From:	Stuart Hyde
To:	Chavez, Carl J, EMNRD
Cc:	Devin Hencmann; McCartney, Gregory J.
Subject:	[EXT] RE: Question: Marathon Petroleum Company, L.P. Former Giant Bloomfield Refinery (GW-40) in San Juan County: WQCC Application Administratively Complete
Date:	Thursday, July 16, 2020 9:17:48 AM
Attachments:	2020-7-15_GW-040_Corrigendum to Discharge Permit Application.pdf

Carl,

Please find attached the corrigendum with the replacement sheet and the correct reference to Appendix A. Please let me know if you need anything else regarding this issue. Thanks.

Stuart Hyde, LG
Project Geologist
970.385.1096 *direct*
970.903.1607 *cell*

From: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Sent: Tuesday, July 14, 2020 3:11 PM
To: Stuart Hyde <shyde@ltenv.com>
Cc: Devin Hencmann <dhencmann@ltenv.com>
Subject: RE: Question: Marathon Petroleum Company, L.P. Former Giant Bloomfield Refinery (GW-40) in San Juan County: WQCC Application Administratively Complete

Stuart:

Hi. Just send me an e-mail with the page addendums for the admin. record. I will place them in front of the application and the page numbers should coincide with the report, i.e., table of contents with appendix B removed, pg. with appendix B referenced.

Thx.

Mr. Carl J. Chavez, CHMM (#13099)
New Mexico Oil Conservation Division (Albuquerque Office)
Energy Minerals and Natural Resources Department
5200 Oakland Avenue, NE
Albuquerque, New Mexico 87113
Ph. (505) 660-7923
E-mail: CarlJ.Chavez@state.nm.us
"Why not prevent pollution, minimize waste to reduce operating costs, reuse or recycle, and move forward with the rest of the Nation?" (To see how, go to: http://www.emnrd.state.nm.us/OCD **and see "Publications")**

From: Stuart Hyde <shyde@ltenv.com>
Sent: Tuesday, July 14, 2020 3:06 PM
To: Chavez, Carl J, EMNRD <CarlJ.Chavez@state.nm.us>
Cc: Devin Hencmann <dhencmann@ltenv.com>
Subject: [EXT] RE: Question: Marathon Petroleum Company, L.P. Former Giant Bloomfield Refinery (GW-40) in San Juan County: WQCC Application Administratively Complete

LT Environmental, Inc.
848 East Second Avenue
Durango, Colorado 81301
970.385.1096

July 15, 2020

Mr. Carl Chavez
New Mexico Oil Conservation Division
5200 Oakland Avenue NE
Albuquerque, NM 87113

RE: Corrigendum to the May 2020 Discharge Permit Application
Former Giant Bloomfield Refinery
Western Refining Southwest, Inc.
Bloomfield, New Mexico

Dear Mr. Chavez:

On behalf of Western Refining Southwest, Inc. (Western), LT Environmental (LTE) is submitting this corrigendum for the Former Giant Bloomfield Refinery *Discharge Permit Application* submitted to the New Mexico Oil Conservation Division (NMOCD) in May 2020. Page 14 of the *Discharge Permit Application* contains a reference to "Appendix B", which is in error and should be replaced by a reference to "Appendix A". Other references in the document to Appendix A are correct. Attached is page 14 of the *Discharge Permit Application* that includes the corrected reference.

If you have any questions or comments regarding this corrigendum, please do not hesitate to contact LTE at (970) 385-1096 or via email at shyde@ltenv.com.

Sincerely,

LT ENVIRONMENTAL, INC.

Stuart Hyde, LG
Project Geologist

Ashley Ager, P.G.
Senior Geologist

cc: Greg McCartney, Western Refining Southwest, Inc.

Attachments:

Page 14 Replacement Sheet

TABLE OF CONTENTS

TABLE OF CONTENTS (continued)

FIGURES

TABLES

APPENDICES

GBR-50, located hydrogeologically upgradient of the source areas at the Site (identified on Figure 2) and downgradient of the Lee Acres Landfill Superfund site.

In June 2019, LTE performed a statistical analysis using ProUCL software (developed by the United States Environmental Protection Agency, or EPA) to develop "background" concentrations for the following constituents migrating onto the Site: chloride, chromium, iron, manganese, sulfate, and TDS. Table 3 presents the results of the statistical analysis and groundwater analytical results for these constituents detected between 2010 and 2018. Table 3 also presents the cleanup standards (or "remedial goals") established for the Lee Acres Landfill Superfund site in their *Remedial Investigation Report* (BLM, 1992) and *Record of Decision* (EPA, 2004). Appendix A presents the assumptions and inputs used for the statistical analysis. Appendix A also includes a letter prepared by LTE summarizing our findings that was provided to the EPA for their five-year review of the Lee Acres Landfill Superfund site (conducted in 2019).

12.2 FLOODING POTENTIAL

The greatest threat to flooding of the Facility are the San Juan River (located less than one mile south of the site) and the unnamed arroyo located within the Site itself. History suggests flooding potential of the San Juan River is small. From 1904 until 1976, only 23 flood events (on individual streams, not concurrent on all streams) have been recorded. According to a study conducted by the New Mexico Floodplain Managers Association (2003), previous floods of the San Juan River resulted from general rainstorms, snowmelt augmented by rain, and from cloudburst storms. Rain floods usually occur during the months of September and October. This type of flood results from prolonged heavy rainfall over tributary areas and is characterized by high peak flows of moderate duration. Major floods (recurrence interval of 100 or more years) result from excessive snowmelt runoff generated in the watershed upstream from Bloomfield. Flood flows generated by snowmelt generally occur during the period from May through July. Snowmelt flooding is characterized by moderate peak flows, large volume and long duration, and marked diurnal fluctuation in flow. The refinery is elevated above the floodplain of the San Juan River, decreasing the chance of a river flood, such as the ones described above, from reaching the Facility.

The flooding potential of the arroyo is predicted to be low as well. Similar arroyos have been studied in detail near Farmington and are described as ephemeral in character, flowing only during periods of heavy rainfall (New Mexico Floodplain Managers Association, 2003). Furthermore, the arroyo's influence on the Site and Facility has been decreased due to the construction of a new highway located between the arroyo and the refinery.

GW - 40

UIC CLASS V WELL

From: Stuart Hyde
To: Chavez, Carl J, EMNRD
Cc: Devin Hencmann; McCartney, Gregory J.
Subject: [EXT] GBR UIC Forms
Date: Tuesday, July 7, 2020 12:34:09 PM
Attachments: image004.png
image006.png
image008.png
GBR_UIC Class V Well System Forms.pdf

Carl,

Thanks for the call earlier. Attached are the forms with the revisions that we went over.

Also, I spoke to Devin and looked at our old data when the system was in operation and the treatment system (GAC tanks) can treat approximately 15 to 20 gallons/minute. The infiltration gallery can handle up to 50 gallons/minute if we were to discharge treated water from holding tanks. Let me know if you have any additional information.

A proud member of WSP

Stuart Hyde, LG
Project Geologist
970.385.1096 *office*
970.903.1607 *cell*
848 East Second Avenue Durango, CO 81301
www.ltenv.com

FOR SAMPLE USE ONLY – COMPARABLE FORMAT ACCEPTABLE

UNDERGROUND DISCHARGE SYSTEM (CLASS V) INVENTORY SHEET

(see instructions on back)

1. Name of facility: Former Giant Bloomfield Refinery

   Address of facility: 748 Road 350

   City/Town: Farmington State: NM Zip Code: 87401

   County: San Juan Location: Northeast corner of Hwy 64 and CR350

   Contact Person: Greg McCartney Phone Number: 419-421-2338

2. Name of Owner or Operator: Western Refining Southwest, Inc.

   Address of Owner or Operator: 539 South Main Street, Room M-7081

   City/Town: Findlay State: OH Zip Code: 45840

3. Type & number of system(s): ____Drywell(s) ____Septic System(s) __X__Other(describe): Infiltration Gallery
   Attach a schematic of the system. Attach a map or sketch of the location of the system at the facility.

4. Source of discharge into system: Discharge effluent will be derived from groundwater pumped from recovery wells on the property. Recovered water is expected to be impacted by petroleum hydrocarbons and will be treated prior to discharge using activated carbon.

5. Fluids discharged: Discharged fluids will consist of treated groundwater.

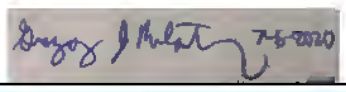
6. Treatment before discharge: Activated carbon adsorption

7. Status of underground discharge system: ☒ Existing ☐ Unused/Abandoned ☐ Under Construction ☐ Proposed

   Approved/Permitted by: NMOCD 1988 (original), 2012, 2020 (most recent) Date constructed: 1988

CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. (Ref. 40 CFR 144.32).

Signature:  Date: 7/6/2020

Name (printed): Greg McCartney

Official Title: Senior Environmental Professional

APPROVED

By Carl Chavez at 3:44 pm, Jul 07, 2020

Conditions of Approval: Must follow GW-40 Permit Conditions

OCD UIC QA Officer

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5

UNDERGROUND DISCHARGE SYSTEM (CLASS V) INVENTORY SHEET INSTRUCTIONS

Complete one sheet for each different kind of underground discharge or drainage system (Class V well) at your facility or location. For example, several storm water drainage wells of a similar construction can all go on one sheet. Another example could be a business with a single septic system (septic tank with drainfield) that accepts fluids from a paint shop sink in one area, their vehicle maintenance garage floor drains in another area and also serves the employee kitchenette and washroom: this can all go on one form.

The numbers below correspond to the numbers on the front of the sheet.

1. Supply the name and street address of the facility where the Class V well(s) is located. Please be sure to include the County name. If available, provide the Latitude/Longitude of the discharge system. If there is no street address for the discharge system(s), provide a description of the location and show the location on a map. Include the name and phone number of a person to contact if there are any questions regarding the underground discharge system(s) and/or the wastewaters discharged at the facility.

2. Provide the name and mailing address of the owner of the facility or if the facility is operated by lease, the operator of the facility.

3. Provide the number of underground discharge systems at the facility (or location) for the type of system that is described on this sheet. Please use a separate sheet for each different type of system present. If the type of system is "Other", please describe (e.g., french drain, leachfield, improved sinkhole, cesspool, etc.).

