BASELINE DATA REPORT

Section 8.0

Surface Water

OCTOBER 2009

Submitted To:

New Mexico Mining and Minerals Division
&
U.S. Forest Service (Cibola National Forest)

Prepared by:

Roca Honda Resources, LLC
4001 Office Court, Suite 102, Santa Fe, NM 87507

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8.0 Surface Water

NMAC §19.10.6.602 D.13 (g)

Baseline data shall include, as applicable:

(g) Surface water information shall include the following:

(i) A map indicating the location of surface waters and the location and size of watersheds in and adjacent to the proposed permit area. The map shall depict all watercourses, lakes, reservoirs, springs, and riparian and wetland areas. Streams shall be classified as ephemeral, intermittent, or perennial. The map shall identify all watercourses, lakes, springs, and riparian and wetland areas into which surface or pit drainage will be discharged or may possibly be expected to reach.

(ii) A description of surface drainage systems sufficient to identify the seasonal variations in surface water quantity and quality within the proposed permit and affected areas to the extent possible.

(v) A determination of the probable hydrologic consequences of the operation and reclamation, on both the permit and affected areas, with respect to the hydrologic regime, quantity and quality of surface and ground water systems that may be affected by the proposed operations, including the dissolved and suspended solids under seasonal flow conditions.

8.1 Introduction

Existing data relevant to surface water are discussed in this section. Additional baseline data will be collected to enable RHR to:

1) Develop the discharge plan for water produced during dewatering;

2) Further describe the seasonal variations in surface water quantity and quality in the vicinity of the permit area; and

3) Determine likely hydrologic impacts on the hydrologic regime including the quality and quantity of surface water systems in the vicinity, including dissolved and suspended solids under seasonal conditions.

Particular attention will be given to identifying the potential impacts to watercourse morphology and surface water quality, quantity, and springs.

8.2 Regional Surface Water and Watersheds

The permit area lies within the middle portion of the San Mateo Creek Watershed. Figure 8-1 and Figure 8-2 identify the location of surface waters in and adjacent to the permit area and designate the location and size of the watersheds in and adjacent to the permit area. Watercourses are identified as ephemeral, intermittent or perennial.

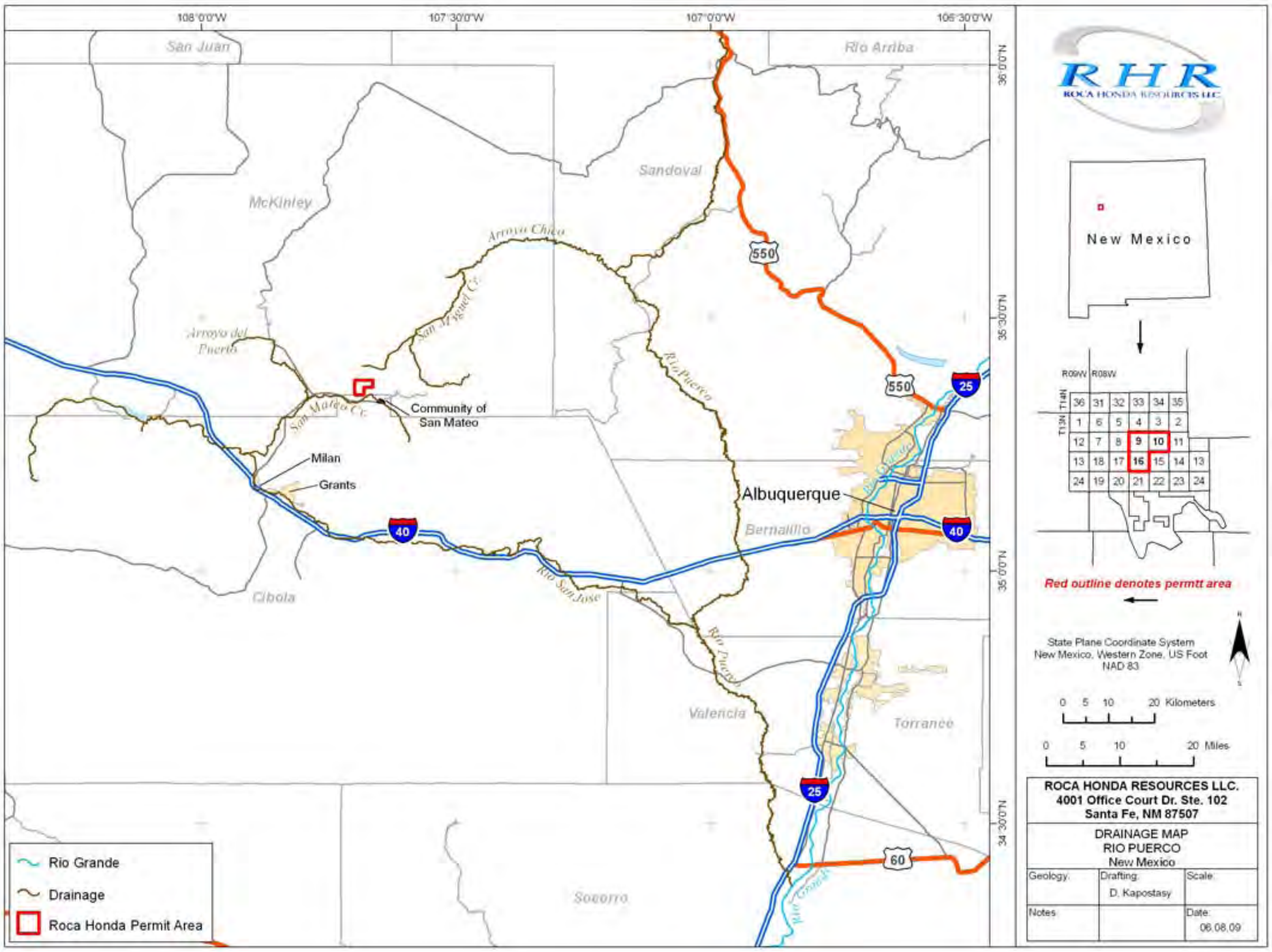

Figure 8-1. Drainage Map of Rio Puerco

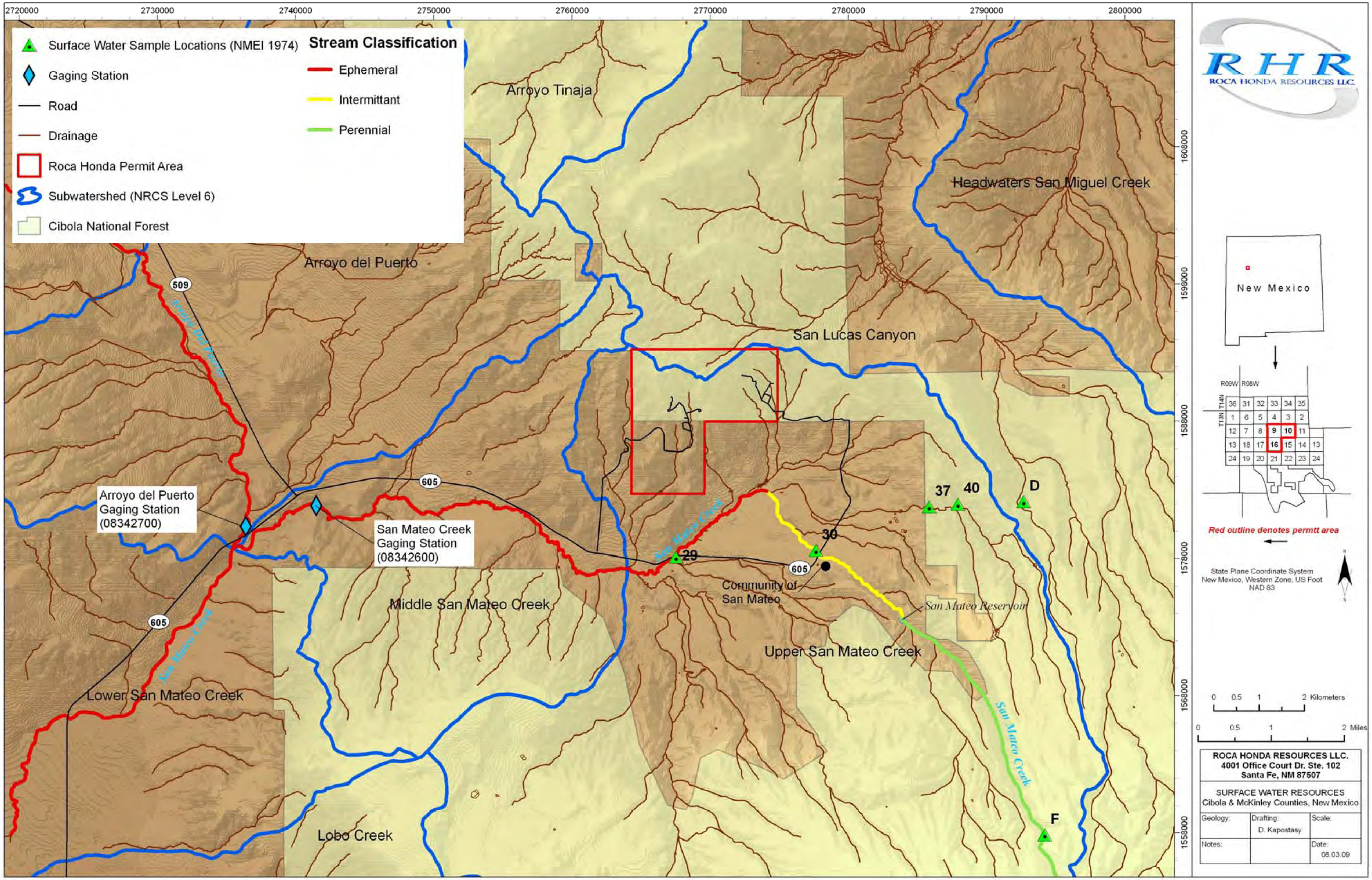

Figure 8-2. Permit Area Watershed and Water Resources

San Mateo Creek is part of the Rio Grande drainage basin. A tributary of the Rio San Jose, San Mateo Creek joins that watercourse near Milan, above the city of Grants. The Rio San Jose joins the Rio Puerco west of the city of Las Lunas, while the Rio Puerco confluences with the Rio Grande near the community of Bernardo, south of the city of Belen. Except above San Mateo Reservoir, where springs maintain a small perennial flow, San Mateo Creek is an intermittent stream that is normally dry in the summer except during high rainfall events over the middle reach, and ephemeral in its lower reach. The Rio San Jose is perennial in its upper reaches in the Zuni Mountains, but becomes ephemeral in the Malpais area of its lower reaches (Stone et al., 1983). It flows only occasionally at its confluence with San Mateo Creek. Discharge from the Grants sewage plant augments the flow of the stream, and east of the city, the Rio San Jose has a fairly perennial artificial flow for a number of miles, most of which is diverted for irrigation purposes. Although physically much wider and longer than the other water courses, the Rio Puerco is also an intermittent to ephemeral stream below the point where it is joined by the Rio San Jose, losing most if its water to the underlying alluvium except during periods of precipitation or snowmelt.

The headwaters of San Mateo Creek are on the north flank of Mt. Taylor. One branch heads in San Mateo Canyon above the community of San Mateo and drains down San Mateo Canyon, while the other drains the San Mateo arch/Jesus mesa area via Marquez and Maruca canyons. Above the community, a perennial flow is maintained by springs whose source is the volcanics of Mt. Taylor. Below the San Mateo Reservoir, stream flow is intermittent and changes to ephemeral (Figure 8-2). Some of this flow is diverted for irrigation just below San Mateo reservoir during summer months. The remainder sinks into the alluvium of the stream bed within a few miles. During peak runoff from snow melt in the late spring or during heavy summer/fall rain storms, San Mateo Creek may flow west for a few miles, but it rarely reaches the Rio San Jose (Brod, 1979; Stone et al., 1983). Neither San Mateo Creek nor the Rio San Jose contains Outstanding National Resource Water as defined in NMAC 20.6.4.

Figure 8-2 shows the watersheds in and adjacent to the permit area. A surface water divide to the east and north of the San Mateo Creek watershed separates that watershed from the San Lucas Canyon watershed, which drains north into the Arroyo Chico, a tributary of the northern branch of the Rio Puerco. The San Lucas Canyon stream system includes the northward trending San Miguel Creek, and American, Colorado, Canones, and San Lucas canyons. These canyons and streams are for the most part ephemeral. After a rain, standing water can persist for a time in low areas of some short reaches. The Arroyo del Puerto watershed lies north of the western part of the San Mateo Creek watershed. Arroyo del Puerto, an ephemeral arroyo, drains into San Mateo Creek below the junction of State Highways 509 and 605. Activities within the permit area are not expected to affect surface waters within any of these adjacent watersheds.

