

Soil Feasibility Study Addendum

Petronila Creek
Nueces County, Texas

Prepared for:

Railroad Commission of Texas
Oil and Gas Division
Site Remediation

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August 2009

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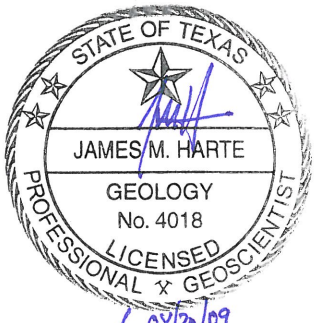
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TRC Project No. 166420

Principal Lead _____ **Technical Lead** _____

August 2009

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1.0 INTRODUCTION

1.1 Scope of Soil Feasibility Study

Analytical and geophysical data collected around the Driscoll segment of Petronila Creek indicate broad extents of soils around the creek impacted with salinity. Historic discharge practices of brine water (produced water) from oil and gas exploration and production activities in the area have likely been a primary contributor to elevated salinity levels in soils, groundwater, and Petronila Creek surface water. Chemical signatures of cations and anions (e.g., calcium, sodium, magnesium, chloride and sulfate) suggest that the source of salinity is from produced water associated with deep brine formations (Paine, Nance, and Collins, 2005). Saline water management and discharge during oil and gas exploration and production in the Driscoll area included discharge and infiltration into brine pits, and direct discharge into creeks and ditches. In addition, there may have been leaking injection of brine-disposal wells. Salinity levels in the area prior to oil and gas activity may have been elevated due to a combination of factors including: (1) presence of primary saline pore water incorporated during Pleistocene coastal facies of the Beaumont Formation; (2) salt particles blown inland and deposited by prevailing onshore winds; and, (3) extensive inland flooding of saline water from the Gulf Mexico and estuarine water during periodic tropical storms (Paine, Nance, and Collins, 2005).

The culmination of historic information, analytical data, and geophysical data indicates that sources of elevated salinity are present within approximately seven square miles around the segment of Petronila Creek close to Driscoll, Texas (the study area). These sources are suspected to contribute, at variable rates, to salinity loading of the creek. A "broad-brush" investigation of sources within the study area was conducted between 2006 and 2008 to determine the general location and extent of the source areas. The analytical data, in-situ conductivity data, and historical information collected from these iterative investigations identified seven source areas within the study area. An evaluation of Best Management Practices (BMPs) to mitigate salinity loading from several of these soil sources to Petronila Creek was conducted in the fall of 2008. Details regarding this evaluation are documented in the September 2008 *Soil Feasibility Study* (SFS).

The SFS focused on areas around Petronila Creek in the general vicinity of United States Highway (US) 77 and County Road (CR) 18. The soil source areas were ranked according to the salinity loading each area could potentially contribute. Three of the source areas, identified as Areas 2, 6 and 7, were considered to have the greatest potential for salinity loading to Petronila Creek. Based on these findings, the Railroad Commission of Texas (RRC), with the concurrence of the Texas Commission on Environmental Quality (TCEQ), pursued a second phase of BMP evaluation that focused on the two

source areas with the highest ranked potential for salinity loading, specifically Areas 6 and 7. Due to the large extent of salinity impacts within Areas 6 and 7 and the potential cost of a BMP to remedy the entire areas, further characterization of salinity distribution was performed in March 2009.This SFS Addendum incorporates the March 2009 data and historical sediment data. Surface water data trends were also evaluated in this report to provide a qualitative representation of salinity loading to the creek via the ditches associated with Areas 6 and 7. Based on the results, excavation of contaminated sediments in Areas 6 and 7 was determined to be the preferred BMP. Based on the variable levels of salinity detected in each area, the cost to implement the BMP is presented in two ways: (1) cost to implement the BMP based on excavation of three concentration intervals of chloride (i.e. 50,000 to 40,000 mg/kg, 40,000 to 30,000 mg/kg, 30,000 to 20,000 mg/kg); and, (2) cost to implement the BMP based on excavation of discrete segments with elevated chloride. Each estimate includes the total cost of excavation and the cost per amount of loading reduction. The goal of presenting two options is to provide the RRC with the necessary information to make cost-effective decisions on BMP implementation.

1.2 Site Background

The Total Maximum Daily Load (TMDL) Section of the TCEQ placed Segment 2204 (Petronila Creek) on the State's 303(d) list because it does not meet water quality standards due to high chloride, sulfate and total dissolved solids (TDS) levels (i.e., salinity). Segment 2204 includes the entire length of Petronila Creek, which begins at the confluence of Agua Dulce Creek and Banquete Creek in Nueces County and continues approximately 70 kilometers (km) to Laureles Ranch in Kleberg County. A site location map is presented as Figure 1-1.

Results from a TCEQ and Bureau of Economic Geology (BEG) investigation presented in the August 2005 report *Geophysical investigations of salinization along Petronila Creek, Nueces and Kleberg counties, Texas* revealed that the chloride and TDS content in Petronila Creek increased significantly between Gauging Station 13098 (located at US 77) and Gauging Station 13096 (located downstream of the Clara Driscoll oil field). The United States Environmental Protection Agency (USEPA) and TCEQ awarded the RRC a non-point source grant to investigate the nature and extent of salinity contamination associated with oil and gas production and exploration activities, and determine remediation/abatement alternatives, BMPs, to reduce salinity loading in the creek.

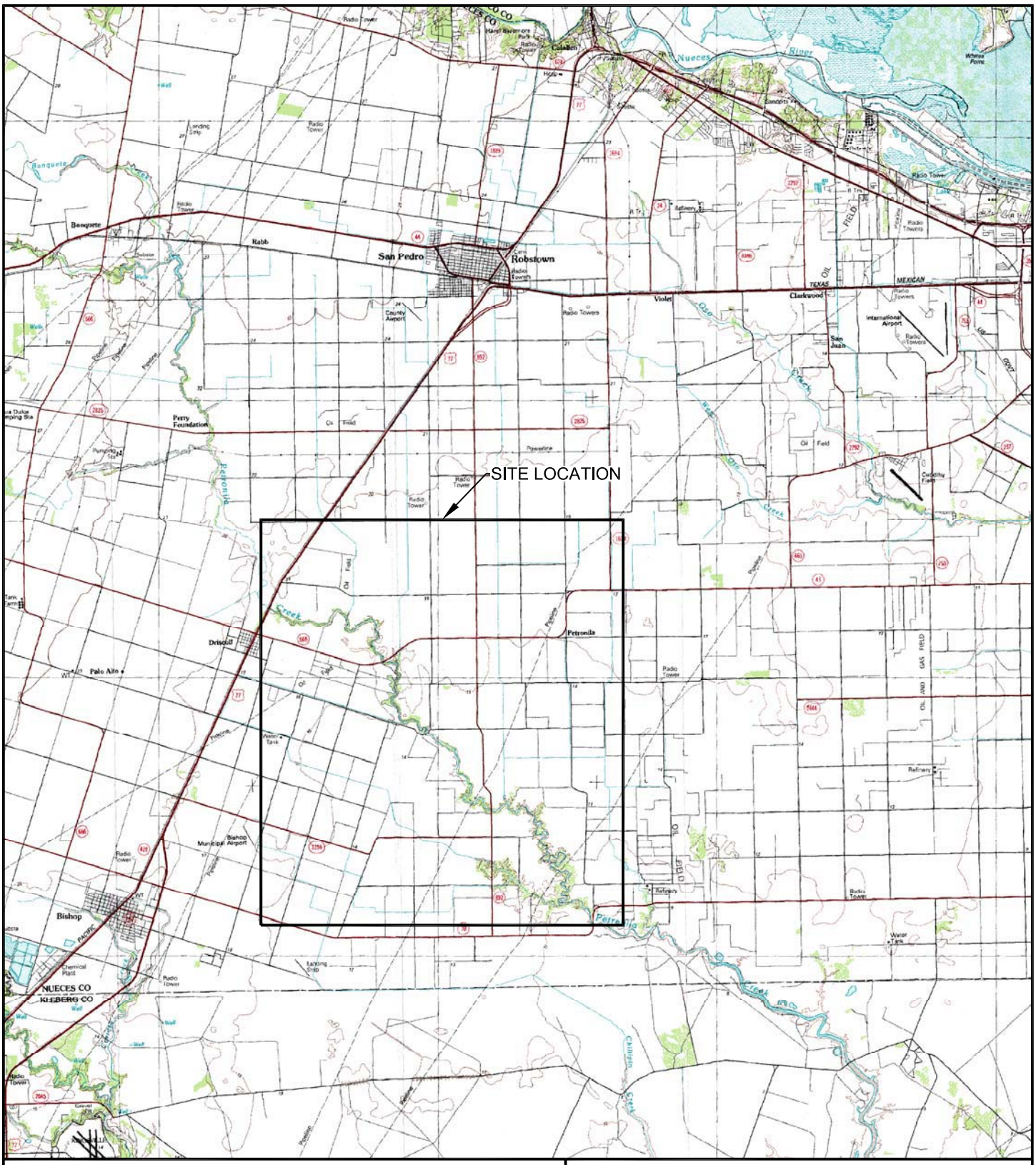
As part of the TCEQ's TMDL project, BEG conducted an airborne geophysical survey, supporting ground-based measurements, and surface water analyses of Petronila

Creek (Segment 2204) (Paine, Nance, and Collins, 2005). The results of the geophysical and chemical analyses suggest that the sources of salinity in Petronila Creek between US 77 and the estuarine-influenced zone include brine produced from local oil fields (North Clara Driscoll, Clara Driscoll, and Luby). Oil field brine was discharged into ditches, referred to as tidal disposal, and/or discharged into pits. The RRC ended the practice of tidal disposal in 1987 and implemented a no pit order in 1969 that discontinued evaporation pits for disposal. Airborne geophysical data suggest that there are extensive areas of salinization between the drainage ditches and Petronila Creek that may provide continuing sources of salinity along the Driscoll, Concordia, and Luby oil field segments of Petronila Creek. The Luby oil field area, which is at the downstream limit of the surveyed area, is not included in the present investigation because the area coincides with the zone of estuarine mixing (i.e., this portion of the study area also contains naturally-occurring salinity from tidal influence) (Paine, Nance, and Collins, 2005).

TRC conducted site reconnaissance along Petronila Creek and oil and gas historic records review in May 2006. Findings from this effort indicated widespread historic oil and gas exploration and operations around Petronila Creek that could have contributed salinity to the creek. These results and conclusions are provided in the report *Final Petronila Creek Records Review, Site Reconnaissance Results, and Recommendations* August 2006. Based on this information, TRC recommended that further investigation in the form of soil and water sampling be performed to assess the extent of salinity in groundwater, surface water, and soil around Petronila Creek.

TRC conducted a second phase of field investigation (Phase II) during the spring of 2007, which included seasonal surface water monitoring and in-situ assessment of soils within the vicinity of Petronila Creek. The in-situ soil investigation was conducted using Cone Penetrometer Testing (CPT) technology to provide a “broad-brush” assessment of salinity concentrations around the creek. The results of the Phase II investigation are summarized in the *Draft – Interim Technical Memorandum for Petronila Creek*, August 10, 2007.

Surface water analytical data collected during the Phase II event indicated general increases of conductivity, anion, and cation concentrations in Petronila Creek water between Segments 2 and 25, and decreasing concentrations downstream of Segment 25. Of the cations and anions, chloride was detected at the highest concentration. Elevated TDS, conductivity, anion, and cation concentrations were also observed from surface water samples collected from the North Clara Driscoll and Clara Driscoll (CR 18) drainage ditches, which join Petronila Creek near Creek Segments 6 and 14, respectively.



0 1.5 3 6

SCALE IN MILES
1" = 3 MILES

N

SITE LOCATION MAP

RAILROAD COMMISSION OF TEXAS
PETRONILA CREEK

PROJECT NO.	166420	DWG FILE	166420 –1–1
DRAWN BY.	CL	DATE	4/17/08

TRC
505 EAST HUNTLAND DRIVE
SUITE 250
AUSTIN, TEXAS 78752
(512) 329–6080

FIGURE
1 – 1

SOURCE

U.S.G.S. 1:100,000-SCALE TOPOGRAPHIC MAP, CORPUS CHRISTI (1980), TEXAS.

The Phase II event included the sampling of groundwater monitoring wells associated with two pipeline releases of gasoline, referred to as the Driscoll #2 Site and Driscoll #3 Site. The results of the groundwater sampling during the spring of 2007 indicated elevated TDS, conductivity, anion, and cation concentrations. Both areas are registered under Solid Waste Number 39988 and are currently under the jurisdiction of the TCEQ.

The results of the Phase II CPT investigation indicated discrete areas of shallow soils (less than 10 feet below ground surface [bgs]) with elevated conductivity concentrations. Conductivity concentrations in these areas increased with depth, and spread laterally with depth, suggesting vertical and lateral transport in the direction of groundwater flow.

A third phase of investigation (Phase III) followed in December 2007 with a scope of work developed from the results of the Phase II investigation. Phase III work focused on specific areas found to have elevated conductivity based on CPT measurements. During this phase, seasonal water monitoring was performed and included surface water sampling, stream flow measurements, and gauging stream stages. Groundwater investigation was also performed and involved monitoring well installation, synoptic well and creek gauging, and sampling of the monitoring wells.

Groundwater elevations collected from monitoring wells in October and December 2007 were compared to the approximate elevation of the bottom of the creek. Groundwater elevations collected from wells near the creek were higher than the bottom of the creek, which suggest that a hydraulic connection is present (i.e., gaining creek) between Petronila Creek and the groundwater bearing unit (GWBU). Analyses of cross-sections showing lithology, potentiometric elevations, and the creek profile indicate that the GWBU intersects Petronila Creek to a greater extent in the downstream direction where the creek is more deeply incised (downstream of Segment 9).

Analytical results of water samples collected from Petronila Creek during October 2007 indicated a significant increase in salinity (i.e., TDS, conductivity and chloride) between Segments 2 and 6, a moderate increase in salinity between Segments 6 and 19, and a moderate decrease in salinity between Segments 19 and 33, as compared to salinity data from February 2007. Similar increases in salinity were observed in samples collected from the North Clara Driscoll and Clara Driscoll (CR18) drainage ditches. Salinity increases (chloride, TDS, and sulfate) were observed in the North Clara Driscoll drainage ditch between sample locations P-D-02 and P-D-01, and in the Clara Driscoll (CR 18) drainage ditch between sample locations P-D-06 and P-D-07 (TRC, 2007b). The elevated levels of salinity observed in the creek and drainage ditches in October 2007 may have

been the result of heavy rainfall that occurred in the area between June and September 2007. The results of soil samples collected during the Phase III investigation identified elevated salinity concentrations at shallow soil depths in the following areas: Driscoll #2 Site (Area 4), Driscoll #3 Site (Area 5), oil field wasteland areas near P-MW-3, P-MW-6 and P-MW-16, and the drainage ditches along CR18 and North Clara Driscoll field. Groundwater analytical data for the shallow wells indicated that the highest salinity concentrations occurred at the Driscoll #3 Site, oil field wasteland areas near P-MW-3, P-MW-6, P-MW-16, and wells P-MW-20 and P-MW-21, located along drainage ditch. A cumulative analysis of the soil and groundwater information gathered from the Phase II and Phase III investigations suggested seven likely source areas: (1) oil wasteland south of Petronila Creek near well P-MW-16 (Area 1); (2) oil wasteland area south of Petronila Creek near well P-MW-6 (Area 2); (3) oil wasteland area north of Petronila creek near well P-MW-03 (Area 3); (4) unknown source near the Driscoll #2 Site (P-D2-MW-12) (Area 4); (5) former disposal pit near the Driscoll #3 Site (P-D3-MW-27) (Area 5); (6) North Clara Driscoll drainage ditch (Area 6); and (7) Clara Driscoll (CR18) drainage ditch (Area 7) (TRC, 2007b). These areas are depicted on Figure 2-1.

Field sampling conducted in June 2008 focused on the collection of additional soil and sediment samples from each of the seven source areas identified in the Phase III report. The objective of the June 2008 sampling was to gain a more detailed perspective of salinity distribution (i.e., chloride and conductivity) at each source area. This information, coupled with analytical results from the Phase II and Phase III investigations, was presented in the September 2008 SFS. Each area was ranked according to the chloride and conductivity concentrations in soil or sediment and its potential to impact Petronila Creek by leaching, migration via groundwater, and/or surface runoff. This ranking process was then used to make a determination of BMP applicability, which considered technological and cost effectiveness.

Three of the seven areas were judged to pose the greatest potential threat of salinity loading to Petronila Creek: (1) Area 2 – the oil wasteland area south of Petronila Creek near well P-MW-6; (2) Area 6 – the North Clara Driscoll drainage ditch; and (3) Area 7 – the Clara Driscoll drainage ditch (CR18). The recommended BMP for Area 2 consisted of removing the high salinity soils in the shallow subsurface and then installing a subsurface cap to prevent infiltration. The BMP would mitigate vertical migration of saline leachate through the remaining impacted soils down to the GWBU and would return the land to vegetative or productive use. The recommended BMP for Areas 6 and 7 consisted of excavating the sediments with the highest relative salinity concentrations. This would effectively remove sediments with the highest salinity levels from direct contact with surface water runoff that would flow directly into the creek. As mentioned in

Section 1.1, the RRC, with the concurrence of the TCEQ, elected to focus on the evaluation of soil BMPs for Areas 6 and 7 by collecting additional data for improved definition of saline-impacted areas.

In March 2009, TRC conducted groundwater, surface water, soil and sediment sampling, and slug testing. The two main objectives were to: (1) collect additional data on the salinity distribution within the drainage ditches (i.e., Areas 6 and 7) to addend the SFS, and (2) conduct additional groundwater investigation to enhance the January 2009 *Conceptual Site Model*. Sediment and surface water data from the March 2009 event are presented in this report. Groundwater, surface water, lithologic and slug testing data from the March 2009 event are presented in the July 2009 *Conceptual Site Model Addendum*.

The March 2009 sediment data were combined with historical data to better define the specific areas with the highest salinity levels within Areas 6 and 7. The information collected from this sampling event was used to determine the cost of BMPs for Areas 6 and 7 and estimate the potential chloride loading reduction.

1.3 Recent Data Collection

During March 2009, sediment samples were collected in Areas 6 and 7 to better define the salinity distribution based on data collected in March 2007 (Phase III data) and June 2008. The results of sediment samples collected between March 2007 and March 2009 are used in this *Soil Feasibility Study Addendum*. Tabulated analytical results are provided in Appendix A, and the laboratory analytical reports are provided in Appendix B.

Petronila Creek surface water locations sampled in March 2009 focused on eight locations positioned between Segments 2 and 20. The locations were based on historical results that showed increases in salinity between these segments and suggested that saline loading primarily occurs between these segments. Surface water samples were also collected along North Clara Driscoll and Clara Driscoll (CR18) drainage ditches for a synoptic view of salinity in each of these ditches.

The March 2009 surface water samples were collected in accordance with the March 2009 *Field Work Plan* and the 2007 *Quality Assurance Project Plan* (QAPP) – Revision 1. Sample location P-D-01 was inadvertently omitted therefore no data is available from this sample location.

Field instruments were used to measure conductivity, pH, and TDS. Following field measurements surface water grab samples were collected for laboratory analysis from each sample location. Surface water samples were submitted to DHL Analytical (Austin, Texas) for laboratory analyses of TDS, by M2540C, anions (chloride, bromide,

sulfate, and nitrate), by EPA 300.0, cations (calcium, sodium, magnesium, potassium, iron, and barium), by EPA 6020, and alkalinity (carbonate and bicarbonate), by EPA 2320B. All sampling equipment was decontaminated prior to sampling activities and between each sampling location. Field quality assurance and quality control (QA/QC) samples, including duplicates, matrix spike (MS), matrix spike duplicate (MSD), and equipment blanks, were collected at a frequency of five percent.

2.0 CONCEPTUAL SITE MODEL

The September 2008 SFS presented an evaluation of seven source areas that were identified within the study area. These seven source areas, as shown in Figure 2-1, included:

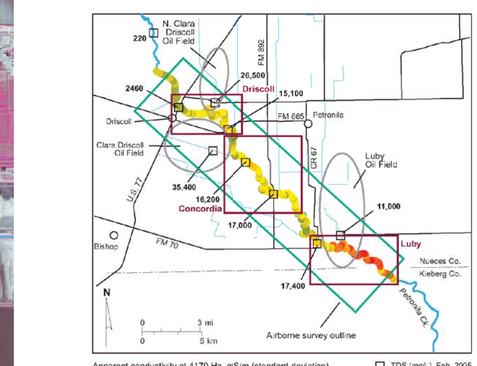
- Area 1 – Oil wasteland area south of Petronila Creek near CPT boring P-CPT-11
- Area 2 – Oil wasteland area south of Petronila Creek near Well P-MW-6
- Area 3 – Oil wasteland area north of Petronila Creek near Well P-MW-03
- Area 4 – Unknown source near the El Paso Driscoll #2 release site
- Area 5 – Former disposal pit near El Paso Driscoll #3 release site
- Area 6 – North Clara Driscoll drainage ditch
- Area 7 – Clara Driscoll (CR18) drainage ditch

The conceptual site model presented in this report was originally developed for the 2008 SFS, which defined the physical setting of these source areas relative to Petronila Creek. The conceptual site model included information on geology, hydrogeology, distribution of salinity in each of the source areas, and evaluation of potential migration pathways of saline-impacted water to the creek.

2.1 Geology and Hydrogeology

Based on the BEG Geologic Atlas of Texas, Corpus Christi Sheet, the Quaternary alluvium deposits and the Beaumont Formation are the only geologic units in direct contact with Petronila Creek in the Driscoll and Concordia oil field areas. The Beaumont Formation consists of clay, silt, sand, and gravel, includes mainly stream channel, point bar, natural levee, and backswamp deposits, and has a thickness of approximately 100 feet (BEG, 1975).

The subsurface lithology, interpreted to a maximum depth of approximately 61 feet bgs, based on monitoring wells and CPT and soil borings, indicates predominantly clays and silts from ground surface to between 10 and 15 feet bgs. Below 10 to 15 feet bgs (approximately 40 feet above mean sea level), laterally continuous and discontinuous silty sand lenses reside within a matrix of sandy clay and/or finer grained materials (i.e., silts and clays). These sandy lenses are generally five to 15 feet thick and appear to be more continuous and thicker to the southeast towards Baffin Bay and the Gulf of Mexico. The lithologic data collected from the subsurface investigations are consistent with a fluvial depositional environment and are representative of the Beaumont Formation.



Apparent conductivity at 4170 Hz, mS/m (standard deviation)

- 56.6 to 121 (< -1.75)
- 121 to 244 (-1.75 to -1.25)
- 244 to 368 (-1.25 to -0.75)
- 368 to 491 (-0.75 to -0.25)
- 491 to 614 (-0.25 to 0.25)
- 614 to 737 (0.25 to 0.75)
- 737 to 861 (0.75 to 1.25)
- 861 to 984 (1.25 to 1.75)
- 984 to 1107 (1.75 to 2.25)
- 1107 to 1230 (2.25 to 2.75)
- 1230 to 1676 (> 2.75)

☐ TDS (mg/L), Feb. 2005

Figure 18. Apparent conductivity measured at 4170 Hz along the axis of Petronila Creek (colored dots). Also shown are the Driscoll, Concordia, and Luby high-conductivity areas (red rectangles) and Petronila Creek and tributary TDS concentrations measured in February 2005 at the time of the airborne survey (black squares). The 4170-Hz frequency explores from the land surface to an average depth of about 10 m.

LEGEND

- A-A' Cross-Section Line
- Sesonal Water Sample Location
- CPT (P-CPT-XX) and Shallow Soil Sample (P-SS-XX) Locations
- Monitoring Well Location
- Piezometer
- Surface Drainage (Petronila Creek and drainage ditches)
- Creek Segments for Petronila Creek (Kilometer Markers)

SOURCE:

1. U.S.G.S. Digital Ortho Quarter Quads (DOQQs) for Concordia NE (2004), Concordia NW (2004), Driscoll East NE (2004), Driscoll East NW (2004), Driscoll East SE (2004), and Driscoll East SW (2004), Texas DOQQs.
2. BEG Airborne Geophysical Survey Report ("Figure 18 inset")

N

1,000 0 1,000 2,000
Feet

SITE MAP

RAILROAD COMMISSION OF TEXAS
PETRONILA CREEK

PROJECT NO.: 166420 | DATE: 6/15/2009

TRC
505 EAST HUNTLAND DRIVE
SUITE 250
AUSTIN, TEXAS 78752
512-329-6080

FIGURE
2-1

The principal GWBUs in Nueces County are the Goliad Sand, Lissie Formation, and Beaumont Formation. In general, these three units are located within the Gulf Coast Aquifer. Groundwater in these GWBUs flows southeastward toward the Gulf of Mexico and occurs under unconfined and confined conditions (TWDB, 1968). The Gulf Coast Aquifer is separated into two subunits, known as the Chicot Aquifer and Evangeline Aquifer. In Nueces County, the Chicot Aquifer is located within the Beaumont Formation and overlying alluvium. The Evangeline Aquifer is older than the Chicot Aquifer and generally located at deeper levels within the Goliad Formation in Nueces County (TWDB, 1968). Based on observed lithologic information from subsurface drilling, Petronila Creek and the seven identified source areas are within the Chicot Aquifer.

The lithology of the Beaumont Formation varies with depth, and the project monitoring wells were screened within the following lithologic layers: clays/silts (generally shallower wells), sand lenses (generally deeper wells), or both (intermediate wells). The presence of a static water level in monitoring wells screened in the shallower clays and silty clays suggests that these clays are saturated, even though field observations did not indicate obvious saturated conditions. The potentiometric groundwater levels reveal vertical groundwater gradients (both upward and downward), and saturated shallow clay units around the creek suggest that the GWBU exists under unconfined conditions with recharge from surface infiltration.

2.2 Potential Sources of Creek Impacts and Migration Pathways

Oil and gas exploration and management practices, as discussed in Sections 1.1 and 1.2, have impacted soil and groundwater around the creek. Seven source areas were identified within the study area, based on the results of the Phase II and Phase III investigations. Because these investigations covered such a large area and there is incomplete historical data on land use, it is feasible that there may be other contributing areas that were not discovered during the investigations.

It was hypothesized that the predominant migration pathways for salinity to reach Petronila Creek from Areas 6 and 7 is a combination of the following: (1) leaching from saline-impacted sediments to storm water that flows into the creek; and, (2) mobilization of saline-impacted sediments to the creek via erosion/entrainment and then direct salinity loading within the creek. Infiltration and vertical percolation through the bottom of the ditch to the GWBU followed by advection to the creek may be a secondary transport mechanism. This pathway is suspected to be less significant relative to storm water transport because of the low permeability and low infiltration capacity of the clay and sandy clay ditch beds and the inherent design of the ditches to direct storm water to

Petronila Creek. The North Clara Driscoll and Clara Driscoll (CR18) drainage ditches join Petronila Creek near creek Segments 6 and 14, respectively.

The fate and transport of salinity from potential source areas, particularly Areas 6 and 7, as discussed above, is estimated based on the salinity concentration of sediment. A refined model of salinity loading for each area would require direct sampling and measurement of the volume and flow-rate of water flowing in the ditches. Surface water data from Petronila Creek and the ditches and sediment salinity data from Areas 6 and 7 provide information that these ditches are a source of salinity loading to Petronila Creek. An evaluation of each of these data sets follows.

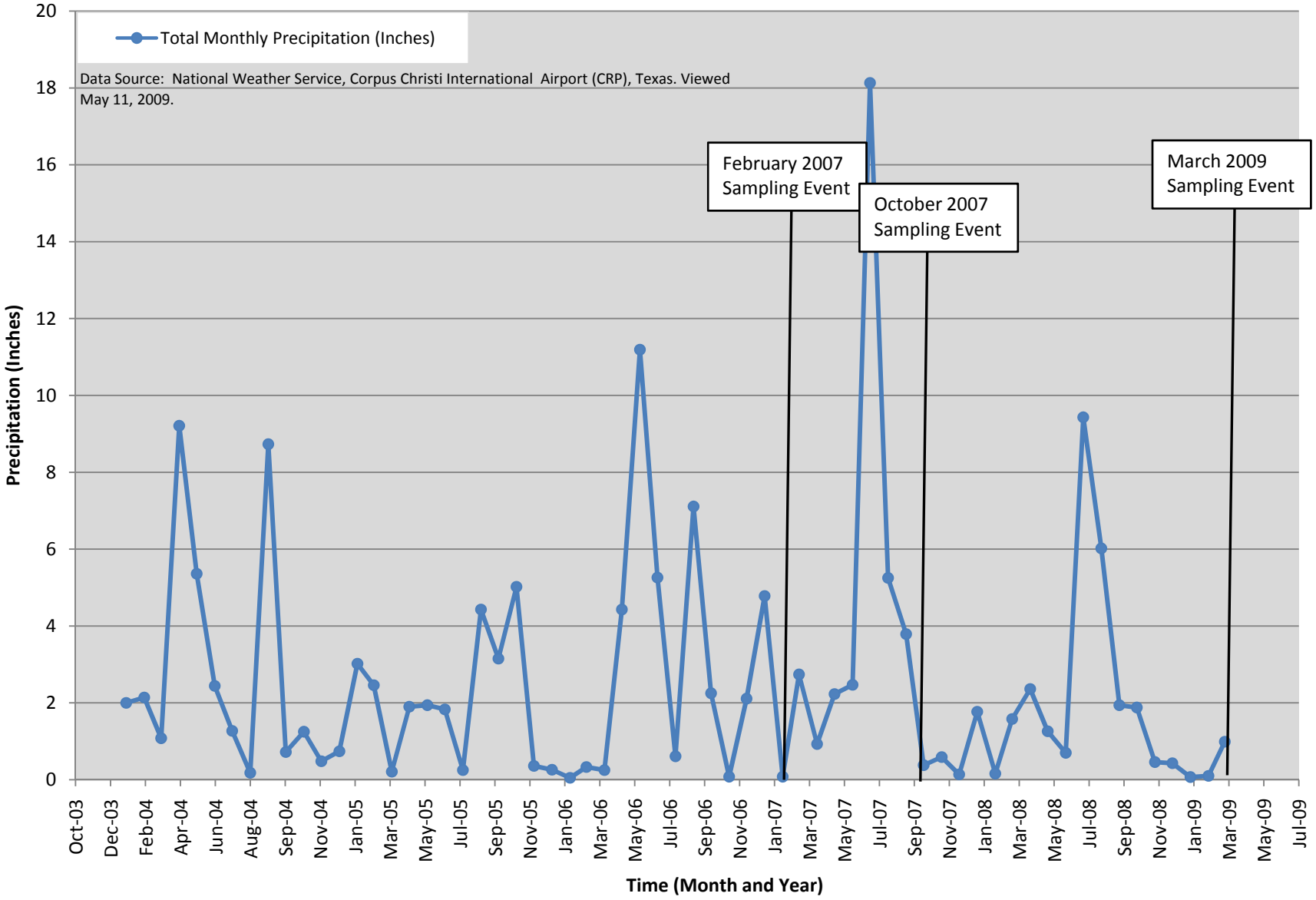
2.2.1 Salinity Distribution in Drainage Ditches

Surface water data from October 2007, as compared to data from February 2007, detected large salinity increases in both Petronila Creek and the ditches. This increase was attributed to the large amount of precipitation in the area during July 2007. As shown in Figure 2-2, and Appendix C, total rainfall during July 2007 was 18.13 inches, which was the largest precipitation event during 2007. Large precipitation events over a short amount of time, such as the one recorded during July 2007, could increase leaching and cause significant erosion and entrainment of salinity-impacted sediments from Areas 6 and 7 into the creek.

The surface water salinity levels in Petronila Creek during March 2009 (discussed in Section 2.2.2) were similar to those from October 2007. However, unlike the October 2007 sampling event, the March 2009 sampling event was not preceded by a large precipitation event. It is speculated that infiltration (recharge) from the July 2007 precipitation event caused significant leaching of salinity from contaminated soils to groundwater and this elevated salinity has continued to impact Petronila Creek over a longer period of time as groundwater base flow.

Analytical and field testing results of surface water samples collected from locations along the North Clara Driscoll ditch in February 2007 and October 2007 generally showed higher salinity concentrations at surface sample locations closest to Petronila Creek in the vicinity of Area 6 and P-D-01 and P-D-02 (Figure 2-1). Upstream of location P-D-02, salinity levels were lower. The increase in salinity levels of surface water sample locations downstream of CR 24 to the confluence with Petronila Creek demonstrate the potential loading effect that Area 6 may have on Petronila Creek (i.e., highest surface water concentrations are nearest Petronila Creek).

Figure 2-2
Total Monthly Precipitation Data
Corpus Christi, Texas



Analytical and field testing results of surface water samples collected along the Clara Driscoll (CR18) drainage ditch during February 2007 and October 2007 generally showed the highest salinity concentrations at sample location P-D-07, which is located in Area 7 (Figure 2-1). Surface water in the CR18 ditch is primarily sourced from storm water runoff as the bottom of the ditch is above the typical groundwater elevation (i.e., no base flow). Downstream of Area 7 at location P-D-09, salinity concentrations remain elevated but were lower in comparison to P-D-07. Upstream of P-D-07 and Area 7, low salinity concentrations were detected. In general, the highest surface water concentrations in the CR18 ditch were observed in the areas where sediments with highest salinity concentrations were identified. This is shown by the results of P-D-07, which is located within an area of sediments with the highest salinity levels. Surface water data collected downstream and outside of Area 7 (i.e., P-D-09) showed lower salinity concentrations in comparison to P-D-07 results, as salinity concentrations in sediments in the area of sampling point P-D-09 were much lower than concentrations in Area 7. The correlation of sediment and surface water data in the CR18 drainage ditch demonstrates the potential loading effect that sediment in Area 7 has on surface water in the CR18 drainage ditch, and this loading eventually impacts Petronila Creek. At both ditches, the highest surface water concentrations occurred in the same location as the highest sediment concentrations. This suggests that salinity leaches from sediment to the surface water within the ditches. Analytical results of surface water samples collected from the ditches are tabulated in Table 1 of Appendix A.

All of the surface water sample locations in each of the ditches were sampled again during March 2009. In the North Clara Driscoll drainage ditch, a tenth sampling location (P-D-10) was added on the downstream edge of Area 6 (Figure 2-1). Dry conditions encountered in March 2009 prevented sample collection in several locations in both ditches, including P-D-03 and P-D-04 (North Clara Driscoll drainage ditch) and P-D-05 through P-D-08 (Clara Driscoll (CR18) drainage ditch). A sample was inadvertently not collected from P-D-01; therefore, no data is available in this area of the North Clara Driscoll ditch.

Analytical results of samples collected in March 2009 from the North Clara Driscoll ditch (P-D-02 and P-D-10) showed that P-D-02, which is upstream from Area 6, had salinity concentrations two to three times greater than salinity concentrations from February and October 2007 The analytical results of P-D-10 had the highest salinity concentrations ever detected in the North Clara Driscoll ditch. The high salinity in the area of P-D-10 could be the result of cumulative surface water salinity loading from Area 6 and groundwater base flow because this portion of the ditch intersects groundwater. The elevation of sample location P-D-10 is 35.786 feet mean sea level (MSL), which is

lower than the groundwater elevation of 38.17 feet MSL (March 2009) in nearby monitoring well P-MW-25. Comparison of salinity levels at P-D-10 and March 2009 groundwater results from monitoring wells at Driscoll #3 (Area 5) suggests that high salinity groundwater under Driscoll #3 may move downgradient towards Petronila Creek and intersects the ditch near sample location P-D-10. Data from P-D-10 indicates that elevated salinity levels in surface water from the ditch will flow into Petronila Creek at Segment 6.

Analytical results of surface water samples collected from P-D-09 in March 2009 located at the Clara Driscoll (CR18) drainage ditch found elevated salinity concentrations at levels consistent with historical data. The remaining surface water sample locations were dry. The elevated salinity concentrations at location P-D-09 suggest that salinity loading from the ditch to Petronila Creek occurs at Segment 14.

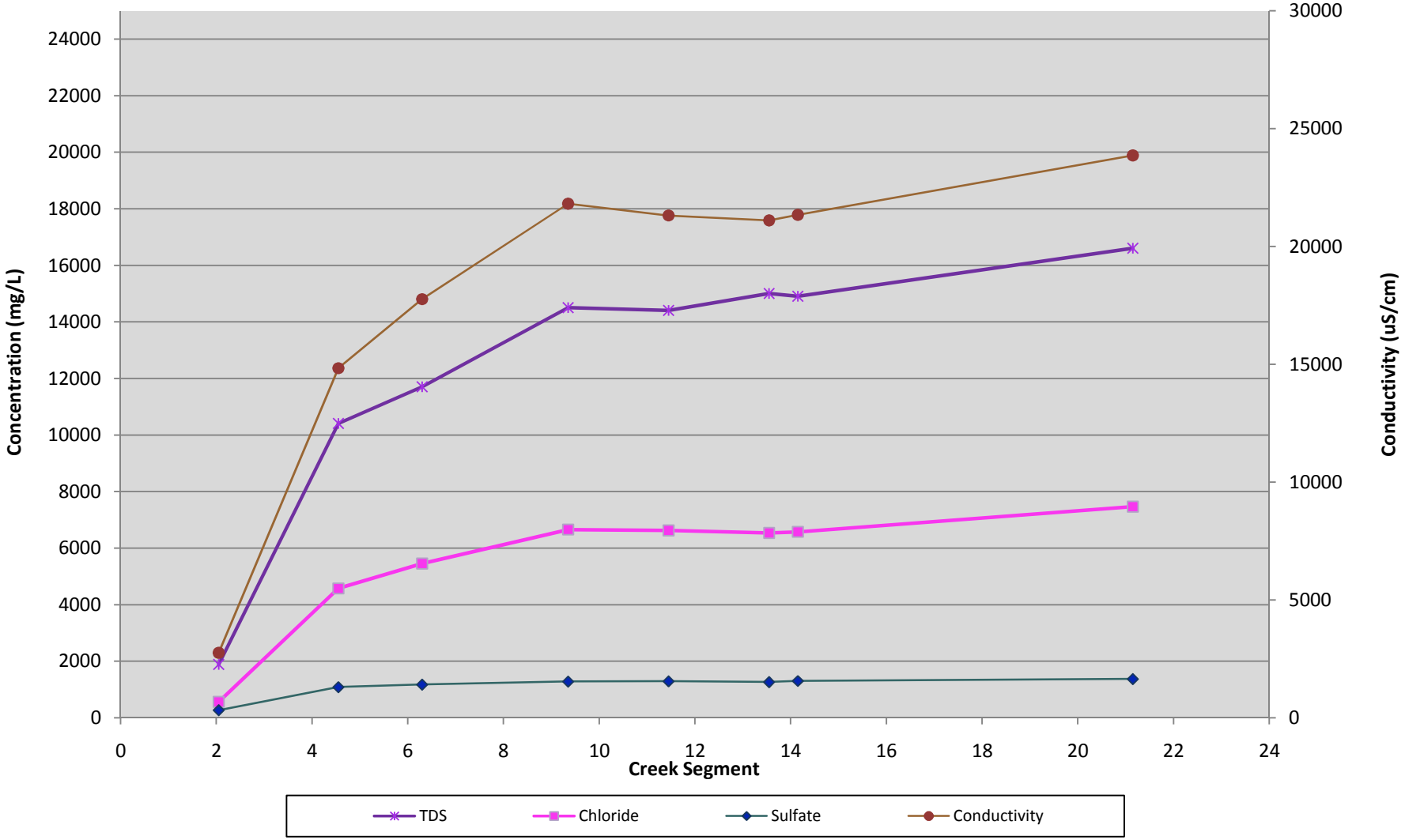
The dry conditions observed along many of sample locations in each of the drainage ditches suggest that surface water is ephemeral along much of the ditches, except the downstream portion of North Clara Driscoll drainage ditch, and is a function of precipitation.

2.2.2 Salinity Distribution in Petronila Creek

Analytical data from March 2009 detected elevated salinity between Segments 2 and 20 of Petronila Creek. The analytical results of the March 2009 sampling event are plotted in Figures 2-3 and 2-4. These figures show that the greatest salinity increase occurred between Segments 2 and 4, followed by a moderate salinity increase between Segments 4 and 9, and a slight salinity increase between Segments 9 and 20.

Conductivity, TDS and chloride concentrations have consistently been higher than sulfate concentrations. Conductivity, TDS and chloride are the primary indicators of overall salinity levels; therefore, high concentrations of these parameters constitute overall salinity levels.

Figure 2-3
Analyte Concentrations Along Petronila Creek
March 2009



The March 2009 surface water results were compared to the February 2007 and October 2007 sampling results and are depicted on Figures 2-4 and 2-5. Figure 2-4 shows the results of samples collected at all creek locations during each sampling event. Samples were not collected at each creek location during every sampling event. To evaluate corresponding data points Figure 2-5 depicts the results of samples collected from the same locations during each sampling event. The results show increasing salinity trends downstream of Segment 2, which is generally consistent with the February 2007 and October 2007 sampling results. The results also indicate higher chloride levels from samples collected in March 2009 and October 2007 than in February 2007. Similar trends were observed for TDS and conductivity data (Figure 2-6). Overall, the chloride, TDS and conductivity data for the March 2009 and October 2007 sampling events demonstrate that most of salinity loading occurs between Segments 2 and 10, while the results from the February 2007 sampling event show that most of the salinity loading occurs downstream of Segment 10.