   Provide a sketch, diagram or blueprints of the construction of the system including the depth below the ground surface that the fluids are released into the soil, sediment or formation. Also provide a map or sketch of the layout of the pluming or drainage system, including all the connections, and if applicable, indicate each fluid source connection (i.e., floor drains, shop sink, process tank discharge, restrooms, etc.) and any pre-treatment, etc.

4. Describe the kind of business practice that generates the fluids being discharged into the underground system (e.g., body shop, drycleaner, carwash, print shop, restaurant, etc.), and/or if more appropriate, the source of the fluids (e.g., employee & customer restrooms, parking lot drainage, etc.). If available, include the Standard Industrial Classification (SIC) Codes for this facility.

5. List the kinds of fluids that can enter the underground system (e.g., storm water run-off, sanitary waste, solvents, biodegradable soap wash & rinse water, snowmelt from trucks, photo developing fluids, ink, paint & thinner, non-contact cooling water, etc.). Please be as specific as you can about the kinds of fluids or products that can be drained into the system. Generally, good sources for this information are the Material Safety Data Sheets (MSDS) (copies of MSDS could be attached instead of listing all the products). If available, also attach a copy of any chemical analysis for the fluids discharged.

6. Describe the kinds of treatment (if any) that the fluids go through before disposal. Examples of treatment are: grease trap, package plant, oil/water separator, catch basin, metal recovery unit, sand filter, grit cleanser, etc.

7. Select the status of the underground discharge system and include the date the system was constructed. If the status is “Existing” but it is not being used, is unusable, will not be used, or is temporarily abandoned, mark the box for “Unused/Abandoned”. If state or local government approval was given for construction of the system, or a permit was issued for the system, please provide the name of the approving authority. Provide an estimated date of construction if the actual date is unknown.

The person signing the submittal should read the certification statement before signing and dating the sheet.

If you have any questions about whether or not you may have an EPA regulated system, or about how to complete this sheet, please call (312) 886-1492. You may also try our website at www.epa.gov/r5water/uic/uic.htm for information.

Please send completed sheets to: U.S. EPA Region 5
Underground Injection Control Branch
ATTN: Lisa Perenchio (WU-16J)
77 W. Jackson Blvd.
Chicago, IL 60604

8/02

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL
RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

FORM C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____Secondary Recovery _____Pressure Maintenance __XX__Disposal _____Storage
Application qualifies for administrative approval? _____Yes _____No

II. OPERATOR: Western Refining Southwest, Inc.

ADDRESS: 539 South Main Street Room M-7081, Findlay, OH 45840

CONTACT PARTY: Greg McCartney PHONE: 419-421-2338

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? __XX__Yes _____No
If yes, give the Division order number authorizing the project: Discharge Permit GW-040

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review. See Attached Figure 1

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail. See Tables 1 and 2 for water and oil/gas well information

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected; See attached Section 7.0 from the Discharge Permit
2. Whether the system is open or closed; open, See attached Section 8.0 and Figures 3, 4, and 5 from the Discharge Permit
3. Proposed average and maximum injection pressure; System is gravity fed with a maximum 50 gallons per minute injection rate.
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and, See attached Tables for influent and effluent analytical results.
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.). See attached tables for groundwater analytical information.

VIII. VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval. See attached Section 12.0 from the Discharge Permit and Figure 6 and 7.

IX. Describe the proposed stimulation program, if any. Not applicable

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

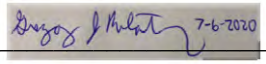
*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken. See attached tables and Figure 2.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Greg McCartney TITLE: Senior Environmental Professional

SIGNATURE:  DATE: 7/6/2020

E-MAIL ADDRESS: gjmccartney@marathonpetroleum.com

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

Side 2

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Side 1

INJECTION WELL DATA SHEET

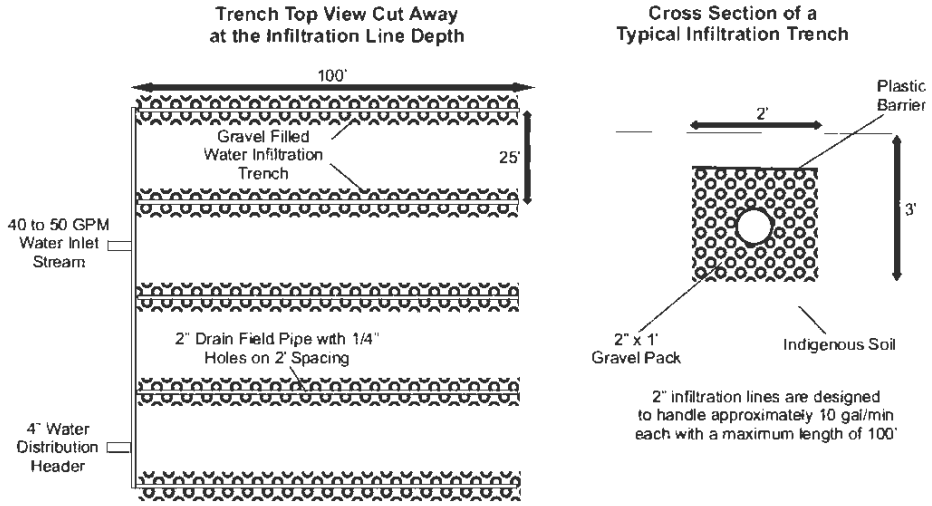
OPERATOR: Western Refining Southwest, Inc.

WELL NAME & NUMBER: Infiltration Trench

WELL LOCATION:	36.703061, -108.093532 NAD83	D	NWNW 27	29N	12W
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC

Infiltration Gallery Design



Description: Effluent from the treatment system is discharged by gravity to the infiltration gallery. The gallery consists of five horizontally placed perforated pipes that are approximately 1 to 2 feet below ground surface and surrounded by crushed gravel. Each 2-inch diameter infiltration pipe is designed to handle approximately 10 gallons/minute (system total 50 gallons/minute).

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 8 inch entry point Casing Size: 4 inch (above ground entry)

Cemented with: N/A sx. ***or*** _____ ft^3

Top of Cement: N/A Method Determined: _____

Intermediate Casing

Hole Size: 2'(w) x 3'(d) x 100' (l) each pipe trench Casing Size: 2 inch piping

Cemented with: N/A sx. ***or*** _____ ft^3

Top of Cement: N/A Method Determined: _____

Production Casing

Hole Size: 2'(w) x 3' (d) x 100' (l) each pipe trench Casing Size: 2 inch

Cemented with: N/A sx. ***or*** _____ ft^3

Top of Cement: N/A Method Determined: _____

Total Depth: 3 feet

Injection Interval

1 feet to 3

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 2 inch Lining Material: PVC

Type of Packer: NA

Packer Setting Depth: NA

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

1. Is this a new well drilled for injection? X Yes ___ ___No

   If no, for what purpose was the well originally drilled? __ _

   _____

2. Name of the Injection Formation: quaternary alluvium

3. Name of Field or Pool (if applicable): NA

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. __N/A, infiltration gallery_____

5. _____

   Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: NA

   _____

   _____

   _____

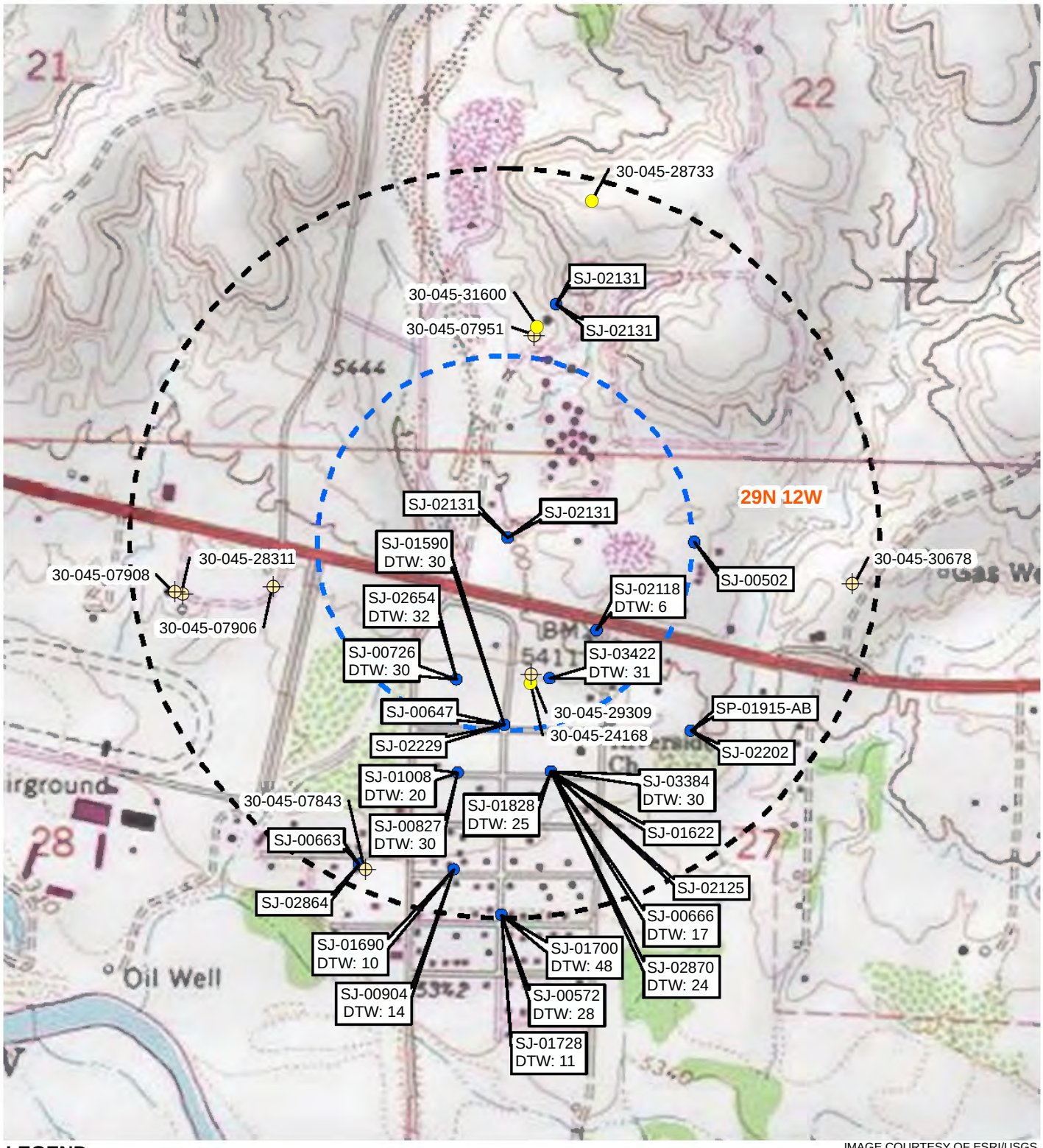


IMAGE COURTESY OF ESRI/USGS

LEGEND

- WATER WELL
- ACTIVE OIL & GAS WELL
- PLUGGED OIL & GAS WELL
- HALF-MILE RADIUS
- QUARTER-MILE RADIUS

DTW: DEPTH TO WATER

0 1,000 2,000
Feet

N

FIGURE 1
WELL LOCATION MAP
FORMER GIANT BLOOMFIELD REFINERY
SW SEC 22 & NW SEC 27 T29N R12W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.