With the exception of a livestock reservoir in the center of Section 16, no lakes, wetlands, reservoirs, or springs have been observed to exist within the permit area. A more detailed field survey of the permit area will be conducted to verify surface water resources conditions. A number of earthen tanks and reservoirs for watering of livestock or flood control exist outside the permit area. These hold water temporarily after rains. One shallow on-stream reservoir, San Mateo Reservoir, exists on upper San Mateo Creek above the community of San Mateo. The reservoir stores the small perennial flow of San Mateo Creek and runoff from precipitation events for irrigation purposes. Below the reservoir, the creek is intermittent for a few miles and then ephemeral. A wetlands area and livestock tanks may exist up Canones Canyon within the

San Lucas Canyon watershed on the north side of Jesus Mesa; its presence will be verified during field work detailed in the RHR SAP.

Largely because of geologic controls, a number of springs exist in the vicinity of the permit area during at least part of the year, though published reports indicate that no springs are present within the permit area. Standing water has been observed at a few locations up San Miguel Creek within Section 10 within the permit area at locations where springs have not been previously reported. These locations will be inspected and the source of the water identified. Some springs get their water from the volcanics and some at faults or the contact between two geologic formations. Figure 8-2 shows these surface water features. The volume of spring flow probably varies from year to year. Within the San Marcos Creek watershed (Figure 8-2), only the springs above San Marcos Reservoir and El Rito Spring flow perennially; within San Lucas Canyon, only San Lucas Spring has perennial flow, measured at 0.04 cfs in 1973 (NMEI, 1974).

Dewatering of the proposed Roca Honda mine may result in discharge of an estimated average of up to 8.9 cfs (4,000 gpm) of water. An unnamed arroyo with ephemeral flow in Section 16 of the permit area that feeds San Mateo Creek will be the receiving drainage for mine discharge water. Discharge from the Roca Honda mine may create surface flow that could reach the Rio San Jose. The proposed discharge will change the ephemeral nature of the flow regime. Portions of the drainage will change temporarily to a perennial regime during mine operations. On-going studies will provide the information to allow an analysis of the probable flow distance of the discharge stream. All water produced from mine dewatering will be treated to meet regulatory standards prior to discharge.

8.2.1 Permit Area Vicinity Surface Drainage System Quantitative Characteristics

Data providing seasonal variation trends is available from gaging stations operated in the drainage path of the mine water discharge. Two USGS stream flow gaging stations that operated in the late 1970s and early 1980s provide historical flow data for San Mateo Creek and Arroyo del Puerto (which drains Ambrosia Lake Valley). The gaging stations, designated as San Mateo Creek near San Mateo, NM (Station 08342600) and Arroyo del Puerto near San Mateo, NM (Station 08342700), are approximately 1 mile apart. These locations are shown in Figure 8–2.

The San Mateo gaging station was located about 8 miles west of the community of San Mateo. It recorded daily flow of the creek from a watershed drainage area of 75.6 square miles from May 23, 1977 to October 7, 1982. Mean daily streamflow data for the 5-year operational period are shown on Figure 8-3. Mean monthly flow of San Mateo Creek is shown on Figure 8-4 for the same period. Elevated stream flows, which ranged from 2 to 12 cfs (900 to 5,400 gpm) prior to March 1978, reflect mine dewatering discharge during prior mining activities including the Johnny M mine and discharge during excavation of the Mt. Taylor mine shafts. Sporadic high flows of the creek after that period generally reflect high rainfall episodes during the summer/early fall and spring snowmelt runoff periods.

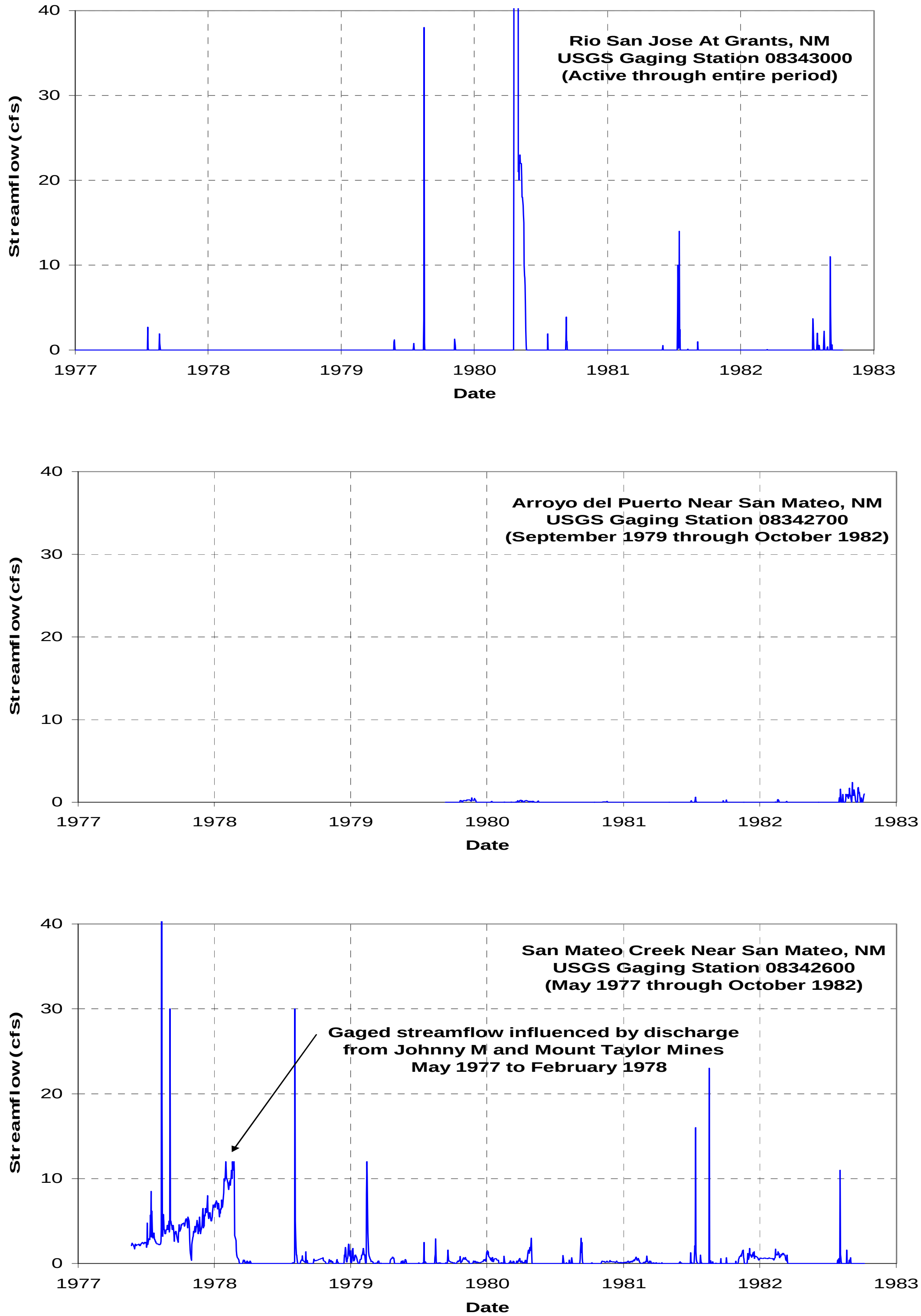

Figure 8-3. Mean Daily Stream Flow for San Mateo Creek, Arroyo del Puerto, and Rio San Jose 1977 through 1982

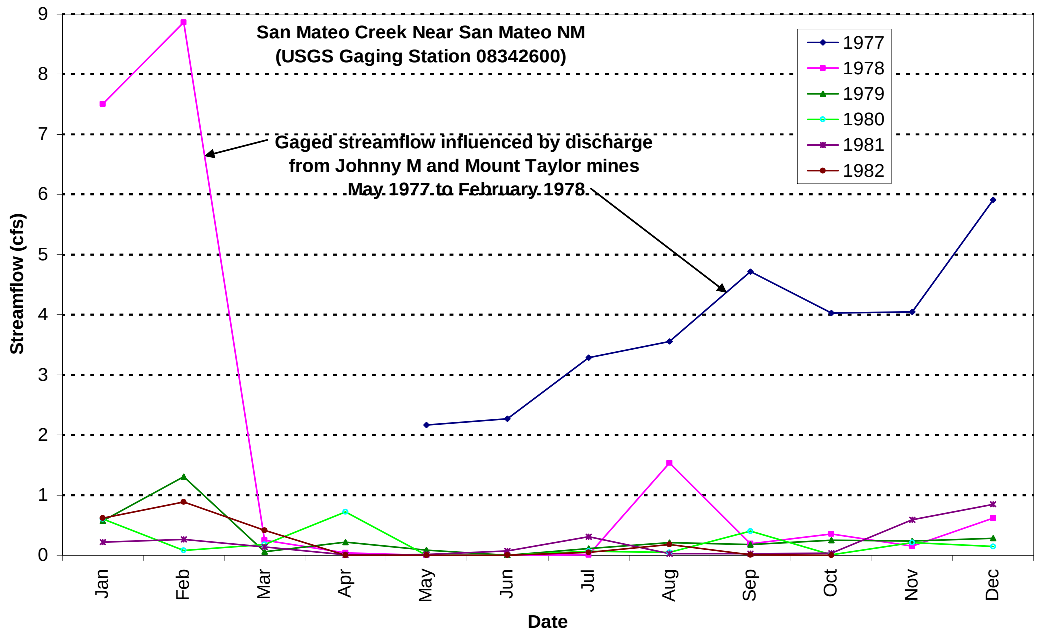

Figure 8-4. Mean Monthly Average Flow of San Mateo Creek

An investigation of the stream flow in San Mateo Creek was conducted in the early 1970s by the New Mexico Environmental Institute (NMEI) as part of the environmental baseline study of the Mt. Taylor area associated with the permitting of the proposed GMRC Mt. Taylor uranium mine by GMRC (NMEI 1974). Field data were collected during 1972 and 1973. Flow measurements were made in tributaries to San Mateo Canyon to determine the location and quantity of ground water discharge into San Mateo Creek. Mean annual runoff of the creek was also calculated. NMEI concluded that the mean annual runoff of San Mateo Canyon was 1,800 ac-ft/yr, and that of this volume, about 0.5 cfs, or 360 ac-ft/yr, was contributed by spring and ground water discharge, all of which entered San Mateo Creek in its upper watershed above San Mateo reservoir. The NMEI concluded that the perennial section of San Mateo Creek was limited to the reach above the reservoir (NMEI 1974).

The NMEI study distinguished between the characteristics of upper elevation (higher than 7,950 ft) and lower elevation locations within the watershed. The upper elevations generally contain snowpack for most of the winter and contributed snowmelt to the stream in late April and early May. Lower elevations receive runoff in mid to late March. Observing that three observed rainfall events of variable amounts (0.22 to 0.90 inch) caused stream flows of the same magnitude, the NMEI concluded that floods correlated with rainfall in time but not duration.

The Arroyo del Puerto gaging station was located about 0.1 mile north of the confluence of that drainage with San Mateo Creek. The station operated from mid September 1979 through early October 1982. Average daily streamflow data for this 3-year operational period are shown on Figure 8-3. Although the Arroyo del Puerto drains a large area, historical flows appear to mainly reflect discharge from prior mining activities in the Ambrosia Lake valley. The Arroyo del Puerto is presently ephemeral.

The Rio San Jose is gaged above and below Grants (Stations 08343000 and 08343500 respectively). The Rio San Jose was gaged below its confluence with San Mateo Creek at Grants over the period of October 1912 through September 2008. Mean daily stream flows are plotted for the 6-year period from 1977 through 1982 in Figure 8-3 and for the complete period of record in Figure 8.5. Elevated flow in this drainage generally reflects high rainfall episodes during the summer/early fall period. Mining discharge into San Mateo Creek from May 1977 to February 1978 had no apparent effect on flows in the Rio San Jose. It should also be noted that high peak flows of 30 to 40+ cfs at the San Mateo gauging station during the summers of 1977 and 1978 had little or no expression at the Rio San Jose Station.

