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-_____

- AVM moved 3' north
- Geotech waste and (3) 5-gallon buckets and one bag per sample
- Environmental (1) bag per sample

Weather: 32°F clear, sunny

Test Pit ID: _____

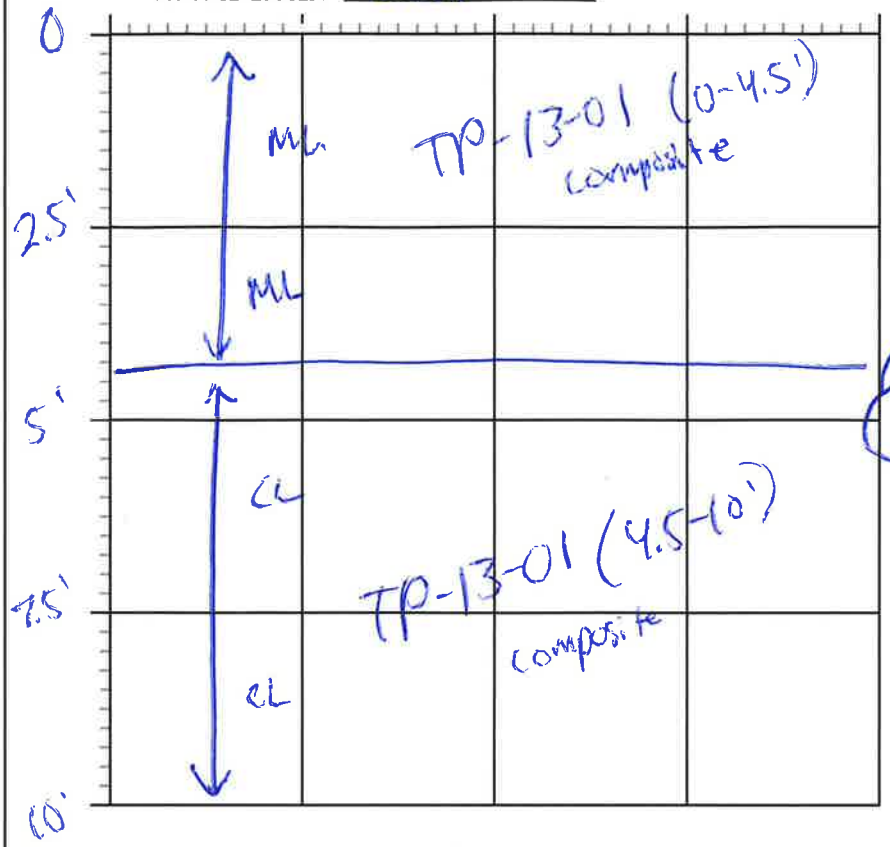
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP- TP-13

GENERAL LOCATION: Loc 8 DATE: 10/23/25 NORTHING: _____

PIT TREND: north to south FIELD GEOLOGIST: M. Herrmann EASTING: _____

PIT FACE LOGGED: east



TEST PIT LOG

LEGEND

----- SOIL HORIZON
------ HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-13-01	0-4.5'	16:05	Geo/Env
TP-13-02	4.5-10'	16:25	Geo/Env
Lab-GEL			

Pit Width: 3'
Pit Length: _____
Pit Depth: 10'
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		silt, dry, hard, non-plast, 10 YR 6/4 light yellowish brown
CL		clay with silt, dry, hard, non-plast, 10 YR 4/3 brown
		TD @ 10'

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT- _____

collimated detector

Surface: 4,460
0.5-1': 4,650

Geotech Borrow and Environmental
(3) 5-gallon buckets
(1) Large bag
(1) small bag

Weather: 72°F cloudy, windy
~15 mph from west

Test Pit ID: TP-14

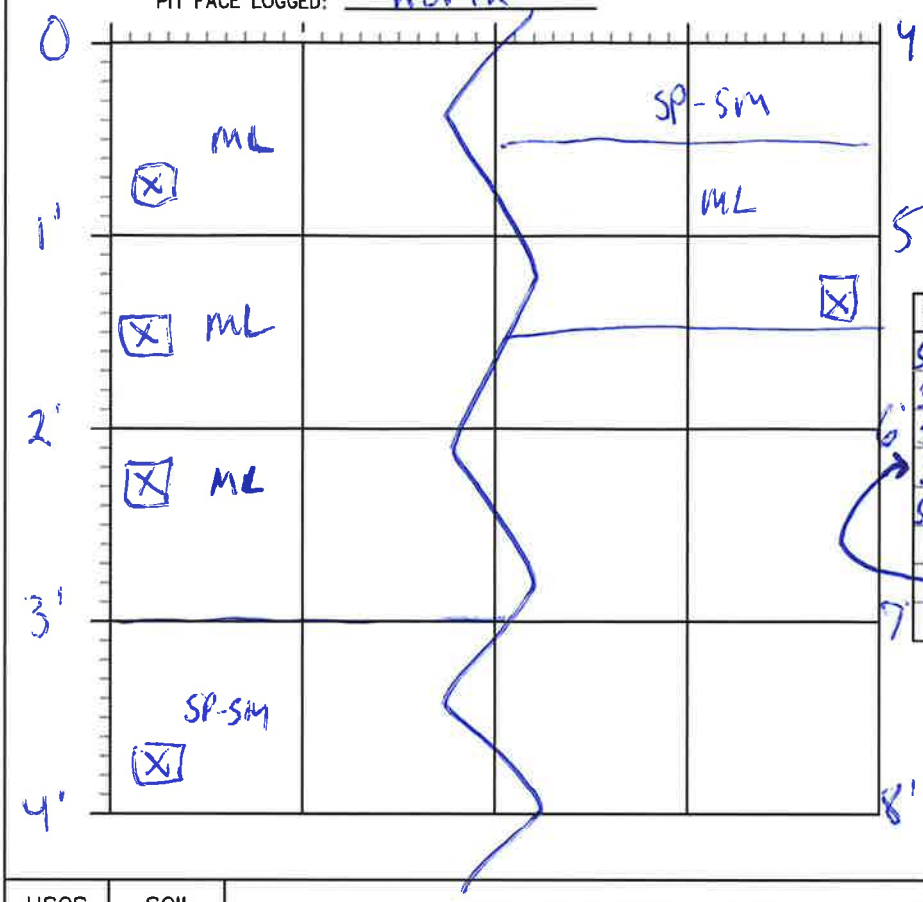
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP-

GENERAL LOCATION: Loc 27
PIT TREND: east to west
PIT FACE LOGGED: north

DATE: 10/22/25
FIELD GEOLOGIST: M. Hammond

NORTHING:
EASTING:



TEST PIT LOG

LEGEND

----- SOIL HORIZON
------ HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
Sec 27 TP-14	0.5-1.0'	11:55	Env
Sec 27 TP-14	1.0-2.0'	12:00	Env
Sec 27 TP-14	2.0-2.5'	12:20	Env
Sec 27 TP-14	3.5-4.0'	13:30	Env
Sec 27 TP-14	5.0-5.5'	13:35	Env
Lab + GEL			

Pit Width: 2.5'
Pit Length:
Pit Depth: 5.5'
GW Depth:

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		Sandy silt, dry, hard, non-plast, 10YR 5/3 brown, 0'-3' very fine to fine-sand
SP-SM		poorly graded sand with silt, dry, med-dense, very fine to fine sand, 10YR 5/4 yellowish brown 3'-4.5'
ML		Sandy silt, dry, hard, non-plast, very fine sand 10YR 5/4 yellowish brown 4.5'-5.5'

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-

weather: 60°F overcast, cloudy

Environmental only

(1) bag per sample

TD @ 5.5' due to ex-situ reading

FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Test Pit ID: TP-15

Sheet NO.: TP-

GENERAL LOCATION: Loc 28

PIT TREND: N to S

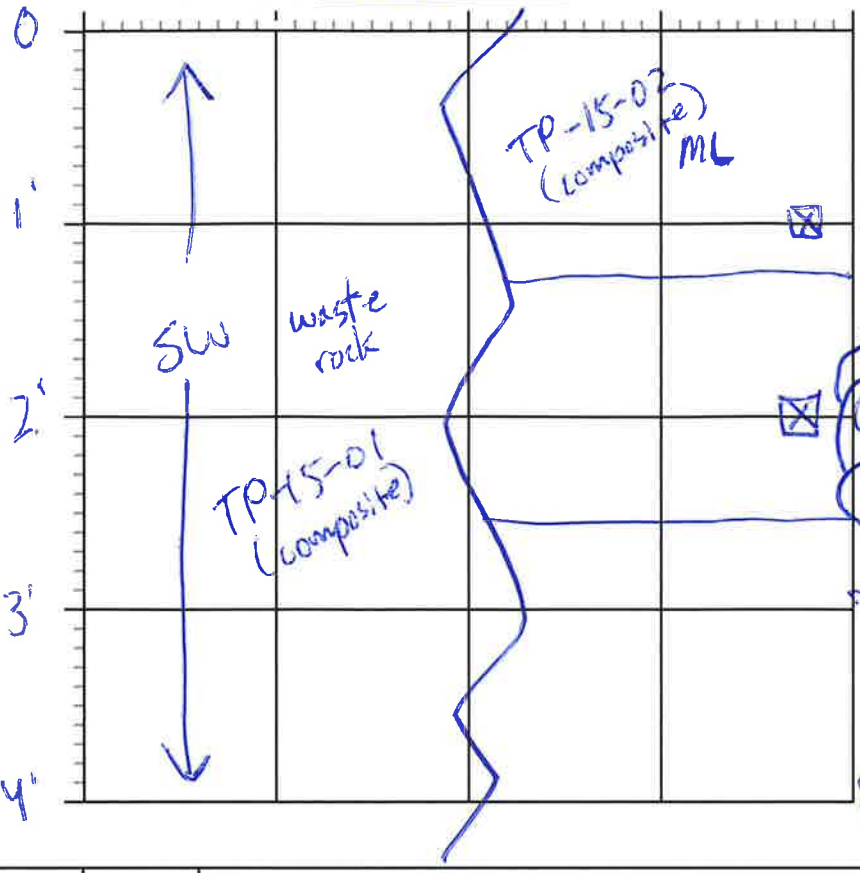
PIT FACE LOGGED: west

DATE: 10/22/25

FIELD GEOLOGIST: M. Hammond

NORTHING:

EASTING:



TEST PIT LOG

LEGEND

- ----- SOIL HORIZON
- ------ HORIZON CONTRACT
- ⧖ GROUNDWATER LEVEL
- ☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-15-01	0-4'	14:20	Geo
Sec-27 TP-15	4.5-5.5'	14:40	Env
Sec-27 TP-15	5.5-6.5'	14:50	Env
TP-15-02	4.0-5.25'	14:45	Geo
Lab: GEL			

Pit Width: 4'

Pit Length:

Pit Depth: 6.5'

GW Depth:

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
SW	waste rock	Well graded sand, loose, dry, very fine to medium grained, 10YR 6/4 light yellowish brown 0'-4'
ML		sandy silt, dry, loose, low plast, 10YR 5/3 brown, very fine to fine sand 4'-5.25'
SP		poorly graded sand, loose, dry 10YR 5/4 yellowish brown 5.25'-6.5'

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-

Geotech Waste and (3) 5-gallon buckets and (1) bag per sample

Environmental (1) bag per sample

weather: 68° F overcast, cloudy

TD @ 6.5' due to ex-situ reading

Test Pit ID: TP-16

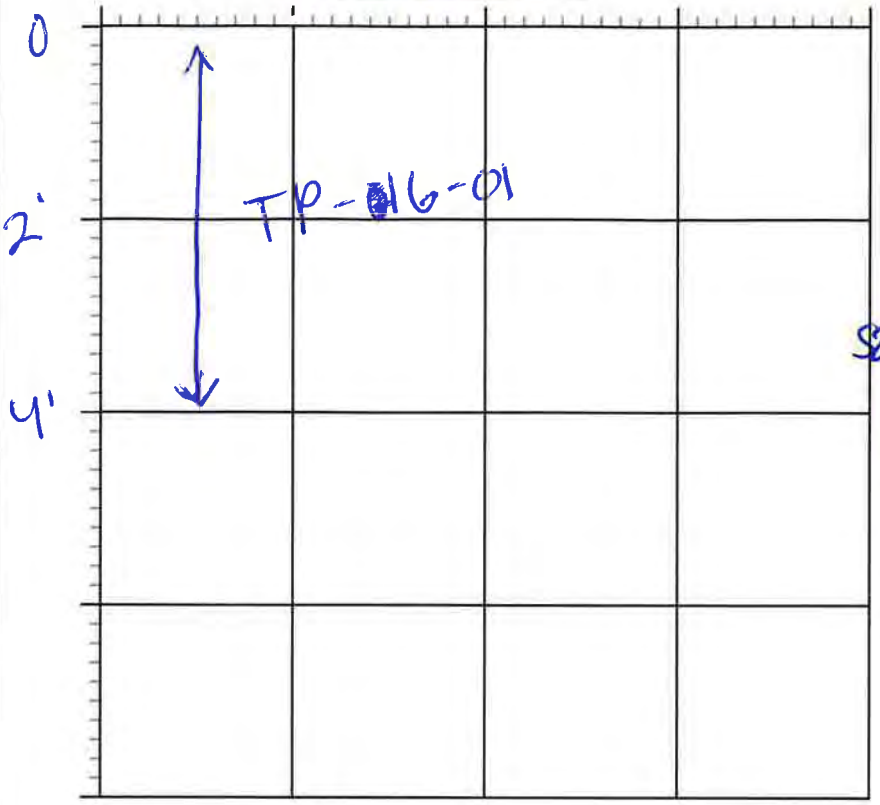
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP-

GENERAL LOCATION: Loc 11
PIT TREND: SE to NW
PIT FACE LOGGED: West

DATE: 10/18/25
FIELD GEOLOGIST: M. Hammond

NORTHING:
EASTING:



TEST PIT LOG

LEGEND

----- SOIL HORIZON
------ HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
S24-TP-16-01	0-4'	11:15	~~ML~~ Geo
lab - GEL			
S24-TP-16	2.5-3.0	10:35	ENV
S24-TP-16	3.5-4.0	10:55	ENV

Pit Width: 3'
Pit Length:
Pit Depth: 4'
GW Depth:

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		silt, moist, firm, med-plast, 10 YR 4/3 brown 0-2'
ML		Silt, dry, hard, non-plast, 10 YR 5/4 yellowish brown 2'-4'
		Environmental (1) bag and Geotech Waste (3) 5-gallon buckets (1) bag per sample
		TD @ 4' due to ex-situ reading

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-

Surface: 14,700 cpm
0.5-1.0': 26,500 cpm
1.0-1.5': 16,900 cpm
1.5'-2.0': 14,500 cpm
2.0-2.5': 12,400 cpm
2.5-3.0': 11,500 cpm
3.5'-4.0': 9,700 cpm

Weather 40°F clear, sunny
5-10 mph wind from NW

Test Pit ID: TP-17

FIELD SAMPLE DATA SHEET (FSDS)

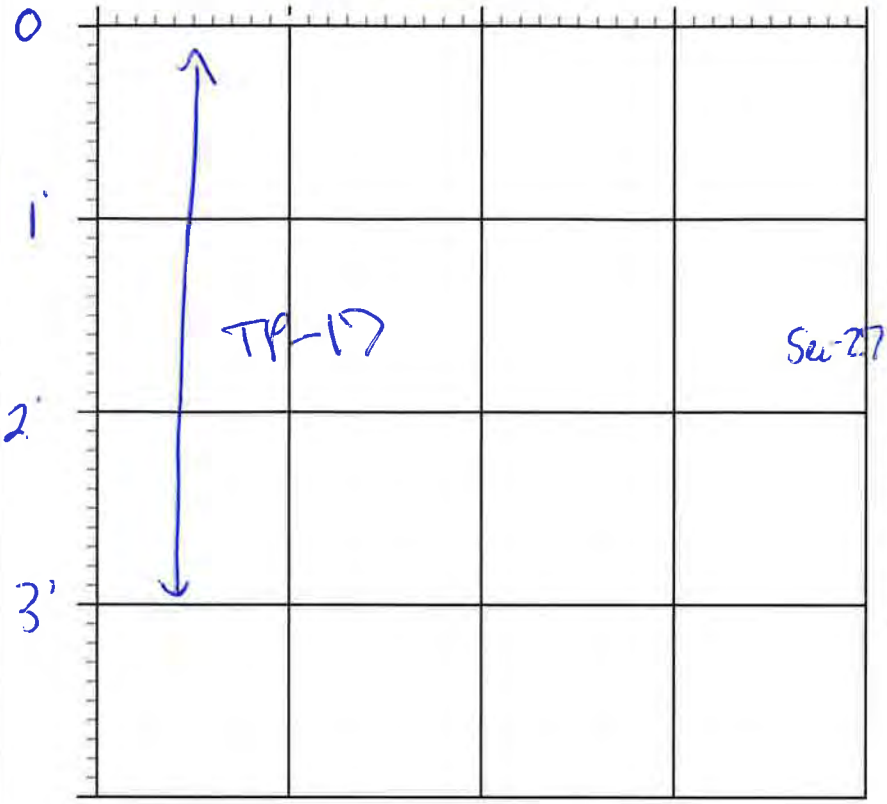
TEST PIT LOGGING

Sheet NO.: TP-_____

GENERAL LOCATION: Loc 12
PIT TREND: SE to NW
PIT FACE LOGGED: west

DATE: 10/18/25
FIELD GEOLOGIST: M. Hammond

NORTHING: _____
EASTING: _____



TEST PIT LOG

LEGEND

----- SOIL HORIZON
----- HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-17	2-3'		[illegible] env
lab - GEL			

Pit Width: 2'
Pit Length: _____
Pit Depth: 3'
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
SM		silty sand, dry, loose, 10YR 6/4 light yellowish brown, very fine 0-1.5'
SM		silty sand, dry, dense, 10YR 5/4 yellowish brown, very fine 1.5'-

Environmental only (1) bag per sample

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-_____

Surface: 70,700 cpm
1'-2': 37,800 cpm
2'-3': 19,200 cpm

TD @ 3' due to ex-situ reading

weather: 45°F clear, sunny 10 mph wind form NW

Test Pit ID: TP-18

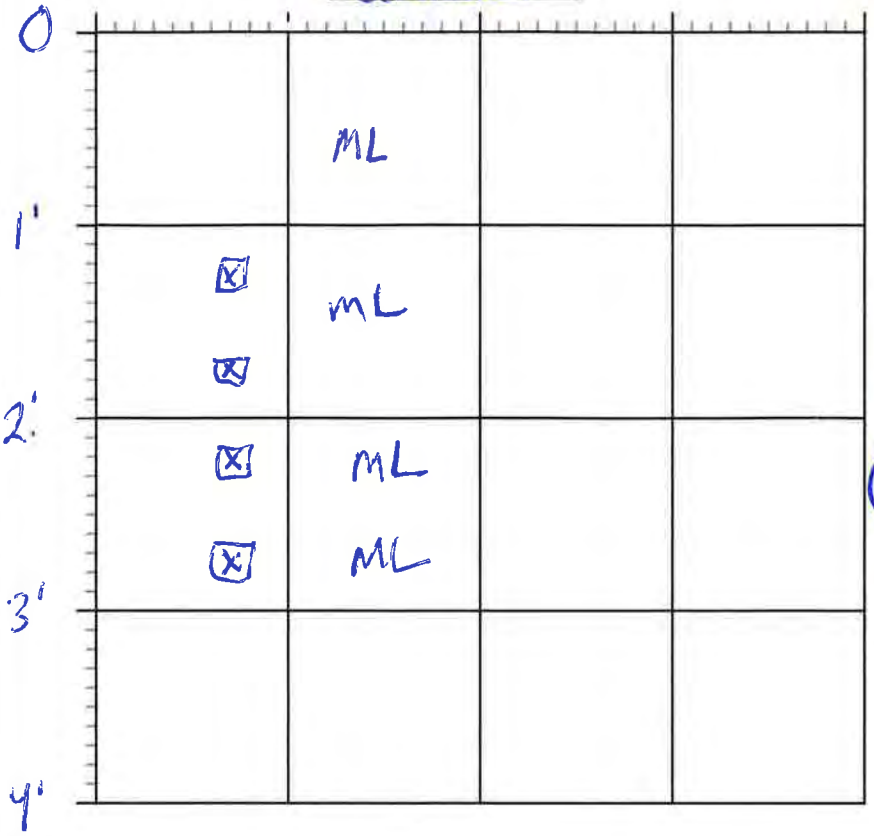
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP- TP-30 on our map

GENERAL LOCATION: Loc 24
PIT TREND: NE to SW
PIT FACE LOGGED: Southeast

DATE: 10/21/25
FIELD GEOLOGIST: M. Hammond

NORTHING: _____
EASTING: _____



TEST PIT LOG

LEGEND

----- SOIL HORIZON
----- HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
Sec-27 TP-18	1.0'-1.5'	11:00	~~ML~~ Env
Sec-27 TP-18	1.5'-2.0'	11:10	~~ML~~ Env
Sec-27 TP-18	2.0-2.5'	11:30	~~ML~~ Env
Sec-27 TP-18	2.5-3.0'	11:45	~~ML~~ Env
Cal GEL			

Pit Width: 2.5'
Pit Length: _____
Pit Depth: 3.0'
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		Sandy silt, moist, low-plast, firm, 10 YR 4/3 brown, very fine to fine sand 0.0 - 1.0' (3" lense of black ore)
ML		Silt, dry, hard, non-plast, 10 YR 5/3 brown 1.0'-3.0'
		TD @ 3' due to ex situ reading

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT- _____

Environmental only
(1) bag per sample

weather: 64°F
clear, sunny

Test Pit ID: TP-19

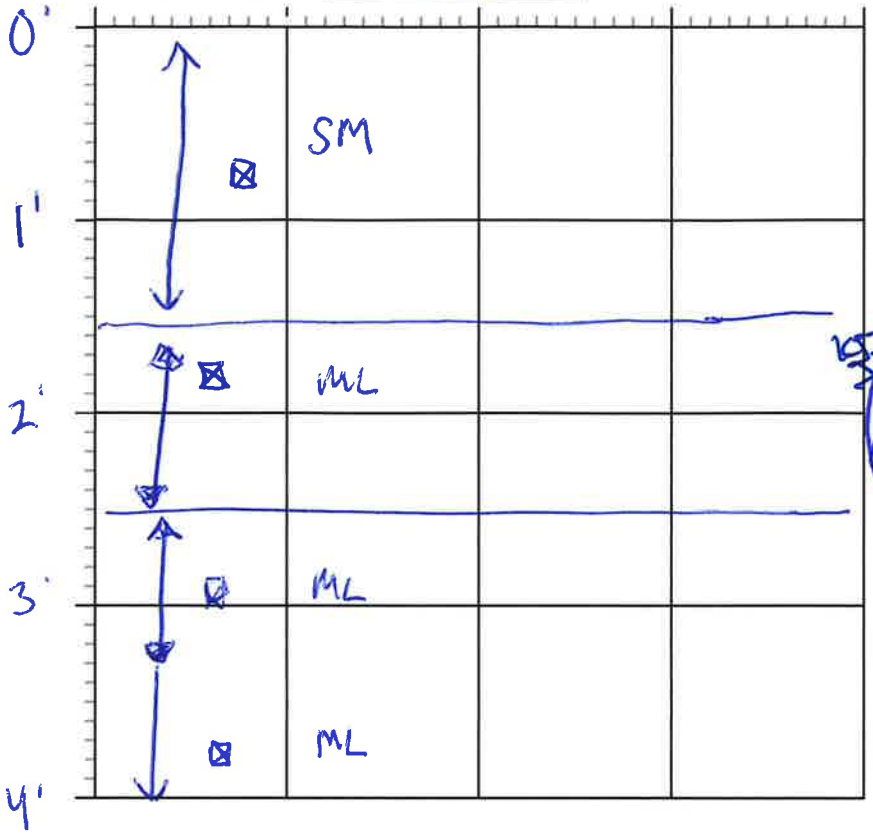
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP- TP-32 on our map

GENERAL LOCATION: Lot 17
PIT TREND: NW to SE
PIT FACE LOGGED: northeast

DATE: 10/20/25
FIELD GEOLOGIST: M. Hammond

NORTHING: _____
EASTING: _____



TEST PIT LOG

LEGEND

----- SOIL HORIZON
------ HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
⊠ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
Sec 27 TP19	0.5-1.5'	10:00	~~ENV~~
Sec 27 TP-19	1.5-2.0'	10:20	~~ENV~~ ENV
Sec 27 TP-19	2.5'-3.25'	10:35	ENV
Sec 27 TP-19	3.5'-4.0'	10:55	ENV
S27-TP19	0.0-0.5	0830	ENV
Lab QC 1			

Pit Width: 3'
Pit Length: _____
Pit Depth: 4'
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
SM		Silty sand, loose, moist, 10YR 4/4 dark yellowish brown, fine-sand
		0-1.5'
ML		Sandy silt, dry, hard, non-plast, 10 YR 4/4 dark yellowish brown
		1.5-2.5'
ML		Sandy silt, dry, hard, non-plast, 10 YR 5/4 yellowish brown
		2.5-4.0'

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT- _____

environmental only
(1) bag per sample

weather 50°F
clear, sunny
3-5 mph winds from North

TD @ 4' due to ex-situ reading

Test Pit ID: TP-20

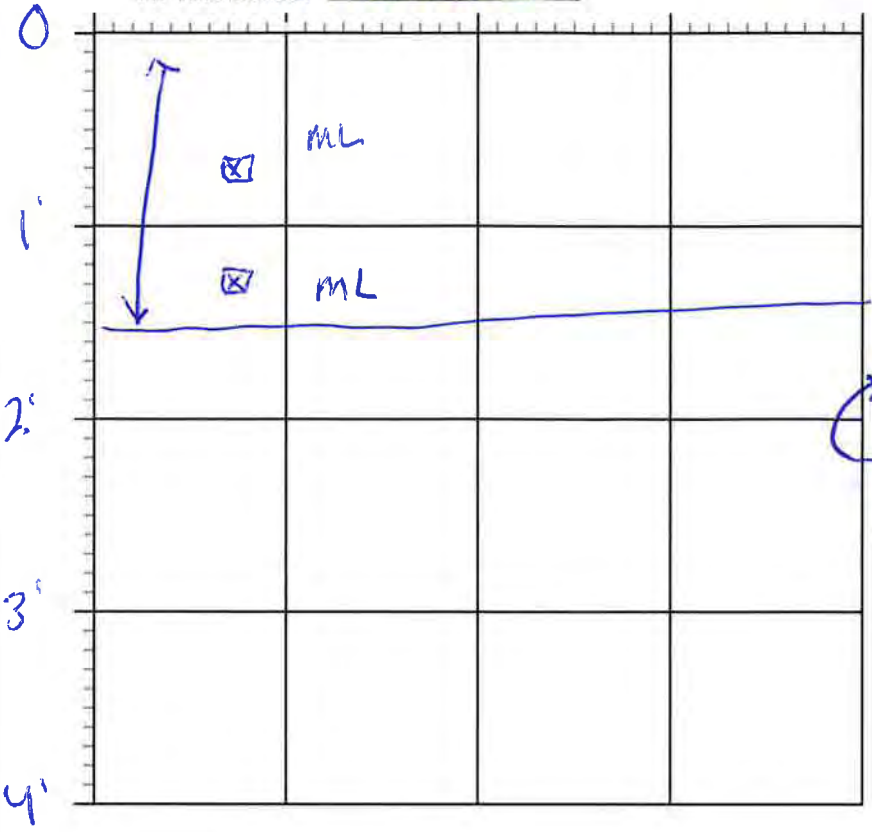
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP- TP-27 on our map

GENERAL LOCATION: Lot 22
PIT TREND: NE to SW
PIT FACE LOGGED: northwest

DATE: 10/21/25
FIELD GEOLOGIST: M. Hammond

NORTHING: _____
EASTING: _____



TEST PIT LOG

LEGEND

----- SOIL HORIZON
------ HORIZON CONTRACT
▽ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
Sec27-TP-20	0.5'-1.0'	09:30	~~BULK~~ Env ✓
Sec27-TP-20	1.0-1.5'	09:40	~~BULK~~ Env ✓
Lab	GEL		

Pit Width: 2'
Pit Length: _____
Pit Depth: 1.5'
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		Silt w/ sand, moist, firm, med-plast, 10 YR 4/3 brown, fine-sand 0'-0.5'
ML		Silt, dry, hard, non plast, 10 YR 5/4 yellowish brown 0.5'-1.5'
		TD @ 1.5' due to ex-situ reading

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT- _____

Weather: 45°F clear, sunny

Environmental only
(1) bag per sample

Test Pit ID: TP-~~31~~ 21

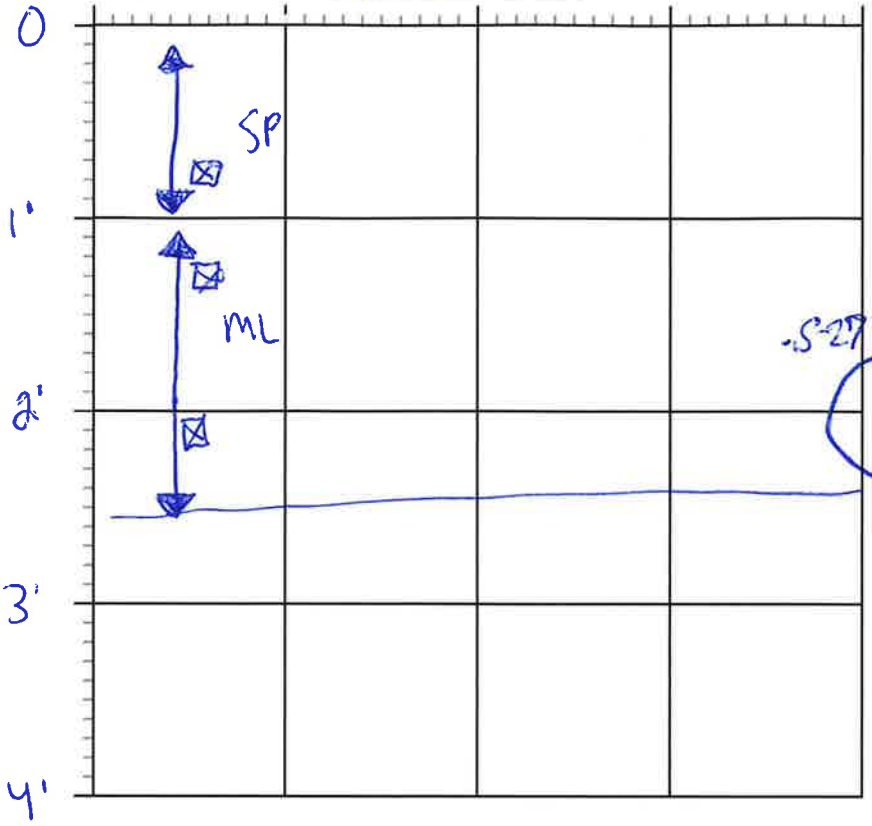
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP-TP-31 on our map

GENERAL LOCATION: Loc 15
PIT TREND: east to west
PIT FACE LOGGED: north

DATE: 10/20/25
FIELD GEOLOGIST: M. Hammond

NORTHING: _____
EASTING: _____



TEST PIT LOG

LEGEND

----- SOIL HORIZON
----- HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-~~31~~ 21	0.5-1.0'	08:45	~~Env~~ Env
S27 TP-~~31~~ 21	1.0-1.5'	08:55	~~Env~~ Env
~~S27 TP-31~~	~~1.8-2.5'~~	~~09:10~~	~~Env~~
S27 TP-21	1.8-2.5'	09:10	Env KG
lab-GEL			

Pit Width: 3'
Pit Length: _____
Pit Depth: 2.5'
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
SP		Poorly graded sand, moist, med dense, fine grained, 10YR 4/4 dark yellowish brown
ML		Sandy silt, low-plast, moist, firm, 7.5YR 4/6 strong brown, very fine-sand
ML		1.8-2.3' Sandy silt, dry, loose, 10YR 4/4 dark yellowish brown, very fine-sand

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-_____

environmental sampling only
(1) bag per sample

Weather: 42° F
clear, sunny

TD @ 2.5' due to ex-situ reading

Test Pit ID: TP-22

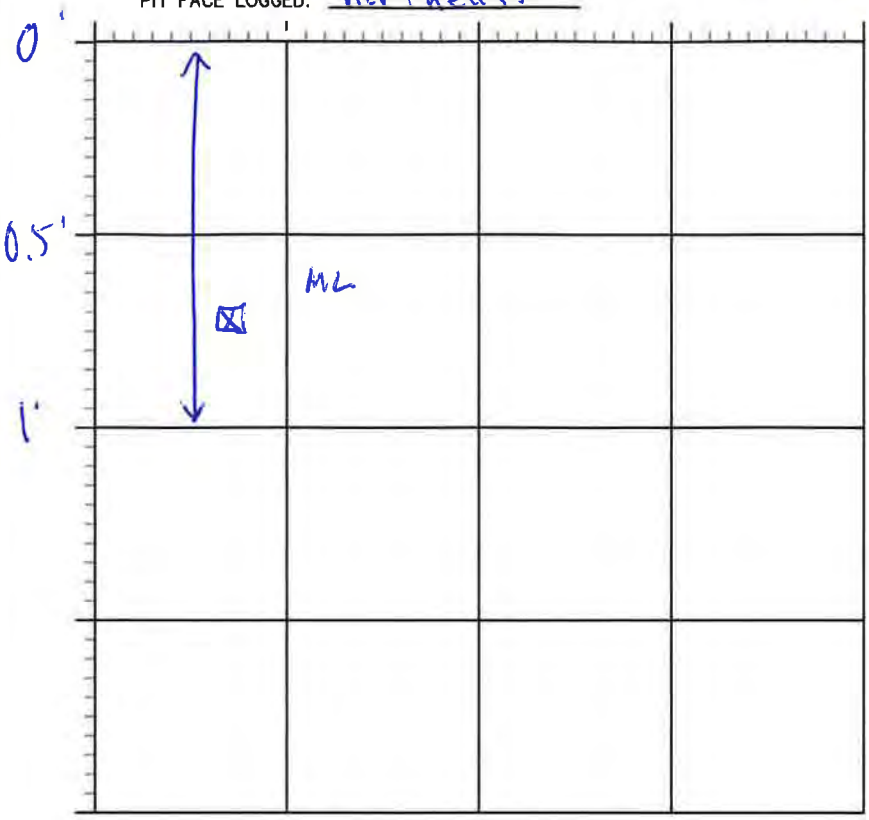
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP- TP-18 on our map

GENERAL LOCATION: Loc 16
PIT TREND: NW to SE
PIT FACE LOGGED: northeast

DATE: 10/20/25
FIELD GEOLOGIST: M. Hammerd

NORTHING: _____
EASTING: _____



TEST PIT LOG

LEGEND

----- SOIL HORIZON
------ HORIZON CONTRACT
☒ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
Sec. I TP-22	0.5-1.0'	09:40	~~MS~~ Env
lab - GEL			

Pit Width: 2'
Pit Length: _____
Pit Depth: 1'
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		sandy silt, moist, soft, non-plastic, 10 YR 4/4 dark yellowish brown, very fine sand

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT- _____

Environmental sample ~~s~~ only
(1) one bag per sample

Weather: 45°F
clear, sunny
3-5 mph winds
from North

TD @ 1' due to ex-situ reading

Test Pit ID: TP-23

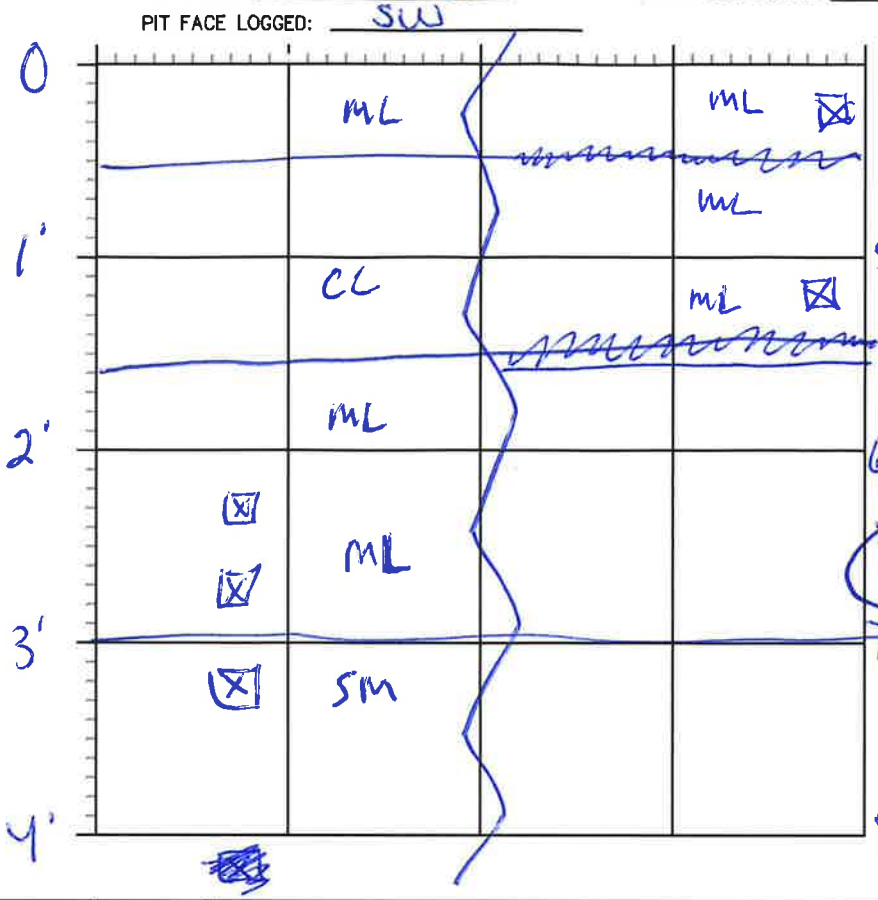
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP- TP-14 on our map

GENERAL LOCATION: Loc 2.5
PIT TREND: NW to SE
PIT FACE LOGGED: SW

DATE: 10/21/25 - 10/22/25
FIELD GEOLOGIST: M. Heavmond

NORTHING: _____
EASTING: _____



TEST PIT LOG

LEGEND

- ----- SOIL HORIZON
- ------ HORIZON CONTRACT
- ▽ GROUNDWATER LEVEL
- ☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
Sec-27 TP-23	2.0-2.5'	13:55	~~EE~~ Env
Sec-27 TP-23	2.5-3.0'	14:10	~~EE~~ Env
Sec-27 TP-23	3.0-3.5'	14:30	~~EE~~ Env
Sec-27 TP-23	4.0-4.5'	08:20	Env
Sec-27 TP-23	5.0-5.5'	08:40	Env
Lab - GEL			

Pit Width: 4'
Pit Length: _____
Pit Depth: 5.5'
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		Silt, moist, firm, low-plast, 10 YR 4/2 dark grayish brown (grey and black ore lenses) 0-0.5'
CL	[redacted]	Clay with silt, dry, hard, non-plast, 10 YR 6/1 gray. (grey and black ore lenses) 0.5'-1.5'
ML		Silt, dry, very hard, non-plast, 10 YR 5/6 yellowish brown 1.5'-3.0'

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT- _____

Environmental only
(1) bag per sample

TD @ 5.5' due to ex-situ reading

weather: 70°F clear, sunny

SM 3'-4' silty sand, dry, med-dense, very fine to medium grained, 10 YR 6/6 brownish yellow

ML 4.0-5.5' silt with clay, dry, hard, non-plast, 10 YR 6/4 light yellowish brown

FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Test Pit ID: TP-24

Sheet NO.: TP- TP-24 on our map

GENERAL LOCATION: Loc 26

PIT TREND: NE to SW

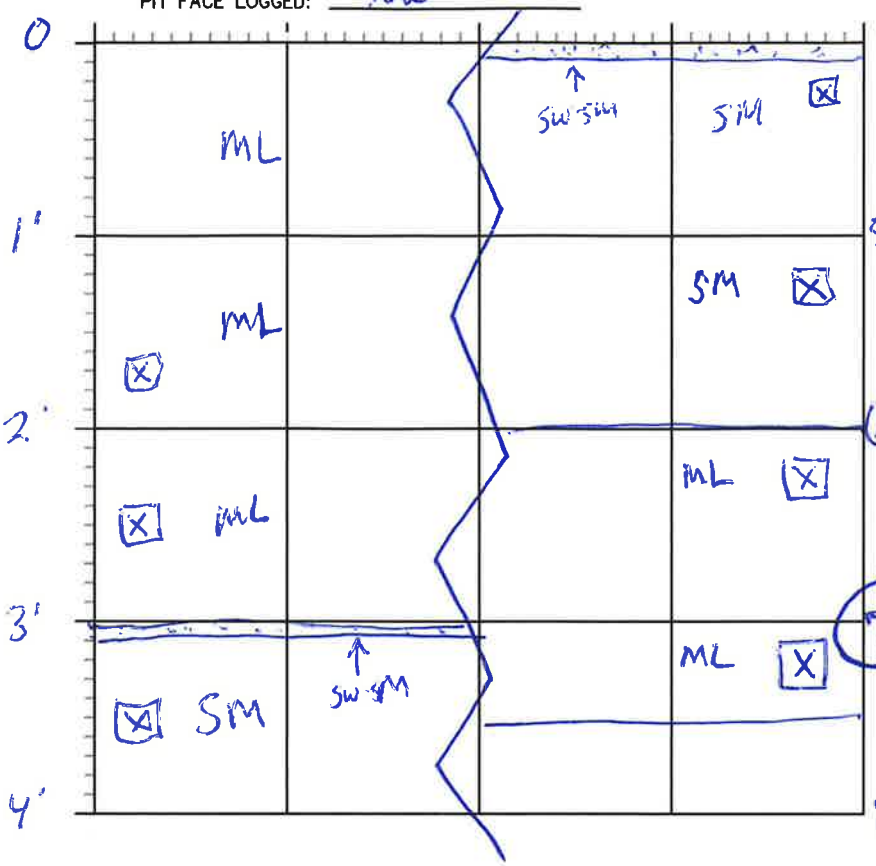
PIT FACE LOGGED: NW

DATE: 10/22/25

FIELD GEOLOGIST: M. Hammond

NORTHING: _____

EASTING: _____



TEST PIT LOG

LEGEND

- ----- SOIL HORIZON
- ------ HORIZON CONTRACT
- ⧖ GROUNDWATER LEVEL
- ☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
Sec-27 TP-24	1.5-2.0'	09:16	Env
Sec-27 TP-24	2.0-3.0	09:25	Env
Sec-27 TP-24	3.0-4.0'	09:40	Env
Sec-27 TP-24	4.0-4.5'	09:55	Env
Sec-27 TP-24	5.0-5.5	10:15	Env
Sec-27 TP-24	6.0-6.5'	10:25	Env
Sec-27 TP-24	7.0-7.5'	10:40	Env
Lab + GEL			

Pit Width: 3'

Pit Length: _____

Pit Depth: 7.5'

GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		Silt, moist, firm, med-plast, 10 YR 4/3 brown 0'-3'
SM		silty sand, dry, dense, very fine to med grained, 10 YR 5/6 yellowish brown 3'-6'
SW-SM		well graded sand with gravel and silt, dry, med-dense, very fine to coarse sand, fine gravel. 10 YR 5/3 brown, 1"-2" layer at 3' and 4'
ML		Silt with sand, hard, dry, non-plast, 10 YR 5/4 yellowish brown 6'-

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT- _____

Environmental only

(1) bag per sample

TD @ 7.5' due to ex-situ reading

weather: 40°F

~~clear~~ overcast, cloudy

Test Pit ID: TP-26

FIELD SAMPLE DATA SHEET (FSDS)

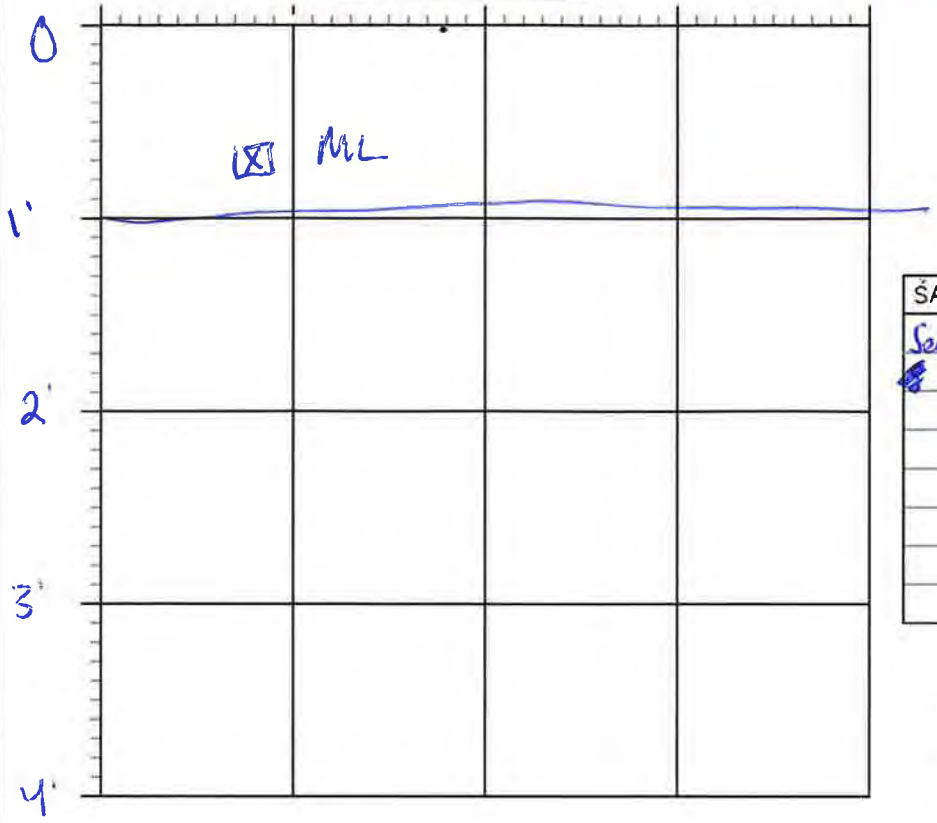
TEST PIT LOGGING

Sheet NO.: TP- TP-28 on our map

GENERAL LOCATION: Loc 23 DATE: 10/21/25 NORTHING: _____

PIT TREND: south to north FIELD GEOLOGIST: M. Hammond EASTING: _____

PIT FACE LOGGED: East



TEST PIT LOG

LEGEND

------ SOIL HORIZON
------ HORIZON CONTRACT
▽ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
Sec 27 TP-26	0.5-1.0'	10:10	~~EE~~ Env
Lab - GEL			

Pit Width: 2'
Pit Length: _____
Pit Depth: 1'
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		silt, moist, firm, low-plast, 10YR 4/4 dark yellowish brown 0.0-0.5'
ML		silt, dry, hard, non-plast, 10YR 5/3 brown 0.5'-1.0'
		TD @ 1' due to ex-situ reading

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT- _____

Environmental only
(1) bag per sample

weather: 50°F
clear, sunny

Test Pit ID: TP-27

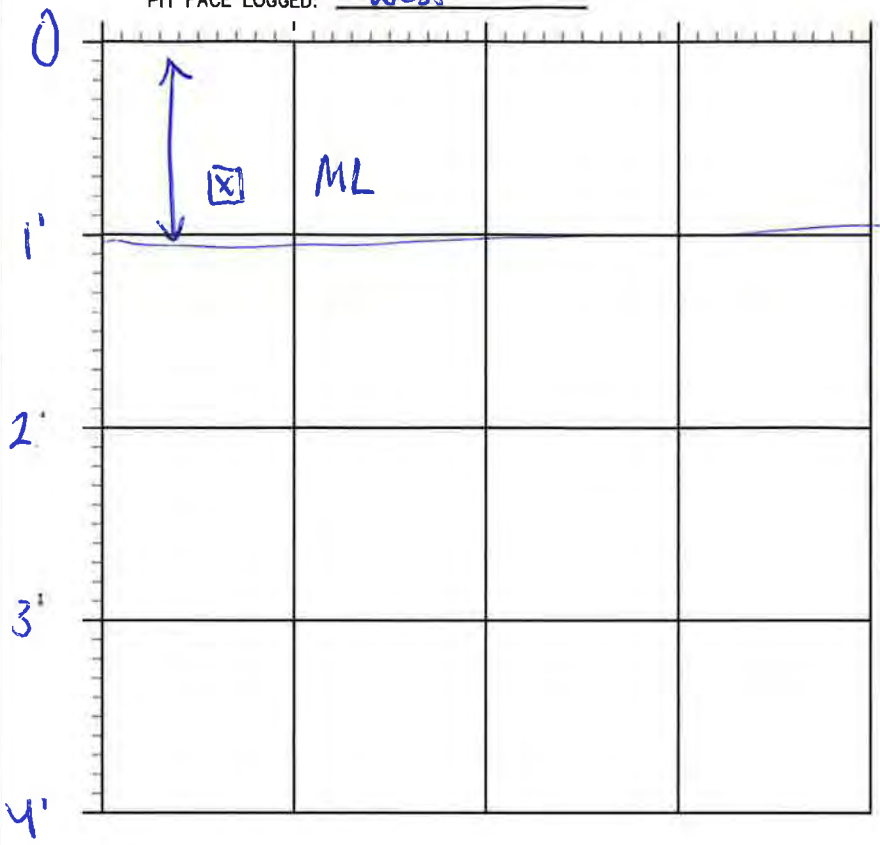
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP- TP-21 on our map

GENERAL LOCATION: Loc 19
PIT TREND: south to north
PIT FACE LOGGED: west

DATE: 10/20/25
FIELD GEOLOGIST: M. Hammond

NORTHING: _____
EASTING: _____



TEST PIT LOG

LEGEND

----- SOIL HORIZON
------ HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
Sec-27 TP-T	0.5-1.0'	13:10	~~ENV~~
Lab-GEL			

Pit Width: 2'
Pit Length: _____
Pit Depth: 1'
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		Silt, moist, firm, med-plast, 10YR 3/4 dark yellowish brown

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT- _____

Environmental sampling only,
(1) bag

TD @ 1' due to ex-situ reading

weather 65° F
clear, sunny
10mph wind from NW

Test Pit ID: TP-29

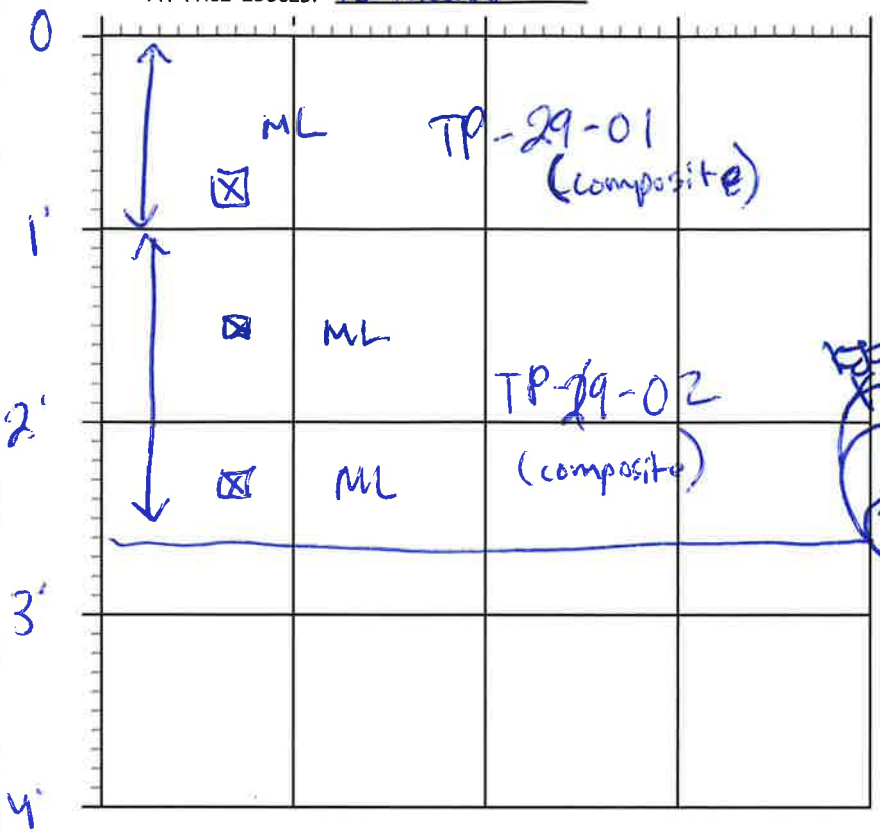
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP- TP-23 on our map

GENERAL LOCATION: Loc 18
PIT TREND: NW to SE
PIT FACE LOGGED: northeast

DATE: 10/20/25
FIELD GEOLOGIST: M. Hammond

NORTHING: _____
EASTING: _____



TEST PIT LOG

LEGEND

----- SOIL HORIZON
------ HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
Sec-27 TP-29	0.5-1.0'	12:00	~~ML~~ Env
Sec-27 TP-29	1.0-2.0'	12:20	~~ML~~ Env
TP-29-01	0-1.0'	12:20	~~ML~~ Geo
Sec-27 TP-29	2.0-2.5'	12:35	~~ML~~ Env
TP-29-02	1.0-2.5'	12:40	~~ML~~ Geo
S27-TP29-Lab-GEL	1.0-1.5'	12:20	Env

Pit Width: 3'
Pit Length: _____
Pit Depth: 2.5'
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		sandy silt, soft, moist, low-plast, 10 YR 4/3 brown, 0-1.0' very fine sand
ML		Silt, dry, hard, non-plast 10YR 5/4 yellowish brown 1.0'-2.5'

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT- _____

Geotech Waste and (3) 5-gallon buckets and (1) large bag per sample

Environmental (1) bag per sample

TD @ 2.5' due to existing reading

weather 60°F clear, sunny 5-10 mph from NW

Test Pit ID: TP-31

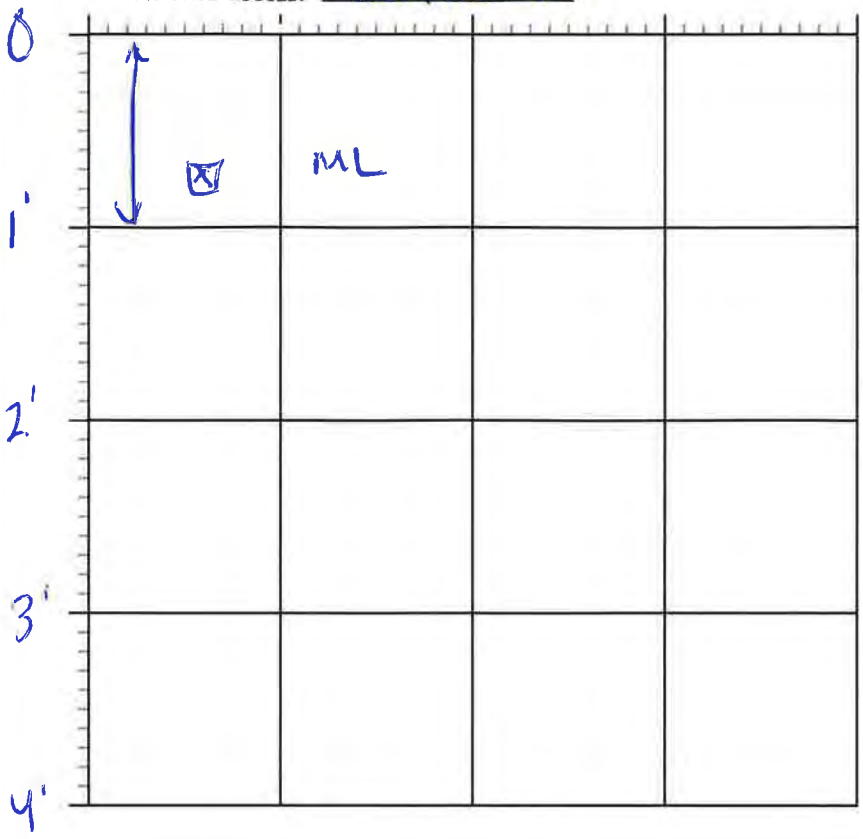
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP- TP-25 on our map

GENERAL LOCATION: Lot 20
PIT TREND: SW to NE
PIT FACE LOGGED: northwest

DATE: 10/20/25
FIELD GEOLOGIST: M. Hammond

NORTHING: _____
EASTING: _____



TEST PIT LOG

LEGEND

----- SOIL HORIZON
------ HORIZON CONTRACT
▽ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
Sec29 TP-31 Lab + GEL	0.5-1.0'	13:40	~~Field~~ Env

Pit Width: 2'
Pit Length: _____
Pit Depth: 1'
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		Silt, moist, firm, 10YR 5/4 yellowish brown, ~~low~~ med-plast

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT- _____

environmental sampling only

(1) bag

weather 65°F
clear, sunny
10-15mph winds from NW

TD @ 1' due to ex-situ reading

Test Pit ID: TP-33

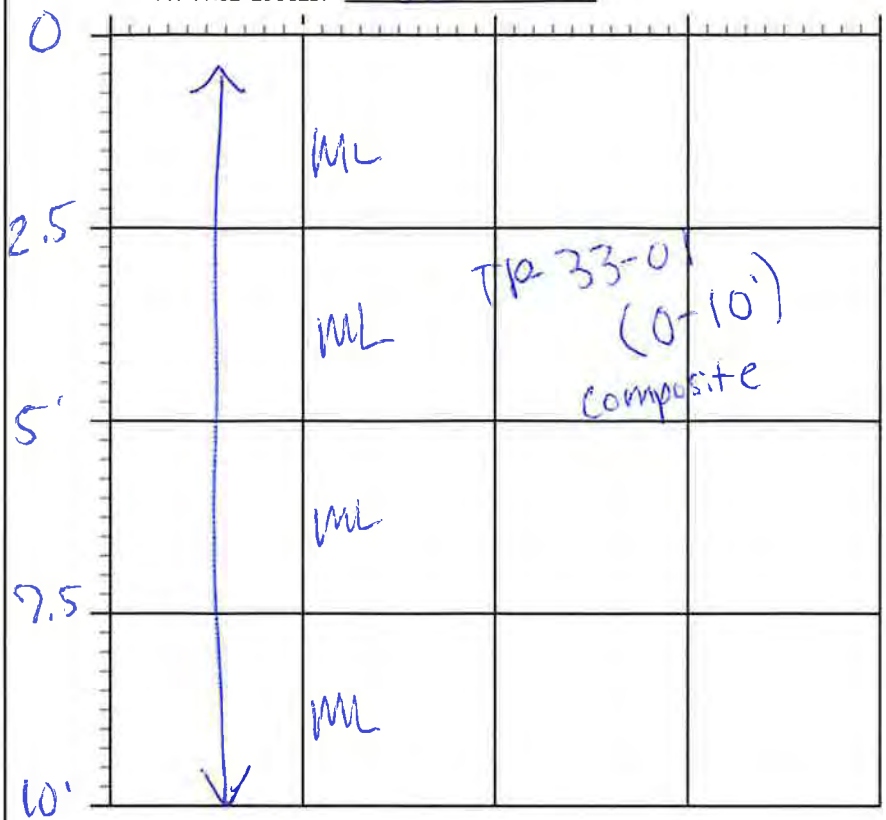
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP- _____

GENERAL LOCATION: Loc 31
PIT TREND: SE to NW
PIT FACE LOGGED: SW

DATE: 10/24/25
FIELD GEOLOGIST: M. Hammond

NORTHING: _____
EASTING: _____



TEST PIT LOG

LEGEND

- ----- SOIL HORIZON
- ------ HORIZON CONTRACT
- ⧖ GROUNDWATER LEVEL
- ☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-33-01	0-10'	09:55	Geo/Env
Lab-GEL			

Pit Width: 3'
Pit Length: _____
Pit Depth: 10'
GW Depth: _____

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		Silt, dry, hard, non-plast, 10 YR 5/4 yellowish brown TD @ 10'

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT- _____

Geotech Borrow and Environmental
(3) 5-gallon buckets (1) small bag
(1) Large bag

weather: 41°F
clear, sunny

Test Pit ID: TP-34

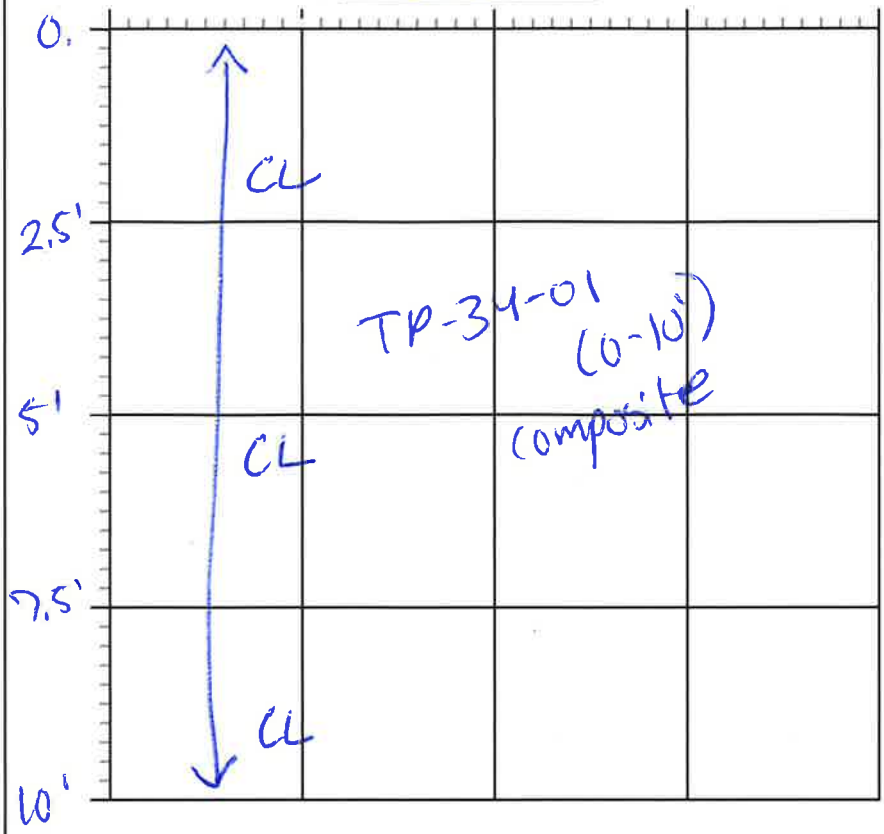
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP-

GENERAL LOCATION: Loc 2.9
PIT TREND: north to south
PIT FACE LOGGED: west

DATE: 10/24/25
FIELD GEOLOGIST: mittammond

NORTHING:
EASTING:



TEST PIT LOG

LEGEND

----- SOIL HORIZON
------ HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-34-01	0-10'	08:05	Geo/Env
Lab-GEL			

Pit Width: 3'
Pit Length:
Pit Depth: 10'
GW Depth:

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
CL		clay with silt, dry, non-plast, hard, 10YR 4/2 dark grayish brown TD @ 10'

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-

Borrow Geotech and Environmental
(3) 5-gallon buckets (1) small bag
(1) large bag

weather: 28°F
clear, sunny

Test Pit ID: TP-35

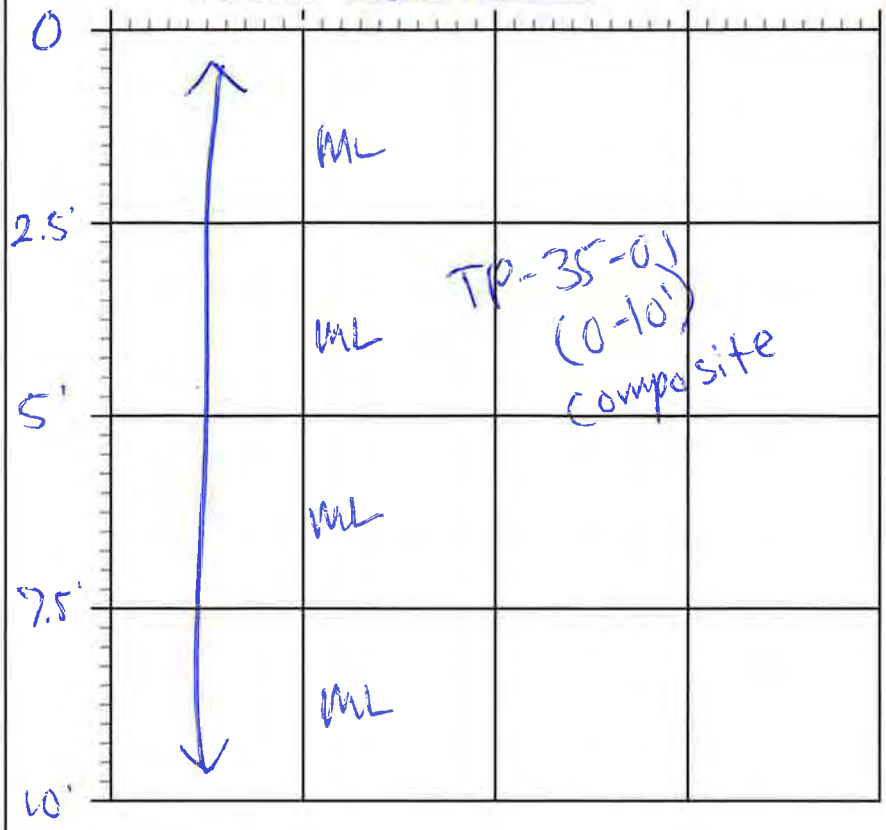
FIELD SAMPLE DATA SHEET (FSDS)
TEST PIT LOGGING

Sheet NO.: TP-

GENERAL LOCATION: Loc 30
PIT TREND: west to east
PIT FACE LOGGED: South

DATE: 10/24/25
FIELD GEOLOGIST: M. Hammond

NORTHING:
EASTING:



TEST PIT LOG

LEGEND

----- SOIL HORIZON
------ HORIZON CONTRACT
⧖ GROUNDWATER LEVEL
☒ SAMPLE

SAMPLE No.	DEPTH	TIME	TYPE
TP-35-01	0-10'	09:00	Geo/Env
Lab - GEL			

Pit Width: 3'
Pit Length:
Pit Depth: 10'
GW Depth:

USCS SYMBOL	SOIL UNIT	SOIL DESCRIPTION AND EXCAVATION NOTES
ML		silt, dry, hard, non-plastic, 10 YR 5/4 yellowish brown
		TD @ 10'

SPECIAL NOTES:

Corresponding GT FSDS Sheet No.: GT-

Geotech Borrow and Environmental
(3) 5-gallon buckets (1) small bag
(1) large bag

Weather: 35°F
clear, sunny

Appendix E Daniel B. Stephens & Associates Laboratory Results

Laboratory Report
Project Section 27

Prepared for

Stantec

Prepared by

DBS&A Soil Testing & Research Laboratory
4400 Alameda Blvd. NE, Suite C
Albuquerque, New Mexico 87113
(505) 889-7752
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DB25.1135.00

January 21, 2025

DBS&A
a Geo-Logic Company

January 21, 2025

Stephanie Regis
Stantec
3325 S Timberline Road, 2nd Fl
Fort Collins, CO 80525
(970) 871-4389

Re: DBS&A Laboratory Report for Project Section 27

Dear Stephanie Regis:

Enclosed is the report for the requested laboratory services. Please review this report and provide any comments as samples will be held for a maximum of 30 days. After 30 days samples will be returned or disposed of in an appropriate manner.

All testing results were evaluated subjectively for consistency and reasonableness, and the results appear to be reasonably representative of the material tested. However, DBS&A does not assume any responsibility for interpretations or analyses based on the data enclosed, nor can we guarantee that these data are fully representative of the undisturbed materials at the field site. We recommend that careful evaluation of these laboratory results be made for your particular application.

The testing utilized to generate the enclosed report employs methods that are standard for the industry. The results do not constitute a professional opinion by DBS&A, nor can the results affect any professional or expert opinions rendered with respect thereto by DBS&A. You have acknowledged that all the testing undertaken by us, and the report provided, constitutes mere test results using standardized methods, and cannot be used to disqualify DBS&A from rendering any professional or expert opinion, having waived any claim of conflict of interest by DBS&A.

We are pleased to provide this service and look forward to future laboratory testing on other projects. If you have any questions about the enclosed data, please do not hesitate to call.

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.
SOIL TESTING & RESEARCH LABORATORY

Thane Morgan
Laboratory Manager

Summaries

Summary of Tests Performed

Laboratory Sample Number	Initial Soil Properties[1]			Saturated Hydraulic Conductivity[2]			Moisture Characteristics[3]								Particle Size[4]			Specific Gravity[5]		Air Perm-eability	Atterberg Limits	Proctor Compaction
	G	VM	VD	CH	FH	FW	HC	PP	FP	DPP	RH	EP	WHC	K_{unsat}	DS	WS	H	F	C			
TP-01-01 (0-6ft)	X															X	X				X	
TP-02-01 (0-7ft)	X															X	X				X	
TP-02-02 (7-10ft)	X															X	X				X	
TP-05-01 (0-6.5ft)	X															X	X				X	
TP-06-01 (0-6ft)	X															X	X				X	
TP-07-01 (0-3ft)	X															X	X				X	
TP-7-02 (3-10ft)	X															X	X				X	
TP-08-01 (0.5-1ft)	X															X	X				X	
TP-09-01 (0-6ft)	X															X	X				X	
TP-11-01 (0-1ft)	X															X	X				X	
TP-12-01 (0-2ft)	X															X	X				X	
TP-13-01 (0-4.5ft)	X															X	X				X	
TP-13-02 (4.5-10ft)	X															X	X				X	
TP-15-01 (0-4ft)	X															X	X					
TP-15-02 (4-5.25ft)	X															X	X				X	
TP-16-01 (0-4ft)	X															X	X				X	
TP-29-01 (0-1ft)	X															X	X				X	
TP-29-02 (1-2.5ft)	X															X	X				X	
TP-33-01 (0-10ft)	X															X	X				X	

Summary of Tests Performed

Laboratory Sample Number	Initial Soil Properties[1]			Saturated Hydraulic Conductivity[2]			Moisture Characteristics[3]								Particle Size[4]			Specific Gravity[5]		Air Perm-eability	Atterberg Limits	Proctor Compaction
	G	VM	VD	CH	FH	FW	HC	PP	FP	DPP	RH	EP	WHC	K_{unsat}	DS	WS	H	F	C			
TP-34-01 (0-10ft)	X															X	X				X	
TP-35-01 (0-10ft)	X															X	X				X	

[1] G = Gravimetric Moisture Content, VM = Volume Measurement Method, VD = Volume Displacement Method

[2] CH = Constant Head Rigid Wall, FH = Falling Head Rigid Wall, FW = Falling Head Rising Tail Flexible Wall

[3] HC = Hanging Column, PP = Pressure Plate, FP = Filter Paper, DPP = Dew Point Potentiometer, RH = Relative Humidity Box, EP = Effective Porosity, WHC = Water Holding Capacity, Kunsat = Calculated Unsaturated Hydraulic Conductivity

[4] DS = Dry Sieve, WS = Wet Sieve, H = Hydrometer

[5] F = Fine (<4.75mm), C = Coarse (>4.75mm)

Notes

Sample Receipt:
Twenty-one samples were delivered between October 22, 2025 and October 24, 2025. Each sample was loose soil in three 5-gallon buckets, with one of each bucket having a gallon resealable bag with the sample to help maintain moisture content in transit. The samples arrived in good order.

Sample Preparation and Testing Notes:
From the sealed bags of each sample, a subsample was taken for initial water content determination. Another subsample was taken for particle size analysis via hydrometer and sieving, while a third subsample was sieved through a 40 mesh screen and subjected to Atterberg plasticity index measurement.

A few samples gave unusual results for their late hydrometer readings. This may indicate flocculation occurred over time. Some evidence of white crystal formation was present on these samples, especially the TP-13-01 (0-4.5 ft) sample. Some crystals dissolved with gas evolution when added to water, which may indicate the presence of carbonates.



TP-13-01 (0-4.5 ft)

Summary of Initial Moisture Content, Dry Bulk Density Wet Bulk Density and Calculated Porosity

Sample Number	Moisture Content				Dry Bulk Density (g/cm^3)	Wet Bulk Density (g/cm^3)	Calculated Porosity (%)
	As Received		Remolded				
	Gravimetric (%, g/g)	Volumetric (%, cm^3/cm^3)	Gravimetric (%, g/g)	Volumetric (%, cm^3/cm^3)			
TP-01-01 (0-6ft)	9.4	NA	---	---	NA	NA	NA
TP-02-01 (0-7ft)	9.5	NA	---	---	NA	NA	NA
TP-02-02 (7-10ft)	14.7	NA	---	---	NA	NA	NA
TP-05-01 (0-6.5ft)	7.7	NA	---	---	NA	NA	NA
TP-06-01 (0-6ft)	12.7	NA	---	---	NA	NA	NA
TP-07-01 (0-3ft)	11.4	NA	---	---	NA	NA	NA
TP-7-02 (3-10ft)	19.5	NA	---	---	NA	NA	NA
TP-08-01 (0.5-1ft)	16.8	NA	---	---	NA	NA	NA
TP-09-01 (0-6ft)	10.9	NA	---	---	NA	NA	NA
TP-11-01 (0-1ft)	10.7	NA	---	---	NA	NA	NA
TP-12-01 (0-2ft)	10.1	NA	---	---	NA	NA	NA
TP-13-01 (0-4.5ft)	14.8	NA	---	---	NA	NA	NA
TP-13-02 (4.5-10ft)	12.6	NA	---	---	NA	NA	NA
TP-15-01 (0-4ft)	5.4	NA	---	---	NA	NA	NA

Summary of Initial Moisture Content, Dry Bulk Density Wet Bulk Density and Calculated Porosity

Sample Number	Moisture Content				Dry Bulk Density (g/cm^3)	Wet Bulk Density (g/cm^3)	Calculated Porosity (%)
	As Received		Remolded				
	Gravimetric (%, g/g)	Volumetric (%, cm^3/cm^3)	Gravimetric (%, g/g)	Volumetric (%, cm^3/cm^3)			
TP-15-02 (4-5.25ft)	10.3	NA	---	---	NA	NA	NA
TP-16-01 (0-4ft)	11.9	NA	---	---	NA	NA	NA
TP-29-01 (0-1ft)	10.5	NA	---	---	NA	NA	NA
TP-29-02 (1-2.5ft)	8.6	NA	---	---	NA	NA	NA
TP-33-01 (0-10ft)	11.7	NA	---	---	NA	NA	NA
TP-34-01 (0-10ft)	16.8	NA	---	---	NA	NA	NA
TP-35-01 (0-10ft)	13.5	NA	---	---	NA	NA	NA

NA = Not analyzed

--- = This sample was not remolded

Summary of Particle Size Characteristics

Sample Number	d_{10} (mm)	d_{50} (mm)	d_{60} (mm)	C_u	C_c	Method	USCS Classification	USDA Classification	
TP-01-01 (0-6ft)	9.2E-05	0.013	0.033	359	0.56	WS/H	Lean clay with sand (CL)s	Clay Loam	(Est)
TP-02-01 (0-7ft)	4.8E-05	0.0065	0.017	354	0.60	WS/H	Lean clay with sand (CL)s	Clay Loam	(Est)
TP-02-02 (7-10ft)	0.0018	0.027	0.063	35	0.27	WS/H	Sandy fat clay s(CH)	Loam	
TP-05-01 (0-6.5ft)	0.0013	0.062	0.095	73	1.2	WS/H	Sandy lean clay s(CL)	Sandy Loam	(Est)
TP-06-01 (0-6ft)	0.0011	0.0052	0.011	10.0	0.27	WS/H	Lean clay with sand (CL)s	Clay Loam	(Est)
TP-07-01 (0-3ft)	2.1E-10	0.0060	0.026	1.2E+08	3.4	WS/H	Lean clay with sand (CL)s	Clay	(Est)
TP-7-02 (3-10ft)	0.00028	0.0018	0.0028	10.0	0.63	WS/H	Fat clay (CH)	Clay	(Est)
TP-08-01 (0.5-1ft)	0.00010	0.044	0.076	760	1.3	WS/H	Sandy lean clay s(CL)	Sandy Clay Loam	(Est)
TP-09-01 (0-6ft)	0.0015	0.0056	0.012	8.0	0.25	WS/H	Lean clay (CL)	Silt Loam	
TP-11-01 (0-1ft)	7.5E-06	0.054	0.082	1.1E+04	234	WS/H	Sandy silty clay s(CL-ML)	Loam	(Est)
TP-12-01 (0-2ft)	2.1E-05	0.0024	0.0092	438	0.25	WS/H	Fat clay (CH)	Clay	(Est)
TP-13-01 (0-4.5ft)	0.00099	0.0087	0.035	35	0.065	WS/H	Sandy lean clay s(CL)	Clay	(Est)
TP-13-02 (4.5-10ft)	3.7E-05	0.028	0.058	1568	3.2	WS/H	Sandy lean clay s(CL)	Clay Loam †	(Est)
TP-15-01 (0-4ft)	0.0078	0.22	0.27	35	11	WS/H	Classification by ASTM 2487 requires Atterberg test	Loamy Sand	
TP-15-02 (4-5.25ft)	8.0E-05	0.074	0.097	1213	74	WS/H	Sandy silt s(ML)	Sandy Loam	(Est)

Summary of Particle Size Characteristics

Sample Number	d_{10} (mm)	d_{50} (mm)	d_{60} (mm)	C_u	C_c	Method	USCS Classification	USDA Classification	
TP-16-01 (0-4ft)	0.00012	0.010	0.021	175	0.89	WS/H	Lean clay with sand (CL)s	Clay Loam	(Est)
TP-29-01 (0-1ft)	6.7E-05	0.035	0.080	1194	3.8	WS/H	Sandy lean clay s(CL)	Loam	(Est)
TP-29-02 (1-2.5ft)	7.6E-05	0.037	0.075	987	2.3	WS/H	Sandy lean clay s(CL)	Loam	(Est)
TP-33-01 (0-10ft)	0.00037	0.0066	0.026	70	0.10	WS/H	Lean clay with sand (CL)s	Clay	(Est)
TP-34-01 (0-10ft)	0.00014	0.0075	0.020	143	0.51	WS/H	Fat clay with sand (CH)s	Clay Loam	(Est)
TP-35-01 (0-10ft)	0.0020	0.0050	0.015	7.5	0.24	WS/H	Lean clay with sand (CL)s	Silt Loam	

Est = Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

$$C_u = \frac{d_{60}}{d_{10}}$$

$$C_c = \frac{(d_{30})^2}{(d_{10})(d_{60})}$$

DS = Dry sieve

H = Hydrometer

WS = Wet sieve

† Greater than 10% of sample is coarse material

d_{50} = Median particle diameter

Percent Gravel, Sand, Silt and Clay

Sample Number	% Gravel (>4.75mm)	% Sand (<4.75mm, >0.075mm)	% Silt (<0.075mm, >0.002mm)	% Clay (<0.002mm)
TP-01-01 (0-6ft)	0.0	25.9	41.0	33.1
TP-02-01 (0-7ft)	0.2	19.8	42.1	37.9
TP-02-02 (7-10ft)	2.6	35.7	49.4	12.4
TP-05-01 (0-6.5ft)	1.6	45.3	36.9	16.1
TP-06-01 (0-6ft)	0.0	16.6	48.5	34.9
TP-07-01 (0-3ft)	0.9	21.8	34.9	42.3
TP-7-02 (3-10ft)	0.1	7.8	39.6	52.6
TP-08-01 (0.5-1ft)	0.0	40.2	32.6	27.1
TP-09-01 (0-6ft)	0.0	12.7	60.8	26.6
TP-11-01 (0-1ft)	0.0	43.2	39.0	17.8
TP-12-01 (0-2ft)	0.3	10.1	40.7	48.9
TP-13-01 (0-4.5ft)	1.5	30.7	22.9	44.9
TP-13-02 (4.5-10ft)	3.6	32.8	36.3	27.3
TP-15-01 (0-4ft)	1.9	80.5	10.9	6.8
TP-15-02 (4-5.25ft)	0.3	49.5	33.8	16.4
TP-16-01 (0-4ft)	0.0	21.0	47.0	32.0
TP-29-01 (0-1ft)	0.0	41.5	35.0	23.5
TP-29-02 (1-2.5ft)	0.4	39.7	35.5	24.4
TP-33-01 (0-10ft)	2.5	24.8	30.4	42.3

Percent Gravel, Sand, Silt and Clay

Sample Number	% Gravel (>4.75mm)	% Sand (<4.75mm, >0.075mm)	% Silt (<0.075mm, >0.002mm)	% Clay (<0.002mm)
TP-34-01 (0-10ft)	0.5	26.1	39.0	34.4
TP-35-01 (0-10ft)	0.2	26.5	63.0	10.3

Summary of Atterberg Tests

Sample Number	Liquid Limit	Plastic Limit	Plasticity Index	Classification
	35	18	17	CL
TP-02-01 (0-7ft)	43	18	25	CL
TP-02-02 (7-10ft)	52	24	28	CH
TP-05-01 (0-6.5ft)	27	18	9	CL
TP-06-01 (0-6ft)	40	17	23	CL
TP-07-01 (0-3ft)	48	19	29	CL
TP-7-02 (3-10ft)	67	26	41	CH
TP-08-01 (0.5-1ft)	32	16	16	CL
TP-09-01 (0-6ft)	44	19	25	CL
TP-11-01 (0-1ft)	27	20	7	CL-ML
TP-12-01 (0-2ft)	50	22	28	CH
TP-13-01 (0-4.5ft)	46	18	28	CL
TP-13-02 (4.5-10ft)	42	19	23	CL
TP-15-02 (4-5.25ft)	23	21	2	ML
TP-16-01 (0-4ft)	37	19	18	CL
TP-29-01 (0-1ft)	29	17	12	CL
TP-29-02 (1-2.5ft)	30	16	14	CL
TP-33-01 (0-10ft)	43	18	25	CL
TP-34-01 (0-10ft)	60	26	34	CH
TP-35-01 (0-10ft)	42	19	23	CL

--- = Soil requires visual-manual classification due to non-plasticity

Initial Properties

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-01-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	199.61	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.51	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	175.56	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	9.4	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-02-01 (0-7ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	222.95	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.46	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	196.86	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	9.5	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-02-02 (7-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	184.95	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.45	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	154.76	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	14.7	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-05-01 (0-6.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	169.76	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.46	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	150.70	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	7.7	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-06-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	164.20	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.43	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	139.13	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	12.7	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-07-01 (0-3ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	222.78	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.46	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	193.20	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	11.4	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-7-02 (3-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	175.83	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.44	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	140.89	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	19.5	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-08-01 (0.5-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	152.92	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.52	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	124.48	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	16.8	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-09-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	172.03	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.51	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	148.34	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	10.9	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-11-01 (0-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	166.15	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.45	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	143.38	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	10.7	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-12-01 (0-2ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	179.55	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.42	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	156.30	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	10.1	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-13-01 (0-4.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	308.44	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.45	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	262.14	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	14.8	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-13-02 (4.5-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	238.86	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.47	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	205.44	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	12.6	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-15-01 (0-4ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	196.07	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.51	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	178.91	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	

Gravimetric Moisture Content (% g/g)*:*	5.4
Volumetric Moisture Content (% vol)*:*	NA
Dry bulk density (g/cm^3)*:*	NA
Wet bulk density (g/cm^3)*:*	NA
Calculated Porosity (% vol)*:*	NA
Percent Saturation:	NA

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-15-02 (4-5.25ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	197.39	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.49	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	172.24	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	10.3	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-16-01 (0-4ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	213.31	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.45	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	183.94	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	11.9	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-29-01 (0-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	179.26	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.44	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	155.50	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	10.5	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-29-02 (1-2.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	213.73	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.47	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	189.84	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	8.6	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-33-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	253.29	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.45	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	220.14	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	11.7	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-34-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	226.57	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.43	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	187.62	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	16.8	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-35-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	190.84	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.52	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	161.58	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	13.5	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Particle Size Analysis

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-01-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 19-Dec-25

Initial Dry Weight of Sample (g): 984.72
Weight Passing #10 (g): 982.70
Weight Retained #10 (g): 2.02
Weight of -10 Sub-Sample (g): 78.25
Calculated Weight of Sieve Sample (g): 78.41

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	984.72	100.0
	2"	50	0.00	0.00	984.72	100.0
	1.5"	38.1	0.00	0.00	984.72	100.0
	1"	25	0.00	0.00	984.72	100.0
	3/4"	19.0	0.00	0.00	984.72	100.0
	3/8"	9.5	0.00	0.00	984.72	100.0
	4	4.75	0.27	0.27	984.45	100.0
	10	2.00	1.75	2.02	982.70	99.8
-10			(Based on calculated sieve wt.)			
	20	0.85	0.03	0.19	78.22	99.8
	40	0.425	0.20	0.39	78.02	99.5
	60	0.250	0.92	1.31	77.10	98.3
	100	0.150	5.58	6.89	71.52	91.2
	140	0.106	7.51	14.40	64.01	81.6
	200	0.075	5.92	20.32	58.09	74.1
	dry pan		1.85	22.17	56.24	
	wet pan			56.24	0.00	

d_{10} (mm): 9.2E-05
d_{16} (mm): 0.00020
d_{30} (mm): 0.0013
d_{50} (mm): 0.013
d_{60} (mm): 0.033
d_{84} (mm): 0.12

Median Particle Diameter --d_{50} (mm): 0.013
Uniformity Coefficient, Cu --$[d_{60}/d_{10}]$ (mm): 359
Coefficient of Curvature, Cc --$[(d_{30})^2/(d_{10}*d_{60})]$ (mm): 0.56
Mean Particle Diameter --$[(d_{16}+d_{50}+d_{84})/3]$ (mm): 0.044

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Lean clay with sand (CL)s
USDA Soil Classification: Clay Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-01-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 17-Dec-25
Start Time: 8:12

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

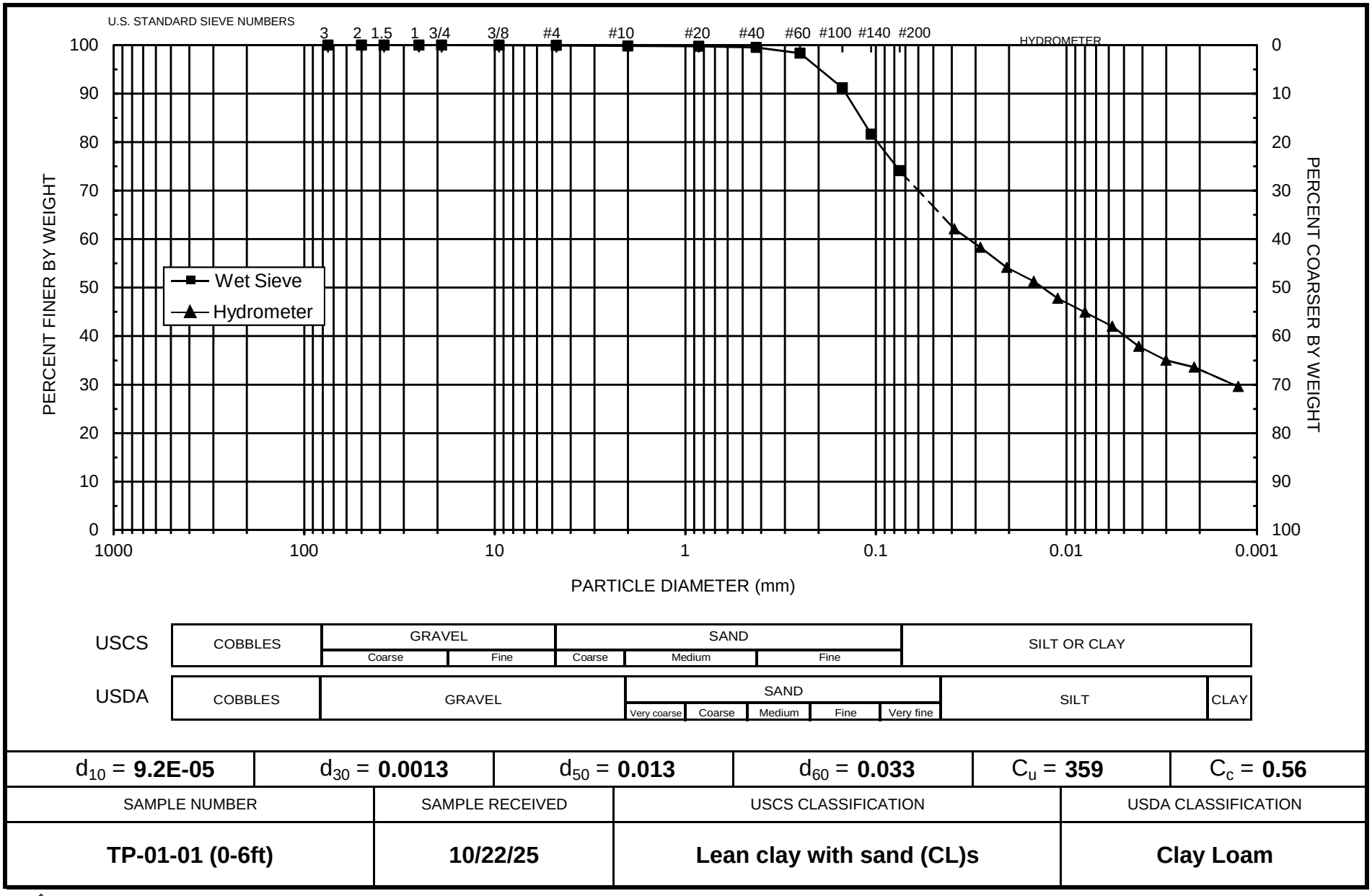
Initial Wt. (g)*:* 78.25
Total Sample Wt. (g)*:* 984.72
Wt. Passing #10 (g)*:* 982.70

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
17-Dec-25	1	18.70	54.50	5.79	48.7	8	0.0388	62	62.1
	2	18.70	51.50	5.79	45.7	9	0.0283	58	58.3
	4	18.70	48.25	5.79	42.5	9	0.0206	54	54.2
	8	18.70	46.00	5.79	40.2	10	0.0149	51	51.3
	15	18.70	43.25	5.79	37.5	10	0.0111	48	47.8
	30	18.70	41.00	5.79	35.2	10	0.0080	45	44.9
	60	18.70	38.75	5.79	33.0	11	0.0058	42	42.0
	120	18.70	35.50	5.79	29.7	11	0.0042	38	37.9
	240	18.70	33.25	5.79	27.5	12	0.0030	35	35.0
	481	19.10	32.00	5.66	26.3	12	0.0021	34	33.6
18-Dec-25	1454	18.70	29.00	5.79	23.2	12	0.0013	30	29.6

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



d_{10} = **9.2E-05**	d_{30} = **0.0013**	d_{50} = **0.013**	d_{60} = **0.033**	C_u = **359**	C_c = **0.56**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-01-01 (0-6ft)	**10/22/25**	**Lean clay with sand (CL)s**	**Clay Loam**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-02-01 (0-7ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 15-Dec-25

Initial Dry Weight of Sample (g): 1115.63
Weight Passing #10 (g): 1102.73
Weight Retained #10 (g): 12.90
Weight of -10 Sub-Sample (g): 81.89
Calculated Weight of Sieve Sample (g): 82.85

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	1115.63	100.0
	2"	50	0.00	0.00	1115.63	100.0
	1.5"	38.1	0.00	0.00	1115.63	100.0
	1"	25	0.00	0.00	1115.63	100.0
	3/4"	19.0	0.00	0.00	1115.63	100.0
	3/8"	9.5	0.00	0.00	1115.63	100.0
	4	4.75	2.18	2.18	1113.45	99.8
	10	2.00	10.72	12.90	1102.73	98.8
-10			(Based on calculated sieve wt.)			
	20	0.85	0.42	1.38	81.47	98.3
	40	0.425	0.67	2.05	80.80	97.5
	60	0.250	0.78	2.83	80.02	96.6
	100	0.150	3.34	6.17	76.68	92.6
	140	0.106	5.55	11.72	71.13	85.9
	200	0.075	4.86	16.58	66.27	80.0
	dry pan		1.86	18.44	64.41	
	wet pan			64.41	0.00	

d_{10} (mm): 4.8E-05
d_{16} (mm): 0.00011
d_{30} (mm): 0.00070
d_{50} (mm): 0.0065
d_{60} (mm): 0.017
d_{84} (mm): 0.095

Median Particle Diameter --d_{50} (mm): 0.0065
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 354
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 0.60
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.034

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Lean clay with sand (CL)s
USDA Soil Classification: Clay Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-02-01 (0-7ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 11-Dec-25
Start Time: 8:30

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

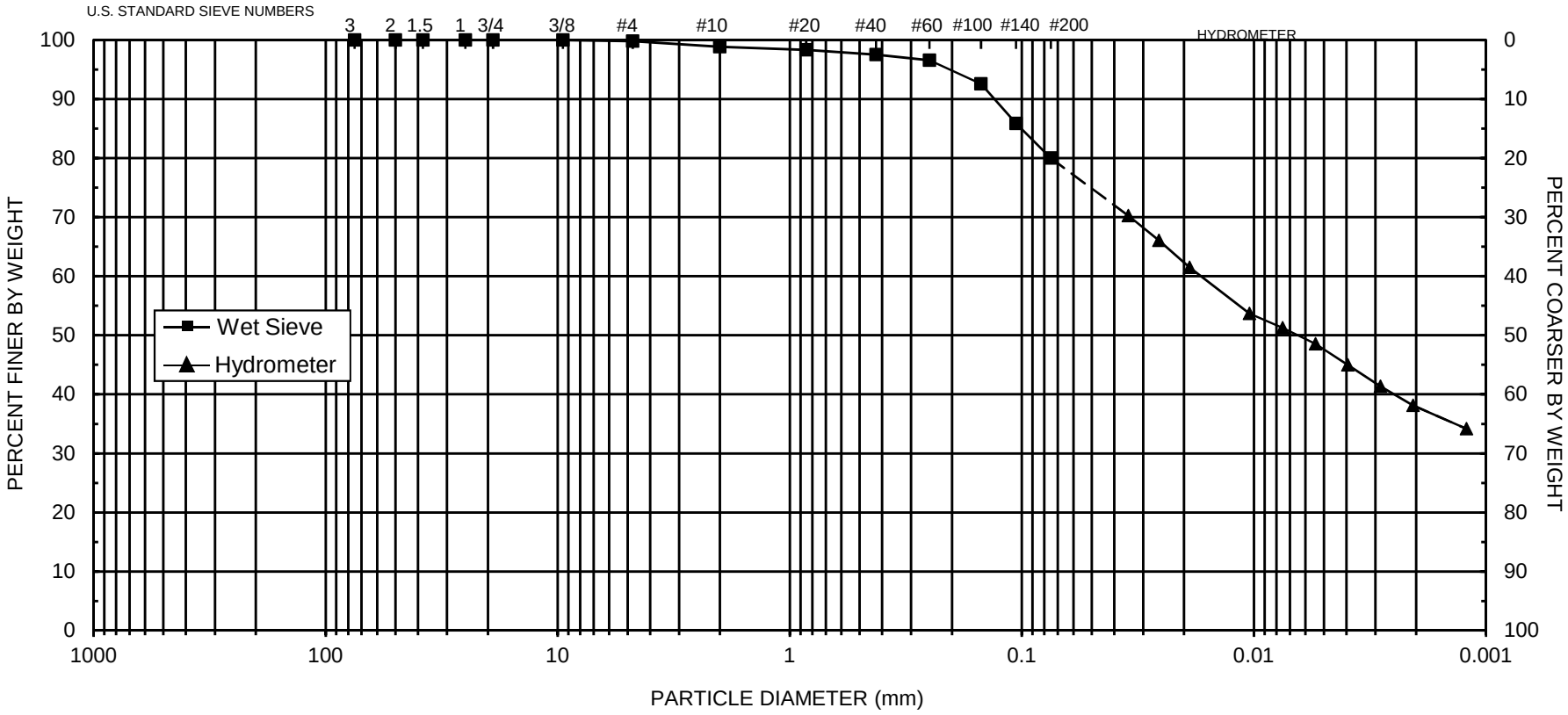
Initial Wt. (g)*:* 81.89
Total Sample Wt. (g)*:* 1115.63
Wt. Passing #10 (g)*:* 1102.73

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
11-Dec-25	1	18.70	64.00	5.79	58.2	7	0.0348	71	70.3
	2	18.70	60.50	5.79	54.7	7	0.0257	67	66.0
	4	18.70	56.75	5.79	51.0	8	0.0189	62	61.5
	15	18.70	50.25	5.79	44.5	9	0.0104	54	53.7
	30	18.70	48.25	5.79	42.5	9	0.0075	52	51.3
	60	18.70	46.00	5.79	40.2	10	0.0054	49	48.5
	120	18.80	43.00	5.76	37.2	10	0.0039	45	45.0
	240	18.80	40.00	5.76	34.2	11	0.0029	42	41.3
	480	19.90	37.00	5.40	31.6	11	0.0021	39	38.1
12-Dec-25	1450	19.00	34.00	5.69	28.3	12	0.0012	35	34.2

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



USCS	COBBLES	GRAVEL: Coarse, Fine		SAND: Coarse, Medium, Fine		SILT OR CLAY
USDA	COBBLES	GRAVEL	SAND: Very coarse, Coarse, Medium, Fine, Very fine			SILT / CLAY

d_{10} = **4.8E-05**	d_{30} = **0.00070**	d_{50} = **0.0065**	d_{60} = **0.017**	C_u = **354**	C_c = **0.60**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-02-01 (0-7ft)	**10/22/25**	**Lean clay with sand (CL)s**	**Clay Loam**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-02-02 (7-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 15-Dec-25

Initial Dry Weight of Sample (g): 956.58
Weight Passing #10 (g): 894.88
Weight Retained #10 (g): 61.70
Weight of -10 Sub-Sample (g): 81.10
Calculated Weight of Sieve Sample (g): 86.69

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	956.58	100.0
	2"	50	0.00	0.00	956.58	100.0
	1.5"	38.1	0.00	0.00	956.58	100.0
	1"	25	0.00	0.00	956.58	100.0
	3/4"	19.0	0.00	0.00	956.58	100.0
	3/8"	9.5	8.05	8.05	948.53	99.2
	4	4.75	16.43	24.48	932.10	97.4
	10	2.00	37.22	61.70	894.88	93.5
-10			(Based on calculated sieve wt.)			
	20	0.85	3.40	8.99	77.70	89.6
	40	0.425	6.12	15.11	71.58	82.6
	60	0.250	5.30	20.41	66.28	76.5
	100	0.150	5.16	25.57	61.12	70.5
	140	0.106	3.58	29.15	57.54	66.4
	200	0.075	3.98	33.13	53.56	61.8
	dry pan		1.83	34.96	51.73	
	wet pan			51.73	0.00	

d_{10} (mm): 0.0018
d_{16} (mm): 0.0024
d_{30} (mm): 0.0055
d_{50} (mm): 0.027
d_{60} (mm): 0.063
d_{84} (mm): 0.49

Median Particle Diameter --d_{50} (mm): 0.027
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 35
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 0.27
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.17

Classification of fines: CH

USCS Soil Classification: Sandy fat clay s(CH)
USDA Soil Classification: Loam

Laboratory analysis by: M. Sharma
Data entered by: J. Tafoya
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-02-02 (7-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 14-Jan-26
Start Time: 8:30

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

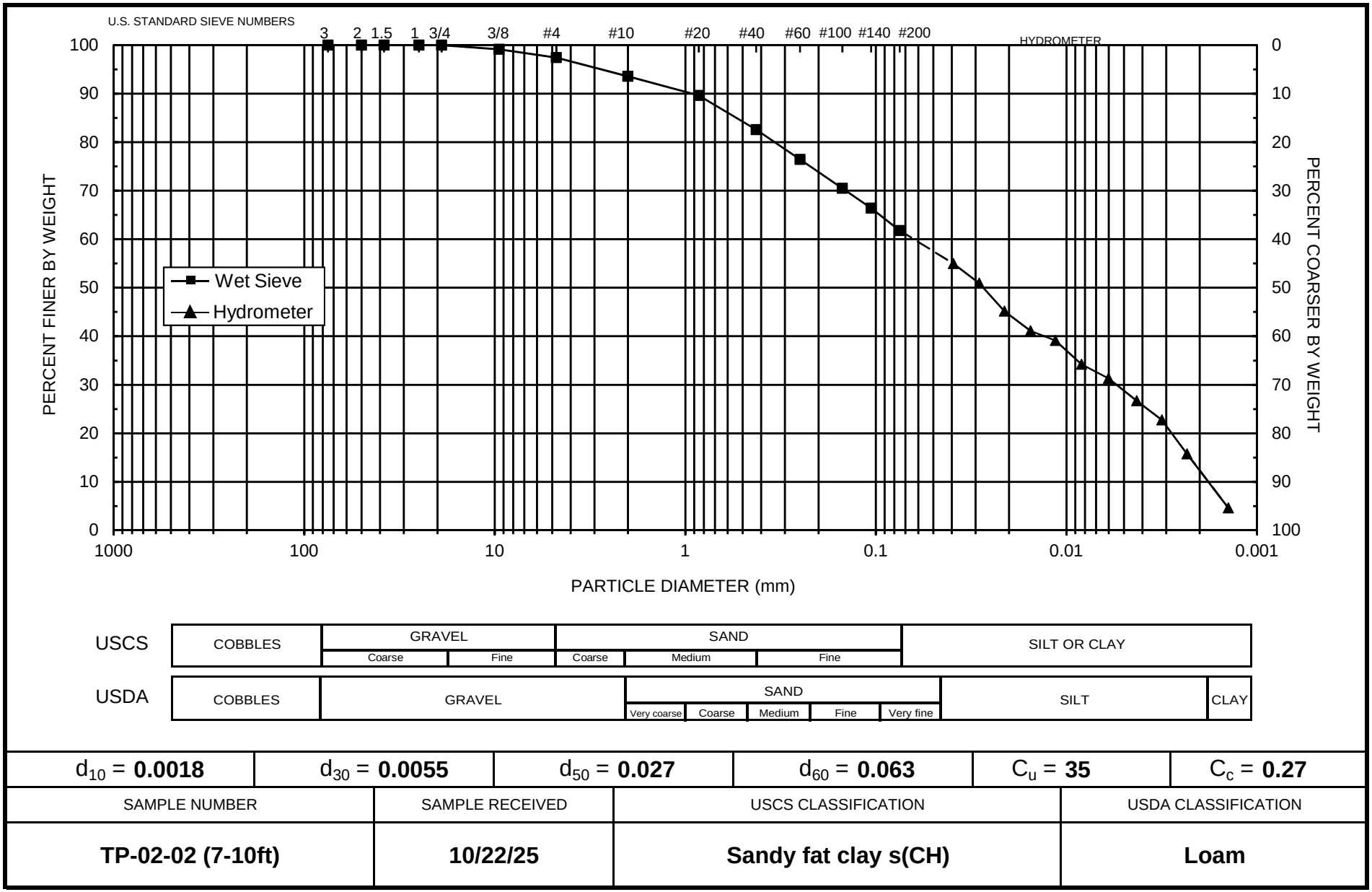
Initial Wt. (g)*:* 81.10
Total Sample Wt. (g)*:* 956.58
Wt. Passing #10 (g)*:* 894.88

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
14-Jan-26	1	18.50	53.50	5.85	47.7	8	0.0392	59	55.0
	2	18.50	50.00	5.85	44.2	9	0.0287	54	50.9
	4	18.50	45.00	5.85	39.2	10	0.0212	48	45.2
	8	18.50	41.50	5.85	35.7	10	0.0154	44	41.1
	15	18.50	39.75	5.85	33.9	11	0.0114	42	39.1
	30	18.50	35.50	5.85	29.7	11	0.0084	37	34.2
	60	18.50	33.00	5.85	27.2	12	0.0060	33	31.3
	125	18.50	29.00	5.85	23.2	12	0.0043	29	26.7
	240	18.70	25.50	5.79	19.7	13	0.0032	24	22.7
	480	20.10	19.00	5.34	13.7	14	0.0023	17	15.8
15-Jan-26	1441	18.00	10.00	6.00	4.0	16	0.0014	5	4.6

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



d_{10} = **0.0018**	d_{30} = **0.0055**	d_{50} = **0.027**	d_{60} = **0.063**	C_u = **35**	C_c = **0.27**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-02-02 (7-10ft)	**10/22/25**	**Sandy fat clay s(CH)**	**Loam**

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-05-01 (0-6.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 15-Dec-25

Initial Dry Weight of Sample (g): 924.85
Weight Passing #10 (g): 902.91
Weight Retained #10 (g): 21.94
Weight of -10 Sub-Sample (g): 85.22
Calculated Weight of Sieve Sample (g): 87.29

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	924.85	100.0
	2"	50	0.00	0.00	924.85	100.0
	1.5"	38.1	0.00	0.00	924.85	100.0
	1"	25	0.00	0.00	924.85	100.0
	3/4"	19.0	0.00	0.00	924.85	100.0
	3/8"	9.5	11.45	11.45	913.40	98.8
	4	4.75	3.80	15.25	909.60	98.4
	10	2.00	6.69	21.94	902.91	97.6
-10			(Based on calculated sieve wt.)			
	20	0.85	0.18	2.25	85.04	97.4
	40	0.425	0.61	2.86	84.43	96.7
	60	0.250	2.35	5.21	82.08	94.0
	100	0.150	12.67	17.88	69.41	79.5
	140	0.106	14.40	32.28	55.01	63.0
	200	0.075	8.67	40.95	46.34	53.1
	dry pan		3.47	44.42	42.87	
	wet pan			42.87	0.00	

d_{10} (mm): 0.0013
d_{16} (mm): 0.0020
d_{30} (mm): 0.012
d_{50} (mm): 0.062
d_{60} (mm): 0.095
d_{84} (mm): 0.18

Median Particle Diameter --d_{50} (mm): 0.062
Uniformity Coefficient, Cu --$[d_{60}/d_{10}]$ (mm): 73
Coefficient of Curvature, Cc --$[(d_{30})^2/(d_{10}*d_{60})]$ (mm): 1.2
Mean Particle Diameter --$[(d_{16}+d_{50}+d_{84})/3]$ (mm): 0.081

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Sandy lean clay s(CL)
USDA Soil Classification: Sandy Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-05-01 (0-6.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 10-Dec-25
Start Time: 8:30

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

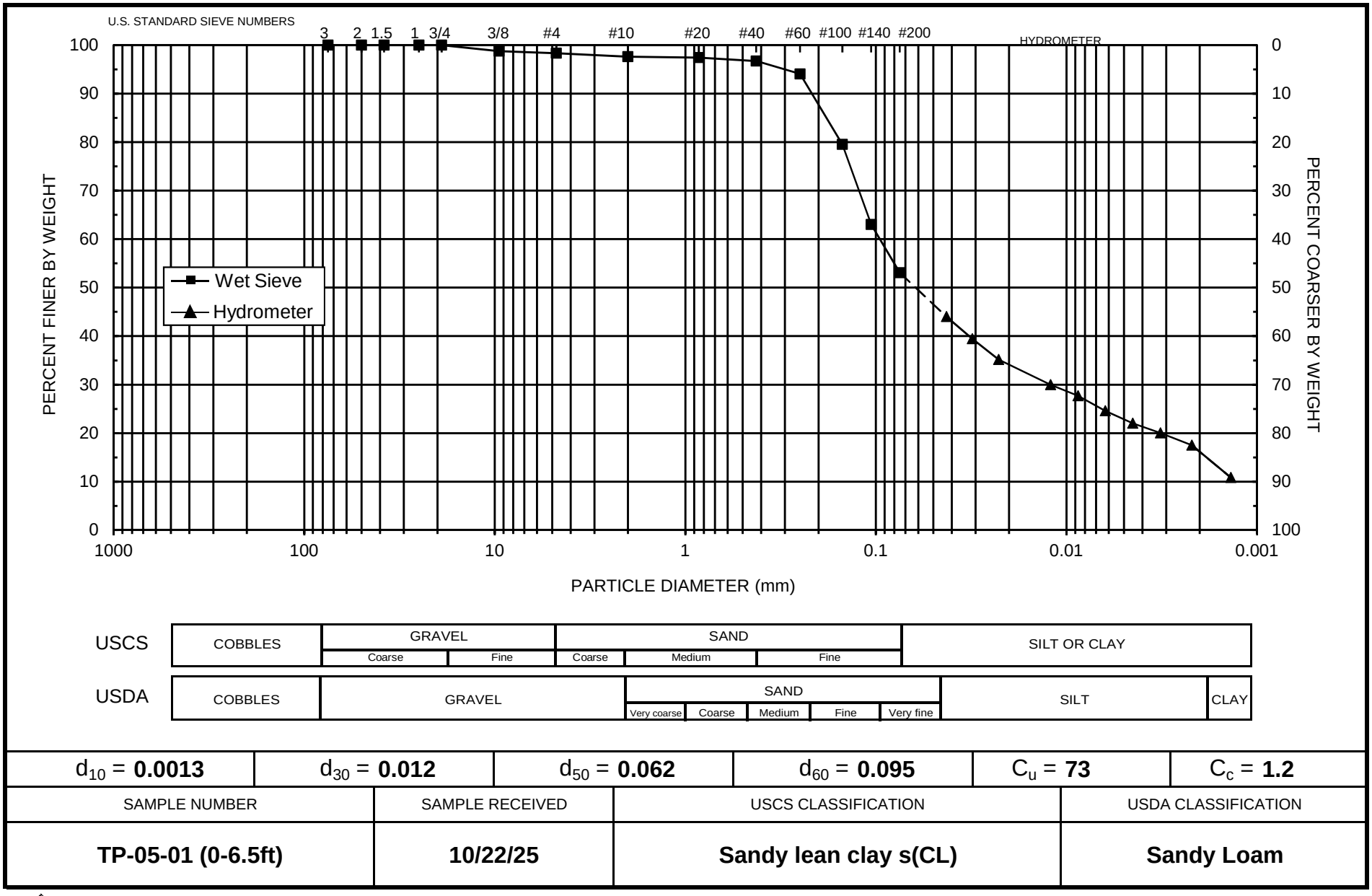
Initial Wt. (g)*:* 85.22
Total Sample Wt. (g)*:* 924.85
Wt. Passing #10 (g)*:* 902.91

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
10-Dec-25	1	18.60	44.25	5.82	38.4	10	0.0427	45	44.0
	2	18.60	40.25	5.82	34.4	10	0.0312	40	39.4
	4	18.60	36.50	5.82	30.7	11	0.0227	36	35.1
	15	18.60	32.00	5.82	26.2	12	0.0121	31	30.0
	30	18.60	30.00	5.82	24.2	12	0.0087	28	27.7
	60	18.70	27.25	5.79	21.5	13	0.0063	25	24.6
	120	18.80	25.00	5.76	19.2	13	0.0045	23	22.0
	240	18.80	23.25	5.76	17.5	13	0.0032	21	20.0
	525	18.90	21.00	5.72	15.3	14	0.0022	18	17.5
11-Dec-25	1442	18.70	15.25	5.79	9.5	15	0.0014	11	10.8

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



d_{10} = **0.0013**	d_{30} = **0.012**	d_{50} = **0.062**	d_{60} = **0.095**	C_u = **73**	C_c = **1.2**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-05-01 (0-6.5ft)	**10/22/25**	**Sandy lean clay s(CL)**	**Sandy Loam**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-06-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 15-Dec-25

Initial Dry Weight of Sample (g): 781.63
Weight Passing #10 (g): 780.78
Weight Retained #10 (g): 0.85
Weight of -10 Sub-Sample (g): 81.40
Calculated Weight of Sieve Sample (g): 81.49

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	781.63	100.0
	2"	50	0.00	0.00	781.63	100.0
	1.5"	38.1	0.00	0.00	781.63	100.0
	1"	25	0.00	0.00	781.63	100.0
	3/4"	19.0	0.00	0.00	781.63	100.0
	3/8"	9.5	0.00	0.00	781.63	100.0
	4	4.75	0.00	0.00	781.63	100.0
	10	2.00	0.85	0.85	780.78	99.9
-10			(Based on calculated sieve wt.)			
	20	0.85	0.06	0.15	81.34	99.8
	40	0.425	0.18	0.33	81.16	99.6
	60	0.250	0.63	0.96	80.53	98.8
	100	0.150	3.52	4.48	77.01	94.5
	140	0.106	5.20	9.68	71.81	88.1
	200	0.075	3.84	13.52	67.97	83.4
	dry pan		1.22	14.74	66.75	
	wet pan			66.75	0.00	

d_{10} (mm): 0.0011
d_{16} (mm): 0.0012
d_{30} (mm): 0.0018
d_{50} (mm): 0.0052
d_{60} (mm): 0.011
d_{84} (mm): 0.078

Median Particle Diameter --d_{50} (mm): 0.0052
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 10.0
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 0.27
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.028

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Lean clay with sand (CL)s
USDA Soil Classification: Clay Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-06-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 10-Dec-25
Start Time: 8:36

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

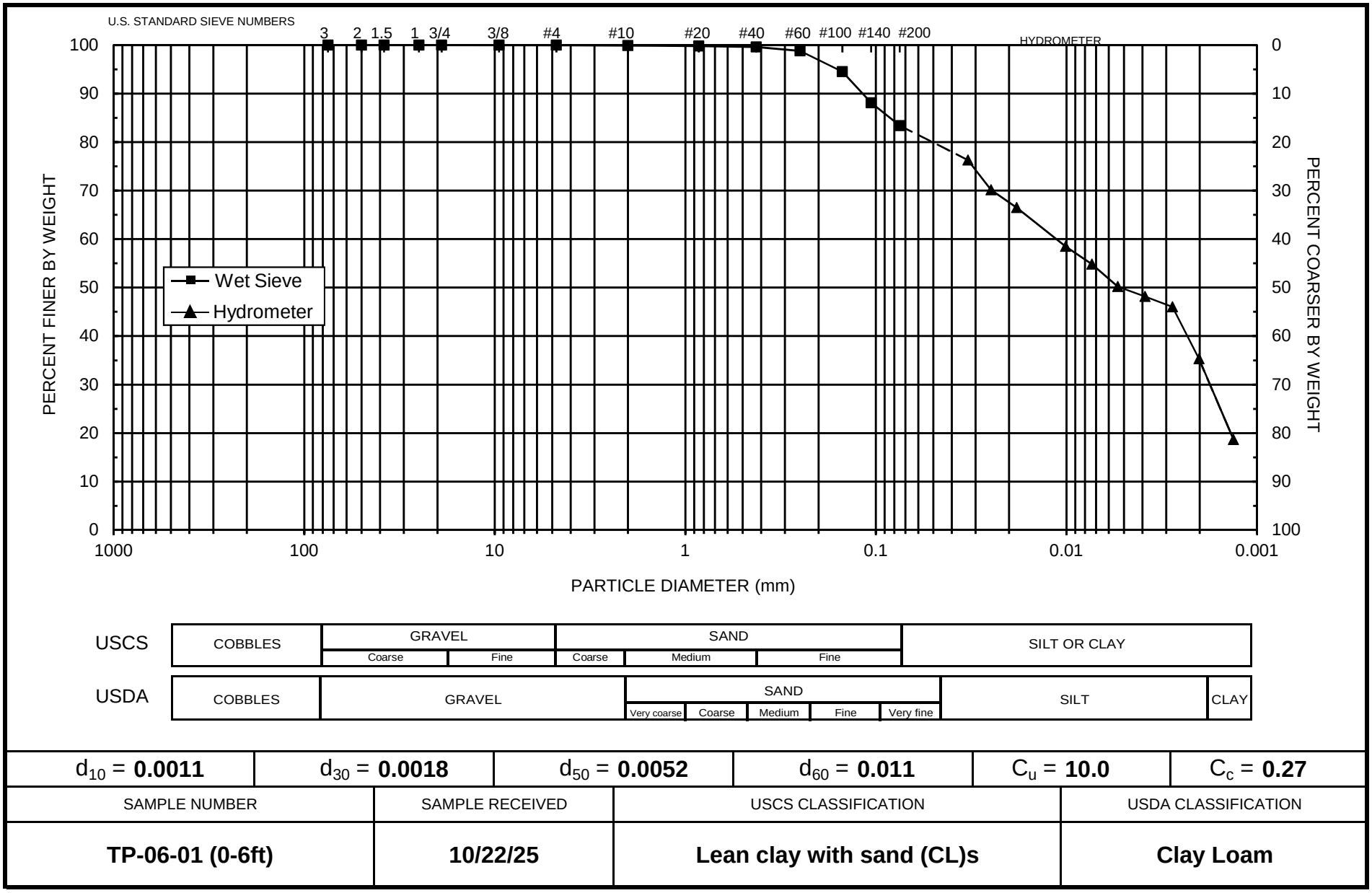
Initial Wt. (g)*:* 81.40
Total Sample Wt. (g)*:* 781.63
Wt. Passing #10 (g)*:* 780.78

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
10-Dec-25	1	18.60	68.00	5.82	62.2	6	0.0329	76	76.3
	2	18.60	63.00	5.82	57.2	7	0.0249	70	70.2
	4	18.60	60.00	5.82	54.2	7	0.0183	67	66.5
	15	18.60	53.50	5.82	47.7	8	0.0101	59	58.5
	30	18.60	50.50	5.82	44.7	9	0.0074	55	54.8
	60	18.60	46.75	5.82	40.9	9	0.0054	50	50.2
	120	18.80	45.00	5.76	39.2	10	0.0039	48	48.2
	240	18.80	43.25	5.76	37.5	10	0.0028	46	46.0
	521	18.90	34.50	5.72	28.8	11	0.0020	35	35.3
11-Dec-25	1437	18.70	21.00	5.79	15.2	14	0.0013	19	18.7

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



d_{10} = **0.0011**	d_{30} = **0.0018**	d_{50} = **0.0052**	d_{60} = **0.011**	C_u = **10.0**	C_c = **0.27**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-06-01 (0-6ft)	**10/22/25**	**Lean clay with sand (CL)s**	**Clay Loam**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-07-01 (0-3ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 19-Dec-25

Initial Dry Weight of Sample (g): 827.80
Weight Passing #10 (g): 812.17
Weight Retained #10 (g): 15.63
Weight of -10 Sub-Sample (g): 82.05
Calculated Weight of Sieve Sample (g): 83.63

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	827.80	100.0
	2"	50	0.00	0.00	827.80	100.0
	1.5"	38.1	0.00	0.00	827.80	100.0
	1"	25	0.00	0.00	827.80	100.0
	3/4"	19.0	0.00	0.00	827.80	100.0
	3/8"	9.5	0.00	0.00	827.80	100.0
	4	4.75	7.84	7.84	819.96	99.1
	10	2.00	7.79	15.63	812.17	98.1
-10			(Based on calculated sieve wt.)			
	20	0.85	0.15	1.73	81.90	97.9
	40	0.425	0.26	1.99	81.64	97.6
	60	0.250	0.96	2.95	80.68	96.5
	100	0.150	4.01	6.96	76.67	91.7
	140	0.106	5.28	12.24	71.39	85.4
	200	0.075	6.82	19.06	64.57	77.2
	dry pan		3.41	22.47	61.16	
	wet pan			61.16	0.00	

d_{10} (mm): 2.1E-10
d_{16} (mm): 4.1E-09
d_{30} (mm): 4.3E-06
d_{50} (mm): 0.0060
d_{60} (mm): 0.026
d_{84} (mm): 0.10

Median Particle Diameter --d_{50} (mm): 0.0060
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 1.2E+08
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 3.4
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.035

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Lean clay with sand (CL)s
USDA Soil Classification: Clay

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-07-01 (0-3ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 14-Jan-26
Start Time: 8:48

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

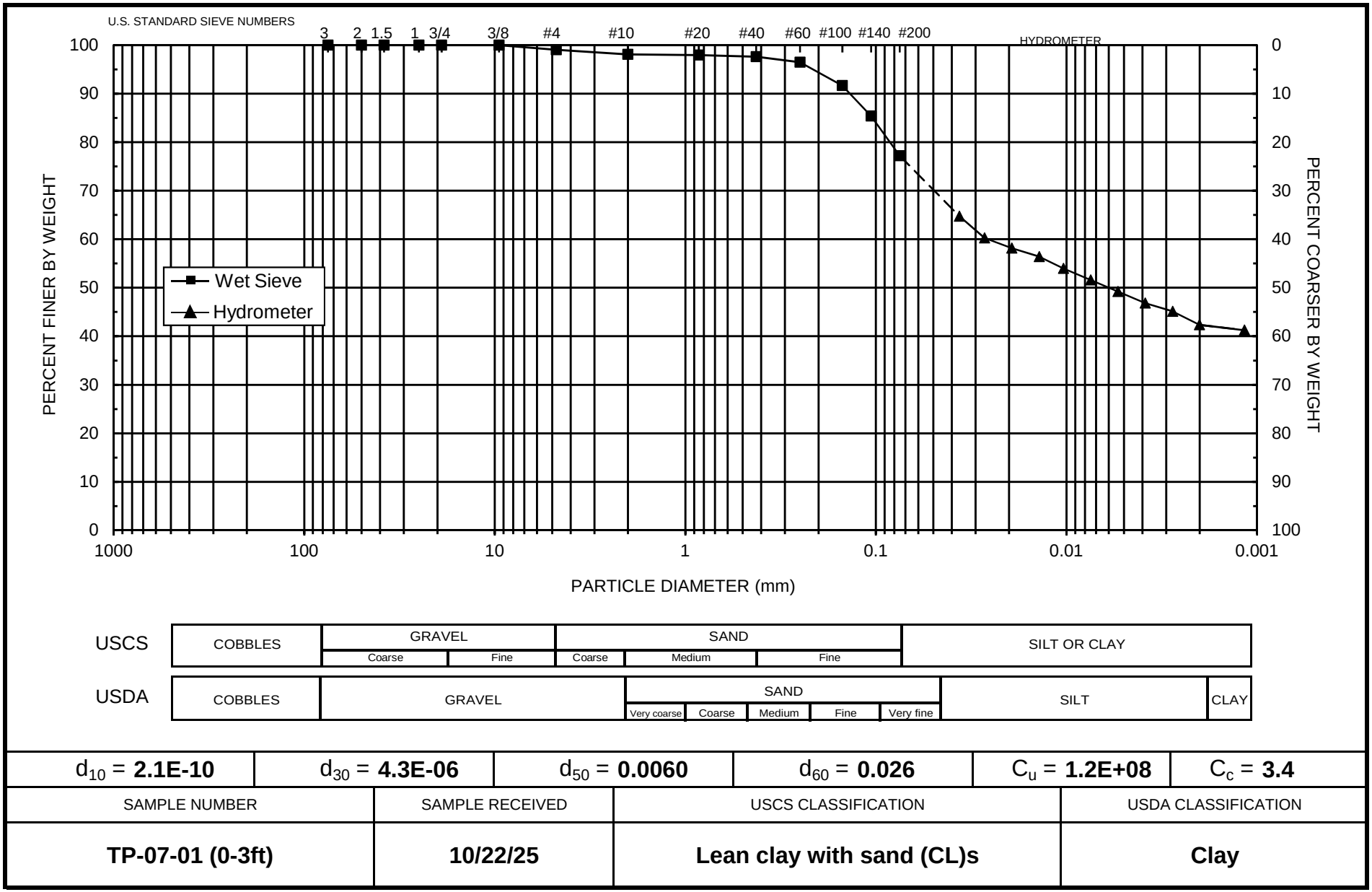
Initial Wt. (g)*:* 82.05
Total Sample Wt. (g)*:* 827.80
Wt. Passing #10 (g)*:* 812.17

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
14-Jan-26	1	18.50	60.00	5.85	54.2	7	0.0365	66	64.7
	2	18.50	56.25	5.85	50.4	8	0.0269	61	60.3
	4	18.50	54.50	5.85	48.7	8	0.0194	59	58.2
	8	18.50	53.00	5.85	47.2	8	0.0139	57	56.4
	15	18.50	51.00	5.85	45.2	9	0.0104	55	54.0
	30	18.50	49.00	5.85	43.2	9	0.0075	53	51.6
	60	18.50	47.00	5.85	41.2	9	0.0054	50	49.2
	120	18.50	45.00	5.85	39.2	10	0.0039	48	46.8
	240	18.70	43.50	5.79	37.7	10	0.0028	46	45.1
	480	20.10	40.75	5.34	35.4	10	0.0020	43	42.3
15-Jan-26	1426	18.00	40.50	6.00	34.5	10	0.0012	42	41.3

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



d_{10} = **2.1E-10**	d_{30} = **4.3E-06**	d_{50} = **0.0060**	d_{60} = **0.026**	C_u = **1.2E+08**	C_c = **3.4**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-07-01 (0-3ft)	**10/22/25**	**Lean clay with sand (CL)s**	**Clay**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-7-02 (3-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 18-Dec-25

Initial Dry Weight of Sample (g): 1471.14
Weight Passing #10 (g): 1461.82
Weight Retained #10 (g): 9.32
Weight of -10 Sub-Sample (g): 46.90
Calculated Weight of Sieve Sample (g): 47.20

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	1471.14	100.0
	2"	50	0.00	0.00	1471.14	100.0
	1.5"	38.1	0.00	0.00	1471.14	100.0
	1"	25	0.00	0.00	1471.14	100.0
	3/4"	19.0	0.00	0.00	1471.14	100.0
	3/8"	9.5	0.00	0.00	1471.14	100.0
	4	4.75	1.82	1.82	1469.32	99.9
	10	2.00	7.50	9.32	1461.82	99.4
-10			(Based on calculated sieve wt.)			
	20	0.85	0.44	0.74	46.46	98.4
	40	0.425	0.67	1.41	45.79	97.0
	60	0.250	0.64	2.05	45.15	95.7
	100	0.150	0.65	2.70	44.50	94.3
	140	0.106	0.48	3.18	44.02	93.3
	200	0.075	0.54	3.72	43.48	92.1
	dry pan		0.09	3.81	43.39	
	wet pan			43.39	0.00	

d_{10} (mm): 0.00028
d_{16} (mm): 0.00037
d_{30} (mm): 0.00070
d_{50} (mm): 0.0018
d_{60} (mm): 0.0028
d_{84} (mm): 0.023

Median Particle Diameter --d_{50} (mm): 0.0018
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 10.0
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 0.63
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.0084

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CH

USCS Soil Classification: Fat clay (CH)
USDA Soil Classification: Clay

Laboratory analysis by: M. Sharma/J. Tafoya
Data entered by: J. Tafoya
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-7-02 (3-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 28-Dec-25
Start Time: 8:30

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

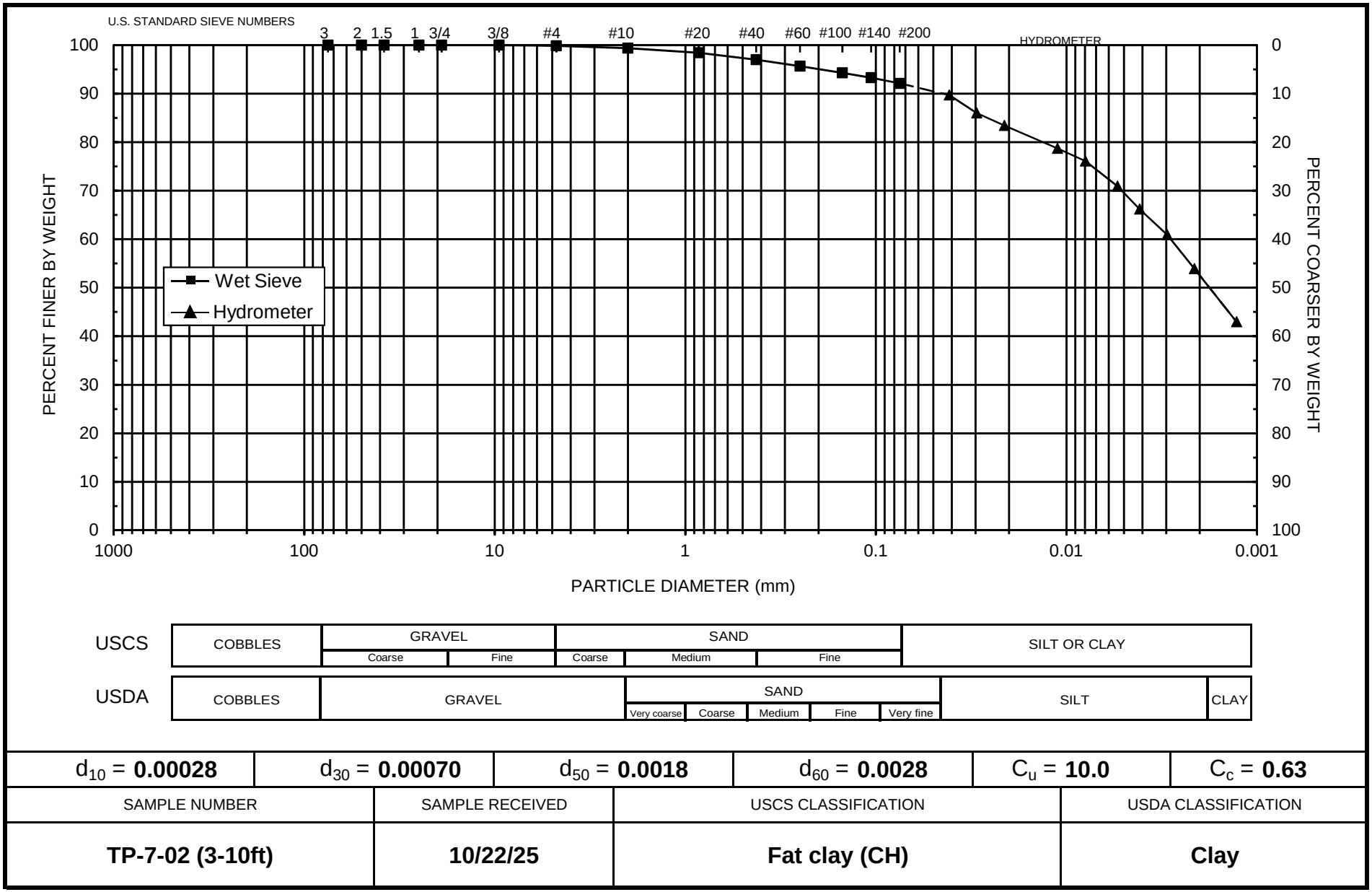
Initial Wt. (g)*:* 46.90
Total Sample Wt. (g)*:* 1471.14
Wt. Passing #10 (g)*:* 1461.82

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
29-Dec-25	1	18.30	48.25	5.91	42.3	9	0.0412	90	89.7
	2	18.30	46.50	5.91	40.6	9	0.0296	87	86.0
	4	18.30	45.30	5.91	39.4	10	0.0212	84	83.5
	15	18.50	43.00	5.85	37.2	10	0.0111	79	78.7
	30	18.60	41.75	5.82	35.9	10	0.0080	77	76.1
	68	18.75	39.25	5.77	33.5	11	0.0054	71	70.9
	120	18.80	37.00	5.76	31.2	11	0.0041	67	66.2
	242	18.80	34.50	5.76	28.7	11	0.0030	61	60.9
	489	18.20	31.40	5.94	25.5	12	0.0021	54	53.9
30-Dec-25	1454	18.90	26.00	5.72	20.3	13	0.0013	43	43.0

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: A. Neidhart
Data entered by: J. Tafoya
Checked by: T. Morgan



d_{10} = **0.00028**	d_{30} = **0.00070**	d_{50} = **0.0018**	d_{60} = **0.0028**	C_u = **10.0**	C_c = **0.63**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-7-02 (3-10ft)	**10/22/25**	**Fat clay (CH)**	**Clay**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-08-01 (0.5-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 15-Dec-25