P:\Marathon Petroleum\GIS\MXD\095820002_GBR\095820002_GIANT_FIG01_WELL LOC_2020.mxd

DISCHARGE PERMIT APPLICATION

FORMER GIANT BLOOMFIELD REFINERY
BLOOMFIELD, NEW MEXICO

MAY 2020

Prepared for:

WESTERN REFINING SOUTHWEST, INC.
111 COUNTY ROAD 4990
BLOOMFIELD, NEW MEXICO 87413

Prepared by:

LT ENVIRONMENTAL, INC.
848 East Second Avenue
Durango, Colorado 81301
970.385.1096

A proud member of WSP

7.0 EFFLUENT SOURCES

The effluent will be derived from groundwater pumped from a series of recovery wells at the Site. Groundwater in several areas of the Site is impacted by petroleum hydrocarbons. However, the recovered water will be treated prior to discharge (see Section 8.0). Table 1 presents the analytical results of the influent and effluent water in 2015 prior to shut-down of the remediation system. Up to 420,000 gallons of water was previously treated and discharged per month.

8.0 WATER COLLECTION, TREATMENT, AND DISPOSAL

8.1 WATER COLLECTION

At the Facility, petroleum hydrocarbon-impacted groundwater and phase-separated hydrocarbons (PSH) may be pumped from the shallow aquifer through a series of recovery wells located within the formerly defined contaminant plume associated with the Site. Locations of previously used recovery wells are shown in Figure 2 and are identified by the acronym GRW (Giant Recovery Well), followed by a numerical designation. There may be solid filters in each recovery well enclosure to control deposition of solid contaminants in the system. Flow meters will be installed to monitor volumes of groundwater recovered.

8.2 WATER TREATMENT

Recovered water exhibiting dissolved phase contaminants and/or PSH above New Mexico Water Quality Control Commission (NMWQCC) regulatory standards require treatment to within applicable guidelines prior to discharge. A carbon adsorption process formerly was utilized for water treatment prior to discharge and is available for future use, if appropriate. This process removes contaminants from the groundwater by forcing it through tanks containing activated carbon treated to attract the contaminants. Figure 3 presents a simplified representation of the groundwater recovery and treatment system at the Site. Figure 4 details the carbon adsorption tank and associated piping used at the refinery.

8.2.1 Tank 102

Depending on the volume recovered, Tank 102 (capacity of 500 barrels, or 21,000 gallons) may be used as an intermediate storage tank for the water treatment system. The tank can store water before it is treated.

8.3 WATER DISCHARGE

Once treated, water can be discharged to an infiltration trench located within the Site boundary. Infiltration trenches consist of subsurface distribution systems placed within gravel packs. Water infiltrates into the surrounding strata and eventually makes its way to the shallow aquifer. Figure 5 illustrates a typical infiltration gallery. The return of treated water to the aquifer serves to recharge the aquifer.

12.0 GEOLOGICAL/HYDROLOGICAL INFORMATION

The Facility and Site are located on weathered outcrops of Nacimiento Formation, which is comprised of shales, sandstones and siltstones of Cretaceous-Tertiary age. Immediately to the west of the Facility and on Western's property is a large unnamed arroyo, which is underlain by 30 to 60 feet of Quaternary alluvial sediments. Older Quaternary terrace deposits of cobbles and boulders are observed on the interfluvial ridges adjacent to the arroyo. These terrace deposits may have been utilized as fill on the refinery site. The San Juan River Valley is located south of the site and contains up to several hundred feet of alluvial fill.

The uppermost zone of ground water in the refinery area is unconfined to partially confined water table unit, which is hosted by the weathered, locally porous sandstones and shales of the Nacimiento Formation and arroyo alluvium. These units merge hydrologically with the San Juan River alluvium to the south. Figures 6 and 7 present generalized cross sections through the refinery site showing the relationship of the arroyo alluvium to bedrock. Major hydrogeologic features of the site are:

- An interconnected water table aquifer hosted by both valley and arroyo fill and the upper parts of the Nacimiento Formation;
- Ground water at a depth of 30 to 70 feet beneath the land surface;
- An upper water table surface generally conforming to topography, with ground water flow from north or northeast to south (towards the San Juan River) through the refinery area;
- Minor, local zones of perched ground water lying 5 to 10 feet above the water table.

Water levels and floating product thicknesses were measured in all wells at the Site during 2019. A record of these measurements is shown in Table 2. A groundwater contour map was prepared based on the static water levels of all the wells at the Site in November 2019 (Figure 8). This map is representative of static conditions of the aquifer because pumping currently is not being performed on wells at the Site. Where floating product was encountered, the product thickness has been multiplied by 0.8 and added to the measured water elevation. This calculation corrects for the difference in density between floating product and water.

12.1 BACKGROUND CONCENTRATIONS

As discussed in the *Stage 1 Abatement Plan* prepared for the Site (LTE, 2020), several constituents are present at the Site at concentrations exceeding NMWQCC standards. However, based on concentrations detected in wells hydrogeologically upgradient of the Site, elevated concentrations of several constituents are present due to the offsite migration of contaminants originating from the Lee Acres Landfill Superfund site. Specifically, chloride, chromium, iron, sulfate, and TDS concentrations are present in groundwater at and downgradient of the Lee Acres Landfill at concentrations above NMWQCC standards; however, these constituents were not considered during the remediation-selection process outlined in the *Record of Decision* for the Superfund site (EPA, 2004). In addition to these constituents, manganese (considered a COC for the Lee Acres Landfill Superfund site) also is found at concentrations above NMWQCC standards. These constituents have long been detected at the Site in upgradient wells GBR-32, GBR-48, GBR-49, and

GBR-50, located hydrogeologically upgradient of the source areas at the Site (identified on Figure 2) and downgradient of the Lee Acres Landfill Superfund site.

In June 2019, LTE performed a statistical analysis using ProUCL software (developed by the United States Environmental Protection Agency, or EPA) to develop "background" concentrations for the following constituents migrating onto the Site: chloride, chromium, iron, manganese, sulfate, and TDS. Table 3 presents the results of the statistical analysis and groundwater analytical results for these constituents detected between 2010 and 2018. Table 3 also presents the cleanup standards (or "remedial goals") established for the Lee Acres Landfill Superfund site in their *Remedial Investigation Report* (BLM, 1992) and *Record of Decision* (EPA, 2004). Appendix B presents the assumptions and inputs used for the statistical analysis. Appendix B also includes a letter prepared by LTE summarizing our findings that was provided to the EPA for their five-year review of the Lee Acres Landfill Superfund site (conducted in 2019).

12.2 FLOODING POTENTIAL

The greatest threat to flooding of the Facility are the San Juan River (located less than one mile south of the site) and the unnamed arroyo located within the Site itself. History suggests flooding potential of the San Juan River is small. From 1904 until 1976, only 23 flood events (on individual streams, not concurrent on all streams) have been recorded. According to a study conducted by the New Mexico Floodplain Managers Association (2003), previous floods of the San Juan River resulted from general rainstorms, snowmelt augmented by rain, and from cloudburst storms. Rain floods usually occur during the months of September and October. This type of flood results from prolonged heavy rainfall over tributary areas and is characterized by high peak flows of moderate duration. Major floods (recurrence interval of 100 or more years) result from excessive snowmelt runoff generated in the watershed upstream from Bloomfield. Flood flows generated by snowmelt generally occur during the period from May through July. Snowmelt flooding is characterized by moderate peak flows, large volume and long duration, and marked diurnal fluctuation in flow. The refinery is elevated above the floodplain of the San Juan River, decreasing the chance of a river flood, such as the ones described above, from reaching the Facility.

The flooding potential of the arroyo is predicted to be low as well. Similar arroyos have been studied in detail near Farmington and are described as ephemeral in character, flowing only during periods of heavy rainfall (New Mexico Floodplain Managers Association, 2003). Furthermore, the arroyo's influence on the Site and Facility has been decreased due to the construction of a new highway located between the arroyo and the refinery.