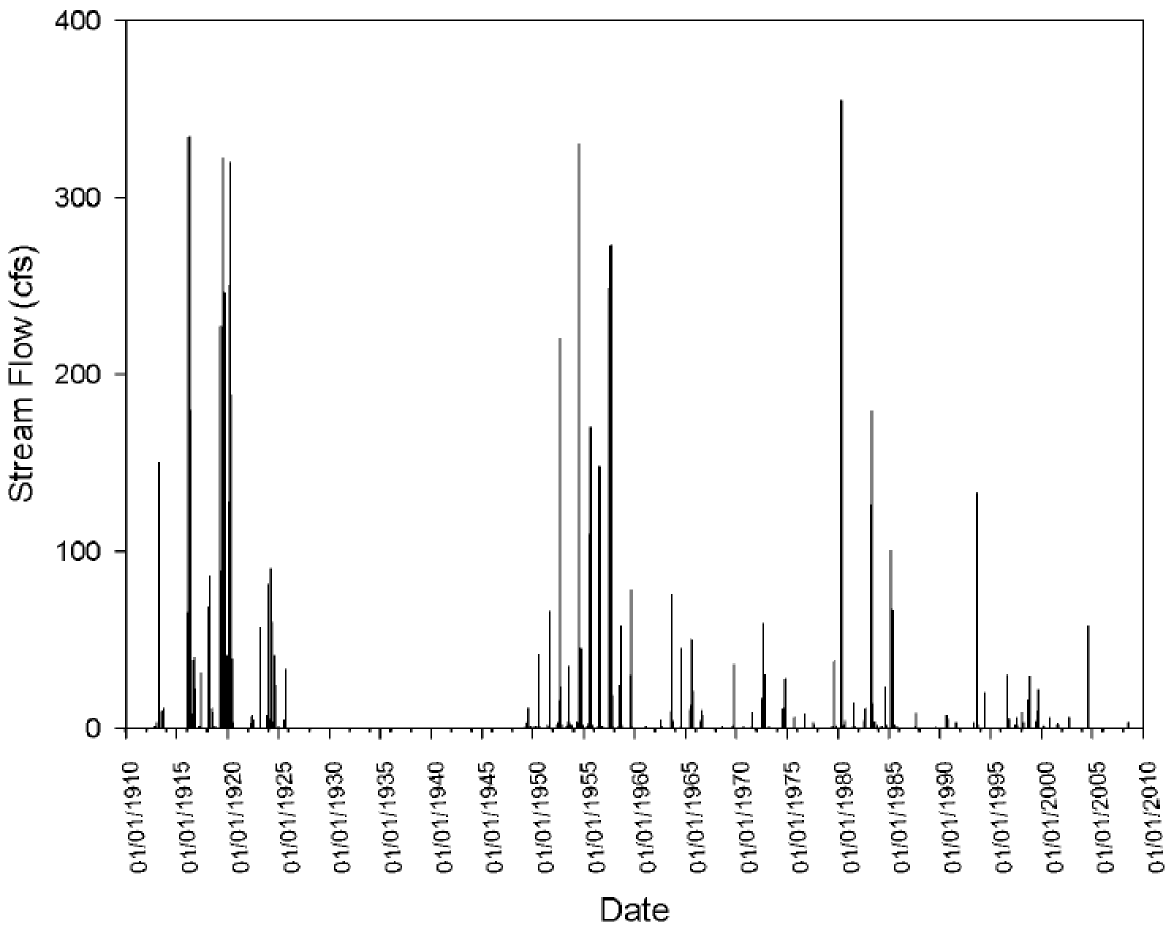

Figure 8-5. Daily Stream Flow from Rio San Jose at Gallup (USGS Gaging Station 8343000)

8.2.2 Permit Area Vicinity Stream Drainage Surface Water Quality

The 1974 NMEI baseline study collected data on surface water chemistry in the vicinity of the Roca Honda permit area. Surface water samples were collected from springs and the perennial upper reach of San Mateo Creek, and from ephemeral water sources during rain or spring runoff events. The historical study did not target all of the chemical constituents of interest for licensing purposes, but does provide general information on water quality. Surface water collected from higher elevations tended to be lower in total dissolved solids (TDS), but more acidic and higher in sulfate than water from lower elevations. Water from high elevation springs was of the calcium-sulfate bicarbonate type, and water from low elevation areas was of the calcium-bicarbonate type. Samples from some locations, for example, near the community of San Mateo, exhibited high levels of sodium. High levels of suspended solids were associated with high flow rates (NMEI 1974).

NMEI collected surface water samples from upper San Mateo Creek and the Marquez Canyon drainages within the upper San Mateo Creek watershed. Table 8-1 tabulates chemistry data for two locations along San Mateo Creek south of and closest to the permit area (locations 29 and 30 on Figure 8-2) and two locations (Nos. 37 and 40 on Figure 8-2) in Marquez Canyon. Marquez Canyon is drained by an ephemeral stream that flows as a result of snowmelt or heavy rainfalls during the summer/early fall period. Water flowed only periodically at these locations due to upstream diversion of stream flow for irrigation and loss of water to the streambed alluvium. It was estimated that the drainage in Marquez Canyon had an annual discharge of 7.5 ac-ft/yr (NMEI 1974).

Table 8-1. Range of Constituents from San Mateo Creek and Marquez Canyon Sample (See Figure 8-2 for Sample Locations)

Constituent	San Mateo Creek at State Highway 605 Bridge (Loc. 29)	San Mateo Creek at Marquez Ranch (Loc. 30)	Marquez Canyon (Loc. 37, 2 Samples)	Junction with Maruca Canyon (Loc. 40)
pH	8.62–8.97	8.16–8.45	9.17–9.18	8.46–8.69
Specific conductance (µmhos)	650–1,090	187–241	522–526	405–1180
Calcium (mg/L)	24.53–93.76	22.98–88.01	5.98	61.01–102.5
Magnesium (mg/L)	16.12–30.40	4.32–6.21	1.46–2.13	11.38–33.75
Potassium (mg/L)	3.85–204	3.93–5.65	3.63–4.42	9.40–28.93
Sodium (mg/L)	148–281	11.83–19.89	127.1–129.5	67.48–249.0
Chloride (mg/L)	16.7–41.4	2.4–7.0	3.4–3.8	13.3–130
Sulfate (mg/L)	42–250	6–23	2	37–352
Phosphate (mg/L)	0.02–0.38	0.28–0.53	0.07–0.18	0.20–0.39
Nitrate (mg/L)	0.33–1.71	0.20–1.64	0.32–0.33	0.76–1.26
Bicarbonate (mg/L)	369.2–550.8	78.8–134.8	244.2–249.0	288.2–387.2
Alkalinity ($CaCO_3$) (mg/L)	336.8–469.7	64.6–112.5	244.2–246	256.0–350.3
Total solids (mg/L)	535–2020	180–620	640–896	850–7450

Data from NMEI 1974.

The RHR SAP currently undergoing agency review describes the sampling that will be performed to characterize the surface water quality and the sediments in the receiving drainages. The SAP will be implemented upon receiving approval from the agency.

8.3 Permit Area Hydrologic Regime

The permit area is drained by a number of ephemeral arroyos which drain to San Mateo Creek. With the exception of a stock reservoir in Section 16, no perennial or intermittent surface water systems, lakes, wetlands, reservoirs, or springs have been identified within the permit area.

Water pumped from the proposed Roca Honda mine and dewatering wells will be discharged into a dry arroyo in the NW¼ SE¼ of Section 16, T13N R8W as shown on Figure 8-2. The arroyo begins in Section 9. Flow in the receiving part of San Mateo Creek is intermittent. The potential for discharge to reach areas of intermittent or perennial flow will be investigated further under the SAP. Discharge water will flow southwest across the NW¼ Section 21, T13N R8W, and southward along the border between Sections 20 and 21 before entering San Mateo Creek approximately 1.5 miles from the discharge point. For the period of mine operations, this arroyo will probably have perennial flow. The portions of San Mateo Creek that will be affected directly by discharged water are presently intermittent. Mine water discharge is not expected to reach any lakes, springs, reservoirs, riparian or wetland areas.

The estimate of an average mine water discharge rate of 4,000 gpm is based on experience at previous uranium mines that dewatered the Westwater Canyon Member of the Morrison Formation. Rio Grande Resources Company (RGRC 1994) discharged ground water at a rate of 5.6 to 11.1 cfs (2,500 to 5,000 gpm) from the Mt. Taylor mine when it was in operation. Hydrologic studies described in more detail in the SAP will be performed to provide a better estimate of the volume of water anticipated to be produced from the Roca Honda mine.

8.3.1 General Monitoring Requirements for Drainages

The primary requirements for characterizing receiving drainages affected by discharges are identified in NMAC 20.6.4, which establishes water quality standards for surface waters and includes an anti-degradation policy. The general requirements for surveying the quality of the receiving drainage, including ephemeral, intermittent, and perennial water bodies, are established in NMAC 20.6.4.13 and include limits on the following:

- Suspended or settleable solids,
- Floating solids,
- Oil and grease,
- Color,
- Odor and taste of water,
- Concentrations of plant nutrients,
- Toxic pollutants,
- Radioactivity,
- Pathogens,
- Temperature,
- Turbidity,
- TDS, and

- Dissolved gases (nitrogen, oxygen and ammonia)

8.3.2 Pollutant Requirements for Ephemeral Drainages

Ephemeral waters have designated uses of livestock watering, wildlife habitat, limited aquatic life, and secondary (human) contact. The standard for secondary (human) contact is a monthly geometric mean *Escherichia coli* (*E. coli*) bacterial concentration of 548 colony forming units (cfu)/100 mL and single sample of 2,507 cfu/100 mL. The acute requirements for aquatic habitats also include limits for ammonia and oxygen. The ammonia requirements are dependent on pH and temperature of the receiving drainage, and the dissolved oxygen requirements are dependent on elevation and temperature. Tables of both sets of values are included in NMAC 20.6.4.900 J, K, L, and M, and are not listed here.

8.3.3 Other Requirements for Intermittent and Perennial Surface Waters

The more stringent numerical criteria for intermittent and perennial receiving drainages is that they must meet all standards for aquatic life, including chronic limits. The chronic limits are lower than the acute limits for 22 compounds, and the standards include one additional compound (polychlorinated biphenyls). The chronic criteria for aquatic habitats also include requirements for ammonia. The limits for ammonia are dependent on pH and temperature. There are no additional targeted analytes for intermittent or perennial waters, although the detection limits required are more stringent.

8.3.4 Other Requirements for Potential Discharge Areas

The pathway of the discharged water from the proposed Roca Honda mine related to the sub-cropping (underlying) bedrock units is shown in Figure 8–6. Normal faults affect the geologic units along the drainage pathway to the south through Section 16 and the NW¼ Section 21.

As the drainage continues southward into the SW¼ Section 21, sub-cropping geologic units are the Dalton Sandstone Member and the Gibson Coal Member of the Crevasse Canyon Formation. West of the confluence of the drainage with San Mateo Creek, the creek passes back over the Gibson Coal and Dalton Sandstone Members, crosses a fault, and passes over the increasingly older units of the Dilco Coal Member of the Crevasse Canyon Formation, Gallup Sandstone, and Mancos Shale.

After passing over a subcrop of Mancos Shale for approximately 4 miles, the course of the creek crosses the sub-crop of Dakota Sandstone on the nose of a north-trending anticline. For a short distance, the creek bed crosses sub-crop of the Mancos Shale before crossing the San Mateo normal fault. West of the fault to its confluence with Arroyo del Puerto, the drainage is over sub-crop of the Morrison Formation. All of the sub-cropping units may contain ground water, although the Gibson Coal Member and the Mancos Shale are typically aquitards rather than aquifers, except where sandstone units occur in the Mancos Shale.