Figure 2-4
Chloride Concentrations Along Petronila Creek
2007 Through 2009

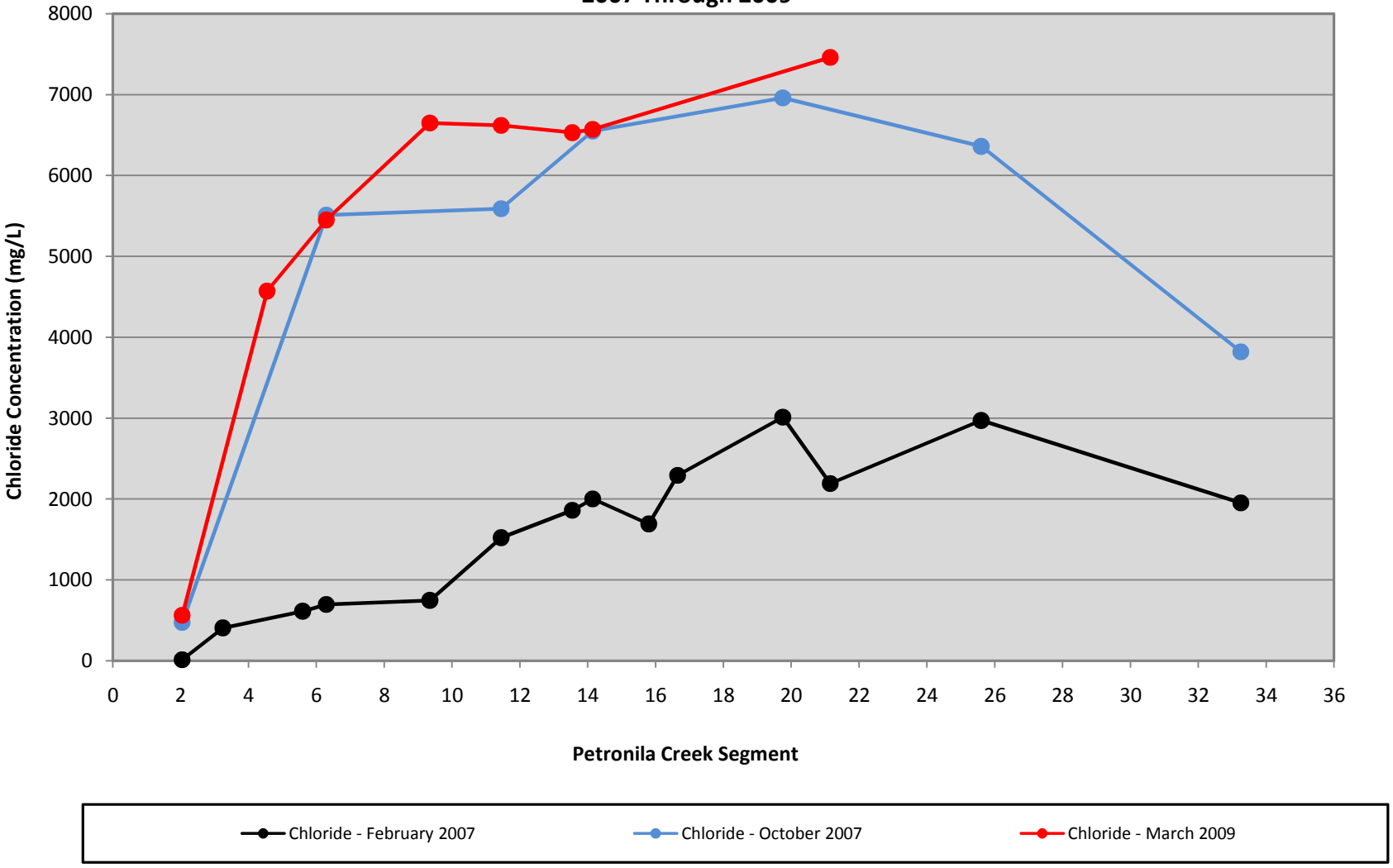


Figure 2-5
Chloride Concentrations at Corresponding Sample Locations
2007 Through 2009

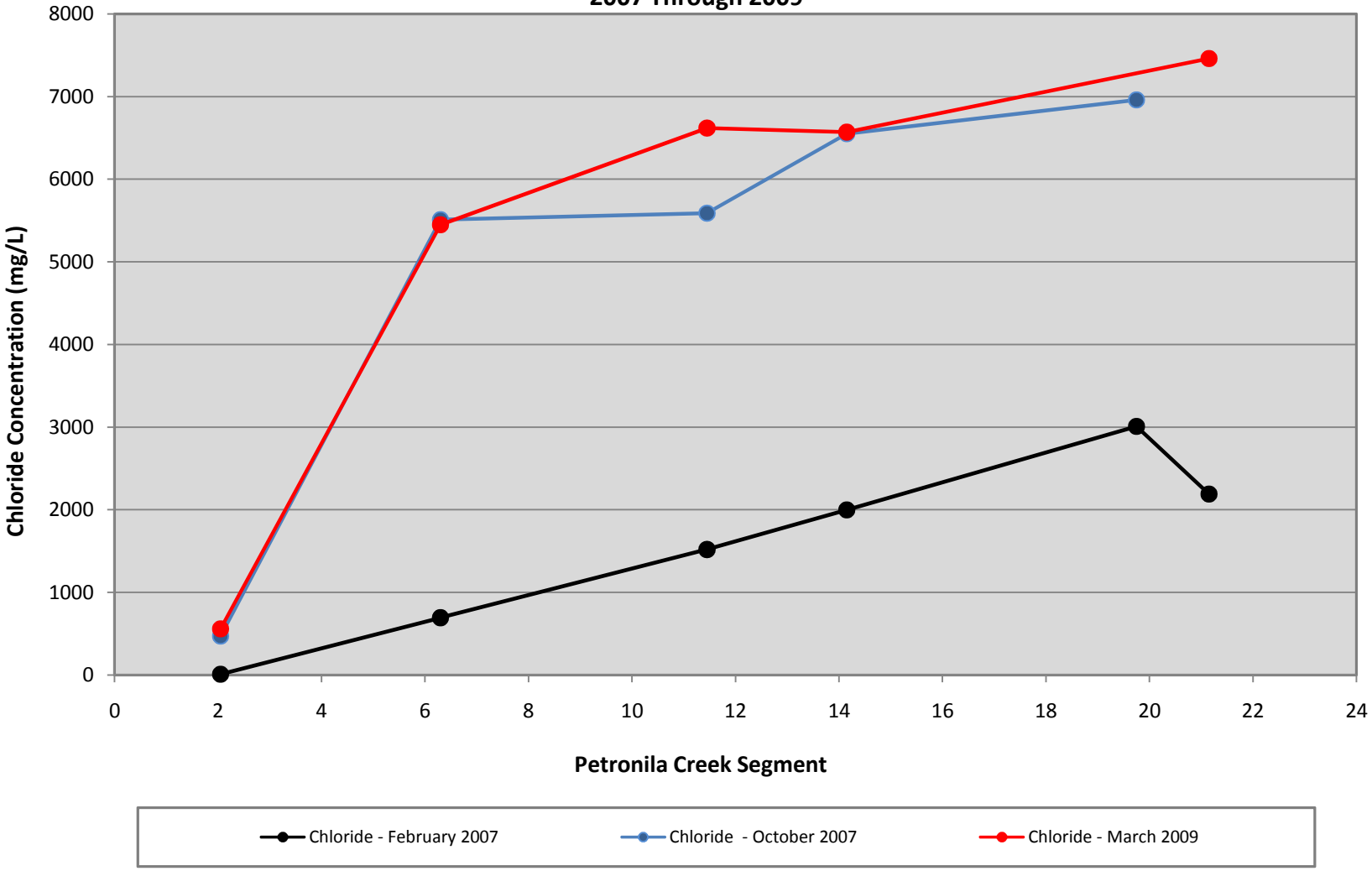
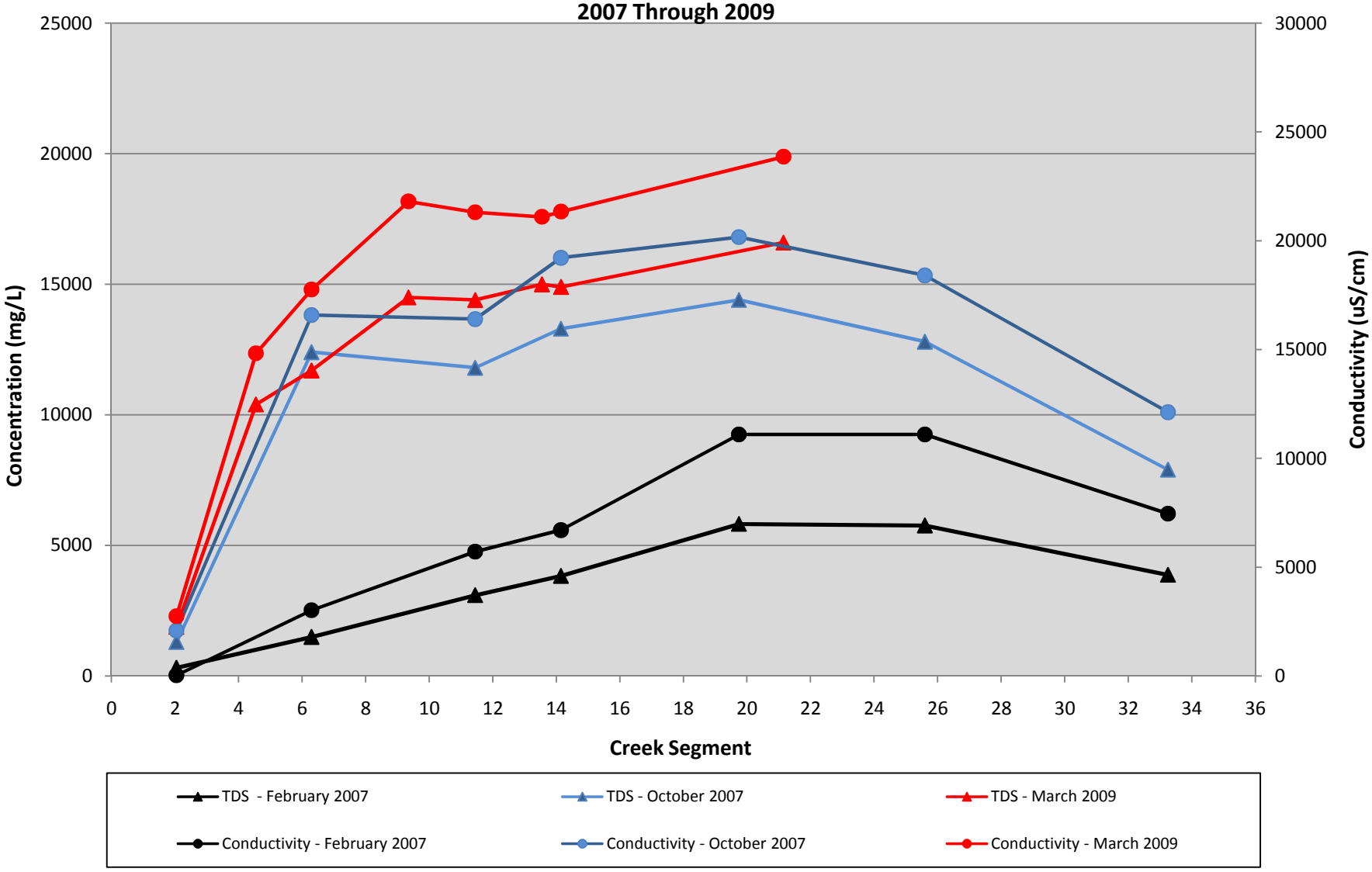


Figure 2-6
TDS and Conductivity Concentrations Along Petronila Creek
2007 Through 2009



3.0 ELEVATED SALINITY AREAS

To better define the salinity distribution in sediment at Areas 6 and 7, additional sediment sampling was performed during March 2009. Sample locations were selected based on previous chloride data collected during 2007 and 2008. The results of the March 2009 sampling provide a more detailed understanding of salinity distribution in the sediments at both ditches.

3.1 Data Collection Methods

Data collection performed during March 2009 was conducted in accordance with the following documents:

- *Field Work Plan – Petronila Creek Additional Soil and Groundwater Data Collection* (TRC, 2009b).
- *Investigation of Increased Salinity Along Petronila Creek (Segment 2204) Quality Assurance Project Plan – Revision 1* (RRC, 2007a).

3.2 Sediment Sampling

Fourteen sediment samples were collected from the Area 6. Ten of the sediment samples were collected from 0 to 1 foot bgs. Deeper sediment samples were collected from 2 to 3 feet bgs at four of the locations (i.e., P-SS-33, P-SS-34, P-SS-37, and P-SS-39) for vertical profiling.

Twenty-three sediment samples were collected from the Area 7 as follows:

- Shallow sediment samples (0 to 1 foot depth interval) were collected from P-SS-41 through P-SS-45 to delineate the high salinity concentration at P-SS-15. Deeper sediment samples (2 to 3 foot depth interval) were collected from P-SS-41 and P-SS-43 for vertical profiling.
- Shallow sediment samples (0 to 1 foot depth interval) were collected from P-SS-46 through P-SS-49 to delineate the high salinity concentration at P-SS-18. Deeper sediment samples (2 to 3 foot depth interval) were collected from P-SS-47 and P-SS-48 for vertical profiling.
- Shallow sediment samples (0 to 1 foot depth interval) were collected from P-SS-50 through P-SS-57 to delineate the high salinity concentration at P-SS-21. Deeper sediment samples (2 to 3 foot depth interval) were collected from P-SS-51 and P-SS-54 for vertical profiling.

A summary of the sediment sample identifications, dates, locations, depths, and analytical results are presented in Table 2 of Appendix A. Sediment sample locations in

Area 6 are presented in Figures 3-1 and 3-2, while sediment sample locations in Area 7 are presented in Figures 3-3 and 3-4. Laboratory reports are provided in Appendix B.

Shallow sediment samples (i.e., 0 to 1 foot bgs) were collected using a stainless steel hand trowel or spoon. The deeper sediment samples (i.e., 2 to 3 foot bgs) were collected using a hand auger. All sampling equipment was decontaminated prior to sampling activities and between each sampling location. Field quality assurance and quality control (QA/QC) samples (i.e., duplicate, matrix spike [MS], matrix spike duplicate [MSD], and equipment blanks) were collected at a frequency of five percent according to the QAPP.

All sediment samples were submitted to DHL Analytical (Austin, Texas) for laboratory analysis of total chloride, by EPA 9056, and total conductivity, by ASA 10-2.3. The analytical results are reported in Table 2 of Appendix A.

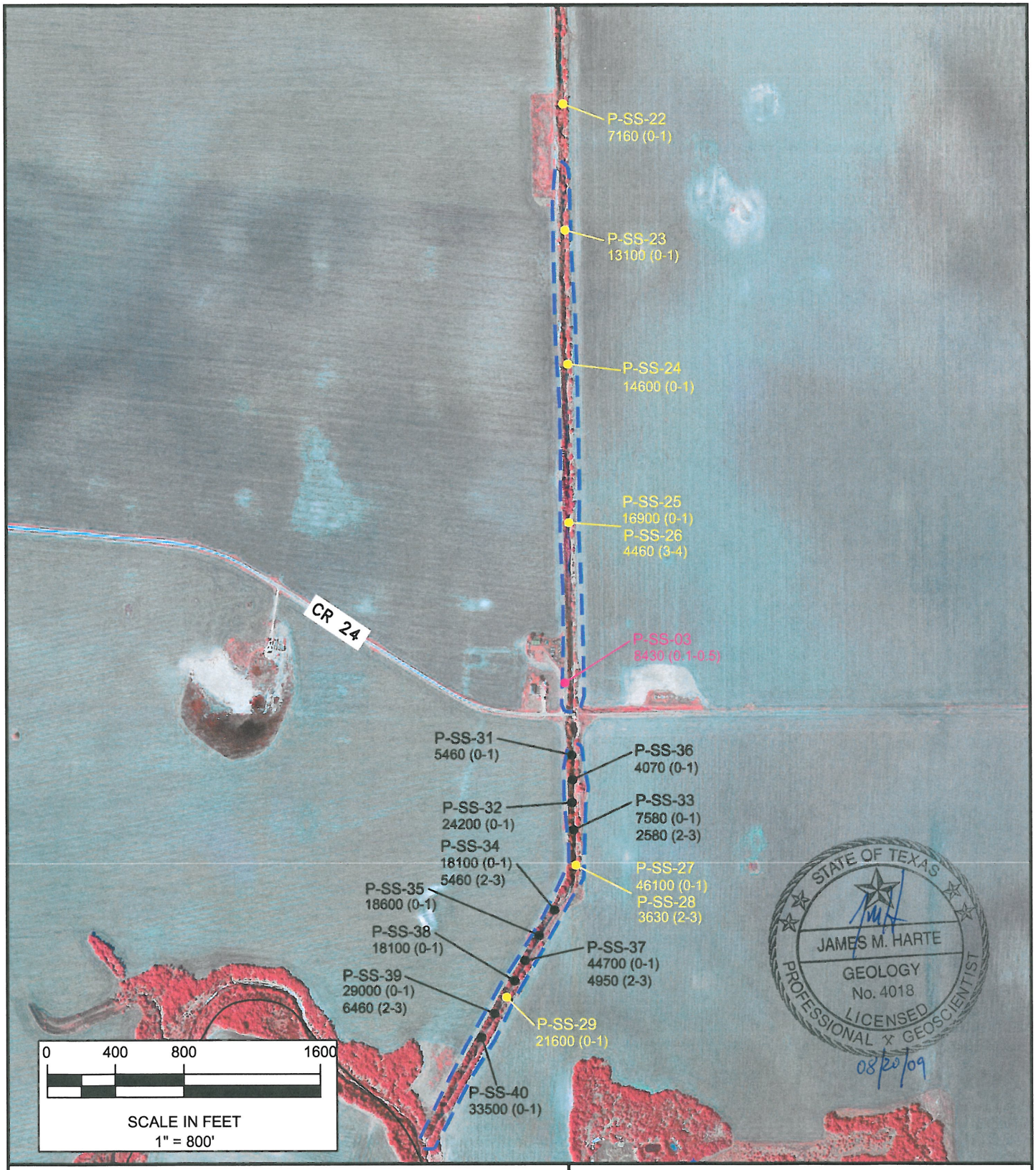
3.3 Surveying

The sediment sample locations were surveyed during the week of March 23, 2009, by Frontier Surveying Company of Corpus Christi, Texas. Spatial coordinate and elevation data of each sample location was completed using a Trimble GPS unit. All spatial and elevation data was recorded within the same datum as historical survey data collected during previous investigations for this project.

3.4 Sediment Sampling Results

Consistent with the 2008 SFS elevated levels of chlorides and conductivity in sediment were defined as concentrations in excess of 3,000 milligrams per kilogram (mg/kg) and 8,000 micromhos per centimeter (μmhos/cm), respectively. For the purposes of BMP implementation, a chloride concentration of 20,000 mg/kg was used. This concentration was determined to provide an effective reduction in salinity loading while still controlling the total cost of implementing the BMP. A threshold value was not established for conductivity because there is a good correlation between the chloride and conductivity analytical results as plotted in Figure 3-5.

Considering the entire chloride sediment data set, approximately 1,300 feet of sediments in Area 6 are contaminated with chloride concentrations exceeding 20,000 mg/kg. The impacted area extends from just south of the CR 24 bridge downstream to the confluence with Petronila Creek. There are four discrete segments that are impacted as follows: (1) a short segment at P-SS-32 (Segment 6-1); (2) at the bend of the ditch, between P-SS-33 and P-SS-34 and including P-SS-27 (Segment 6-2); (3) between P-SS-35 and P-SS-38 and including P-SS-37 (Segment 6-3); and, (4) centered around P-SS-40, including P-SS-39, P-SS-38, and P-SS-29 (Segment 6-4).



EXPLANATION:

- EXTENT OF HIGHEST CHLORIDE CONCENTRATIONS
- 3630 (2-3) CHLORIDE CONCENTRATION IN mg/kg (SAMPLE DEPTH IN FEET)
- SEDIMENT SAMPLE LOCATION (MARCH 2007)
- SEDIMENT SAMPLE LOCATION (JUNE 2007)
- SEDIMENT SAMPLE LOCATION (MARCH 2009)

SOURCE

USDA-FSA-APFO DIGITIAL ORTHOPHOTO QUARTER QUADS (DOQQ) DRISCOLL EAST NW (2004) AND DRISCOLL EAST SW (2004), TEXAS DOQQ.

N

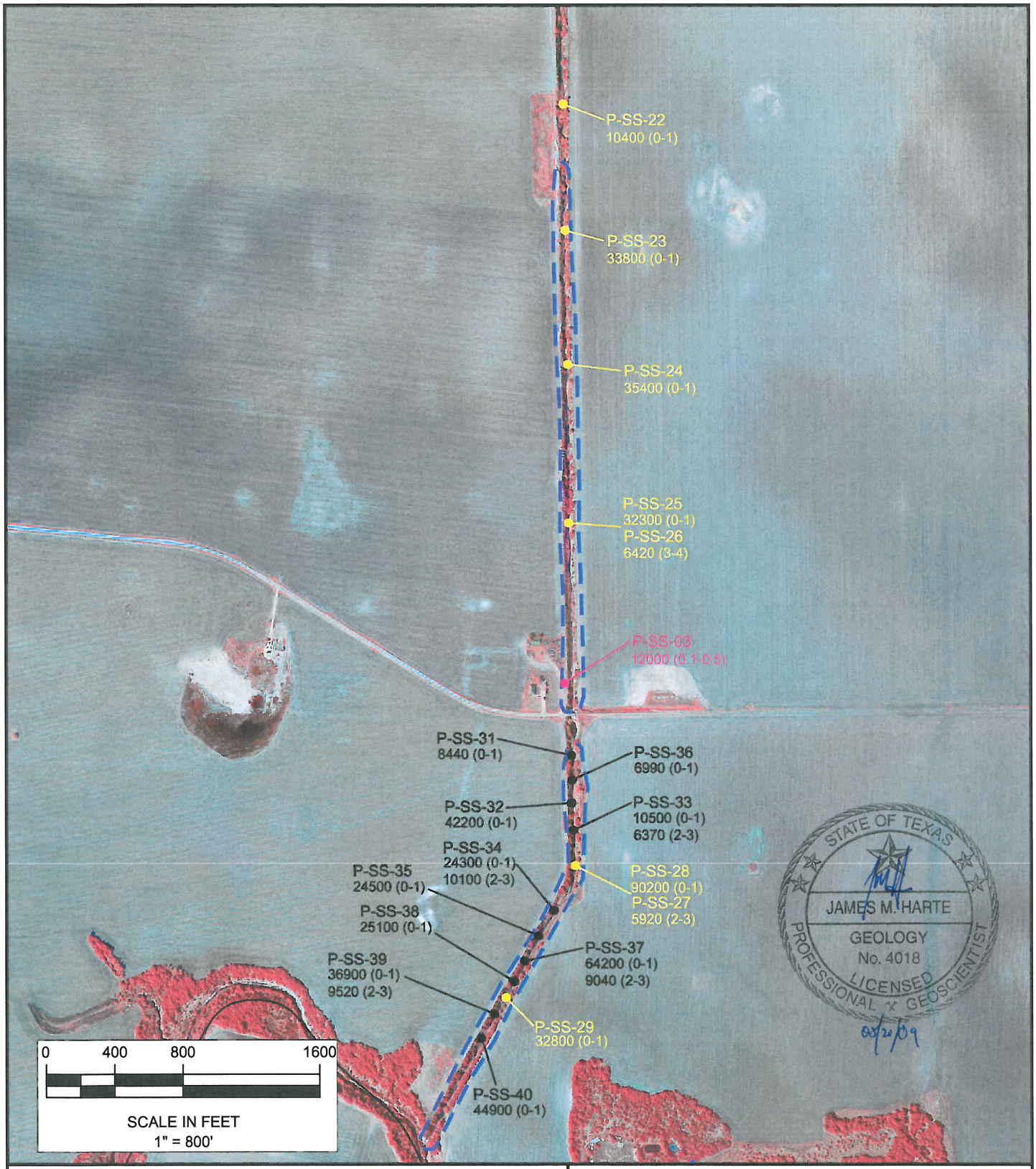
SITE MAP - AREA 6
CHLORIDE CONCENTRATIONS

RAILROAD COMMISSION OF TEXAS
PETRONILA CREEK

PROJECT NO.	166420	DWG FILE	166420-SFS-3-1
DRAWN BY.	CL	DATE	8/18/09

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FIGURE
3-1



EXPLANATION:

- EXTENT OF HIGHEST CONDUCTIVITY CONCENTRATIONS
- 8440 (201) CONDUCTIVITY IN umhos/cm (SAMPLE DEPTH IN FEET)
- SEDIMENT SAMPLE LOCATION (MARCH 2007)
- SEDIMENT SAMPLE LOCATION (JUNE 2007)
- SEDIMENT SAMPLE LOCATION (MARCH 2009)

SOURCE

USDA-FSA-APFO DIGITIAL ORTHOPHOTO QUARTER QUADS (DOQQ) DRISCOLL EAST NW (2004) AND DRISCOLL EAST SW (2004), TEXAS DOQQ.

N

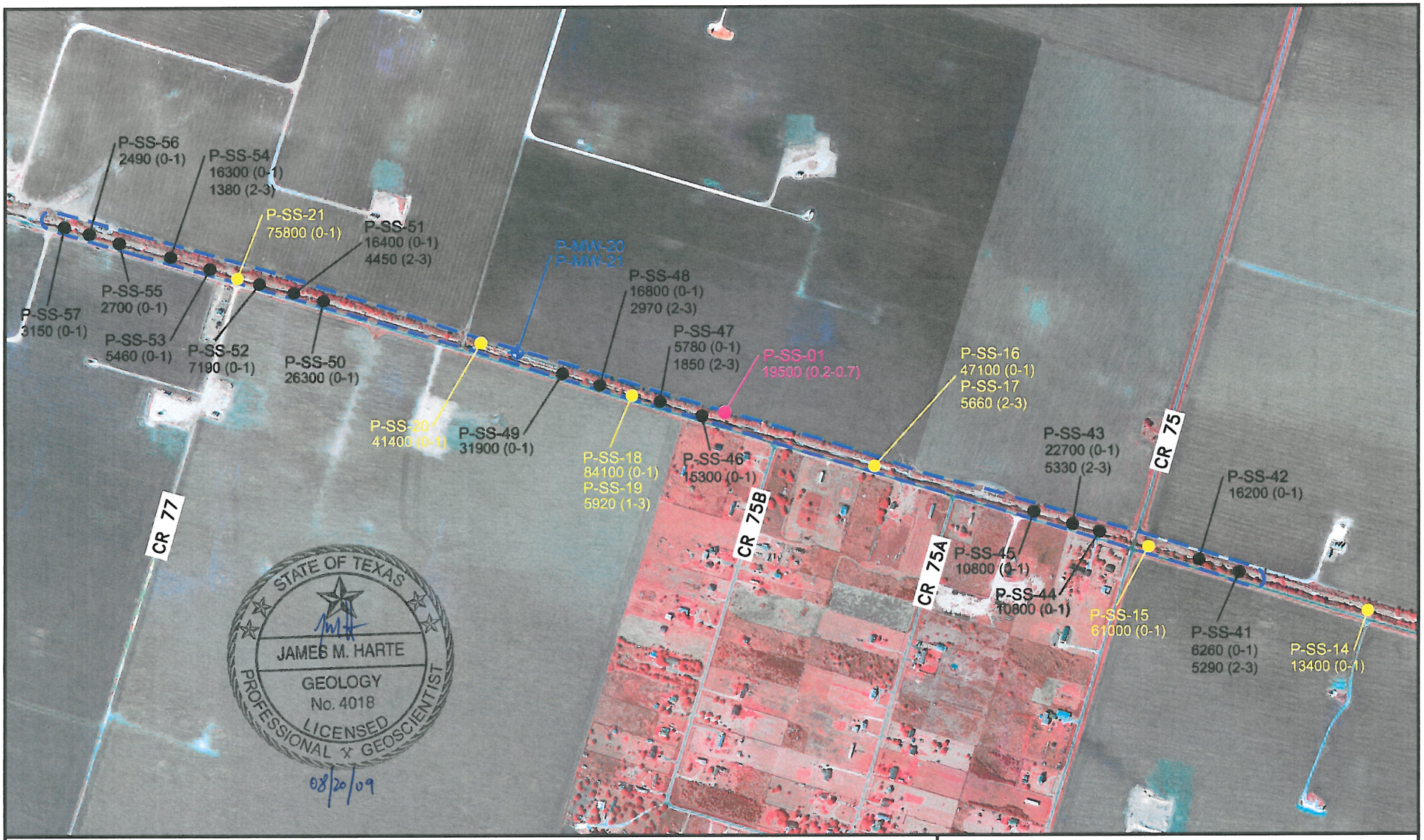
SITE MAP - AREA 6
CONDUCTIVITY CONCENTRATIONS

RAILROAD COMMISSION OF TEXAS
PETRONILA CREEK

PROJECT NO.	166420	DWG FILE	166420-SFS-3-2
DRAWN BY.	CL	DATE	8/21/09

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FIGURE
3-2



EXPLANATION:

- EXTENT OF HIGHEST CHLORIDE CONCENTRATIONS
- 5460 (0-1) CHLORIDE CONCENTRATION IN mg/kg (SAMPLE DEPTH IN FEET)
- MONITORING WELL
- SEDIMENT SAMPLE LOCATION (MARCH 2007)
- SEDIMENT SAMPLE LOCATION (JUNE 2008)
- SEDIMENT SAMPLE LOCATION (MARCH 2009)

SOURCE

USDA-FSA-APFO DIGITIAL ORTHOPHOTO QUARTER QUAD (DOQQ) DRISCOLL EAST SW (2004), TEXAS DOQQ.

0 400 800 1600

SCALE IN FEET
1" = 800'

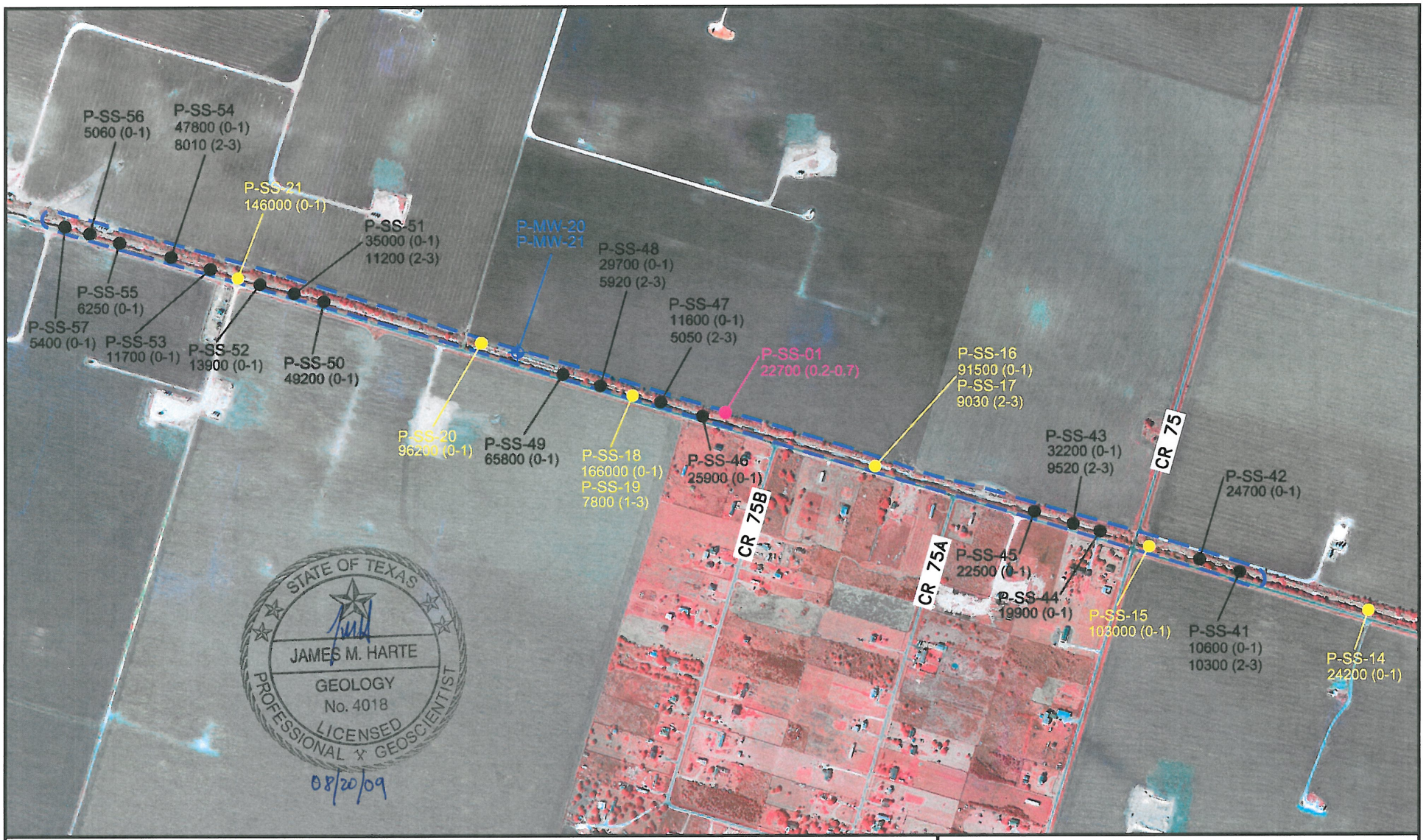
N

SITE MAP - AREA 7
CHLORIDE CONCENTRATIONS
RAILROAD COMMISSION OF TEXAS
PETRONILA CREEK

PROJECT NO.	166420	DWG FILE	166420-SFS-3-3
DRAWN BY.	CL	DATE	8/18/09

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(512) 329-6080

FIGURE
3-3



EXPLANATION:

- EXTENT OF HIGHEST CHLORIDE CONCENTRATIONS
- 5460 (0-1) CHLORIDE CONCENTRATION IN mg/kg (SAMPLE DEPTH IN FEET)
- MONITORING WELL
- SEDIMENT SAMPLE LOCATION (MARCH 2007)
- SEDIMENT SAMPLE LOCATION (JUNE 2008)
- SEDIMENT SAMPLE LOCATION (MARCH 2009)

SOURCE

USDA-FSA-APFO DIGITIAL ORTHOPHOTO QUARTER QUAD (DOQQ) DRISCOLL EAST SW (2004), TEXAS DOQQ.

0 400 800 1600

SCALE IN FEET
1" = 800'

N

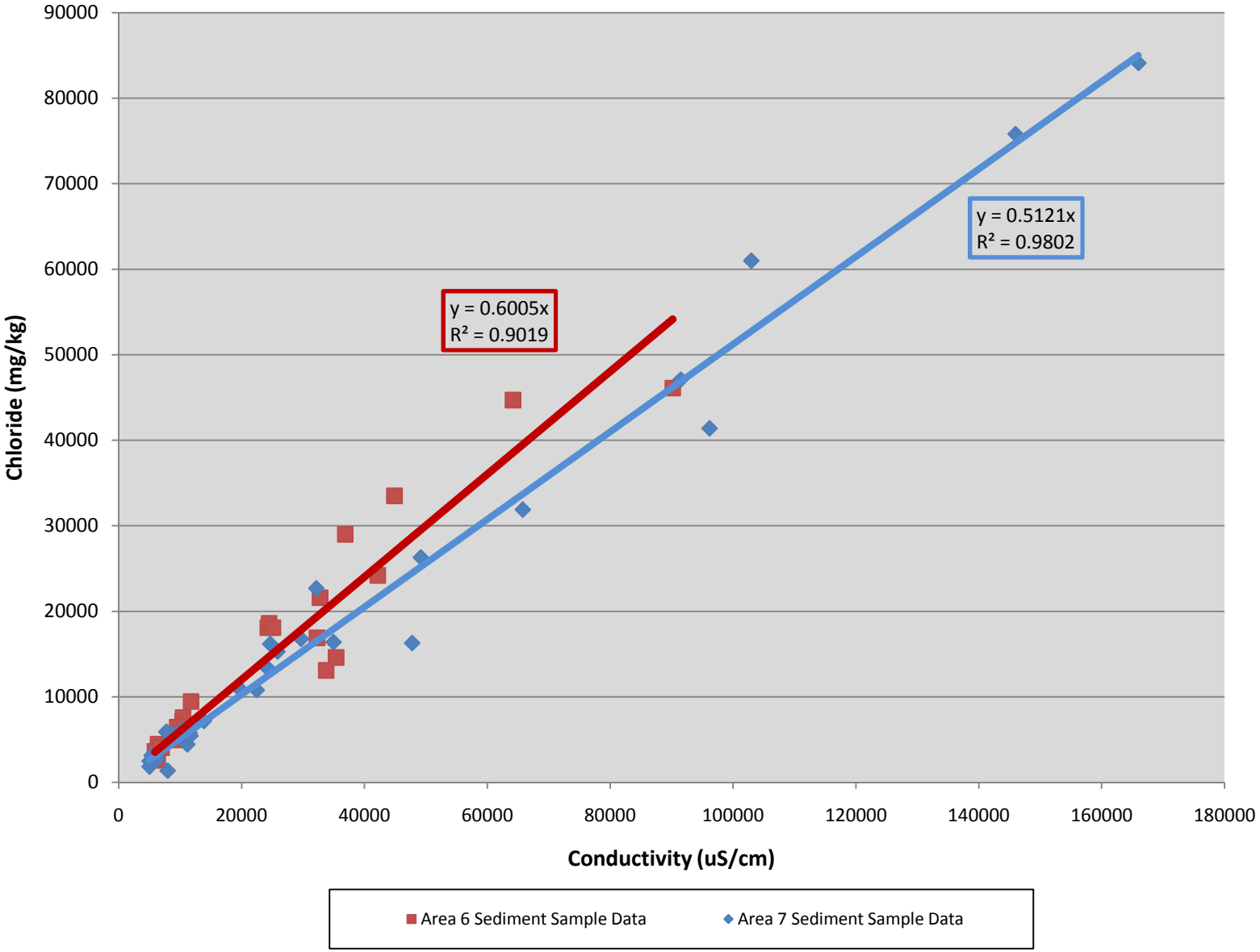
SITE MAP - AREA 7
CONDUCTIVITY CONCENTRATIONS
RAILROAD COMMISSION OF TEXAS
PETRONILA CREEK

PROJECT NO.	166420	DWG FILE	166420-SFS-3-4
DRAWN BY.	CL	DATE	8/21/09

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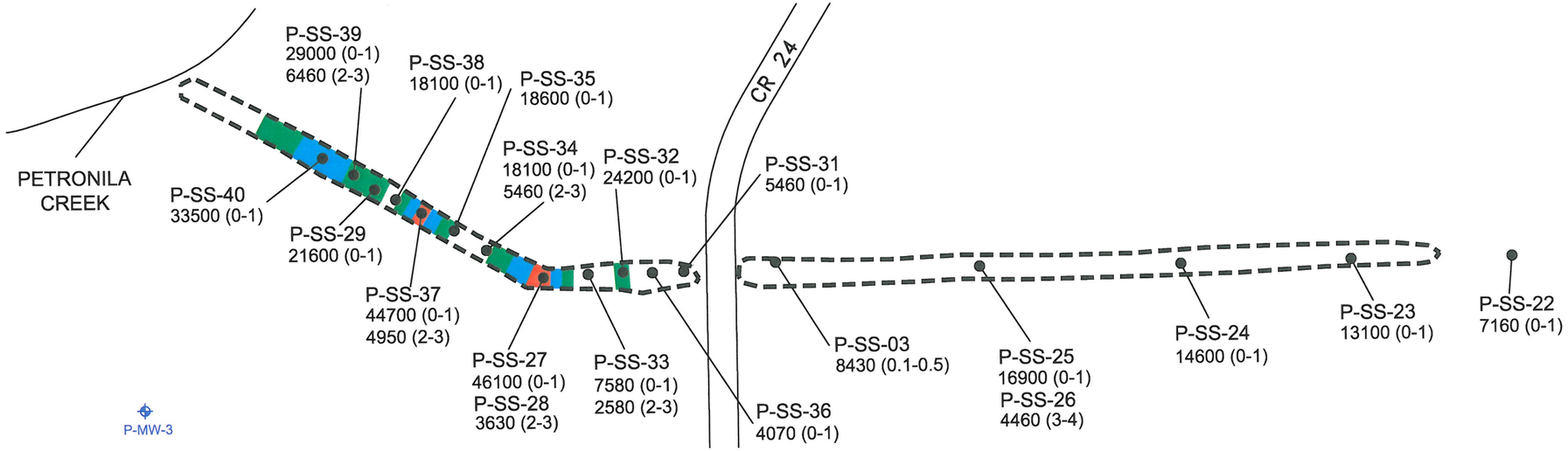
FIGURE
3-4

Figure 3-5 Chloride - Conductivity Correlation in Sediment

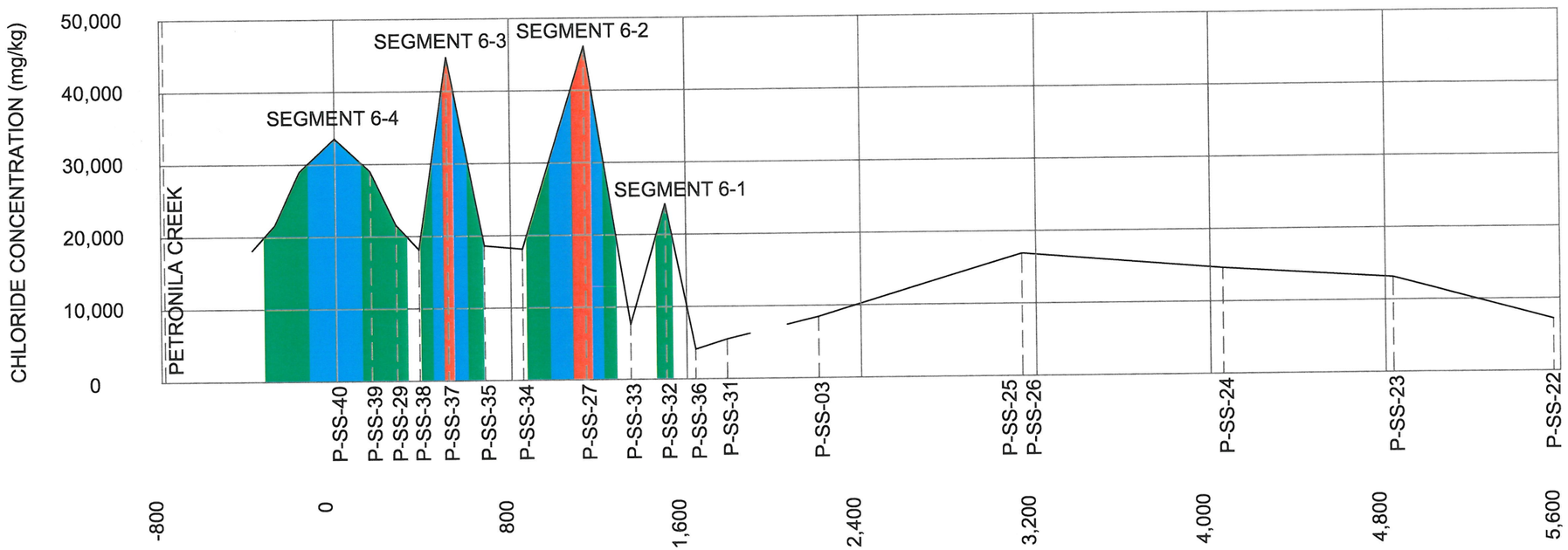


Delineation of elevated chloride in the sediments is complete to the north based on sample locations P-SS-31 and P-SS-36, located immediately south of the CR 24 bridge. Delineation of elevated chloride in the sediments to the south of Segment 6-4, near the confluence with Petronila Creek, was not achieved as the chloride result in sample P-SS-40 was elevated. Vertical delineation of elevated chlorides is achieved by the deeper samples collected from the 2 to 3 foot depth interval, as shown in Figure 3-6. The distribution of chlorides between each data point is assumed to be linear for the purpose of salinity loading calculations. Additional profiling may be needed during the design phase if a BMP is applied to this area.