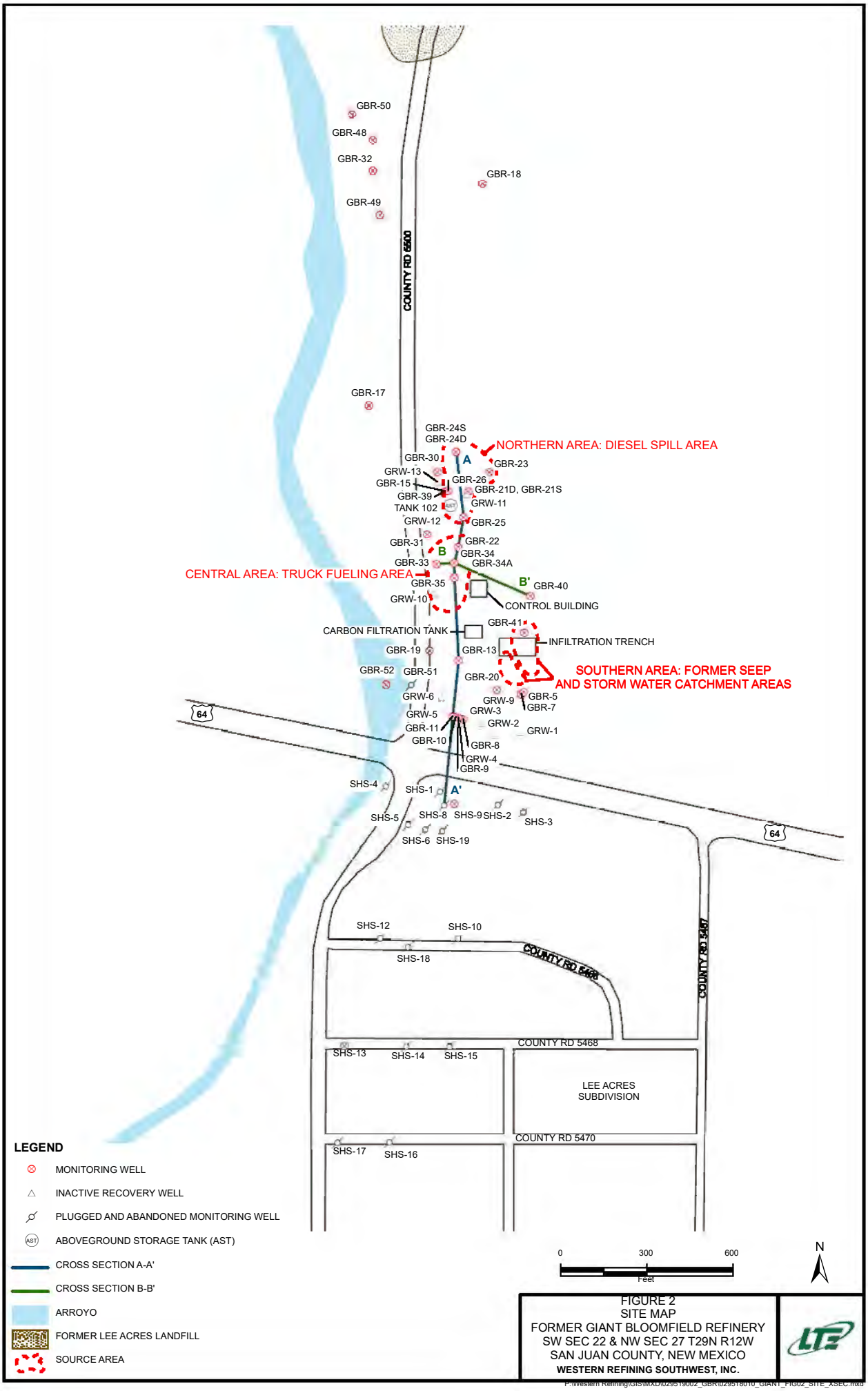


FIGURE 2
SITE MAP
FORMER GIANT BLOOMFIELD REFINERY
SW SEC 22 & NW SEC 27 T29N R12W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.

P:\Western Refining\GIS\MXD\029519002_GBR\029518010_GIANT_FIG02_SITE_XSEC.mxd

FIGURE 3
SIMPLIFIED REPRESENTATION OF THE GROUNDWATER RECOVERY, TREATMENT, AND DISCHARGE SYSTEM
FORMER GIANT BLOOMFIELD REFINERY
SW SEC 22 & NW SEC 27 T29N R12W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.

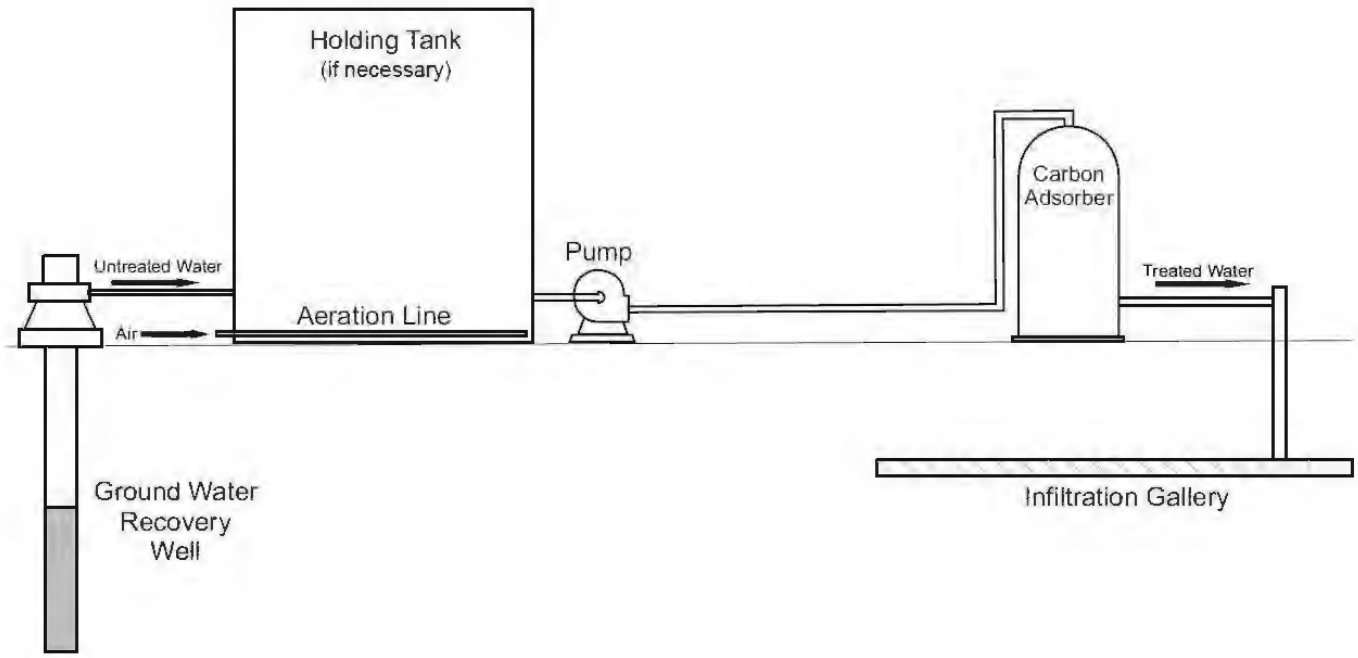


FIGURE 4
THE CARBON ADSORPTION SYSTEM
FORMER GIANT BLOOMFIELD REFINERY
SW SEC 22 & NW SEC 27 T29N R12W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.

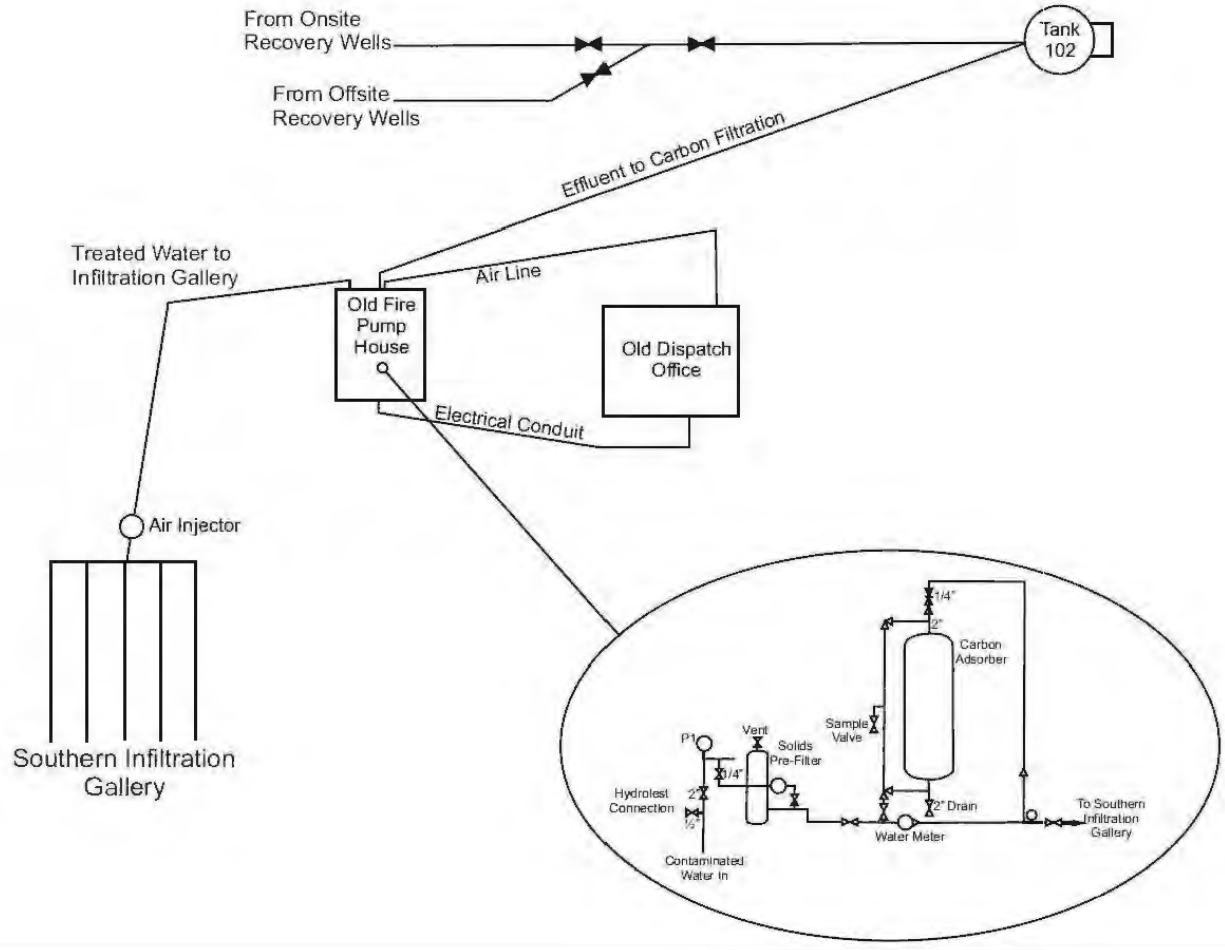
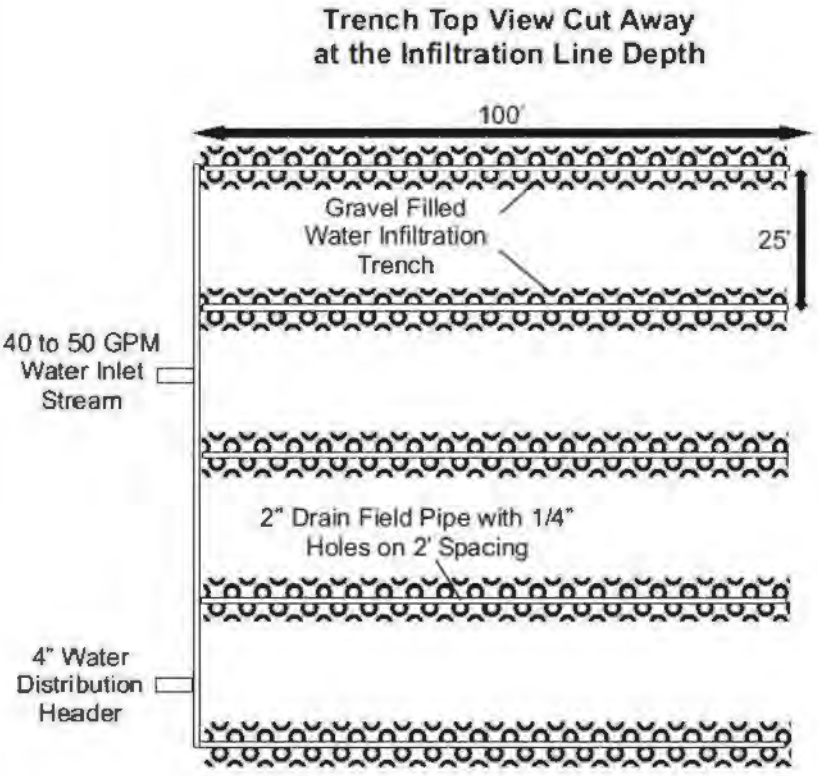
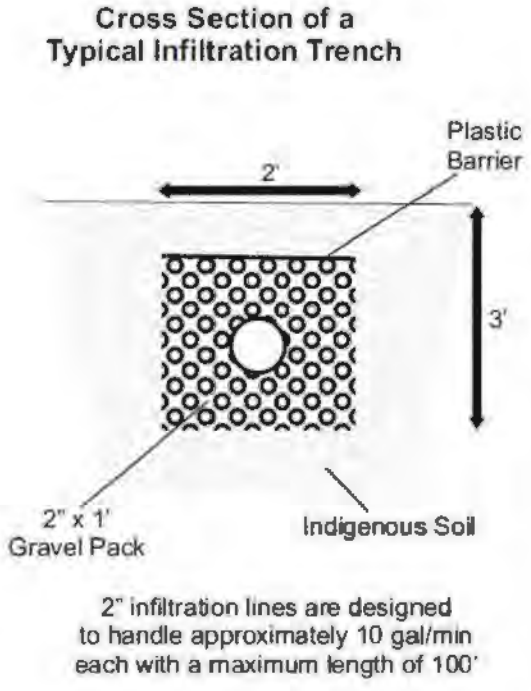