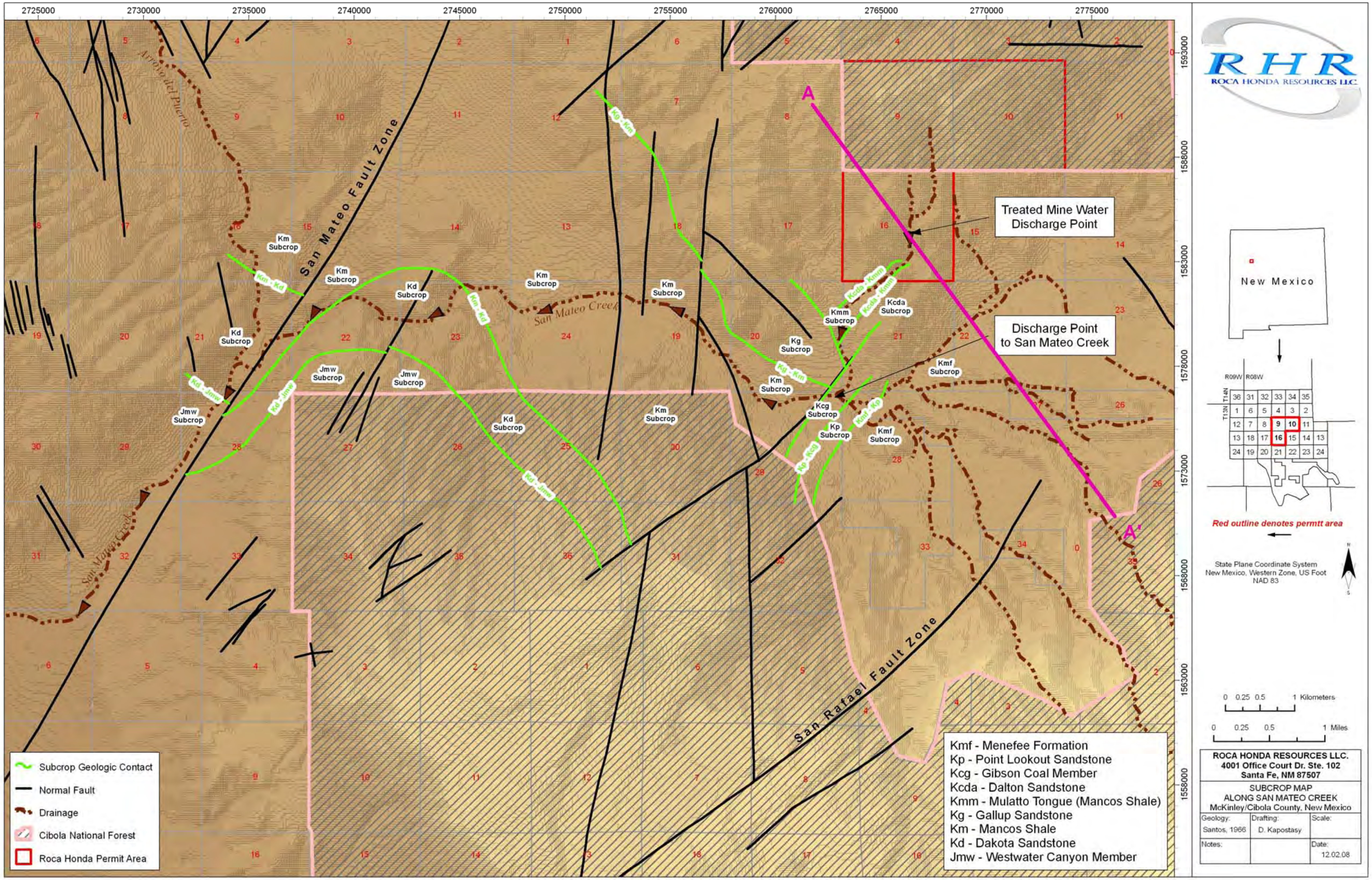

Figure 8-6. Subcrop Geology along the San Mateo Creek Drainage

The effects of discharge water on the quality and flow characteristics of water in the shallow alluvium are discussed in more detail in Section 9.0. The discharge water will be of high quality and is expected to dilute existing background water constituents present in sub-surface alluvial water. The clean discharge water may flush out existing poor quality water from the alluvium and underlying aquifers. The extent of communication between the alluvium and underlying formations that contain potable ground water is not clear and will be investigated under the SAP. The NMAC 20.6.4 standards for domestic water supplies may apply to surface water that recharges ground water used for human consumption.

8.3.5 Sediments in Receiving Drainages

Water flowing over sediments can potentially mobilize chemical constituents found in the sediments. RHR determined the chemistry of sediments along the drainage from Section 16 and San Mateo Creek basin by collecting and analyzing sediment samples for a wide range of constituents. Sediment samples were also analyzed for grain size to help determine erosion potential and for correlation to chemical data. Figure 8-7 shows the sediment sampling locations. Appendix 8-A presents the results of chemical analysis on the eighteen samples collected along the drainage from Section 16 and San Mateo Creek. Appendix 8-B presents the results of each leachable sample; i.e. samples that were leached with water and then analyzed.

Increased flow in the Section 16 drainage and San Mateo Creek resulting from mine water discharge may increase the movement of sediments down-channel. Such movement depends on the grain size of the sediments, any existing and potential armoring of the stream bed, the quantity of water flowing under normal and flood conditions, and the slope of the stream bed. The slope of the stream bed is known from USGS topographic maps. However, more detailed information to be obtained as proposed in the SAP will help quantify movement potential in the San Mateo Creek bed. Information regarding grain size of the sediments, presence and extent of armoring, potential to form additional armor, and water flow under normal and storm conditions will also be collected.

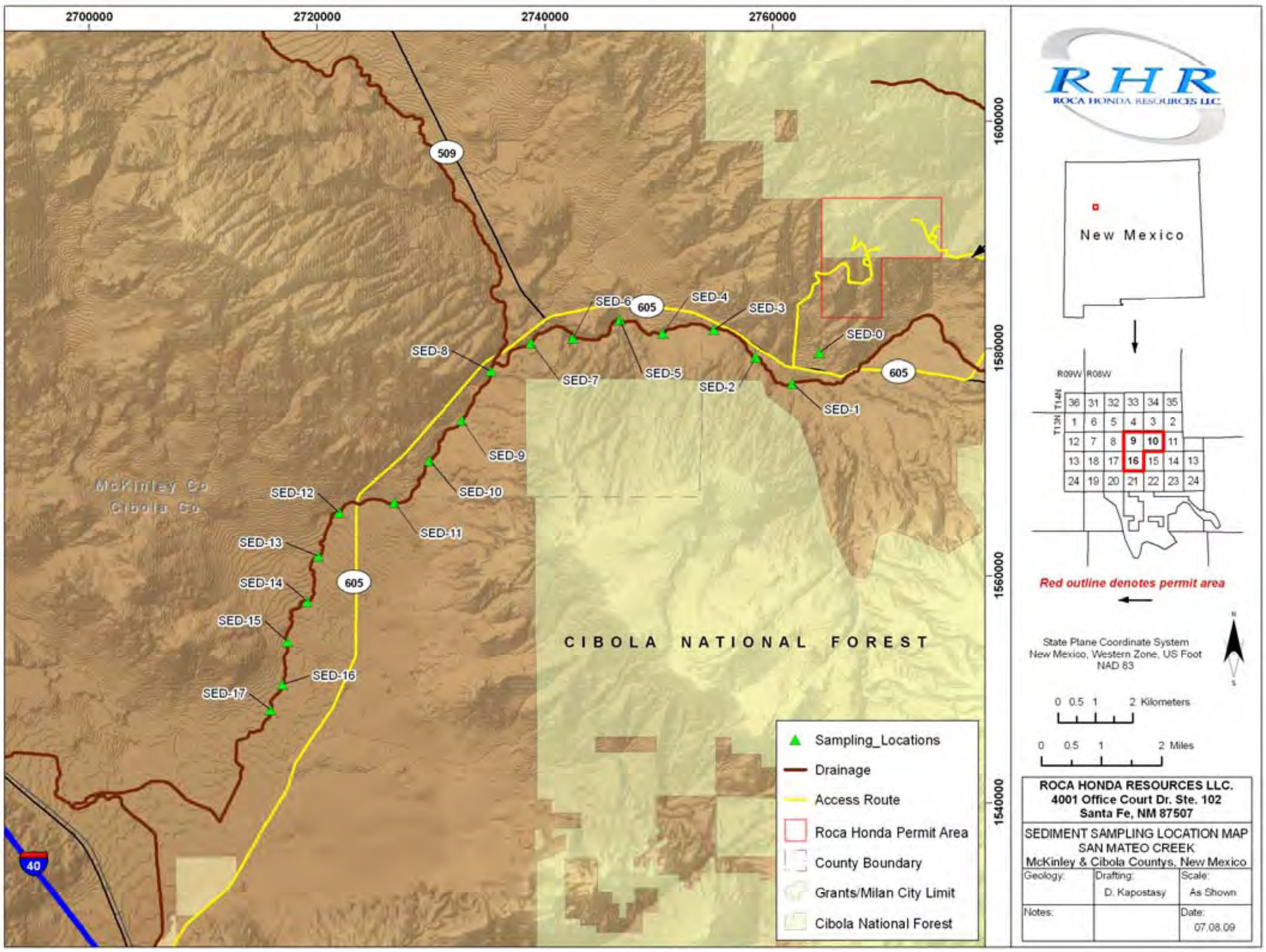

Figure 8-7. Sediment Sampling Locations Along Receiving Drainages

8.4 Baseline Springs Information

Bridge Spring, North Spring, and South Spring are located within the San Mateo Creek watershed a mile southeast of the Roca Honda permit area near San Mateo Creek (Figure 8–2 and Table 8–2). Maruca Spring is located within Marquez Canyon about three miles to the east-southeast of the permit area, while Lower Lillies, Upper Lillies, Buckhorn, Rock, San Mateo, El Rito, Manuel, and La Mosca springs get their water from volcanics of the north slope of Mt. Taylor across San Mateo Creek valley from the permit area.

Table 8-2. Springs within 2 Miles of the Roca Honda Permit Area

Spring Designation	Northing*	Easting*	Watershed
Bridge Spring	3913747	255976	Middle San Mateo Creek
North Spring	3914036	255981	Middle San Mateo Creek
South Spring	3912891	254949	Middle San Mateo Creek

*NAD83 datum and UTM Zone 13 projection

These springs are upgradient and outside of the drainage arroyo where the proposed mine water would discharge in Section 16, which is underlain mainly by the Mulatto Tongue of the Mancos Shale. Therefore, it is unlikely that the discharge of mine water or dewatering operations would have any surface impact on these springs. Cross section A-A' shown on Figure 8-8 demonstrates that Bridge Spring and other nearby springs are underlain by southeast-dipping bedrock of the lower part of the Menefee Formation. The location of cross section A-A' is shown in Figure 8-6. NMEI reports that the Bridge Springs gets its water from the Point Lookout Sandstone. The presence and seasonal persistence of springs along San Mateo Creek and their flow rates will be confirmed as part of the SAP. No water rights claims are on file with the OSE for any springs in the vicinity of the permit area, although the Lee Ranch has compiled an inventory of springs used by the ranch.

Table 8–3 is a summary of the water chemistry data collected by the NMEI in October of 1972 from springs in the vicinity of the permit area. No springs have been identified within the permit area. It is clear from the limited available data that Bridge Spring and South Bridge Spring have their source from a very different ground water system than do the other springs: the water is warmer, slightly more basic, and levels of all constituents except potassium are much higher. These differences in chemistry reflect the fact that the Bridge springs get their source from the Mesa Verde Formation and have a longer residence time within siltstones and sandstones, whereas the La Mosca and El Rito springs are probably water which entered the Mt. Taylor volcanics as precipitation and moved quickly through the rocks.