Using the entire chloride sediment data set, sediments in Area 7 with a chloride concentration greater than 20,000 mg/kg were observed to extend approximately 4,400 feet downstream of CR-77. There are six discrete segments that are impacted as follows: (1) a short segment at the intersection of CR-77 and CR-18, centered around P-SS-21 (Segment 7-1); (2) between CR-77 and CR-75B, including P-SS-50, P-SS-20, and P-SS-49 (Segment 7-2); (3) a short segment at P-SS-18 (Segment 7-3); (4) centered around P-SS-16 (Segment 7-4); (5) a short segment at P-SS-43 (Segment 7-5); and, (6) centered around P-SS-15 (Segment 7-6). At Area 7, the upstream extent is delineated by sample P-SS-53, while the downstream extent is delineated by sample P-SS-41. Vertical delineation of elevated chlorides is achieved by the deeper samples collected from the 2 to 3 foot depth interval, as shown in Figure 3-7. The distribution of chlorides between each data point is assumed to be linear for the purpose of salinity loading calculations. Additional profiling may be needed during the design phase if a BMP is applied to this area.



NOTE:
THE WIDTH OF THE DITCH HAS BEEN EXAGGERATED IN PLAN VIEW FOR CLARITY



NOTE
THE CONCENTRATIONS SHOWN DOWNSTREAM (SOUTHWEST) OF P-SS-40 ARE ESTIMATED.

LEGEND:
- EXTENT OF HIGHEST CHLORIDE CONCENTRATIONS IDENTIFIED IN 2008 SOIL FEASIBILITY STUDY
- 5460 (0-1) CHLORIDE CONCENTRATION IN mg/kg (SAMPLE DEPTH IN FEET)
- MONITORING WELL
- SEDIMENT SAMPLE LOCATION

STATE OF TEXAS
JAMES M. HARTE
GEOLOGY
No. 4018
LICENSED PROFESSIONAL GEOSCIENTIST
08/20/09

EXCAVATION AREA 6
- EA-6A: 40,000 - 50,000 mg/kg
- EA-6B: 30,000 - 40,000 mg/kg
- EA-6C: 20,000 - 30,000 mg/kg

N

0 300 600 1200
SCALE IN FEET
1" = 600'

FOR REVIEW PURPOSES ONLY
NOT FOR CONSTRUCTION

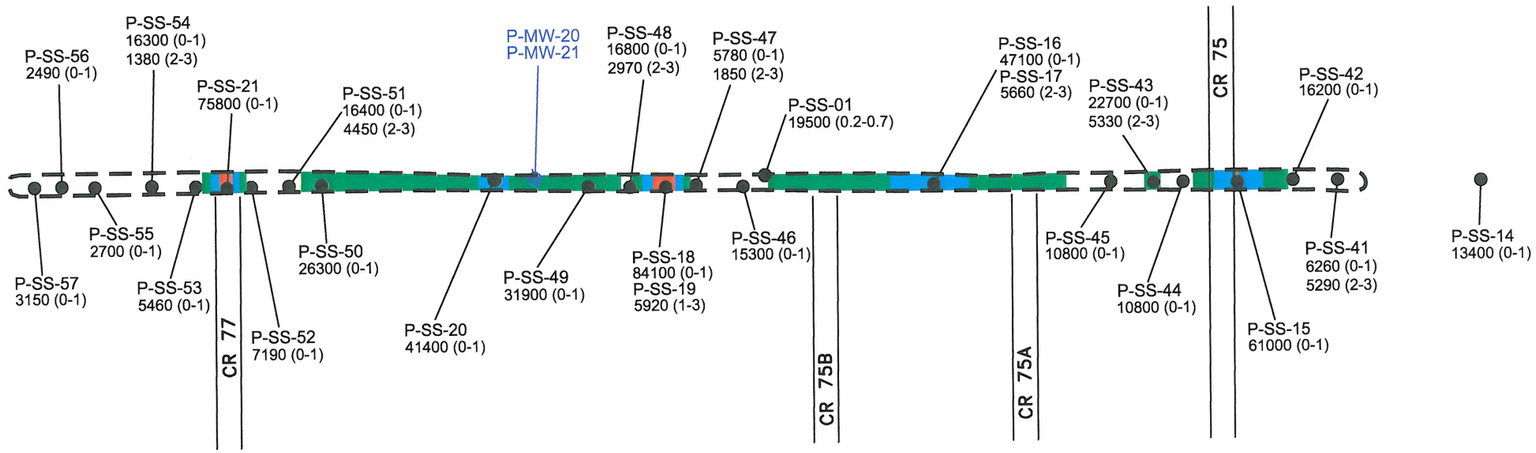
AREA 6
CHLORIDE DISTRIBUTION
RAILROAD COMMISSION OF TEXAS
PETRONILA CREEK

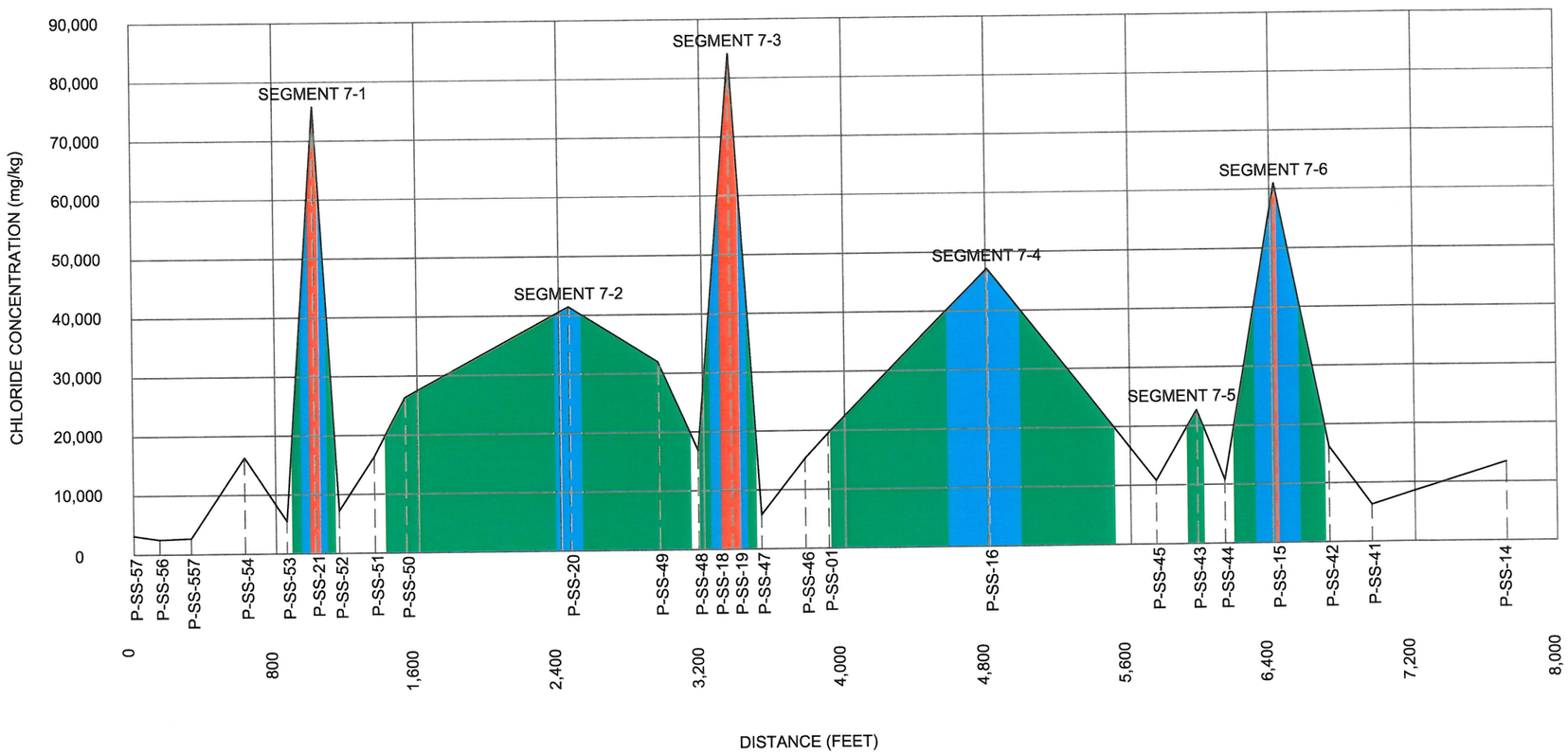
PROJECT NO.	166420	DWG FILE	166420-SFS-3-6
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FIGURE 3-6

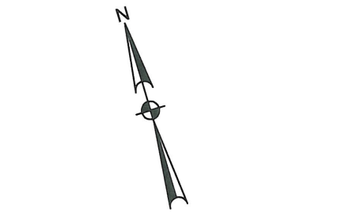
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NOTE:
THE WIDTH OF THE DITCH HAS BEEN EXAGGERATED IN PLAN VIEW FOR CLARITY

EXCAVATION AREA 7
- EA-7A 60,000 - 85,000 mg/kg
- EA-7B 40,000 - 60,000 mg/kg
- EA-7C 20,000 - 40,000 mg/kg



SCALE IN FEET
1" = 800'

STATE OF TEXAS
JAMES M. HARTE
GEOLOGY
No. 4018
LICENSED
PROFESSIONAL GEOSCIENTIST
08/20/09

LEGEND:
- EXTENT OF HIGHEST CHLORIDE CONCENTRATIONS IDENTIFIED IN 2008 SOIL FEASIBILITY STUDY
- 5460 (0-1) CHLORIDE CONCENTRATION IN mg/kg (SAMPLE DEPTH IN FEET)
- MONITORING WELL
- SEDIMENT SAMPLE LOCATION

FOR REVIEW PURPOSES ONLY
NOT FOR CONSTRUCTION

AREA 7
CHLORIDE DISTRIBUTION
RAILROAD COMMISSION OF TEXAS
PETRONILA CREEK

PROJECT NO.	166420	DWG FILE	166420-SFS-3-7
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FIGURE 3-7

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The maximum and average concentrations for chloride in each segment area, and the estimated area and depth of saline-impacted sediment is summarized in Table 3-1.

Table 3-1. Summary of Chloride Concentrations

Segment ID	Chloride Concentration (mg/kg)		Area of Elevated Salinity[2] (ft^2)	Depth of Elevated Salinity[3] (feet)
	Maximum	Average		
Area 6				
6-1	24,200	24,200[1]	9,900	2
6-2	46,100	46,100[1]	4,500	2
6-3	44,700	44,700[1]	6,120	2
6-4	33,500	28,033	990	2
Area 7				
7-1	75,800	75,800[1]	3,360	2
7-2	41,400	33,200	25,320	2
7-3	84,100	84,100[1]	4,800	2
7-4	47,100	47,100[1]	23,400	2
7-5	22,700	22,700[1]	1,200	2
7-6	61,000	61,000[1]	7,800	2

[1]For segments with a single data point, that sample result was used in place of a calculated average concentration.

[2]Calculation is based on area of sample locations whose analytical results exceeded 20,000 mg/kg for chloride. Area calculations are approximate based on the distribution of the data points as shown on the figures.

[3]Depth of elevated salinity based on analytical results of deeper sediment samples that were generally collected from the 2 to 3 foot depth interval.

An estimate of potential leachable chloride that each physical segment and chloride concentration interval (shown in Figures 3-6 and 3-7) might load to Petronila Creek was calculated. The calculation assumes that 100 percent of the available chlorides in sediments will be leached into surface water and transported to Petronila Creek. Table 3-2 presents loading potential estimated for each segment. Table 3-3 presents loading potential estimated on a concentration interval basis.

Table 3-2. Chloride Loading Rates By Segment

Segment ID	Mass of Soil (kg)	Concentration (mg/kg)*	Potential Chloride Loading (kg to solution)
Area 6			
6-1	938,700	24,200	22,700
6-2	426,682	46,100	19,700
6-3	580,287	44,700	25,900
6-4	93,870	28,033	2,630
Area 7			
7-1	318,589	75,800	24,100
7-2	2,400,796	33,200	79,700
7-3	455,127	84,100	38,300
7-4	2,218,745	47,100	105,000
7-5	113,782	22,700	2,580
7-6	739,582	61,000	45,100

* - Represents the calculated average of sediment sample analytical results in each segment
mg – milligrams
kg - Kilogram

Table 3-3. Chloride Loading Rates by Concentration Interval

Concentration Interval (mg/kg)	Area (sq. ft.)	Depth (feet)	Mass of Soil (kg)	Concentration (mg/kg)*	Potential Chloride Loading (kg to solution)
Area 6					
20,000 – 30,000	11,027	2	1,045,589	25,300	26,500
30,000 – 40,000	7,792	2	738,776	36,750	27,200
40,000 – 50,000	2,226	2	211,103	45,400	9,580
Area 7					
20,000 – 40,000	48,470	2	4,595,830	27,300	125,000
40,000 – 60,000	15,240	2	1,445,049	44,250	63,900
60,000 – 85,000	2,955	2	280,174	72,550	20,300

Bulk Density of Clay - 104.3 pounds per cubic foot (Texas Risk Reduction Program)

Weight conversion reference: http://www.onlineconversion.com/weight_common.htm

* - Represents the calculated average of sediment sample analytical results in each interval

mg - milligrams
sq ft – square feet
kg – Kilogram

4.0 BMP ALTERNATIVES FOR SALINITY ABATEMENT

In the 2008 SFS, TRC evaluated available recovery, treatment and disposal options for implementing BMPs to address saline-impacted sediments in Areas 6 and 7. The 2008 SFS reviewed each technology based on the following criteria: effectiveness, implementability, regulatory agency and stakeholder acceptance, and cost. The 2008 SFS concluded that excavation was the most appropriate BMP to address Areas 6 and 7.

4.1 Technology Selection of BMP

Based on the findings of the 2008 SFS and the additional data collected in March 2009, excavation remains the most appropriate BMP to address saline-impacted sediments in Areas 6 and 7. Excavation provides a permanent and long-term solution by removing contaminanted sediments. Excavation does not require long-term maintenance or institutional controls.

In a letter dated May 30, 2008, TRC submitted a request of Jurisdictional Determination (JD) to the Galveston District of the US Army Corps of Engineers (USACE) for the North Clara Driscoll drainage ditch (Area 6) and Clara Driscoll (CR18) drainage ditch (Area 7). A letter dated August 28, 2008, was issued by the Galveston District of the USACE who determined that the ditches were not subject to USACE jurisdiction, therefore no permit would be required under 33 Code of Federal Regulations (CFR) 332 for excavation within these ditches. A copy of the USACE letter is provided in Appendix D.

On behalf of the RRC, TRC contacted the Nueces County Drainage District regarding the excavation of Areas 6 and 7. Mr. Ramiro Carrion of the Nueces County Drainage District (the district) mentioned, during a phone conversation with TRC on May 11, 2009, that backfilling of the excavated areas within the drainage ditches would not be required as long as the floor of the excavation follows, wherever possible, the slope of the undisturbed portions of the ditch. Not having to backfill the ditches will reduce the cost of the BMP implementation at Areas 6 and 7. A summary of the phone conversation was documented in a letter mailed to the district on May 22, 2009. A copy of the TRC letter is provided in Appendix E.

On behalf of the RRC, TRC recently communicated with a local landfill and hazardous waste transport, storage and disposal facility (TSD) regarding a cost-effective approach to disposal of excavated sediments from Areas 6 and 7. The transportation costs estimated in the 2008 SFS were a major component of the total cost due to the cost of fuel and the approximate 70 miles in distance to a RRC-approved disposal facility in Alice, Texas. TRC, the RRC, and two private landfills in the Robstown area are currently working on developing pricing for disposal of these saline-impacted sediments. The

landfills in the Robstown area are approximately 15 miles in distance from the project area. The cost estimate presented in the following section assumes that disposal will be approved for one of the landfills in Robstown. The disposal and transportation costs included in the BMP cost estimate reflect rates for disposal in Robstown. Should a BMP be pursued in Areas 6 and 7, a meeting between the RRC and the local landfills should be arranged to finalize negotiated disposal costs.

5.0 PROPOSED BMP DESIGN

This section presents the design components and cost estimates for implementing the BMP described in Section 4.1. Supporting documentation for the order of magnitude engineer's cost estimates are presented in Appendix F.

5.1 Basic Design Components and Cost Estimate

Based on the project objective, conceptual site model, and evaluation of technologies, excavation is the recommended BMP. To allow the RRC to evaluate the BMP for Area 6 and Area 7 in a cost-effective manner, two methods of implementing the BMP with their associated cost estimate are presented below. One option for the BMP is based on excavation of several concentration intervals. For each chloride concentration interval, the cost to implement the BMP, the potential loading reduction (the leaching reduction), and the cost per amount of loading reduction is presented.

Table 5-1. Cost of BMP Implementation per Concentration Interval

Concentration Interval (mg/kg)	Total Cost	Potential Chlorides Loading Reduction (kg to solution)	Cost per kg of Chloride
Area 6			
20,000 – 30,000	$ 213,783.37	26,500	$8.06
30,000 – 40,000	$ 151,053.04	27,200	$5.55
40,000 – 50,000	$ 43,613.60	9,580	$4.55
TOTAL	**$408,000**	**63,280**	**$6.45**
Area 7			
20,000 – 40,000	$ 754,695.66	125,000	$6.03
40,000 – 60,000	$ 237,296.05	63,900	$3.71
60,000 – 85,000	$ 46,008.29	20,300	$2.27
TOTAL	**$1,038,000.00**	**210,000**	**$4.95**

mg – milligrams
kg – Kilogram

The second option for the BMP is based on excavation of individual segments within Areas 6 and 7. For each segment, the cost to implement the BMP, the potential loading reduction, and the cost per amount of loading reduction is presented.

Table 5-2. Cost of BMP Implementation per Segment

Segment ID	Total Cost	Potential Chlorides Loading Reduction (Kilograms in solution)	Cost per Kilogram of Chloride
Area 6			
6-1	$ 168,912.13	22,700	$ 7.44
6-2	$ 76,778.24	19,700	$ 3.90
6-3	$ 104,418.41	25,900	$ 4.03
6-4	$ 16,891.21	2,630	$ 6.42
TOTAL	**$ 367,000.00**	**71,000**	**$ 5.17**
Area 7			
7-1	$ 49,879.78	24,100	$ 2.07
7-2	$ 375,879.78	79,700	$ 4.72
7-3	$ 71,256.83	38,300	$ 1.86
7-4	$ 347,377.05	105,000	$ 3.32
7-5	$ 17,814.21	2,580	$ 6.90
7-6	$ 115,792.35	45,100	$ 2.57
TOTAL	**$ 978,000.00**	**294,332**	**$ 3.32**

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APPENDIX A

TABLES

APPENDIX A, TABLE 1. SURFACE WATER SAMPLING RESULTS

Sample ID	Petronila Creek Segment (km)	Sample Date	Field Results				Laboratory Results														
								Anions				Alkalinity (As CaCO3)				Cations					
			Chloride	Conductivity	pH	TDS	TDS	Bromide	Chloride	Nitrate-N	Sulfate	Bicarbonate	Carbonate	Hydroxide	Total	Barium	Calcium	Iron	Magnesium	Potassium	Sodium
			mg/L	uS/cm	S.U.	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Samples Along Petronila Creek																					
P-CS-01	-0.421	2/12/07	28.25	24	7.5	150	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
P-CS-02	2.05	2/12/07	29.5	26	7.5	170	309	0.3 U	11.1	- -	6.52	97	10 U	10 U	97	0.14	31.6	0.495	3.38	8.74	10.1
P-CS-02	2.05	10/25/07	- -	2083	7.84	1547	1300	1.85	472	0.1 U	173	210	10 U	10 U	210	0.249	172	0.1	19.3	13.4	174
P-CS-02	2.05	3/20/09	- -	2752	8.44	2041	1880	2.06	561	6.28	262	512	10 U	10 U	512	0.0988	104	0.188	19.8	5.83	553
P-CS-03	3.25	2/12/07	443	1700	7.4	1100	961	0.974 J	405	- -	100	110	10 U	10 U	110	0.135	91.7	0.229	16.8	9.07	197
P-CS-04	4.55	2/12/07	533	2100	7.4	1400	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
P-CS-04	4.55	3/20/09	- -	14830	8.07	13200	10400	12.7	4570	1.05	1080	122	39.2	10 U	161	0.125	776	0.158	181	17.6	2180
P-CS-05	5.6	2/13/07	730	2700	6.4	1700	1360	1.45	611	- -	128	116	10 U	10 U	116	0.161	142	0.233	26.2	10.6	312
P-CS-06	6.3	2/13/07	775	3020	7.5	1900	1490	1.69	695	- -	141	115	10 U	10 U	115	0.156	149	0.217	27.3	10.4	356
P-CS-06	6.3	10/25/07	- -	16590	7.97	15430	12400	10.4	5510	2.15	1090	191	10 U	10 U	191	0.434	857	0.131	181	21.4	2710
P-CS-06	6.3	3/20/09	- -	17760	8.1	17760	11700	15.7	5450	0.5 U	1170	89.9	22.2	10 U	112	0.126	807	0.383	190	19	2810
P-CS-07	7.7	2/13/07	720	2980	7.6	1900	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
P-CS-08	8.25	2/13/07	730	2950	8.2	1900	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
P-CS-09	9.35	2/13/07	750	3120	8.4	2000	1590	1.74	745	- -	135	115	10 U	10 U	115	0.168	152	0.394	29.2	10.6	347
P-CS-09	9.35	3/20/09	- -	21810	7.43	20370	14500	20	6650	0.5 U	1280	89	10 U	10 U	89	0.162	948	0.33	223	24.1	3290
P-CS-10	10.4	2/13/07	980	3540	8.3	2300	1800	2.04	843	- -	148	117	10 U	10 U	117	0.173	185	0.191	32.8	10.4	423
P-CS-11	11.45	2/15/07	1730	5710	7.5	3600	3090	4.46 J	1520	- -	261	142	10 U	10 U	142	0.193	278	0.299	50.8	11.1	605
P-CS-11	11.45	10/25/07	- -	16400	7.09	15010	11800	17	5590	1.98	937	204	10 U	10 U	204	0.34	970	0.0785 J	190	18.3	2460
P-CS-11	11.45	3/20/09		21310	7.3	20180	14400	19.3	6620	0.973	1290	153	10 U	10 U	153	0.146	1120	0.192	237	20.4	3270
P-CS-11-D	11.45	3/20/09		21310	7.3	20180	14600	19	6530	1.03	1280	152	10 U	10 U	152	0.141	1090	0.197	231	19.8	3240
P-CS-12	12.55	2/15/07	1800	5770	7.6	3600	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
P-CS-13	13.55	2/15/07	2050	6500	7.6	4100	3790	5.45 J	1860	- -	315	151	10 U	10 U	151	0.2	324	0.0991 J	56.6	11	760
P-CS-13A	13.55	3/20/09	- -	21100	7.04	20160	15000	18.3	6530	0.5 U	1260	172	10 U	10 U	172	0.133	1070	0.256	227	18.1	3060
P-CS-14	14.15	2/15/07	2110	6700	7.8	4200	3830	5.41 J	2000	- -	335	153	10 U	10 U	153	0.189	342	0.204	58.2	10.5	838
P-CS-14	14.15	10/25/07	- -	19220	7.66	18300	13300	13.6	6550	1.9	1290	203	10 U	10 U	203	0.275	991	0.0792 J	206	17.6	3200
P-CS-14	14.15	3/20/09	- -	21340	7.13	20370	14900	19	6570	0.5 U	1300	110	10 U	10 U	110	0.124	1100	0.2	242	18.3	3340
P-CS-15	15.8	2/13/07	1650	6110	8.0	3900	3160	3.52	1690	- -	255	139	10 U	10 U	139	0.187	296	0.203	57.8	10.8	764
P-CS-16	16.65	2/15/07	2510	8840	8.3	5600	4470	5.08 J	2290	- -	324	155	10 U	10 U	155	0.199	383	0.166	77.4	11.4	942
P-CS-17	17.15	2/15/07	2900	9700	8.4	6000	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
P-CS-19	19.75	2/15/07	3100	11100	8.2	7000	5820	5.79	3010	- -	544	162	10 U	10 U	162	0.196	529	0.287	95.8	12.3	1280
P-CS-19	19.75	10/25/07	- -	20170	7.24	19290	14400	17.3	6960	8.94	1240	178	10 U	10 U	178	0.298	1140	1.6	231	19.8	3200
P-CS-21	21.15	2/13/07	2200	8200	8.5	5200	4340	4.85	2190	- -	366	136	11.2	10 U	147	0.192	399	0.18	79.2	11.2	961
P-CS-21	21.15	3/20/09	- -	23860	8.1	11120	16600	21.6	7460	0.5 U	1370	82.3	10 U	10 U	82.3	0.114	1220	0.314	263	18.2	3470
P-CS-25	25.6	2/15/07	3180	11100	8.3	7000	5760	5.6	2970	- -	486	157	10 U	10 U	157	0.206	507	0.181	97.2	11.8	1290
P-CS-25	25.6	10/25/07	- -	18410	7.88	17390	12800	16.4	6360	8.95	1250	162	10 U	10 U	162	0.264	989	0.0829 J	209	17.7	2890
P-CS-29	29.3	2/15/07	2470	8910	8.5	5600	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
P-CS-33	33.25	2/15/07	2050	7460	8.2	4700	3870	4.77 J	1950	- -	305	141	10 U	10 U	141	0.192	335	0.193	63.8	11	870
P-CS-33	33.25	10/25/07	- -	12120	8.1	10670	7900	8.66	3820	0.1 U	822	152	10 U	10 U	152	0.313	572	0.146	126	18.4	1850
P-CS-02-Discharge		2/12/07	260	1400	4.5	900	705	0.3 U	204	- -	89	10 U	10 U	10 U	10 U	0.193	65.2	0.248	11.8	19.7	140

APPENDIX A, TABLE 1. SURFACE WATER SAMPLING RESULTS

Sample ID	Petronila Creek Segment (km)	Sample Date	Field Results				Laboratory Results													
								Anions				Alkalinity (As CaCO3)				Cations				
			Chloride	Conductivity	pH	TDS	TDS	Bromide	Chloride	Nitrate-N	Sulfate	Bicarbonate	Carbonate	Hydroxide	Total	Barium	Calcium	Iron	Magnesium	Potassium	Sodium
			mg/L	uS/cm	S.U.	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Pond																					
P-P-01	NA	2/15/07	505	2380	8.4	1500	1120	2.02	498	- -	119	139	10 U	10 U	139	0.317	95.4	0.231	18.5	7.55	234
North Clara Driscoll Ditch																					
P-D-01	NA	2/14/07	7600	20700	8.5	13000	12500	16.5	6880		1200	109	10 U	10 U	109	0.206	537	0.123	102	14.7	3460
P-D-01	NA	10/25/07	- -	41960	6.18	46850	31600	37.8	16200	2.35 J	2780	186	10 U	10 U	186	0.308	1500	0.65	296	33.2	8780
P-D-01	NA	3/20/09	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
P-D-02	NA	2/14/07	267.5	1610	8.4	1000	863	0.897 J	245	- -	182	174	10 U	10 U	174	0.137	74.5	0.216	7.6	6.56	184
P-D-02	NA	10/25/07	- -	6951	7.12	5800	4260	3.22	1200	0.1 U	1370	223	10 U	10 U	223	0.316	318	0.102	36.1	12.3	980
P-D-02	NA	3/20/09	- -	17210	7.92	15210	12100	12.5	3970	5.2	3310	247	10 U	10 U	247	0.04	479	0.238	70.6	17.5	3250
P-D-03	NA	2/14/07	48.8	49.5	8.8	320	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
P-D-03	NA	3/20/09	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
P-D-04	NA	2/14/07	84	82.1	8.2	520	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
P-D-04	NA	3/20/09	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
P-D-10	NA	3/19/09	- -	47400	7.13	51310	37400	61.4	17700	1 U	2850	116	10 U	10 U	116	0.164	1520	0.224	337	38.4	9080
Clara Driscoll Ditch (CR 18)																					
P-D-05	NA	2/15/07	30	42.7	7.9	280	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
P-D-06	NA	2/15/07	1850	7140	7.6	4500	3550	3.56	1590		546	84.5	10 U	10 U	84.5	0.439	275	0.05 U	28.2	9.58	860
P-D-06	NA	10/25/07		8788	8.3	7400	5200	6.63	2430	0.1 U	751	83.3	10 U	10 U	83.3	0.496	500	1.43	52.3	20	1390
P-D-07	NA	2/15/07	14500	40700	8.6	25000	24600	49.3 J	14000		1890	49.2	12.2	10 U	61.3	0.342	1630	0.0534 J	200	24.7	6240
P-D-07	NA	10/25/07		59200	7.03	68690	47400	56.4	24200	0.5 U	2730	118	10 U	10 U	118	0.25	2460	3.09	554	44.6	12000
P-D-08	NA	2/15/07	15300	44300	7.9	27000	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
P-D-09	NA	2/15/07	8825	24600	8.1	15000	16800	33.4 J	8500		2530	158	10 U	10 U	158	0.167	902	0.19	191	14.9	4370
P-D-09	NA	10/25/07	- -	29640	7.21	30010	21600	23.2	9910	7.14	2790	274	10 U	10 U	274	0.0826	1190	0.0524 J	290	19.8	5600
P-D-09-D	NA	10/25/07	- -	- -	- -	- -	21200	30.9	9810	7.03	2770	275	10 U	10 U	275	0.0873	1170	0.05 U	296	20.1	5830
P-D-09	NA	3/20/09	- -	28470	7.31	28470	19500	21.7	7990	10.1	3210	214	10 U	10 U	214	0.0487	967	0.222	276	15.1	5120
Driscoll #2 Site																					
P-D2-MW-12	NA	2/14/07	4000	15600	6.7	10000	11000	12.1	3930	- -	3260	486	10 U	10 U	486	- -	- -	- -	- -	- -	- -
P-D2-MW-13	NA	2/15/07	5950	21900	6.6	14000	13600	30 U	5480	- -	2900	515	10 U	10 U	515	- -	- -	- -	- -	- -	- -
Driscoll #3 Site																					
P-D3-MW-08	NA	2/14/07	13250	37800	6.5	23000	24500	164	12800	- -	2950	310	10 U	10 U	310	- -	- -	- -	- -	- -	- -
P-D3-MW-17	NA	2/14/07	>40000	92200	6.3	55000	68800	130	42100	- -	2140	305	10 U	10 U	305	- -	- -	- -	- -	- -	- -
P-D3-MW-17-D	NA	2/14/07	>40000	92200	6.3	55000	70400	127	41400	- -	2130	305	10 U	10 U	305	- -	- -	- -	- -	- -	- -
King Ranch to Viola Pipeline Site																					
P-KRVP-MW-06	NA	2/14/07	- -	3149	7.0	- -	453	0.452 J	33.4	- -	36.2	325	10 U	10 U	325	- -	- -	- -	- -	- -	- -
P-KRVP-MW-09	NA	2/14/07	- -	735	7.3	- -	2460	1.06	544	- -	785	347	10 U	10 U	347	- -	- -	- -	- -	- -	- -
Clara Driscoll Storage Tanks																					
P-O-01	NA	2/15/07	- -	>99,999	6.8	>99,999	76600	215	50200	- -	1 U	339	10 U	10 U	339	- -	- -	- -	- -	- -	- -
P-O-01-D	NA	2/15/07	- -	>99,999	6.8	>99,999	77200	233	50700	- -	11 J	336	10 U	10 U	336	- -	- -	- -	- -	- -	- -
P-O-02	NA	2/15/07	- -	>99,999	6.5	>99,999	109000	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -

Notes:

J	Analyte detected between sample quantification limit and reporting limit
U	Analyte not detected at the sample quantification limit
km	Kilometer
mg/L	Milligrams per liter
S.U.	pH standard units
TDS	Total dissolved solids
uS/cm	Microsiemens per centimeter
NA	No segment ID designated
- -	No data available

APPENDIX A, TABLE 2. SOIL SAMPLING RESULTS

Sample ID	Sample Date	Sample Description/Note	Sample Depth feet	Laboratory Results											
						Anions				Cations					
				Conductivity	pH	Bromide	Chloride	Nitrate-N	Sulfate	Barium	Calcium	Iron	Magnesium	Potassium	Sodium
				umhos/cm	S.U.	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
P-SS-01	3/29/07	Ditch Near P-CPT-17	0.2-0.7	22700	- -	140	19500	- -	788	215	48400	17600	8810	7380	11300
P-SS-02	3/29/07	Ditch Near P-CPT-19	0.1-0.5	1470	- -	6.83 U	1020	- -	529	302	40400	17800	7770	7140	1020
P-SS-03	3/29/07	Ditch Near P-CPT-04	0.1-0.5	12000	- -	94.8	8430	- -	2670	263	40400	16000	7720	6300	7110
P-SS-04	3/29/07	Next to P-CPT-03	2-4	10200	- -	22.9	9440	- -	654	235	20100	18600	7560	6320	8760
P-SS-05	3/29/07	Next to P-CPT-02	4-6	4080	- -	6.03 U	2180	- -	842	230	48100	15200	6400	5120	2520
P-SS-05	3/29/07	Duplicate	4-6	3980	- -	6.07 U	2100	- -	1070	271	48800	14800	6050	4990	2590
P-SS-06	3/29/07	Next to P-CPT-17	5-7	2940	- -	10.4	1640	- -	1340	237	72200	17700	8710	7480	3600
P-SS-07	3/29/07	Next to P-CPT-08	4-6	2610	- -	6.5 U	33	- -	5750	262	27100	24200	9990	7860	2330
P-SS-08	3/29/07	Next to P-CPT-20	4-6	5900	- -	6.87 U	1050	- -	13500	297	34600	25500	10600	8750	4070
P-SS-09	3/29/07	Next to P-CPT-11	4-6	3200	- -	6.81	2280	- -	560	259	40200	19100	9050	6730	2920
P-SS-10	3/29/07	Next to P-CPT-27	3-5	5270	- -	6.3 U	1770	- -	1510	306	53600	17300	8120	6190	3440
P-SS-11	3/29/07	Ditch Near P-CPT-23	0.2-0.7	4730	- -	6.36 U	2520	- -	806	288	28200	18100	7480	6350	3550
P-SS-12	3/30/07	Next to P-CPT-33	2-4	7150	- -	44.8	6290	- -	14 U	3690	26100	26900	9960	9360	8060
P-SS-13	3/30/07	Next to P-CPT-29	3-5	717	- -	6.59 U	107	- -	464	371	58700	23000	11100	9350	2420
P-SB-01	3/30/07	Correlation Boring (CPT-10)	3-6	9700	- -	40.3	7720	- -	12 U	251	12600	20700	6800	6290	10600
P-SB-01	3/30/07	Correlation Boring (CPT-10)	7-10	8980	- -	40.9	7520	- -	29.8	260	17900	14800	5450	4880	7790
P-SB-01	6/28/07	P-MW-01	3-5	16900	7.74	16.8	6250	6.01	9240	192	32700	15500	6060	5530	6980
P-SB-01	6/28/07	P-MW-01	10-12	17100	7.70	19.3	7030	6.03	3520	118	21400	15500	5560	5440	7640
P-SB-02	6/28/07	P-MW-02	5-7	8020	7.73	17.6	6430	6.35	358	468	28400	17100	7050	6100	7620
P-SB-02	6/28/07	P-MW-02	8-10	14800	7.72	17	6240	6.14	8890	164	45600	14700	5600	5190	6990
P-SB-03	6/28/07	P-MW-03	6-8	6430	7.52	11.3	4870	6.31	1120	203	51400	20500	8680	7410	3860
P-SB-03	6/28/07	P-MW-03	10-12	6880	7.43	10.9	4810	6.45	390	96.2	21200	23400	9260	8410	4230
P-SB-04	6/28/07	P-MW-04	9-11	7660	8.15	17.9	5800	6.04	58	297	3390	10200	3370	3820	5450
P-SB-04	6/28/07	P-MW-04	14-16	5190	7.89	8.97	3090	5.68	303	88.8	116000	11000	3960	3360	2560
P-SB-07	6/30/07	P-MW-07	6-8	499	8.30	5.88	5.88	5.88	410	137	12700	11300	3850	2890	446
P-SB-07	6/30/07	P-MW-07	8-10	615	8.53	5.84	5.84	5.84	395	60.7	22300	12900	4300	3380	792
P-SB-10	7/1/07	P-MW-10	5-7	545	8.21	6.22	41.2	6.22	456	287	60500	18800	8000	6800	1010
P-SB-10	7/1/07	P-MW-10	8-10	2140	7.61	6.13	165	8.44	4340	114	38800	18400	7440	6730	728
P-SB-11	7/2/07	P-MW-11	8-9	3280	7.53	5.83	1620	5.83	246	58.4	3920	12700	4460	3740	1710
P-SB-11	7/2/07	P-MW-11	11-12	3020	7.59	5.53	1470	5.53	199	37.3	2980	10600	3640	3100	1250
P-SB-12	7/5/07	P-MW-12	7-8	3470	8.04	6.68	2260	6.68	185	713	50600	23100	9550	8700	2650
P-SB-12	7/5/07	P-MW-12	9-10	3470	8.63	13.7	714	13.7	408	53.9	22600	21000	7380	6610	2790
P-SB-13	7/12/07	P-MW-13	7-8	3980	7.61	11.9	1360	5.85	2390	78.1	48200	12200	8880	6920	3590
P-SB-13	7/12/07	P-MW-13	10-12	3290	7.53	16.9	1570	5.96	346	282	8200	9840	6980	5950	2970
P-SB-16	7/12/07	P-MW-16	10-11	3870	7.32	5.94	2100	5.94	244	311	36200	16000	10600	9290	3660
P-SB-16	7/12/07	P-MW-16	12-13	4520	7.31	6.14	2510	6.14	330	272	50900	15800	6040	9590	3690
P-SB-16-D	7/12/07	P-MW-16 Duplicate	12-13	4140	7.38	6.07	2520	6.07	428	1470	123000	14800	6400	9200	3760
P-SB-17	7/13/07	P-MW-17	8-10	2990	7.59	9.86	1120	6.58	2300	532	36900	23300	8980	9240	3990
P-SB-17	7/13/07	P-MW-17	11-12	1310	8.14	12.4	258	12.4	541	44.2	4090	13600	8220	7930	2550
P-SB-20	7/14/07	P-MW-20	7-8	9010	8.00	10.3	4720	6.19	3330	179	20700	18100	6420	5820	7400
P-SB-20-D	7/14/07	P-MW-20 Duplicate	7-8	9560	7.81	11.3	5190	6.31	3910	216	22200	18000	6320	5640	7290
P-SB-20	7/14/07	P-MW-20	10-12	5010	8.16	6.11	2590	6.11	1320	138	31400	18700	6660	5990	6060