FIGURE 5
INFILTRATION TRENCH DESIGN AND CONSTRUCTION SPECIFICATIONS
FORMER GIANT BLOOMFIELD REFINERY
SW SEC 22 & NW SEC 27 T29N R12W
SAN JUAN COUNTY, NEW MEXICO
WESTERN REFINING SOUTHWEST, INC.





NORTH

A

SOUTH

A'

ELEVATION IN FEET

5,400
5,395
5,390
5,385
5,380
5,375
5,370
5,365
5,360
5,355
5,350
5,345
5,340
5,335
5,330

GBR24D

TD =
49 FEET BGS

GBR25

TD =
48 FEET BGS

GBR22

SILTED IN

TD =
48 FEET BGS

GBR34

TD =
48' FEET BGS

GBR35

TD =
50 FEET BGS

GBR13

TD =
48 FEET BGS

GBR11

TD =
55 FEET BGS

SHS8

TD =
53 FEET BGS

SCREENED
INTERVAL
UNKNOWN

LEGEND

- SANDY SILT
- CLAYEY SAND
- SILTY SAND
- SAND
- PEBBLES/GRAVEL
- NACIMIENTO SHALE
- NACIMIENTO SANDSTONE

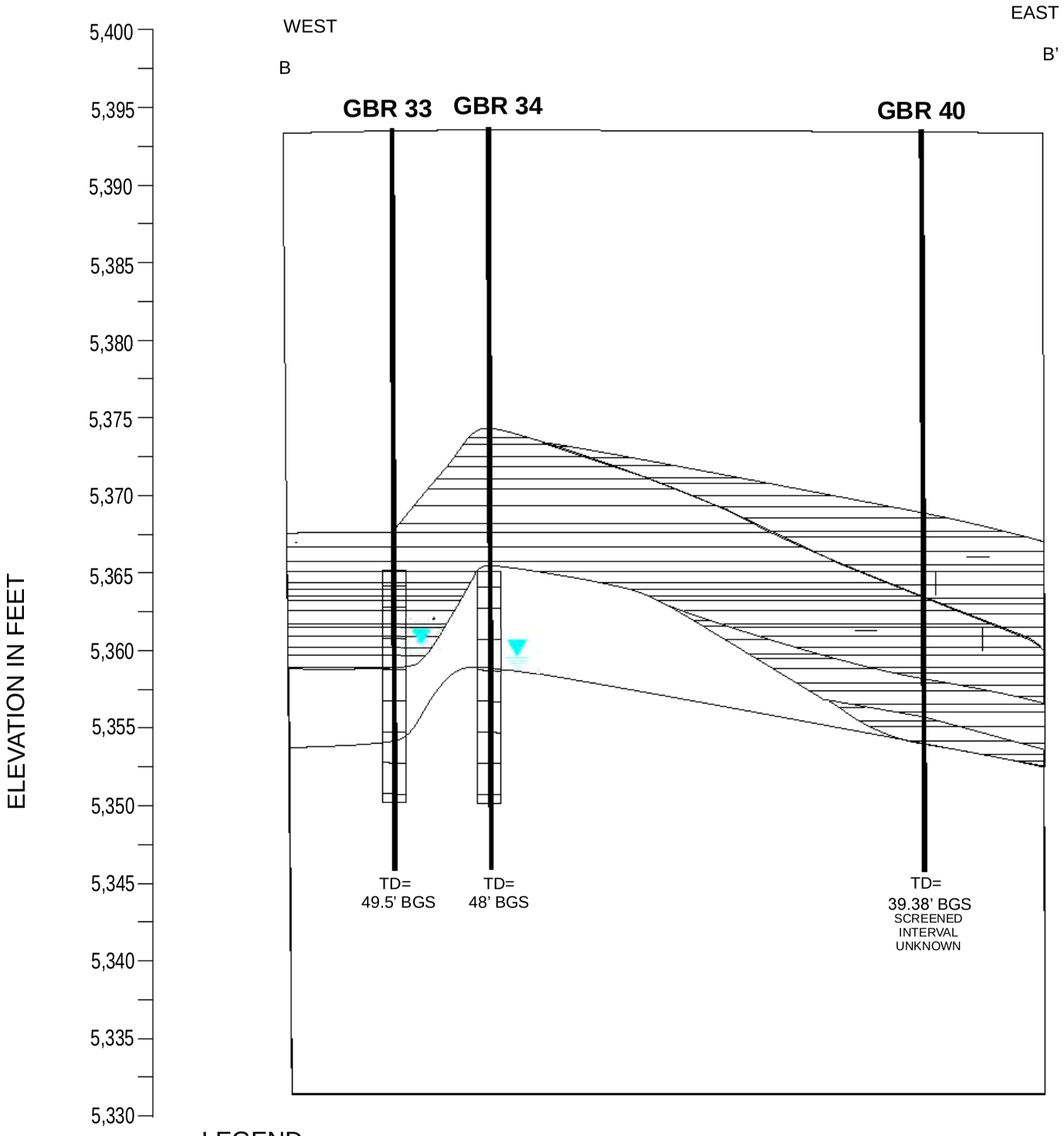
- BOREHOLE
- SCREENED INTERVAL
- BGS — BELOW GROUND SURFACE
- TD — TOTAL DEPTH IN FEET
- GROUNDWATER ELEVATION FROM OCTOBER 2018

HORIZONTAL SCALE
1" = 10 FEET

VERTICAL SCALE
1" = 90 FEET

FIGURE 6
CROSS SECTION A-A'
FORMER GIANT BLOOMFIELD REFINERY
SWSW SEC 22 &WNW SEC 27 T29N R12W
WESTERN REFINING SOUTHWEST, INC.

WR1009 1/16



LEGEND

- CLAYEY SAND
- CLAY
- SAND
- NACIMIENTO SANDSTONE
- DRY
- BOREHOLE
- SCREENED INTERVAL
- BGS BELOW GROUND SURFACE
- TD TOTAL DEPTH IN FEET
- GROUNDWATER ELEVATION OCTOBER 2017

HORIZONTAL SCALE
1" = 10 FEET

VERTICAL SCALE
1" = 90 FEET

FIGURE 7
CROSS SECTION B-B'
FORMER GIANT BLOOMFIELD REFINERY
SWSW SEC 22 &WNW SEC 27 T29N R12W
WESTERN REFINING SOUTHWEST, INC.