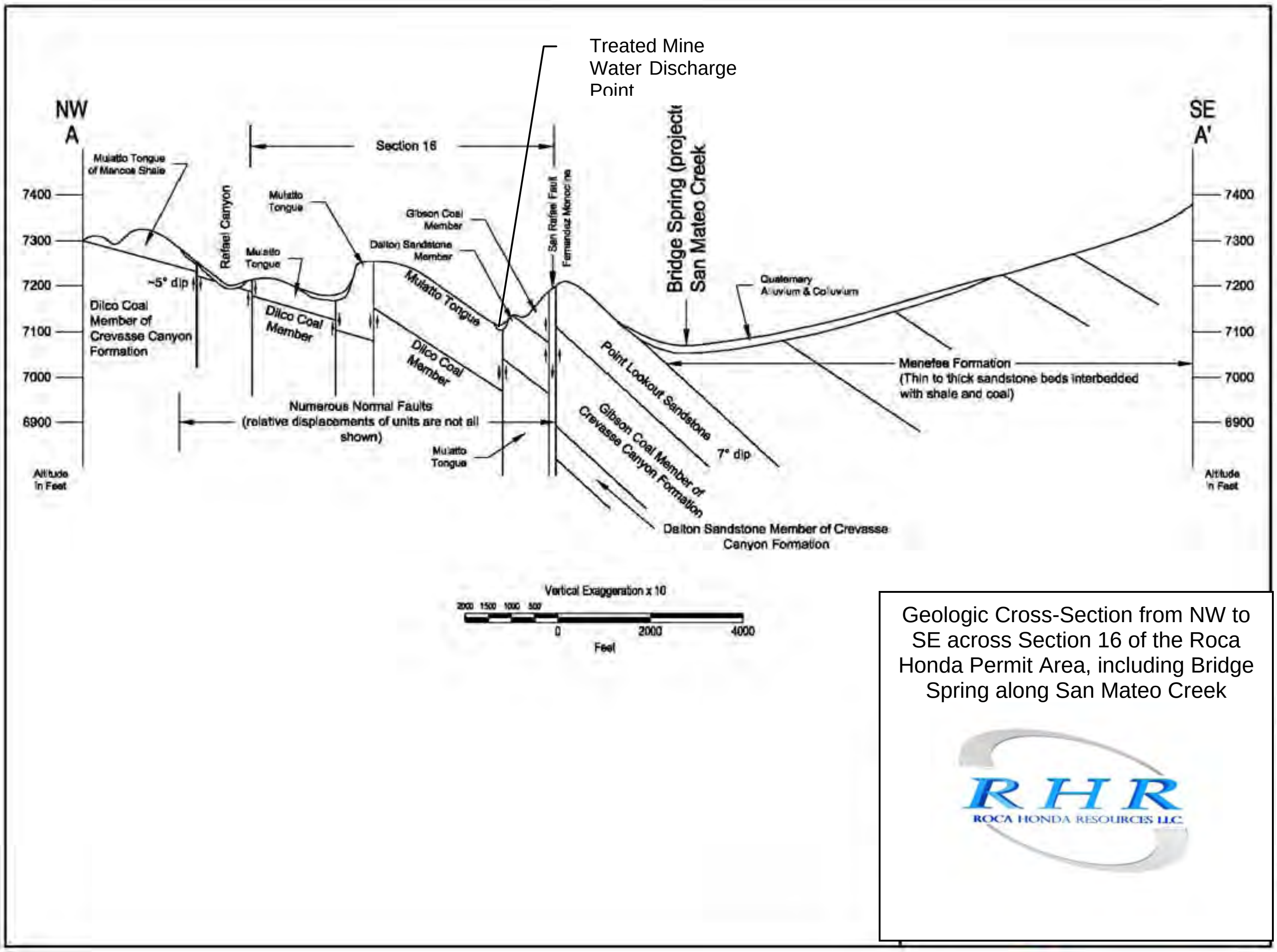

Figure 8-8. Geologic Cross-Section across Section 16 and San Mateo Creek.

Table 8-3. Water Chemistry of Spring Samples
(from NMEI, 1974, Table 7.7)

Constituent	Units	El Rito Spring	La Mosca Spring (a)	La Mosca Spring (b)	Bridge Spring	South Bridge Spring
pH		7.35	7.75	7.55	7.92	8.15
Specific conductance	µmhos	155	197	156	969	1252
Temperature	°C	13.2	11.0	12.5	20.2	
Calcium	mg/L	16.8	20.9	14.3	44.4	22.9
Magnesium	mg/L	4.5	4.6	2.4	23.9	22
Potassium	mg/L	4.1	5.0	3.2	5.0	6.9
Sodium	mg/L	8.3	14.0	14.0	168.0	268.0
Chloride	mg/L	6.0	8.0	8.0	33.0	40.0
Sulfate	mg/L	6.5	6.8	4.5	17.8	19.5
Nitrogen	mg/L	0.23	0.16	0.75	0.31	0.30
Bicarbonate	mg/L	90.3	117.1	73.2	608.0	749.0
Total solids	mg/L	213.7	267.6	208.6	940.5	940.5

8.5 Existing Surface Water Rights within the San Mateo Creek Watershed

The Roca Honda permit area is located within the Rio Puerco drainage of the Rio Grande surface water basin. The area is included within the Bluewater Underground Water Basin as declared by the New Mexico State Engineer. Surface water rights on file with the OSE in the vicinity of the permit area within the San Mateo Creek watershed are limited to surface water rights from San Mateo Creek. There are apparently no surface water rights associated with Bridge, South or North spring, or with any spring in the area of the proposed Roca Honda permit area.

The largest of the direct diversion surface water rights in the San Mateo Creek valley is SD 00966, a licensed water right originally filed in the name of the San Mateo Community Irrigation System to 960 ac-ft/yr for irrigation of 480 acres of land. This water right is sub-divided into individual sub-files SD 966-1 through SD 966-25. The point of diversion for this water right is San Mateo Creek near the community of San Mateo, several miles upstream of the proposed mine water discharge point. The direct diversion is supplemented with water from the San Mateo Reservoir, located in the same area, permitted by the OSE under SP-02528. Runoff from Mt. Taylor and spring flow are the sources of supply for these water rights. Discharge of mine water or dewatering operations will not have any impact on the availability of water to these water rights.

Fernandez Company has drilled well B-01442 into the Gallup Sandstone as a supplemental point of diversion to surface water diverted under sub-file SD-00966-13. This well is over 1,000 ft in depth and will not be impacted by discharge of mine water. Roca Honda Resources, LLC will conduct hydrologic studies as discussed in the SAP that will aid in assessing whether the dewatering of the Gallup Sandstone in the area of the proposed mine during the initial construction of the mine shaft will impact well B-01442.

Fernandez Company also holds water right SD 00971 for 353.4 ac-ft/yr, and SD 00972 for 184 ac-ft/yr. The diversion points for these water rights are located upstream of the proposed point of mine water discharge. Precipitation runoff is the source of supply for these water rights.

Discharge of mine water or dewatering operations will not have any impact on these surface water rights.

8.6 Potential Impacts to the Hydrologic Regime

Discharge of water produced from the dewatering of the Roca Honda mine may potentially affect the hydrologic regime in the permit areas. Discharge of an estimated average 4,000 gpm during the life of the mine into an ephemeral arroyo will probably make that arroyo perennial during the life of the mine, though it will return to its natural ephemeral state after dewatering discharge ceases. As noted previously, hydrologic aquifer tests will be performed as described in the SAP. These tests will help RHR more accurately estimate the amounts of water that will be produced from the mine. Local ranchers and irrigators may seek to divert a portion of this flow under existing or new water rights, in which case stream flow will be reduced.

The discharge may impact the morphology of the streambed by causing erosion. Proper design of the discharge structure will mitigate such potential erosion. Additional data on existing stream morphology and flow will be collected under the SAP to assess this potential in more detail.

A portion of the discharged water will enter the alluvium of the receiving arroyo and farther downstream, into the creek. This recharge may create a temporary shallow water system beneath the arroyo or cause the water table in that shallow system or in the underlying aquifers to rise.

Mine dewatering will not reduce spring flow from springs within or outside of the permit area. Mine dewatering will occur in the Westwater Canyon Member of the Morrison Formation, over 2,200 ft below the surface. The geologic strata from which the springs get their source of water are the Mt. Taylor volcanics, the Menefee Formation and the Point Lookout Sandstone, all of which are unsaturated within the permit area. These strata are 1,000 to 1,800 ft above the geologic strata to be dewatered and are separated from them by 600 to 800 feet of Mancos Shale. Because the springs get their water 1) up-channel of the mine water discharge point; 2) from a shallow ground water system that is absent in the area of the permit area; and 3) from a shallow ground water system that is unconnected to the deep aquifers which will be dewatered and separated from them by hundreds of feet of shale, RHR considers it unlikely that the springs will be adversely impacted by mine dewatering operations. This conclusion is discussed further in Section 9.0 Ground Water. For the same reasons, ground water withdrawal within the permit area will not affect the water quality of the springs.

8.7 References

Brod, R.C., and Stone, W.J., 1981, *Hydrogeology and water resources of the Ambrosia Lake-San Mateo area, McKinley and Valencia Counties, New Mexico:* M.S. thesis, New Mexico Institute of Mining and Technology.

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Appendix 8-A

Baseline Sediment Chemistry from Receiving Drainage
Section 16
And San Mateo Creek

Table A-1. Baseline Sediment Chemistry – Receiving Drainage (Sec. 16 and San Mateo Creek)
(Page 1 of 6)

Sample ID	SED-0	SED-1	SED-2	SED-3	SED-4	SED-5	SED-6	SED-7	SED-8	SED-9	SED-10	SED-11	SED-12	SED-13	SED-14	SED-15	SED-16	SED-17	**Units**	**Method**
Collection Date	9/11/2008	9/11/2008	9/11/2008	9/11/2008	9/12/2008	9/12/2008	9/12/2008	9/12/2008	9/15/2008	9/15/2008	9/15/2008	9/15/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008		
Collection Time	14:49	15:38	16:20	17:01	9:43	10:51	11:50	12:39	14:26	15:04	15:53	16:49	12:52	19:20	16:05					
AGRONOMIC PROPERTIES																				
pH, sat. paste	7.6	8.1	8.0	7.8	7.2	7.4	7.3	7.4	7.8	7.3	7.3	7.4	7.4	7.6	7.3	7.5	7.7	7.6	s.u.	ASAM 10-3.2
Moisture	5.4	12.3	20.1	6.8	7.3	4.3	0.9	0.5	ND	1.0	13.8	4.4	0.9	4.0	6.7	4.1	2.7	2.3	%	USDA26
Total Kjeldahl Nitrogen	948	1020	702	601	786	585	396	394	449	566	1620	1290	848	1180	2040	993	748	803	mg/kg-dry	ASA31-3
PARTICLE SIZE ANALYSIS/TEXTURE																				
Sand	67	29	73	69	47	63	88	88	89	70	12	22	70	12	20	4	32	50	%	ASA15-5
Silt	13	37	9	11	15	13	2	2	1	12	18	28	18	32	28	24	22	12	%	ASA15-5
Clay	20	34	18	20	38	24	10	10	10	18	70	50	12	56	52	72	46	38	%	ASA15-5
Texture	SL-SCL	CL	SL	SL-SCL	SC	SCL	LS	LS	LS	SL	C	C	SL	C	C	C	C	SC		ASA15-5
METALS - TOTAL																				
Aluminum	5480	17600	6070	8670	13700	8000	2480	1860	2430	4380	25200	16100	6800	21500	11600	25900	18200	11200	mg/kg-dry	SW6010B
Antimony	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.8	ND	ND	ND	mg/kg-dry	SW6020
Arsenic	4.2	5.0	3.1	3.1	4.6	3.0	1.9	2.0	2.3	3.9	9.0	6.4	3.1	6.3	6.5	9.1	6.4	3.9	mg/kg-dry	SW6020
Barium	64.9	159	59.5	75.0	110	72.7	30.4	23.9	29	89.1	237	229	95.6	202	171	200	146	103	mg/kg-dry	SW6020
Beryllium	0.7	0.9	ND	ND	0.7	ND	ND	ND	ND	0.6	1.6	1.2	ND	1.2	1.2	1.2	0.7	0.5	mg/kg-dry	SW6020
Boron	13.8	11.6	ND	ND	7.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg-dry	SW6010B
Cadmium	0.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.9	ND	ND	ND	mg/kg-dry	SW6020
Calcium	5380	12000	7480	5670	8520	5430	2440	2370	2300	6760	16000	17600	7440	16000	8210	16800	11600	7860	mg/kg-dry	SW6010B
Chromium	4.7	12.4	5.1	6.8	10.3	6.2	2.0	1.6	2.3	5.3	17.0	11.4	4.4	12.1	12.3	16.1	11.4	7.7	mg/kg-dry	SW6020
Cobalt	4.3	6.9	2.9	3.9	6.0	3.6	1.0	0.9	1.4	3.3	9.3	7.5	2.8	6.0	7.9	9.0	6.1	4.5	mg/kg-dry	SW6020
Copper	6.4	15.1	5.3	7.6	11.7	6.8	1.4	1.4	2.0	5.4	16.9	13.5	5.1	16.3	16.8	18.9	11.7	8.8	mg/kg-dry	SW6020
Iron	10900	21500	9720	11500	17200	10700	3540	3510	3720	8620	27700	16800	8510	24100	13500	27300	18000	12300	mg/kg-dry	SW6010B
Lead	7.5	14.1	5.7	7.4	12.3	7.2	2.4	2.4	3.0	7.2	22.3	17.8	7.2	18.0	18.3	20.1	12.8	9.6	mg/kg-dry	SW6020
Magnesium	2050	6040	2170	2730	4180	2470	799	581	763	1930	6030	4750	2390	6610	4020	7790	5730	3520	mg/kg-dry	SW6010B
Manganese	147	325	152	179	253	162	64.1	70.8	49.7	165	354	444	155	300	364	372	285	211	mg/kg-dry	SW6010B
Mercury	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg-dry	SW7471A
Molybdenum	0.5	0.7	ND	ND	0.5	ND	ND	ND	ND	ND	0.7	0.9	ND	0.9	1.1	0.8	1.0	1.4	mg/kg-dry	SW6020
Nickel	5.3	11.2	4.6	5.7	9.5	5.6	1.6	1.4	2.0	4.9	15.0	10.8	4.4	13.1	12.0	15.3	10.2	7.2	mg/kg-dry	SW6020
Potassium	1570	3630	1360	1890	3110	1760	506	388	482	1260	4510	3520	1740	5570	4250	5660	4790	3160	mg/kg-dry	SW6010B
Selenium	0.8	0.6	ND	ND	ND	ND	ND	ND	ND	0.6	0.8	1.1	ND	1.1	1.5	0.5	ND	0.6	mg/kg-dry	SW6020
Silver	0.8	ND	ND	ND	ND	ND	ND	ND	0.6	ND	ND	ND	ND	ND	0.7	ND	ND	ND	mg/kg-dry	SW6020
Sodium	ND	952	162	232	180	ND	ND	ND	ND	ND	431	ND	ND	120	101	375	193	217	mg/kg-dry	SW6010B
Thallium	0.7	ND	ND	ND	ND	ND	ND	ND	0.6	ND	ND	ND	ND	ND	1	ND	ND	ND	mg/kg-dry	SW6020
Uranium	1.0	1.1	1.1	0.7	1.1	0.7	ND	ND	1.2	1.1	2.1	4.9	1.8	7.9	5.1	4.0	2.1	4.2	mg/kg-dry	SW6020
Vanadium	12.7	30.0	14.9	17.8	20.8	14.6	6.1	6.9	5.9	13.1	31.0	29.5	14.7	28.0	28.3	32.7	24.7	17.9	mg/kg-dry	SW6020
Zinc	34.8	69.4	23.7	32.9	46.8	30.0	8.1	8.0	9.9	23.8	75.1	54.7	24.7	67.0	66.5	80.2	49.6	38.7	mg/kg-dry	SW6020