Initial Dry Weight of Sample (g): 1207.18
Weight Passing #10 (g): 1207.09
Weight Retained #10 (g): 0.09
Weight of -10 Sub-Sample (g): 74.23
Calculated Weight of Sieve Sample (g): 74.24

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	1207.18	100.0
	2"	50	0.00	0.00	1207.18	100.0
	1.5"	38.1	0.00	0.00	1207.18	100.0
	1"	25	0.00	0.00	1207.18	100.0
	3/4"	19.0	0.00	0.00	1207.18	100.0
	3/8"	9.5	0.00	0.00	1207.18	100.0
	4	4.75	0.00	0.00	1207.18	100.0
	10	2.00	0.09	0.09	1207.09	100.0
-10			(Based on calculated sieve wt.)			
	20	0.85	0.00	0.01	74.23	100.0
	40	0.425	0.38	0.39	73.85	99.5
	60	0.250	3.26	3.65	70.59	95.1
	100	0.150	9.99	13.64	60.60	81.6
	140	0.106	8.69	22.33	51.91	69.9
	200	0.075	7.55	29.88	44.36	59.8
	dry pan		2.69	32.57	41.67	
	wet pan			41.67	0.00	

d_{10} (mm): 0.00010
d_{16} (mm): 0.00029
d_{30} (mm): 0.0031
d_{50} (mm): 0.044
d_{60} (mm): 0.076
d_{84} (mm): 0.16

Median Particle Diameter --d_{50} (mm): 0.044
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 760
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 1.3
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.068

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Sandy lean clay s(CL)
USDA Soil Classification: Sandy Clay Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-08-01 (0.5-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 10-Dec-25
Start Time: 8:36

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

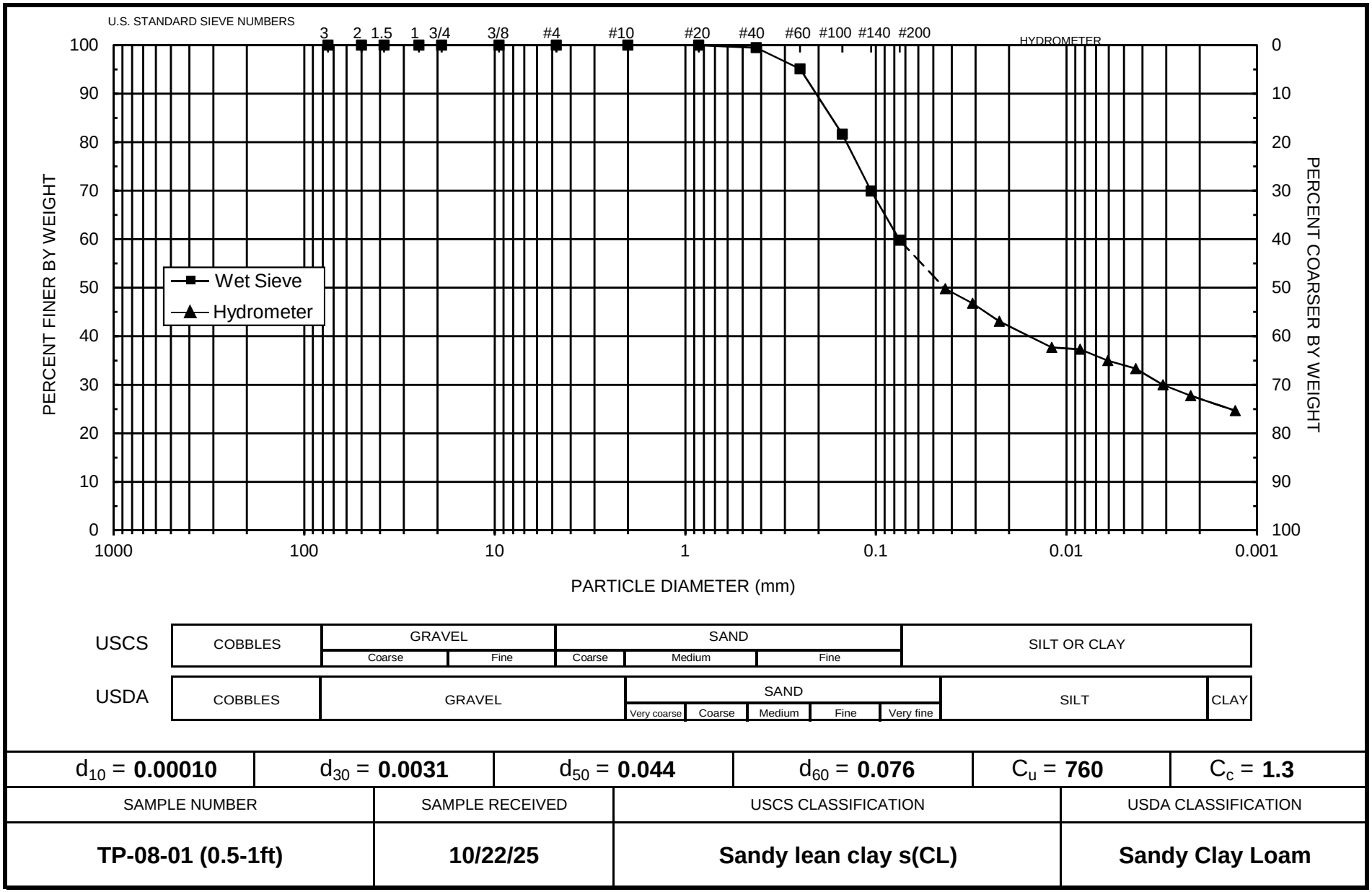
Initial Wt. (g)*:* 74.23
Total Sample Wt. (g)*:* 1207.18
Wt. Passing #10 (g)*:* 1207.09

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
11-Dec-25	1	18.70	42.75	5.79	37.0	10	0.0432	50	49.8
	2	18.70	40.50	5.79	34.7	10	0.0311	47	46.8
	4	18.70	37.75	5.79	32.0	11	0.0225	43	43.1
	15	18.70	33.75	5.79	28.0	12	0.0120	38	37.7
	30	18.70	33.50	5.79	27.7	12	0.0085	37	37.3
	60	18.70	31.75	5.79	26.0	12	0.0061	35	35.0
	120	18.80	30.50	5.76	24.7	12	0.0043	33	33.3
	240	18.80	28.00	5.76	22.2	13	0.0031	30	30.0
	480	19.90	26.00	5.40	20.6	13	0.0022	28	27.7
12-Dec-25	1446	19.00	24.00	5.69	18.3	13	0.0013	25	24.7

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



d_{10} = **0.00010**	d_{30} = **0.0031**	d_{50} = **0.044**	d_{60} = **0.076**	C_u = **760**	C_c = **1.3**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-08-01 (0.5-1ft)	**10/22/25**	**Sandy lean clay s(CL)**	**Sandy Clay Loam**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-09-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 15-Dec-25

Initial Dry Weight of Sample (g): 727.87
Weight Passing #10 (g): 727.01
Weight Retained #10 (g): 0.86
Weight of -10 Sub-Sample (g): 80.14
Calculated Weight of Sieve Sample (g): 80.23

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	727.87	100.0
	2"	50	0.00	0.00	727.87	100.0
	1.5"	38.1	0.00	0.00	727.87	100.0
	1"	25	0.00	0.00	727.87	100.0
	3/4"	19.0	0.00	0.00	727.87	100.0
	3/8"	9.5	0.00	0.00	727.87	100.0
	4	4.75	0.00	0.00	727.87	100.0
	10	2.00	0.86	0.86	727.01	99.9
-10			(Based on calculated sieve wt.)			
	20	0.85	0.05	0.14	80.09	99.8
	40	0.425	0.16	0.30	79.93	99.6
	60	0.250	0.45	0.75	79.48	99.1
	100	0.150	2.34	3.09	77.14	96.1
	140	0.106	3.69	6.78	73.45	91.5
	200	0.075	3.39	10.17	70.06	87.3
	dry pan		1.10	11.27	68.96	
	wet pan			68.96	0.00	

d_{10} (mm): 0.0015
d_{16} (mm): 0.0017
d_{30} (mm): 0.0021
d_{50} (mm): 0.0056
d_{60} (mm): 0.012
d_{84} (mm): 0.051

Median Particle Diameter --d_{50} (mm): 0.0056
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 8.0
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 0.25
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.019

Classification of fines: CL

USCS Soil Classification: Lean clay (CL)
USDA Soil Classification: Silt Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-09-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 10-Dec-25
Start Time: 8:42

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

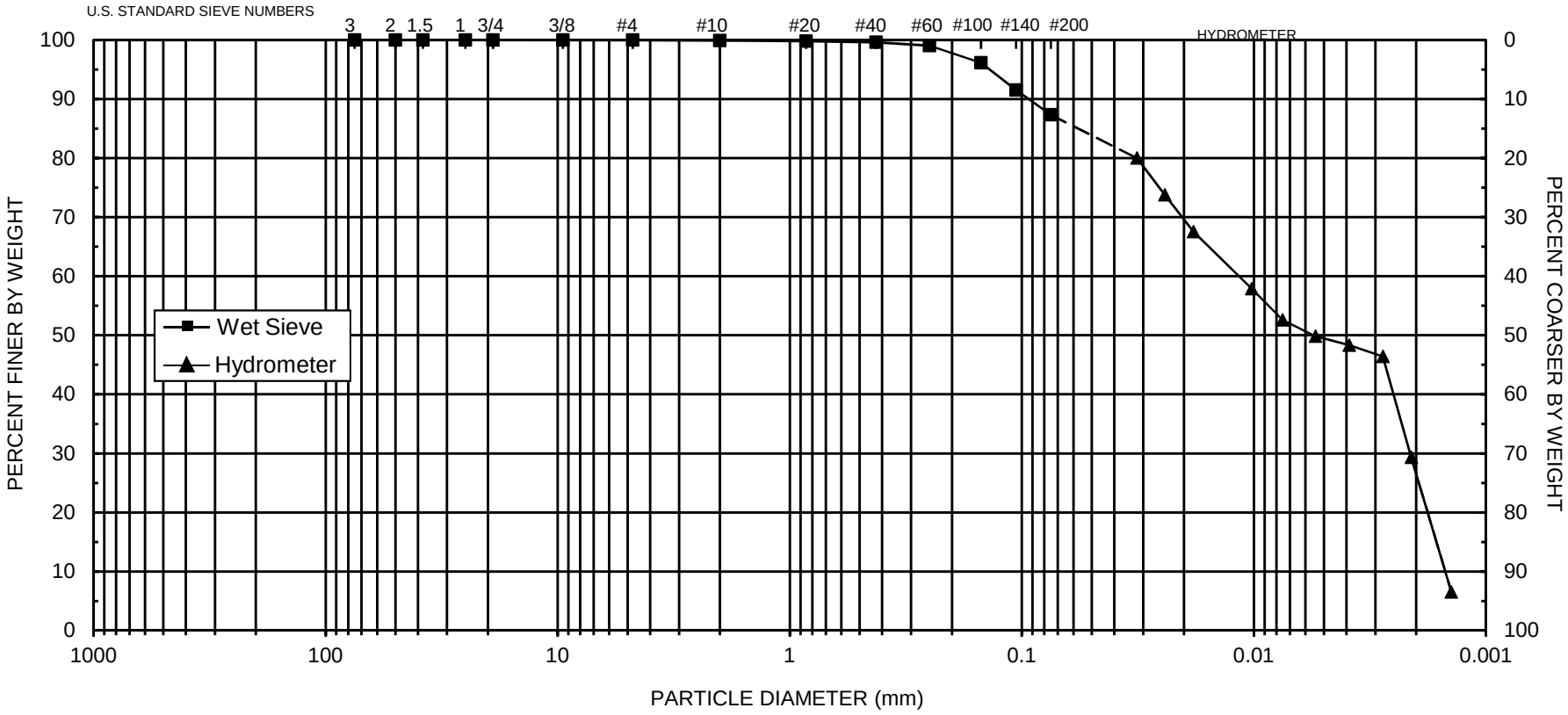
Initial Wt. (g)*:* 80.14
Total Sample Wt. (g)*:* 727.87
Wt. Passing #10 (g)*:* 727.01

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
10-Dec-25	1	18.60	70.00	5.82	64.2	5	0.0319	80	80.0
	2	18.60	65.00	5.82	59.2	6	0.0242	74	73.8
	4	18.60	60.00	5.82	54.2	7	0.0182	68	67.5
	15	18.60	52.25	5.82	46.4	8	0.0102	58	57.9
	30	18.60	48.00	5.82	42.2	9	0.0075	53	52.6
	60	18.70	45.75	5.79	40.0	10	0.0054	50	49.8
	120	18.80	44.50	5.76	38.7	10	0.0039	48	48.3
	240	18.80	43.00	5.76	37.2	10	0.0028	46	46.4
	518	18.90	29.25	5.72	23.5	12	0.0021	29	29.3
11-Dec-25	1433	18.70	11.00	5.79	5.2	15	0.0014	7	6.5

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



USCS	COBBLES	GRAVEL		SAND			SILT OR CLAY			
		Coarse	Fine	Coarse	Medium	Fine				
USDA	COBBLES	GRAVEL		SAND				SILT	CLAY	
				Very coarse	Coarse	Medium	Fine	Very fine		

d_{10} = **0.0015**	d_{30} = **0.0021**	d_{50} = **0.0056**	d_{60} = **0.012**	C_u = **8.0**	C_c = **0.25**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-09-01 (0-6ft)	**10/22/25**	**Lean clay (CL)**	**Silt Loam**

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-11-01 (0-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 18-Dec-25

Initial Dry Weight of Sample (g): 793.32
Weight Passing #10 (g): 793.07
Weight Retained #10 (g): 0.25
Weight of -10 Sub-Sample (g): 79.60
Calculated Weight of Sieve Sample (g): 79.63

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	793.32	100.0
	2"	50	0.00	0.00	793.32	100.0
	1.5"	38.1	0.00	0.00	793.32	100.0
	1"	25	0.00	0.00	793.32	100.0
	3/4"	19.0	0.00	0.00	793.32	100.0
	3/8"	9.5	0.00	0.00	793.32	100.0
	4	4.75	0.00	0.00	793.32	100.0
	10	2.00	0.25	0.25	793.07	100.0
-10			(Based on calculated sieve wt.)			
	20	0.85	0.05	0.08	79.55	99.9
	40	0.425	0.36	0.44	79.19	99.5
	60	0.250	2.71	3.15	76.48	96.1
	100	0.150	10.83	13.98	65.65	82.4
	140	0.106	10.40	24.38	55.25	69.4
	200	0.075	10.06	34.44	45.19	56.8
	dry pan		2.30	36.74	42.89	
	wet pan			42.89	0.00	

d_{10} (mm): 7.5E-06
d_{16} (mm): 0.00055
d_{30} (mm): 0.012
d_{50} (mm): 0.054
d_{60} (mm): 0.082
d_{84} (mm): 0.16

Median Particle Diameter --d_{50} (mm): 0.054
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 1.1E+04
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 234
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.072

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL-ML

USCS Soil Classification: Sandy silty clay s(CL-ML)
USDA Soil Classification: Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-11-01 (0-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 16-Dec-25
Start Time: 8:18

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

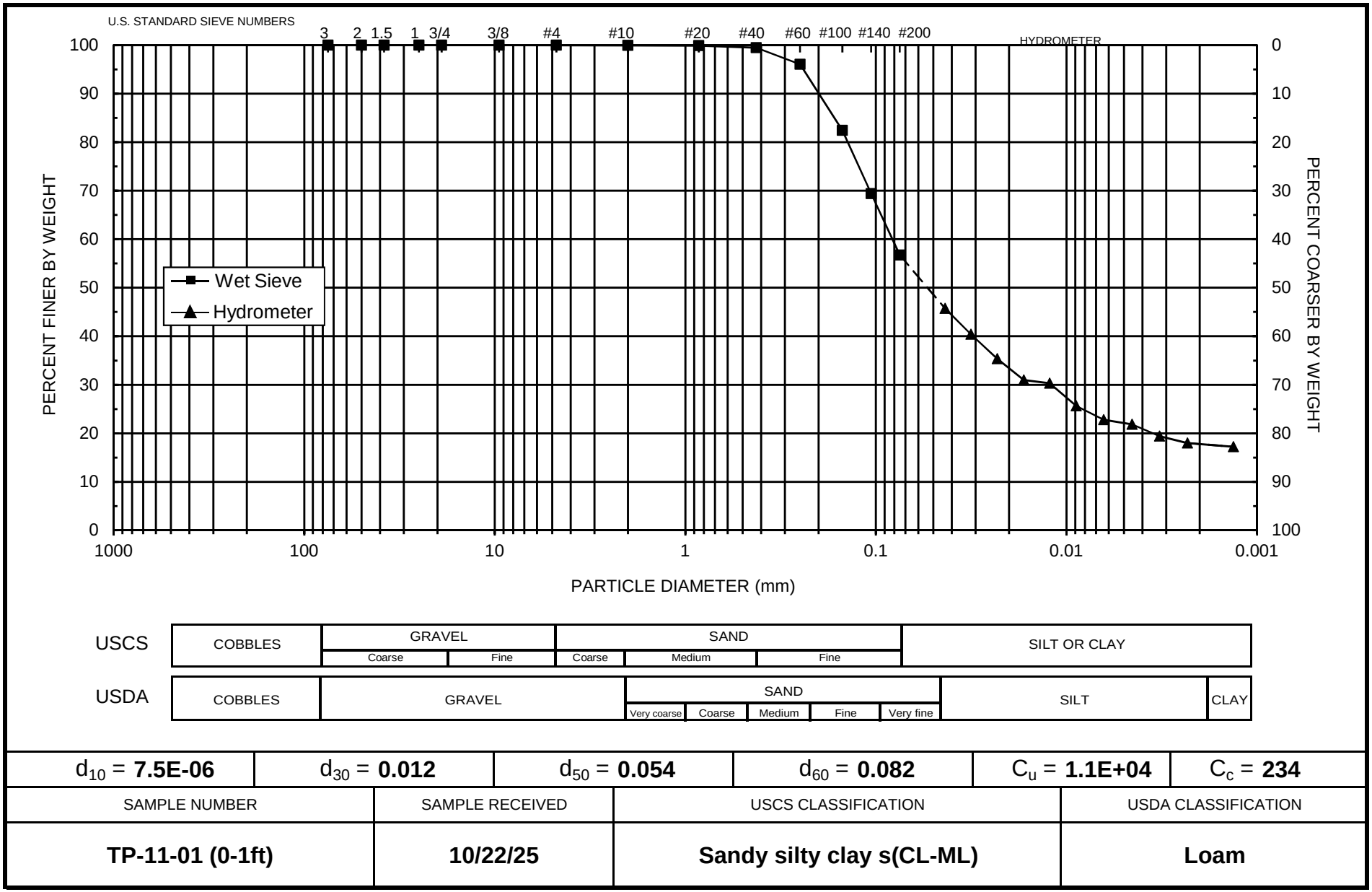
Initial Wt. (g)*:* 79.60
Total Sample Wt. (g)*:* 793.32
Wt. Passing #10 (g)*:* 793.07

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
16-Dec-25	1	18.50	42.25	5.85	36.4	10	0.0433	46	45.7
	2	18.50	38.00	5.85	32.2	11	0.0317	40	40.4
	4	18.50	34.00	5.85	28.2	11	0.0231	35	35.4
	8	18.50	30.50	5.85	24.7	12	0.0167	31	31.0
	15	18.50	30.00	5.85	24.2	12	0.0123	30	30.3
	30	18.50	26.25	5.85	20.4	13	0.0089	26	25.6
	60	18.50	24.00	5.85	18.2	13	0.0064	23	22.8
	120	18.50	23.25	5.85	17.4	13	0.0045	22	21.9
	240	18.70	21.25	5.79	15.5	14	0.0032	19	19.4
	480	20.60	19.50	5.17	14.3	14	0.0023	18	18.0
17-Dec-25	1458	18.70	19.50	5.79	13.7	14	0.0013	17	17.2

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



d_{10} = **7.5E-06**	d_{30} = **0.012**	d_{50} = **0.054**	d_{60} = **0.082**	C_u = **1.1E+04**	C_c = **234**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-11-01 (0-1ft)	**10/22/25**	**Sandy silty clay s(CL-ML)**	**Loam**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-12-01 (0-2ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 16-Dec-25

Initial Dry Weight of Sample (g): 737.29
Weight Passing #10 (g): 729.40
Weight Retained #10 (g): 7.89
Weight of -10 Sub-Sample (g): 47.35
Calculated Weight of Sieve Sample (g): 47.86

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	737.29	100.0
	2"	50	0.00	0.00	737.29	100.0
	1.5"	38.1	0.00	0.00	737.29	100.0
	1"	25	0.00	0.00	737.29	100.0
	3/4"	19.0	0.00	0.00	737.29	100.0
	3/8"	9.5	0.00	0.00	737.29	100.0
	4	4.75	2.22	2.22	735.07	99.7
	10	2.00	5.67	7.89	729.40	98.9
-10			(Based on calculated sieve wt.)			
	20	0.85	0.30	0.81	47.05	98.3
	40	0.425	0.34	1.15	46.71	97.6
	60	0.250	0.43	1.58	46.28	96.7
	100	0.150	0.99	2.57	45.29	94.6
	140	0.106	0.96	3.53	44.33	92.6
	200	0.075	1.45	4.98	42.88	89.6
	dry pan		0.42	5.40	42.46	
	wet pan			42.46	0.00	

d_{10} (mm): 2.1E-05
d_{16} (mm): 4.2E-05
d_{30} (mm): 0.00022
d_{50} (mm): 0.0024
d_{60} (mm): 0.0092
d_{84} (mm): 0.038

Median Particle Diameter --d_{50} (mm): 0.0024
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 438
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 0.25
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.013

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CH

USCS Soil Classification: Fat clay (CH)
USDA Soil Classification: Clay

Laboratory analysis by: M. Sharma/J. Tafoya
Data entered by: J. Tafoya
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-12-01 (0-2ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 28-Oct-25
Start Time: 8:36

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

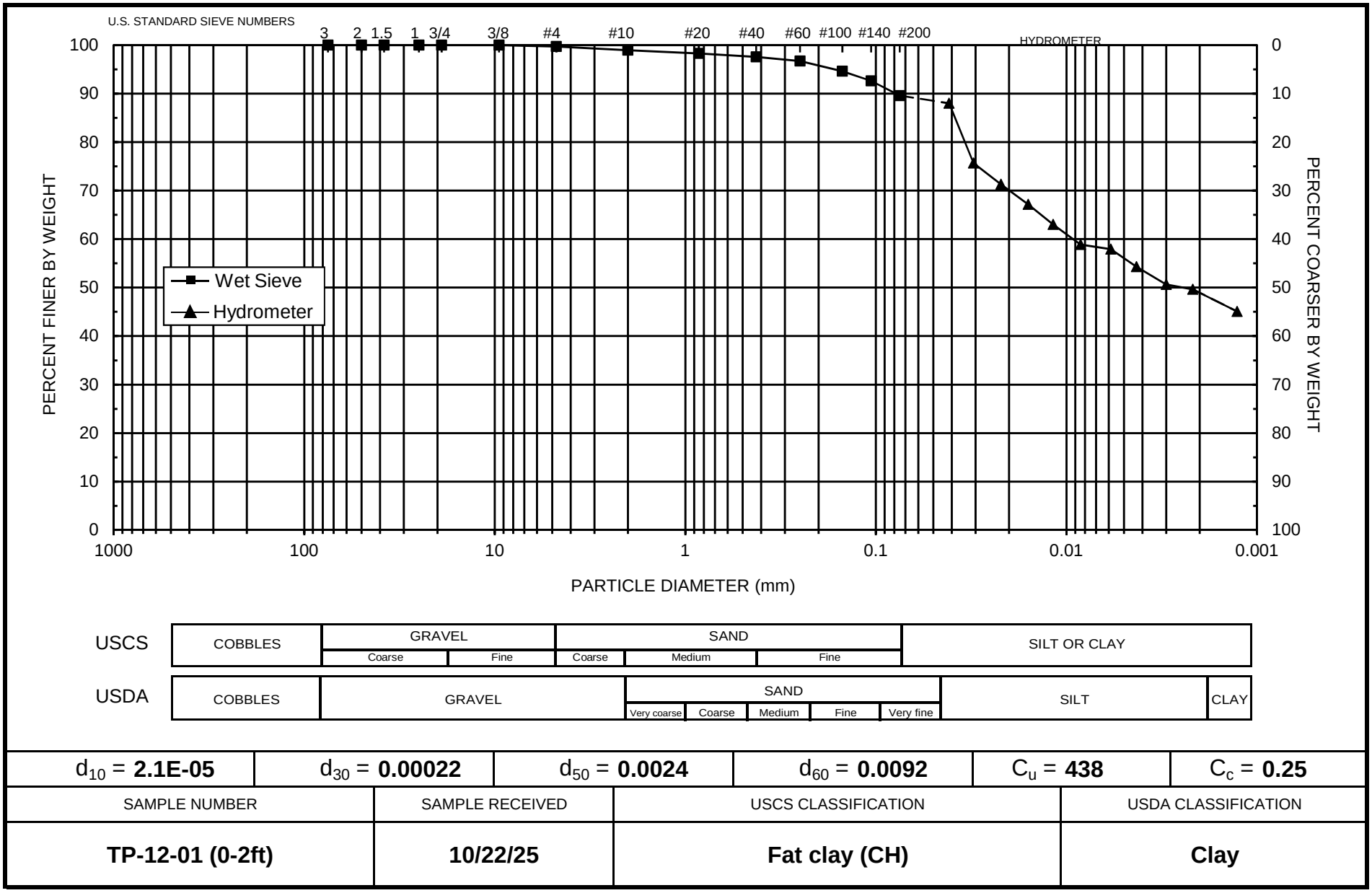
Initial Wt. (g)*:* 47.35
Total Sample Wt. (g)*:* 737.29
Wt. Passing #10 (g)*:* 729.40

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
29-Dec-25	1	18.40	48.00	5.88	42.1	9	0.0413	89	88.0
	2	18.40	42.10	5.88	36.2	10	0.0307	76	75.7
	4	18.40	40.00	5.88	34.1	11	0.0221	72	71.3
	8	18.50	38.00	5.85	32.2	11	0.0159	68	67.2
	15	18.50	36.00	5.85	30.2	11	0.0118	64	63.0
	30	18.60	34.00	5.82	28.2	12	0.0084	60	58.9
	63	18.75	33.50	5.77	27.7	12	0.0059	59	57.9
	120	18.80	31.75	5.76	26.0	12	0.0043	55	54.3
	252	18.80	30.00	5.76	24.2	12	0.0030	51	50.7
	482	19.20	29.40	5.63	23.8	12	0.0022	50	49.7
30-Dec-25	1450	18.90	27.30	5.72	21.6	13	0.0013	46	45.1

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: A. Neidhart
Data entered by: J. Tafoya
Checked by: T. Morgan



d_{10} = **2.1E-05**	d_{30} = **0.00022**	d_{50} = **0.0024**	d_{60} = **0.0092**	C_u = **438**	C_c = **0.25**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-12-01 (0-2ft)	**10/22/25**	**Fat clay (CH)**	**Clay**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-13-01 (0-4.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 19-Dec-25

Initial Dry Weight of Sample (g): 1106.88
Weight Passing #10 (g): 1052.99
Weight Retained #10 (g): 53.89
Weight of -10 Sub-Sample (g): 80.11
Calculated Weight of Sieve Sample (g): 84.21

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	1106.88	100.0
	2"	50	0.00	0.00	1106.88	100.0
	1.5"	38.1	0.00	0.00	1106.88	100.0
	1"	25	0.00	0.00	1106.88	100.0
	3/4"	19.0	0.00	0.00	1106.88	100.0
	3/8"	9.5	2.35	2.35	1104.53	99.8
	4	4.75	13.82	16.17	1090.71	98.5
	10	2.00	37.72	53.89	1052.99	95.1
-10			(Based on calculated sieve wt.)			
	20	0.85	1.58	5.68	78.53	93.3
	40	0.425	2.08	7.76	76.45	90.8
	60	0.250	3.22	10.98	73.23	87.0
	100	0.150	6.02	17.00	67.21	79.8
	140	0.106	5.09	22.09	62.12	73.8
	200	0.075	4.96	27.05	57.16	67.9
	dry pan		3.23	30.28	53.93	
	wet pan			53.93	0.00	

d_{10} (mm): 0.00099
d_{16} (mm): 0.0011
d_{30} (mm): 0.0015
d_{50} (mm): 0.0087
d_{60} (mm): 0.035
d_{84} (mm): 0.20

Median Particle Diameter --d_{50} (mm): 0.0087
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 35
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 0.065
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.070

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Sandy lean clay s(CL)
USDA Soil Classification: Clay

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-13-01 (0-4.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 14-Jan-26
Start Time: 8:36

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

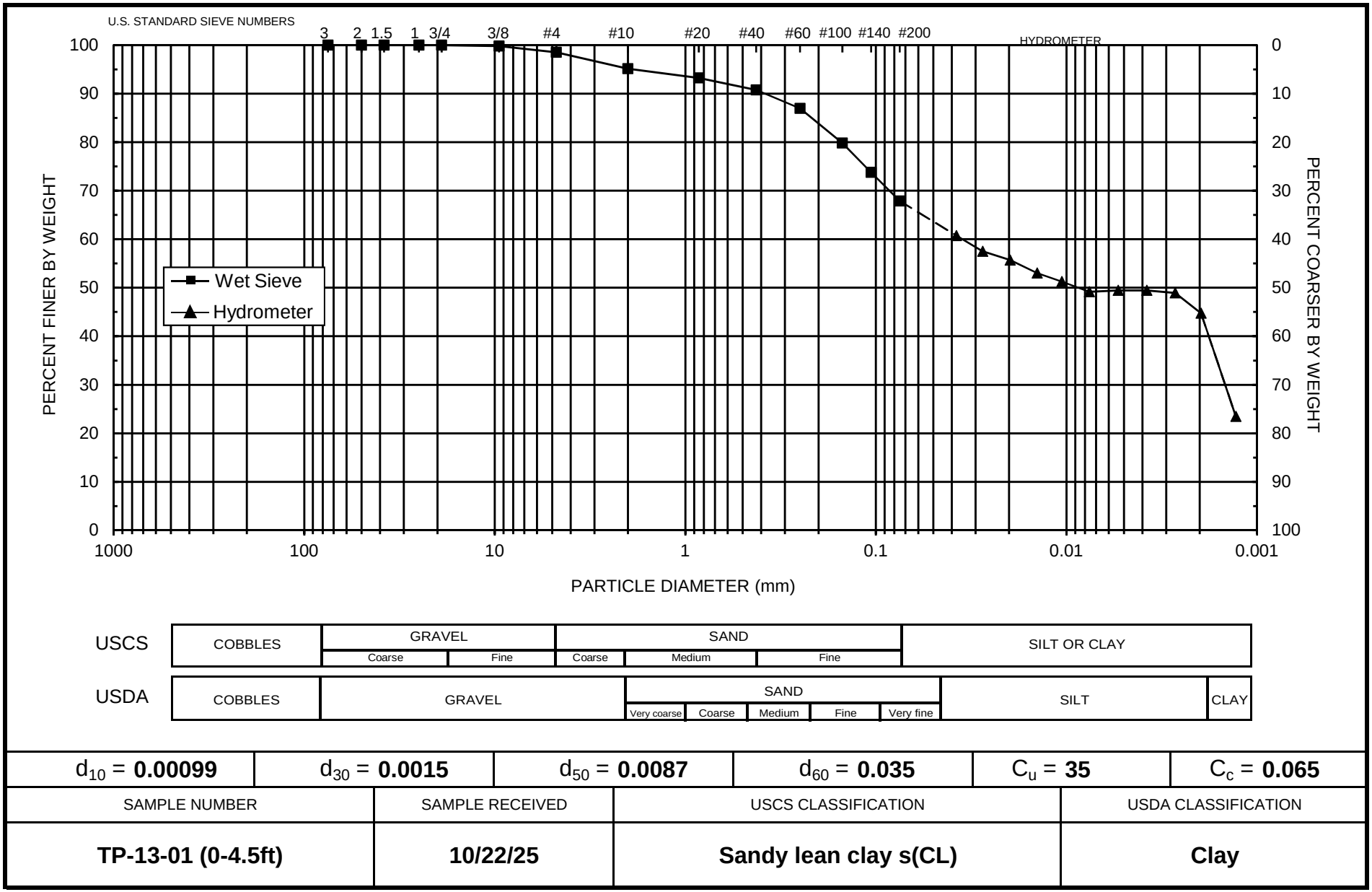
Initial Wt. (g)*:* 80.11
Total Sample Wt. (g)*:* 1106.88
Wt. Passing #10 (g)*:* 1052.99

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
14-Jan-26	1	18.50	57.00	5.85	51.2	8	0.0378	64	60.7
	2	18.50	54.25	5.85	48.4	8	0.0275	60	57.5
	4	18.50	52.75	5.85	46.9	8	0.0197	59	55.7
	8	18.50	50.50	5.85	44.7	9	0.0143	56	53.0
	15	18.50	49.00	5.85	43.2	9	0.0106	54	51.2
	30	18.50	47.25	5.85	41.4	9	0.0076	52	49.2
	60	18.50	47.50	5.85	41.7	9	0.0054	52	49.5
	120	18.50	47.50	5.85	41.7	9	0.0038	52	49.5
	240	18.70	47.00	5.79	41.2	9	0.0027	51	48.9
	480	20.10	43.00	5.34	37.7	10	0.0020	47	44.7
15-Jan-26	1436	18.00	25.75	6.00	19.8	13	0.0013	25	23.5

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



d_{10} = **0.00099**	d_{30} = **0.0015**	d_{50} = **0.0087**	d_{60} = **0.035**	C_u = **35**	C_c = **0.065**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-13-01 (0-4.5ft)	**10/22/25**	**Sandy lean clay s(CL)**	**Clay**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Daniel B. Stephens & Associates, Inc.

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-13-02 (4.5-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 17-Dec-25

Initial Dry Weight of Sample (g): 856.90
Weight Passing #10 (g): 765.60
Weight Retained #10 (g): 91.30
Weight of -10 Sub-Sample (g): 83.00
Calculated Weight of Sieve Sample (g): 92.90

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	856.90	100.0
	2"	50	0.00	0.00	856.90	100.0
	1.5"	38.1	0.00	0.00	856.90	100.0
	1"	25	0.00	0.00	856.90	100.0
	3/4"	19.0	0.00	0.00	856.90	100.0
	3/8"	9.5	0.00	0.00	856.90	100.0
	4	4.75	30.59	30.59	826.31	96.4
	10	2.00	60.71	91.30	765.60	89.3
-10			(Based on calculated sieve wt.)			
	20	0.85	2.28	12.18	80.72	86.9
	40	0.425	2.67	14.85	78.05	84.0
	60	0.250	2.88	17.73	75.17	80.9
	100	0.150	6.29	24.02	68.88	74.1
	140	0.106	5.56	29.58	63.32	68.2
	200	0.075	4.23	33.81	59.09	63.6
	dry pan		0.98	34.79	58.11	
	wet pan			58.11	0.00	

d_{10} (mm): 3.7E-05
d_{16} (mm): 0.00015
d_{30} (mm): 0.0026
d_{50} (mm): 0.028
d_{60} (mm): 0.058
d_{84} (mm): 0.42

Median Particle Diameter --d_{50} (mm): 0.028
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 1568
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 3.2
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.15

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Sandy lean clay s(CL)
USDA Soil Classification: Clay Loam †

† Greater than 10% of sample is coarse material

Laboratory analysis by: M. Sharma
Data entered by: J. Tafoya
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-13-02 (4.5-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 17-Dec-25
Start Time: 8:06

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

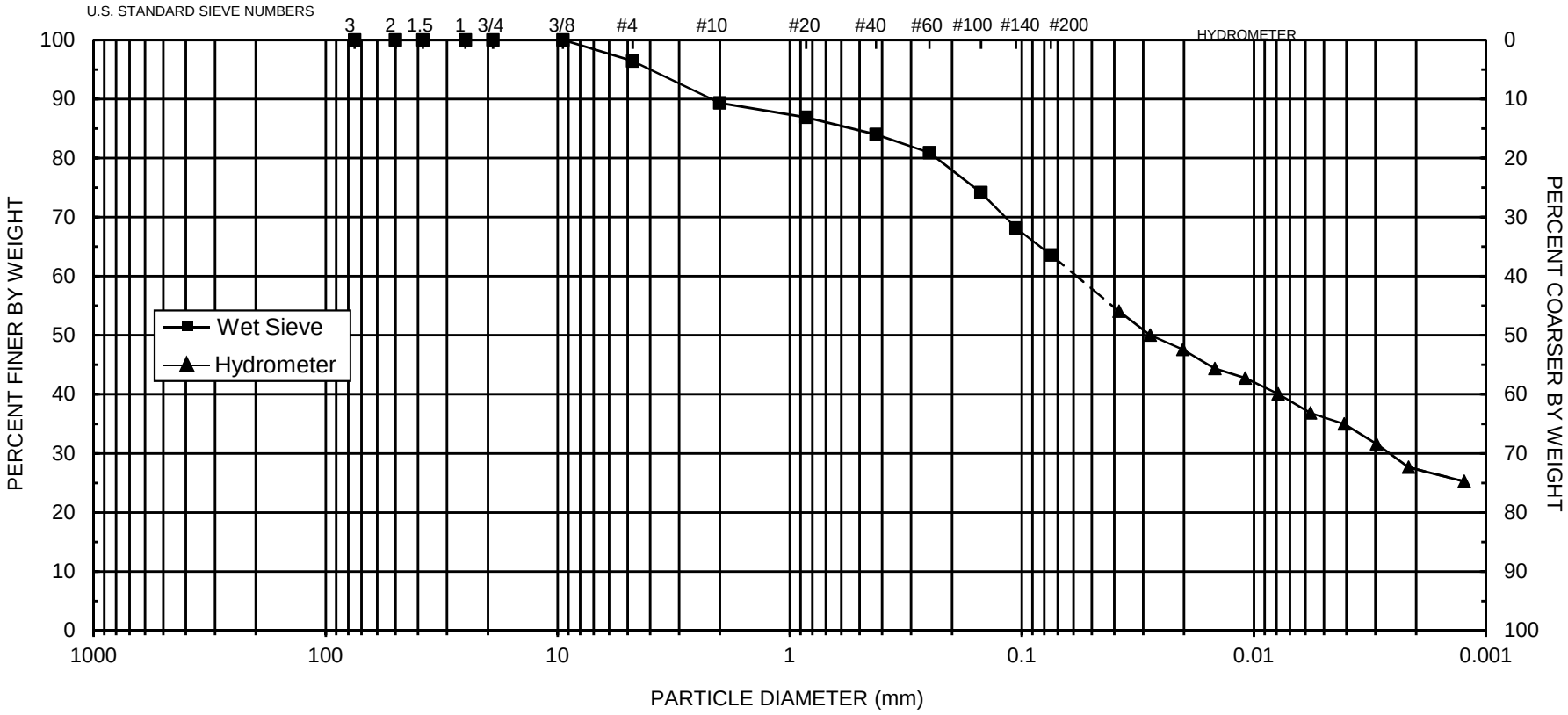
Initial Wt. (g)*:* 83.00
Total Sample Wt. (g)*:* 856.90
Wt. Passing #10 (g)*:* 765.60

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
18-Dec-25	1	18.70	56.00	5.79	50.2	8	0.0381	60	54.0
	2	18.70	52.25	5.79	46.5	8	0.0280	56	50.0
	4	18.70	50.00	5.79	44.2	9	0.0203	53	47.6
	8	18.70	47.00	5.79	41.2	9	0.0147	50	44.4
	15	18.70	45.50	5.79	39.7	10	0.0109	48	42.7
	30	18.70	43.00	5.79	37.2	10	0.0079	45	40.1
	60	18.70	40.00	5.79	34.2	11	0.0057	41	36.8
	120	18.80	38.25	5.76	32.5	11	0.0041	39	35.0
	240	19.10	35.00	5.66	29.3	11	0.0030	35	31.6
	480	20.20	31.00	5.30	25.7	12	0.0022	31	27.7
19-Dec-25	1482	18.70	29.25	5.79	23.5	12	0.0012	28	25.3

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: J. Tafoya
Checked by: T. Morgan



USCS	COBBLES	GRAVEL: Coarse, Fine	SAND: Coarse	SAND: Medium	SAND: Fine	SILT OR CLAY
USDA	COBBLES	GRAVEL	SAND: Very coarse	SAND: Coarse	SAND: Medium	SAND: Fine	SAND: Very fine	SILT	CLAY

d_{10} = **3.7E-05**	d_{30} = **0.0026**	d_{50} = **0.028**	d_{60} = **0.058**	C_u = **1568**	C_c = **3.2**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-13-02 (4.5-10ft)	**10/22/25**	**Sandy lean clay s(CL)**	**Clay Loam** †

† Greater than 10% of sample is coarse material

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-15-01 (0-4ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 18-Dec-25

Initial Dry Weight of Sample (g): 1527.12
Weight Passing #10 (g): 1438.52
Weight Retained #10 (g): 88.60
Weight of -10 Sub-Sample (g): 80.53
Calculated Weight of Sieve Sample (g): 85.49

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	1527.12	100.0
	2"	50	0.00	0.00	1527.12	100.0
	1.5"	38.1	0.00	0.00	1527.12	100.0
	1"	25	0.00	0.00	1527.12	100.0
	3/4"	19.0	0.00	0.00	1527.12	100.0
	3/8"	9.5	14.57	14.57	1512.55	99.0
	4	4.75	14.04	28.61	1498.51	98.1
	10	2.00	59.99	88.60	1438.52	94.2
-10			(Based on calculated sieve wt.)			
	20	0.85	2.68	7.64	77.85	91.1
	40	0.425	9.90	17.54	67.95	79.5
	60	0.250	19.81	37.35	48.14	56.3
	100	0.150	22.73	60.08	25.41	29.7
	140	0.106	7.09	67.17	18.32	21.4
	200	0.075	3.23	70.40	15.09	17.7
	dry pan		0.68	71.08	14.41	
	wet pan			14.41	0.00	

d_{10} (mm): 0.0078
d_{16} (mm): 0.063
d_{30} (mm): 0.15
d_{50} (mm): 0.22
d_{60} (mm): 0.27
d_{84} (mm): 0.56

Median Particle Diameter --d_{50} (mm): 0.22
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 35
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 11
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.28

USCS Soil Classification: Classification by ASTM 2487 requires Atterberg test
USDA Soil Classification: Loamy Sand

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-15-01 (0-4ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 16-Dec-25
Start Time: 8:06

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

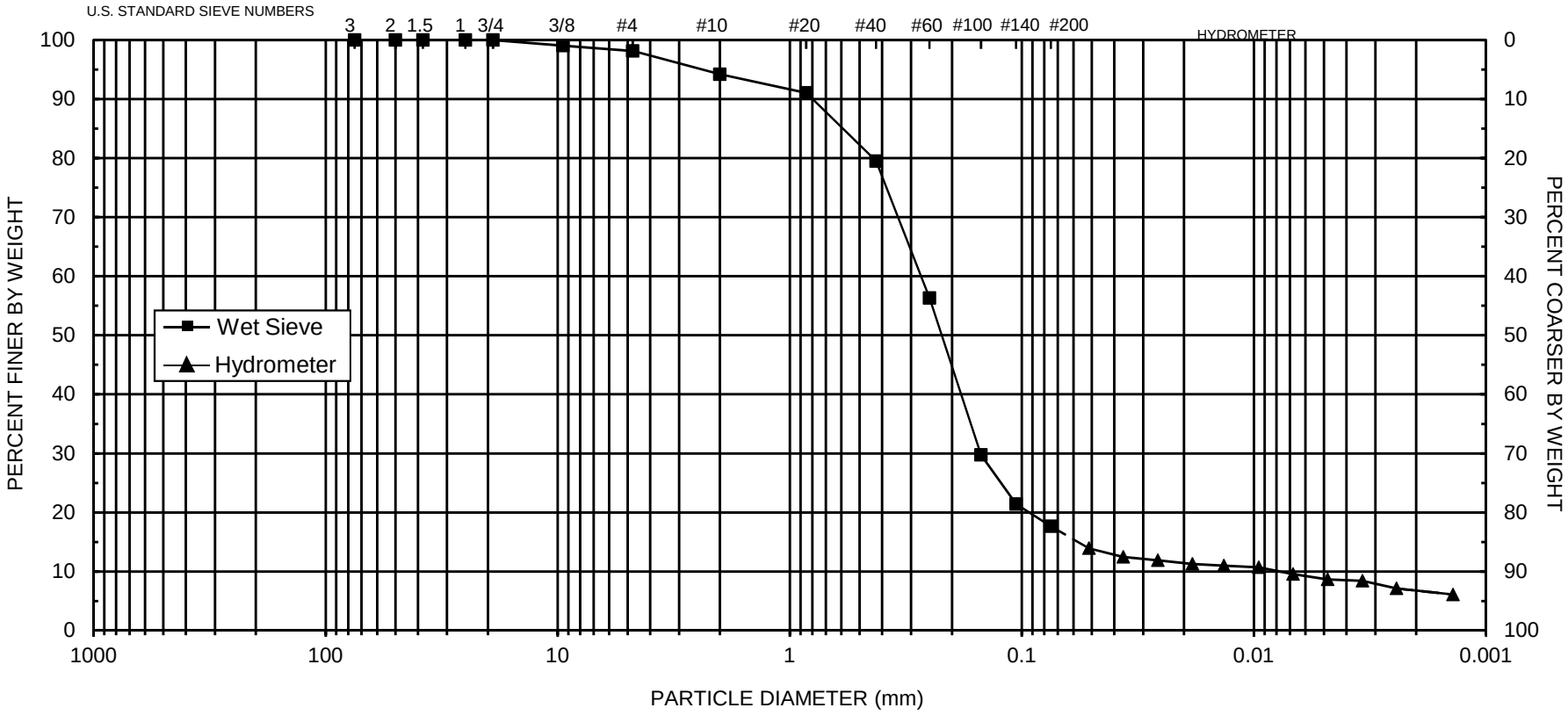
Initial Wt. (g)*:* 80.53
Total Sample Wt. (g)*:* 1527.12
Wt. Passing #10 (g)*:* 1438.52

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
16-Dec-25	1	18.50	17.75	5.85	11.9	14	0.0514	15	13.9
	2	18.50	16.50	5.85	10.7	14	0.0366	13	12.5
	4	18.50	16.00	5.85	10.2	15	0.0260	13	11.9
	8	18.50	15.50	5.85	9.7	15	0.0184	12	11.3
	15	18.50	15.25	5.85	9.4	15	0.0135	12	11.0
	30	18.50	15.00	5.85	9.2	15	0.0095	11	10.7
	60	18.50	14.00	5.85	8.2	15	0.0068	10	9.5
	120	18.50	13.25	5.85	7.4	15	0.0048	9	8.7
	240	18.70	13.00	5.79	7.2	15	0.0034	9	8.4
	480	20.60	11.25	5.17	6.1	15	0.0024	8	7.1
17-Dec-25	1479	18.70	11.00	5.79	5.2	15	0.0014	6	6.1

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



USCS	COBBLES	GRAVEL		SAND			SILT OR CLAY				
		Coarse	Fine	Coarse	Medium	Fine					
USDA	COBBLES	GRAVEL		SAND					SILT	CLAY	
				Very coarse	Coarse	Medium	Fine	Very fine			

d_{10} = **0.0078**	d_{30} = **0.15**	d_{50} = **0.22**	d_{60} = **0.27**	C_u = **35**	C_c = **11**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-15-01 (0-4ft)	**10/22/25**	**Classification by ASTM 2487 requires Atterberg test**	**Loamy Sand**

Daniel B. Stephens & Associates, Inc.

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-15-02 (4-5.25ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 18-Dec-25

Initial Dry Weight of Sample (g): 858.46
Weight Passing #10 (g): 854.65
Weight Retained #10 (g): 3.81
Weight of -10 Sub-Sample (g): 77.96
Calculated Weight of Sieve Sample (g): 78.31

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	858.46	100.0
	2"	50	0.00	0.00	858.46	100.0
	1.5"	38.1	0.00	0.00	858.46	100.0
	1"	25	0.00	0.00	858.46	100.0
	3/4"	19.0	0.00	0.00	858.46	100.0
	3/8"	9.5	1.39	1.39	857.07	99.8
	4	4.75	1.20	2.59	855.87	99.7
	10	2.00	1.22	3.81	854.65	99.6
-10			(Based on calculated sieve wt.)			
	20	0.85	0.06	0.41	77.90	99.5
	40	0.425	0.46	0.87	77.44	98.9
	60	0.250	3.70	4.57	73.74	94.2
	100	0.150	13.59	18.16	60.15	76.8
	140	0.106	10.63	28.79	49.52	63.2
	200	0.075	10.19	38.98	39.33	50.2
	dry pan		1.74	40.72	37.59	
	wet pan			37.59	0.00	

d_{10} (mm): 8.0E-05
d_{16} (mm): 0.0016
d_{30} (mm): 0.024
d_{50} (mm): 0.074
d_{60} (mm): 0.097
d_{84} (mm): 0.19

Median Particle Diameter --d_{50} (mm): 0.074
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 1213
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 74
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.089

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: ML

USCS Soil Classification: Sandy silt s(ML)
USDA Soil Classification: Sandy Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-15-02 (4-5.25ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 16-Dec-25
Start Time: 8:00

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

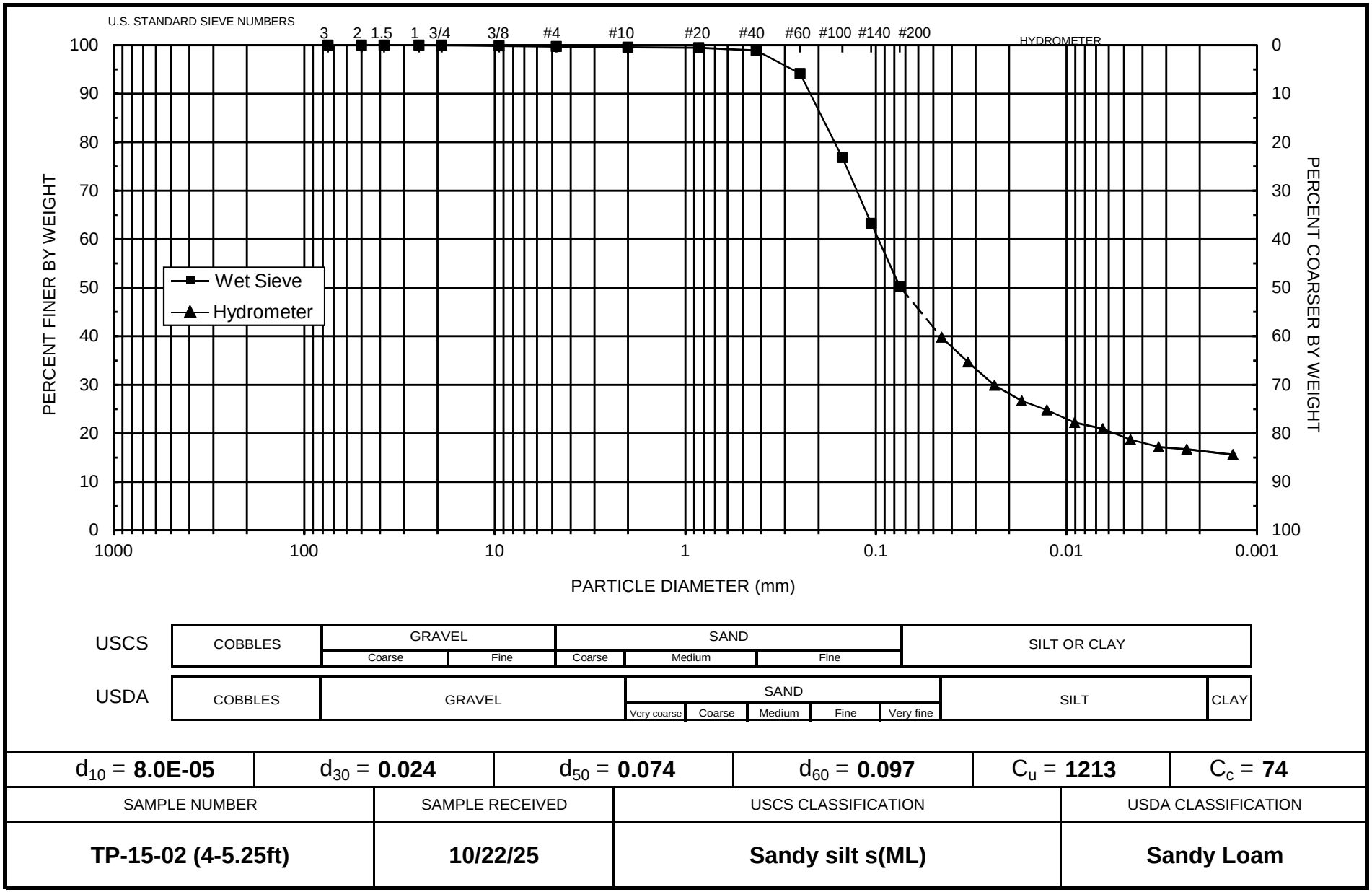
Initial Wt. (g)*:* 77.96
Total Sample Wt. (g)*:* 858.46
Wt. Passing #10 (g)*:* 854.65

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
16-Dec-25	1	18.50	37.00	5.85	31.2	11	0.0452	40	39.8
	2	18.50	33.00	5.85	27.2	12	0.0329	35	34.7
	4	18.50	29.25	5.85	23.4	12	0.0239	30	29.9
	8	18.50	26.75	5.85	20.9	13	0.0172	27	26.7
	15	18.50	25.25	5.85	19.4	13	0.0127	25	24.8
	30	18.50	23.25	5.85	17.4	13	0.0091	22	22.2
	60	18.50	22.25	5.85	16.4	13	0.0065	21	20.9
	120	18.50	20.50	5.85	14.7	14	0.0046	19	18.7
	240	18.70	19.25	5.79	13.5	14	0.0033	17	17.2
	481	20.60	18.25	5.17	13.1	14	0.0023	17	16.7
17-Dec-25	1473	18.70	18.00	5.79	12.2	14	0.0013	16	15.6

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



d_{10} = **8.0E-05**	d_{30} = **0.024**	d_{50} = **0.074**	d_{60} = **0.097**	C_u = **1213**	C_c = **74**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-15-02 (4-5.25ft)	**10/22/25**	**Sandy silt s(ML)**	**Sandy Loam**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Daniel B. Stephens & Associates, Inc.

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-16-01 (0-4ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 19-Dec-25

Initial Dry Weight of Sample (g): 715.56
Weight Passing #10 (g): 715.54
Weight Retained #10 (g): 0.02
Weight of -10 Sub-Sample (g): 81.71
Calculated Weight of Sieve Sample (g): 81.71

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	715.56	100.0
	2"	50	0.00	0.00	715.56	100.0
	1.5"	38.1	0.00	0.00	715.56	100.0
	1"	25	0.00	0.00	715.56	100.0
	3/4"	19.0	0.00	0.00	715.56	100.0
	3/8"	9.5	0.00	0.00	715.56	100.0
	4	4.75	0.00	0.00	715.56	100.0
	10	2.00	0.02	0.02	715.54	100.0
-10			(Based on calculated sieve wt.)			
	20	0.85	0.00	0.00	81.71	100.0
	40	0.425	0.26	0.26	81.45	99.7
	60	0.250	1.28	1.54	80.17	98.1
	100	0.150	5.32	6.86	74.85	91.6
	140	0.106	4.80	11.66	70.05	85.7
	200	0.075	5.48	17.14	64.57	79.0
	dry pan		3.65	20.79	60.92	
	wet pan			60.92	0.00	

d_{10} (mm): 0.00012
d_{16} (mm): 0.00026
d_{30} (mm): 0.0015
d_{50} (mm): 0.010
d_{60} (mm): 0.021
d_{84} (mm): 0.097

Median Particle Diameter --d_{50} (mm): 0.010
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 175
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 0.89
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.036

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Lean clay with sand (CL)s
USDA Soil Classification: Clay Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-16-01 (0-4ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 17-Dec-25
Start Time: 8:24

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

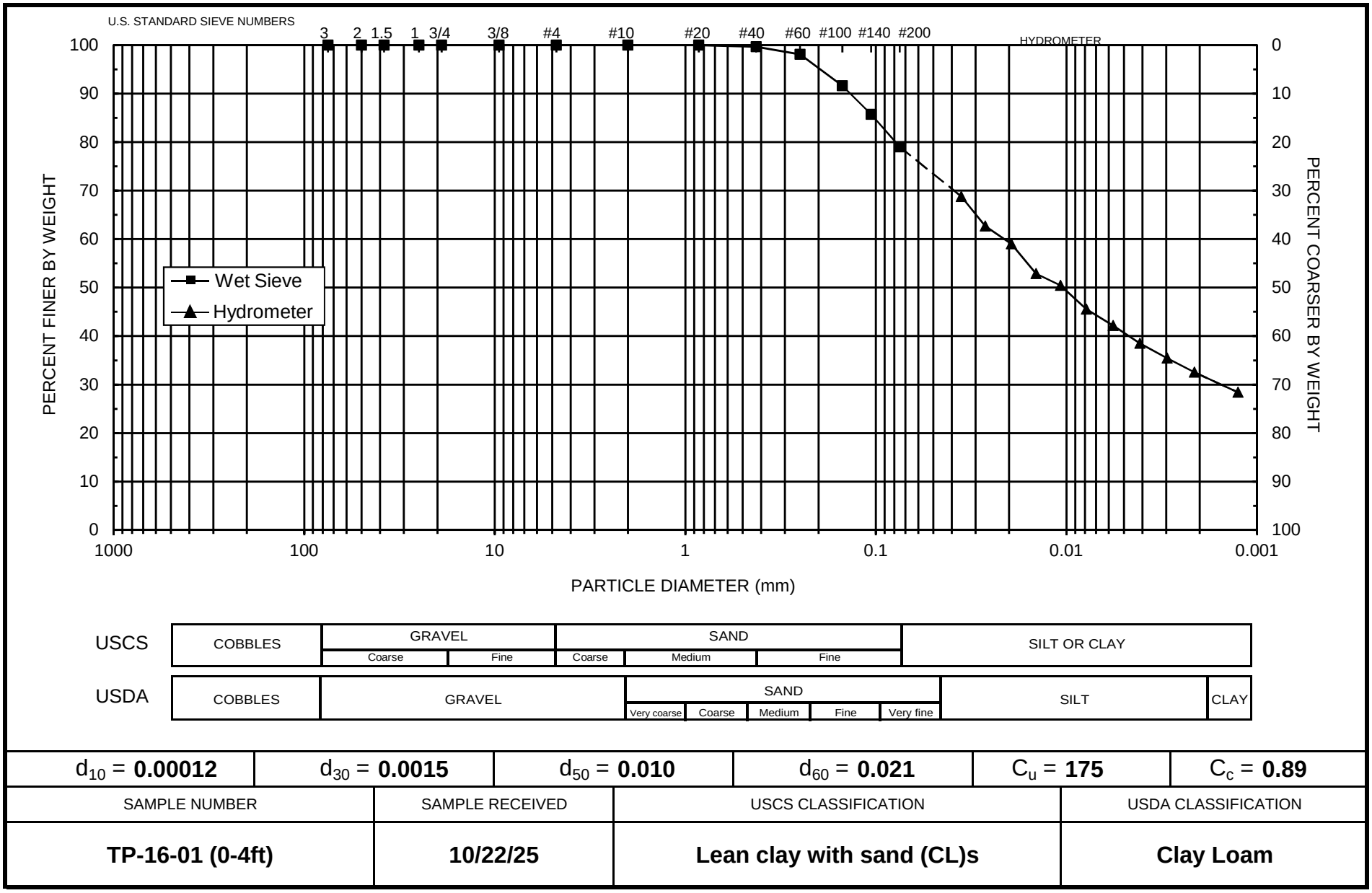
Initial Wt. (g)*:* 81.71
Total Sample Wt. (g)*:* 715.56
Wt. Passing #10 (g)*:* 715.54

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
17-Dec-25	1	18.70	62.00	5.79	56.2	7	0.0356	69	68.8
	2	18.70	57.00	5.79	51.2	8	0.0267	63	62.7
	4	18.70	54.00	5.79	48.2	8	0.0195	59	59.0
	8	18.70	49.00	5.79	43.2	9	0.0145	53	52.9
	15	18.70	47.00	5.79	41.2	9	0.0108	50	50.4
	30	18.70	43.00	5.79	37.2	10	0.0079	46	45.5
	60	18.70	40.25	5.79	34.5	10	0.0057	42	42.2
	120	18.70	37.25	5.79	31.5	11	0.0041	39	38.5
	240	18.70	34.75	5.79	29.0	11	0.0030	35	35.4
	481	19.10	32.25	5.66	26.6	12	0.0021	33	32.5
18-Dec-25	1443	18.70	29.00	5.79	23.2	12	0.0013	28	28.4

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



d_{10} = **0.00012**	d_{30} = **0.0015**	d_{50} = **0.010**	d_{60} = **0.021**	C_u = **175**	C_c = **0.89**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-16-01 (0-4ft)	**10/22/25**	**Lean clay with sand (CL)s**	**Clay Loam**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-29-01 (0-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 19-Dec-25

Initial Dry Weight of Sample (g): 653.39
Weight Passing #10 (g): 649.12
Weight Retained #10 (g): 4.27
Weight of -10 Sub-Sample (g): 84.23
Calculated Weight of Sieve Sample (g): 84.78

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	653.39	100.0
	2"	50	0.00	0.00	653.39	100.0
	1.5"	38.1	0.00	0.00	653.39	100.0
	1"	25	0.00	0.00	653.39	100.0
	3/4"	19.0	0.00	0.00	653.39	100.0
	3/8"	9.5	0.00	0.00	653.39	100.0
	4	4.75	0.00	0.00	653.39	100.0
	10	2.00	4.27	4.27	649.12	99.3
-10			(Based on calculated sieve wt.)			
	20	0.85	0.56	1.11	83.67	98.7
	40	0.425	1.84	2.95	81.83	96.5
	60	0.250	4.46	7.41	77.37	91.3
	100	0.150	11.34	18.75	66.03	77.9
	140	0.106	9.04	27.79	56.99	67.2
	200	0.075	7.41	35.20	49.58	58.5
	dry pan		1.68	36.88	47.90	
	wet pan			47.90	0.00	

d_{10} (mm): 6.7E-05
d_{16} (mm): 0.00030
d_{30} (mm): 0.0045
d_{50} (mm): 0.035
d_{60} (mm): 0.080
d_{84} (mm): 0.19

Median Particle Diameter --d_{50} (mm): 0.035
Uniformity Coefficient, Cu --$[d_{60}/d_{10}]$ (mm): 1194
Coefficient of Curvature, Cc --$[(d_{30})^2/(d_{10}*d_{60})]$ (mm): 3.8
Mean Particle Diameter --$[(d_{16}+d_{50}+d_{84})/3]$ (mm): 0.075

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Sandy lean clay s(CL)
USDA Soil Classification: Loam

Laboratory analysis by: M. Sharma/N. Dolan
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-29-01 (0-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 23-Dec-25
Start Time: 8:42

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

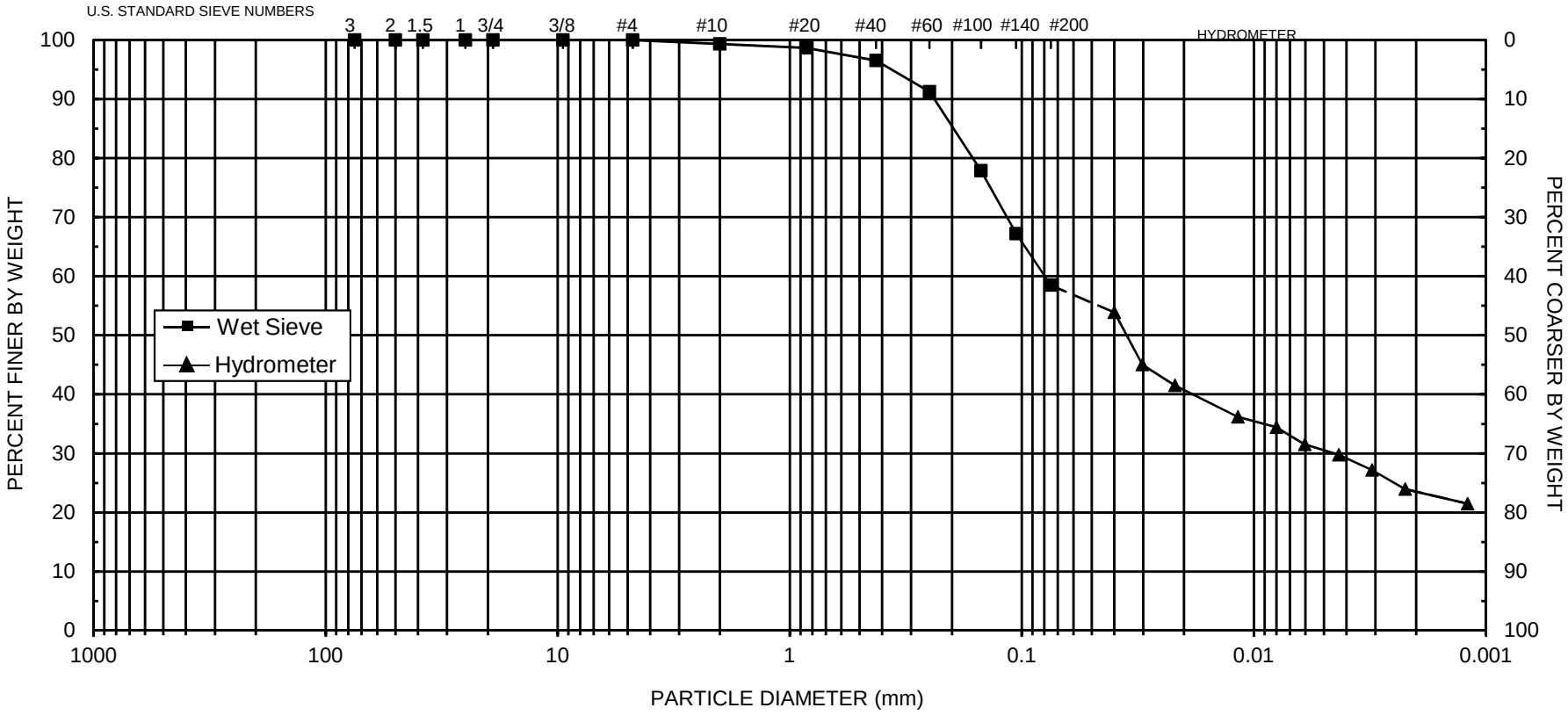
Initial Wt. (g)*:* 84.23
Total Sample Wt. (g)*:* 653.39
Wt. Passing #10 (g)*:* 649.12

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
23-Dec-25	1	18.60	51.50	5.82	45.7	9	0.0399	54	53.9
	2	18.60	44.00	5.82	38.2	10	0.0302	45	45.0
	4	18.60	41.00	5.82	35.2	10	0.0219	42	41.5
	15	18.60	36.50	5.82	30.7	11	0.0117	36	36.2
	33	18.60	35.00	5.82	29.2	11	0.0080	35	34.4
	60	18.70	32.50	5.79	26.7	12	0.0060	32	31.5
	120	18.70	31.00	5.79	25.2	12	0.0043	30	29.7
	240	19.00	28.75	5.69	23.1	12	0.0031	27	27.2
	480	19.00	26.00	5.69	20.3	13	0.0022	24	23.9
24-Dec-25	1699	18.70	24.00	5.79	18.2	13	0.0012	22	21.5

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: A. Neidhart
Data entered by: M. Sharma
Checked by: T. Morgan



USCS	COBBLES	GRAVEL: Coarse, Fine	SAND: Coarse, Medium, Fine	SILT OR CLAY		
USDA	COBBLES	GRAVEL	SAND: Very coarse, Coarse, Medium, Fine, Very fine	SILT	CLAY	

d_{10} = **6.7E-05**	d_{30} = **0.0045**	d_{50} = **0.035**	d_{60} = **0.080**	C_u = **1194**	C_c = **3.8**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-29-01 (0-1ft)	**10/22/25**	**Sandy lean clay s(CL)**	**Loam**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-29-02 (1-2.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 15-Dec-25

Initial Dry Weight of Sample (g): 1373.94
Weight Passing #10 (g): 1358.48
Weight Retained #10 (g): 15.46
Weight of -10 Sub-Sample (g): 74.69
Calculated Weight of Sieve Sample (g): 75.54

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	1373.94	100.0
	2"	50	0.00	0.00	1373.94	100.0
	1.5"	38.1	0.00	0.00	1373.94	100.0
	1"	25	0.00	0.00	1373.94	100.0
	3/4"	19.0	0.00	0.00	1373.94	100.0
	3/8"	9.5	4.52	4.52	1369.42	99.7
	4	4.75	1.41	5.93	1368.01	99.6
	10	2.00	9.53	15.46	1358.48	98.9
-10			(Based on calculated sieve wt.)			
	20	0.85	0.47	1.32	74.22	98.3
	40	0.425	1.74	3.06	72.48	95.9
	60	0.250	3.85	6.91	68.63	90.9
	100	0.150	8.45	15.36	60.18	79.7
	140	0.106	8.06	23.42	52.12	69.0
	200	0.075	6.88	30.30	45.24	59.9
	dry pan		1.84	32.14	43.40	
	wet pan			43.40	0.00	

d_{10} (mm): 7.6E-05
d_{16} (mm): 0.00030
d_{30} (mm): 0.0036
d_{50} (mm): 0.037
d_{60} (mm): 0.075
d_{84} (mm): 0.18

Median Particle Diameter --d_{50} (mm): 0.037
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 987
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 2.3
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.072

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Sandy lean clay s(CL)
USDA Soil Classification: Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-29-02 (1-2.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 11-Dec-25
Start Time: 8:42

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

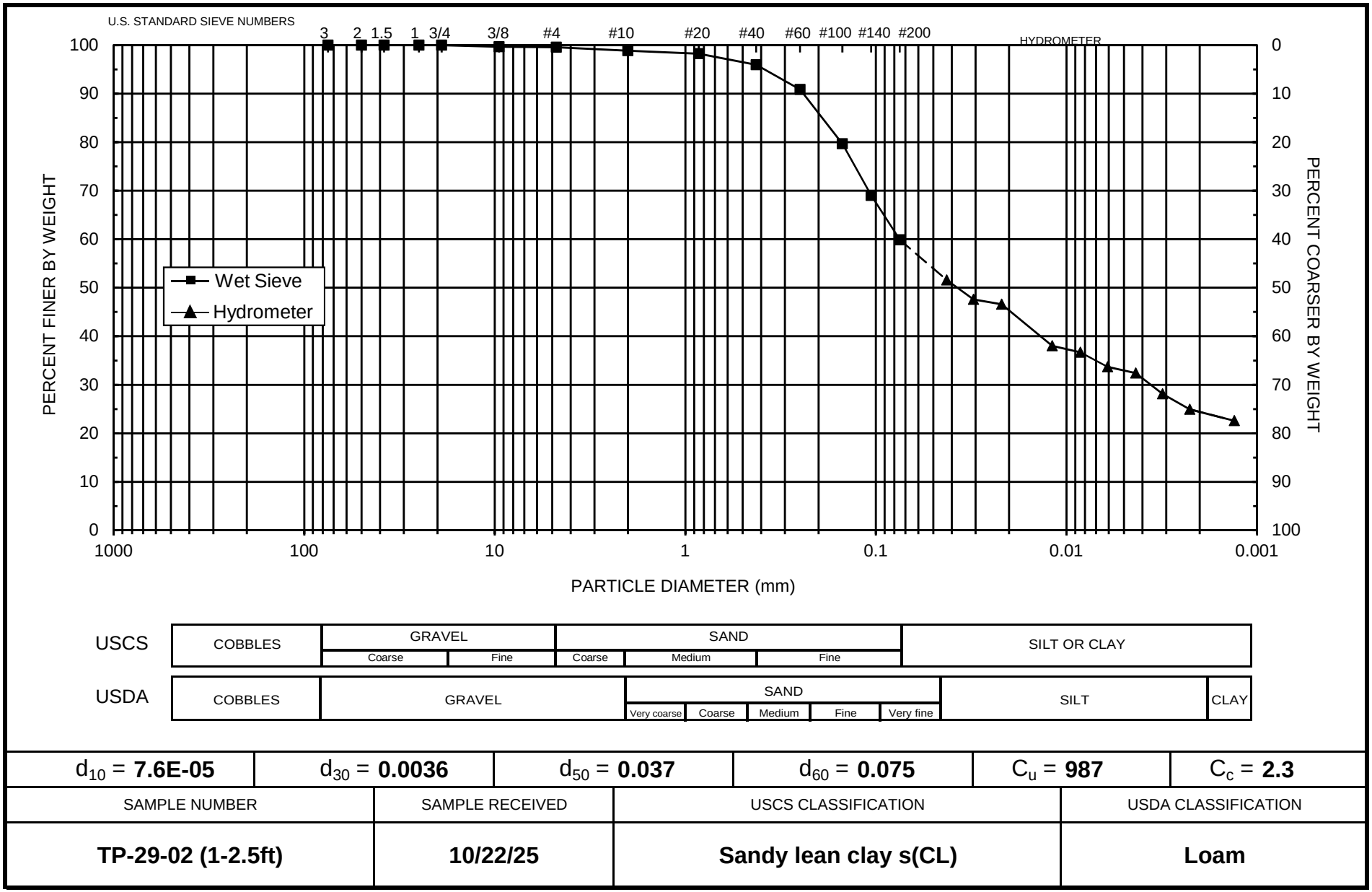
Initial Wt. (g)*:* 74.69
Total Sample Wt. (g)*:* 1373.94
Wt. Passing #10 (g)*:* 1358.48

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
11-Dec-25	1	18.70	44.75	5.79	39.0	10	0.0425	52	51.6
	2	18.70	41.75	5.79	36.0	10	0.0308	48	47.6
	4	18.70	41.00	5.79	35.2	10	0.0219	47	46.6
	15	18.70	34.50	5.79	28.7	11	0.0119	38	38.0
	30	18.70	33.50	5.79	27.7	12	0.0085	37	36.7
	60	18.70	31.25	5.79	25.5	12	0.0061	34	33.7
	120	18.80	30.25	5.76	24.5	12	0.0043	33	32.4
	240	18.80	27.00	5.76	21.2	13	0.0031	28	28.1
	480	19.90	24.25	5.40	18.8	13	0.0023	25	24.9
12-Dec-25	1434	19.00	22.75	5.69	17.1	13	0.0013	23	22.6

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



d_{10} = **7.6E-05**	d_{30} = **0.0036**	d_{50} = **0.037**	d_{60} = **0.075**	C_u = **987**	C_c = **2.3**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-29-02 (1-2.5ft)	**10/22/25**	**Sandy lean clay s(CL)**	**Loam**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-33-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 16-Dec-25

Initial Dry Weight of Sample (g): 789.12
Weight Passing #10 (g): 746.16
Weight Retained #10 (g): 42.96
Weight of -10 Sub-Sample (g): 81.95
Calculated Weight of Sieve Sample (g): 86.67

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	789.12	100.0
	2"	50	0.00	0.00	789.12	100.0
	1.5"	38.1	0.00	0.00	789.12	100.0
	1"	25	0.00	0.00	789.12	100.0
	3/4"	19.0	0.00	0.00	789.12	100.0
	3/8"	9.5	7.63	7.63	781.49	99.0
	4	4.75	12.13	19.76	769.36	97.5
	10	2.00	23.20	42.96	746.16	94.6
-10			(Based on calculated sieve wt.)			
	20	0.85	1.18	5.90	80.77	93.2
	40	0.425	1.24	7.14	79.53	91.8
	60	0.250	1.75	8.89	77.78	89.7
	100	0.150	4.62	13.51	73.16	84.4
	140	0.106	4.72	18.23	68.44	79.0
	200	0.075	5.45	23.68	62.99	72.7
	dry pan		2.44	26.12	60.55	
	wet pan			60.55	0.00	

d_{10} (mm): 0.00037
d_{16} (mm): 0.00051
d_{30} (mm): 0.0010
d_{50} (mm): 0.0066
d_{60} (mm): 0.026
d_{84} (mm): 0.15

Median Particle Diameter --d_{50} (mm): 0.0066
Uniformity Coefficient, Cu --$[d_{60}/d_{10}]$ (mm): 70
Coefficient of Curvature, Cc --$[(d_{30})^2/(d_{10}*d_{60})]$ (mm): 0.10
Mean Particle Diameter --$[(d_{16}+d_{50}+d_{84})/3]$ (mm): 0.052

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Lean clay with sand (CL)s
USDA Soil Classification: Clay

Laboratory analysis by: M. Sharma
Data entered by: J. Tafoya
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-33-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 14-Jan-26
Start Time: 8:42

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

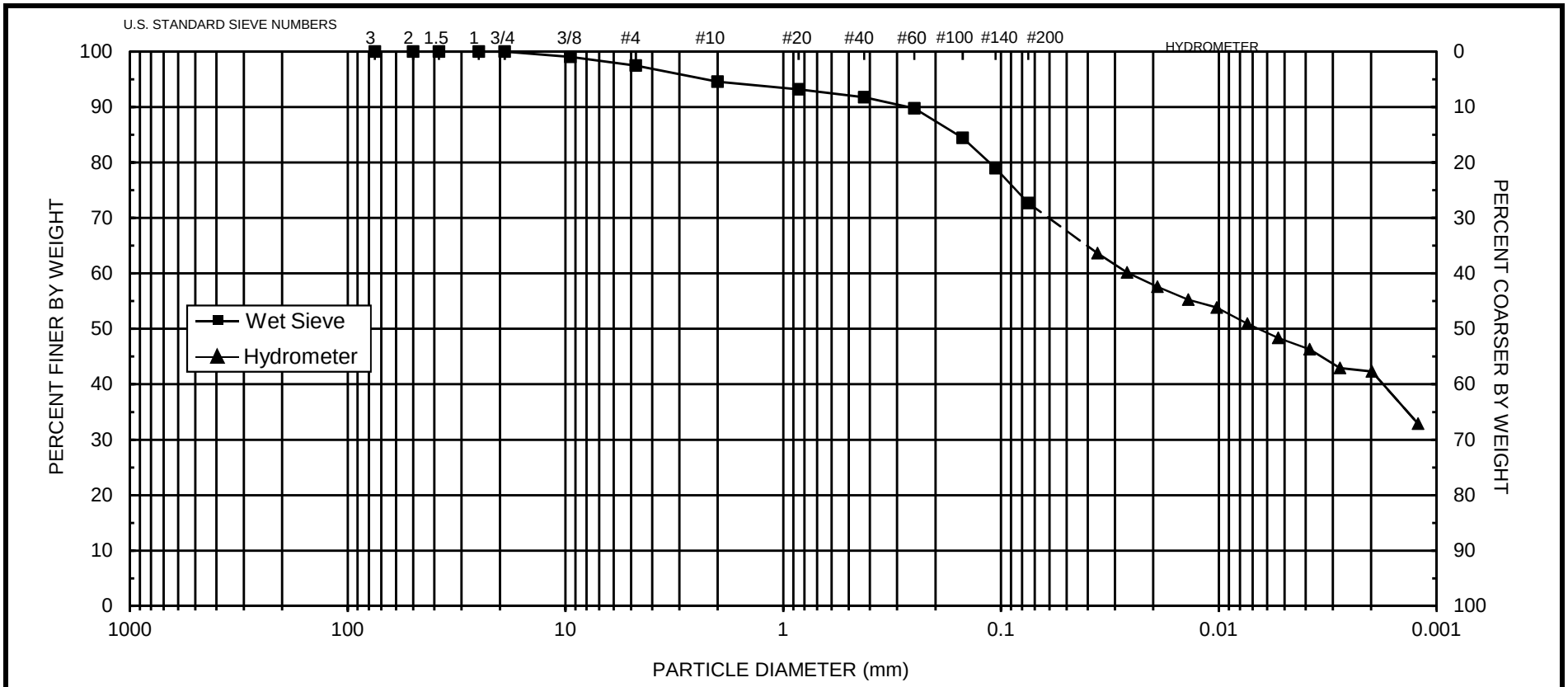
Initial Wt. (g)*:* 81.95
Total Sample Wt. (g)*:* 789.12
Wt. Passing #10 (g)*:* 746.16

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
14-Jan-26	1	18.50	61.00	5.85	55.2	7	0.0361	67	63.6
	2	18.50	58.00	5.85	52.2	8	0.0264	64	60.2
	4	18.50	55.75	5.85	49.9	8	0.0191	61	57.6
	8	18.50	53.75	5.85	47.9	8	0.0138	58	55.3
	15	18.50	52.50	5.85	46.7	8	0.0102	57	53.8
	30	18.50	50.00	5.85	44.2	9	0.0074	54	50.9
	60	18.50	47.75	5.85	41.9	9	0.0053	51	48.3
	120	18.50	46.00	5.85	40.2	10	0.0038	49	46.3
	240	18.70	43.00	5.79	37.2	10	0.0028	45	42.9
	480	20.10	42.00	5.34	36.7	10	0.0020	45	42.3
15-Jan-26	1431	18.00	34.50	6.00	28.5	11	0.0012	35	32.9

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



USCS	COBBLES	GRAVEL		SAND			SILT OR CLAY				
		Coarse	Fine	Coarse	Medium	Fine					
USDA	COBBLES	GRAVEL		SAND					SILT	CLAY	
				Very coarse	Coarse	Medium	Fine	Very fine			

d_{10} = **0.00037**	d_{30} = **0.0010**	d_{50} = **0.0066**	d_{60} = **0.026**	C_u = **70**	C_c = **0.10**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-33-01 (0-10ft)	**10/22/25**	**Lean clay with sand (CL)s**	**Clay**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-34-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 19-Dec-25

Initial Dry Weight of Sample (g): 857.23
Weight Passing #10 (g): 835.63
Weight Retained #10 (g): 21.60
Weight of -10 Sub-Sample (g): 82.09
Calculated Weight of Sieve Sample (g): 84.21

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	857.23	100.0
	2"	50	0.00	0.00	857.23	100.0
	1.5"	38.1	0.00	0.00	857.23	100.0
	1"	25	0.00	0.00	857.23	100.0
	3/4"	19.0	0.00	0.00	857.23	100.0
	3/8"	9.5	0.00	0.00	857.23	100.0
	4	4.75	4.37	4.37	852.86	99.5
	10	2.00	17.23	21.60	835.63	97.5
-10			(Based on calculated sieve wt.)			
	20	0.85	2.29	4.41	79.80	94.8
	40	0.425	5.30	9.71	74.50	88.5
	60	0.250	5.29	15.00	69.21	82.2
	100	0.150	4.25	19.25	64.96	77.1
	140	0.106	1.91	21.16	63.05	74.9
	200	0.075	1.22	22.38	61.83	73.4
	dry pan		0.41	22.79	61.42	
	wet pan			61.42	0.00	

d_{10} (mm): 0.00014
d_{16} (mm): 0.00027
d_{30} (mm): 0.0012
d_{50} (mm): 0.0075
d_{60} (mm): 0.020
d_{84} (mm): 0.29

Median Particle Diameter --d_{50} (mm): 0.0075
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 143
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 0.51
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.099

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CH

USCS Soil Classification: Fat clay with sand (CH)s
USDA Soil Classification: Clay Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-34-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 17-Dec-25
Start Time: 8:00

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

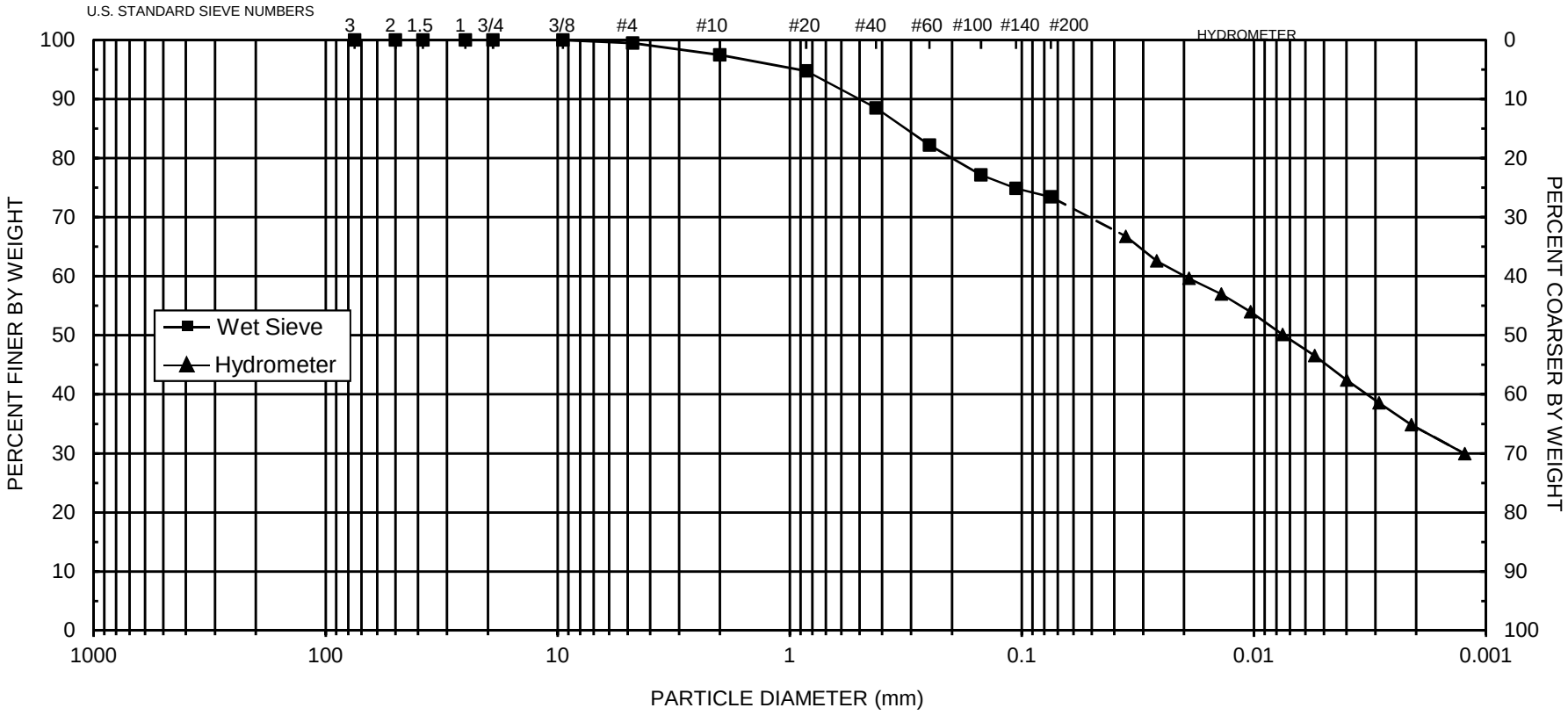
Initial Wt. (g)*:* 82.09
Total Sample Wt. (g)*:* 857.23
Wt. Passing #10 (g)*:* 835.63

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
17-Dec-25	1	18.70	62.00	5.79	56.2	7	0.0356	68	66.7
	2	18.70	58.50	5.79	52.7	7	0.0262	64	62.6
	4	18.70	56.00	5.79	50.2	8	0.0191	61	59.6
	8	18.70	53.75	5.79	48.0	8	0.0138	58	57.0
	15	18.70	51.25	5.79	45.5	9	0.0103	55	54.0
	30	18.70	48.00	5.79	42.2	9	0.0075	51	50.1
	60	18.70	45.00	5.79	39.2	10	0.0055	48	46.6
	120	18.70	41.50	5.79	35.7	10	0.0040	44	42.4
	240	18.70	38.25	5.79	32.5	11	0.0029	40	38.5
	480	19.10	35.00	5.66	29.3	11	0.0021	36	34.8
18-Dec-25	1464	18.70	31.00	5.79	25.2	12	0.0012	31	29.9

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



USCS	COBBLES	GRAVEL		SAND		SILT OR CLAY
		Coarse	Fine	Coarse	Medium	Fine
USDA	COBBLES	GRAVEL	SAND			SILT	CLAY
			Very coarse	Coarse	Medium	Fine	Very fine		

d_{10} = **0.00014**	d_{30} = **0.0012**	d_{50} = **0.0075**	d_{60} = **0.020**	C_u = **143**	C_c = **0.51**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-34-01 (0-10ft)	**10/22/25**	**Fat clay with sand (CH)s**	**Clay Loam**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-35-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 15-Dec-25

Initial Dry Weight of Sample (g): 690.55
Weight Passing #10 (g): 685.57
Weight Retained #10 (g): 4.98
Weight of -10 Sub-Sample (g): 78.89
Calculated Weight of Sieve Sample (g): 79.46

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	690.55	100.0
	2"	50	0.00	0.00	690.55	100.0
	1.5"	38.1	0.00	0.00	690.55	100.0
	1"	25	0.00	0.00	690.55	100.0
	3/4"	19.0	0.00	0.00	690.55	100.0
	3/8"	9.5	0.00	0.00	690.55	100.0
	4	4.75	1.72	1.72	688.83	99.8
	10	2.00	3.26	4.98	685.57	99.3
-10			(Based on calculated sieve wt.)			
	20	0.85	0.59	1.16	78.30	98.5
	40	0.425	2.60	3.76	75.70	95.3
	60	0.250	4.42	8.18	71.28	89.7
	100	0.150	6.33	14.51	64.95	81.7
	140	0.106	4.06	18.57	60.89	76.6
	200	0.075	2.71	21.28	58.18	73.2
	dry pan		0.94	22.22	57.24	
	wet pan			57.24	0.00	

d_{10} (mm): 0.0020
d_{16} (mm): 0.0024
d_{30} (mm): 0.0027
d_{50} (mm): 0.0050
d_{60} (mm): 0.015
d_{84} (mm): 0.17

Median Particle Diameter --d_{50} (mm): 0.0050
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 7.5
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 0.24
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.059

Classification of fines: CL

USCS Soil Classification: Lean clay with sand (CL)s
USDA Soil Classification: Silt Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-35-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 16-Dec-25
Start Time: 8:12

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

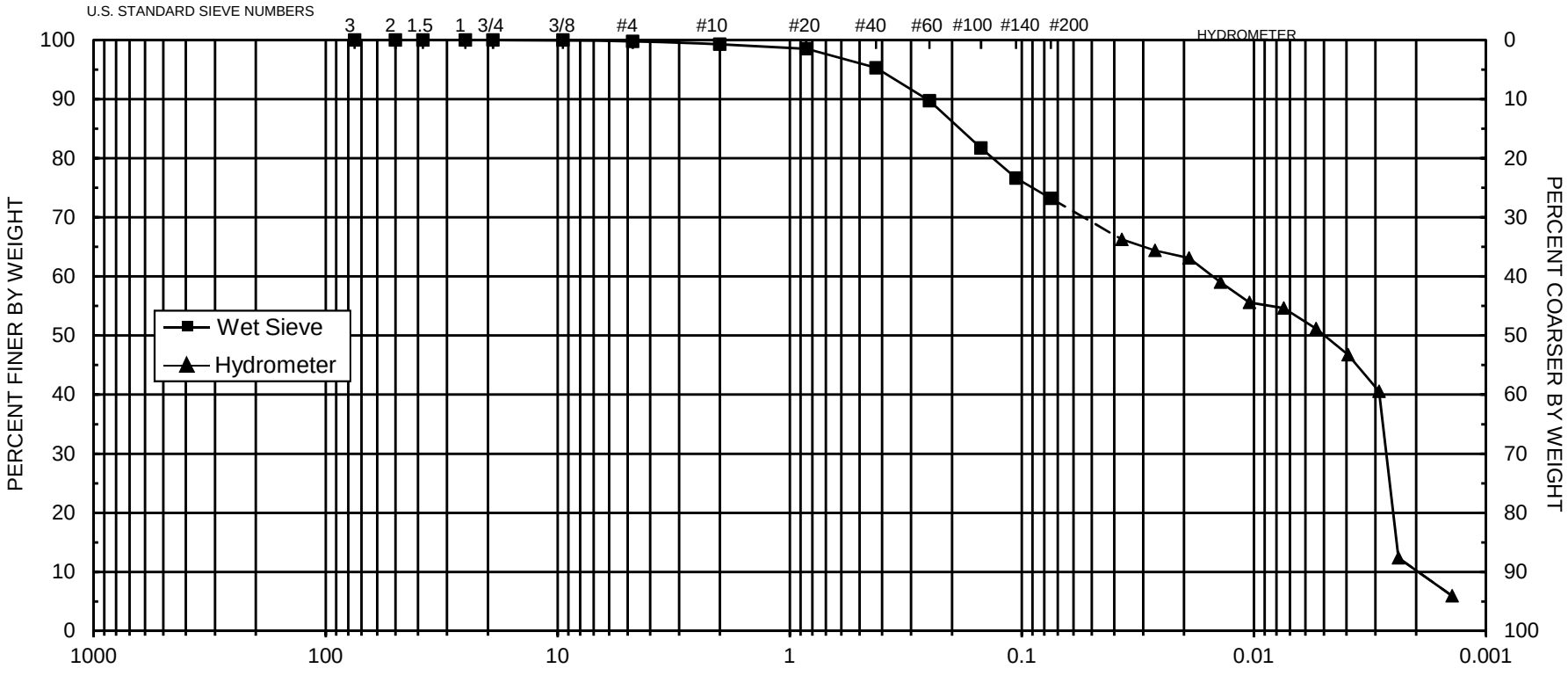
Initial Wt. (g)*:* 78.89
Total Sample Wt. (g)*:* 690.55
Wt. Passing #10 (g)*:* 685.57

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
16-Dec-25	1	18.50	58.50	5.85	52.7	7	0.0371	67	66.3
	2	18.50	57.00	5.85	51.2	8	0.0267	65	64.4
	4	18.50	56.00	5.85	50.2	8	0.0191	64	63.1
	8	18.50	52.75	5.85	46.9	8	0.0139	59	59.0
	15	18.50	50.00	5.85	44.2	9	0.0105	56	55.6
	30	18.50	49.25	5.85	43.4	9	0.0074	55	54.6
	60	18.50	46.50	5.85	40.7	9	0.0054	52	51.2
	120	18.50	43.00	5.85	37.2	10	0.0039	47	46.8
	240	18.70	38.00	5.79	32.2	11	0.0029	41	40.5
	480	20.60	15.00	5.17	9.8	15	0.0024	12	12.4
17-Dec-25	1463	18.70	10.50	5.79	4.7	15	0.0014	6	5.9

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



USCS	COBBLES	GRAVEL		SAND			SILT OR CLAY			
		Coarse	Fine	Coarse	Medium	Fine				
USDA	COBBLES	GRAVEL		SAND				SILT	CLAY	
				Very coarse	Coarse	Medium	Fine	Very fine		

d_{10} = **0.0020**	d_{30} = **0.0027**	d_{50} = **0.0050**	d_{60} = **0.015**	C_u = **7.5**	C_c = **0.24**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-35-01 (0-10ft)	**10/22/25**	**Lean clay with sand (CL)s**	**Silt Loam**

Atterberg Limits / Identification of Fines

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-01-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 12-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	29	21
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	127.31	129.84	128.20
Weight of pan plus dry soil (g)	123.85	126.10	124.63
Weight of pan (g):	113.31	115.21	114.84
Gravimetric moisture content (% g/g):	32.83	34.34	36.47

Liquid Limit: 35

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	121.21	120.41
Weight of pan plus dry soil (g)	120.48	119.61
Weight of pan (g):	116.35	115.23
Gravimetric moisture content (% g/g):	17.68	18.26

Plastic Limit: 18

Results

Percent of Sample Retained on #40 Sieve: 40.919262

Liquid Limit: 35
Plastic Limit: 18
Plasticity Index: 17

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-02-01 (0-7ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 11-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	30	22	18
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	126.86	128.37	128.30
Weight of pan plus dry soil (g)	122.61	123.75	124.03
Weight of pan (g):	112.62	113.12	114.19
Gravimetric moisture content (% g/g):	42.54	43.46	43.39

Liquid Limit: 43

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	116.43	118.24
Weight of pan plus dry soil (g)	115.75	117.45
Weight of pan (g):	111.93	113.12
Gravimetric moisture content (% g/g):	17.80	18.24

Plastic Limit: 18

Results

Percent of Sample Retained on #40 Sieve: 52.641004

Liquid Limit: 43
Plastic Limit: 18
Plasticity Index: 25

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-02-02 (7-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 16-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	30	23
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	121.82	128.32	124.96
Weight of pan plus dry soil (g)	118.60	124.51	120.46
Weight of pan (g):	112.20	117.07	111.89
Gravimetric moisture content (% g/g):	50.31	51.21	52.51

Liquid Limit: 52

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	121.94	115.12
Weight of pan plus dry soil (g)	121.09	114.21
Weight of pan (g):	117.40	110.56
Gravimetric moisture content (% g/g):	23.04	24.93

Plastic Limit: 24

Results

Percent of Sample Retained on #40 Sieve: 69.567154

Liquid Limit: 52
Plastic Limit: 24
Plasticity Index: 28

Classification: CH

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-05-01 (0-6.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 9-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	34	29	18
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	123.73	126.34	121.76
Weight of pan plus dry soil (g)	121.46	124.03	119.59
Weight of pan (g):	112.53	115.21	111.90
Gravimetric moisture content (% g/g):	25.42	26.19	28.22

Liquid Limit: 27

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	124.78	117.82
Weight of pan plus dry soil (g)	123.76	116.89
Weight of pan (g):	117.85	111.76
Gravimetric moisture content (% g/g):	17.26	18.13

Plastic Limit: 18

Results

Percent of Sample Retained on #40 Sieve: 18.93

Liquid Limit: 27
Plastic Limit: 18
Plasticity Index: 9

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-06-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 10-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	23	21
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	120.32	120.46	125.22
Weight of pan plus dry soil (g)	118.07	117.98	122.21
Weight of pan (g):	112.21	111.79	114.82
Gravimetric moisture content (% g/g):	38.40	40.06	40.73

Liquid Limit: 40

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	116.60	117.16
Weight of pan plus dry soil (g)	115.89	116.41
Weight of pan (g):	111.83	111.93
Gravimetric moisture content (% g/g):	17.49	16.74

Plastic Limit: 17

Results

Percent of Sample Retained on #40 Sieve: 46.569602

Liquid Limit: 40
Plastic Limit: 17
Plasticity Index: 23

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-07-01 (0-3ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 16-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	25	17
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	131.07	126.76	127.08
Weight of pan plus dry soil (g)	126.45	122.13	122.74
Weight of pan (g):	116.37	112.51	114.18
Gravimetric moisture content (% g/g):	45.83	48.13	50.70

Liquid Limit: 48

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	119.68	122.57
Weight of pan plus dry soil (g)	118.89	121.82
Weight of pan (g):	114.73	117.93
Gravimetric moisture content (% g/g):	18.99	19.28

Plastic Limit: 19

Results

Percent of Sample Retained on #40 Sieve: 62.449531

Liquid Limit: 48
Plastic Limit: 19
Plasticity Index: 29

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-7-02 (3-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 18-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	23	21
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	127.56	122.99	123.09
Weight of pan plus dry soil (g)	123.18	118.77	118.52
Weight of pan (g):	116.39	112.52	111.93
Gravimetric moisture content (% g/g):	64.51	67.52	69.35

Liquid Limit: 67

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	116.66	122.00
Weight of pan plus dry soil (g)	115.67	121.09
Weight of pan (g):	111.97	117.57
Gravimetric moisture content (% g/g):	26.76	25.85

Plastic Limit: 26

Results

Percent of Sample Retained on #40 Sieve: 59.365033

Liquid Limit: 67
Plastic Limit: 26
Plasticity Index: 41

Classification: CH

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-08-01 (0.5-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 11-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	34	25	20
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	130.83	133.81	131.59
Weight of pan plus dry soil (g)	127.31	129.58	128.17
Weight of pan (g):	115.74	116.39	117.95
Gravimetric moisture content (% g/g):	30.42	32.07	33.46

Liquid Limit: 32

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	119.98	117.36
Weight of pan plus dry soil (g)	119.27	116.63
Weight of pan (g):	114.65	111.97
Gravimetric moisture content (% g/g):	15.37	15.67

Plastic Limit: 16

Results

Percent of Sample Retained on #40 Sieve: 38.282861

Liquid Limit: 32
Plastic Limit: 16
Plasticity Index: 16

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-09-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 10-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	34	27	20
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	125.39	126.93	124.80
Weight of pan plus dry soil (g)	122.11	123.72	121.63
Weight of pan (g):	114.36	116.37	114.63
Gravimetric moisture content (% g/g):	42.32	43.67	45.29

Liquid Limit: 44

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	118.51	115.64
Weight of pan plus dry soil (g)	117.70	114.83
Weight of pan (g):	113.35	110.55
Gravimetric moisture content (% g/g):	18.62	18.93

Plastic Limit: 19

Results

Percent of Sample Retained on #40 Sieve: 44.387281

Liquid Limit: 44
Plastic Limit: 19
Plasticity Index: 25

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-11-01 (0-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 10-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	25	17
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	125.48	127.44	128.43
Weight of pan plus dry soil (g)	122.94	124.85	125.80
Weight of pan (g):	113.00	115.17	116.26
Gravimetric moisture content (% g/g):	25.55	26.76	27.57

Liquid Limit: 27

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	121.56	123.00
Weight of pan plus dry soil (g)	120.68	122.09
Weight of pan (g):	116.34	117.57
Gravimetric moisture content (% g/g):	20.28	20.13

Plastic Limit: 20

Results

Percent of Sample Retained on #40 Sieve: 27.699336

Liquid Limit: 27
Plastic Limit: 20
Plasticity Index: 7

Classification: CL-ML

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-12-01 (0-2ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 17-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	32	26	15
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	128.27	129.38	121.75
Weight of pan plus dry soil (g)	124.60	125.04	118.37
Weight of pan (g):	117.08	116.39	111.91
Gravimetric moisture content (% g/g):	48.80	50.17	52.32

Liquid Limit: 50

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	123.00	122.63
Weight of pan plus dry soil (g)	122.01	121.80
Weight of pan (g):	117.40	117.95
Gravimetric moisture content (% g/g):	21.48	21.56

Plastic Limit: 22

Results

Percent of Sample Retained on #40 Sieve: 65.088853

Liquid Limit: 50
Plastic Limit: 22
Plasticity Index: 28

Classification: CH

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-13-01 (0-4.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 16-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	28	20
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	125.06	123.49	127.09
Weight of pan plus dry soil (g)	121.34	119.84	123.47
Weight of pan (g):	113.01	111.79	115.74
Gravimetric moisture content (% g/g):	44.66	45.34	46.83

Liquid Limit: 46

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	116.62	116.84
Weight of pan plus dry soil (g)	115.92	116.08
Weight of pan (g):	111.97	111.91
Gravimetric moisture content (% g/g):	17.72	18.23

Plastic Limit: 18

Results

Percent of Sample Retained on #40 Sieve: 37.106009

Liquid Limit: 46
Plastic Limit: 18
Plasticity Index: 28

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-13-02 (4.5-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 17-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	29	25	16
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	125.38	126.76	129.13
Weight of pan plus dry soil (g)	121.67	123.45	124.65
Weight of pan (g):	112.52	115.68	114.43
Gravimetric moisture content (% g/g):	40.55	42.60	43.84

Liquid Limit: 42

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	119.72	119.79
Weight of pan plus dry soil (g)	118.93	118.95
Weight of pan (g):	114.71	114.56
Gravimetric moisture content (% g/g):	18.72	19.13

Plastic Limit: 19

Results

Percent of Sample Retained on #40 Sieve: 56.487952

Liquid Limit: 42
Plastic Limit: 19
Plasticity Index: 23

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-15-02 (4-5.25ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 10-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	30	28	19
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	130.18	128.27	133.05
Weight of pan plus dry soil (g)	127.09	126.23	131.29
Weight of pan (g):	113.31	117.39	124.04
Gravimetric moisture content (% g/g):	22.42	23.08	24.28

Liquid Limit: 23

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	118.80	121.04
Weight of pan plus dry soil (g)	117.86	120.02
Weight of pan (g):	113.34	115.10
Gravimetric moisture content (% g/g):	20.80	20.73

Plastic Limit: 21

Results

Percent of Sample Retained on #40 Sieve: 36.098856

Liquid Limit: 23
Plastic Limit: 21
Plasticity Index: 2

Classification: ML

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-16-01 (0-4ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 16-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	29	23
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	124.29	126.34	135.18
Weight of pan plus dry soil (g)	121.17	123.68	132.15
Weight of pan (g):	111.93	116.37	124.03
Gravimetric moisture content (% g/g):	33.77	36.39	37.32

Liquid Limit: 37

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	117.00	122.70
Weight of pan plus dry soil (g)	116.17	121.85
Weight of pan (g):	111.83	117.57
Gravimetric moisture content (% g/g):	19.12	19.86

Plastic Limit: 19

Results

Percent of Sample Retained on #40 Sieve: 45.178814

Liquid Limit: 37
Plastic Limit: 19
Plasticity Index: 18

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-29-01 (0-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 17-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	22	19
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	124.42	125.26	128.71
Weight of pan plus dry soil (g)	121.80	122.86	125.85
Weight of pan (g):	112.27	114.76	116.65
Gravimetric moisture content (% g/g):	27.49	29.63	31.09

Liquid Limit: 29

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	120.07	122.86
Weight of pan plus dry soil (g)	119.28	122.05
Weight of pan (g):	114.78	117.38
Gravimetric moisture content (% g/g):	17.56	17.34

Plastic Limit: 17

Results

Percent of Sample Retained on #40 Sieve: 36.858202

Liquid Limit: 29
Plastic Limit: 17
Plasticity Index: 12

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-29-02 (1-2.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 11-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	26	19
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	127.87	126.05	130.88
Weight of pan plus dry soil (g)	124.90	123.38	127.47
Weight of pan (g):	113.97	114.73	116.72
Gravimetric moisture content (% g/g):	27.17	30.87	31.72

Liquid Limit: 30

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	118.49	119.04
Weight of pan plus dry soil (g)	117.76	118.29
Weight of pan (g):	113.20	113.55
Gravimetric moisture content (% g/g):	16.01	15.82

Plastic Limit: 16

Results

Percent of Sample Retained on #40 Sieve: 45.336909

Liquid Limit: 30
Plastic Limit: 16
Plasticity Index: 14

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-33-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 17-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	30	25
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	126.90	126.14	126.11
Weight of pan plus dry soil (g)	123.24	122.89	122.65
Weight of pan (g):	114.37	115.21	114.65
Gravimetric moisture content (% g/g):	41.26	42.32	43.25

Liquid Limit: 43

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	118.21	117.03
Weight of pan plus dry soil (g)	117.45	116.25
Weight of pan (g):	113.36	111.94
Gravimetric moisture content (% g/g):	18.58	18.10

Plastic Limit: 18

Results

Percent of Sample Retained on #40 Sieve: 55.349066

Liquid Limit: 43
Plastic Limit: 18
Plasticity Index: 25

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-34-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 16-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	30	25
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	128.73	130.21	123.32
Weight of pan plus dry soil (g)	123.85	125.60	119.06
Weight of pan (g):	114.74	117.39	111.93
Gravimetric moisture content (% g/g):	53.57	56.15	59.75

Liquid Limit: 60

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	117.78	117.51
Weight of pan plus dry soil (g)	116.86	116.54
Weight of pan (g):	113.33	112.93
Gravimetric moisture content (% g/g):	26.06	26.87

Plastic Limit: 26

Results

Percent of Sample Retained on #40 Sieve: 57.592166

Liquid Limit: 60
Plastic Limit: 26
Plasticity Index: 34

Classification: CH

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-35-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 11-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	34	29	20
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	127.84	127.28	129.07
Weight of pan plus dry soil (g)	124.09	124.35	125.04
Weight of pan (g):	114.77	117.39	115.69
Gravimetric moisture content (% g/g):	40.24	42.10	43.10

Liquid Limit: 42

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	119.41	122.23
Weight of pan plus dry soil (g)	118.65	121.44
Weight of pan (g):	114.75	117.38
Gravimetric moisture content (% g/g):	19.49	19.46

Plastic Limit: 19

Results

Percent of Sample Retained on #40 Sieve: 54.386756

Liquid Limit: 42
Plastic Limit: 19
Plasticity Index: 23

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Laboratory Tests and Methods

Tests and Methods

Dry Bulk Density:	ASTM D7263
Moisture Content:	ASTM D7263, ASTM D2216
Calculated Porosity:	ASTM D7263
Particle Size Analysis:	ASTM D7928, ASTM D6913
USCS (ASTM) Classification:	ASTM D6913, ASTM D4318, ASTM D2487
USDA Classification:	ASTM D7928, ASTM D6913, USDA Soil Textural Triangle
Atterberg Limits:	ASTM D4318
Visual-Manual Description:	ASTM D2488

Laboratory Report
Project Section 27

Prepared for

Stantec

Prepared by

DBS&A Soil Testing & Research Laboratory
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Albuquerque, New Mexico 87113
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DB26.1035.00

May 21, 2025

DBS&A
a Geo-Logic Company

May 21, 2026

Stephanie Regis
Stantec
3325 S Timberline Road, 2nd Fl
Fort Collins, CO 80525
(970) 871-4389

Re: DBS&A Laboratory Report for Project Section 27

Dear Stephanie Regis:

Enclosed is the report for the requested laboratory services. Please review this report and provide any comments as samples will be held for a maximum of 30 days. After 30 days samples will be returned or disposed of in an appropriate manner.

All testing results were evaluated subjectively for consistency and reasonableness, and the results appear to be reasonably representative of the material tested. However, DBS&A does not assume any responsibility for interpretations or analyses based on the data enclosed, nor can we guarantee that these data are fully representative of the undisturbed materials at the field site. We recommend that careful evaluation of these laboratory results be made for your particular application.

The testing utilized to generate the enclosed report employs methods that are standard for the industry. The results do not constitute a professional opinion by DBS&A, nor can the results affect any professional or expert opinions rendered with respect thereto by DBS&A. You have acknowledged that all the testing undertaken by us, and the report provided, constitutes mere test results using standardized methods, and cannot be used to disqualify DBS&A from rendering any professional or expert opinion, having waived any claim of conflict of interest by DBS&A.

We are pleased to provide this service and look forward to future laboratory testing on other projects. If you have any questions about the enclosed data, please do not hesitate to call.

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.
SOIL TESTING & RESEARCH LABORATORY

Thane Morgan
Laboratory Manager

Summaries

Summary of Tests Performed - First Segment

Laboratory Sample Number	Initial Soil Properties[1]			Saturated Hydraulic Conductivity[2]			Moisture Characteristics[3]								Particle Size[4]			Specific Gravity[5]		Air Perm-eability	Atterberg Limits	Proctor Compaction
	G	VM	VD	CH	FH	FW	HC	PP	FP	DPP	RH	EP	WHC	K_{unsat}	DS	WS	H	F	C			
TP-01-01 (0-6ft)	X															X	X				X	
TP-02-01 (0-7ft)	X															X	X				X	
TP-02-02 (7-10ft)	X															X	X				X	
TP-05-01 (0-6.5ft)	X															X	X				X	
TP-06-01 (0-6ft)	X															X	X				X	
TP-07-01 (0-3ft)	X															X	X				X	
TP-7-02 (3-10ft)	X															X	X				X	
TP-08-01 (0.5-1ft)	X															X	X				X	
TP-09-01 (0-6ft)	X															X	X				X	
TP-11-01 (0-1ft)	X															X	X				X	
TP-12-01 (0-2ft)	X															X	X				X	
TP-13-01 (0-4.5ft)	X															X	X				X	
TP-13-02 (4.5-10ft)	X															X	X				X	
TP-15-01 (0-4ft)	X															X	X					
TP-15-02 (4-5.25ft)	X															X	X				X	
TP-16-01 (0-4ft)	X															X	X				X	
TP-29-01 (0-1ft)	X															X	X				X	
TP-29-02 (1-2.5ft)	X															X	X				X	
TP-33-01 (0-10ft)	X															X	X				X	
TP-34-01 (0-10ft)	X															X	X				X	
TP-35-01 (0-10ft)	X															X	X				X	

Summary of Tests Performed - Second Segment

Laboratory Sample Number	Initial Soil Properties[1]			Saturated Hydraulic Conductivity[2]			Moisture Characteristics[3]								Particle Size[4]			Dispersion Tests			1D Consol	Direct Shear	Proctor Compaction
	G	VM	VD	CH	FH	FW	HC	PP	FP	DPP	RH	EP	WHC	K_{unsat}	DS	WS	H	Cr.	PH	DH	Swell		
TP-01-01 (0-6ft)	X	X			X		X	X		X	X			X		X	X	X		X	X	X	X
TP-02-01 (0-7ft)																		X	X				X
TP-02-02 (7-10ft)	X	X			X		X	X		X	X			X									X
TP-05-01 (0-6.5ft)	X	X			X		X	X		X	X			X				X	X		X	X	X
TP-06-01 (0-6ft)																		X					
TP-07-01 (0-3ft)																X	X		X	X			
TP-07-02 (3-10ft)	X	X			X		X	X		X	X			X				X	X				X
TP-08-01 (0.5-1ft)																		X	X				
TP-09-01 (0-6ft)																		X	X				
TP-11-01 (0-1ft)																X	X		X	X	X		X
TP-12-01 (0-2ft)																					X		X
TP-13-01 (0-4.5ft)																		X					X
TP-13-02 (4.5-10ft)	X	X			X		X	X		X	X			X		X	X		X	X			
TP-15-01 (0-4ft)	X	X		X			X	X		X	X			X							X	X	X
TP-15-02 (4-5.25ft)																					X	X	X
TP-16-01 (0-4ft)	X	X			X		X	X		X	X			X		X	X		X	X	X	X	X
TP-29-01 (0-1ft)																							
TP-29-02 (1-2.5ft)																							
TP-33-01 (0-10ft)																			X	X	X	X	X
TP-34-01 (0-10ft)																X	X	X		X			
TP-35-01 (0-10ft)	X	X			X		X	X		X	X			X									X

Summary of Tests Performed - Second Segment

Laboratory Sample Number	Initial Soil Properties[1]			Saturated Hydraulic Conductivity[2]			Moisture Characteristics[3]								Particle Size[4]			Dispersion Tests			1D Consol	Direct Shear	Proctor Compaction
	G	VM	VD	CH	FH	FW	HC	PP	FP	DPP	RH	EP	WHC	K_{unsat}	DS	WS	H	Cr.	PH	DH	Swell	Shear	Compaction

[1] G = Gravimetric Moisture Content, VM = Volume Measurement Method, VD = Volume Displacement Method

[2] CH = Constant Head Rigid Wall, FH = Falling Head Rigid Wall, FW = Falling Head Rising Tail Flexible Wall

[3] HC = Hanging Column, PP = Pressure Plate, FP = Filter Paper, DPP = Dew Point Potentiometer, RH = Relative Humidity Box, EP = Effective Porosity, WHC = Water Holding Capacity, Kunsat = Calculated Unsaturated Hydraulic Conductivity

[4] DS = Dry Sieve, WS = Wet Sieve, H = Hydrometer

[5] CR =Crumb, PH = Pinhole, DH = Double Hydrometer

Notes

Sample Receipt:
Twenty-one samples were delivered between October 22, 2025 and October 24, 2025. Each sample was loose soil in three 5-gallon buckets, with one of each bucket having a gallon resealable bag with the sample to help maintain moisture content in transit. The samples arrived in good order.

Sample Preparation and Testing Notes:
Testing was performed in two phases. The first phase analyzed for water content, particle size with sieves and hydrometer, and Atterberg limits. The customer then selected an array of follow-up tests among the samples for the second phase.

From the sealed bags of each sample, a subsample was taken for initial water content determination. Another subsample was taken for particle size analysis via hydrometer and sieving, while a third subsample was sieved through a 40 mesh screen and subjected to Atterberg plasticity index measurement.

A few samples gave unusual results for their late hydrometer readings. This may indicate flocculation occurred over time. Some evidence of white crystal formation was present on these samples, especially the TP-13-01 (0-4.5 ft) sample. Some crystals dissolved with gas evolution when added to water, which may indicate the presence of carbonates.

For the second segment, some samples were subjected to proctor compaction analysis, then these values were used to remold samples for hydraulic conductivity via the flexible wall method, and for water retention curve development. Loose subsamples were subjected to dewpoint potentiometer and humidity chamber testing to determine the dry end of these samples' soil water characteristic curves.

Some samples were analyzed for dispersibility via the crumb test, the pinhole tests, and by double hydrometer measurements. The no-dispersant hydrometer results were compared to the original PSA measurements taken in Phase 1.

Direct shear testing was applied to some samples. Each test was performed as a trio of tests at three normal pressures defined by the customer for each sample.

One Dimensional Consolidation/ Swell testing was performed under pressure increments defined by the customer for each sample.

Summary of Initial Moisture Content, Dry Bulk Density Wet Bulk Density and Calculated Porosity

Sample Number	Moisture Content				Dry Bulk Density (g/cm^3)	Wet Bulk Density (g/cm^3)	Calculated Porosity (%)
	As Received		Remolded				
	Gravimetric (%, g/g)	Volumetric (%, cm^3/cm^3)	Gravimetric (%, g/g)	Volumetric (%, cm^3/cm^3)			
TP-01-01 (0-6ft)	9.4	NA	---	---	NA	NA	NA
TP-02-01 (0-7ft)	9.5	NA	---	---	NA	NA	NA
TP-02-02 (7-10ft)	14.7	NA	---	---	NA	NA	NA
TP-05-01 (0-6.5ft)	7.7	NA	---	---	NA	NA	NA
TP-06-01 (0-6ft)	12.7	NA	---	---	NA	NA	NA
TP-07-01 (0-3ft)	11.4	NA	---	---	NA	NA	NA
TP-7-02 (3-10ft)	19.5	NA	---	---	NA	NA	NA
TP-08-01 (0.5-1ft)	16.8	NA	---	---	NA	NA	NA
TP-09-01 (0-6ft)	10.9	NA	---	---	NA	NA	NA
TP-11-01 (0-1ft)	10.7	NA	---	---	NA	NA	NA
TP-12-01 (0-2ft)	10.1	NA	---	---	NA	NA	NA
TP-13-01 (0-4.5ft)	14.8	NA	---	---	NA	NA	NA
TP-13-02 (4.5-10ft)	12.6	NA	---	---	NA	NA	NA
TP-15-01 (0-4ft)	5.4	NA	---	---	NA	NA	NA

Summary of Initial Moisture Content, Dry Bulk Density Wet Bulk Density and Calculated Porosity

Sample Number	Moisture Content				Dry Bulk Density (g/cm^3)	Wet Bulk Density (g/cm^3)	Calculated Porosity (%)
	As Received		Remolded				
	Gravimetric (%, g/g)	Volumetric (%, cm^3/cm^3)	Gravimetric (%, g/g)	Volumetric (%, cm^3/cm^3)			
TP-15-02 (4-5.25ft)	10.3	NA	---	---	NA	NA	NA
TP-16-01 (0-4ft)	11.9	NA	---	---	NA	NA	NA
TP-29-01 (0-1ft)	10.5	NA	---	---	NA	NA	NA
TP-29-02 (1-2.5ft)	8.6	NA	---	---	NA	NA	NA
TP-33-01 (0-10ft)	11.7	NA	---	---	NA	NA	NA
TP-34-01 (0-10ft)	16.8	NA	---	---	NA	NA	NA
TP-35-01 (0-10ft)	13.5	NA	---	---	NA	NA	NA

NA = Not analyzed

--- = This sample was not remolded

Summary of Particle Size Characteristics

Sample Number	d_{10} (mm)	d_{50} (mm)	d_{60} (mm)	C_u	C_c	Method	USCS Classification	USDA Classification	
TP-01-01 (0-6ft)	9.2E-05	0.013	0.033	359	0.56	WS/H	Lean clay with sand (CL)s	Clay Loam	(Est)
TP-02-01 (0-7ft)	4.8E-05	0.0065	0.017	354	0.60	WS/H	Lean clay with sand (CL)s	Clay Loam	(Est)
TP-02-02 (7-10ft)	0.0018	0.027	0.063	35	0.27	WS/H	Sandy fat clay s(CH)	Loam	
TP-05-01 (0-6.5ft)	0.0013	0.062	0.095	73	1.2	WS/H	Sandy lean clay s(CL)	Sandy Loam	(Est)
TP-06-01 (0-6ft)	0.0011	0.0052	0.011	10.0	0.27	WS/H	Lean clay with sand (CL)s	Clay Loam	(Est)
TP-07-01 (0-3ft)	2.1E-10	0.0060	0.026	1.2E+08	3.4	WS/H	Lean clay with sand (CL)s	Clay	(Est)
TP-7-02 (3-10ft)	0.00028	0.0018	0.0028	10.0	0.63	WS/H	Fat clay (CH)	Clay	(Est)
TP-08-01 (0.5-1ft)	0.00010	0.044	0.076	760	1.3	WS/H	Sandy lean clay s(CL)	Sandy Clay Loam	(Est)
TP-09-01 (0-6ft)	0.0015	0.0056	0.012	8.0	0.25	WS/H	Lean clay (CL)	Silt Loam	
TP-11-01 (0-1ft)	7.5E-06	0.054	0.082	1.1E+04	234	WS/H	Sandy silty clay s(CL-ML)	Loam	(Est)
TP-12-01 (0-2ft)	2.1E-05	0.0024	0.0092	438	0.25	WS/H	Fat clay (CH)	Clay	(Est)
TP-13-01 (0-4.5ft)	0.00099	0.0087	0.035	35	0.065	WS/H	Sandy lean clay s(CL)	Clay	(Est)
TP-13-02 (4.5-10ft)	3.7E-05	0.028	0.058	1568	3.2	WS/H	Sandy lean clay s(CL)	Clay Loam †	(Est)
TP-15-01 (0-4ft)	0.0078	0.22	0.27	35	11	WS/H	Classification by ASTM 2487 requires Atterberg test	Loamy Sand	
TP-15-02 (4-5.25ft)	8.0E-05	0.074	0.097	1213	74	WS/H	Sandy silt s(ML)	Sandy Loam	(Est)

Summary of Particle Size Characteristics

Sample Number	d_{10} (mm)	d_{50} (mm)	d_{60} (mm)	C_u	C_c	Method	USCS Classification	USDA Classification	
TP-16-01 (0-4ft)	0.00012	0.010	0.021	175	0.89	WS/H	Lean clay with sand (CL)s	Clay Loam	(Est)
TP-29-01 (0-1ft)	6.7E-05	0.035	0.080	1194	3.8	WS/H	Sandy lean clay s(CL)	Loam	(Est)
TP-29-02 (1-2.5ft)	7.6E-05	0.037	0.075	987	2.3	WS/H	Sandy lean clay s(CL)	Loam	(Est)
TP-33-01 (0-10ft)	0.00037	0.0066	0.026	70	0.10	WS/H	Lean clay with sand (CL)s	Clay	(Est)
TP-34-01 (0-10ft)	0.00014	0.0075	0.020	143	0.51	WS/H	Fat clay with sand (CH)s	Clay Loam	(Est)
TP-35-01 (0-10ft)	0.0020	0.0050	0.015	7.5	0.24	WS/H	Lean clay with sand (CL)s	Silt Loam	

Est = Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

$$C_u = \frac{d_{60}}{d_{10}}$$

$$C_c = \frac{(d_{30})^2}{(d_{10})(d_{60})}$$

DS = Dry sieve

H = Hydrometer

WS = Wet sieve

† Greater than 10% of sample is coarse material

d_{50} = Median particle diameter

Percent Gravel, Sand, Silt and Clay

Sample Number	% Gravel (>4.75mm)	% Sand (<4.75mm, >0.075mm)	% Silt (<0.075mm, >0.002mm)	% Clay (<0.002mm)
TP-01-01 (0-6ft)	0.0	25.9	41.0	33.1
TP-02-01 (0-7ft)	0.2	19.8	42.1	37.9
TP-02-02 (7-10ft)	2.6	35.7	49.4	12.4
TP-05-01 (0-6.5ft)	1.6	45.3	36.9	16.1
TP-06-01 (0-6ft)	0.0	16.6	48.5	34.9
TP-07-01 (0-3ft)	0.9	21.8	34.9	42.3
TP-7-02 (3-10ft)	0.1	7.8	39.6	52.6
TP-08-01 (0.5-1ft)	0.0	40.2	32.6	27.1
TP-09-01 (0-6ft)	0.0	12.7	60.8	26.6
TP-11-01 (0-1ft)	0.0	43.2	39.0	17.8
TP-12-01 (0-2ft)	0.3	10.1	40.7	48.9
TP-13-01 (0-4.5ft)	1.5	30.7	22.9	44.9
TP-13-02 (4.5-10ft)	3.6	32.8	36.3	27.3
TP-15-01 (0-4ft)	1.9	80.5	10.9	6.8
TP-15-02 (4-5.25ft)	0.3	49.5	33.8	16.4
TP-16-01 (0-4ft)	0.0	21.0	47.0	32.0
TP-29-01 (0-1ft)	0.0	41.5	35.0	23.5
TP-29-02 (1-2.5ft)	0.4	39.7	35.5	24.4
TP-33-01 (0-10ft)	2.5	24.8	30.4	42.3

Percent Gravel, Sand, Silt and Clay

Sample Number	% Gravel (>4.75mm)	% Sand (<4.75mm, >0.075mm)	% Silt (<0.075mm, >0.002mm)	% Clay (<0.002mm)
TP-34-01 (0-10ft)	0.5	26.1	39.0	34.4
TP-35-01 (0-10ft)	0.2	26.5	63.0	10.3

Summary of Atterberg Tests

Sample Number	Liquid Limit	Plastic Limit	Plasticity Index	Classification
TP-01-01 (0-6ft)	35	18	17	CL
TP-02-01 (0-7ft)	43	18	25	CL
TP-02-02 (7-10ft)	52	24	28	CH
TP-05-01 (0-6.5ft)	27	18	9	CL
TP-06-01 (0-6ft)	40	17	23	CL
TP-07-01 (0-3ft)	48	19	29	CL
TP-7-02 (3-10ft)	67	26	41	CH
TP-08-01 (0.5-1ft)	32	16	16	CL
TP-09-01 (0-6ft)	44	19	25	CL
TP-11-01 (0-1ft)	27	20	7	CL-ML
TP-12-01 (0-2ft)	50	22	28	CH
TP-13-01 (0-4.5ft)	46	18	28	CL
TP-13-02 (4.5-10ft)	42	19	23	CL
TP-15-02 (4-5.25ft)	23	21	2	ML
TP-16-01 (0-4ft)	37	19	18	CL
TP-29-01 (0-1ft)	29	17	12	CL
TP-29-02 (1-2.5ft)	30	16	14	CL
TP-33-01 (0-10ft)	43	18	25	CL
TP-34-01 (0-10ft)	60	26	34	CH
TP-35-01 (0-10ft)	42	19	23	CL

--- = Soil requires visual-manual classification due to non-plasticity

Summary of Proctor Compaction Tests

	Measured			Oversize Corrected		
Sample Number	Optimum Moisture Content (% g/g)	Maximum Dry Bulk Density (g/cm^3)	Maximum Dry Bulk Density (pcf)	Optimum Moisture Content (% g/g)	Maximum Dry Bulk Density (g/cm^3)	Maximum Dry Bulk Density (pcf)
TP-01-01 (0-6ft)	16.3	1.76	109.7	NA	NA	NA
TP-02-01 (0-7ft)	20.0	1.59	99.5	NA	NA	NA
TP-02-02 (7-10ft)	23.1	1.61	100.8	17.9	1.77	110.3
TP-05-01 (0-6.5ft)	15.3	1.77	110.7	NA	NA	NA
TP-07-02 (3-10ft)	27.2	1.51	94.5	21.6	1.66	103.6
TP-11-01 (0-1ft)	14.3	1.79	112.0	NA	NA	NA
TP-12-01 (0-2ft)	19.0	1.63	102.0	NA	NA	NA
TP-13-01 (0-4.5ft)	19.3	1.68	105.0	15.9	1.80	112.1
TP-15-01 (0-4ft)	12.2	1.84	114.9	NA	NA	NA
TP-15-02 (4-5.25ft)	15.4	1.79	111.7	NA	NA	NA
TP-16-01 (0-4ft)	17.2	1.68	104.6	NA	NA	NA
TP-33-01 (0-10ft)	18.8	1.71	106.8	NA	NA	NA
TP-35-01 (0-10ft)	21.8	1.69	105.4	NA	NA	NA

--- = Oversize correction is unnecessary since coarse fraction < 5% of composite mass

NR = Not requested

NA = Not applicable

Summary of Initial Moisture Content, Dry Bulk Density Wet Bulk Density and Calculated Porosity

Sample Number	Moisture Content				Dry Bulk Density (g/cm^3)	Wet Bulk Density (g/cm^3)	Calculated Porosity (%)
	As Received		Remolded				
	Gravimetric (%, g/g)	Volumetric (%, cm^3/cm^3)	Gravimetric (%, g/g)	Volumetric (%, cm^3/cm^3)			
TP-01-01 (0-6ft)	NA	NA	15.9	25.0	1.57	1.82	40.8
TP-02-02 (7-10ft)	NA	NA	15.9	23.0	1.44	1.67	45.6
TP-05-01 (0-6.5ft)	NA	NA	12.0	19.3	1.61	1.80	39.4
TP-07-02 (3-10ft)	NA	NA	19.7	26.9	1.37	1.63	49.4
TP-13-02 (4.5-10ft)	NA	NA	14.6	23.2	1.59	1.82	40.1
TP-15-01 (0-4ft)	NA	NA	13.1	21.1	1.61	1.82	39.2
TP-16-01 (0-4ft)	NA	NA	14.1	21.3	1.51	1.73	42.9
TP-35-01 (0-10ft)	NA	NA	19.0	29.3	1.54	1.83	44.1

NA = Not analyzed

--- = This sample was not remolded

Summary of Saturated Hydraulic Conductivity Tests

Sample Number	K_{sat} (cm/sec)	Oversize Corrected K_{sat} (cm/sec)	Method of Analysis: Constant Head Flexible Wall	Method of Analysis: Falling Head Flexible Wall
TP-01-01	2.3E-06	---		X
TP-02-02 (7-10ft)	8.6E-05	6.7E-05		X
TP-05-01 (0-6.5)	1.8E-04	---		X
TP-7-02 (3-10ft)	7.3E-06	5.2E-06		X
TP-13-02 (4.5-10ft)	1.3E-06	---		X
TP-15-01 (0-4ft)	2.5E-04	---		X
TP-16-01 (0-4ft)	1.3E-06	---		X
TP-35-01	1.2E-06	---		X

--- = Oversize correction is unnecessary since coarse fraction < 5% of composite mass
NR = Not requested
NA = Not applicable

Summary of Moisture Characteristics of the Initial Drainage Curve

Sample Number	Pressure Head (-cm water)	Moisture Content (%, cm^3/cm^3)
TP-01-01 (0-6ft)	0	43.9
	15	43.1
	54	42.9
	337	31.8
	16113	18.7
	48033	14.5
	99431	11.4
	634418	7.7
	847567	6.6
TP-02-02 (7-10ft)	0	48.6
	15	46.8
	54	45.7
	128	41.8
	337	39.7
	16623	23.3
	38243	19.9
	77505	17.4
	705396	11.6
	847567	11.5
TP-05-01 (0-6.5ft)	0	37.7
	11	37.7
	35	37.6
	101	29.8
	337	24.6
	15195	11.3
	19274	10.6
	32226	9.9
	57415	8.8
	847567	5.0

‡‡ Volume adjustments are applicable at this matric potential (see data sheet for this sample).