APPENDIX A, TABLE 2. SOIL SAMPLING RESULTS

Sample ID	Sample Date	Sample Description/Note	Sample Depth feet	Laboratory Results												
						Anions					Cations					
				Conductivity	pH	Bromide	Chloride	Nitrate-N	Sulfate	Barium	Calcium	Iron	Magnesium	Potassium	Sodium
				umhos/cm	S.U.	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
P-SB-22	7/14/07	P-MW-22	10-12	755	8.74	12.5	39.9	12.5	370	187	34200	22600	9080	7250	2060
P-SB-22	7/14/07	P-MW-22	9-10	836	8.75	11.8	22.7	11.8	449	140	34000	14300	4750	4520	996
P-SB-23	6/16/08	Area 2	5-7	4390	- -	- -	3780	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-24	6/16/08	Area 2	5-7	8810	- -	- -	7590	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-25	6/16/08	Area 2	5-7	7730	- -	- -	4750	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-26	6/16/08	Area 2	5-7	5010	- -	- -	1670	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-27	6/16/08	Area 2	5-7	2910	- -	- -	1720	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-28	6/16/08	Area 2	5-7	8440	- -	- -	6320	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-29	6/16/08	Area 2	5-7	12000	- -	- -	7410	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-30	6/16/08	Area 4	5-7	3190	- -	- -	2610	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-31	6/16/08	Area 4	5-7	3790	- -	- -	1930	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-32	6/16/08	Area 4	5-7	2720	- -	- -	9.08	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-33	6/16/08	Area 4	5-7	2650	- -	- -	148	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-33	6/16/08	Area 4	9-10	3750	- -	- -	70.4	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-34	6/16/08	Area 4	5-7	4490	- -	- -	996	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-34	6/16/08	Area 4	11-12	1690	- -	- -	690	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-35	6/16/08	Area 5	5-7	10000	- -	- -	6090	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-36	6/16/08	Area 5	5-7	12300	- -	- -	5940	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-36	6/16/08	Area 5	9-10	12300	- -	- -	5780	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-37	6/16/08	Area 5	5-7	11900	- -	- -	6730	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-37	6/16/08	Area 5	9-10	9440	- -	- -	7730	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-38	6/16/08	Area 5	5-7	5150	- -	- -	4520	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-39	6/17/08	Area 5	5-7	3910	- -	- -	1390	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-40	6/17/08	Area 5	5-7	4870	- -	- -	2890	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-40-D	6/17/08	Area 5	5-7	5660	- -	- -	2860	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-40	6/17/08	Area 5	9-10	3930	- -	- -	2010	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-41	6/17/08	Area 5	5-7	8840	- -	- -	4790	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-42	6/17/08	Area 5	5-7	4960	- -	- -	2990	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-43	6/17/08	Area 3	5-7	10800	- -	- -	5910	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-44	6/17/08	Area 3	5-7	25400	- -	- -	8550	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-44	6/17/08	Area 3	9-10	19600	- -	- -	11400	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-45	6/17/08	Area 3	1-2	1600	- -	- -	926	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-45	6/17/08	Area 3	5-7	8380	- -	- -	2360	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-45	6/17/08	Area 3	9-10	7780	- -	- -	4790	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-46	6/17/08	Area 3	5-7	7350	- -	- -	2560	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-47	6/17/08	Area 3	5-7	7700	- -	- -	4910	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-47	6/17/08	Area 3	9-10	7240	- -	- -	2730	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-48	6/17/08	Area 3	5-7	10500	- -	- -	5620	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-49	6/17/08	Area 3	5-7	5000	- -	- -	2590	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-50	6/17/08	Area 3	5-7	6710	- -	- -	4300	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-51	6/17/08	Area 3	5-7	7700	- -	- -	3380	- -	- -	- -	- -	- -	- -	- -	- -

APPENDIX A, TABLE 2. SOIL SAMPLING RESULTS

Sample ID	Sample Date	Sample Description/Note	Sample Depth	Laboratory Results											
						Anions				Cations					
				Conductivity	pH	Bromide	Chloride	Nitrate-N	Sulfate	Barium	Calcium	Iron	Magnesium	Potassium	Sodium
			feet	umhos/cm	S.U.	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
P-SB-52	6/18/08	Area 1	5-7	4530	- -	- -	1490	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-53	6/18/08	Area 1	5-7	3710	- -	- -	1170	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-54	6/18/08	Area 1	1-2	4350	- -	- -	2480	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-54	6/18/08	Area 1	9-10	3900	- -	- -	3050	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-55	6/18/08	Area 1	5-7	5830	- -	- -	3620	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-56	6/18/08	Area 1	5-7	3410	- -	- -	1890	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-57	6/18/08	Area 1	5-7	7020	- -	- -	2320	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-58	6/18/08	Area 1	5-7	8200	- -	- -	3130	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-58	6/18/08	Area 1	9-10	6540	- -	- -	3210	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-59	6/18/08	Area 1	5-7	4680	- -	- -	2420	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-60	6/18/08	Area 1	5-7	4800	- -	- -	449	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-61	6/18/08	Area 1	1-2	461	- -	- -	75.6	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-61	6/18/08	Area 1	5-7	5500	- -	- -	1550	- -	- -	- -	- -	- -	- -	- -	- -
P-SB-61	6/18/08	Area 1	9-10	1990	- -	- -	146	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-14	6/18/08	Area 7	0-1	24200	- -	- -	13400	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-15	6/18/08	Area 7	0-1	103000	- -	- -	61000	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-16	6/18/08	Area 7	0-1	91500	- -	- -	47100	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-17	6/18/08	Area 7	2-3	9030	- -	- -	5660	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-18	6/18/08	Area 7	0-1	166000	- -	- -	84100	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-19	6/18/08	Area 7	1-3	7800	- -	- -	5920	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-20	6/18/08	Area 7	0-1	96200	- -	- -	41400	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-21	6/18/08	Area 7	0-1	146000	- -	- -	75800	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-22	6/18/08	Area 6	0-1	10400	- -	- -	7160	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-23	6/18/08	Area 6	0-1	33800	- -	- -	13100	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-24	6/18/08	Area 6	0-1	35400	- -	- -	14600	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-25	6/18/08	Area 6	0-1	32300	- -	- -	16900	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-26	6/18/08	Area 6	3-4	6420	- -	- -	4460	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-27	6/18/08	Area 6	0-1	90200	- -	- -	46100	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-28	6/18/08	Area 6	2-3	5920	- -	- -	3630	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-29	6/18/08	Area 6	0-1	32800	- -	- -	21600	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-30	6/18/08	Area 1	1-2	11800	- -	- -	9460	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-30-D	6/18/08	Area 1	1-2	11800	- -	- -	9460	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-31-0-1	3/9/09	Area 6	0-1	8440	- -	- -	5460	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-32-0-1	3/9/09	Area 6	0-1	42200	- -	- -	24200	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-33-0-1	3/9/09	Area 6	0-1	10500	- -	- -	7580	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-33-2-3	3/9/09	Area 6	2-3	6370	- -	- -	2580	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-34-0-1	3/9/09	Area 6	0-1	24300	- -	- -	18100	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-34-2-3	3/9/09	Area 6	2-3	10100	- -	- -	5460	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-35-0-1	3/9/09	Area 6	0-1	24500	- -	- -	18600	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-36-0-1	3/9/09	Area 6	0-1	6990	- -	- -	4070	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-37-0-1	3/10/09	Area 6	0-1	64200	- -	- -	44700	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-37-2-3	3/10/09	Area 6	2-3	9040	- -	- -	4950	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-38-0-1	3/10/09	Area 6	0-1	25100	- -	- -	18100	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-39-0-1	3/10/09	Area 6	0-1	36900	- -	- -	29000	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-39-2-3	3/10/09	Area 6	2-3	9520	- -	- -	6460	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-40-0-1	3/10/09	Area 6	0-1	44900	- -	- -	33500	- -	- -	- -	- -	- -	- -	- -	- -

APPENDIX A, TABLE 2. SOIL SAMPLING RESULTS

Sample ID	Sample Date	Sample Description/Note	Sample Depth	Laboratory Results											
						Anions				Cations					
				Conductivity	pH	Bromide	Chloride	Nitrate-N	Sulfate	Barium	Calcium	Iron	Magnesium	Potassium	Sodium
			feet	umhos/cm	S.U.	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
P-SS-41-0-1	3/11/09	Area 7	0-1	10600	- -	- -	6260	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-41-2-3	3/11/09	Area 7	2-3	10300	- -	- -	5290	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-42-0-1	3/11/09	Area 7	0-1	24700	- -	- -	16200	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-43-0-1	3/11/09	Area 7	0-1	32200	- -	- -	22700	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-43-2-3	3/11/09	Area 7	2-3	9520	- -	- -	5330	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-44-0-1	3/11/09	Area 7	0-1	19900	- -	- -	10800	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-45-0-1	3/11/09	Area 7	0-1	22500	- -	- -	10800	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-46-0-1	3/11/09	Area 7	0-1	25900	- -	- -	15300	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-47-0-1	3/11/09	Area 7	0-1	11600	- -	- -	5780	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-47-2-3	3/11/09	Area 7	2-3	5050	- -	- -	1850	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-48-0-1	3/11/09	Area 7	0-1	29700	- -	- -	16800	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-48-2-3	3/11/09	Area 7	2-3	5920	- -	- -	2970	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-49-0-1	3/11/09	Area 7	0-1	65800	- -	- -	31900	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-50-0-1	3/12/09	Area 7	0-1	49200	- -	- -	26300	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-51-0-1	3/12/09	Area 7	0-1	35000	- -	- -	16400	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-51-2-3	3/12/09	Area 7	2-3	11200	- -	- -	4450	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-52-0-1	3/12/09	Area 7	0-1	13900	- -	- -	7190	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-53-0-1	3/12/09	Area 7	0-1	11700	- -	- -	5460	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-54-0-1	3/12/09	Area 7	0-1	47800	- -	- -	16300	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-54-2-3	3/12/09	Area 7	2-3	8010	- -	- -	1380	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-55-0-1	3/12/09	Area 7	0-1	6250	- -	- -	2700	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-56-0-1	3/12/09	Area 7	0-1	5060	- -	- -	2490	- -	- -	- -	- -	- -	- -	- -	- -
P-SS-57-0-1	3/12/09	Area 7	0-1	5400	- -	- -	3150	- -	- -	- -	- -	- -	- -	- -	- -

Notes:

J	Analyte detected between sample quantification limit and reporting limit
U	Analyte not detected at the sample quantification limit
mg/kg	Milligrams per kilogram
S.U.	pH standard units
umhos/cm	Micromhos per centimeter
- -	No data available

APPENDIX B

MARCH 2009 SEDIMENT SAMPLING ANALYTICAL DATA

March 31, 2009

James Harte
TRC Environmental Corp.
505 East Huntland Drive Suite 250
Austin, Texas 78752

TEL: (512) 329-6080
FAX: (512) 329-8750

Order No: 0903050

RE: RRC Petronila - Ditch Sampling

Dear James Harte:

DHL Analytical received 8 sample(s) on 3/10/2009 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont
Lab Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-08C-TX

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DHL ANALYTICAL

2300 Double Creek Drive • Round Rock, TX 78664
Phone (512) 388-8222 • FAX (512) 388-8229

Downloaded from WEBSITE

№ ~~25297~~

CHAIN-OF-CUSTODY

CLIENT: TRC
ADDRESS: 505 E. Huntland Drive #250
PHONE: 512-329-6080 FAX 512-329-8750
DATA REPORTED TO: S. Hatfe
ADDITIONAL REPORT COPIES TO: S. Miller

DATE: 3/9/09 PAGE 1 OF 1
PO #: DHL WORK ORDER #: 0903052
PROJECT LOCATION OR NAME: RRC-PETRONILA-Ditch Sampling
CLIENT PROJECT #: 166420-01 COLLECTOR: BC LP

Authorize 5% surcharge for TRRP report? ☐ Yes ☒ No

S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

PRESERVATION: HCl | HNO_3 | H_2SO_4 ☐ NaOH ☐ | ICE | UNPRESERVED

ANALYSES: BTEX ☐ MTBE ☐ | TRPH 418.1 ☐ | TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☐ | DIESEL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ | PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDE ✗ ANIONS ☐ ALKALINITY ☐ | CONDUCTIVITY | SPLP CHLORIDE *HOLD

Field Sample I.D.	DHL Lab #	Date	Time	Matrix	Container Type	# of Containers	HCl	HNO_3	H_2SO_4 NaOH	ICE	UNPRESERVED	FIELD NOTES
P-SS-301-0-1	01	3/9/09	1115	S	4oz Glass	3				X	X	HOLD SPLP CL
P-SS-302-0-1	02		1145	S		3				X	X	
P-SS-303-0-1	03		1200	S		3				X	X	
P-SS-303-2-3	04		1230	S		3				X	X	
P-SS-304-0-1	05		1330	S		3				X	X	
P-SS-304-2-3	06		1345	S		3				X	X	
P-SS-305-0-1	07		1440	S		3				X	X	
P-SS-306-0-1	08		1510	S		3				X	X	
EDF 3-31-2009												

No Further analysis needed as per James Hatfe 3-31-2009 EDF

* ANALYSIS IN ACCORDANCE W/ TRC-RRC PETRONILA QAPP *

TOTAL

RELINQUISHED BY: (Signature) DATE/TIME 3/9/09 1915 RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) 3/9/09 1715 DATE/TIME RECEIVED BY: (Signature) Fed EX

☐ DHL DISPOSAL @ $5.00 each ☐ Return

Fed EX 3/10/09 0900 Akuhanec

TURN AROUND TIME
RUSH ☐ CALL FIRST
1 DAY ☐ CALL FIRST
2 DAY ☐
NORMAL ☒
OTHER ☐ ____

LABORATORY USE ONLY:
RECEIVING TEMP: 3.2° THERM #: 57
CUSTODY SEALS - ☐ BROKEN ☒ INTACT ☐ NOT USED
☒ CARRIER BILL # Fed EX
☐ APC DELIVERY
☐ HAND DELIVERED

FedEx US Airbill
Express

FedEx Tracking Number 8686 4652 0079

0200 Recipient's Copy

1 From
Date 3/9/09
Sender's Name BARRETT CLARK Phone 512 329-6080
Company TRC
Address 505 E. HUNTLAND Dr 250 Dept./Floor/Suite/Room
City AUSTIN State TX ZIP 78752

2 Your Internal Billing Reference 116420-01

3 To
Recipient's Name Phone 512 388-8222
Company DHL Analytical
Recipient's Address Dept./Floor/Suite/Room
We cannot deliver to P.O. boxes or P.O. ZIP codes.
Address 2300 Double Creek Drive
To request a package be held at a specific FedEx location, print FedEx address here.
City Round Rock State TX ZIP 78664

4a Express Package Service *Packages up to 150 lbs.*
- [ ] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations.* Saturday Delivery NOT available.
- [ ] FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

FedEx Envelope rate not available. Minimum charge: One-pound rate. * To most locations.

4b Express Freight Service *Packages over 150 lbs.*
- [ ] FedEx 1Day Freight* — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available.

* Call for Confirmation: ** To most locations.

5 Packaging
- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.
- [ ] FedEx Box
- [ ] FedEx Tube
- [x] Other

* Declared value limit $500.

6 Special Handling Include FedEx address in Section 3.
- [ ] SATURDAY Delivery — Not available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 3Day Freight.
- [ ] HOLD Weekday at FedEx Location — Not available for FedEx First Overnight.
- [ ] HOLD Saturday at FedEx Location — Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Does this shipment contain dangerous goods? One box must be checked.
- [x] No
- [ ] Yes — As per attached Shipper's Declaration.
- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging.
- [ ] Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No. [ ]
- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

Total Packages	Total Weight	Total Declared Value†
1	5	$ .00

†Our liability is limited to $100 unless you declare a higher value. See back for details. Credit Card Auth.

8 Residential Delivery Signature Options If you require a signature, check Direct or Indirect.
- [ ] No Signature Required — Package may be left without obtaining a signature for delivery.
- [ ] Direct Signature — Someone at recipient's address may sign for delivery. *Fee applies.*
- [ ] Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. *Fee applies.*

520

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4

Custody

BROKEN BY

Seal

740 3/9/09

DHL Analytical

Sample Receipt Checklist

Client Name TRC Environmental Corp. Date Received: 3/10/2009

Work Order Number 0903050 Received by AK

Checklist completed by Signature 3/10/09 Date Reviewed by Initials 3/10/09 Date

Carrier name: FedEx 1day

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	3.2 °C
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☑

Adjusted? _____ Checked by _____

Any No response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Laboratory Data Package Signature Page

This data package consists of:

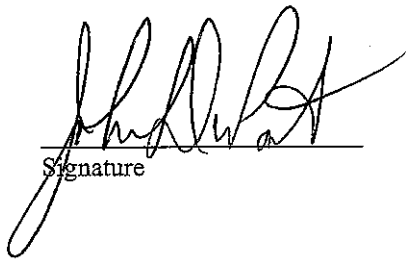
This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a) Items consistent with NELAC 5.13
  - b) dilution factors,
  - c) preparation methods,
  - d) cleanup methods, and
  - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a) Calculated recovery (%R), and
  - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a) LCS spiking amounts,
  - b) Calculated %R for each analyte, and
  - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a) Samples associated with the MS/MSD clearly identified,
  - b) MS/MSD spiking amounts,
  - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d) Calculated %Rs and relative percent differences (RPDs), and
  - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a) the amount of analyte measured in the duplicate,
  - b) the calculated RPD, and
  - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
- R10 Other problems or anomalies.

The Exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release Statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Scott Schroeder – Project Manager
John DuPont – General / QA Manager



Signature

03/31/09
Date

DHL Analytical, Inc.

Laboratory Review Checklist: Reportable Data

Project Name: RRC Petronila - Ditch Sampling	Date: 3/31/2008
Reviewer Name: Evelyn Ferrero	Laboratory Work Order: 0903050
Prep Batch Number(s): See Prep Dates Report	Run Batch: See Analytical Dates Report

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
		Chain-of-Custody (C-O-C)					
R1	OI	1) Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				R1-01
		2) Were all departures from standard conditions described in an exception report?			X		
R2	OI	**Sample and Quality Control (QC) Identification**					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		2) Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	**Test Reports**					
		1) Were all samples prepared and analyzed within holding times?	X				
		2) Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		3) Were calculations checked by a peer or supervisor?	X				
		4) Were all analyte identifications checked by a peer or supervisor?	X				
		5) Were sample quantitation limits reported for all analytes not detected?	X				
		6) Were all results for soil and sediment samples reported on a dry weight basis?	X				
		7) Were % moisture (or solids) reported for all soil and sediment samples?	X				
		8) If required for the project, TICs reported?			X		
R4	O	**Surrogate Recovery Data**					
		1) Were surrogates added prior to extraction?			X		
		2) Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	OI	**Test Reports/Summary Forms for Blank Samples**					
		1) Were appropriate type(s) of blanks analyzed?	X				
		2) Were blanks analyzed at the appropriate frequency?	X				
		3) Where method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		4) Were blank concentrations < MQL?	X				
R6	OI	**Laboratory Control Samples (LCS):**					
		1) Were all COCs included in the LCS?	X				
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		3) Were LCSs analyzed at the required frequency?	X				
		4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		5) Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	X				
		6) Was the LCSD RPD within QC limits (if applicable)?	X				
R7	OI	**Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data**					
		1) Were the project/method specified analytes included in the MS and MSD?	X				
		2) Were MS/MSD analyzed at the appropriate frequency?	X				
		3) Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		4) Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	**Analytical Duplicate Data**					
		1) Were appropriate analytical duplicates analyzed for each matrix?	X				
		2) Were analytical duplicates analyzed at the appropriate frequency?	X				
		3) Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	**Method Quantitation Limits (MQLs):**					
		1) Are the MQLs for each method analyte included in the laboratory data package?	X				
		2) Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		3) Are unadjusted MQLs included in the laboratory data package?	X				
R10	OI	**Other Problems/Anomalies**					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		2) Were all necessary corrective actions performed for the reported data?	X				
		3) Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	X				

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
3 NA = Not applicable.
4 NR = Not Reviewed.
5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

DHL Analytical, Inc.

Laboratory Review Checklist (continued): Supporting Data

Project Name: RRC Petronila - Ditch Sampling	Date: 3/31/2009
Reviewer Name: Evelyn Ferrero	Laboratory Work Order: 0903050

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	**Initial Calibration (ICAL)**					
		1) Were response factors and/or relative response factors for each analyte within QC limits?	X				
		2) Were percent RSDs or correlation coefficient criteria met?	X				
		3) Was the number of standards recommended in the method used for all analytes?	X				
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		5) Are ICAL data available for all instruments used?	X				
		6) Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	**Initial and Continuing calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB):**					
		1) Was the CCV analyzed at the method-required frequency?	X				
		2) Were percent differences for each analyte within the method-required QC limits?	X				
		3) Was the ICAL curve verified for each analyte?	X				
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	**Mass Spectral Tuning:**					
		1) Was the appropriate compound for the method used for tuning?			X		
		2) Were ion abundance data within the method-required QC limits?			X		
S4	O	**Internal Standards (IS):**					
		1) Were IS area counts and retention times within the method-required QC limits?			X		
S5	OI	**Raw Data (NELAC section 1 appendix A glossary, and section 5.12)**					
		1) Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		2) Were data associated with manual integrations flagged on the raw data?	X				
S6	O	**Dual Column Confirmation**					
		1) Did dual column confirmation results meet the method-required QC?			X		
S7	O	**Tentatively Identified Compounds (TICs):**					
		1) If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	**Interference Check Sample (ICS) Results:**					
		1) Were percent recoveries within method QC limits?			X		
S9	I	**Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions**					
		1) Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	**Method Detection Limit (MDL) Studies**					
		1) Was a MDL study performed for each reported analyte?	X				
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	**Proficiency Test Reports:**					
		1) Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	**Standards Documentation**					
		1) Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	**Compound/Analyte Identification Procedures**					
		1) Are the procedures for compound/analyte identification documented?	X				
S14	OI	**Demonstration of Analyst Competency (DOC)**					
		1) Was DOC conducted consistent with NELAC Chapter 5C?	X				
		2) Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	**Verification/Validation Documentation for Methods** (NELAC Chap 5)					
		1) Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	**Laboratory Standard Operating Procedures (SOPs):**					
		1) Are laboratory SOPs current and on file for each method performed?	X				

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).

3 NA = Not applicable.

4 NR = Not Reviewed.

5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

CLIENT: TRC Environmental Corp.
Project: RRC Petronila - Ditch Sampling
Lab Order: 0903050

CASE NARRATIVE

The samples were analyzed using the methods outlined in the following references:

Method SW9056 - Anions by IC method - Soil
Method D2216 - Percent Moisture
Method ASA 3:14 - Electrical Conductance in Soil

Exception Report R1-01

A total of 8 samples were received and logged-in on 3/10/2009. The samples arrived in good condition and were properly packaged. On 3/17/2009 all of the Sample ID's were changed as per the instructions of James Harte:

Original Sample ID	New Sample ID
P-SS-01-0-1	P-SS-31-0-1
P-SS-02-0-1	P-SS-32-0-1
P-SS-03-0-1	P-SS-33-0-1
P-SS-03-2-3	P-SS-33-2-3
P-SS-04-0-1	P-SS-34-0-1
P-SS-04-2-3	P-SS-34-2-3
P-SS-05-0-1	P-SS-35-0-1
P-SS-06-0-1	P-SS-36-0-1

CLIENT: TRC Environmental Corp.
Project: RRC Petronila - Ditch Sampling
Lab Order: 0903050

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recv'd
0903050-01	P-SS-31-0-1		03/09/09 11:15 AM	03/10/09
0903050-02	P-SS-32-0-1		03/09/09 11:45 AM	03/10/09
0903050-03	P-SS-33-0-1		03/09/09 12:20 PM	03/10/09
0903050-04	P-SS-33-2-3		03/09/09 12:30 PM	03/10/09
0903050-05	P-SS-34-0-1		03/09/09 01:30 PM	03/10/09
0903050-06	P-SS-34-2-3		03/09/09 01:45 PM	03/10/09
0903050-07	P-SS-35-0-1		03/09/09 02:40 PM	03/10/09
0903050-08	P-SS-36-0-1		03/09/09 03:10 PM	03/10/09

CLIENT: TRC Environmental Corp.
Project: RRC Petronila - Ditch Sampling
Lab Order: 0903050

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
0903050-01A	P-SS-31-0-1	03/09/09 11:15 AM	Soil	SW9056	Anion Prep	03/10/09 10:24 AM	33857
	P-SS-31-0-1	03/09/09 11:15 AM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/11/09 09:30 AM	33887
0903050-01B	P-SS-31-0-1	03/09/09 11:15 AM	Soil	D2216	Moisture Preparation	03/10/09 10:27 AM	33858
0903050-02A	P-SS-32-0-1	03/09/09 11:45 AM	Soil	SW9056	Anion Prep	03/10/09 10:24 AM	33857
	P-SS-32-0-1	03/09/09 11:45 AM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/11/09 09:30 AM	33887
0903050-02B	P-SS-32-0-1	03/09/09 11:45 AM	Soil	D2216	Moisture Preparation	03/10/09 10:27 AM	33858
0903050-03A	P-SS-33-0-1	03/09/09 12:20 PM	Soil	SW9056	Anion Prep	03/10/09 10:24 AM	33857
	P-SS-33-0-1	03/09/09 12:20 PM	Soil	SW9056	Anion Prep	03/10/09 10:24 AM	33857
	P-SS-33-0-1	03/09/09 12:20 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/11/09 09:30 AM	33887
0903050-03B	P-SS-33-0-1	03/09/09 12:20 PM	Soil	D2216	Moisture Preparation	03/10/09 10:27 AM	33858
0903050-04A	P-SS-33-2-3	03/09/09 12:30 PM	Soil	SW9056	Anion Prep	03/10/09 10:24 AM	33857
	P-SS-33-2-3	03/09/09 12:30 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/11/09 09:30 AM	33887
0903050-04B	P-SS-33-2-3	03/09/09 12:30 PM	Soil	D2216	Moisture Preparation	03/10/09 10:27 AM	33858
0903050-05A	P-SS-34-0-1	03/09/09 01:30 PM	Soil	SW9056	Anion Prep	03/10/09 10:24 AM	33857
	P-SS-34-0-1	03/09/09 01:30 PM	Soil	SW9056	Anion Prep	03/10/09 10:24 AM	33857
	P-SS-34-0-1	03/09/09 01:30 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/11/09 09:30 AM	33887
0903050-05B	P-SS-34-0-1	03/09/09 01:30 PM	Soil	D2216	Moisture Preparation	03/10/09 10:27 AM	33858
0903050-06A	P-SS-34-2-3	03/09/09 01:45 PM	Soil	SW9056	Anion Prep	03/10/09 10:24 AM	33857
	P-SS-34-2-3	03/09/09 01:45 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/11/09 09:30 AM	33887
0903050-06B	P-SS-34-2-3	03/09/09 01:45 PM	Soil	D2216	Moisture Preparation	03/10/09 10:27 AM	33858
0903050-07A	P-SS-35-0-1	03/09/09 02:40 PM	Soil	SW9056	Anion Prep	03/10/09 10:24 AM	33857
	P-SS-35-0-1	03/09/09 02:40 PM	Soil	SW9056	Anion Prep	03/10/09 10:24 AM	33857
	P-SS-35-0-1	03/09/09 02:40 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/11/09 09:30 AM	33887
0903050-07B	P-SS-35-0-1	03/09/09 02:40 PM	Soil	D2216	Moisture Preparation	03/10/09 10:27 AM	33858
0903050-08A	P-SS-36-0-1	03/09/09 03:10 PM	Soil	SW9056	Anion Prep	03/10/09 10:24 AM	33857
	P-SS-36-0-1	03/09/09 03:10 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/11/09 09:30 AM	33887
0903050-08B	P-SS-36-0-1	03/09/09 03:10 PM	Soil	D2216	Moisture Preparation	03/10/09 10:27 AM	33858

CLIENT: TRC Environmental Corp.
Project: RRC Petronila - Ditch Sampling
Lab Order: 0903050

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
0903050-01A	P-SS-31-0-1	Soil	SW9056	Anions by IC method - Soil	33857	100	03/11/09 09:53 AM	IC2_090311A
	P-SS-31-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	33887	1	03/11/09 10:30 AM	WC_090311A
0903050-01B	P-SS-31-0-1	Soil	D2216	Percent Moisture	33858	1	03/10/09 04:15 PM	PMOIST_090310A
0903050-02A	P-SS-32-0-1	Soil	SW9056	Anions by IC method - Soil	33857	1000	03/11/09 10:08 AM	IC2_090311A
	P-SS-32-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	33887	1	03/11/09 10:30 AM	WC_090311A
0903050-02B	P-SS-32-0-1	Soil	D2216	Percent Moisture	33858	1	03/10/09 04:15 PM	PMOIST_090310A
0903050-03A	P-SS-33-0-1	Soil	SW9056	Anions by IC method - Soil	33857	100	03/11/09 10:22 AM	IC2_090311A
	P-SS-33-0-1	Soil	SW9056	Anions by IC method - Soil	33857	100	03/13/09 08:47 AM	IC2_090313A
	P-SS-33-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	33887	1	03/11/09 10:30 AM	WC_090311A
0903050-03B	P-SS-33-0-1	Soil	D2216	Percent Moisture	33858	1	03/10/09 04:15 PM	PMOIST_090310A
0903050-04A	P-SS-33-2-3	Soil	SW9056	Anions by IC method - Soil	33857	100	03/11/09 10:37 AM	IC2_090311A
	P-SS-33-2-3	Soil	ASA 3:14	Electrical Conductance in Soil	33887	1	03/11/09 10:30 AM	WC_090311A
0903050-04B	P-SS-33-2-3	Soil	D2216	Percent Moisture	33858	1	03/10/09 04:15 PM	PMOIST_090310A
0903050-05A	P-SS-34-0-1	Soil	SW9056	Anions by IC method - Soil	33857	100	03/11/09 11:36 AM	IC2_090311A
	P-SS-34-0-1	Soil	SW9056	Anions by IC method - Soil	33857	100	03/13/09 09:01 AM	IC2_090313A
	P-SS-34-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	33887	1	03/11/09 10:30 AM	WC_090311A
0903050-05B	P-SS-34-0-1	Soil	D2216	Percent Moisture	33858	1	03/10/09 04:15 PM	PMOIST_090310A
0903050-06A	P-SS-34-2-3	Soil	SW9056	Anions by IC method - Soil	33857	100	03/11/09 11:06 AM	IC2_090311A
	P-SS-34-2-3	Soil	ASA 3:14	Electrical Conductance in Soil	33887	1	03/11/09 10:30 AM	WC_090311A
0903050-06B	P-SS-34-2-3	Soil	D2216	Percent Moisture	33858	1	03/10/09 04:15 PM	PMOIST_090310A
0903050-07A	P-SS-35-0-1	Soil	SW9056	Anions by IC method - Soil	33857	100	03/11/09 12:05 PM	IC2_090311A
	P-SS-35-0-1	Soil	SW9056	Anions by IC method - Soil	33857	100	03/13/09 09:16 AM	IC2_090313A
	P-SS-35-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	33887	1	03/11/09 10:30 AM	WC_090311A
0903050-07B	P-SS-35-0-1	Soil	D2216	Percent Moisture	33858	1	03/10/09 04:15 PM	PMOIST_090310A
0903050-08A	P-SS-36-0-1	Soil	SW9056	Anions by IC method - Soil	33857	100	03/11/09 12:20 PM	IC2_090311A
	P-SS-36-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	33887	1	03/11/09 10:30 AM	WC_090311A
0903050-08B	P-SS-36-0-1	Soil	D2216	Percent Moisture	33858	1	03/10/09 04:15 PM	PMOIST_090310A

CLIENT:	TRC Environmental Corp.	**Client Sample ID:**	P-SS-31-0-1
Project:	RRC Petronila - Ditch Sampling	**Lab ID:**	0903050-01
Project No:	166420-01	**Collection Date:**	03/09/09 11:15 AM
Lab Order:	0903050	**Matrix:**	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		**SW9056**					**Analyst: JBC**
Chloride	5460	735	735		mg/Kg-dry	100	03/11/09 09:53 AM
Percent Moisture		**D2216**					**Analyst: RP**
Percent Moisture	32.9	0	0		WT%	1	03/10/09 04:15 PM
Electrical Conductance in Soil		**ASA 3:14**					**Analyst: AAD**
Specific Conductance	8440	10.0	10.0		µmhos/cm	1	03/11/09 10:30 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	**Client Sample ID:**	P-SS-32-0-1
Project:	RRC Petronila - Ditch Sampling	**Lab ID:**	0903050-02
Project No:	166420-01	**Collection Date:**	03/09/09 11:45 AM
Lab Order:	0903050	**Matrix:**	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		**SW9056**					**Analyst: JBC**
Chloride	24200	7640	7640		mg/Kg-dry	1000	03/11/09 10:08 AM
Percent Moisture		**D2216**					**Analyst: RP**
Percent Moisture	35.2	0	0		WT%	1	03/10/09 04:15 PM
Electrical Conductance in Soil		**ASA 3:14**					**Analyst: AAD**
Specific Conductance	42200	10.0	10.0		µmhos/cm	1	03/11/09 10:30 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	**Client Sample ID:**	P-SS-33-0-1
Project:	RRC Petronila - Ditch Sampling	**Lab ID:**	0903050-03
Project No:	166420-01	**Collection Date:**	03/09/09 12:20 PM
Lab Order:	0903050	**Matrix:**	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		**SW9056**					**Analyst: JBC**
Chloride	7580	724	724		mg/Kg-dry	100	03/13/09 08:47 AM
Percent Moisture		**D2216**					**Analyst: RP**
Percent Moisture	32.3	0	0		WT%	1	03/10/09 04:15 PM
Electrical Conductance in Soil		**ASA 3:14**					**Analyst: AAD**
Specific Conductance	10500	10.0	10.0		µmhos/cm	1	03/11/09 10:30 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	**Client Sample ID:**	P-SS-33-2-3
Project:	RRC Petronila - Ditch Sampling	**Lab ID:**	0903050-04
Project No:	166420-01	**Collection Date:**	03/09/09 12:30 PM
Lab Order:	0903050	**Matrix:**	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		**SW9056**					**Analyst: JBC**
Chloride	2580	660	660		mg/Kg-dry	100	03/11/09 10:37 AM
Percent Moisture		**D2216**					**Analyst: RP**
Percent Moisture	27.2	0	0		WT%	1	03/10/09 04:15 PM
Electrical Conductance in Soil		**ASA 3:14**					**Analyst: AAD**
Specific Conductance	6370	10.0	10.0		µmhos/cm	1	03/11/09 10:30 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	**Client Sample ID:**	P-SS-34-0-1
Project:	RRC Petronila - Ditch Sampling	**Lab ID:**	0903050-05
Project No:	166420-01	**Collection Date:**	03/09/09 01:30 PM
Lab Order:	0903050	**Matrix:**	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		**SW9056**					**Analyst: JBC**
Chloride	18100	748	748		mg/Kg-dry	100	03/13/09 09:01 AM
Percent Moisture		**D2216**					**Analyst: RP**
Percent Moisture	35.5	0	0		WT%	1	03/10/09 04:15 PM
Electrical Conductance in Soil		**ASA 3:14**					**Analyst: AAD**
Specific Conductance	24300	10.0	10.0		µmhos/cm	1	03/11/09 10:30 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	**Client Sample ID:**	P-SS-34-2-3
Project:	RRC Petronila - Ditch Sampling	**Lab ID:**	0903050-06
Project No:	166420-01	**Collection Date:**	03/09/09 01:45 PM
Lab Order:	0903050	**Matrix:**	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		**SW9056**					**Analyst: JBC**
Chloride	5460	635	635		mg/Kg-dry	100	03/11/09 11:06 AM
Percent Moisture		**D2216**					**Analyst: RP**
Percent Moisture	24.5	0	0		WT%	1	03/10/09 04:15 PM
Electrical Conductance in Soil		**ASA 3:14**					**Analyst: AAD**
Specific Conductance	10100	10.0	10.0		µmhos/cm	1	03/11/09 10:30 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	**Client Sample ID:**	P-SS-35-0-1
Project:	RRC Petronila - Ditch Sampling	**Lab ID:**	0903050-07
Project No:	166420-01	**Collection Date:**	03/09/09 02:40 PM
Lab Order:	0903050	**Matrix:**	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		**SW9056**					**Analyst: JBC**
Chloride	18600	886	886		mg/Kg-dry	100	03/13/09 09:16 AM
Percent Moisture		**D2216**					**Analyst: RP**
Percent Moisture	45.0	0	0		WT%	1	03/10/09 04:15 PM
Electrical Conductance in Soil		**ASA 3:14**					**Analyst: AAD**
Specific Conductance	24500	10.0	10.0		µmhos/cm	1	03/11/09 10:30 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	**Client Sample ID:**	P-SS-36-0-1
Project:	RRC Petronila - Ditch Sampling	**Lab ID:**	0903050-08
Project No:	166420-01	**Collection Date:**	03/09/09 03:10 PM
Lab Order:	0903050	**Matrix:**	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		**SW9056**					**Analyst: JBC**
Chloride	4070	741	741		mg/Kg-dry	100	03/11/09 12:20 PM
Percent Moisture		**D2216**					**Analyst: RP**
Percent Moisture	33.6	0	0		WT%	1	03/10/09 04:15 PM
Electrical Conductance in Soil		**ASA 3:14**					**Analyst: AAD**
Specific Conductance	6990	10.0	10.0		µmhos/cm	1	03/11/09 10:30 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT: TRC Environmental Corp.
Work Order: 0903050
Project: RRC Petronila - Ditch Sampling

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_090311A

Sample ID:	**LCS-33857**	**Batch ID:**	**33857**		**TestNo:**		**SW9056**			**Units:**	**mg/Kg**
SampType:	**LCS**	**Run ID:**	**IC2_090311A**		**Analysis Date:**		**03/11/09 08:52 AM**			**Prep Date:**	**03/10/09**
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Chloride		46.3	5.00	50.00	0	92.6	80	120			

Sample ID:	**LCSD-33857**	**Batch ID:**	**33857**		**TestNo:**		**SW9056**			**Units:**	**mg/Kg**
SampType:	**LCSD**	**Run ID:**	**IC2_090311A**		**Analysis Date:**		**03/11/09 09:07 AM**			**Prep Date:**	**03/10/09**
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Chloride		46.3	5.00	50.00	0	92.5	80	120	0.0778	20	

Sample ID:	**MB-33857**	**Batch ID:**	**33857**		**TestNo:**		**SW9056**			**Units:**	**mg/Kg**
SampType:	**MBLK**	**Run ID:**	**IC2_090311A**		**Analysis Date:**		**03/11/09 09:36 AM**			**Prep Date:**	**03/10/09**
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Chloride		ND	5.00								

Sample ID:	**0903050-08A DUP**	**Batch ID:**	**33857**		**TestNo:**		**SW9056**			**Units:**	**mg/Kg-dry**
SampType:	**DUP**	**Run ID:**	**IC2_090311A**		**Analysis Date:**		**03/11/09 12:34 PM**			**Prep Date:**	**03/10/09**
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Chloride		3550	744	0	4074				13.9	20	

Sample ID:	**0903050-08A MS**	**Batch ID:**	**33857**		**TestNo:**		**SW9056**			**Units:**	**mg/Kg-dry**
SampType:	**MS**	**Run ID:**	**IC2_090311A**		**Analysis Date:**		**03/11/09 01:02 PM**			**Prep Date:**	**03/10/09**
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Chloride		9080	741	7410	2444	89.5	80	120			

Sample ID:	**0903050-08A MSD**	**Batch ID:**	**33857**		**TestNo:**		**SW9056**			**Units:**	**mg/Kg-dry**
SampType:	**MSD**	**Run ID:**	**IC2_090311A**		**Analysis Date:**		**03/11/09 01:17 PM**			**Prep Date:**	**03/10/09**
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Chloride		9070	741	7410	2444	89.4	80	120	0.0956	20	

Qualifiers:

B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
DF	Dilution Factor	RL	Reporting Limit
J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
MDL	Method Detection Limit	J	Analyte detected between SDL and RL
ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903050
Project: RRC Petronila - Ditch Sampling

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_090311A

Sample ID:	**ICV-090311**	**Batch ID:**	**R42268**	**TestNo:**		**SW9056**		**Units:**		**mg/Kg**
SampType:	**ICV**	**Run ID:**	**IC2_090311A**	**Analysis Date:**		**03/11/09 08:30 AM**		**Prep Date:**		**03/11/09**
Analyte	**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Chloride	24.1	5.00	25.00	0	96.4	90	110			

Sample ID:	**CCV1-090311**	**Batch ID:**	**R42268**	**TestNo:**		**SW9056**		**Units:**		**mg/Kg**
SampType:	**CCV**	**Run ID:**	**IC2_090311A**	**Analysis Date:**		**03/11/09 11:50 AM**		**Prep Date:**		**03/11/09**
Analyte	**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Chloride	9.30	5.00	10.00	0	93.0	90	110			