Sample ID	SED-0	SED-1	SED-2	SED-3	SED-4	SED-5	SED-6	SED-7	SED-8	SED-9	SED-10	SED-11	SED-12	SED-13	SED-14	SED-15	SED-16	SED-17	**Units**	**Method**
Collection Date	9/11/2008	9/11/2008	9/11/2008	9/11/2008	9/12/2008	9/12/2008	9/12/2008	9/12/2008	9/15/2008	9/15/2008	9/15/2008	9/15/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008		
Collection Time	14:49	15:38	16:20	17:01	9:43	10:51	11:50	12:39	14:26	15:04	15:53	16:49	12:52	19:20	16:05					
RADIONUCLIDES - TOTAL																				
Gross Alpha	3.4	8.4	8.3	4.2	9.2	7.1	2.5	6.7	1.6	2.7	22.4	16.7	6.9	25.1	14.4	18.3	12.6	7.4	pCi/g-dry	E900.0
Gross Alpha precision (+/-)	0.6	0.7	0.7	0.6	0.7	0.7	0.5	0.7	0.7	0.7	1.1	1	0.8	1.1	0.9	1.0	0.9	0.8	pCi/g-dry	E900.0
Gross Alpha minus Rn & U	0.7	2.1	2.1	1.0	3.2	2.3	0.9	1.1	0.7	1.2	3.7	4.3	2.1	6.98	6.3	5.2	3.4	2.8	pCi/g-dry	E900.1
Gross Alpha minus Rn & U precision (+/-)	0.2	0.4	0.4	0.3	0.4	0.4	0.3	0.3	0.2	0.2	0.4	0.4	0.3	0.573	0.5	0.5	0.4	0.4	pCi/g-dry	E900.1
Gross Alpha minus Rn & U MDC	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.168	0.2	0.2	0.2	0.2	pCi/g-dry	E900.1
Gross Beta	27.7	39.6	23.3	21.5	32.8	26.9	15.0	17.2	13.3	12.1	27.3	35.4	21.4	50.8	35.2	35.5	29.1	25.5	pCi/g-dry	E900.0
Gross Beta precision (+/-)	1	1.1	1	0.9	1.0	1	0.9	0.9	0.9	0.9	1.0	1.1	1	1.2	1.1	1.1	1.0	1.0	pCi/g-dry	E900.0
Radium 226	0.3	1.1	0.8	0.6	1.0	0.7	0.3	0.1	-0.06	0.4	1.5	2.6	1.6	4.2	4.2	2.8	1.7	1.6	pCi/g-dry	E903.0
Radium 226 precision (+/-)	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.06	0.09	0.2	0.2	0.3	0.3	0.4	0.4	0.4	0.3	0.3	pCi/g-dry	E903.0
Radium 226 MDC	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.07	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	pCi/g-dry	E903.0
Radium 228	0.9	1.2	0.7	0.3	1.7	1.5	1.6	0.6	0.3	1.5	1.3	1.1	0.1	1.0	2.3	1.2	0.8	1.2	pCi/g-dry	RA-05
Radium 228 precision (+/-)	0.7	0.7	0.7	0.7	0.8	0.7	1	0.4	0.6	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	pCi/g-dry	RA-05
Radium 228 MDC	1.2	1.2	1.1	1.2	1.2	1.1	1.5	0.6	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9	pCi/g-dry	RA-05
Strontium 90	-0.4	-0.5	-0.2	0.0	0.0	0.3	-0.2	0.2	0.2	-0.2	0.8	0.0	0.1	-0.2	-0.3	0.1	0.0	0.0	pCi/g-dry	E905.0
Strontium 90 precision (+/-)	0.5	0.5	0.5	0.6	0.5	0.4	0.4	0.5	0.5	0.4	0.5	0.4	0.5	0.383	0.4	0.4	0.4	0.4	pCi/g-dry	E905.0
Thorium 228	0.4	1.1	0.5	0.4	0.8	0.4	0.1	0.2	0.2	0.5	1.2	1.2	0.5	0.9	0.6	1	0.9	0.4	pCi/g-dry	E907.0
Thorium 228 precision (+/-)	0.2	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.2	0.2	0.3	0.3	0.3	0.2	pCi/g-dry	E907.0
Thorium 230	0.3	0.8	1.2	0.6	0.8	0.9	0.3	0.3	-0.6	0.5	1.3	2.7	2.0	2.7	3.6	0.7	0.9	0.4	pCi/g-dry	E907.0
Thorium 230 precision (+/-)	0.03	0.04	0.05	0.03	0.04	0.04	0.03	0.03	0.03	0.05	0.06	0.07	0.06	0.07	0.08	0.05	0.06	0.05	pCi/g-dry	E907.0
Thorium 232	0.4	0.7	0.4	0.3	0.6	0.5	0.1	0.1	0.2	0.3	0.8	0.6	0.6	1.2	0.7	1.0	1	0.5	pCi/g-dry	E907.0
Thorium 232 precision (+/-)	0.03	0.04	0.03	0.02	0.04	0.03	0.009	0.02	0.03	0.03	0.04	0.03	0.04	0.04	0.04	0.04	0.04	0.03	pCi/g-dry	E907.0
VOLITILE ORGANIC COMPOUNDS																				
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,1-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,2-Dibromoethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
2,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
2-Chloroethyl vinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
2-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
4-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B

Sample ID **Collection Date** **Collection Time**	SED-0 9/11/2008 14:49	SED-1 9/11/2008 15:38	SED-2 9/11/2008 16:20	SED-3 9/11/2008 17:01	SED-4 9/12/2008 9:43	SED-5 9/12/2008 10:51	SED-6 9/12/2008 11:50	SED-7 9/12/2008 12:39	SED-8 9/15/2008 14:26	SED-9 9/15/2008 15:04	SED-10 9/15/2008 15:53	SED-11 9/15/2008 16:49	SED-12 9/16/2008 12:52	SED-13 9/16/2008 19:20	SED-14 9/16/2008 16:05	SED-15 9/16/2008	SED-16 9/16/2008	SED-17 9/16/2008	**Units**	**Method**
VOLITILE ORGANIC COMPOUNDS (Continued)																				
Acrolein	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Acrylonitrile	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Bromobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Bromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Carbon disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Chlorodibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Dibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Iodomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
m+p-Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Methyl ethyl ketone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Methyl isobutyl ketone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
n-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
n-Propylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
o-Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
p-Isopropyltoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
sec-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
tert-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Vinyl acetate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Xylenes, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Surr: 1,2-Dichlorobenzene-d4	97.0	97.0	100	99.0	101	99.0	102	103	98.0	98.0	98.0	99.0	100	104	105	102	103	103	%REC	SW8260B
Surr: Dibromofluoromethane	88.0	92.0	94.0	94.0	102	99.0	101	107	90.0	90.0	94.0	96.0	104	93.0	118	109	114	113	%REC	SW8260B
Surr: p-Bromofluorobenzene	99.0	99.0	100	100	99.0	101	100	102	101	100	99.0	100	102	97.0	105	101	102	101	%REC	SW8260B
Surr: Toluene-d8	98.0	98.0	98.0	98.0	98.0	99.0	100	100	99.0	86.0	98.0	98.0	116	97.0	100	98.0	98.0	100	%REC	SW8260B

Sample ID	SED-0	SED-1	SED-2	SED-3	SED-4	SED-5	SED-6	SED-7	SED-8	SED-9	SED-10	SED-11	SED-12	SED-13	SED-14	SED-15	SED-16	SED-17	**Units**	**Method**
Collection Date	9/11/2008	9/11/2008	9/11/2008	9/11/2008	9/12/2008	9/12/2008	9/12/2008	9/12/2008	9/15/2008	9/15/2008	9/15/2008	9/15/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008		
Collection Time	14:49	15:38	16:20	17:01	9:43	10:51	11:50	12:39	14:26	15:04	15:53	16:49	12:52	19:20	16:05					
ORGANIC CHARACTERISTICS																				
Diesel Range Organics (DRO)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8015M
Total Extractable Hydrocarbons	37	10	14	14	28	16	15	ND	ND	14	14	22	23	25.0	36	15	21	14	mg/kg	SW8015M
Surr: o-Terphenyl	101	93.0	99.0	98.0	89.0	93.0	102	94.0	95.0	92.0	100	95.0	105	98.0	102	101	96.0	97.0	%REC	SW8015M
SYNTHETIC ORGANIC COMPOUNDS																				
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
1-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
2,4,5-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
2-Chloronaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
3,3'-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
4,6-Dinitro-2-methylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
4-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
4-Chloro-3-methylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
4-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
4-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Acenaphthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Acenaphthylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Azobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Benzidine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Benzo(k)fluorathene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
bis(-2-chloroethoxy)Methane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
bis(-2-chloroethyl)Ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
bis(2-chloroisopropyl)Ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
bis(2-ethylhexyl)Phthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Butylbenzylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Chrysene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Diethyl phthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Dimethyl phthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C

Sample ID	SED-0	SED-1	SED-2	SED-3	SED-4	SED-5	SED-6	SED-7	SED-8	SED-9	SED-10	SED-11	SED-12	SED-13	SED-14	SED-15	SED-16	SED-17		
Collection Date	9/11/2008	9/11/2008	9/11/2008	9/11/2008	9/12/2008	9/12/2008	9/12/2008	9/12/2008	9/15/2008	9/15/2008	9/15/2008	9/15/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008	**Units**	**Method**
Collection Time	14:49	15:38	16:20	17:01	9:43	10:51	11:50	12:39	14:26	15:04	15:53	16:49	12:52	19:20	16:05					
SYNTHETIC ORGANIC COMPOUNDS (Continued)																				
Di-n-butyl phthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Di-n-octyl phthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Fluorene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Hexachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Hexachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Isophorone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
m+p-Cresols	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Nitrobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
n-Nitrosodimethylamine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
n-Nitroso-di-n-propylamine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
n-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
o-Cresol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Phenanthrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Phenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Pyridine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Surr: 2,4,6-Tribromophenol	106	107	107	116	91.0	95.0	86.0	88.0	82.0	91.0	81.0	76.0	88.0	80.0	84.0	85.0	88.0	88.0	%REC	SW8270C
Surr: 2-Fluorobiphenyl	75.0	79.0	81.0	82.0	82.0	72.0	78.0	81.0	82.0	87.0	85.0	79.0	76.0	73.0	74.0	76.0	75.0	77.0	%REC	SW8270C
Surr: 2-Fluorophenol	78.0	76.0	84.0	88.0	78.0	74.0	75.0	82.0	92.0	89.0	80.0	84.0	83.0	76.0	81.0	69.0	74.0	79.0	%REC	SW8270C
Surr: Nitrobenzene-d5	82.0	76.0	79.0	86.0	75.0	71.0	84.0	84.0	83.0	79.0	80.0	78.0	74.0	81.0	85.0	86.0	86.0	89.0	%REC	SW8270C
Surr: Phenol-d5	86.0	86.0	86.0	91.0	96.0	73.0	80.0	91.0	88.0	92.0	77.0	82.0	76.0	84.0	84.0	72.0	77.0	76.0	%REC	SW8270C
Surr: Terphenyl-d14	91.0	91.0	94.0	98.0	92.0	81.0	95.0	89.0	129	100	106	100	87.0	87.0	79.0	87.0	94.0	86.0	%REC	SW8270C