Summary of Moisture Characteristics of the Initial Drainage Curve (Continued)

Sample Number	Pressure Head (-cm water)	Moisture Content (%, cm^3/cm^3)
TP-07-02 (3-10ft)	0	52.3
	15	51.9
	54	47.8 ‡‡
	128	45.1 ‡‡
	337	43.5 ‡‡
	18152	29.0 ‡‡
	31614	26.2 ‡‡
	53540	23.3 ‡‡
	75465	20.2 ‡‡
	847567	7.7 ‡‡
TP-13-02 (4.5-10ft)	0	42.1
	22	34.9
	70	33.1
	149	32.7
	337	32.4
	18560	19.6
	28554	16.9
	47421	14.8
	71998	13.8
	847567	7.8
TP-15-01 (0-4ft)	0	39.5
	7	39.0
	22	32.7
	77	20.4
	337	16.4
	13665	5.9
	29064	4.3
	42628	4.2
	111974	3.6
	636151	2.7
	847567	2.2

‡‡ Volume adjustments are applicable at this matric potential (see data sheet for this sample).

Summary of Moisture Characteristics of the Initial Drainage Curve (Continued)

Sample Number	Pressure Head (-cm water)	Moisture Content (%, cm^3/cm^3)
TP-16-01 (0-4ft)	0	44.3
	15	43.2
	54	42.5
	128	36.4
	337	33.7
	16929	17.0
	35693	14.2
	89640	11.4
	608515	7.4
	847567	6.4
TP-35-01 (0-10ft)	0	43.5
	15	43.0
	54	40.4
	128	38.1
	337	37.0
	13767	25.1
	19274	23.3
	50888	20.1
	70876	18.8
	847567	13.2

‡‡ Volume adjustments are applicable at this matric potential (see data sheet for this sample).

Summary of Calculated Unsaturated Hydraulic Properties

Sample Number	α (cm^{-1})	N (dimensionless)	θ_r (% vol)	θ_s (% vol)	Oversize Corrected θ_r (% vol)	Oversize Corrected θ_s (% vol)
TP-01-01 (0-6ft)	0.0115	1.1869	0.00	44.29	NA	NA
TP-02-02 (7-10ft)	0.0088	1.1542	0.00	47.85	0.00	41.41
TP-05-01 (0-6.5ft)	0.0180	1.2555	2.48	38.58	NA	NA
TP-07-02 (3-10ft)	0.0002	1.3121	0.00	48.26	0.00	42.55
TP-13-02 (4.5-10ft)	0.0252	1.1350	0.00	39.84	NA	NA
TP-15-01 (0-4ft)	0.0647	1.3594	1.97	40.56	NA	NA
TP-16-01 (0-4ft)	0.0109	1.1956	0.00	44.27	NA	NA
TP-35-01 (0-10ft)	0.0096	1.1223	0.00	43.02	NA	NA

--- = Oversize correction is unnecessary since coarse fraction < 5% of composite mass

NR = Not requested

NA = Not applicable

Summary of Consolidated Drained Direct Shear Shear Stress*

Sample Number	Nominal Normal Stress at Failure (psf)	Nominal Shear Stress at Failure (psf)	Relative Lateral Displacement at Failure (%)
TP-01-01 (0-6) (Direct Shear) (486 psf)	503	496	10.0
TP-01-01 (0-6) (Direct Shear) (2384 psf)	2,503	1,567	10.0
TP-01-01 (0-6) (Direct Shear) (4884 psf)	4,979	1,830	10.0
TP-05-01 (0-6.5ft) (Direct Shear) (486 psf)	501	154	10.0
TP-05-01 (0-6.5ft) (Direct Shear) (962 psf)	999	690	10.0
TP-05-01 (0-6.5ft) (Direct Shear) (1962 psf)	1,999	988	10.0
TP-15-01 (0-4ft) (Direct Shear) (495 psf)	481	361	10.0
TP-15-01 (0-4ft) (Direct Shear) (629 psf)	628	2,060	10.0
TP-15-01 (0-4ft) (Direct Shear) (1184 psf)	1,252	3,560	10.0
TP-15-02 (4-5.25ft) (Direct Shear) (491 psf)	504	321	10.0
TP-15-02 (4-5.25ft) (Direct Shear) (504 psf)	1,001	701	10.0
TP-15-02 (4-5.25ft) (Direct Shear) (1970 psf)	1,997	1,653	10.0
TP-16-01 (0-4) (Direct Shear) (985 psf)	997	686	10.0
TP-16-01 (0-4) (Direct Shear) (1946 psf)	2,014	1,359	10.0
TP-16-01 (0-4) (Direct Shear) (3943 psf)	3,985	2,161	10.0
TP-33-01 (0-10ft) (Direct Shear) (1005 psf)	1,000	823	10.0
TP-33-01 (0-10ft) (Direct Shear) (939 psf)	2,003	1,461	10.0
TP-33-01 (0-10ft) (Direct Shear) (2148 psf)	4,000	2,322	10.0

* Failure Determination: 10% relative lateral displacement

Summary of Consolidated Drained Direct Shear
Estimated Friction Angle and Cohesion[1]

Sample Number	c Cohesion (psf)	φ Friction (°)	Failure Criterion
TP-01-01 (0-6)	525	16	10% Relative Lateral Displacement
TP-05-01 (0-6.5ft)	4	27	10% Relative Lateral Displacement
TP-15-01 (0-4ft)	0	70	10% Relative Lateral Displacement
TP-15-02 (4-5.25ft)	0	38	10% Relative Lateral Displacement
TP-16-01 (0-4)	278	26	10% Relative Lateral Displacement
TP-33-01 (0-10ft)	392	26	10% Relative Lateral Displacement

[1]The cohesion and friction angle provided represent one possible interpretation of a test results. Qualified persons familiar with the material and the site should evaluate the test results independently prior to use in the intended application.

Summary of One-Dimensional Consolidation Testing
Stress, Strain, and Coefficient of Consolidation[1]

Sample Number	Axial Stress (psf)	Height (in)	Void Ratio (e)	Axial Strain (%)	Estimated Coefficient of Consolidation Cv (cm^2/sec)	Average Void Ratio (e)
TP-01-01 (0-6) (Consolidation)						
	50	0.8070	0.656	0.00		
	45	0.8062	0.655	0.10		
	250	0.8131	0.669	-0.76		
	250	0.8194	0.682	-1.54		
	500	0.8192	0.681	-1.51		
	1,000	0.8140	0.671	-0.87		
	2,000	0.7891	0.620	2.22	9.5E-04	0.645
	4,000	0.7487	0.537	7.22	9.3E-04	0.578

[1]The estimated coefficients of consolidation provided represent one possible interpretation of test results. Qualified persons familiar with the material and the site should evaluate the test results independently prior to use in the intended application.

Summary of One-Dimensional Consolidation Testing
Stress, Strain, and Coefficient of Consolidation[1]

Sample Number	Axial Stress (psf)	Height (in)	Void Ratio (e)	Axial Strain (%)	Estimated Coefficient of Consolidation Cv (cm^2/sec)	Average Void Ratio (e)
TP-05-01 (0.-6.5) (Consolidation)						
	50	0.8240	0.641	0.00		
	49	0.8211	0.635	0.35		
	100	0.8208	0.634	0.39		
	100	0.8251	0.643	-0.13		
	200	0.8243	0.641	-0.04		
	400	0.8231	0.639	0.11		
	800	0.8187	0.630	0.64	6.7E-03	0.635
	1,600	0.8081	0.609	1.93	9.6E-03	0.620

[1]The estimated coefficients of consolidation provided represent one possible interpretation of test results. Qualified persons familiar with the material and the site should evaluate the test results independently prior to use in the intended application.

Summary of One-Dimensional Consolidation Testing
Stress, Strain, and Coefficient of Consolidation[1]

Sample Number	Axial Stress (psf)	Height (in)	Void Ratio (e)	Axial Strain (%)	Estimated Coefficient of Consolidation Cv (cm^2/sec)	Average Void Ratio (e)
TP-11-01 (0-1ft) (Consolidation)						
	50	0.8240	0.607	0.00		
	48	0.8239	0.606	0.01		
	100	0.8209	0.601	0.38		
	100	0.8245	0.608	-0.06		
	200	0.8248	0.608	-0.10		
	400	0.8223	0.603	0.21		
	800	0.8192	0.597	0.58	1.1E-03	0.600
	1,600	0.8149	0.589	1.10	5.1E-04	0.593

[1]The estimated coefficients of consolidation provided represent one possible interpretation of test results. Qualified persons familiar with the material and the site should evaluate the test results independently prior to use in the intended application.

Summary of One-Dimensional Consolidation Testing
Stress, Strain, and Coefficient of Consolidation[1]

Sample Number	Axial Stress (psf)	Height (in)	Void Ratio (e)	Axial Strain (%)	Estimated Coefficient of Consolidation Cv (cm^2/sec)	Average Void Ratio (e)
TP-12-01 (0-2ft) (Consolidation)						
	50	0.8230	0.777	0.00		
	52	0.8230	0.777	0.00		
	250	0.8167	0.764	0.77		
	250	0.8346	0.802	-1.41		
	500	0.8325	0.798	-1.15		
	1,000	0.8198	0.770	0.39		
	2,000	0.7829	0.691	4.87	3.9E-03	0.731
	4,000	0.7383	0.594	10.29	1.4E-03	0.643

[1]The estimated coefficients of consolidation provided represent one possible interpretation of test results. Qualified persons familiar with the material and the site should evaluate the test results independently prior to use in the intended application.

Summary of One-Dimensional Consolidation Testing
Stress, Strain, and Coefficient of Consolidation[1]

Sample Number	Axial Stress (psf)	Height (in)	Void Ratio (e)	Axial Strain (%)	Estimated Coefficient of Consolidation Cv (cm^2/sec)	Average Void Ratio (e)
TP-15-01 (0-4) (Consolidation)						
	50	0.8230	0.592	0.00		
	50	0.8103	0.567	1.54		
	250	0.8048	0.556	2.21		
	250	0.8046	0.556	2.24		
	500	0.8031	0.553	2.42		
	1,000	0.8023	0.552	2.52		
	2,000	0.7992	0.546	2.89	1.1E-03	0.549
	4,000	0.7941	0.536	3.51	2.6E-04	0.541

[1]The estimated coefficients of consolidation provided represent one possible interpretation of test results. Qualified persons familiar with the material and the site should evaluate the test results independently prior to use in the intended application.

Summary of One-Dimensional Consolidation Testing
Stress, Strain, and Coefficient of Consolidation[1]

Sample Number	Axial Stress (psf)	Height (in)	Void Ratio (e)	Axial Strain (%)	Estimated Coefficient of Consolidation Cv (cm^2/sec)	Average Void Ratio (e)
TP-15-02 (4-5.5) (Consolidation)	50	0.8240	0.642	0.00		
	48	0.8234	0.641	0.07		
	200	0.8189	0.632	0.62		
	200	0.8210	0.636	0.36		
	400	0.8189	0.632	0.62		
	800	0.8163	0.627	0.93		
	1,600	0.8099	0.614	1.71	7.7E-03	0.621
	3,200	0.7902	0.575	4.10	2.1E-03	0.595

[1]The estimated coefficients of consolidation provided represent one possible interpretation of test results. Qualified persons familiar with the material and the site should evaluate the test results independently prior to use in the intended application.

Summary of One-Dimensional Consolidation Testing
Stress, Strain, and Coefficient of Consolidation[1]

Sample Number	Axial Stress (psf)	Height (in)	Void Ratio (e)	Axial Strain (%)	Estimated Coefficient of Consolidation Cv (cm^2/sec)	Average Void Ratio (e)
TP-16-01 (0-4ft) (Consolidation)						
	50	0.8070	0.733	0.00		
	41	0.8064	0.732	0.07		
	200	0.7955	0.708	1.43		
	200	0.8092	0.738	-0.27		
	400	0.8055	0.730	0.19		
	800	0.7980	0.714	1.12		
	1,600	0.7868	0.689	2.50	7.7E-03	0.702
	3,200	0.7500	0.610	7.06	1.8E-03	0.650

[1]The estimated coefficients of consolidation provided represent one possible interpretation of test results. Qualified persons familiar with the material and the site should evaluate the test results independently prior to use in the intended application.

Summary of One-Dimensional Consolidation Testing
Stress, Strain, and Coefficient of Consolidation[1]

Sample Number	Axial Stress (psf)	Height (in)	Void Ratio (e)	Axial Strain (%)	Estimated Coefficient of Consolidation Cv (cm^2/sec)	Average Void Ratio (e)
TP-33-01 (0-10ft) (Consolidation)						
	50	0.8230	0.699	0.00		
	53	0.8230	0.699	0.00		
	250	0.8154	0.683	0.92		
	250	0.8350	0.723	-1.46		
	500	0.8342	0.722	-1.36		
	1,000	0.8260	0.705	-0.36		
	2,000	0.7836	0.617	4.79	2.7E-03	0.661
	4,000	0.7352	0.517	10.67	1.3E-03	0.567

[1]The estimated coefficients of consolidation provided represent one possible interpretation of test results. Qualified persons familiar with the material and the site should evaluate the test results independently prior to use in the intended application.

Summary of Crumb Dispersion Tests

Sample Number	Dispersive Grade	Dispersive Reaction	Dispersive Classification
TP-01-01 (0-6ft)	II	Slight Reaction	Intermediate
TP-02-01 (0-7ft)	I	No Reaction, no sign of cloudy water	Non-Dispersive
TP-05-01 (0-6.5ft)	I	No Reaction, no sign of cloudy water	Non-Dispersive
TP-06-01 (0-6ft)	I	No Reaction, no sign of cloudy water	Non-Dispersive
TP-07-02 (3-10ft)	I	No Reaction, no sign of cloudy water	Non-Dispersive
TP-08-01 (0.5-1)	I	No Reaction, no sign of cloudy water	Non-Dispersive
TP-09-01 (0-6ft)	I	No Reaction, no sign of cloudy water	Non-Dispersive
TP-13-01 (0-4.5ft)	I	No Reaction, no sign of cloudy water	Non-Dispersive
TP-34-01 (0-10ft)	II	Slight Reaction	Intermediate

Summary of Pinhole Dispersion Testing

Sample Number	Percent Finer Than 5-µm[1]	Plasticity Index	Dispersion Classification
TP-02-01 (0-7)	40.1	17	Slightly to Moderately Dispersive ND3
TP-05-01 (0-6.5)	22.8	9	Slightly to Moderately Dispersive ND3
TP-07-01 (0-3ft)	48.6	29	ND1
TP-07-02 (3-10)	69.6	41	Slightly to Moderately Dispersive ND3
TP-08-01 (0.5-1ft)	34.0	16	Slightly to Moderately Dispersive ND3
TP-09-01 (0-6ft)	49.4	25	Slightly to Moderately Dispersive ND3
TP-11-01 (0-1ft)	22.2	7	ND4
TP-13-02 (4.5-10ft)	36.1	23	Slightly to Moderately Dispersive ND3
TP-16-01 (0-4ft)	40.7	18	Slightly to Moderately Dispersive ND3
TP-33-01 (0-10ft)	45.3	25	ND2

[1] This test method is applicable to soils that have a plasticity index greater than or equal to 4, and more than 12% of the soil fraction is finer than 5-µm.

[2] Unable to apply a dispersive classification for this material following the pinhole dispersion method. The test results do not align with the specified classification criteria.

"NP" Non Plastic

Summary of Percent Dispersion by Double Hydrometer

Sample Number	Percent Finer Than 2-µm, Not Dispersed	Percent Finer Than 2-µm, Dispersed[1]	Percent Dispersion*	Plasticity Index versus Liquid Limit Plot Falls on or Above the "A" Line[1]	Dispersiveness Classification
TP-01-01 (0-6ft)	2.3	33.1	6.8	Yes	Nondispersive
TP-07-01 (0-3ft)	2.1	42.2	5.1	Yes	Nondispersive
TP-11-01 (0-1ft)	3.3	17.8	18.8	Yes	Nondispersive
TP-13-02 (4.5-10ft)	3.0	27.3	10.9	Yes	Nondispersive
TP-16-01 (0-4ft)	2.6	34.4	7.6	Yes	Nondispersive
TP-34-01 (0-10ft)	3.5	34.4	10.3	Yes	Nondispersive

[1] This test method is applicable to soils where the position of the plasticity index versus liquid limit plot falls on or above the "A" line, and more than 12% of the soil fraction is finer than 2-µm when dispersant is used.

* In cases where the difference between the percent finer than 2-µm with and without dispersant is less than the lower limit of the expected range for duplicate samples (<1.48% difference), the percent dispersion is reported as 100.

Initial Properties

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-01-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	199.61	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.51	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	175.56	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	9.4	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-02-01 (0-7ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	222.95	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.46	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	196.86	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	9.5	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-02-02 (7-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	184.95	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.45	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	154.76	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	14.7	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-05-01 (0-6.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	169.76	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.46	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	150.70	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	7.7	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-06-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	164.20	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.43	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	139.13	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	12.7	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-07-01 (0-3ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	222.78	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.46	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	193.20	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	11.4	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-7-02 (3-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	175.83	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.44	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	140.89	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	19.5	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-08-01 (0.5-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	152.92	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.52	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	124.48	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	16.8	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-09-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	172.03	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.51	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	148.34	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	10.9	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-11-01 (0-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	166.15	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.45	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	143.38	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	10.7	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-12-01 (0-2ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	179.55	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.42	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	156.30	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	10.1	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-13-01 (0-4.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	308.44	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.45	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	262.14	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	14.8	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-13-02 (4.5-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	238.86	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.47	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	205.44	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	12.6	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-15-01 (0-4ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	196.07	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.51	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	178.91	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	5.4	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-15-02 (4-5.25ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	197.39	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.49	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	172.24	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	10.3	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-16-01 (0-4ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	213.31	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.45	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	183.94	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	11.9	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-29-01 (0-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	179.26	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.44	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	155.50	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	10.5	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-29-02 (1-2.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	213.73	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.47	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	189.84	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	8.6	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-33-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	253.29	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.45	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	220.14	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	11.7	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-34-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	226.57	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.43	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	187.62	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	16.8	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-35-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

	As Received	Remolded
Test Date:	3-Dec-25	---
Field weight of sample* (g)*:*	190.84	
Tare weight, ring (g)*:*	0.00	
Tare weight, pan/plate (g)*:*	7.52	
Tare weight, other (g)*:*	0.00	
Dry weight of sample (g)*:*	161.58	
Sample volume (cm^3)*:*	NA	
Assumed particle density (g/cm^3)*:*	2.65	
Gravimetric Moisture Content (% g/g)*:*	13.5	
Volumetric Moisture Content (% vol)*:*	NA	
Dry bulk density (g/cm^3)*:*	NA	
Wet bulk density (g/cm^3)*:*	NA	
Calculated Porosity (% vol)*:*	NA	
Percent Saturation:	NA	

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Particle Size Analysis

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-01-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 19-Dec-25

Initial Dry Weight of Sample (g): 984.72
Weight Passing #10 (g): 982.70
Weight Retained #10 (g): 2.02
Weight of -10 Sub-Sample (g): 78.25
Calculated Weight of Sieve Sample (g): 78.41

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	984.72	100.0
	2"	50	0.00	0.00	984.72	100.0
	1.5"	38.1	0.00	0.00	984.72	100.0
	1"	25	0.00	0.00	984.72	100.0
	3/4"	19.0	0.00	0.00	984.72	100.0
	3/8"	9.5	0.00	0.00	984.72	100.0
	4	4.75	0.27	0.27	984.45	100.0
	10	2.00	1.75	2.02	982.70	99.8
-10			(Based on calculated sieve wt.)			
	20	0.85	0.03	0.19	78.22	99.8
	40	0.425	0.20	0.39	78.02	99.5
	60	0.250	0.92	1.31	77.10	98.3
	100	0.150	5.58	6.89	71.52	91.2
	140	0.106	7.51	14.40	64.01	81.6
	200	0.075	5.92	20.32	58.09	74.1
	dry pan		1.85	22.17	56.24	
	wet pan			56.24	0.00	

d_{10} (mm): 9.2E-05
d_{16} (mm): 0.00020
d_{30} (mm): 0.0013
d_{50} (mm): 0.013
d_{60} (mm): 0.033
d_{84} (mm): 0.12

Median Particle Diameter --d_{50} (mm): 0.013
Uniformity Coefficient, Cu --$[d_{60}/d_{10}]$ (mm): 359
Coefficient of Curvature, Cc --$[(d_{30})^2/(d_{10}*d_{60})]$ (mm): 0.56
Mean Particle Diameter --$[(d_{16}+d_{50}+d_{84})/3]$ (mm): 0.044

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Lean clay with sand (CL)s
USDA Soil Classification: Clay Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-01-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 17-Dec-25
Start Time: 8:12

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

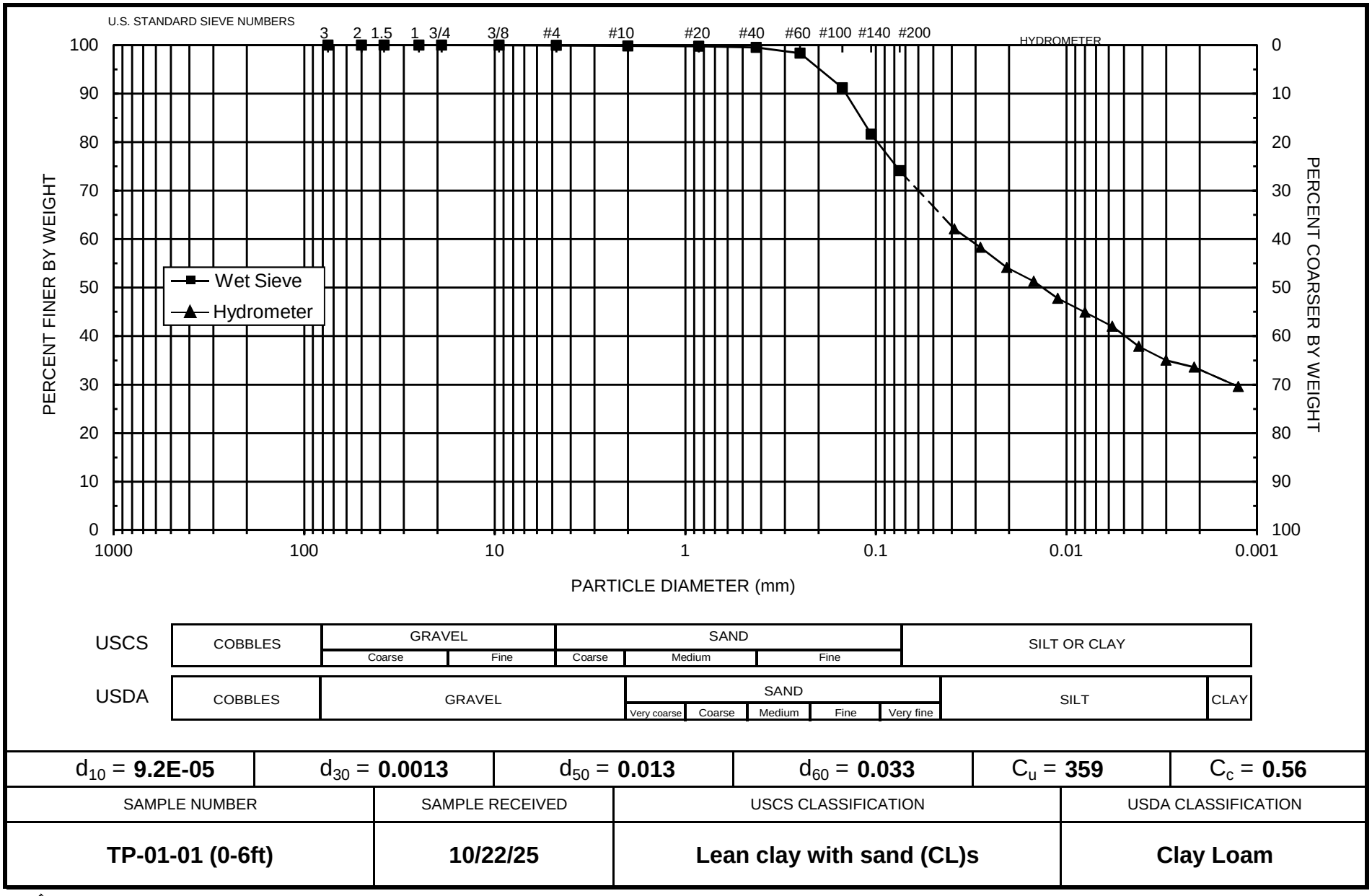
Initial Wt. (g)*:* 78.25
Total Sample Wt. (g)*:* 984.72
Wt. Passing #10 (g)*:* 982.70

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
17-Dec-25	1	18.70	54.50	5.79	48.7	8	0.0388	62	62.1
	2	18.70	51.50	5.79	45.7	9	0.0283	58	58.3
	4	18.70	48.25	5.79	42.5	9	0.0206	54	54.2
	8	18.70	46.00	5.79	40.2	10	0.0149	51	51.3
	15	18.70	43.25	5.79	37.5	10	0.0111	48	47.8
	30	18.70	41.00	5.79	35.2	10	0.0080	45	44.9
	60	18.70	38.75	5.79	33.0	11	0.0058	42	42.0
	120	18.70	35.50	5.79	29.7	11	0.0042	38	37.9
	240	18.70	33.25	5.79	27.5	12	0.0030	35	35.0
	481	19.10	32.00	5.66	26.3	12	0.0021	34	33.6
18-Dec-25	1454	18.70	29.00	5.79	23.2	12	0.0013	30	29.6

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



d_{10} = **9.2E-05**	d_{30} = **0.0013**	d_{50} = **0.013**	d_{60} = **0.033**	C_u = **359**	C_c = **0.56**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-01-01 (0-6ft)	**10/22/25**	**Lean clay with sand (CL)s**	**Clay Loam**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-02-01 (0-7ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 15-Dec-25

Initial Dry Weight of Sample (g): 1115.63
Weight Passing #10 (g): 1102.73
Weight Retained #10 (g): 12.90
Weight of -10 Sub-Sample (g): 81.89
Calculated Weight of Sieve Sample (g): 82.85

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	1115.63	100.0
	2"	50	0.00	0.00	1115.63	100.0
	1.5"	38.1	0.00	0.00	1115.63	100.0
	1"	25	0.00	0.00	1115.63	100.0
	3/4"	19.0	0.00	0.00	1115.63	100.0
	3/8"	9.5	0.00	0.00	1115.63	100.0
	4	4.75	2.18	2.18	1113.45	99.8
	10	2.00	10.72	12.90	1102.73	98.8
-10			(Based on calculated sieve wt.)			
	20	0.85	0.42	1.38	81.47	98.3
	40	0.425	0.67	2.05	80.80	97.5
	60	0.250	0.78	2.83	80.02	96.6
	100	0.150	3.34	6.17	76.68	92.6
	140	0.106	5.55	11.72	71.13	85.9
	200	0.075	4.86	16.58	66.27	80.0
	dry pan		1.86	18.44	64.41	
	wet pan			64.41	0.00	

d_{10} (mm): 4.8E-05
d_{16} (mm): 0.00011
d_{30} (mm): 0.00070
d_{50} (mm): 0.0065
d_{60} (mm): 0.017
d_{84} (mm): 0.095

Median Particle Diameter --d_{50} (mm): 0.0065
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 354
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 0.60
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.034

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Lean clay with sand (CL)s
USDA Soil Classification: Clay Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-02-01 (0-7ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 11-Dec-25
Start Time: 8:30

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

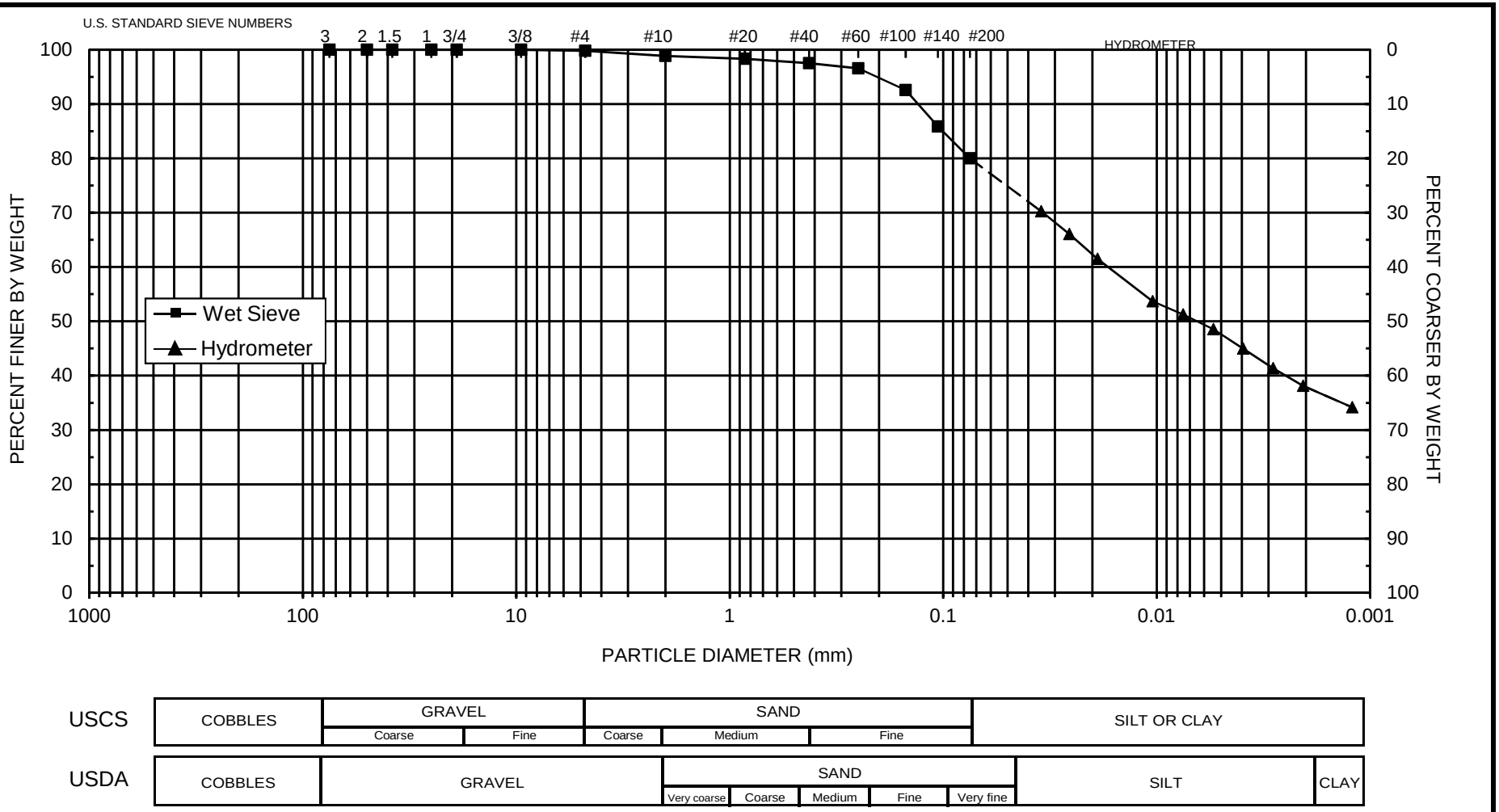
Initial Wt. (g)*:* 81.89
Total Sample Wt. (g)*:* 1115.63
Wt. Passing #10 (g)*:* 1102.73

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
11-Dec-25	1	18.70	64.00	5.79	58.2	7	0.0348	71	70.3
	2	18.70	60.50	5.79	54.7	7	0.0257	67	66.0
	4	18.70	56.75	5.79	51.0	8	0.0189	62	61.5
	15	18.70	50.25	5.79	44.5	9	0.0104	54	53.7
	30	18.70	48.25	5.79	42.5	9	0.0075	52	51.3
	60	18.70	46.00	5.79	40.2	10	0.0054	49	48.5
	120	18.80	43.00	5.76	37.2	10	0.0039	45	45.0
	240	18.80	40.00	5.76	34.2	11	0.0029	42	41.3
	480	19.90	37.00	5.40	31.6	11	0.0021	39	38.1
12-Dec-25	1450	19.00	34.00	5.69	28.3	12	0.0012	35	34.2

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



USCS	COBBLES	GRAVEL: Coarse, Fine	SAND: Coarse, Medium, Fine	SILT OR CLAY		
USDA	COBBLES	GRAVEL	SAND: Very coarse, Coarse, Medium, Fine, Very fine	SILT	CLAY	

d_{10} = **4.8E-05**	d_{30} = **0.00070**	d_{50} = **0.0065**	d_{60} = **0.017**	C_u = **354**	C_c = **0.60**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-02-01 (0-7ft)	**10/22/25**	**Lean clay with sand (CL)s**	**Clay Loam**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-02-02 (7-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 15-Dec-25

Initial Dry Weight of Sample (g): 956.58
Weight Passing #10 (g): 894.88
Weight Retained #10 (g): 61.70
Weight of -10 Sub-Sample (g): 81.10
Calculated Weight of Sieve Sample (g): 86.69

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	956.58	100.0
	2"	50	0.00	0.00	956.58	100.0
	1.5"	38.1	0.00	0.00	956.58	100.0
	1"	25	0.00	0.00	956.58	100.0
	3/4"	19.0	0.00	0.00	956.58	100.0
	3/8"	9.5	8.05	8.05	948.53	99.2
	4	4.75	16.43	24.48	932.10	97.4
	10	2.00	37.22	61.70	894.88	93.5
-10			(Based on calculated sieve wt.)			
	20	0.85	3.40	8.99	77.70	89.6
	40	0.425	6.12	15.11	71.58	82.6
	60	0.250	5.30	20.41	66.28	76.5
	100	0.150	5.16	25.57	61.12	70.5
	140	0.106	3.58	29.15	57.54	66.4
	200	0.075	3.98	33.13	53.56	61.8
	dry pan		1.83	34.96	51.73	
	wet pan			51.73	0.00	

d_{10} (mm): 0.0018
d_{16} (mm): 0.0024
d_{30} (mm): 0.0055
d_{50} (mm): 0.027
d_{60} (mm): 0.063
d_{84} (mm): 0.49

Median Particle Diameter --d_{50} (mm): 0.027
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 35
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 0.27
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.17

Classification of fines: CH

USCS Soil Classification: Sandy fat clay s(CH)
USDA Soil Classification: Loam

Laboratory analysis by: M. Sharma
Data entered by: J. Tafoya
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-02-02 (7-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 14-Jan-26
Start Time: 8:30

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

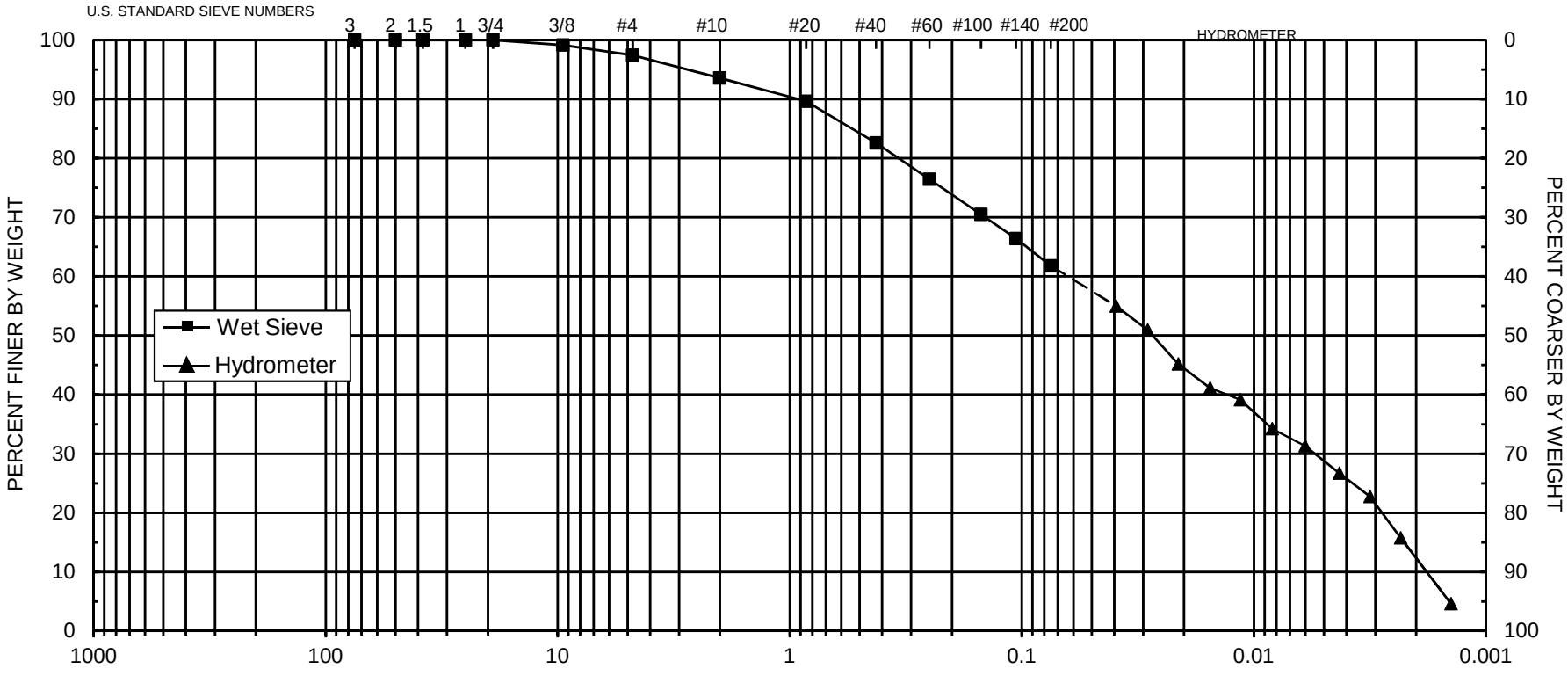
Initial Wt. (g)*:* 81.10
Total Sample Wt. (g)*:* 956.58
Wt. Passing #10 (g)*:* 894.88

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
14-Jan-26	1	18.50	53.50	5.85	47.7	8	0.0392	59	55.0
	2	18.50	50.00	5.85	44.2	9	0.0287	54	50.9
	4	18.50	45.00	5.85	39.2	10	0.0212	48	45.2
	8	18.50	41.50	5.85	35.7	10	0.0154	44	41.1
	15	18.50	39.75	5.85	33.9	11	0.0114	42	39.1
	30	18.50	35.50	5.85	29.7	11	0.0084	37	34.2
	60	18.50	33.00	5.85	27.2	12	0.0060	33	31.3
	125	18.50	29.00	5.85	23.2	12	0.0043	29	26.7
	240	18.70	25.50	5.79	19.7	13	0.0032	24	22.7
	480	20.10	19.00	5.34	13.7	14	0.0023	17	15.8
15-Jan-26	1441	18.00	10.00	6.00	4.0	16	0.0014	5	4.6

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



USCS	COBBLES	GRAVEL: Coarse, Fine	SAND: Coarse	SAND: Medium	SAND: Fine	SILT OR CLAY
USDA	COBBLES	GRAVEL	SAND: Very coarse, Coarse, Medium, Fine, Very fine			SILT / CLAY

d_{10} = **0.0018**	d_{30} = **0.0055**	d_{50} = **0.027**	d_{60} = **0.063**	C_u = **35**	C_c = **0.27**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-02-02 (7-10ft)	**10/22/25**	**Sandy fat clay s(CH)**	**Loam**

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-05-01 (0-6.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 15-Dec-25

Initial Dry Weight of Sample (g): 924.85
Weight Passing #10 (g): 902.91
Weight Retained #10 (g): 21.94
Weight of -10 Sub-Sample (g): 85.22
Calculated Weight of Sieve Sample (g): 87.29

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	924.85	100.0
	2"	50	0.00	0.00	924.85	100.0
	1.5"	38.1	0.00	0.00	924.85	100.0
	1"	25	0.00	0.00	924.85	100.0
	3/4"	19.0	0.00	0.00	924.85	100.0
	3/8"	9.5	11.45	11.45	913.40	98.8
	4	4.75	3.80	15.25	909.60	98.4
	10	2.00	6.69	21.94	902.91	97.6
-10			(Based on calculated sieve wt.)			
	20	0.85	0.18	2.25	85.04	97.4
	40	0.425	0.61	2.86	84.43	96.7
	60	0.250	2.35	5.21	82.08	94.0
	100	0.150	12.67	17.88	69.41	79.5
	140	0.106	14.40	32.28	55.01	63.0
	200	0.075	8.67	40.95	46.34	53.1
	dry pan		3.47	44.42	42.87	
	wet pan			42.87	0.00	

d_{10} (mm): 0.0013
d_{16} (mm): 0.0020
d_{30} (mm): 0.012
d_{50} (mm): 0.062
d_{60} (mm): 0.095
d_{84} (mm): 0.18

Median Particle Diameter --d_{50} (mm): 0.062
Uniformity Coefficient, Cu --$[d_{60}/d_{10}]$ (mm): 73
Coefficient of Curvature, Cc --$[(d_{30})^2/(d_{10}*d_{60})]$ (mm): 1.2
Mean Particle Diameter --$[(d_{16}+d_{50}+d_{84})/3]$ (mm): 0.081

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Sandy lean clay s(CL)
USDA Soil Classification: Sandy Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-05-01 (0-6.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 10-Dec-25
Start Time: 8:30

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

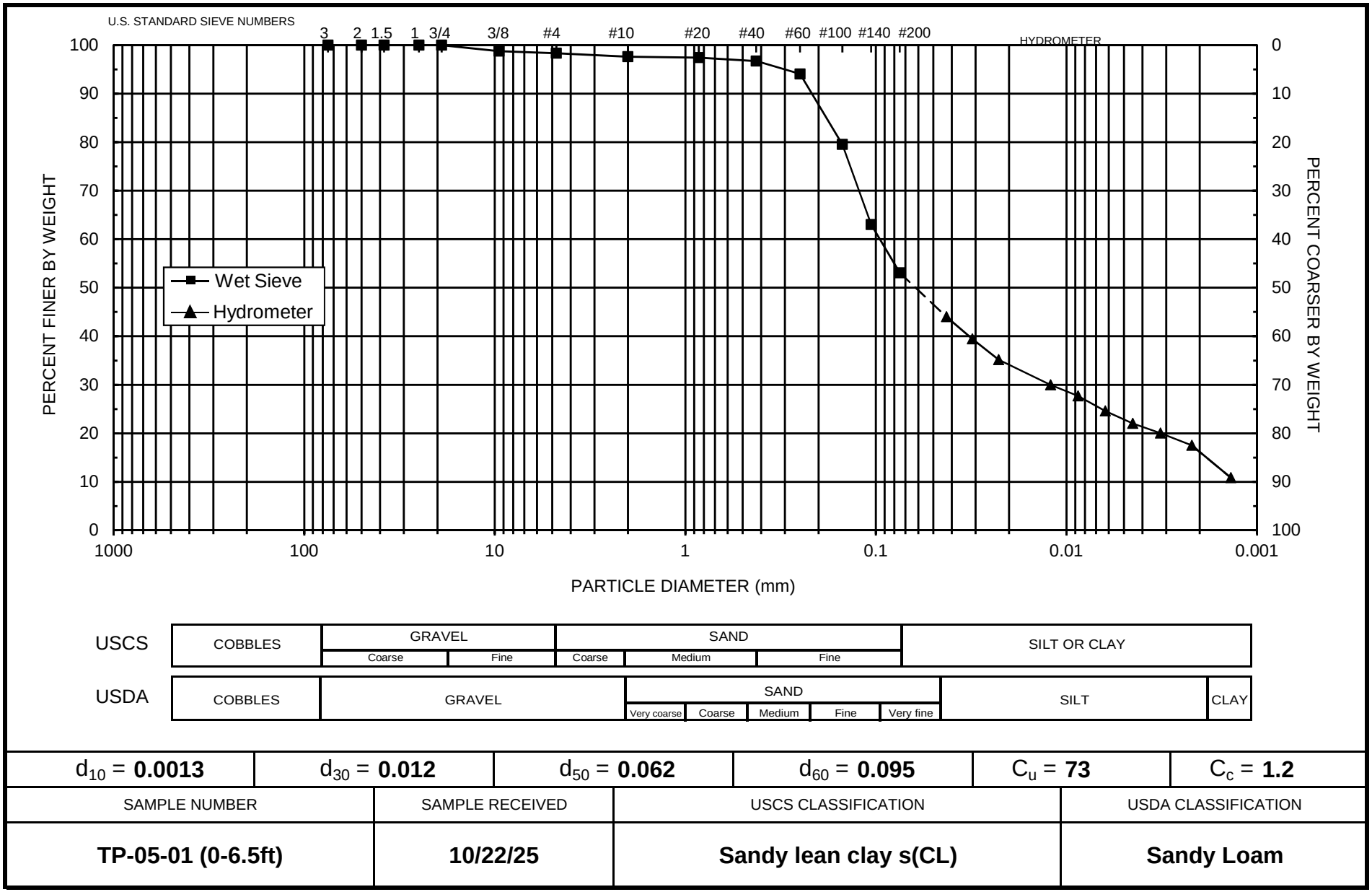
Initial Wt. (g)*:* 85.22
Total Sample Wt. (g)*:* 924.85
Wt. Passing #10 (g)*:* 902.91

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
10-Dec-25	1	18.60	44.25	5.82	38.4	10	0.0427	45	44.0
	2	18.60	40.25	5.82	34.4	10	0.0312	40	39.4
	4	18.60	36.50	5.82	30.7	11	0.0227	36	35.1
	15	18.60	32.00	5.82	26.2	12	0.0121	31	30.0
	30	18.60	30.00	5.82	24.2	12	0.0087	28	27.7
	60	18.70	27.25	5.79	21.5	13	0.0063	25	24.6
	120	18.80	25.00	5.76	19.2	13	0.0045	23	22.0
	240	18.80	23.25	5.76	17.5	13	0.0032	21	20.0
	525	18.90	21.00	5.72	15.3	14	0.0022	18	17.5
11-Dec-25	1442	18.70	15.25	5.79	9.5	15	0.0014	11	10.8

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



d_{10} = **0.0013**	d_{30} = **0.012**	d_{50} = **0.062**	d_{60} = **0.095**	C_u = **73**	C_c = **1.2**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-05-01 (0-6.5ft)	**10/22/25**	**Sandy lean clay s(CL)**	**Sandy Loam**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-06-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 15-Dec-25

Initial Dry Weight of Sample (g): 781.63
Weight Passing #10 (g): 780.78
Weight Retained #10 (g): 0.85
Weight of -10 Sub-Sample (g): 81.40
Calculated Weight of Sieve Sample (g): 81.49

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	781.63	100.0
	2"	50	0.00	0.00	781.63	100.0
	1.5"	38.1	0.00	0.00	781.63	100.0
	1"	25	0.00	0.00	781.63	100.0
	3/4"	19.0	0.00	0.00	781.63	100.0
	3/8"	9.5	0.00	0.00	781.63	100.0
	4	4.75	0.00	0.00	781.63	100.0
	10	2.00	0.85	0.85	780.78	99.9
-10			(Based on calculated sieve wt.)			
	20	0.85	0.06	0.15	81.34	99.8
	40	0.425	0.18	0.33	81.16	99.6
	60	0.250	0.63	0.96	80.53	98.8
	100	0.150	3.52	4.48	77.01	94.5
	140	0.106	5.20	9.68	71.81	88.1
	200	0.075	3.84	13.52	67.97	83.4
	dry pan		1.22	14.74	66.75	
	wet pan			66.75	0.00	

d_{10} (mm): 0.0011
d_{16} (mm): 0.0012
d_{30} (mm): 0.0018
d_{50} (mm): 0.0052
d_{60} (mm): 0.011
d_{84} (mm): 0.078

Median Particle Diameter --d_{50} (mm): 0.0052
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 10.0
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 0.27
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.028

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Lean clay with sand (CL)s
USDA Soil Classification: Clay Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-06-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 10-Dec-25
Start Time: 8:36

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

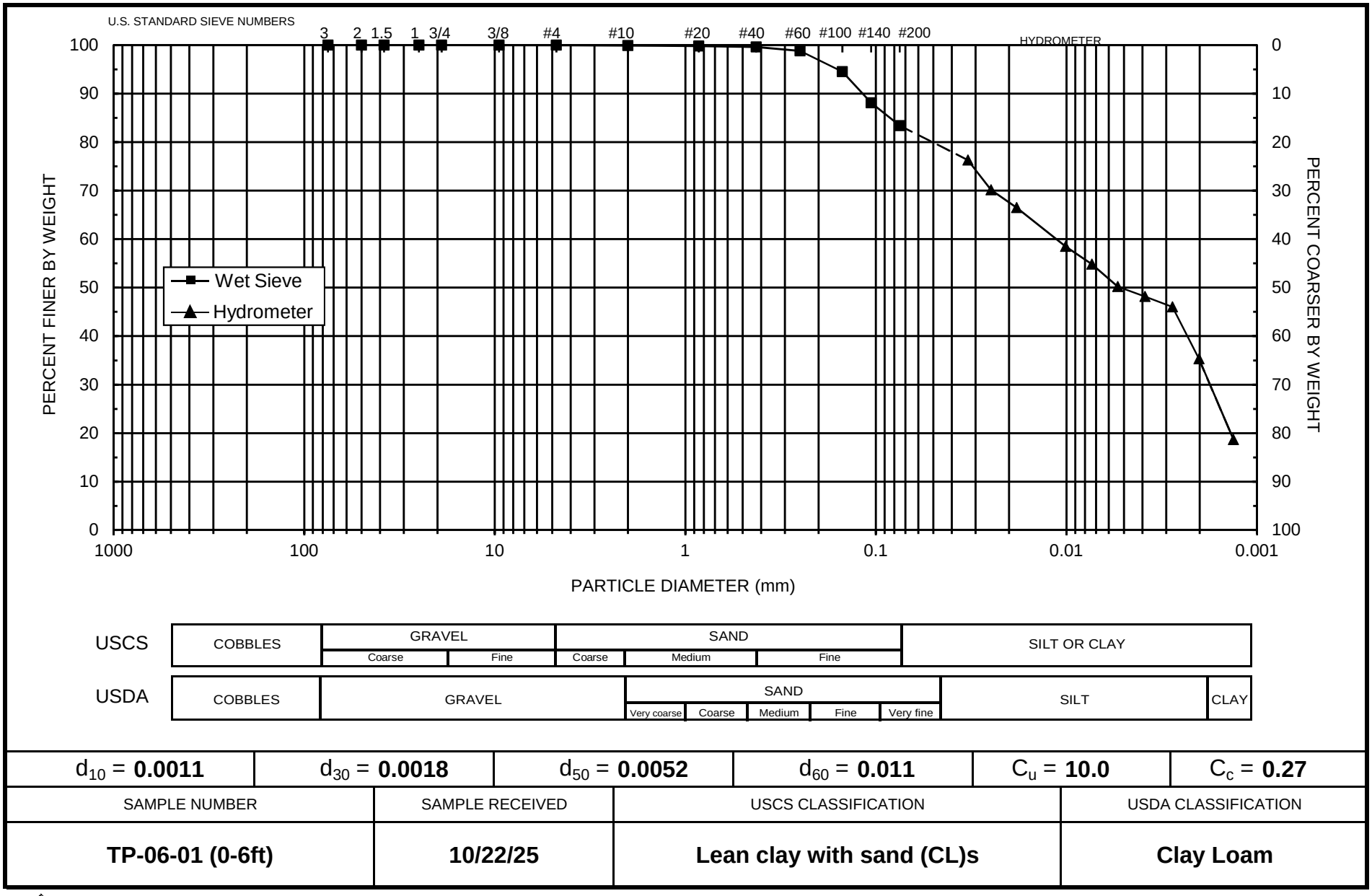
Initial Wt. (g)*:* 81.40
Total Sample Wt. (g)*:* 781.63
Wt. Passing #10 (g)*:* 780.78

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
10-Dec-25	1	18.60	68.00	5.82	62.2	6	0.0329	76	76.3
	2	18.60	63.00	5.82	57.2	7	0.0249	70	70.2
	4	18.60	60.00	5.82	54.2	7	0.0183	67	66.5
	15	18.60	53.50	5.82	47.7	8	0.0101	59	58.5
	30	18.60	50.50	5.82	44.7	9	0.0074	55	54.8
	60	18.60	46.75	5.82	40.9	9	0.0054	50	50.2
	120	18.80	45.00	5.76	39.2	10	0.0039	48	48.2
	240	18.80	43.25	5.76	37.5	10	0.0028	46	46.0
	521	18.90	34.50	5.72	28.8	11	0.0020	35	35.3
11-Dec-25	1437	18.70	21.00	5.79	15.2	14	0.0013	19	18.7

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



d_{10} = **0.0011**	d_{30} = **0.0018**	d_{50} = **0.0052**	d_{60} = **0.011**	C_u = **10.0**	C_c = **0.27**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-06-01 (0-6ft)	**10/22/25**	**Lean clay with sand (CL)s**	**Clay Loam**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Daniel B. Stephens & Associates, Inc.

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-07-01 (0-3ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 19-Dec-25

Initial Dry Weight of Sample (g): 827.80
Weight Passing #10 (g): 812.17
Weight Retained #10 (g): 15.63
Weight of -10 Sub-Sample (g): 82.05
Calculated Weight of Sieve Sample (g): 83.63

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	827.80	100.0
	2"	50	0.00	0.00	827.80	100.0
	1.5"	38.1	0.00	0.00	827.80	100.0
	1"	25	0.00	0.00	827.80	100.0
	3/4"	19.0	0.00	0.00	827.80	100.0
	3/8"	9.5	0.00	0.00	827.80	100.0
	4	4.75	7.84	7.84	819.96	99.1
	10	2.00	7.79	15.63	812.17	98.1
-10			(Based on calculated sieve wt.)			
	20	0.85	0.15	1.73	81.90	97.9
	40	0.425	0.26	1.99	81.64	97.6
	60	0.250	0.96	2.95	80.68	96.5
	100	0.150	4.01	6.96	76.67	91.7
	140	0.106	5.28	12.24	71.39	85.4
	200	0.075	6.82	19.06	64.57	77.2
	dry pan		3.41	22.47	61.16	
	wet pan			61.16	0.00	

d_{10} (mm): 2.1E-10
d_{16} (mm): 4.1E-09
d_{30} (mm): 4.3E-06
d_{50} (mm): 0.0060
d_{60} (mm): 0.026
d_{84} (mm): 0.10

Median Particle Diameter --d_{50} (mm): 0.0060
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 1.2E+08
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 3.4
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.035

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Lean clay with sand (CL)s
USDA Soil Classification: Clay

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-07-01 (0-3ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 14-Jan-26
Start Time: 8:48

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

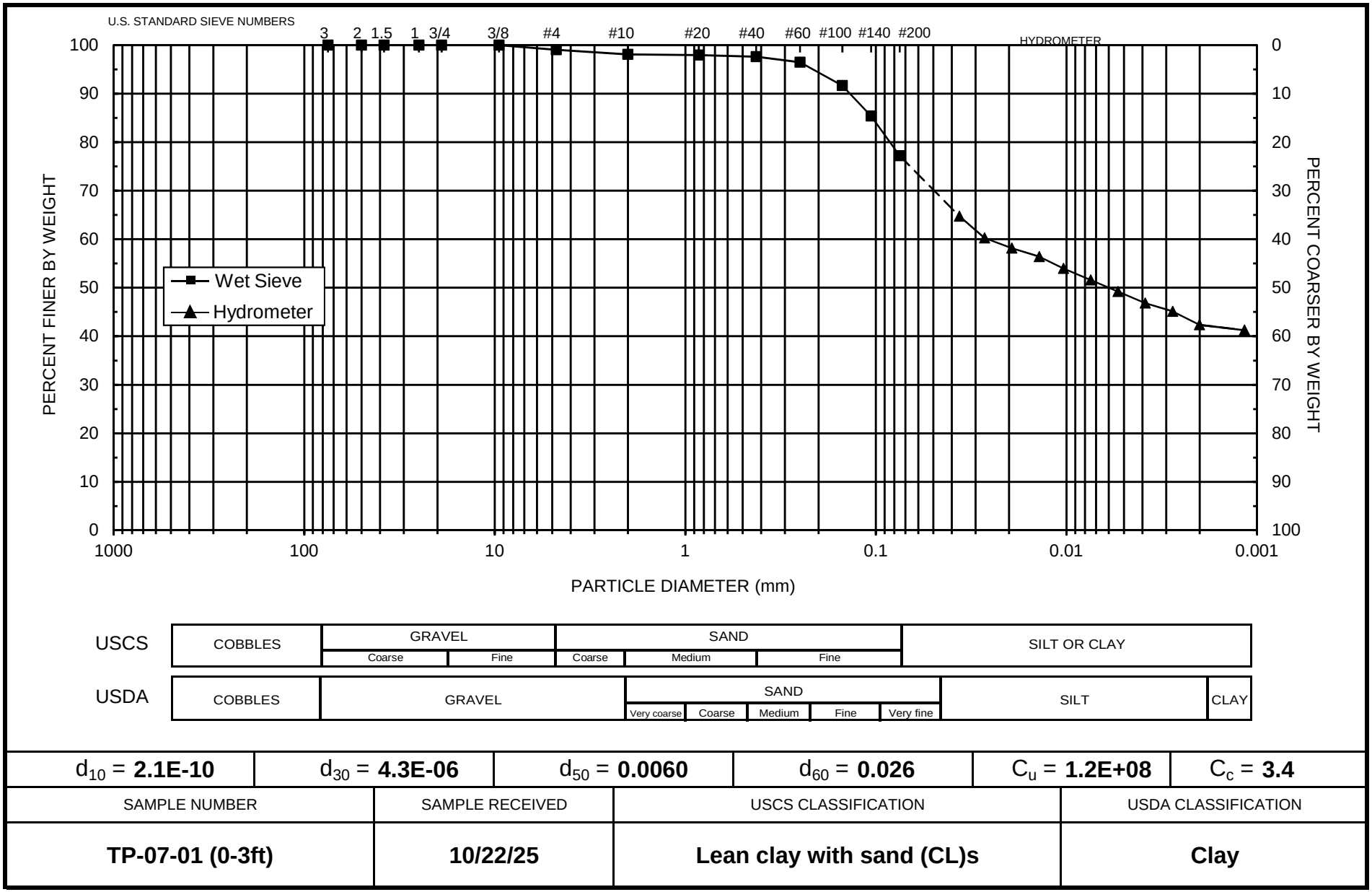
Initial Wt. (g)*:* 82.05
Total Sample Wt. (g)*:* 827.80
Wt. Passing #10 (g)*:* 812.17

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
14-Jan-26	1	18.50	60.00	5.85	54.2	7	0.0365	66	64.7
	2	18.50	56.25	5.85	50.4	8	0.0269	61	60.3
	4	18.50	54.50	5.85	48.7	8	0.0194	59	58.2
	8	18.50	53.00	5.85	47.2	8	0.0139	57	56.4
	15	18.50	51.00	5.85	45.2	9	0.0104	55	54.0
	30	18.50	49.00	5.85	43.2	9	0.0075	53	51.6
	60	18.50	47.00	5.85	41.2	9	0.0054	50	49.2
	120	18.50	45.00	5.85	39.2	10	0.0039	48	46.8
	240	18.70	43.50	5.79	37.7	10	0.0028	46	45.1
	480	20.10	40.75	5.34	35.4	10	0.0020	43	42.3
15-Jan-26	1426	18.00	40.50	6.00	34.5	10	0.0012	42	41.3

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



d_{10} = **2.1E-10**	d_{30} = **4.3E-06**	d_{50} = **0.0060**	d_{60} = **0.026**	C_u = **1.2E+08**	C_c = **3.4**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-07-01 (0-3ft)	**10/22/25**	**Lean clay with sand (CL)s**	**Clay**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Daniel B. Stephens & Associates, Inc.

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-7-02 (3-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 18-Dec-25

Initial Dry Weight of Sample (g): 1471.14
Weight Passing #10 (g): 1461.82
Weight Retained #10 (g): 9.32
Weight of -10 Sub-Sample (g): 46.90
Calculated Weight of Sieve Sample (g): 47.20

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	1471.14	100.0
	2"	50	0.00	0.00	1471.14	100.0
	1.5"	38.1	0.00	0.00	1471.14	100.0
	1"	25	0.00	0.00	1471.14	100.0
	3/4"	19.0	0.00	0.00	1471.14	100.0
	3/8"	9.5	0.00	0.00	1471.14	100.0
	4	4.75	1.82	1.82	1469.32	99.9
	10	2.00	7.50	9.32	1461.82	99.4
-10			(Based on calculated sieve wt.)			
	20	0.85	0.44	0.74	46.46	98.4
	40	0.425	0.67	1.41	45.79	97.0
	60	0.250	0.64	2.05	45.15	95.7
	100	0.150	0.65	2.70	44.50	94.3
	140	0.106	0.48	3.18	44.02	93.3
	200	0.075	0.54	3.72	43.48	92.1
	dry pan		0.09	3.81	43.39	
	wet pan			43.39	0.00	

d_{10} (mm): 0.00028
d_{16} (mm): 0.00037
d_{30} (mm): 0.00070
d_{50} (mm): 0.0018
d_{60} (mm): 0.0028
d_{84} (mm): 0.023

Median Particle Diameter --d_{50} (mm): 0.0018
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 10.0
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 0.63
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.0084

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CH

USCS Soil Classification: Fat clay (CH)
USDA Soil Classification: Clay

Laboratory analysis by: M. Sharma/J. Tafoya
Data entered by: J. Tafoya
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-7-02 (3-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 28-Dec-25
Start Time: 8:30

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

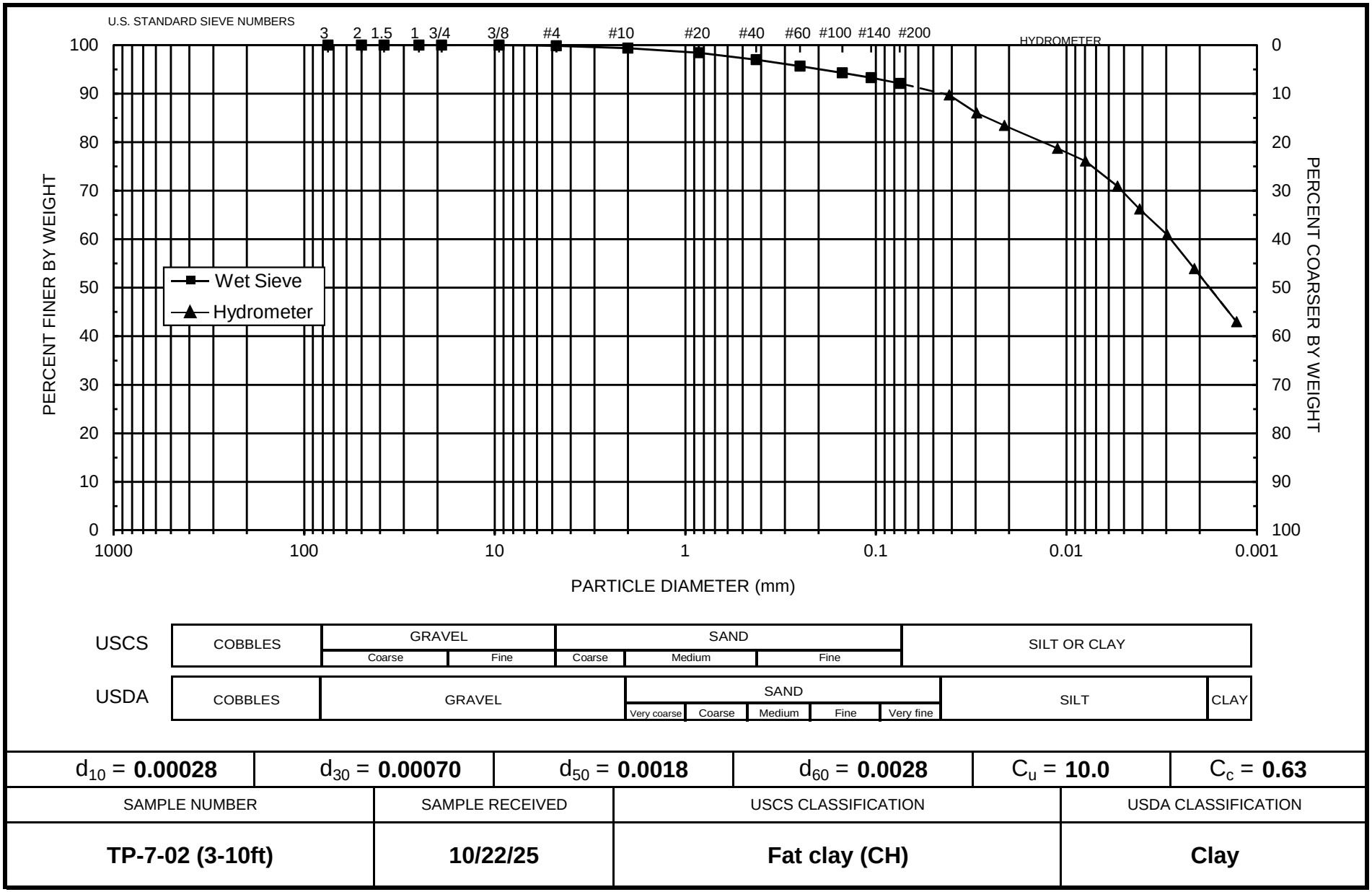
Initial Wt. (g)*:* 46.90
Total Sample Wt. (g)*:* 1471.14
Wt. Passing #10 (g)*:* 1461.82

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
29-Dec-25	1	18.30	48.25	5.91	42.3	9	0.0412	90	89.7
	2	18.30	46.50	5.91	40.6	9	0.0296	87	86.0
	4	18.30	45.30	5.91	39.4	10	0.0212	84	83.5
	15	18.50	43.00	5.85	37.2	10	0.0111	79	78.7
	30	18.60	41.75	5.82	35.9	10	0.0080	77	76.1
	68	18.75	39.25	5.77	33.5	11	0.0054	71	70.9
	120	18.80	37.00	5.76	31.2	11	0.0041	67	66.2
	242	18.80	34.50	5.76	28.7	11	0.0030	61	60.9
	489	18.20	31.40	5.94	25.5	12	0.0021	54	53.9
30-Dec-25	1454	18.90	26.00	5.72	20.3	13	0.0013	43	43.0

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: A. Neidhart
Data entered by: J. Tafoya
Checked by: T. Morgan



d_{10} = **0.00028**	d_{30} = **0.00070**	d_{50} = **0.0018**	d_{60} = **0.0028**	C_u = **10.0**	C_c = **0.63**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-7-02 (3-10ft)	**10/22/25**	**Fat clay (CH)**	**Clay**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-08-01 (0.5-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 15-Dec-25

Initial Dry Weight of Sample (g): 1207.18
Weight Passing #10 (g): 1207.09
Weight Retained #10 (g): 0.09
Weight of -10 Sub-Sample (g): 74.23
Calculated Weight of Sieve Sample (g): 74.24

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	1207.18	100.0
	2"	50	0.00	0.00	1207.18	100.0
	1.5"	38.1	0.00	0.00	1207.18	100.0
	1"	25	0.00	0.00	1207.18	100.0
	3/4"	19.0	0.00	0.00	1207.18	100.0
	3/8"	9.5	0.00	0.00	1207.18	100.0
	4	4.75	0.00	0.00	1207.18	100.0
	10	2.00	0.09	0.09	1207.09	100.0
-10			(Based on calculated sieve wt.)			
	20	0.85	0.00	0.01	74.23	100.0
	40	0.425	0.38	0.39	73.85	99.5
	60	0.250	3.26	3.65	70.59	95.1
	100	0.150	9.99	13.64	60.60	81.6
	140	0.106	8.69	22.33	51.91	69.9
	200	0.075	7.55	29.88	44.36	59.8
	dry pan		2.69	32.57	41.67	
	wet pan			41.67	0.00	

d_{10} (mm): 0.00010
d_{16} (mm): 0.00029
d_{30} (mm): 0.0031
d_{50} (mm): 0.044
d_{60} (mm): 0.076
d_{84} (mm): 0.16

Median Particle Diameter --d_{50} (mm): 0.044
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 760
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 1.3
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.068

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Sandy lean clay s(CL)
USDA Soil Classification: Sandy Clay Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-08-01 (0.5-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 10-Dec-25
Start Time: 8:36

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

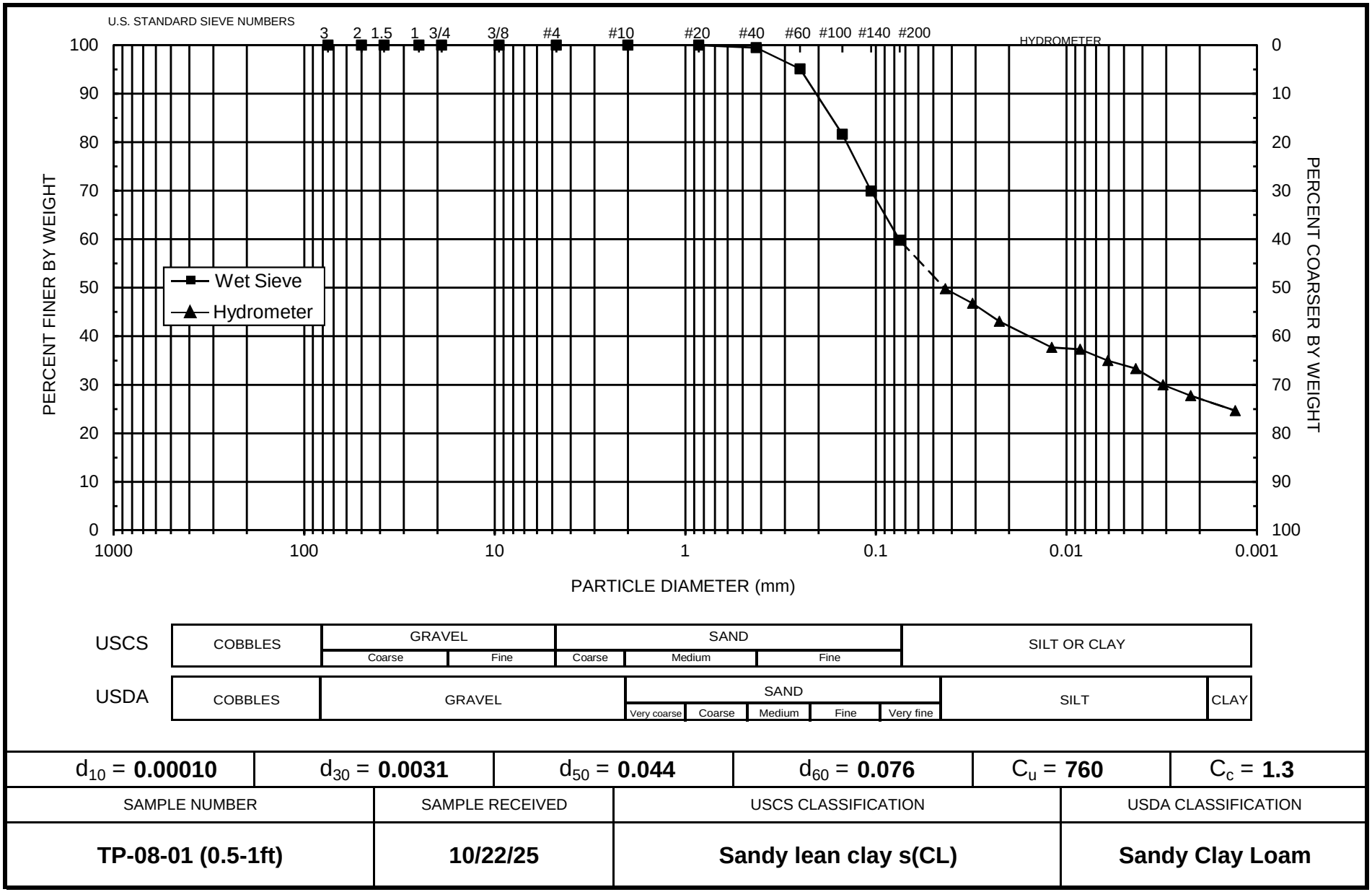
Initial Wt. (g)*:* 74.23
Total Sample Wt. (g)*:* 1207.18
Wt. Passing #10 (g)*:* 1207.09

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
11-Dec-25	1	18.70	42.75	5.79	37.0	10	0.0432	50	49.8
	2	18.70	40.50	5.79	34.7	10	0.0311	47	46.8
	4	18.70	37.75	5.79	32.0	11	0.0225	43	43.1
	15	18.70	33.75	5.79	28.0	12	0.0120	38	37.7
	30	18.70	33.50	5.79	27.7	12	0.0085	37	37.3
	60	18.70	31.75	5.79	26.0	12	0.0061	35	35.0
	120	18.80	30.50	5.76	24.7	12	0.0043	33	33.3
	240	18.80	28.00	5.76	22.2	13	0.0031	30	30.0
	480	19.90	26.00	5.40	20.6	13	0.0022	28	27.7
12-Dec-25	1446	19.00	24.00	5.69	18.3	13	0.0013	25	24.7

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



d_{10} = **0.00010**	d_{30} = **0.0031**	d_{50} = **0.044**	d_{60} = **0.076**	C_u = **760**	C_c = **1.3**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-08-01 (0.5-1ft)	**10/22/25**	**Sandy lean clay s(CL)**	**Sandy Clay Loam**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-09-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 15-Dec-25

Initial Dry Weight of Sample (g): 727.87
Weight Passing #10 (g): 727.01
Weight Retained #10 (g): 0.86
Weight of -10 Sub-Sample (g): 80.14
Calculated Weight of Sieve Sample (g): 80.23

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	727.87	100.0
	2"	50	0.00	0.00	727.87	100.0
	1.5"	38.1	0.00	0.00	727.87	100.0
	1"	25	0.00	0.00	727.87	100.0
	3/4"	19.0	0.00	0.00	727.87	100.0
	3/8"	9.5	0.00	0.00	727.87	100.0
	4	4.75	0.00	0.00	727.87	100.0
	10	2.00	0.86	0.86	727.01	99.9
-10			(Based on calculated sieve wt.)			
	20	0.85	0.05	0.14	80.09	99.8
	40	0.425	0.16	0.30	79.93	99.6
	60	0.250	0.45	0.75	79.48	99.1
	100	0.150	2.34	3.09	77.14	96.1
	140	0.106	3.69	6.78	73.45	91.5
	200	0.075	3.39	10.17	70.06	87.3
	dry pan		1.10	11.27	68.96	
	wet pan			68.96	0.00	

d_{10} (mm): 0.0015
d_{16} (mm): 0.0017
d_{30} (mm): 0.0021
d_{50} (mm): 0.0056
d_{60} (mm): 0.012
d_{84} (mm): 0.051

Median Particle Diameter --d_{50} (mm): 0.0056
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 8.0
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 0.25
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.019

Classification of fines: CL

USCS Soil Classification: Lean clay (CL)
USDA Soil Classification: Silt Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Daniel B. Stephens & Associates, Inc.

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-09-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 10-Dec-25
Start Time: 8:42

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

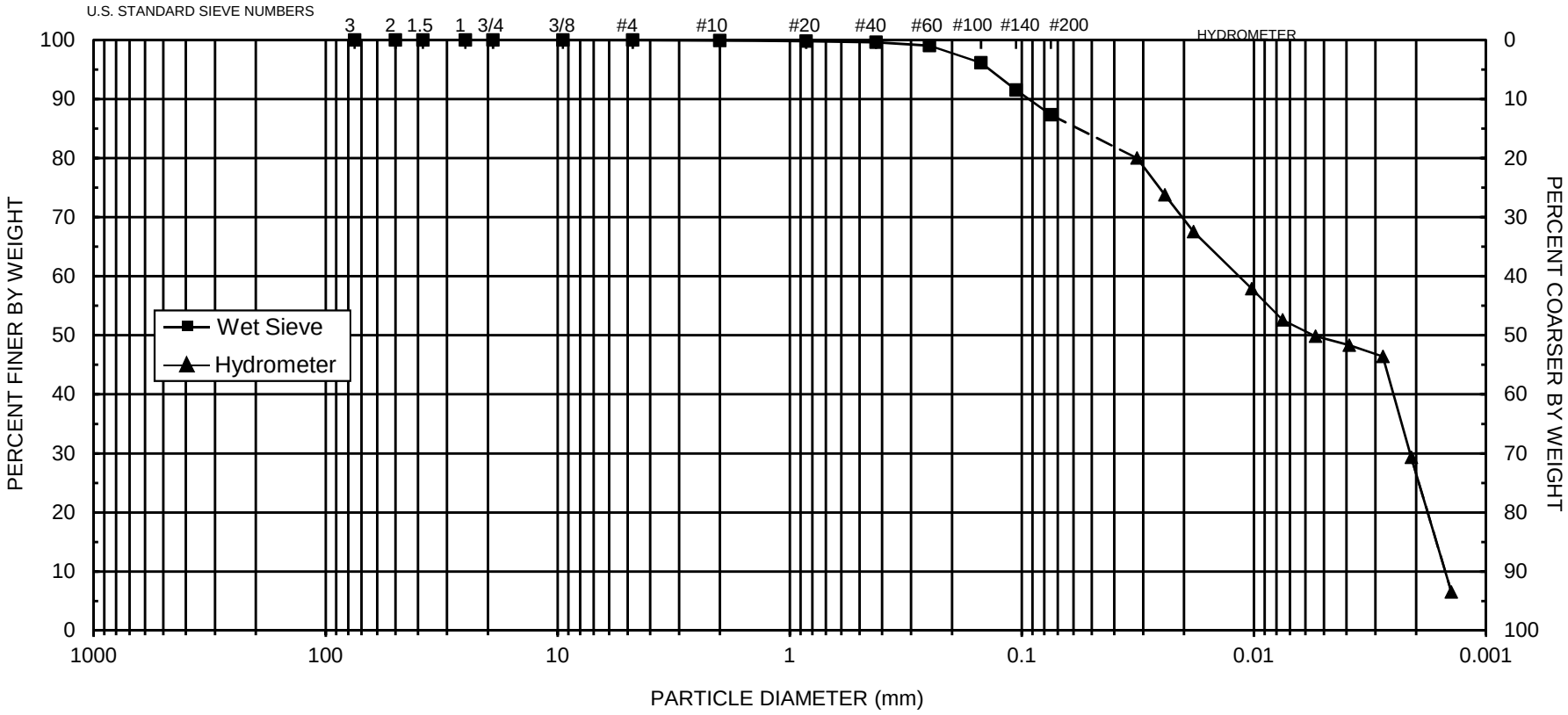
Initial Wt. (g)*:* 80.14
Total Sample Wt. (g)*:* 727.87
Wt. Passing #10 (g)*:* 727.01

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
10-Dec-25	1	18.60	70.00	5.82	64.2	5	0.0319	80	80.0
	2	18.60	65.00	5.82	59.2	6	0.0242	74	73.8
	4	18.60	60.00	5.82	54.2	7	0.0182	68	67.5
	15	18.60	52.25	5.82	46.4	8	0.0102	58	57.9
	30	18.60	48.00	5.82	42.2	9	0.0075	53	52.6
	60	18.70	45.75	5.79	40.0	10	0.0054	50	49.8
	120	18.80	44.50	5.76	38.7	10	0.0039	48	48.3
	240	18.80	43.00	5.76	37.2	10	0.0028	46	46.4
	518	18.90	29.25	5.72	23.5	12	0.0021	29	29.3
11-Dec-25	1433	18.70	11.00	5.79	5.2	15	0.0014	7	6.5

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



USCS	COBBLES	GRAVEL		SAND			SILT OR CLAY			
		Coarse	Fine	Coarse	Medium	Fine				
USDA	COBBLES	GRAVEL		SAND				SILT	CLAY	
				Very coarse	Coarse	Medium	Fine	Very fine		

d_{10} = **0.0015**	d_{30} = **0.0021**	d_{50} = **0.0056**	d_{60} = **0.012**	C_u = **8.0**	C_c = **0.25**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-09-01 (0-6ft)	**10/22/25**	**Lean clay (CL)**	**Silt Loam**

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-11-01 (0-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 18-Dec-25

Initial Dry Weight of Sample (g): 793.32
Weight Passing #10 (g): 793.07
Weight Retained #10 (g): 0.25
Weight of -10 Sub-Sample (g): 79.60
Calculated Weight of Sieve Sample (g): 79.63

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	793.32	100.0
	2"	50	0.00	0.00	793.32	100.0
	1.5"	38.1	0.00	0.00	793.32	100.0
	1"	25	0.00	0.00	793.32	100.0
	3/4"	19.0	0.00	0.00	793.32	100.0
	3/8"	9.5	0.00	0.00	793.32	100.0
	4	4.75	0.00	0.00	793.32	100.0
	10	2.00	0.25	0.25	793.07	100.0
-10			(Based on calculated sieve wt.)			
	20	0.85	0.05	0.08	79.55	99.9
	40	0.425	0.36	0.44	79.19	99.5
	60	0.250	2.71	3.15	76.48	96.1
	100	0.150	10.83	13.98	65.65	82.4
	140	0.106	10.40	24.38	55.25	69.4
	200	0.075	10.06	34.44	45.19	56.8
	dry pan		2.30	36.74	42.89	
	wet pan			42.89	0.00	

d_{10} (mm): 7.5E-06
d_{16} (mm): 0.00055
d_{30} (mm): 0.012
d_{50} (mm): 0.054
d_{60} (mm): 0.082
d_{84} (mm): 0.16

Median Particle Diameter --d_{50} (mm): 0.054
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 1.1E+04
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 234
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.072

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL-ML

USCS Soil Classification: Sandy silty clay s(CL-ML)
USDA Soil Classification: Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-11-01 (0-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 16-Dec-25
Start Time: 8:18

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

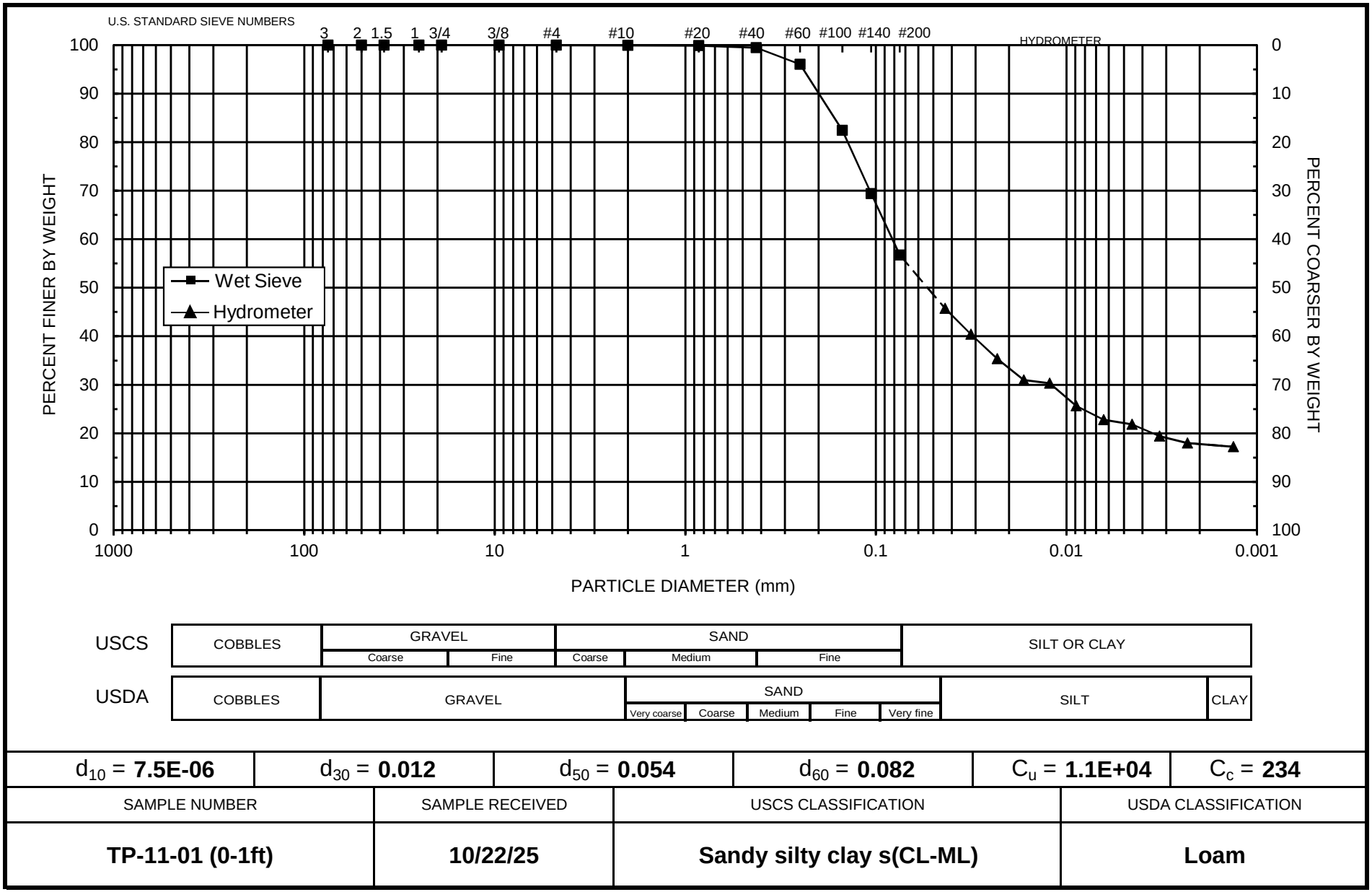
Initial Wt. (g)*:* 79.60
Total Sample Wt. (g)*:* 793.32
Wt. Passing #10 (g)*:* 793.07

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
16-Dec-25	1	18.50	42.25	5.85	36.4	10	0.0433	46	45.7
	2	18.50	38.00	5.85	32.2	11	0.0317	40	40.4
	4	18.50	34.00	5.85	28.2	11	0.0231	35	35.4
	8	18.50	30.50	5.85	24.7	12	0.0167	31	31.0
	15	18.50	30.00	5.85	24.2	12	0.0123	30	30.3
	30	18.50	26.25	5.85	20.4	13	0.0089	26	25.6
	60	18.50	24.00	5.85	18.2	13	0.0064	23	22.8
	120	18.50	23.25	5.85	17.4	13	0.0045	22	21.9
	240	18.70	21.25	5.79	15.5	14	0.0032	19	19.4
	480	20.60	19.50	5.17	14.3	14	0.0023	18	18.0
17-Dec-25	1458	18.70	19.50	5.79	13.7	14	0.0013	17	17.2

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



d_{10} = **7.5E-06**	d_{30} = **0.012**	d_{50} = **0.054**	d_{60} = **0.082**	C_u = **1.1E+04**	C_c = **234**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-11-01 (0-1ft)	**10/22/25**	**Sandy silty clay s(CL-ML)**	**Loam**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-12-01 (0-2ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 16-Dec-25

Initial Dry Weight of Sample (g): 737.29
Weight Passing #10 (g): 729.40
Weight Retained #10 (g): 7.89
Weight of -10 Sub-Sample (g): 47.35
Calculated Weight of Sieve Sample (g): 47.86

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	737.29	100.0
	2"	50	0.00	0.00	737.29	100.0
	1.5"	38.1	0.00	0.00	737.29	100.0
	1"	25	0.00	0.00	737.29	100.0
	3/4"	19.0	0.00	0.00	737.29	100.0
	3/8"	9.5	0.00	0.00	737.29	100.0
	4	4.75	2.22	2.22	735.07	99.7
	10	2.00	5.67	7.89	729.40	98.9
-10			(Based on calculated sieve wt.)			
	20	0.85	0.30	0.81	47.05	98.3
	40	0.425	0.34	1.15	46.71	97.6
	60	0.250	0.43	1.58	46.28	96.7
	100	0.150	0.99	2.57	45.29	94.6
	140	0.106	0.96	3.53	44.33	92.6
	200	0.075	1.45	4.98	42.88	89.6
	dry pan		0.42	5.40	42.46	
	wet pan			42.46	0.00	

d_{10} (mm): 2.1E-05
d_{16} (mm): 4.2E-05
d_{30} (mm): 0.00022
d_{50} (mm): 0.0024
d_{60} (mm): 0.0092
d_{84} (mm): 0.038

Median Particle Diameter --d_{50} (mm): 0.0024
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 438
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 0.25
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.013

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CH

USCS Soil Classification: Fat clay (CH)
USDA Soil Classification: Clay

Laboratory analysis by: M. Sharma/J. Tafoya
Data entered by: J. Tafoya
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-12-01 (0-2ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 28-Oct-25
Start Time: 8:36

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

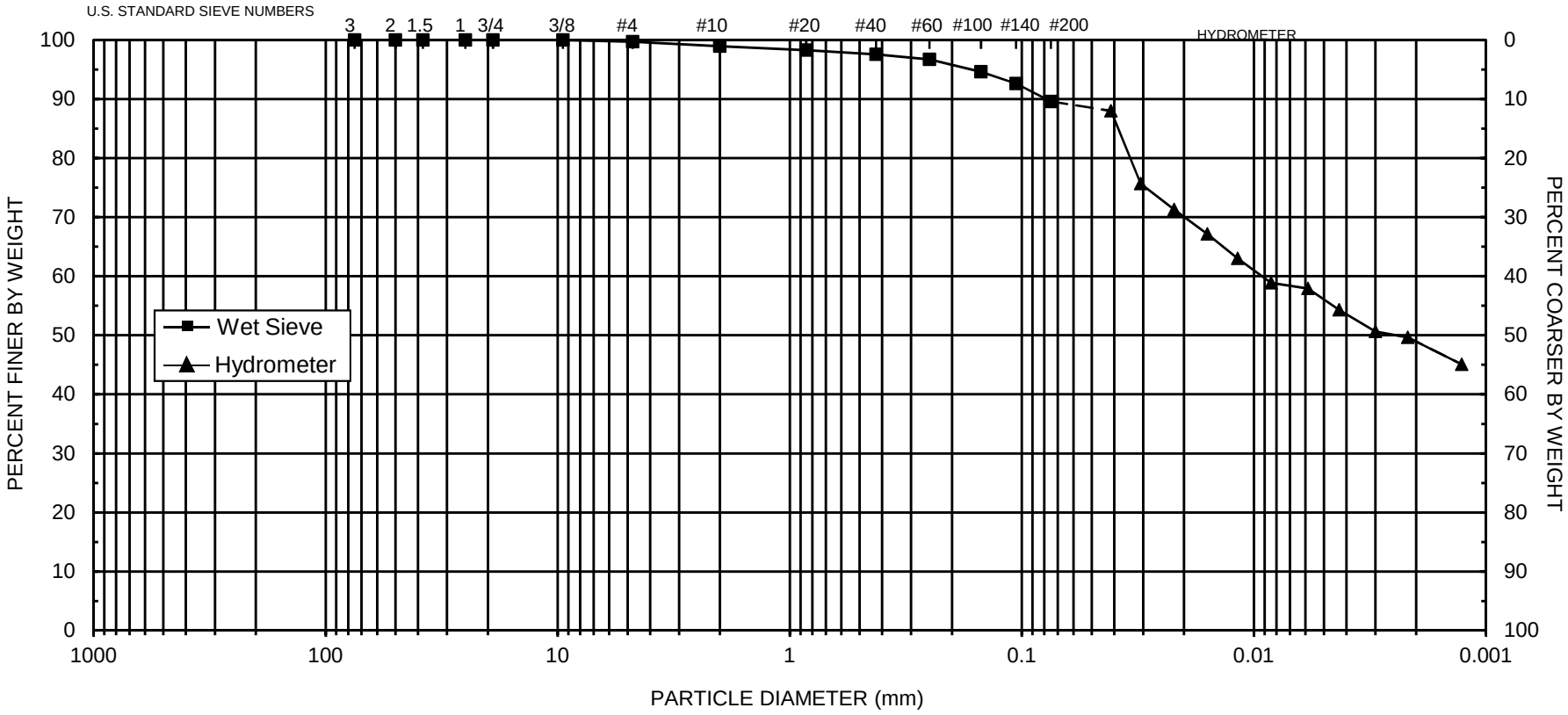
Initial Wt. (g)*:* 47.35
Total Sample Wt. (g)*:* 737.29
Wt. Passing #10 (g)*:* 729.40

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
29-Dec-25	1	18.40	48.00	5.88	42.1	9	0.0413	89	88.0
	2	18.40	42.10	5.88	36.2	10	0.0307	76	75.7
	4	18.40	40.00	5.88	34.1	11	0.0221	72	71.3
	8	18.50	38.00	5.85	32.2	11	0.0159	68	67.2
	15	18.50	36.00	5.85	30.2	11	0.0118	64	63.0
	30	18.60	34.00	5.82	28.2	12	0.0084	60	58.9
	63	18.75	33.50	5.77	27.7	12	0.0059	59	57.9
	120	18.80	31.75	5.76	26.0	12	0.0043	55	54.3
	252	18.80	30.00	5.76	24.2	12	0.0030	51	50.7
	482	19.20	29.40	5.63	23.8	12	0.0022	50	49.7
30-Dec-25	1450	18.90	27.30	5.72	21.6	13	0.0013	46	45.1

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: A. Neidhart
Data entered by: J. Tafoya
Checked by: T. Morgan



USCS	COBBLES	GRAVEL: Coarse, Fine		SAND: Coarse, Medium, Fine		SILT OR CLAY
USDA	COBBLES	GRAVEL	SAND: Very coarse, Coarse, Medium, Fine, Very fine			SILT / CLAY

d_{10} = **2.1E-05**	d_{30} = **0.00022**	d_{50} = **0.0024**	d_{60} = **0.0092**	C_u = **438**	C_c = **0.25**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-12-01 (0-2ft)	**10/22/25**	**Fat clay (CH)**	**Clay**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-13-01 (0-4.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 19-Dec-25

Initial Dry Weight of Sample (g): 1106.88
Weight Passing #10 (g): 1052.99
Weight Retained #10 (g): 53.89
Weight of -10 Sub-Sample (g): 80.11
Calculated Weight of Sieve Sample (g): 84.21

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	1106.88	100.0
	2"	50	0.00	0.00	1106.88	100.0
	1.5"	38.1	0.00	0.00	1106.88	100.0
	1"	25	0.00	0.00	1106.88	100.0
	3/4"	19.0	0.00	0.00	1106.88	100.0
	3/8"	9.5	2.35	2.35	1104.53	99.8
	4	4.75	13.82	16.17	1090.71	98.5
	10	2.00	37.72	53.89	1052.99	95.1
-10			(Based on calculated sieve wt.)			
	20	0.85	1.58	5.68	78.53	93.3
	40	0.425	2.08	7.76	76.45	90.8
	60	0.250	3.22	10.98	73.23	87.0
	100	0.150	6.02	17.00	67.21	79.8
	140	0.106	5.09	22.09	62.12	73.8
	200	0.075	4.96	27.05	57.16	67.9
	dry pan		3.23	30.28	53.93	
	wet pan			53.93	0.00	

d_{10} (mm): 0.00099
d_{16} (mm): 0.0011
d_{30} (mm): 0.0015
d_{50} (mm): 0.0087
d_{60} (mm): 0.035
d_{84} (mm): 0.20

Median Particle Diameter --d_{50} (mm): 0.0087
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 35
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 0.065
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.070

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Sandy lean clay s(CL)
USDA Soil Classification: Clay

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-13-01 (0-4.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 14-Jan-26
Start Time: 8:36

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

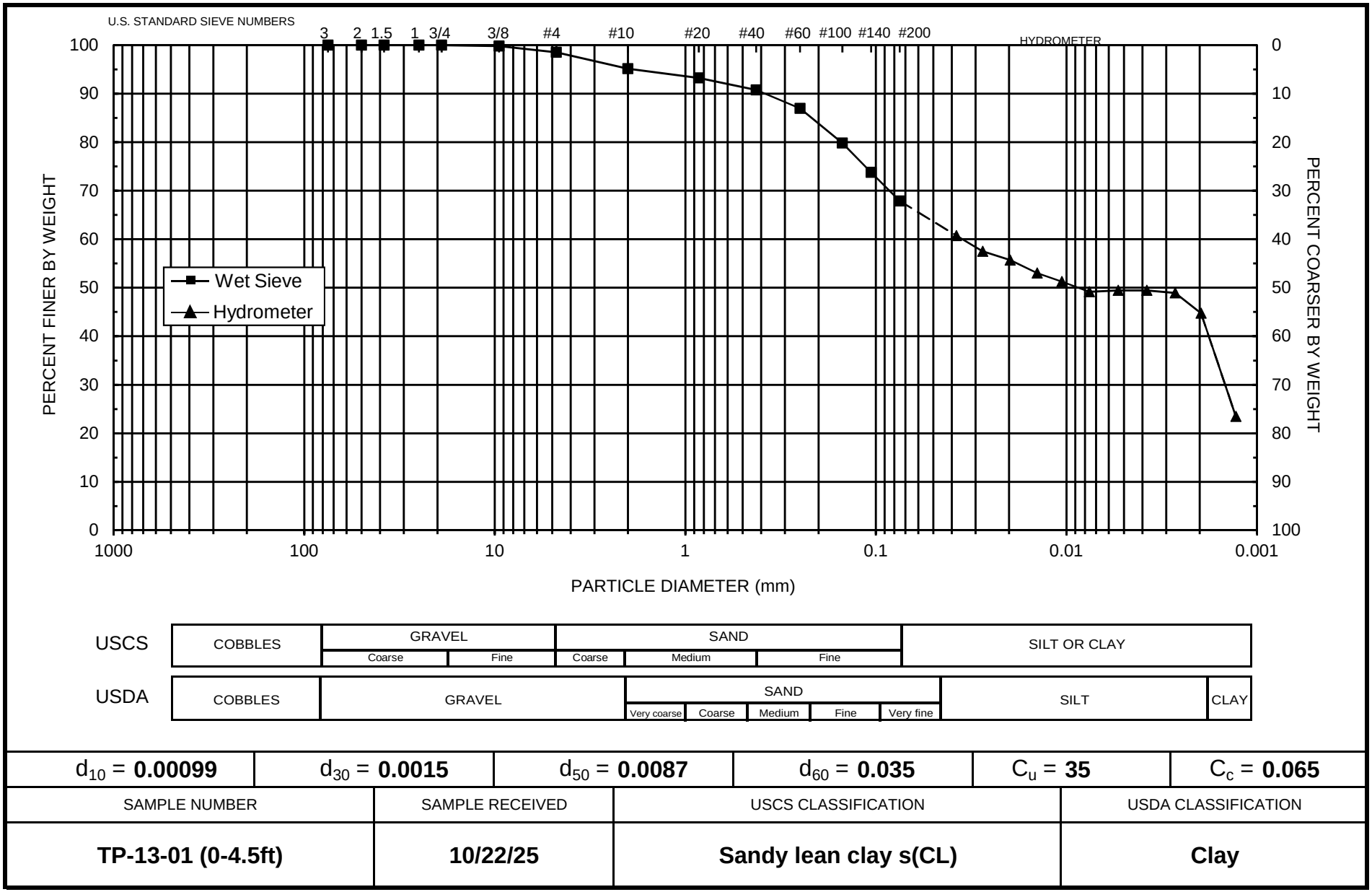
Initial Wt. (g)*:* 80.11
Total Sample Wt. (g)*:* 1106.88
Wt. Passing #10 (g)*:* 1052.99

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
14-Jan-26	1	18.50	57.00	5.85	51.2	8	0.0378	64	60.7
	2	18.50	54.25	5.85	48.4	8	0.0275	60	57.5
	4	18.50	52.75	5.85	46.9	8	0.0197	59	55.7
	8	18.50	50.50	5.85	44.7	9	0.0143	56	53.0
	15	18.50	49.00	5.85	43.2	9	0.0106	54	51.2
	30	18.50	47.25	5.85	41.4	9	0.0076	52	49.2
	60	18.50	47.50	5.85	41.7	9	0.0054	52	49.5
	120	18.50	47.50	5.85	41.7	9	0.0038	52	49.5
	240	18.70	47.00	5.79	41.2	9	0.0027	51	48.9
	480	20.10	43.00	5.34	37.7	10	0.0020	47	44.7
15-Jan-26	1436	18.00	25.75	6.00	19.8	13	0.0013	25	23.5

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



d_{10} = **0.00099**	d_{30} = **0.0015**	d_{50} = **0.0087**	d_{60} = **0.035**	C_u = **35**	C_c = **0.065**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-13-01 (0-4.5ft)	**10/22/25**	**Sandy lean clay s(CL)**	**Clay**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Daniel B. Stephens & Associates, Inc.

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-13-02 (4.5-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 17-Dec-25

Initial Dry Weight of Sample (g): 856.90
Weight Passing #10 (g): 765.60
Weight Retained #10 (g): 91.30
Weight of -10 Sub-Sample (g): 83.00
Calculated Weight of Sieve Sample (g): 92.90

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	856.90	100.0
	2"	50	0.00	0.00	856.90	100.0
	1.5"	38.1	0.00	0.00	856.90	100.0
	1"	25	0.00	0.00	856.90	100.0
	3/4"	19.0	0.00	0.00	856.90	100.0
	3/8"	9.5	0.00	0.00	856.90	100.0
	4	4.75	30.59	30.59	826.31	96.4
	10	2.00	60.71	91.30	765.60	89.3
-10			(Based on calculated sieve wt.)			
	20	0.85	2.28	12.18	80.72	86.9
	40	0.425	2.67	14.85	78.05	84.0
	60	0.250	2.88	17.73	75.17	80.9
	100	0.150	6.29	24.02	68.88	74.1
	140	0.106	5.56	29.58	63.32	68.2
	200	0.075	4.23	33.81	59.09	63.6
	dry pan		0.98	34.79	58.11	
	wet pan			58.11	0.00	

d_{10} (mm): 3.7E-05
d_{16} (mm): 0.00015
d_{30} (mm): 0.0026
d_{50} (mm): 0.028
d_{60} (mm): 0.058
d_{84} (mm): 0.42

Median Particle Diameter --d_{50} (mm): 0.028
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 1568
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 3.2
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.15

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Sandy lean clay s(CL)
USDA Soil Classification: Clay Loam †

† Greater than 10% of sample is coarse material

Laboratory analysis by: M. Sharma
Data entered by: J. Tafoya
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-13-02 (4.5-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 17-Dec-25
Start Time: 8:06

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

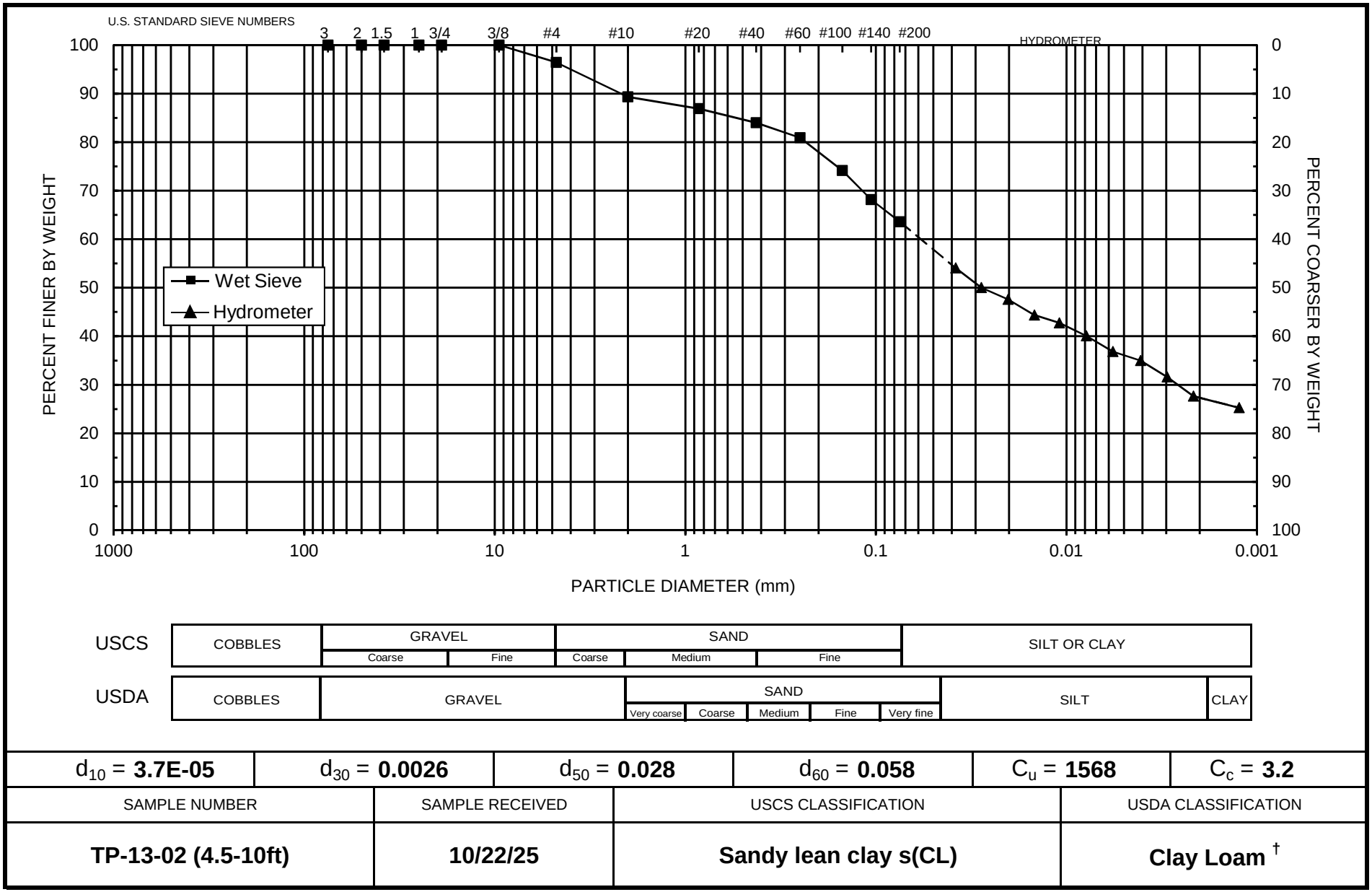
Initial Wt. (g)*:* 83.00
Total Sample Wt. (g)*:* 856.90
Wt. Passing #10 (g)*:* 765.60

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
18-Dec-25	1	18.70	56.00	5.79	50.2	8	0.0381	60	54.0
	2	18.70	52.25	5.79	46.5	8	0.0280	56	50.0
	4	18.70	50.00	5.79	44.2	9	0.0203	53	47.6
	8	18.70	47.00	5.79	41.2	9	0.0147	50	44.4
	15	18.70	45.50	5.79	39.7	10	0.0109	48	42.7
	30	18.70	43.00	5.79	37.2	10	0.0079	45	40.1
	60	18.70	40.00	5.79	34.2	11	0.0057	41	36.8
	120	18.80	38.25	5.76	32.5	11	0.0041	39	35.0
	240	19.10	35.00	5.66	29.3	11	0.0030	35	31.6
	480	20.20	31.00	5.30	25.7	12	0.0022	31	27.7
19-Dec-25	1482	18.70	29.25	5.79	23.5	12	0.0012	28	25.3

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: J. Tafoya
Checked by: T. Morgan



d_{10} = **3.7E-05**	d_{30} = **0.0026**	d_{50} = **0.028**	d_{60} = **0.058**	C_u = **1568**	C_c = **3.2**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-13-02 (4.5-10ft)	**10/22/25**	**Sandy lean clay s(CL)**	**Clay Loam** †

† Greater than 10% of sample is coarse material

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-15-01 (0-4ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 18-Dec-25

Initial Dry Weight of Sample (g): 1527.12
Weight Passing #10 (g): 1438.52
Weight Retained #10 (g): 88.60
Weight of -10 Sub-Sample (g): 80.53
Calculated Weight of Sieve Sample (g): 85.49

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	1527.12	100.0
	2"	50	0.00	0.00	1527.12	100.0
	1.5"	38.1	0.00	0.00	1527.12	100.0
	1"	25	0.00	0.00	1527.12	100.0
	3/4"	19.0	0.00	0.00	1527.12	100.0
	3/8"	9.5	14.57	14.57	1512.55	99.0
	4	4.75	14.04	28.61	1498.51	98.1
	10	2.00	59.99	88.60	1438.52	94.2
-10			(Based on calculated sieve wt.)			
	20	0.85	2.68	7.64	77.85	91.1
	40	0.425	9.90	17.54	67.95	79.5
	60	0.250	19.81	37.35	48.14	56.3
	100	0.150	22.73	60.08	25.41	29.7
	140	0.106	7.09	67.17	18.32	21.4
	200	0.075	3.23	70.40	15.09	17.7
	dry pan		0.68	71.08	14.41	
	wet pan			14.41	0.00	

d_{10} (mm): 0.0078
d_{16} (mm): 0.063
d_{30} (mm): 0.15
d_{50} (mm): 0.22
d_{60} (mm): 0.27
d_{84} (mm): 0.56

Median Particle Diameter --d_{50} (mm): 0.22
Uniformity Coefficient, Cu --$[d_{60}/d_{10}]$ (mm): 35
Coefficient of Curvature, Cc --$[(d_{30})^2/(d_{10}*d_{60})]$ (mm): 11
Mean Particle Diameter --$[(d_{16}+d_{50}+d_{84})/3]$ (mm): 0.28

USCS Soil Classification: Classification by ASTM 2487 requires Atterberg test
USDA Soil Classification: Loamy Sand

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-15-01 (0-4ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 16-Dec-25
Start Time: 8:06

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

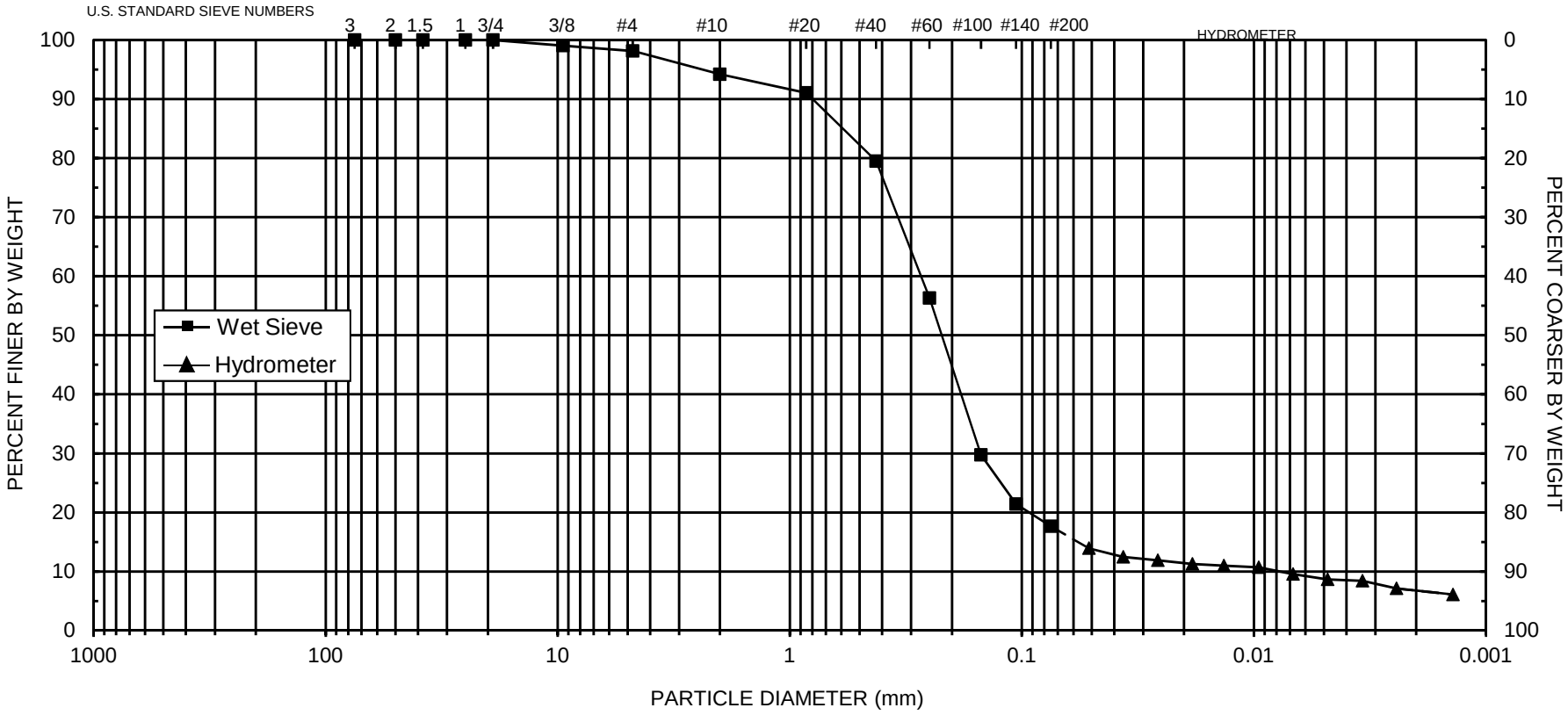
Initial Wt. (g)*:* 80.53
Total Sample Wt. (g)*:* 1527.12
Wt. Passing #10 (g)*:* 1438.52

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
16-Dec-25	1	18.50	17.75	5.85	11.9	14	0.0514	15	13.9
	2	18.50	16.50	5.85	10.7	14	0.0366	13	12.5
	4	18.50	16.00	5.85	10.2	15	0.0260	13	11.9
	8	18.50	15.50	5.85	9.7	15	0.0184	12	11.3
	15	18.50	15.25	5.85	9.4	15	0.0135	12	11.0
	30	18.50	15.00	5.85	9.2	15	0.0095	11	10.7
	60	18.50	14.00	5.85	8.2	15	0.0068	10	9.5
	120	18.50	13.25	5.85	7.4	15	0.0048	9	8.7
	240	18.70	13.00	5.79	7.2	15	0.0034	9	8.4
	480	20.60	11.25	5.17	6.1	15	0.0024	8	7.1
17-Dec-25	1479	18.70	11.00	5.79	5.2	15	0.0014	6	6.1

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



USCS	COBBLES	GRAVEL		SAND			SILT OR CLAY				
		Coarse	Fine	Coarse	Medium	Fine					
USDA	COBBLES	GRAVEL		SAND					SILT	CLAY	
				Very coarse	Coarse	Medium	Fine	Very fine			

d_{10} = **0.0078**	d_{30} = **0.15**	d_{50} = **0.22**	d_{60} = **0.27**	C_u = **35**	C_c = **11**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-15-01 (0-4ft)	**10/22/25**	**Classification by ASTM 2487 requires Atterberg test**	**Loamy Sand**

Daniel B. Stephens & Associates, Inc.

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-15-02 (4-5.25ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 18-Dec-25

Initial Dry Weight of Sample (g): 858.46
Weight Passing #10 (g): 854.65
Weight Retained #10 (g): 3.81
Weight of -10 Sub-Sample (g): 77.96
Calculated Weight of Sieve Sample (g): 78.31

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	858.46	100.0
	2"	50	0.00	0.00	858.46	100.0
	1.5"	38.1	0.00	0.00	858.46	100.0
	1"	25	0.00	0.00	858.46	100.0
	3/4"	19.0	0.00	0.00	858.46	100.0
	3/8"	9.5	1.39	1.39	857.07	99.8
	4	4.75	1.20	2.59	855.87	99.7
	10	2.00	1.22	3.81	854.65	99.6
-10			(Based on calculated sieve wt.)			
	20	0.85	0.06	0.41	77.90	99.5
	40	0.425	0.46	0.87	77.44	98.9
	60	0.250	3.70	4.57	73.74	94.2
	100	0.150	13.59	18.16	60.15	76.8
	140	0.106	10.63	28.79	49.52	63.2
	200	0.075	10.19	38.98	39.33	50.2
	dry pan		1.74	40.72	37.59	
	wet pan			37.59	0.00	

d_{10} (mm): 8.0E-05
d_{16} (mm): 0.0016
d_{30} (mm): 0.024
d_{50} (mm): 0.074
d_{60} (mm): 0.097
d_{84} (mm): 0.19

Median Particle Diameter --d_{50} (mm): 0.074
Uniformity Coefficient, Cu --$[d_{60}/d_{10}]$ (mm): 1213
Coefficient of Curvature, Cc --$[(d_{30})^2/(d_{10}*d_{60})]$ (mm): 74
Mean Particle Diameter --$[(d_{16}+d_{50}+d_{84})/3]$ (mm): 0.089

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: ML

USCS Soil Classification: Sandy silt s(ML)
USDA Soil Classification: Sandy Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Daniel B. Stephens & Associates, Inc.

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-15-02 (4-5.25ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 16-Dec-25
Start Time: 8:00

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

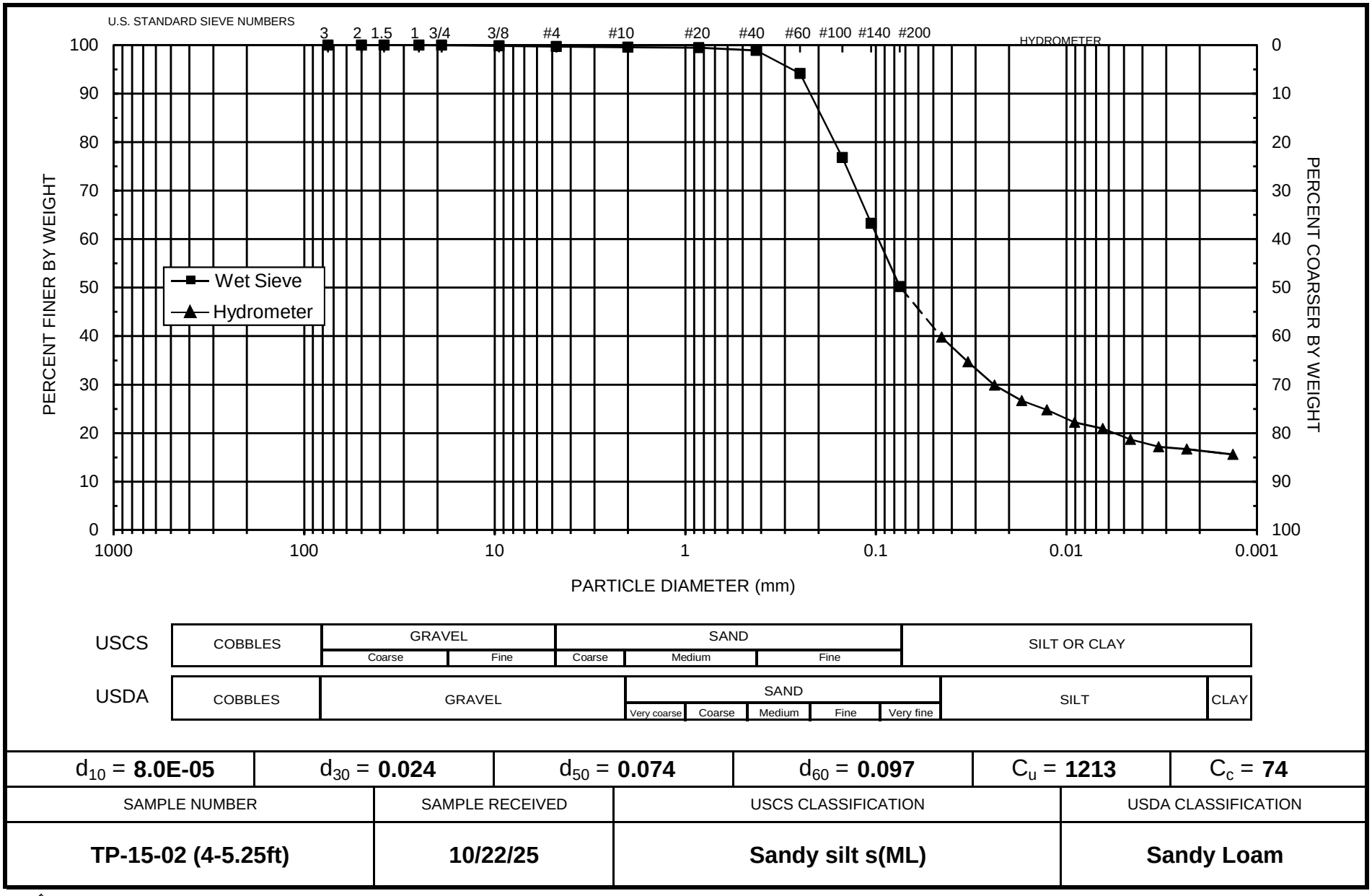
Initial Wt. (g)*:* 77.96
Total Sample Wt. (g)*:* 858.46
Wt. Passing #10 (g)*:* 854.65

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
16-Dec-25	1	18.50	37.00	5.85	31.2	11	0.0452	40	39.8
	2	18.50	33.00	5.85	27.2	12	0.0329	35	34.7
	4	18.50	29.25	5.85	23.4	12	0.0239	30	29.9
	8	18.50	26.75	5.85	20.9	13	0.0172	27	26.7
	15	18.50	25.25	5.85	19.4	13	0.0127	25	24.8
	30	18.50	23.25	5.85	17.4	13	0.0091	22	22.2
	60	18.50	22.25	5.85	16.4	13	0.0065	21	20.9
	120	18.50	20.50	5.85	14.7	14	0.0046	19	18.7
	240	18.70	19.25	5.79	13.5	14	0.0033	17	17.2
	481	20.60	18.25	5.17	13.1	14	0.0023	17	16.7
17-Dec-25	1473	18.70	18.00	5.79	12.2	14	0.0013	16	15.6

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



d_{10} = **8.0E-05**	d_{30} = **0.024**	d_{50} = **0.074**	d_{60} = **0.097**	C_u = **1213**	C_c = **74**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-15-02 (4-5.25ft)	**10/22/25**	**Sandy silt s(ML)**	**Sandy Loam**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Daniel B. Stephens & Associates, Inc.

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-16-01 (0-4ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 19-Dec-25

Initial Dry Weight of Sample (g): 715.56
Weight Passing #10 (g): 715.54
Weight Retained #10 (g): 0.02
Weight of -10 Sub-Sample (g): 81.71
Calculated Weight of Sieve Sample (g): 81.71

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	715.56	100.0
	2"	50	0.00	0.00	715.56	100.0
	1.5"	38.1	0.00	0.00	715.56	100.0
	1"	25	0.00	0.00	715.56	100.0
	3/4"	19.0	0.00	0.00	715.56	100.0
	3/8"	9.5	0.00	0.00	715.56	100.0
	4	4.75	0.00	0.00	715.56	100.0
	10	2.00	0.02	0.02	715.54	100.0
-10			(Based on calculated sieve wt.)			
	20	0.85	0.00	0.00	81.71	100.0
	40	0.425	0.26	0.26	81.45	99.7
	60	0.250	1.28	1.54	80.17	98.1
	100	0.150	5.32	6.86	74.85	91.6
	140	0.106	4.80	11.66	70.05	85.7
	200	0.075	5.48	17.14	64.57	79.0
	dry pan		3.65	20.79	60.92	
	wet pan			60.92	0.00	

d_{10} (mm): 0.00012
d_{16} (mm): 0.00026
d_{30} (mm): 0.0015
d_{50} (mm): 0.010
d_{60} (mm): 0.021
d_{84} (mm): 0.097

Median Particle Diameter --d_{50} (mm): 0.010
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 175
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 0.89
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.036

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Lean clay with sand (CL)s
USDA Soil Classification: Clay Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-16-01 (0-4ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 17-Dec-25
Start Time: 8:24

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

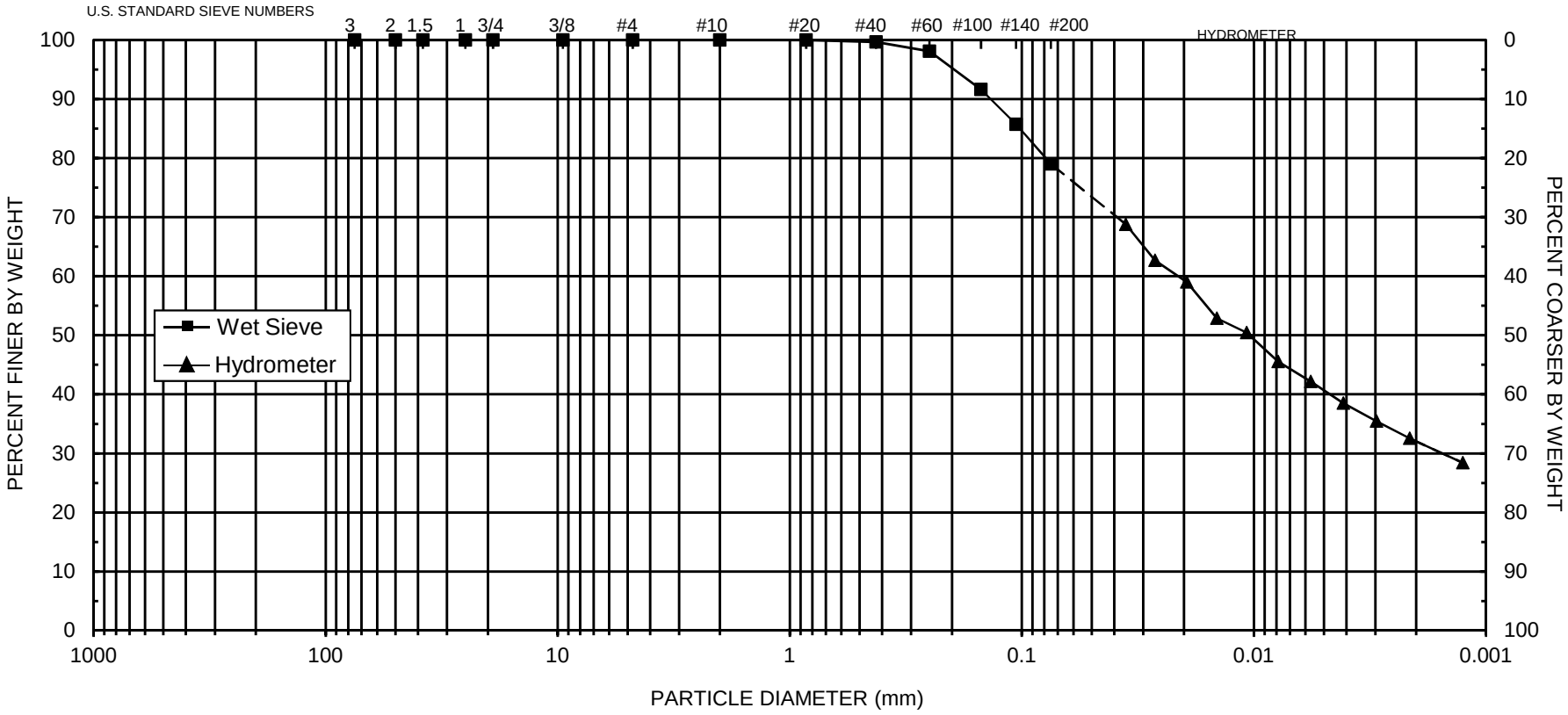
Initial Wt. (g)*:* 81.71
Total Sample Wt. (g)*:* 715.56
Wt. Passing #10 (g)*:* 715.54

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
17-Dec-25	1	18.70	62.00	5.79	56.2	7	0.0356	69	68.8
	2	18.70	57.00	5.79	51.2	8	0.0267	63	62.7
	4	18.70	54.00	5.79	48.2	8	0.0195	59	59.0
	8	18.70	49.00	5.79	43.2	9	0.0145	53	52.9
	15	18.70	47.00	5.79	41.2	9	0.0108	50	50.4
	30	18.70	43.00	5.79	37.2	10	0.0079	46	45.5
	60	18.70	40.25	5.79	34.5	10	0.0057	42	42.2
	120	18.70	37.25	5.79	31.5	11	0.0041	39	38.5
	240	18.70	34.75	5.79	29.0	11	0.0030	35	35.4
	481	19.10	32.25	5.66	26.6	12	0.0021	33	32.5
18-Dec-25	1443	18.70	29.00	5.79	23.2	12	0.0013	28	28.4

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



USCS	COBBLES	GRAVEL		SAND			SILT OR CLAY				
		Coarse	Fine	Coarse	Medium	Fine					
USDA	COBBLES	GRAVEL		SAND					SILT	CLAY	
				Very coarse	Coarse	Medium	Fine	Very fine			

d_{10} = **0.00012**	d_{30} = **0.0015**	d_{50} = **0.010**	d_{60} = **0.021**	C_u = **175**	C_c = **0.89**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-16-01 (0-4ft)	**10/22/25**	**Lean clay with sand (CL)s**	**Clay Loam**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-29-01 (0-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 19-Dec-25

Initial Dry Weight of Sample (g): 653.39
Weight Passing #10 (g): 649.12
Weight Retained #10 (g): 4.27
Weight of -10 Sub-Sample (g): 84.23
Calculated Weight of Sieve Sample (g): 84.78

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	653.39	100.0
	2"	50	0.00	0.00	653.39	100.0
	1.5"	38.1	0.00	0.00	653.39	100.0
	1"	25	0.00	0.00	653.39	100.0
	3/4"	19.0	0.00	0.00	653.39	100.0
	3/8"	9.5	0.00	0.00	653.39	100.0
	4	4.75	0.00	0.00	653.39	100.0
	10	2.00	4.27	4.27	649.12	99.3
-10			(Based on calculated sieve wt.)			
	20	0.85	0.56	1.11	83.67	98.7
	40	0.425	1.84	2.95	81.83	96.5
	60	0.250	4.46	7.41	77.37	91.3
	100	0.150	11.34	18.75	66.03	77.9
	140	0.106	9.04	27.79	56.99	67.2
	200	0.075	7.41	35.20	49.58	58.5
	dry pan		1.68	36.88	47.90	
	wet pan			47.90	0.00	

d_{10} (mm): 6.7E-05
d_{16} (mm): 0.00030
d_{30} (mm): 0.0045
d_{50} (mm): 0.035
d_{60} (mm): 0.080
d_{84} (mm): 0.19

Median Particle Diameter --d_{50} (mm): 0.035
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 1194
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 3.8
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.075

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Sandy lean clay s(CL)
USDA Soil Classification: Loam

Laboratory analysis by: M. Sharma/N. Dolan
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-29-01 (0-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 23-Dec-25
Start Time: 8:42

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

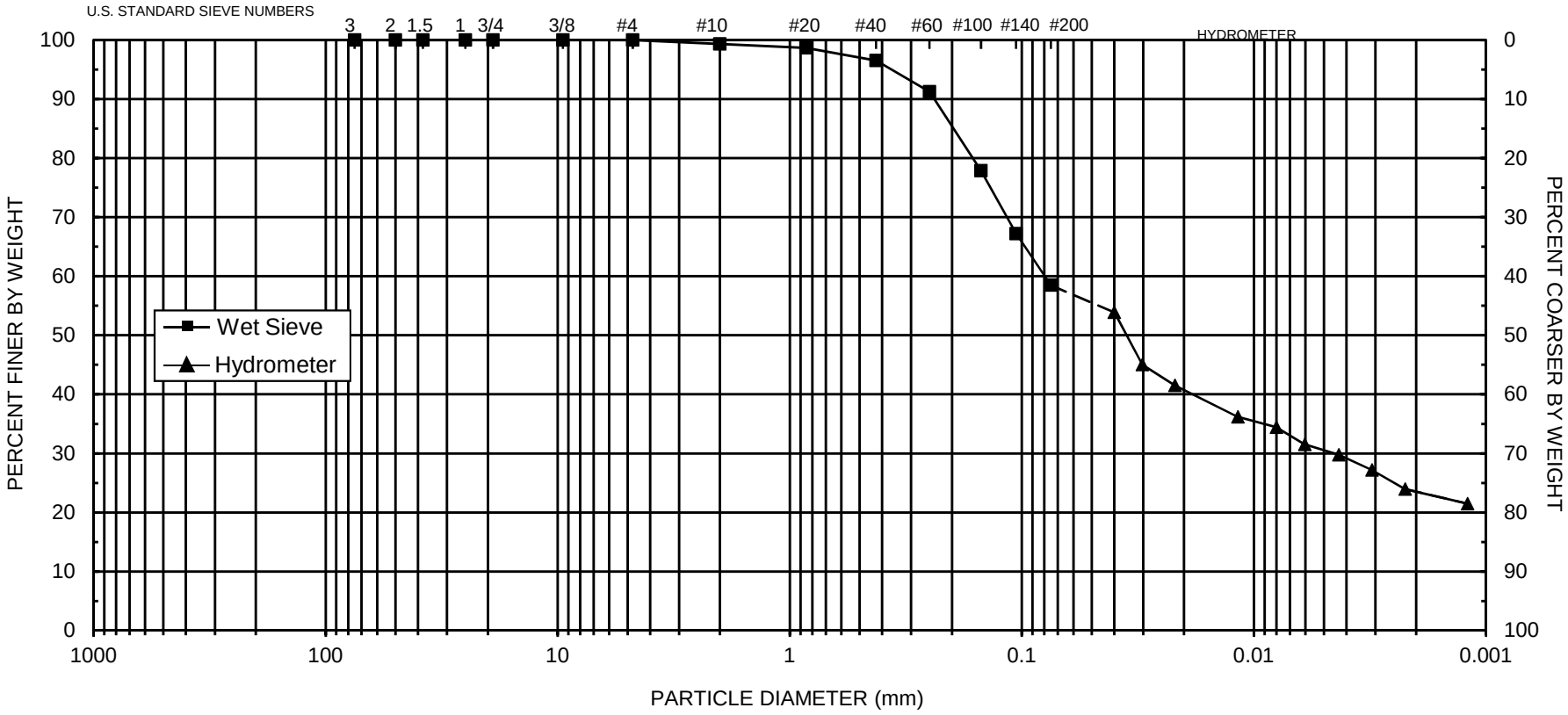
Initial Wt. (g)*:* 84.23
Total Sample Wt. (g)*:* 653.39
Wt. Passing #10 (g)*:* 649.12

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
23-Dec-25	1	18.60	51.50	5.82	45.7	9	0.0399	54	53.9
	2	18.60	44.00	5.82	38.2	10	0.0302	45	45.0
	4	18.60	41.00	5.82	35.2	10	0.0219	42	41.5
	15	18.60	36.50	5.82	30.7	11	0.0117	36	36.2
	33	18.60	35.00	5.82	29.2	11	0.0080	35	34.4
	60	18.70	32.50	5.79	26.7	12	0.0060	32	31.5
	120	18.70	31.00	5.79	25.2	12	0.0043	30	29.7
	240	19.00	28.75	5.69	23.1	12	0.0031	27	27.2
	480	19.00	26.00	5.69	20.3	13	0.0022	24	23.9
24-Dec-25	1699	18.70	24.00	5.79	18.2	13	0.0012	22	21.5

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: A. Neidhart
Data entered by: M. Sharma
Checked by: T. Morgan



d_{10} = **6.7E-05**	d_{30} = **0.0045**	d_{50} = **0.035**	d_{60} = **0.080**	C_u = **1194**	C_c = **3.8**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-29-01 (0-1ft)	**10/22/25**	**Sandy lean clay s(CL)**	**Loam**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Daniel B. Stephens & Associates, Inc.