TABLE 1
2015 INFUENT AND EFFLUENT ANALYTICAL RESULTS

FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST, INC.
SAN JUAN COUNTY, NEW MEXICO

Analyte	NMWQCC Standard	Unit	Influent 27-Jan	Effluent 27-Jan	Influent 8-Apr	Effluent 8-Apr	Influent 24-Jul	Effluent 24-Jul	Influent 3-Aug	Effluent 3-Aug
USEPA Method 8260B: Volatiles										
benzene	**10**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
toluene	**750**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
ethylbenzene	**750**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
methyl tert-butyl ether (MTBE)	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-trimethylbenzene	**620**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-trimethylbenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dichloroethane (EDC)	**10**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dibromoethane (EDB)	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
naphthalene	NE	µg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1-methylnaphthalene	NE	µg/L	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
2-methylnaphthalene	NE	µg/L	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
acetone	NE	µg/L	<10	<10	<10	<10	<10	<10	<10	<10
bromobenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
bromodichloromethane	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
bromoform	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
bromomethane	NE	µg/L	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
2-butanone	NE	µg/L	<10	<10	<10	<10	<10	<10	<10	<10
carbon disulfide	NE	µg/L	<10	<10	<10	<10	<10	<10	<10	<10
carbon tetrachloride	**10**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
chlorobenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
chloroethane	NE	µg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
chloroform	**100**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
chloromethane	NE	µg/L	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
2-chlorotoluene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-chlorotoluene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-DCE	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-dichloropropene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dibromo-3-chloropropane	NE	µg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
dibromochloromethane	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
dibromomethane	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dichlorobenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-dichlorobenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-dichlorobenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
dichlorodifluoromethane	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-dichloroethane	**25**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-dichloroethene	**5**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-dichloropropane	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-dichloropropane	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,2-dichloropropane	NE	µg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
1,1-dichloropropene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

TABLE 1
2015 INFUENT AND EFFLUENT ANALYTICAL RESULTS

FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST, INC.
SAN JUAN COUNTY, NEW MEXICO

Analyte	NMWQCC Standard	Unit	Influent 27-Jan	Effluent 27-Jan	Influent 8-Apr	Effluent 8-Apr	Influent 24-Jul	Effluent 24-Jul	Influent 3-Aug	Effluent 3-Aug
hexachlorobutadiene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-hexanone	NE	µg/L	<10	<10	<10	<10	<10	<10	<10	<10
isopropylbenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-isopropytoluene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-methyl-2-pentanone	NE	µg/L	<10	<10	<10	<10	<10	<10	<10	<10
methylene chloride	**100**	µg/L	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
n-butylbenzene	NE	µg/L	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
n-propylbenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
sec-butylbenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
styrene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
tert-butylbenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-tetrachloroethane	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-tetrachloroethane	**10**	µg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
tetrachloroethene (PCE)	**20**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,2-DCE	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,3-dichloropropene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-trichlorobenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-trichlorobenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-trichloroethane	**60**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-trichloroethane	**10**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trichloroethene (TCE)	**100**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trichlorofluoromethane	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,3-trichloropropane	NE	µg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
vinyl chloride	**1**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
xylenes, total	**620**	µg/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5

Notes:

BOLD - indicates concentration exceeds the NMWQCC standard
mg/L - milligrams per liter
NE - not established
NMWQCC - New Mexico Water Quality Control Commission
NT - not tested
µg/L - micrograms per liter
USEPA - United States Environmental Protection Agency

TABLE 1
2019 ANNUAL COMPLIANCE - GROUNDWATER LABORATORY ANALYTICAL RESULTS

FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST, INC.
SAN JUAN COUNTRY, NEW MEXICO

Analyte	NMWQCC Standard	Unit	GRW-3	GRW-6	GBR-17	GBR-24D	GBR-30	GBR-31	GBR-32	GBR-48	GBR-49	GBR-50	GBR-52	SHS-9
			7-Nov	7-Nov	5-Nov	6-Nov	6-Nov	7-Nov	5-Nov	5-Nov	5-Nov	5-Nov	5-Nov	5-Nov
USEPA Method 8260B - Volatiles														
benzene	**10**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.5
toluene	**750**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
ethylbenzene	**750**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	18
methyl tert-butyl ether (MTBE)	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,2,4-trimethylbenzene	**620**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,3,5-trimethylbenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,2-dichloroethane (EDC)	**10**	µg/L	<1.0	<1.0	<1.0	1.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,2-dibromoethane (EDB)	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
naphthalene	NE	µg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10
1-methylnaphthalene	NE	µg/L	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<20
2-methylnaphthalene	NE	µg/L	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0	<20
acetone	NE	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50
bromobenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
bromodichloromethane	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
bromoform	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
bromomethane	NE	µg/L	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<15
2-butanone	NE	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50
carbon disulfide	NE	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50
carbon tetrachloride	**10**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
chlorobenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
chloroethane	NE	µg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10
chloroform	**100**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
chloromethane	NE	µg/L	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<15
2-chlorotoluene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
4-chlorotoluene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
cis-1,2-DCE	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
cis-1,3-dichloropropene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,2-dibromo-3-chloropropane	NE	µg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10
dibromochloromethane	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
dibromomethane	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,2-dichlorobenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,3-dichlorobenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,4-dichlorobenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
dichlorodifluoromethane	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,1-dichloroethane	**25**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,1-dichloroethene	**5**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,2-dichloropropane	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,3-dichloropropane	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
2,2-dichloropropane	NE	µg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10

TABLE 1
2019 ANNUAL COMPLIANCE - GROUNDWATER LABORATORY ANALYTICAL RESULTS

FORMER GIANT BLOOMFIELD REFINERY
WESTERN REFINING SOUTHWEST, INC.
SAN JUAN COUNTRY, NEW MEXICO

Analyte	NMWQCC Standard	Unit	GRW-3	GRW-6	GBR-17	GBR-24D	GBR-30	GBR-31	GBR-32	GBR-48	GBR-49	GBR-50	GBR-52	SHS-9
			7-Nov	7-Nov	5-Nov	6-Nov	6-Nov	7-Nov	5-Nov	5-Nov	5-Nov	5-Nov	5-Nov	5-Nov
1,1-dichloropropene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
hexachlorobutadiene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
2-hexanone	NE	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50
isopropylbenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	6.1
4-isopropytoluene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
4-methyl-2-pentanone	NE	µg/L	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<50
methylene chloride	**100**	µg/L	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<15
n-butylbenzene	NE	µg/L	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<15
n-propylbenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.1
sec-butylbenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
styrene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
tert-butylbenzene	NE	µg/L	2.7	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,1,1,2-tetrachloroethane	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,1,2,2-tetrachloroethane	**10**	µg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10
tetrachloroethene (PCE)	**20**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
trans-1,2-DCE	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
trans-1,3-dichloropropene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,2,3-trichlorobenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,2,4-trichlorobenzene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,1,1-trichloroethane	**60**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,1,2-trichloroethane	**10**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
trichloroethene (TCE)	**100**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
trichlorofluoromethane	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,2,3-trichloropropane	NE	µg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<10
vinyl chloride	**1**	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
xylenes, total	**620**	µg/L	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<7.5
USEPA Method 8270C: Polycylic Aromatic Hydrocarbons														
naphthalene	**30**	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT
1-methylnaphthalene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NT	NT	NT	NT	NT	NT
2-methylnaphthalene	NE	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	NT	NT	NT	NT	NT	NT
acenaphthylene	NE	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT
acenaphthene	NE	µg/L	0.98	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT
fluorene	NE	µg/L	4.3	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT
phenanthrene	NE	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT
anthracene	NE	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT
fluoranthene	NE	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT
pyrene	NE	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT
benz(a)anthracene	NE	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT
chrysene	NE	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT

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WESTERN REFINING SOUTHWEST, INC.
SAN JUAN COUNTRY, NEW MEXICO

Analyte	NMWQCC Standard	Unit	GRW-3	GRW-6	GBR-17	GBR-24D	GBR-30	GBR-31	GBR-32	GBR-48	GBR-49	GBR-50	GBR-52	SHS-9
			7-Nov	7-Nov	5-Nov	6-Nov	6-Nov	7-Nov	5-Nov	5-Nov	5-Nov	5-Nov	5-Nov	5-Nov
benzo(b)fluoranthene	NE	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT
benzo(k)fluoranthene	NE	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT
benzo(a)pyrene	**0.7**	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT
dibenz(a,h)anthracene	NE	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT
benzo(g,h,i)perylene	NE	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT
indeno(1,2,3-cd)pyrene	NE	µg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	NT	NT	NT	NT	NT	NT
USEPA Method 300.0: Anions														
bromide	NE	mg/L	0.53	<0.50	<0.50	<0.50	<0.50	0.98	<0.50	<0.50	<0.50	<0.50	<0.50	0.78
chloride	**250**	mg/L	100	94	55	170	**280**	**290**	190	**270**	97	69	60	130
sulfate	**600**	mg/L	450	**1,200**	**1,200**	**2,100**	**1,700**	**1,600**	**1,700**	**2,000**	**1,500**	**1,700**	**1,500**	35
fluoride	**1.6**	mg/L	<0.50	0.60	<0.50	0.58	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.70
nitrate + nitrite as N	NE	mg/L	<0.50	<0.50	5.2	<1.0	1.4	<0.50	<1.0	1.9	<1.0	6.9	6.9	<1.0
phosphorus, orthophosphate (As P)	NE	mg/L	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5
USEPA Method 200.7: Total Metals														
barium	NE	mg/L	NT	NT	NT	NT	NT	NT	0.034	0.31	0.021	0.018	NT	NT
beryllium	NE	mg/L	NT	NT	NT	NT	NT	NT	<0.010	0.0038	<0.0020	<0.0020	NT	NT
cadmium	**0.01**	mg/L	NT	NT	NT	NT	NT	NT	<0.010	<0.0020	<0.0020	<0.0020	NT	NT
calcium	NE	mg/L	180	370	450	470	540	530	470	550	400	530	470	150
chromium	**0.05**	mg/L	NT	NT	NT	NT	NT	NT	**0.097**	**0.23**	**0.10**	0.039	NT	NT
iron	**1.0**	mg/L	**2.3**	**8.0**	**120**	**8.3**	**43**	**15**	**3.6**	**48**	**1.4**	**2.2**	**1.4**	**74**
magnesium	NE	mg/L	53	39	53	40	52	49	48	58	37	39	36	36
manganese	**0.2**	mg/L	**1.4**	**5.9**	**3.8**	**1.4**	**4.2**	**2.7**	**2.1**	**1.8**	**0.87**	0.14	0.026	**0.91**
nickel	**0.2**	mg/L	NT	NT	NT	NT	NT	NT	0.074	0.098	0.12	0.055	NT	NT
potassium	NE	mg/L	<5.0	2.1	9.4	7.0	7.0	3.4	<5.0	10	2.9	2.3	1.2	4.7
silver	**0.05**	mg/L	NT	NT	NT	NT	NT	NT	<0.025	<0.0050	0.0063	0.0079	NT	NT
sodium	NE	mg/L	480	380	240	7.0	490	430	480	560	410	330	310	450
zinc	**10**	mg/L	NT	NT	NT	NT	NT	NT	<0.050	0.097	0.013	<0.010	NT	NT
USEPA Method 200.8: Total Metals														
antimony	NE	mg/L	NT	NT	NT	NT	NT	NT	<0.0050	<0.0010	<0.0010	<0.0010	NT	NT
arsenic	**0.1**	mg/L	NT	NT	NT	NT	NT	NT	<0.0010	0.0076	<0.0010	<0.0010	NT	NT
copper	**1.0**	mg/L	NT	NT	NT	NT	NT	NT	0.0085	0.048	0.0043	0.0024	NT	NT
lead	**0.05**	mg/L	NT	NT	NT	NT	NT	NT	0.0012	0.031	0.00083	0.00096	NT	NT
selenium	**0.05**	mg/L	NT	NT	NT	NT	NT	NT	0.0029	0.018	0.0011	0.0083	NT	NT
thallium	NE	mg/L	NT	NT	NT	NT	NT	NT	<0.00050	0.00053	<0.00050	<0.00050	NT	NT
USEPA Method 245.1: Mercury														
mercury	**0.002**	mg/L	NT	NT	NT	NT	NT	NT	<0.00020	<0.00020	<0.00020	<0.00020	NT	NT