Sample ID	SED-0	SED-1	SED-2	SED-3	SED-4	SED-5	SED-6	SED-7	SED-8	SED-9	SED-10	SED-11	SED-12	SED-13	SED-14	SED-15	SED-16	SED-17	**Units**	**Method**
Collection Date	9/11/2008	9/11/2008	9/11/2008	9/11/2008	9/12/2008	9/12/2008	9/12/2008	9/12/2008	9/15/2008	9/15/2008	9/15/2008	9/15/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008		
Collection Time	14:49	15:38	16:20	17:01	9:43	10:51	11:50	12:39	14:26	15:04	15:53	16:49	12:52	19:20	16:05					
ORGANOCHLORINE PESTICIDES																				
4,4'-DDD	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
4,4'-DDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
4,4'-DDT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Aldrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
alpha-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
alpha-Chlordane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
beta-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Chlordane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
delta-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Endosulfan I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Endosulfan II	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Endosulfan sulfate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Endrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Endrin ketone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
gamma-BHC (Lindane)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
gamma-Chlordane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Heptachlor epoxide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Methoxychlor	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Toxaphene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Surr: Decachlorobiphenyl	94.0	97.0	96.0	89.0	92.0	97.0	97.0	108	103	95.0	91.0	92.0	93.0	52.0	90.0	94.0	99.0	94.0	%REC	SW8081A
Surr: Tetrachloro-m-xylene	79.0	80.0	74.0	70.0	68.0	73.0	75.0	98.0	91.0	84.0	79.0	75.0	84.0	43.0	71.0	79.0	90.0	83.0	%REC	SW8081A
POLYCHLORINATED BIPHENYLS (PCBs)																				
Aroclor 1016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8082
Aroclor 1221	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8082
Aroclor 1232	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8082
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8082
Aroclor 1248	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8082
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8082
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8082
Aroclor 1262	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8082
Aroclor 1268	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8082
Surr: Decachlorobiphenyl	79.0	84.0	82.0	78.0	87.0	88.0	87.0	77.0	74.0	72.0	69.0	74.0	73.0	79.0	71.0	75.0	79.0	74.0	%REC	SW8082
Surr: Tetrachloro-m-xylene	65.0	71.0	72.0	62.0	60.0	63.0	59.0	82.0	80.0	75.0	71.0	69.0	66.0	68.0	66.0	70.0	80.0	75.0	%REC	SW8082
DIOXINS																				
2,3,7,8-TCDD	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ng/kg	8290

Appendix 8-B

Baseline Sediment Chemistry from Receiving Drainage
Section 16
And San Mateo Creek
(Leachable Constituents)

Table B-1. Baseline Sediment Chemistry – Receiving Drainages (Sec. 16 and Sand Mateo Creek) Leachable Constituents)
(Page 1 of 6)

Sample ID	SED-0 (L)	SED-1 (L)	SED-2 (L)	SED-3 (L)	SED-4 (L)	SED-5 (L)	SED-6 (L)	SED-7 (L)	SED-8 (L)	SED-9 (L)	SED-10 (L)	SED-11 (L)	SED-12 (L)	SED-13 (L)	SED-14 (L)	SED-15 (L)	SED-16 (L)	SED-17 (L)	Units	Method
Collection Date	9/11/2008	9/11/2008	9/11/2008	9/11/2008	9/12/2008	9/12/2008	9/12/2008	9/12/2008	9/15/2008	9/15/2008	9/15/2008	9/15/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008		
Collection Time	14:49	15:38	16:20	17:01	9:43	10:51	11:50	12:39	14:26	15:04	15:53	16:49	12:52	19:20	16:05					
AGRONOMIC PROPERTIES																				
pH, sat. paste	7.8	8.1	8.0	7.7	7.3	7.4	7.3	7.4	7.5	7.3	7.3	7.4	7.5	7.5	7.3	7.7	7.7	7.6	s.u.	ASAM 10-3.2
Moisture	4.5	14.1	7.9	7.4	7.6	4.1	1.0	0.5	0.2	0.9	11.4	5.1	0.7	4.3	2.4	3.6	2.4	1.5	%	USDA26
Total Kjeldahl Nitrogen	939	978	608	605	1270	643	453	394	449	565	1450	1240	734	1180	1660	930	746	683	mg/kg-dry	ASA31-3
PARTICLE SIZE ANALYSIS/TEXTURE																				
Sand	59	23	71	73	45	73	91	92	91	76	10	24	62	10	22	8	34	51	%	ASA15-5
Silt	17	39	9	11	19	9	1	ND	5	10	20	26	14	30	26	18	16	15	%	ASA15-5
Clay	24	38	20	16	36	18	8	8	4	14	70	50	24	60	52	74	50	34	%	ASA15-5
Texture	SCL	CL	SL-SCL	SL	CL-SC	SL	S	S	S	SL	C	C	SCL	C	C	C	C	SCL		ASA15-5
METALS - TOTAL																				
Aluminum	6060	25900	6760	6260	12600	8390	2840	1890	1610	3770	ND	18300	6330	22100	13400	25600	18400	11800	mg/kg-dry	SW6010B
Antimony	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg-dry	SW6020
Arsenic	4.1	5.1	3.2	2.8	4.6	3.6	2.0	1.8	2.0	3.1	9.8	5.9	2.7	6.0	6.8	8.4	4.9	3.8	mg/kg-dry	SW6020
Barium	77.6	260	62.1	70.8	107	79.9	34.5	22.8	36.1	80.4	248	206	89.3	202	170	217	155	97.6	mg/kg-dry	SW6020
Beryllium	0.5	1.2	ND	ND	0.6	ND	ND	ND	ND	ND	1.6	1.1	ND	1.0	0.9	1.1	0.7	0.7	mg/kg-dry	SW6020
Boron	ND	18.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg-dry	SW6010B
Cadmium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg-dry	SW6020
Calcium	5880	17400	8190	4130	8030	5670	3150	1840	2100	5540	ND	19200	7990	16400	8080	16500	11500	8020	mg/kg-dry	SW6010B
Chromium	5.3	16.8	4.9	6.3	9.8	6.6	2.3	1.8	2.3	4.6	17.9	10.7	4.3	12.5	12.4	18.1	10.5	7.2	mg/kg-dry	SW6020
Cobalt	5.3	8.9	3.3	3.1	5.5	3.8	1.1	1.1	1.2	2.7	9.7	6.9	2.7	6.2	7.6	9.4	5.8	4.2	mg/kg-dry	SW6020
Copper	7.8	20.0	5.7	5.7	10.9	7.5	1.7	1.6	1.6	4.5	17.8	12.3	4.9	17.0	16.5	20.1	11.3	8.1	mg/kg-dry	SW6020
Iron	11500	26500	10500	10800	15900	12000	4070	3770	3400	7320	ND	18800	7910	24200	15600	26700	18100	12400	mg/kg-dry	SW6010B
Lead	8.6	18.4	6.2	5.9	11.2	8.0	2.8	2.6	2.7	6.1	23.9	16.5	6.7	18.3	17.8	21.3	12.8	9.1	mg/kg-dry	SW6020
Magnesium	2260	8320	2500	1960	3840	2640	952	562	673	1720	ND	5310	2260	6800	4520	7680	5720	3810	mg/kg-dry	SW6010B
Manganese	182	368	163	155	237	165	74.9	64.2	54.9	138	370	410	154	307	366	376	279	183	mg/kg-dry	SW6010B
Mercury	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.05	ND	ND	ND	ND	ND	ND	mg/kg-dry	SW7471A
Molybdenum	ND	ND	ND	ND	0.5	ND	ND	ND	ND	ND	0.7	0.8	ND	1.1	0.9	1	1.0	4.1	mg/kg-dry	SW6020
Nickel	6.3	14.0	4.7	4.6	8.9	5.9	1.9	1.6	1.8	4.2	15.9	10.1	4.2	13.5	11.8	16.4	9.6	7.1	mg/kg-dry	SW6020
Potassium	1860	5100	1450	1400	2950	1880	567	395	427	1090	ND	3960	1640	5770	4170	5600	4890	3350	mg/kg-dry	SW6010B
Selenium	ND	0.5	ND	ND	ND	ND	ND	ND	ND	ND	0.9	0.9	0.6	0.9	1	ND	ND	ND	mg/kg-dry	SW6020
Silver	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg-dry	SW6020
Sodium	ND	1320	184	120	102	ND	ND	ND	ND	ND	ND	ND	ND	292	146	306	194	211	mg/kg-dry	SW6010B
Thallium	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg-dry	SW6020
Uranium	0.7	1.1	1.7	0.6	1	0.9	ND	ND	0.8	1.1	2.1	4.6	1.9	8.2	4.3	4.3	2.1	3.7	mg/kg-dry	SW6020
Vanadium	14.3	38.7	14.0	16.3	20.3	15.7	6.6	6.8	7.2	11.8	32.5	27.5	13.4	28.7	28.0	36.5	22.8	17.6	mg/kg-dry	SW6020
Zinc	34.3	83.4	27.1	25.0	43.6	35.1	9.5	8.7	8.6	20.3	78.8	50.9	22.9	69.3	66.2	85.7	48.6	37.5	mg/kg-dry	SW6020

Sample ID **Collection Date** **Collection Time**	SED-0 (L) 9/11/2008 14:49	SED-1 (L) 9/11/2008 15:38	SED-2 (L) 9/11/2008 16:20	SED-3 (L) 9/11/2008 17:01	SED-4 (L) 9/12/2008 9:43	SED-5 (L) 9/12/2008 10:51	SED-6 (L) 9/12/2008 11:50	SED-7 (L) 9/12/2008 12:39	SED-8 (L) 9/15/2008 14:26	SED-9 (L) 9/15/2008 15:04	SED-10(L) 9/15/2008 15:53	SED-11 (L) 9/15/2008 16:49	SED-12 (L) 9/16/2008 12:52	SED-13 (L) 9/16/2008 19:20	SED-14 (L) 9/16/2008 16:05	SED-15 (L) 9/16/2008	SED-16 (L) 9/16/2008	SED-17 (L) 9/16/2008	**Units**	**Method**
RADIONUCLIDES - TOTAL																				
Gross Alpha	4.2	6.7	5.5	2.9	8.8	10.8	2.9	1.6	1.8	7.3	16.5	14.8	14.9	18.0	16.8	14.9	14.5	9.2	pCi/g-dry	E900.0
Gross Alpha precision (+/-)	0.6	0.7	0.6	0.5	0.7	0.8	0.5	0.5	0.7	0.8	1.0	0.9	0.9	0.9	1	0.9	0.9	0.8	pCi/g-dry	E900.0
Gross Alpha minus Rn & U	1.1	2.7	1.6	1.7	3.4	2.3	1.6	0.5	0.7	1.3	3.9	4.7	2.4	6.17	6.9	5.0	3.3	2.5	pCi/g-dry	E900.1
Gross Alpha minus Rn & U precision (+/-)	0.3	0.4	0.3	0.3	0.5	0.4	0.3	0.2	0.2	0.2	0.4	0.4	0.3	0.536	0.6	0.5	0.4	0.3	pCi/g-dry	E900.1
Gross Alpha minus Rn & U MDC	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.166	0.2	0.2	0.2	0.2	pCi/g-dry	E900.1
Gross Beta	25.6	36.1	19.0	17.1	29.3	29.5	21.8	12.7	13.4	16.2	27.7	39.9	28.7	49.0	43.5	29.3	31.4	25.6	pCi/g-dry	E900.0
Gross Beta precision (+/-)	1	1	0.9	0.9	1.0	1.0	0.9	0.9	0.9	0.9	1.0	1.1	1.0	1.1	1.1	1.0	1.0	1.0	pCi/g-dry	E900.0
Radium 226	0.7	0.9	0.8	0.4	1.2	0.8	0.3	0.2	0.2	0.6	1.7	3.0	1.3	4.4	5.0	2.8	1.7	1.6	pCi/g-dry	E903.0
Radium 226 precision (+/-)	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.3	0.3	0.2	0.4	0.5	0.4	0.3	0.3	pCi/g-dry	E903.0
Radium 226 MDC	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	pCi/g-dry	E903.0
Radium 228	0.6	1.5	0.8	1.6	2.3	1.4	1.5	0.4	0.5	0.9	1.6	1	0.4	0.9	0.9	1.1	0.4	0.3	pCi/g-dry	RA-05
Radium 228 precision (+/-)	0.7	0.7	0.7	0.8	0.8	0.7	0.9	0.7	0.6	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.5	0.5	pCi/g-dry	RA-05
Radium 228 MDC	1.2	1.1	1.1	1.2	1.2	1.1	1.5	1.2	1.0	1.1	1.0	1.1	1.1	0.9	0.9	0.9	0.9	0.9	pCi/g-dry	RA-05
Strontium 90	0.0	0.2	-0.2	-0.4	-0.1	-0.1	0.0	-0.3	-0.1	-0.2	0.0	0.6	0.3	-0.2	0.3	0.3	-0.2	0.4	pCi/g-dry	E905.0
Strontium 90 precision (+/-)	0.5	0.6	0.5	0.4	0.5	0.4	0.5	0.4	0.4	0.4	0.5	0.5	0.5	0.377	0.4	0.4	0.4	0.4	pCi/g-dry	E905.0
Thorium 228	0.4	1.1	0.4	0.1	1.3	0.7	0.2	0.1	0.1	0.5	1.3	1	0.3	1.1	0.5	1.0	0.9	0.5	pCi/g-dry	E907.0
Thorium 228 precision (+/-)	0.2	0.2	0.2	0.04	0.5	0.3	0.2	0.1	0.1	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.2	pCi/g-dry	E907.0
Thorium 230	0.7	0.6	0.8	0.1	0.6	0.5	0.2	0.2	-0.3	0.2	0.8	2.7	1.2	2.5	2.5	0.9	0.8	0.5	pCi/g-dry	E907.0
Thorium 230 precision (+/-)	0.04	0.04	0.04	0.009	0.05	0.04	0.03	0.03	0.03	0.04	0.05	0.08	0.06	0.07	0.08	0.06	0.05	0.05	pCi/g-dry	E907.0
Thorium 232	0.4	0.7	0.4	0.0	0.6	0.7	0.1	0.1	0.1	0.4	0.9	0.8	0.2	0.8	0.6	1.0	0.9	0.6	pCi/g-dry	E907.0
Thorium 232 precision (+/-)	0.03	0.03	0.03	0.009	0.04	0.04	0.02	0.02	0.02	0.03	0.04	0.04	0.02	0.04	0.03	0.04	0.04	0.03	pCi/g-dry	E907.0
VOLITILE ORGANIC COMPOUNDS																				
1,1,1,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,1-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,2,3-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,2,3-Trichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,2,4-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,2-Dibromo-3-chloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,2-Dibromoethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,3-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
2,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
2-Chloroethyl vinyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
2-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
2-Hexanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
4-Chlorotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B