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-29-02 (1-2.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 15-Dec-25

Initial Dry Weight of Sample (g): 1373.94
Weight Passing #10 (g): 1358.48
Weight Retained #10 (g): 15.46
Weight of -10 Sub-Sample (g): 74.69
Calculated Weight of Sieve Sample (g): 75.54

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	1373.94	100.0
	2"	50	0.00	0.00	1373.94	100.0
	1.5"	38.1	0.00	0.00	1373.94	100.0
	1"	25	0.00	0.00	1373.94	100.0
	3/4"	19.0	0.00	0.00	1373.94	100.0
	3/8"	9.5	4.52	4.52	1369.42	99.7
	4	4.75	1.41	5.93	1368.01	99.6
	10	2.00	9.53	15.46	1358.48	98.9
-10			(Based on calculated sieve wt.)			
	20	0.85	0.47	1.32	74.22	98.3
	40	0.425	1.74	3.06	72.48	95.9
	60	0.250	3.85	6.91	68.63	90.9
	100	0.150	8.45	15.36	60.18	79.7
	140	0.106	8.06	23.42	52.12	69.0
	200	0.075	6.88	30.30	45.24	59.9
	dry pan		1.84	32.14	43.40	
	wet pan			43.40	0.00	

d_{10} (mm): 7.6E-05
d_{16} (mm): 0.00030
d_{30} (mm): 0.0036
d_{50} (mm): 0.037
d_{60} (mm): 0.075
d_{84} (mm): 0.18

Median Particle Diameter --d_{50} (mm): 0.037
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 987
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 2.3
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.072

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Sandy lean clay s(CL)
USDA Soil Classification: Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-29-02 (1-2.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 11-Dec-25
Start Time: 8:42

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

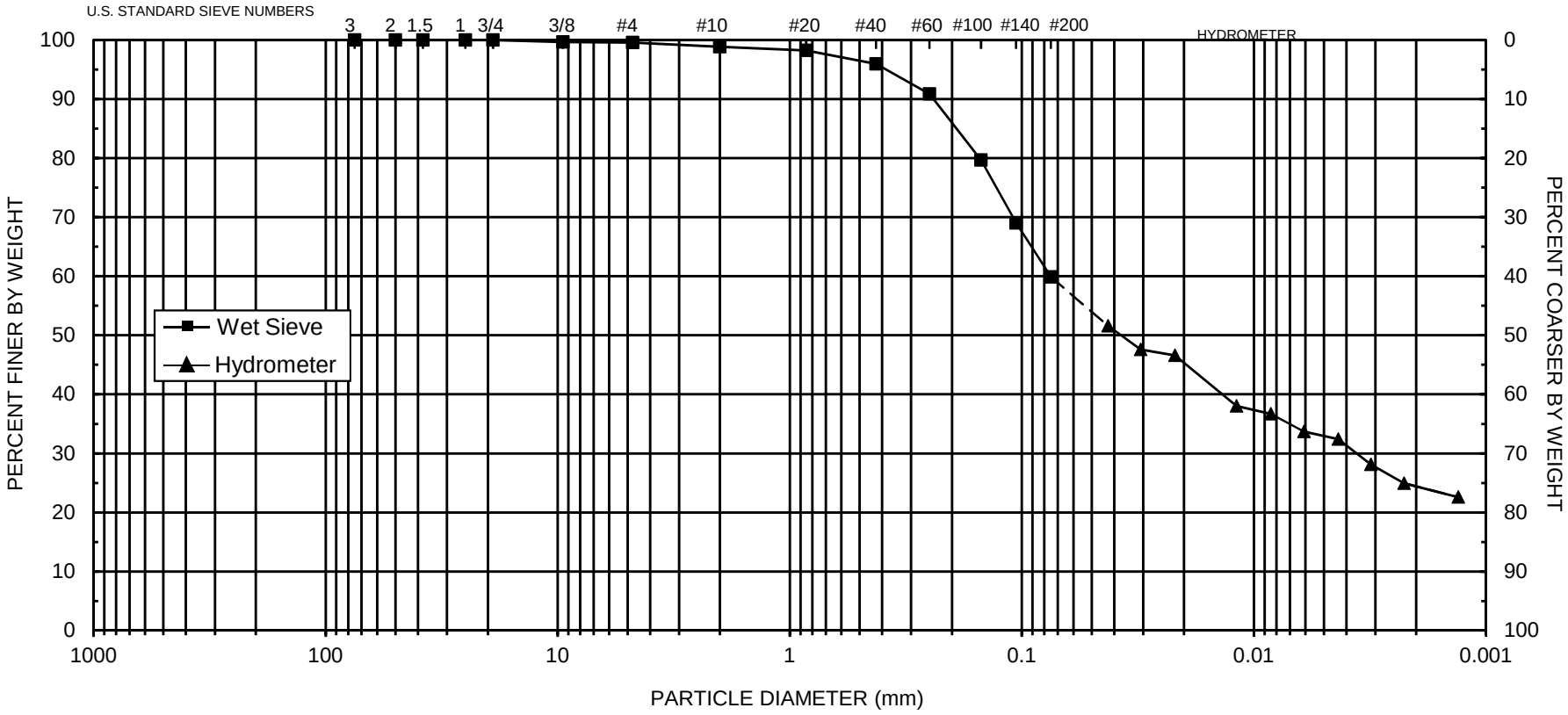
Initial Wt. (g)*:* 74.69
Total Sample Wt. (g)*:* 1373.94
Wt. Passing #10 (g)*:* 1358.48

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
11-Dec-25	1	18.70	44.75	5.79	39.0	10	0.0425	52	51.6
	2	18.70	41.75	5.79	36.0	10	0.0308	48	47.6
	4	18.70	41.00	5.79	35.2	10	0.0219	47	46.6
	15	18.70	34.50	5.79	28.7	11	0.0119	38	38.0
	30	18.70	33.50	5.79	27.7	12	0.0085	37	36.7
	60	18.70	31.25	5.79	25.5	12	0.0061	34	33.7
	120	18.80	30.25	5.76	24.5	12	0.0043	33	32.4
	240	18.80	27.00	5.76	21.2	13	0.0031	28	28.1
	480	19.90	24.25	5.40	18.8	13	0.0023	25	24.9
12-Dec-25	1434	19.00	22.75	5.69	17.1	13	0.0013	23	22.6

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



USCS	COBBLES	GRAVEL: Coarse, Fine		SAND: Coarse, Medium, Fine		SILT OR CLAY
USDA	COBBLES	GRAVEL	SAND: Very coarse, Coarse, Medium, Fine, Very fine			SILT / CLAY

d_{10} = **7.6E-05**	d_{30} = **0.0036**	d_{50} = **0.037**	d_{60} = **0.075**	C_u = **987**	C_c = **2.3**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-29-02 (1-2.5ft)	**10/22/25**	**Sandy lean clay s(CL)**	**Loam**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Daniel B. Stephens & Associates, Inc.

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-33-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 16-Dec-25

Initial Dry Weight of Sample (g): 789.12
Weight Passing #10 (g): 746.16
Weight Retained #10 (g): 42.96
Weight of -10 Sub-Sample (g): 81.95
Calculated Weight of Sieve Sample (g): 86.67

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	789.12	100.0
	2"	50	0.00	0.00	789.12	100.0
	1.5"	38.1	0.00	0.00	789.12	100.0
	1"	25	0.00	0.00	789.12	100.0
	3/4"	19.0	0.00	0.00	789.12	100.0
	3/8"	9.5	7.63	7.63	781.49	99.0
	4	4.75	12.13	19.76	769.36	97.5
	10	2.00	23.20	42.96	746.16	94.6
-10			(Based on calculated sieve wt.)			
	20	0.85	1.18	5.90	80.77	93.2
	40	0.425	1.24	7.14	79.53	91.8
	60	0.250	1.75	8.89	77.78	89.7
	100	0.150	4.62	13.51	73.16	84.4
	140	0.106	4.72	18.23	68.44	79.0
	200	0.075	5.45	23.68	62.99	72.7
	dry pan		2.44	26.12	60.55	
	wet pan			60.55	0.00	

d_{10} (mm): 0.00037
d_{16} (mm): 0.00051
d_{30} (mm): 0.0010
d_{50} (mm): 0.0066
d_{60} (mm): 0.026
d_{84} (mm): 0.15

Median Particle Diameter --d_{50} (mm): 0.0066
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 70
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 0.10
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.052

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CL

USCS Soil Classification: Lean clay with sand (CL)s
USDA Soil Classification: Clay

Laboratory analysis by: M. Sharma
Data entered by: J. Tafoya
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-33-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 14-Jan-26
Start Time: 8:42

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

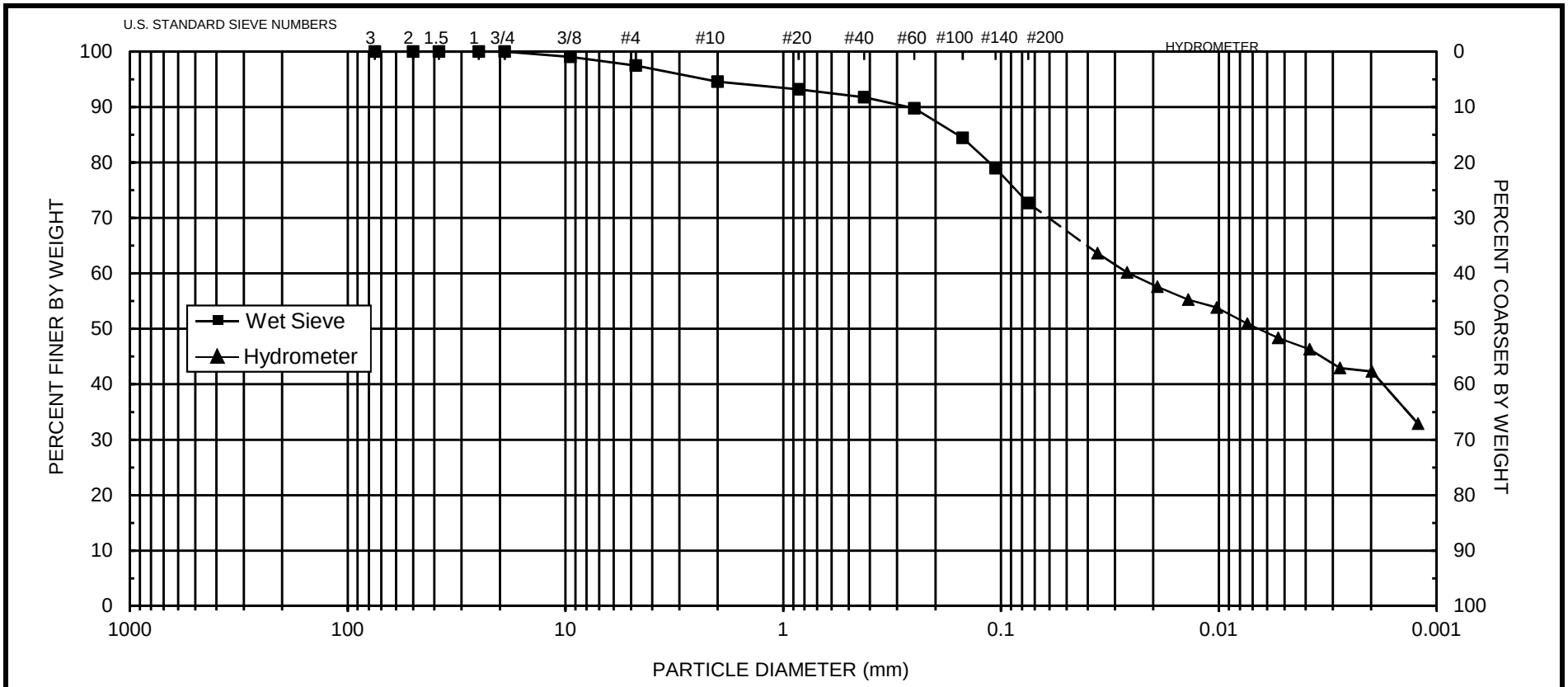
Initial Wt. (g)*:* 81.95
Total Sample Wt. (g)*:* 789.12
Wt. Passing #10 (g)*:* 746.16

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
14-Jan-26	1	18.50	61.00	5.85	55.2	7	0.0361	67	63.6
	2	18.50	58.00	5.85	52.2	8	0.0264	64	60.2
	4	18.50	55.75	5.85	49.9	8	0.0191	61	57.6
	8	18.50	53.75	5.85	47.9	8	0.0138	58	55.3
	15	18.50	52.50	5.85	46.7	8	0.0102	57	53.8
	30	18.50	50.00	5.85	44.2	9	0.0074	54	50.9
	60	18.50	47.75	5.85	41.9	9	0.0053	51	48.3
	120	18.50	46.00	5.85	40.2	10	0.0038	49	46.3
	240	18.70	43.00	5.79	37.2	10	0.0028	45	42.9
	480	20.10	42.00	5.34	36.7	10	0.0020	45	42.3
15-Jan-26	1431	18.00	34.50	6.00	28.5	11	0.0012	35	32.9

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



USCS	COBBLES	GRAVEL: Coarse, Fine		SAND: Coarse, Medium, Fine		SILT OR CLAY
USDA	COBBLES	GRAVEL	SAND: Very coarse, Coarse, Medium, Fine, Very fine			SILT / CLAY

d_{10} = **0.00037**	d_{30} = **0.0010**	d_{50} = **0.0066**	d_{60} = **0.026**	C_u = **70**	C_c = **0.10**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-33-01 (0-10ft)	**10/22/25**	**Lean clay with sand (CL)s**	**Clay**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Daniel B. Stephens & Associates, Inc.

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-34-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 19-Dec-25

Initial Dry Weight of Sample (g): 857.23
Weight Passing #10 (g): 835.63
Weight Retained #10 (g): 21.60
Weight of -10 Sub-Sample (g): 82.09
Calculated Weight of Sieve Sample (g): 84.21

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	857.23	100.0
	2"	50	0.00	0.00	857.23	100.0
	1.5"	38.1	0.00	0.00	857.23	100.0
	1"	25	0.00	0.00	857.23	100.0
	3/4"	19.0	0.00	0.00	857.23	100.0
	3/8"	9.5	0.00	0.00	857.23	100.0
	4	4.75	4.37	4.37	852.86	99.5
	10	2.00	17.23	21.60	835.63	97.5
-10			(Based on calculated sieve wt.)			
	20	0.85	2.29	4.41	79.80	94.8
	40	0.425	5.30	9.71	74.50	88.5
	60	0.250	5.29	15.00	69.21	82.2
	100	0.150	4.25	19.25	64.96	77.1
	140	0.106	1.91	21.16	63.05	74.9
	200	0.075	1.22	22.38	61.83	73.4
	dry pan		0.41	22.79	61.42	
	wet pan			61.42	0.00	

d_{10} (mm): 0.00014
d_{16} (mm): 0.00027
d_{30} (mm): 0.0012
d_{50} (mm): 0.0075
d_{60} (mm): 0.020
d_{84} (mm): 0.29

Median Particle Diameter --d_{50} (mm): 0.0075
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 143
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 0.51
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.099

Note: Reported values for d_{10}, C_u, C_c, and soil classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Classification of fines: CH

USCS Soil Classification: Fat clay with sand (CH)s
USDA Soil Classification: Clay Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-34-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 17-Dec-25
Start Time: 8:00

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

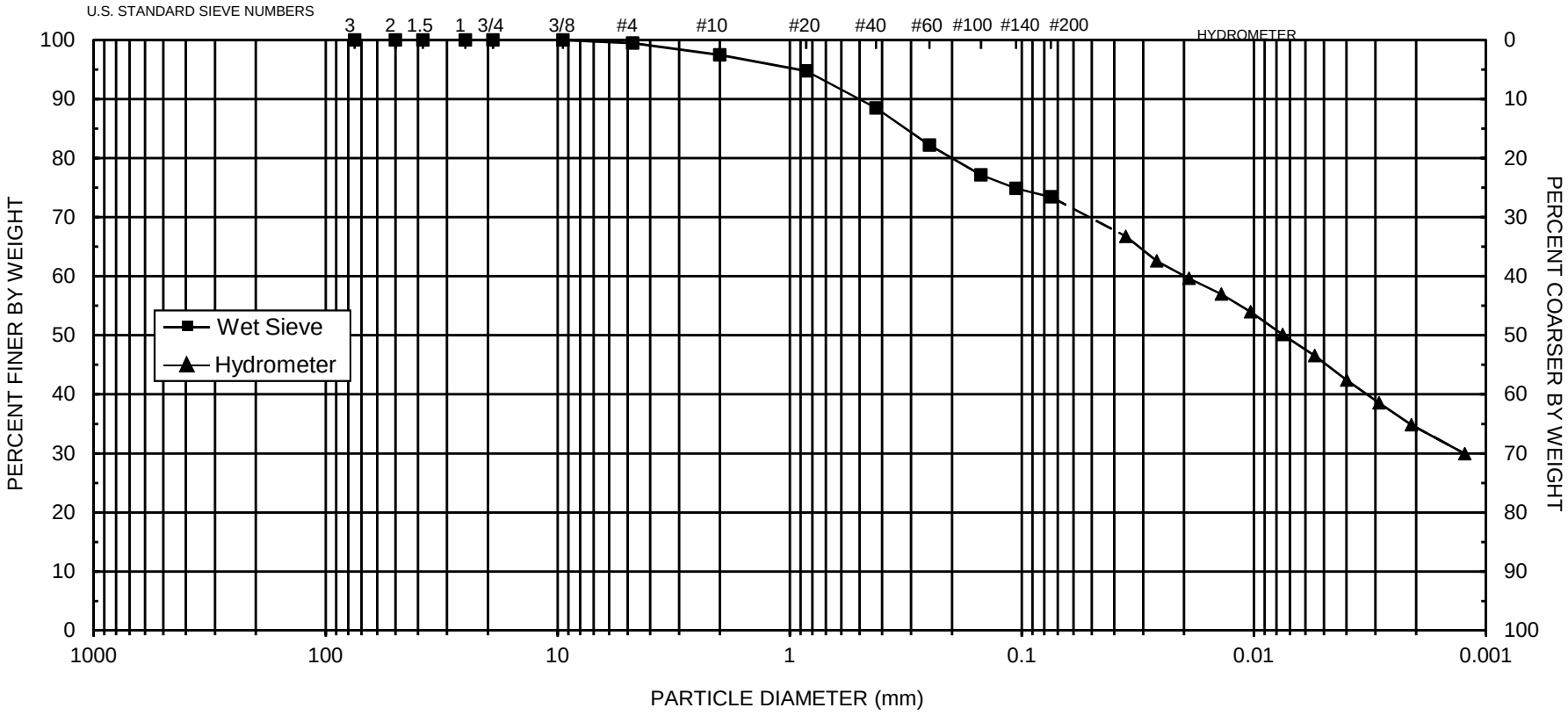
Initial Wt. (g)*:* 82.09
Total Sample Wt. (g)*:* 857.23
Wt. Passing #10 (g)*:* 835.63

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
17-Dec-25	1	18.70	62.00	5.79	56.2	7	0.0356	68	66.7
	2	18.70	58.50	5.79	52.7	7	0.0262	64	62.6
	4	18.70	56.00	5.79	50.2	8	0.0191	61	59.6
	8	18.70	53.75	5.79	48.0	8	0.0138	58	57.0
	15	18.70	51.25	5.79	45.5	9	0.0103	55	54.0
	30	18.70	48.00	5.79	42.2	9	0.0075	51	50.1
	60	18.70	45.00	5.79	39.2	10	0.0055	48	46.6
	120	18.70	41.50	5.79	35.7	10	0.0040	44	42.4
	240	18.70	38.25	5.79	32.5	11	0.0029	40	38.5
	480	19.10	35.00	5.66	29.3	11	0.0021	36	34.8
18-Dec-25	1464	18.70	31.00	5.79	25.2	12	0.0012	31	29.9

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



USCS	COBBLES	GRAVEL: Coarse	GRAVEL: Fine	SAND: Coarse	SAND: Medium	SAND: Fine	SILT OR CLAY

USDA	COBBLES	GRAVEL	SAND: Very coarse	SAND: Coarse	SAND: Medium	SAND: Fine	SAND: Very fine	SILT	CLAY

d_{10} = **0.00014**	d_{30} = **0.0012**	d_{50} = **0.0075**	d_{60} = **0.020**	C_u = **143**	C_c = **0.51**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-34-01 (0-10ft)	**10/22/25**	**Fat clay with sand (CH)s**	**Clay Loam**

Note: Reported values for d_{10}, C_u, C_c, and USCS classification are estimates, since extrapolation was required to obtain the d_{10} diameter

Particle Size Analysis
Sieve Data (#10 Split)

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-35-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25
Test Date: 15-Dec-25

Initial Dry Weight of Sample (g): 690.55
Weight Passing #10 (g): 685.57
Weight Retained #10 (g): 4.98
Weight of -10 Sub-Sample (g): 78.89
Calculated Weight of Sieve Sample (g): 79.46

Test Fraction	Sieve Number	Diameter (mm)	Wt. Retained	Cum Wt. Retained	Wt. Passing	% Passing
+10						
	3"	75	0.00	0.00	690.55	100.0
	2"	50	0.00	0.00	690.55	100.0
	1.5"	38.1	0.00	0.00	690.55	100.0
	1"	25	0.00	0.00	690.55	100.0
	3/4"	19.0	0.00	0.00	690.55	100.0
	3/8"	9.5	0.00	0.00	690.55	100.0
	4	4.75	1.72	1.72	688.83	99.8
	10	2.00	3.26	4.98	685.57	99.3
-10			(Based on calculated sieve wt.)			
	20	0.85	0.59	1.16	78.30	98.5
	40	0.425	2.60	3.76	75.70	95.3
	60	0.250	4.42	8.18	71.28	89.7
	100	0.150	6.33	14.51	64.95	81.7
	140	0.106	4.06	18.57	60.89	76.6
	200	0.075	2.71	21.28	58.18	73.2
	dry pan		0.94	22.22	57.24	
	wet pan			57.24	0.00	

d_{10} (mm): 0.0020
d_{16} (mm): 0.0024
d_{30} (mm): 0.0027
d_{50} (mm): 0.0050
d_{60} (mm): 0.015
d_{84} (mm): 0.17

Median Particle Diameter --d_{50} (mm): 0.0050
Uniformity Coefficient, Cu --[d_{60}/d_{10}] (mm): 7.5
Coefficient of Curvature, Cc --[$(d_{30})^2/(d_{10}*d_{60})$] (mm): 0.24
Mean Particle Diameter --[$(d_{16}+d_{50}+d_{84})/3$] (mm): 0.059

Classification of fines: CL

USCS Soil Classification: Lean clay with sand (CL)s
USDA Soil Classification: Silt Loam

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-35-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 16-Dec-25
Start Time: 8:12

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* $(NaPO_3)_6$
Assumed particle density: 2.65

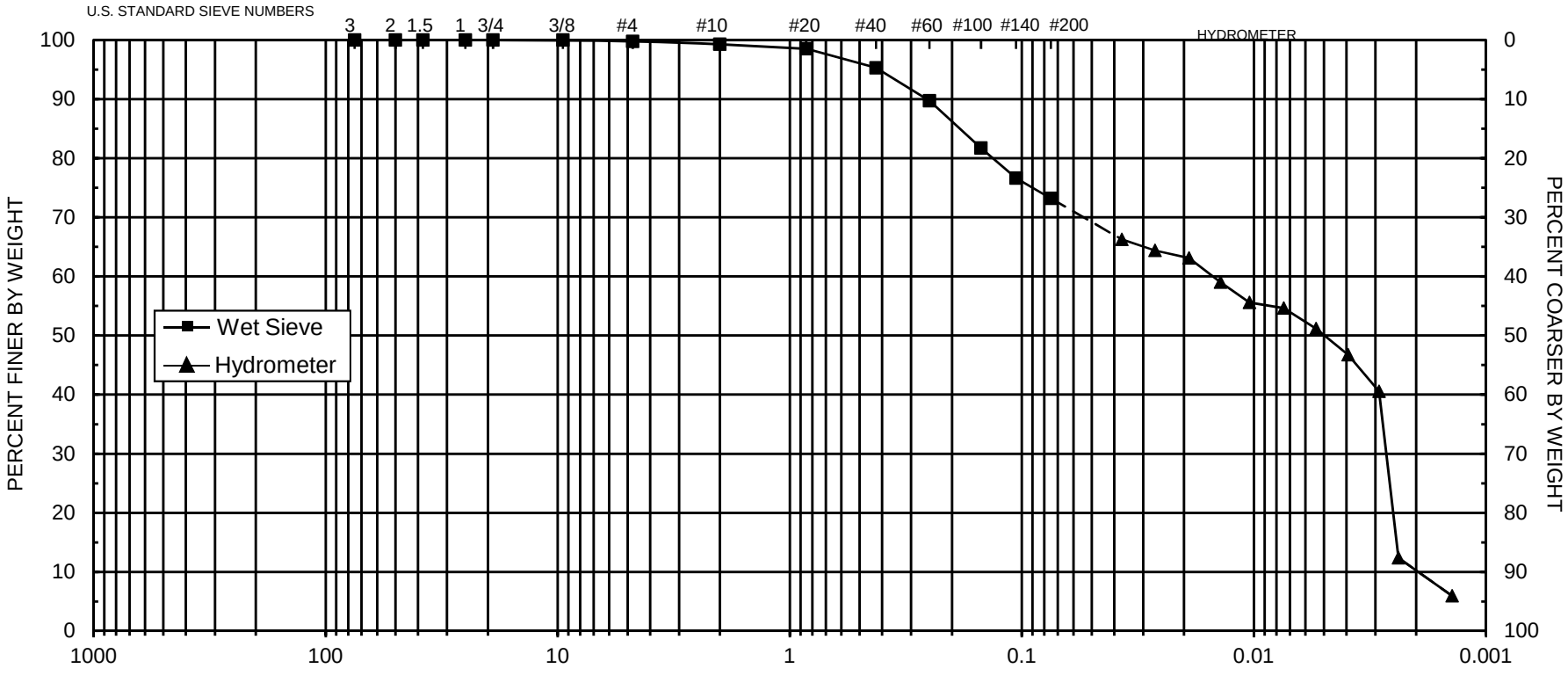
Initial Wt. (g)*:* 78.89
Total Sample Wt. (g)*:* 690.55
Wt. Passing #10 (g)*:* 685.57

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
16-Dec-25	1	18.50	58.50	5.85	52.7	7	0.0371	67	66.3
	2	18.50	57.00	5.85	51.2	8	0.0267	65	64.4
	4	18.50	56.00	5.85	50.2	8	0.0191	64	63.1
	8	18.50	52.75	5.85	46.9	8	0.0139	59	59.0
	15	18.50	50.00	5.85	44.2	9	0.0105	56	55.6
	30	18.50	49.25	5.85	43.4	9	0.0074	55	54.6
	60	18.50	46.50	5.85	40.7	9	0.0054	52	51.2
	120	18.50	43.00	5.85	37.2	10	0.0039	47	46.8
	240	18.70	38.00	5.79	32.2	11	0.0029	41	40.5
	480	20.60	15.00	5.17	9.8	15	0.0024	12	12.4
17-Dec-25	1463	18.70	10.50	5.79	4.7	15	0.0014	6	5.9

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



USCS	COBBLES	GRAVEL: Coarse, Fine	SAND: Coarse, Medium, Fine	SILT OR CLAY		
USDA	COBBLES	GRAVEL	SAND: Very coarse, Coarse, Medium, Fine, Very fine	SILT	CLAY	

d_{10} = **0.0020**	d_{30} = **0.0027**	d_{50} = **0.0050**	d_{60} = **0.015**	C_u = **7.5**	C_c = **0.24**

SAMPLE NUMBER	SAMPLE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-35-01 (0-10ft)	**10/22/25**	**Lean clay with sand (CL)s**	**Silt Loam**

Atterberg Limits / Identification of Fines

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-01-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 12-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	29	21
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	127.31	129.84	128.20
Weight of pan plus dry soil (g)	123.85	126.10	124.63
Weight of pan (g):	113.31	115.21	114.84
Gravimetric moisture content (% g/g):	32.83	34.34	36.47

Liquid Limit: 35

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	121.21	120.41
Weight of pan plus dry soil (g)	120.48	119.61
Weight of pan (g):	116.35	115.23
Gravimetric moisture content (% g/g):	17.68	18.26

Plastic Limit: 18

Results

Percent of Sample Retained on #40 Sieve: 40.919262

Liquid Limit: 35
Plastic Limit: 18
Plasticity Index: 17

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-02-01 (0-7ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 11-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	30	22	18
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	126.86	128.37	128.30
Weight of pan plus dry soil (g)	122.61	123.75	124.03
Weight of pan (g):	112.62	113.12	114.19
Gravimetric moisture content (% g/g):	42.54	43.46	43.39

Liquid Limit: 43

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	116.43	118.24
Weight of pan plus dry soil (g)	115.75	117.45
Weight of pan (g):	111.93	113.12
Gravimetric moisture content (% g/g):	17.80	18.24

Plastic Limit: 18

Results

Percent of Sample Retained on #40 Sieve: 52.641004

Liquid Limit: 43
Plastic Limit: 18
Plasticity Index: 25

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-02-02 (7-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 16-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	30	23
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	121.82	128.32	124.96
Weight of pan plus dry soil (g)	118.60	124.51	120.46
Weight of pan (g):	112.20	117.07	111.89
Gravimetric moisture content (% g/g):	50.31	51.21	52.51

Liquid Limit: 52

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	121.94	115.12
Weight of pan plus dry soil (g)	121.09	114.21
Weight of pan (g):	117.40	110.56
Gravimetric moisture content (% g/g):	23.04	24.93

Plastic Limit: 24

Results

Percent of Sample Retained on #40 Sieve: 69.567154

Liquid Limit: 52
Plastic Limit: 24
Plasticity Index: 28

Classification: CH

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-05-01 (0-6.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 9-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	34	29	18
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	123.73	126.34	121.76
Weight of pan plus dry soil (g)	121.46	124.03	119.59
Weight of pan (g):	112.53	115.21	111.90
Gravimetric moisture content (% g/g):	25.42	26.19	28.22

Liquid Limit: 27

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	124.78	117.82
Weight of pan plus dry soil (g)	123.76	116.89
Weight of pan (g):	117.85	111.76
Gravimetric moisture content (% g/g):	17.26	18.13

Plastic Limit: 18

Results

Percent of Sample Retained on #40 Sieve: 18.93

Liquid Limit: 27
Plastic Limit: 18
Plasticity Index: 9

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-06-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 10-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	23	21
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	120.32	120.46	125.22
Weight of pan plus dry soil (g)	118.07	117.98	122.21
Weight of pan (g):	112.21	111.79	114.82
Gravimetric moisture content (% g/g):	38.40	40.06	40.73

Liquid Limit: 40

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	116.60	117.16
Weight of pan plus dry soil (g)	115.89	116.41
Weight of pan (g):	111.83	111.93
Gravimetric moisture content (% g/g):	17.49	16.74

Plastic Limit: 17

Results

Percent of Sample Retained on #40 Sieve: 46.569602

Liquid Limit: 40
Plastic Limit: 17
Plasticity Index: 23

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-07-01 (0-3ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 16-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	25	17
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	131.07	126.76	127.08
Weight of pan plus dry soil (g)	126.45	122.13	122.74
Weight of pan (g):	116.37	112.51	114.18
Gravimetric moisture content (% g/g):	45.83	48.13	50.70

Liquid Limit: 48

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	119.68	122.57
Weight of pan plus dry soil (g)	118.89	121.82
Weight of pan (g):	114.73	117.93
Gravimetric moisture content (% g/g):	18.99	19.28

Plastic Limit: 19

Results

Percent of Sample Retained on #40 Sieve: 62.449531

Liquid Limit: 48
Plastic Limit: 19
Plasticity Index: 29

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-7-02 (3-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 18-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	23	21
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	127.56	122.99	123.09
Weight of pan plus dry soil (g)	123.18	118.77	118.52
Weight of pan (g):	116.39	112.52	111.93
Gravimetric moisture content (% g/g):	64.51	67.52	69.35

Liquid Limit: 67

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	116.66	122.00
Weight of pan plus dry soil (g)	115.67	121.09
Weight of pan (g):	111.97	117.57
Gravimetric moisture content (% g/g):	26.76	25.85

Plastic Limit: 26

Results

Percent of Sample Retained on #40 Sieve: 59.365033

Liquid Limit: 67
Plastic Limit: 26
Plasticity Index: 41

Classification: CH

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-08-01 (0.5-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 11-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	34	25	20
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	130.83	133.81	131.59
Weight of pan plus dry soil (g)	127.31	129.58	128.17
Weight of pan (g):	115.74	116.39	117.95
Gravimetric moisture content (% g/g):	30.42	32.07	33.46

Liquid Limit: 32

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	119.98	117.36
Weight of pan plus dry soil (g)	119.27	116.63
Weight of pan (g):	114.65	111.97
Gravimetric moisture content (% g/g):	15.37	15.67

Plastic Limit: 16

Results

Percent of Sample Retained on #40 Sieve: 38.282861

Liquid Limit: 32
Plastic Limit: 16
Plasticity Index: 16

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-09-01 (0-6ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 10-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	34	27	20
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	125.39	126.93	124.80
Weight of pan plus dry soil (g)	122.11	123.72	121.63
Weight of pan (g):	114.36	116.37	114.63
Gravimetric moisture content (% g/g):	42.32	43.67	45.29

Liquid Limit: 44

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	118.51	115.64
Weight of pan plus dry soil (g)	117.70	114.83
Weight of pan (g):	113.35	110.55
Gravimetric moisture content (% g/g):	18.62	18.93

Plastic Limit: 19

Results

Percent of Sample Retained on #40 Sieve: 44.387281

Liquid Limit: 44
Plastic Limit: 19
Plasticity Index: 25

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-11-01 (0-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 10-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	25	17
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	125.48	127.44	128.43
Weight of pan plus dry soil (g)	122.94	124.85	125.80
Weight of pan (g):	113.00	115.17	116.26
Gravimetric moisture content (% g/g):	25.55	26.76	27.57

Liquid Limit: 27

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	121.56	123.00
Weight of pan plus dry soil (g)	120.68	122.09
Weight of pan (g):	116.34	117.57
Gravimetric moisture content (% g/g):	20.28	20.13

Plastic Limit: 20

Results

Percent of Sample Retained on #40 Sieve: 27.699336

Liquid Limit: 27
Plastic Limit: 20
Plasticity Index: 7

Classification: CL-ML

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-12-01 (0-2ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 17-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	32	26	15
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	128.27	129.38	121.75
Weight of pan plus dry soil (g)	124.60	125.04	118.37
Weight of pan (g):	117.08	116.39	111.91
Gravimetric moisture content (% g/g):	48.80	50.17	52.32

Liquid Limit: 50

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	123.00	122.63
Weight of pan plus dry soil (g)	122.01	121.80
Weight of pan (g):	117.40	117.95
Gravimetric moisture content (% g/g):	21.48	21.56

Plastic Limit: 22

Results

Percent of Sample Retained on #40 Sieve: 65.088853

Liquid Limit: 50
Plastic Limit: 22
Plasticity Index: 28

Classification: CH

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-13-01 (0-4.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 16-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	28	20
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	125.06	123.49	127.09
Weight of pan plus dry soil (g)	121.34	119.84	123.47
Weight of pan (g):	113.01	111.79	115.74
Gravimetric moisture content (% g/g):	44.66	45.34	46.83

Liquid Limit: 46

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	116.62	116.84
Weight of pan plus dry soil (g)	115.92	116.08
Weight of pan (g):	111.97	111.91
Gravimetric moisture content (% g/g):	17.72	18.23

Plastic Limit: 18

Results

Percent of Sample Retained on #40 Sieve: 37.106009

Liquid Limit: 46
Plastic Limit: 18
Plasticity Index: 28

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-13-02 (4.5-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 17-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	29	25	16
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	125.38	126.76	129.13
Weight of pan plus dry soil (g)	121.67	123.45	124.65
Weight of pan (g):	112.52	115.68	114.43
Gravimetric moisture content (% g/g):	40.55	42.60	43.84

Liquid Limit: 42

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	119.72	119.79
Weight of pan plus dry soil (g)	118.93	118.95
Weight of pan (g):	114.71	114.56
Gravimetric moisture content (% g/g):	18.72	19.13

Plastic Limit: 19

Results

Percent of Sample Retained on #40 Sieve: 56.487952

Liquid Limit: 42
Plastic Limit: 19
Plasticity Index: 23

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-15-02 (4-5.25ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 10-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	30	28	19
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	130.18	128.27	133.05
Weight of pan plus dry soil (g)	127.09	126.23	131.29
Weight of pan (g):	113.31	117.39	124.04
Gravimetric moisture content (% g/g):	22.42	23.08	24.28

Liquid Limit: 23

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	118.80	121.04
Weight of pan plus dry soil (g)	117.86	120.02
Weight of pan (g):	113.34	115.10
Gravimetric moisture content (% g/g):	20.80	20.73

Plastic Limit: 21

Results

Percent of Sample Retained on #40 Sieve: 36.098856

Liquid Limit: 23
Plastic Limit: 21
Plasticity Index: 2

Classification: ML

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-16-01 (0-4ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 16-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	29	23
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	124.29	126.34	135.18
Weight of pan plus dry soil (g)	121.17	123.68	132.15
Weight of pan (g):	111.93	116.37	124.03
Gravimetric moisture content (% g/g):	33.77	36.39	37.32

Liquid Limit: 37

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	117.00	122.70
Weight of pan plus dry soil (g)	116.17	121.85
Weight of pan (g):	111.83	117.57
Gravimetric moisture content (% g/g):	19.12	19.86

Plastic Limit: 19

Results

Percent of Sample Retained on #40 Sieve: 45.178814

Liquid Limit: 37
Plastic Limit: 19
Plasticity Index: 18

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-29-01 (0-1ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 17-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	22	19
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	124.42	125.26	128.71
Weight of pan plus dry soil (g)	121.80	122.86	125.85
Weight of pan (g):	112.27	114.76	116.65
Gravimetric moisture content (% g/g):	27.49	29.63	31.09

Liquid Limit: 29

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	120.07	122.86
Weight of pan plus dry soil (g)	119.28	122.05
Weight of pan (g):	114.78	117.38
Gravimetric moisture content (% g/g):	17.56	17.34

Plastic Limit: 17

Results

Percent of Sample Retained on #40 Sieve: 36.858202

Liquid Limit: 29
Plastic Limit: 17
Plasticity Index: 12

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-29-02 (1-2.5ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 11-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	26	19
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	127.87	126.05	130.88
Weight of pan plus dry soil (g)	124.90	123.38	127.47
Weight of pan (g):	113.97	114.73	116.72
Gravimetric moisture content (% g/g):	27.17	30.87	31.72

Liquid Limit: 30

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	118.49	119.04
Weight of pan plus dry soil (g)	117.76	118.29
Weight of pan (g):	113.20	113.55
Gravimetric moisture content (% g/g):	16.01	15.82

Plastic Limit: 16

Results

Percent of Sample Retained on #40 Sieve: 45.336909

Liquid Limit: 30
Plastic Limit: 16
Plasticity Index: 14

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-33-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 17-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	30	25
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	126.90	126.14	126.11
Weight of pan plus dry soil (g)	123.24	122.89	122.65
Weight of pan (g):	114.37	115.21	114.65
Gravimetric moisture content (% g/g):	41.26	42.32	43.25

Liquid Limit: 43

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	118.21	117.03
Weight of pan plus dry soil (g)	117.45	116.25
Weight of pan (g):	113.36	111.94
Gravimetric moisture content (% g/g):	18.58	18.10

Plastic Limit: 18

Results

Percent of Sample Retained on #40 Sieve: 55.349066

Liquid Limit: 43
Plastic Limit: 18
Plasticity Index: 25

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-34-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 16-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	35	30	25
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	128.73	130.21	123.32
Weight of pan plus dry soil (g)	123.85	125.60	119.06
Weight of pan (g):	114.74	117.39	111.93
Gravimetric moisture content (% g/g):	53.57	56.15	59.75

Liquid Limit: 60

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	117.78	117.51
Weight of pan plus dry soil (g)	116.86	116.54
Weight of pan (g):	113.33	112.93
Gravimetric moisture content (% g/g):	26.06	26.87

Plastic Limit: 26

Results

Percent of Sample Retained on #40 Sieve: 57.592166

Liquid Limit: 60
Plastic Limit: 26
Plasticity Index: 34

Classification: CH

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Atterberg Limits

Job Name: Stantec (10B-25)
Job Number: DB25.1135.00
Sample Number: TP-35-01 (0-10ft)
Project: Section 27 Mine
Sample Received: 10/22/25

Test Date: 11-Dec-25

Liquid Limit

	Trial 1	Trial 2	Trial 3
Number of drops:	34	29	20
Pan number:	LL1	LL2	LL3
Weight of pan plus moist soil (g):	127.84	127.28	129.07
Weight of pan plus dry soil (g)	124.09	124.35	125.04
Weight of pan (g):	114.77	117.39	115.69
Gravimetric moisture content (% g/g):	40.24	42.10	43.10

Liquid Limit: 42

Plastic Limit

	Trial 1	Trial 2
Pan number:	PL1	PL2
Weight of pan plus moist soil (g):	119.41	122.23
Weight of pan plus dry soil (g)	118.65	121.44
Weight of pan (g):	114.75	117.38
Gravimetric moisture content (% g/g):	19.49	19.46

Plastic Limit: 19

Results

Percent of Sample Retained on #40 Sieve: 54.386756

Liquid Limit: 42
Plastic Limit: 19
Plasticity Index: 23

Classification: CL

Comments:

--- = Soil requires visual-manual classification due to non-plasticity
* = 1-point method requested by client

Laboratory analysis by: N. Dolan
Data entered by: N. Dolan
Checked by: T. Morgan

Remolded Initial Properties

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-01-01 (0-6ft)
Project Name: Section 27
Date Received: 10/24/25

	As Received	Remolded
Test Date:	NA	25-Feb-26
Field weight of sample* (g)*:*		742.34
Tare weight, ring (g)*:*		77.43
Tare weight, pan/plate (g)*:*		419.54
Tare weight, other (g)*:*		2.64
Dry weight of sample (g)*:*		209.41
Sample volume (cm^3)*:*		133.43
Assumed particle density (g/cm^3)*:*		2.65
Gravimetric Moisture Content (% g/g)*:*		15.9
Volumetric Moisture Content (% vol)*:*		25.0
Dry bulk density (g/cm^3)*:*		1.57
Wet bulk density (g/cm^3)*:*		1.82
Calculated Porosity (% vol)*:*		40.8
Percent Saturation:		61.2

Laboratory analysis by: R. LL
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (1-26)
Job Number: DB26.1035.02
Sample Number: TP-02-02 (7-10ft)
Project Name: Section 27
Date Received: 10/24/25

	As Received	Remolded
Test Date:	NA	25-Feb-26
Field weight of sample* (g)*:*		755.09
Tare weight, ring (g)*:*		88.48
Tare weight, pan/plate (g)*:*		423.78
Tare weight, other (g)*:*		2.06
Dry weight of sample (g)*:*		207.71
Sample volume (cm^3)*:*		144.02
Assumed particle density (g/cm^3)*:*		2.65
Gravimetric Moisture Content (% g/g)*:*		15.9
Volumetric Moisture Content (% vol)*:*		23.0
Dry bulk density (g/cm^3)*:*		1.44
Wet bulk density (g/cm^3)*:*		1.67
Calculated Porosity (% vol)*:*		45.6
Percent Saturation:		50.4

Laboratory analysis by: R. LL
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (1-26)
Job Number: DB26.1035.03
Sample Number: TP-05-01 (0-6.5ft)
Project Name: Section 27
Date Received: 10/24/25

	As Received	Remolded
Test Date:	NA	25-Feb-26
Field weight of sample* (g)*:*		773.08
Tare weight, ring (g)*:*		88.87
Tare weight, pan/plate (g)*:*		419.30
Tare weight, other (g)*:*		2.08
Dry weight of sample (g)*:*		234.60
Sample volume (cm^3)*:*		145.98
Assumed particle density (g/cm^3)*:*		2.65

Gravimetric Moisture Content (% g/g)*:*	12.0
Volumetric Moisture Content (% vol)*:*	19.3
Dry bulk density (g/cm^3)*:*	1.61
Wet bulk density (g/cm^3)*:*	1.80
Calculated Porosity (% vol)*:*	39.4
Percent Saturation:	49.1

Laboratory analysis by: R. LL
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (1-26)
Job Number: DB26.1035.06
Sample Number: TP-07-02 (3-10ft)
Project Name: Section 27
Date Received: 10/24/25

	As Received	Remolded
Test Date:	NA	25-Feb-26
Field weight of sample* (g)*:*		743.54
Tare weight, ring (g)*:*		86.43
Tare weight, pan/plate (g)*:*		421.15
Tare weight, other (g)*:*		4.90
Dry weight of sample (g)*:*		193.08
Sample volume (cm^3)*:*		141.42
Assumed particle density (g/cm^3)*:*		2.70

Gravimetric Moisture Content (% g/g)*:*	19.7
Volumetric Moisture Content (% vol)*:*	26.9
Dry bulk density (g/cm^3)*:*	1.37
Wet bulk density (g/cm^3)*:*	1.63
Calculated Porosity (% vol)*:*	49.4
Percent Saturation:	54.3

Laboratory analysis by: R. LL
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (1-26)
Job Number: DB26.1035.09
Sample Number: TP-13-02 (4.5-10ft)
Project Name: Section 27
Date Received: 10/24/25

	As Received	Remolded
Test Date:	NA	25-Feb-26
Field weight of sample* (g)*:*		744.50
Tare weight, ring (g)*:*		77.54
Tare weight, pan/plate (g)*:*		417.98
Tare weight, other (g)*:*		4.32
Dry weight of sample (g)*:*		213.46
Sample volume (cm^3)*:*		134.39
Assumed particle density (g/cm^3)*:*		2.65
Gravimetric Moisture Content (% g/g)*:*		14.6
Volumetric Moisture Content (% vol)*:*		23.2
Dry bulk density (g/cm^3)*:*		1.59
Wet bulk density (g/cm^3)*:*		1.82
Calculated Porosity (% vol)*:*		40.1
Percent Saturation:		58.0

Laboratory analysis by: R. LL
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (1-26)
Job Number: DB26.1035.16
Sample Number: TP-15-01 (0-4ft)
Project Name: Section 27
Date Received: 10/24/25

	As Received	Remolded
Test Date:	NA	25-Feb-26
Field weight of sample* (g)*:*		761.52
Tare weight, ring (g)*:*		81.69
Tare weight, pan/plate (g)*:*		415.08
Tare weight, other (g)*:*		1.93
Dry weight of sample (g)*:*		232.35
Sample volume (cm^3)*:*		144.31
Assumed particle density (g/cm^3)*:*		2.65
Gravimetric Moisture Content (% g/g)*:*		13.1
Volumetric Moisture Content (% vol)*:*		21.1
Dry bulk density (g/cm^3)*:*		1.61
Wet bulk density (g/cm^3)*:*		1.82
Calculated Porosity (% vol)*:*		39.2
Percent Saturation:		53.8

Laboratory analysis by: R.LL
Data entered by: Z.TM
Checked by: T.Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (1-26)
Job Number: DB26.1035.18
Sample Number: TP-16-01 (0-4ft)
Project Name: Section 27
Date Received: 10/24/25

	As Received	Remolded
Test Date:	NA	25-Feb-26
Field weight of sample* (g)*:*		796.86
Tare weight, ring (g)*:*		141.42
Tare weight, pan/plate (g)*:*		416.42
Tare weight, other (g)*:*		3.00
Dry weight of sample (g)*:*		206.86
Sample volume (cm^3)*:*		136.71
Assumed particle density (g/cm^3)*:*		2.65
Gravimetric Moisture Content (% g/g)*:*		14.1
Volumetric Moisture Content (% vol)*:*		21.3
Dry bulk density (g/cm^3)*:*		1.51
Wet bulk density (g/cm^3)*:*		1.73
Calculated Porosity (% vol)*:*		42.9
Percent Saturation:		49.7

Laboratory analysis by: R. LL
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Data for Initial Moisture Content, Bulk Density, Porosity, and Percent Saturation

Job Name: Stantec (1-26)
Job Number: DB26.1035.12
Sample Number: TP-35-01 (0-10ft)
Project Name: Section 27
Date Received: 10/24/25

	As Received	Remolded
Test Date:	NA	25-Feb-26
Field weight of sample* (g)*:*		766.99
Tare weight, ring (g)*:*		81.78
Tare weight, pan/plate (g)*:*		418.63
Tare weight, other (g)*:*		4.33
Dry weight of sample (g)*:*		220.29
Sample volume (cm^3)*:*		143.35
Assumed particle density (g/cm^3)*:*		2.75
Gravimetric Moisture Content (% g/g)*:*		19.0
Volumetric Moisture Content (% vol)*:*		29.3
Dry bulk density (g/cm^3)*:*		1.54
Wet bulk density (g/cm^3)*:*		1.83
Calculated Porosity (% vol)*:*		44.1
Percent Saturation:		66.3

Laboratory analysis by: R. LL
Data entered by: M. Sharma
Checked by: T. Morgan

Comments:

* Weight including tares
NA = Not applicable
--- = This sample was not remolded

Saturated Hydraulic Conductivity

Saturated Hydraulic Conductivity
Flexible Wall Falling Head-Rising Tail Method

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-01-01
Project Name: Section 27
Date Received: 10/22/2025

Remolded or Initial Sample Properties		Post Permeation Sample Properties		Test and Sample Conditions	
Initial Mass (g):	242.70	*Saturated Mass (g):*	259.75	*Permeant liquid used:*	Tap Water
Diameter (cm):	4.93	*Dry Mass (g):*	208.52	*Sample Preparation:*	☐ In situ sample, extruded
Length (cm):	6.99	*Diameter (cm):*	4.779		☑ Remolded Sample
Area (cm^2):	19.09	*Length (cm):*	6.987	*Number of Lifts:*	3
Volume (cm^3):	133.43	*Deformation (%)**:*	0.04	*Split:*	NA
Dry Density (g/cm^3):	1.56	*Area (cm^2):*	17.94	*Percent Coarse Material (%):*	NA
Dry Density (pcf):	97.6	*Volume (cm^3):*	125.33	*Particle Density(g/cm^3):*	2.65 ☑ Assumed ☐ Measured
Water Content (%, g/g):	16.4	*Dry Density (g/cm^3):*	1.66	*Cell pressure (PSI):*	82.7
Water Content (%, vol):	25.6	*Dry Density (pcf):*	103.9	*Influent pressure (PSI):*	80.0
Void Ratio (e):	0.70	*Water Content (%, g/g):*	24.6	*Effluent pressure (PSI):*	80.0
Porosity (%, vol):	41.0	*Water Content (%, vol):*	40.9	*Panel Used:*	☐ G ☐ H ☑ I
Saturation (%):	62.4	*Void Ratio(e):*	0.59	*Reading:*	☐ Annulus ☑ Pipette
		Porosity (%, vol):	37.2		Date/Time
		Saturation (%):*	109.8	B-Value (% saturation) prior to test*:	0.97 3/18/26 1100
				B-Value (% saturation) post to test:	0.98 3/21/26 1400

* Per ASTM D5084 percent saturation is ensured (B-Value ≥ 95%) prior to testing, as post test saturation values may be exaggerated during depressurizing and sample removal.

**Percent Deformation: based on initial sample length and post permeation sample length.

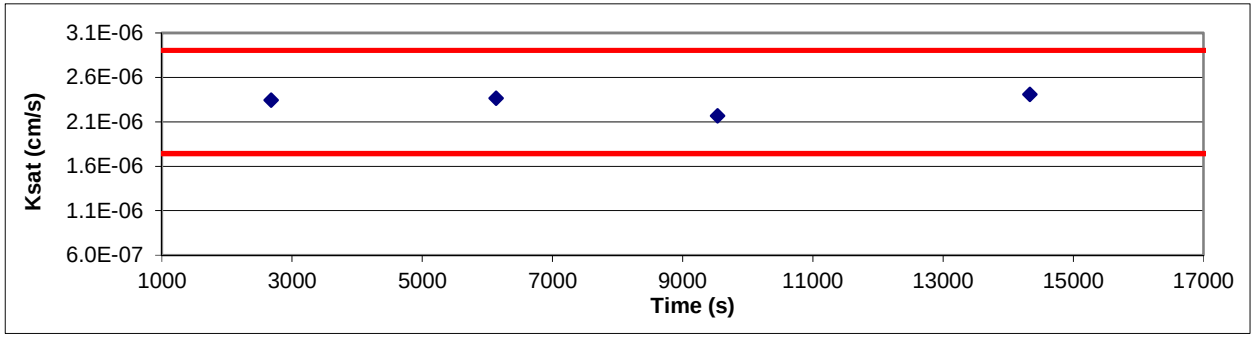
Laboratory analysis by: J. Tafoya
Data entered by: M. Sharma
Checked by: J. Hines

Saturated Hydraulic Conductivity
Flexible Wall Falling Head-Rising Tail Method

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-01-01
Project Name: Section 27
Date Received: 10/22/2025

Date	Time	Temp (°C)	Influent Pipette Reading	Effluent Pipette Reading	Gradient (ΔH/ΔL)	Average Flow (cm^3)	Elapsed Time (s)	Ratio (outflow to inflow)	Change in Head (Not to exceed 25%)	k_{sat} T°C (cm/s)	k_{sat} Corrected (cm/s)
Test # 1:											
18-Mar-26	14:48:50	22.5	2.00	24.00	3.64	0.37	2680	1.13	4%	2.49E-06	2.34E-06
18-Mar-26	15:33:30	22.5	2.40	23.55	3.50						
Test # 2:											
19-Mar-26	07:52:15	22.5	2.50	23.50	3.47	0.46	3455	1.10	5%	2.51E-06	2.37E-06
19-Mar-26	08:49:50	22.5	3.00	22.95	3.30						
Test # 3:											
19-Mar-26	11:18:55	22.5	4.15	21.85	2.93	0.35	3400	0.95	5%	2.30E-06	2.17E-06
19-Mar-26	12:15:35	22.5	4.56	21.46	2.79						
Test # 4:											
20-Mar-26	12:34:39	22.7	5.50	20.50	2.48	0.46	4801	1.10	7%	2.56E-06	2.41E-06
20-Mar-26	13:54:40	22.3	6.00	19.95	2.31						

***Average Ksat* (cm/sec):** **2.32E-06**
Calculated Gravel Corrected Average Ksat (cm/sec): ---



ASTM Required Range (+/- 25%)

Ksat (-25%) (cm/s): 1.74E-06

Ksat (+25%) (cm/s): 2.90E-06

Saturated Hydraulic Conductivity
Flexible Wall Falling Head-Rising Tail Method

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-02-02 (7-10ft)
Project Name: Section 27
Date Received: 10/22/2025

Remolded or Initial Sample Properties		Post Permeation Sample Properties		Test and Sample Conditions	
Initial Mass (g):	243.20	*Saturated Mass (g):*	282.70	*Permeant liquid used:*	Tap Water
Diameter (cm):	4.88	*Dry Mass (g):*	209.32	*Sample Preparation:*	☐ In situ sample, extruded
Length (cm):	7.7	*Diameter (cm):*	4.931		☑ Remolded Sample
Area (cm^2):	18.70	*Length (cm):*	7.658	*Number of Lifts:*	3
Volume (cm^3):	144.02	*Deformation (%)**:*	0.55	*Split:*	NA
Dry Density (g/cm^3):	1.45	*Area (cm^2):*	19.10	*Percent Coarse Material (%):*	0
Dry Density (pcf):	90.7	*Volume (cm^3):*	146.24	*Particle Density(g/cm^3):*	2.65 ☑ Assumed ☐ Measured
Water Content (%, g/g):	16.2	*Dry Density (g/cm^3):*	1.43	*Cell pressure (PSI):*	82.7
Water Content (%, vol):	23.5	*Dry Density (pcf):*	89.4	*Influent pressure (PSI):*	80.0
Void Ratio (e):	0.82	*Water Content (%, g/g):*	35.1	*Effluent pressure (PSI):*	80.0
Porosity (%, vol):	45.2	*Water Content (%, vol):*	50.2	*Panel Used:*	☐ A ☐ B ☑ C
Saturation (%):	52.1	*Void Ratio(e):*	0.85	*Reading:*	☐ Annulus ☑ Pipette
		Porosity (%, vol):	46.0		Date/Time
		Saturation (%):*	109.1	B-Value (% saturation) prior to test*:	0.95 3/19/26 800
				B-Value (% saturation) post to test:	0.98 3/22/26 1300

* Per ASTM D5084 percent saturation is ensured (B-Value ≥ 95%) prior to testing, as post test saturation values may be exaggerated or skewed during depressurizing and sample removal.
**Percent Deformation: based on initial sample length and post permeation sample length.

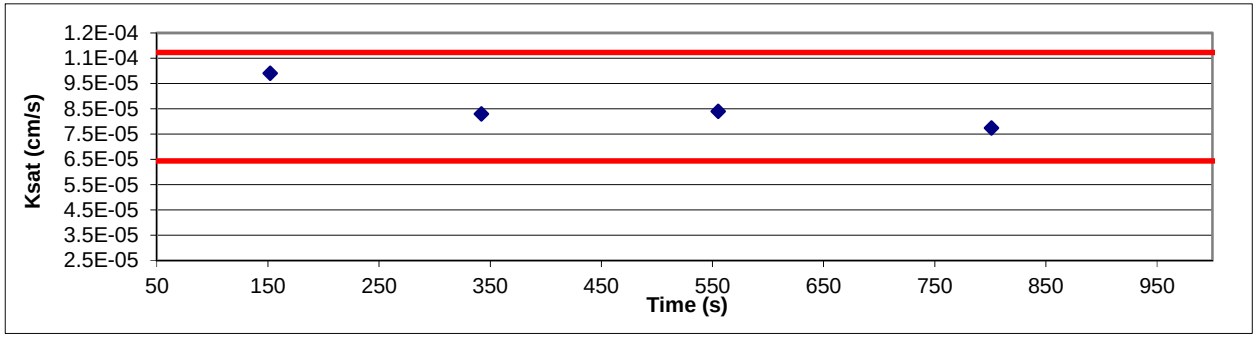
Laboratory analysis by: R. LL
Data entered by: R. LL
Checked by: T. Morgan

Saturated Hydraulic Conductivity
Flexible Wall Falling Head-Rising Tail Method

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-02-02 (7-10ft)
Project Name: Section 27
Date Received: 10/22/2025

Date	Time	Temp (°C)	Influent Pipette Reading	Effluent Pipette Reading	Gradient (ΔH/ΔL)	Average Flow (cm^3)	Elapsed Time (s)	Ratio (outflow to inflow)	Change in Head (Not to exceed 25%)	k_{sat} T°C (cm/s)	k_{sat} Corrected (cm/s)
Test # 1:											
20-Mar-26	08:14:30	22.4	1.00	25.00	3.62	0.91	152	1.10	9%	1.05E-04	9.91E-05
20-Mar-26	08:17:02	22.4	2.00	23.90	3.30						
Test # 2:											
20-Mar-26	08:17:02	22.4	2.00	23.90	3.30	0.87	190	1.00	9%	8.78E-05	8.29E-05
20-Mar-26	08:20:12	22.4	3.00	22.90	3.00						
Test # 3:											
20-Mar-26	08:20:12	22.4	3.00	22.90	3.00	0.89	213	1.05	10%	8.89E-05	8.40E-05
20-Mar-26	08:23:45	22.4	4.00	21.85	2.69						
Test # 4:											
20-Mar-26	08:23:45	22.4	4.00	21.85	2.69	0.85	246	0.95	11%	8.19E-05	7.74E-05
20-Mar-26	08:27:51	22.4	5.00	20.90	2.40						

***Average Ksat* (cm/sec):** **8.59E-05**
Calculated Gravel Corrected Average Ksat (cm/sec): 6.68E-05



ASTM Required Range (+/- 25%)

Ksat (-25%) (cm/s): 6.44E-05

Ksat (+25%) (cm/s): 1.07E-04

Oversize Correction Data Sheet

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-02-02 (7-10ft)
Project Name: Section 27
Date Received: 10/22/2025

Split (3/4", 3/8", #4): #4
Calculated Porosity of Fines (% vol)*:* 45.2

	Coarse Fraction*	Fines Fraction	Composite
Subsample Mass (g)*:*	3.8	13.31	17.11
Bulk Density (g/cm^3)*:*	2.65	1.45	1.62
Volume of Solids (cm^3)*:*	1.43	5.02	6.46
Volume of Voids (cm^3)*:*	0.00	4.14	4.14
Total Volume (cm^3)*:*	1.43	9.16	10.59
Volumetric Fraction (%)*:*	13.54	86.46	100.00
Mass Fraction (%)*:*	22.21	77.79	100.00
Ksat (cm/sec)*:*	NM	8.6E-05	6.7E-05

* = Porosity and moisture content of coarse fraction assumed to be zero.
--- = Oversize correction is unnecessary since coarse fraction < 5% of composite mass
NM = Not measured
#NAME? #NAME?

Laboratory analysis by: R. LL
Data entered by: R. LL
Checked by: T. Morgan

Saturated Hydraulic Conductivity
Flexible Wall Falling Head-Rising Tail Method

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-05-01 (0-6.5)
Project Name: Section 27
Date Received: 10/22/2025

Remolded or Initial Sample Properties		Post Permeation Sample Properties		Test and Sample Conditions	
Initial Mass (g):	264.63	*Saturated Mass (g):*	293.94	*Permeant liquid used:*	Tap Water
Diameter (cm):	4.91	*Dry Mass (g):*	233.2	*Sample Preparation:*	☐ In situ sample, extruded
Length (cm):	7.71	*Diameter (cm):*	4.815		☑ Remolded Sample
Area (cm^2):	18.93	*Length (cm):*	7.705	*Number of Lifts:*	3
Volume (cm^3):	145.98	*Deformation (%)**:*	0.06	*Split:*	NA
Dry Density (g/cm^3):	1.60	*Area (cm^2):*	18.21	*Percent Coarse Material (%):*	0
Dry Density (pcf):	99.7	*Volume (cm^3):*	140.30	*Particle Density(g/cm^3):*	2.65 ☑ Assumed ☐ Measured
Water Content (%, g/g):	13.5	*Dry Density (g/cm^3):*	1.66	*Cell pressure (PSI):*	82.7
Water Content (%, vol):	21.5	*Dry Density (pcf):*	103.8	*Influent pressure (PSI):*	80.0
Void Ratio (e):	0.66	*Water Content (%, g/g):*	26.0	*Effluent pressure (PSI):*	80.0
Porosity (%, vol):	39.7	*Water Content (%, vol):*	43.3	*Panel Used:*	☐ A ☑ B ☐ C
Saturation (%):	54.2	*Void Ratio(e):*	0.59	*Reading:*	☐ Annulus ☑ Pipette
		Porosity (%, vol):	37.3		Date/Time
		Saturation (%):*	116.1	B-Value (% saturation) prior to test*:	0.97 3/9/2026
				B-Value (% saturation) post to test:	0.98 3/16/2026

* Per ASTM D5084 percent saturation is ensured (B-Value ≥ 95%) prior to testing, as post test saturation values may be exaggerated or skewed during depressurizing and sample removal.

**Percent Deformation: based on initial sample length and post permeation sample length.

Laboratory analysis by: J. Tafoya
Data entered by: J. Tafoya
Checked by: T. Morgan

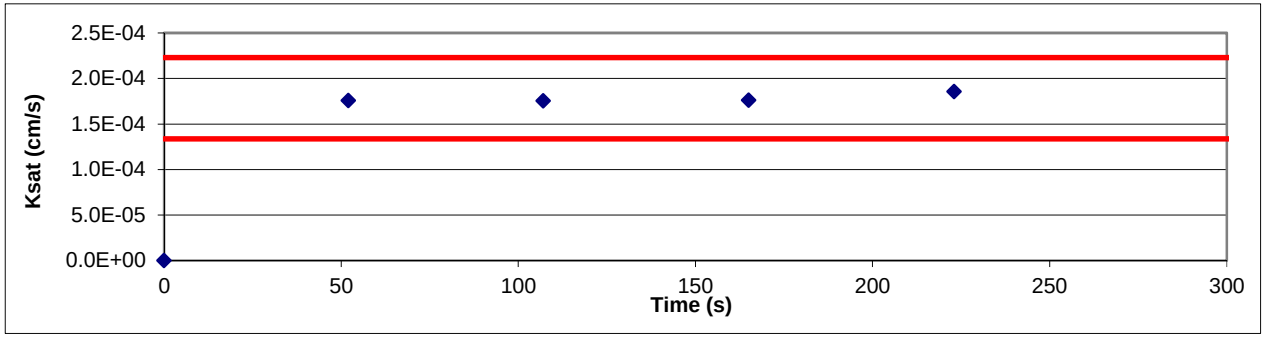
Saturated Hydraulic Conductivity
Flexible Wall Falling Head-Rising Tail Method

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-05-01 (0-6.5)
Project Name: Section 27
Date Received: 10/22/2025

Date	Time	Temp (°C)	Influent Pipette Reading	Effluent Pipette Reading	Gradient (ΔH/ΔL)	Average Flow (cm^3)	Elapsed Time (s)	Ratio (outflow to inflow)	Change in Head (Not to exceed 25%)	k_{sat} T°C (cm/s)	k_{sat} Corrected (cm/s)
Test # 1:											
16-Mar-26	15:26:40	21.3	3.00	23.00	3.00	0.43	52	1.00	5%	1.81E-04	1.76E-04
16-Mar-26	15:27:32	21.3	3.50	22.50	2.85						
Test # 2:											
17-Mar-26	09:09:30	21.2	3.50	22.50	2.85	0.43	55	1.00	5%	1.81E-04	1.76E-04
17-Mar-26	09:10:25	21.2	4.00	22.00	2.70						
Test # 3:											
17-Mar-26	09:52:50	21.2	4.00	22.00	2.70	0.43	58	1.00	6%	1.81E-04	1.76E-04
17-Mar-26	09:53:48	21.2	4.50	21.50	2.55						
Test # 4:											
17-Mar-26	13:01:50	21.4	4.50	21.50	2.55	0.43	58	1.00	6%	1.92E-04	1.86E-04
17-Mar-26	13:02:48	21.4	5.00	21.00	2.40						

***Average Ksat* (cm/sec):** **1.78E-04**

Calculated Gravel Corrected Average Ksat (cm/sec): ---



ASTM Required Range (+/- 25%)

Ksat (-25%) (cm/s): 1.34E-04

Ksat (+25%) (cm/s): 2.23E-04

Saturated Hydraulic Conductivity
Flexible Wall Falling Head-Rising Tail Method

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-7-02 (3-10ft)
Project Name: Section 27
Date Received: 10/22/2025

Remolded or Initial Sample Properties		Post Permeation Sample Properties		Test and Sample Conditions	
Initial Mass (g):	230.80	*Saturated Mass (g):*	272.28	*Permeant liquid used:*	Tap Water
Diameter (cm):	4.89	*Dry Mass (g):*	193.75	*Sample Preparation:*	☐ In situ sample, extruded
Length (cm):	7.53	*Diameter (cm):*	4.933		☑ Remolded Sample
Area (cm^2):	18.78	*Length (cm):*	7.528	*Number of Lifts:*	3
Volume (cm^3):	141.42	*Deformation (%)**:*	0.03	*Split:*	NA
Dry Density (g/cm^3):	1.37	*Area (cm^2):*	19.11	*Percent Coarse Material (%):*	0
Dry Density (pcf):	85.5	*Volume (cm^3):*	143.88	*Particle Density(g/cm^3):*	2.65 ☑ Assumed ☐ Measured
Water Content (%, g/g):	19.1	*Dry Density (g/cm^3):*	1.35	*Cell pressure (PSI):*	82.7
Water Content (%, vol):	26.2	*Dry Density (pcf):*	84.1	*Influent pressure (PSI):*	80.0
Void Ratio (e):	0.93	*Water Content (%, g/g):*	40.5	*Effluent pressure (PSI):*	80.0
Porosity (%, vol):	48.3	*Water Content (%, vol):*	54.6	*Panel Used:*	☐ D ☑ E ☐ F
Saturation (%):	54.2	*Void Ratio(e):*	0.97	*Reading:*	☐ Annulus ☑ Pipette
		Porosity (%, vol):	49.2		Date/Time
		Saturation (%):*	111.0	B-Value (% saturation) prior to test*:	1.00 3/6/2026
				B-Value (% saturation) post to test:	0.81 3/16/2026

* Per ASTM D5084 percent saturation is ensured (B-Value ≥ 95%) prior to testing, as post test saturation values may be exaggerated during depressurizing and sample removal.

**Percent Deformation: based on initial sample length and post permeation sample length.

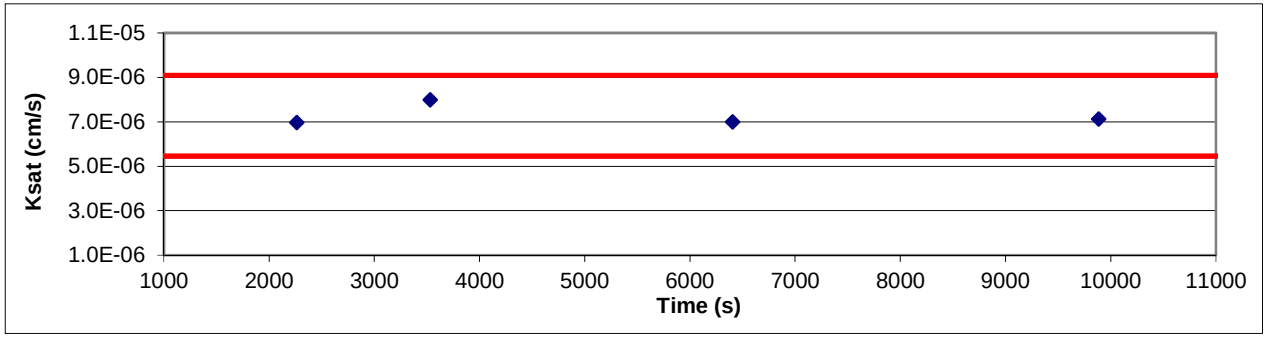
Laboratory analysis by: J. Tafoya
Data entered by: J. Tafoya
Checked by: T. Morgan

Saturated Hydraulic Conductivity
Flexible Wall Falling Head-Rising Tail Method

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-7-02 (3-10ft)
Project Name: Section 27
Date Received: 10/22/2025

Date	Time	Temp (°C)	Influent Pipette Reading	Effluent Pipette Reading	Gradient (ΔH/ΔL)	Average Flow (cm^3)	Elapsed Time (s)	Ratio (outflow to inflow)	Change in Head (Not to exceed 25%)	k_{sat} T°C (cm/s)	k_{sat} Corrected (cm/s)
Test # 1:											
03-Mar-26	12:20:00	21.4	2.00	24.00	3.37	0.87	2262	1.00	9%	7.21E-06	6.97E-06
03-Mar-26	12:57:42	21.4	3.00	23.00	3.07						
Test # 2:											
03-Mar-26	13:20:29	21.5	3.52	22.48	2.91	0.49	1270	1.13	6%	8.28E-06	7.99E-06
03-Mar-26	13:41:39	21.5	4.05	21.88	2.73						
Test # 3:											
03-Mar-26	14:32:20	21.8	5.14	20.80	2.40	0.79	2875	0.99	12%	7.31E-06	7.00E-06
03-Mar-26	15:20:15	21.8	6.05	19.90	2.12						
Test # 4:											
03-Mar-26	15:20:15	21.8	6.05	19.90	2.12	0.85	3479	1.05	14%	7.46E-06	7.12E-06
03-Mar-26	16:18:14	22.1	7.00	18.90	1.83						

***Average Ksat* (cm/sec):** **7.27E-06**
Calculated Gravel Corrected Average Ksat (cm/sec): 5.20E-06



ASTM Required Range (+/- 25%)

Ksat (-25%) (cm/s): 5.45E-06

Ksat (+25%) (cm/s): 9.09E-06

Oversize Correction Data Sheet

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-7-02 (3-10ft)
Project Name: Section 27
Date Received: 10/22/2025

Split (3/4", 3/8", #4): #4
Calculated Porosity of Fines (% vol)*:* 48.3

	Coarse Fraction*	Fines Fraction	Composite
Subsample Mass (g)*:*	3.4	13.05	16.45
Bulk Density (g/cm^3)*:*	2.65	2.10	2.19
Volume of Solids (cm^3)*:*	1.28	3.22	4.50
Volume of Voids (cm^3)*:*	0.00	3.01	3.01
Total Volume (cm^3)*:*	1.28	6.23	7.51
Volumetric Fraction (%)*:*	17.08	82.92	100.00
Mass Fraction (%)*:*	20.67	79.33	100.00
Ksat (cm/sec)*:*	NM	7.3E-06	5.2E-06

* = Porosity and moisture content of coarse fraction assumed to be zero.
--- = Oversize correction is unnecessary since coarse fraction < 5% of composite mass
NM = Not measured
#NAME? #NAME?

Laboratory analysis by: J. Tafoya
Data entered by: J. Tafoya
Checked by: T. Morgan

Saturated Hydraulic Conductivity
Flexible Wall Falling Head-Rising Tail Method

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-13-02 (4.5-10ft)
Project Name: Section 27
Date Received: 10/22/2025

Remolded or Initial Sample Properties		Post Permeation Sample Properties		Test and Sample Conditions	
Initial Mass (g):	244.66	*Saturated Mass (g):*	272.82	*Permeant liquid used:*	Tap Water
Diameter (cm):	4.93	*Dry Mass (g):*	213.65	*Sample Preparation:*	☐ In situ sample, extruded
Length (cm):	7.04	*Diameter (cm):*	4.911		☑ Remolded Sample
Area (cm^2):	19.09	*Length (cm):*	7.039	*Number of Lifts:*	3
Volume (cm^3):	134.39	*Deformation (%)**:*	0.01	*Split:*	NA
Dry Density (g/cm^3):	1.59	*Area (cm^2):*	18.94	*Percent Coarse Material (%):*	0
Dry Density (pcf):	99.2	*Volume (cm^3):*	133.33	*Particle Density(g/cm^3):*	2.65 ☑ Assumed ☐ Measured
Water Content (%, g/g):	14.5	*Dry Density (g/cm^3):*	1.60	*Cell pressure (PSI):*	82.7
Water Content (%, vol):	23.1	*Dry Density (pcf):*	100.0	*Influent pressure (PSI):*	80.0
Void Ratio (e):	0.67	*Water Content (%, g/g):*	27.7	*Effluent pressure (PSI):*	80.0
Porosity (%, vol):	40.0	*Water Content (%, vol):*	44.4	*Panel Used:*	☐ D ☑ E ☐ F
Saturation (%):	57.7	*Void Ratio(e):*	0.65	*Reading:*	☐ Annulus ☑ Pipette
		Porosity (%, vol):	39.5		Date/Time
		Saturation (%):*	112.3	B-Value (% saturation) prior to test*:	0.96 3/18/26 1300
				B-Value (% saturation) post to test:	0.96 3/26/26 1200

* Per ASTM D5084 percent saturation is ensured (B-Value ≥ 95%) prior to testing, as post test saturation values may be exaggerated during depressurizing and sample removal.

**Percent Deformation: based on initial sample length and post permeation sample length.

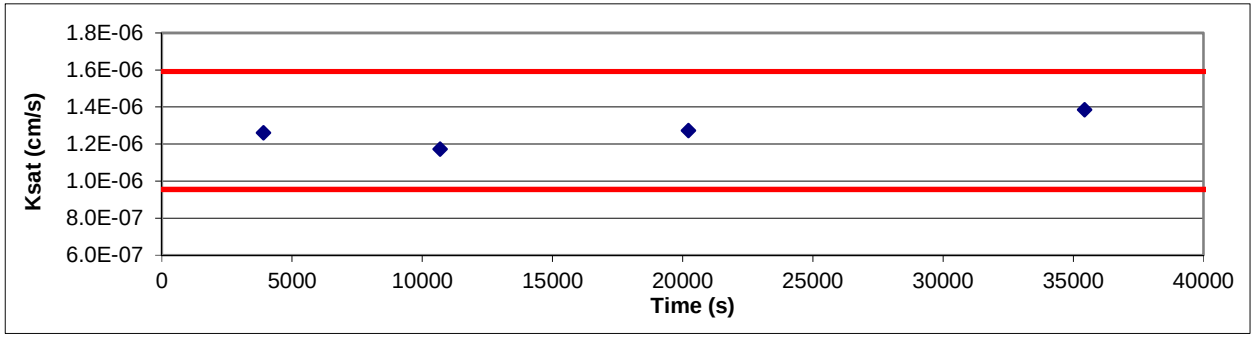
Laboratory analysis by: J. Tafoya
Data entered by: M. Sharma
Checked by: T. Morgan

Saturated Hydraulic Conductivity
Flexible Wall Falling Head-Rising Tail Method

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-13-02 (4.5-10ft)
Project Name: Section 27
Date Received: 10/22/2025

Date	Time	Temp (°C)	Influent Pipette Reading	Effluent Pipette Reading	Gradient (ΔH/ΔL)	Average Flow (cm^3)	Elapsed Time (s)	Ratio (outflow to inflow)	Change in Head (Not to exceed 25%)	k_{sat} T°C (cm/s)	k_{sat} Corrected (cm/s)
Test # 1:											
18-Mar-26	14:29:30	22.5	2.00	24.00	3.61	0.30	3900	1.00	3%	1.34E-06	1.26E-06
18-Mar-26	15:34:30	22.5	2.35	23.65	3.49						
Test # 2:											
19-Mar-26	07:51:15	22.5	2.50	23.50	3.45	0.46	6780	1.06	5%	1.25E-06	1.17E-06
19-Mar-26	09:44:15	22.5	3.02	22.95	3.27						
Test # 3:											
19-Mar-26	09:44:15	22.5	3.02	22.95	3.27	0.66	9543	0.96	8%	1.35E-06	1.27E-06
19-Mar-26	12:23:18	22.5	3.80	22.20	3.02						
Test # 4:											
25-Mar-26	08:35:20	22.7	4.00	22.00	2.95	1.01	15208	0.97	13%	1.47E-06	1.38E-06
25-Mar-26	12:48:48	22.4	5.18	20.85	2.57						

***Average Ksat* (cm/sec):** **1.27E-06**
Calculated Gravel Corrected Average Ksat (cm/sec): ---



ASTM Required Range (+/- 25%)

Ksat (-25%) (cm/s): 9.55E-07

Ksat (+25%) (cm/s): 1.59E-06

Saturated Hydraulic Conductivity
Flexible Wall Falling Head-Rising Tail Method

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-15-01 (0-4ft)
Project Name: Section 27
Date Received: 10/22/2025

Remolded or Initial Sample Properties		Post Permeation Sample Properties		Test and Sample Conditions	
Initial Mass (g):	264.69	*Saturated Mass (g):*	287.57	*Permeant liquid used:*	Tap Water
Diameter (cm):	4.93	*Dry Mass (g):*	236.63	*Sample Preparation:*	☐ In situ sample, extruded
Length (cm):	7.56	*Diameter (cm):*	4.819		☑ Remolded Sample
Area (cm^2):	19.09	*Length (cm):*	7.557	*Number of Lifts:*	3
Volume (cm^3):	144.31	*Deformation (%)**:*	0.04	*Split:*	NA
Dry Density (g/cm^3):	1.64	*Area (cm^2):*	18.24	*Percent Coarse Material (%):*	0
Dry Density (pcf):	102.4	*Volume (cm^3):*	137.83	*Particle Density(g/cm^3):*	2.65 ☑ Assumed ☐ Measured
Water Content (%, g/g):	11.9	*Dry Density (g/cm^3):*	1.72	*Cell pressure (PSI):*	82.7
Water Content (%, vol):	19.4	*Dry Density (pcf):*	107.2	*Influent pressure (PSI):*	80.0
Void Ratio (e):	0.62	*Water Content (%, g/g):*	21.5	*Effluent pressure (PSI):*	80.0
Porosity (%, vol):	38.1	*Water Content (%, vol):*	37.0	*Panel Used:*	☐ G ☐ H ☑ I
Saturation (%):	51.0	*Void Ratio(e):*	0.54	*Reading:*	☐ Annulus ☑ Pipette
		Porosity (%, vol):	35.2		Date/Time
	264.69	*Saturation (%)*:*	104.9	B-Value (% saturation) prior to test*:	0.96 2/23/26 1400
				B-Value (% saturation) post to test:	0.98 2/26/26 1400

* Per ASTM D5084 percent saturation is ensured (B-Value ≥ 95%) prior to testing, as post test saturation values may be exaggerated during depressurizing and sample removal.

**Percent Deformation: based on initial sample length and post permeation sample length.

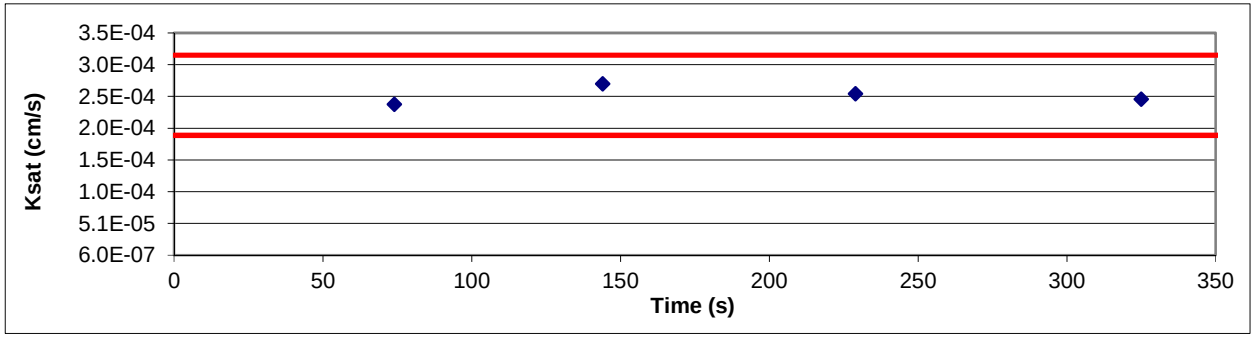
Laboratory analysis by: R. LL
Data entered by: M. Sharma
Checked by: T. Morgan

Saturated Hydraulic Conductivity
Flexible Wall Falling Head-Rising Tail Method

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-15-01 (0-4ft)
Project Name: Section 27
Date Received: 10/22/2025

Date	Time	Temp (°C)	Influent Pipette Reading	Effluent Pipette Reading	Gradient (ΔH/ΔL)	Average Flow (cm^3)	Elapsed Time (s)	Ratio (outflow to inflow)	Change in Head (Not to exceed 25%)	k_{sat} T°C (cm/s)	k_{sat} Corrected (cm/s)
Test # 1:											
24-Feb-26	03:35:50	20.0	2.00	24.00	3.36	0.89	74	1.05	9%	2.38E-04	2.38E-04
24-Feb-26	03:37:04	20.0	3.00	22.95	3.05						
Test # 2:											
25-Feb-26	09:07:00	20.1	3.00	23.00	3.06	0.87	70	1.00	10%	2.71E-04	2.71E-04
25-Feb-26	09:08:10	20.1	4.00	22.00	2.75						
Test # 3:											
25-Feb-26	11:20:55	20.2	4.00	22.00	2.75	0.89	85	1.05	11%	2.56E-04	2.55E-04
25-Feb-26	11:22:20	20.2	5.00	20.95	2.44						
Test # 4:											
25-Feb-26	03:25:30	20.7	5.00	21.00	2.44	0.87	96	1.00	13%	2.50E-04	2.46E-04
25-Feb-26	03:27:06	20.7	6.00	20.00	2.14						

***Average Ksat* (cm/sec):** **2.52E-04**
Calculated Gravel Corrected Average Ksat (cm/sec): ---



ASTM Required Range (+/- 25%)

Ksat (-25%) (cm/s): 1.89E-04

Ksat (+25%) (cm/s): 3.16E-04

Saturated Hydraulic Conductivity
Flexible Wall Falling Head-Rising Tail Method

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-16-01 (0-4ft)
Project Name: Section 27
Date Received: 10/22/2025

Remolded or Initial Sample Properties		Post Permeation Sample Properties		Test and Sample Conditions	
Initial Mass (g):	238.83	*Saturated Mass (g):*	263.96	*Permeant liquid used:*	Tap Water
Diameter (cm):	4.77	*Dry Mass (g):*	205.71	*Sample Preparation:*	☐ In situ sample, extruded
Length (cm):	7.65	*Diameter (cm):*	4.691		☑ Remolded Sample
Area (cm^2):	17.87	*Length (cm):*	7.620	*Number of Lifts:*	3
Volume (cm^3):	136.71	*Deformation (%)**:*	0.39	*Split:*	#4
Dry Density (g/cm^3):	1.50	*Area (cm^2):*	17.28	*Percent Coarse Material (%):*	0
Dry Density (pcf):	93.9	*Volume (cm^3):*	131.70	*Particle Density(g/cm^3):*	2.65 ☑ Assumed ☐ Measured
Water Content (%, g/g):	16.1	*Dry Density (g/cm^3):*	1.56	*Cell pressure (PSI):*	82.7
Water Content (%, vol):	24.2	*Dry Density (pcf):*	97.5	*Influent pressure (PSI):*	80.0
Void Ratio (e):	0.76	*Water Content (%, g/g):*	28.3	*Effluent pressure (PSI):*	80.0
Porosity (%, vol):	43.2	*Water Content (%, vol):*	44.2	*Panel Used:*	☐ A ☐ B ☑ C
Saturation (%):	56.1	*Void Ratio(e):*	0.70	*Reading:*	☐ Annulus ☑ Pipette
		Porosity (%, vol):	41.1		Date/Time
		Saturation (%):*	107.7	B-Value (% saturation) prior to test*:	0.98 3/1/26 1100
				B-Value (% saturation) post to test:	0.93 6/26/17 1512

* Per ASTM D5084 percent saturation is ensured (B-Value ≥ 95%) prior to testing, as post test saturation values may be exaggerated or skewed during depressurizing and sample removal.
**Percent Deformation: based on initial sample length and post permeation sample length.

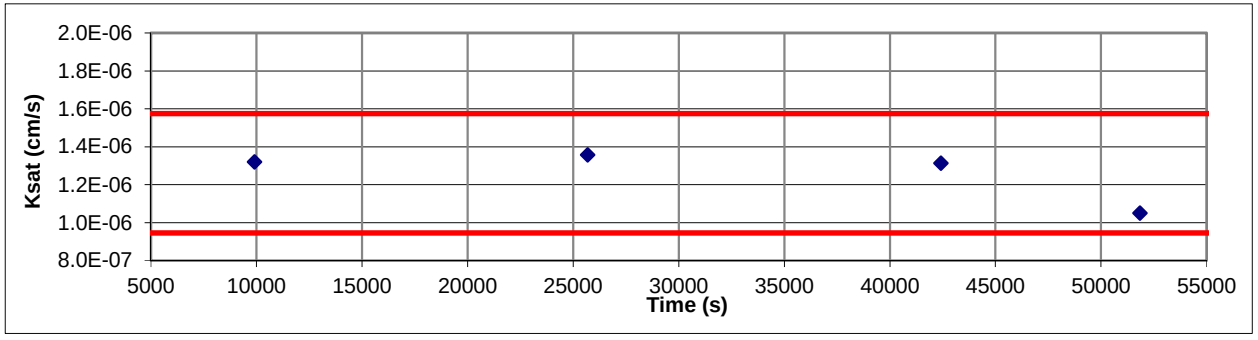
Laboratory analysis by: M. Sharma
Data entered by: R. LL
Checked by: T. Morgan

Saturated Hydraulic Conductivity
Flexible Wall Falling Head-Rising Tail Method

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-16-01 (0-4ft)
Project Name: Section 27
Date Received: 10/22/2025

Date	Time	Temp (°C)	Influent Pipette Reading	Effluent Pipette Reading	Gradient (ΔH/ΔL)	Average Flow (cm^3)	Elapsed Time (s)	Ratio (outflow to inflow)	Change in Head (Not to exceed 25%)	k_{sat} T°C (cm/s)	k_{sat} Corrected (cm/s)
Test # 1:											
02-Mar-26	13:42:00	21.2	2.00	24.00	3.33	0.65	9900	1.00	7%	1.37E-06	1.32E-06
02-Mar-26	16:27:00	21.7	2.75	23.25	3.11						
Test # 2:											
03-Mar-26	12:22:00	21.2	6.80	19.10	1.86	0.59	15780	0.93	11%	1.41E-06	1.36E-06
03-Mar-26	16:45:00	22.1	7.50	18.45	1.66						
Test # 3:											
04-Mar-26	09:52:00	21.2	9.35	16.55	1.09	0.35	16740	1.00	11%	1.35E-06	1.31E-06
04-Mar-26	14:31:00	21.0	9.75	16.15	0.97						
Test # 4:											
05-Mar-26	13:59:00	21.4	4.00	22.00	2.73	0.41	9420	1.00	5%	1.09E-06	1.05E-06
05-Mar-26	16:36:00	21.8	4.47	21.53	2.59						

***Average Ksat* (cm/sec):** **1.26E-06**
Calculated Gravel Corrected Average Ksat (cm/sec): ---



ASTM Required Range (+/- 25%)

Ksat (-25%) (cm/s): 9.45E-07

Ksat (+25%) (cm/s): 1.58E-06

Saturated Hydraulic Conductivity
Flexible Wall Falling Head-Rising Tail Method

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-35-01
Project Name: Section 27
Date Received: 10/22/2025

Remolded or Initial Sample Properties		Post Permeation Sample Properties		Test and Sample Conditions	
Initial Mass (g):	262.43	*Saturated Mass (g):*	287.48	*Permeant liquid used:*	Tap Water
Diameter (cm):	4.92	*Dry Mass (g):*	223.8	*Sample Preparation:*	☐ In situ sample, extruded
Length (cm):	7.54	*Diameter (cm):*	4.919		☑ Remolded Sample
Area (cm^2):	19.01	*Length (cm):*	7.470	*Number of Lifts:*	3
Volume (cm^3):	143.35	*Deformation (%)**:*	0.94	*Split:*	NA
Dry Density (g/cm^3):	1.56	*Area (cm^2):*	19.00	*Percent Coarse Material (%):*	0
Dry Density (pcf):	97.5	*Volume (cm^3):*	141.96	*Particle Density(g/cm^3):*	2.65 ☑ Assumed ☐ Measured
Water Content (%, g/g):	17.3	*Dry Density (g/cm^3):*	1.58	*Cell pressure (PSI):*	82.7
Water Content (%, vol):	26.9	*Dry Density (pcf):*	98.4	*Influent pressure (PSI):*	80.0
Void Ratio (e):	0.70	*Water Content (%, g/g):*	28.5	*Effluent pressure (PSI):*	80.0
Porosity (%, vol):	41.1	*Water Content (%, vol):*	44.9	*Panel Used:*	☐ A ☐ B ☑ C
Saturation (%):	65.6	*Void Ratio(e):*	0.68	*Reading:*	☐ Annulus ☑ Pipette
		Porosity (%, vol):	40.5		Date/Time
		Saturation (%):*	110.7	B-Value (% saturation) prior to test*:	0.97 3/18/2026 1400
				B-Value (% saturation) post to test:	0.98 3/31/2026 1400

* Per ASTM D5084 percent saturation is ensured (B-Value ≥ 95%) prior to testing, as post test saturation values may be exaggerated or skewed during depressurizing and sample removal.
**Percent Deformation: based on initial sample length and post permeation sample length.

Laboratory analysis by: J. Tafoya
Data entered by: J. Tafoya
Checked by: T. Morgan

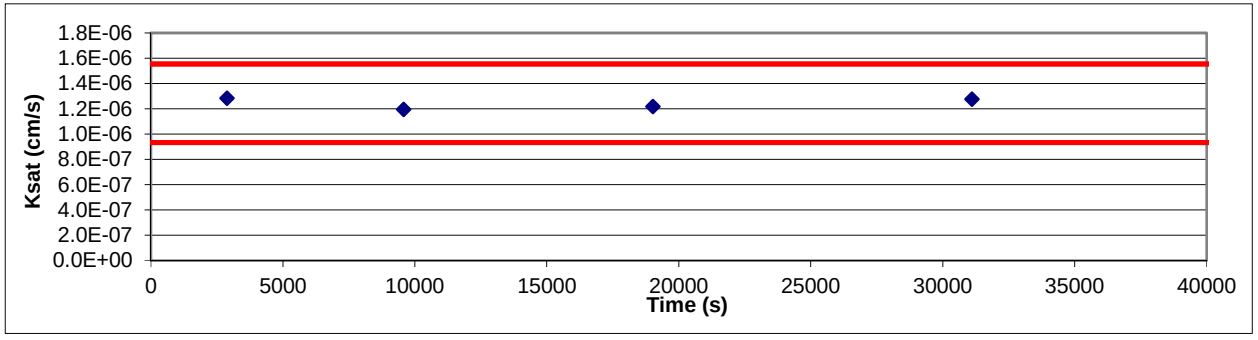
Saturated Hydraulic Conductivity
Flexible Wall Falling Head-Rising Tail Method

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-35-01
Project Name: Section 27
Date Received: 10/22/2025

Date	Time	Temp (°C)	Influent Pipette Reading	Effluent Pipette Reading	Gradient (ΔH/ΔL)	Average Flow (cm^3)	Elapsed Time (s)	Ratio (outflow to inflow)	Change in Head (Not to exceed 25%)	k_{sat} T°C (cm/s)	k_{sat} Corrected (cm/s)
Test # 1:											
18-Mar-26	14:45:50	22.5	2.00	24.00	3.40	0.22	2880	1.00	2%	1.36E-06	1.28E-06
18-Mar-26	15:33:50	22.5	2.25	23.75	3.32						
Test # 2:											
19-Mar-26	07:47:55	22.5	2.50	23.50	3.25	0.44	6700	1.04	5%	1.27E-06	1.20E-06
19-Mar-26	09:39:35	22.5	3.00	22.98	3.09						
Test # 3:											
19-Mar-26	09:39:35	22.5	3.00	22.98	3.09	0.60	9445	0.97	7%	1.29E-06	1.22E-06
19-Mar-26	12:17:00	22.5	3.70	22.30	2.88						
Test # 4:											
31-Mar-26	10:20:59	22.5	4.00	22.00	2.78	0.71	12086	1.00	9%	1.35E-06	1.28E-06
31-Mar-26	13:42:25	22.2	4.82	21.18	2.53						

***Average Ksat* (cm/sec):** **1.24E-06**

Calculated Gravel Corrected Average Ksat (cm/sec): ---



ASTM Required Range (+/- 25%)

Ksat (-25%) (cm/s): 9.33E-07

Ksat (+25%) (cm/s): 1.55E-06

Moisture Retention Characteristics

Moisture Retention Data

Hanging Column / Pressure Plate

(Soil-Water Characteristic Curve)

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-01-01 (0-6ft)
Project Name: Section 27
Date Received: 10/24/25

Dry wt. of sample (g)*:* 209.41
Tare wt., ring (g)*:* 77.43
Tare wt., screen & clamp (g)*:* 27.03
Initial sample volume (cm^3)*:* 133.43
Initial dry bulk density (g/cm^3)*:* 1.57
Assumed particle density (g/cm^3)*:* 2.65
Initial calculated total porosity (%)*:* 40.78

	Date	Time	Weight* (g)	Matric Potential (-cm water)	Moisture Content † (% vol)
Hanging column:	5-Mar-26	12:05	372.39	0	43.86
	12-Mar-26	10:19	371.42	15.0	43.13
	18-Mar-26	10:57	371.06	54.0	42.86
Pressure plate:	3-Apr-26	9:22	356.31	337	31.81

Volume Adjusted Data [1]

	Matric Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calculated Porosity (%)
Hanging column:	0.0	---	---	---	---
	15.0	---	---	---	---
	54.0	---	---	---	---
Pressure plate:	337	---	---	---	---

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent each of the volume change measurements obtained after saturated hydraulic conductivity testing and throughout hanging column/pressure plate testing. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

† Assumed density of water is 1.0 g/cm^3

‡‡ Volume adjustments are applicable at this matric potential (see comment #1). Changes in volume, if applicable, are estimated based on obtainable measurements of changes in sample length and diameter.

Technician Notes:

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Moisture Retention Data

Dew Point Potentiometer / Relative Humidity Box

(Soil-Water Characteristic Curve)

Sample Number: TP-01-01 (0-6ft)

Initial sample bulk density (g/cm^3)*:* 1.57

Fraction of test sample used (<2.00mm fraction) (%): 100.00

Dry weight of dew point potentiometer sample* (g)*:* 180.00

Tare weight, jar (g)*:* 116.37

	Date	Time	Weight* (g)	Water Potential (-cm water)	Moisture Content † (% vol)
Dew point potentiometer:	19-Feb-26	12:34	187.56	16113	18.65
	13-Feb-26	15:30	185.89	48033	14.53
	10-Feb-26	14:50	184.62	99431	11.40
	4-Feb-26	12:50	183.12	634418	7.71

Volume Adjusted Data [1]

	Water Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calc. Porosity (%)
Dew point potentiometer:	16113	---	---	---	---
	48033	---	---	---	---
	99431	---	---	---	---
	634418	---	---	---	---

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent the volume change measurements obtained after the last hanging column or pressure plate point. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

† Adjusted for >2.00mm (#10 sieve) material not used in DPP/RH testing. Assumed moisture content of material >2.00mm is zero, and assumed density of water is 1.0 g/cm^3.

‡‡ Volume adjustments are applicable at this matric potential (see comment #1).

Laboratory analysis by: M. Sharma/J. Tafoya
Data entered by: M. Sharma
Checked by: T. Morgan

Moisture Retention Data

Dew Point Potentiometer / Relative Humidity Box

(Soil-Water Characteristic Curve)

Sample Number: TP-01-01 (0-6ft)

Initial sample bulk density (g/cm^3)*:* 1.57

Fraction of test sample used (<2.00mm fraction) (%): 100.00

Dry weight of relative humidity box sample* (g)*:* 63.64

Tare weight (g)*:* 42.58

	Date	Time	Weight* (g)	Water Potential (-cm water)	Moisture Content † (% vol)
Relative humidity box:	26-Feb-26	8:00	64.53	847567	6.62

Volume Adjusted Data [1]

	Water Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calc. Porosity (%)
Relative humidity box:	847567	---	---	---	---

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent the volume change measurements obtained after the last hanging column or pressure plate point. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

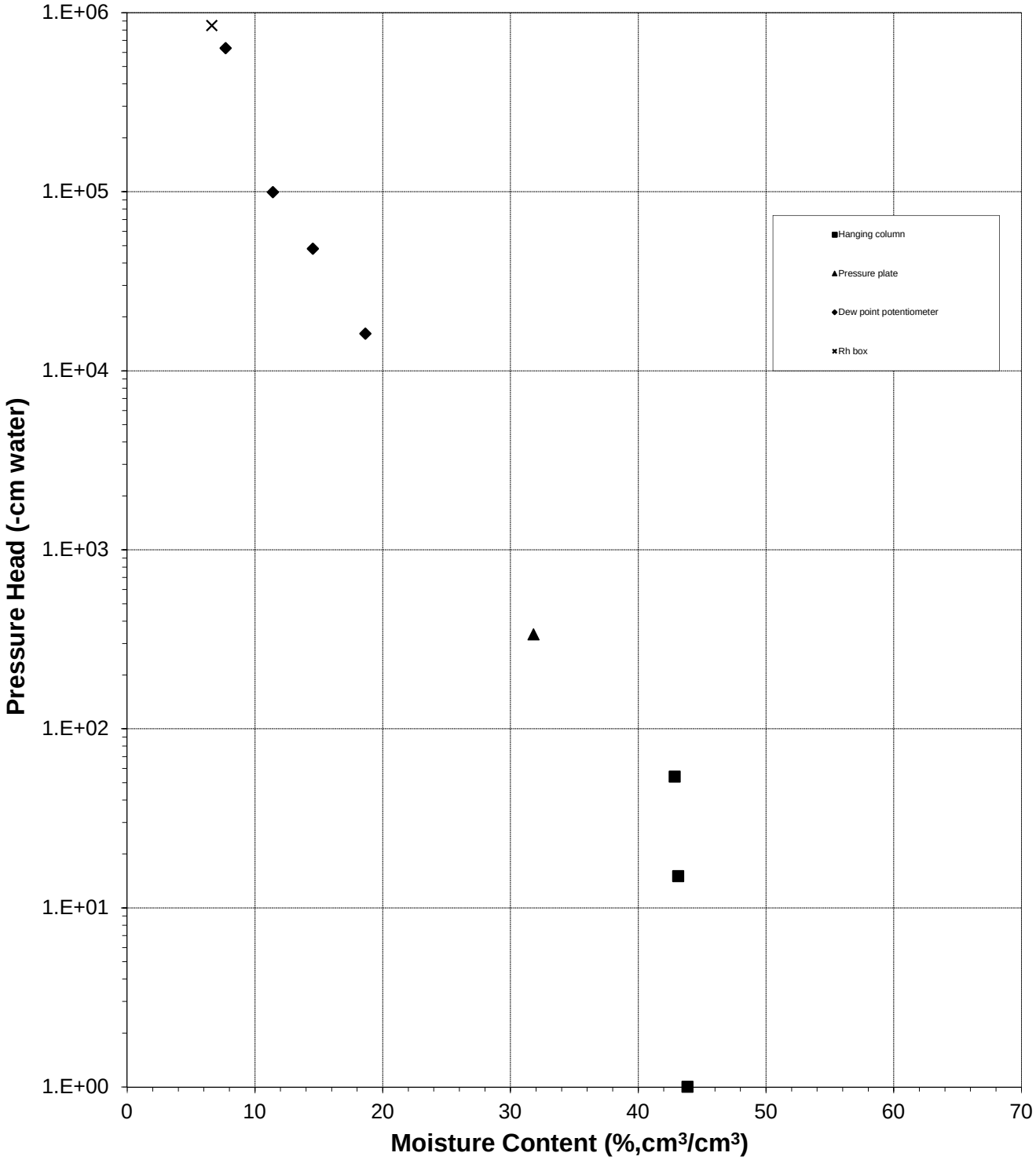
† Adjusted for >2.00mm (#10 sieve) material not used in DPP/RH testing. Assumed moisture content of material >2.00mm is zero, and assumed density of water is 1.0 g/cm^3.

‡‡ Volume adjustments are applicable at this matric potential (see comment #1). Changes in volume, if applicable, are estimated based on obtainable measurements of changes in sample length and diameter.

Laboratory analysis by: M. Sharma/J. Tafoya
Data entered by: M. Sharma
Checked by: T. Morgan

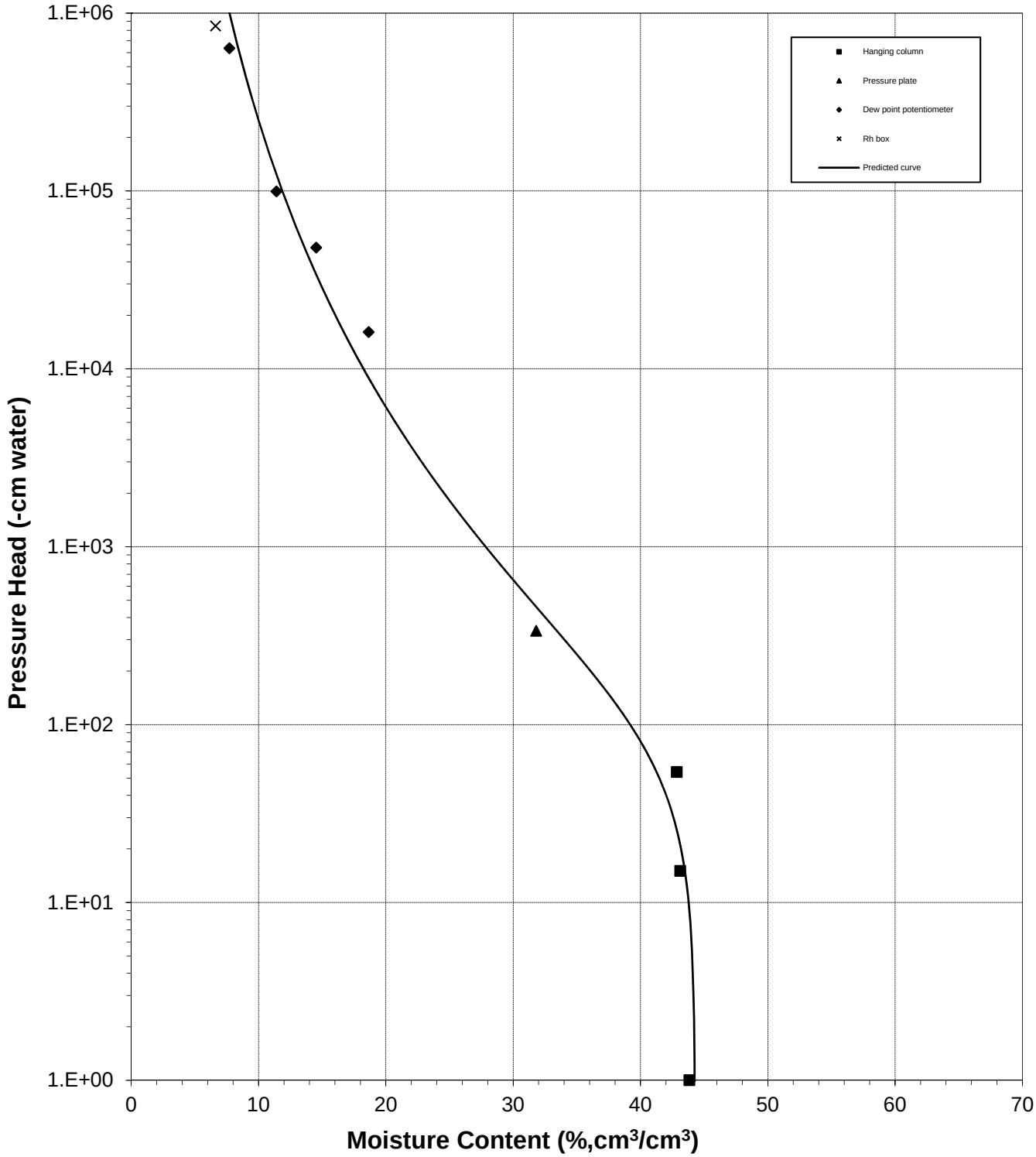
Water Retention Data Points

Sample Number: TP-01-01 (0-6ft)



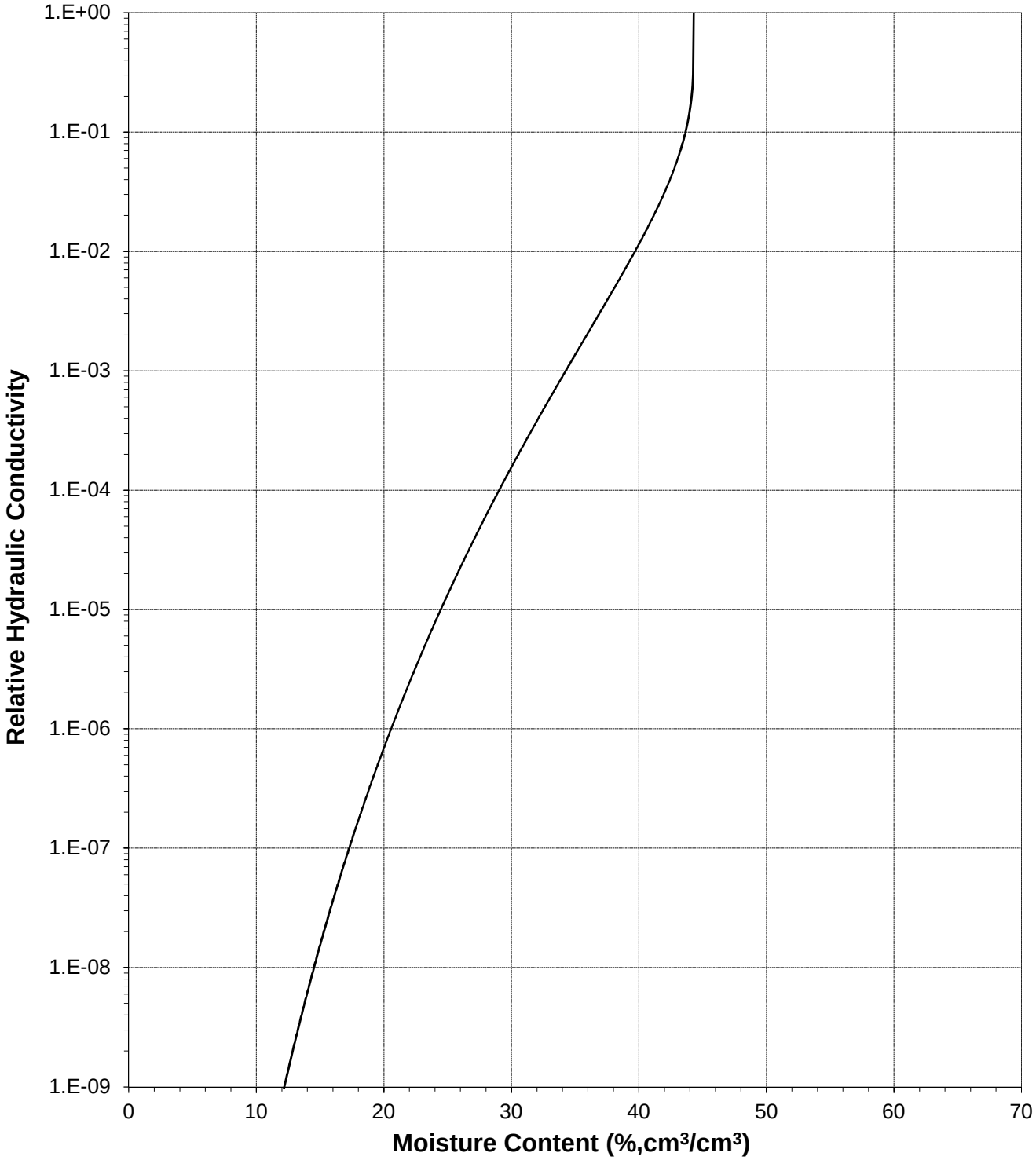
Predicted Water Retention Curve and Data Points

Sample Number: TP-01-01 (0-6ft)



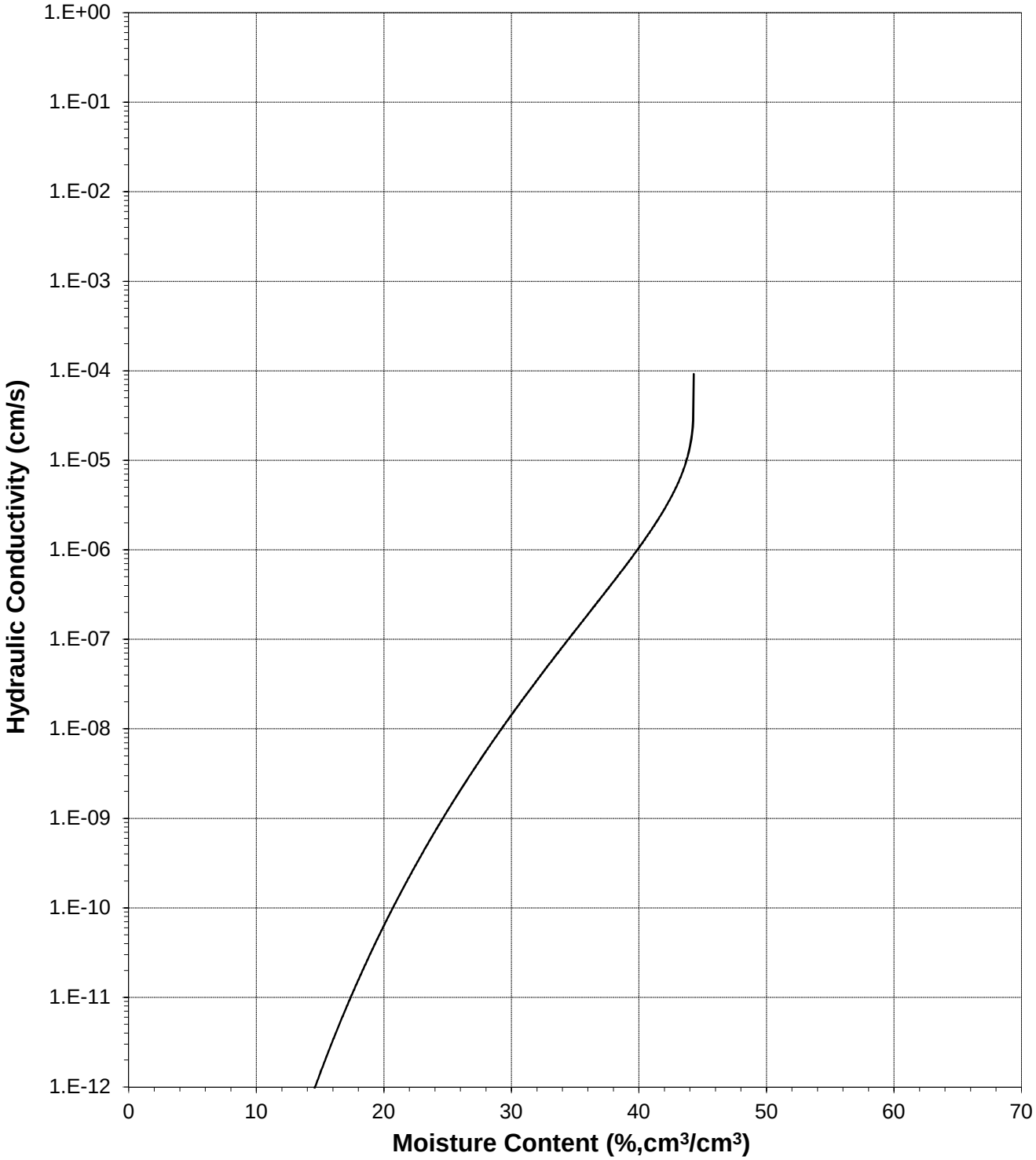
Plot of Relative Hydraulic Conductivity vs Moisture Content

Sample Number: TP-01-01 (0-6ft)



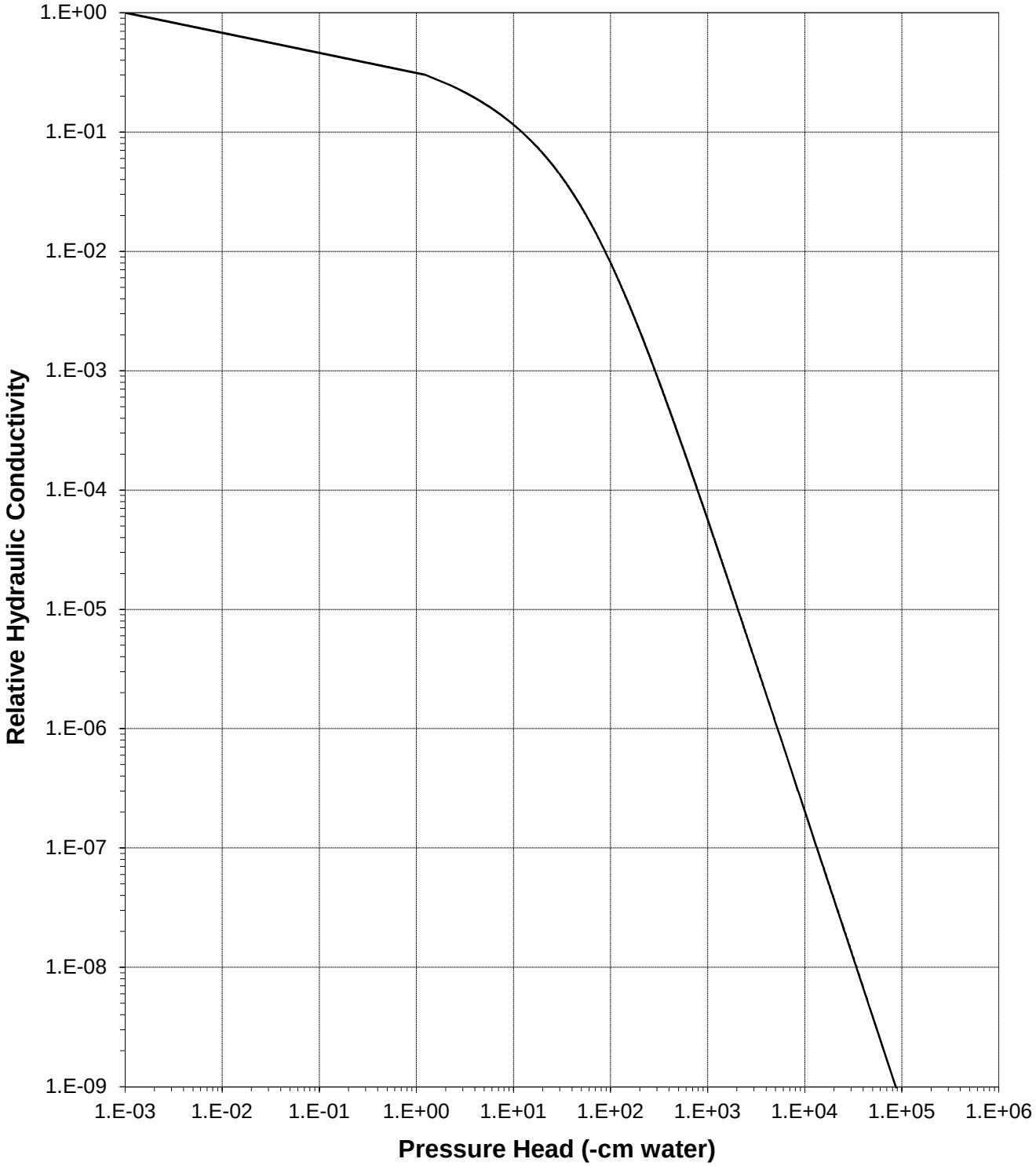
Plot of Hydraulic Conductivity vs Moisture Content

Sample Number: TP-01-01 (0-6ft)



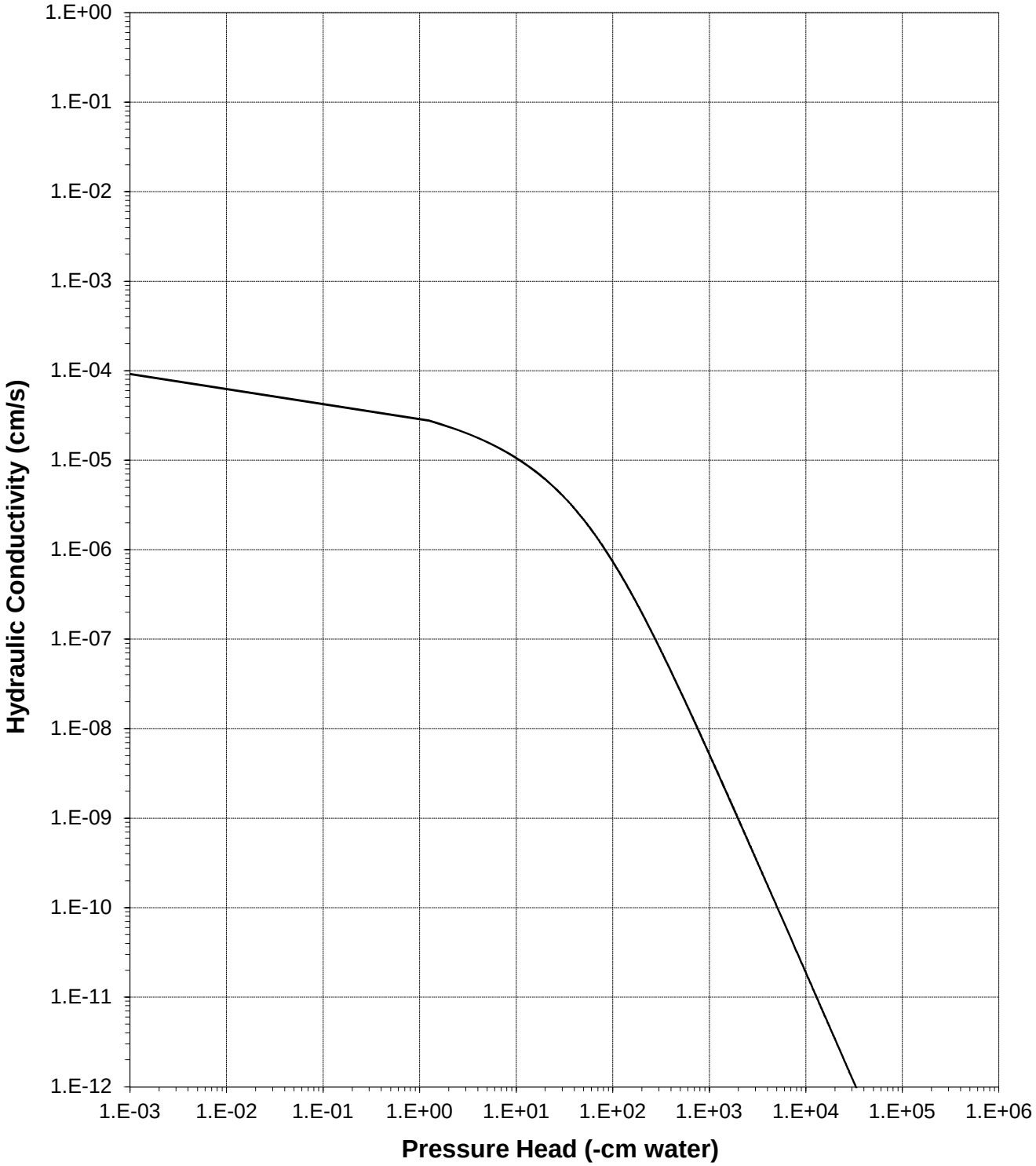
Plot of Relative Hydraulic Conductivity vs Pressure Head

Sample Number: TP-01-01 (0-6ft)



Plot of Hydraulic Conductivity vs Pressure Head

Sample Number: TP-01-01 (0-6ft)



Moisture Retention Data

Hanging Column / Pressure Plate

(Soil-Water Characteristic Curve)

Job Name: Stantec (1-26)
Job Number: DB26.1035.02
Sample Number: TP-02-02 (7-10ft)
Project Name: Section 27
Date Received: 10/24/25

Dry wt. of sample (g)*:* 207.71
Tare wt., ring (g)*:* 88.48
Tare wt., screen & clamp (g)*:* 26.44
Initial sample volume (cm^3)*:* 144.02
Initial dry bulk density (g/cm^3)*:* 1.44
Assumed particle density (g/cm^3)*:* 2.65
Initial calculated total porosity (%)*:* 45.58

	Date	Time	Weight* (g)	Matric Potential (-cm water)	Moisture Content † (% vol)
Hanging column:	5-Mar-26	12:30	392.65	0	48.62
	12-Mar-26	10:30	390.09	15.0	46.84
	18-Mar-26	10:57	388.51	54.0	45.74
	25-Mar-26	14:30	382.87	128.0	41.83
Pressure plate:	3-Apr-26	9:24	379.81	337	39.70

Volume Adjusted Data [1]

	Matric Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calculated Porosity (%)
Hanging column:	0.0	---	---	---	---
	15.0	---	---	---	---
	54.0	---	---	---	---
	128.0	---	---	---	---
Pressure plate:	337	---	---	---	---

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent each of the volume change measurements obtained after saturated hydraulic conductivity testing and throughout hanging column/pressure plate testing. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

† Assumed density of water is 1.0 g/cm^3

‡‡ Volume adjustments are applicable at this matric potential (see comment #1). Changes in volume, if applicable, are estimated based on obtainable measurements of changes in sample length and diameter.

Technician Notes:

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Moisture Retention Data

Dew Point Potentiometer / Relative Humidity Box

(Soil-Water Characteristic Curve)

Sample Number: TP-02-02 (7-10ft)

Initial sample bulk density (g/cm^3)*:* 1.44

Fraction of test sample used (<2.00mm fraction) (%): 100.00

Dry weight of dew point potentiometer sample* (g)*:* 174.71

Tare weight, jar (g)*:* 111.97

	Date	Time	Weight* (g)	Water Potential (-cm water)	Moisture Content † (% vol)
Dew point potentiometer:	18-Feb-26	13:35	184.84	16623	23.29
	13-Feb-26	14:40	183.38	38243	19.93
	11-Feb-26	13:22	182.29	77505	17.42
	5-Feb-26	11:36	179.74	705396	11.55

Volume Adjusted Data [1]

	Water Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calc. Porosity (%)
Dew point potentiometer:	16623	---	---	---	---
	38243	---	---	---	---
	77505	---	---	---	---
	705396	---	---	---	---

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent the volume change measurements obtained after the last hanging column or pressure plate point. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

† Adjusted for >2.00mm (#10 sieve) material not used in DPP/RH testing. Assumed moisture content of material >2.00mm is zero, and assumed density of water is 1.0 g/cm^3.

‡‡ Volume adjustments are applicable at this matric potential (see comment #1).

Laboratory analysis by: M. Sharma/J. Tafoya
Data entered by: M. Sharma
Checked by: T. Morgan

Moisture Retention Data

Dew Point Potentiometer / Relative Humidity Box

(Soil-Water Characteristic Curve)

Sample Number: TP-02-02 (7-10ft)

Initial sample bulk density (g/cm^3)*:* 1.44

Fraction of test sample used (<2.00mm fraction) (%): 100.00

Dry weight of relative humidity box sample* (g)*:* 58.37

Tare weight (g)*:* 35.49

	Date	Time	Weight* (g)	Water Potential (-cm water)	Moisture Content † (% vol)
Relative humidity box:	26-Feb-26	8:00	60.19	847567	11.48

Volume Adjusted Data [1]

	Water Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calc. Porosity (%)
Relative humidity box:	847567	---	---	---	---

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent the volume change measurements obtained after the last hanging column or pressure plate point. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

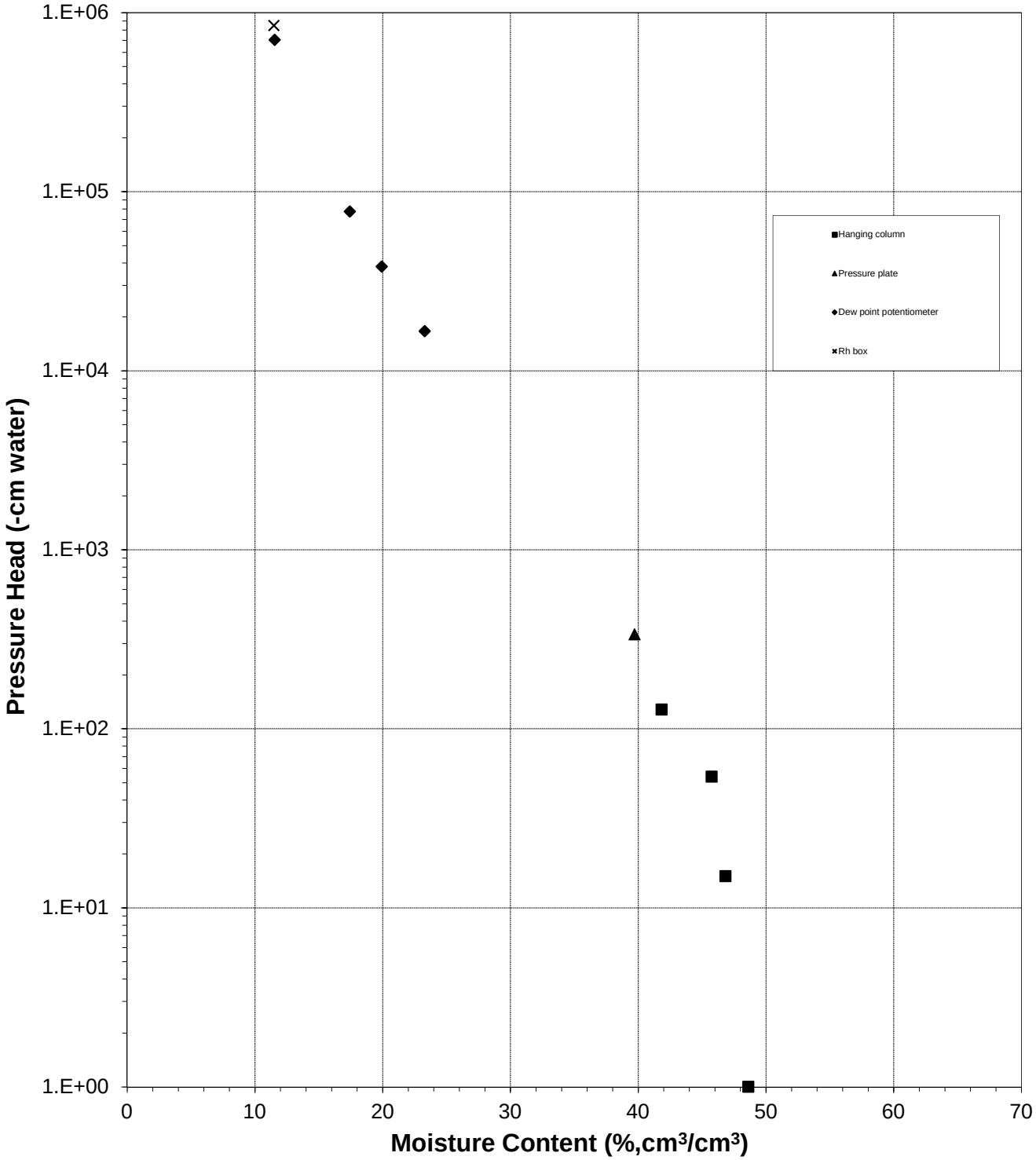
† Adjusted for >2.00mm (#10 sieve) material not used in DPP/RH testing. Assumed moisture content of material >2.00mm is zero, and assumed density of water is 1.0 g/cm^3.