Sample ID:	**CCV2-090311**	**Batch ID:**	**R42268**	**TestNo:**		**SW9056**		**Units:**		**mg/Kg**
SampType:	**CCV**	**Run ID:**	**IC2_090311A**	**Analysis Date:**		**03/11/09 01:31 PM**		**Prep Date:**		**03/11/09**
Analyte	**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Chloride	9.26	5.00	10.00	0	92.6	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
DF	Dilution Factor	RL	Reporting Limit
J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
MDL	Method Detection Limit	J	Analyte detected between SDL and RL
ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903050
Project: RRC Petronila - Ditch Sampling

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_090313A

Sample ID:	**MB-33857**	**Batch ID:**	**33857**	**TestNo:**	**SW9056**		**Units:**	**mg/Kg**	
SampType:	**MBLK**	**Run ID:**	**IC2_090313A**	**Analysis Date:**	**03/13/09 08:32 AM**		**Prep Date:**	**03/10/09**	

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride	ND	5.00								

Qualifiers:

B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
DF	Dilution Factor	RL	Reporting Limit
J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
MDL	Method Detection Limit	J	Analyte detected between SDL and RL
ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903050
Project: RRC Petronila - Ditch Sampling

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_090313A

Sample ID:	**ICV-090313**	**Batch ID:**	**R42314**	**TestNo:**		**SW9056**		**Units:**		**mg/Kg**
SampType:	**ICV**	**Run ID:**	**IC2_090313A**	**Analysis Date:**		**03/13/09 08:13 AM**		**Prep Date:**		**03/13/09**
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Chloride		23.8	5.00	25.00	0	95.2	90	110			

Sample ID:	**CCV1-090313**	**Batch ID:**	**R42314**	**TestNo:**		**SW9056**		**Units:**		**mg/Kg**
SampType:	**CCV**	**Run ID:**	**IC2_090313A**	**Analysis Date:**		**03/13/09 09:31 AM**		**Prep Date:**		**03/13/09**
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Chloride		9.06	5.00	10.00	0	90.6	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
DF	Dilution Factor	RL	Reporting Limit
J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
MDL	Method Detection Limit	J	Analyte detected between SDL and RL
ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903050
Project: RRC Petronila - Ditch Sampling

ANALYTICAL QC SUMMARY REPORT

RunID: PMOIST_090310A

Sample ID:	**0903050-08B-DUP**	**Batch ID:**	**33858**	**TestNo:**	**D2216**		**Units:**		**WT%**
SampType:	**DUP**	**Run ID:**	**PMOIST_090310A**	**Analysis Date:**	**03/10/09 04:15 PM**		**Prep Date:**		**03/10/09**

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Percent Moisture	33.0	0	0	33.58				1.76	30	

Qualifiers:

B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
DF	Dilution Factor	RL	Reporting Limit
J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
MDL	Method Detection Limit	J	Analyte detected between SDL and RL
ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903050
Project: RRC Petronila - Ditch Sampling

ANALYTICAL QC SUMMARY REPORT

RunID: WC_090311A

Sample ID:	**MB-33887**	**Batch ID:**	**33887**		**TestNo:**		**ASA 3:14**		**Units:**		**µmhos/cm**
SampType:	**MBLK**	**Run ID:**	**WC_090311A**		**Analysis Date:**		**03/11/09 10:30 AM**		**Prep Date:**		**03/11/09**
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Specific Conductance		ND	10.0								

Sample ID:	**LCS-33887**	**Batch ID:**	**33887**		**TestNo:**		**ASA 3:14**		**Units:**		**µmhos/cm**
SampType:	**LCS**	**Run ID:**	**WC_090311A**		**Analysis Date:**		**03/11/09 10:30 AM**		**Prep Date:**		**03/11/09**
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Specific Conductance		1390	10.0	1413	0	98.2	91	107			

Sample ID:	**0903050-08A-DUP**	**Batch ID:**	**33887**		**TestNo:**		**ASA 3:14**		**Units:**		**µmhos/cm**
SampType:	**DUP**	**Run ID:**	**WC_090311A**		**Analysis Date:**		**03/11/09 10:30 AM**		**Prep Date:**		**03/11/09**
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Specific Conductance		7390	10.0	0	6990				5.56	25	

Qualifiers:

B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
DF	Dilution Factor	RL	Reporting Limit
J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
MDL	Method Detection Limit	J	Analyte detected between SDL and RL
ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903050
Project: RRC Petronila - Ditch Sampling

ANALYTICAL QC SUMMARY REPORT

RunID: WC_090311A

Sample ID:	**ICV-090311**	**Batch ID:**	**R42267**	**TestNo:**		**ASA 3:14**		**Units:**		**µmhos/cm**
SampType:	**ICV**	**Run ID:**	**WC_090311A**	**Analysis Date:**		**03/11/09 10:30 AM**		**Prep Date:**		**03/11/09**
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Specific Conductance		12900	10.0	12880	0	99.9	90	110			

Sample ID:	**CCV1-090311**	**Batch ID:**	**R42267**	**TestNo:**		**ASA 3:14**		**Units:**		**µmhos/cm**
SampType:	**CCV**	**Run ID:**	**WC_090311A**	**Analysis Date:**		**03/11/09 10:30 AM**		**Prep Date:**		**03/11/09**
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Specific Conductance		12800	10.0	12880	0	99.3	90	110			

Sample ID:	**CCV2-090311**	**Batch ID:**	**R42267**	**TestNo:**		**ASA 3:14**		**Units:**		**µmhos/cm**
SampType:	**CCV**	**Run ID:**	**WC_090311A**	**Analysis Date:**		**03/11/09 10:30 AM**		**Prep Date:**		**03/11/09**
Analyte		**Result**	**RL**	**SPK value**	**Ref Val**	**%REC**	**LowLimit**	**HighLimit**	**%RPD**	**RPD Limit**	**Qual**
Specific Conductance		12700	10.0	12880	0	98.7	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
DF	Dilution Factor	RL	Reporting Limit
J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
MDL	Method Detection Limit	J	Analyte detected between SDL and RL
ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903050
Project: RRC Petronila - Ditch Sampling

MQL SUMMARY REPORT

TestNo: SW9056 **Analyte**	**MDL** **mg/Kg**	**MQL** **mg/Kg**
Chloride	5.00	5.00

TestNo: ASA 3:14 **Analyte**	**MDL** **µmhos/cm**	**MQL** **µmhos/cm**
Specific Conductance	10.0	10.0

Qualifiers:
MQL - Method Quantitation Limit as defined by TRRP
MDL - Method Detection Limit as defined by TRRP

April 03, 2009

James Harte
TRC Environmental Corp.
505 East Huntland Drive Suite 250
Austin, Texas 78752

TEL: (512) 329-6080
FAX: (512) 329-8750

Order No: 0903083

RE: RRC Petronila Ditches 6 & 7

Dear James Harte:

DHL Analytical received 19 sample(s) on 3/12/2009 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont
Lab Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-08C-TX

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DHL ANALYTICAL

2300 Double Creek Drive • Round Rock, TX 78664
Phone (512) 388-8222 • FAX (512) 388-8229

№ 39585

CHAIN-OF-CUSTODY

CLIENT: TRC
ADDRESS: 505 E. Huntland Dr #250
PHONE: (512) 329-6080 FAX (512) 329-8750
DATA REPORTED TO: J. Hale
ADDITIONAL REPORT COPIES TO: S. Miller

DATE: 3/10/09 PAGE 1 OF 2
PO #: DHL WORK ORDER #: 0902883 0903083
PROJECT LOCATION OR NAME: RRC-Petronila Prides #607
CLIENT PROJECT #: 166420-01 COLLECTOR: BCLP

Authorize 5% surcharge for TRRP report? ☐ Yes ☒ No

S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

PRESERVATION: HCl, HNO_3, H_2SO_4 ☐ NaOH ☐, ICE, UNPRESERVED

ANALYSES: BTEX ☐ MTBE ☐ | TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☐ | DIESEL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ SemiVOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | ROI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDES ☐ ANIONS ☐ ALKALINITY ☐ | Conductivity | Spec Cl | SPLP Cl * HOLD

Field Sample I.D.	DHL Lab #	Date	Time	Matrix	Container Type	# of Containers	HCl	HNO_3	H_2SO_4 NaOH	ICE	UNPRESERVED	FIELD NOTES
P-SS-307-0-1	01	3/10/09	1200	S	4oz	3				X	X	HOLD for SPLP
P-SS-307-0-1	01		1200	S		3				X	X	MS
P-SS-307-0-1	01		1200	S		3				X	X	MSD
P-SS-307-2-3	02		1210	S		3				X	X	
P-SS-308-0-1	03		1310	S		3				X	X	
P-SS-309-0-1	04		1350	S		3				X	X	
P-SS-309-2-3	05		1400	S		3				X	X	
P-SS-310-0-1	06		1500	S		3				X	X	

EDF 3.31.2004

SPLP Cl - per Barnett 3/31/09 BC

* IN ACCORDANCE W/ TRC-RRC PETRONILA QAPP *

TOTAL

RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
	3/11/09 800	
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature)	DATE/TIME 3/11/09 850	RECEIVED BY: (Signature)

☐ DHL DISPOSAL @ $5.00 each ☐ Return

Fed ex 3/12/09 9:10

TURN AROUND TIME
RUSH ☐ CALL FIRST
1 DAY ☐ CALL FIRST
2 DAY ☐
NORMAL ☒
OTHER ☐ ____

LABORATORY USE ONLY:
RECEIVING TEMP: 3.7°/1.5° THERM #: 57
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED
☒ CARRIER BILL # Fed ex
☐ APC DELIVERY
☐ HAND DELIVERED

DHL ANALYTICAL

2300 Double Creek Drive • Round Rock, TX 78664
Phone (512) 388-8222 • FAX (512) 388-8229

№ 39588

CHAIN-OF-CUSTODY

CLIENT: TRC
ADDRESS: 505 E. Huntland Dr #250
PHONE: 512-329-6080 FAX 512-329-8750
DATA REPORTED TO: J. Harris
ADDITIONAL REPORT COPIES TO: S. Miller

DATE: 3/11/09 PAGE 2 OF 2
PO #: DHL WORK ORDER #: 09030383
PROJECT LOCATION OR NAME: TRC-Petronila #7
CLIENT PROJECT #: 164420-01 COLLECTOR: BCP

Authorize 5% surcharge for TRRP report? ☐ Yes ☒ No

S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

PRESERVATION: HCl, HNO_3, H_2SO_4 ☐ NaOH ☐, ICE, UNPRESERVED

ANALYSES: BTEX ☐ MTBE ☐ | TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐ | GASOLINE MOD 8015 ☐ | DIESEL - MOD 8015 ☐ | VOC 8260 ☐ | SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐ | 8081 PESTICIDES ☐ 8151 HERBICIDES ☐ | 8082 PCBS ☐ | TCLP - METALS (RCRA) ☐ TCLP VOC ☐ | TCLP - PEST ☐ HERB ☐ Semi-VOC ☐ | TOTAL METALS (RCRA) ☐ OTHER LIST ☐ | LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐ | RCI ☐ TOX ☐ FLASHPOINT ☐ | TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐ | pH ☐ HEXAVALENT CHROMIUM ☐ | EXPLOSIVES ☐ PECHLORATE ☐ | CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐ | Conductivity | SPLP CLP ☒ Hold

Field Sample I.D.	DHL Lab #	Date	Time	Matrix	Container Type	# of Containers	HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	FIELD NOTES
P-55-11-01	1908-3	3/11/09	0940	S	4oz	3				X	X	Hold SPLP CLP*
P-55-11-2-3	1908		950	S		3				X	X	
P-55-12-01	1909		1030	S		3				X	X	
P-55-12-01	1909		1030	S		3				X	X	MS
P-55-12-01	1909		1030	S		3				X	X	MSD
P-55-13-01	10		1115	S		3				X	X	
P-55-13-2-3	11		1120	S		3				X	X	
P-55-14-01	12		1200	S		3				X	X	
P-55-15-01	13		1230	S		3				X	X	
P-55-16-01	14		1300	S		3				X	X	
P-55-17-01	15		1330	S		3				X	X	
P-55-17-2-3	16		1340	S		3				X	X	
P-55-18-01	17		1500	S		3				X	X	
P-55-18-2-3	18		1515	S		3				X	X	
P-55-19-01	19		1610	S		3				X	X	

TOTAL 54 3-31-2009

#14 Acceptable for TRC-PRL Petronila QAPP*

RELINQUISHED BY: (Signature) 3/11/09 DATE/TIME 1740 RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) DATE/TIME RECEIVED BY: (Signature)
RELINQUISHED BY: (Signature) 3/11/09 DATE/TIME 1740 RECEIVED BY: (Signature)
☐ DHL DISPOSAL @ $5.00 each ☐ Return

3/12/09 9:00

TURN AROUND TIME
RUSH ☐ CALL FIRST
1 DAY ☐ CALL FIRST
2 DAY ☐
NORMAL ☒
OTHER ☐ ____

LABORATORY USE ONLY:
RECEIVING TEMP: 3.7/1.5° THERM #: 57
CUSTODY SEALS - ☐ BROKEN ☒ INTACT ☐ NOT USED
☒ CARRIER BILL # 2nd Day
☐ APC DELIVERY
☐ HAND DELIVERED

FedEx Express US Airbill

FedEx Tracking Number 8686 4652 1774

0200 Recipient's Copy

1 From

Date 3/11/09

Sender's Name Barrett Clark Phone 512 329-6080

Company TRC

Address 505 E. Huntland Dr 250

Dept./Floor/Suite/Room

City Austin State TX ZIP 78752

2 Your Internal Billing Reference 166420-01

3 To

Recipient's Name Receiving Phone 512 [illegible]

Company DHL Analytical

Recipient's Address 2300 Double Creek Dr

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

Address

To request a package be held at a specific FedEx location, print FedEx address here.

City Round Rock State TX ZIP 78664

8686 4652 1774

4a Express Package Service *Packages up to 150 lbs.*

- FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.
- FedEx First Overnight — Earliest next business morning delivery to select locations.* Saturday Delivery NOT available.
- FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

FedEx Envelope rate not available. Minimum charge: One-pound rate. * To most locations.

4b Express Freight Service *Packages over 150 lbs.*

- FedEx 1Day Freight* — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available.

* Call for Confirmation. ** To most locations.

5 Packaging

FedEx Envelope* | FedEx Pak* (Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.) | FedEx Box | FedEx Tube | Other

* Declared value limit $500.

6 Special Handling — Include FedEx address in Section 3.

- SATURDAY Delivery — Not available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 3Day Freight.
- HOLD Weekday at FedEx Location — Not available for FedEx First Overnight.
- HOLD Saturday at FedEx Location — Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Does this shipment contain dangerous goods? One box must be checked.

No | Yes — Shipper's Declaration not required | Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Yes — Shipper's Declaration attached

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging. Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No.

Sender Acct No in Section 1 will be billed | Recipient | Third Party | Credit Card | Cash/Check

Total Packages 2 | Total Weight 1 | Total Declared Value† $ .00

† Our liability is limited to $100 unless you declare a higher value. See back for details. Credit Card Auth.

8 Residential Delivery Signature Options If you require a signature, check Direct or Indirect.

- No Signature Required — Package may be left without obtaining a signature for delivery.
- Direct Signature — Someone at recipient's address may sign for delivery. Fee applies.
- Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. Fee applies.

520

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CUSTODY SEAL

DATE 3/11/09

SIGNATURE

QEC Quality Environmental Containers

800-255-3950 • 304-255-3900

FedEx. US Airbill
Express

8686 4652 1774

0200

Form ID No.

FedEx Retrieval Copy

fedex.com 1.800.GoFedEx 1.800.463.3339

1 From
Date 3/11/09
Sender's FedEx Account Number 1402466697
Sender's Name Barrett Clark Phone 512 329-6080
Company TRC
Address 505 E. Huntland Dr Dept/Floor/Suite/Room 250
City Austin State TX ZIP 78752

2 Your Internal Billing Reference 166420-01

3 To
Recipient's Name Receiving Phone 512 388-8222
Company DHL Analytical
Recipient's Address 2300 Double Creek Dr
We cannot deliver to P.O. boxes or P.O. ZIP codes. Dept/Floor/Suite/Room
Address
To request a package be held at a specific FedEx facility, print FedEx address here.
City Round Rock State TX ZIP 78664

4a Express Package Service *Packages up to 150 lbs.*

1 [X] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
5 [ ] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.
6 [ ] FedEx First Overnight — Earliest next business morning delivery to select locations.* Saturday Delivery NOT available.
3 [ ] FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
20 [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.
FedEx Envelope rate not available. Minimum charge: One-pound rate. * To meet locations

4b Express Freight Service *Packages over 150 lbs.*

7 [ ] FedEx 1Day Freight* — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
8 [ ] FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
83 [ ] FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available.
* Call for Confirmation: ** To most locations

5 Packaging
6 [ ] FedEx Envelope* 2 [ ] FedEx Pak* Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak 3 [ ] FedEx Box 4 [ ] FedEx Tube 1 [X] Other
* Declared value limit $500

6 Special Handling Include FedEx address in Section 3.

3 [ ] SATURDAY Delivery — Not available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 3Day Freight
1 [ ] HOLD Weekday at FedEx Location — Not available for FedEx First Overnight.
31 [ ] HOLD Saturday at FedEx Location — Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations

Does this shipment contain dangerous goods? One box must be checked.
5 [X] No 4 [ ] Yes — As per attached Shipper's Declaration 1 [ ] Yes — Shipper's Declaration not required 6 [ ] Dry Ice — Dry Ice, 9, UN 1845 kg
Dangerous goods (including dry ice) cannot be shipped in FedEx packaging. [ ] Cargo Aircraft Only

7 Payment *Bill to:* Enter FedEx Acct. No. or Credit Card No. below. Obtain Recip. Acct. No. [ ]
1 [X] Sender — Acct. No. in Section 1 will be billed. 2 [ ] Recipient 3 [ ] Third Party 4 [ ] Credit Card 5 [ ] Cash/Check

Total Packages 2 Total Weight 1 LB

† Our liability is limited to $100 unless you declare a higher value. See the current FedEx Service Guide for details. Credit Card Auth.

8 Residential Delivery Signature Options If you require a signature, check Direct or Indirect.

[ ] No Signature Required — Package may be left without obtaining a signature for delivery.
10 [ ] Direct Signature — Someone at recipient's address may sign for delivery. Fee applies.
34 [ ] Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. Fee applies.

520

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8686 4652 1774

CUSTODY SEAL
DATE 3/11/09
SIGNATURE

QEC
Quality Environmental Containers
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Laboratory Data Package Signature Page

This data package consists of:

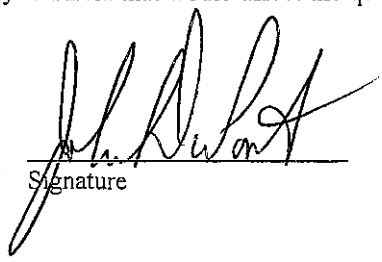
This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a) Items consistent with NELAC 5.13
  - b) dilution factors,
  - c) preparation methods,
  - d) cleanup methods, and
  - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a) Calculated recovery (%R), and
  - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a) LCS spiking amounts,
  - b) Calculated %R for each analyte, and
  - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a) Samples associated with the MS/MSD clearly identified,
  - b) MS/MSD spiking amounts,
  - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d) Calculated %Rs and relative percent differences (RPDs), and
  - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a) the amount of analyte measured in the duplicate,
  - b) the calculated RPD, and
  - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
- R10 Other problems or anomalies.

The Exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release Statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By me signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Scott Schroeder – Project Manager
John DuPont – General / QA Manager



Signature

04/03/09

Date

DHL Analytical, Inc.

Laboratory Review Checklist: Reportable Data

Project Name: RRC Petronila Ditches 6 & 7	Date: 4/3/09
Reviewer Name: Carlos Castro	Laboratory Work Order: 0903083
Prep Batch Number(s): See Prep Dates Report	Run Batch: See Analytical Dates Report

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
		Chain-of-Custody (C-O-C)					
R1	OI	1) Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				R1-01
		2) Were all departures from standard conditions described in an exception report?			X		
R2	OI	**Sample and Quality Control (QC) Identification**					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		2) Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	**Test Reports**					
		1) Were all samples prepared and analyzed within holding times?	X				
		2) Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		3) Were calculations checked by a peer or supervisor?	X				
		4) Were all analyte identifications checked by a peer or supervisor?	X				
		5) Were sample quantitation limits reported for all analytes not detected?	X				
		6) Were all results for soil and sediment samples reported on a dry weight basis?	X				
		7) Were % moisture (or solids) reported for all soil and sediment samples?	X				
		8) If required for the project, TICs reported?			X		
R4	O	**Surrogate Recovery Data**					
		1) Were surrogates added prior to extraction?			X		
		2) Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	OI	**Test Reports/Summary Forms for Blank Samples**					
		1) Were appropriate type(s) of blanks analyzed?	X				
		2) Were blanks analyzed at the appropriate frequency?	X				
		3) Where method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		4) Were blank concentrations < MQL?	X				
R6	OI	**Laboratory Control Samples (LCS):**					
		1) Were all COCs included in the LCS?	X				
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		3) Were LCSs analyzed at the required frequency?	X				
		4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		5) Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	X				
		6) Was the LCSD RPD within QC limits (if applicable)?	X				
R7	OI	**Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data**					
		1) Were the project/method specified analytes included in the MS and MSD?	X				
		2) Were MS/MSD analyzed at the appropriate frequency?	X				
		3) Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		4) Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	**Analytical Duplicate Data**					
		1) Were appropriate analytical duplicates analyzed for each matrix?	X				
		2) Were analytical duplicates analyzed at the appropriate frequency?	X				
		3) Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	**Method Quantitation Limits (MQLs):**					
		1) Are the MQLs for each method analyte included in the laboratory data package?	X				
		2) Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		3) Are unadjusted MQLs included in the laboratory data package?	X				
R10	OI	**Other Problems/Anomalies**					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?			X		
		2) Were all necessary corrective actions performed for the reported data?	X				
		3) Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	X				

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
3 NA = Not applicable.
4 NR = Not Reviewed.
5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

DHL Analytical, Inc.

Laboratory Review Checklist (continued): Supporting Data

Project Name: RRC Petronila Ditches 6 & 7	Date: 4/3/09
Reviewer Name: Carlos Castro	Laboratory Work Order: 0903083

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	**Initial Calibration (ICAL)**					
		1) Were response factors and/or relative response factors for each analyte within QC limits?	X				
		2) Were percent RSDs or correlation coefficient criteria met?	X				
		3) Was the number of standards recommended in the method used for all analytes?	X				
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		5) Are ICAL data available for all instruments used?	X				
		6) Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	**Initial and Continuing calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB):**					
		1) Was the CCV analyzed at the method-required frequency?	X				
		2) Were percent differences for each analyte within the method-required QC limits?	X				
		3) Was the ICAL curve verified for each analyte?	X				
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	**Mass Spectral Tuning:**					
		1) Was the appropriate compound for the method used for tuning?			X		
		2) Were ion abundance data within the method-required QC limits?			X		
S4	O	**Internal Standards (IS):**					
		1) Were IS area counts and retention times within the method-required QC limits?			X		
S5	OI	**Raw Data (NELAC section 1 appendix A glossary, and section 5.12)**					
		1) Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		2) Were data associated with manual integrations flagged on the raw data?	X				
S6	O	**Dual Column Confirmation**					
		1) Did dual column confirmation results meet the method-required QC?			X		
S7	O	**Tentatively Identified Compounds (TICs):**					
		1) If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	**Interference Check Sample (ICS) Results:**					
		1) Were percent recoveries within method QC limits?			X		
S9	I	**Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions**					
		1) Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	**Method Detection Limit (MDL) Studies**					
		1) Was a MDL study performed for each reported analyte?	X				
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	**Proficiency Test Reports:**					
		1) Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	**Standards Documentation**					
		1) Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	**Compound/Analyte Identification Procedures**					
		1) Are the procedures for compound/analyte identification documented?	X				
S14	OI	**Demonstration of Analyst Competency (DOC)**					
		1) Was DOC conducted consistent with NELAC Chapter 5C?	X				
		2) Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	**Verification/Validation Documentation for Methods** (NELAC Chap 5)					
		1) Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	**Laboratory Standard Operating Procedures (SOPs):**					
		1) Are laboratory SOPs current and on file for each method performed?	X				

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
3 NA = Not applicable.
4 NR = Not Reviewed.
5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

DHL Analytical

Sample Receipt Checklist

Client Name TRC Environmental Corp. Date Received: 3/12/2009

Work Order Number 0903083 Received by JB

Checklist completed by: JBaker 3/12/09 (Signature / Date) Reviewed by DL 3/12/09 (Initials / Date)

Carrier name: FedEx 1day

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	3.7 °C
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☑

Adjusted? _____ Checked by _____

Any No response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

DHL Analytical Date: 04/03/09

CLIENT: TRC Environmental Corp.
Project: RRC Petronila Ditches 6 & 7
Lab Order: 0903083

CASE NARRATIVE

The samples were analyzed using the methods outlined in the following references:

Method SW9056 - Anions Analysis
Method ASA 3:14 - Electrical Conductance in Soil
Method D2216 - Percent Moisture
Method E300 - SPLP Anions Analysis

Exception Report R1-01

The samples were received and log-in performed on 3/12/09. A total of 19 samples were received. On 3/19/09 the client emailed instructions to correct the sample IDs. The sample IDs were changed as per the instructions. On 3/31/09 SPLP Anions were added on to some samples as per the client. This was performed as requested. The sample arrived in good condition and was properly packaged.

CLIENT: TRC Environmental Corp.
Project: RRC Petronila Ditches 6 & 7
Lab Order: 0903083

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recv'd
0903083-01	P-SS-37-0-1		03/10/09 12:00 PM	03/12/09
0903083-02	P-SS-37-2-3		03/10/09 12:10 PM	03/12/09
0903083-03	P-SS-38-0-1		03/10/09 01:10 PM	03/12/09
0903083-04	P-SS-39-0-1		03/10/09 01:50 PM	03/12/09
0903083-05	P-SS-39-2-3		03/10/09 02:00 PM	03/12/09
0903083-06	P-SS-40-0-1		03/10/09 03:00 PM	03/12/09
0903083-07	P-SS-41-0-1		03/11/09 09:40 AM	03/12/09
0903083-08	P-SS-41-2-3		03/11/09 09:50 AM	03/12/09
0903083-09	P-SS-42-0-1		03/11/09 10:30 AM	03/12/09
0903083-10	P-SS-43-0-1		03/11/09 11:15 AM	03/12/09
0903083-11	P-SS-43-2-3		03/11/09 11:20 AM	03/12/09
0903083-12	P-SS-44-0-1		03/11/09 12:00 PM	03/12/09
0903083-13	P-SS-45-0-1		03/11/09 12:30 PM	03/12/09
0903083-14	P-SS-46-0-1		03/11/09 01:00 PM	03/12/09
0903083-15	P-SS-47-0-1		03/11/09 01:30 PM	03/12/09
0903083-16	P-SS-47-2-3		03/11/09 01:40 PM	03/12/09
0903083-17	P-SS-48-0-1		03/11/09 03:00 PM	03/12/09
0903083-18	P-SS-418-2-3		03/11/09 03:15 PM	03/12/09
0903083-18	P-SS-48-2-3		03/11/09 03:15 PM	03/12/09
0903083-19	P-SS-49-0-1		03/11/09 04:10 PM	03/12/09

CLIENT: TRC Environmental Corp.
Project: RRC Petronila Ditches 6 & 7
Lab Order: 0903083

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
0903083-01A	P-SS-37-0-1	03/10/09 12:00 PM	Soil	SW9056	Anion Prep	03/13/09 09:44 AM	33926
	P-SS-37-0-1	03/10/09 12:00 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/19/09 10:43 AM	34042
0903083-01B	P-SS-37-0-1	03/10/09 12:00 PM	Soil	D2216	Moisture Preparation	03/12/09 04:30 PM	33916
0903083-01C	P-SS-37-0-1	03/10/09 12:00 PM	Soil	E300	Anion Preparation	04/02/09 09:30 AM	34289
0903083-02A	P-SS-37-2-3	03/10/09 12:10 PM	Soil	SW9056	Anion Prep	03/13/09 09:44 AM	33926
	P-SS-37-2-3	03/10/09 12:10 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/19/09 10:43 AM	34042
0903083-02B	P-SS-37-2-3	03/10/09 12:10 PM	Soil	D2216	Moisture Preparation	03/12/09 04:30 PM	33916
0903083-03A	P-SS-38-0-1	03/10/09 01:10 PM	Soil	SW9056	Anion Prep	03/13/09 09:44 AM	33926
	P-SS-38-0-1	03/10/09 01:10 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/19/09 10:43 AM	34042
0903083-03B	P-SS-38-0-1	03/10/09 01:10 PM	Soil	D2216	Moisture Preparation	03/12/09 04:30 PM	33916
0903083-04A	P-SS-39-0-1	03/10/09 01:50 PM	Soil	SW9056	Anion Prep	03/13/09 09:44 AM	33926
	P-SS-39-0-1	03/10/09 01:50 PM	Soil	SW9056	Anion Prep	03/13/09 09:44 AM	33926
	P-SS-39-0-1	03/10/09 01:50 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/19/09 10:43 AM	34042
	P-SS-39-0-1	03/10/09 01:50 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/20/09 11:00 AM	34105
0903083-04B	P-SS-39-0-1	03/10/09 01:50 PM	Soil	D2216	Moisture Preparation	03/12/09 04:30 PM	33916
0903083-04C	P-SS-39-0-1	03/10/09 01:50 PM	Soil	E300	Anion Preparation	04/02/09 09:30 AM	34289
0903083-05A	P-SS-39-2-3	03/10/09 02:00 PM	Soil	SW9056	Anion Prep	03/13/09 09:44 AM	33926
	P-SS-39-2-3	03/10/09 02:00 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/19/09 10:43 AM	34042
0903083-05B	P-SS-39-2-3	03/10/09 02:00 PM	Soil	D2216	Moisture Preparation	03/12/09 04:30 PM	33916
0903083-06A	P-SS-40-0-1	03/10/09 03:00 PM	Soil	SW9056	Anion Prep	03/13/09 09:44 AM	33926
	P-SS-40-0-1	03/10/09 03:00 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/19/09 10:43 AM	34042
0903083-06B	P-SS-40-0-1	03/10/09 03:00 PM	Soil	D2216	Moisture Preparation	03/12/09 04:30 PM	33916
0903083-06C	P-SS-40-0-1	03/10/09 03:00 PM	Soil	E300	Anion Preparation	04/02/09 09:30 AM	34289
0903083-07A	P-SS-41-0-1	03/11/09 09:40 AM	Soil	SW9056	Anion Prep	03/13/09 09:44 AM	33926
	P-SS-41-0-1	03/11/09 09:40 AM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/19/09 10:43 AM	34042
0903083-07B	P-SS-41-0-1	03/11/09 09:40 AM	Soil	D2216	Moisture Preparation	03/12/09 04:30 PM	33916
0903083-08A	P-SS-41-2-3	03/11/09 09:50 AM	Soil	SW9056	Anion Prep	03/13/09 09:44 AM	33926
	P-SS-41-2-3	03/11/09 09:50 AM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/19/09 10:43 AM	34042
0903083-08B	P-SS-41-2-3	03/11/09 09:50 AM	Soil	D2216	Moisture Preparation	03/12/09 04:30 PM	33916

CLIENT: TRC Environmental Corp.
Project: RRC Petronila Ditches 6 & 7
Lab Order: 0903083

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
0903083-09A	P-SS-42-0-1	03/11/09 10:30 AM	Soil	SW9056	Anion Prep	03/13/09 09:44 AM	33926
	P-SS-42-0-1	03/11/09 10:30 AM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/19/09 10:43 AM	34042
0903083-09B	P-SS-42-0-1	03/11/09 10:30 AM	Soil	D2216	Moisture Preparation	03/12/09 04:30 PM	33916
0903083-10A	P-SS-43-0-1	03/11/09 11:15 AM	Soil	SW9056	Anion Prep	03/13/09 09:44 AM	33926
	P-SS-43-0-1	03/11/09 11:15 AM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/19/09 10:43 AM	34042
0903083-10B	P-SS-43-0-1	03/11/09 11:15 AM	Soil	D2216	Moisture Preparation	03/12/09 04:30 PM	33916
0903083-10C	P-SS-43-0-1	03/11/09 11:15 AM	Soil	E300	Anion Preparation	04/02/09 09:30 AM	34289
0903083-11A	P-SS-43-2-3	03/11/09 11:20 AM	Soil	SW9056	Anion Prep	03/13/09 09:44 AM	33926
	P-SS-43-2-3	03/11/09 11:20 AM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/19/09 10:43 AM	34042
0903083-11B	P-SS-43-2-3	03/11/09 11:20 AM	Soil	D2216	Moisture Preparation	03/13/09 10:40 AM	33925
0903083-12A	P-SS-44-0-1	03/11/09 12:00 PM	Soil	SW9056	Anion Prep	03/13/09 09:44 AM	33926
	P-SS-44-0-1	03/11/09 12:00 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/19/09 10:43 AM	34042
0903083-12B	P-SS-44-0-1	03/11/09 12:00 PM	Soil	D2216	Moisture Preparation	03/13/09 10:40 AM	33925
0903083-13A	P-SS-45-0-1	03/11/09 12:30 PM	Soil	SW9056	Anion Prep	03/13/09 09:44 AM	33926
	P-SS-45-0-1	03/11/09 12:30 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/19/09 10:43 AM	34042
0903083-13B	P-SS-45-0-1	03/11/09 12:30 PM	Soil	D2216	Moisture Preparation	03/13/09 10:40 AM	33925
0903083-14A	P-SS-46-0-1	03/11/09 01:00 PM	Soil	SW9056	Anion Prep	03/13/09 09:44 AM	33926
	P-SS-46-0-1	03/11/09 01:00 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/19/09 10:43 AM	34042
0903083-14B	P-SS-46-0-1	03/11/09 01:00 PM	Soil	D2216	Moisture Preparation	03/13/09 10:40 AM	33925
0903083-15A	P-SS-47-0-1	03/11/09 01:30 PM	Soil	SW9056	Anion Prep	03/13/09 09:44 AM	33926
	P-SS-47-0-1	03/11/09 01:30 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/19/09 10:43 AM	34042
0903083-15B	P-SS-47-0-1	03/11/09 01:30 PM	Soil	D2216	Moisture Preparation	03/13/09 10:40 AM	33925
0903083-16A	P-SS-47-2-3	03/11/09 01:40 PM	Soil	SW9056	Anion Prep	03/13/09 09:44 AM	33926
	P-SS-47-2-3	03/11/09 01:40 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/19/09 10:43 AM	34042
0903083-16B	P-SS-47-2-3	03/11/09 01:40 PM	Soil	D2216	Moisture Preparation	03/13/09 10:40 AM	33925
0903083-17A	P-SS-48-0-1	03/11/09 03:00 PM	Soil	SW9056	Anion Prep	03/13/09 09:44 AM	33926
	P-SS-48-0-1	03/11/09 03:00 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/19/09 10:43 AM	34042
0903083-17B	P-SS-48-0-1	03/11/09 03:00 PM	Soil	D2216	Moisture Preparation	03/13/09 10:40 AM	33925
0903083-18A	P-SS-48-2-3	03/11/09 03:15 PM	Soil	SW9056	Anion Prep	03/13/09 09:44 AM	33926

CLIENT: TRC Environmental Corp.
Project: RRC Petronila Ditches 6 & 7
Lab Order: 0903083

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
	P-SS-48-2-3	03/11/09 03:15 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/19/09 10:43 AM	34042
0903083-18B	P-SS-48-2-3	03/11/09 03:15 PM	Soil	D2216	Moisture Preparation	03/13/09 10:40 AM	33925
0903083-19A	P-SS-49-0-1	03/11/09 04:10 PM	Soil	SW9056	Anion Prep	03/13/09 09:44 AM	33926
	P-SS-49-0-1	03/11/09 04:10 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/19/09 10:43 AM	34042
0903083-19B	P-SS-49-0-1	03/11/09 04:10 PM	Soil	D2216	Moisture Preparation	03/13/09 10:40 AM	33925
0903083-19C	P-SS-49-0-1	03/11/09 04:10 PM	Soil	E300	Anion Preparation	04/02/09 09:30 AM	34289

CLIENT: TRC Environmental Corp.
Project: RRC Petronila Ditches 6 & 7
Lab Order: 0903083

TCLP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
0903083-01C	P-SS-37-0-1	03/10/09 12:00 PM	Soil	SW1312	SPLP Sample Prep (Metals)	04/01/09 04:00 PM	34259
0903083-04C	P-SS-39-0-1	03/10/09 01:50 PM	Soil	SW1312	SPLP Sample Prep (Metals)	04/01/09 04:00 PM	34259
0903083-06C	P-SS-40-0-1	03/10/09 03:00 PM	Soil	SW1312	SPLP Sample Prep (Metals)	04/01/09 04:00 PM	34259
0903083-10C	P-SS-43-0-1	03/11/09 11:15 AM	Soil	SW1312	SPLP Sample Prep (Metals)	04/01/09 04:00 PM	34259
0903083-19C	P-SS-49-0-1	03/11/09 04:10 PM	Soil	SW1312	SPLP Sample Prep (Metals)	04/01/09 04:00 PM	34259

CLIENT: TRC Environmental Corp.
Project: RRC Petronila Ditches 6 & 7
Lab Order: 0903083

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
0903083-01A	P-SS-37-0-1	Soil	SW9056	Anions by IC method - Soil	33926	1000	03/16/09 09:24 AM	IC2_090316A
	P-SS-37-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	34042	5	03/19/09 11:00 AM	WC_090319B
0903083-01B	P-SS-37-0-1	Soil	D2216	Percent Moisture	33916	1	03/13/09 08:50 AM	PMOIST_090312A
0903083-01C	P-SS-37-0-1	Soil	E300	SPLP Anions by IC	34289	100	04/02/09 03:29 PM	IC2_090402A
0903083-02A	P-SS-37-2-3	Soil	SW9056	Anions by IC method - Soil	33926	100	03/16/09 10:22 AM	IC2_090316A
	P-SS-37-2-3	Soil	ASA 3:14	Electrical Conductance in Soil	34042	1	03/19/09 11:00 AM	WC_090319B
0903083-02B	P-SS-37-2-3	Soil	D2216	Percent Moisture	33916	1	03/13/09 08:50 AM	PMOIST_090312A
0903083-03A	P-SS-38-0-1	Soil	SW9056	Anions by IC method - Soil	33926	100	03/16/09 12:08 PM	IC2_090316A
	P-SS-38-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	34042	2	03/19/09 11:00 AM	WC_090319B
0903083-03B	P-SS-38-0-1	Soil	D2216	Percent Moisture	33916	1	03/13/09 08:50 AM	PMOIST_090312A
0903083-04A	P-SS-39-0-1	Soil	SW9056	Anions by IC method - Soil	33926	100	03/16/09 11:45 AM	IC2_090316A
	P-SS-39-0-1	Soil	SW9056	Anions by IC method - Soil	33926	100	03/24/09 09:35 AM	IC2_090324B
	P-SS-39-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	34042	2	03/19/09 11:00 AM	WC_090319B
	P-SS-39-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	34105	4	03/20/09 11:00 AM	WC_090320D
0903083-04B	P-SS-39-0-1	Soil	D2216	Percent Moisture	33916	1	03/13/09 08:50 AM	PMOIST_090312A
0903083-04C	P-SS-39-0-1	Soil	E300	SPLP Anions by IC	34289	100	04/02/09 04:13 PM	IC2_090402A
0903083-05A	P-SS-39-2-3	Soil	SW9056	Anions by IC method - Soil	33926	100	03/16/09 12:40 PM	IC2_090316A
	P-SS-39-2-3	Soil	ASA 3:14	Electrical Conductance in Soil	34042	1	03/19/09 11:00 AM	WC_090319B
0903083-05B	P-SS-39-2-3	Soil	D2216	Percent Moisture	33916	1	03/13/09 08:50 AM	PMOIST_090312A
0903083-06A	P-SS-40-0-1	Soil	SW9056	Anions by IC method - Soil	33926	1000	03/16/09 12:55 PM	IC2_090316A
	P-SS-40-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	34042	4	03/19/09 11:00 AM	WC_090319B
0903083-06B	P-SS-40-0-1	Soil	D2216	Percent Moisture	33916	1	03/13/09 08:50 AM	PMOIST_090312A
0903083-06C	P-SS-40-0-1	Soil	E300	SPLP Anions by IC	34289	100	04/02/09 04:27 PM	IC2_090402A
0903083-07A	P-SS-41-0-1	Soil	SW9056	Anions by IC method - Soil	33926	100	03/16/09 01:09 PM	IC2_090316A
	P-SS-41-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	34042	1	03/19/09 11:00 AM	WC_090319B
0903083-07B	P-SS-41-0-1	Soil	D2216	Percent Moisture	33916	1	03/13/09 08:50 AM	PMOIST_090312A
0903083-08A	P-SS-41-2-3	Soil	SW9056	Anions by IC method - Soil	33926	100	03/16/09 01:27 PM	IC2_090316A
	P-SS-41-2-3	Soil	ASA 3:14	Electrical Conductance in Soil	34042	1	03/19/09 11:00 AM	WC_090319B
0903083-08B	P-SS-41-2-3	Soil	D2216	Percent Moisture	33916	1	03/13/09 08:50 AM	PMOIST_090312A

CLIENT: TRC Environmental Corp.
Project: RRC Petronila Ditches 6 & 7
Lab Order: 0903083