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Analyte	NMWQCC Standard	Unit	GRW-3	GRW-6	GBR-17	GBR-24D	GBR-30	GBR-31	GBR-32	GBR-48	GBR-49	GBR-50	GBR-52	SHS-9
			7-Nov	7-Nov	5-Nov	6-Nov	6-Nov	7-Nov	5-Nov	5-Nov	5-Nov	5-Nov	5-Nov	5-Nov
SM 2340B: Hardness														
hardness (as CaCO3)	NE	mg/L	680	1,100	1,300	1,300	1,600	1,500	1,400	1,600	1,200	1,500	1,300	520
USEPA Method SM 2320B: Alkalinity														
alkalinity, total (As CaCO3)	NE	mg/L CaCO3	1,083	342.8	208.8	238.8	259.1	300.8	267.7	272.6	244.2	195.3	210.1	1128
carbonate	NE	mg/L CaCO3	<2.000	<2.000	<2.000	<2.000	<2.000	<2.000	<2.000	<2.000	<2.000	<2.000	<2.000	<5.000
bicarbonate	NE	mg/L CaCO3	1,083	342.8	208.8	238.8	259.1	300.8	267.7	272.6	244.2	195.3	210.1	1128
USEPA Method 120.1: Specific Conductance														
specific conductance	NE	µmhos/cm	2,900	3,100	2,700	4,300	4,000	4,000	3,900	4,400	3,400	3,400	3,100	2,500
USEPA Method SM4500-H+B: pH														
pH	**6-9**	pH units	7.89	7.97	7.75	7.87	7.76	7.75	7.73	7.66	7.58	7.65	7.83	7.91
USEPA Method SM2540C Modified: Total Dissolved Solids														
total dissolved solids	**1,000**	mg/L	**1,990**	**2,470**	**2,150**	**3,420**	**3,040**	**3,220**	**3,200**	**3,450**	**2,710**	**2,910**	**2,600**	**1,470**

Notes:
µg/L - micrograms per liter
BOLD - indicates concentration exceeds the NMWQCC standard
mg/L - milligrams per liter
NE - not established
NMWQCC - New Mexico Water Quality Control Commission
NT - not tested
USEPA - United States Environmental Protection Agency

Oil/Gas Well ID	API Number	SPUD Date	Plug Date	Effective Date	Last Produced	Last Inspection
GALLEGOS CANYON UNIT #153	30-045-07908	1964-03-16	1996-09-24	2000-01-01	1995-03-31	2000-08-15
GALLEGOS CANYON UNIT #510	30-045-28311	1991-01-22	2015-12-22	2003-02-18	2015-06-01	2013-11-26
PRE-ONGARD WELL #069	30-045-07906	1954-09-14	2013-11-12	2000-01-01	1999-12-31	2013-11-08
PRE-ONGARD WELL #001	30-045-07843	1999-12-31	1944-05-20	1940-07-10	1999-12-31	1999-12-31
GALLEGOS CANYON UNIT #150	30-045-07951	1964-03-25	1994-02-23	2000-01-01	1989-03-31	2006-01-24
GALLEGOS CANYON UNIT #154E	30-045-24168	1980-03-11	1999-12-31	2020-04-02	2020-04-01	2020-03-03
GALLEGOS CANYON UNIT #542	30-045-29309	1996-10-08	2011-12-07	1996-10-04	2010-10-01	2016-11-15
GALLEGOS CANYON UNIT #598	30-045-31600	2003-06-07	1999-12-31	2020-04-02	2020-04-01	2019-01-29
GALLEGOS CANYON UNIT #533	30-045-28733	1992-10-06	1999-12-31	2020-06-30	2017-11-01	2019-01-29
GALLEGOS CANYON UNIT #578	30-045-30678	2001-09-04	2004-07-06	2001-06-21	2002-08-01	2004-03-05

Well Type	Well Status	OGRID	OGRID Name	OCD District Code	OCD District Office	County FIPS Code
Gas	Plugged (site released)	778	BP AMERICA PRODUCTION COMPANY	3	Aztec	45
Gas	Plugged (site released)	778	BP AMERICA PRODUCTION COMPANY	3	Aztec	45
Gas	Plugged (site released)	214263	PRE-ONGARD WELL OPERATOR	3	Aztec	45
Gas	Plugged (site released)	214263	PRE-ONGARD WELL OPERATOR	3	Aztec	45
Gas	Plugged (site released)	778	BP AMERICA PRODUCTION COMPANY	3	Aztec	45
Gas	Active	329736	SIMCOE LLC	3	Aztec	45
Gas	Plugged (site released)	778	BP AMERICA PRODUCTION COMPANY	3	Aztec	45
Gas	Active	329736	SIMCOE LLC	3	Aztec	45
Gas	Active	329736	SIMCOE LLC	3	Aztec	45
Gas	Plugged (site released)	778	BP AMERICA PRODUCTION COMPANY	3	Aztec	45

County	PLSS Location (ULSTR)	Y-Coordinate (Latitude)	X-Coordinate (Longitude)	Datum	Well Bore Direction	*not used*	Lease Type
San Juan	B-28-29N-12W	36.7020035	-108.1014709	NAD83	V	No Data	Federal
San Juan	B-28-29N-12W	36.7019768	-108.1012802	NAD83	V	No Data	Federal
San Juan	A-28-29N-12W	36.7021446	-108.0990982	NAD83	V	No Data	Federal
San Juan	I-28-29N-12W	36.6966934	-108.0967407	NAD83	No Data	No Data	Private
San Juan	M-22-29N-12W	36.7071228	-108.092926	NAD83	V	No Data	Private
San Juan	E-27-29N-12W	36.7003708	-108.0928497	NAD83	V	No Data	Private
San Juan	E-27-29N-12W	36.7005348	-108.0928345	NAD83	V	No Data	Private
San Juan	M-22-29N-12W	36.7072868	-108.0928574	NAD83	V	No Data	Private
San Juan	L-22-29N-12W	36.7097511	-108.0915909	NAD83	V	No Data	Federal
San Juan	B-27-29N-12W	36.7024193	-108.0851288	NAD83	V	No Data	Federal

Measured Depth	Vertical Depth	Associated Pools
No Data	6021	[71599] BASIN DAKOTA (PRORATED GAS)
1456	1456	[79680] KUTZ PICTURED CLIFFS, WEST (GAS); [82920] PINON FRUITLAND SAND, NORTH (GAS)
1372	1372	[79680] KUTZ PICTURED CLIFFS, WEST (GAS)
No Data	No Data	No Data
99999	6113	[71599] BASIN DAKOTA (PRORATED GAS)
6106	6106	[71599] BASIN DAKOTA (PRORATED GAS)
1600	1600	[79680] KUTZ PICTURED CLIFFS, WEST (GAS)
2673	2673	[82329] OTERO CHACRA (GAS)
1700	1700	[79680] KUTZ PICTURED CLIFFS, WEST (GAS)
1620	1620	[71629] BASIN FRUITLAND COAL (GAS)

Link to Well Details

https://wwwapps.emnrd.state.nm.us/ocd/ocdpermitting/Data/WellDetails.aspx?api=30-045-07908&GISReferenceSource=ArcGISOnline
https://wwwapps.emnrd.state.nm.us/ocd/ocdpermitting/Data/WellDetails.aspx?api=30-045-28311&GISReferenceSource=ArcGISOnline
https://wwwapps.emnrd.state.nm.us/ocd/ocdpermitting/Data/WellDetails.aspx?api=30-045-07906&GISReferenceSource=ArcGISOnline
https://wwwapps.emnrd.state.nm.us/ocd/ocdpermitting/Data/WellDetails.aspx?api=30-045-07843&GISReferenceSource=ArcGISOnline
https://wwwapps.emnrd.state.nm.us/ocd/ocdpermitting/Data/WellDetails.aspx?api=30-045-07951&GISReferenceSource=ArcGISOnline
https://wwwapps.emnrd.state.nm.us/ocd/ocdpermitting/Data/WellDetails.aspx?api=30-045-24168&GISReferenceSource=ArcGISOnline
https://wwwapps.emnrd.state.nm.us/ocd/ocdpermitting/Data/WellDetails.aspx?api=30-045-29309&GISReferenceSource=ArcGISOnline
https://wwwapps.emnrd.state.nm.us/ocd/ocdpermitting/Data/WellDetails.aspx?api=30-045-31600&GISReferenceSource=ArcGISOnline
https://wwwapps.emnrd.state.nm.us/ocd/ocdpermitting/Data/WellDetails.aspx?api=30-045-28733&GISReferenceSource=ArcGISOnline
https://wwwapps.emnrd.state.nm.us/ocd/ocdpermitting/Data/WellDetails.aspx?api=30-045-30678&GISReferenceSource=ArcGISOnline