Sample ID	SED-0 (L)	SED-1 (L)	SED-2 (L)	SED-3 (L)	SED-4 (L)	SED-5 (L)	SED-6 (L)	SED-7 (L)	SED-8 (L)	SED-9 (L)	SED-10(L)	SED-11 (L)	SED-12 (L)	SED-13 (L)	SED-14 (L)	SED-15 (L)	SED-16 (L)	SED-17 (L)	Units	Method
Collection Date	9/11/2008	9/11/2008	9/11/2008	9/11/2008	9/12/2008	9/12/2008	9/12/2008	9/12/2008	9/15/2008	9/15/2008	9/15/2008	9/15/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008		
Collection Time	14:49	15:38	16:20	17:01	9:43	10:51	11:50	12:39	14:26	15:04	15:53	16:49	12:52	19:20	16:05					
VOLITILE ORGANIC COMPOUNDS (Continued)																				
Acrolein	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Acrylonitrile	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Bromobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Bromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Bromodichloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Carbon disulfide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Carbon tetrachloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Chlorodibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Dibromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Dichlorodifluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Iodomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
m+p-Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Methyl ethyl ketone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Methyl isobutyl ketone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Methylene chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
n-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
n-Propylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
o-Xylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
p-Isopropyltoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
sec-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
tert-Butylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Trichlorofluoromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Vinyl acetate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Vinyl chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Xylenes, Total	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8260B
Surr: 1,2-Dichlorobenzene-d4	96.0	100	100	99.0	99.0	101	99.0	102	100	100	99.0	100	102	103	102	103	102	104	%REC	SW8260B
Surr: Dibromofluoromethane	92.0	96.0	100	98.0	102	102	99.0	102	93.0	94.0	98.0	94.0	106	89.0	132	103	108	110	%REC	SW8260B
Surr: p-Bromofluorobenzene	100	100	101	102	100	101	101	100	102	100	102	102	103	97.0	102	102	102	103	%REC	SW8260B
Surr: Toluene-d8	100	99.0	100	100	99.0	100	100	100	99.0	98.0	98.0	84.0	82.0	98.0	115	100	100	100	%REC	SW8260B

Sample ID Collection Date Collection Time	SED-0 (L) 9/11/2008 14:49	SED-1 (L) 9/11/2008 15:38	SED-2 (L) 9/11/2008 16:20	SED-3 (L) 9/11/2008 17:01	SED-4 (L) 9/12/2008 9:43	SED-5 (L) 9/12/2008 10:51	SED-6 (L) 9/12/2008 11:50	SED-7 (L) 9/12/2008 12:39	SED-8 (L) 9/15/2008 14:26	SED-9 (L) 9/15/2008 15:04	SED-10 (L) 9/15/2008 15:53	SED-11 (L) 9/15/2008 16:49	SED-12 (L) 9/16/2008 12:52	SED-13 (L) 9/16/2008 19:20	SED-14 (L) 9/16/2008 16:05	SED-15 (L) 9/16/2008	SED-16 (L) 9/16/2008	SED-17 (L) 9/16/2008	Units	Method
ORGANIC CHARACTERISTICS																				
Diesel Range Organics (DRO)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8015M
Total Extractable Hydrocarbons	12	11	15	16	16	23	ND	ND	ND	14	15	22	16	17.0	39	13	12	ND	mg/kg	SW8015M
Surr: o-Terphenyl	99.0	94.0	100	91.0	98.0	98.0	96.0	106	99.0	100	100	96.0	101	97.0	99.0	96.0	95.0	100	%REC	SW8015M
SYNTHETIC ORGANIC COMPOUNDS																				
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
1-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
2,4,5-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
2,4,6-Trichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
2,4-Dichlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
2,4-Dimethylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
2,4-Dinitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
2,6-Dinitrotoluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
2-Chloronaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
2-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
2-Methylnaphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
2-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
3,3'-Dichlorobenzidine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
4,6-Dinitro-2-methylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
4-Bromophenyl phenyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
4-Chloro-3-methylphenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
4-Chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
4-Chlorophenyl phenyl ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
4-Nitrophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Acenaphthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Acenaphthylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Azobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Benzidine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Benzo(a)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Benzo(a)pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Benzo(b)fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Benzo(g,h,i)perylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Benzo(k)fluorathene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
bis(-2-chloroethoxy)Methane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
bis(-2-chloroethyl)Ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
bis(2-chloroisopropyl)Ether	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
bis(2-ethylhexyl)Phthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Butylbenzylphthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Chrysene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Dibenzo(a,h)anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Diethyl phthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Dimethyl phthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C

Sample ID / Collection Date / Collection Time	SED-0 (L) 9/11/2008 14:49	SED-1 (L) 9/11/2008 15:38	SED-2 (L) 9/11/2008 16:20	SED-3 (L) 9/11/2008 17:01	SED-4 (L) 9/12/2008 9:43	SED-5 (L) 9/12/2008 10:51	SED-6 (L) 9/12/2008 11:50	SED-7 (L) 9/12/2008 12:39	SED-8 (L) 9/15/2008 14:26	SED-9 (L) 9/15/2008 15:04	SED-10 (L) 9/15/2008 15:53	SED-11 (L) 9/15/2008 16:49	SED-12 (L) 9/16/2008 12:52	SED-13 (L) 9/16/2008 19:20	SED-14 (L) 9/16/2008 16:05	SED-15 (L) 9/16/2008	SED-16 (L) 9/16/2008	SED-17 (L) 9/16/2008	Units	Method
SYNTHETIC ORGANIC COMPOUNDS (Continued)																				
Di-n-butyl phthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Di-n-octyl phthalate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Fluoranthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Fluorene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Hexachlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Hexachlorocyclopentadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Hexachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Indeno(1,2,3-cd)pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Isophorone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
m+p-Cresols	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Naphthalene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Nitrobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
n-Nitrosodimethylamine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
n-Nitroso-di-n-propylamine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
n-Nitrosodiphenylamine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
o-Cresol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Phenanthrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Phenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Pyridine	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8270C
Surr: 2,4,6-Tribromophenol	102	100	111	111	85.0	107	91.0	80.0	68.0	87.0	91.0	86.0	92.0	86.0	76.0	86.0	86.0	95.0	%REC	SW8270C
Surr: 2-Fluorobiphenyl	73.0	78.0	79.0	74.0	71.0	83.0	86.0	75.0	70.0	77.0	77.0	73.0	79.0	74.0	67.0	80.0	76.0	81.0	%REC	SW8270C
Surr: 2-Fluorophenol	71.0	71.0	79.0	74.0	73.0	83.0	80.0	73.0	78.0	87.0	88.0	77.0	79.0	66.0	72.0	92.0	72.0	85.0	%REC	SW8270C
Surr: Nitrobenzene-d5	78.0	77.0	83.0	85.0	73.0	86.0	82.0	69.0	62.0	85.0	86.0	83.0	90.0	86.0	77.0	92.0	86.0	90.0	%REC	SW8270C
Surr: Phenol-d5	80.0	83.0	85.0	79.0	86.0	85.0	82.0	84.0	75.0	81.0	91.0	75.0	75.0	64.0	74.0	93.0	74.0	81.0	%REC	SW8270C
Surr: Terphenyl-d14	86.0	92.0	88.0	94.0	93.0	90.0	97.0	84.0	99.0	92.0	80.0	93.0	92.0	87.0	71.0	82.0	86.0	83.0	%REC	SW8270C

Sample ID	SED-0 (L)	SED-1 (L)	SED-2 (L)	SED-3 (L)	SED-4 (L)	SED-5 (L)	SED-6 (L)	SED-7 (L)	SED-8 (L)	SED-9 (L)	SED-10 (L)	SED-11 (L)	SED-12 (L)	SED-13 (L)	SED-14 (L)	SED-15 (L)	SED-16 (L)	SED-17 (L)	**Units**	**Method**
Collection Date	9/11/2008	9/11/2008	9/11/2008	9/11/2008	9/12/2008	9/12/2008	9/12/2008	9/12/2008	9/15/2008	9/15/2008	9/15/2008	9/15/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008	9/16/2008		
Collection Time	14:49	15:38	16:20	17:01	9:43	10:51	11:50	12:39	14:26	15:04	15:53	16:49	12:52	19:20	16:05					
ORGANOCHLORINE PESTICIDES																				
4,4'-DDD	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
4,4'-DDE	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
4,4'-DDT	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Aldrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
alpha-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
alpha-Chlordane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
beta-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Chlordane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
delta-BHC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Dieldrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Endosulfan I	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Endosulfan II	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Endosulfan sulfate	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Endrin	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Endrin aldehyde	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Endrin ketone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
gamma-BHC (Lindane)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
gamma-Chlordane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Heptachlor	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Heptachlor epoxide	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Methoxychlor	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Toxaphene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8081A
Surr: Decachlorobiphenyl	92.0	102	97.0	91.0	98.0	98.0	102	98.0	94.0	94.0	93.0	96.0	92.0	87.0	97.0	95.0	96.0	93.0	%REC	SW8081A
Surr: Tetrachloro-m-xylene	77.0	73.0	76.0	78.0	79.0	80.0	79.0	88.0	76.0	80.0	88.0	86.0	73.0	75.0	86.0	84.0	75.0	67.0	%REC	SW8081A
POLYCHLORINATED BIPHENYLS (PCBs)																				
Aroclor 1016	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8082
Aroclor 1221	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8082
Aroclor 1232	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8082
Aroclor 1242	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8082
Aroclor 1248	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8082
Aroclor 1254	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8082
Aroclor 1260	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8082
Aroclor 1262	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8082
Aroclor 1268	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	mg/kg	SW8082
Surr: Decachlorobiphenyl	79.0	84.0	79.0	83.0	90.0	88.0	90.0	65.0	68.0	73.0	73.0	81.0	84.0	71.0	76.0	75.0	71.0	73.0	%REC	SW8082
Surr: Tetrachloro-m-xylene	66.0	63.0	65.0	67.0	70.0	71.0	62.0	70.0	66.0	72.0	79.0	78.0	80.0	68.0	79.0	80.0	68.0	60.0	%REC	SW8082
DIOXINS																				
2,3,7,8-TCDD	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ng/kg	8290