‡‡ Volume adjustments are applicable at this matric potential (see comment #1). Changes in volume, if applicable, are estimated based on obtainable measurements of changes in sample length and diameter.

Laboratory analysis by: M. Sharma/J. Tafoya
Data entered by: M. Sharma
Checked by: T. Morgan

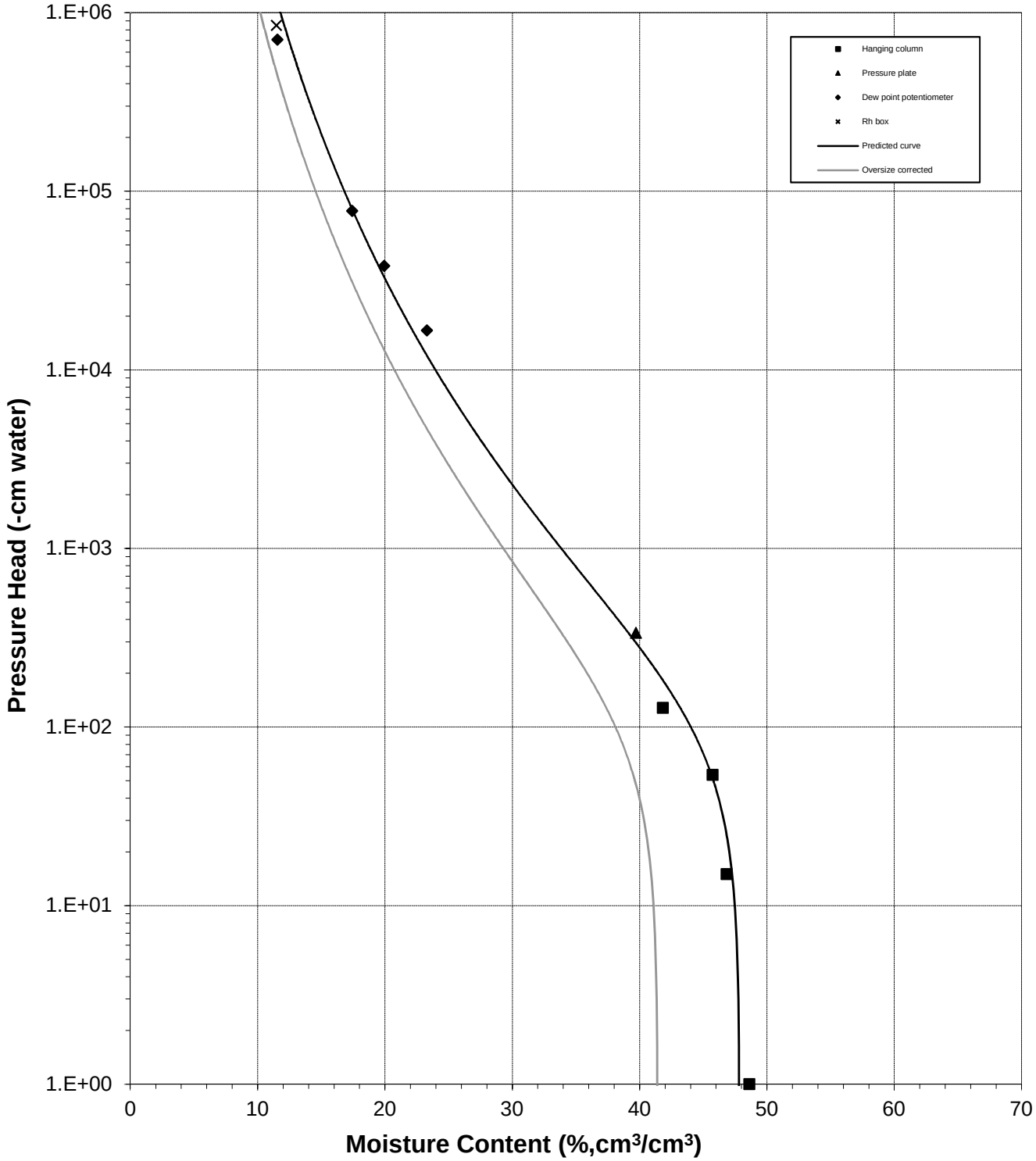
Water Retention Data Points

Sample Number: TP-02-02 (7-10ft)



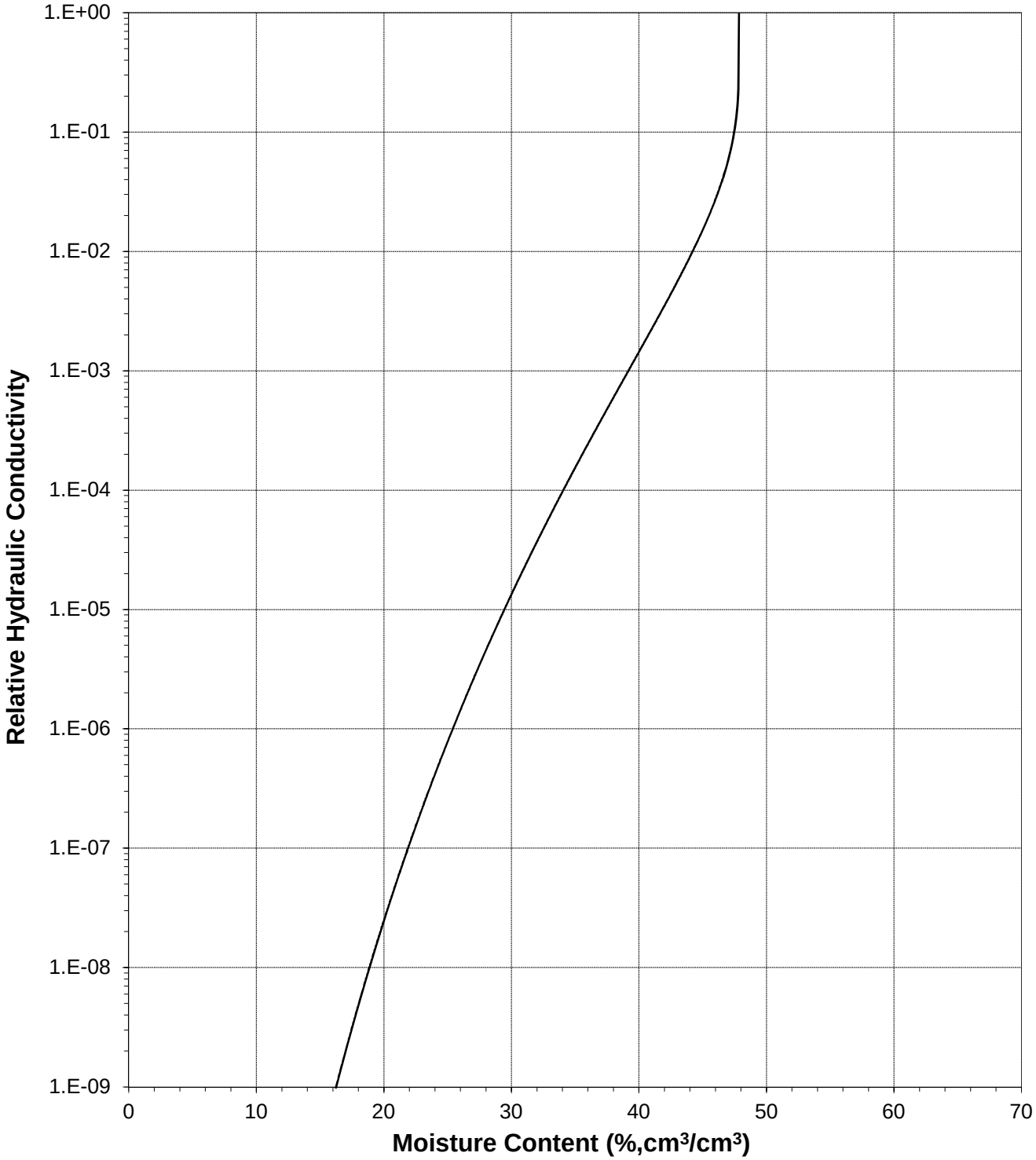
Predicted Water Retention Curve and Data Points

Sample Number: TP-02-02 (7-10ft)



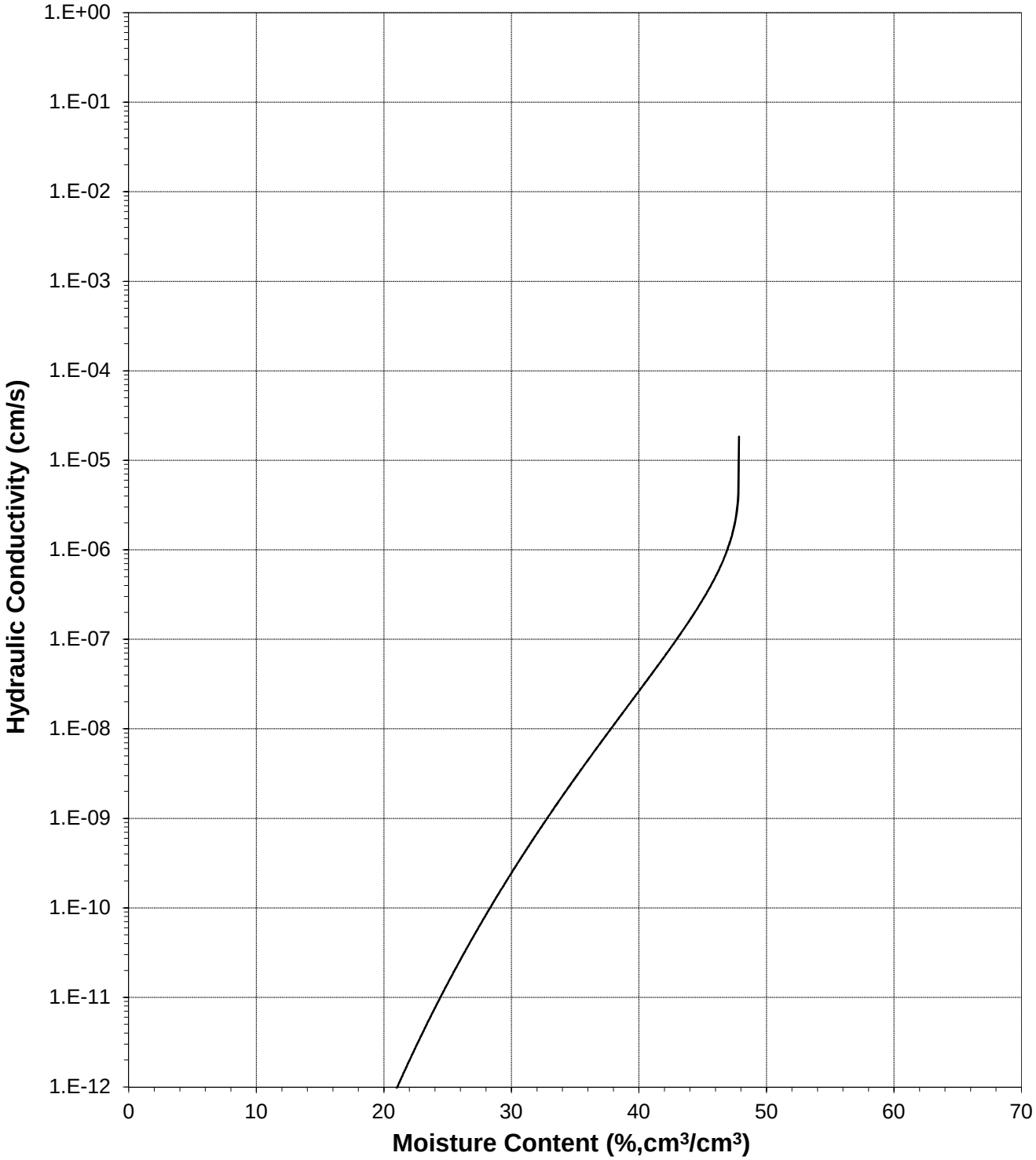
Plot of Relative Hydraulic Conductivity vs Moisture Content

Sample Number: TP-02-02 (7-10ft)



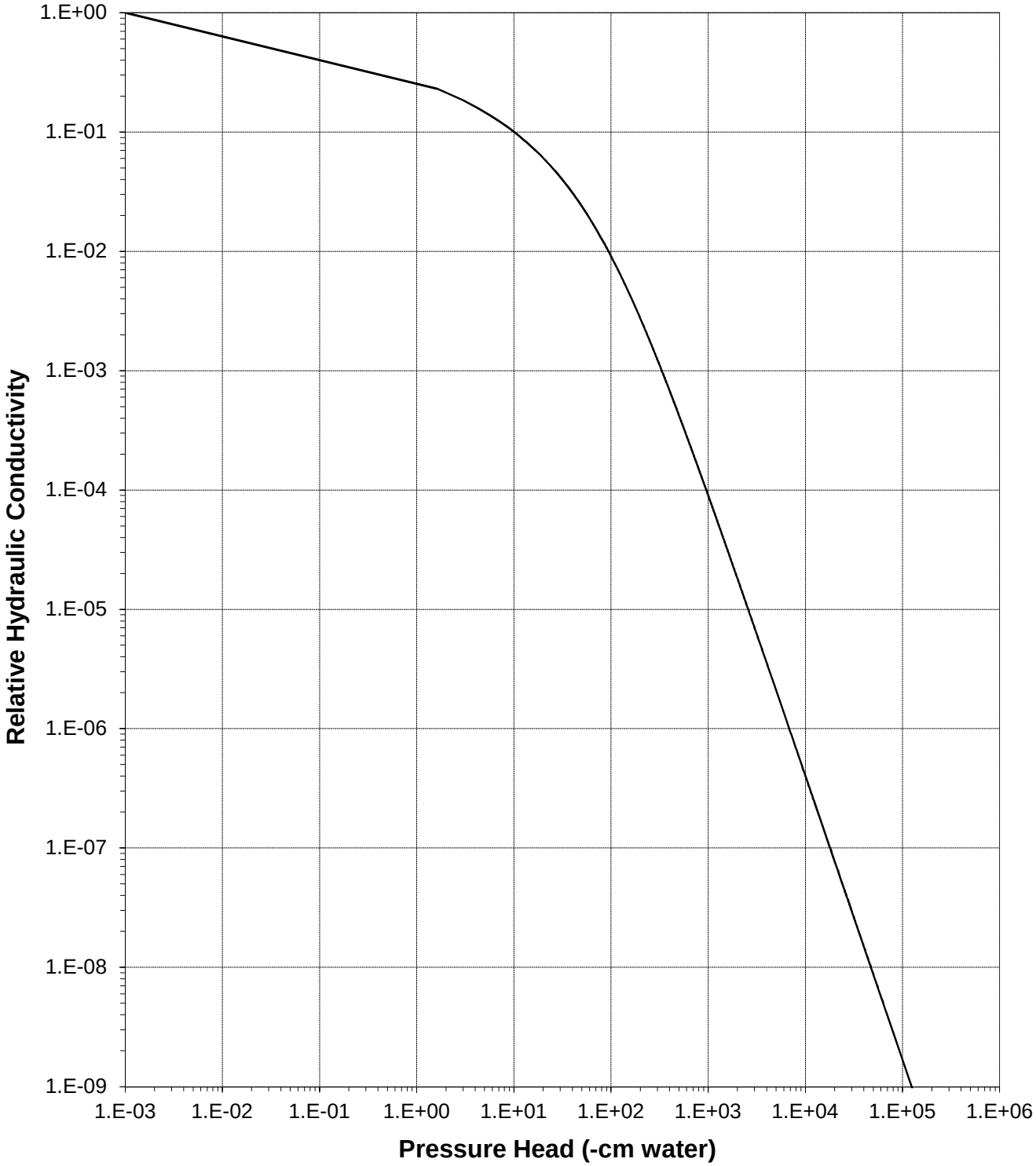
Plot of Hydraulic Conductivity vs Moisture Content

Sample Number: TP-02-02 (7-10ft)



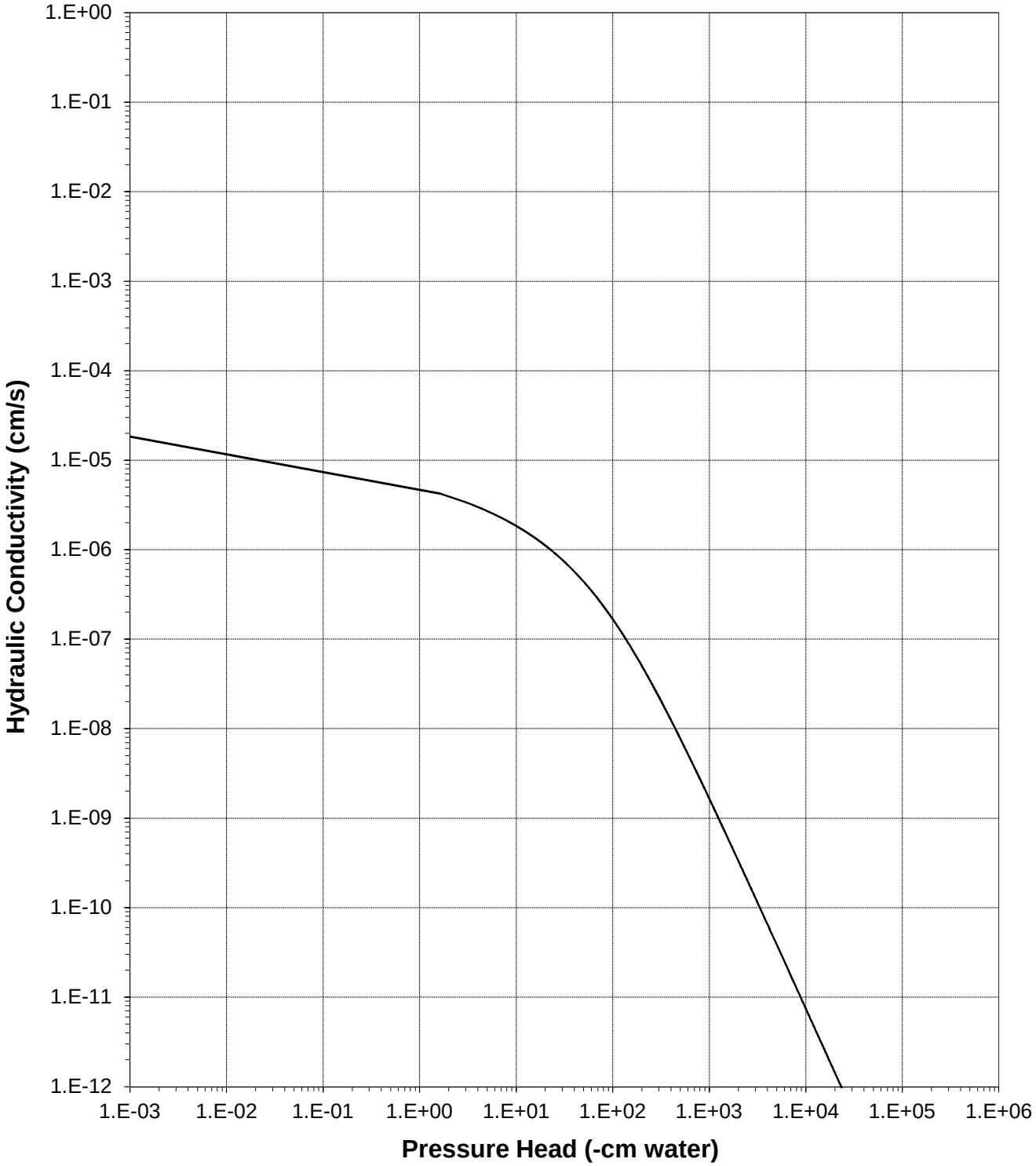
Plot of Relative Hydraulic Conductivity vs Pressure Head

Sample Number: TP-02-02 (7-10ft)



Plot of Hydraulic Conductivity vs Pressure Head

Sample Number: TP-02-02 (7-10ft)



Oversize Correction Data Sheet

Job Name: Stantec (1-26)
Job Number: DB26.1035.02
Sample Number: TP-02-02 (7-10ft)
Project Name: Section 27
Date Received: 10/24/25

Split (3/4", 3/8", #4): #4

	Coarse Fraction*	Fines Fraction**	Composite
Subsample Mass (g):	3.80	13.31	17.11
Mass Fraction (%):	22.21	77.79	100.00
Initial Sample θ_i			
Bulk Density (g/cm^3):	2.65	1.44	1.60
Calculated Porosity (% vol):	0.00	45.58	39.45
Volume of Solids (cm^3):	1.43	5.02	6.46
Volume of Voids (cm^3):	0.00	4.21	4.21
Total Volume (cm^3):	1.43	9.23	10.66
Volumetric Fraction (%):	13.45	86.55	100.00
Initial Moisture Content (% vol):	0.00	22.96	19.87
Saturated Sample θ_s			
Bulk Density (g/cm^3):	2.65	1.44	1.60
Calculated Porosity (% vol):	0.00	45.58	39.45
Volume of Solids (cm^3):	1.43	5.02	6.46
Volume of Voids (cm^3):	0.00	4.21	4.21
Total Volume (cm^3):	1.43	9.23	10.66
Volumetric Fraction (%):	13.45	86.55	100.00
Saturated Moisture Content (% vol):	0.00	47.85	41.41
Residual Sample θ_r			
Bulk Density (g/cm^3):	2.65	1.44	1.60
Calculated Porosity (% vol):	0.00	45.58	39.45
Volume of Solids (cm^3):	1.43	5.02	6.46
Volume of Voids (cm^3):	0.00	4.21	4.21
Total Volume (cm^3):	1.43	9.23	10.66
Volumetric Fraction (%):	13.45	86.55	100.00
Residual Moisture Content (% vol):	0.00	0.00	0.00
Ksat (cm/sec):	NM	1.8E-05	1.4E-05

* = Porosity and moisture content of coarse fraction assumed to be zero.
** = Volume adjusted, if applicable. See notes on Moisture Retention Data pages.
NM = Not measured

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Moisture Retention Data

Hanging Column / Pressure Plate

(Soil-Water Characteristic Curve)

Job Name: Stantec (1-26)
Job Number: DB26.1035.03
Sample Number: TP-05-01 (0-6.5ft)
Project Name: Section 27
Date Received: 10/24/25

Dry wt. of sample (g)*:* 234.60
Tare wt., ring (g)*:* 88.87
Tare wt., screen & clamp (g)*:* 26.50
Initial sample volume (cm^3)*:* 145.98
Initial dry bulk density (g/cm^3)*:* 1.61
Assumed particle density (g/cm^3)*:* 2.65
Initial calculated total porosity (%)*:* 39.36

	Date	Time	Weight* (g)	Matric Potential (-cm water)	Moisture Content † (% vol)
Hanging column:	5-Mar-26	12:20	405.00	0	37.70
	11-Mar-26	10:40	404.95	11.0	37.66
	18-Mar-26	11:11	404.83	35.0	37.58
	24-Mar-26	14:12	393.54	101.0	29.85
Pressure plate:	3-Apr-26	9:19	385.89	337	24.61

Volume Adjusted Data [1]

	Matric Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calculated Porosity (%)
Hanging column:	0.0	---	---	---	---
	11.0	---	---	---	---
	35.0	---	---	---	---
	101.0	---	---	---	---
Pressure plate:	337	---	---	---	---

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent each of the volume change measurements obtained after saturated hydraulic conductivity testing and throughout hanging column/pressure plate testing. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

† Assumed density of water is 1.0 g/cm^3

‡‡ Volume adjustments are applicable at this matric potential (see comment #1). Changes in volume, if applicable, are estimated based on obtainable measurements of changes in sample length and diameter.

Technician Notes:

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Moisture Retention Data

Dew Point Potentiometer / Relative Humidity Box

(Soil-Water Characteristic Curve)

Sample Number: TP-05-01 (0-6.5ft)

Initial sample bulk density (g/cm^3)*:* 1.61

Fraction of test sample used (<2.00mm fraction) (%): 100.00

Dry weight of dew point potentiometer sample* (g)*:* 177.84

Tare weight, jar (g)*:* 116.67

	Date	Time	Weight* (g)	Water Potential (-cm water)	Moisture Content † (% vol)
Dew point potentiometer:	13-Feb-26	15:40	182.16	15195	11.34
	12-Feb-26	13:24	181.88	19274	10.61
	11-Feb-26	13:50	181.60	32226	9.88
	10-Feb-26	15:20	181.20	57415	8.83

Volume Adjusted Data [1]

	Water Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calc. Porosity (%)
Dew point potentiometer:	15195	---	---	---	---
	19274	---	---	---	---
	32226	---	---	---	---
	57415	---	---	---	---

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent the volume change measurements obtained after the last hanging column or pressure plate point. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

† Adjusted for >2.00mm (#10 sieve) material not used in DPP/RH testing. Assumed moisture content of material >2.00mm is zero, and assumed density of water is 1.0 g/cm^3.

‡‡ Volume adjustments are applicable at this matric potential (see comment #1).

Laboratory analysis by: M. Sharma/J. Tafoya
Data entered by: M. Sharma
Checked by: T. Morgan

Moisture Retention Data

Dew Point Potentiometer / Relative Humidity Box

(Soil-Water Characteristic Curve)

Sample Number: TP-05-01 (0-6.5ft)

Initial sample bulk density (g/cm^3)*:* 1.61

Fraction of test sample used (<2.00mm fraction) (%): 100.00

Dry weight of relative humidity box sample* (g)*:* 62.06

Tare weight (g)*:* 41.88

	Date	Time	Weight* (g)	Water Potential (-cm water)	Moisture Content † (% vol)
Relative humidity box:	24-Feb-26	9:00	62.69	847567	5.05

Volume Adjusted Data [1]

	Water Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calc. Porosity (%)
Relative humidity box:	847567	---	---	---	---

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent the volume change measurements obtained after the last hanging column or pressure plate point. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

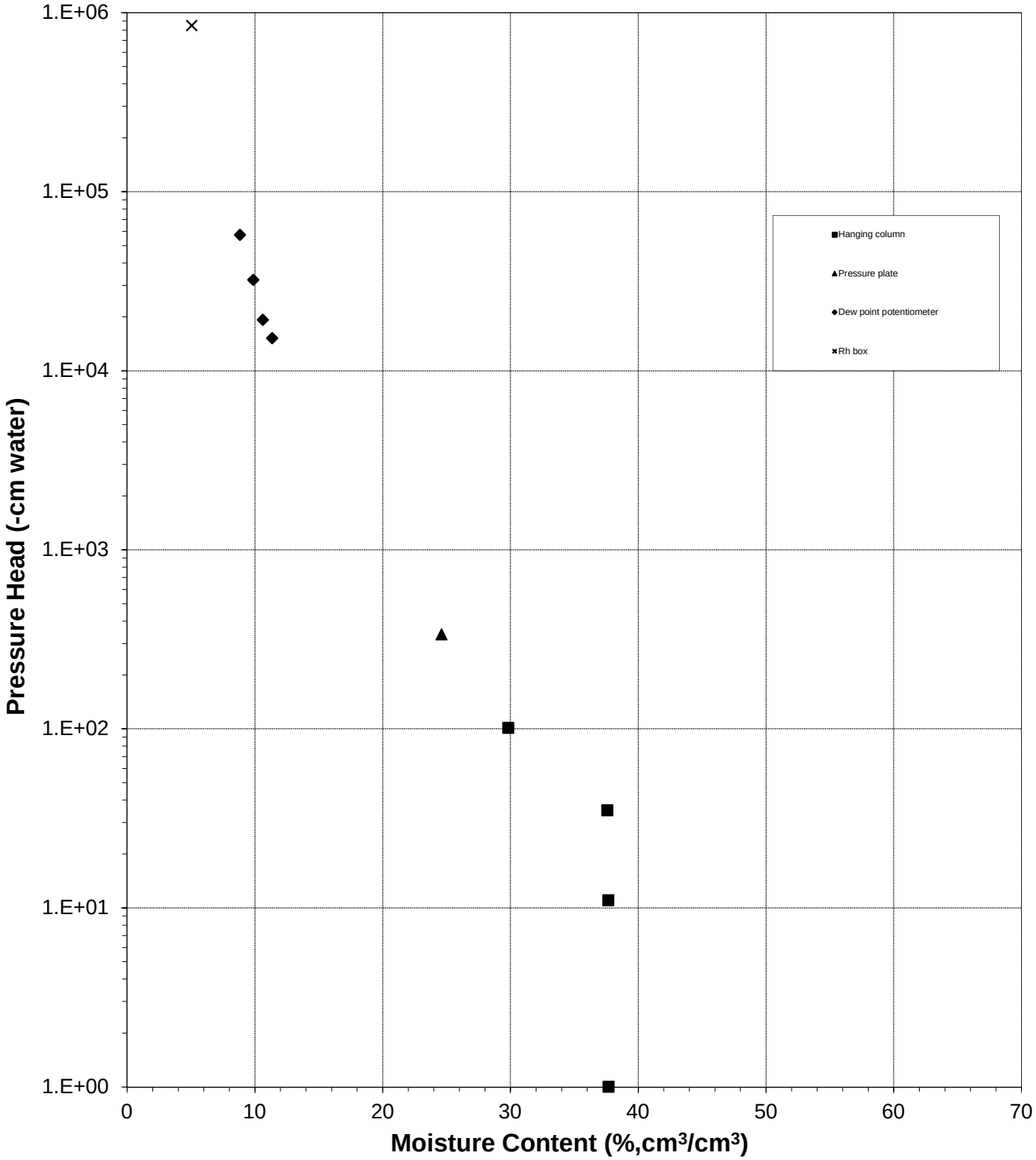
† Adjusted for >2.00mm (#10 sieve) material not used in DPP/RH testing. Assumed moisture content of material >2.00mm is zero, and assumed density of water is 1.0 g/cm^3.

‡‡ Volume adjustments are applicable at this matric potential (see comment #1). Changes in volume, if applicable, are estimated based on obtainable measurements of changes in sample length and diameter.

Laboratory analysis by: M. Sharma/J. Tafoya
Data entered by: M. Sharma
Checked by: T. Morgan

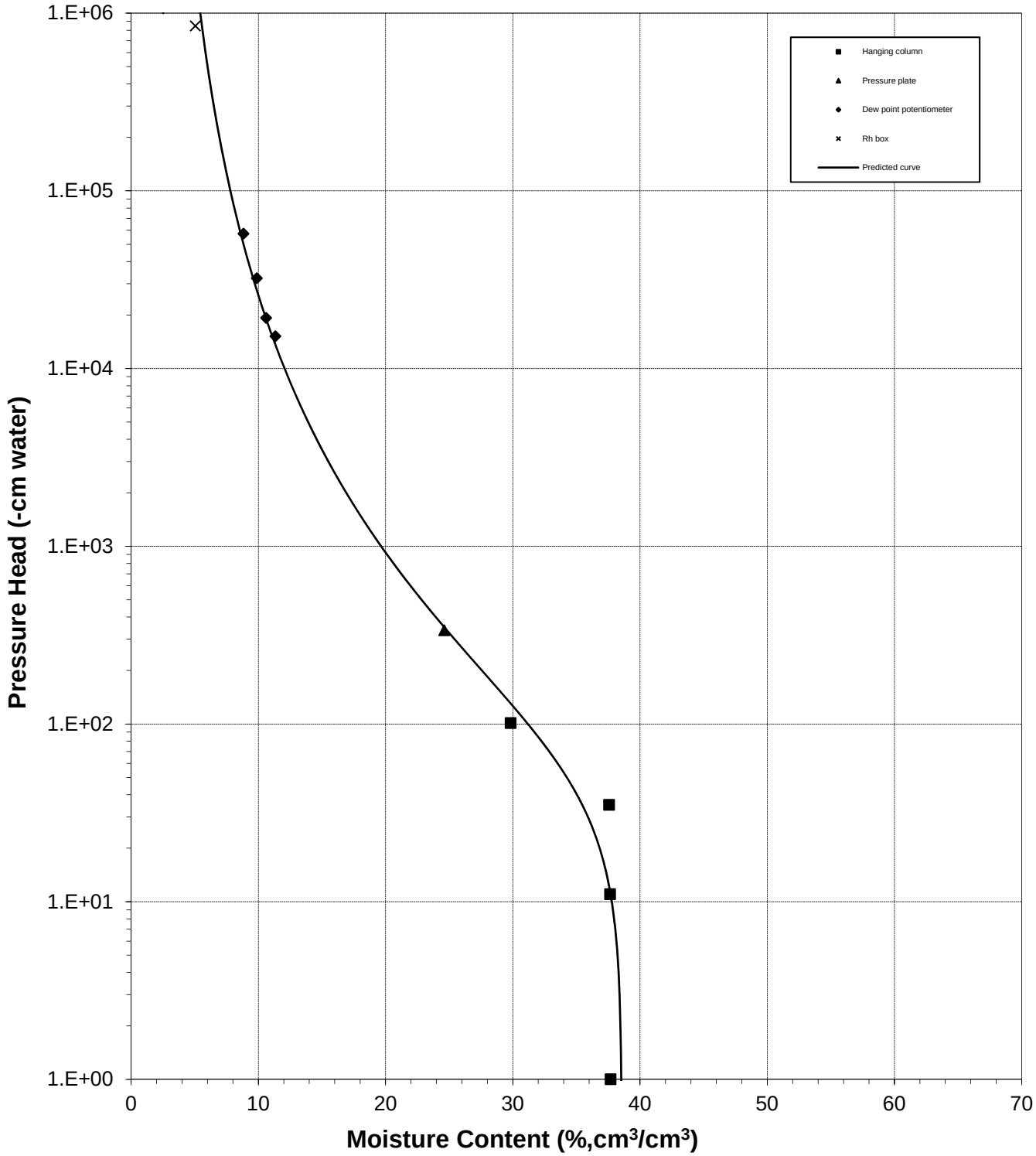
Water Retention Data Points

Sample Number: TP-05-01 (0-6.5ft)



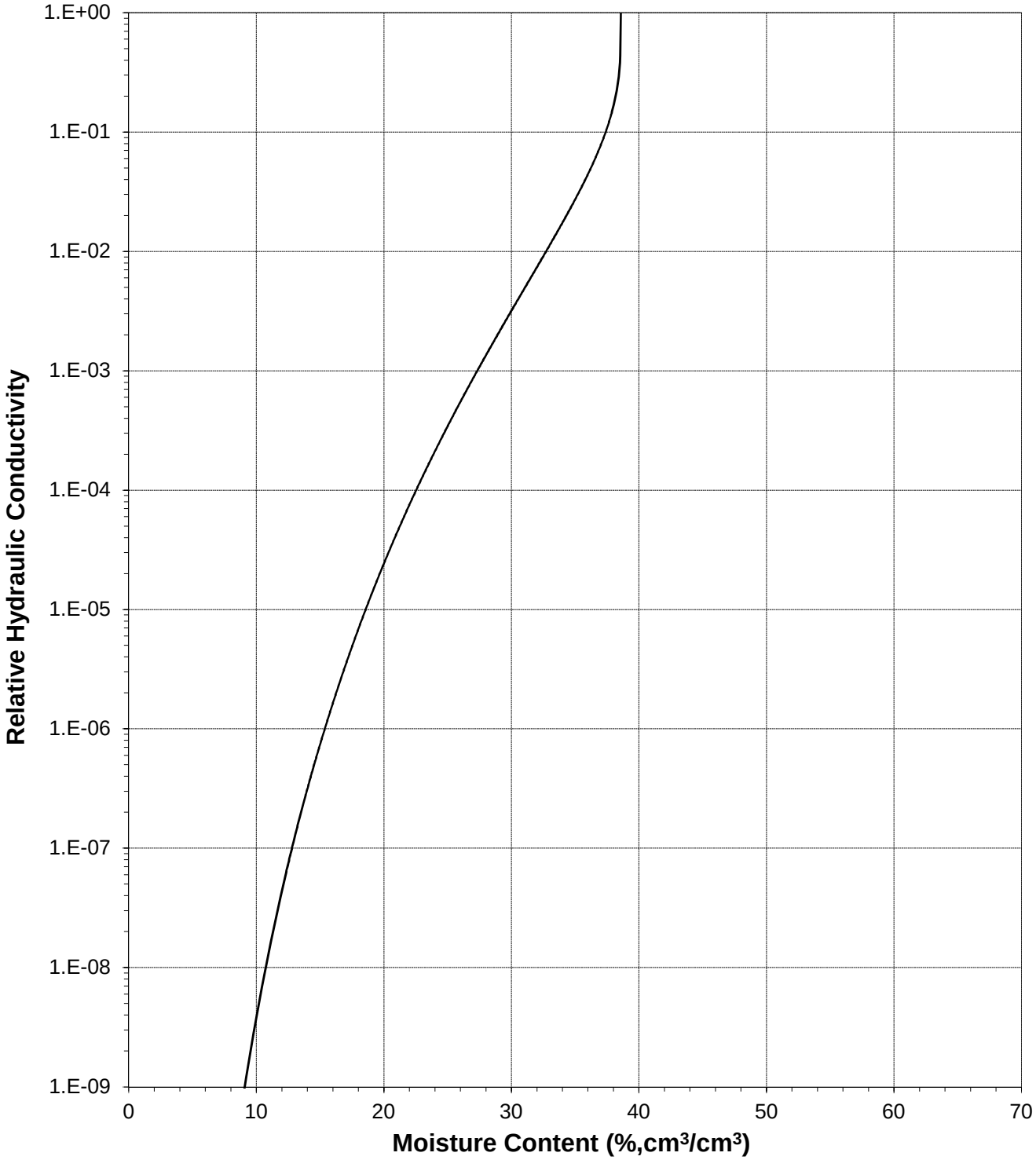
Predicted Water Retention Curve and Data Points

Sample Number: TP-05-01 (0-6.5ft)



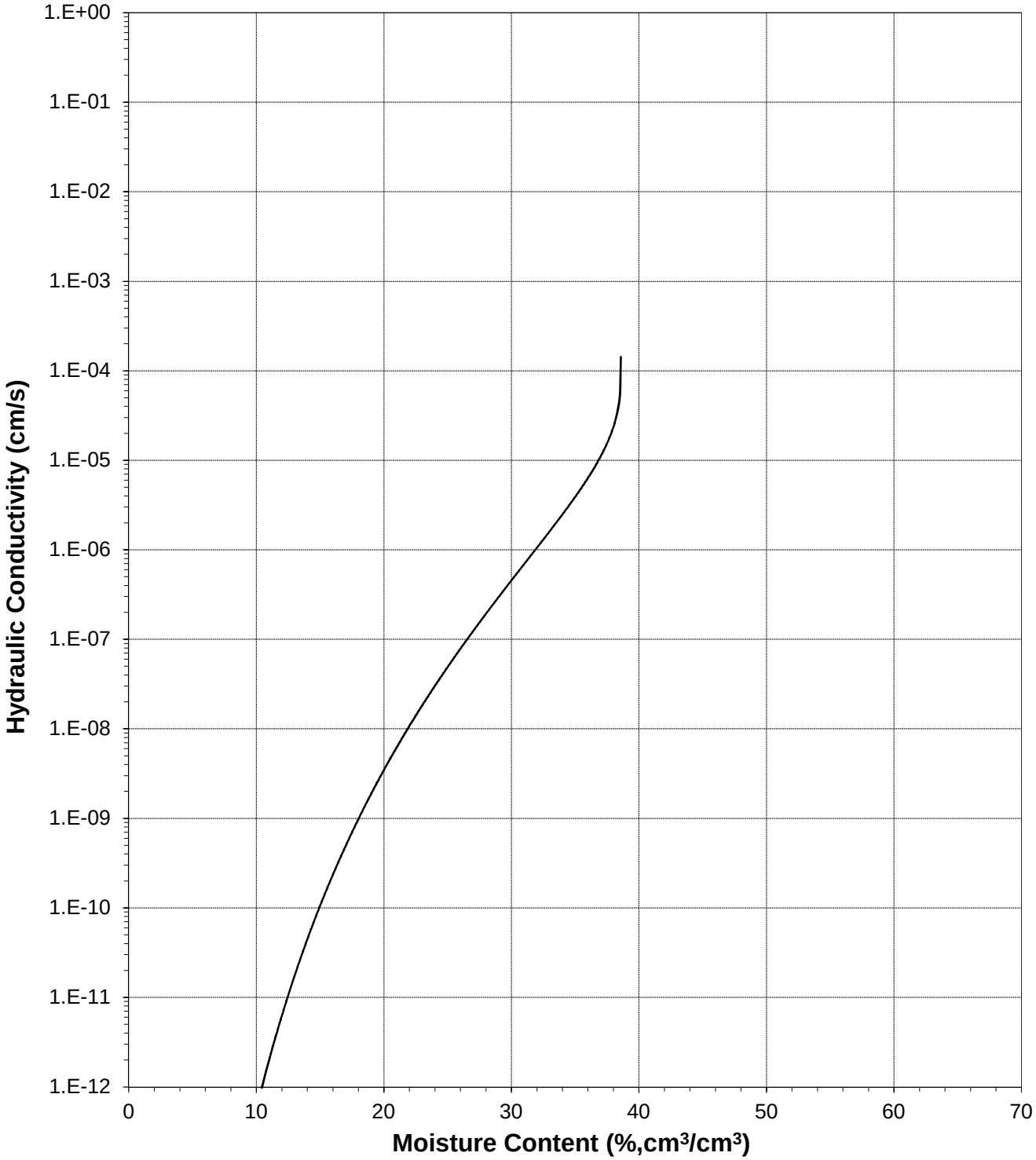
Plot of Relative Hydraulic Conductivity vs Moisture Content

Sample Number: TP-05-01 (0-6.5ft)



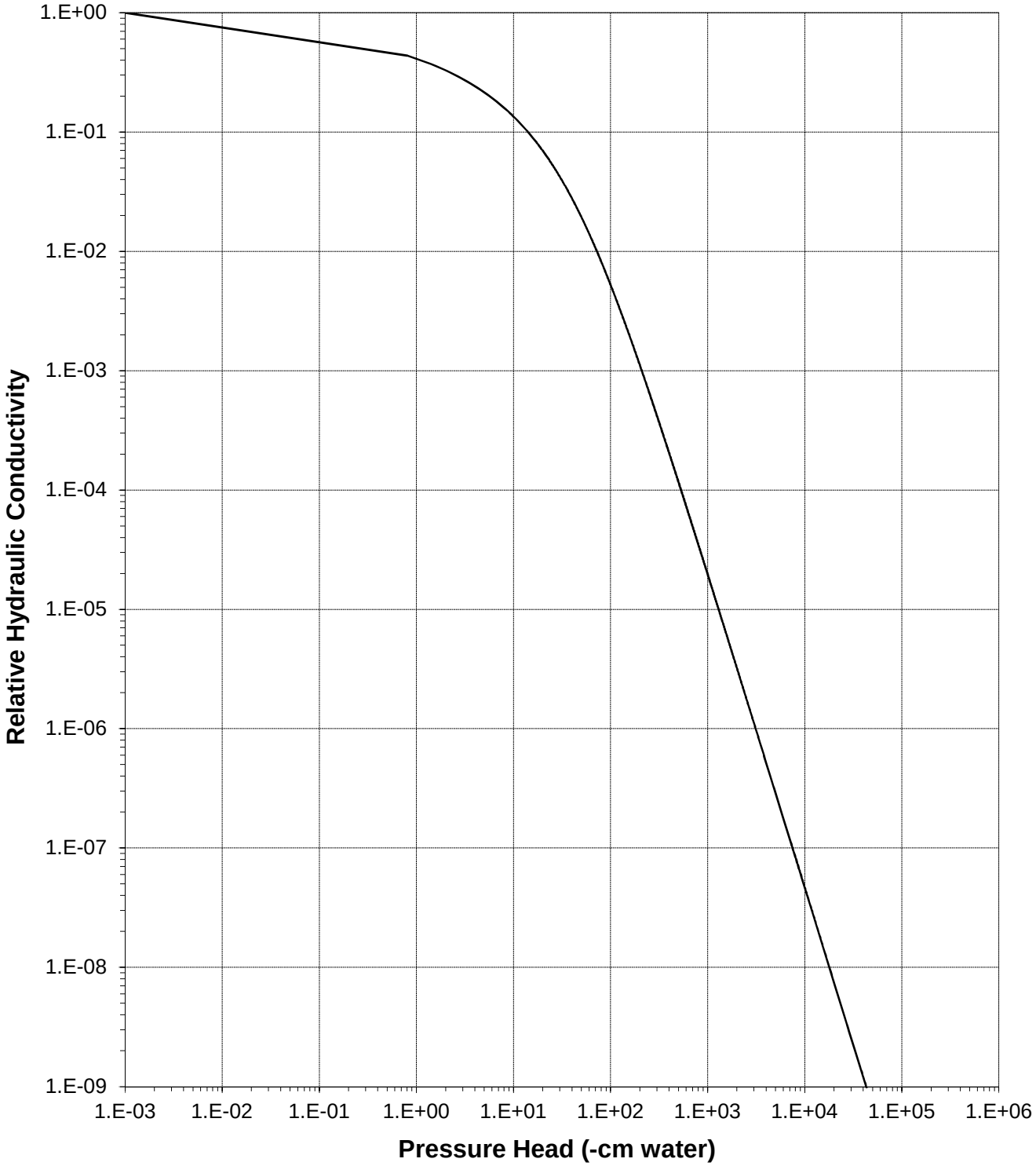
Plot of Hydraulic Conductivity vs Moisture Content

Sample Number: TP-05-01 (0-6.5ft)



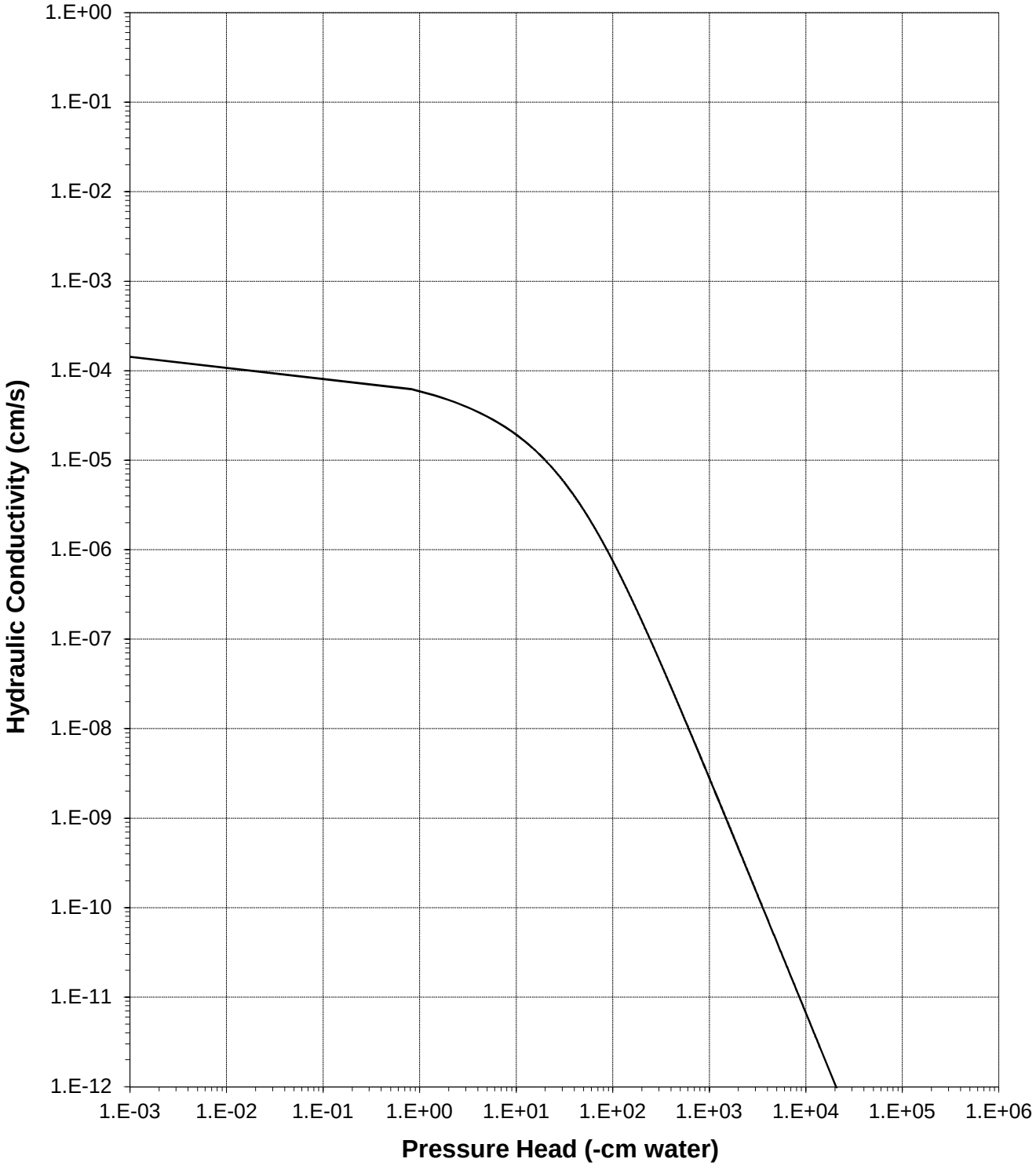
Plot of Relative Hydraulic Conductivity vs Pressure Head

Sample Number: TP-05-01 (0-6.5ft)



Plot of Hydraulic Conductivity vs Pressure Head

Sample Number: TP-05-01 (0-6.5ft)



Moisture Retention Data

Hanging Column / Pressure Plate

(Soil-Water Characteristic Curve)

Job Name: Stantec (1-26)
Job Number: DB26.1035.06
Sample Number: TP-07-02 (3-10ft)
Project Name: Section 27
Date Received: 10/24/25

Dry wt. of sample (g)*:* 193.08
Tare wt., ring (g)*:* 86.43
Tare wt., screen & clamp (g)*:* 27.89
Initial sample volume (cm^3)*:* 141.42
Initial dry bulk density (g/cm^3)*:* 1.37
Assumed particle density (g/cm^3)*:* 2.70
Initial calculated total porosity (%)*:* 49.43

	Date	Time	Weight* (g)	Matric Potential (-cm water)	Moisture Content † (% vol)	
Hanging column:	5-Mar-26	12:30	381.35	0	52.29	
	12-Mar-26	10:18	380.81	15.0	51.91	
	18-Mar-26	10:59	376.57	54.0	47.83	‡‡
	25-Mar-26	14:19	372.59	128.0	45.08	‡‡
Pressure plate:	3-Apr-26	9:25	370.27	337	43.48	‡‡

Volume Adjusted Data [1]

	Matric Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calculated Porosity (%)
Hanging column:	0.0	---	---	---	---
	15.0	---	---	---	---
	54.0	144.61	+2.26%	1.34	50.55
	128.0	144.61	+2.26%	1.34	50.55
Pressure plate:	337	144.61	+2.26%	1.34	50.55

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent each of the volume change measurements obtained after saturated hydraulic conductivity testing and throughout hanging column/pressure plate testing. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

† Assumed density of water is 1.0 g/cm^3

‡‡ Volume adjustments are applicable at this matric potential (see comment #1). Changes in volume, if applicable, are estimated based on obtainable measurements of changes in sample length and diameter.

Technician Notes:

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Moisture Retention Data

Dew Point Potentiometer / Relative Humidity Box

(Soil-Water Characteristic Curve)

Sample Number: TP-07-02 (3-10ft)

Initial sample bulk density (g/cm^3)*:* 1.37

Fraction of test sample used (<2.00mm fraction) (%): 100.00

Dry weight of dew point potentiometer sample* (g)*:* 175.41

Tare weight, jar (g)*:* 117.21

	Date	Time	Weight* (g)	Water Potential (-cm water)	Moisture Content † (% vol)	
Dew point potentiometer:	2-Mar-26	14:05	188.07	18152	29.03	‡‡
	27-Feb-26	10:25	186.84	31614	26.22	‡‡
	25-Feb-26	16:50	185.57	53540	23.31	‡‡
	24-Feb-26	12:40	184.20	75465	20.17	‡‡

Volume Adjusted Data [1]

	Water Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calc. Porosity (%)
Dew point potentiometer:	18152	144.61	+2.26%	1.34	50.55
	31614	144.61	+2.26%	1.34	50.55
	53540	144.61	+2.26%	1.34	50.55
	75465	144.61	+2.26%	1.34	50.55

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent the volume change measurements obtained after the last hanging column or pressure plate point. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

† Adjusted for >2.00mm (#10 sieve) material not used in DPP/RH testing. Assumed moisture content of material >2.00mm is zero, and assumed density of water is 1.0 g/cm^3.

‡‡ Volume adjustments are applicable at this matric potential (see comment #1).

Laboratory analysis by: M. Sharma/J. Tafoya
Data entered by: M. Sharma
Checked by: T. Morgan

Moisture Retention Data

Dew Point Potentiometer / Relative Humidity Box

(Soil-Water Characteristic Curve)

Sample Number: TP-07-02 (3-10ft)

Initial sample bulk density (g/cm^3)*:* 1.37

Fraction of test sample used (<2.00mm fraction) (%): 100.00

Dry weight of relative humidity box sample* (g)*:* 62.40

Tare weight (g)*:* 38.33

	Date	Time	Weight* (g)	Water Potential (-cm water)	Moisture Content † (% vol)	
Relative humidity box:	24-Feb-26	9:00	63.79	847567	7.70	‡‡

Volume Adjusted Data [1]

	Water Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calc. Porosity (%)
Relative humidity box:	847567	144.61	+2.26%	1.34	50.55

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent the volume change measurements obtained after the last hanging column or pressure plate point. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

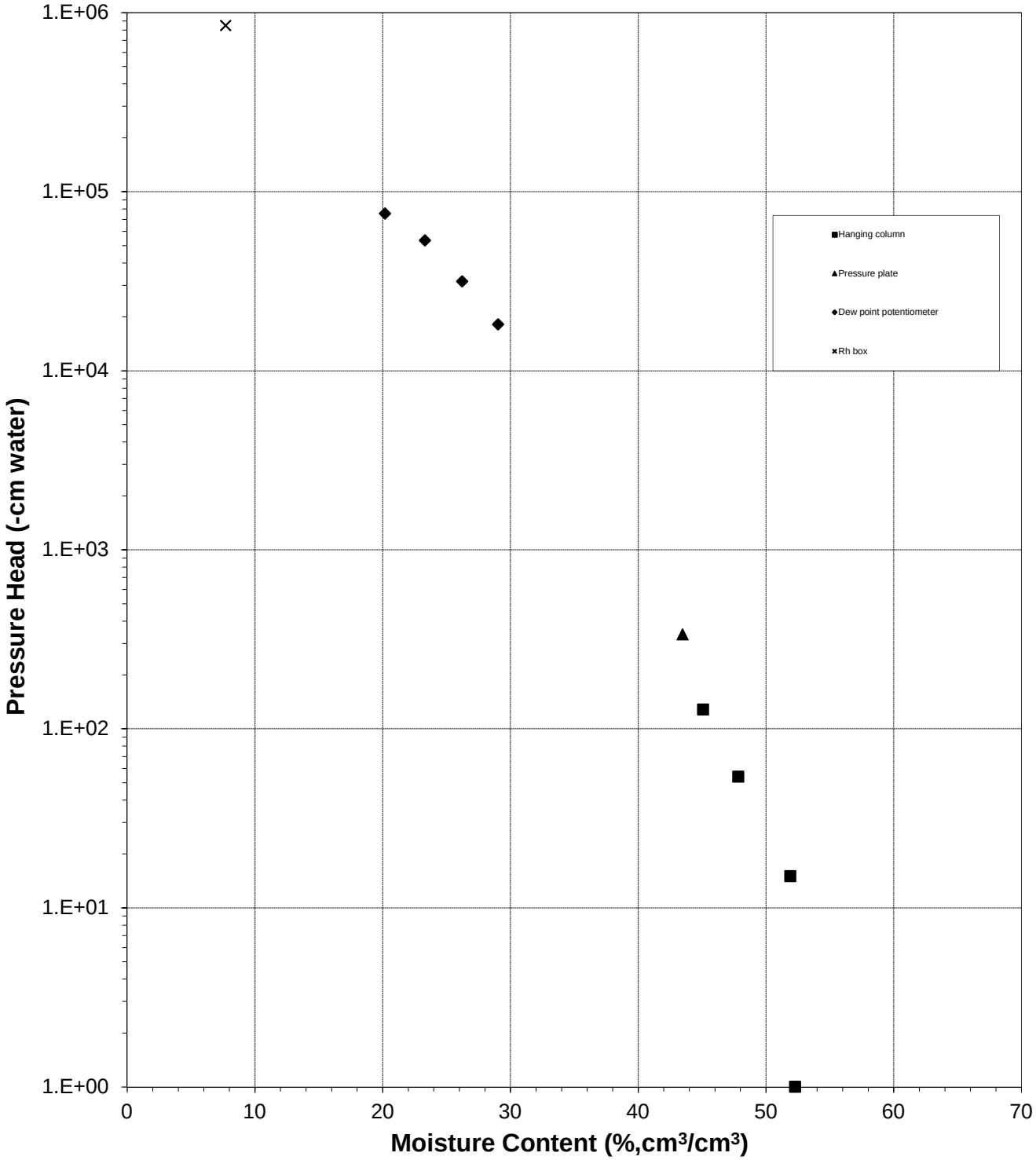
† Adjusted for >2.00mm (#10 sieve) material not used in DPP/RH testing. Assumed moisture content of material >2.00mm is zero, and assumed density of water is 1.0 g/cm^3.

‡‡ Volume adjustments are applicable at this matric potential (see comment #1). Changes in volume, if applicable, are estimated based on obtainable measurements of changes in sample length and diameter.

Laboratory analysis by: M. Sharma/J. Tafoya
Data entered by: M. Sharma
Checked by: T. Morgan

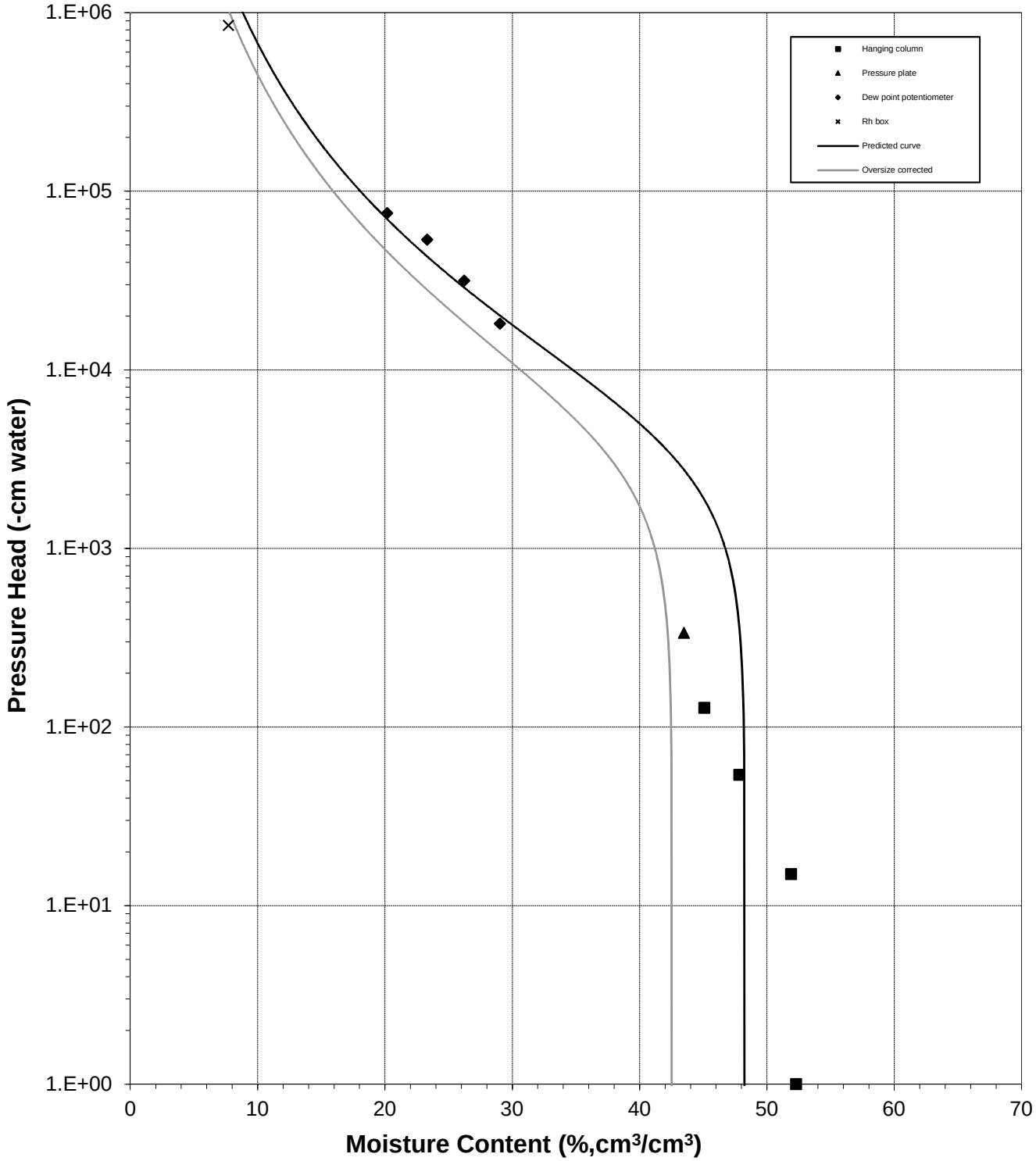
Water Retention Data Points

Sample Number: TP-07-02 (3-10ft)



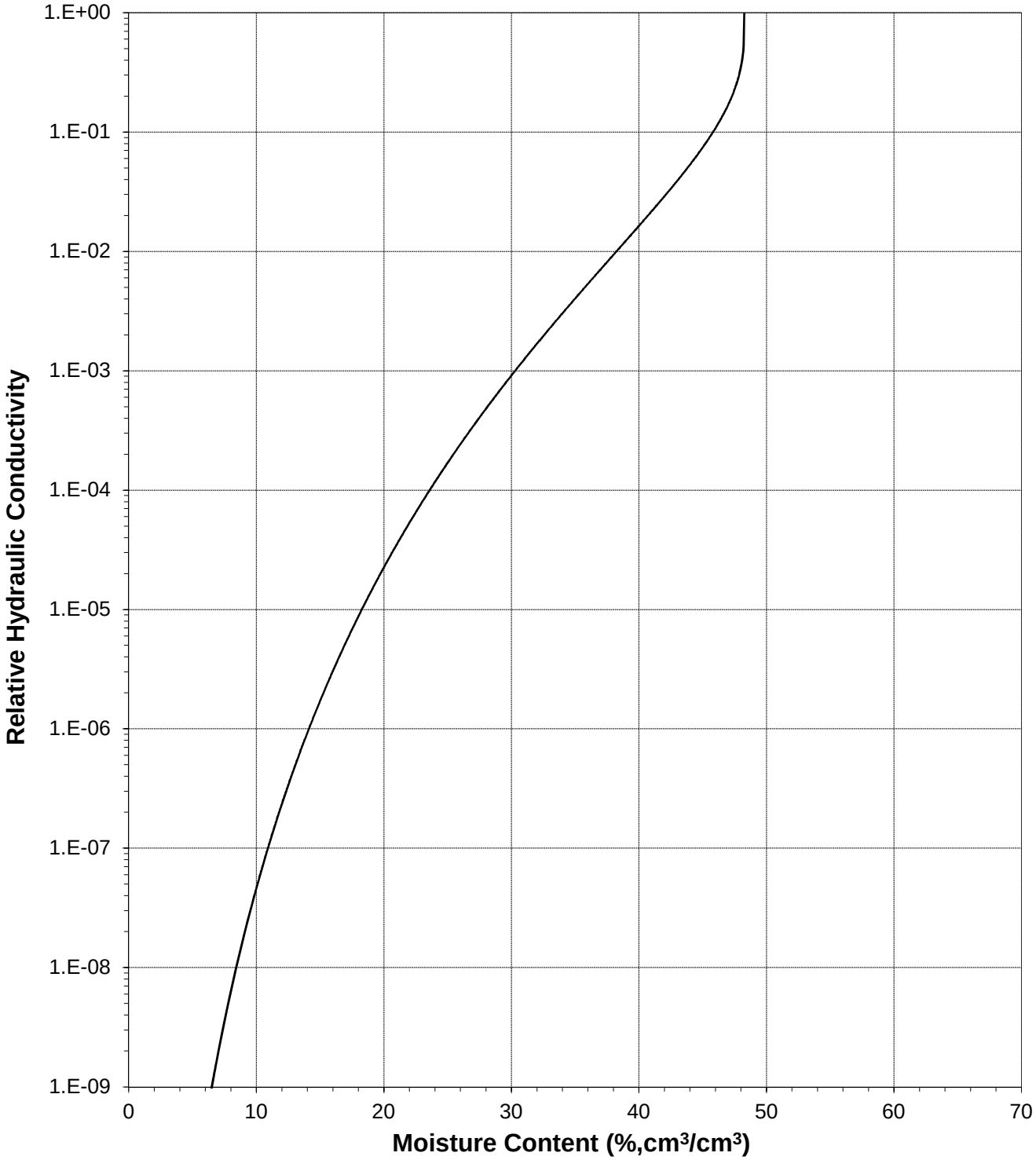
Predicted Water Retention Curve and Data Points

Sample Number: TP-07-02 (3-10ft)



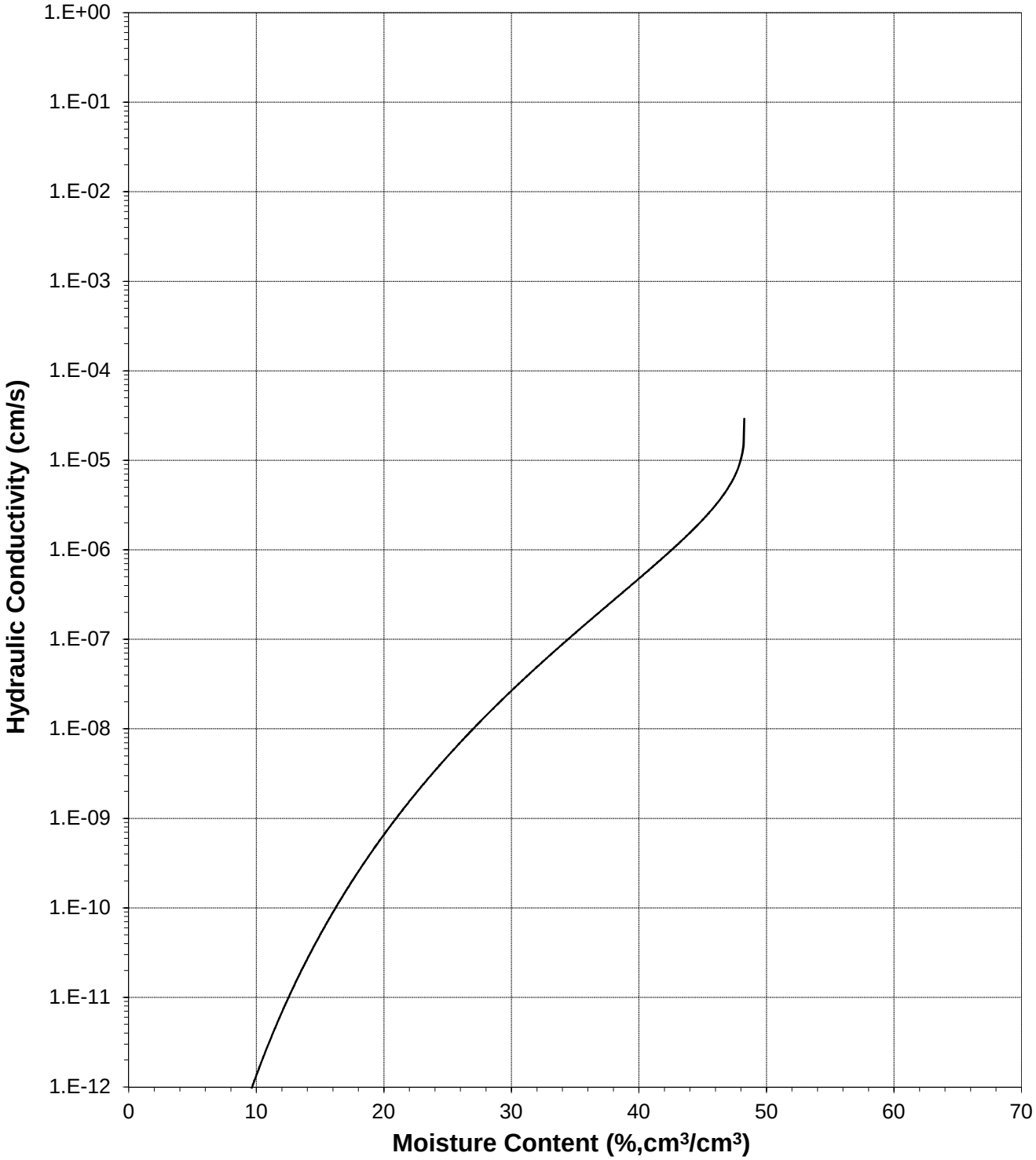
Plot of Relative Hydraulic Conductivity vs Moisture Content

Sample Number: TP-07-02 (3-10ft)



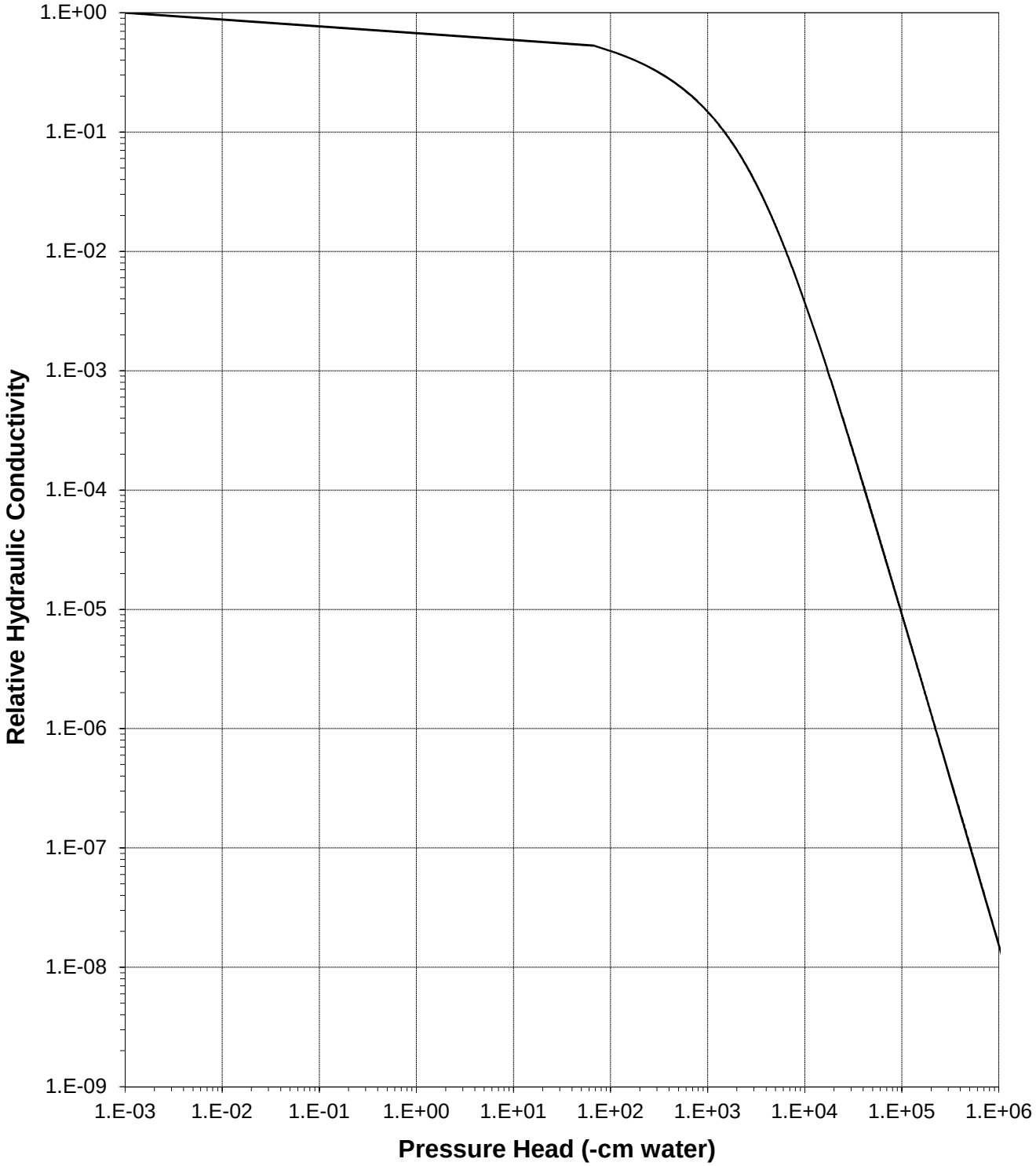
Plot of Hydraulic Conductivity vs Moisture Content

Sample Number: TP-07-02 (3-10ft)



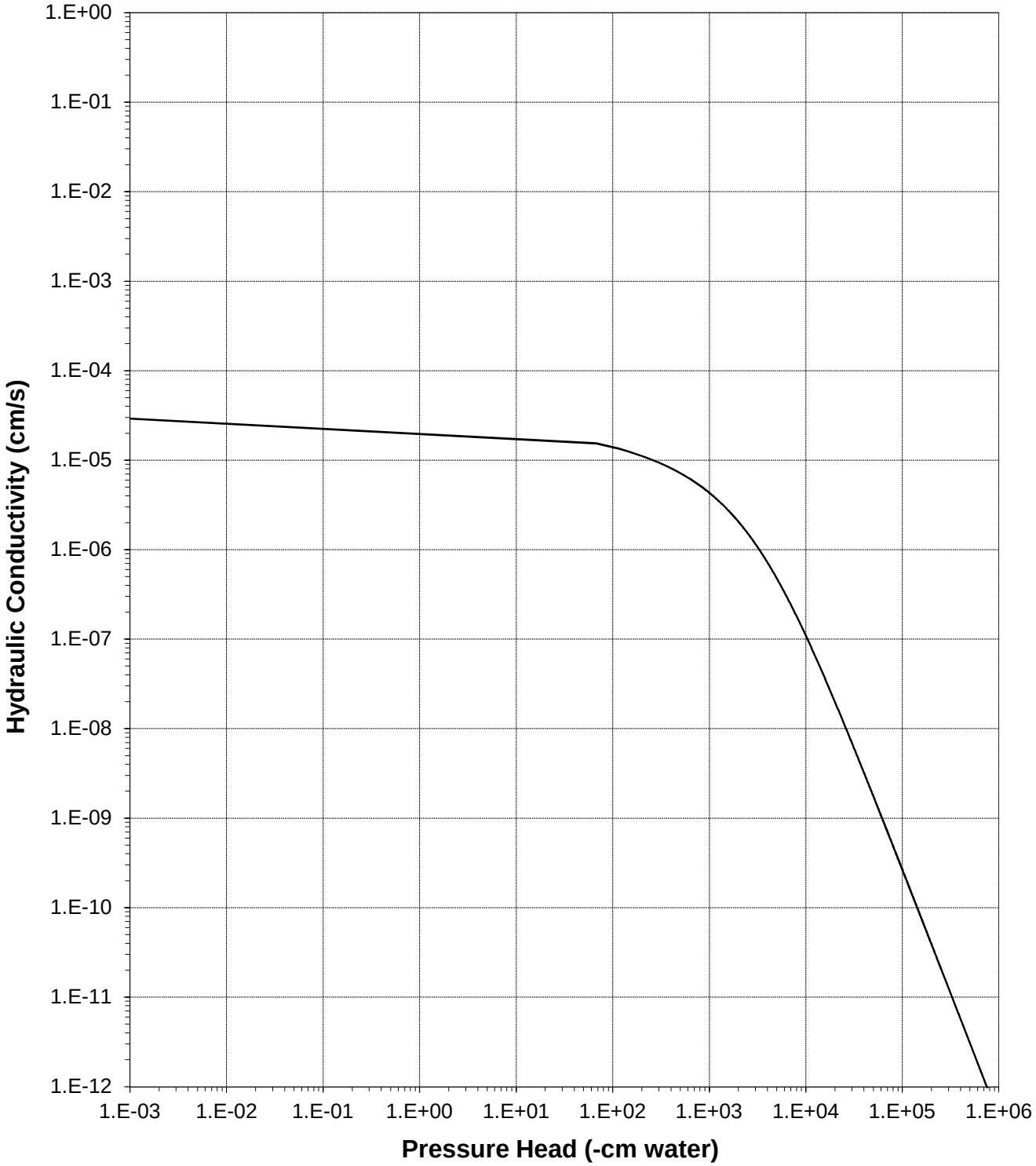
Plot of Relative Hydraulic Conductivity vs Pressure Head

Sample Number: TP-07-02 (3-10ft)



Plot of Hydraulic Conductivity vs Pressure Head

Sample Number: TP-07-02 (3-10ft)



Oversize Correction Data Sheet

Job Name: Stantec (1-26)
Job Number: DB26.1035.06
Sample Number: TP-07-02 (3-10ft)
Project Name: Section 27
Date Received: 10/24/25

Split (3/4", 3/8", #4): #4

	Coarse Fraction*	Fines Fraction**	Composite
Subsample Mass (g):	3.40	13.05	16.45
Mass Fraction (%):	20.67	79.33	100.00
Initial Sample θ_i			
Bulk Density (g/cm^3):	2.65	1.37	1.52
Calculated Porosity (% vol):	0.00	49.43	43.58
Volume of Solids (cm^3):	1.28	4.83	6.12
Volume of Voids (cm^3):	0.00	4.72	4.72
Total Volume (cm^3):	1.28	9.56	10.84
Volumetric Fraction (%):	11.83	88.17	100.00
Initial Moisture Content (% vol):	0.00	26.86	23.68
Saturated Sample θ_s			
Bulk Density (g/cm^3):	2.65	1.37	1.52
Calculated Porosity (% vol):	0.00	49.43	43.58
Volume of Solids (cm^3):	1.28	4.83	6.12
Volume of Voids (cm^3):	0.00	4.72	4.72
Total Volume (cm^3):	1.28	9.56	10.84
Volumetric Fraction (%):	11.83	88.17	100.00
Saturated Moisture Content (% vol):	0.00	48.26	42.55
Residual Sample θ_r			
Bulk Density (g/cm^3):	2.65	1.34	1.49
Calculated Porosity (% vol):	0.00	50.55	44.68
Volume of Solids (cm^3):	1.28	4.83	6.12
Volume of Voids (cm^3):	0.00	4.94	4.94
Total Volume (cm^3):	1.28	9.77	11.06
Volumetric Fraction (%):	11.60	88.40	100.00
Residual Moisture Content (% vol):	0.00	0.00	0.00
Ksat (cm/sec):	NM	2.9E-05	2.3E-05

* = Porosity and moisture content of coarse fraction assumed to be zero.
** = Volume adjusted, if applicable. See notes on Moisture Retention Data pages.
NM = Not measured

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Moisture Retention Data

Hanging Column / Pressure Plate

(Soil-Water Characteristic Curve)

Job Name: Stantec (1-26)
Job Number: DB26.1035.09
Sample Number: TP-13-02 (4.5-10ft)
Project Name: Section 27
Date Received: 10/24/25

Dry wt. of sample (g)*:* 213.46
Tare wt., ring (g)*:* 77.54
Tare wt., screen & clamp (g)*:* 27.37
Initial sample volume (cm^3)*:* 134.39
Initial dry bulk density (g/cm^3)*:* 1.59
Assumed particle density (g/cm^3)*:* 2.65
Initial calculated total porosity (%)*:* 40.06

	Date	Time	Weight* (g)	Matric Potential (-cm water)	Moisture Content † (% vol)
Hanging column:	5-Mar-26	12:40	374.99	0	42.13
	25-Mar-26	14:10	365.32	22.0	34.94
	13-Apr-26	14:03	362.90	70.0	33.14
	20-Apr-26	12:36	362.29	148.5	32.68
Pressure plate:	1-May-26	12:50	361.86	337	32.36

Volume Adjusted Data [1]

	Matric Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calculated Porosity (%)
Hanging column:	0.0	---	---	---	---
	22.0	---	---	---	---
	70.0	---	---	---	---
	148.5	---	---	---	---
Pressure plate:	337	---	---	---	---

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent each of the volume change measurements obtained after saturated hydraulic conductivity testing and throughout hanging column/pressure plate testing. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

† Assumed density of water is 1.0 g/cm^3

‡‡ Volume adjustments are applicable at this matric potential (see comment #1). Changes in volume, if applicable, are estimated based on obtainable measurements of changes in sample length and diameter.

Technician Notes:

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Moisture Retention Data

Dew Point Potentiometer / Relative Humidity Box

(Soil-Water Characteristic Curve)

Sample Number: TP-13-02 (4.5-10ft)

Initial sample bulk density (g/cm^3)*:* 1.59

Fraction of bulk sample used (<2.00mm fraction) (%): 100.00

Dry weight of dew point potentiometer sample* (g)*:* 182.29

Tare weight, jar (g)*:* 114.70

	Date	Time	Weight* (g)	Water Potential (-cm water)	Moisture Content † (% vol)
Dew point potentiometer:	18-Feb-26	14:30	190.63	18560	19.60
	13-Feb-26	16:30	189.49	28554	16.91
	12-Feb-26	14:45	188.59	47421	14.81
	11-Feb-26	14:20	188.15	71998	13.78

Volume Adjusted Data [1]

	Water Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calc. Porosity (%)
Dew point potentiometer:	18560	---	---	---	---
	28554	---	---	---	---
	47421	---	---	---	---
	71998	---	---	---	---

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent the volume change measurements obtained after the last hanging column or pressure plate point. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

† Adjusted for >2.00mm (#10 sieve) material not used in DPP/RH testing. Assumed moisture content of material >2.00mm is zero, and assumed density of water is 1.0 g/cm^3.

‡‡ Volume adjustments are applicable at this matric potential (see comment #1).

Laboratory analysis by: M. Sharma/J. Tafoya
Data entered by: M. Sharma
Checked by: T. Morgan

Moisture Retention Data

Dew Point Potentiometer / Relative Humidity Box

(Soil-Water Characteristic Curve)

Sample Number: TP-13-02 (4.5-10ft)

Initial sample bulk density (g/cm^3)*:* 1.59

Fraction of bulk sample used (<2.00mm fraction) (%): 100.00

Dry weight of relative humidity box sample* (g)*:* 68.57

Tare weight (g)*:* 43.25

	Date	Time	Weight* (g)	Water Potential (-cm water)	Moisture Content † (% vol)
Relative humidity box:	24-Feb-26	9:00	69.82	847567	7.83

Volume Adjusted Data [1]

	Water Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calc. Porosity (%)
Relative humidity box:	847567	---	---	---	---

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent the volume change measurements obtained after the last hanging column or pressure plate point. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

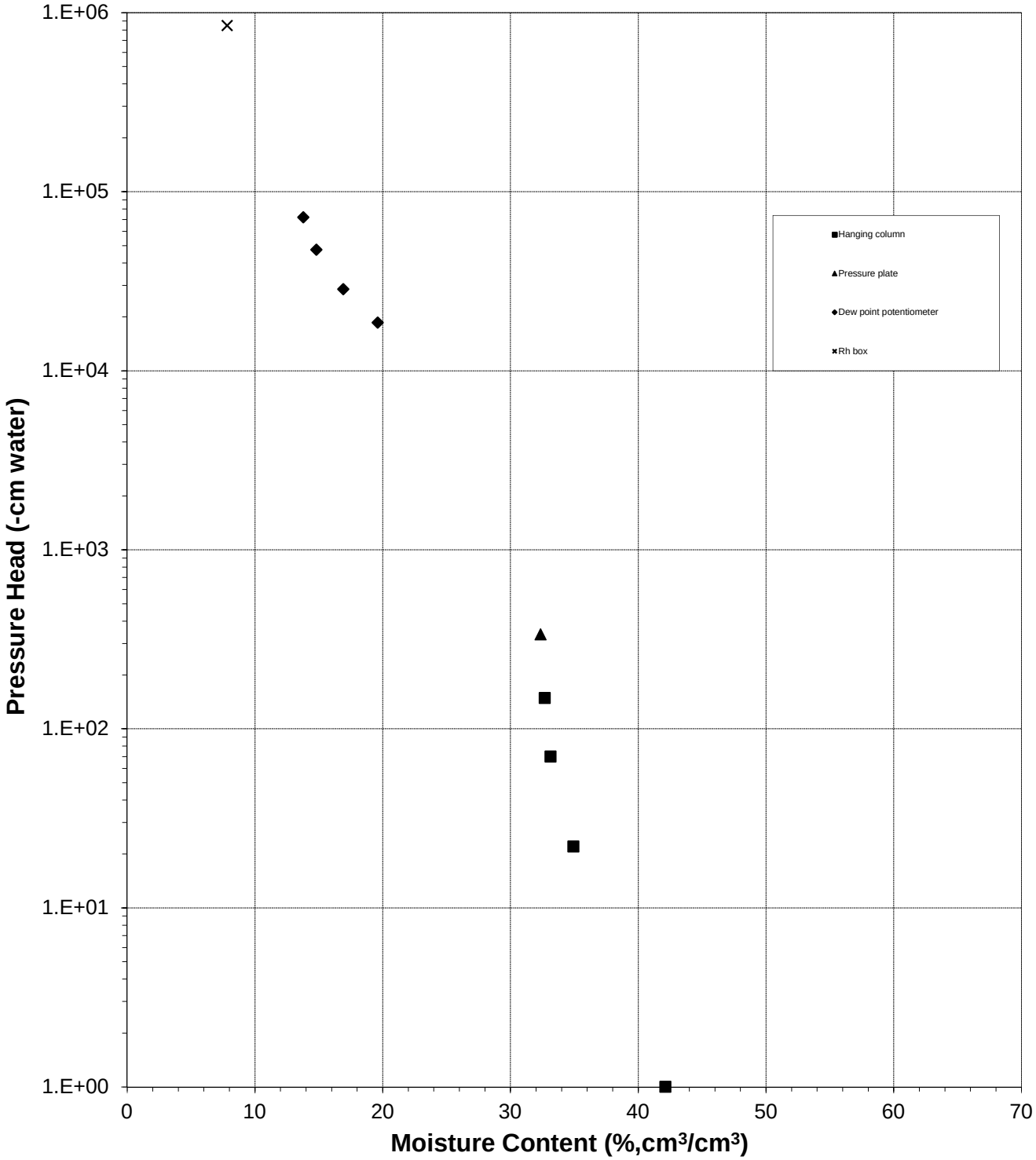
† Adjusted for >2.00mm (#10 sieve) material not used in DPP/RH testing. Assumed moisture content of material >2.00mm is zero, and assumed density of water is 1.0 g/cm^3.

‡‡ Volume adjustments are applicable at this matric potential (see comment #1). Changes in volume, if applicable, are estimated based on obtainable measurements of changes in sample length and diameter.

Laboratory analysis by: M. Sharma/J. Tafoya
Data entered by: M. Sharma
Checked by: T. Morgan

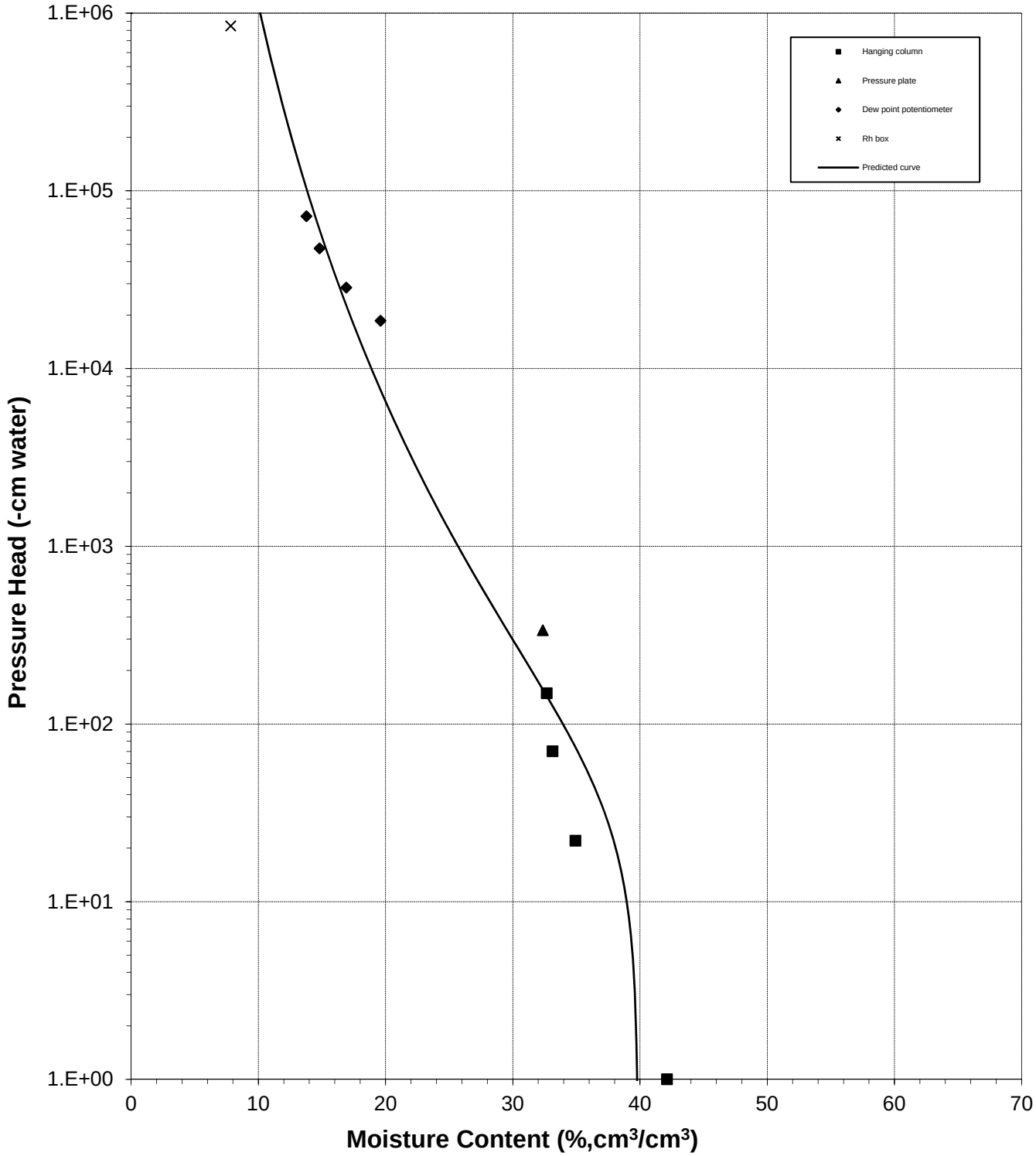
Water Retention Data Points

Sample Number: TP-13-02 (4.5-10ft)



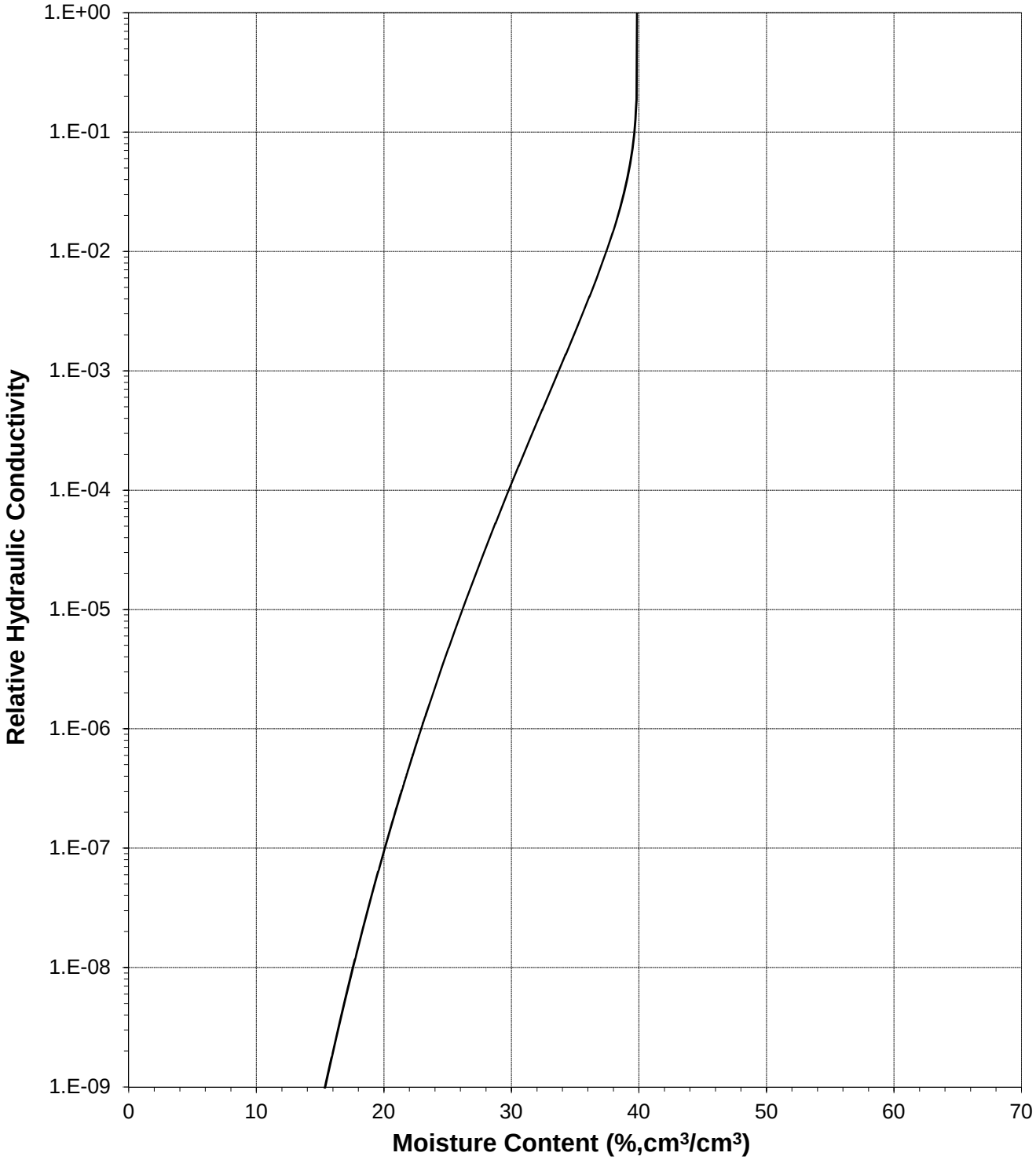
Predicted Water Retention Curve and Data Points

Sample Number: TP-13-02 (4.5-10ft)



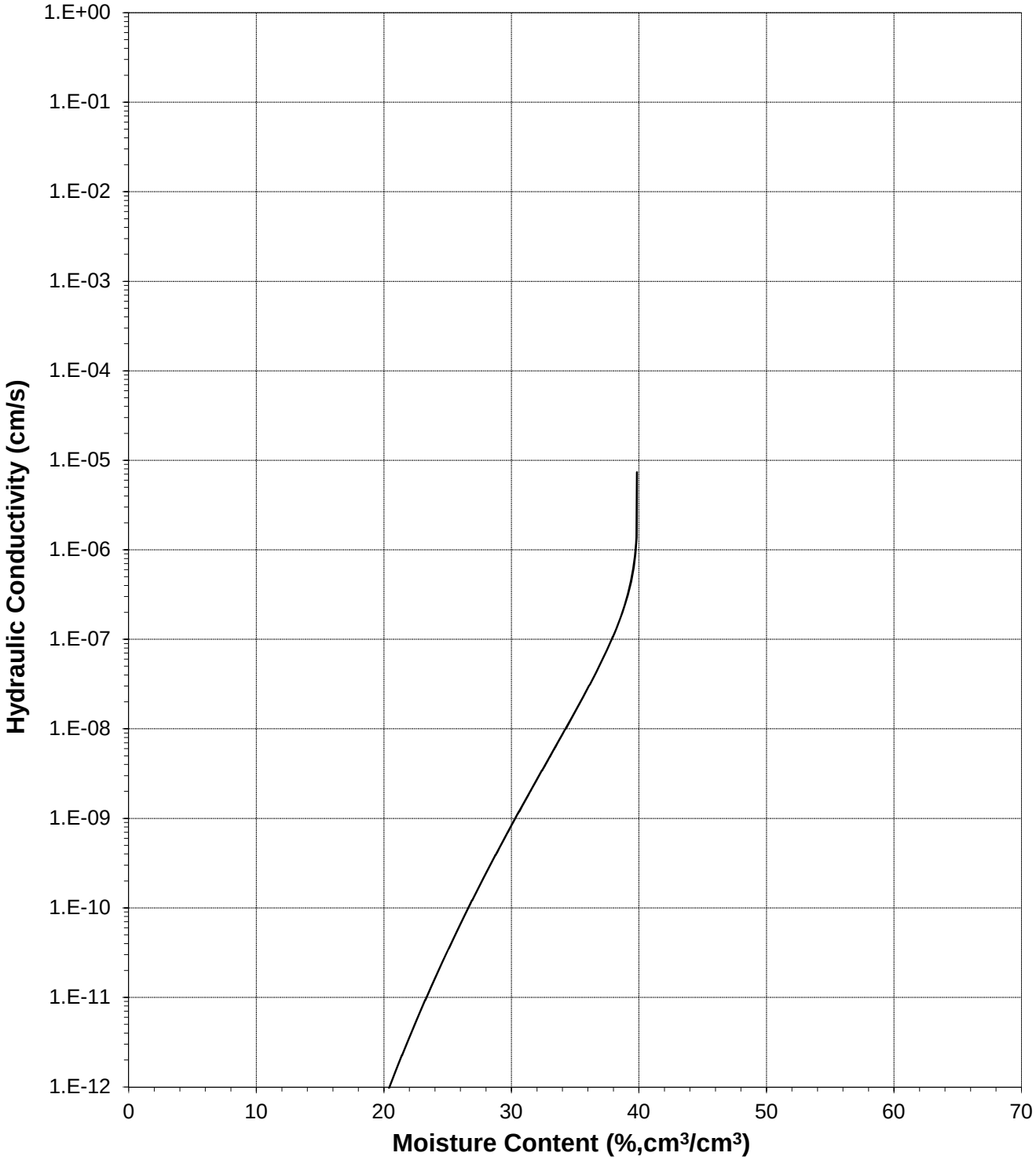
Plot of Relative Hydraulic Conductivity vs Moisture Content

Sample Number: TP-13-02 (4.5-10ft)



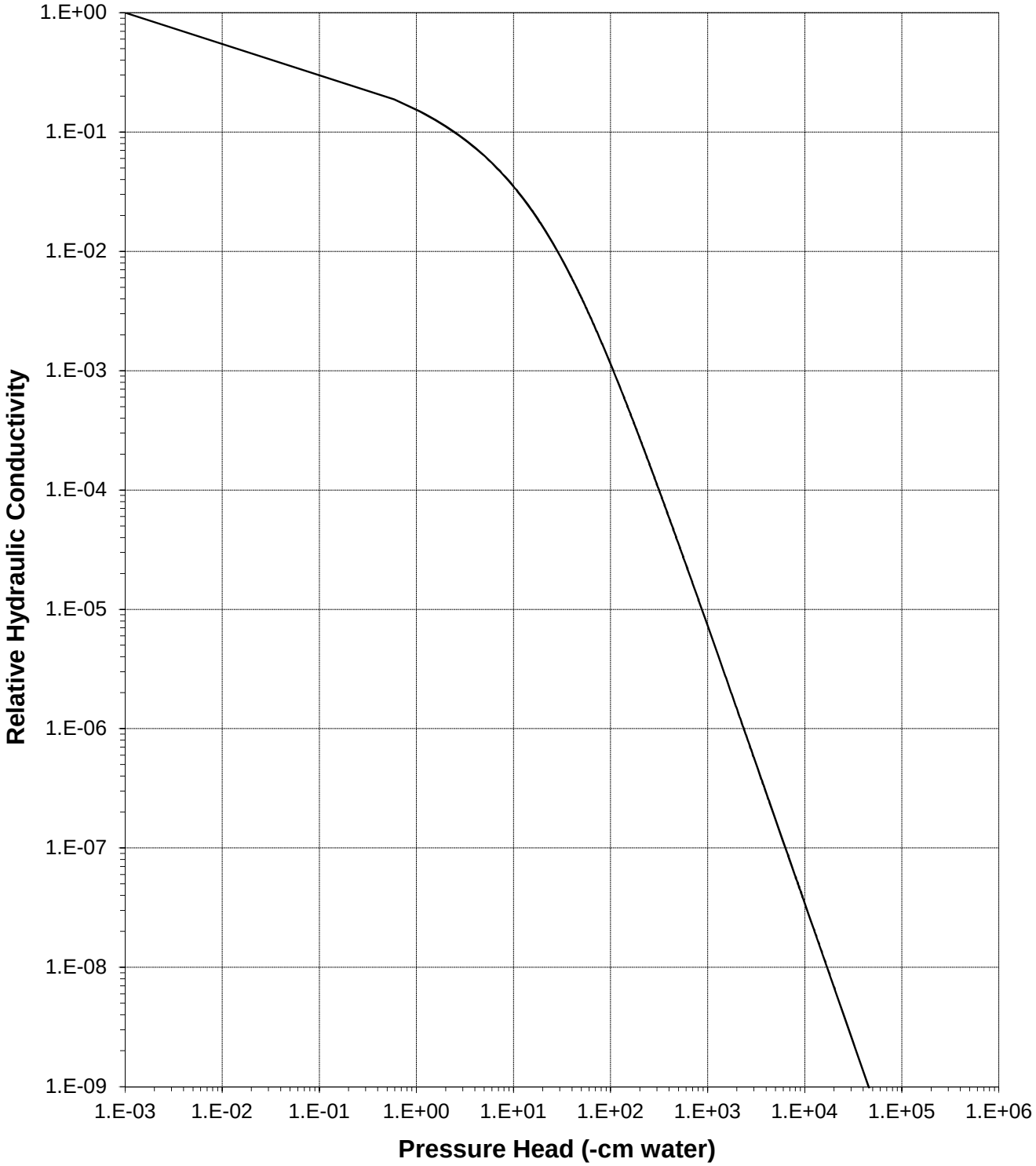
Plot of Hydraulic Conductivity vs Moisture Content

Sample Number: TP-13-02 (4.5-10ft)



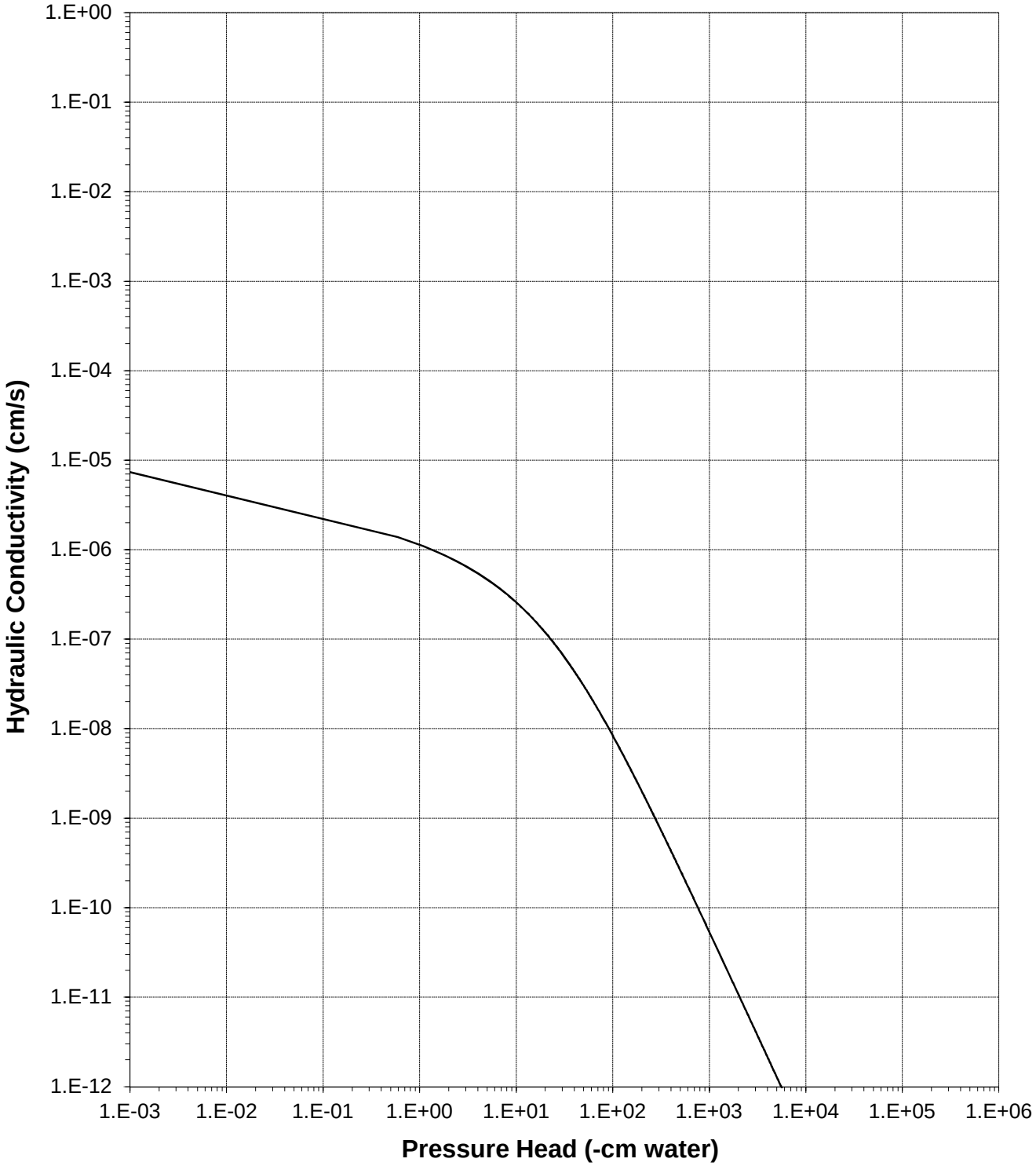
Plot of Relative Hydraulic Conductivity vs Pressure Head

Sample Number: TP-13-02 (4.5-10ft)



Plot of Hydraulic Conductivity vs Pressure Head

Sample Number: TP-13-02 (4.5-10ft)



Moisture Retention Data

Hanging Column / Pressure Plate

(Soil-Water Characteristic Curve)

Job Name: Stantec (1-26)
Job Number: DB26.1035.16
Sample Number: TP-15-01 (0-4ft)
Project Name: Section 27
Date Received: 10/24/25

Dry wt. of sample (g)*:* 232.35
Tare wt., ring (g)*:* 81.69
Tare wt., screen & clamp (g)*:* 26.30
Initial sample volume (cm^3)*:* 144.31
Initial dry bulk density (g/cm^3)*:* 1.61
Assumed particle density (g/cm^3)*:* 2.65
Initial calculated total porosity (%)*:* 39.24

	Date	Time	Weight* (g)	Matric Potential (-cm water)	Moisture Content † (% vol)
Hanging column:	5-Mar-26	11:34	397.39	0	39.53
	12-Mar-26	10:15	396.64	7.0	39.01
	18-Mar-26	11:08	387.60	22.0	32.75
	25-Mar-26	14:30	369.80	77.0	20.41
Pressure plate:	3-Apr-26	9:20	363.95	337	16.36

Volume Adjusted Data [1]

	Matric Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calculated Porosity (%)
Hanging column:	0.0	---	---	---	---
	7.0	---	---	---	---
	22.0	---	---	---	---
	77.0	---	---	---	---
Pressure plate:	337	---	---	---	---

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent each of the volume change measurements obtained after saturated hydraulic conductivity testing and throughout hanging column/pressure plate testing. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

† Assumed density of water is 1.0 g/cm^3

‡‡ Volume adjustments are applicable at this matric potential (see comment #1). Changes in volume, if applicable, are estimated based on obtainable measurements of changes in sample length and diameter.

Technician Notes:

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Moisture Retention Data

Dew Point Potentiometer / Relative Humidity Box

(Soil-Water Characteristic Curve)

Sample Number: TP-15-01 (0-4ft)

Initial sample bulk density (g/cm^3)*:* 1.61

Fraction of test sample used (<2.00mm fraction) (%): 100.00

Dry weight of dew point potentiometer sample* (g)*:* 180.61

Tare weight, jar (g)*:* 116.20

	Date	Time	Weight* (g)	Water Potential (-cm water)	Moisture Content † (% vol)
Dew point potentiometer:	10-Feb-26	15:30	182.96	13665	5.86
	20-Feb-26	13:15	182.34	29064	4.32
	12-Feb-26	14:00	182.31	42628	4.25
	18-Feb-26	14:09	182.05	111974	3.61
	4-Feb-26	11:30	181.69	636151	2.69

Volume Adjusted Data [1]

	Water Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calc. Porosity (%)
Dew point potentiometer:	13665	---	---	---	---
	29064	---	---	---	---
	42628	---	---	---	---
	111974	---	---	---	---
	636151	---	---	---	---

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent the volume change measurements obtained after the last hanging column or pressure plate point. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

† Adjusted for >2.00mm (#10 sieve) material not used in DPP/RH testing. Assumed moisture content of material >2.00mm is zero, and assumed density of water is 1.0 g/cm^3.

‡‡ Volume adjustments are applicable at this matric potential (see comment #1).

Laboratory analysis by: M. Sharma/J. Tafoya
Data entered by: M. Sharma
Checked by: T. Morgan

Moisture Retention Data

Dew Point Potentiometer / Relative Humidity Box

(Soil-Water Characteristic Curve)

Sample Number: TP-15-01 (0-4ft)

Initial sample bulk density (g/cm^3)*:* 1.61

Fraction of test sample used (<2.00mm fraction) (%): 100.00

Dry weight of relative humidity box sample* (g)*:* 63.64

Tare weight (g)*:* 39.41

	Date	Time	Weight* (g)	Water Potential (-cm water)	Moisture Content † (% vol)
Relative humidity box:	24-Feb-26	9:30	63.98	847567	2.24

Volume Adjusted Data [1]

	Water Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calc. Porosity (%)
Relative humidity box:	847567	---	---	---	---

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent the volume change measurements obtained after the last hanging column or pressure plate point. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

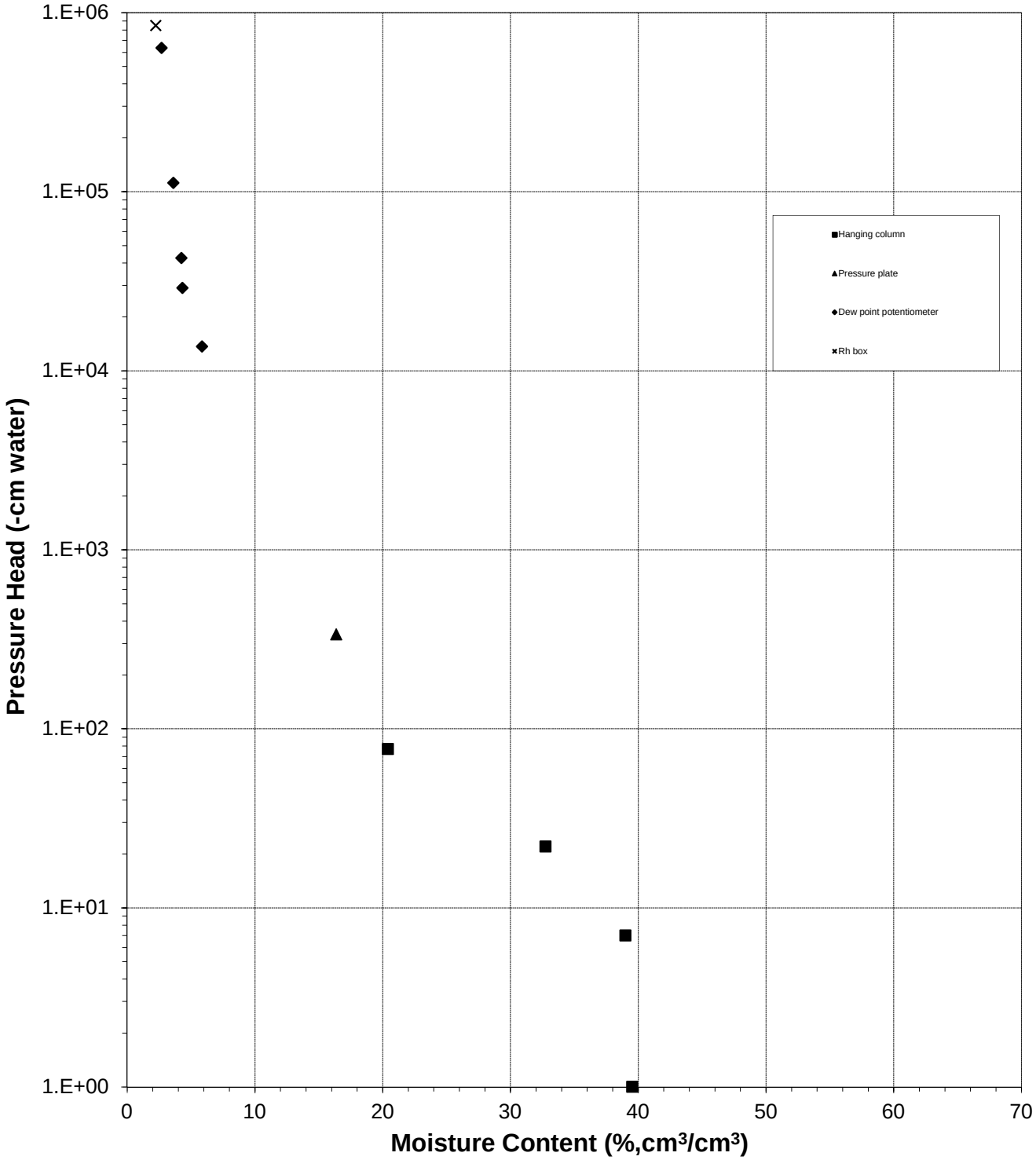
† Adjusted for >2.00mm (#10 sieve) material not used in DPP/RH testing. Assumed moisture content of material >2.00mm is zero, and assumed density of water is 1.0 g/cm^3.

‡‡ Volume adjustments are applicable at this matric potential (see comment #1). Changes in volume, if applicable, are estimated based on obtainable measurements of changes in sample length and diameter.

Laboratory analysis by: M. Sharma/J. Tafoya
Data entered by: M. Sharma
Checked by: T. Morgan

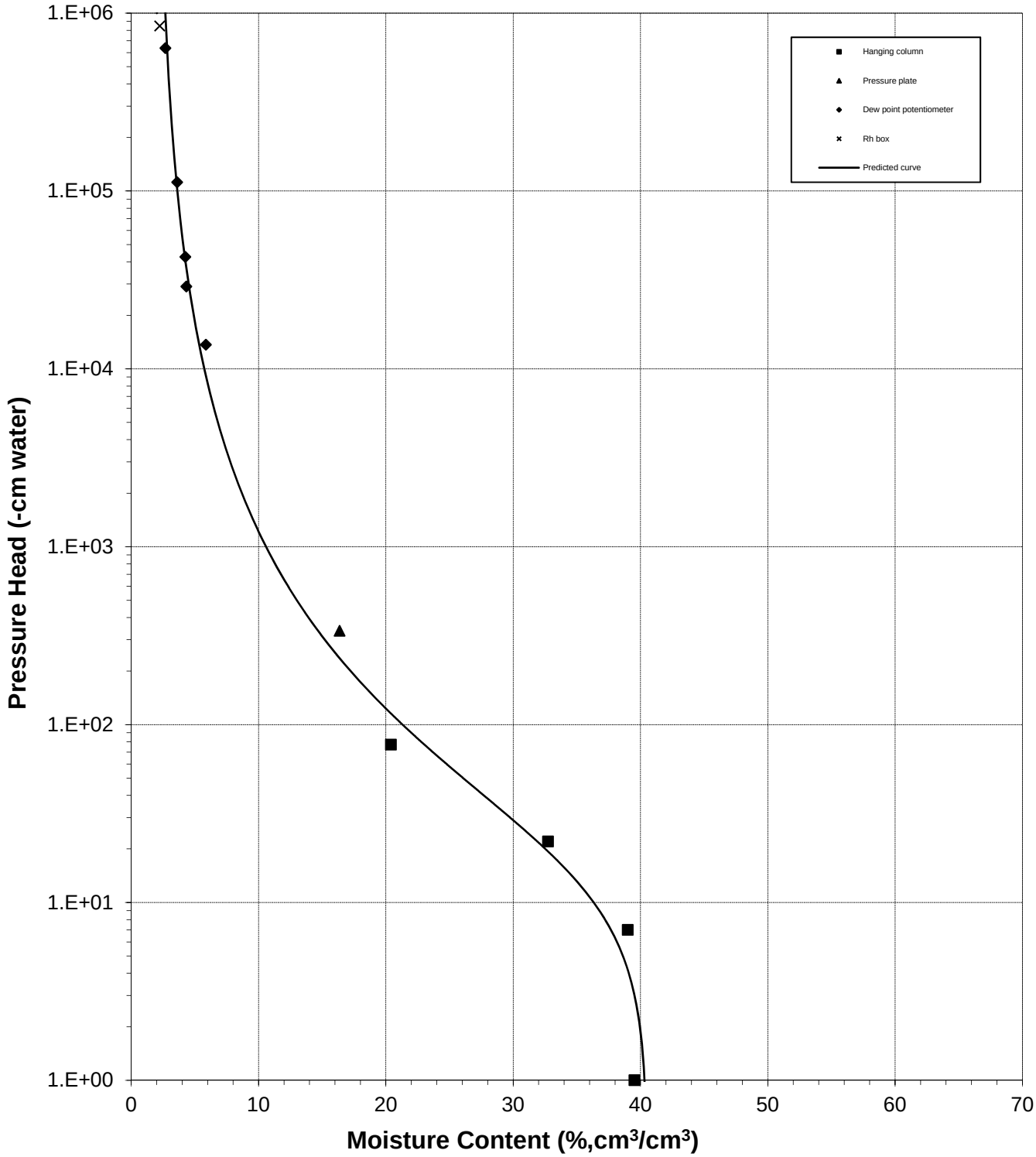
Water Retention Data Points

Sample Number: TP-15-01 (0-4ft)



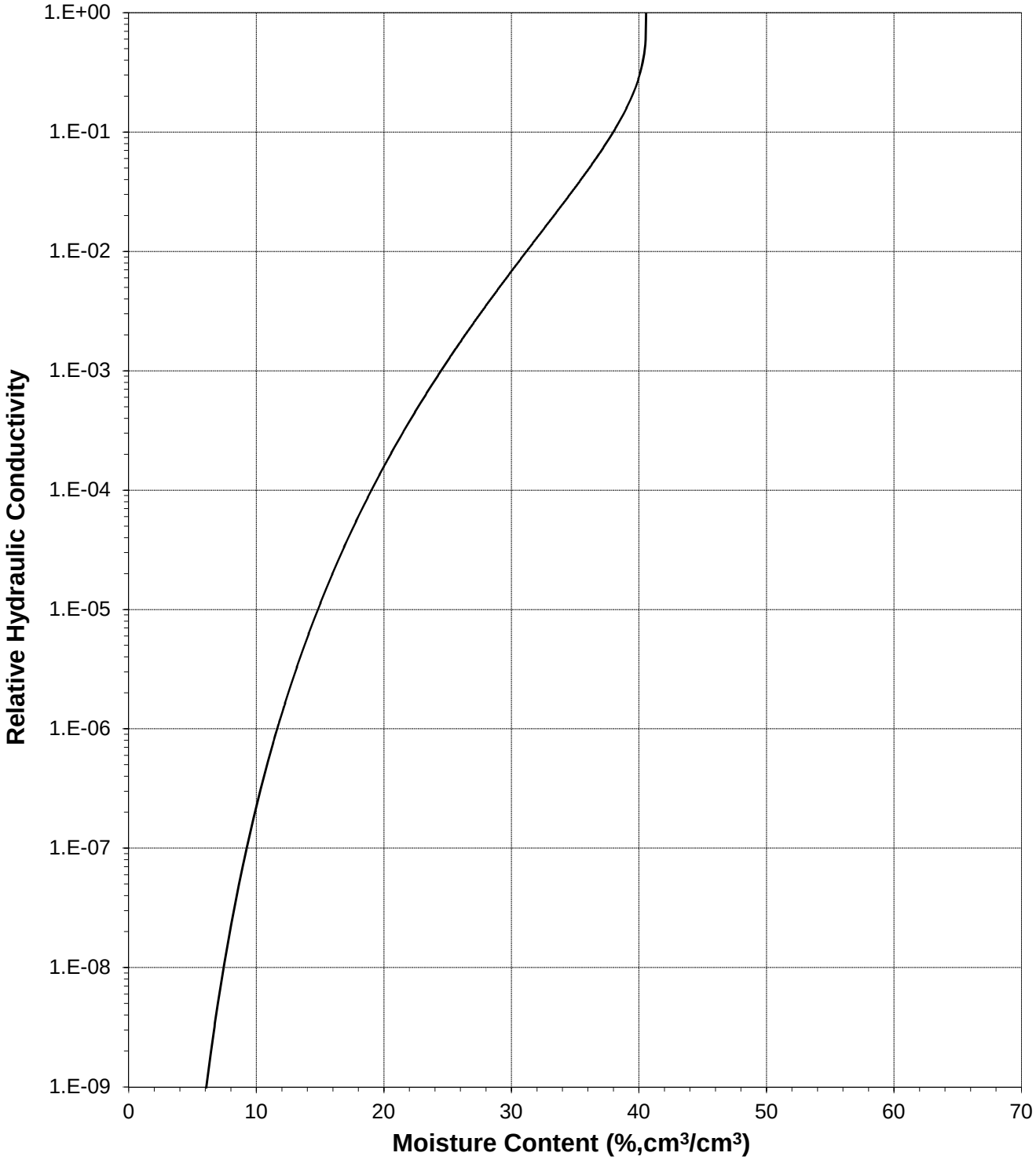
Predicted Water Retention Curve and Data Points

Sample Number: TP-15-01 (0-4ft)



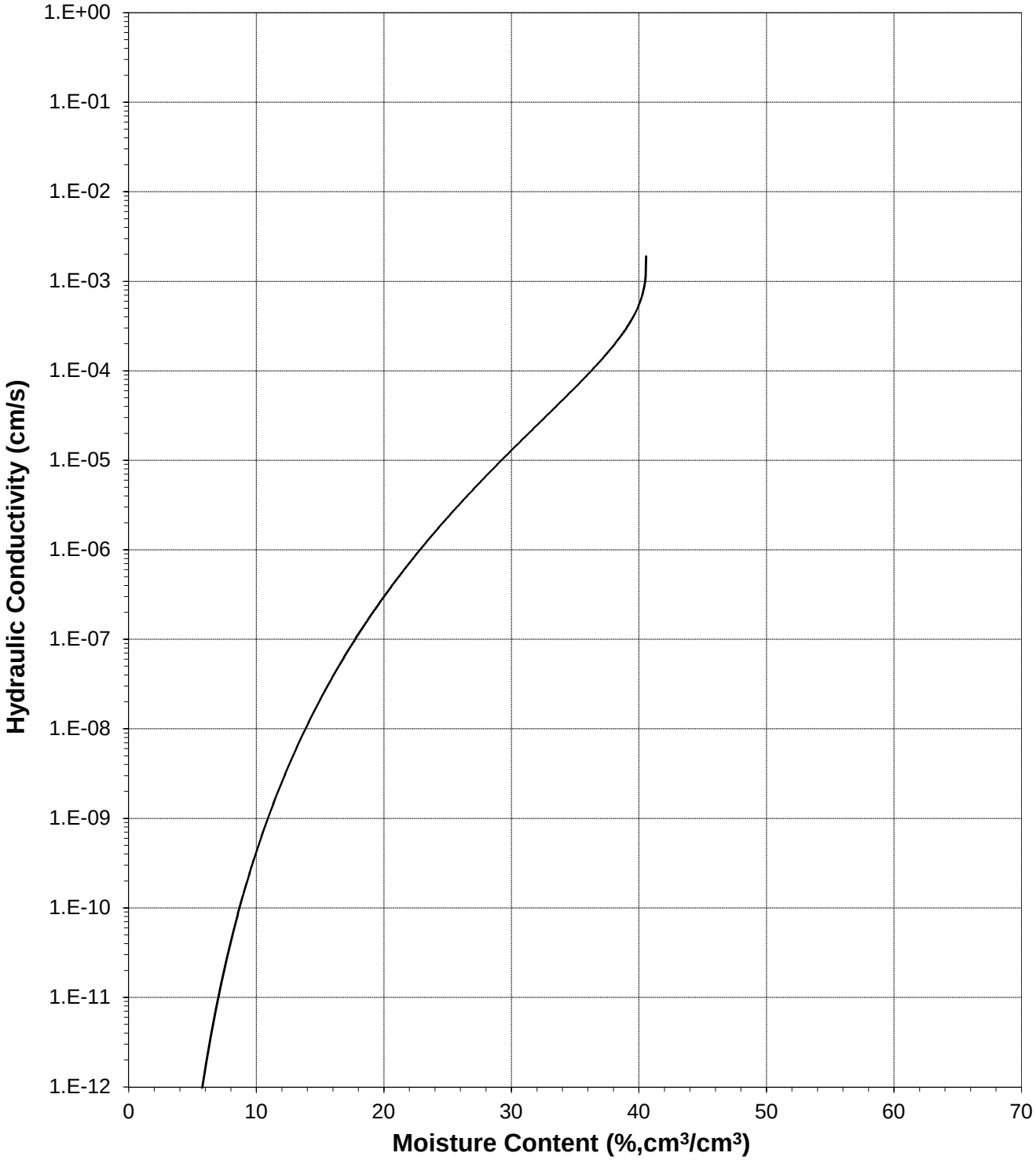
Plot of Relative Hydraulic Conductivity vs Moisture Content

Sample Number: TP-15-01 (0-4ft)



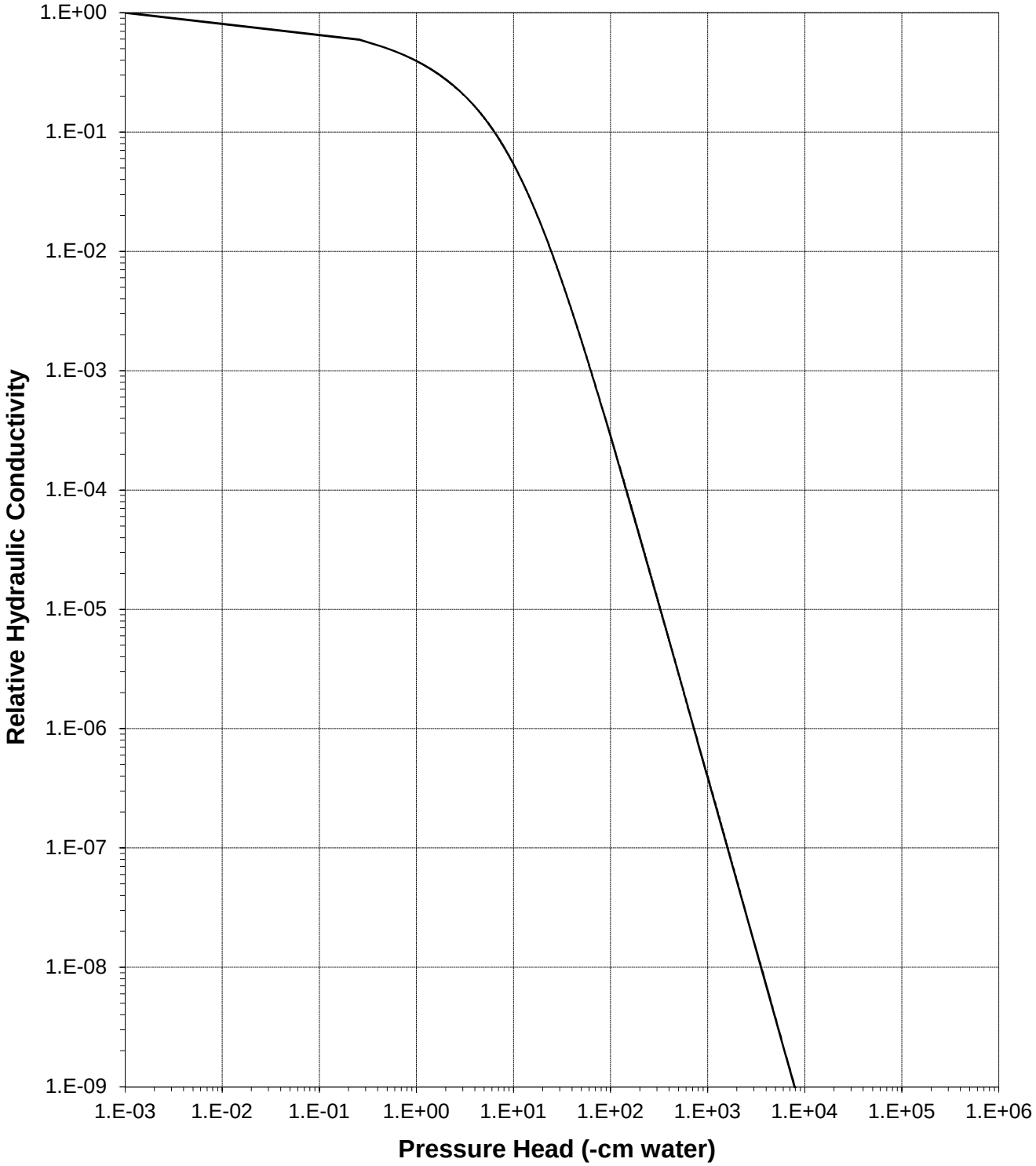
Plot of Hydraulic Conductivity vs Moisture Content

Sample Number: TP-15-01 (0-4ft)



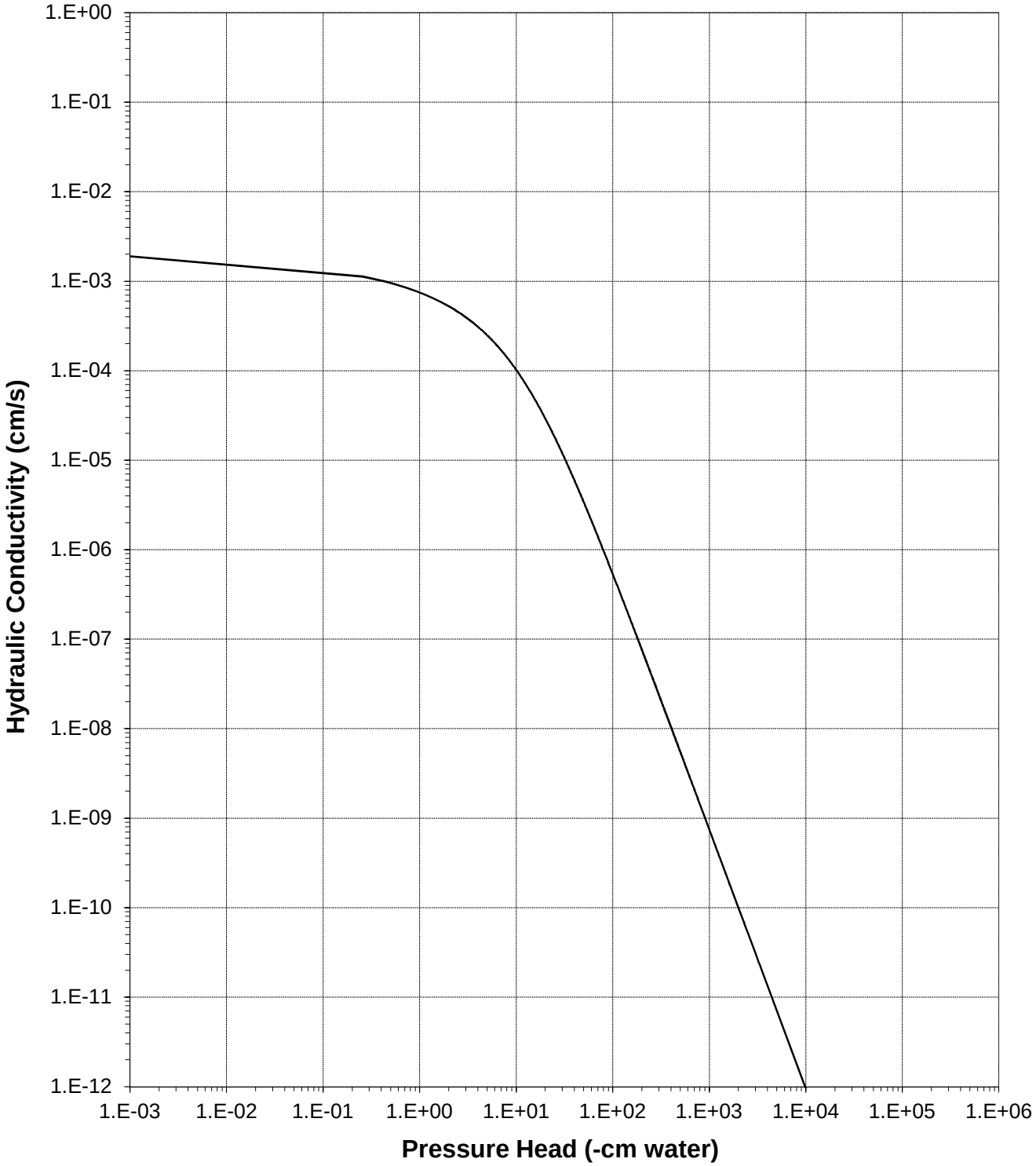
Plot of Relative Hydraulic Conductivity vs Pressure Head

Sample Number: TP-15-01 (0-4ft)



Plot of Hydraulic Conductivity vs Pressure Head

Sample Number: TP-15-01 (0-4ft)



Moisture Retention Data

Hanging Column / Pressure Plate

(Soil-Water Characteristic Curve)

Job Name: Stantec (1-26)
Job Number: DB26.1035.18
Sample Number: TP-16-01 (0-4ft)
Project Name: Section 27
Date Received: 10/24/25

Dry wt. of sample (g)*:* 206.86
Tare wt., ring (g)*:* 141.42
Tare wt., screen & clamp (g)*:* 23.63
Initial sample volume (cm^3)*:* 136.71
Initial dry bulk density (g/cm^3)*:* 1.51
Assumed particle density (g/cm^3)*:* 2.65
Initial calculated total porosity (%)*:* 42.90

	Date	Time	Weight* (g)	Matric Potential (-cm water)	Moisture Content † (% vol)
Hanging column:	5-Mar-26	12:30	432.50	0	44.32
	12-Mar-26	10:30	430.92	15.0	43.17
	18-Mar-26	11:02	430.02	54.0	42.51
	25-Mar-26	14:23	421.73	128.0	36.44
Pressure plate:	3-Apr-26	9:23	418.00	337	33.71

Volume Adjusted Data [1]

	Matric Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calculated Porosity (%)
Hanging column:	0.0	---	---	---	---
	15.0	---	---	---	---
	54.0	---	---	---	---
	128.0	---	---	---	---
Pressure plate:	337	---	---	---	---

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent each of the volume change measurements obtained after saturated hydraulic conductivity testing and throughout hanging column/pressure plate testing. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

† Assumed density of water is 1.0 g/cm^3

‡‡ Volume adjustments are applicable at this matric potential (see comment #1). Changes in volume, if applicable, are estimated based on obtainable measurements of changes in sample length and diameter.