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
0903083-09A	P-SS-42-0-1	Soil	SW9056	Anions by IC method - Soil	33926	100	03/16/09 01:41 PM	IC2_090316A
	P-SS-42-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	34042	2	03/19/09 11:00 AM	WC_090319B
0903083-09B	P-SS-42-0-1	Soil	D2216	Percent Moisture	33916	1	03/13/09 08:50 AM	PMOIST_090312A
0903083-10A	P-SS-43-0-1	Soil	SW9056	Anions by IC method - Soil	33926	100	03/16/09 03:28 PM	IC2_090316A
	P-SS-43-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	34042	2	03/19/09 11:00 AM	WC_090319B
0903083-10B	P-SS-43-0-1	Soil	D2216	Percent Moisture	33916	1	03/13/09 08:50 AM	PMOIST_090312A
0903083-10C	P-SS-43-0-1	Soil	E300	SPLP Anions by IC	34289	100	04/02/09 04:42 PM	IC2_090402A
0903083-11A	P-SS-43-2-3	Soil	SW9056	Anions by IC method - Soil	33926	100	03/16/09 03:43 PM	IC2_090316A
	P-SS-43-2-3	Soil	ASA 3:14	Electrical Conductance in Soil	34042	1	03/19/09 11:00 AM	WC_090319B
0903083-11B	P-SS-43-2-3	Soil	D2216	Percent Moisture	33925	1	03/13/09 02:45 PM	PMOIST_090313A
0903083-12A	P-SS-44-0-1	Soil	SW9056	Anions by IC method - Soil	33926	100	03/16/09 03:57 PM	IC2_090316A
	P-SS-44-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	34042	2	03/19/09 11:00 AM	WC_090319B
0903083-12B	P-SS-44-0-1	Soil	D2216	Percent Moisture	33925	1	03/13/09 02:45 PM	PMOIST_090313A
0903083-13A	P-SS-45-0-1	Soil	SW9056	Anions by IC method - Soil	33926	100	03/16/09 04:12 PM	IC2_090316A
	P-SS-45-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	34042	2	03/19/09 11:00 AM	WC_090319B
0903083-13B	P-SS-45-0-1	Soil	D2216	Percent Moisture	33925	1	03/13/09 02:45 PM	PMOIST_090313A
0903083-14A	P-SS-46-0-1	Soil	SW9056	Anions by IC method - Soil	33926	100	03/16/09 04:27 PM	IC2_090316A
	P-SS-46-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	34042	2	03/19/09 11:00 AM	WC_090319B
0903083-14B	P-SS-46-0-1	Soil	D2216	Percent Moisture	33925	1	03/13/09 02:45 PM	PMOIST_090313A
0903083-15A	P-SS-47-0-1	Soil	SW9056	Anions by IC method - Soil	33926	100	03/16/09 04:41 PM	IC2_090316A
	P-SS-47-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	34042	1	03/19/09 11:00 AM	WC_090319B
0903083-15B	P-SS-47-0-1	Soil	D2216	Percent Moisture	33925	1	03/13/09 02:45 PM	PMOIST_090313A
0903083-16A	P-SS-47-2-3	Soil	SW9056	Anions by IC method - Soil	33926	100	03/16/09 04:56 PM	IC2_090316A
	P-SS-47-2-3	Soil	ASA 3:14	Electrical Conductance in Soil	34042	1	03/19/09 11:00 AM	WC_090319B
0903083-16B	P-SS-47-2-3	Soil	D2216	Percent Moisture	33925	1	03/13/09 02:45 PM	PMOIST_090313A
0903083-17A	P-SS-48-0-1	Soil	SW9056	Anions by IC method - Soil	33926	100	03/16/09 05:11 PM	IC2_090316A
	P-SS-48-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	34042	4	03/19/09 11:00 AM	WC_090319B
0903083-17B	P-SS-48-0-1	Soil	D2216	Percent Moisture	33925	1	03/13/09 02:45 PM	PMOIST_090313A
0903083-18A	P-SS-48-2-3	Soil	SW9056	Anions by IC method - Soil	33926	100	03/16/09 05:25 PM	IC2_090316A

CLIENT: TRC Environmental Corp.
Project: RRC Petronila Ditches 6 & 7
Lab Order: 0903083

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
	P-SS-48-2-3	Soil	ASA 3:14	Electrical Conductance in Soil	34042	1	03/19/09 11:00 AM	WC_090319B
0903083-18B	P-SS-48-2-3	Soil	D2216	Percent Moisture	33925	1	03/13/09 02:45 PM	PMOIST_090313A
0903083-19A	P-SS-49-0-1	Soil	SW9056	Anions by IC method - Soil	33926	100	03/16/09 05:40 PM	IC2_090316A
	P-SS-49-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	34042	5	03/19/09 11:00 AM	WC_090319B
0903083-19B	P-SS-49-0-1	Soil	D2216	Percent Moisture	33925	1	03/13/09 02:45 PM	PMOIST_090313A
0903083-19C	P-SS-49-0-1	Soil	E300	SPLP Anions by IC	34289	100	04/02/09 04:57 PM	IC2_090402A

DHL Analytical

Date: 04/03/09

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-37-0-1
Project:	RRC Petronila Ditches 6 & 7	Lab ID:	0903083-01
Project No:	166420-01	Collection Date:	03/10/09 12:00 PM
Lab Order:	0903083	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	44700	8770	8770		mg/Kg-dry	1000	03/16/09 09:24 AM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	44.1	0	0		WT%	1	03/13/09 08:50 AM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	64200	50.0	50.0		µmhos/cm	5	03/19/09 11:00 AM
SPLP Anions by IC		E300					Analyst: JBC
Chloride	776	30.0	100		mg/L	100	04/02/09 03:29 PM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-37-2-3
Project:	RRC Petronila Ditches 6 & 7	Lab ID:	0903083-02
Project No:	166420-01	Collection Date:	03/10/09 12:10 PM
Lab Order:	0903083	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	4950	669	669		mg/Kg-dry	100	03/16/09 10:22 AM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	27.0	0	0		WT%	1	03/13/09 08:50 AM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	9040	10.0	10.0		µmhos/cm	1	03/19/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-38-0-1
Project:	RRC Petronila Ditches 6 & 7	Lab ID:	0903083-03
Project No:	166420-01	Collection Date:	03/10/09 01:10 PM
Lab Order:	0903083	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	18100	781	781		mg/Kg-dry	100	03/16/09 12:08 PM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	37.3	0	0		WT%	1	03/13/09 08:50 AM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	25100	20.0	20.0		µmhos/cm	2	03/19/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-39-0-1
Project:	RRC Petronila Ditches 6 & 7	Lab ID:	0903083-04
Project No:	166420-01	Collection Date:	03/10/09 01:50 PM
Lab Order:	0903083	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	29000	876	876		mg/Kg-dry	100	03/24/09 09:35 AM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	45.9	0	0		WT%	1	03/13/09 08:50 AM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	36900	40.0	40.0		µmhos/cm	4	03/20/09 11:00 AM
SPLP Anions by IC		E300					Analyst: JBC
Chloride	795	30.0	100		mg/L	100	04/02/09 04:13 PM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-39-2-3
Project:	RRC Petronila Ditches 6 & 7	Lab ID:	0903083-05
Project No:	166420-01	Collection Date:	03/10/09 02:00 PM
Lab Order:	0903083	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		**SW9056**					**Analyst: JBC**
Chloride	6460	642	642		mg/Kg-dry	100	03/16/09 12:40 PM
Percent Moisture		**D2216**					**Analyst: RP**
Percent Moisture	27.0	0	0		WT%	1	03/13/09 08:50 AM
Electrical Conductance in Soil		**ASA 3:14**					**Analyst: AAD**
Specific Conductance	9520	10.0	10.0		µmhos/cm	1	03/19/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between SDL and RL
N	Parameter not NELAC certified
ND	Not Detected at the SDL
RL	Reporting Limit (MQL adjusted for moisture and sample size)
S	Spike Recovery outside control limits
SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-40-0-1
Project:	RRC Petronila Ditches 6 & 7	Lab ID:	0903083-06
Project No:	166420-01	Collection Date:	03/10/09 03:00 PM
Lab Order:	0903083	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	33500	9150	9150		mg/Kg-dry	1000	03/16/09 12:55 PM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	47.2	0	0		WT%	1	03/13/09 08:50 AM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	44900	40.0	40.0		µmhos/cm	4	03/19/09 11:00 AM
SPLP Anions by IC		E300					Analyst: JBC
Chloride	852	30.0	100		mg/L	100	04/02/09 04:27 PM

Qualifiers:

	See Final Page of Report for MQLs and MDLs
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between SDL and RL
N	Parameter not NELAC certified
ND	Not Detected at the SDL
RL	Reporting Limit (MQL adjusted for moisture and sample size)
S	Spike Recovery outside control limits
SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-41-0-1
Project:	RRC Petronila Ditches 6 & 7	Lab ID:	0903083-07
Project No:	166420-01	Collection Date:	03/11/09 09:40 AM
Lab Order:	0903083	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	6260	739	739		mg/Kg-dry	100	03/16/09 01:09 PM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	34.9	0	0		WT%	1	03/13/09 08:50 AM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	10600	10.0	10.0		µmhos/cm	1	03/19/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between SDL and RL
N	Parameter not NELAC certified
ND	Not Detected at the SDL
RL	Reporting Limit (MQL adjusted for moisture and sample size)
S	Spike Recovery outside control limits
SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-41-2-3
Project:	RRC Petronila Ditches 6 & 7	Lab ID:	0903083-08
Project No:	166420-01	Collection Date:	03/11/09 09:50 AM
Lab Order:	0903083	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	5290	675	675		mg/Kg-dry	100	03/16/09 01:27 PM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	30.9	0	0		WT%	1	03/13/09 08:50 AM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	10300	10.0	10.0		µmhos/cm	1	03/19/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between SDL and RL
N	Parameter not NELAC certified
ND	Not Detected at the SDL
RL	Reporting Limit (MQL adjusted for moisture and sample size)
S	Spike Recovery outside control limits
SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-42-0-1
Project:	RRC Petronila Ditches 6 & 7	Lab ID:	0903083-09
Project No:	166420-01	Collection Date:	03/11/09 10:30 AM
Lab Order:	0903083	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	16200	741	741		mg/Kg-dry	100	03/16/09 01:41 PM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	32.7	0	0		WT%	1	03/13/09 08:50 AM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	24700	20.0	20.0		µmhos/cm	2	03/19/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between SDL and RL
N	Parameter not NELAC certified
ND	Not Detected at the SDL
RL	Reporting Limit (MQL adjusted for moisture and sample size)
S	Spike Recovery outside control limits
SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-43-0-1
Project:	RRC Petronila Ditches 6 & 7	Lab ID:	0903083-10
Project No:	166420-01	Collection Date:	03/11/09 11:15 AM
Lab Order:	0903083	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	22700	705	705		mg/Kg-dry	100	03/16/09 03:28 PM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	34.2	0	0		WT%	1	03/13/09 08:50 AM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	32200	20.0	20.0		µmhos/cm	2	03/19/09 11:00 AM
SPLP Anions by IC		E300					Analyst: JBC
Chloride	791	30.0	100		mg/L	100	04/02/09 04:42 PM

Qualifiers:

	See Final Page of Report for MQLs and MDLs
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between SDL and RL
N	Parameter not NELAC certified
ND	Not Detected at the SDL
RL	Reporting Limit (MQL adjusted for moisture and sample size)
S	Spike Recovery outside control limits
SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-43-2-3
Project:	RRC Petronila Ditches 6 & 7	Lab ID:	0903083-11
Project No:	166420-01	Collection Date:	03/11/09 11:20 AM
Lab Order:	0903083	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	5330	660	660		mg/Kg-dry	100	03/16/09 03:43 PM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	24.3	0	0		WT%	1	03/13/09 02:45 PM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	9520	10.0	10.0		µmhos/cm	1	03/19/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between SDL and RL
N	Parameter not NELAC certified
ND	Not Detected at the SDL
RL	Reporting Limit (MQL adjusted for moisture and sample size)
S	Spike Recovery outside control limits
SDL	Sample Detection Limit

DHL Analytical

Date: 04/03/09

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-44-0-1
Project:	RRC Petronila Ditches 6 & 7	Lab ID:	0903083-12
Project No:	166420-01	Collection Date:	03/11/09 12:00 PM
Lab Order:	0903083	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		**SW9056**					**Analyst: JBC**
Chloride	10800	645	645		mg/Kg-dry	100	03/16/09 03:57 PM
Percent Moisture		**D2216**					**Analyst: RP**
Percent Moisture	23.1	0	0		WT%	1	03/13/09 02:45 PM
Electrical Conductance in Soil		**ASA 3:14**					**Analyst: AAD**
Specific Conductance	19900	20.0	20.0		µmhos/cm	2	03/19/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-45-0-1
Project:	RRC Petronila Ditches 6 & 7	Lab ID:	0903083-13
Project No:	166420-01	Collection Date:	03/11/09 12:30 PM
Lab Order:	0903083	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	10800	603	603		mg/Kg-dry	100	03/16/09 04:12 PM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	20.4	0	0		WT%	1	03/13/09 02:45 PM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	22500	20.0	20.0		µmhos/cm	2	03/19/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between SDL and RL
N	Parameter not NELAC certified
ND	Not Detected at the SDL
RL	Reporting Limit (MQL adjusted for moisture and sample size)
S	Spike Recovery outside control limits
SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-46-0-1
Project:	RRC Petronila Ditches 6 & 7	Lab ID:	0903083-14
Project No:	166420-01	Collection Date:	03/11/09 01:00 PM
Lab Order:	0903083	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	15300	752	752		mg/Kg-dry	100	03/16/09 04:27 PM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	37.0	0	0		WT%	1	03/13/09 02:45 PM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	25900	20.0	20.0		µmhos/cm	2	03/19/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-47-0-1
Project:	RRC Petronila Ditches 6 & 7	Lab ID:	0903083-15
Project No:	166420-01	Collection Date:	03/11/09 01:30 PM
Lab Order:	0903083	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	5780	713	713		mg/Kg-dry	100	03/16/09 04:41 PM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	33.8	0	0		WT%	1	03/13/09 02:45 PM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	11600	10.0	10.0		µmhos/cm	1	03/19/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-47-2-3
Project:	RRC Petronila Ditches 6 & 7	Lab ID:	0903083-16
Project No:	166420-01	Collection Date:	03/11/09 01:40 PM
Lab Order:	0903083	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	1850	639	639		mg/Kg-dry	100	03/16/09 04:56 PM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	27.2	0	0		WT%	1	03/13/09 02:45 PM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	5050	10.0	10.0		µmhos/cm	1	03/19/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-48-0-1
Project:	RRC Petronila Ditches 6 & 7	Lab ID:	0903083-17
Project No:	166420-01	Collection Date:	03/11/09 03:00 PM
Lab Order:	0903083	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		**SW9056**					**Analyst: JBC**
Chloride	16800	762	762		mg/Kg-dry	100	03/16/09 05:11 PM
Percent Moisture		**D2216**					**Analyst: RP**
Percent Moisture	35.7	0	0		WT%	1	03/13/09 02:45 PM
Electrical Conductance in Soil		**ASA 3:14**					**Analyst: AAD**
Specific Conductance	29700	40.0	40.0		µmhos/cm	4	03/19/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-48-2-3
Project:	RRC Petronila Ditches 6 & 7	Lab ID:	0903083-18
Project No:	166420-01	Collection Date:	03/11/09 03:15 PM
Lab Order:	0903083	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		**SW9056**					**Analyst: JBC**
Chloride	2970	658	658		mg/Kg-dry	100	03/16/09 05:25 PM
Percent Moisture		**D2216**					**Analyst: RP**
Percent Moisture	27.3	0	0		WT%	1	03/13/09 02:45 PM
Electrical Conductance in Soil		**ASA 3:14**					**Analyst: AAD**
Specific Conductance	5920	10.0	10.0		µmhos/cm	1	03/19/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-49-0-1
Project:	RRC Petronila Ditches 6 & 7	Lab ID:	0903083-19
Project No:	166420-01	Collection Date:	03/11/09 04:10 PM
Lab Order:	0903083	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	31900	659	659		mg/Kg-dry	100	03/16/09 05:40 PM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	25.9	0	0		WT%	1	03/13/09 02:45 PM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	65800	50.0	50.0		µmhos/cm	5	03/19/09 11:00 AM
SPLP Anions by IC		E300					Analyst: JBC
Chloride	1400	30.0	100		mg/L	100	04/02/09 04:57 PM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT: TRC Environmental Corp.
Work Order: 0903083
Project: RRC Petronila Ditches 6 & 7

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_090316A

Sample ID:	LCS-33926	Batch ID:	33926		TestNo:	SW9056		Units:	mg/Kg	
SampType:	LCS	Run ID:	IC2_090316A		Analysis Date:	03/16/09 08:33 AM		Prep Date:	03/13/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		45.9	5.00	50.00	0	91.7	80	120			

Sample ID:	LCSD-33926	Batch ID:	33926		TestNo:	SW9056		Units:	mg/Kg	
SampType:	LCSD	Run ID:	IC2_090316A		Analysis Date:	03/16/09 08:48 AM		Prep Date:	03/13/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		45.9	5.00	50.00	0	91.9	80	120	0.183	20	

Sample ID:	MB-33926	Batch ID:	33926		TestNo:	SW9056		Units:	mg/Kg	
SampType:	MBLK	Run ID:	IC2_090316A		Analysis Date:	03/16/09 09:02 AM		Prep Date:	03/13/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		ND	5.00								

Sample ID:	0903083-01A MS	Batch ID:	33926		TestNo:	SW9056		Units:	mg/Kg-dry	
SampType:	MS	Run ID:	IC2_090316A		Analysis Date:	03/16/09 09:38 AM		Prep Date:	03/13/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		105000	8770	87700	26820	89.6	80	120			

Sample ID:	0903083-01A MSD	Batch ID:	33926		TestNo:	SW9056		Units:	mg/Kg-dry	
SampType:	MSD	Run ID:	IC2_090316A		Analysis Date:	03/16/09 09:53 AM		Prep Date:	03/13/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		105000	8770	87700	26820	89.7	80	120	0.0333	20	

Sample ID:	0903083-01A DUP	Batch ID:	33926		TestNo:	SW9056		Units:	mg/Kg-dry	
SampType:	DUP	Run ID:	IC2_090316A		Analysis Date:	03/16/09 10:08 AM		Prep Date:	03/13/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		42800	8700	0	44700				4.34	20	

Sample ID:	0903083-09A MS	Batch ID:	33926		TestNo:	SW9056		Units:	mg/Kg-dry	
SampType:	MS	Run ID:	IC2_090316A		Analysis Date:	03/16/09 02:11 PM		Prep Date:	03/13/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		16700	741	7410	9739	93.7	80	120			

Sample ID:	0903083-09A MSD	Batch ID:	33926		TestNo:	SW9056		Units:	mg/Kg-dry	
SampType:	MSD	Run ID:	IC2_090316A		Analysis Date:	03/16/09 02:25 PM		Prep Date:	03/13/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		16700	741	7410	9739	94.1	80	120	0.176	20	

Sample ID:	0903083-09A DUP	Batch ID:	33926		TestNo:	SW9056		Units:	mg/Kg-dry	
SampType:	DUP	Run ID:	IC2_090316A		Analysis Date:	03/16/09 02:40 PM		Prep Date:	03/13/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		14400	738	0	16230				11.7	20	

Qualifiers:				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903083
Project: RRC Petronila Ditches 6 & 7

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_090316A

Sample ID:	ICV-090316	Batch ID:	R42349		TestNo:		SW9056		Units:		mg/Kg
SampType:	ICV	Run ID:	IC2_090316A		Analysis Date:		03/16/09 08:15 AM		Prep Date:		03/16/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		23.6	5.00	25.00	0	94.5	90	110			

Sample ID:	CCV1-090316	Batch ID:	R42349		TestNo:		SW9056		Units:		mg/Kg
SampType:	CCV	Run ID:	IC2_090316A		Analysis Date:		03/16/09 11:06 AM		Prep Date:		03/16/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		9.13	5.00	10.00	0	91.3	90	110			

Sample ID:	CCV2-090316	Batch ID:	R42349		TestNo:		SW9056		Units:		mg/Kg
SampType:	CCV	Run ID:	IC2_090316A		Analysis Date:		03/16/09 02:54 PM		Prep Date:		03/16/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		9.17	5.00	10.00	0	91.7	90	110			

Sample ID:	CCV3-090316	Batch ID:	R42349		TestNo:		SW9056		Units:		mg/Kg
SampType:	CCV	Run ID:	IC2_090316A		Analysis Date:		03/16/09 05:55 PM		Prep Date:		03/16/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		9.13	5.00	10.00	0	91.3	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
DF	Dilution Factor	RL	Reporting Limit
J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
MDL	Method Detection Limit	J	Analyte detected between SDL and RL
ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903083
Project: RRC Petronila Ditches 6 & 7

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_090324B

Sample ID:	ICV-090324	Batch ID:	R42477	TestNo:	SW9056			Units:	mg/Kg	
SampType:	ICV	Run ID:	IC2_090324B	Analysis Date:	03/24/09 08:54 AM			Prep Date:	03/24/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		24.4	5.00	25.00	0	97.6	90	110			

Sample ID:	CCV1-090324	Batch ID:	R42477	TestNo:	SW9056			Units:	mg/Kg	
SampType:	CCV	Run ID:	IC2_090324B	Analysis Date:	03/24/09 11:23 AM			Prep Date:	03/24/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		9.19	5.00	10.00	0	91.9	90	110			

Qualifiers:				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903083
Project: RRC Petronila Ditches 6 & 7

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_090402A

Sample ID:	LCS-34289	Batch ID:	34289		TestNo:		E300		Units:		mg/L
SampType:	LCS	Run ID:	IC2_090402A		Analysis Date:		04/02/09 09:40 AM		Prep Date:		04/02/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		9.14	1.00	10.00	0	91.4	90	110			

Sample ID:	LCSD-34289	Batch ID:	34289		TestNo:		E300		Units:		mg/L
SampType:	LCSD	Run ID:	IC2_090402A		Analysis Date:		04/02/09 09:54 AM		Prep Date:		04/02/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		9.12	1.00	10.00	0	91.2	90	110	0.269	20	

Sample ID:	MB-34289	Batch ID:	34289		TestNo:		E300		Units:		mg/L
SampType:	MBLK	Run ID:	IC2_090402A		Analysis Date:		04/02/09 10:09 AM		Prep Date:		04/02/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		ND	1.00								

Sample ID:	0903083-01C MS	Batch ID:	34289		TestNo:		E300		Units:		mg/L
SampType:	MS	Run ID:	IC2_090402A		Analysis Date:		04/02/09 03:43 PM		Prep Date:		04/02/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		1380	100	1000	465.5	91.0	90	110			

Sample ID:	0903083-01C MSD	Batch ID:	34289		TestNo:		E300		Units:		mg/L
SampType:	MSD	Run ID:	IC2_090402A		Analysis Date:		04/02/09 03:58 PM		Prep Date:		04/02/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		1380	100	1000	465.5	91.0	90	110	0.00945	20	

Qualifiers:				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903083
Project: RRC Petronila Ditches 6 & 7

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_090402A

Sample ID:	ICV-090402	Batch ID:	R42666		TestNo:		E300		Units:		mg/L
SampType:	ICV	Run ID:	IC2_090402A		Analysis Date:		04/02/09 09:15 AM		Prep Date:		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		23.8	1.00	25.00	0	95.4	90	110			

Sample ID:	CCV1-090402	Batch ID:	R42666		TestNo:		E300		Units:		mg/L
SampType:	CCV	Run ID:	IC2_090402A		Analysis Date:		04/02/09 05:11 PM		Prep Date:		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		9.13	1.00	10.00	0	91.3	90	110			

Qualifiers:				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903083
Project: RRC Petronila Ditches 6 & 7

ANALYTICAL QC SUMMARY REPORT

RunID: PMOIST_090312A

Sample ID:	0903083-10B-DUP	Batch ID:	33916	TestNo:	D2216		Units:	WT%	
SampType:	DUP	Run ID:	PMOIST_090312A	Analysis Date:	03/13/09 08:50 AM		Prep Date:	03/12/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Percent Moisture		32.8	0	0	34.20				4.32	30	

Qualifiers:				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903083
Project: RRC Petronila Ditches 6 & 7

ANALYTICAL QC SUMMARY REPORT

RunID: PMOIST_090313A

Sample ID:	0903083-19B-DUP	Batch ID:	33925	TestNo:	D2216			Units:	WT%	
SampType:	DUP	Run ID:	PMOIST_090313A	Analysis Date:	03/13/09 02:45 PM			Prep Date:	03/13/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Percent Moisture		26.0	0	0	25.94				0.369	30	

Qualifiers:				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903083
Project: RRC Petronila Ditches 6 & 7

ANALYTICAL QC SUMMARY REPORT

RunID: WC_090319B

Sample ID:	MB-34042	Batch ID:	34042		TestNo:		ASA 3:14		Units:		µmhos/cm
SampType:	MBLK	Run ID:	WC_090319B		Analysis Date:		03/19/09 11:00 AM		Prep Date:		03/19/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		ND	10.0								

Sample ID:	LCS-34042	Batch ID:	34042		TestNo:		ASA 3:14		Units:		µmhos/cm
SampType:	LCS	Run ID:	WC_090319B		Analysis Date:		03/19/09 11:00 AM		Prep Date:		03/19/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		1400	10.0	1413	0	98.9	91	107			

Sample ID:	0903083-01A-DUP	Batch ID:	34042		TestNo:		ASA 3:14		Units:		µmhos/cm
SampType:	DUP	Run ID:	WC_090319B		Analysis Date:		03/19/09 11:00 AM		Prep Date:		03/19/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		55200	50.0	0	64250				15.2	25	

Sample ID:	0903083-09A-DUP	Batch ID:	34042		TestNo:		ASA 3:14		Units:		µmhos/cm
SampType:	DUP	Run ID:	WC_090319B		Analysis Date:		03/19/09 11:00 AM		Prep Date:		03/19/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		25100	20.0	0	24680				1.85	25	

Qualifiers:				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903083
Project: RRC Petronila Ditches 6 & 7

ANALYTICAL QC SUMMARY REPORT

RunID: WC_090319B

Sample ID:	ICV-090319	Batch ID:	CONDW-03/19/09	TestNo:		ASA 3:14		Units:	µmhos/cm		
SampType:	ICV	Run ID:	WC_090319B	Analysis Date:		03/19/09 11:00 AM		Prep Date:	03/19/09		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		12800	10.0	12880	0	99.8	90	110			

Sample ID:	CCV-090319	Batch ID:	CONDW-03/19/09	TestNo:		ASA 3:14		Units:	µmhos/cm		
SampType:	CCV	Run ID:	WC_090319B	Analysis Date:		03/19/09 11:00 AM		Prep Date:	03/19/09		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		12700	10.0	12880	0	98.8	90	110			

Sample ID:	CCV1-090319	Batch ID:	CONDW-03/19/09	TestNo:		ASA 3:14		Units:	µmhos/cm		
SampType:	CCV	Run ID:	WC_090319B	Analysis Date:		03/19/09 11:00 AM		Prep Date:	03/19/09		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		12700	10.0	12880	0	98.6	90	110			

Sample ID:	CCV2-090319	Batch ID:	CONDW-03/19/09	TestNo:		ASA 3:14		Units:	µmhos/cm		
SampType:	CCV	Run ID:	WC_090319B	Analysis Date:		03/19/09 11:00 AM		Prep Date:	03/19/09		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		12600	10.0	12880	0	97.8	90	110			

Sample ID:	CCV3-090319	Batch ID:	CONDW-03/19/09	TestNo:		ASA 3:14		Units:	µmhos/cm		
SampType:	CCV	Run ID:	WC_090319B	Analysis Date:		03/19/09 11:00 AM		Prep Date:	03/19/09		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		12500	10.0	12880	0	96.7	90	110			

Sample ID:	CCV4-090319	Batch ID:	CONDW-03/19/09	TestNo:		ASA 3:14		Units:	µmhos/cm		
SampType:	CCV	Run ID:	WC_090319B	Analysis Date:		03/19/09 11:00 AM		Prep Date:	03/19/09		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		12400	10.0	12880	0	96.4	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
DF	Dilution Factor	RL	Reporting Limit
J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
MDL	Method Detection Limit	J	Analyte detected between SDL and RL
ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903083
Project: RRC Petronila Ditches 6 & 7

ANALYTICAL QC SUMMARY REPORT

RunID: WC_090320D

Sample ID:	MB-34105	Batch ID:	34105		TestNo:		ASA 3:14		Units:		µmhos/cm
SampType:	MBLK	Run ID:	WC_090320D		Analysis Date:		03/20/09 11:00 AM		Prep Date:		03/20/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		ND	10.0								

Sample ID:	LCS-34105	Batch ID:	34105		TestNo:		ASA 3:14		Units:		µmhos/cm
SampType:	LCS	Run ID:	WC_090320D		Analysis Date:		03/20/09 11:00 AM		Prep Date:		03/20/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		1370	10.0	1413	0	97.2	91	107			

Sample ID:	0903102-09A-DUP	Batch ID:	34105		TestNo:		ASA 3:14		Units:		µmhos/cm
SampType:	DUP	Run ID:	WC_090320D		Analysis Date:		03/20/09 11:00 AM		Prep Date:		03/20/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		7960	10.0	0	8010				0.626	25	

Qualifiers:				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903083
Project: RRC Petronila Ditches 6 & 7

ANALYTICAL QC SUMMARY REPORT

RunID: WC_090320D

Sample ID:	ICV-090320	Batch ID:	CONDW-03/20/09	TestNo:		ASA 3:14		Units:		µmhos/cm	
SampType:	ICV	Run ID:	WC_090320D	Analysis Date:		03/20/09 11:00 AM		Prep Date:		03/20/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		12900	10.0	12880	0	100	90	110			

Sample ID:	CCV1-090320	Batch ID:	CONDW-03/20/09	TestNo:		ASA 3:14		Units:		µmhos/cm	
SampType:	CCV	Run ID:	WC_090320D	Analysis Date:		03/20/09 11:00 AM		Prep Date:		03/20/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		12700	10.0	12880	0	98.8	90	110			

Sample ID:	CCV2-090320	Batch ID:	CONDW-03/20/09	TestNo:		ASA 3:14		Units:		µmhos/cm	
SampType:	CCV	Run ID:	WC_090320D	Analysis Date:		03/20/09 11:00 AM		Prep Date:		03/20/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		12600	10.0	12880	0	97.7	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
DF	Dilution Factor	RL	Reporting Limit
J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
MDL	Method Detection Limit	J	Analyte detected between SDL and RL
ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903083
Project: RRC Petronila Ditches 6 & 7

MQL SUMMARY REPORT

TestNo: SW9056 Analyte	MDL mg/Kg	MQL mg/Kg
Chloride	5.00	5.00

TestNo: ASA 3:14 Analyte	MDL µmhos/cm	MQL µmhos/cm
Specific Conductance	10.0	10.0

TestNo: E300 Analyte	MDL mg/L	MQL mg/L
Chloride	0.300	1.00

Qualifiers:
MQL - Method Quantitation Limit as defined by TRRP
MDL - Method Detection Limit as defined by TRRP

April 03, 2009

James Harte
TRC Environmental Corp.
505 East Huntland Drive Suite 250
Austin, Texas 78752

TEL: (512) 329-6080
FAX: (512) 329-8750

Order No: 0903102

RE: RRC Petronila - #7

Dear James Harte:

DHL Analytical received 12 sample(s) on 3/13/2009 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. Thank you for using DHL Analytical.

Sincerely,

John DuPont
Lab Manager

This report was performed under the accreditation of the State of Texas Laboratory Certification Number: T104704211-08C-TX

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DHL ANALYTICAL

2300 Double Creek Drive • Round Rock, TX 78664
Phone (512) 388-8222 • FAX (512) 388-8229

№ 39587

CHAIN-OF-CUSTODY

CLIENT: TRC
ADDRESS: 505 E. Huntland Dr. #250
PHONE: 512-329-6080 FAX 512-329-8750
DATA REPORTED TO: S. Hale
ADDITIONAL REPORT COPIES TO: S. Miller

DATE: 3/12/09 PAGE 1 OF 1
PO #: DHL WORK ORDER #: 0903102
PROJECT LOCATION OR NAME: RH Petrola #7
CLIENT PROJECT #: 166420-01 COLLECTOR: BCL

Authorize 5% surcharge for TRRP report? ☐ Yes ☑ No

S=SOIL W=WATER A=AIR P=PAINT SL=SLUDGE OT=OTHER

Field Sample I.D.	DHL Lab #	Date	Time	Matrix	Container Type	# of Containers	PRESERVATION: HCl	HNO_3	H_2SO_4 ☐ NaOH ☐	ICE	UNPRESERVED	ANALYSES: BTEX ☐ MTBE ☐	TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐	GASOLINE MOD 8015 ☐	DIESEL - MOD 8015 ☐	VOC 8260 ☐	SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐	8081 PESTICIDES ☐ 8151 HERBICIDES ☐	8082 PCBS ☐	TCLP - METALS (RCRA) ☐ TCLP VOC ☐	TCLP - PEST ☐ HERB ☐ Semi-VOC ☐	TOTAL METALS (RCRA) ☐ OTHER LIST ☐	LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐	RCI ☐ TOX ☐ FLASHPOINT ☐	TDS ☐ TSS ☐ % MOISTURE ☐	pH ☐ HEXAVALENT CHROMIUM ☐	EXPLOSIVES ☐ PECHLORATE ☐	CHLORIDE ☐ ANIONS ☐ ALKALINITY ☐	Oxy-Fuel	SVOC PAH	SPLP CL*	FIELD NOTES
P-SS-20-0-1	01	3/12/09	850	S	4oz	3				X	X																		X	X	X	Hold SPLP CL*
P-SS-21-0-1	02		900	S		3				X	X																		X	X	X	
P-SS-21-2-3	03		910	S		3				X	X																		X	X	X	
P-SS-22-0-1	04		955	S		3				X	X																		X	X	X	
P-SS-23-0-1	05		1015	S	↓	3				X	X																		X	X	X	
P-EB-W-3-12-09-0104	04		1045	W	250mL	2				X	X																		X	X	X	
P-EB-W-3-12-09-1050	1050		1050	W	↓	2				X	X																		X	X	X	
P-SS-24-0-1	08		1120	S	4oz	3				X	X																		X	X	X	
P-SS-24-2-3	09		1130	S		3				X	X																		X	X	X	
P-SS-25-0-1	10		1225	S		3				X	X																		X	X	X	X - SPLP CL
P-SS-26-0-1	11		1245	S		3				X	X																		X	X	X	Per Barrett
P-SS-27-0-1	12	↓	1305	S	↓	3				X	X																		X	X	X	3/24/09 BB
7.31.2009																																

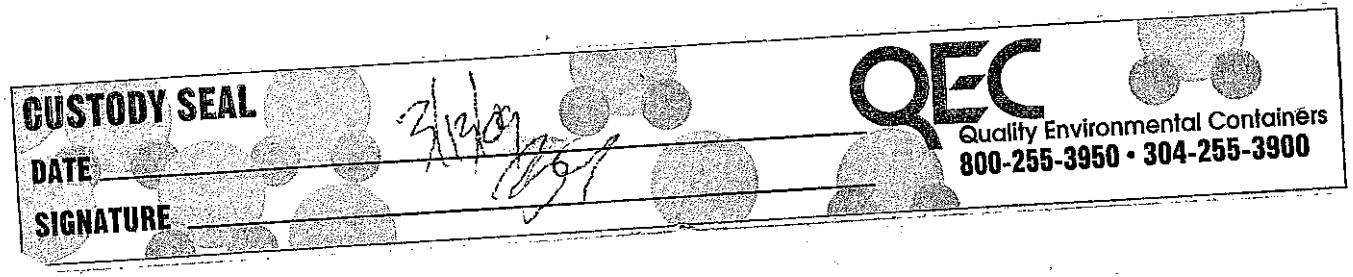
TOTAL

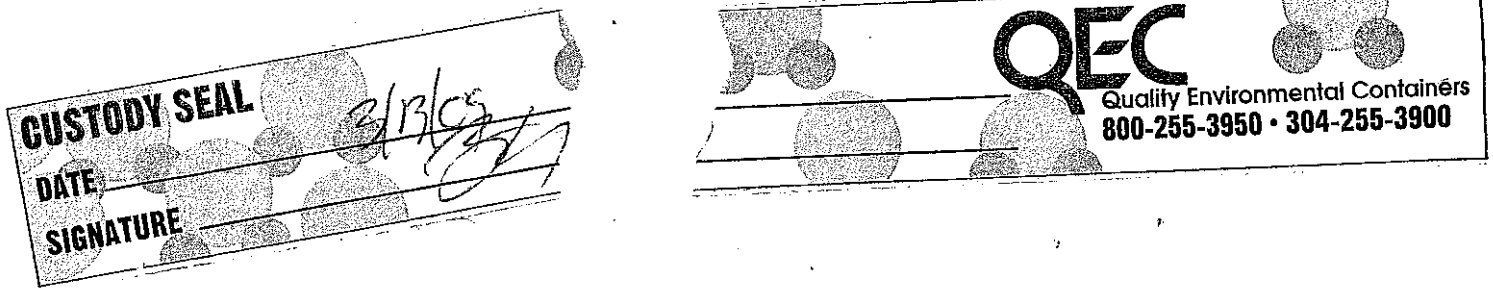
RELINQUISHED BY: (Signature)	DATE/TIME 3/12/09 1515	RECEIVED BY: (Signature)	
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	

☐ DHL DISPOSAL @ $5.00 each ☐ Return

TURN AROUND TIME
RUSH ☐ CALL FIRST
1 DAY ☐ CALL FIRST
2 DAY ☐
NORMAL ☑
OTHER ☐ ____

LABORATORY USE ONLY:
RECEIVING TEMP: 3.3 THERM #: 57
CUSTODY SEALS - ☐ BROKEN ☑ INTACT ☐ NOT USED
☐ CARRIER BILL # ____
☐ APC DELIVERY
☑ HAND DELIVERED


CUSTODY SEAL
DATE
SIGNATURE
QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900


CUSTODY SEAL
DATE
SIGNATURE
QEC
Quality Environmental Containers
800-255-3950 • 304-255-3900

Laboratory Data Package Signature Page

This data package consists of:

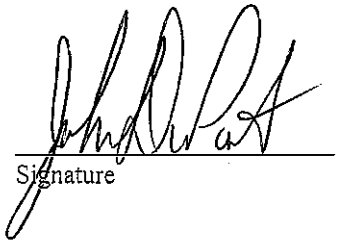
This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a) Items consistent with NELAC 5.13
  - b) dilution factors,
  - c) preparation methods,
  - d) cleanup methods, and
  - e) if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a) Calculated recovery (%R), and
  - b) The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a) LCS spiking amounts,
  - b) Calculated %R for each analyte, and
  - c) The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a) Samples associated with the MS/MSD clearly identified,
  - b) MS/MSD spiking amounts,
  - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d) Calculated %Rs and relative percent differences (RPDs), and
  - e) The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a) the amount of analyte measured in the duplicate,
  - b) the calculated RPD, and
  - c) the laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
- R10 Other problems or anomalies.

The Exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release Statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By me signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Scott Schroeder – Project Manager
John DuPont – General / QA Manager



Signature

04/03/09

Date

DHL Analytical, Inc.

Laboratory Review Checklist: Reportable Data

Project Name: RRC Petronila - #7	Date: 4/3/09
Reviewer Name: Carlos Castro	Laboratory Work Order: 0903102
Prep Batch Number(s): See Prep Dates Report	Run Batch: See Analytical Dates Report

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
		Chain-of-Custody (C-O-C)					
R1	OI	1) Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				R1-01
		2) Were all departures from standard conditions described in an exception report?			X		
R2	OI	**Sample and Quality Control (QC) Identification**					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		2) Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	**Test Reports**					
		1) Were all samples prepared and analyzed within holding times?	X				
		2) Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		3) Were calculations checked by a peer or supervisor?	X				
		4) Were all analyte identifications checked by a peer or supervisor?	X				
		5) Were sample quantitation limits reported for all analytes not detected?	X				
		6) Were all results for soil and sediment samples reported on a dry weight basis?	X				
		7) Were % moisture (or solids) reported for all soil and sediment samples?	X				
		8) If required for the project, TICs reported?			X		
R4	O	**Surrogate Recovery Data**					
		1) Were surrogates added prior to extraction?			X		
		2) Were surrogate percent recoveries in all samples within the laboratory QC limits?			X		
R5	OI	**Test Reports/Summary Forms for Blank Samples**					
		1) Were appropriate type(s) of blanks analyzed?	X				
		2) Were blanks analyzed at the appropriate frequency?	X				
		3) Where method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		4) Were blank concentrations < MQL?	X				
R6	OI	**Laboratory Control Samples (LCS):**					
		1) Were all COCs included in the LCS?	X				
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		3) Were LCSs analyzed at the required frequency?	X				
		4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		5) Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	X				
		6) Was the LCSD RPD within QC limits (if applicable)?	X				
R7	OI	**Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data**					
		1) Were the project/method specified analytes included in the MS and MSD?	X				
		2) Were MS/MSD analyzed at the appropriate frequency?	X				
		3) Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		4) Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	**Analytical Duplicate Data**					
		1) Were appropriate analytical duplicates analyzed for each matrix?	X				
		2) Were analytical duplicates analyzed at the appropriate frequency?	X				
		3) Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	**Method Quantitation Limits (MQLs):**					
		1) Are the MQLs for each method analyte included in the laboratory data package?	X				
		2) Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		3) Are unadjusted MQLs included in the laboratory data package?	X				
R10	OI	**Other Problems/Anomalies**					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?			X		
		2) Were all necessary corrective actions performed for the reported data?	X				
		3) Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	X				

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
3 NA = Not applicable.
4 NR = Not Reviewed.
5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

DHL Analytical, Inc.