Water Well ID	Installation Date	Well Depth	Depth to Water	Estimated Yield (gallons per minute)	Use of Well	Subdivision Name
SJ-01700	1983-05-07	87	48	10	DOMESTIC	SUBURBAN HEIGHTS
SJ-01728	1983-05-25	25	11	20	DOMESTIC	LEE ACRES #2
SJ-00572	1978-03-01	35	28	0	DOMESTIC	N/A
SJ-00904	1979-04-01	32	14	15	DOMESTIC/LIVESTOCK	LEE ACRES
SJ-01690	1983-04-02	25	10	20	DOMESTIC	LEE ACRES
SJ-00663	N/A	N/A	N/A	0	DOMESTIC	N/A
SJ-02864	N/A	50	N/A	0	DOMESTIC	F. L. LEE NO. 2
SJ-00827	1978-10-29	55	30	8	DOMESTIC	SUBURBAN HEIGHTS
SJ-01008	1979-07-05	51	20	20	DOMESTIC	SUBURBAN HEIGHTS
SJ-01622	N/A	N/A	N/A	0	DOMESTIC	SUBURBAN
SJ-02125	N/A	N/A	N/A	0	DOMESTIC	SUBURBAN HEIGHTS
SJ-00666	1978-06-03	35	17	40	DOMESTIC	SUBURBAN HEIGHTS
SJ-02870	1998-11-07	39	24	20	DOMESTIC	SUBURBAN HEIGHTS
SJ-01828	1984-05-03	45	25	30	DOMESTIC/LIVESTOCK	SUBURBAN HEIGHTS
SJ-03384	2003-07-20	41	30	12	DOMESTIC	SUBURBAN HEIGHTS
SP-01915-AB	N/A	N/A	N/A	0	IRRIGATION	N/A
SJ-02202	N/A	N/A	N/A	0	DOMESTIC	N/A
SJ-01590	1982-06-20	63	30	10	DOMESTIC	SUBURBAN HEIGHTS
SJ-00647	N/A	N/A	N/A	0	DOMESTIC	SUBURBAN HEIGHTS
SJ-02229	N/A	N/A	N/A	0	DOMESTIC	LEE ACRES
SJ-00726	1978-07-22	50	30	7	DOMESTIC	SUBURBAN HEIGHTS
SJ-02654	1995-07-30	62	32	10	DOMESTIC	SUBURBAN HEIGHTS
SJ-03422	2004-02-08	41	31	15	DOMESTIC	SUBURBAN HEIGHTS
SJ-02118	1987-06-17	29	6	7	DOMESTIC	LEE ACRES #2
SJ-00502	N/A	N/A	N/A	0	DOMESTIC	N/A
SJ-02131-EXPL 2	N/A	N/A	N/A	0	COMMERCIAL	N/A
SJ-02131-EXPL 1	N/A	N/A	N/A	0	COMMERCIAL	N/A
SJ-02131-S	N/A	400	N/A	50	COMMERCIAL	N/A
SJ-02131	N/A	80	N/A	6	COMMERCIAL	N/A

Water Well ID	Casing Size	UTM Zone	Easting	Northing	Datum	UTM Source	Groundwater Basin
SJ-01700	6.63	13	223627.0	4065598.0	NAD83	G	San Juan
SJ-01728	6.00	13	223627.0	4065598.0	NAD83	G	San Juan
SJ-00572	0.00	13	223627.0	4065598.0	NAD83	G	San Juan
SJ-00904	6.63	13	223526.0	4065697.0	NAD83	G	San Juan
SJ-01690	6.00	13	223526.0	4065697.0	NAD83	G	San Juan
SJ-00663	0.00	13	223323.0	4065711.0	NAD83	G	San Juan
SJ-02864	6.00	13	223323.0	4065711.0	NAD83	G	San Juan
SJ-00827	6.63	13	223537.0	4065905.0	NAD83	G	San Juan
SJ-01008	6.00	13	223537.0	4065905.0	NAD83	G	San Juan
SJ-01622	0.00	13	223737.0	4065905.0	NAD83	G	San Juan
SJ-02125	0.00	13	223737.0	4065905.0	NAD83	G	San Juan
SJ-00666	0.00	13	223737.0	4065905.0	NAD83	G	San Juan
SJ-02870	6.00	13	223737.0	4065905.0	NAD83	G	San Juan
SJ-01828	6.00	13	223737.0	4065905.0	NAD83	G	San Juan
SJ-03384	6.00	13	223737.0	4065905.0	NAD83	G	San Juan
SP-01915-AB	0.00	13	224039.0	4065988.0	NAD83	G	San Juan
SJ-02202	0.00	13	224039.0	4065988.0	NAD83	G	San Juan
SJ-01590	6.00	13	223638.0	4066006.0	NAD83	G	San Juan
SJ-00647	0.00	13	223638.0	4066006.0	NAD83	G	San Juan
SJ-02229	0.00	13	223638.0	4066006.0	NAD83	G	San Juan
SJ-00726	6.63	13	223537.0	4066105.0	NAD83	G	San Juan
SJ-02654	6.00	13	223537.0	4066105.0	NAD83	G	San Juan
SJ-03422	6.00	13	223737.0	4066105.0	NAD83	G	San Juan
SJ-02118	7.00	13	223839.0	4066207.0	NAD83	G	San Juan
SJ-00502	0.00	13	224052.0	4066393.0	NAD83	G	San Juan
SJ-02131-EXPL 2	0.00	13	223651.0	4066408.0	NAD83	G	San Juan
SJ-02131-EXPL 1	0.00	13	223651.0	4066408.0	NAD83	G	San Juan
SJ-02131-S	8.63	13	223762.0	4066908.0	NAD83	G	San Juan
SJ-02131	6.00	13	223762.0	4066908.0	NAD83	G	San Juan

Water Well ID	Last Name	First Name	Address	City	State	Zip
SJ-01700	HARMON	DOUGLAS A.	CPO BOX 7142	FARMINGTON	NM	87401
SJ-01728	PALMER	CHARLIE W.	CPO 7120	FARMINGTON	NM	87401
SJ-00572	BENCOMO	JOE	BOX 120-T	FARMINGTON	NM	87401
SJ-00904	ORELLANO	REYNALDO W.	RT. 3, BOX 126K	FARMINGTON	NM	87401
SJ-01690	CLARK	DORIS	P. O. BOX 7134	FARMINGTON	NM	87401
SJ-00663	STALLINGS	RAYMOND M.	ST. RT. 3, BOX 119-B	FARMINGTON	NM	87401
SJ-02864	BARELA	ALBINO	30 ROAD 5474	FARMINGTON	NM	87401
SJ-00827	CHACON	ALFONSO J.	1220 FAIRGROUNDS RD., SP. 58	FARMINGTON	NM	87401
SJ-01008	KAISER	CHARLES	P. O. BOX 215	FARMINGTON	NM	87401
SJ-01622	HILL	KENNETH	LEE ACRES CPO - BOX 7131	FARMINGTON	NM	87401
SJ-02125	KESTER	MICHAEL & LAURETTE	C.P.O. 7043 LEE HERES	FARMINGTON	NM	87401
SJ-00666	TORRES	RICHARD	517 N. DUSTIN	FARMINGTON	NM	87401
SJ-02870	KESTER	LAURETTE	P. O. BOX 5631	FARMINGTON	NM	87401
SJ-01828	PALMER	ALLEN M.	ROUTE 3, BOX 525-10	FARMINGTON	NM	87401
SJ-03384	MONTOYA	EDWARD	4304 KNOLLCREST DRIVE	FARMINGTON	NM	87402
SP-01915-AB	OFFERLE	TYLER W	5803 US HIGHWAY 64	FARMINGTON	NM	87401
SJ-02202	HUNTER	RALPH	P. O. BOX 5075	FARMINGTON	NM	87499
SJ-01590	BUSTOS	DANIEL	RT. 3, BOX 536	FARMINGTON	NM	87401
SJ-00647	MONTOYA	EDWARD	BOX 672	FLORA VISTA	NM	87415
SJ-02229	VAUGHT	KENNETH	C.P.O. BOX 7222	FARMINGTON	NM	87410
SJ-00726	REYNOLDS	RONALD	RT. 3, BOX 125C	FARMINGTON	NM	87401
SJ-02654	MONTOYA	BONNIE R.	P. O. BOX 3468	FARMINGTON	NM	87401
SJ-03422	TORRES	GILBERT	9B CR 5467	FARMINGTON	NM	87401
SJ-02118	ASHBROOK	THORNTON L.	P. O. BOX 2193	FARMINGTON	NM	87499
SJ-00502	HIGGINS	DON O.	BOX 1214	BLOOMFIELD	NM	87413
SJ-02131-EXPL 2	GIANT INDUSTRIES INC.		7227 N 16TH STREET BLDG. A	PHOENIX	AZ	85020
SJ-02131-EXPL 1	GIANT INDUSTRIES INC.		7227 N 16TH STREET BLDG. A	PHOENIX	AZ	85020
SJ-02131-S	GIANT INDUSTRIES INC.		7227 N 16TH STREET BLDG. A	PHOENIX	AZ	85020
SJ-02131	GIANT INDUSTRIES INC.		7227 N 16TH STREET BLDG. A	PHOENIX	AZ	85020

Water Well ID	nmwrrs_wrs
SJ-01700	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=01700&suffix=
SJ-01728	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=01728&suffix=
SJ-00572	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=00572&suffix=
SJ-00904	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=00904&suffix=
SJ-01690	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=01690&suffix=
SJ-00663	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=00663&suffix=
SJ-02864	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=02864&suffix=
SJ-00827	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=00827&suffix=
SJ-01008	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=01008&suffix=
SJ-01622	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=01622&suffix=
SJ-02125	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=02125&suffix=
SJ-00666	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=00666&suffix=
SJ-02870	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=02870&suffix=
SJ-01828	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=01828&suffix=
SJ-03384	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=03384&suffix=
SP-01915-AB	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SP&nbr=01915&suffix=AB
SJ-02202	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=02202&suffix=
SJ-01590	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=01590&suffix=
SJ-00647	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=00647&suffix=
SJ-02229	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=02229&suffix=
SJ-00726	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=00726&suffix=
SJ-02654	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=02654&suffix=
SJ-03422	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=03422&suffix=
SJ-02118	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=02118&suffix=
SJ-00502	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=00502&suffix=
SJ-02131-EXPL 2	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=02131&suffix=
SJ-02131-EXPL 1	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=02131&suffix=
SJ-02131-S	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=02131&suffix=
SJ-02131	http://nmwrrs.ose.state.nm.us/ReportDispatcher?type=WR&name=WaterRightSummary.jrxml&basin=SJ&nbr=02131&suffix=