Technician Notes:

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Moisture Retention Data

Dew Point Potentiometer / Relative Humidity Box

(Soil-Water Characteristic Curve)

Sample Number: TP-16-01 (0-4ft)

Initial sample bulk density (g/cm^3)*:* 1.51

Fraction of test sample used (<2.00mm fraction) (%): 100.00

Dry weight of dew point potentiometer sample* (g)*:* 167.99

Tare weight, jar (g)*:* 117.67

	Date	Time	Weight* (g)	Water Potential (-cm water)	Moisture Content † (% vol)
Dew point potentiometer:	19-Feb-26	10:51	173.65	16929	17.02
	12-Feb-26	12:00	172.70	35693	14.15
	10-Feb-26	13:20	171.78	89640	11.41
	4-Feb-26	14:50	170.47	608515	7.45

Volume Adjusted Data [1]

	Water Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calc. Porosity (%)
Dew point potentiometer:	16929	---	---	---	---
	35693	---	---	---	---
	89640	---	---	---	---
	608515	---	---	---	---

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent the volume change measurements obtained after the last hanging column or pressure plate point. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

† Adjusted for >2.00mm (#10 sieve) material not used in DPP/RH testing. Assumed moisture content of material >2.00mm is zero, and assumed density of water is 1.0 g/cm^3.

‡‡ Volume adjustments are applicable at this matric potential (see comment #1).

Laboratory analysis by: M. Sharma/J. Tafoya
Data entered by: M. Sharma
Checked by: T. Morgan

Moisture Retention Data

Dew Point Potentiometer / Relative Humidity Box

(Soil-Water Characteristic Curve)

Sample Number: TP-16-01 (0-4ft)

Initial sample bulk density (g/cm^3)*:* 1.51

Fraction of test sample used (<2.00mm fraction) (%): 100.00

Dry weight of relative humidity box sample* (g)*:* 65.11

Tare weight (g)*:* 40.78

	Date	Time	Weight* (g)	Water Potential (-cm water)	Moisture Content † (% vol)
Relative humidity box:	24-Feb-26	9:30	66.13	847567	6.37

Volume Adjusted Data [1]

	Water Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calc. Porosity (%)
Relative humidity box:	847567	---	---	---	---

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent the volume change measurements obtained after the last hanging column or pressure plate point. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

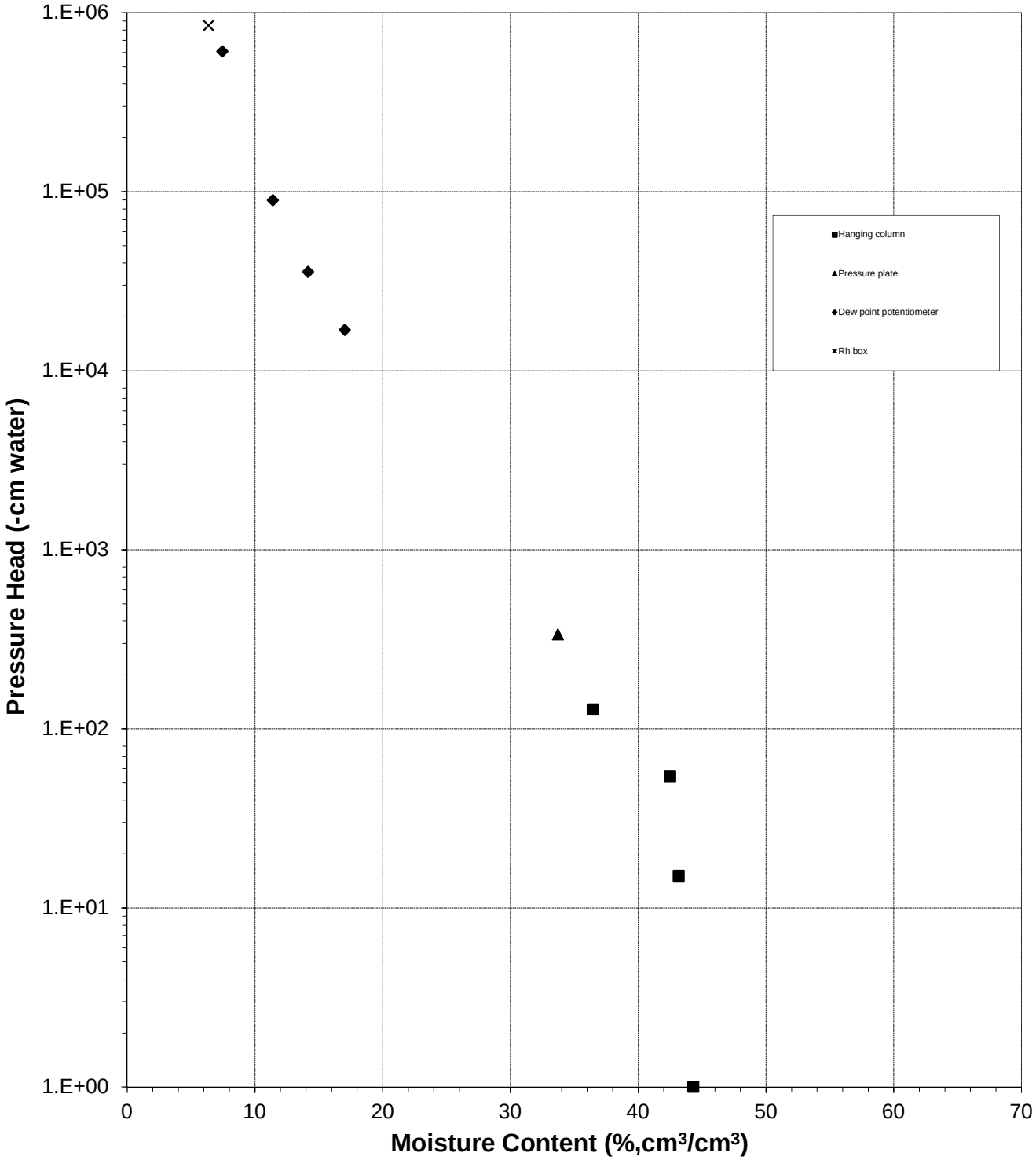
† Adjusted for >2.00mm (#10 sieve) material not used in DPP/RH testing. Assumed moisture content of material >2.00mm is zero, and assumed density of water is 1.0 g/cm^3.

‡‡ Volume adjustments are applicable at this matric potential (see comment #1). Changes in volume, if applicable, are estimated based on obtainable measurements of changes in sample length and diameter.

Laboratory analysis by: M. Sharma/J. Tafoya
Data entered by: M. Sharma
Checked by: T. Morgan

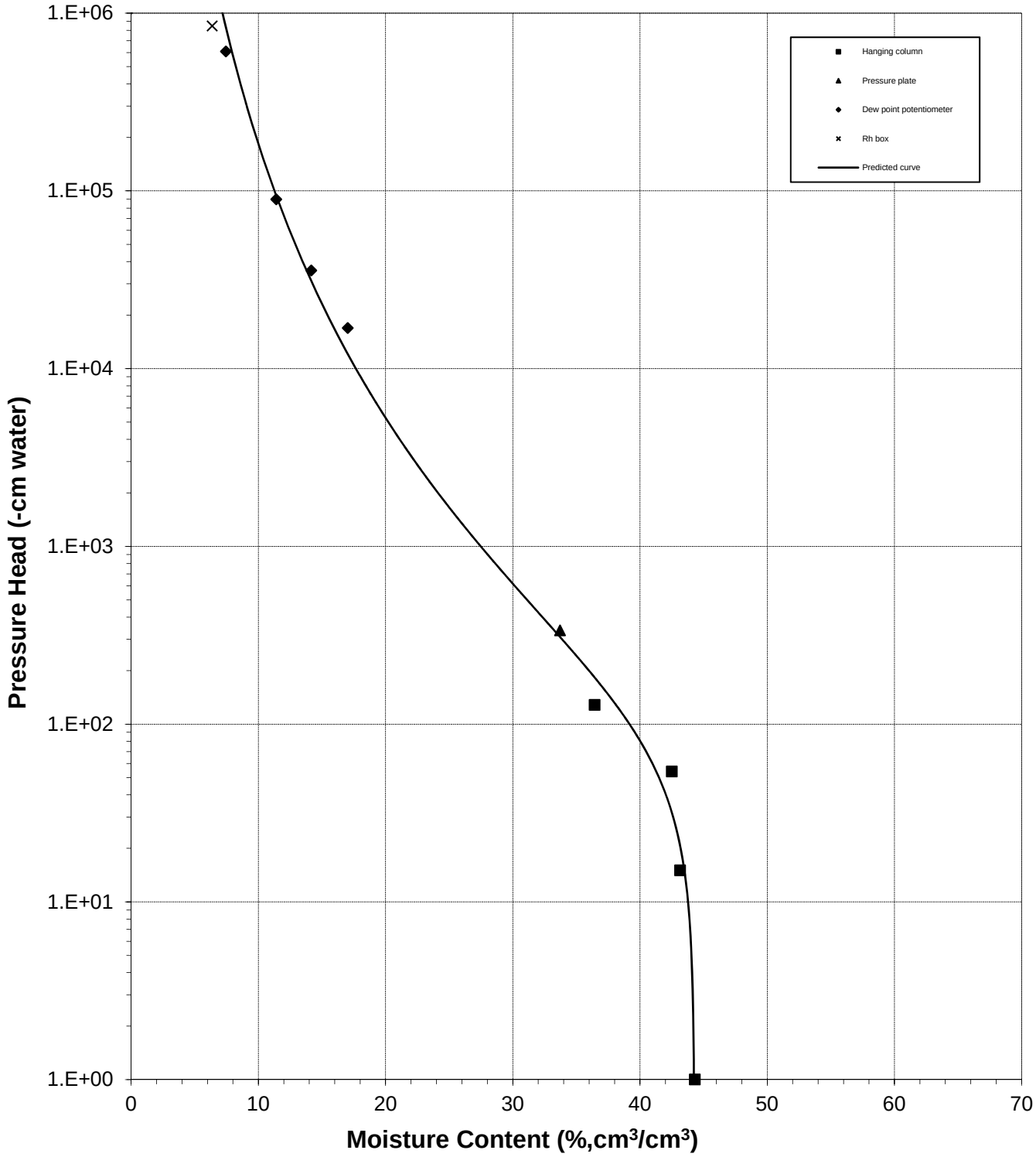
Water Retention Data Points

Sample Number: TP-16-01 (0-4ft)



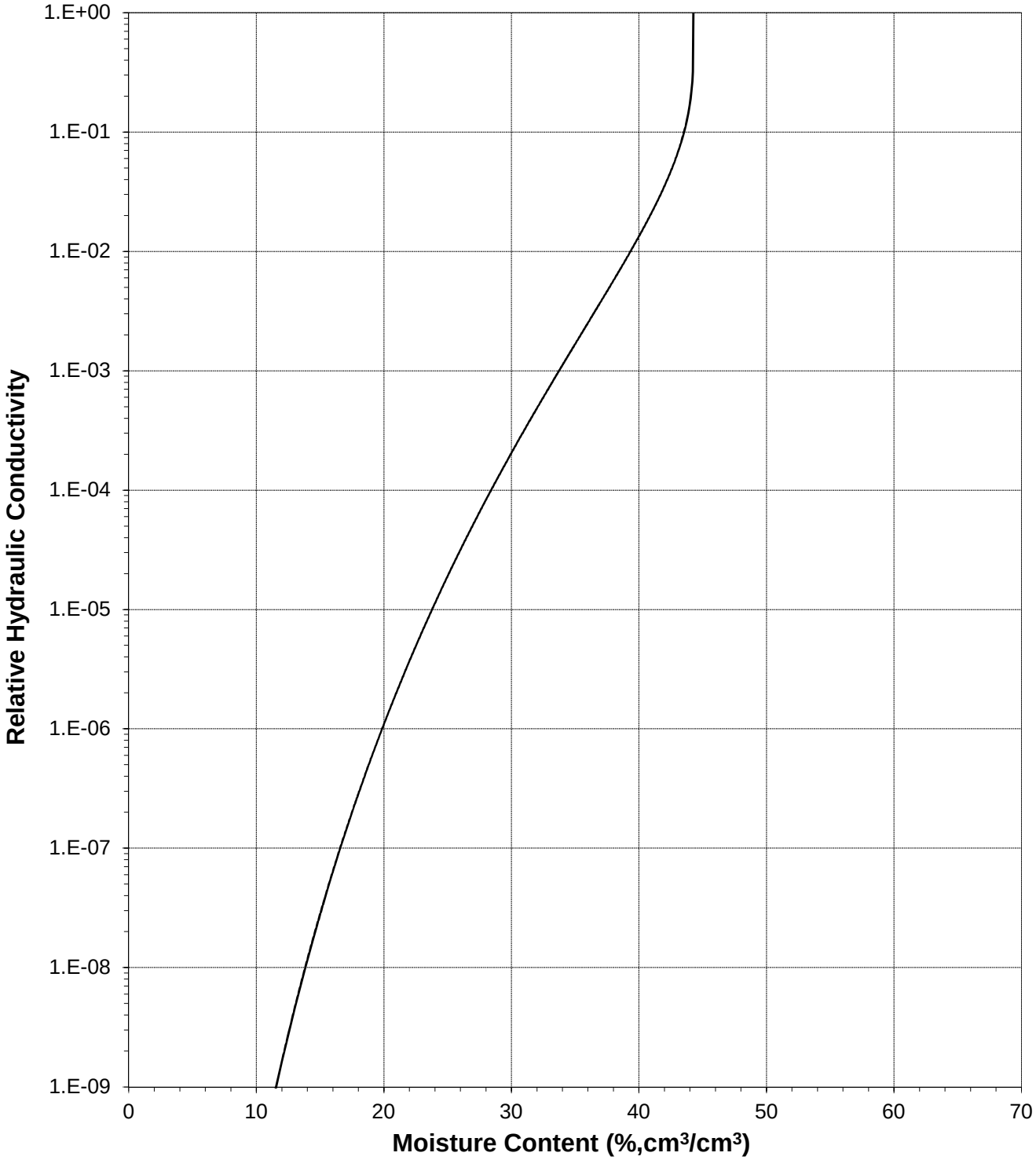
Predicted Water Retention Curve and Data Points

Sample Number: TP-16-01 (0-4ft)



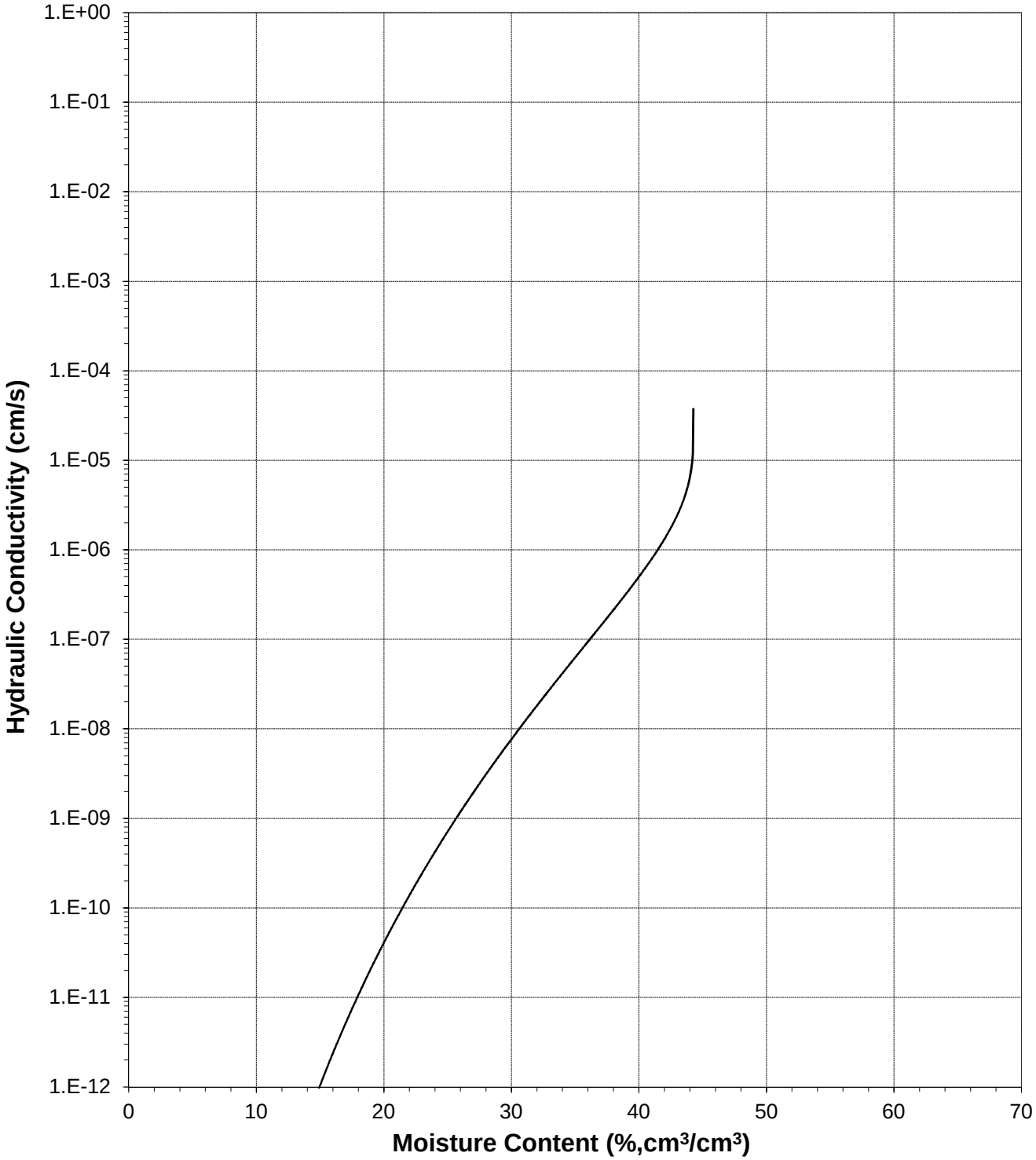
Plot of Relative Hydraulic Conductivity vs Moisture Content

Sample Number: TP-16-01 (0-4ft)



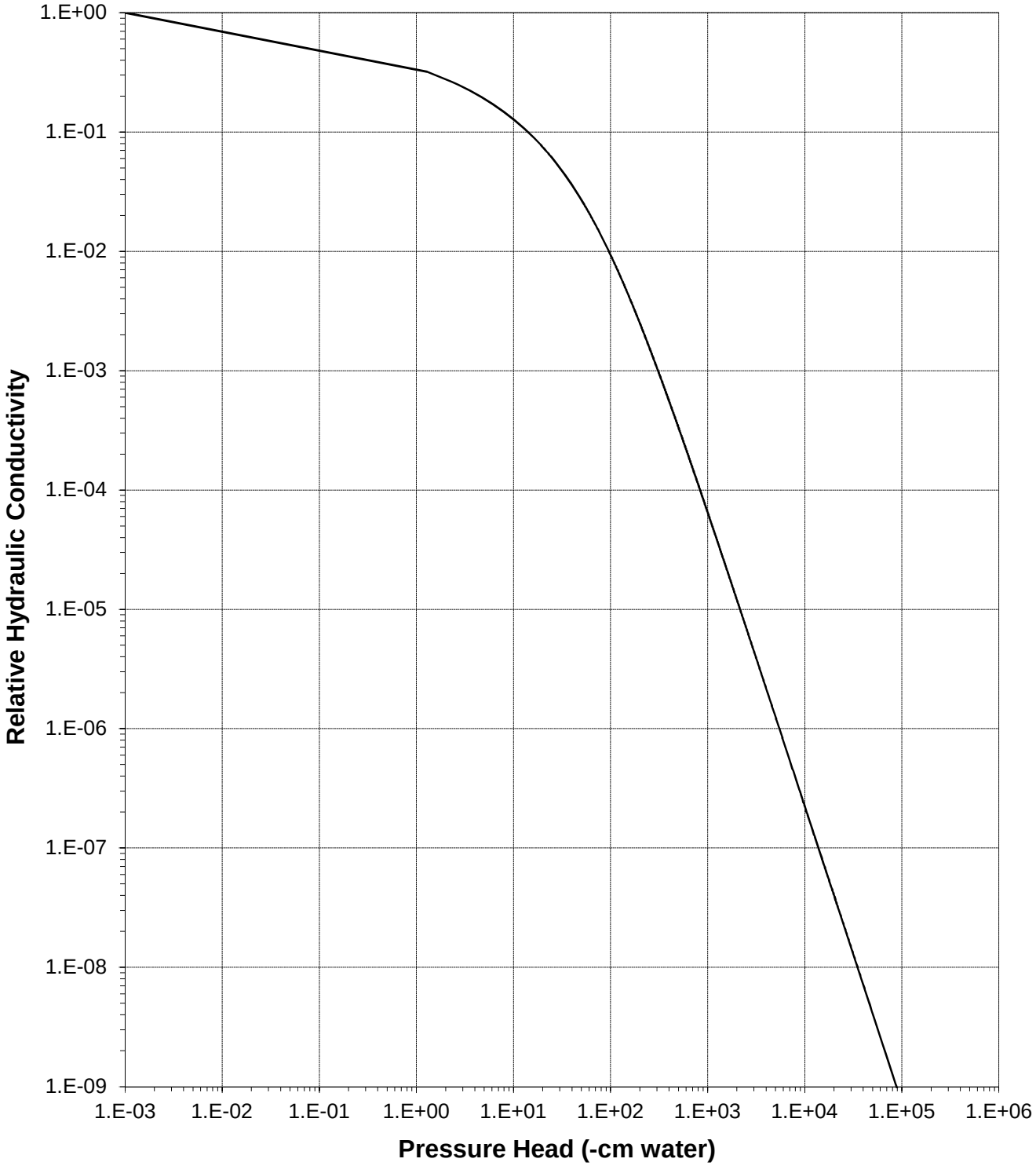
Plot of Hydraulic Conductivity vs Moisture Content

Sample Number: TP-16-01 (0-4ft)



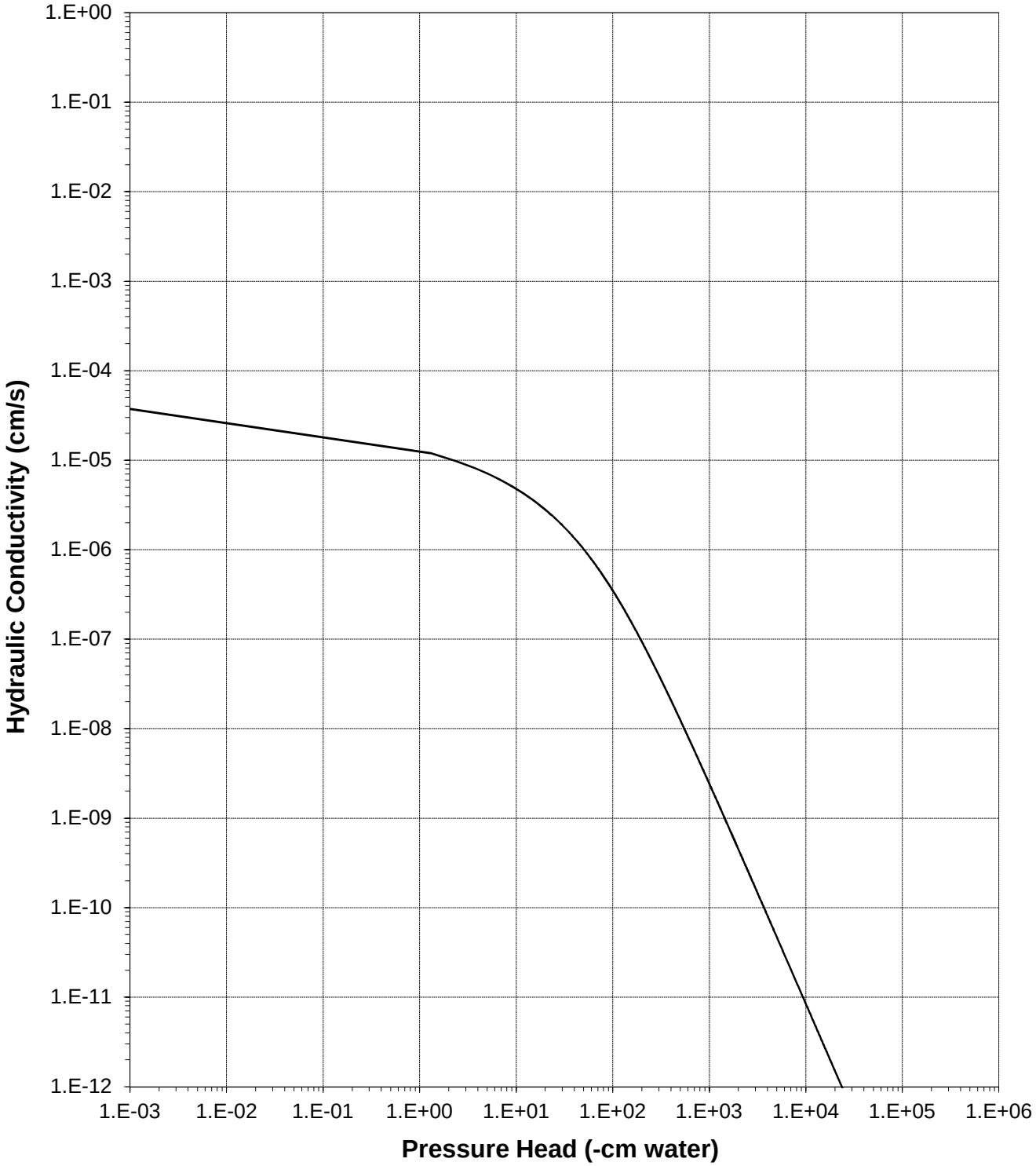
Plot of Relative Hydraulic Conductivity vs Pressure Head

Sample Number: TP-16-01 (0-4ft)



Plot of Hydraulic Conductivity vs Pressure Head

Sample Number: TP-16-01 (0-4ft)



Moisture Retention Data

Hanging Column / Pressure Plate

(Soil-Water Characteristic Curve)

Job Name: Stantec (1-26)
Job Number: DB26.1035.12
Sample Number: TP-35-01 (0-10ft)
Project Name: Section 27
Date Received: 10/24/25

Dry wt. of sample (g)*:* 220.29
Tare wt., ring (g)*:* 81.78
Tare wt., screen & clamp (g)*:* 28.02
Initial sample volume (cm^3)*:* 143.35
Initial dry bulk density (g/cm^3)*:* 1.54
Assumed particle density (g/cm^3)*:* 2.75
Initial calculated total porosity (%)*:* 44.12

	Date	Time	Weight* (g)	Matric Potential (-cm water)	Moisture Content † (% vol)
Hanging column:	5-Mar-26	12:00	392.49	0	43.53
	12-Mar-26	10:30	391.73	15.0	43.00
	18-Mar-26	10:53	388.01	54.0	40.41
	25-Mar-26	14:30	384.65	128.0	38.06
Pressure plate:	3-Apr-26	9:21	383.10	337	36.98

Volume Adjusted Data [1]

	Matric Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calculated Porosity (%)
Hanging column:	0.0	---	---	---	---
	15.0	---	---	---	---
	54.0	---	---	---	---
	128.0	---	---	---	---
Pressure plate:	337	---	---	---	---

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent each of the volume change measurements obtained after saturated hydraulic conductivity testing and throughout hanging column/pressure plate testing. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

† Assumed density of water is 1.0 g/cm^3

‡‡ Volume adjustments are applicable at this matric potential (see comment #1). Changes in volume, if applicable, are estimated based on obtainable measurements of changes in sample length and diameter.

Technician Notes:

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Moisture Retention Data

Dew Point Potentiometer / Relative Humidity Box

(Soil-Water Characteristic Curve)

Sample Number: TP-35-01 (0-10ft)

Initial sample bulk density (g/cm^3)*:* 1.54

Fraction of bulk sample used (<2.00mm fraction) (%): 100.00

Dry weight of dew point potentiometer sample* (g)*:* 181.34

Tare weight, jar (g)*:* 117.13

	Date	Time	Weight* (g)	Water Potential (-cm water)	Moisture Content † (% vol)
Dew point potentiometer:	19-Feb-26	13:50	191.81	13767	25.07
	18-Feb-26	14:50	191.09	19274	23.33
	13-Feb-26	16:40	189.74	50888	20.11
	12-Feb-26	16:00	189.21	70876	18.83

Volume Adjusted Data [1]

	Water Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calc. Porosity (%)
Dew point potentiometer:	13767	---	---	---	---
	19274	---	---	---	---
	50888	---	---	---	---
	70876	---	---	---	---

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent the volume change measurements obtained after the last hanging column or pressure plate point. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

† Adjusted for >2.00mm (#10 sieve) material not used in DPP/RH testing. Assumed moisture content of material >2.00mm is zero, and assumed density of water is 1.0 g/cm^3.

‡‡ Volume adjustments are applicable at this matric potential (see comment #1).

Laboratory analysis by: M. Sharma/J. Tafoya
Data entered by: M. Sharma
Checked by: T. Morgan

Moisture Retention Data

Dew Point Potentiometer / Relative Humidity Box

(Soil-Water Characteristic Curve)

Sample Number: TP-35-01 (0-10ft)

Initial sample bulk density (g/cm^3)*:* 1.54

Fraction of bulk sample used (<2.00mm fraction) (%): 100.00

Dry weight of relative humidity box sample* (g)*:* 61.44

Tare weight (g)*:* 34.18

	Date	Time	Weight* (g)	Water Potential (-cm water)	Moisture Content † (% vol)
Relative humidity box:	24-Feb-26	9:30	63.78	847567	13.17

Volume Adjusted Data [1]

	Water Potential (-cm water)	Adjusted Volume (cm^3)	% Volume Change [2] (%)	Adjusted Density (g/cm^3)	Adjusted Calc. Porosity (%)
Relative humidity box:	847567	---	---	---	---

Comments:

[1] Applicable if the sample experienced volume changes during testing. 'Volume Adjusted' values represent the volume change measurements obtained after the last hanging column or pressure plate point. "---" indicates no volume changes occurred.

[2] Represents percent volume change from original sample volume. A '+' denotes measured sample swelling, a '-' denotes measured sample settling, and '---' denotes no volume change occurred.

* Weight including tares

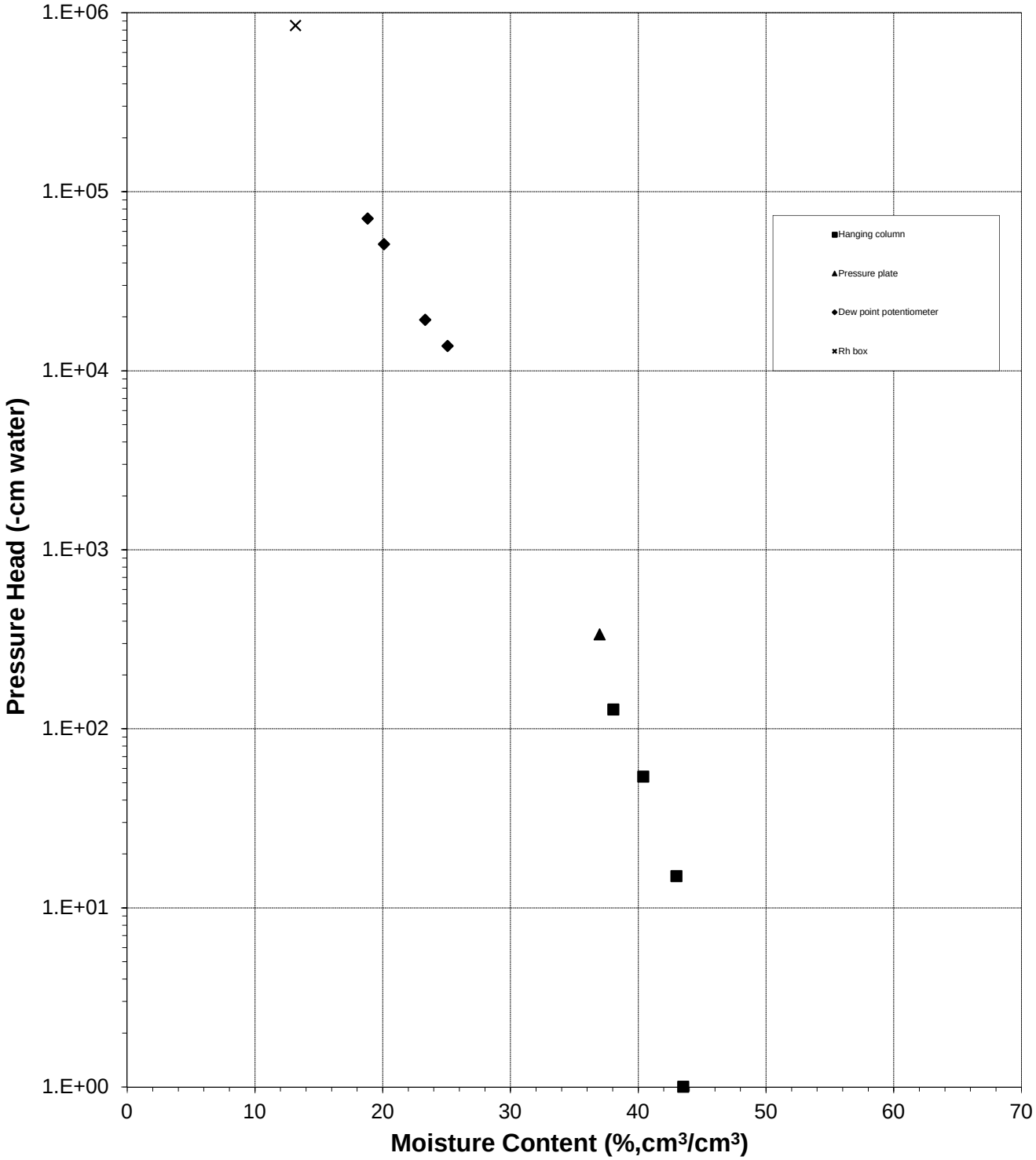
† Adjusted for >2.00mm (#10 sieve) material not used in DPP/RH testing. Assumed moisture content of material >2.00mm is zero, and assumed density of water is 1.0 g/cm^3.

‡‡ Volume adjustments are applicable at this matric potential (see comment #1). Changes in volume, if applicable, are estimated based on obtainable measurements of changes in sample length and diameter.

Laboratory analysis by: M. Sharma/J. Tafoya
Data entered by: M. Sharma
Checked by: T. Morgan

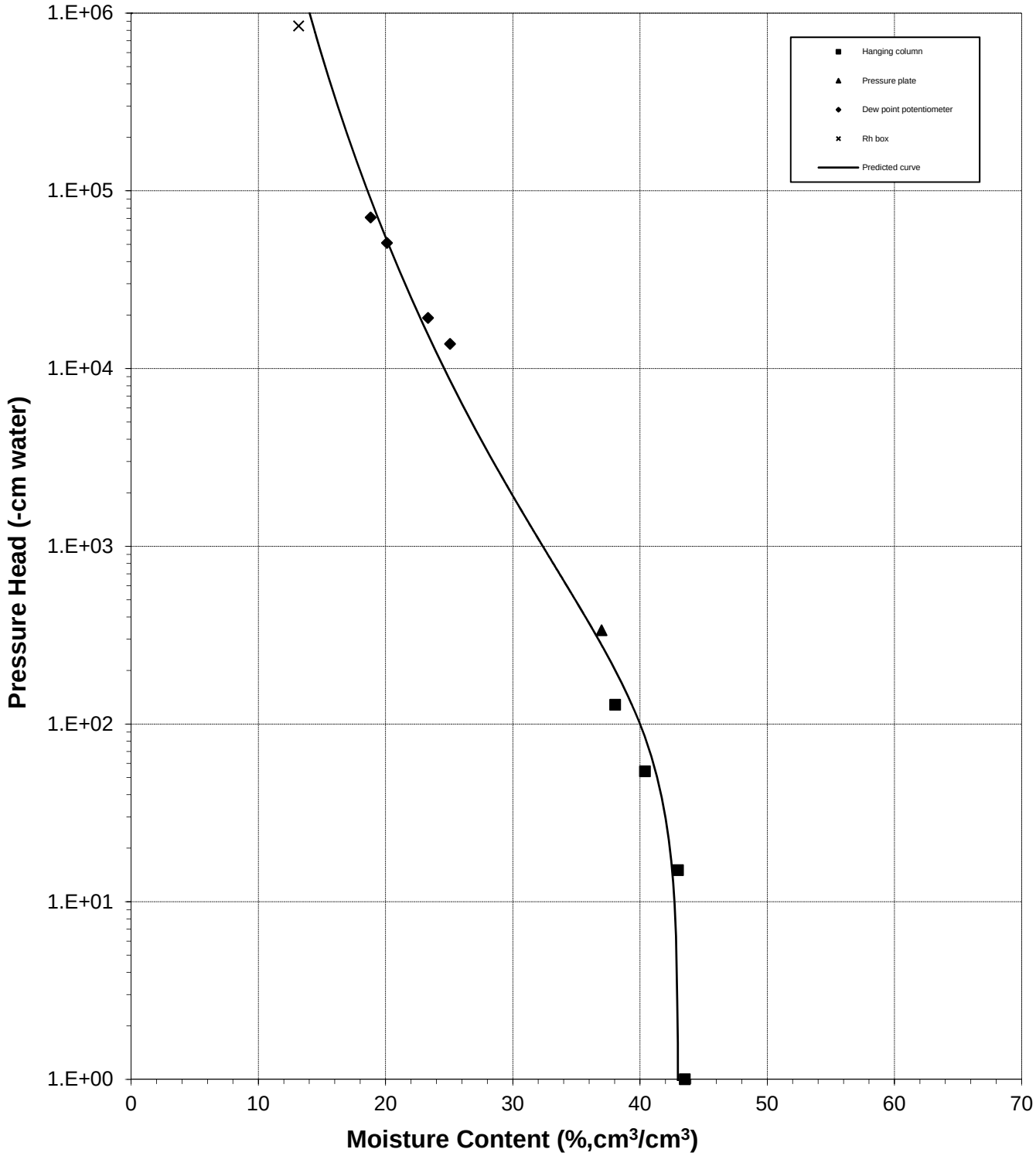
Water Retention Data Points

Sample Number: TP-35-01 (0-10ft)



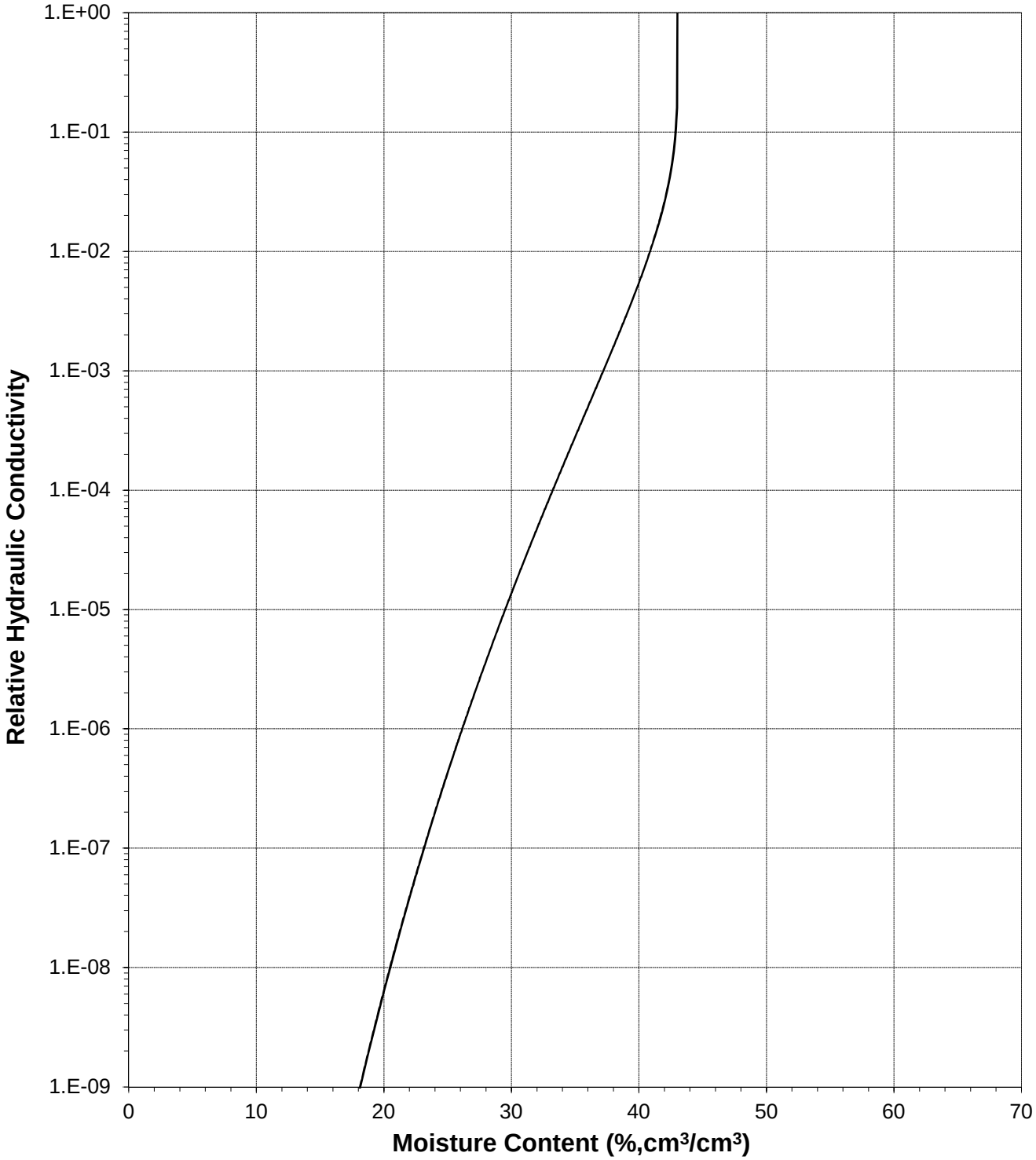
Predicted Water Retention Curve and Data Points

Sample Number: TP-35-01 (0-10ft)



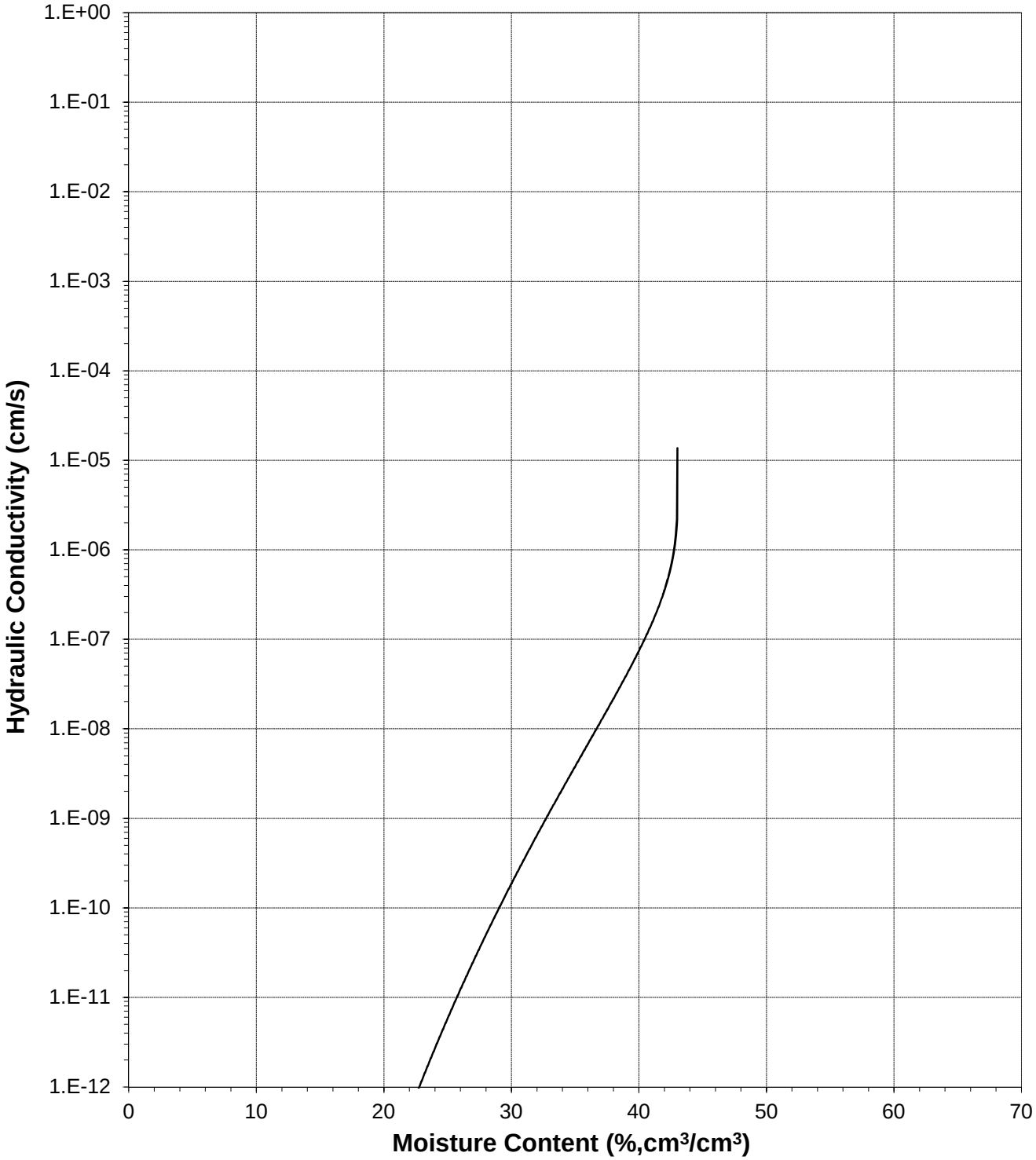
Plot of Relative Hydraulic Conductivity vs Moisture Content

Sample Number: TP-35-01 (0-10ft)



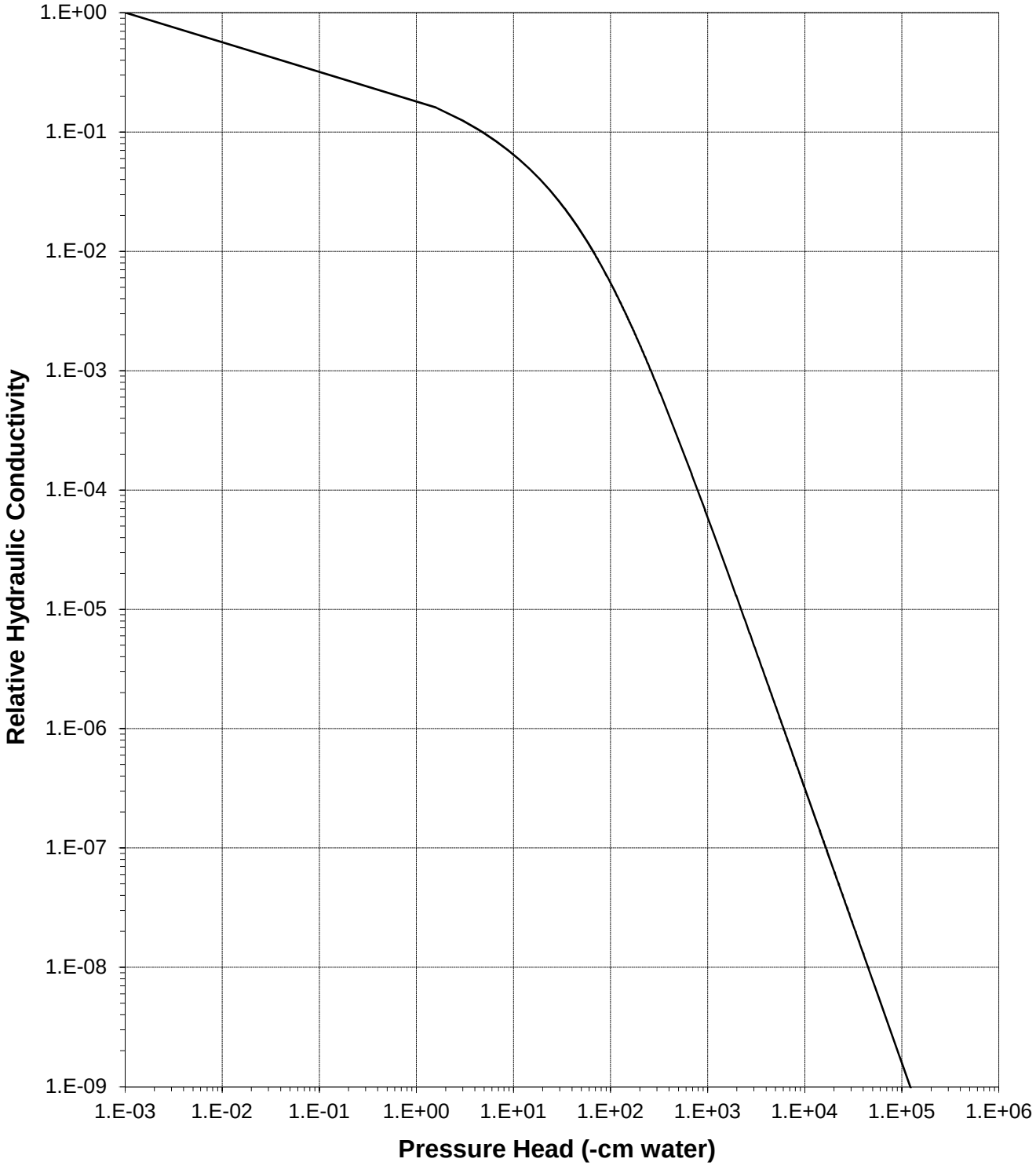
Plot of Hydraulic Conductivity vs Moisture Content

Sample Number: TP-35-01 (0-10ft)



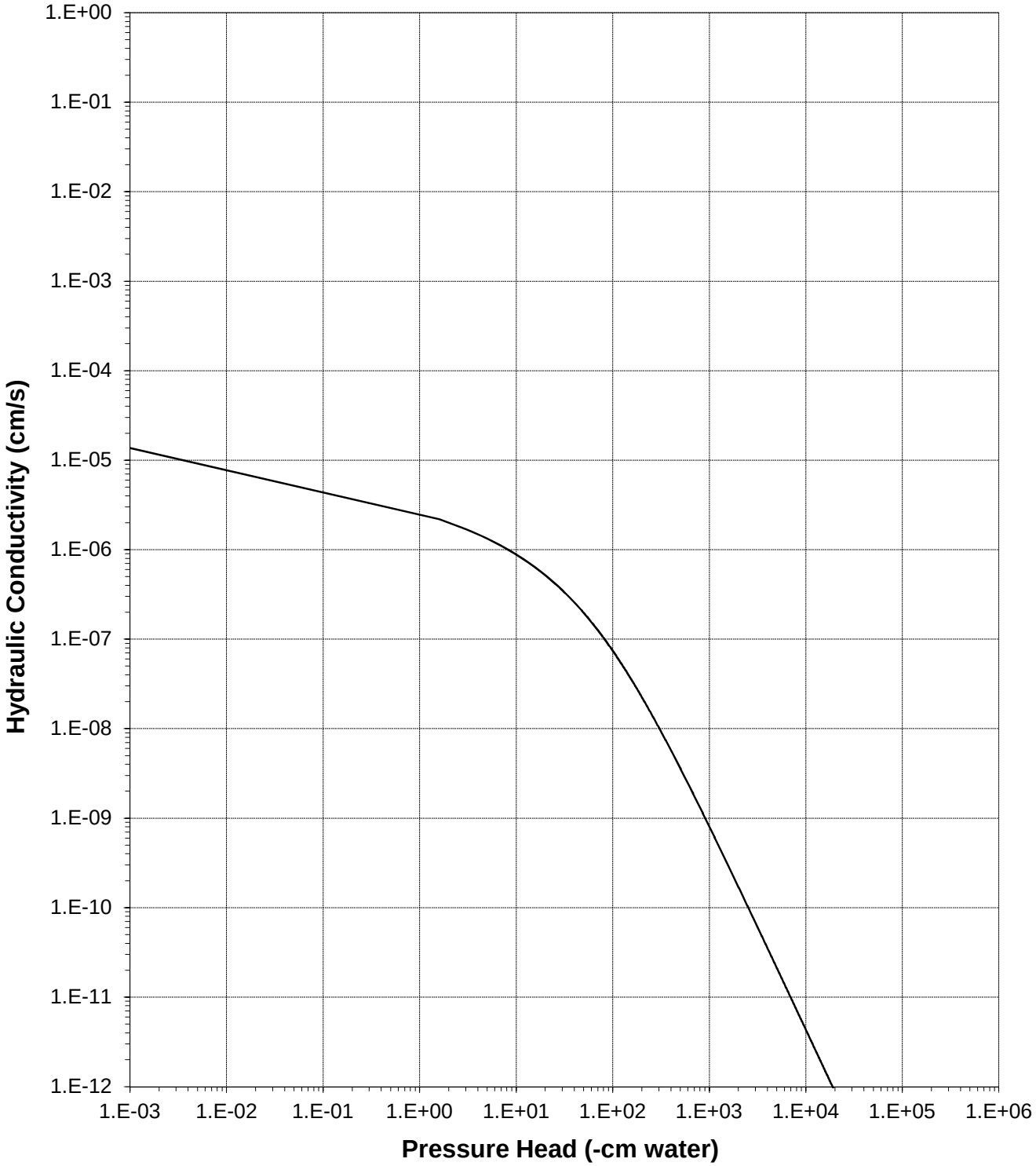
Plot of Relative Hydraulic Conductivity vs Pressure Head

Sample Number: TP-35-01 (0-10ft)



Plot of Hydraulic Conductivity vs Pressure Head

Sample Number: TP-35-01 (0-10ft)



One Dimensional Consolidation

One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-01-01 (0-6) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Remolded or Initial Sample Properties

Initial Mass (g):	118.62
Length (cm):	2.05
Diameter (cm):	6.32
Area (cm^2):	31.42
Volume (cm^3):	64.40
Assumed Particle Density(g/cm^3):	2.65
Dry Density (g/cm^3):	1.60
Dry Unit Weight (lbf/ft^3):	99.88
Equivalent Height of Solids (cm):	1.24
Water Content (%, g/g):	15.1
Water Content (%, vol):	24.2
Porosity (%, vol):	39.6
Void Ratio (e):	0.656
Saturation (%):	61.1
Date/Time Test Initiated:	2/13/26 15:07

Test and Sample Conditions

Visual Description of Sample:	NA
USCS Classification:	CL
Plastic Limit:	18
Liquid Limit:	35
Method of Testing:	☐ A ☑ B
Interpretation Procedure:	☐ 1 ☑ 2
Sample Preparation:	☐ In situ Extruded ☑ Remolded
Apparatus:	Automated Loading Device
Trimming Procedure:	NA
Water Content of Trimmings (%, g/g):	14.8
Split:	#4
Percent Coarse Material (%):	0.0
Condition of test:	☐ Natural Moisture ☑ Inundated
Pressure at Innundation (lb/ft^2):	50

Final (Post Test) Sample Properties

Final Mass (g):	126.39
Dry Mass (g):	103.03
Length (cm):	1.90
Length Differential (cm):	-0.53
Diameter (cm):	6.32
Area (cm^2):	31.42
Volume (cm^3):	59.74
Dry Density (g/cm^3):	1.72
Dry Unit Weight (lbf/ft^3):	107.66
Equivalent Height of Solids (cm):	1.24
Water Content (%, g/g):	22.7
Water Content (%, vol):	39.1
Porosity (%, vol):	34.9
Void Ratio (e):	0.537
Saturation (%):	112.0

Load (psf)	H (in)	Void Ratio (e)	Axial Strain (%)
50	0.8070	0.656	0.00
45	0.8062	0.655	0.10
250	0.8131	0.669	-0.76
250	0.8194	0.682	-1.54
500	0.8192	0.681	-1.51
1,000	0.8140	0.671	-0.87
2,000	0.7891	0.620	2.22
4,000	0.7487	0.537	7.22

***Swell Pressure (psf):** **45**
***Estimated Preconsolidation Stress (psf):** **NA**

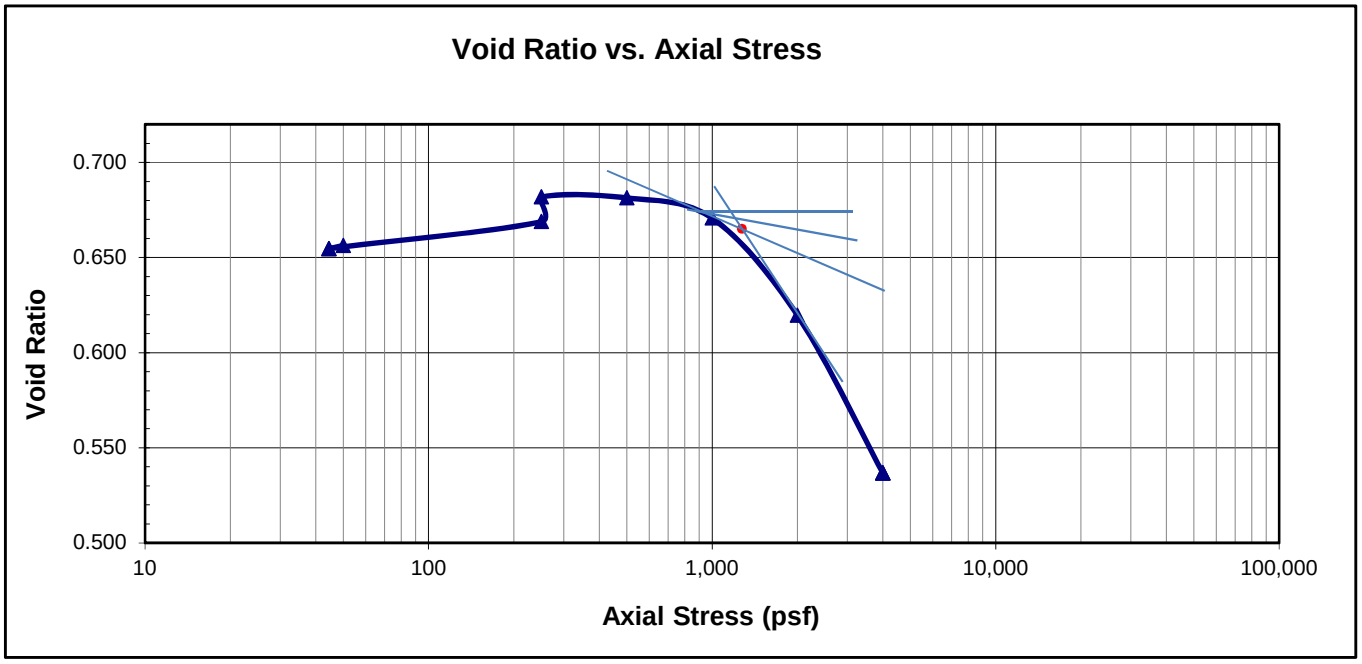
**See test notes provided on Notes page*

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

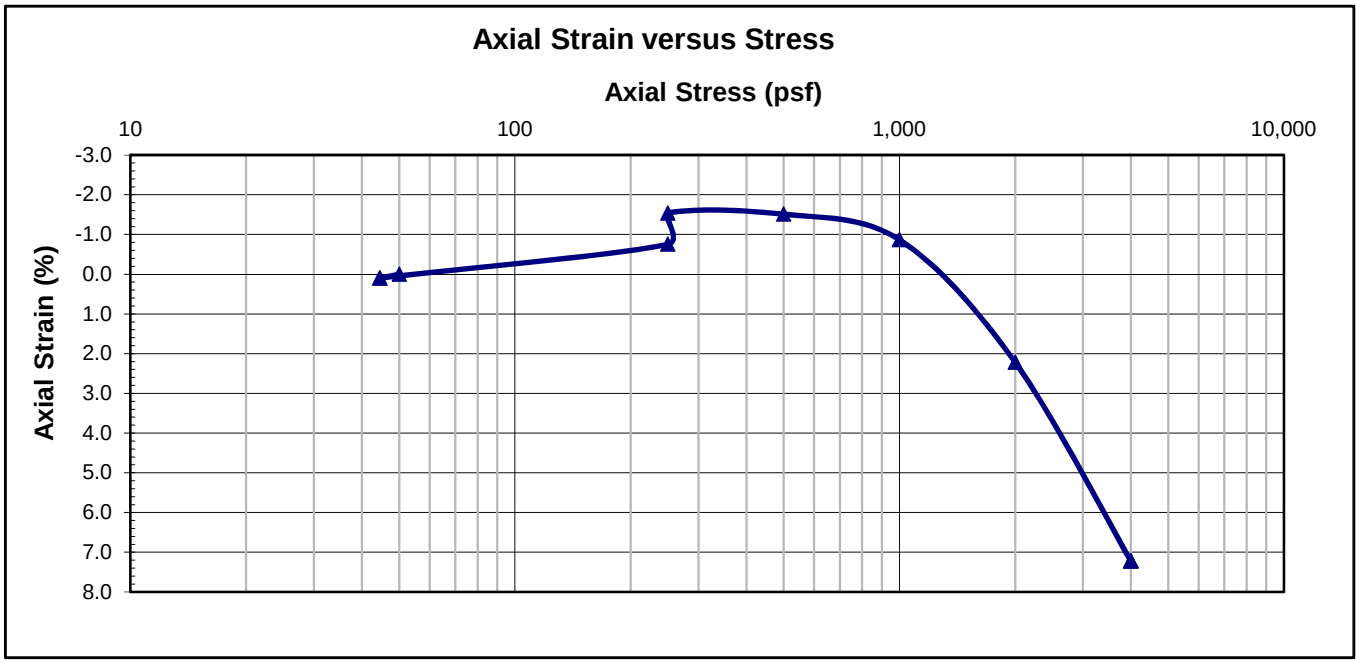
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-01-01 (0-6) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Void Ratio Versus Axial Stress



Axial Strain Versus Stress



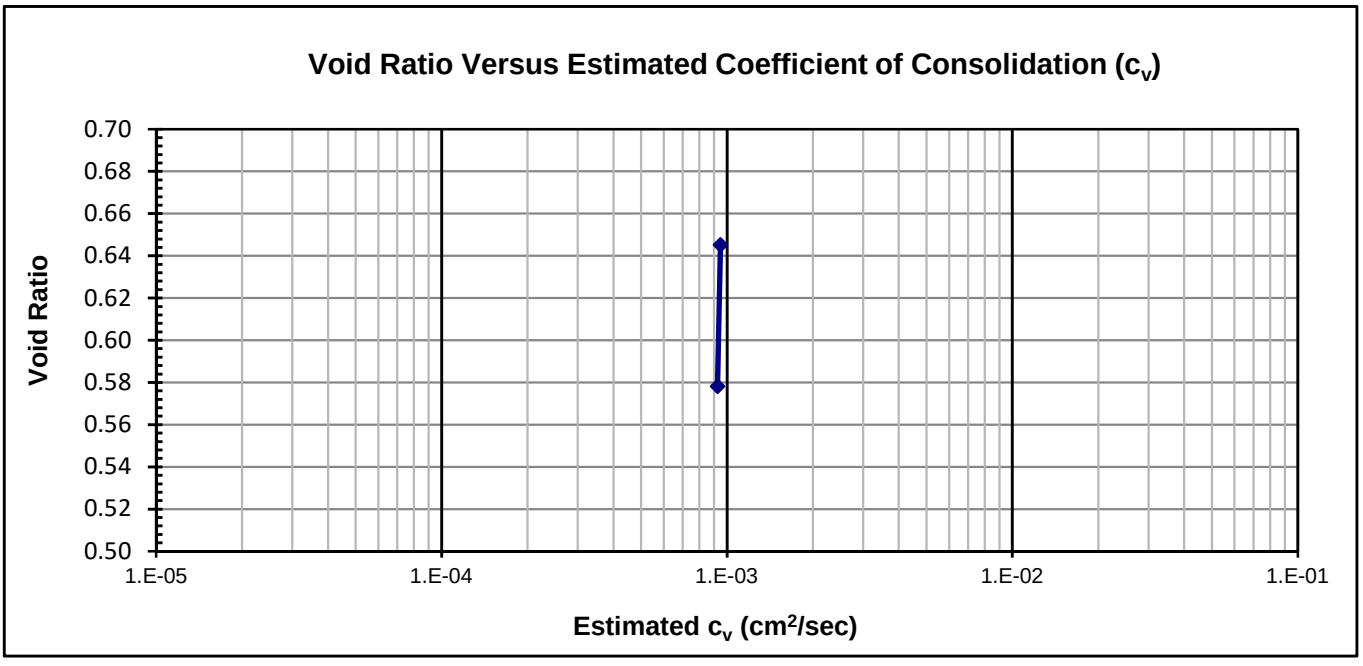
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-01-01 (0-6) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Estimated Coefficient of Consolidation (c_v)

Load (psf)	Estimated Coefficient of Consol. (c_v) (cm^2/sec)	Average Void Ratio (e)
250		0.662
250		0.675
500		0.682
1000		0.676
2000	9.5E-04	0.645
4000	9.3E-04	0.578

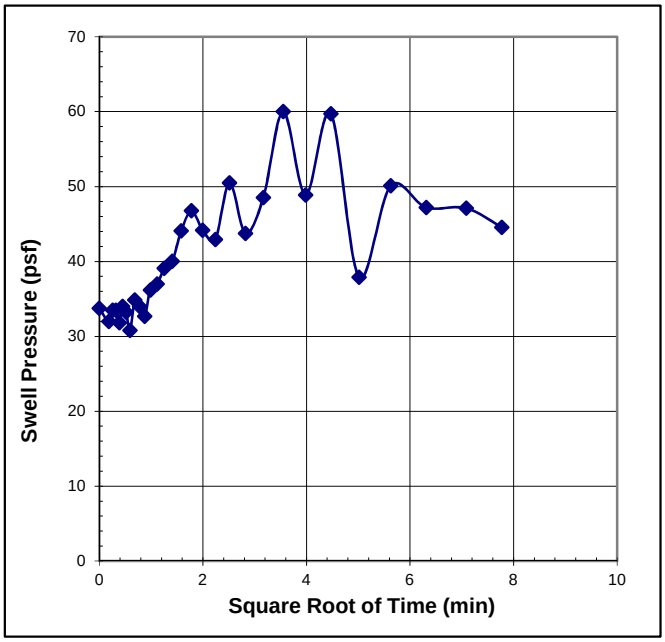
Void Ratio Versus Estimated Coefficient of Consolidation (c_v)



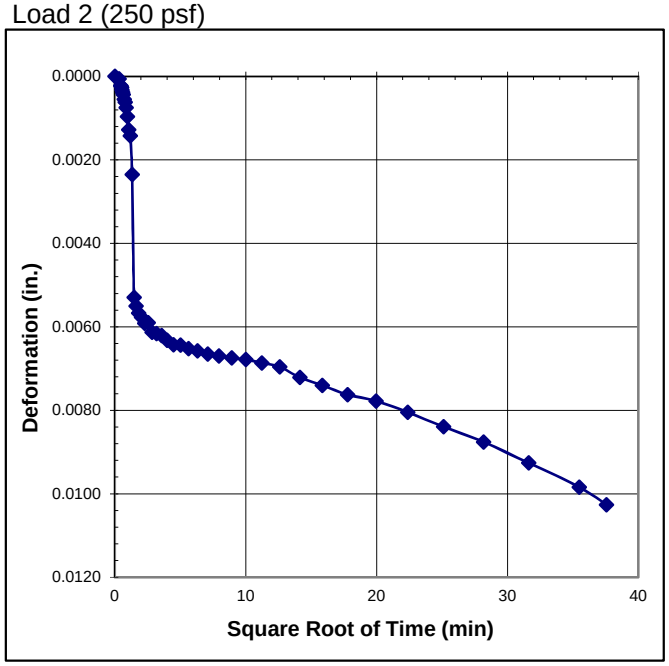
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-01-01 (0-6) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

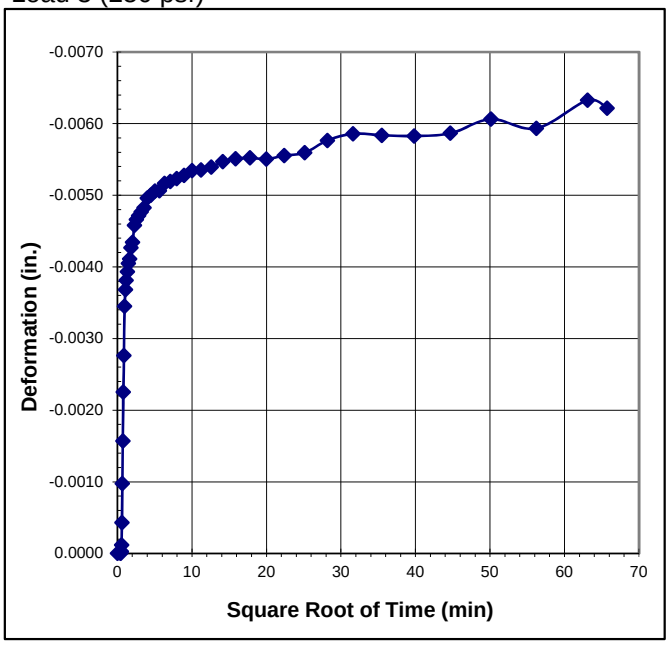
Swell Pressure Versus Square Root of Time
Load 1



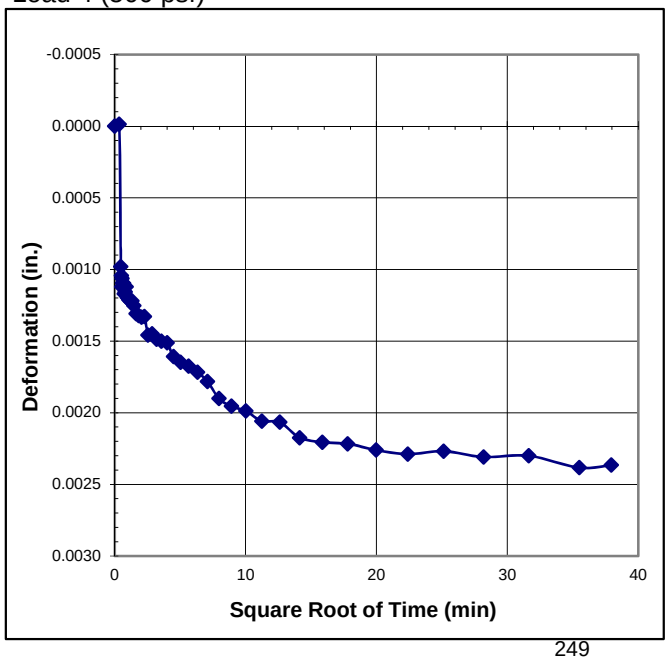
Deformation Versus Square Root of Time
Load 2 (250 psf)



Deformation Versus Square Root of Time
Load 3 (250 psf)



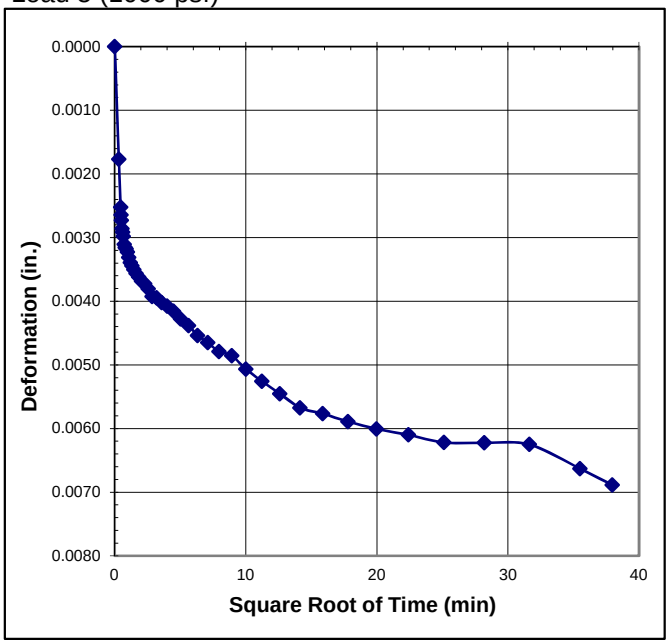
Deformation Versus Square Root of Time
Load 4 (500 psf)



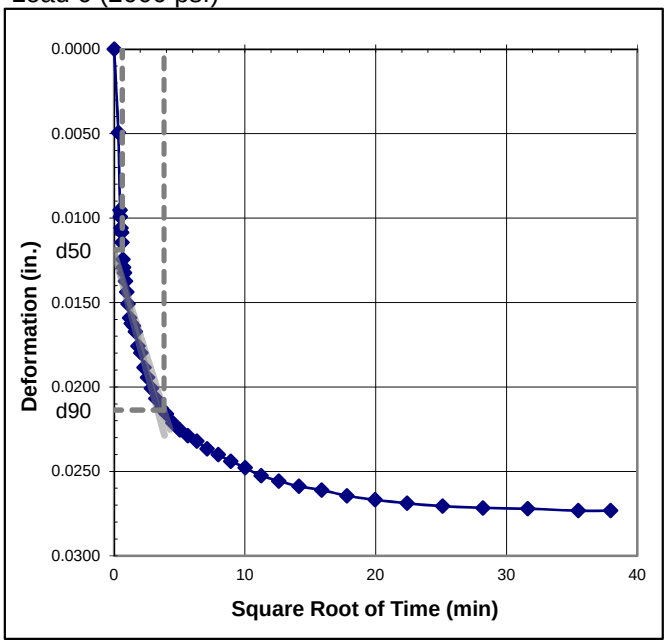
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-01-01 (0-6) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

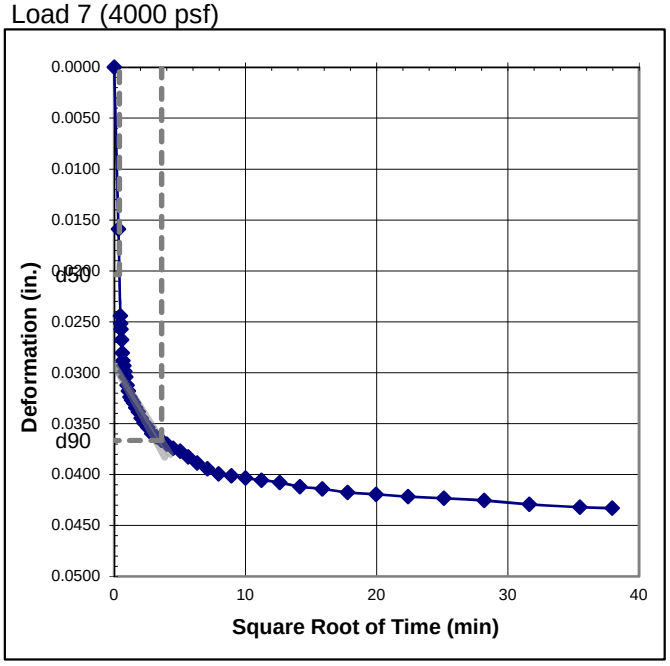
Deformation Versus Square Root of Time
Load 5 (1000 psf)



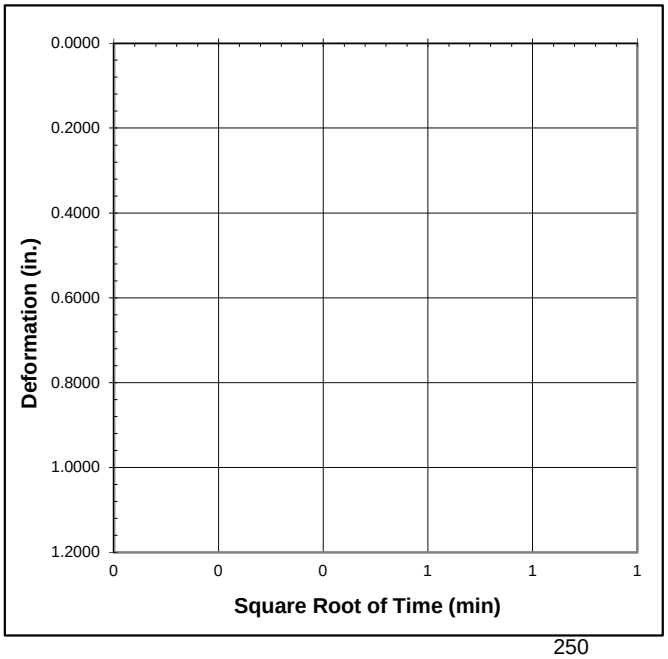
Deformation Versus Square Root of Time
Load 6 (2000 psf)



Deformation Versus Square Root of Time
Load 7 (4000 psf)



Deformation Versus Square Root of Time
###



One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-05-01 (0.-6.5) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Remolded or Initial Sample Properties

Initial Mass (g):	120.65
Length (cm):	2.09
Diameter (cm):	6.30
Area (cm^2):	31.16
Volume (cm^3):	65.23
Assumed Particle Density(g/cm^3):	2.65
Dry Density (g/cm^3):	1.61
Dry Unit Weight (lbf/ft^3):	100.82
Equivalent Height of Solids (cm):	1.28
Water Content (%, g/g):	14.5
Water Content (%, vol):	23.5
Porosity (%, vol):	39.1
Void Ratio (e):	0.641
Saturation (%):	60.1
Date/Time Test Initiated:	2/13/26 14:53

Test and Sample Conditions

Visual Description of Sample:	NA
USCS Classification:	CL
Plastic Limit:	18
Liquid Limit:	27
Method of Testing:	☐ A ☑ B
Interpretation Procedure:	☐ 1 ☑ 2
Sample Preparation:	☐ In situ Extruded ☑ Remolded
Apparatus:	Automated Loading Device
Trimming Procedure:	NA
Water Content of Trimmings (%, g/g):	NA
Split:	#4
Percent Coarse Material (%):	0.0
Condition of test:	☐ Natural Moisture ☑ Inundated
Pressure at Innundation (lb/ft^2):	100

Final (Post Test) Sample Properties

Final Mass (g):	130.92
Dry Mass (g):	105.34
Length (cm):	2.05
Length Differential (cm):	-0.11
Diameter (cm):	6.30
Area (cm^2):	31.16
Volume (cm^3):	63.97
Dry Density (g/cm^3):	1.65
Dry Unit Weight (lbf/ft^3):	102.81
Equivalent Height of Solids (cm):	1.28
Water Content (%, g/g):	24.3
Water Content (%, vol):	40.0
Porosity (%, vol):	37.9
Void Ratio (e):	0.609
Saturation (%):	105.6

Load (psf)	H (in)	Void Ratio (e)	Axial Strain (%)
50	0.8240	0.641	0.00
49	0.8211	0.635	0.35
100	0.8208	0.634	0.39
100	0.8251	0.643	-0.13
200	0.8243	0.641	-0.04
400	0.8231	0.639	0.11
800	0.8187	0.630	0.64
1,600	0.8081	0.609	1.93

***Swell Pressure (psf):** **49**
***Estimated Preconsolidation Stress (psf):** **NA**

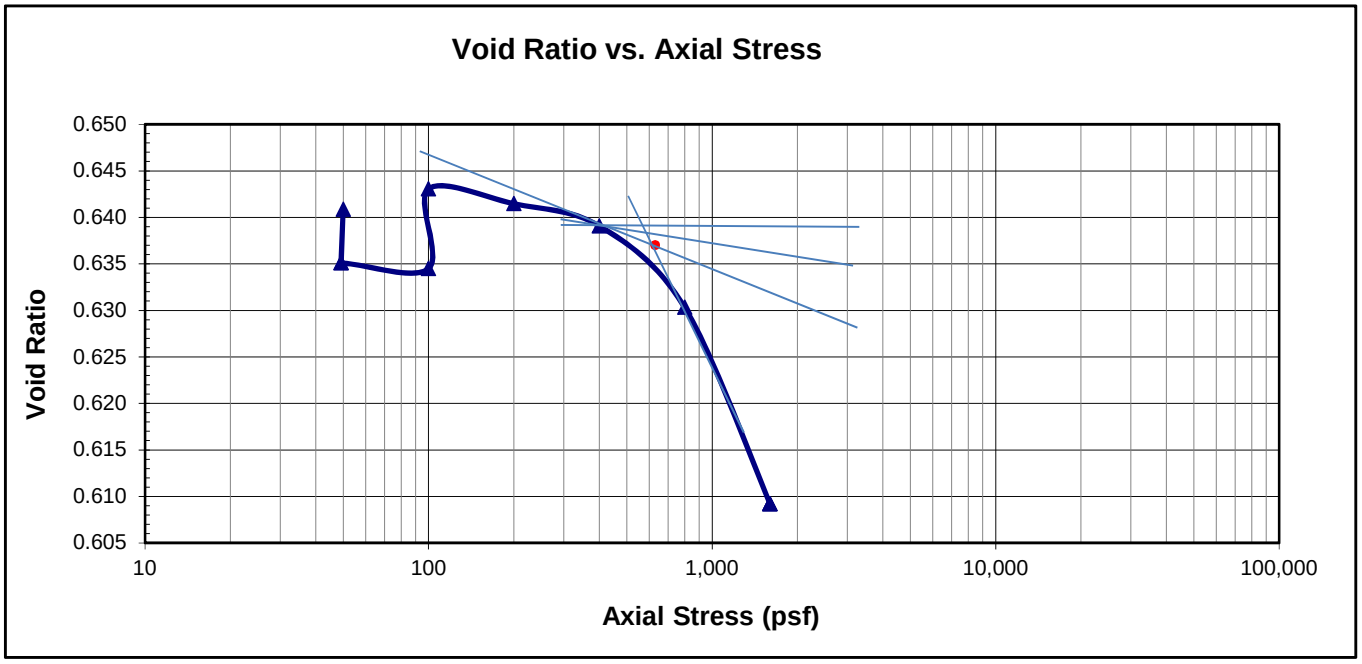
**See test notes provided on Notes page*

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

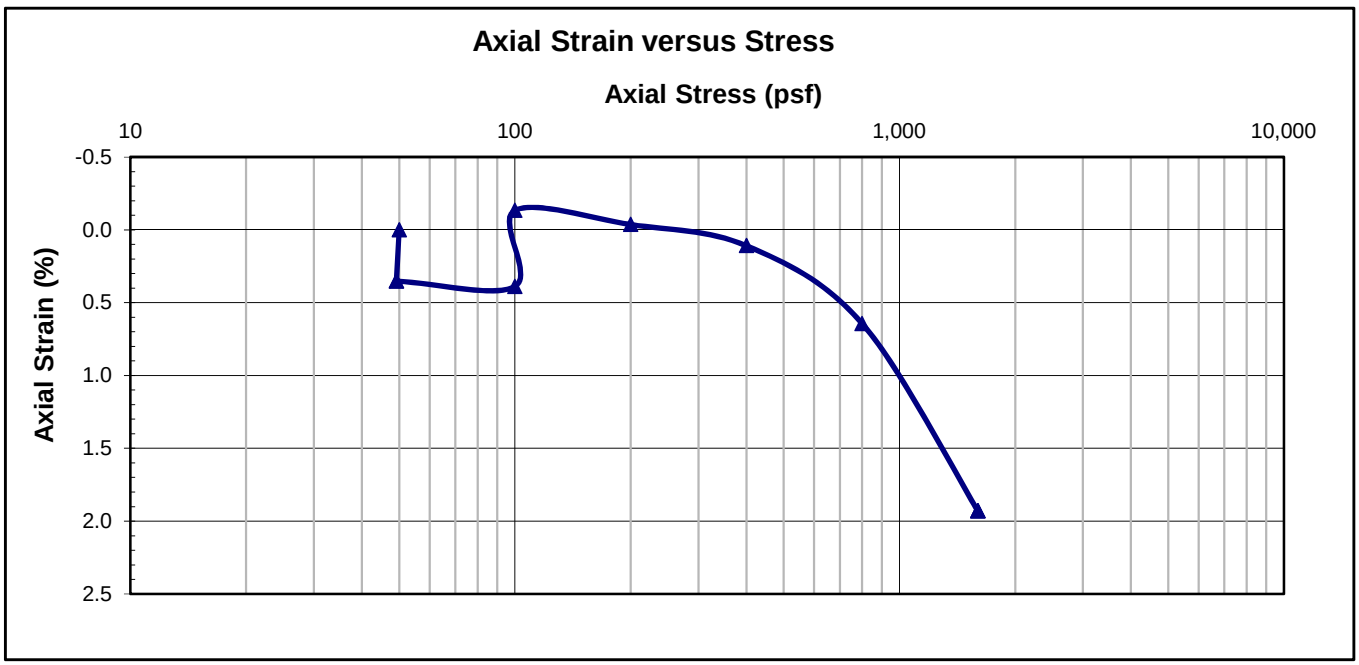
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-05-01 (0.-6.5) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Void Ratio Versus Axial Stress



Axial Strain Versus Stress



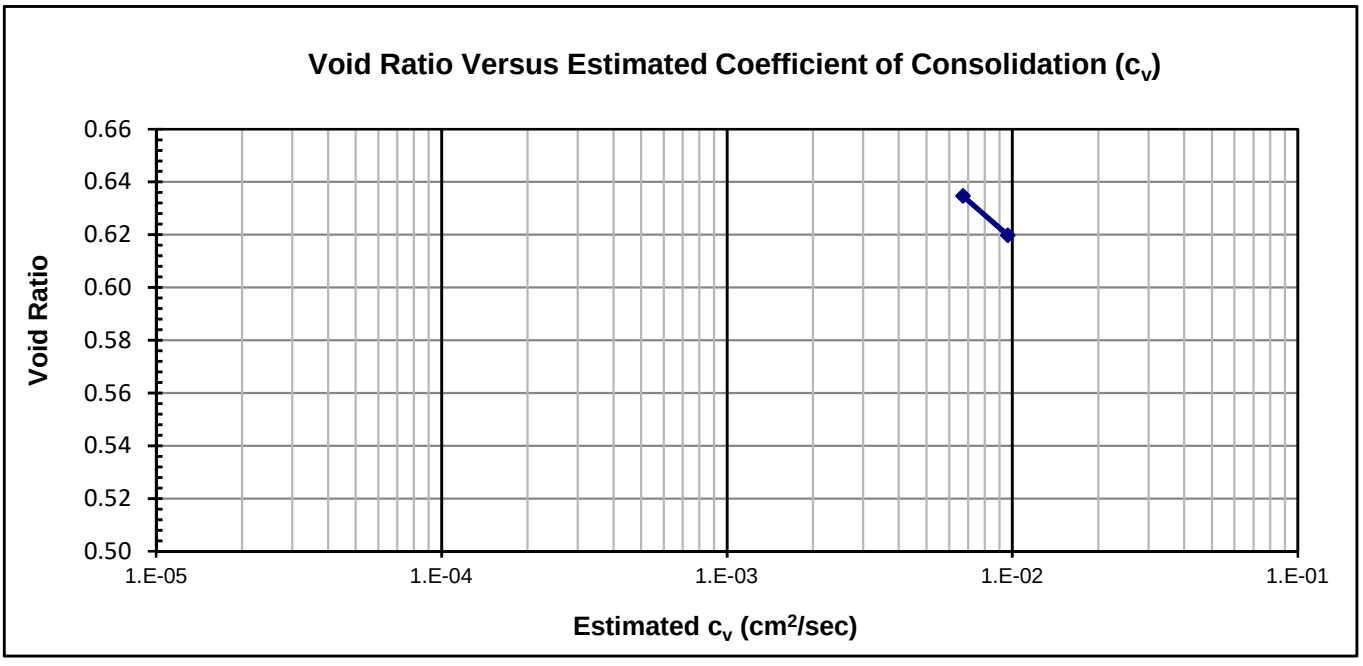
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-05-01 (0.-6.5) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Estimated Coefficient of Consolidation (c_v)

Load (psf)	Estimated Coefficient of Consol. (c_v) (cm^2/sec)	Average Void Ratio (e)
100		0.635
100		0.639
200		0.642
400		0.640
800	6.7E-03	0.635
1600	9.6E-03	0.620

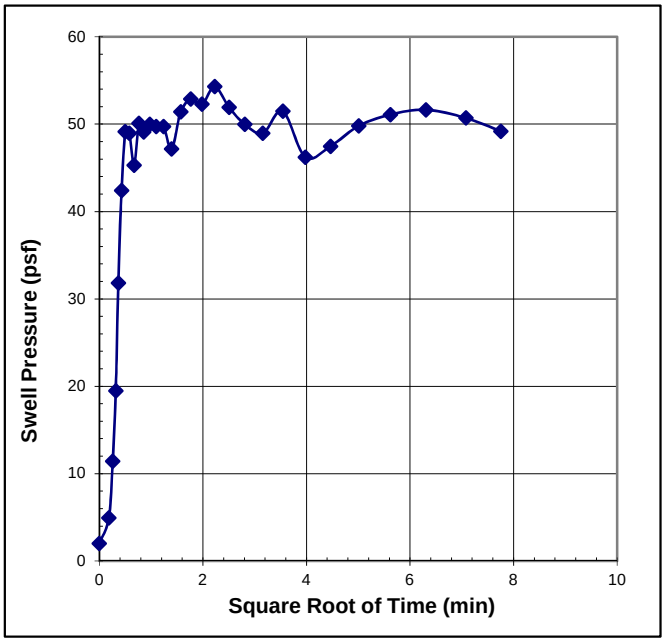
Void Ratio Versus Estimated Coefficient of Consolidation (c_v)



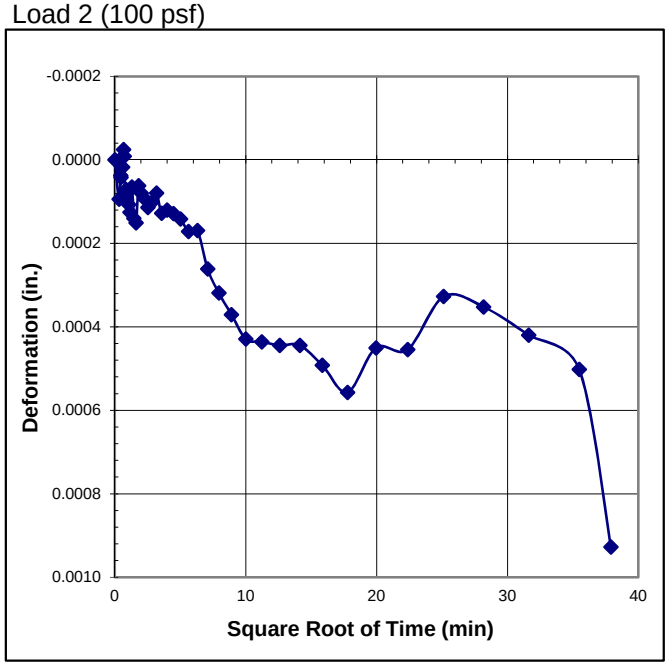
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-05-01 (0.-6.5) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

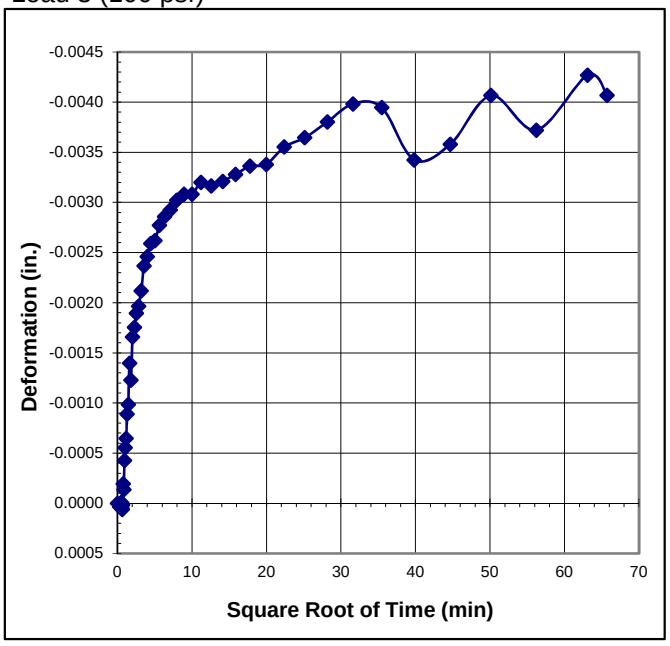
Swell Pressure Versus Square Root of Time
Load 1



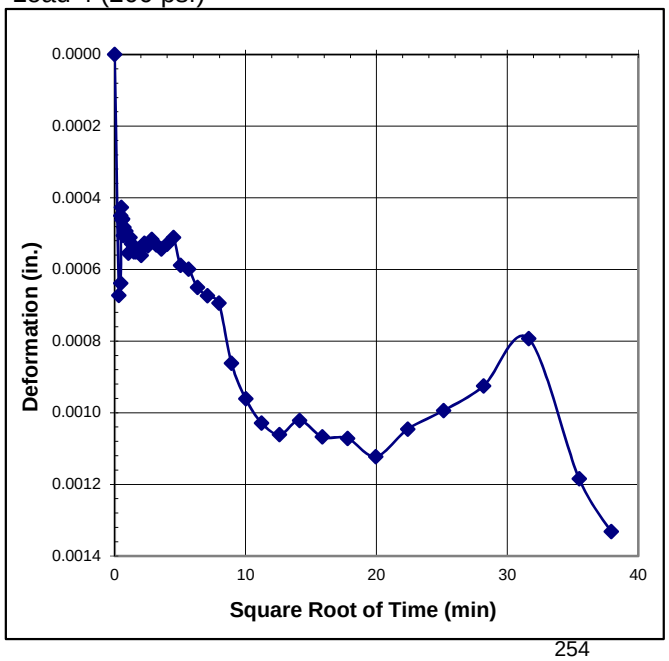
Deformation Versus Square Root of Time
Load 2 (100 psf)



Deformation Versus Square Root of Time
Load 3 (100 psf)



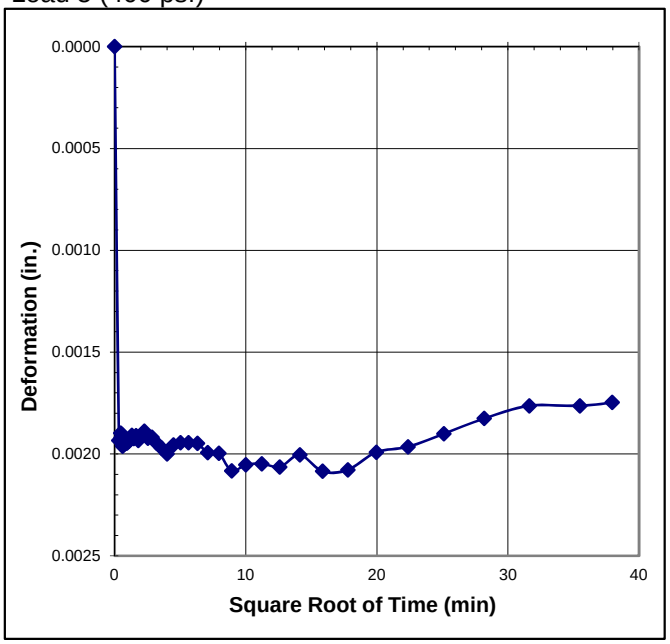
Deformation Versus Square Root of Time
Load 4 (200 psf)



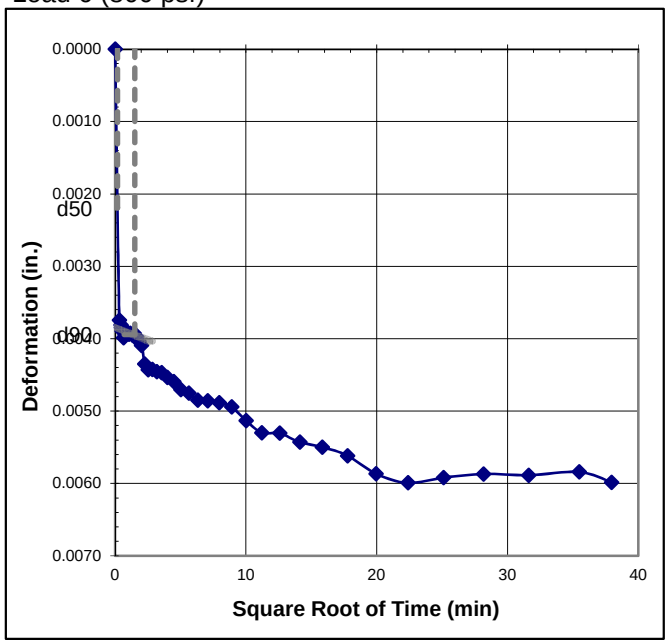
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-05-01 (0.-6.5) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

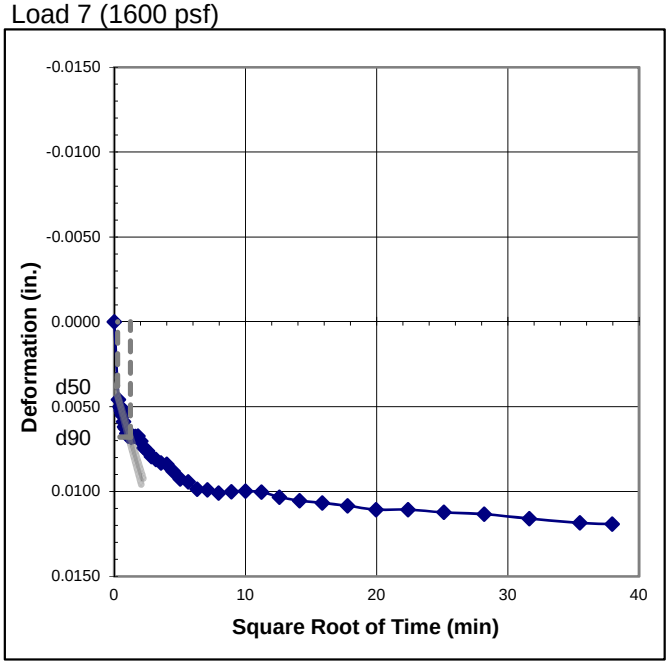
Deformation Versus Square Root of Time
Load 5 (400 psf)



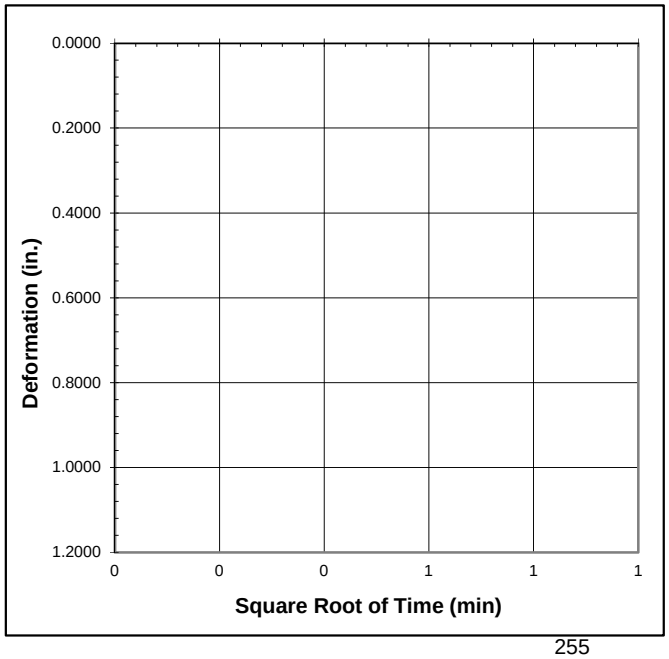
Deformation Versus Square Root of Time
Load 6 (800 psf)



Deformation Versus Square Root of Time
Load 7 (1600 psf)



Deformation Versus Square Root of Time
###



One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-11-01 (0-1ft) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Remolded or Initial Sample Properties

Initial Mass (g):	120.86
Length (cm):	2.09
Diameter (cm):	6.30
Area (cm^2):	31.16
Volume (cm^3):	65.23
Assumed Particle Density(g/cm^3):	2.65
Dry Density (g/cm^3):	1.65
Dry Unit Weight (lbf/ft^3):	102.98
Equivalent Height of Solids (cm):	1.30
Water Content (%, g/g):	12.3
Water Content (%, vol):	20.3
Porosity (%, vol):	37.8
Void Ratio (e):	0.607
Saturation (%):	53.9
Date/Time Test Initiated:	3/11/26 10:04

Test and Sample Conditions

Visual Description of Sample:	NA
USCS Classification:	CL-ML
Plastic Limit:	20
Liquid Limit:	27
Method of Testing:	☐ A ☑ B
Interpretation Procedure:	☐ 1 ☑ 2
Sample Preparation:	☐ In situ Extruded ☑ Remolded
Apparatus:	Automated Loading Device
Trimming Procedure:	NA
Water Content of Trimmings (%, g/g):	NA
Split:	#4
Percent Coarse Material (%):	0.0
Condition of test:	☐ Natural Moisture ☑ Inundated
Pressure at Innundation (lb/ft^2):	100

Final (Post Test) Sample Properties

Final Mass (g):	133.47
Dry Mass (g):	107.59
Length (cm):	2.07
Length Differential (cm):	-0.22
Diameter (cm):	6.30
Area (cm^2):	31.16
Volume (cm^3):	64.51
Dry Density (g/cm^3):	1.67
Dry Unit Weight (lbf/ft^3):	104.13
Equivalent Height of Solids (cm):	1.30
Water Content (%, g/g):	24.1
Water Content (%, vol):	40.1
Porosity (%, vol):	37.1
Void Ratio (e):	0.589
Saturation (%):	108.3

Load (psf)	H (in)	Void Ratio (e)	Axial Strain (%)
50	0.8240	0.607	0.00
48	0.8239	0.606	0.01
100	0.8209	0.601	0.38
100	0.8245	0.608	-0.06
200	0.8248	0.608	-0.10
400	0.8223	0.603	0.21
800	0.8192	0.597	0.58
1,600	0.8149	0.589	1.10

***Swell Pressure (psf):** **48**
***Estimated Preconsolidation Stress (psf):** **NA**

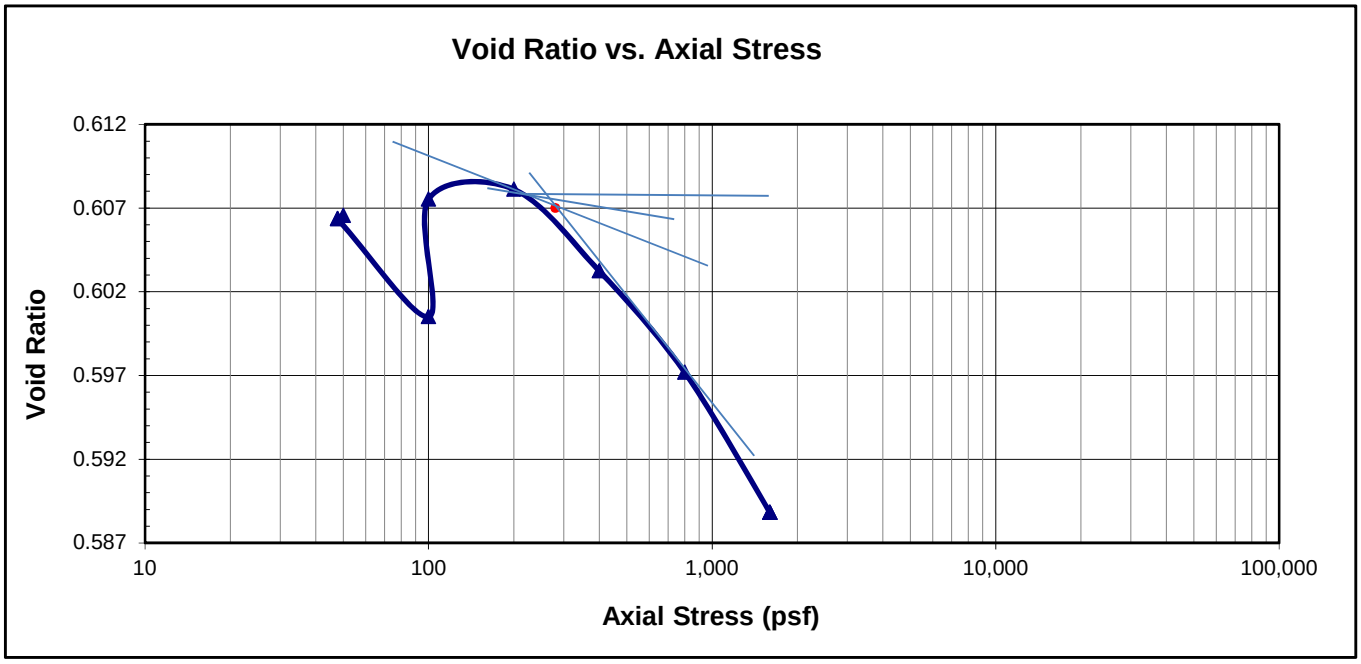
**See test notes provided on Notes page*

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

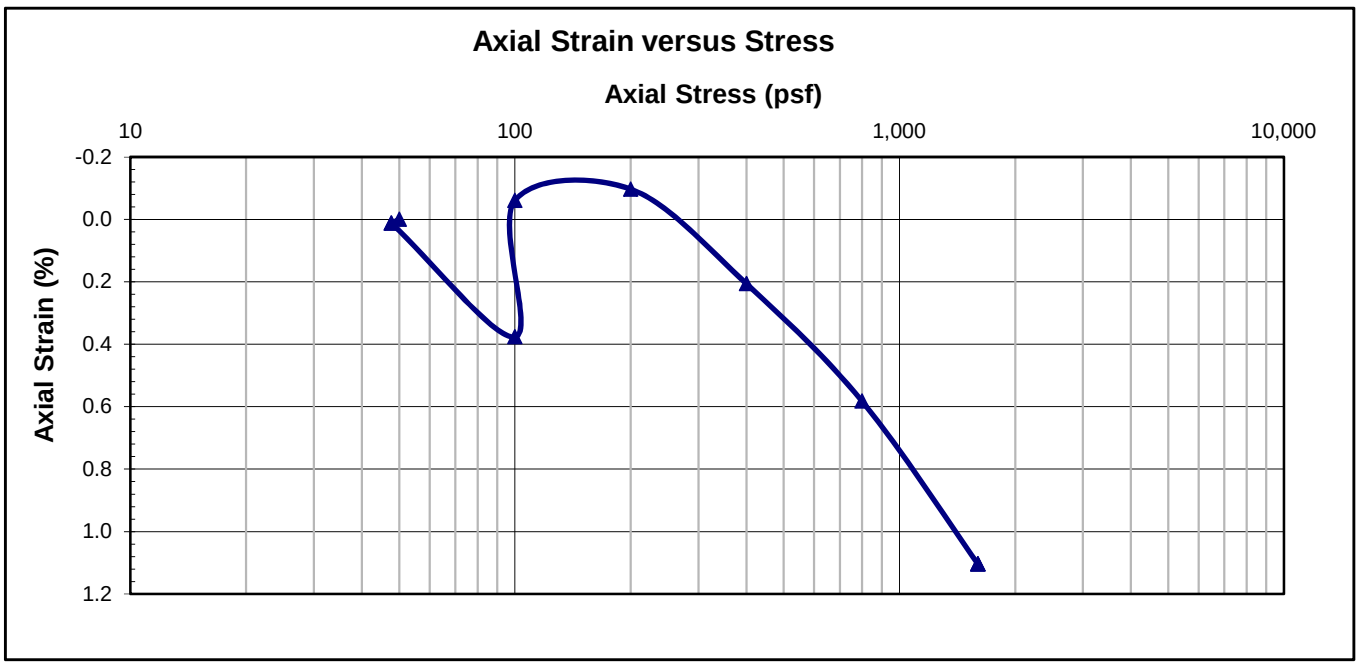
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-11-01 (0-1ft) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Void Ratio Versus Axial Stress



Axial Strain Versus Stress



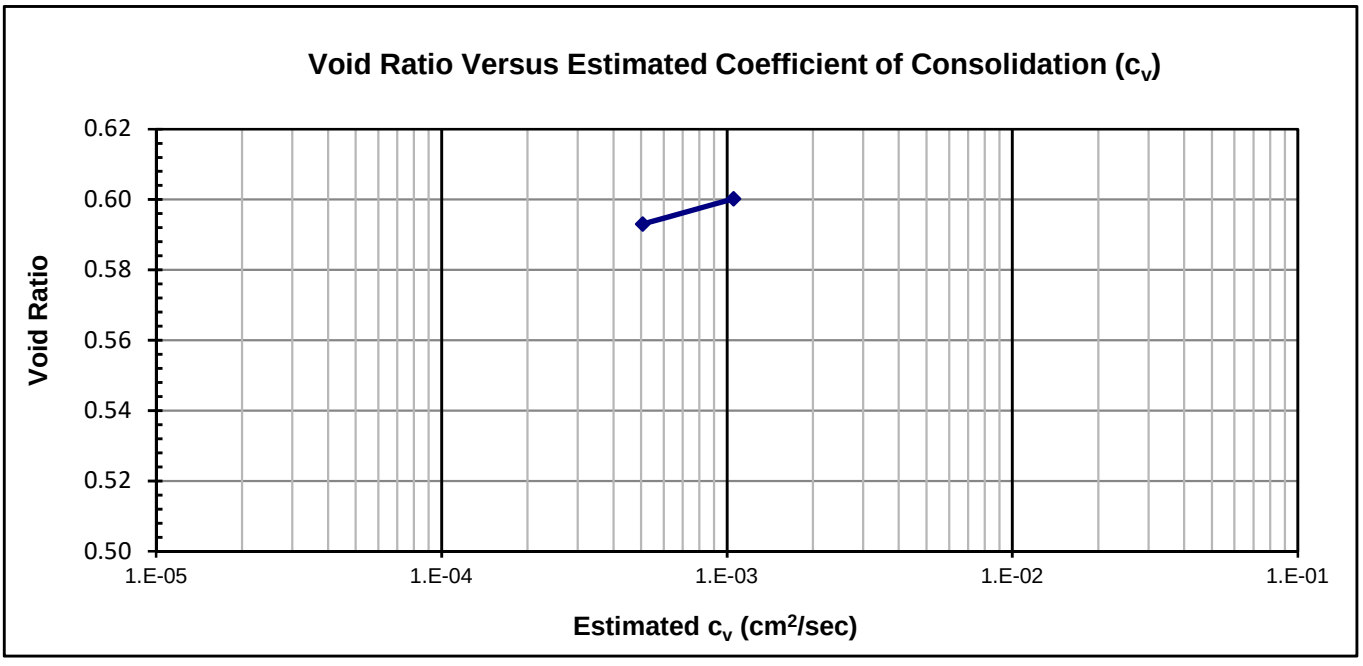
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-11-01 (0-1ft) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Estimated Coefficient of Consolidation (c_v)

Load (psf)	Estimated Coefficient of Consol. (c_v) (cm^2/sec)	Average Void Ratio (e)
100		0.603
100		0.604
200		0.608
400		0.606
800	1.1E-03	0.600
1600	5.1E-04	0.593

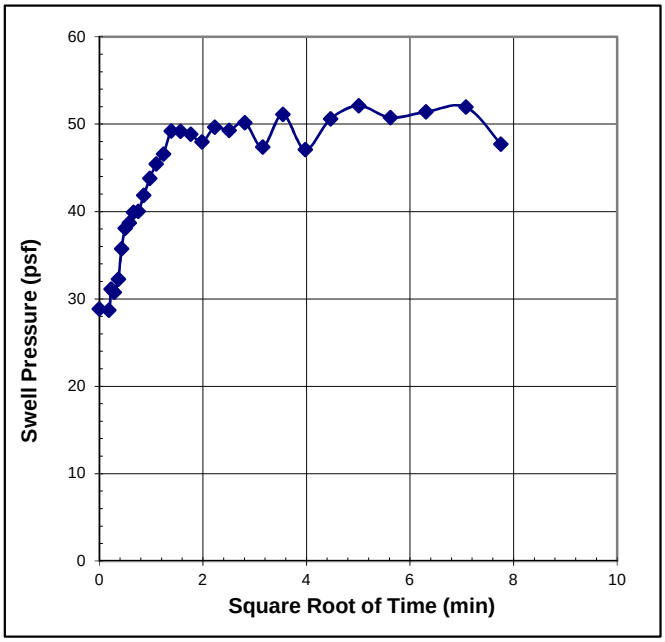
Void Ratio Versus Estimated Coefficient of Consolidation (c_v)



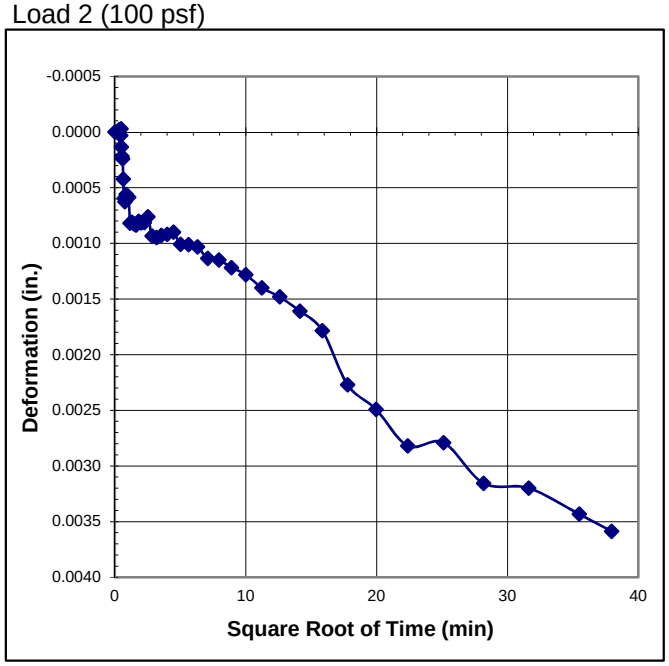
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-11-01 (0-1ft) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

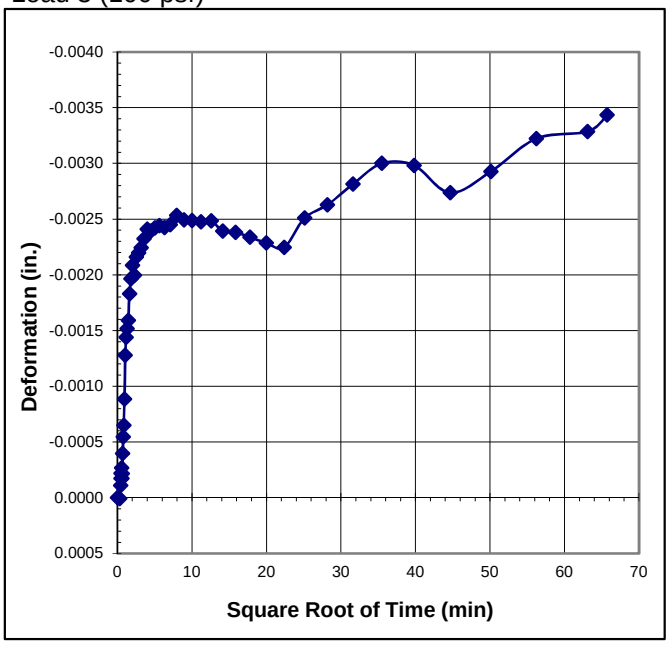
Swell Pressure Versus Square Root of Time
Load 1



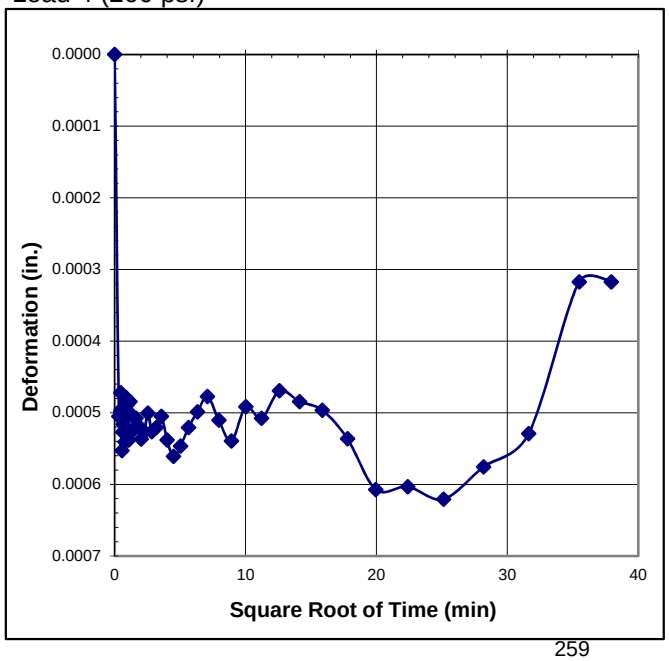
Deformation Versus Square Root of Time
Load 2 (100 psf)



Deformation Versus Square Root of Time
Load 3 (100 psf)



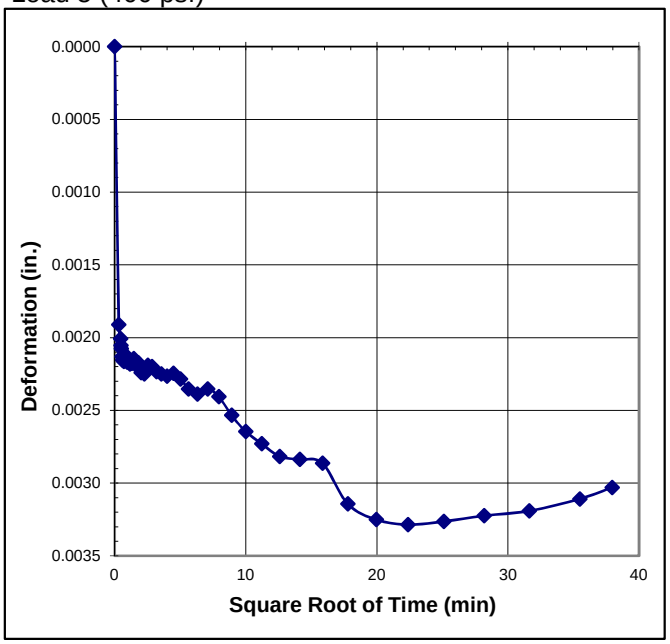
Deformation Versus Square Root of Time
Load 4 (200 psf)



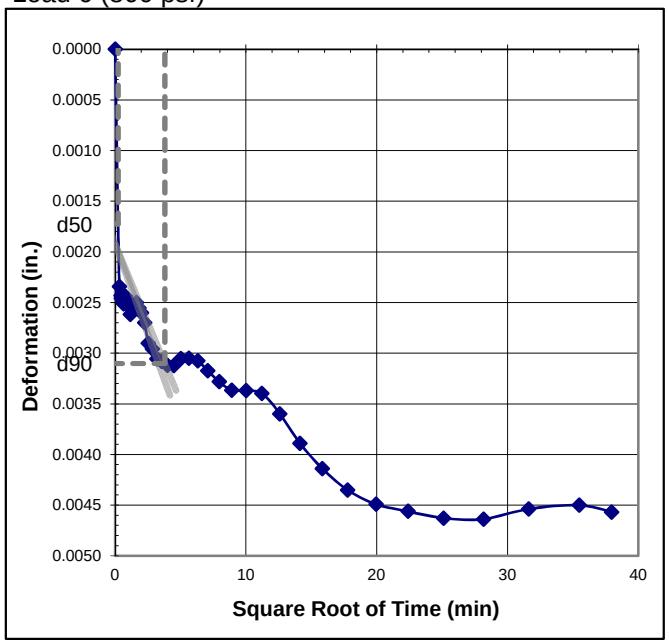
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-11-01 (0-1ft) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

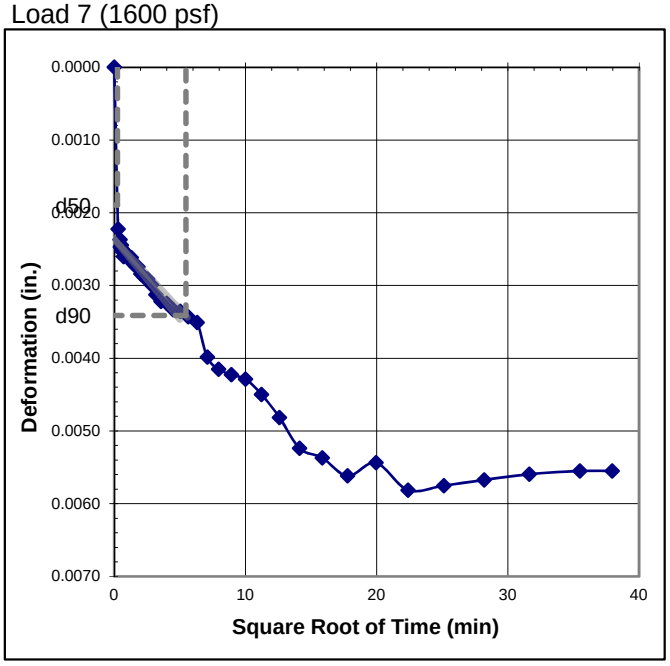
Deformation Versus Square Root of Time
Load 5 (400 psf)



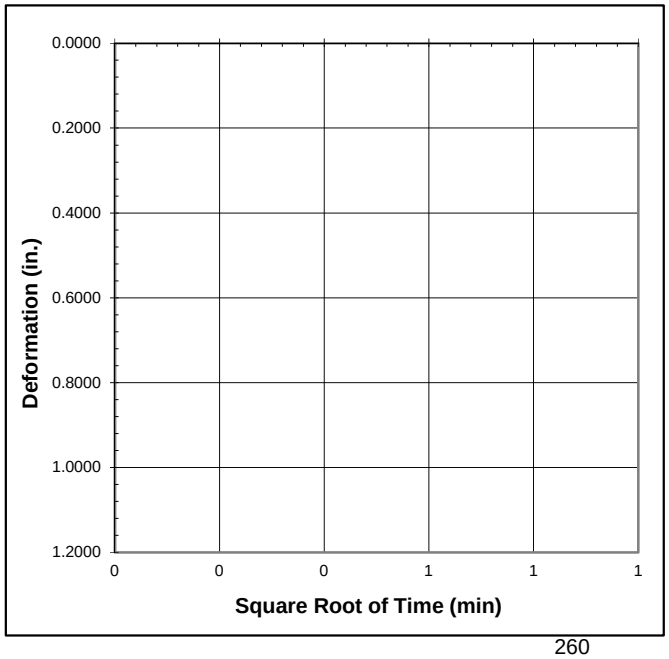
Deformation Versus Square Root of Time
Load 6 (800 psf)



Deformation Versus Square Root of Time
Load 7 (1600 psf)



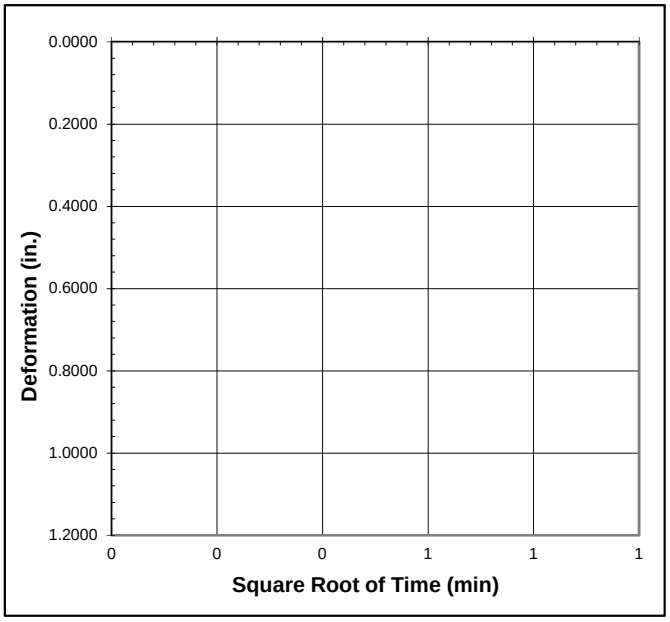
Deformation Versus Square Root of Time
###



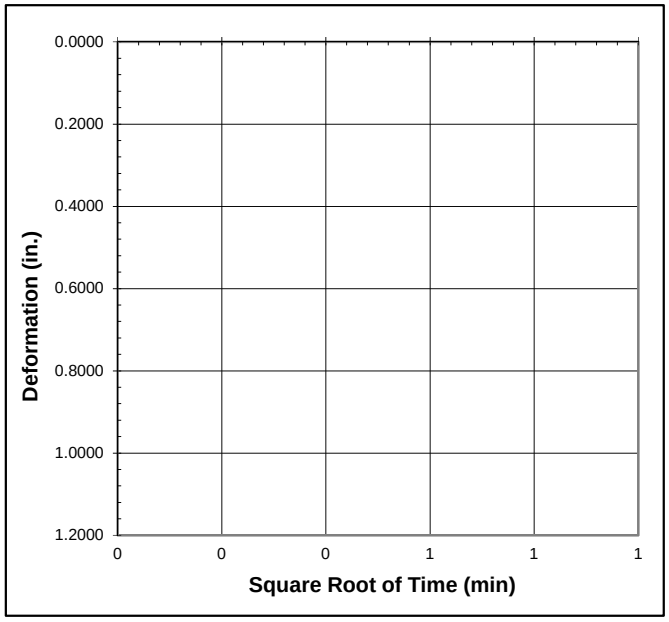
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-11-01 (0-1ft) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