Laboratory Review Checklist (continued): Supporting Data

Project Name: RRC Petronila - #7	Date: 4/3/09
Reviewer Name: Carlos Castro	Laboratory Work Order: 0903102

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	**Initial Calibration (ICAL)**					
		1) Were response factors and/or relative response factors for each analyte within QC limits?	X				
		2) Were percent RSDs or correlation coefficient criteria met?	X				
		3) Was the number of standards recommended in the method used for all analytes?	X				
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		5) Are ICAL data available for all instruments used?	X				
		6) Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	**Initial and Continuing calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB):**					
		1) Was the CCV analyzed at the method-required frequency?	X				
		2) Were percent differences for each analyte within the method-required QC limits?	X				
		3) Was the ICAL curve verified for each analyte?	X				
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	**Mass Spectral Tuning:**					
		1) Was the appropriate compound for the method used for tuning?			X		
		2) Were ion abundance data within the method-required QC limits?			X		
S4	O	**Internal Standards (IS):**					
		1) Were IS area counts and retention times within the method-required QC limits?			X		
S5	OI	**Raw Data (NELAC section 1 appendix A glossary, and section 5.12)**					
		1) Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		2) Were data associated with manual integrations flagged on the raw data?	X				
S6	O	**Dual Column Confirmation**					
		1) Did dual column confirmation results meet the method-required QC?			X		
S7	O	**Tentatively Identified Compounds (TICs):**					
		1) If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	**Interference Check Sample (ICS) Results:**					
		1) Were percent recoveries within method QC limits?			X		
S9	I	**Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions**					
		1) Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	**Method Detection Limit (MDL) Studies**					
		1) Was a MDL study performed for each reported analyte?	X				
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	**Proficiency Test Reports:**					
		1) Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	**Standards Documentation**					
		1) Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	**Compound/Analyte Identification Procedures**					
		1) Are the procedures for compound/analyte identification documented?	X				
S14	OI	**Demonstration of Analyst Competency (DOC)**					
		1) Was DOC conducted consistent with NELAC Chapter 5C?	X				
		2) Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	**Verification/Validation Documentation for Methods** (NELAC Chap 5)					
		1) Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	**Laboratory Standard Operating Procedures (SOPs):**					
		1) Are laboratory SOPs current and on file for each method performed?	X				

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
3 NA = Not applicable.
4 NR = Not Reviewed.
5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

DHL Analytical

Sample Receipt Checklist

Client Name TRC Environmental Corp. Date Received: 3/13/2009

Work Order Number 0903102 Received by JB

Checklist completed by: Signature 3/13/09 Date Reviewed by Initials DL 3/13/09 Date

Carrier name: Hand Delivered

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	3.3 °C
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☐	Not Applicable ☑

Adjusted? _____ Checked by _____

Any No response must be detailed in the comments section below.

Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

Page 1 of 1

CLIENT: TRC Environmental Corp.
Project: RRC Petronila - #7
Lab Order: 0903102

CASE NARRATIVE

The samples were analyzed using the methods outlined in the following references:

Method SW9056 - Anions Analysis
Method E300 - Anions Analysis
Method M2510 B (18th Edition) - Specific Conductance
Method ASA 3:14 - Electrical Conductance in Soil
Method D2216 - Percent Moisture
Method E300 - SPLP Anions Analysis

Exception Report R1-01

The samples were received and log-in performed on 3/13/09. A total of 12 samples were received. On 3/19/09 the client emailed instructions to correct the sample IDs. The sample IDs were changed as per the instructions. On 3/31/09 SPLP Anions were added on to sample P-SS-50-0-1 as per the client. This was performed as requested. The sample arrived in good condition and was properly packaged.

CLIENT: TRC Environmental Corp.
Project: RRC Petronila - #7
Lab Order: 0903102

Work Order Sample Summary

Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recv'd
0903102-01	P-SS-50-0-1		03/12/09 08:30 AM	03/13/09
0903102-02	P-SS-51-0-1		03/12/09 09:00 AM	03/13/09
0903102-03	P-SS-51-2-3		03/12/09 09:10 AM	03/13/09
0903102-04	P-SS-52-0-1		03/12/09 09:55 AM	03/13/09
0903102-05	P-SS-53-0-1		03/12/09 10:15 AM	03/13/09
0903102-06	P-EB-W-3-1-09-01		03/12/09 10:45 AM	03/13/09
0903102-07	P-EB-W-3-12-09-02		03/12/09 10:50 AM	03/13/09
0903102-08	P-SS-54-0-1		03/12/09 11:20 AM	03/13/09
0903102-09	P-SS-54-2-3		03/02/09 11:30 AM	03/13/09
0903102-10	P-SS-55-0-1		03/12/09 12:25 PM	03/13/09
0903102-11	P-SS-56-0-1		03/12/09 12:45 PM	03/13/09
0903102-12	P-SS-57-0-1		03/12/09 01:05 PM	03/13/09

CLIENT: TRC Environmental Corp.
Project: RRC Petronila - #7
Lab Order: 0903102

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
0903102-01A	P-SS-50-0-1	03/12/09 08:30 AM	Soil	SW9056	Anion Prep	03/17/09 02:19 PM	33995
	P-SS-50-0-1	03/12/09 08:30 AM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/20/09 11:00 AM	34105
0903102-01B	P-SS-50-0-1	03/12/09 08:30 AM	Soil	D2216	Moisture Preparation	03/16/09 10:00 AM	33951
0903102-01C	P-SS-50-0-1	03/12/09 08:30 AM	Soil	E300	Anion Preparation	04/02/09 09:30 AM	34289
0903102-02A	P-SS-51-0-1	03/12/09 09:00 AM	Soil	SW9056	Anion Prep	03/17/09 02:19 PM	33995
	P-SS-51-0-1	03/12/09 09:00 AM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/20/09 11:00 AM	34105
0903102-02B	P-SS-51-0-1	03/12/09 09:00 AM	Soil	D2216	Moisture Preparation	03/16/09 10:00 AM	33951
0903102-03A	P-SS-51-2-3	03/12/09 09:10 AM	Soil	SW9056	Anion Prep	03/17/09 02:19 PM	33995
	P-SS-51-2-3	03/12/09 09:10 AM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/20/09 11:00 AM	34105
0903102-03B	P-SS-51-2-3	03/12/09 09:10 AM	Soil	D2216	Moisture Preparation	03/16/09 10:00 AM	33951
0903102-04A	P-SS-52-0-1	03/12/09 09:55 AM	Soil	SW9056	Anion Prep	03/17/09 02:19 PM	33995
	P-SS-52-0-1	03/12/09 09:55 AM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/20/09 11:00 AM	34105
0903102-04B	P-SS-52-0-1	03/12/09 09:55 AM	Soil	D2216	Moisture Preparation	03/16/09 10:00 AM	33951
0903102-05A	P-SS-53-0-1	03/12/09 10:15 AM	Soil	SW9056	Anion Prep	03/17/09 02:19 PM	33995
	P-SS-53-0-1	03/12/09 10:15 AM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/20/09 11:00 AM	34105
0903102-05B	P-SS-53-0-1	03/12/09 10:15 AM	Soil	D2216	Moisture Preparation	03/16/09 10:00 AM	33951
0903102-06A	P-EB-W-3-1-09-01	03/12/09 10:45 AM	Equip Blank	E300	Anion Preparation	03/16/09 08:36 AM	33944
	P-EB-W-3-1-09-01	03/12/09 10:45 AM	Equip Blank	M2510 B	Conductivity Preparation	03/19/09 09:59 AM	34034
0903102-07A	P-EB-W-3-12-09-02	03/12/09 10:50 AM	Equip Blank	E300	Anion Preparation	03/16/09 08:36 AM	33944
	P-EB-W-3-12-09-02	03/12/09 10:50 AM	Equip Blank	M2510 B	Conductivity Preparation	03/19/09 09:59 AM	34034
0903102-08A	P-SS-54-0-1	03/12/09 11:20 AM	Soil	SW9056	Anion Prep	03/17/09 02:19 PM	33995
	P-SS-54-0-1	03/12/09 11:20 AM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/20/09 11:00 AM	34105
0903102-08B	P-SS-54-0-1	03/12/09 11:20 AM	Soil	D2216	Moisture Preparation	03/16/09 10:00 AM	33951
0903102-09A	P-SS-54-2-3	03/02/09 11:30 AM	Soil	SW9056	Anion Prep	03/17/09 02:19 PM	33995
	P-SS-54-2-3	03/02/09 11:30 AM	Soil	SW9056	Anion Prep	03/17/09 02:19 PM	33995
	P-SS-54-2-3	03/02/09 11:30 AM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/20/09 11:00 AM	34105
0903102-09B	P-SS-54-2-3	03/02/09 11:30 AM	Soil	D2216	Moisture Preparation	03/16/09 10:00 AM	33951
0903102-10A	P-SS-55-0-1	03/12/09 12:25 PM	Soil	SW9056	Anion Prep	03/17/09 02:19 PM	33995
	P-SS-55-0-1	03/12/09 12:25 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/20/09 11:00 AM	34105

CLIENT: TRC Environmental Corp.
Project: RRC Petronila - #7
Lab Order: 0903102

PREP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
0903102-10B	P-SS-55-0-1	03/12/09 12:25 PM	Soil	D2216	Moisture Preparation	03/16/09 10:00 AM	33951
0903102-11A	P-SS-56-0-1	03/12/09 12:45 PM	Soil	SW9056	Anion Prep	03/17/09 02:19 PM	33995
	P-SS-56-0-1	03/12/09 12:45 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/20/09 11:00 AM	34105
0903102-11B	P-SS-56-0-1	03/12/09 12:45 PM	Soil	D2216	Moisture Preparation	03/16/09 10:00 AM	33951
0903102-12A	P-SS-57-0-1	03/12/09 01:05 PM	Soil	SW9056	Anion Prep	03/17/09 02:19 PM	33995
	P-SS-57-0-1	03/12/09 01:05 PM	Soil	SSA/ASA 3:14	Conductivity Soil Preparation	03/20/09 11:00 AM	34105
0903102-12B	P-SS-57-0-1	03/12/09 01:05 PM	Soil	D2216	Moisture Preparation	03/16/09 10:00 AM	33951

CLIENT: TRC Environmental Corp.
Project: RRC Petronila - #7
Lab Order: 0903102

TCLP DATES REPORT

Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
0903102-01C	P-SS-50-0-1	03/12/09 08:30 AM	Soil	SW1312	SPLP Sample Prep (Metals)	04/01/09 04:00 PM	34259

CLIENT: TRC Environmental Corp.
Project: RRC Petronila - #7
Lab Order: 0903102

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
0903102-01A	P-SS-50-0-1	Soil	SW9056	Anions by IC method - Soil	33995	100	03/18/09 01:22 PM	IC2_090318B
	P-SS-50-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	34105	4	03/20/09 11:00 AM	WC_090320D
0903102-01B	P-SS-50-0-1	Soil	D2216	Percent Moisture	33951	1	03/16/09 03:05 PM	PMOIST_090316A
0903102-01C	P-SS-50-0-1	Soil	E300	SPLP Anions by IC	34289	100	04/02/09 05:28 PM	IC2_090402A
0903102-02A	P-SS-51-0-1	Soil	SW9056	Anions by IC method - Soil	33995	100	03/18/09 01:57 PM	IC2_090318B
	P-SS-51-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	34105	4	03/20/09 11:00 AM	WC_090320D
0903102-02B	P-SS-51-0-1	Soil	D2216	Percent Moisture	33951	1	03/16/09 03:05 PM	PMOIST_090316A
0903102-03A	P-SS-51-2-3	Soil	SW9056	Anions by IC method - Soil	33995	100	03/18/09 02:11 PM	IC2_090318B
	P-SS-51-2-3	Soil	ASA 3:14	Electrical Conductance in Soil	34105	1	03/20/09 11:00 AM	WC_090320D
0903102-03B	P-SS-51-2-3	Soil	D2216	Percent Moisture	33951	1	03/16/09 03:05 PM	PMOIST_090316A
0903102-04A	P-SS-52-0-1	Soil	SW9056	Anions by IC method - Soil	33995	100	03/18/09 02:26 PM	IC2_090318B
	P-SS-52-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	34105	1	03/20/09 11:00 AM	WC_090320D
0903102-04B	P-SS-52-0-1	Soil	D2216	Percent Moisture	33951	1	03/16/09 03:05 PM	PMOIST_090316A
0903102-05A	P-SS-53-0-1	Soil	SW9056	Anions by IC method - Soil	33995	100	03/18/09 02:41 PM	IC2_090318B
	P-SS-53-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	34105	1	03/20/09 11:00 AM	WC_090320D
0903102-05B	P-SS-53-0-1	Soil	D2216	Percent Moisture	33951	1	03/16/09 03:05 PM	PMOIST_090316A
0903102-06A	P-EB-W-3-1-09-01	Equip Blank	E300	Anions by IC method - Water	33944	1	03/16/09 09:35 AM	IC_090316A
	P-EB-W-3-1-09-01	Equip Blank	M2510 B	Specific Conductance	34034	1	03/19/09 10:00 AM	WC_090319A
0903102-07A	P-EB-W-3-12-09-02	Equip Blank	E300	Anions by IC method - Water	33944	1	03/16/09 09:51 AM	IC_090316A
	P-EB-W-3-12-09-02	Equip Blank	M2510 B	Specific Conductance	34034	1	03/19/09 10:00 AM	WC_090319A
0903102-08A	P-SS-54-0-1	Soil	SW9056	Anions by IC method - Soil	33995	100	03/18/09 02:55 PM	IC2_090318B
	P-SS-54-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	34105	4	03/20/09 11:00 AM	WC_090320D
0903102-08B	P-SS-54-0-1	Soil	D2216	Percent Moisture	33951	1	03/16/09 03:05 PM	PMOIST_090316A
0903102-09A	P-SS-54-2-3	Soil	SW9056	Anions by IC method - Soil	33995	100	03/18/09 03:10 PM	IC2_090318B
	P-SS-54-2-3	Soil	SW9056	Anions by IC method - Soil	33995	10	03/18/09 04:52 PM	IC2_090318B
	P-SS-54-2-3	Soil	ASA 3:14	Electrical Conductance in Soil	34105	1	03/20/09 11:00 AM	WC_090320D
0903102-09B	P-SS-54-2-3	Soil	D2216	Percent Moisture	33951	1	03/16/09 03:05 PM	PMOIST_090316A
0903102-10A	P-SS-55-0-1	Soil	SW9056	Anions by IC method - Soil	33995	100	03/18/09 04:08 PM	IC2_090318B
	P-SS-55-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	34105	1	03/20/09 11:00 AM	WC_090320D

CLIENT: TRC Environmental Corp.
Project: RRC Petronila - #7
Lab Order: 0903102

ANALYTICAL DATES REPORT

Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
0903102-10B	P-SS-55-0-1	Soil	D2216	Percent Moisture	33951	1	03/16/09 03:05 PM	PMOIST_090316A
0903102-11A	P-SS-56-0-1	Soil	SW9056	Anions by IC method - Soil	33995	100	03/18/09 04:22 PM	IC2_090318B
	P-SS-56-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	34105	1	03/20/09 11:00 AM	WC_090320D
0903102-11B	P-SS-56-0-1	Soil	D2216	Percent Moisture	33951	1	03/16/09 03:05 PM	PMOIST_090316A
0903102-12A	P-SS-57-0-1	Soil	SW9056	Anions by IC method - Soil	33995	100	03/18/09 04:37 PM	IC2_090318B
	P-SS-57-0-1	Soil	ASA 3:14	Electrical Conductance in Soil	34105	1	03/20/09 11:00 AM	WC_090320D
0903102-12B	P-SS-57-0-1	Soil	D2216	Percent Moisture	33951	1	03/16/09 03:05 PM	PMOIST_090316A

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-50-0-1
Project:	RRC Petronila - #7	Lab ID:	0903102-01
Project No:	166420-01	Collection Date:	03/12/09 08:30 AM
Lab Order:	0903102	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	26300	637	637		mg/Kg-dry	100	03/18/09 01:22 PM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	21.6	0	0		WT%	1	03/16/09 03:05 PM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	49200	40.0	40.0		µmhos/cm	4	03/20/09 11:00 AM
SPLP Anions by IC		E300					Analyst: JBC
Chloride	1090	30.0	100		mg/L	100	04/02/09 05:28 PM

Qualifiers:

	See Final Page of Report for MQLs and MDLs
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between SDL and RL
N	Parameter not NELAC certified
ND	Not Detected at the SDL
RL	Reporting Limit (MQL adjusted for moisture and sample size)
S	Spike Recovery outside control limits
SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-51-0-1
Project:	RRC Petronila - #7	Lab ID:	0903102-02
Project No:	166420-01	Collection Date:	03/12/09 09:00 AM
Lab Order:	0903102	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	16400	701	701		mg/Kg-dry	100	03/18/09 01:57 PM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	29.4	0	0		WT%	1	03/16/09 03:05 PM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	35000	40.0	40.0		µmhos/cm	4	03/20/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-51-2-3
Project:	RRC Petronila - #7	Lab ID:	0903102-03
Project No:	166420-01	Collection Date:	03/12/09 09:10 AM
Lab Order:	0903102	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	4450	612	612		mg/Kg-dry	100	03/18/09 02:11 PM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	23.3	0	0		WT%	1	03/16/09 03:05 PM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	11200	10.0	10.0		µmhos/cm	1	03/20/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-52-0-1
Project:	RRC Petronila - #7	Lab ID:	0903102-04
Project No:	166420-01	Collection Date:	03/12/09 09:55 AM
Lab Order:	0903102	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	7190	709	709		mg/Kg-dry	100	03/18/09 02:26 PM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	30.5	0	0		WT%	1	03/16/09 03:05 PM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	13900	10.0	10.0		µmhos/cm	1	03/20/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-53-0-1
Project:	RRC Petronila - #7	Lab ID:	0903102-05
Project No:	166420-01	Collection Date:	03/12/09 10:15 AM
Lab Order:	0903102	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	5460	639	639		mg/Kg-dry	100	03/18/09 02:41 PM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	26.6	0	0		WT%	1	03/16/09 03:05 PM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	11700	10.0	10.0		µmhos/cm	1	03/20/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between SDL and RL
N	Parameter not NELAC certified
ND	Not Detected at the SDL
RL	Reporting Limit (MQL adjusted for moisture and sample size)
S	Spike Recovery outside control limits
SDL	Sample Detection Limit

DHL Analytical

Date: 04/03/09

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-EB-W-3-1-09-01
Project:	RRC Petronila - #7	Lab ID:	0903102-06
Project No:	166420-01	Collection Date:	03/12/09 10:45 AM
Lab Order:	0903102	Matrix:	Equip Blank

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Water		**E300**					**Analyst: JBC**
Chloride	ND	0.300	1.00		mg/L	1	03/16/09 09:35 AM
Specific Conductance		**M2510 B**					**Analyst: AAD**
Specific Conductance	ND	10.0	10.0		µmhos/cm	1	03/19/09 10:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between SDL and RL
N	Parameter not NELAC certified
ND	Not Detected at the SDL
RL	Reporting Limit (MQL adjusted for moisture and sample size)
S	Spike Recovery outside control limits
SDL	Sample Detection Limit

DHL Analytical

Date: 04/03/09

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-EB-W-3-12-09-02
Project:	RRC Petronila - #7	Lab ID:	0903102-07
Project No:	166420-01	Collection Date:	03/12/09 10:50 AM
Lab Order:	0903102	Matrix:	Equip Blank

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Water		**E300**					**Analyst: JBC**
Chloride	ND	0.300	1.00		mg/L	1	03/16/09 09:51 AM
Specific Conductance		**M2510 B**					**Analyst: AAD**
Specific Conductance	ND	10.0	10.0		µmhos/cm	1	03/19/09 10:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between SDL and RL
N	Parameter not NELAC certified
ND	Not Detected at the SDL
RL	Reporting Limit (MQL adjusted for moisture and sample size)
S	Spike Recovery outside control limits
SDL	Sample Detection Limit

DHL Analytical

Date: 04/03/09

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-54-0-1
Project:	RRC Petronila - #7	Lab ID:	0903102-08
Project No:	166420-01	Collection Date:	03/12/09 11:20 AM
Lab Order:	0903102	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	16300	690	690		mg/Kg-dry	100	03/18/09 02:55 PM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	28.0	0	0		WT%	1	03/16/09 03:05 PM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	47800	40.0	40.0		µmhos/cm	4	03/20/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between SDL and RL
N	Parameter not NELAC certified
ND	Not Detected at the SDL
RL	Reporting Limit (MQL adjusted for moisture and sample size)
S	Spike Recovery outside control limits
SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-54-2-3
Project:	RRC Petronila - #7	Lab ID:	0903102-09
Project No:	166420-01	Collection Date:	03/02/09 11:30 AM
Lab Order:	0903102	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	1380	64.2	64.2		mg/Kg-dry	10	03/18/09 04:52 PM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	24.5	0	0		WT%	1	03/16/09 03:05 PM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	8010	10.0	10.0		µmhos/cm	1	03/20/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between SDL and RL
N	Parameter not NELAC certified
ND	Not Detected at the SDL
RL	Reporting Limit (MQL adjusted for moisture and sample size)
S	Spike Recovery outside control limits
SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-55-0-1
Project:	RRC Petronila - #7	Lab ID:	0903102-10
Project No:	166420-01	Collection Date:	03/12/09 12:25 PM
Lab Order:	0903102	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	2700	634	634		mg/Kg-dry	100	03/18/09 04:08 PM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	21.8	0	0		WT%	1	03/16/09 03:05 PM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	6250	10.0	10.0		µmhos/cm	1	03/20/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-56-0-1
Project:	RRC Petronila - #7	Lab ID:	0903102-11
Project No:	166420-01	Collection Date:	03/12/09 12:45 PM
Lab Order:	0903102	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	2490	562	562		mg/Kg-dry	100	03/18/09 04:22 PM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	12.8	0	0		WT%	1	03/16/09 03:05 PM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	5060	10.0	10.0		µmhos/cm	1	03/20/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs
B	Analyte detected in the associated Method Blank
C	Sample Result or QC discussed in the Case Narrative
DF	Dilution Factor
E	TPH pattern not Gas or Diesel Range Pattern
J	Analyte detected between SDL and RL
N	Parameter not NELAC certified
ND	Not Detected at the SDL
RL	Reporting Limit (MQL adjusted for moisture and sample size)
S	Spike Recovery outside control limits
SDL	Sample Detection Limit

CLIENT:	TRC Environmental Corp.	Client Sample ID:	P-SS-57-0-1
Project:	RRC Petronila - #7	Lab ID:	0903102-12
Project No:	166420-01	Collection Date:	03/12/09 01:05 PM
Lab Order:	0903102	Matrix:	Soil

Analyses	Result	SDL	RL	Qual	Units	DF	Date Analyzed
Anions by IC method - Soil		SW9056					Analyst: JBC
Chloride	3150	583	583		mg/Kg-dry	100	03/18/09 04:37 PM
Percent Moisture		D2216					Analyst: RP
Percent Moisture	16.6	0	0		WT%	1	03/16/09 03:05 PM
Electrical Conductance in Soil		ASA 3:14					Analyst: AAD
Specific Conductance	5400	10.0	10.0		µmhos/cm	1	03/20/09 11:00 AM

Qualifiers:

	See Final Page of Report for MQLs and MDLs	J	Analyte detected between SDL and RL
B	Analyte detected in the associated Method Blank	N	Parameter not NELAC certified
C	Sample Result or QC discussed in the Case Narrative	ND	Not Detected at the SDL
DF	Dilution Factor	RL	Reporting Limit (MQL adjusted for moisture and sample size)
E	TPH pattern not Gas or Diesel Range Pattern	S	Spike Recovery outside control limits
		SDL	Sample Detection Limit

CLIENT: TRC Environmental Corp.
Work Order: 0903102
Project: RRC Petronila - #7

ANALYTICAL QC SUMMARY REPORT

RunID: IC_090316A

Sample ID:	LCS-33944	Batch ID:	33944		TestNo:		E300		Units:		mg/L
SampType:	LCS	Run ID:	IC_090316A		Analysis Date:		03/16/09 08:35 AM		Prep Date:		03/16/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		10.5	1.00	10.00	0	105	90	110			

Sample ID:	LCSD-33944	Batch ID:	33944		TestNo:		E300		Units:		mg/L
SampType:	LCSD	Run ID:	IC_090316A		Analysis Date:		03/16/09 08:50 AM		Prep Date:		03/16/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		10.4	1.00	10.00	0	104	90	110	0.394	20	

Sample ID:	MB-33944	Batch ID:	33944		TestNo:		E300		Units:		mg/L
SampType:	MBLK	Run ID:	IC_090316A		Analysis Date:		03/16/09 09:04 AM		Prep Date:		03/16/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		ND	1.00								

Sample ID:	0903106-01B MS	Batch ID:	33944		TestNo:		E300		Units:		mg/L
SampType:	MS	Run ID:	IC_090316A		Analysis Date:		03/16/09 12:02 PM		Prep Date:		03/16/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		137	10.0	100.0	35.27	102	90	110			

Sample ID:	0903106-01B MSD	Batch ID:	33944		TestNo:		E300		Units:		mg/L
SampType:	MSD	Run ID:	IC_090316A		Analysis Date:		03/16/09 12:17 PM		Prep Date:		03/16/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		138	10.0	100.0	35.27	102	90	110	0.184	20	

Qualifiers:				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903102
Project: RRC Petronila - #7

ANALYTICAL QC SUMMARY REPORT

RunID: IC_090316A

Sample ID:	ICV-090316	Batch ID:	R42360		TestNo:		E300		Units:		mg/L
SampType:	ICV	Run ID:	IC_090316A		Analysis Date:		03/16/09 08:17 AM		Prep Date:		03/16/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		27.4	1.00	25.00	0	110	90	110			

Sample ID:	CCV1-090316	Batch ID:	R42360		TestNo:		E300		Units:		mg/L
SampType:	CCV	Run ID:	IC_090316A		Analysis Date:		03/16/09 11:23 AM		Prep Date:		03/16/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		10.5	1.00	10.00	0	105	90	110			

Sample ID:	CCV2-090316	Batch ID:	R42360		TestNo:		E300		Units:		mg/L
SampType:	CCV	Run ID:	IC_090316A		Analysis Date:		03/16/09 02:40 PM		Prep Date:		03/16/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		10.6	1.00	10.00	0	106	90	110			

Qualifiers:				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903102
Project: RRC Petronila - #7

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_090318B

Sample ID:	LCS-33995	Batch ID:	33995		TestNo:		SW9056		Units:		mg/Kg
SampType:	LCS	Run ID:	IC2_090318B		Analysis Date:		03/18/09 08:40 AM		Prep Date:		03/17/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		46.3	5.00	50.00	0	92.6	80	120			

Sample ID:	LCSD-33995	Batch ID:	33995		TestNo:		SW9056		Units:		mg/Kg
SampType:	LCSD	Run ID:	IC2_090318B		Analysis Date:		03/18/09 08:54 AM		Prep Date:		03/17/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		45.9	5.00	50.00	0	91.8	80	120	0.901	20	

Sample ID:	MB-33995	Batch ID:	33995		TestNo:		SW9056		Units:		mg/Kg
SampType:	MBLK	Run ID:	IC2_090318B		Analysis Date:		03/18/09 09:09 AM		Prep Date:		03/17/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		ND	5.00								

Sample ID:	0903102-01A DUP	Batch ID:	33995		TestNo:		SW9056		Units:		mg/Kg-dry
SampType:	DUP	Run ID:	IC2_090318B		Analysis Date:		03/18/09 01:42 PM		Prep Date:		03/17/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		26000	3190	0	26270				1.18	20	

Sample ID:	0903102-01A MS	Batch ID:	33995		TestNo:		SW9056		Units:		mg/Kg-dry
SampType:	MS	Run ID:	IC2_090318B		Analysis Date:		03/18/09 03:25 PM		Prep Date:		03/17/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		21800	635	6349	15760	94.3	80	120			

Sample ID:	0903102-01A MSD	Batch ID:	33995		TestNo:		SW9056		Units:		mg/Kg-dry
SampType:	MSD	Run ID:	IC2_090318B		Analysis Date:		03/18/09 03:38 PM		Prep Date:		03/17/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		21800	635	6349	15760	94.9	80	120	0.157	20	

Qualifiers:				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903102
Project: RRC Petronila - #7

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_090318B

Sample ID:	ICV-090318	Batch ID:	R42389	TestNo:	SW9056	Units:	mg/Kg
SampType:	ICV	Run ID:	IC2_090318B	Analysis Date:	03/18/09 08:06 AM	Prep Date:	03/18/09

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride	24.1	5.00	25.00	0	96.6	90	110			

Sample ID:	CCV1-090318	Batch ID:	R42389	TestNo:	SW9056	Units:	mg/Kg
SampType:	CCV	Run ID:	IC2_090318B	Analysis Date:	03/18/09 11:07 AM	Prep Date:	03/18/09

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride	9.08	5.00	10.00	0	90.8	90	110			

Sample ID:	CCV2-090318	Batch ID:	R42389	TestNo:	SW9056	Units:	mg/Kg
SampType:	CCV	Run ID:	IC2_090318B	Analysis Date:	03/18/09 01:03 PM	Prep Date:	03/18/09

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride	9.19	5.00	10.00	0	91.9	90	110			

Sample ID:	CCV3-090318	Batch ID:	R42389	TestNo:	SW9056	Units:	mg/Kg
SampType:	CCV	Run ID:	IC2_090318B	Analysis Date:	03/18/09 03:53 PM	Prep Date:	03/18/09

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride	9.20	5.00	10.00	0	92.0	90	110			

Sample ID:	CCV4-090318	Batch ID:	R42389	TestNo:	SW9056	Units:	mg/Kg
SampType:	CCV	Run ID:	IC2_090318B	Analysis Date:	03/18/09 05:06 PM	Prep Date:	03/18/09

Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride	9.11	5.00	10.00	0	91.1	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
DF	Dilution Factor	RL	Reporting Limit
J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
MDL	Method Detection Limit	J	Analyte detected between SDL and RL
ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903102
Project: RRC Petronila - #7

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_090402A

Sample ID:	LCS-34289	Batch ID:	34289		TestNo:		E300		Units:		mg/L
SampType:	LCS	Run ID:	IC2_090402A		Analysis Date:		04/02/09 09:40 AM		Prep Date:		04/02/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		9.14	1.00	10.00	0	91.4	90	110			

Sample ID:	LCSD-34289	Batch ID:	34289		TestNo:		E300		Units:		mg/L
SampType:	LCSD	Run ID:	IC2_090402A		Analysis Date:		04/02/09 09:54 AM		Prep Date:		04/02/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		9.12	1.00	10.00	0	91.2	90	110	0.269	20	

Sample ID:	MB-34289	Batch ID:	34289		TestNo:		E300		Units:		mg/L
SampType:	MBLK	Run ID:	IC2_090402A		Analysis Date:		04/02/09 10:09 AM		Prep Date:		04/02/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		ND	1.00								

Sample ID:	0903083-01C MS	Batch ID:	34289		TestNo:		E300		Units:		mg/L
SampType:	MS	Run ID:	IC2_090402A		Analysis Date:		04/02/09 03:43 PM		Prep Date:		04/02/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		1380	100	1000	465.5	91.0	90	110			

Sample ID:	0903083-01C MSD	Batch ID:	34289		TestNo:		E300		Units:		mg/L
SampType:	MSD	Run ID:	IC2_090402A		Analysis Date:		04/02/09 03:58 PM		Prep Date:		04/02/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		1380	100	1000	465.5	91.0	90	110	0.00945	20	

Qualifiers:				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903102
Project: RRC Petronila - #7

ANALYTICAL QC SUMMARY REPORT

RunID: IC2_090402A

Sample ID:	ICV-090402	Batch ID:	R42666		TestNo:		E300		Units:		mg/L
SampType:	ICV	Run ID:	IC2_090402A		Analysis Date:		04/02/09 09:15 AM		Prep Date:		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		23.8	1.00	25.00	0	95.4	90	110			

Sample ID:	CCV1-090402	Batch ID:	R42666		TestNo:		E300		Units:		mg/L
SampType:	CCV	Run ID:	IC2_090402A		Analysis Date:		04/02/09 05:11 PM		Prep Date:		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		9.13	1.00	10.00	0	91.3	90	110			

Sample ID:	CCV2-090402	Batch ID:	R42666		TestNo:		E300		Units:		mg/L
SampType:	CCV	Run ID:	IC2_090402A		Analysis Date:		04/02/09 05:47 PM		Prep Date:		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Chloride		9.12	1.00	10.00	0	91.2	90	110			

Qualifiers:				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903102
Project: RRC Petronila - #7

ANALYTICAL QC SUMMARY REPORT

RunID: PMOIST_090316A

Sample ID:	0903107-06B-DUP	Batch ID:	33951	TestNo:	D2216		Units:	WT%		
SampType:	DUP	Run ID:	PMOIST_090316A	Analysis Date:	03/16/09 03:05 PM		Prep Date:	03/16/09		
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Percent Moisture		9.47	0	0	9.461				0.129	30	

Qualifiers:				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903102
Project: RRC Petronila - #7

ANALYTICAL QC SUMMARY REPORT

RunID: WC_090319A

Sample ID:	MB-34034	Batch ID:	34034		TestNo:	M2510 B			Units:		µmhos/cm
SampType:	MBLK	Run ID:	WC_090319A		Analysis Date:	03/19/09 10:00 AM			Prep Date:		03/19/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		ND	10.0								

Sample ID:	LCS-34034	Batch ID:	34034		TestNo:	M2510 B			Units:		µmhos/cm
SampType:	LCS	Run ID:	WC_090319A		Analysis Date:	03/19/09 10:00 AM			Prep Date:		03/19/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		1370	10.0	1413	0	97.0	95	105			

Sample ID:	0903125-08B-DUP	Batch ID:	34034		TestNo:	M2510 B			Units:		µmhos/cm
SampType:	DUP	Run ID:	WC_090319A		Analysis Date:	03/19/09 10:00 AM			Prep Date:		03/19/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		53900	10.0	0	53750				0.279	2	

Sample ID:	0903106-01B-DUP	Batch ID:	34034		TestNo:	M2510 B			Units:		µmhos/cm
SampType:	DUP	Run ID:	WC_090319A		Analysis Date:	03/19/09 10:00 AM			Prep Date:		03/19/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		582	10.0	0	583.0				0.172	2	

Qualifiers:				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903102
Project: RRC Petronila - #7

ANALYTICAL QC SUMMARY REPORT

RunID: WC_090319A

Sample ID:	ICV-090319	Batch ID:	CONDW-03/19/09	TestNo:	M2510 B			Units:	µmhos/cm	
SampType:	ICV	Run ID:	WC_090319A	Analysis Date:	03/19/09 10:00 AM			Prep Date:	03/19/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit Qual
Specific Conductance		12900	10.0	12880	0	99.9	95	105		

Sample ID:	CCV1-090319	Batch ID:	CONDW-03/19/09	TestNo:	M2510 B			Units:	µmhos/cm	
SampType:	CCV	Run ID:	WC_090319A	Analysis Date:	03/19/09 10:00 AM			Prep Date:	03/19/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit Qual
Specific Conductance		12900	10.0	12880	0	99.8	95	105		

Sample ID:	CCV2-090319	Batch ID:	CONDW-03/19/09	TestNo:	M2510 B			Units:	µmhos/cm	
SampType:	CCV	Run ID:	WC_090319A	Analysis Date:	03/19/09 10:00 AM			Prep Date:	03/19/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit Qual
Specific Conductance		12600	10.0	12880	0	98.2	95	105		

Sample ID:	CCV3-090319	Batch ID:	CONDW-03/19/09	TestNo:	M2510 B			Units:	µmhos/cm	
SampType:	CCV	Run ID:	WC_090319A	Analysis Date:	03/19/09 10:00 AM			Prep Date:	03/19/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit Qual
Specific Conductance		12700	10.0	12880	0	98.9	95	105		

Qualifiers:

B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
DF	Dilution Factor	RL	Reporting Limit
J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
MDL	Method Detection Limit	J	Analyte detected between SDL and RL
ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903102
Project: RRC Petronila - #7

ANALYTICAL QC SUMMARY REPORT

RunID: WC_090320D

Sample ID:	MB-34105	Batch ID:	34105		TestNo:		ASA 3:14		Units:		µmhos/cm
SampType:	MBLK	Run ID:	WC_090320D		Analysis Date:		03/20/09 11:00 AM		Prep Date:		03/20/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		ND	10.0								

Sample ID:	LCS-34105	Batch ID:	34105		TestNo:		ASA 3:14		Units:		µmhos/cm
SampType:	LCS	Run ID:	WC_090320D		Analysis Date:		03/20/09 11:00 AM		Prep Date:		03/20/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		1370	10.0	1413	0	97.2	91	107			

Sample ID:	0903102-09A-DUP	Batch ID:	34105		TestNo:		ASA 3:14		Units:		µmhos/cm
SampType:	DUP	Run ID:	WC_090320D		Analysis Date:		03/20/09 11:00 AM		Prep Date:		03/20/09
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		7960	10.0	0	8010				0.626	25	

Qualifiers:				
	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903102
Project: RRC Petronila - #7

ANALYTICAL QC SUMMARY REPORT

RunID: WC_090320D

Sample ID:	ICV-090320	Batch ID:	CONDW-03/20/09	TestNo:		ASA 3:14		Units:		µmhos/cm	
SampType:	ICV	Run ID:	WC_090320D	Analysis Date:		03/20/09 11:00 AM		Prep Date:		03/20/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		12900	10.0	12880	0	100	90	110			

Sample ID:	CCV1-090320	Batch ID:	CONDW-03/20/09	TestNo:		ASA 3:14		Units:		µmhos/cm	
SampType:	CCV	Run ID:	WC_090320D	Analysis Date:		03/20/09 11:00 AM		Prep Date:		03/20/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		12700	10.0	12880	0	98.8	90	110			

Sample ID:	CCV2-090320	Batch ID:	CONDW-03/20/09	TestNo:		ASA 3:14		Units:		µmhos/cm	
SampType:	CCV	Run ID:	WC_090320D	Analysis Date:		03/20/09 11:00 AM		Prep Date:		03/20/09	
Analyte		Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Specific Conductance		12600	10.0	12880	0	97.7	90	110			

Qualifiers:

B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
DF	Dilution Factor	RL	Reporting Limit
J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
MDL	Method Detection Limit	J	Analyte detected between SDL and RL
ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: TRC Environmental Corp.
Work Order: 0903102
Project: RRC Petronila - #7

MQL SUMMARY REPORT

TestNo: E300 Analyte	MDL mg/L	MQL mg/L
Chloride	0.300	1.00

TestNo: SW9056 Analyte	MDL mg/Kg	MQL mg/Kg
Chloride	5.00	5.00

TestNo: ASA 3:14 Analyte	MDL µmhos/cm	MQL µmhos/cm
Specific Conductance	10.0	10.0

TestNo: M2510 B Analyte	MDL µmhos/cm	MQL µmhos/cm
Specific Conductance	10.0	10.0

TestNo: E300 Analyte	MDL mg/L	MQL mg/L
Chloride	0.300	1.00

Qualifiers:
MQL - Method Quantitation Limit as defined by TRRP
MDL - Method Detection Limit as defined by TRRP

Data Review Report

Site:	Petronila Creek – Ditch Sampling
Laboratory:	DHL Analytical – Round Rock, Texas
Work Order(s):	0903050, 0903083, and 0903102
Reviewer:	Steve Miller/TRC Environmental Corporation
Date:	April 6, 2009

Table 1: Samples Reviewed

Matrix	TRC Sample ID	Collection Date	Lab Sample ID
Soil	P-SS-31-0-1	3/9/2009	0903050-01
Soil	P-SS-32-0-1	3/9/2009	0903050-02
Soil	P-SS-33-0-1	3/9/2009	0903050-03
Soil	P-SS-33-2-3	3/9/2009	0903050-04
Soil	P-SS-34-0-1	3/9/2009	0903050-05
Soil	P-SS-34-2-3	3/9/2009	0903050-06
Soil	P-SS-35-0-1	3/9/2009	0903050-07
Soil	P-SS-36-0-1	3/9/2009	0903050-08
Soil	P-SS-37-0-1	3/10/2009	0903083-01
Soil	P-SS-37-2-3	3/10/2009	0903083-02
Soil	P-SS-38-0-1	3/10/2009	0903083-03
Soil	P-SS-39-0-1	3/10/2009	0903083-04
Soil	P-SS-39-2-3	3/10/2009	0903083-05
Soil	P-SS-40-0-1	3/10/2009	0903083-06
Soil	P-SS-41-0-1	3/11/2009	0903083-07
Soil	P-SS-41-2-3	3/11/2009	0903083-08
Soil	P-SS-42-0-1	3/11/2009	0903083-09
Soil	P-SS-43-0-1	3/11/2009	0903083-10
Soil	P-SS-43-2-3	3/11/2009	0903083-11
Soil	P-SS-44-0-1	3/11/2009	0903083-12
Soil	P-SS-45-0-1	3/11/2009	0903083-13
Soil	P-SS-46-0-1	3/11/2009	0903083-14
Soil	P-SS-47-0-1	3/11/2009	0903083-15
Soil	P-SS-47-2-3	3/11/2009	0903083-16
Soil	P-SS-48-0-1	3/11/2009	0903083-17
Soil	P-SS-48-2-3	3/11/2009	0903083-18
Soil	P-SS-49-0-1	3/11/2009	0903083-19

Table 1: Samples Reviewed (continued)

Matrix	TRC Sample ID	Collection Date	Lab Sample ID
Soil	P-SS-50-0-1	3/12/2009	0903102-01
Soil	P-SS-51-0-1	3/12/2009	0903102-02
Soil	P-SS-51-2-3	3/12/2009	0903102-03
Soil	P-SS-52-0-1	3/12/2009	0903102-04
Soil	P-SS-53-0-1	3/12/2009	0903102-05
Water	P-EB-W-3-1-09-01	3/12/2009	0903102-06
Water	P-EB-W-3-12-09-02	3/12/2009	0903102-07
Soil	P-SS-54-0-1	3/12/2009	0903102-08
Soil	P-SS-54-2-3	3/12/2009	0903102-09
Soil	P-SS-55-0-1	3/12/2009	0903102-10
Soil	P-SS-56-0-1	3/12/2009	0903102-11
Soil	P-SS-57-0-1	3/12/2009	0903102-12

The samples listed in Table 1 were analyzed for:

- Chloride by SW846 Method 9056
- Percent Moisture by American Society for Testing and Materials (ASTM) Method D 2216
- Specific Conductance by American Society of Agronomy (ASA) Method 3:14

Synthetic precipitation leaching procedure (SPLP) chloride is also reported for some samples. SPLP extraction was performed using SW846 Method 1312.