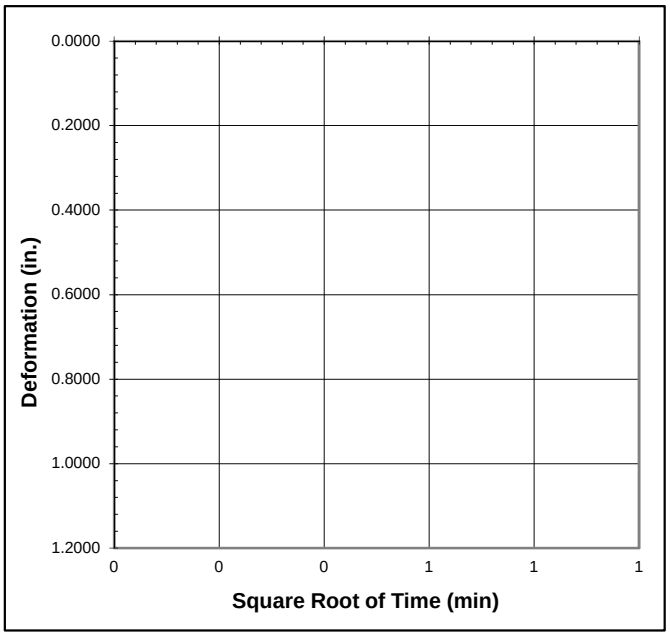
Deformation Versus Square Root of Time
#N/A



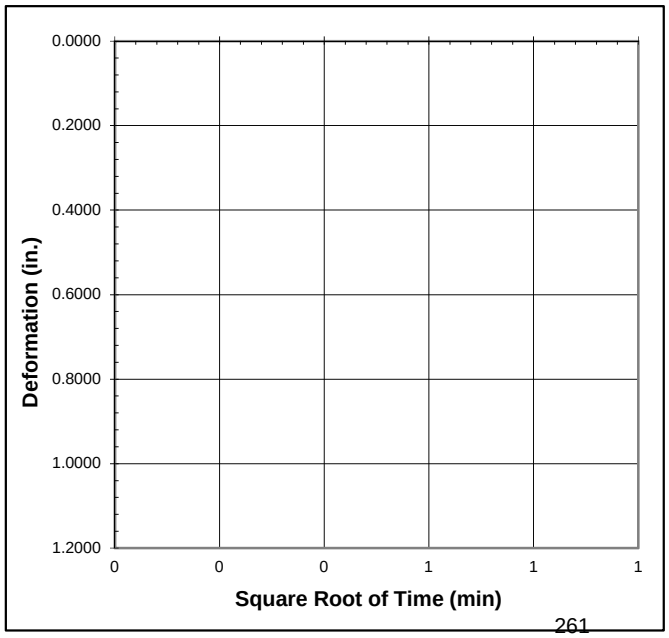
Deformation Versus Square Root of Time
###



Deformation Versus Square Root of Time
#N/A



Deformation Versus Square Root of Time
###



One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-12-01 (0-2ft) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Remolded or Initial Sample Properties

Initial Mass (g):	115.73
Length (cm):	2.09
Diameter (cm):	6.34
Area (cm^2):	31.62
Volume (cm^3):	66.10
Assumed Particle Density(g/cm^3):	2.65
Dry Density (g/cm^3):	1.49
Dry Unit Weight (lbf/ft^3):	93.08
Equivalent Height of Solids (cm):	1.18
Water Content (%, g/g):	17.4
Water Content (%, vol):	26.0
Porosity (%, vol):	43.7
Void Ratio (e):	0.777
Saturation (%):	59.4
Date/Time Test Initiated:	2/24/26 15:32

Test and Sample Conditions

Visual Description of Sample:	NA
USCS Classification:	CH
Plastic Limit:	22
Liquid Limit:	50
Method of Testing:	☐ A ☑ B
Interpretation Procedure:	☐ 1 ☑ 2
Sample Preparation:	☐ In situ Extruded ☑ Remolded
Apparatus:	Automated Loading Device
Trimming Procedure:	NA
Water Content of Trimmings (%, g/g):	17.4
Split:	#4
Percent Coarse Material (%):	0.0
Condition of test:	☐ Natural Moisture ☑ Inundated
Pressure at Innundation (lb/ft^2):	50

Final (Post Test) Sample Properties

Final Mass (g):	122.50
Dry Mass (g):	98.55
Length (cm):	1.88
Length Differential (cm):	-0.17
Diameter (cm):	6.34
Area (cm^2):	31.62
Volume (cm^3):	59.29
Dry Density (g/cm^3):	1.66
Dry Unit Weight (lbf/ft^3):	103.76
Equivalent Height of Solids (cm):	1.18
Water Content (%, g/g):	24.3
Water Content (%, vol):	40.4
Porosity (%, vol):	37.3
Void Ratio (e):	0.594
Saturation (%):	108.3

Load (psf)	H (in)	Void Ratio (e)	Axial Strain (%)
50	0.8230	0.777	0.00
52	0.8230	0.777	0.00
250	0.8167	0.764	0.77
250	0.8346	0.802	-1.41
500	0.8325	0.798	-1.15
1,000	0.8198	0.770	0.39
2,000	0.7829	0.691	4.87
4,000	0.7383	0.594	10.29

***Swell Pressure (psf):** **52**
***Estimated Preconsolidation Stress (psf):** **NA**

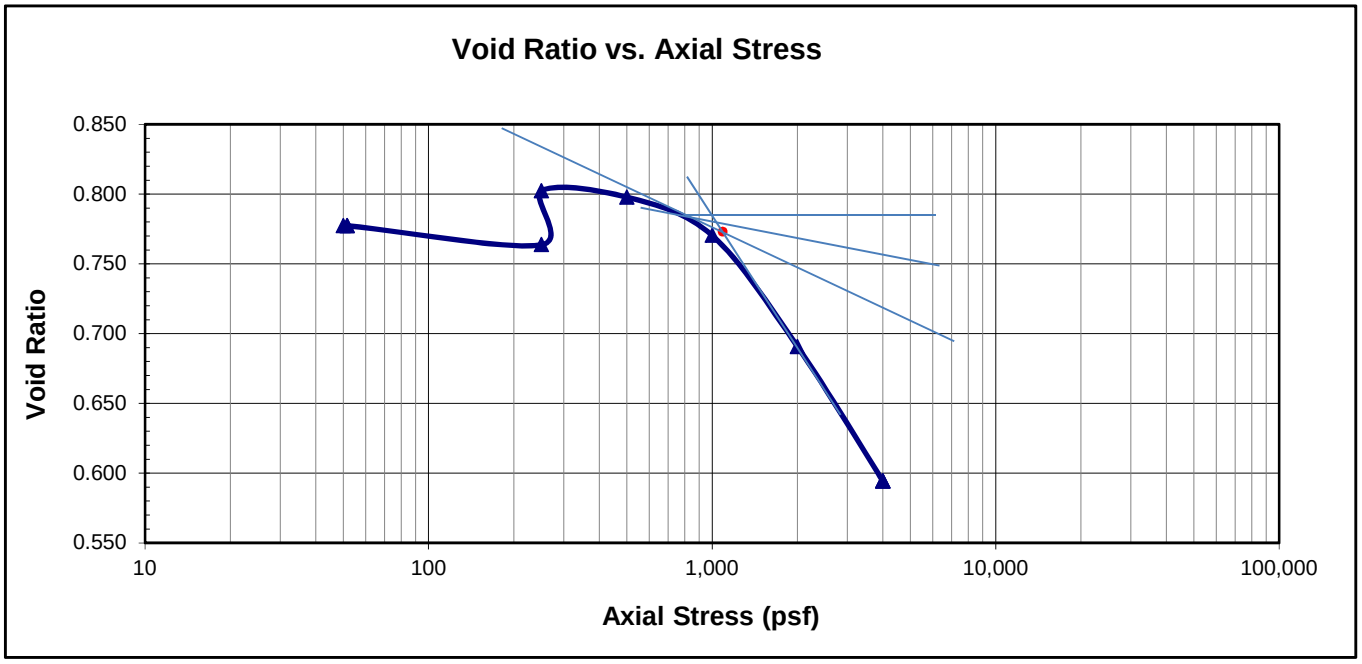
**See test notes provided on Notes page*

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

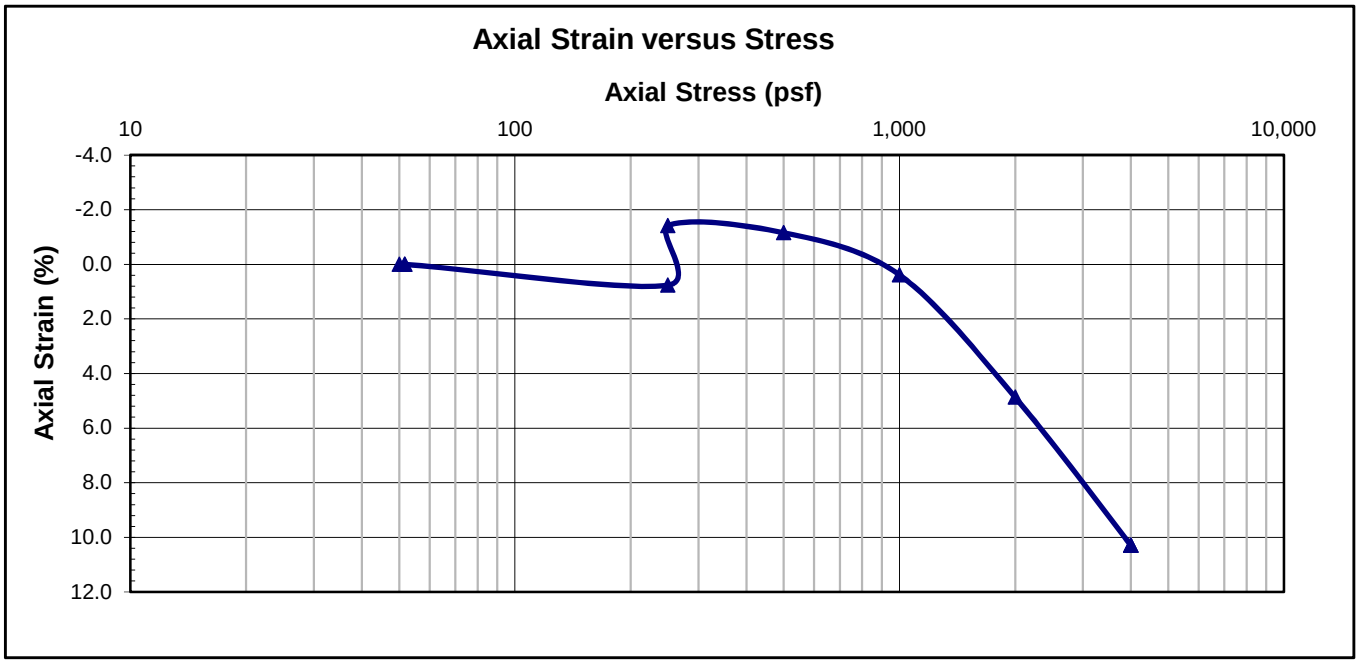
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-12-01 (0-2ft) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Void Ratio Versus Axial Stress



Axial Strain Versus Stress



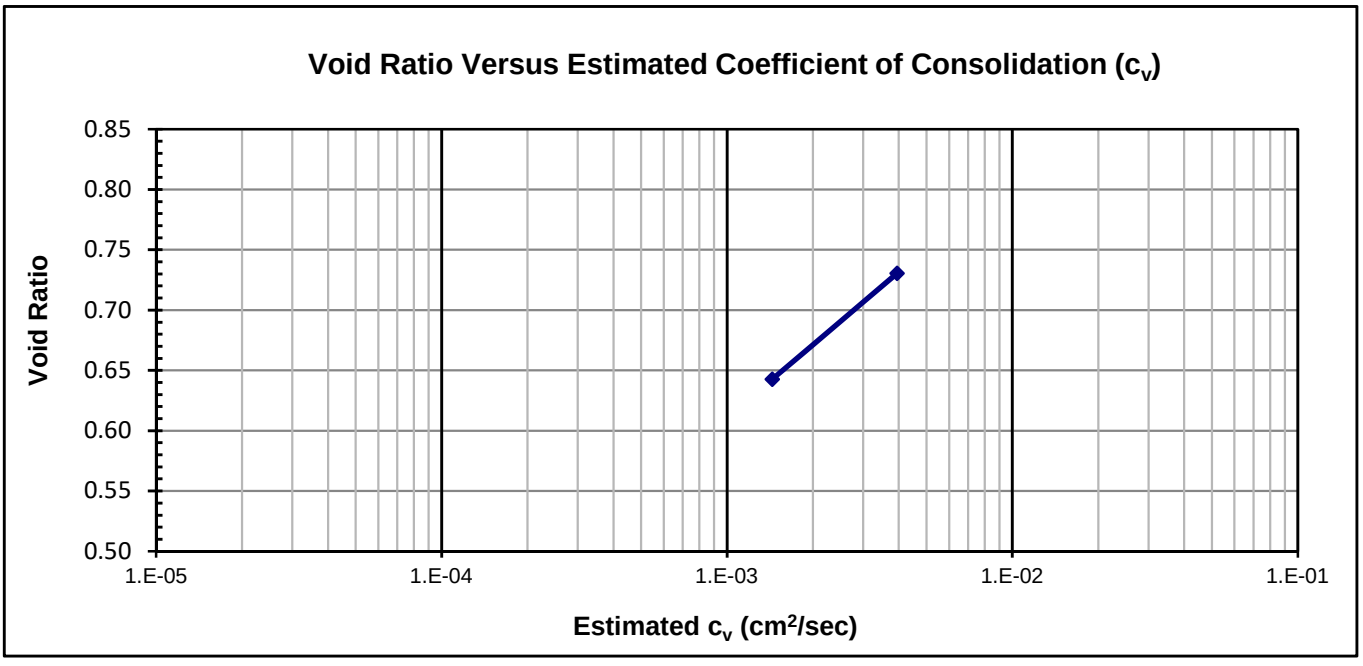
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-12-01 (0-2ft) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Estimated Coefficient of Consolidation (c_v)

Load (psf)	Estimated Coefficient of Consol. (c_v) (cm^2/sec)	Average Void Ratio (e)
250		0.771
250		0.783
500		0.800
1000		0.784
2000	3.9E-03	0.731
4000	1.4E-03	0.643

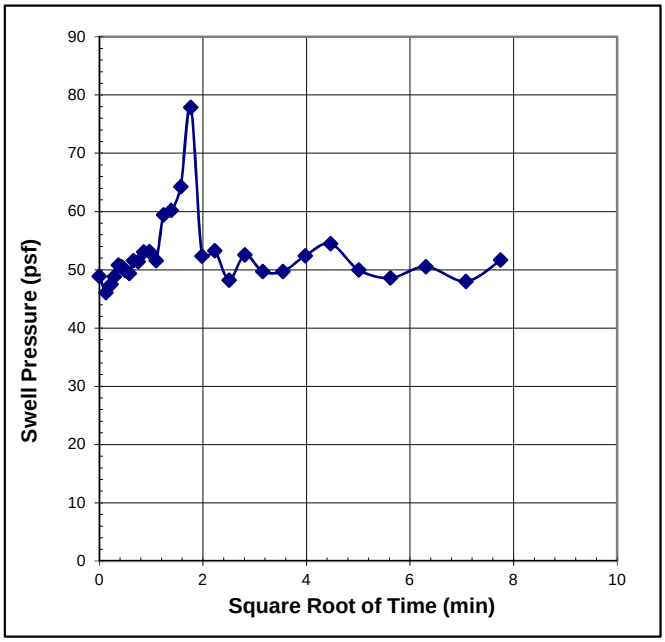
Void Ratio Versus Estimated Coefficient of Consolidation (c_v)



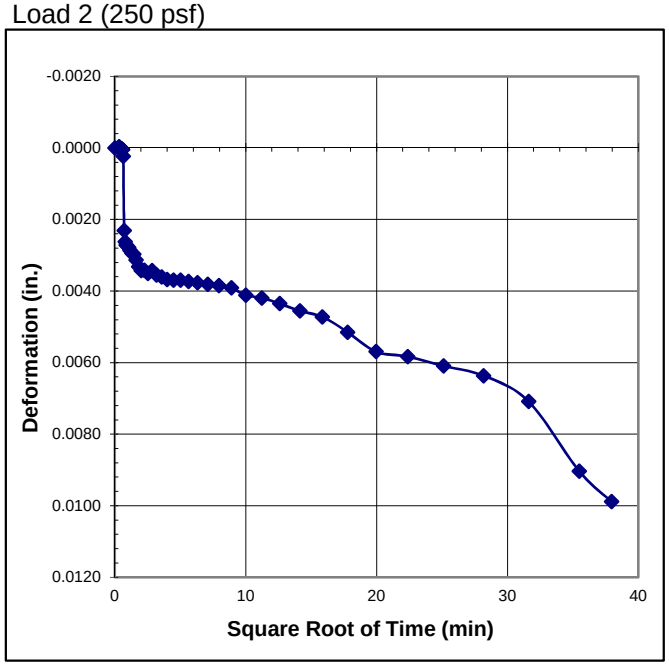
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-12-01 (0-2ft) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

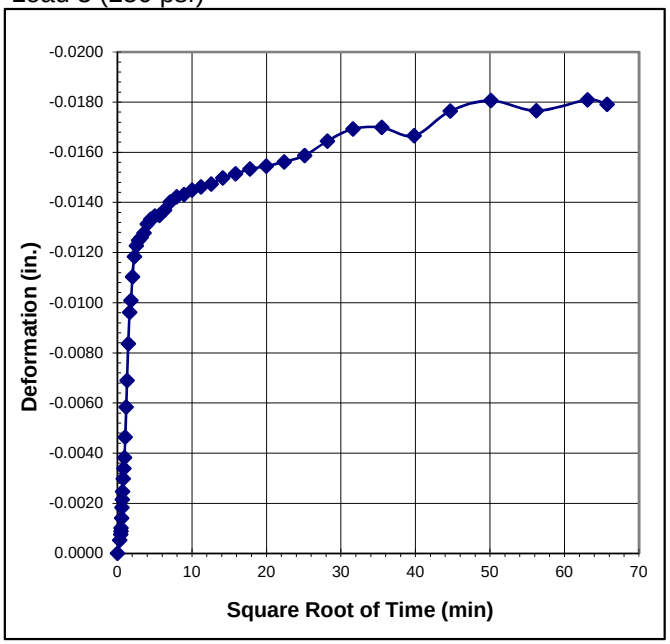
Swell Pressure Versus Square Root of Time
Load 1



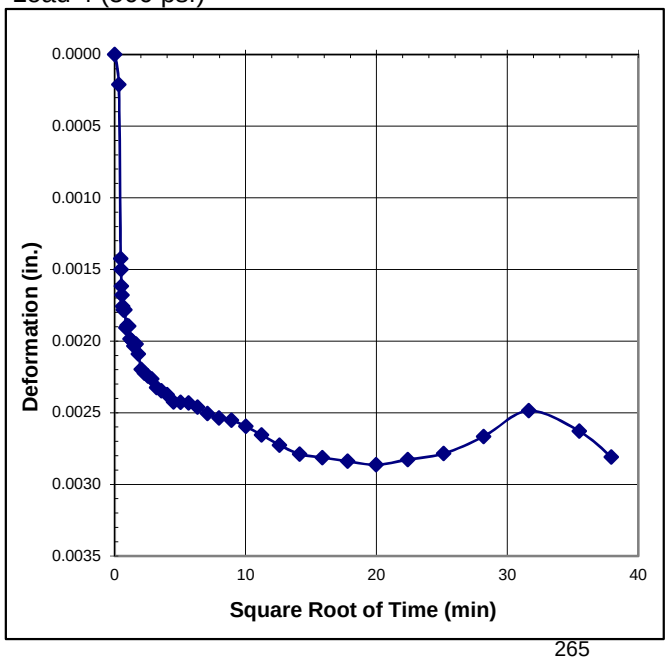
Deformation Versus Square Root of Time
Load 2 (250 psf)



Deformation Versus Square Root of Time
Load 3 (250 psf)



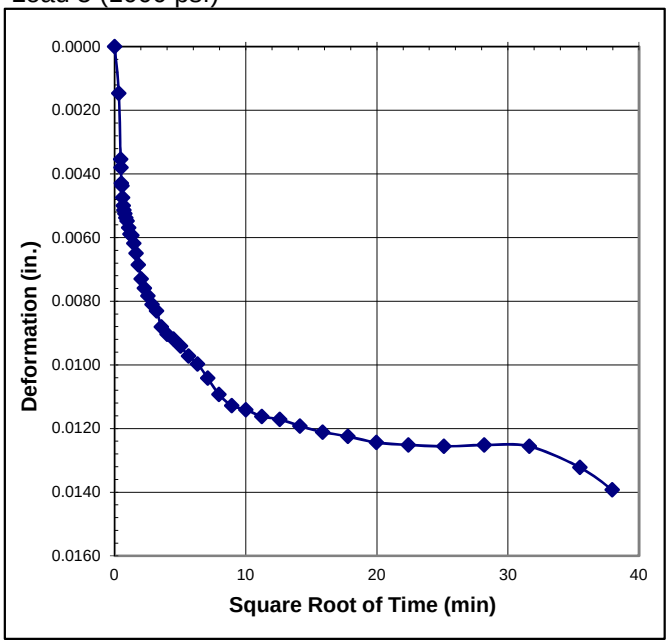
Deformation Versus Square Root of Time
Load 4 (500 psf)



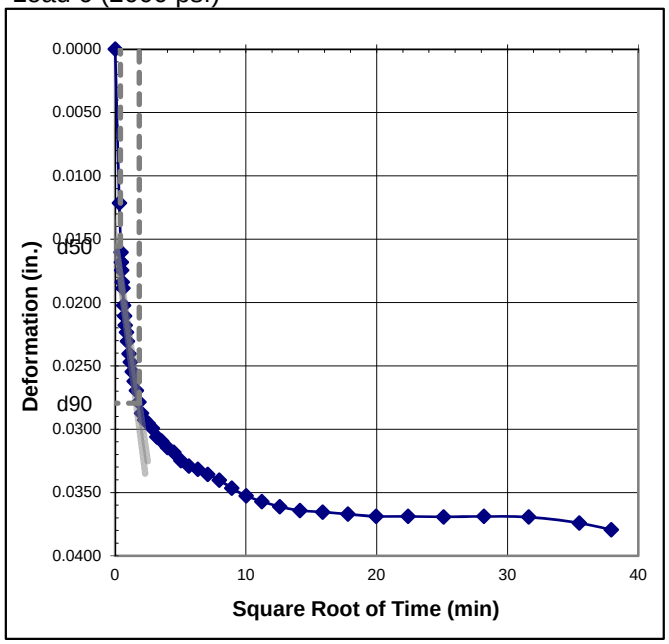
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-12-01 (0-2ft) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

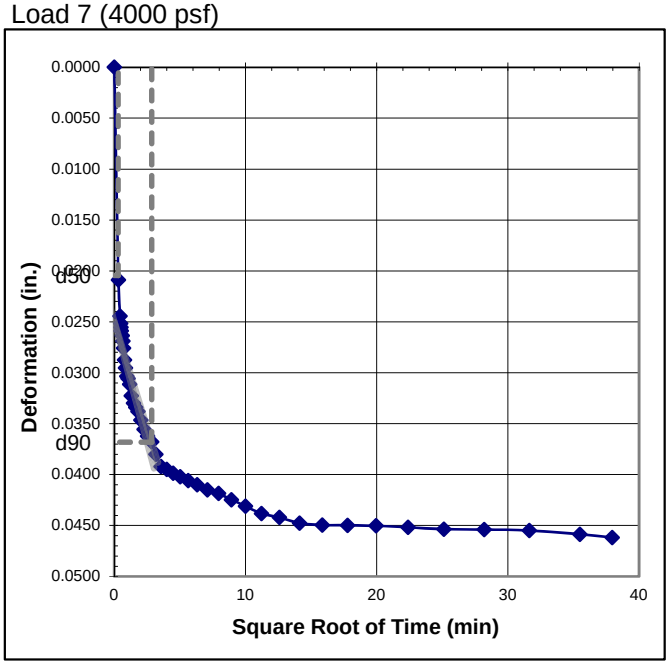
Deformation Versus Square Root of Time
Load 5 (1000 psf)



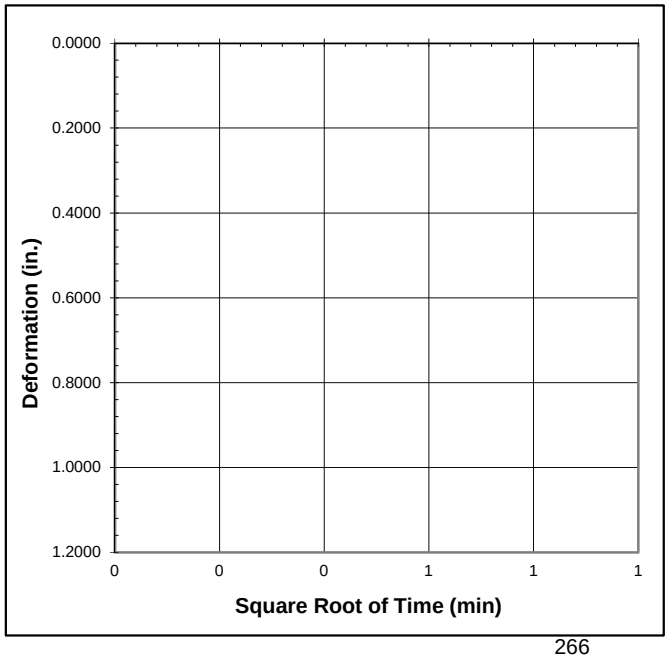
Deformation Versus Square Root of Time
Load 6 (2000 psf)



Deformation Versus Square Root of Time
Load 7 (4000 psf)



Deformation Versus Square Root of Time
###



One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-15-01 (0-4) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Remolded or Initial Sample Properties

Initial Mass (g):	122.97
Length (cm):	2.09
Diameter (cm):	6.34
Area (cm^2):	31.62
Volume (cm^3):	66.10
Assumed Particle Density(g/cm^3):	2.65
Dry Density (g/cm^3):	1.67
Dry Unit Weight (lbf/ft^3):	103.95
Equivalent Height of Solids (cm):	1.31
Water Content (%, g/g):	11.7
Water Content (%, vol):	19.5
Porosity (%, vol):	37.2
Void Ratio (e):	0.592
Saturation (%):	52.6
Date/Time Test Initiated:	2/13/26 14:43

Test and Sample Conditions

Visual Description of Sample:	NA
USCS Classification:	NA
Plastic Limit:	NA
Liquid Limit:	NA
Method of Testing:	☐ A ☑ B
Interpretation Procedure:	☐ 1 ☑ 2
Sample Preparation:	☐ In situ Extruded ☑ Remolded
Apparatus:	Automated Loading Device
Trimming Procedure:	NA
Water Content of Trimmings (%, g/g):	10.7
Split:	NA
Percent Coarse Material (%):	NA
Condition of test:	☐ Natural Moisture ☑ Inundated
Pressure at Innundation (lb/ft^2):	250

Final (Post Test) Sample Properties

Final Mass (g):	130.42
Dry Mass (g):	110.05
Length (cm):	2.02
Length Differential (cm):	-0.09
Diameter (cm):	6.34
Area (cm^2):	31.62
Volume (cm^3):	63.78
Dry Density (g/cm^3):	1.73
Dry Unit Weight (lbf/ft^3):	107.73
Equivalent Height of Solids (cm):	1.31
Water Content (%, g/g):	18.5
Water Content (%, vol):	31.9
Porosity (%, vol):	34.9
Void Ratio (e):	0.536
Saturation (%):	91.6

Load (psf)	H (in)	Void Ratio (e)	Axial Strain (%)
50	0.8230	0.592	0.00
50	0.8103	0.567	1.54
250	0.8048	0.556	2.21
250	0.8046	0.556	2.24
500	0.8031	0.553	2.42
1,000	0.8023	0.552	2.52
2,000	0.7992	0.546	2.89
4,000	0.7941	0.536	3.51

***Swell Pressure (psf):** **50**
***Estimated Preconsolidation Stress (psf):** **NA**

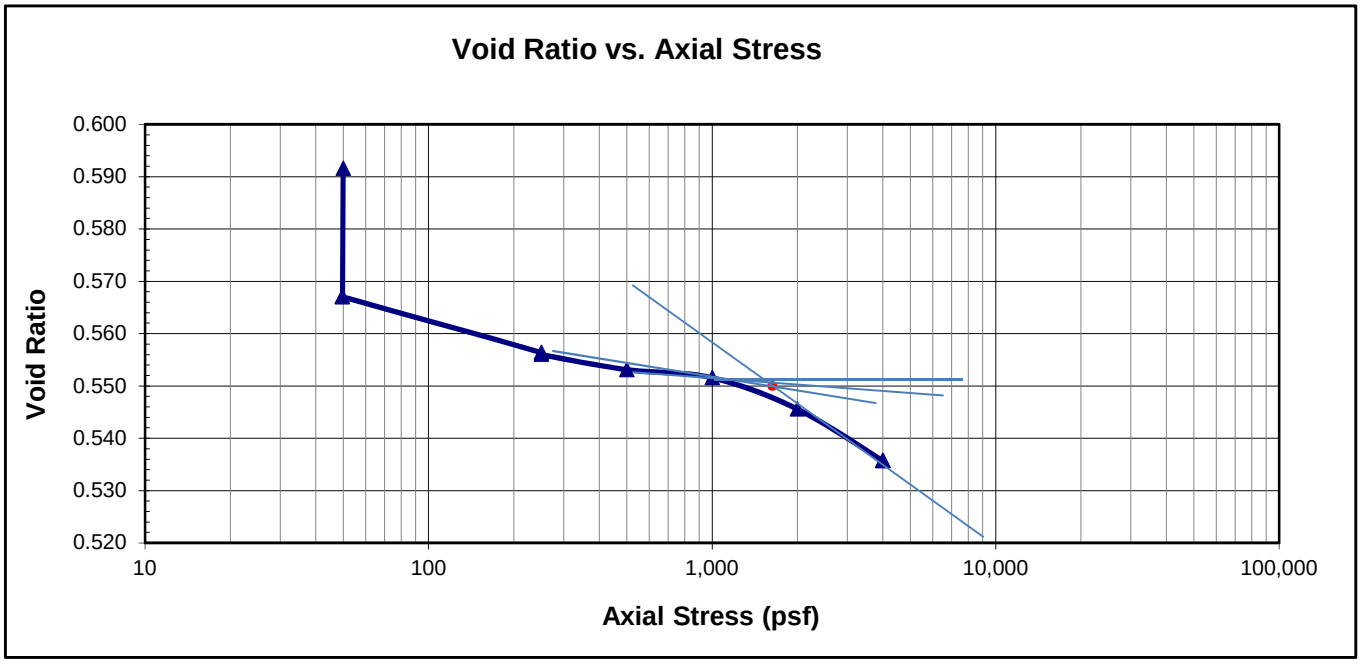
**See test notes provided on Notes page*

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

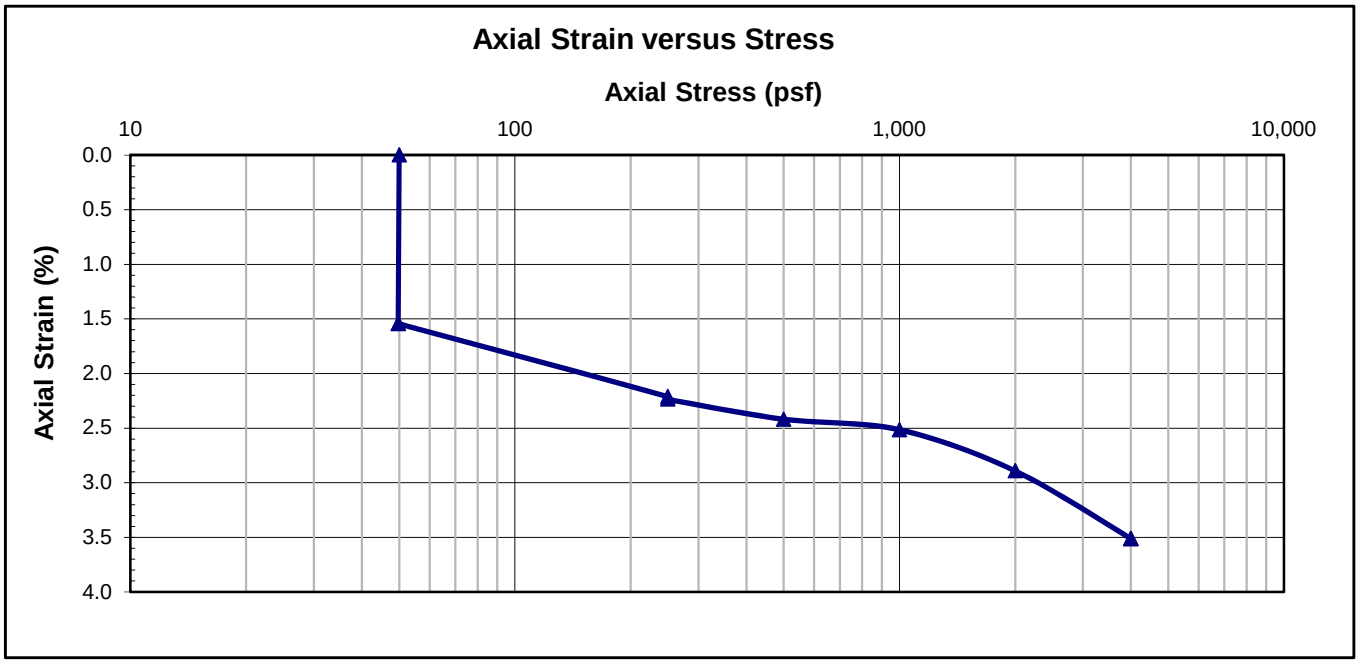
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-15-01 (0-4) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Void Ratio Versus Axial Stress



Axial Strain Versus Stress



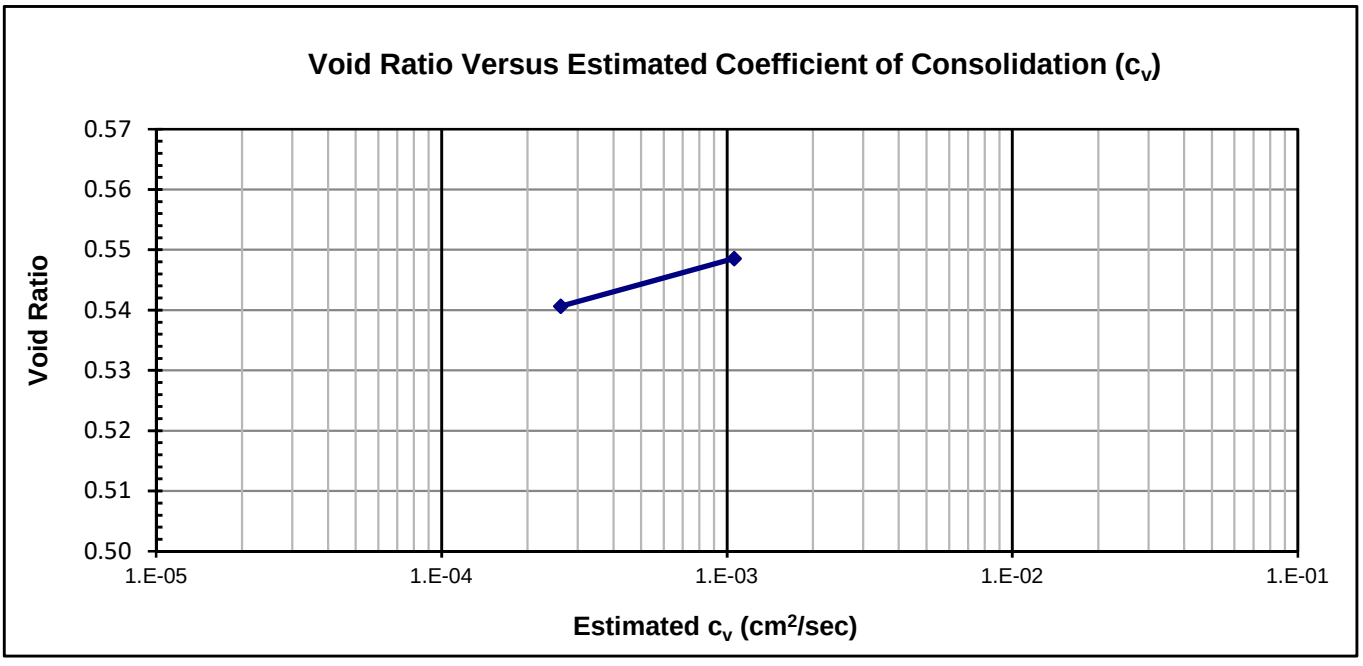
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-15-01 (0-4) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Estimated Coefficient of Consolidation (c_v)

Load (psf)	Estimated Coefficient of Consol. (c_v) (cm^2/sec)	Average Void Ratio (e)
250		0.562
250		0.556
500		0.555
1000		0.552
2000	1.1E-03	0.549
4000	2.6E-04	0.541

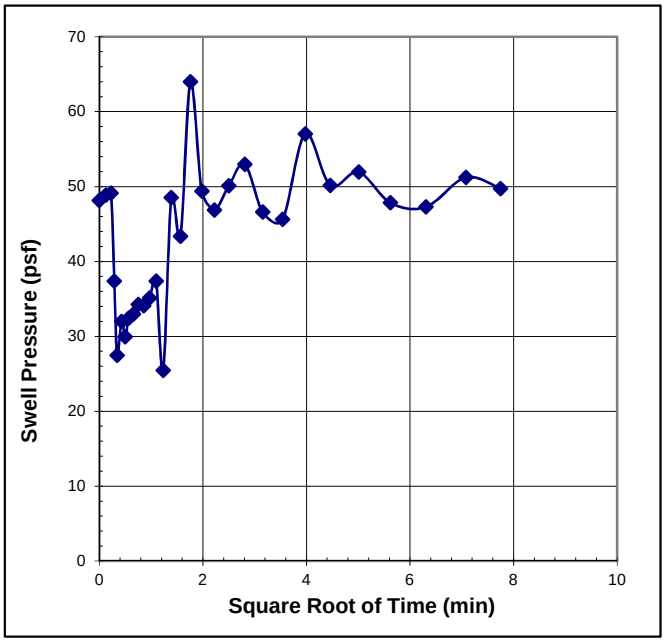
Void Ratio Versus Estimated Coefficient of Consolidation (c_v)



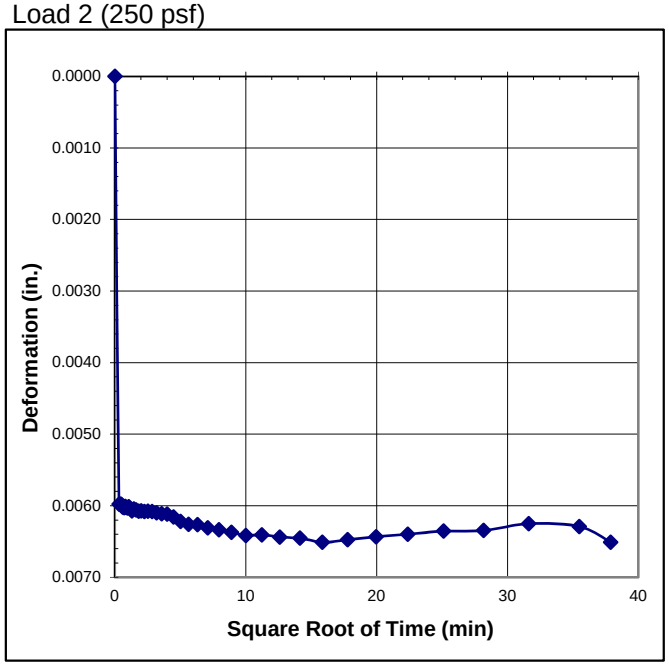
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-15-01 (0-4) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

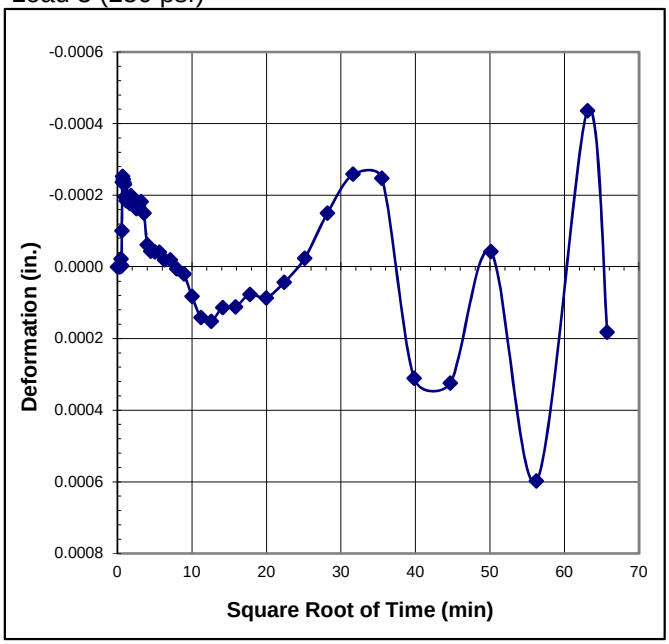
Swell Pressure Versus Square Root of Time
Load 1



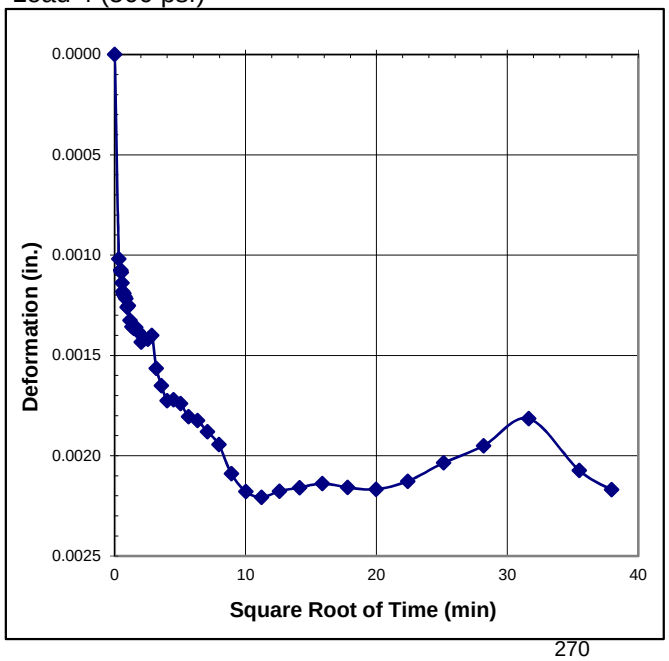
Deformation Versus Square Root of Time
Load 2 (250 psf)



Deformation Versus Square Root of Time
Load 3 (250 psf)



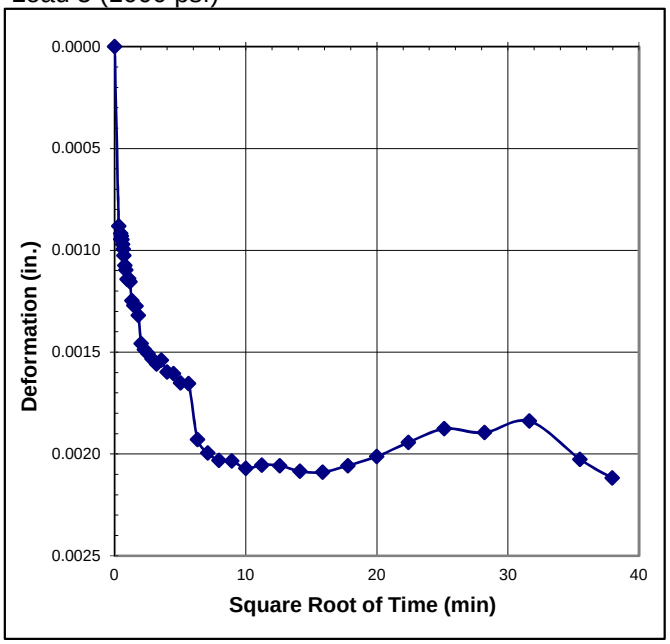
Deformation Versus Square Root of Time
Load 4 (500 psf)



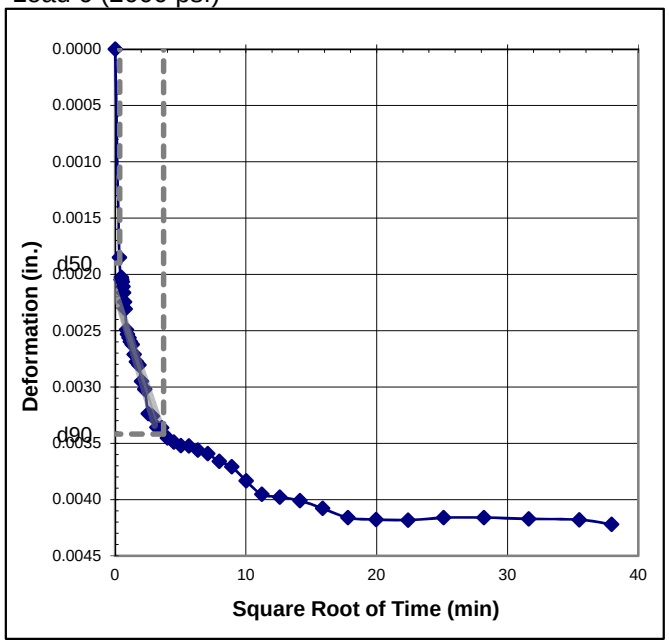
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-15-01 (0-4) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

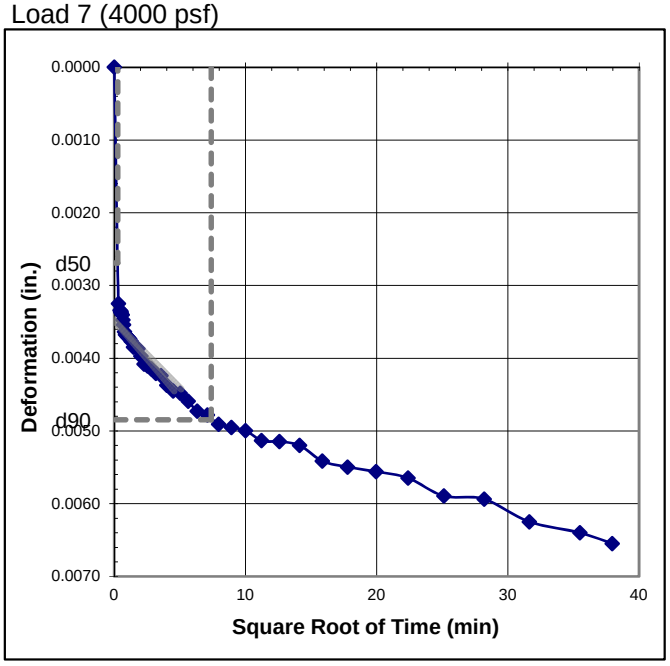
Deformation Versus Square Root of Time
Load 5 (1000 psf)



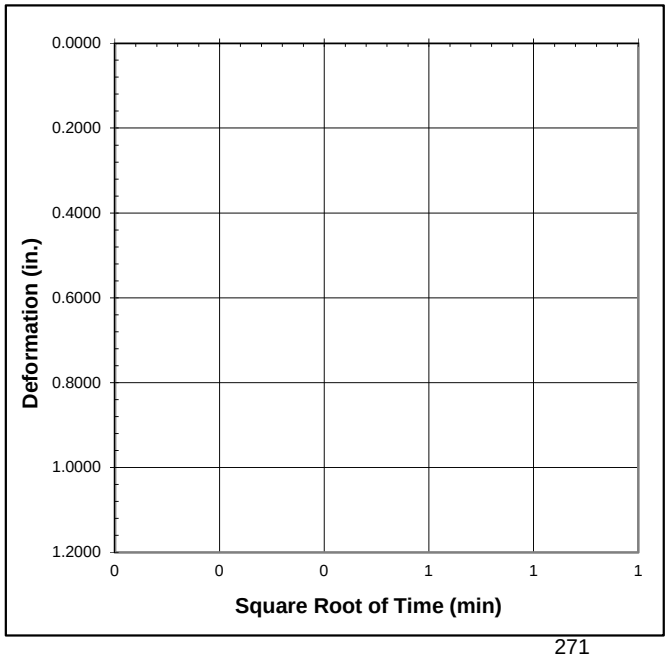
Deformation Versus Square Root of Time
Load 6 (2000 psf)



Deformation Versus Square Root of Time
Load 7 (4000 psf)



Deformation Versus Square Root of Time
###



One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-15-02 (4-5.5) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Remolded or Initial Sample Properties

Initial Mass (g):	121.83
Length (cm):	2.09
Diameter (cm):	6.34
Area (cm^2):	31.57
Volume (cm^3):	66.07
Assumed Particle Density(g/cm^3):	2.65
Dry Density (g/cm^3):	1.61
Dry Unit Weight (lbf/ft^3):	100.73
Equivalent Height of Solids (cm):	1.27
Water Content (%, g/g):	14.3
Water Content (%, vol):	23.1
Porosity (%, vol):	39.1
Void Ratio (e):	0.642
Saturation (%):	58.9
Date/Time Test Initiated:	2/24/26 15:31

Test and Sample Conditions

Visual Description of Sample:	NA
USCS Classification:	ML
Plastic Limit:	21
Liquid Limit:	23
Method of Testing:	☐ A ☑ B
Interpretation Procedure:	☐ 1 ☑ 2
Sample Preparation:	☐ In situ Extruded ☑ Remolded
Apparatus:	Automated Loading Device
Trimming Procedure:	NA
Water Content of Trimmings (%, g/g):	14.2
Split:	#4
Percent Coarse Material (%):	0.0
Condition of test:	☐ Natural Moisture ☑ Inundated
Pressure at Innundation (lb/ft^2):	50

Final (Post Test) Sample Properties

Final Mass (g):	130.35
Dry Mass (g):	106.60
Length (cm):	2.01
Length Differential (cm):	-0.14
Diameter (cm):	6.34
Area (cm^2):	31.57
Volume (cm^3):	63.36
Dry Density (g/cm^3):	1.68
Dry Unit Weight (lbf/ft^3):	105.03
Equivalent Height of Solids (cm):	1.27
Water Content (%, g/g):	22.3
Water Content (%, vol):	37.5
Porosity (%, vol):	36.5
Void Ratio (e):	0.575
Saturation (%):	102.7

Load (psf)	H (in)	Void Ratio (e)	Axial Strain (%)
50	0.8240	0.642	0.00
48	0.8234	0.641	0.07
200	0.8189	0.632	0.62
200	0.8210	0.636	0.36
400	0.8189	0.632	0.62
800	0.8163	0.627	0.93
1,600	0.8099	0.614	1.71
3,200	0.7902	0.575	4.10

***Swell Pressure (psf):** **48**
***Estimated Preconsolidation Stress (psf):** **NA**

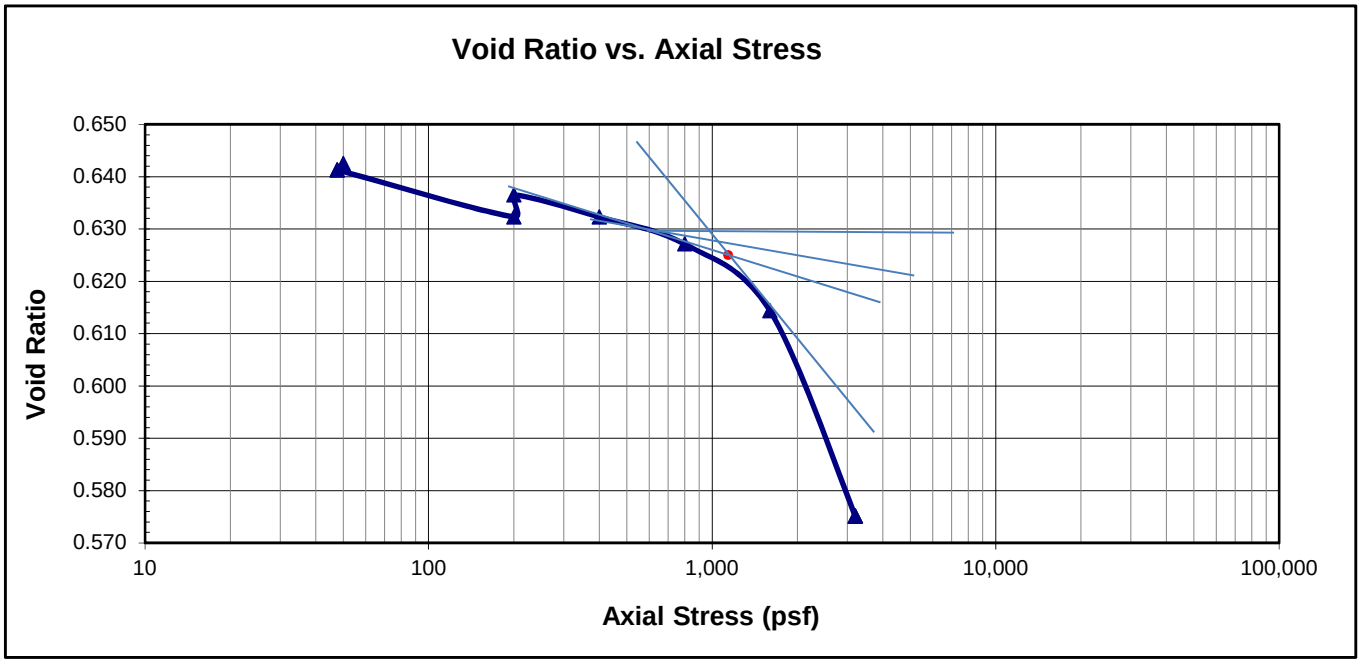
**See test notes provided on Notes page*

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

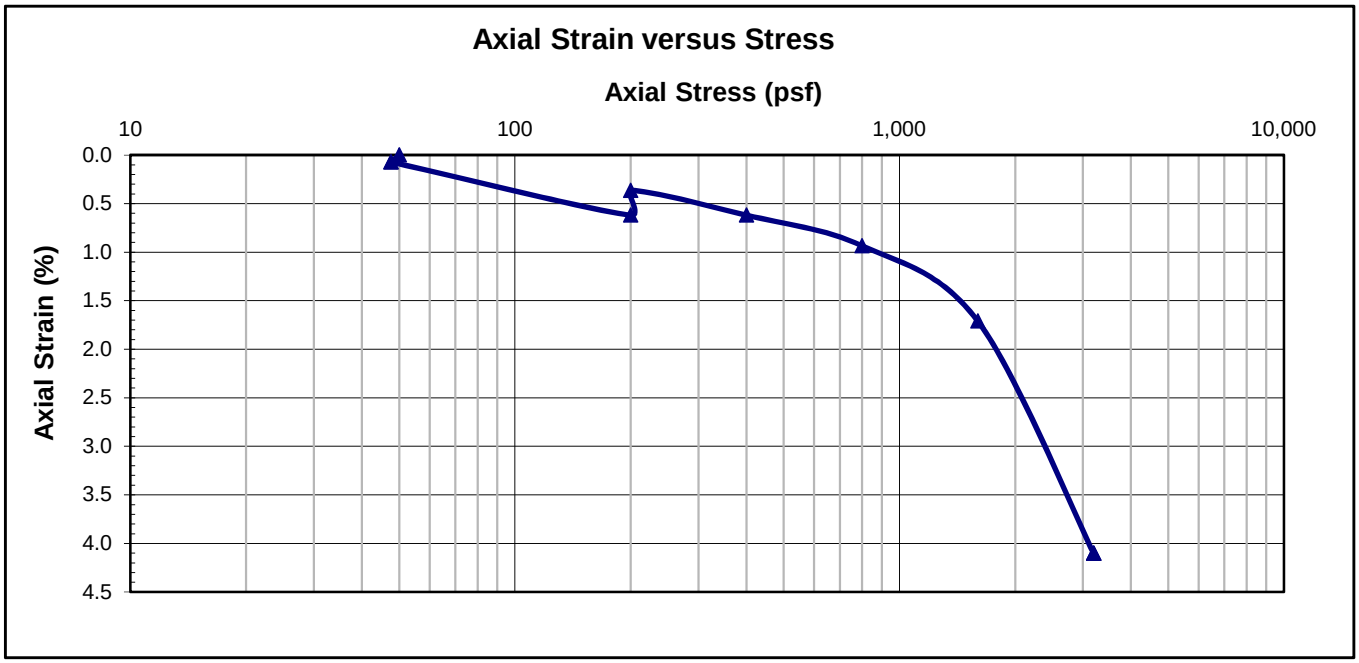
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-15-02 (4-5.5) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Void Ratio Versus Axial Stress



Axial Strain Versus Stress



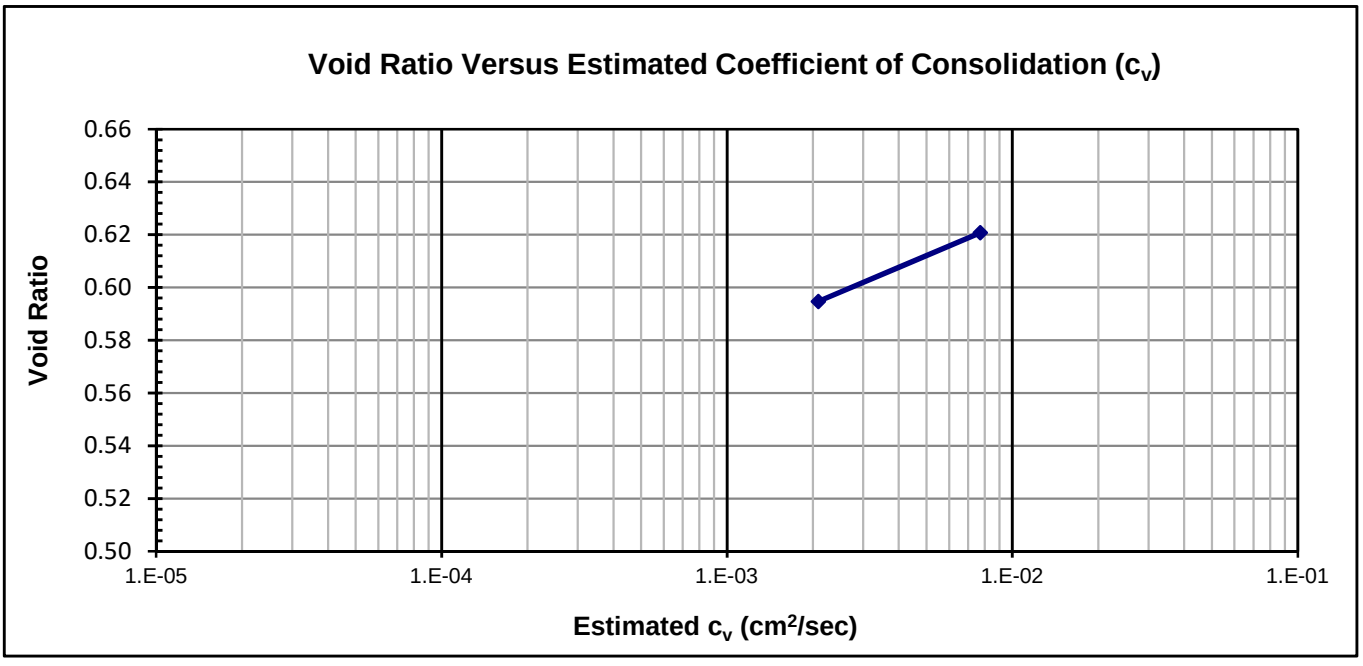
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-15-02 (4-5.5) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Estimated Coefficient of Consolidation (c_v)

Load (psf)	Estimated Coefficient of Consol. (c_v) (cm^2/sec)	Average Void Ratio (e)
200		0.637
200		0.634
400		0.634
800		0.630
1600	7.7E-03	0.621
3200	2.1E-03	0.595

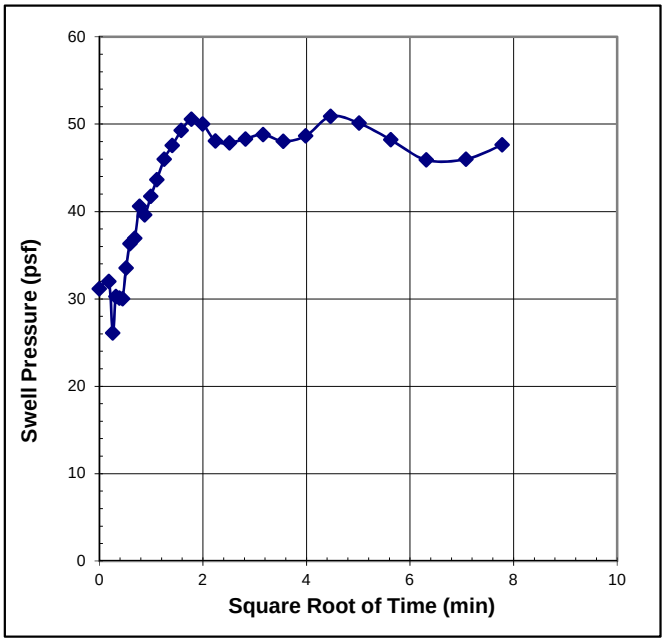
Void Ratio Versus Estimated Coefficient of Consolidation (c_v)



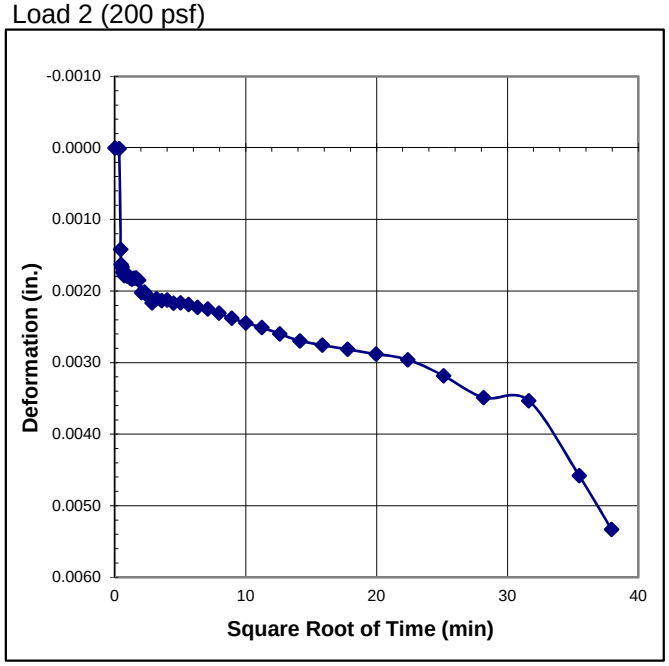
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-15-02 (4-5.5) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

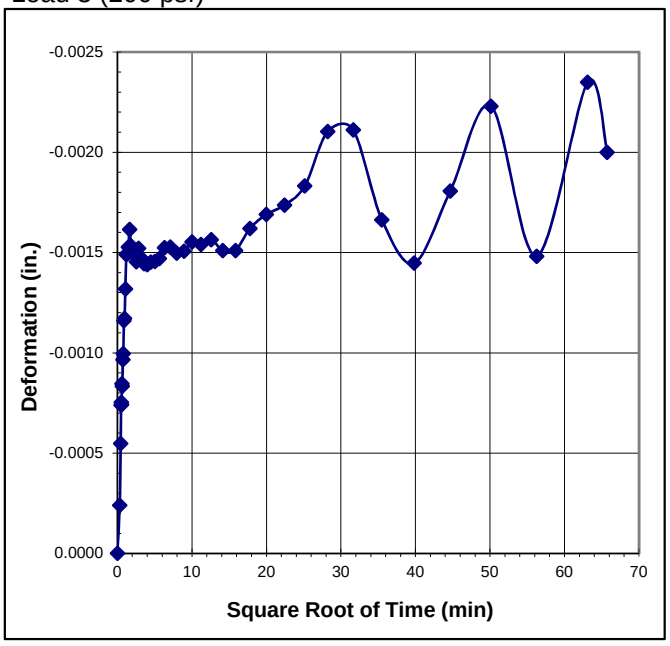
Swell Pressure Versus Square Root of Time
Load 1



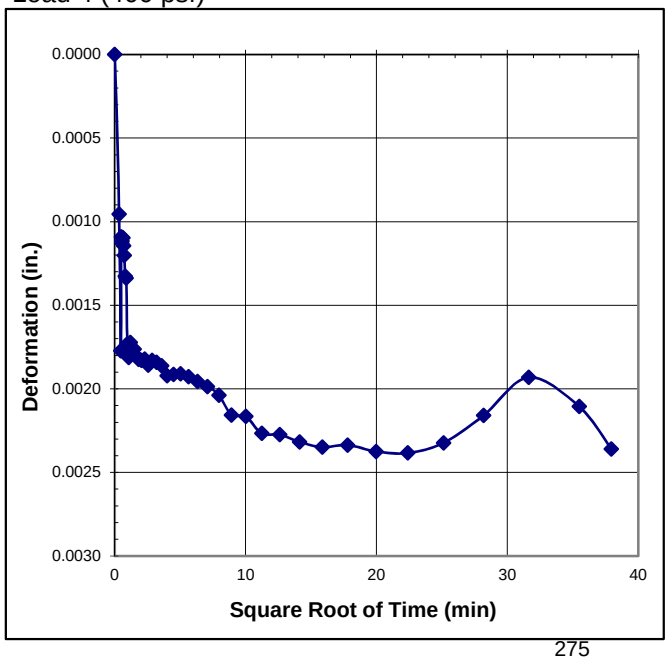
Deformation Versus Square Root of Time
Load 2 (200 psf)



Deformation Versus Square Root of Time
Load 3 (200 psf)



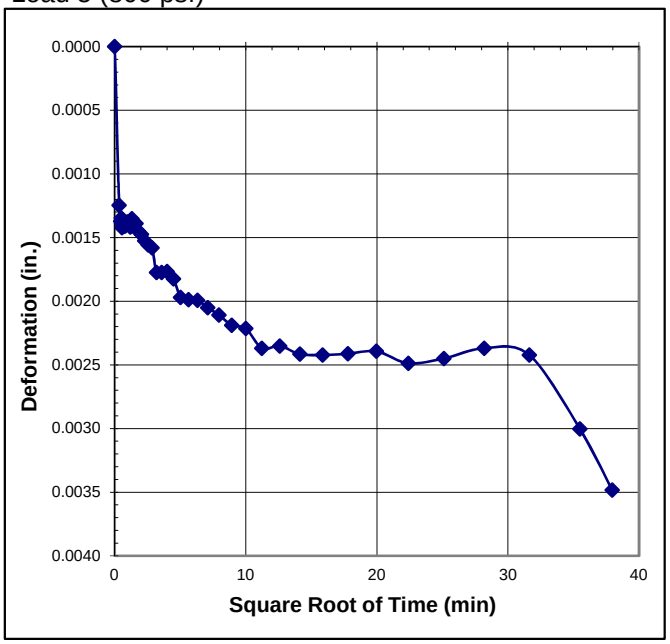
Deformation Versus Square Root of Time
Load 4 (400 psf)



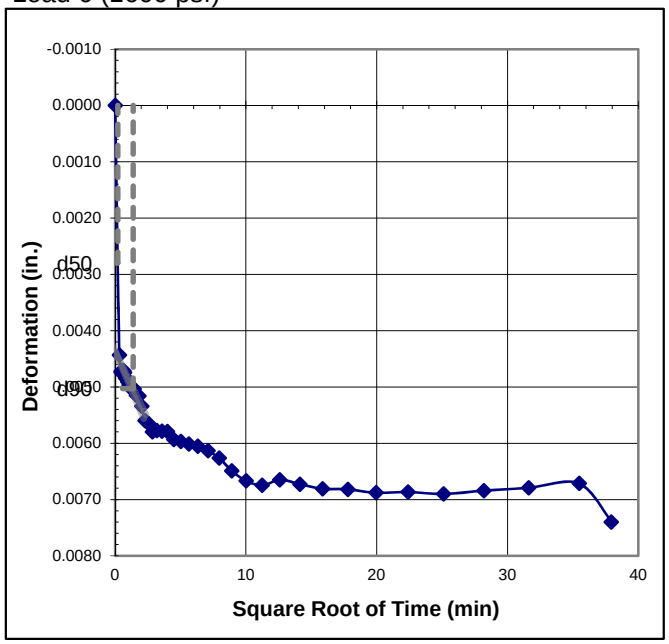
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-15-02 (4-5.5) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

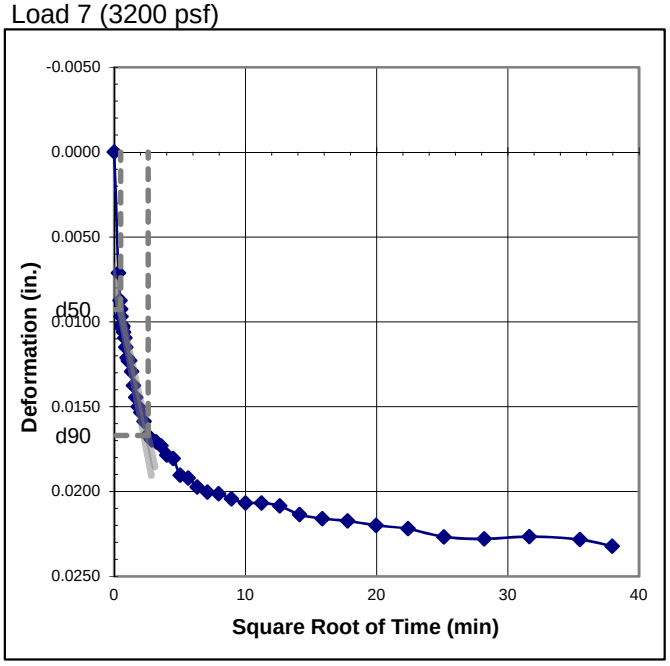
Deformation Versus Square Root of Time
Load 5 (800 psf)



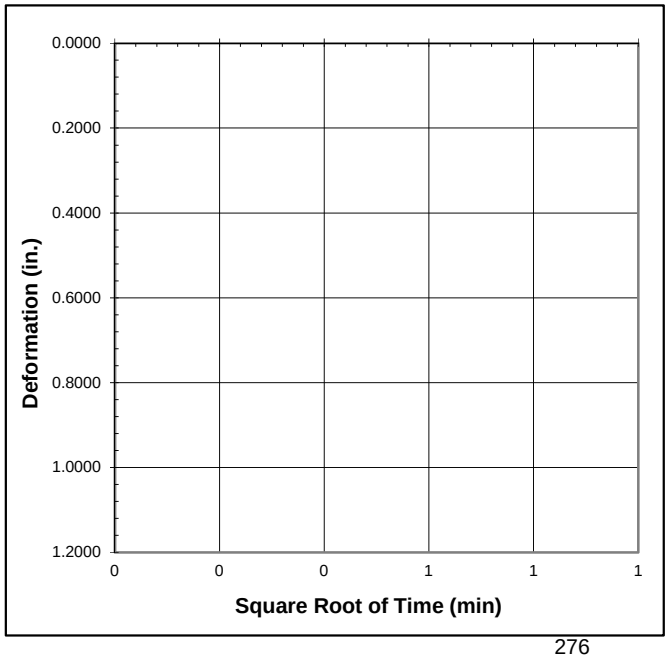
Deformation Versus Square Root of Time
Load 6 (1600 psf)



Deformation Versus Square Root of Time
Load 7 (3200 psf)



Deformation Versus Square Root of Time
###



One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-16-01 (0-4ft) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Remolded or Initial Sample Properties

Initial Mass (g):	114.39
Length (cm):	2.05
Diameter (cm):	6.32
Area (cm^2):	31.42
Volume (cm^3):	64.40
Assumed Particle Density(g/cm^3):	2.65
Dry Density (g/cm^3):	1.53
Dry Unit Weight (lbf/ft^3):	95.47
Equivalent Height of Solids (cm):	1.18
Water Content (%, g/g):	16.2
Water Content (%, vol):	24.7
Porosity (%, vol):	42.3
Void Ratio (e):	0.733
Saturation (%):	58.4
Date/Time Test Initiated:	2/24/26 16:06

Test and Sample Conditions

Visual Description of Sample:	NA
USCS Classification:	CL
Plastic Limit:	19
Liquid Limit:	37
Method of Testing:	☐ A ☑ B
Interpretation Procedure:	☐ 1 ☑ 2
Sample Preparation:	☐ In situ Extruded ☑ Remolded
Apparatus:	Automated Loading Device
Trimming Procedure:	NA
Water Content of Trimmings (%, g/g):	15.7
Split:	#4
Percent Coarse Material (%):	0.0
Condition of test:	☐ Natural Moisture ☑ Inundated
Pressure at Innundation (lb/ft^2):	50

Final (Post Test) Sample Properties

Final Mass (g):	125.64
Dry Mass (g):	98.48
Length (cm):	1.91
Length Differential (cm):	-0.24
Diameter (cm):	6.32
Area (cm^2):	31.42
Volume (cm^3):	59.85
Dry Density (g/cm^3):	1.65
Dry Unit Weight (lbf/ft^3):	102.73
Equivalent Height of Solids (cm):	1.18
Water Content (%, g/g):	27.6
Water Content (%, vol):	45.4
Porosity (%, vol):	37.9
Void Ratio (e):	0.610
Saturation (%):	119.7

Load (psf)	H (in)	Void Ratio (e)	Axial Strain (%)
50	0.8070	0.733	0.00
41	0.8064	0.732	0.07
200	0.7955	0.708	1.43
200	0.8092	0.738	-0.27
400	0.8055	0.730	0.19
800	0.7980	0.714	1.12
1,600	0.7868	0.689	2.50
3,200	0.7500	0.610	7.06

***Swell Pressure (psf):** **41**
***Estimated Preconsolidation Stress (psf):** **NA**

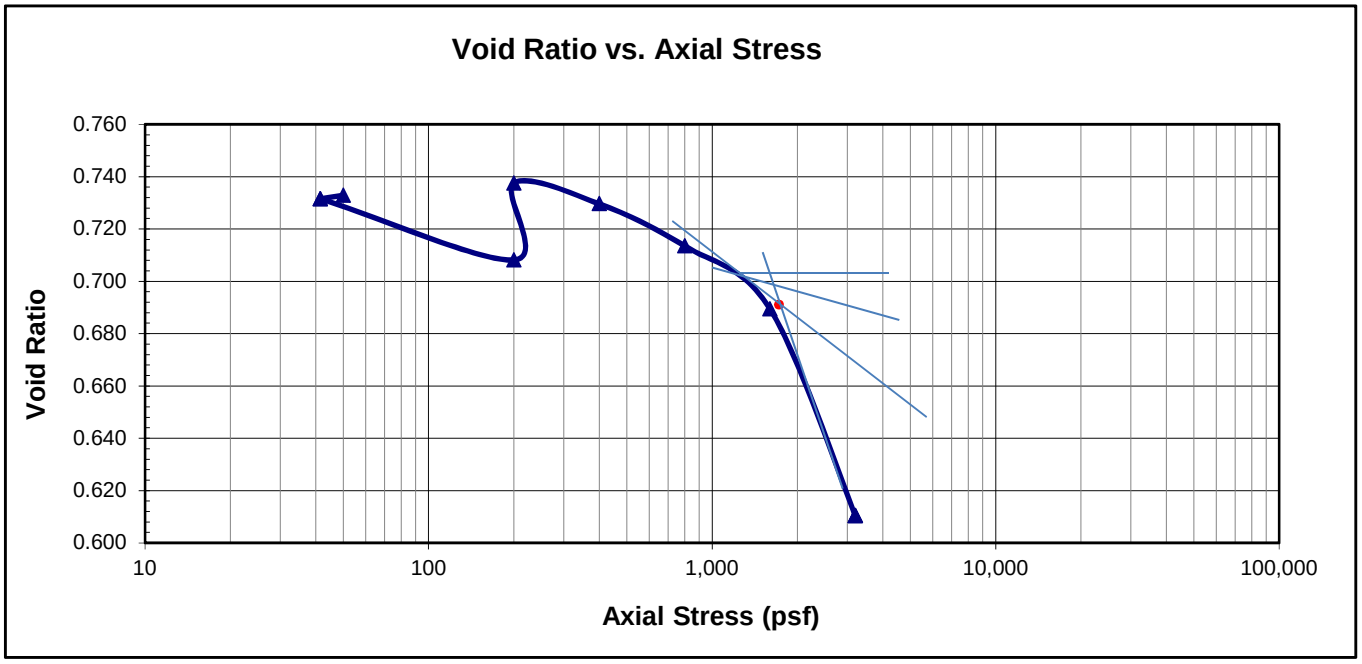
**See test notes provided on Notes page*

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

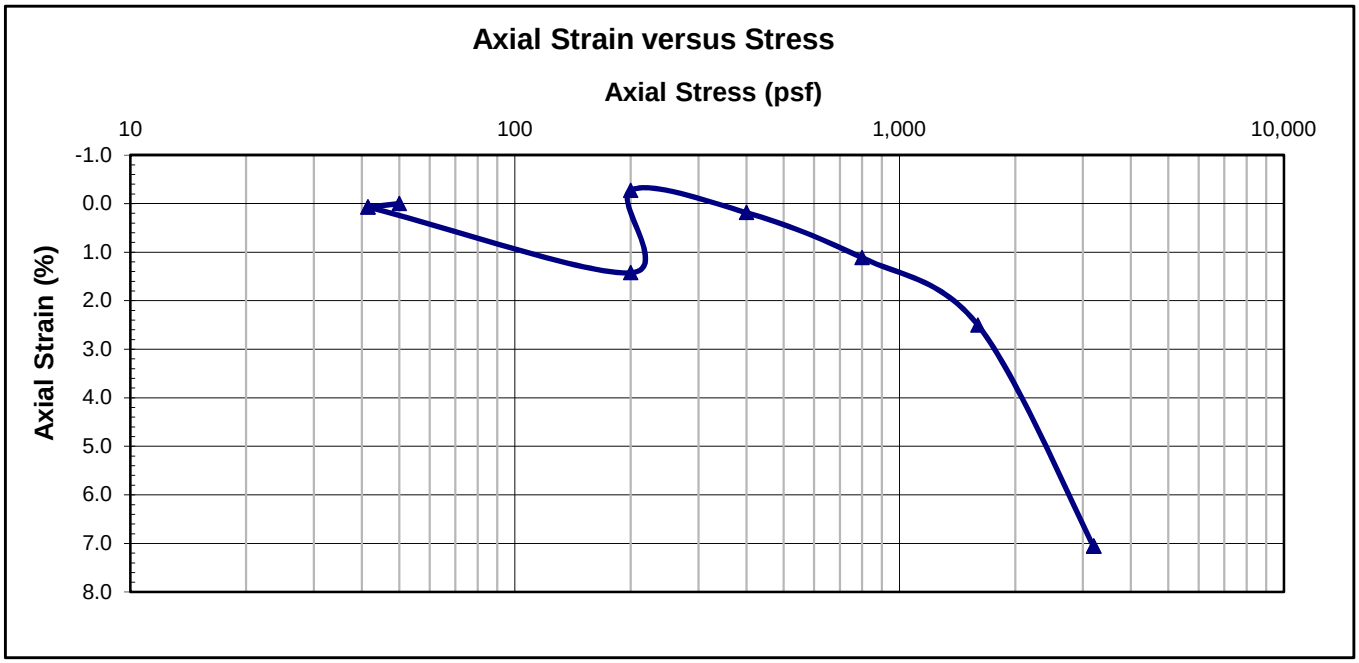
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-16-01 (0-4ft) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Void Ratio Versus Axial Stress



Axial Strain Versus Stress



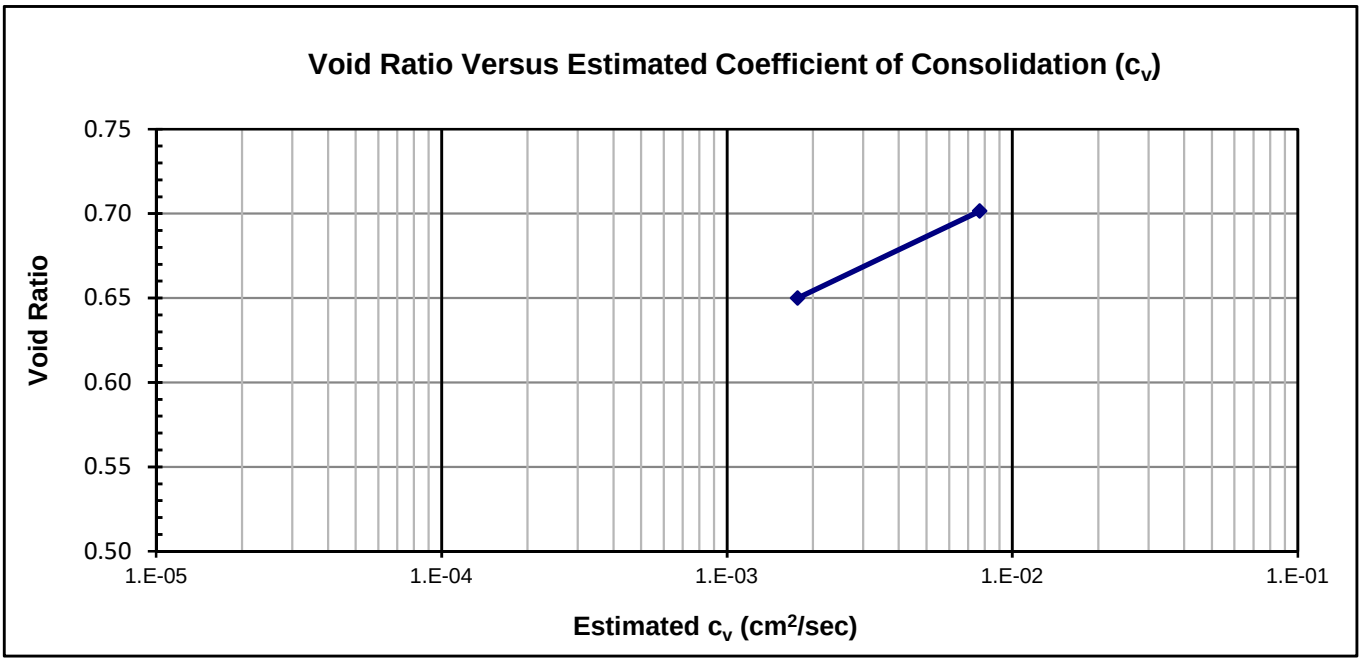
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-16-01 (0-4ft) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Estimated Coefficient of Consolidation (c_v)

Load (psf)	Estimated Coefficient of Consol. (c_v) (cm^2/sec)	Average Void Ratio (e)
200		0.720
200		0.723
400		0.734
800		0.722
1600	7.7E-03	0.702
3200	1.8E-03	0.650

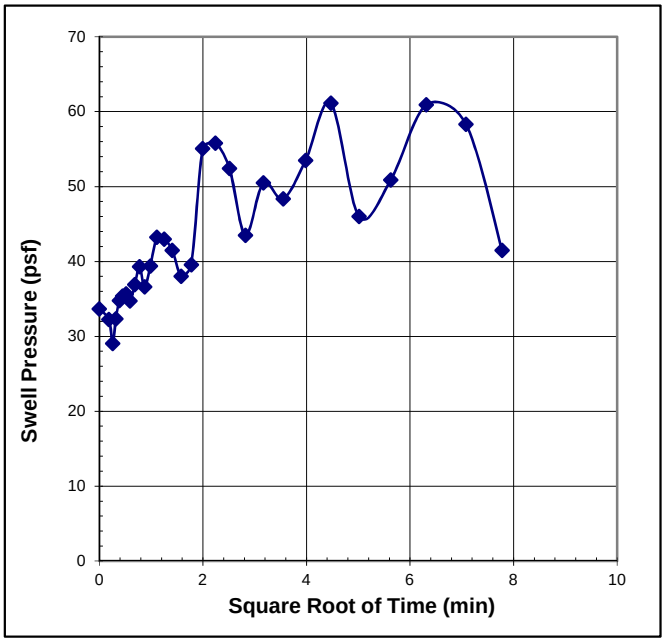
Void Ratio Versus Estimated Coefficient of Consolidation (c_v)



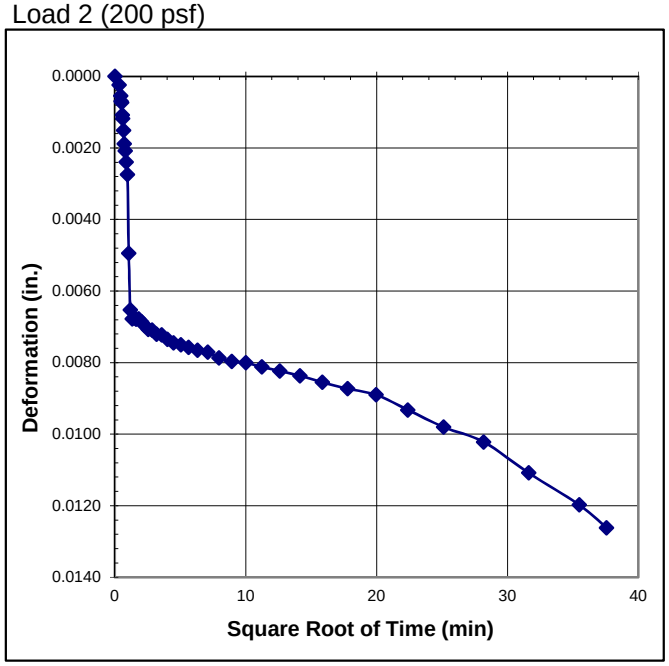
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-16-01 (0-4ft) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

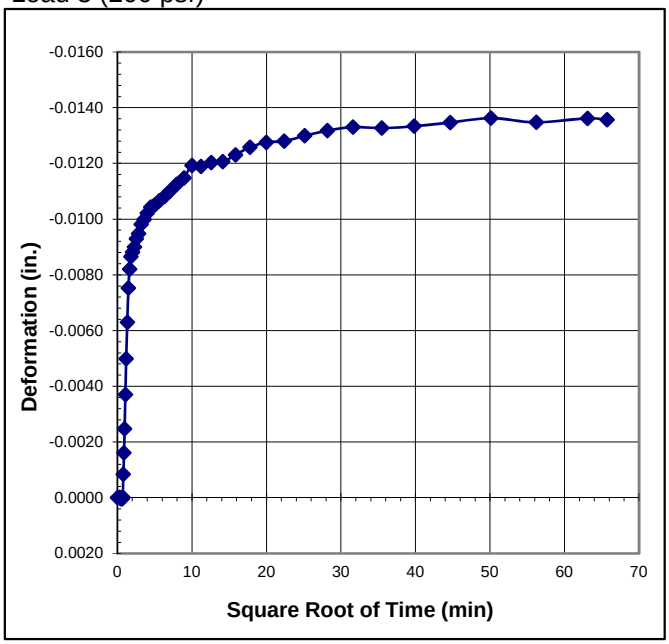
Swell Pressure Versus Square Root of Time
Load 1



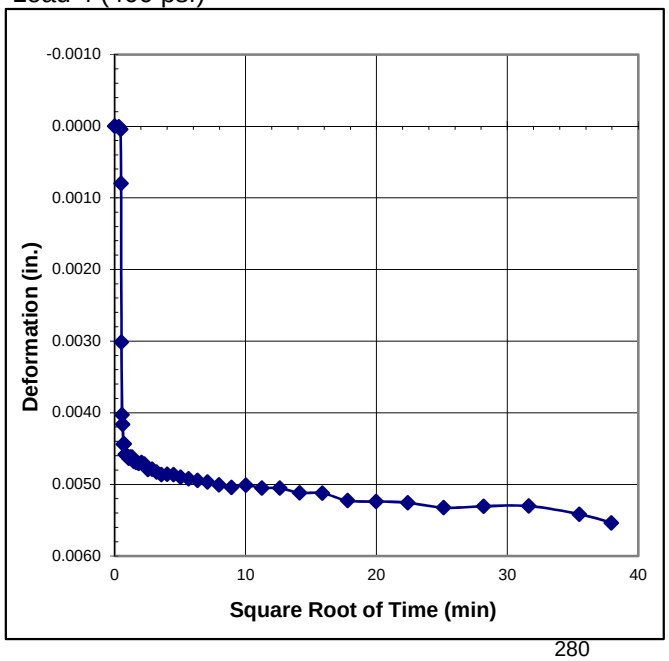
Deformation Versus Square Root of Time
Load 2 (200 psf)



Deformation Versus Square Root of Time
Load 3 (200 psf)



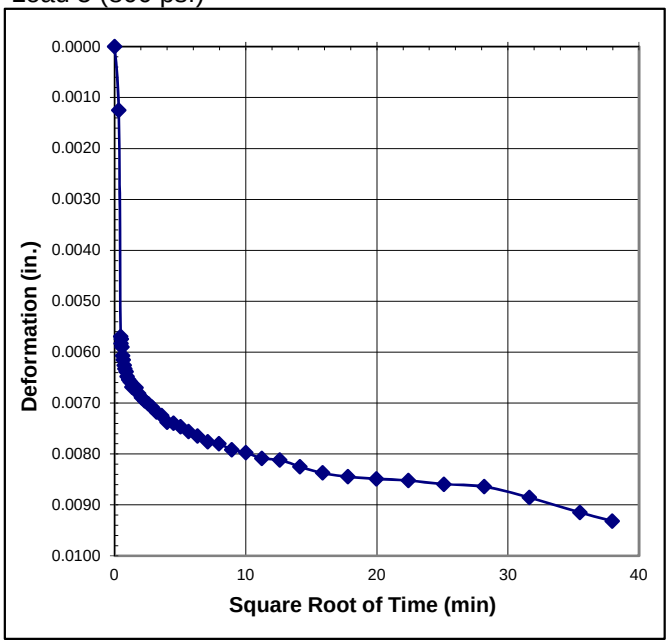
Deformation Versus Square Root of Time
Load 4 (400 psf)



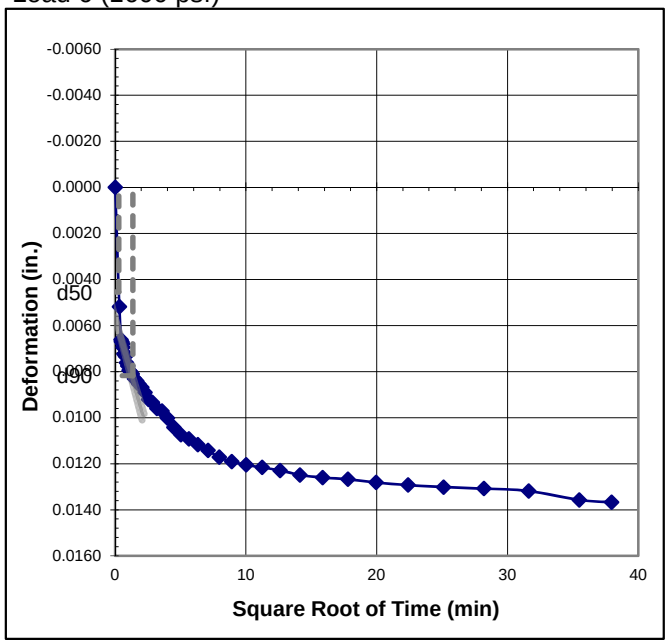
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-16-01 (0-4ft) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

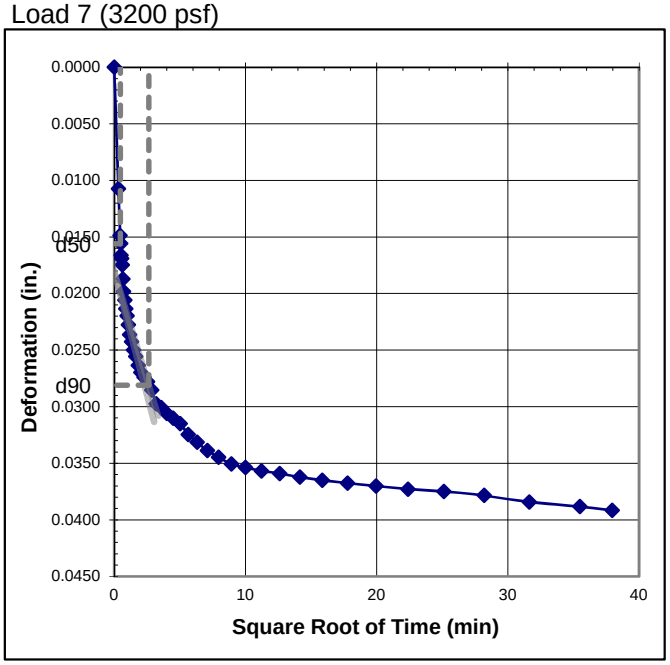
Deformation Versus Square Root of Time
Load 5 (800 psf)



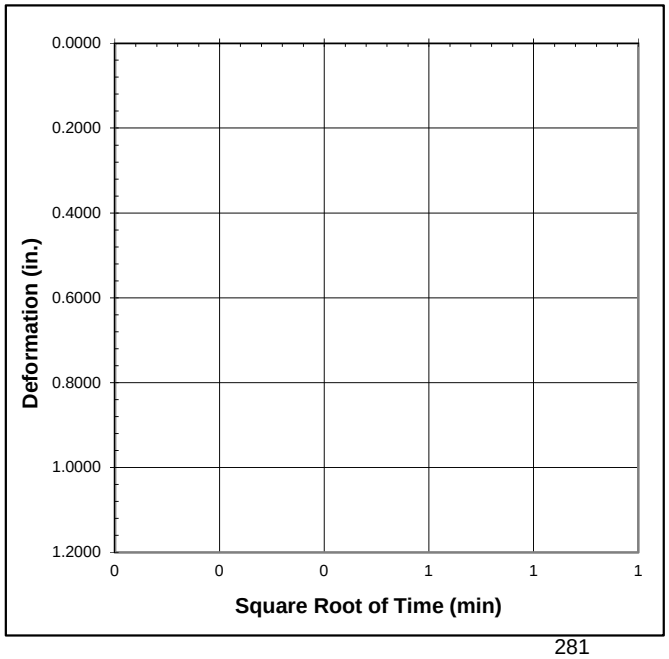
Deformation Versus Square Root of Time
Load 6 (1600 psf)



Deformation Versus Square Root of Time
Load 7 (3200 psf)



Deformation Versus Square Root of Time
###



One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-33-01 (0-10ft) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Remolded or Initial Sample Properties

Initial Mass (g):	119.60
Length (cm):	2.09
Diameter (cm):	6.34
Area (cm^2):	31.62
Volume (cm^3):	66.10
Assumed Particle Density(g/cm^3):	2.65
Dry Density (g/cm^3):	1.56
Dry Unit Weight (lbf/ft^3):	97.39
Equivalent Height of Solids (cm):	1.23
Water Content (%, g/g):	16.0
Water Content (%, vol):	24.9
Porosity (%, vol):	41.1
Void Ratio (e):	0.699
Saturation (%):	60.7
Date/Time Test Initiated:	3/11/26 10:06

Test and Sample Conditions

Visual Description of Sample:	NA
USCS Classification:	CL
Plastic Limit:	18
Liquid Limit:	43
Method of Testing:	☐ A ☑ B
Interpretation Procedure:	☐ 1 ☑ 2
Sample Preparation:	☐ In situ Extruded ☑ Remolded
Apparatus:	Automated Loading Device
Trimming Procedure:	NA
Water Content of Trimmings (%, g/g):	NA
Split:	#4
Percent Coarse Material (%):	0.0
Condition of test:	☐ Natural Moisture ☑ Inundated
Pressure at Innundation (lb/ft^2):	250

Final (Post Test) Sample Properties

Final Mass (g):	127.96
Dry Mass (g):	103.11
Length (cm):	1.87
Length Differential (cm):	-0.25
Diameter (cm):	6.34
Area (cm^2):	31.62
Volume (cm^3):	59.04
Dry Density (g/cm^3):	1.75
Dry Unit Weight (lbf/ft^3):	109.02
Equivalent Height of Solids (cm):	1.23
Water Content (%, g/g):	24.1
Water Content (%, vol):	42.1
Porosity (%, vol):	34.1
Void Ratio (e):	0.517
Saturation (%):	123.4

Load (psf)	H (in)	Void Ratio (e)	Axial Strain (%)
50	0.8230	0.699	0.00
53	0.8230	0.699	0.00
250	0.8154	0.683	0.92
250	0.8350	0.723	-1.46
500	0.8342	0.722	-1.36
1,000	0.8260	0.705	-0.36
2,000	0.7836	0.617	4.79
4,000	0.7352	0.517	10.67

***Swell Pressure (psf):** **53**
***Estimated Preconsolidation Stress (psf):** **NA**

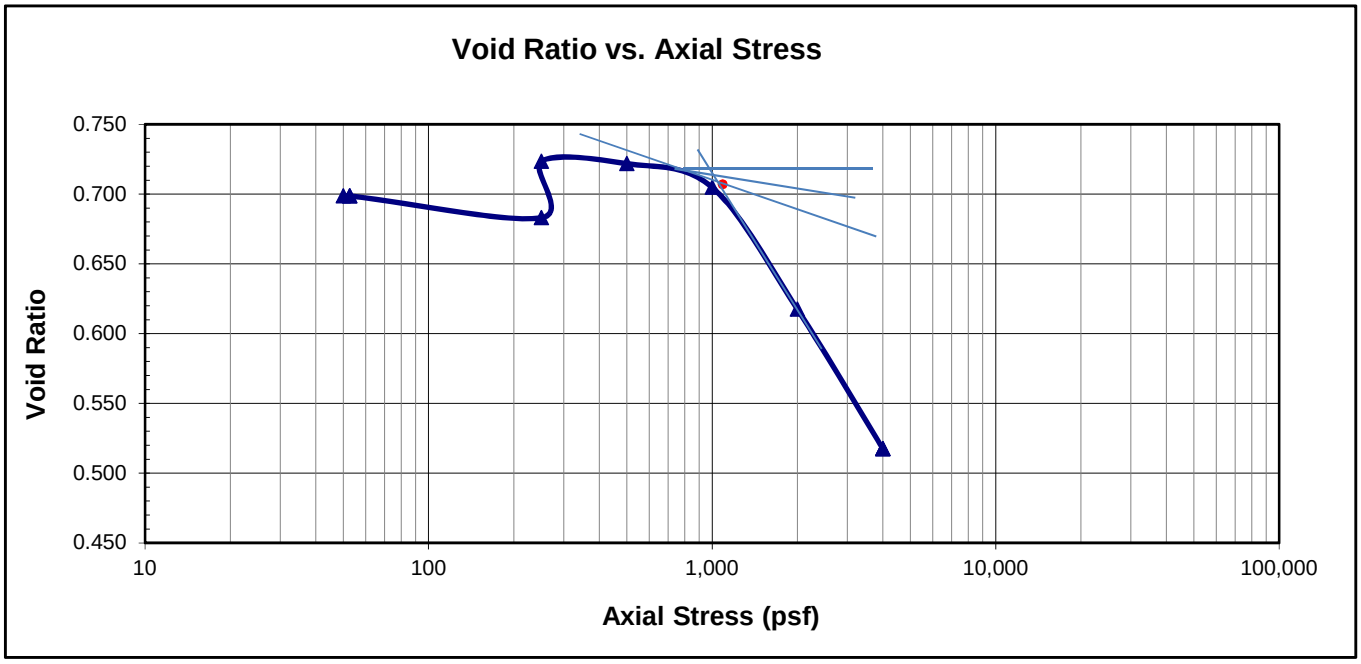
**See test notes provided on Notes page*

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

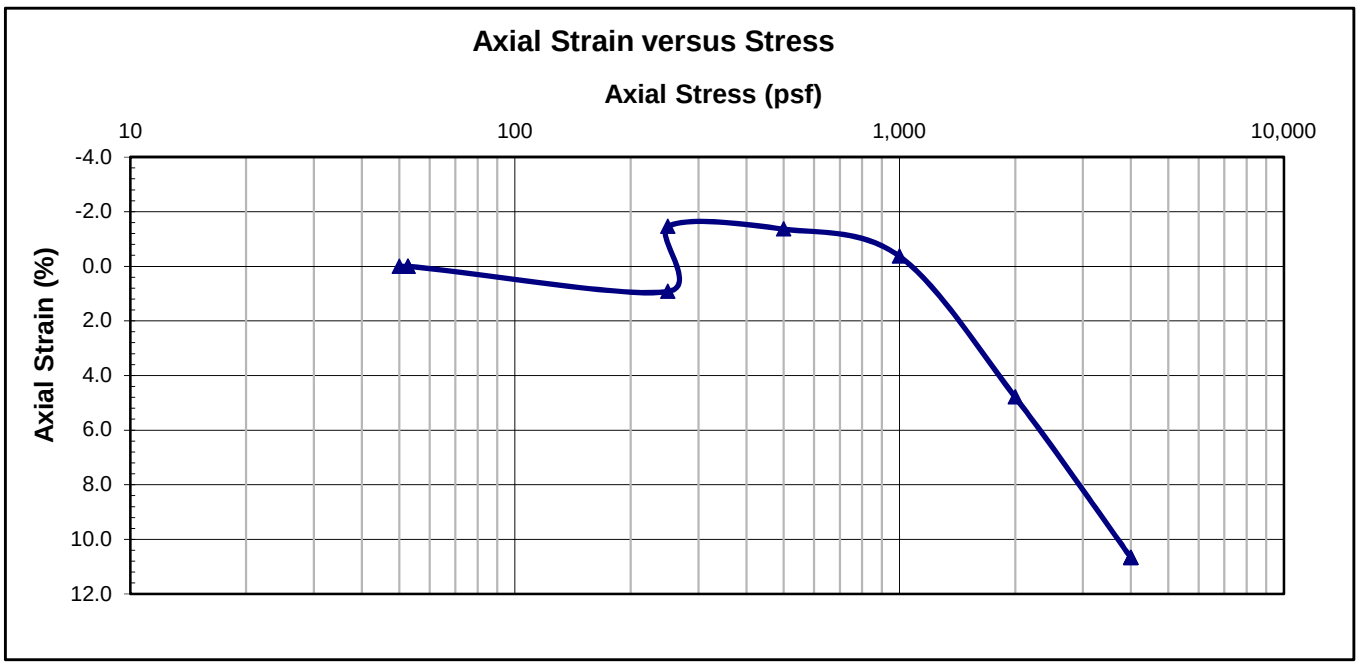
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-33-01 (0-10ft) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Void Ratio Versus Axial Stress



Axial Strain Versus Stress



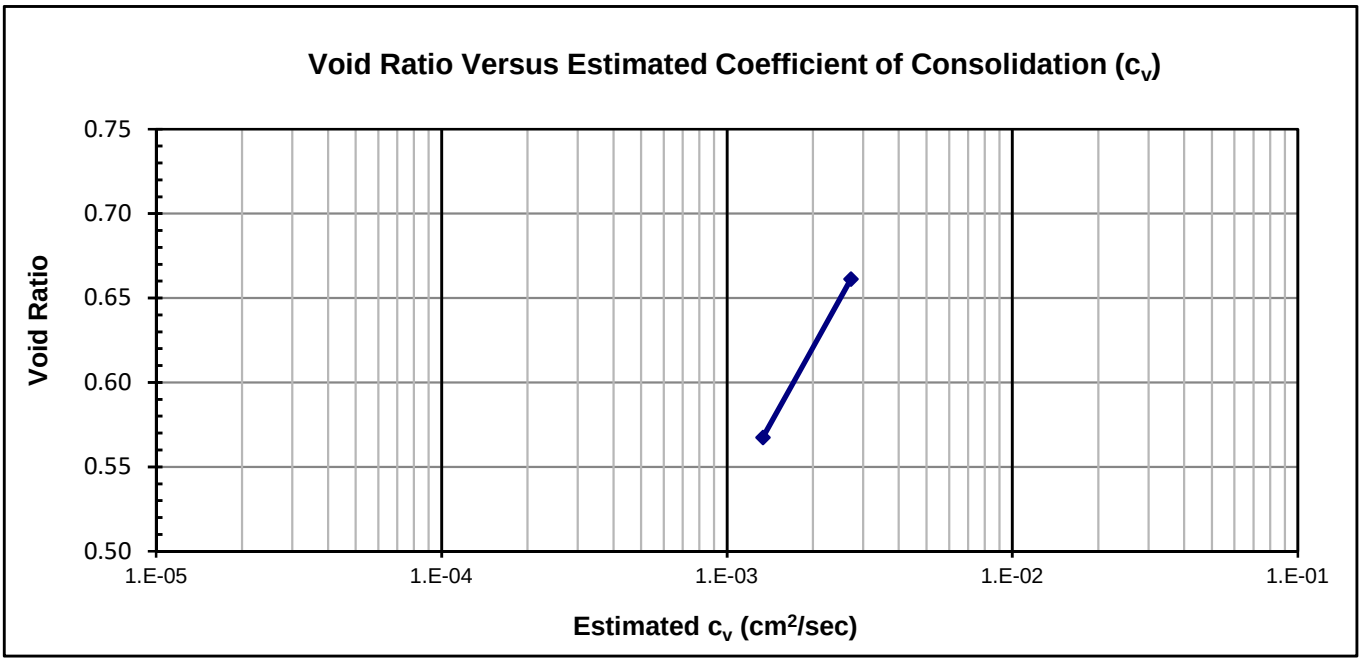
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-33-01 (0-10ft) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

Estimated Coefficient of Consolidation (c_v)

Load (psf)	Estimated Coefficient of Consol. (c_v) (cm^2/sec)	Average Void Ratio (e)
250		0.691
250		0.703
500		0.723
1000		0.713
2000	2.7E-03	0.661
4000	1.3E-03	0.567

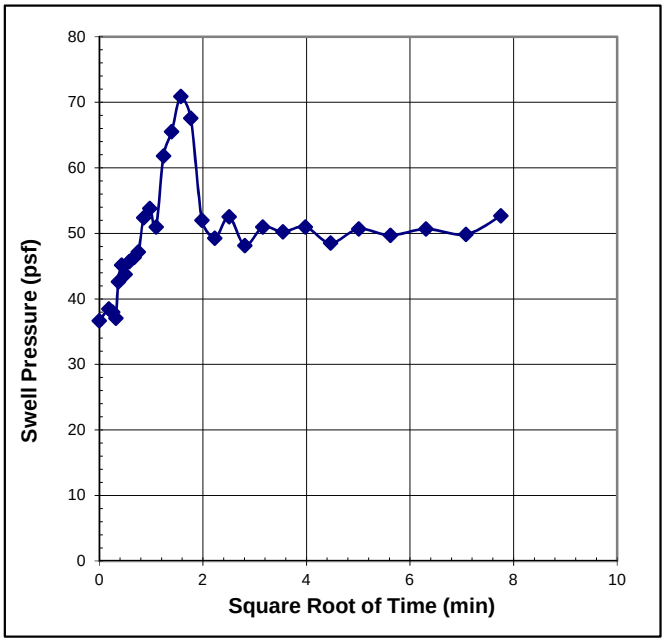
Void Ratio Versus Estimated Coefficient of Consolidation (c_v)



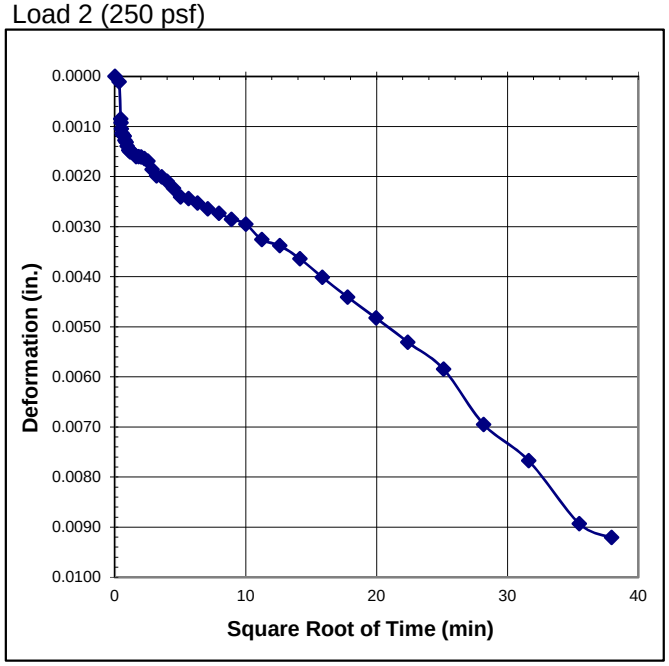
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-33-01 (0-10ft) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

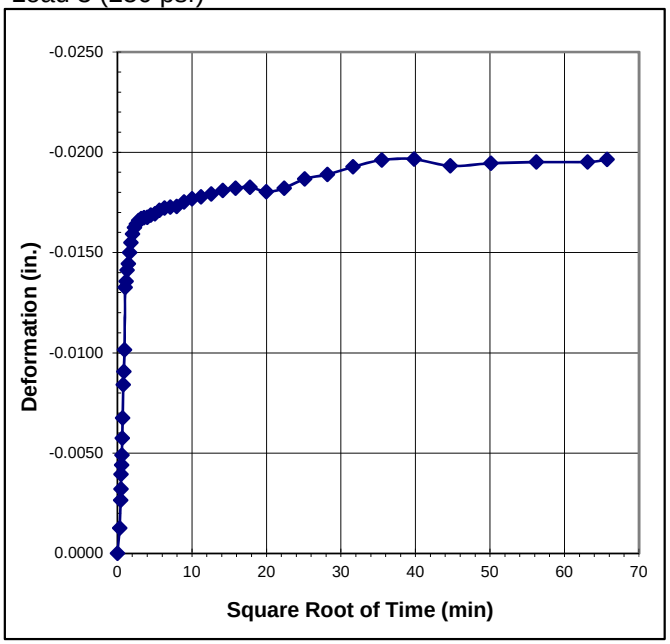
Swell Pressure Versus Square Root of Time
Load 1



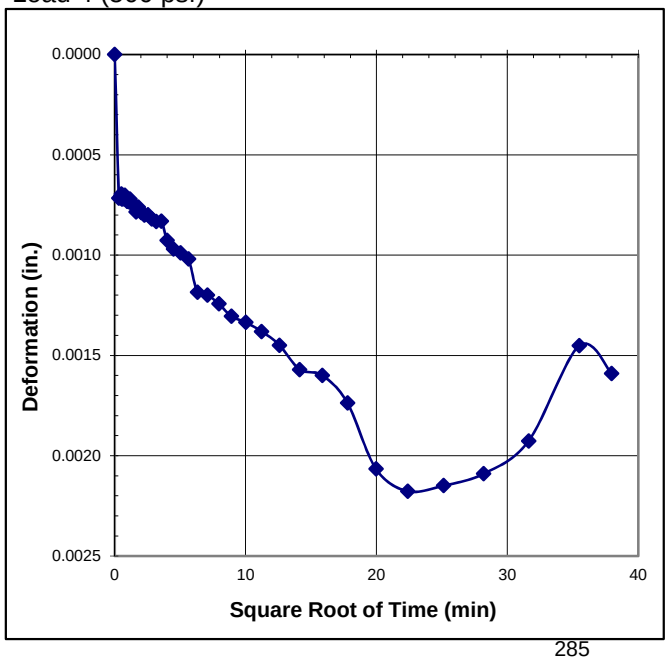
Deformation Versus Square Root of Time
Load 2 (250 psf)



Deformation Versus Square Root of Time
Load 3 (250 psf)



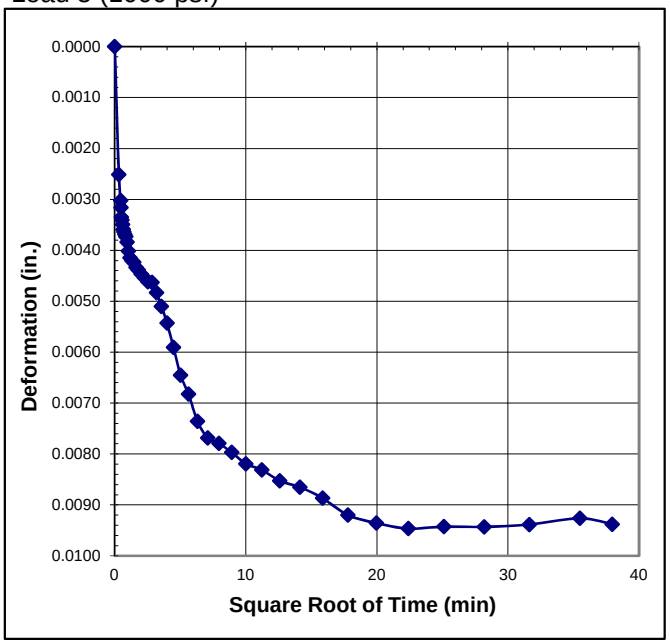
Deformation Versus Square Root of Time
Load 4 (500 psf)



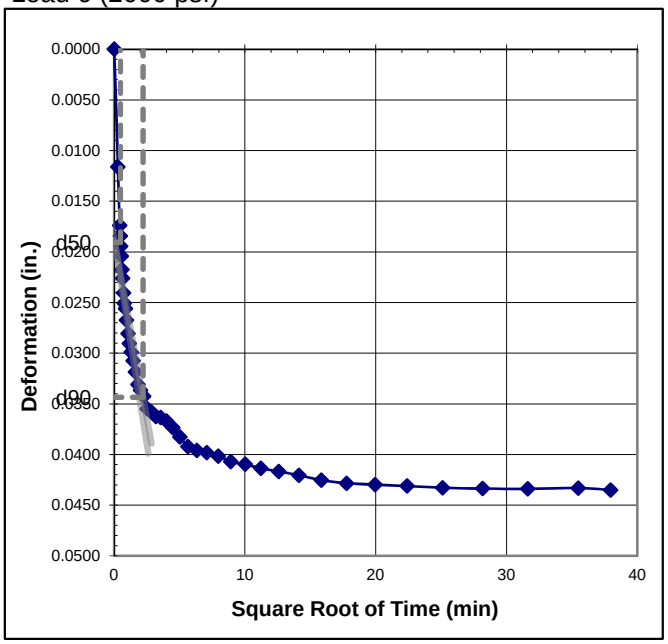
One-Dimensional Consolidation Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample Number: TP-33-01 (0-10ft) (Consolidation)
Project Name: Section 27
Date Received: 10/22/25

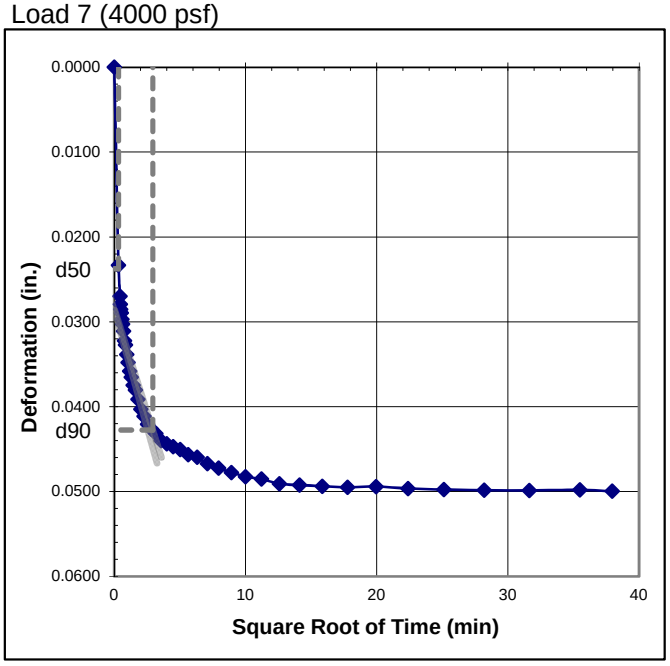
Deformation Versus Square Root of Time
Load 5 (1000 psf)



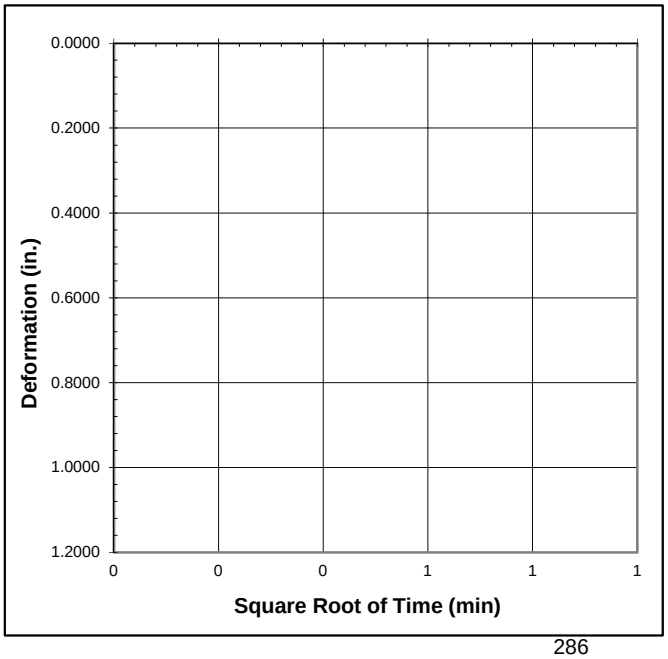
Deformation Versus Square Root of Time
Load 6 (2000 psf)



Deformation Versus Square Root of Time
Load 7 (4000 psf)



Deformation Versus Square Root of Time
###



Direct Shear Consolidated Drained

Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-01-01 (0-6)
Project: Section 27 Mine
Date Recieved: 10/22/25

Sample & Test Conditions

Shear Device:	GEOTAC DigiShear
Condition of test:	Inundated
Failure Determination:	10% Relative Lateral Displacement
Visual Description:	Sand w silt/clay
USCS Classification:	Lean clay with sand (CL)s
Plastic Limit:	18
Liquid Limit:	35
Soil Structure/Preparation:	Remolded

Initial Sample Properties

	Specimen 1	Specimen 2	Specimen 3
Initial Mass (g):	93	92.44	93.04
Length (cm):	2.54	2.54	2.54
Diameter (cm):	5.08	5.08	5.08
Dry Mass (g):	81.53	81.37	81.13
Area (cm^2):	20.24	20.24	20.24
Volume (cm^3):	51.40	51.40	51.40
Assumed Particle Density (g/cm^3):	2.65	2.65	2.65
Wet Bulk Density (g/cm^3):	1.81	1.80	1.81
Wet Bulk Density (pcf):	113.0	112.3	113.0
Dry Bulk Density (g/cm^3):	1.59	1.58	1.58
Dry Bulk Density (pcf):	99.0	98.8	98.5
Water Content (%, g/g):	14.1	13.6	14.7
Water Content (%, vol):	22.3	21.5	23.2
Porosity (%, vol):	40.1	40.3	40.4
Void Ratio (e):	0.671	0.674	0.679
Saturation (%):	55.6	53.5	57.3

Consolidation

	Specimen 1	Specimen 2	Specimen 3
Normal Stress (psf):	486	2,384	4,884
Duration (min):	200	80	80
Final Normal Displacement (in):	0.006	0.056	0.128

Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-01-01 (0-6)
Project: Section 27 Mine
Date Recieved: 10/22/25

Pre-Shear Sample Properties

	Specimen 1	Specimen 2	Specimen 3
Date/Time Test Initiated:	3/11/26 17:03	3/16/26 12:22	3/17/26 12:56
Sample Mass (g):	104.94	103.63	100.23
Length (cm):	2.53	2.40	2.21
Volume (cm^3):	51.11	48.63	44.81
Wet Bulk Density (g/cm^3):	2.05	2.13	2.24
Wet Bulk Density (pcf):	128.2	133.0	139.6
Dry Bulk Density (g/cm^3):	1.60	1.67	1.81
Dry Bulk Density (pcf):	99.6	104.5	113.0
Water Content (%, g/g):	28.7	27.4	23.5
Water Content (%, vol):	45.80	45.78	42.63
Porosity (%, vol):	39.8	36.9	31.7
Void Ratio (e):	0.661	0.584	0.464
Saturation (%):	115.1	124.2	134.6

Shear Data

	Specimen 1	Specimen 2	Specimen 3
Test Duration (min):	200	200	200
Failure Nominal Normal Stress (psf):	503	2,503	4,979
Failure Nominal Shear Stress (psf):	496	1,567	1,830
Failure Relative Lateral Displacement (%):	9.99	10.01	9.99
Final Relative Lateral Displacement (%):	10.01	10.01	10.02
Failure Normal Displacement (in):	0.012	0.035	0.026
Final Normal Displacement (in):	0.012	0.035	0.026
Average Displacement Rate (in/min):	0.001	0.001	0.001

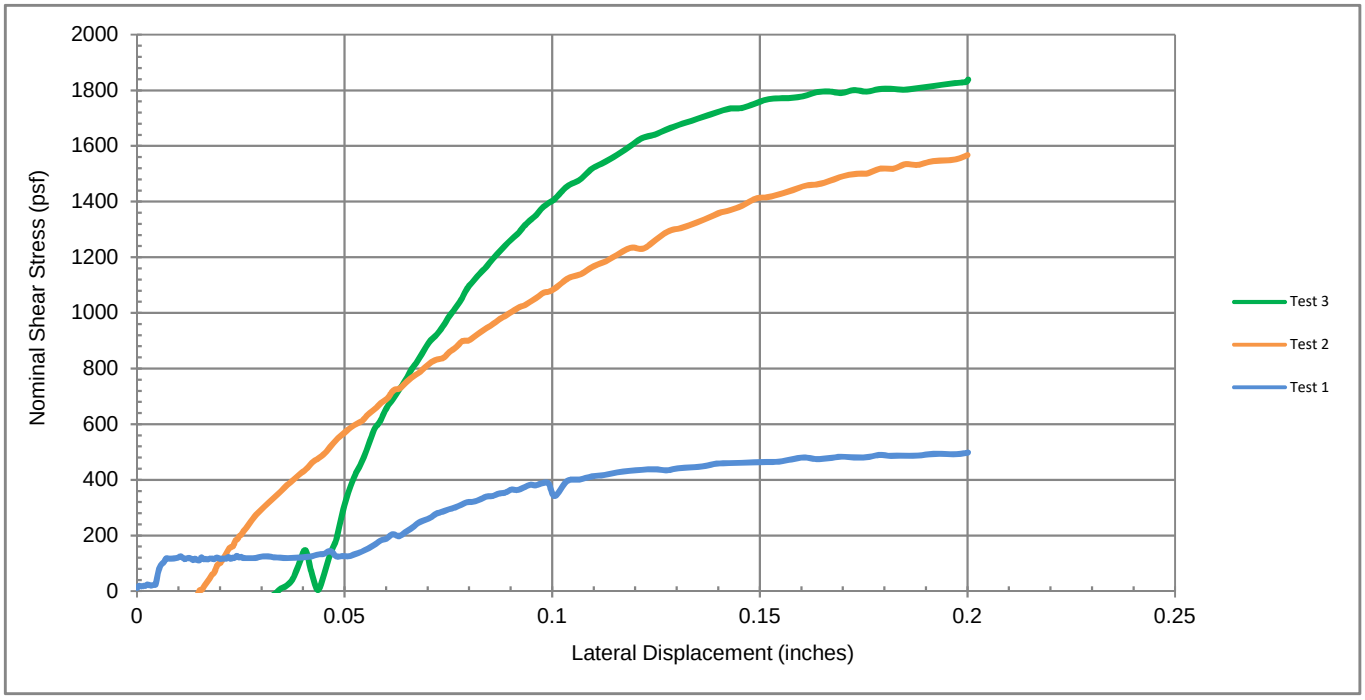
Notes: The pre-shear sample mass is assumed to be equal to the post-test sample mass (since the pre-shear mass is impossible to determine); and, the post-test mass was obtained prior to removal of the sample from the test apparatus and thus may include a small amount of water held within the apparatus potentially resulting in exagerated pre-shear saturation percentage. The target displacement rate was determined for test sample #1 and used for remaining test samples for consistency.

Laboratory analysis by: J. Tafoya
Data entered by: J. Tafoya
Checked by: T. Morgan

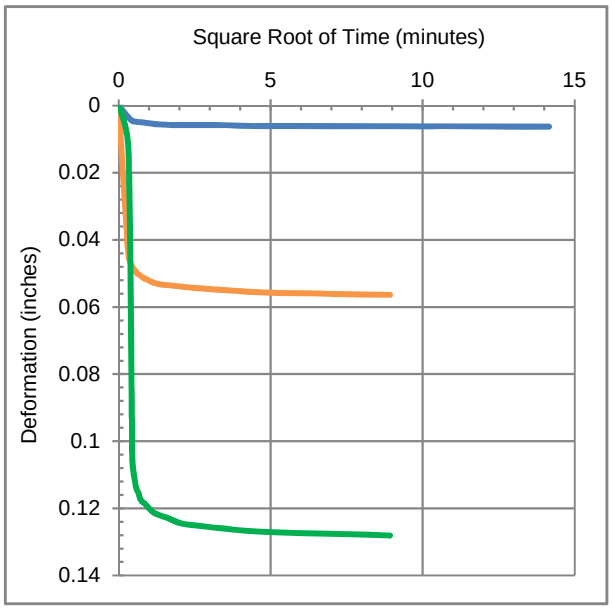
Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-01-01 (0-6)
Project: Section 27 Mine
Date Recieved: 10/22/25

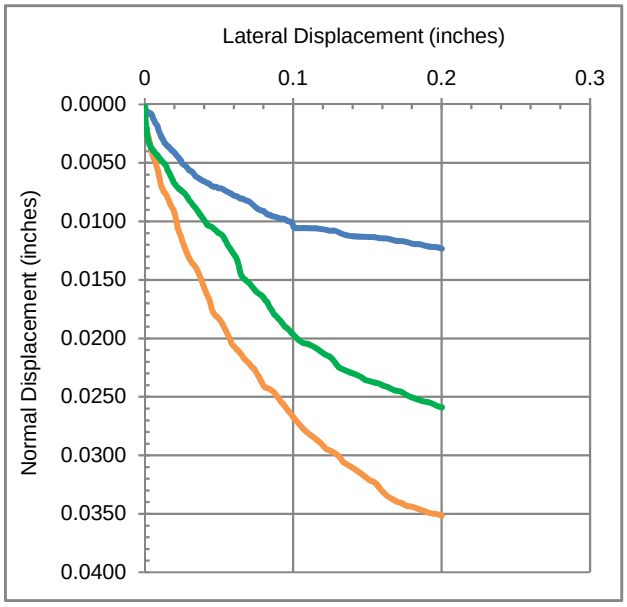
Nominal Shear Stress versus Lateral Displacement



Deformation versus Square Root of Time

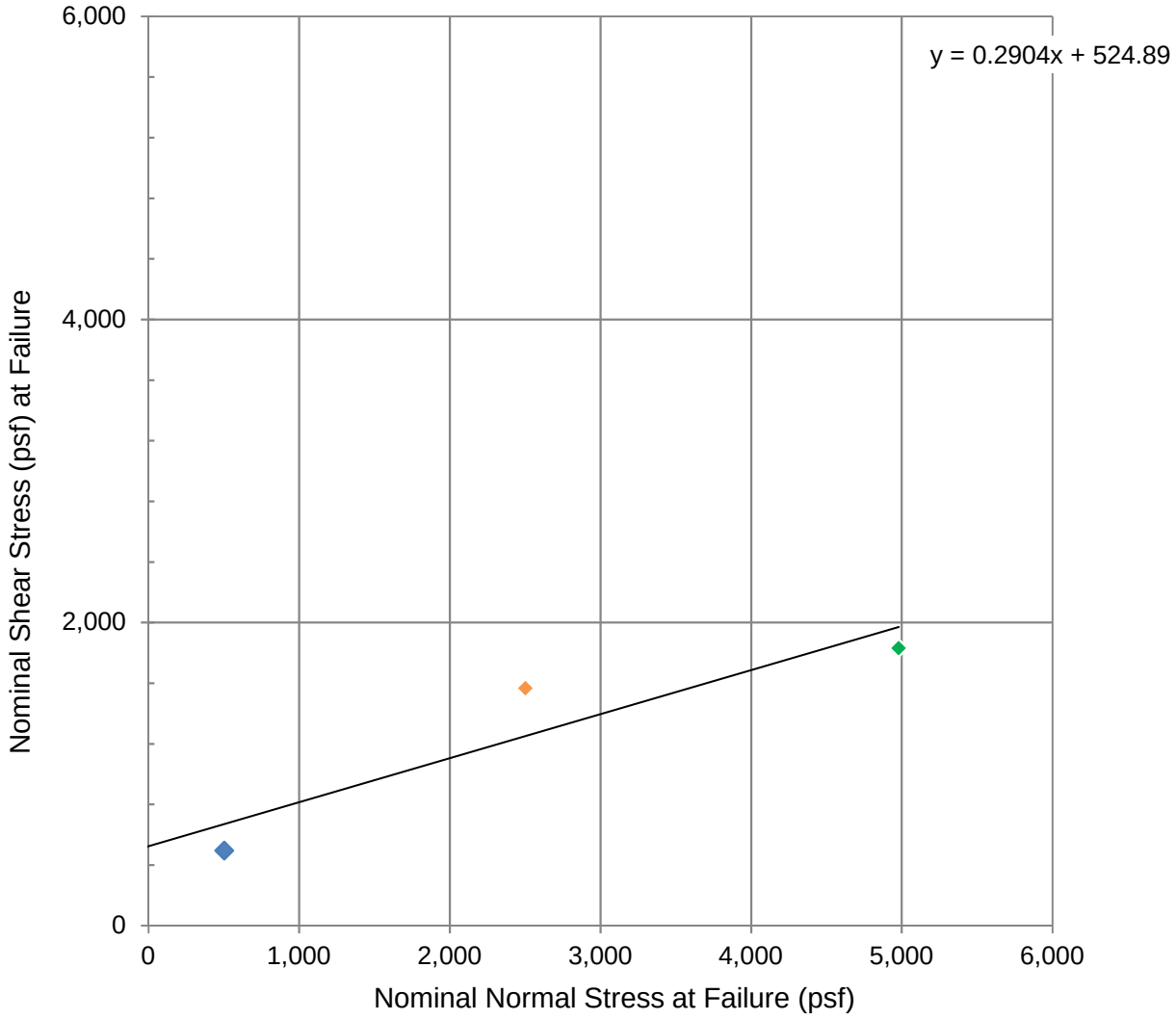


Normal Displacement versus Lateral Displacement



Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-01-01 (0-6)
Project: Section 27 Mine
Date Recieved: 10/22/25



Estimated Failure Parameters[1]:
estimated cohesion (c)(psf) = 525
estimated friction angle (ϕ)(°) = 16

Failure Criterion: 10% Relative Lateral Displacement

[1]The cohesion and friction angle provided represent one possible interpretation of a failure envelope. Qualified persons familiar with the material and the site should evaluate the test results independently prior to use in the intended application.

Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-05-01 (0-6.5ft)
Project: Section 27 Mine
Date Recieved: 10/22/25

Sample & Test Conditions

Shear Device:	GEOTAC DigiShear
Condition of test:	Inundated
Failure Determination:	10% Relative Lateral Displacement
Visual Description:	Sand w silt/clay
USCS Classification:	Sandy lean clay s(CL)
Plastic Limit:	18
Liquid Limit:	27
Soil Structure/Preparation:	Remolded

Initial Sample Properties

	Specimen 1	Specimen 2	Specimen 3
Initial Mass (g):	92.85	92.73	92.8
Length (cm):	2.54	2.54	2.54
Diameter (cm):	5.08	5.08	5.08
Dry Mass (g):	82.09	82.75	82.58
Area (cm^2):	20.24	20.24	20.24
Volume (cm^3):	51.42	51.42	51.42
Assumed Particle Density (g/cm^3):	2.65	2.65	2.65
Wet Bulk Density (g/cm^3):	1.81	1.80	1.80
Wet Bulk Density (pcf):	112.7	112.6	112.7
Dry Bulk Density (g/cm^3):	1.60	1.61	1.61
Dry Bulk Density (pcf):	99.7	100.5	100.3
Water Content (%, g/g):	13.1	12.1	12.4
Water Content (%, vol):	20.9	19.4	19.9
Porosity (%, vol):	39.8	39.3	39.4
Void Ratio (e):	0.660	0.647	0.650
Saturation (%):	52.6	49.4	50.4

Consolidation

	Specimen 1	Specimen 2	Specimen 3
Normal Stress (psf):	486	962	1,962
Duration (min):	63	80	120
Final Normal Displacement (in):	0.007	0.020	0.040

Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-05-01 (0-6.5ft)
Project: Section 27 Mine
Date Recieved: 10/22/25

Pre-Shear Sample Properties

	Specimen 1	Specimen 2	Specimen 3
Date/Time Test Initiated:	3/19/26 13:04	3/20/26 14:11	3/23/26 12:51
Sample Mass (g):	102.82	103.4	101.3
Length (cm):	2.52	2.49	2.43
Volume (cm^3):	51.04	50.35	49.26
Wet Bulk Density (g/cm^3):	2.01	2.05	2.06
Wet Bulk Density (pcf):	125.8	128.2	128.4
Dry Bulk Density (g/cm^3):	1.61	1.64	1.68
Dry Bulk Density (pcf):	100.4	102.6	104.7
Water Content (%, g/g):	25.3	25.0	22.7
Water Content (%, vol):	40.61	41.01	38.00
Porosity (%, vol):	39.3	38.0	36.7
Void Ratio (e):	0.648	0.612	0.581
Saturation (%):	103.3	108.0	103.4

Shear Data

	Specimen 1	Specimen 2	Specimen 3
Test Duration (min):	200	200	200
Failure Nominal Normal Stress (psf):	501	999	1,999
Failure Nominal Shear Stress (psf):	154	690	988
Failure Relative Lateral Displacement (%):	9.99	9.99	10.01
Final Relative Lateral Displacement (%):	10.02	10.01	10.01
Failure Normal Displacement (in):	0.000	0.012	0.024
Final Normal Displacement (in):	0.000	0.012	0.024
Average Displacement Rate (in/min):	0.001	0.001	0.001

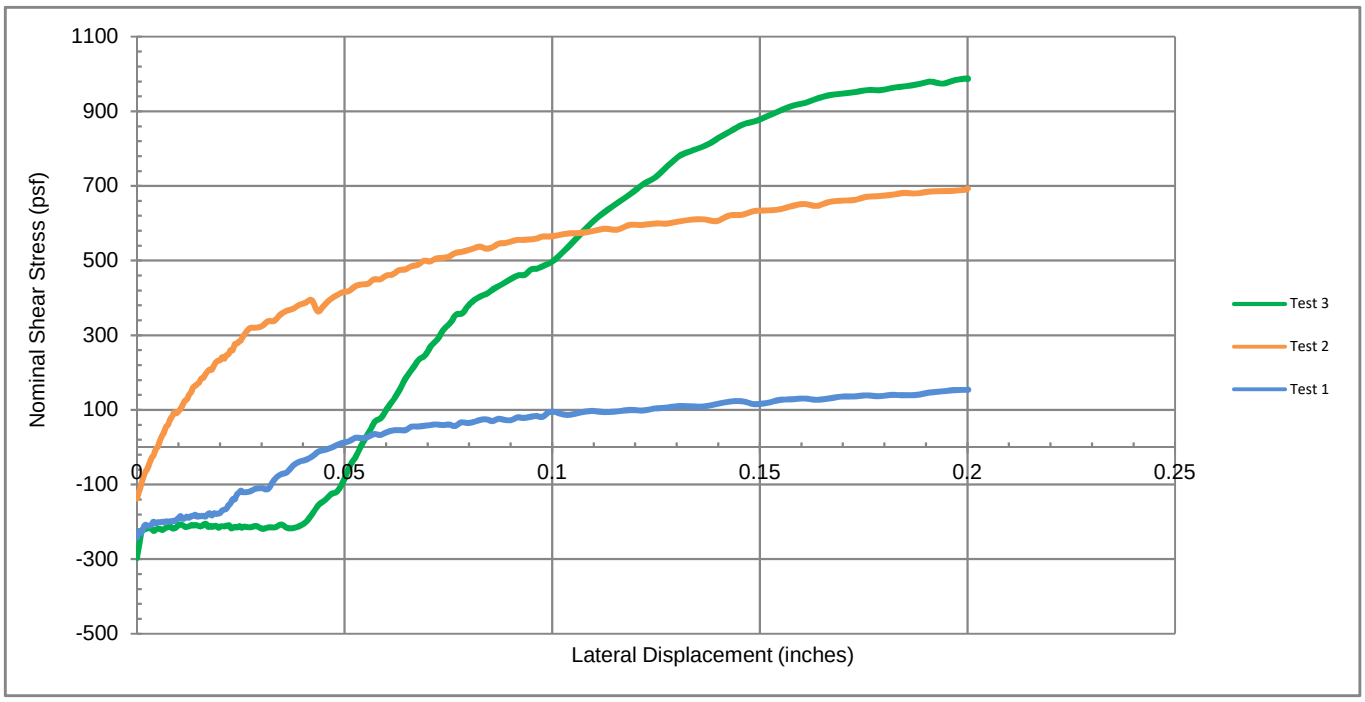
Notes: The pre-shear sample mass is assumed to be equal to the post-test sample mass (since the pre-shear mass is impossible to determine); and, the post-test mass was obtained prior to removal of the sample from the test apparatus and thus may include a small amount of water held within the apparatus potentially resulting in exagerated pre-shear saturation percentage. The target displacement rate was determined for test sample #1 and used for remaining test samples for consistency.

Laboratory analysis by: J. Tafoya
Data entered by: J. Tafoya
Checked by: T. Morgan

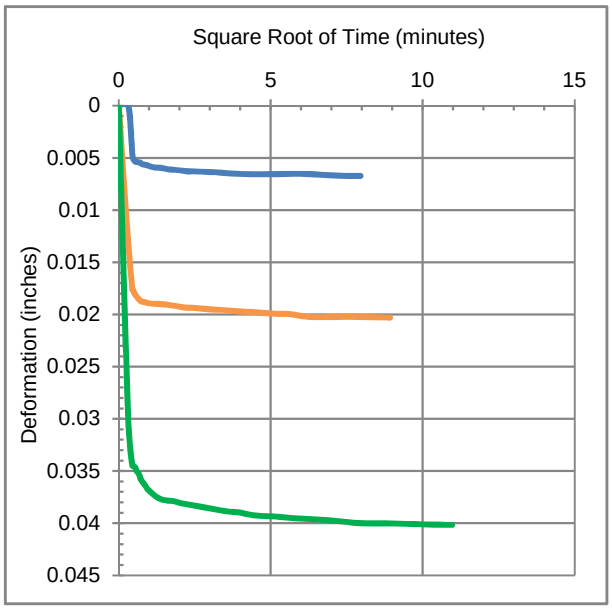
Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-05-01 (0-6.5ft)
Project: Section 27 Mine
Date Recieved: 10/22/25

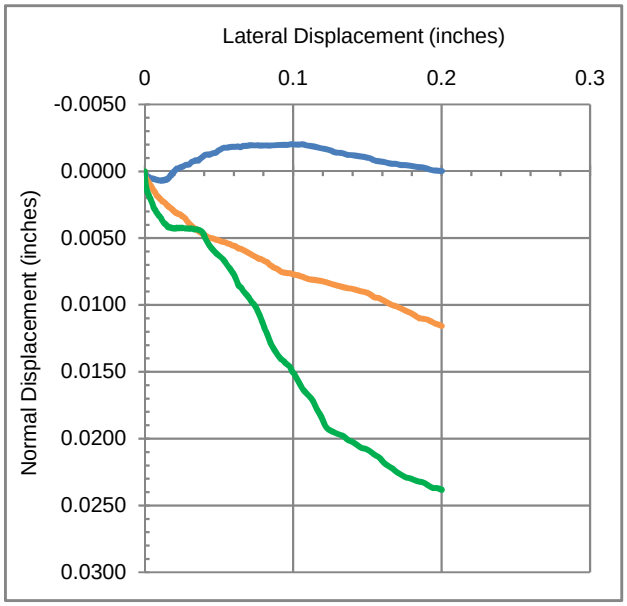
Nominal Shear Stress versus Lateral Displacement



Deformation versus Square Root of Time

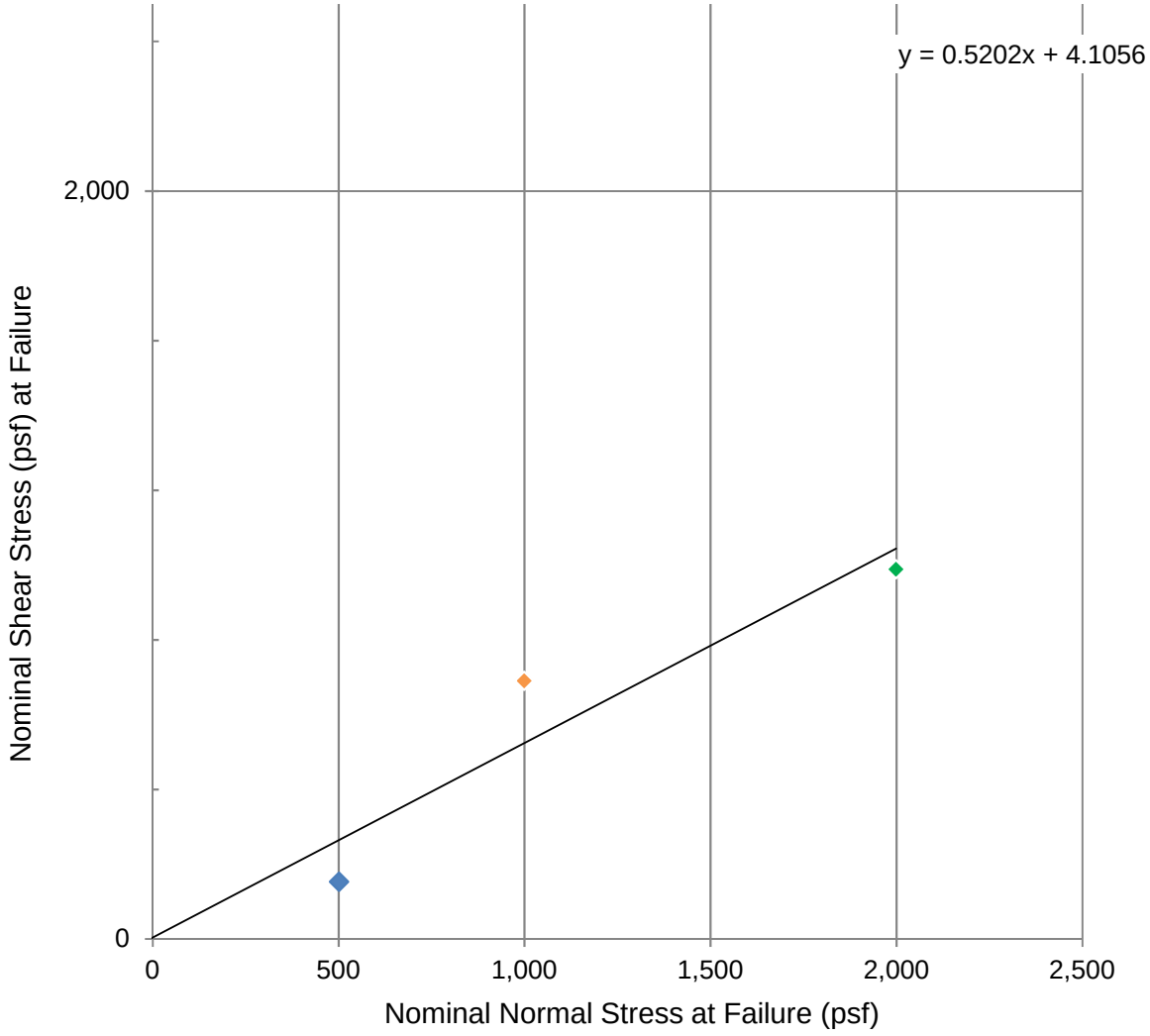


Normal Displacement versus Lateral Displacement



Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-05-01 (0-6.5ft)
Project: Section 27 Mine
Date Recieved: 10/22/25



Estimated Failure Parameters[1]:
estimated cohesion (c)(psf) = 4
estimated friction angle (ϕ)(°) = 27

Failure Criterion: 10% Relative Lateral Displacement

[1]The cohesion and friction angle provided represent one possible interpretation of a failure envelope. Qualified persons familiar with the material and the site should evaluate the test results independently prior to use in the intended application.

Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: tp-15-01 (0-4ft)
Project: Section 27 Mine
Date Recieved: 10/24/25

Sample & Test Conditions

Shear Device: GEOTAC DigiShear
Condition of test: Inundated
Failure Determination: 10% Relative Lateral Displacement
Visual Description: Sand w silt/clay
USCS Classification: NP
Plastic Limit: NP
Liquid Limit: NP
Soil Structure/Preparation: Remolded

Initial Sample Properties

	Specimen 1	Specimen 2	Specimen 3
Initial Mass (g):	94.1	99.6	94.38
Length (cm):	2.54	2.54	2.54
Diameter (cm):	5.07	5.07	5.07
Dry Mass (g):	83.67	83.55	83.68
Area (cm^2):	20.22	20.22	20.22
Volume (cm^3):	51.36	51.36	51.36
Assumed Particle Density (g/cm^3):	2.65	2.65	2.65
Wet Bulk Density (g/cm^3):	1.83	1.94	1.84
Wet Bulk Density (pcf):	114.4	121.1	114.7
Dry Bulk Density (g/cm^3):	1.63	1.63	1.63
Dry Bulk Density (pcf):	101.7	101.6	101.7
Water Content (%, g/g):	12.5	19.2	12.8
Water Content (%, vol):	20.3	31.3	20.8
Porosity (%, vol):	38.5	38.6	38.5
Void Ratio (e):	0.627	0.629	0.626
Saturation (%):	52.7	80.9	54.1

Consolidation

	Specimen 1	Specimen 2	Specimen 3
Normal Stress (psf):	495	629	1,184
Duration (min):	251	100	80
Final Normal Displacement (in):	0.037	0.026	0.034

Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: tp-15-01 (0-4ft)
Project: Section 27 Mine
Date Recieved: 10/24/25

Pre-Shear Sample Properties

	Specimen 1	Specimen 2	Specimen 3
Date/Time Test Initiated:	3/25/26 9:46	3/26/26 10:32	3/27/26 10:16
Sample Mass (g):	104.1	103.21	103.64
Length (cm):	2.45	2.47	2.45
Volume (cm^3):	49.45	50.03	49.60
Wet Bulk Density (g/cm^3):	2.10	2.06	2.09
Wet Bulk Density (pcf):	131.4	128.8	130.5
Dry Bulk Density (g/cm^3):	1.69	1.67	1.69
Dry Bulk Density (pcf):	105.6	104.3	105.3
Water Content (%, g/g):	24.4	23.5	23.9
Water Content (%, vol):	41.31	39.30	40.24
Porosity (%, vol):	36.2	37.0	36.3
Void Ratio (e):	0.566	0.587	0.571
Saturation (%):	114.3	106.3	110.8

Shear Data

	Specimen 1	Specimen 2	Specimen 3
Test Duration (min):	200	200	200
Failure Nominal Normal Stress (psf):	481	628	1,252
Failure Nominal Shear Stress (psf):	361	2,060	3,560
Failure Relative Lateral Displacement (%):	10.00	10.00	10.00
Final Relative Lateral Displacement (%):	10.02	10.01	10.02
Failure Normal Displacement (in):	-0.006	-0.005	-0.001
Final Normal Displacement (in):	-0.006	-0.005	0.000
Average Displacement Rate (in/min):	0.001	0.001	0.001

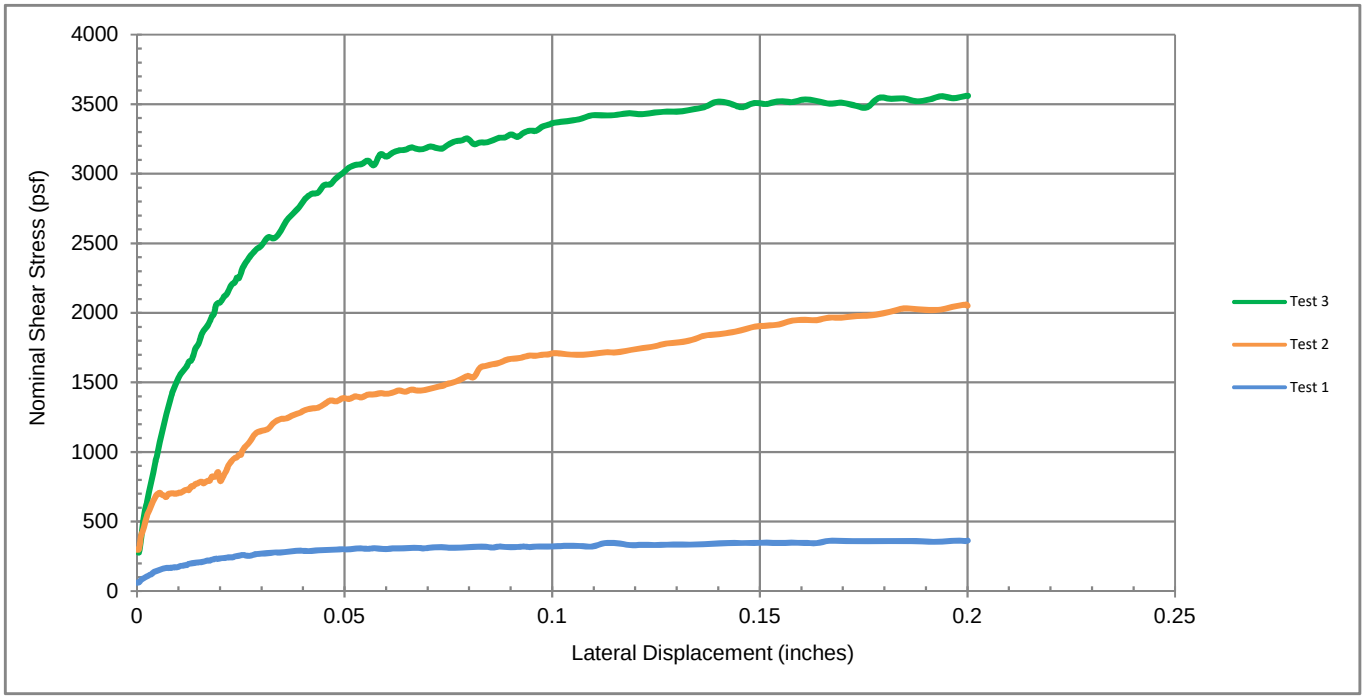
Notes: The pre-shear sample mass is assumed to be equal to the post-test sample mass (since the pre-shear mass is impossible to determine); and, the post-test mass was obtained prior to removal of the sample from the test apparatus and thus may include a small amount of water held within the apparatus potentially resulting in exagerated pre-shear saturation percentage. The target displacement rate was determined for test sample #1 and used for remaining test samples for consistency.

Laboratory analysis by: J. Tafoya
Data entered by: J. Tafoya
Checked by: T. Morgan

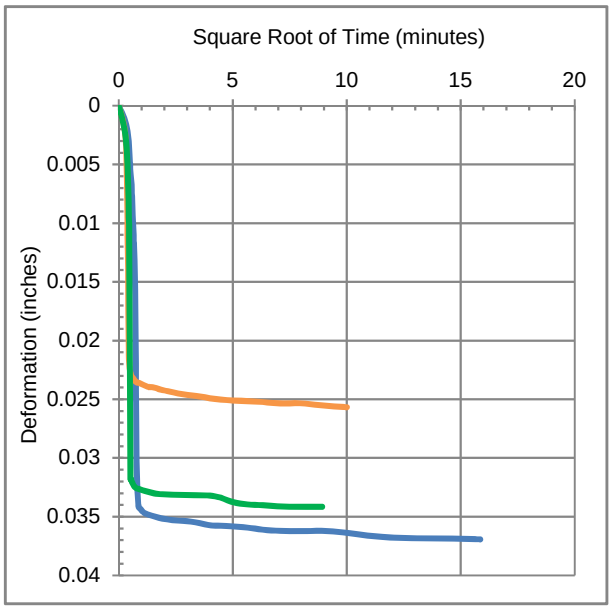
Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: tp-15-01 (0-4ft)
Project: Section 27 Mine
Date Recieved: 10/24/25

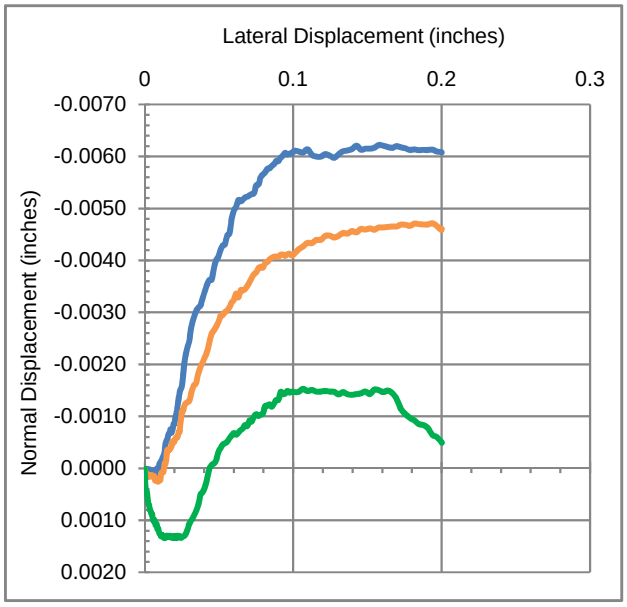
Nominal Shear Stress versus Lateral Displacement



Deformation versus Square Root of Time

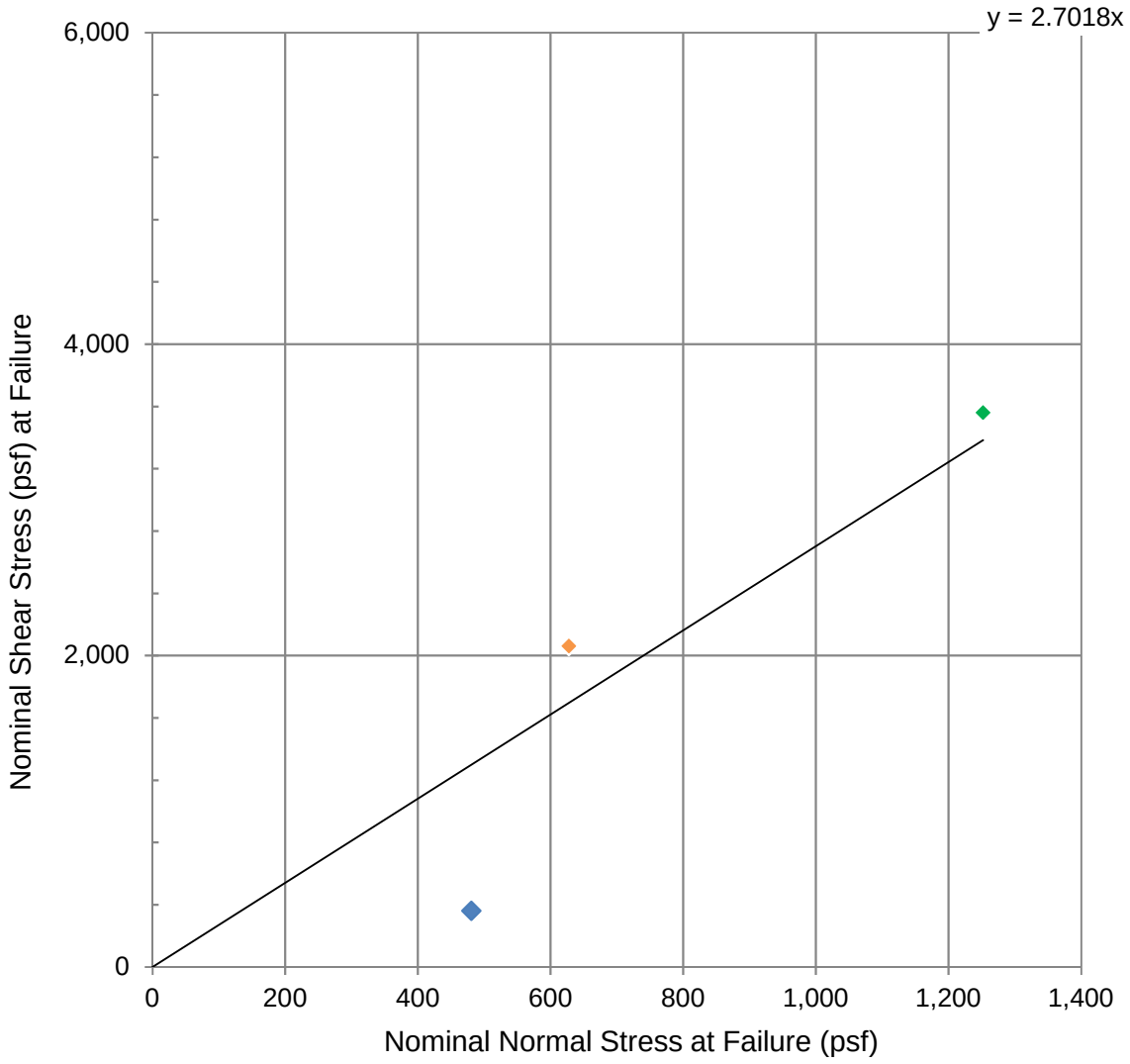


Normal Displacement versus Lateral Displacement



Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: tp-15-01 (0-4ft)
Project: Section 27 Mine
Date Recieved: 10/24/25



Estimated Failure Parameters[1]:
estimated cohesion (c)(psf) = 0
estimated friction angle (ϕ)(°) = 70

Failure Criterion: 10% Relative Lateral Displacement

[1]The cohesion and friction angle provided represent one possible interpretation of a failure envelope. Qualified persons familiar with the material and the site should evaluate the test results independently prior to use in the intended application.
Intercept set to 0.

Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-15-02
Project: Section 27 Mine
Date Recieved: 10/24/25

Sample & Test Conditions

Shear Device: GEOTAC DigiShear
Condition of test: Inundated
Failure Determination: 10% Relative Lateral Displacement
Visual Description: Sand w silt/clay
USCS Classification: Sandy silt s(ML)
Plastic Limit: 21
Liquid Limit: 23
Soil Structure/Preparation: Remolded

Initial Sample Properties

	Specimen 1	Specimen 2	Specimen 3
Initial Mass (g):	94.41	93.9	94.12
Length (cm):	2.54	2.54	2.54
Diameter (cm):	5.07	5.07	5.07
Dry Mass (g):	83.18	82.68	82.83
Area (cm^2):	20.20	20.20	20.20
Volume (cm^3):	51.27	51.27	51.27
Assumed Particle Density (g/cm^3):	2.65	2.65	2.65
Wet Bulk Density (g/cm^3):	1.84	1.83	1.84
Wet Bulk Density (pcf):	115.0	114.3	114.6
Dry Bulk Density (g/cm^3):	1.62	1.61	1.62
Dry Bulk Density (pcf):	101.3	100.7	100.9
Water Content (%, g/g):	13.5	13.6	13.6
Water Content (%, vol):	21.9	21.9	22.0
Porosity (%, vol):	38.8	39.1	39.0
Void Ratio (e):	0.633	0.643	0.640
Saturation (%):	56.5	55.9	56.4

Consolidation

	Specimen 1	Specimen 2	Specimen 3
Normal Stress (psf):	491	504	1,970
Duration (min):	25	50	126
Final Normal Displacement (in):	0.011	0.095	0.035

Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-15-02
Project: Section 27 Mine
Date Recieved: 10/24/25

Pre-Shear Sample Properties

	Specimen 1	Specimen 2	Specimen 3
Date/Time Test Initiated:	5/21/26 11:28	3/11/26 14:57	3/16/26 10:25
Sample Mass (g):	104.3	103.84	103.72
Length (cm):	2.49	2.30	2.45
Volume (cm^3):	50.41	46.37	49.45
Wet Bulk Density (g/cm^3):	2.07	2.24	2.10
Wet Bulk Density (pcf):	129.2	139.8	131.0
Dry Bulk Density (g/cm^3):	1.65	1.78	1.68
Dry Bulk Density (pcf):	103.0	111.3	104.6
Water Content (%, g/g):	25.4	25.6	25.2
Water Content (%, vol):	41.90	45.63	42.25
Porosity (%, vol):	37.7	32.7	36.8
Void Ratio (e):	0.606	0.486	0.582
Saturation (%):	111.0	139.5	114.8

Shear Data

	Specimen 1	Specimen 2	Specimen 3
Test Duration (min):	325	200	200
Failure Nominal Normal Stress (psf):	504	1,001	1,997
Failure Nominal Shear Stress (psf):	321	701	1,653
Failure Relative Lateral Displacement (%):	10.00	9.99	9.99
Final Relative Lateral Displacement (%):	10.00	10.01	10.01
Failure Normal Displacement (in):	0.001	0.024	0.020
Final Normal Displacement (in):	0.001	0.024	0.020
Average Displacement Rate (in/min):	0.001	0.001	0.001

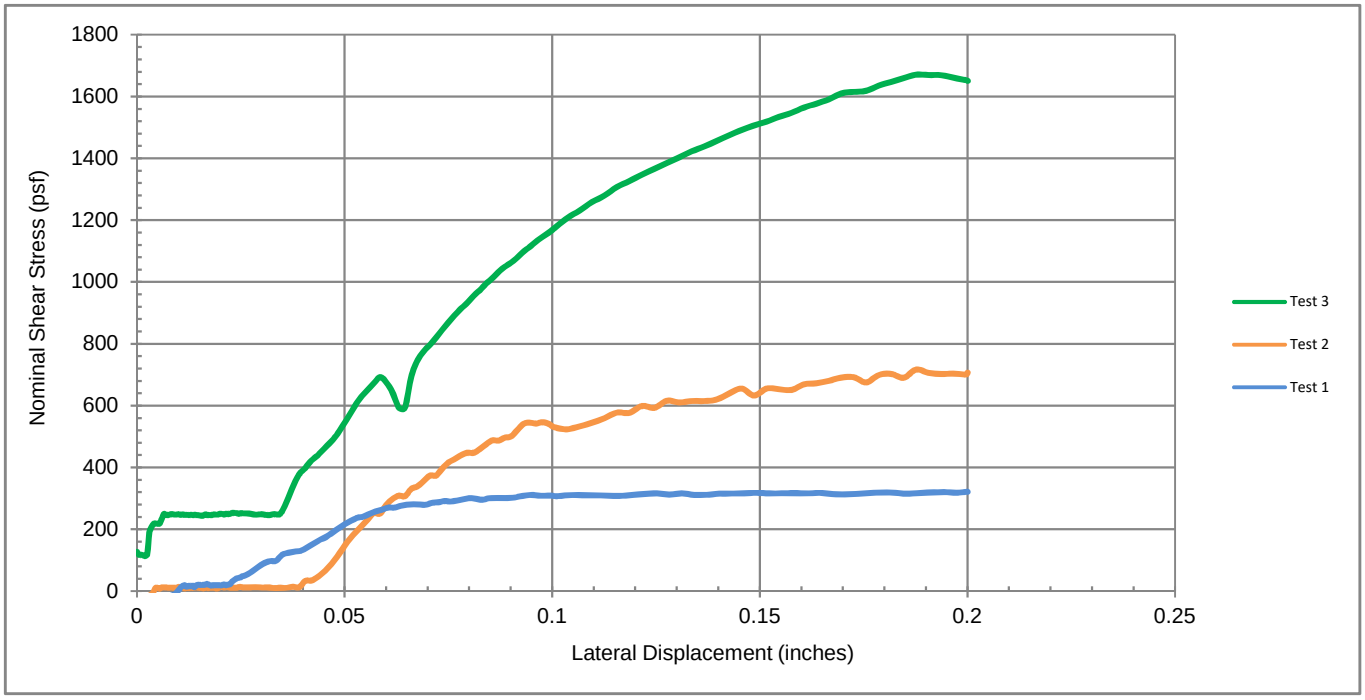
Notes: The pre-shear sample mass is assumed to be equal to the post-test sample mass (since the pre-shear mass is impossible to determine); and, the post-test mass was obtained prior to removal of the sample from the test apparatus and thus may include a small amount of water held within the apparatus potentially resulting in exagerated pre-shear saturation percentage. The target displacement rate was determined for test sample #1 and used for remaining test samples for consistency.

Laboratory analysis by: J. Tafoya
Data entered by: J. Tafoya
Checked by: T. Morgan

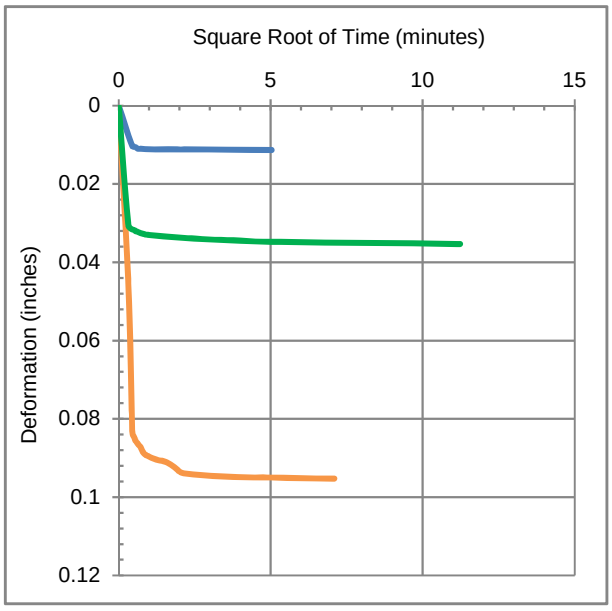
Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-15-02
Project: Section 27 Mine
Date Recieved: 10/24/25

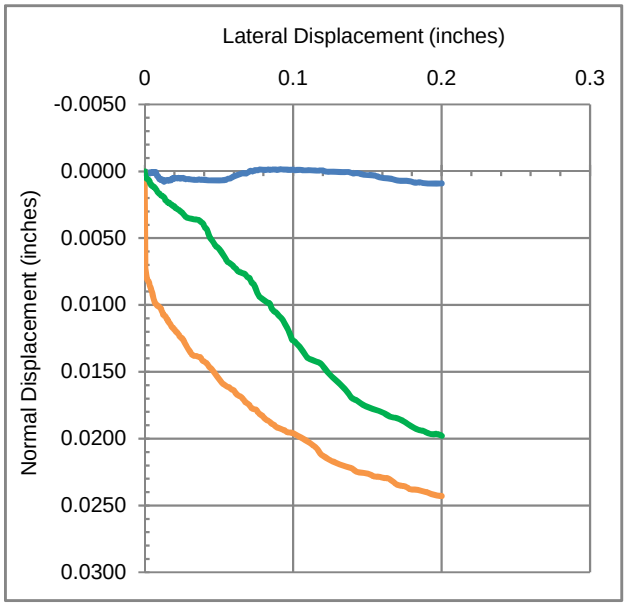
Nominal Shear Stress versus Lateral Displacement



Deformation versus Square Root of Time

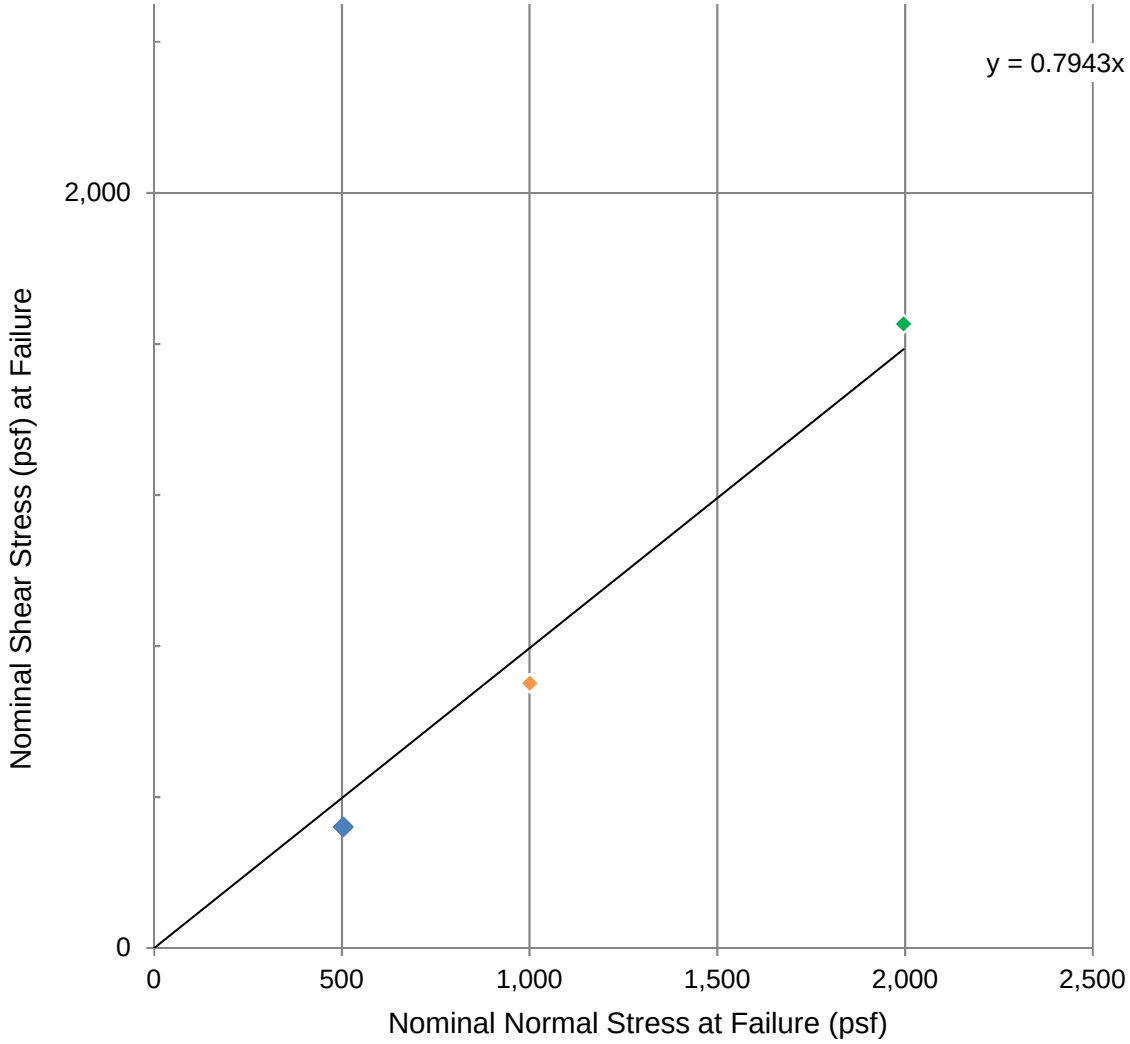


Normal Displacement versus Lateral Displacement



Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-15-02
Project: Section 27 Mine
Date Recieved: 10/24/25



Estimated Failure Parameters[1]:
estimated cohesion (c)(psf) = 0
estimated friction angle (ϕ)(°) = 38

Failure Criterion: 10% Relative Lateral Displacement

[1]The cohesion and friction angle provided represent one possible interpretation of a failure envelope. Qualified persons familiar with the material and the site should evaluate the test results independently prior to use in the intended application.
Note: Intercept set to Zero.

Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-16-01 (0-4)
Project: Section 27 Mine
Date Recieved: 10/22/25

Sample & Test Conditions

Shear Device:	GEOTAC DigiShear
Condition of test:	Inundated
Failure Determination:	10% Relative Lateral Displacement
Visual Description:	Sand w silt/clay
USCS Classification:	Lean clay with sand (CL)s
Plastic Limit:	19
Liquid Limit:	37
Soil Structure/Preparation:	Remolded

Initial Sample Properties

	Specimen 1	Specimen 2	Specimen 3
Initial Mass (g):	89.49	89.54	89.53
Length (cm):	2.54	2.54	2.54
Diameter (cm):	5.08	5.08	5.08
Dry Mass (g):	77.53	77.38	77.45
Area (cm^2):	20.24	20.24	20.24
Volume (cm^3):	51.40	51.40	51.40
Assumed Particle Density (g/cm^3):	2.65	2.65	2.65
Wet Bulk Density (g/cm^3):	1.74	1.74	1.74
Wet Bulk Density (pcf):	108.7	108.8	108.7
Dry Bulk Density (g/cm^3):	1.51	1.51	1.51
Dry Bulk Density (pcf):	94.2	94.0	94.1
Water Content (%, g/g):	15.4	15.7	15.6
Water Content (%, vol):	23.3	23.7	23.5
Porosity (%, vol):	43.1	43.2	43.1
Void Ratio (e):	0.757	0.760	0.759
Saturation (%):	54.0	54.8	54.5

Consolidation

	Specimen 1	Specimen 2	Specimen 3
Normal Stress (psf):	985	1,946	3,943
Duration (min):	200	126	60
Final Normal Displacement (in):	0.022	0.043	0.098

Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-16-01 (0-4)
Project: Section 27 Mine
Date Recieved: 10/22/25

Pre-Shear Sample Properties

	Specimen 1	Specimen 2	Specimen 3
Date/Time Test Initiated:	3/19/26 10:14	3/17/26 11:56	3/18/26 12:26
Sample Mass (g):	101.55	100.3	99.2
Length (cm):	2.50	2.45	2.29
Volume (cm^3):	50.61	49.55	46.25
Wet Bulk Density (g/cm^3):	2.01	2.02	2.14
Wet Bulk Density (pcf):	125.3	126.4	133.9
Dry Bulk Density (g/cm^3):	1.53	1.56	1.67
Dry Bulk Density (pcf):	95.6	97.5	104.5
Water Content (%, g/g):	31.0	29.6	28.1
Water Content (%, vol):	47.46	46.26	47.02
Porosity (%, vol):	42.2	41.1	36.8
Void Ratio (e):	0.730	0.697	0.583
Saturation (%):	112.5	112.6	127.7

Shear Data

	Specimen 1	Specimen 2	Specimen 3
Test Duration (min):	200	200	200
Failure Nominal Normal Stress (psf):	997	2,014	3,985
Failure Nominal Shear Stress (psf):	686	1,359	2,161
Failure Relative Lateral Displacement (%):	9.99	9.99	9.99
Final Relative Lateral Displacement (%):	10.01	10.02	10.01
Failure Normal Displacement (in):	0.009	0.022	0.025
Final Normal Displacement (in):	0.009	0.022	0.025
Average Displacement Rate (in/min):	0.001	0.001	0.001

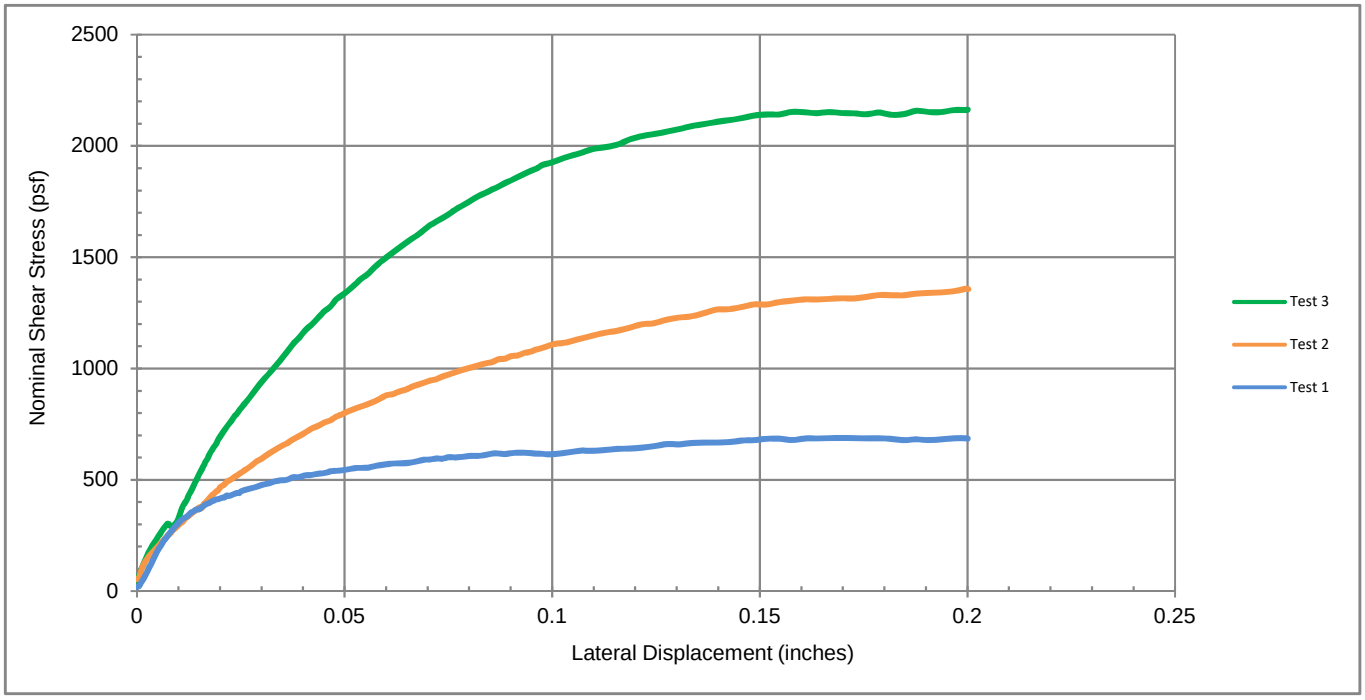
Notes: The pre-shear sample mass is assumed to be equal to the post-test sample mass (since the pre-shear mass is impossible to determine); and, the post-test mass was obtained prior to removal of the sample from the test apparatus and thus may include a small amount of water held within the apparatus potentially resulting in exagerated pre-shear saturation percentage. The target displacement rate was determined for test sample #1 and used for remaining test samples for consistency.

Laboratory analysis by: J. Tafoya
Data entered by: J. Tafoya
Checked by: T. Morgan

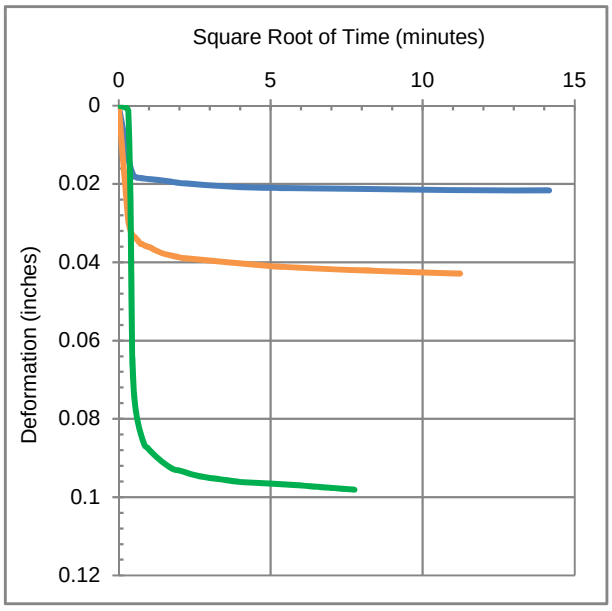
Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-16-01 (0-4)
Project: Section 27 Mine
Date Recieved: 10/22/25

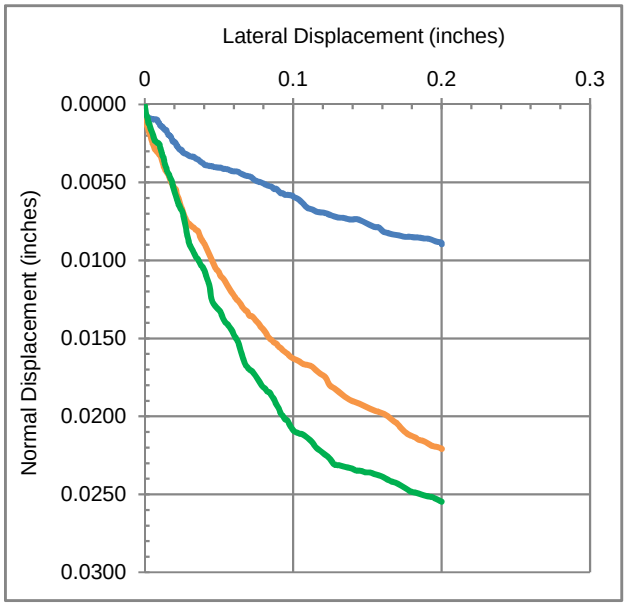
Nominal Shear Stress versus Lateral Displacement



Deformation versus Square Root of Time

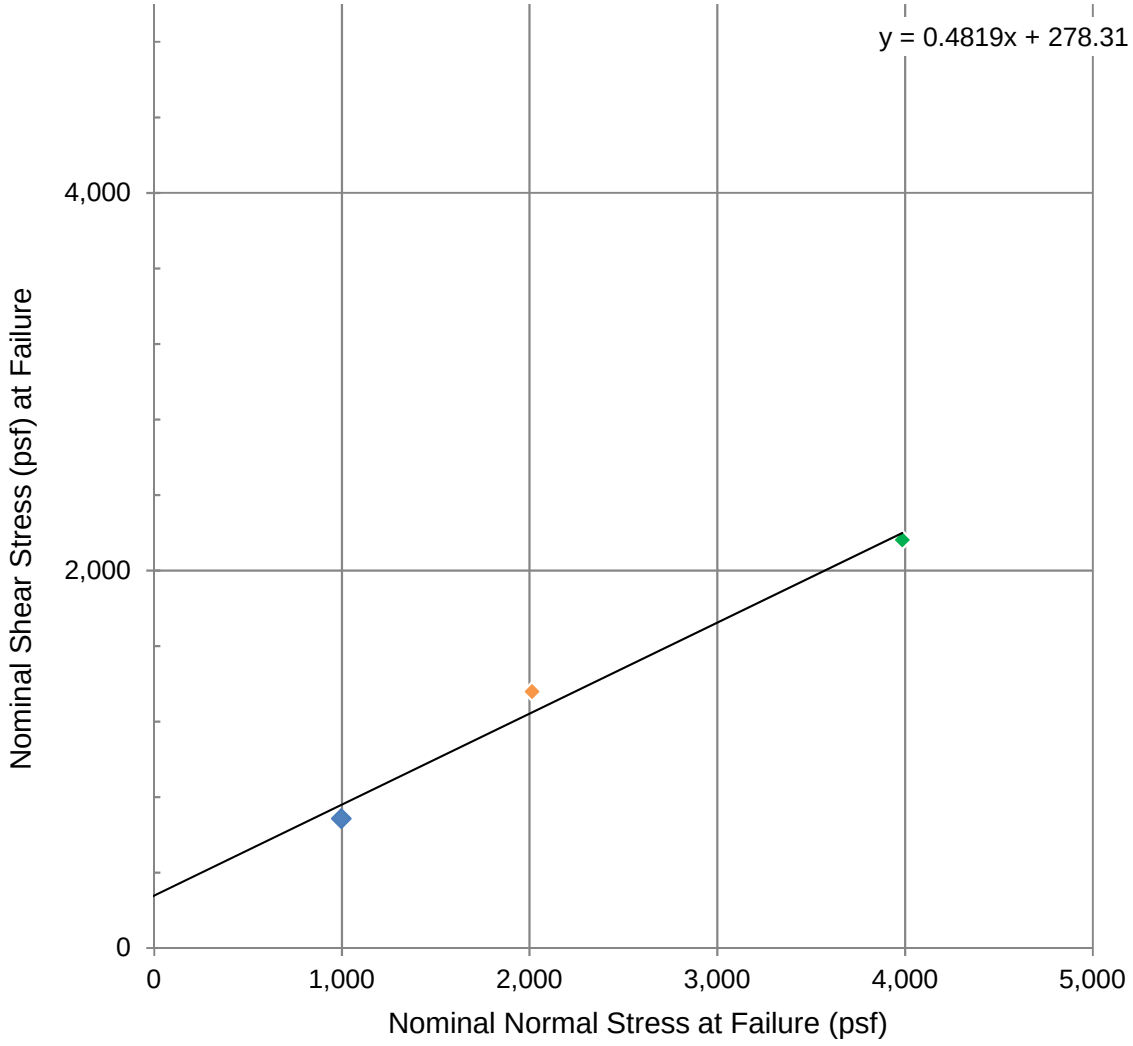


Normal Displacement versus Lateral Displacement



Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-16-01 (0-4)
Project: Section 27 Mine
Date Recieved: 10/22/25



Estimated Failure Parameters[1]:
estimated cohesion (c)(psf) = 278
estimated friction angle (ϕ)(°) = 26

Failure Criterion: 10% Relative Lateral Displacement

[1]The cohesion and friction angle provided represent one possible interpretation of a failure envelope. Qualified persons familiar with the material and the site should evaluate the test results independently prior to use in the intended application.

Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-33-01 (0-10ft)
Project: Section 27 Mine
Date Recieved: 10/24/25

Sample & Test Conditions

Shear Device: GEOTAC DigiShear
Condition of test: Inundated
Failure Determination: 10% Relative Lateral Displacement
Visual Description: Sand w silt/clay
USCS Classification: Lean clay with sand (CL)s
Plastic Limit: 18
Liquid Limit: 43
Soil Structure/Preparation: Remolded

Initial Sample Properties

	Specimen 1	Specimen 2	Specimen 3
Initial Mass (g):	92.74	92.77	92.7
Length (cm):	2.54	2.54	2.54
Diameter (cm):	5.08	5.08	5.08
Dry Mass (g):	79.57	80.2	79.62
Area (cm^2):	20.24	20.24	20.24
Volume (cm^3):	51.42	51.42	51.42
Assumed Particle Density (g/cm^3):	2.65	2.65	2.65
Wet Bulk Density (g/cm^3):	1.80	1.80	1.80
Wet Bulk Density (pcf):	112.6	112.6	112.5
Dry Bulk Density (g/cm^3):	1.55	1.56	1.55
Dry Bulk Density (pcf):	96.6	97.4	96.7
Water Content (%, g/g):	16.6	15.7	16.4
Water Content (%, vol):	25.6	24.4	25.4
Porosity (%, vol):	41.6	41.1	41.6
Void Ratio (e):	0.713	0.699	0.711
Saturation (%):	61.6	59.4	61.2

Consolidation

	Specimen 1	Specimen 2	Specimen 3
Normal Stress (psf):	1,005	939	2,148
Duration (min):	80	200	200
Final Normal Displacement (in):	0.025	0.072	0.129

Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-33-01 (0-10ft)
Project: Section 27 Mine
Date Recieved: 10/24/25

Pre-Shear Sample Properties

	Specimen 1	Specimen 2	Specimen 3
Date/Time Test Initiated:	3/19/26 11:33	3/20/26 10:57	3/23/26 10:29
Sample Mass (g):	102.2	100.83	99.3
Length (cm):	2.48	2.36	2.21
Volume (cm^3):	50.10	47.67	44.73
Wet Bulk Density (g/cm^3):	2.04	2.12	2.22
Wet Bulk Density (pcf):	127.3	132.1	138.6
Dry Bulk Density (g/cm^3):	1.59	1.68	1.78
Dry Bulk Density (pcf):	99.1	105.0	111.1
Water Content (%, g/g):	28.4	25.7	24.7
Water Content (%, vol):	45.17	43.28	43.99
Porosity (%, vol):	40.1	36.5	32.8
Void Ratio (e):	0.669	0.575	0.489
Saturation (%):	112.7	118.5	134.0

Shear Data

	Specimen 1	Specimen 2	Specimen 3
Test Duration (min):	200	200	200
Failure Nominal Normal Stress (psf):	1,000	2,003	4,000
Failure Nominal Shear Stress (psf):	823	1,461	2,322
Failure Relative Lateral Displacement (%):	9.99	10.01	9.99
Final Relative Lateral Displacement (%):	10.01	10.01	10.01
Failure Normal Displacement (in):	0.016	0.032	0.029
Final Normal Displacement (in):	0.016	0.032	0.029
Average Displacement Rate (in/min):	0.001	0.001	0.001

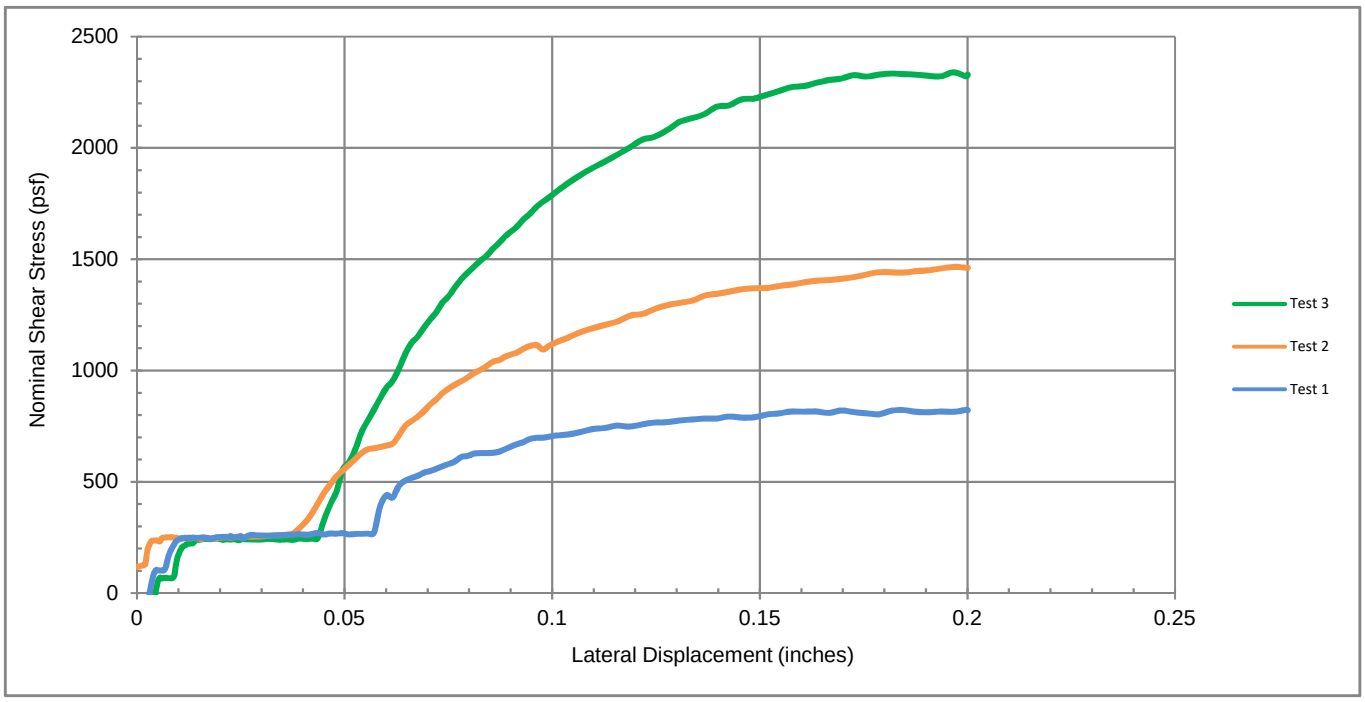
Notes: The pre-shear sample mass is assumed to be equal to the post-test sample mass (since the pre-shear mass is impossible to determine); and, the post-test mass was obtained prior to removal of the sample from the test apparatus and thus may include a small amount of water held within the apparatus potentially resulting in exagerated pre-shear saturation percentage. The target displacement rate was determined for test sample #1 and used for remaining test samples for consistency.

Laboratory analysis by: J. Tafoya
Data entered by: J. Tafoya
Checked by: T. Morgan

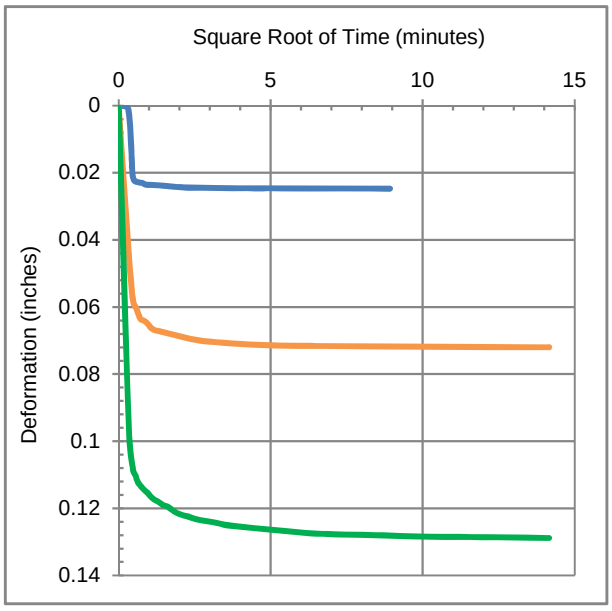
Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-33-01 (0-10ft)
Project: Section 27 Mine
Date Recieved: 10/24/25

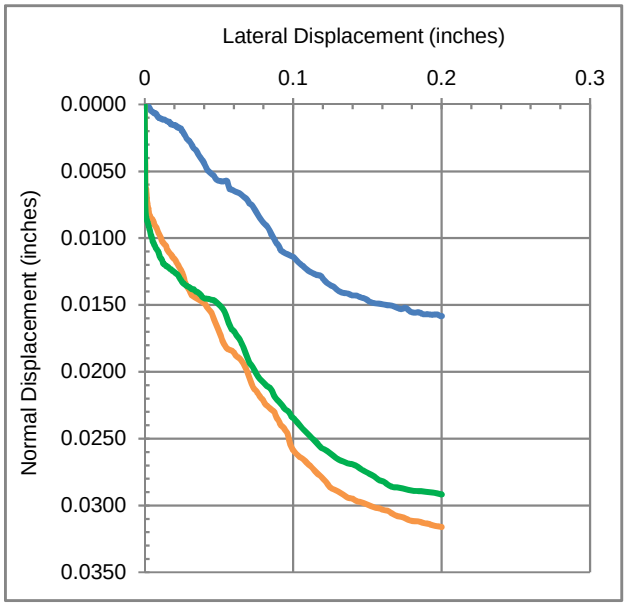
Nominal Shear Stress versus Lateral Displacement



Deformation versus Square Root of Time

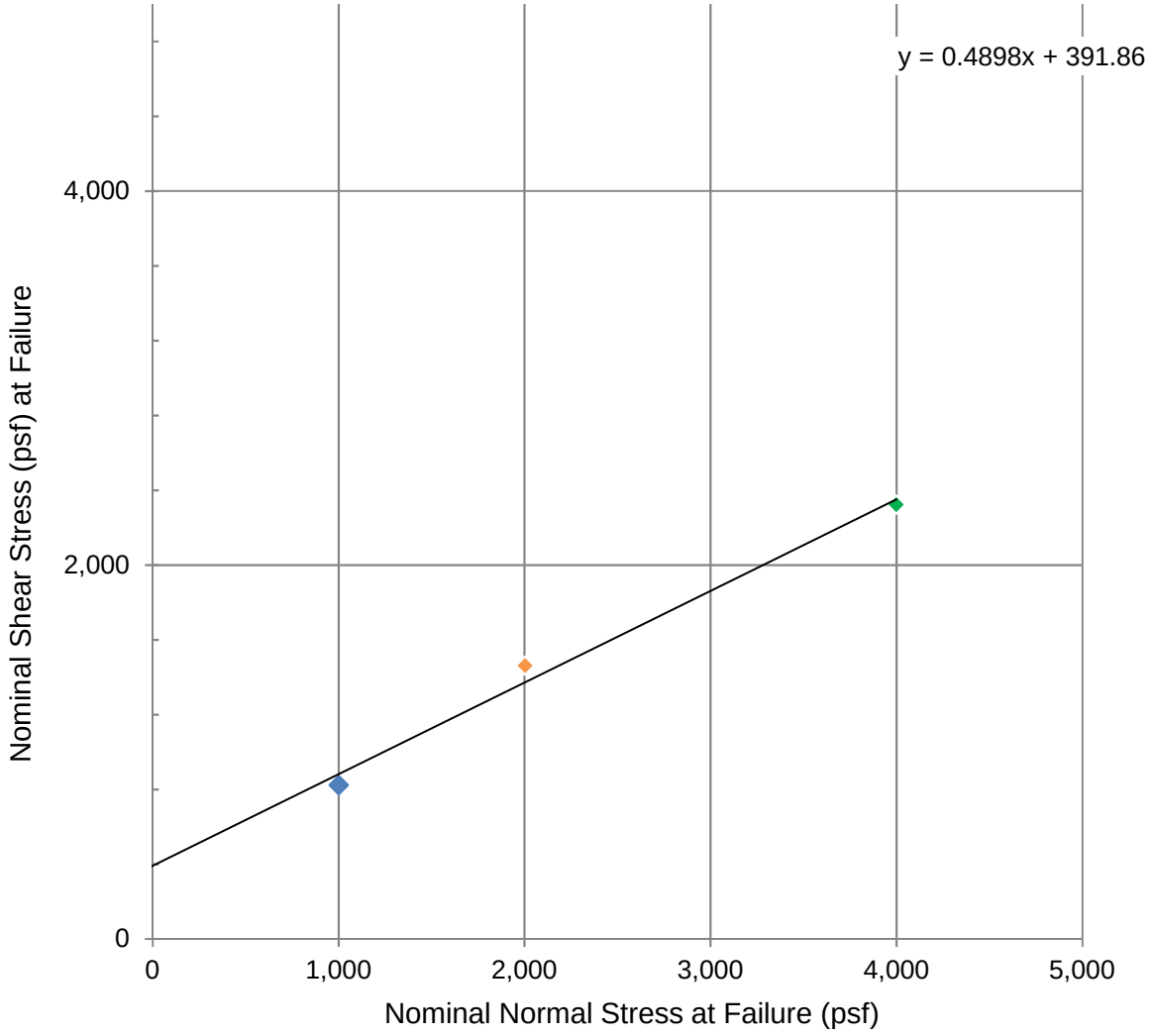


Normal Displacement versus Lateral Displacement



Consolidated Drained Direct Shear Data, ASTM D3080

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-33-01 (0-10ft)
Project: Section 27 Mine
Date Recieved: 10/24/25



Estimated Failure Parameters[1]:
estimated cohesion (c)(psf) = 392
estimated friction angle (ϕ)(°) = 26

Failure Criterion: 10% Relative Lateral Displacement

[1]The cohesion and friction angle provided represent one possible interpretation of a failure envelope. Qualified persons familiar with the material and the site should evaluate the test results independently prior to use in the intended application.

Crumb Test

Crumb Test For Dispersability of Clayey Soils Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample ID: TP-01-01 (0-6ft)
Date Received: 10/22/25
Project Name: Section 27

Test Date: 6-May-26

Color: Light Yellowish Brown
Date Remolded: 3-May-26

Moisture Content (% g/g): 14.8

- ☐ Natural Moisture
- ☐ Air-dried
- ☑ Moisture Adjusted

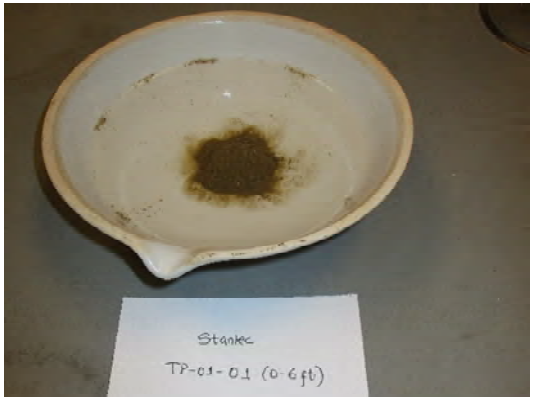
Specimen Type:

- ☐ Natural irregularly shaped crumb
- ☑ Remolded crumb cube

Water Used:

- ☐ Tap
- ☑ Distilled

		2 minutes		1 hour		6 hours	
Specimen Number	Start Time	Grade*	Temp (°C)	Grade*	Temp (°C)	Grade*	Temp (°C)
TP-01-01 (0-6ft)	9:00	2	22.4	2	22.4	2	22.4



Classification: **Grade 2, Intermediate**

*Grade Classification:

Grade 1 Non-dispersive; No reaction
Grade 2 Intermediate; Slight reaction
Grade 3 Dispersive; Moderate reaction
Grade 4 Highly Dispersive; Strong reaction

Interpretation:
Under normal conditions, use the one hour reading to determine dispersive grade. However, if the dispersive grade changes from 2 to 3 or from 3 to 4 between the 1 and 6 hour readings, use the 6 hour reading instead.

Comments:

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Crumb Test For Dispersability of Clayey Soils Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample ID: TP-02-01 (0-7ft)
Date Received: 10/22/25
Project Name: Section 27

Test Date: 26-Apr-26

Color: Yellowish Brown
Date Remolded: 27-Apr-26

Moisture Content (% g/g): 18.5

- ☐ Natural Moisture
- ☐ Air-dried
- ☑ Moisture Adjusted

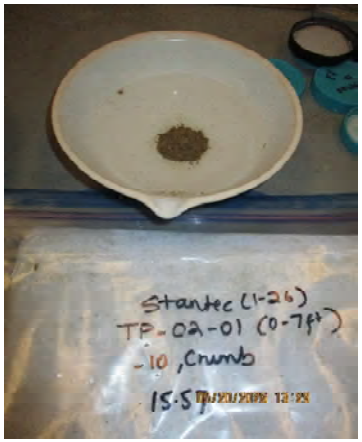
Specimen Type:

- ☐ Natural irregularly shaped crumb
- ☑ Remolded crumb cube

Water Used:

- ☐ Tap
- ☑ Distilled

		2 minutes		1 hour		6 hours	
Specimen Number	Start Time	Grade*	Temp (°C)	Grade*	Temp (°C)	Grade*	Temp (°C)
TP-02-01 (0-7ft)	8:11	2	22.8	1	22.5	1	22.5



Classification: **Grade 1, Non-dispersive**

*Grade Classification:

Grade 1 Non-dispersive; No reaction
Grade 2 Intermediate; Slight reaction
Grade 3 Dispersive; Moderate reaction
Grade 4 Highly Dispersive; Strong reaction

Interpretation:
Under normal conditions, use the one hour reading to determine dispersive grade. However, if the dispersive grade changes from 2 to 3 or from 3 to 4 between the 1 and 6 hour readings, use the 6 hour reading instead.

Comments:

Laboratory analysis by: J. Tafoya
Data entered by: M. Sharma
Checked by: T. Morgan

Crumb Test For Dispersability of Clayey Soils Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample ID: TP-05-01 (0-6.5ft)
Date Received: 10/22/25
Project Name: Section 27

Test Date: 27-Apr-23

Color: Yellowish Brown
Date Remolded: 26-Apr-23

Moisture Content (% g/g): 13.8

- ☐ Natural Moisture
- ☐ Air-dried
- ☑ Moisture Adjusted

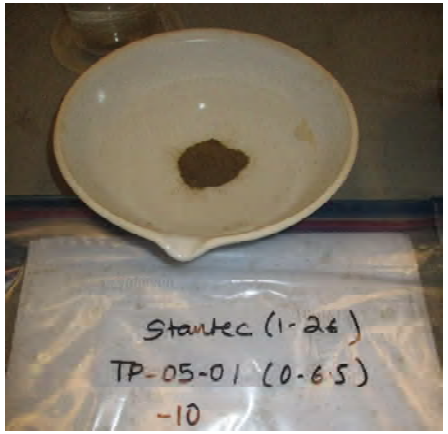
Specimen Type:

- ☐ Natural irregularly shaped crumb
- ☑ Remolded crumb cube

Water Used:

- ☐ Tap
- ☑ Distilled

		2 minutes		1 hour		6 hours	
Specimen Number	Start Time	Grade*	Temp (°C)	Grade*	Temp (°C)	Grade*	Temp (°C)
TP-05-01 (0-6.5ft)	8:12	1	22.8	1	22.5	1	22.5



Classification: **Grade 1, Non-dispersive**

*Grade Classification:

Grade 1 Non-dispersive; No reaction
Grade 2 Intermediate; Slight reaction
Grade 3 Dispersive; Moderate reaction
Grade 4 Highly Dispersive; Strong reaction

Interpretation:
Under normal conditions, use the one hour reading to determine dispersive grade. However, if the dispersive grade changes from 2 to 3 or from 3 to 4 between the 1 and 6 hour readings, use the 6 hour reading instead.

Comments:

Laboratory analysis by: J. Tafoya
Data entered by: M. Sharma
Checked by: T. Morgan

Crumb Test For Dispersability of Clayey Soils Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample ID: TP-06-01 (0-6ft)
Date Received: 10/22/25
Project Name: Section 27

Test Date: 6-May-26

Color: Light Olive Brown
Date Remolded: 5-May-26

Moisture Content (% g/g): 17.54

- ☐ Natural Moisture
- ☐ Air-dried
- ☑ Moisture Adjusted

Specimen Type:

- ☐ Natural irregularly shaped crumb
- ☑ Remolded crumb cube

Water Used:

- ☐ Tap
- ☑ Distilled

		2 minutes		1 hour		6 hours	
Specimen Number	Start Time	Grade*	Temp (°C)	Grade*	Temp (°C)	Grade*	Temp (°C)
TP-06-01 (0-6ft)	9:58	2	22.6	1	22.3	1	22.1



Classification: **Grade 1, Non-dispersive**

*Grade Classification:

Grade 1 Non-dispersive; No reaction
Grade 2 Intermediate; Slight reaction
Grade 3 Dispersive; Moderate reaction
Grade 4 Highly Dispersive; Strong reaction

Interpretation:
Under normal conditions, use the one hour reading to determine dispersive grade. However, if the dispersive grade changes from 2 to 3 or from 3 to 4 between the 1 and 6 hour readings, use the 6 hour reading instead.

Comments:

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Crumb Test For Dispersability of Clayey Soils Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample ID: TP-07-02 (3-10ft)
Date Received: 10/22/25
Project Name: Section 27

Test Date: 27-Apr-23

Color: Brown
Date Remolded: 26-Apr-23

Moisture Content (% g/g): 25.7

- ☐ Natural Moisture
- ☐ Air-dried
- ☑ Moisture Adjusted

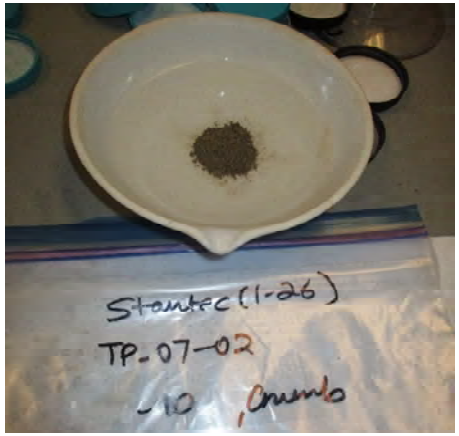
Specimen Type:

- ☐ Natural irregularly shaped crumb
- ☑ Remolded crumb cube

Water Used:

- ☐ Tap
- ☑ Distilled

		2 minutes		1 hour		6 hours	
Specimen Number	Start Time	Grade*	Temp (°C)	Grade*	Temp (°C)	Grade*	Temp (°C)
TP-07-02 (3-10ft)	8:00	1	22.8	1	22.5	1	22.5



Classification: **Grade 1, Non-dispersive**

*Grade Classification:

Grade 1 Non-dispersive; No reaction
Grade 2 Intermediate; Slight reaction
Grade 3 Dispersive; Moderate reaction
Grade 4 Highly Dispersive; Strong reaction

Interpretation:
Under normal conditions, use the one hour reading to determine dispersive grade. However, if the dispersive grade changes from 2 to 3 or from 3 to 4 between the 1 and 6 hour readings, use the 6 hour reading instead.

Comments:

Laboratory analysis by: J. Tafoya
Data entered by: M. Sharma
Checked by: T. Morgan

Crumb Test For Dispersability of Clayey Soils Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample ID: TP-08-01 (0.5-1)
Date Received: 10/22/25
Project Name: Section 27

Test Date: 5-May-26

Color: Brown
Date Remolded: 5-Apr-26

Moisture Content (% g/g): 17.84

- ☐ Natural Moisture
- ☐ Air-dried
- ☑ Moisture Adjusted

Specimen Type:

- ☐ Natural irregularly shaped crumb
- ☑ Remolded crumb cube

Water Used:

- ☐ Tap
- ☑ Distilled

		2 minutes		1 hour		6 hours	
Specimen Number	Start Time	Grade*	Temp (°C)	Grade*	Temp (°C)	Grade*	Temp (°C)
TP-08-01 (0.5-1)	10:01	1	22.6	1	22.3	1	22.1



Classification: **Grade 1, Non-dispersive**

*Grade Classification:

Grade 1 Non-dispersive; No reaction
Grade 2 Intermediate; Slight reaction
Grade 3 Dispersive; Moderate reaction
Grade 4 Highly Dispersive; Strong reaction

Interpretation:
Under normal conditions, use the one hour reading to determine dispersive grade. However, if the dispersive grade changes from 2 to 3 or from 3 to 4 between the 1 and 6 hour readings, use the 6 hour reading instead.

Comments:

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Crumb Test For Dispersability of Clayey Soils Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample ID: TP-09-01 (0-6ft)
Date Received: 10/22/25
Project Name: Section 27

Test Date: 6-May-26

Color: Light Olive Brown
Date Remolded: 5-May-26

Moisture Content (% g/g): 18.81

- ☐ Natural Moisture
- ☐ Air-dried
- ☑ Moisture Adjusted

Specimen Type:

- ☐ Natural irregularly shaped crumb
- ☑ Remolded crumb cube

Water Used:

- ☐ Tap
- ☑ Distilled

		2 minutes		1 hour		6 hours	
Specimen Number	Start Time	Grade*	Temp (°C)	Grade*	Temp (°C)	Grade*	Temp (°C)
TP-09-01 (0-6ft)	9:56	1	22.6	1	22.3	1	22.1



Classification: **Grade 1, Non-dispersive**

*Grade Classification:

Grade 1 Non-dispersive; No reaction
Grade 2 Intermediate; Slight reaction
Grade 3 Dispersive; Moderate reaction
Grade 4 Highly Dispersive; Strong reaction

Interpretation:
Under normal conditions, use the one hour reading to determine dispersive grade. However, if the dispersive grade changes from 2 to 3 or from 3 to 4 between the 1 and 6 hour readings, use the 6 hour reading instead.

Comments:

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Crumb Test For Dispersability of Clayey Soils Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample ID: TP-13-01 (0-4.5ft)
Date Received: 10/22/25
Project Name: Section 27

Test Date: 27-Apr-23

Color: Light Olive Brown
Date Remolded: 26-Apr-23

Moisture Content (% g/g): 18.2

- ☐ Natural Moisture
- ☐ Air-dried
- ☑ Moisture Adjusted

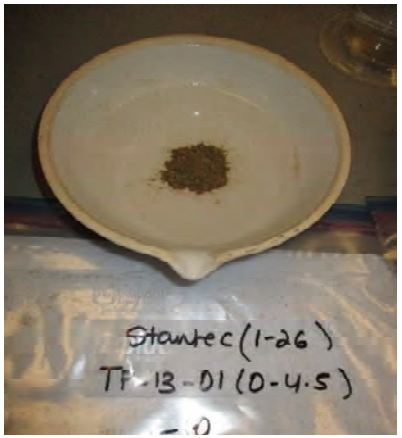
Specimen Type:

- ☐ Natural irregularly shaped crumb
- ☑ Remolded crumb cube

Water Used:

- ☐ Tap
- ☑ Distilled

		2 minutes		1 hour		6 hours	
Specimen Number	Start Time	Grade*	Temp (°C)	Grade*	Temp (°C)	Grade*	Temp (°C)
TP-13-01 (0-4.5ft)	8:13	1	22.8	1	22.5	1	22.3



Classification: **Grade 1, Non-dispersive**

*Grade Classification:

Grade 1 Non-dispersive; No reaction
Grade 2 Intermediate; Slight reaction
Grade 3 Dispersive; Moderate reaction
Grade 4 Highly Dispersive; Strong reaction

Interpretation:
Under normal conditions, use the one hour reading to determine dispersive grade. However, if the dispersive grade changes from 2 to 3 or from 3 to 4 between the 1 and 6 hour readings, use the 6 hour reading instead.

Comments:

Laboratory analysis by: J. Tafoya
Data entered by: M. Sharma
Checked by: T. Morgan

Crumb Test For Dispersability of Clayey Soils Data

Job Name: Stantec
Job Number: DB26.1035.00
Sample ID: TP-34-01 (0-10ft)
Date Received: 10/22/25
Project Name: Section 27

Test Date: 5-May-26

Color: Brown
Date Remolded: 4-May-26

Moisture Content (% g/g): 21.07

- ☐ Natural Moisture
- ☐ Air-dried
- ☑ Moisture Adjusted

Specimen Type:

- ☐ Natural irregularly shaped crumb
- ☑ Remolded crumb cube

Water Used:

- ☐ Tap
- ☑ Distilled

		2 minutes		1 hour		6 hours	
Specimen Number	Start Time	Grade*	Temp (°C)	Grade*	Temp (°C)	Grade*	Temp (°C)
TP-34-01 (0-10ft)	10:00	2	22.6	2	22.3	1	22.1



Classification: **Grade 2, Intermediate**

*Grade Classification:

Grade 1 Non-dispersive; No reaction
Grade 2 Intermediate; Slight reaction
Grade 3 Dispersive; Moderate reaction
Grade 4 Highly Dispersive; Strong reaction

Interpretation:
Under normal conditions, use the one hour reading to determine dispersive grade. However, if the dispersive grade changes from 2 to 3 or from 3 to 4 between the 1 and 6 hour readings, use the 6 hour reading instead.

Comments:

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan

Pinhole Dispersion

Pinhole Dispersion Test Data
ASTM D4647

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-02-01 (0-7)
Project Name: Section 27
Date Received: 10/22/2025

Sample Properties

Sample Type: Disturbed Remolded
USCS Classification: Lean clay (CL)
Liquid Limit: 43
Plasticity Index: 17
Classification of Fines: CL
Percent Coarse Material (+2mm) (%): 53
Target Relative Compaction (%): 90.00
As Received Water Content (%, g/g): 9.5

Test Conditions

Test Date: 7-May-26
Curing Time (Hours): 24
Test Method: A
Water Type: Distilled

Test Data

Hydraulic Head		Test Time	Flow Rate	Cloudiness of Flow at End of Test	Hole Diameter After Test
(inches)	(mm)	(min:sec)	(ml/sec)		(mm)
2	51	10:00	0.77	Slightly Dark	---
7	178	05:00	1.26	Slightly Dark	---
15	381	05:00	1.82	Slightly Dark	1.20 to 3.00
42	1,067	05:00	NA	NA	

Dispersive Classification: **Slightly to Moderately Dispersive ND3**

Comments:

Laboratory analysis by: M. Sharma
Data entered by: J. Tafoya
Checked by: T. Morgan

Pinhole Dispersion Test Data
ASTM D4647

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-05-01 (0-6.5)
Project Name: Section 27
Date Received: 10/22/2025

Sample Properties

Sample Type: Disturbed Remolded
USCS Classification: Lean clay (CL)
Liquid Limit: 27
Plasticity Index: 9
Classification of Fines: CL
Percent Coarse Material (+2mm) (%): 2
Target Relative Compaction (%): 90.00
As Received Water Content (%, g/g): 7.7

Test Conditions

Test Date: 24-Mar-26
Curing Time (Hours): 24
Test Method: A
Water Type: Distilled

Test Data

Hydraulic Head		Test Time	Flow Rate	Cloudiness of Flow at End of Test	Hole Diameter After Test
(inches)	(mm)	(min:sec)	(ml/sec)		(mm)
2	51	05:00	0.73	Barely Visible	---
7	178	05:00	1.36	Barely Visible	---
15	381	05:00	2.14	Completely Clear	1.3 to 5.00
40	1,016	05:00	NA	NA	

Dispersive Classification: **Slightly to Moderately Dispersive ND3**

Comments:

Laboratory analysis by: R. LL
Data entered by: J. Tafoya
Checked by: T. Morgan

Pinhole Dispersion Test Data
ASTM D4647

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-07-01 (0-3ft)
Project Name: Section 27
Date Received: 10/22/2025

Sample Properties

Sample Type: Disturbed Remolded
USCS Classification: Lean clay (CL)
Liquid Limit: 48
Plasticity Index: 29
Classification of Fines: CL
Percent Coarse Material (+2mm) (%): 49
Target Relative Compaction (%): 90.00
As Received Water Content (%, g/g): 11.4

Test Conditions

Test Date: 7-Mar-26
Curing Time (Hours): 24
Test Method: A
Water Type: Distilled

Test Data

Hydraulic Head		Test Time	Flow Rate	Cloudiness of Flow at End of Test	Hole Diameter After Test
(inches)	(mm)	(min:sec)	(ml/sec)		(mm)
2	51	10:00	0.29	Completely Clear	---
7	178	05:00	0.49	Completely Clear	---
15	381	05:00	0.86	Completely Clear	---
40	1,016	05:00	2.38	Completely Clear	1.2 to 3.00

Dispersive Classification: **ND1**

Comments:

Laboratory analysis by: M. Sharma
Data entered by: J. Tafoya
Checked by: T. Morgan

Pinhole Dispersion Test Data
ASTM D4647

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-07-02 (3-10)
Project Name: Section 27
Date Received: 10/22/2025

Sample Properties

Sample Type: Disturbed Remolded
USCS Classification: Fat clay (CH)
Liquid Limit: 67
Plasticity Index: 41
Classification of Fines: CH
Percent Coarse Material (+2mm) (%): 1
Target Relative Compaction (%): 90.00
As Received Water Content (%, g/g): 19.5

Test Conditions

Test Date: 5-May-26
Curing Time (Hours): 24
Test Method: A
Water Type: Distilled

Test Data

Hydraulic Head		Test Time	Flow Rate	Cloudiness of Flow at End of Test	Hole Diameter After Test
(inches)	(mm)	(min:sec)	(ml/sec)		(mm)
2	51	10:00	0.40	Slightly Dark	---
7	178	05:00	0.82	Slightly Dark	---
15	381	05:00	1.30	Moderately Dark	1.15 to 2.00
40	1,016	05:00	NA	NA	

Dispersive Classification: **Slightly to Moderately Dispersive ND3**

Comments:

Laboratory analysis by: M. Sharma
Data entered by: J. Tafoya
Checked by: T. Morgan

Pinhole Dispersion Test Data
ASTM D4647

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-08-01 (0.5-1ft)
Project Name: Section 27
Date Received: 10/22/2025

Sample Properties

Sample Type: Disturbed Remolded
USCS Classification: Lean clay (CL)
Liquid Limit: 32
Plasticity Index: 16
Classification of Fines: CL
Percent Coarse Material (+2mm) (%): 16
Target Relative Compaction (%): 90.00
As Received Water Content (%, g/g): 16.8

Test Conditions

Test Date: 6-May-26
Curing Time (Hours): 24
Test Method: A
Water Type: Distilled

Test Data

Hydraulic Head		Test Time	Flow Rate	Cloudiness of Flow at End of Test	Hole Diameter After Test
(inches)	(mm)	(min:sec)	(ml/sec)		(mm)
2	51	10:00	0.83	Completely Clear	---
7	178	05:00	1.53	Barely Visible	---
15	381	05:00	2.61	Barely Visible	1.50 to 7.00
40	1,016	05:00	NA	NA	

Dispersive Classification: **Slightly to Moderately Dispersive ND3**

Comments:

Laboratory analysis by: M. Sharma
Data entered by: J. Tafoya
Checked by: T. Morgan

Pinhole Dispersion Test Data
ASTM D4647

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-09-01 (0-6ft)
Project Name: Section 27
Date Received: 10/22/2025

Sample Properties

Sample Type: Disturbed Remolded
USCS Classification: Lean clay (CL)
Liquid Limit: 44
Plasticity Index: 25
Classification of Fines: CL
Percent Coarse Material (+2mm) (%): 22
Target Relative Compaction (%): 90.00
As Received Water Content (%, g/g): 10.9

Test Conditions

Test Date: 6-May-26
Curing Time (Hours): 24
Test Method: A
Water Type: Distilled

Test Data

Hydraulic Head		Test Time	Flow Rate	Cloudiness of Flow at End of Test	Hole Diameter After Test
(inches)	(mm)	(min:sec)	(ml/sec)		(mm)
2	51	10:00	0.11	Barely Visible	---
7	178	05:00	1.47	Moderately Dark	1.32 to 4.00
15	381	05:00	NA	NA	
40	1,016	05:00	NA	NA	

Dispersive Classification: **Slightly to Moderately Dispersive ND3**

Comments:

Laboratory analysis by: M. Sharma
Data entered by: J. Tafoya
Checked by: T. Morgan

Pinhole Dispersion Test Data
ASTM D4647

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-11-01 (0-1ft)
Project Name: Section 27
Date Received: 10/22/2025

Sample Properties

Sample Type: Disturbed Remolded
USCS Classification: Lean clay - Silt (CL-ML)
Liquid Limit: 27
Plasticity Index: 7
Classification of Fines: CL-ML
Percent Coarse Material (+2mm) (%): 4
Target Relative Compaction (%): 90.00
As Received Water Content (%, g/g): 10.7

Test Conditions

Test Date: 6-May-26
Curing Time (Hours): 24
Test Method: A
Water Type: Distilled

Test Data

Hydraulic Head		Test Time	Flow Rate	Cloudiness of Flow at End of Test	Hole Diameter After Test
(inches)	(mm)	(min:sec)	(ml/sec)		(mm)
2	51	10:00	1.00	Slightly Dark	1.32 to 7.14
7	178	05:00	NA	NA	---
15	381	05:00	NA	NA	
40	1,016	05:00	NA	NA	

Dispersive Classification: **ND4**

Comments:

Laboratory analysis by: M. Sharma
Data entered by: J. Tafoya
Checked by: T. Morgan

Pinhole Dispersion Test Data
ASTM D4647

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-13-02 (4.5-10ft)
Project Name: Section 27
Date Received: 10/22/2025

Sample Properties

Sample Type: Disturbed Remolded
USCS Classification: Lean clay (CL)
Liquid Limit: 42
Plasticity Index: 23
Classification of Fines: CL
Percent Coarse Material (+2mm) (%): 11
Target Relative Compaction (%): 90.00
As Received Water Content (%, g/g): 12.6

Test Conditions

Test Date: 6-May-26
Curing Time (Hours): 24
Test Method: A
Water Type: Distilled

Test Data

Hydraulic Head		Test Time	Flow Rate	Cloudiness of Flow at End of Test	Hole Diameter After Test
(inches)	(mm)	(min:sec)	(ml/sec)		(mm)
2	51	10:00	0.41	Slightly Dark	---
7	178	05:00	1.00	Slightly Dark	---
15	381	05:00	1.83	Slightly Dark	1.30 to 5.00
40	1,016	05:00	NA	NA	

Dispersive Classification: **Slightly to Moderately Dispersive ND3**

Comments:

Laboratory analysis by: M. Sharma
Data entered by: J. Tafoya
Checked by: T. Morgan

Pinhole Dispersion Test Data
ASTM D4647

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-16-01 (0-4ft)
Project Name: Section 27
Date Received: 10/22/2025

Sample Properties

Sample Type: Disturbed Remolded
USCS Classification: Lean clay (CL)
Liquid Limit: 37
Plasticity Index: 18
Classification of Fines: CL
Percent Coarse Material (+2mm) (%): 0
Target Relative Compaction (%): 90.00
As Received Water Content (%, g/g): 11.9

Test Conditions

Test Date: 6-May-26
Curing Time (Hours): 24
Test Method: A
Water Type: Distilled

Test Data

Hydraulic Head		Test Time	Flow Rate	Cloudiness of Flow at End of Test	Hole Diameter After Test
(inches)	(mm)	(min:sec)	(ml/sec)		(mm)
2	51	10:00	0.22	Completely Clear	---
7	178	05:00	0.46	Completely Clear	---
15	381	05:00	2.32	Barely Visible	2.00 to 4.00
40	1,016	05:00	NA	NA	

Dispersive Classification: **Slightly to Moderately Dispersive ND3**

Comments:

Laboratory analysis by: M. Sharma
Data entered by: J. Tafoya
Checked by: T. Morgan

Pinhole Dispersion Test Data
ASTM D4647

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-33-01 (0-10ft)
Project Name: Section 27
Date Received: 10/22/2025

Sample Properties

Sample Type: Disturbed Remolded
USCS Classification: Lean clay (CL)
Liquid Limit: 43
Plasticity Index: 25
Classification of Fines: CL
Percent Coarse Material (+2mm) (%): 27
Target Relative Compaction (%): 90.00
As Received Water Content (%, g/g): 11.7

Test Conditions

Test Date: 6-May-26
Curing Time (Hours): 24
Test Method: A
Water Type: Distilled

Test Data

Hydraulic Head		Test Time	Flow Rate	Cloudiness of Flow at End of Test	Hole Diameter After Test
(inches)	(mm)	(min:sec)	(ml/sec)		(mm)
2	51	10:00	0.56	Completely Clear	---
7	178	05:00	0.90	Completely Clear	---
15	381	05:00	1.53	Completely Clear	---
40	1,016	05:00	3.13	Completely Clear	1.30 to 4.00

Dispersive Classification: **ND2**

Comments:

Laboratory analysis by: M. Sharma
Data entered by: J. Tafoya
Checked by: T. Morgan

Dispersion by Double Hydrometer

Daniel B. Stephens & Associates, Inc.

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (1-26)
Job Number: DB26.1035.00
Sample Number: TP-01-01 (0-6ft) (No Dispersant)
Project Name: Section 27
Date Received: 10/24/25

Test Date: 13-May-26
Start Time: 8:30

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:* none
Assumed particle density: 2.65

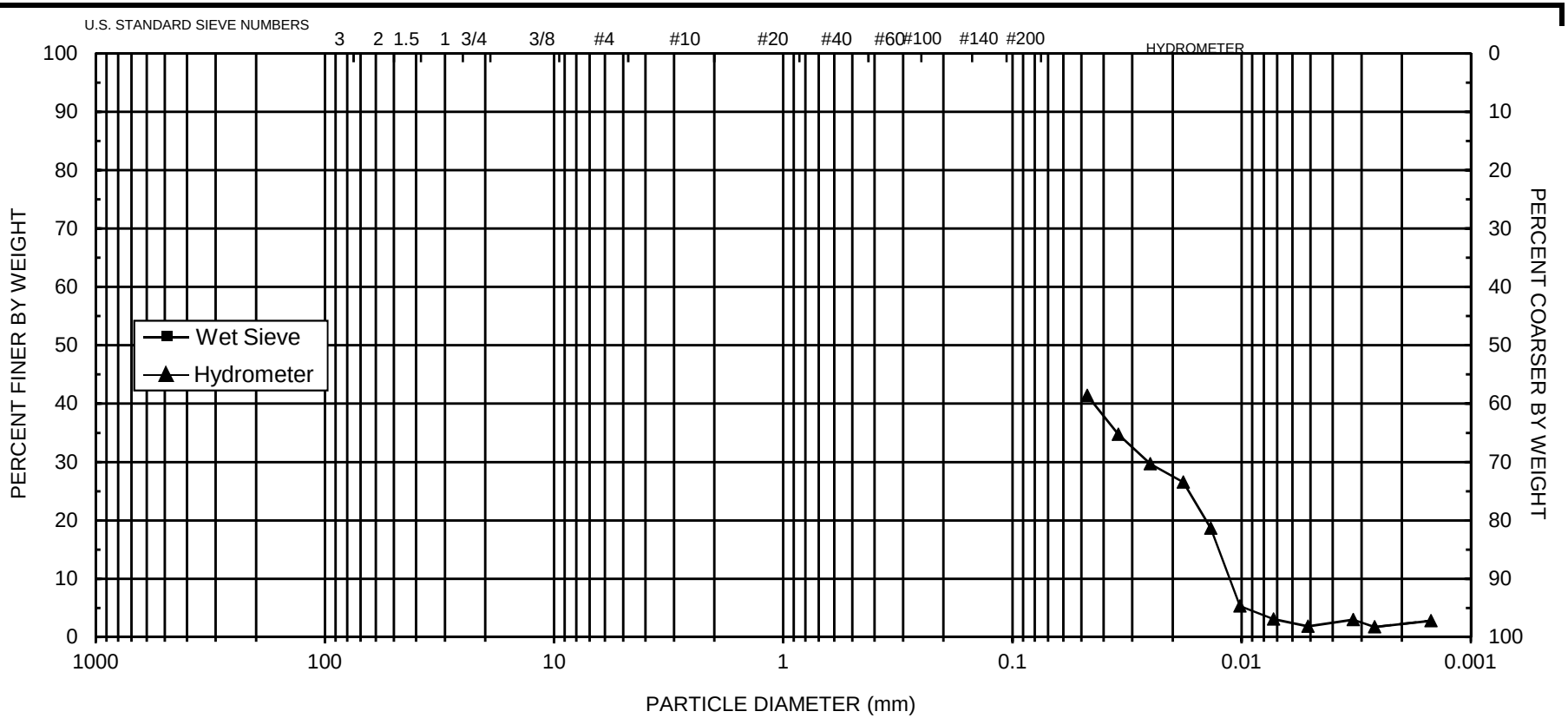
Initial Wt. (g)*:* 78.89
Total Sample Wt. (g)*:* 984.72
Wt. Passing #10 (g)*:* 982.70

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
13-May-26	1	22.70	31.25	-1.48	32.7	12	0.0472	41	41.4
	2	22.70	26.00	-1.48	27.5	13	0.0346	35	34.8
	4	22.70	22.00	-1.48	23.5	14	0.0251	30	29.7
	8	22.70	19.50	-1.48	21.0	14	0.0180	27	26.5
	15	22.70	13.25	-1.48	14.7	15	0.0136	19	18.6
	30	22.60	2.75	-1.44	4.2	17	0.0102	5	5.3
	60	22.60	1.00	-1.44	2.4	17	0.0073	3	3.1
	121	22.60	0.00	-1.44	1.4	17	0.0051	2	1.8
	298	22.40	1.00	-1.37	2.4	17	0.0033	3	3.0
	462	22.40	0.00	-1.37	1.4	17	0.0026	2	1.7
14-May-26	1426	22.70	0.75	-1.48	2.2	17	0.0015	3	2.8

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



USCS	COBBLES	GRAVEL: Coarse, Fine		SAND: Coarse, Medium, Fine		SILT OR CLAY
USDA	COBBLES	GRAVEL	SAND: Very coarse, Coarse, Medium, Fine, Very fine			SILT / CLAY

d_{10} = **0.011**	d_{30} = **0.026**	d_{50} = **0.057**	d_{60} = **0.071**	C_u = **6.5**	C_c = **0.87**

SAMPLE NUMBER	DATE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-01-01 (0-6ft) (No Dispersant)	**10/24/25**	**Classification by ASTM 2487 requires Atterberg test**	**Sandy Loam**

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (1-26)
Job Number: DB26.1035.05
Sample Number: TP-07-01 (0-3ft) (No Dispersant)
Project Name: Section 27
Date Received: 10/24/25

Test Date: 15-May-26
Start Time: 8:30

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:*
Assumed particle density: 2.65

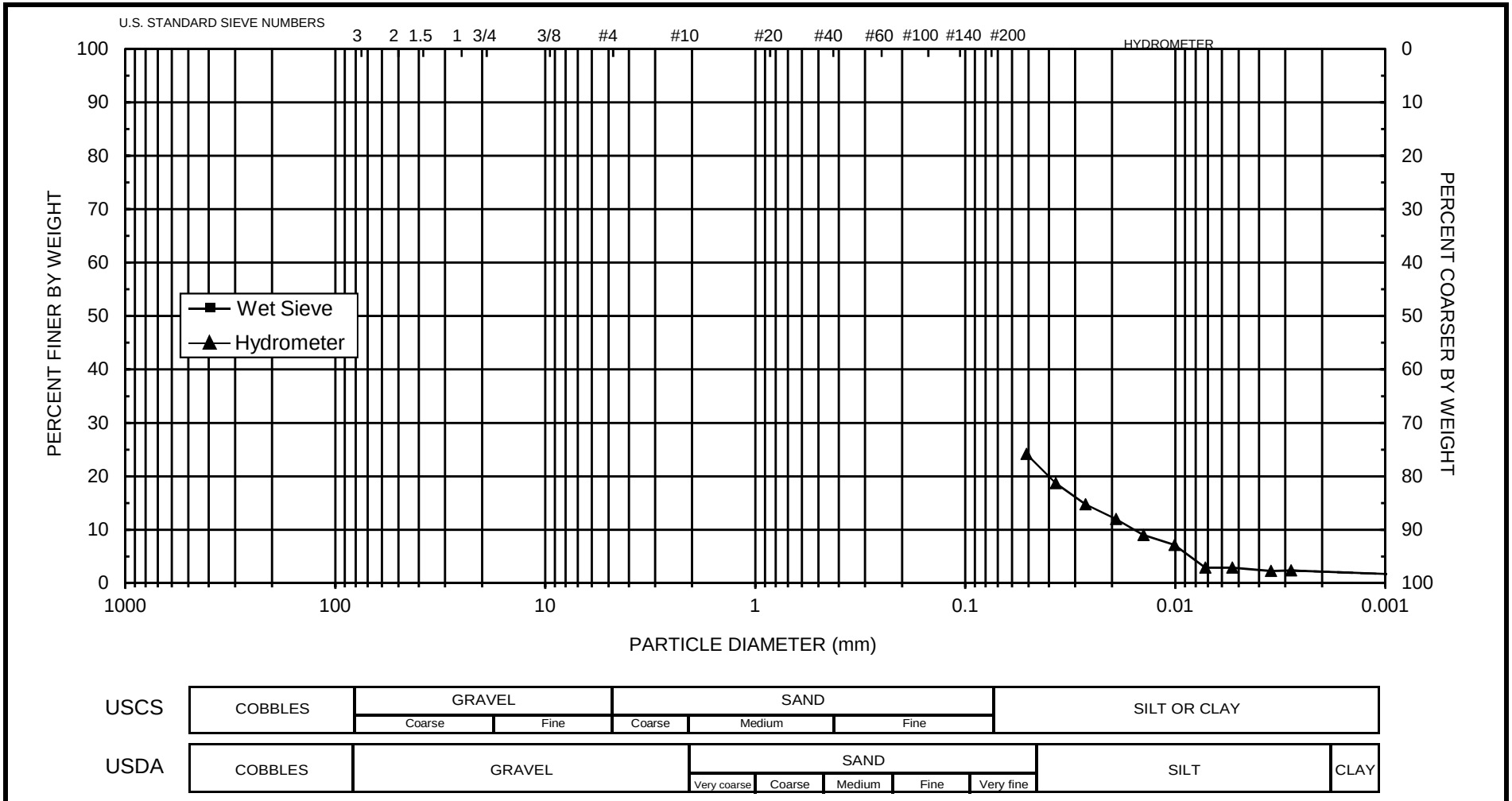
Initial Wt. (g)*:* 80.65
Total Sample Wt. (g)*:* 827.80
Wt. Passing #10 (g)*:* 812.17

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
15-May-26	1	22.40	18.50	-1.37	19.9	14	0.0512	25	24.2
	2	22.40	14.00	-1.37	15.4	15	0.0371	19	18.7
	4	22.40	10.75	-1.37	12.1	15	0.0267	15	14.7
	8	22.40	8.50	-1.37	9.9	16	0.0191	12	12.0
	15	22.40	6.00	-1.37	7.4	16	0.0142	9	9.0
	30	22.40	4.50	-1.37	5.9	16	0.0101	7	7.1
	61	22.40	1.00	-1.37	2.4	17	0.0072	3	2.9
	110	22.40	1.00	-1.37	2.4	17	0.0054	3	2.9
	259	22.40	0.50	-1.37	1.9	17	0.0035	2	2.3
	401	22.60	0.50	-1.44	1.9	17	0.0028	2	2.4
18-May-26	4296	22.30	0.00	-1.33	1.3	17	0.0009	2	1.6

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



USCS	COBBLES	GRAVEL		SAND			SILT OR CLAY				
		Coarse	Fine	Coarse	Medium	Fine					
USDA	COBBLES	GRAVEL		SAND					SILT	CLAY	
				Very coarse	Coarse	Medium	Fine	Very fine			

d_{10} = **0.016**	d_{30} = **0.056**	d_{50} = **0.077**	d_{60} = **0.082**	C_u = **5.1**	C_c = **2.4**

SAMPLE NUMBER	DATE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-07-01 (0-3ft) (No Dispersant)	**10/24/25**	**Classification by ASTM 2487 requires Atterberg test**	**Loamy Sand**

Daniel B. Stephens & Associates, Inc.

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (1-26)
Job Number: DB26.1035.14
Sample Number: TP-11-01 (0-1ft) (No Dispersant)
Project Name: Section 27
Date Received: 10/24/25

Test Date: 11-Feb-26
Start Time: 8:42

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:*
Assumed particle density: 2.65

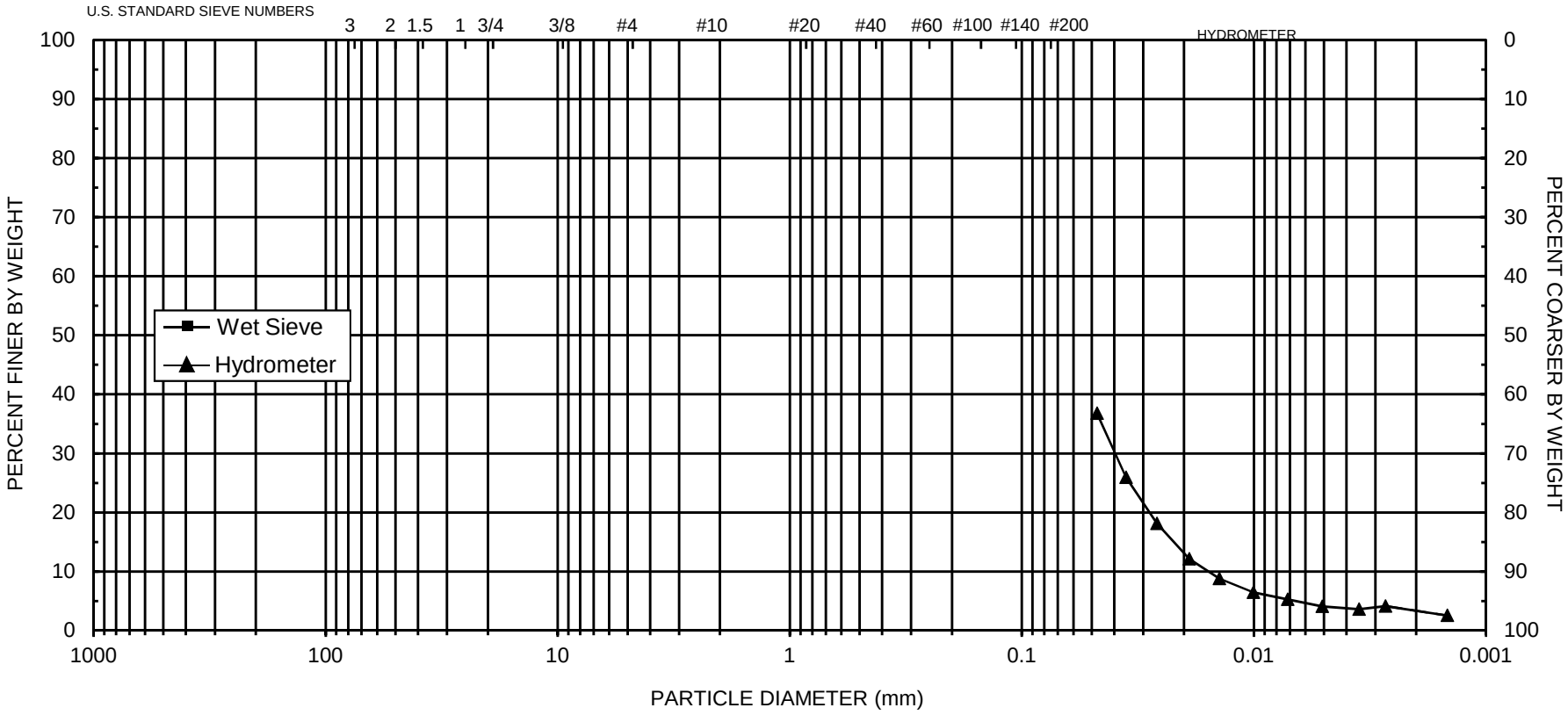
Initial Wt. (g)*:* 83.13
Total Sample Wt. (g)*:* 793.32
Wt. Passing #10 (g)*:* 793.07

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
11-Feb-26	1	19.40	30.25	-0.33	30.6	12	0.0475	37	36.8
	2	19.40	21.25	-0.33	21.6	14	0.0356	26	26.0
	4	19.40	14.75	-0.33	15.1	15	0.0261	18	18.1
	8	19.40	9.75	-0.33	10.1	16	0.0190	12	12.1
	15	19.40	7.00	-0.33	7.3	16	0.0141	9	8.8
	30	19.50	5.00	-0.37	5.4	16	0.0101	6	6.5
	60	19.50	4.00	-0.37	4.4	17	0.0072	5	5.3
	120	19.60	3.00	-0.40	3.4	17	0.0051	4	4.1
	251	19.90	2.50	-0.50	3.0	17	0.0035	4	3.6
	422	20.50	2.75	-0.70	3.4	17	0.0027	4	4.1
12-Feb-26	1453	19.50	1.75	-0.37	2.1	17	0.0015	3	2.5

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



USCS	COBBLES	GRAVEL: Coarse	GRAVEL: Fine	SAND: Coarse	SAND: Medium	SAND: Fine	SILT OR CLAY
USDA	COBBLES	GRAVEL	SAND: Very coarse	SAND: Coarse	SAND: Medium	SAND: Fine	SAND: Very fine	SILT	CLAY

d_{10} = **0.016**	d_{30} = **0.040**	d_{50} = **0.065**	d_{60} = **0.078**	C_u = **4.9**	C_c = **1.3**

SAMPLE NUMBER	DATE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-11-01 (0-1ft) (No Dispersant)	**10/24/25**	**Classification by ASTM 2487 requires Atterberg test**	**Sandy Loam**

Daniel B. Stephens & Associates, Inc.

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (1-26)
Job Number: DB26.1035.09
Sample Number: TP-13-02 (4.5-10ft) (No Dispersant)
Project Name: Section 27
Date Received: 10/24/25

Test Date: 9-Feb-26
Start Time: 8:30

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:*
Assumed particle density: 2.65

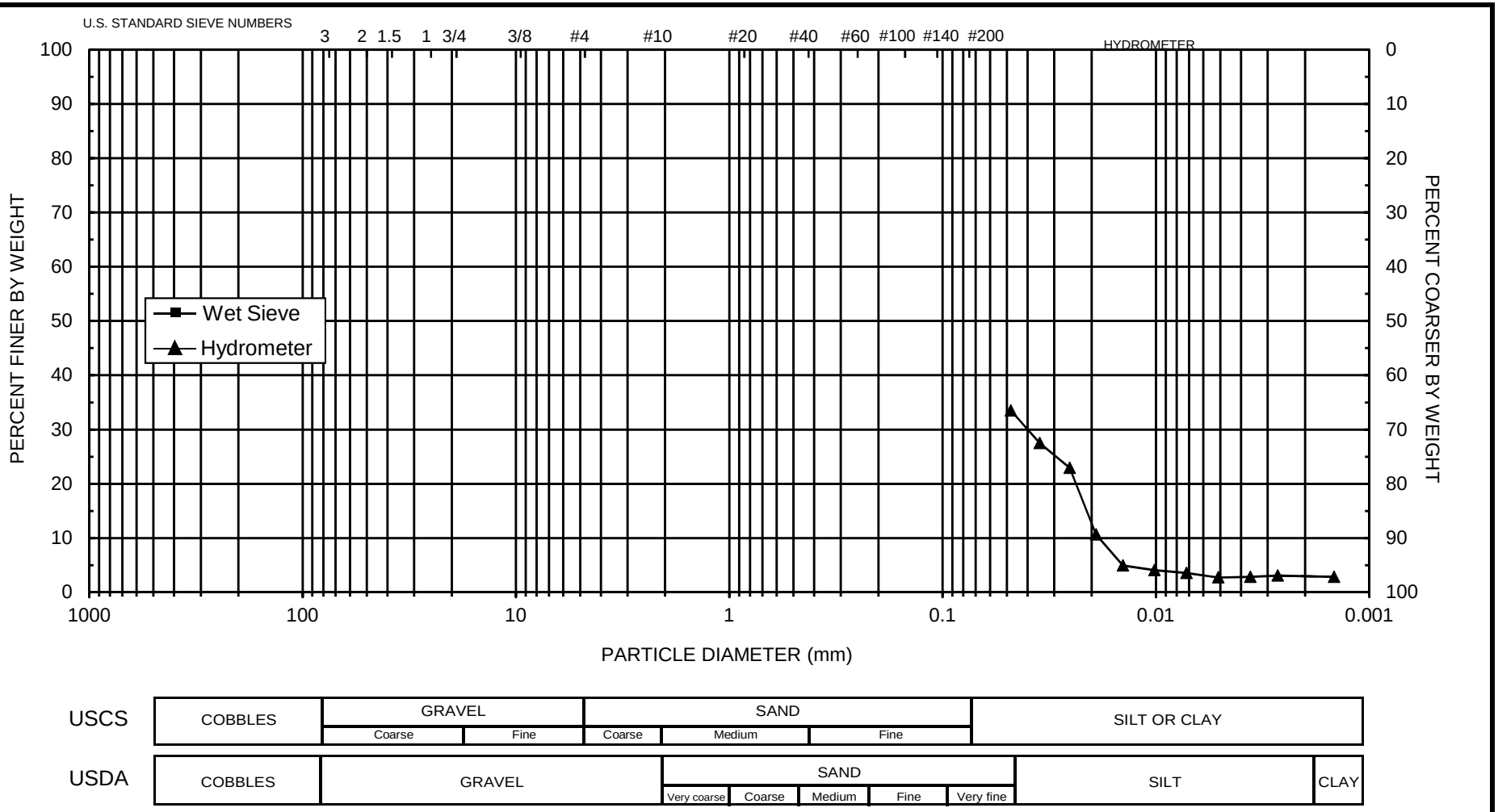
Initial Wt. (g)*:* 78.23
Total Sample Wt. (g)*:* 856.90
Wt. Passing #10 (g)*:* 765.60

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
11-Feb-26	1	19.40	29.00	-0.33	29.3	12	0.0479	37	33.5
	2	19.40	23.75	-0.33	24.1	13	0.0351	31	27.5
	4	19.40	19.75	-0.33	20.1	14	0.0254	26	22.9
	8	19.40	9.00	-0.33	9.3	16	0.0191	12	10.7
	15	19.40	4.00	-0.33	4.3	17	0.0143	6	4.9
	30	19.40	3.25	-0.33	3.6	17	0.0102	5	4.1
	60	19.50	2.75	-0.37	3.1	17	0.0072	4	3.6
	120	19.60	2.00	-0.40	2.4	17	0.0051	3	2.7
	240	19.90	2.00	-0.50	2.5	17	0.0036	3	2.9
	433	20.50	2.00	-0.70	2.7	17	0.0027	3	3.1
12-Feb-26	1464	19.90	2.00	-0.50	2.5	17	0.0015	3	2.9

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: J. Tafoya
Checked by: T. Morgan



USCS	COBBLES	GRAVEL: Coarse	GRAVEL: Fine	SAND: Coarse	SAND: Medium	SAND: Fine	SILT OR CLAY
USDA	COBBLES	GRAVEL	SAND: Very coarse	SAND: Coarse	SAND: Medium	SAND: Fine	SAND: Very fine	SILT	CLAY

d_{10} = **0.018**	d_{30} = **0.040**	d_{50} = **0.068**	d_{60} = **0.079**	C_u = **4.4**	C_c = **1.1**

SAMPLE NUMBER	DATE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-13-02 (4.5-10ft) (No Dispersant)	**10/24/25**	**Classification by ASTM 2487 requires Atterberg test**	**Sandy Loam** †

† Greater than 10% of sample is coarse material

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (1-26)
Job Number: DB26.1035.18
Sample Number: TP-16-01 (0-4ft) (No Dispersant)
Project Name: Section 27
Date Received: 10/24/25

Test Date: 11-Feb-26
Start Time: 8:36

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:*
Assumed particle density: 2.65

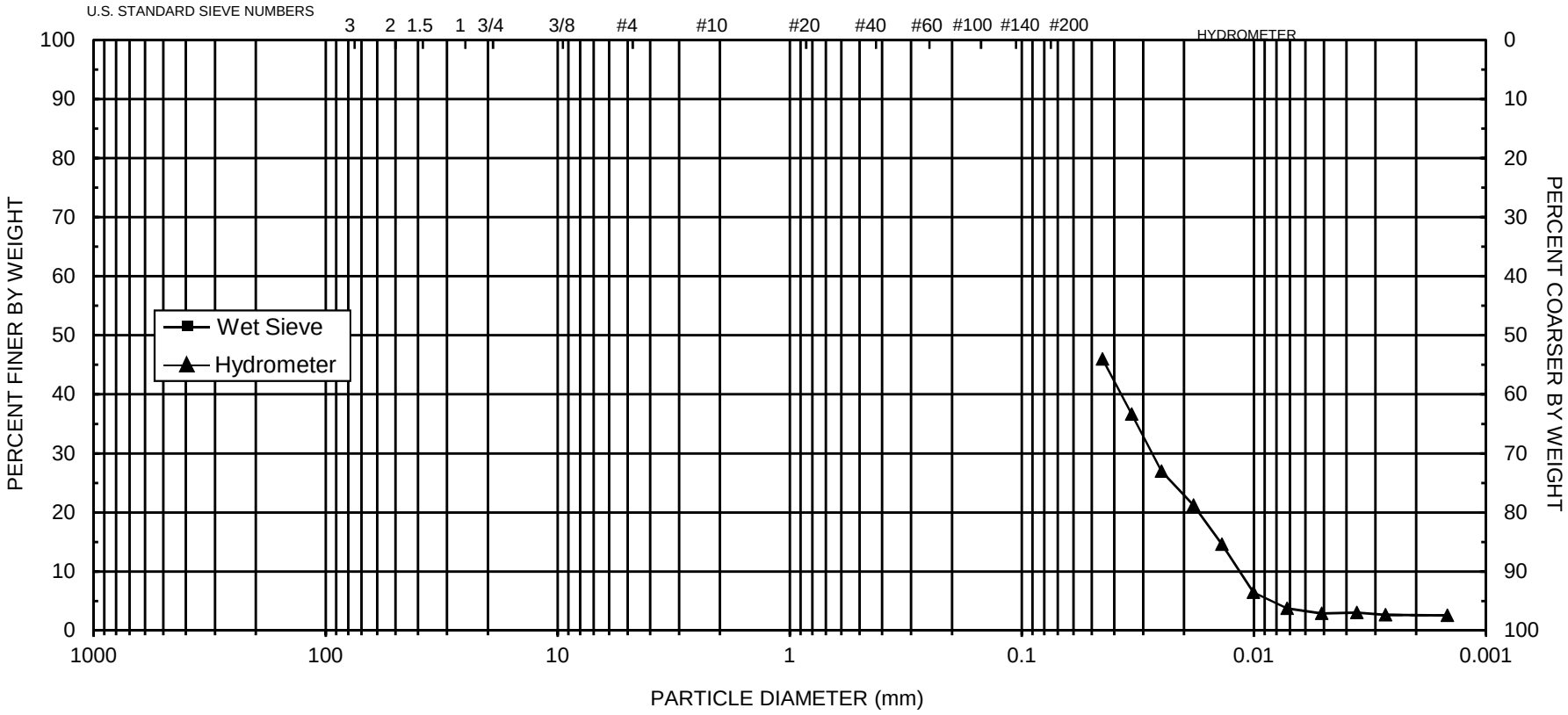
Initial Wt. (g)*:* 82.82
Total Sample Wt. (g)*:* 715.56
Wt. Passing #10 (g)*:* 715.54

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
11-Feb-26	1	19.40	37.75	-0.33	38.1	11	0.0450	46	46.0
	2	19.40	30.00	-0.33	30.3	12	0.0336	37	36.6
	4	19.40	22.00	-0.33	22.3	14	0.0251	27	27.0
	8	19.40	17.25	-0.33	17.6	14	0.0182	21	21.2
	15	19.40	11.75	-0.33	12.1	15	0.0137	15	14.6
	30	19.50	5.00	-0.37	5.4	16	0.0101	6	6.5
	60	19.50	2.75	-0.37	3.1	17	0.0072	4	3.8
	120	19.60	2.00	-0.40	2.4	17	0.0051	3	2.9
	241	19.90	2.00	-0.50	2.5	17	0.0036	3	3.0
	428	20.50	1.50	-0.70	2.2	17	0.0027	3	2.7
12-Feb-26	1459	19.50	1.75	-0.37	2.1	17	0.0015	3	2.6

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



USCS	COBBLES	GRAVEL: Coarse	GRAVEL: Fine	SAND: Coarse	SAND: Medium	SAND: Fine	SILT OR CLAY
USDA	COBBLES	GRAVEL	SAND: Very coarse	SAND: Coarse	SAND: Medium	SAND: Fine	SAND: Very fine	SILT	CLAY

d_{10} = **0.012**	d_{30} = **0.027**	d_{50} = **0.048**	d_{60} = **0.058**	C_u = **4.8**	C_c = **1.0**

SAMPLE NUMBER	DATE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-16-01 (0-4ft) (No Dispersant)	**10/24/25**	**Classification by ASTM 2487 requires Atterberg test**	**Sandy Loam**

Particle Size Analysis
Hydrometer Data

Job Name: Stantec (1-26)
Job Number: DB26.1035.11
Sample Number: TP-34-01 (0-10ft) (No Dispersant)
Project Name: Section 27
Date Received: 10/24/25

Test Date: 11-May-26
Start Time: 8:36

Type of Water Used: DISTILLED
Reaction with H_2O_2*:* MODERATE
Dispersant:*
Assumed particle density: 2.65

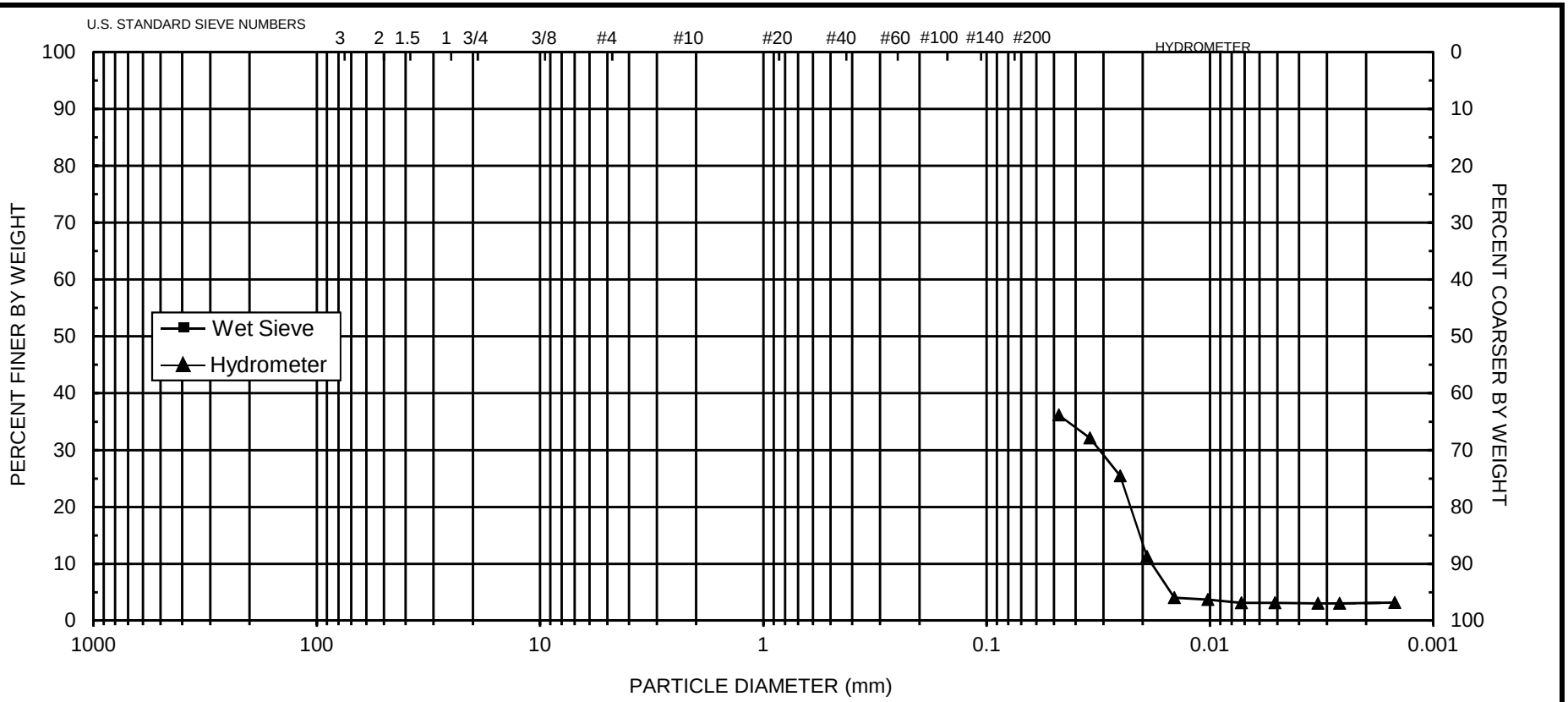
Initial Wt. (g)*:* 84.22
Total Sample Wt. (g)*:* 857.23
Wt. Passing #10 (g)*:* 835.63

Date	Time (min)	Temp (°C)	R (g/L)	R_L (g/L)	R_{corr} (g/L)	H_m (cm)	D (mm)	P (%)	% Finer
13-May-26	1	22.70	29.75	-1.48	31.2	12	0.0476	37	36.1
	2	22.70	26.25	-1.48	27.7	13	0.0345	33	32.1
	4	22.70	20.50	-1.48	22.0	14	0.0253	26	25.4
	8	22.70	8.25	-1.48	9.7	16	0.0191	12	11.3
	15	22.70	2.00	-1.48	3.5	17	0.0144	4	4.0
	30	22.60	1.75	-1.44	3.2	17	0.0102	4	3.7
	60	22.60	1.25	-1.44	2.7	17	0.0072	3	3.1
	120	22.60	1.25	-1.44	2.7	17	0.0051	3	3.1
	292	22.40	1.25	-1.37	2.6	17	0.0033	3	3.0
	456	22.40	1.25	-1.37	2.6	17	0.0026	3	3.0
14-May-26	1421	22.70	1.25	-1.48	2.7	17	0.0015	3	3.2

Comments:

* Dispersion device: mechanically operated stirring device

Laboratory analysis by: M. Sharma
Data entered by: M. Sharma
Checked by: T. Morgan



USCS	COBBLES	GRAVEL: Coarse	GRAVEL: Fine	SAND: Coarse	SAND: Medium	SAND: Fine	SILT OR CLAY
USDA	COBBLES	GRAVEL	SAND: Very coarse	SAND: Coarse	SAND: Medium	SAND: Fine	SAND: Very fine	SILT	CLAY

d_{10} = **0.018**	d_{30} = **0.031**	d_{50} = **0.075**	d_{60} = **0.080**	C_u = **4.4**	C_c = **0.67**

SAMPLE NUMBER	DATE RECEIVED	USCS CLASSIFICATION	USDA CLASSIFICATION
TP-34-01 (0-10ft) (No Dispersant)	**10/24/25**	**Classification by ASTM 2487 requires Atterberg test**	**Sandy Loam**

Laboratory Tests and Methods

Tests and Methods

Dry Bulk Density:	ASTM D7263
Moisture Content:	ASTM D7263, ASTM D2216
Calculated Porosity:	ASTM D7263
Saturated Hydraulic Conductivity:	
Constant Head: (Rigid Wall)	ASTM D2434
Falling Head: (Rigid Wall)	ASTM D5856M; Klute, A. and C. Dirkson. 1986. Hydraulic Conductivity and Diffusivity: Laboratory Methods.Chp. 28, pp. 700-703, in A. Klute (ed.), Methods of Soil Analysis, Part 1, American Society of Agronomy, Madison, WI
Falling Head Rising Tail: (Flexible Wall)	ASTM D5084
Hanging Column Method:	ASTM D6836 (modified apparatus)
Pressure Plate Method:	ASTM D6836
Water Potential (Dewpoint Potentiometer) Method:	ASTM D6836
Relative Humidity (Box) Method:	Campbell, G. and G. Gee. 1986. Water Potential: Miscellaneous Methods. Chp. 25, pp. 631-632, in A. Klute (ed.), Methods of Soil Analysis. Part 1. American Society of Agronomy, Madison, WI; Karathanasis & Hajek. 1982. Quantitative Evaluation of Water Adsorption on Soil Clays. SSA Journal 46:1321-1325
Moisture Retention Characteristics & Calculated Unsaturated Hydraulic Conductivity:	ASTM D6836; van Genuchten, M.T. 1980. A closed-form equation for predicting the hydraulic conductivity of unsaturated soils. SSSAJ 44:892-898; van Genuchten, M.T., F.J. Leij, and S.R. Yates. 1991. The RETC code for quantifying the hydraulic functions of unsaturated soils. Robert S. Kerr Environmental Research Laboratory, Office of Research and Development, U.S. Environmental Protection Agency, Ada, Oklahoma. EPA/600/2091/065. December 1991
Particle Size Analysis:	ASTM D7928, ASTM D6913
USCS (ASTM) Classification:	ASTM D6913, ASTM D4318, ASTM D2487
USDA Classification:	ASTM D7928, ASTM D6913, USDA Soil Textural Triangle
Atterberg Limits:	ASTM D4318
Standard Proctor Compaction:	ASTM D698
Coarse Fraction (Gravel) Correction (calc):	ASTM D4718; Bouwer, H. and Rice, R.C. 1984. Hydraulic Properties of Stony Vadose Zones. Groundwater Vol. 22, No. 6

Tests and Methods

Percent Passing #200:	ASTM D1140
One-Dimensional Consolidation Properties:	ASTM D2435
Estimated Compression Index:	Das, Braja M. 2002. Principles of Geotechnical Engineering. Chp. 10: Compressibility of Soil. Brooks/Cole, Pacific Grove, CA
One-Dimensional Swell or Settlement Potential:	ASTM D4546
Direct Shear Consolidated Drained:	ASTM D3080
Cohesion & Friction Angle:	Das, Braja M. 2002. Principles of Geotechnical Engineering. Chp. 11: Shear Strength of Soil. Brooks/Cole, Pacific Grove, CA
Dispersive Characteristics by Pinhole Dispersion	ASTM D4647

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Stantec is a global leader in sustainable engineering, architecture, and environmental consulting. The diverse perspectives of our partners and interested parties drive us to think beyond what's previously been done on critical issues like climate change, digital transformation, and future-proofing our cities and infrastructure. We innovate at the intersection of community, creativity, and client relationships to advance communities everywhere, so that together we can redefine what's possible.

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