Data review was performed in accordance with the *Investigation of Increased Salinity Along Petronila Creek (Segment 2204) Quality Assurance Project Plan* (March 7, 2008) (the QAPP). QAPP-specified recovery limits were used as evaluation criteria.

Sensitivity

All target analytes were detected every submitted field sample. That is, non-detected results are not reported for these samples. Therefore, sensitivity is not an issue for this data set.

Temperature and Holding Times

Maximum holding times and temperature guidelines are established for each method to ensure that analyses are conducted prior to possible changes in analyte concentration over time and that analyte concentrations do not change due to temperature fluctuations.

Samples were received at the laboratory adequately preserved. All sample preparation and analytical steps were performed within the EPA-recommended holding times specified in QAPP Table B2.1. No data interpretation issues are identified for temperature and holding times.

Method Blanks

A method blank is an aliquot of reagent matrix taken through the analytical process as though it were an actual sample. The purpose of a method blank analysis is to monitor for laboratory sources of contamination.

Target analytes were not detected in reported method blank analyses. These results indicate that laboratory's efforts to adequately control contamination were successful.

Equipment Blanks

Equipment blanks are aliquots of analyte-free water that are poured over decontaminated sample collection equipment, collected in sample containers, and submitted to the laboratory for analysis. The purpose of an equipment blank is to monitor for sources of contamination present due to inadequate equipment decontamination.

Chloride and specific conductance were not detected in the two submitted equipment blanks indicating that sample collection equipment was adequately decontaminated.

Laboratory Control Samples

To assess the preparatory and analytical accuracy and precision in the absence of matrix effects, laboratory control sample (LCS) analyses were performed. Target analytes are spiked at known concentrations into analyte-free matrix and processed (prepared and analyzed) with the project samples.

All recoveries of spiked analytes reported in LCS analyses are within acceptance criteria indicating adequate laboratory control at the time of sample analysis.

Matrix Spikes

A matrix spike sample is a field sample that is spiked at known concentrations with target analytes. Both spiked and unspiked aliquots of this sample are analyzed. This type of spiked sample is analyzed to assess matrix effects for the specific sites associated with the investigation as well as on the preparatory and analytical procedures.

Samples P-SS-36-0-1, P-SS-37-0-1, P-SS-42-0-1, and P-SS-50-0-1 were analyzed as MS/MSD pairs for chloride. All recoveries and relative percent difference (RPD) values are within QAPP-specified control limits and no data interpretation issues are indicated.

Laboratory Duplicates

A laboratory duplicate is a second analysis of a submitted field sample analyzed to satisfy a method or laboratory policy requirement – the sample submitter does not specifically request this analysis. Laboratory duplicate pairs provide an indication of measurement variability in sample preparation and analysis given the presence of matrix effects.

Sample P-SS-36-0-1 was analyzed as a laboratory duplicate for chloride, specific conductance, and percent moisture. Samples P-SS-37-0-1 and P-SS-42-0-1 were analyzed as laboratory duplicates for specific conductance. Samples P-SS-43-0-1 and P-SS-49-0-1 were analyzed as laboratory duplicates for moisture content. All recoveries are within expected limits. No data interpretation issues are indicated for these analyses.

Field Duplicates

Field duplicates were not collected as part of this sample collection event.

APPENDIX C

PRECIPITATION DATA FOR CORPUS CHRISTI, TEXAS (2004 – 2009)

Appendix C. Precipitation Data for Corpus Christi, Texas (2004 – 2009)

Month/Year	Monthly/Yearly Precipitation Total (inches)	Monthly/Yearly Precipitation Average (inches)	Departure from Average (inches)
January 2004	2.00	1.62	0.38
February 2004	2.14	1.84	0.30
March 2004	1.08	1.74	-0.66
April 2004	9.21	2.05	7.16
May 2004	5.36	3.48	1.88
June 2004	2.44	3.53	-1.09
July 2004	1.27	2.00	-0.73
August 2004	0.18	3.54	-3.36
September 2004	8.73	5.03	3.70
October 2004	0.72	3.94	-3.22
November 2004	1.25	1.74	-0.49
December 2004	0.48	1.75	-1.27
Total - 2004	34.86	32.26	2.60
January 2005	0.74	1.62	-0.88
February 2005	3.02	1.84	1.18
March 2005	2.46	1.74	0.72
April 2005	0.21	2.05	-1.84
May 2005	1.90	3.48	-1.58
June 2005	1.94	3.53	-1.59
July 2005	1.83	2.00	-0.17
August 2005	0.25	3.54	-3.29
September 2005	4.43	5.03	-0.60
October 2005	3.15	3.94	-0.79
November 2005	5.02	1.74	3.28

Appendix C. Precipitation Data for Corpus Christi, Texas (2004 – 2009)

December 2005	0.36	1.75	-1.39
Total - 2005	25.31	32.26	-6.95
January 2006	0.26	1.62	-1.36
February 2006	0.05	1.84	-1.79
March 2006	0.33	1.74	-1.41
April 2006	0.25	2.05	-1.80
May 2006	4.43	3.48	0.95
June 2006	11.19	3.53	7.66
July 2006	5.26	2.00	3.26
August 2006	0.61	3.54	-2.93
September 2006	7.11	5.03	2.08
October 2006	2.25	3.94	-1.69
November 2006	0.08	1.74	-1.66
December 2006	2.11	1.75	0.36
Total – 2006	33.93	32.26	1.67
January 2007	4.78	1.62	3.16
February 2007	0.08	1.84	-1.76
March 2007	2.74	1.74	1.00
April 2007	0.93	2.05	-1.12
May 2007	2.23	3.48	-1.25
June 2007	2.47	3.53	-1.06
July 2007	18.13	2.00	16.13
August 2007	5.25	3.54	1.71
September 2007	3.79	5.03	-1.24
October 2007	0.38	3.94	-3.56
November 2007	0.59	1.74	-1.15

Appendix C. Precipitation Data for Corpus Christi, Texas (2004 – 2009)

December 2007	0.14	1.75	-1.61
Total – 2007	41.51	32.26	9.25
January 2008	1.77	1.62	0.15
February 2008	0.16	1.84	-1.68
March 2008	1.58	1.74	-0.16
April 2008	2.36	2.05	0.31
May 2008	1.26	3.48	-2.22
June 2008	0.70	3.53	-2.83
July 2008	9.43	2.00	7.43
August 2008	6.02	3.54	2.48
September 2008	1.94	5.03	-3.09
October 2008	1.88	3.94	-2.06
November 2008	0.46	1.74	-1.28
December 2008	0.43	1.75	-1.32
Total – 2008	27.99	32.26	-4.27
January 2009	0.07	1.62	-1.55
February 2009	0.10	1.84	-1.74
March 2009	0.99	1.74	-0.75

Notes:

1. Source = National Oceanic and Atmospheric Administration (NOAA) National Weather Service (NWS), Corpus Christi International Airport (CRP), Corpus Christi, Texas (Viewed May, 2009)

APPENDIX D

LETTER OF DETERMINATION

DEPARTMENT OF THE ARMY
GALVESTON DISTRICT, CORPS OF ENGINEERS
Corps Christi Regulatory Field Office
5151 Flynn Parkway, Suite 306
Corps Christi, Texas 78411-4318

REPLY TO
ATTENTION OF:

August 28, 2008

Regulatory Branch

SUBJECT: SWG-2008-00672

TRC
Attention: Carla Kartman
505 East Huntland Drive, Suite 250
Austin, Texas 78752-3740

Ladies and Gentlemen:

This is in reference to your May 30, 2008, letter, requesting a jurisdictional determination for sections of the Clara Driscoll Drainage Ditch and North Clara Driscoll Drainage Ditch. The portion of the Clara Driscoll Drainage Ditch under review is located adjacent to County Road (CR) 18 along the section of the CR located between CR 75 and CR 77. The portion of the North Clara Driscoll Drainage Ditch under review is located along CR 75 including the portion that crosses CR 24. Both sites are located approximately 2 miles east of Driscoll, Nueces County, as shown on the enclosed plans in 2 sheets.

According to the information in your letter, the two drainage ditches collect surface water run-off from the surrounding farm and agricultural land, and in the past also collected water from oil and gas operations. Based on our review of this information, the U.S.G.S. Quad Map and NWI map for Driscoll, NE Texas, the Soil Survey for Nueces County, and the FEMA FIRM map for Nueces County, Community Panels 485494, 0475C (March 18, 1985), we have determined that the proposed work is not subject to Corps of Engineers' jurisdiction. Non-tidal drainage ditches constructed in uplands are typically not considered waters of the U.S. Only activities that impact navigable waters or involve fill in waters of the U.S., including wetlands, require a Department of the Army permit. Therefore, no permit is required for your proposed work. Best management practices, such as maintaining silt fences while work is performed in and around the ditches, must be utilized when working near Petronila Creek to prevent erosion and protect the water quality of jurisdictional waters of the U.S.

This determination has been conducted to identify the limits of the Corps of Engineers' Clean Water Act jurisdiction for the particular site identified in this request. This determination may not be valid for the wetland conservation provision of the Food Security Act of 1985, as amended. If the owner or their

tenant are USDA program participants or anticipate participation in the USDA programs, then they should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

This letter contains an approved jurisdictional determination for your subject site. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed you will find a combined Notification of Administrative Appeal Options and Process (NAP) and Request for Appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the Southwestern Division Office at the following address:

James E. Gilmore, Appeal Review Officer
Southwestern Division, CESWD-PDS-O
1100 Commerce Street, Suite 831, Room 8E9
Dallas, Texas 75242-1317

Telephone: 469-487-7061; FAX: 469-487-7199

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 C.F.R. part 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address within 60 days of the date of this letter.

It is not necessary to submit an RFA form to the Division office if you do not object to the determination in this letter.

This approved determination is valid for five years from the date of this letter unless new information warrants revision before the expiration date. Please reference the determination number SWG-2008-00672 in future correspondence pertaining to this project. If you have questions concerning this matter, please contact Marie C. Pattillo at the letterhead address or by telephone at 361-814-5847.

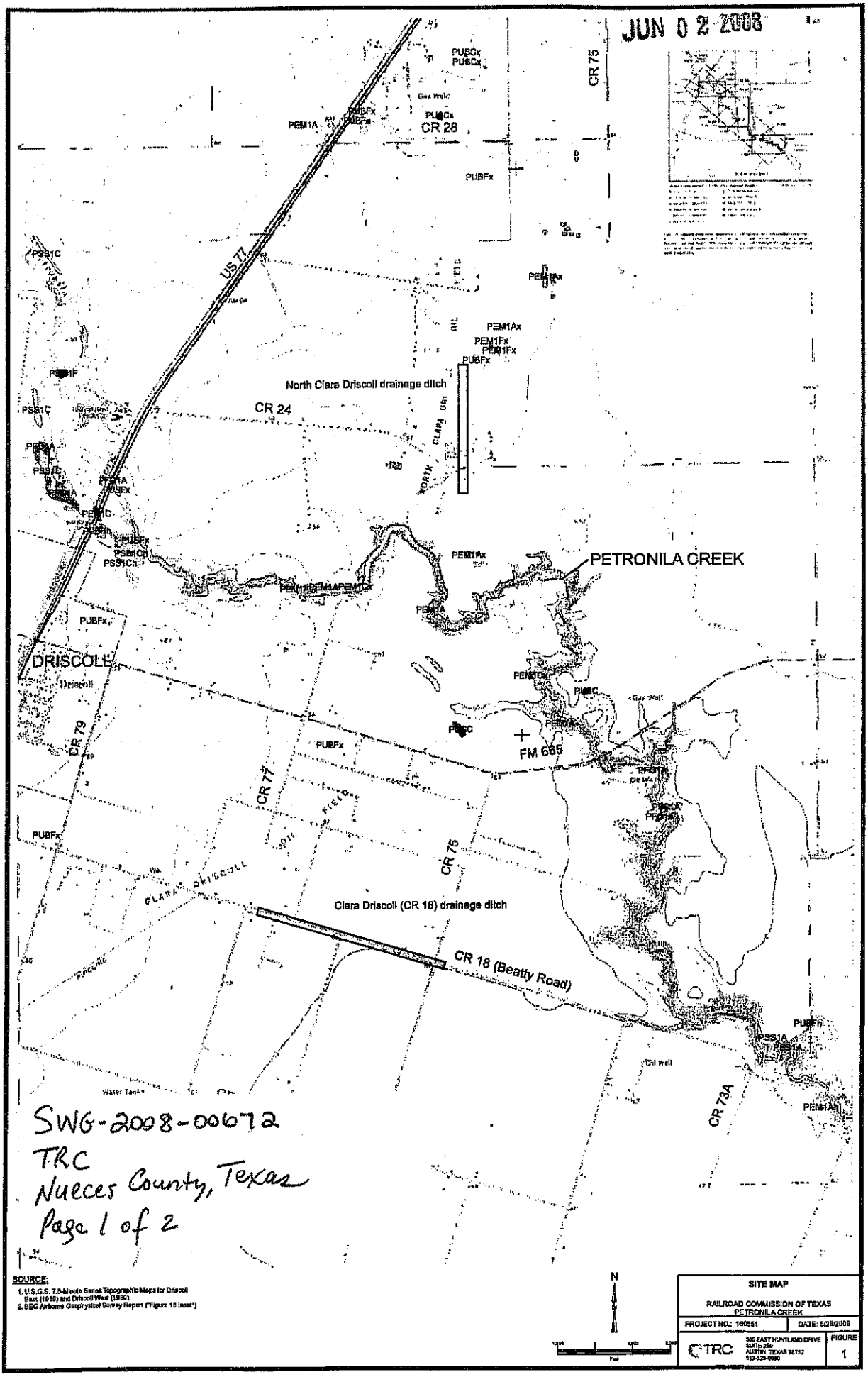
Sincerely,

Lloyd Mullins
Unit Leader
Corpus Christi Regulatory Field Office

Enclosures

SWG-2008-00672

JUN 02 2008



SWG-2008-00672
TRC
Nueces County, Texas
Page 1 of 2

SOURCE:
1. U.S.G.S. 7.5-Minute Series Topographic Maps for Driscoll East (1980) and Driscoll West (1980).
2. SEG Airborne Geophysical Survey Report ("Figure 15 Inset")

N

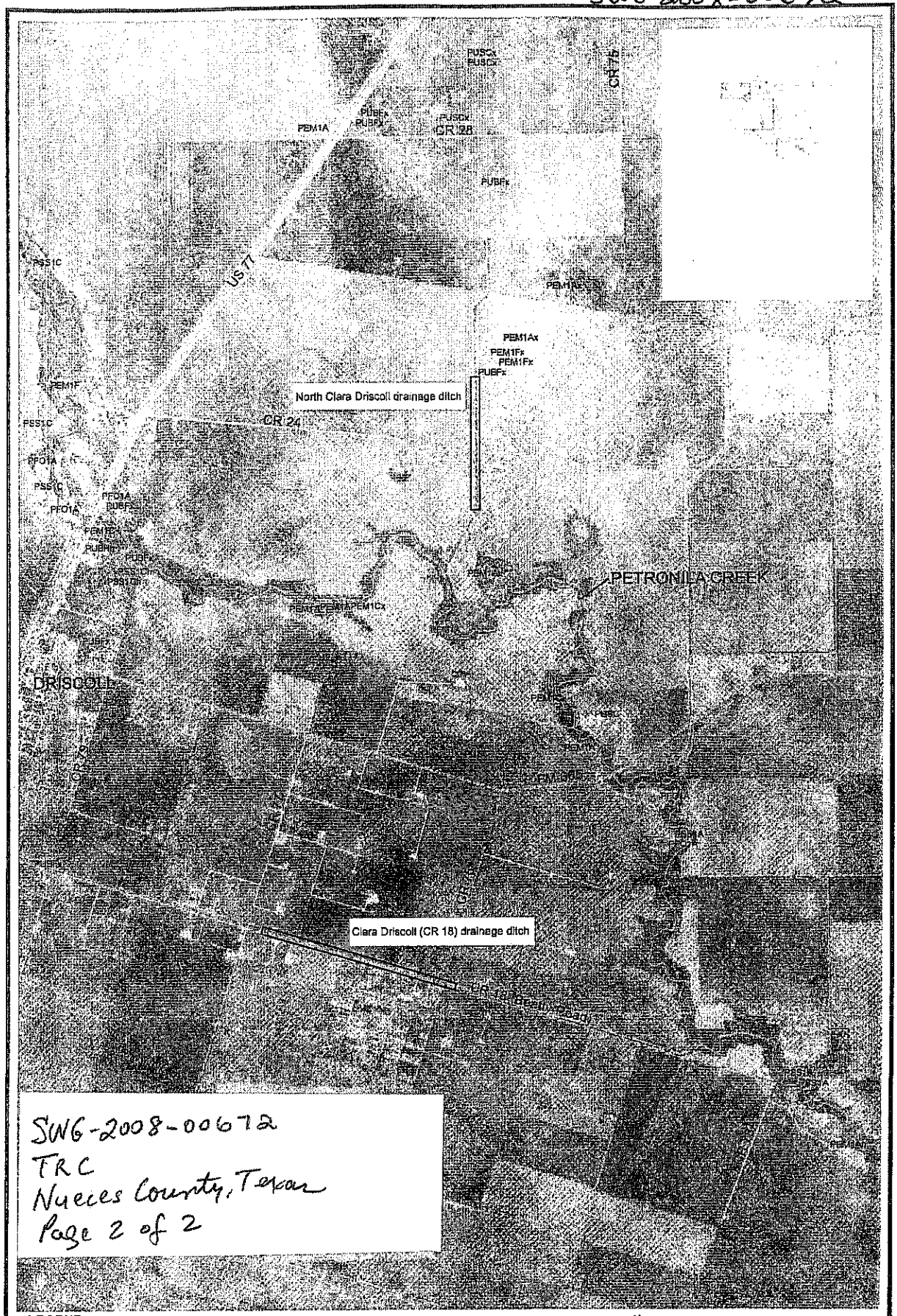
SITE MAP
RAILROAD COMMISSION OF TEXAS
PETRONILA CREEK

PROJECT NO.: 160551	DATE: 5/28/2008

TRC — 505 EAST HUNTLAND DRIVE SUITE 250 AUSTIN, TEXAS 78752 512-329-6080

FIGURE 1

SWG-2008-00672



SWG-2008-00672
TRC
Nueces County, Texas
Page 2 of 2

LEGEND

Surface Drainage (Petronila Creek and drainage ditches)

SOURCE:

1. U.S.G.S. Digital Ortho Quarter Quads (DOQQs) for Concordia NE (2004), Concordia NW (2004), Driscoll East NE (2004), Driscoll East NW (2004), Driscoll East SE (2004), and Driscoll East SW (2004), Texas DOQQs.
2. EEG Airborne Geophysical Survey Report ("Figure 19 leaf")

N

SITE MAP		
RAILROAD COMMISSION OF TEXAS PETRONILA CREEK		
PROJECT NO.: 160551	DATE: 5/28/2008	
TRC 505 EAST HUNTLAND DRIVE SUITE 250 AUSTIN, TEXAS 78752 512-329-6080		FIGURE 2

APPENDIX E

LETTER OF COMMUNICATION TO THE NUECES COUNTY DRAINAGE DISTRICT

505 East Huntland Drive
Suite 250
Austin, TX 78752

512.329.6080 PHONE
512.329.8750 FAX

www.TRCsolutions.com

May 22, 2009

Ramiro Carrion
Superintendent
Nueces County Drainage District #2
P.O. Box 209
603 East Avenue A
Robstown, Texas 78380

Re: Plans for the Excavation of Specific Areas of North Clara Driscoll Drainage Ditch and Clara Driscoll Drainage Ditch near Driscoll, Nueces County, Texas.

Dear Mr. Carrion:

This letter is a follow up to our phone conversation on May 11, 2009. As mentioned in our discussion, the Texas Commission on Environmental Quality (TCEQ), as required by the Clean Water Act Section 303(d), has placed Segment 2204 of Petronila Creek on the State's list of impaired waters because it does not meet water quality standards due to high salinity. TRC, on behalf of the Railroad Commission of Texas (RRC), has conducted several environmental investigations in Segment 2204 and nearby surrounding areas to determine the source(s) leading to elevated salinity levels and to develop best management practices to reduce the salt load in the creek.

We determined that historic oil and gas operations have likely contributed to the elevated salinity levels in the area. The results of our investigations indicate high salinity in sediment at the North Clara Driscoll and Clara Driscoll (CR 18) drainage ditches (figure 1). We believe that the salinity in the drainage ditches impacts Petronila Creek during and following rainfall events by mobilizing the contamination and by leaching the salinity from the banks and bed of the trenches into the creek.

One way to mitigate the salinity load to the creek from the ditches is to remove the contaminated sediment. Based on our sampling results, we estimate that approximately 42,000 cubic feet of sediment at the North Clara Driscoll drainage ditch and 133,333 cubic feet of sediment at the Clara Driscoll (CR 18) drainage ditch would need to be removed. The excavated sediment will

be taken to an offsite commercial facility for disposal. The extent of the salinity contamination in the drainage ditches and proposed excavation areas are depicted in the enclosed figures 2 and 3.

You indicated that backfilling of the excavated areas within the drainage ditches with clean sediment would not be required as long as the floor of the excavations follow, to the extent possible, the slope of the undisturbed portions of the ditch to maintain flow continuity. We do not anticipate the excavations to be greater than two feet in vertical depth and will ensure that the floor of the excavations maintain the existing slope of the ditches.

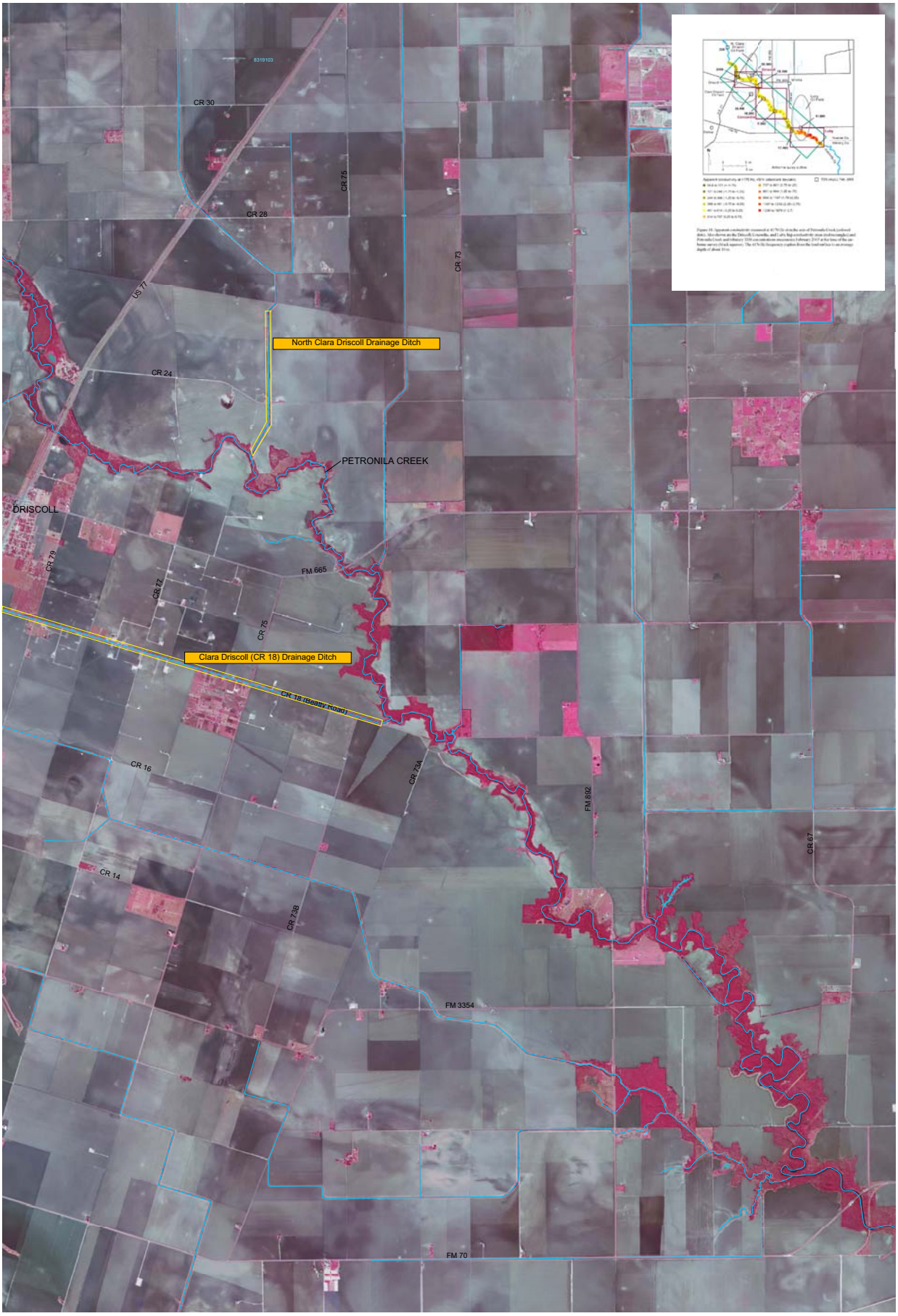
A written response to this letter acknowledging our proposed work would be greatly appreciated. Please contact Heidi Bojes with the RRC at 512-475-3089 or the undersigned at 512--684-3124 with any questions.

Sincerely,

James Harte, P.G.
Project Manager

Enclosures

cc: Heidi Bojes – The Railroad Commission of Texas
Matthew Webre, P.G. – TRC
Arsin Sahba, P.G. – TRC



LEGEND

Surface Drainage (Petronila Creek and drainage ditches)

SOURCE:

1. U.S.G.S. Digital Ortho Quarter Quads (DOQQs) for Concordia NE (2004), Concordia NW (2004), Driscoll East NE (2004), Driscoll East NW (2004), Driscoll East SE (2004), and Driscoll East SW (2004), Texas DOQQs.
2. BEG Airborne Geophysical Survey Report ("Figure 18 inset")

N

1,000 0 1,000 2,000
Feet

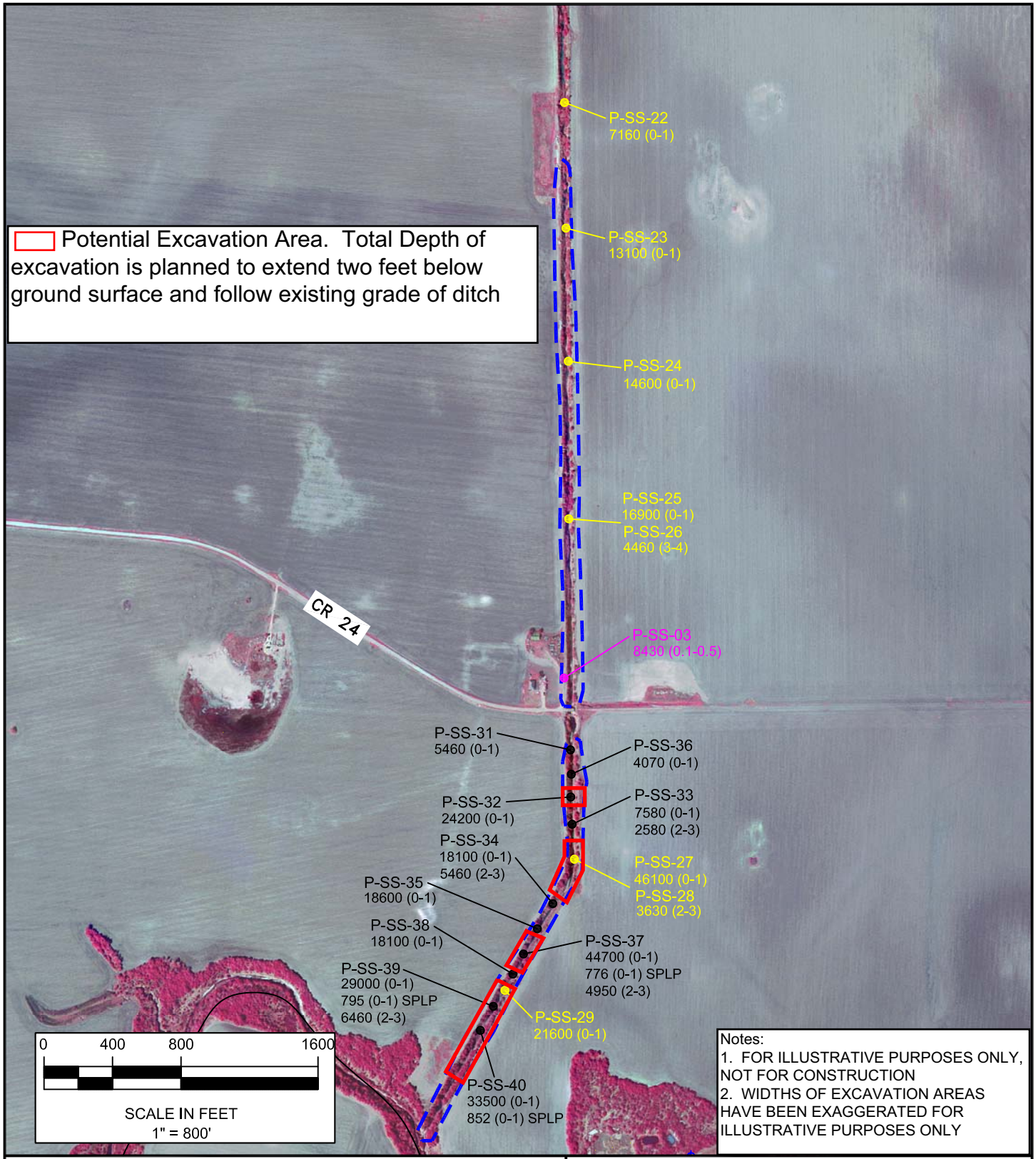
SITE MAP

RAILROAD COMMISSION OF TEXAS
PETRONILA CREEK

PROJECT NO.: 166420 | DATE: 5/20/2009

TRC
505 EAST HUNTLAND DRIVE
SUITE 250
AUSTIN, TEXAS 78752
512-329-6080

FIGURE 1



EXPLANATION:

- EXTENT OF HIGHEST CHLORIDE CONCENTRATIONS
- 3630 (2-3) CHLORIDE CONCENTRATION IN mg/kg (SAMPLE DEPTH IN FEET)
- SEDIMENT SAMPLE LOCATION (MARCH 2007)
- SEDIMENT SAMPLE LOCATION (JUNE 2007)
- SEDIMENT SAMPLE LOCATION (MARCH 2009)

SOURCE

USDA-FSA-APFO DIGITIAL ORTHOPHOTO QUARTER QUADS (DOQQ) DRISCOLL EAST NW (2004) AND DRISCOLL EAST SW (2004), TEXAS DOQQ.

N

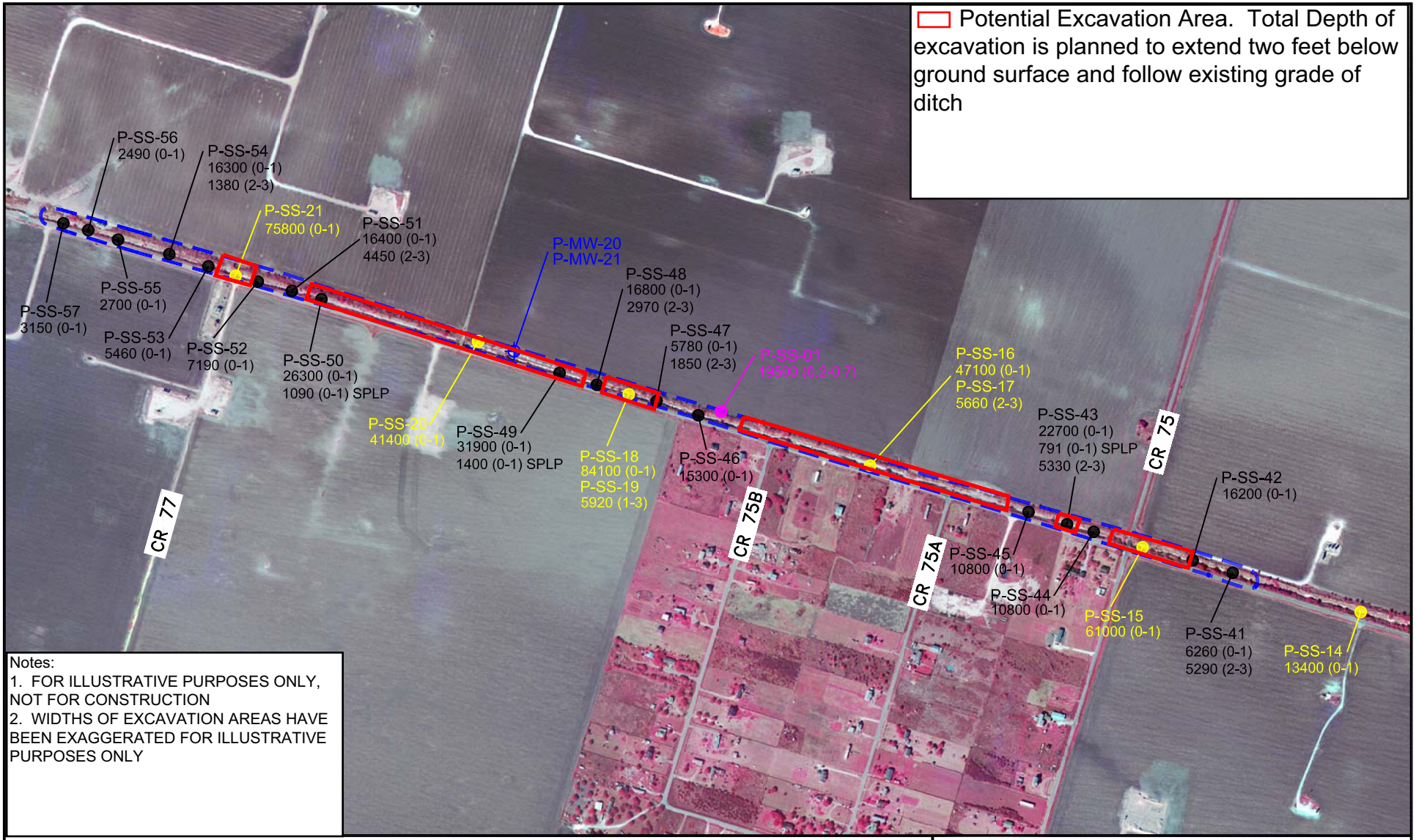
SITE MAP - AREA 6
CHLORIDE CONCENTRATIONS

RAILROAD COMMISSION OF TEXAS
PETRONILA CREEK

PROJECT NO.	166420	DWG FILE	166420-2-2
DRAWN BY.	CL	DATE	4/7/09

TRC
505 EAST HUNTLAND DRIVE
SUITE 250
AUSTIN, TEXAS 78752
(512) 329-6080

FIGURE 2



Notes:
1. FOR ILLUSTRATIVE PURPOSES ONLY, NOT FOR CONSTRUCTION
2. WIDTHS OF EXCAVATION AREAS HAVE BEEN EXAGGERATED FOR ILLUSTRATIVE PURPOSES ONLY

EXPLANATION:

- EXTENT OF HIGHEST CHLORIDE CONCENTRATIONS
- 5460 (0-1) CHLORIDE CONCENTRATION IN mg/kg (SAMPLE DEPTH IN FEET)
- MONITORING WELL
- SEDIMENT SAMPLE LOCATION (MARCH 2007)
- SEDIMENT SAMPLE LOCATION (JUNE 2008)
- SEDIMENT SAMPLE LOCATION (MARCH 2009)

SOURCE

USDA-FSA-APFO DIGITIAL ORTHOPHOTO QUARTER QUAD (DOQQ) DRISCOLL EAST SW (2004), TEXAS DOQQ.

0 400 800 1600

SCALE IN FEET
1" = 800'

N

SITE MAP - AREA 7
CHLORIDE CONCENTRATIONS

RAILROAD COMMISSION OF TEXAS
PETRONILA CREEK

PROJECT NO.	166420	DWG FILE	166420-2-3
DRAWN BY.	CL	DATE	4/7/09

TRC
505 EAST HUNTLAND DRIVE
SUITE 250
AUSTIN, TEXAS 78752
(512) 329-6080

FIGURE 3

APPENDIX F

ENGINEERS COST ESTIMATE

Appendix F - Engineers Cost Estimate

Railroad Commission of Texas - Petronila Creek Soil Feasibility Study

CONSTRUCTION COST ESTIMATE FOR EXCAVATION OF AREA 6

Date: 08/18/09
By: DGS/JMH
Checked By: JAL

Areas of Excavation	Length	Width	Depth	Volume (CF)	Volume (CY)	Bulking Factor	Ex-Situ Volume (CY)	% Total	% Total
EA-6A	148	15	2.00	4453	165	1.4	231	11	$43,163.60
EA-6B	519	15	2.00	15583	577	1.4	808	37	$151,053.04
EA-6C	735	15	2.00	22055	817	1.4	1,144	52	$213,783.37
Total				**42090**	**1559**		**2,182**	**100**	**$408,000**
Total Area	13254	SF							

Estimated Project Total =	$408,000		
	Months	Weeks	Days
Estimated Project Duration =	0.3	1	8

DESCRIPTION	QUANTITY	UNIT	MATERIAL $ / UNIT	LABOR $ / UNIT	EQUIPMENT $ / UNIT	TOTAL UNIT PRICE $ / UNIT	COST	Duration (hours)	BASIS OF ESTIMATE
PRE-PLANNING									
Coordination	60	HR		85.00		85.00	$5,100	60	Average of estimates from USA, Columbia and TAS
Health and Safety Plan	1	LS		4000.00		4000.00	$4,000	-	Average of estimates from USA, Columbia and TAS
Soil Management Plan	1	LS		5000.00		5000.00	$5,000	-	Average of estimates from USA, Columbia and TAS
Traffic Control Plan	48	HR		$85.00		85.00	$4,080		TRC Exp with TxDOT Sites
						Pre-Planning Subtotal	**18,180**		
MOBILIZATION/DEMOBILIZATION									
Mobilization/Demobilization Equipment, Materials, and Personnel	1	LS				32612.41	$32,612	-	10% of Construction Subtotal Cost
						Mob/Demob Subtotal	**$32,612**		
GENERAL SITE PREPARATION									
Construction Fencing	2172.0246	LF	2.16	0.21	0.11	2.48	$6,895		Means 18 04 0110 (2004) adj. for inflation
PPE - boots, hard hats, ear plugs, gloves, safety glasses	50	EA	65.37			65.37	$4,184		Env. Means 33-01-0414, 0415, 0418, 0421, 0423, 0424, 0425, 0426, 0428, 0429 (2004) adj. for inflation
Medium Brush with average grub and some trees, clearing	1.0	ACRE	0.00	217.84	399.18	617.02	$790		Means 17 01 0103 (2004) adj. for inflation
Filter Barrier	2172.0246	LF	0.70	1.41		2.11	$5,866		Means 18 05 0206 (2004) adj. for inflation
General Area Cleanup	1.0	ACRE	0.00		114.34	114.34	$146		Means 17 04 0101 (2004) adj. for inflation
Traffic Control Equipment (Signs/Barricades, etc)	0.3	MO			10000.00	10000.00	$3,780		N-Line Traffic - Austin
						General Site Prep Subtotal	**$21,661**		
EXCAVATION & DISPOSAL									
Excavation Contractor Expendables and Misc. Equipment	1	LS		10000.00		10000.00	$10,000		Average of estimates from USA, Columbia and TAS
Long Arm Excavator (1)	9	DA		1800.00		1800.00	$15,947		Average of estimates from USA, Columbia and TAS
Case 580 Backhoe (1)	9	DA		300.00		300.00	$2,658		Average of estimates from USA, Columbia and TAS
Roller attachment	9	DA		150.00		150.00	$1,329		Average of estimates from USA, Columbia and TAS
Supervisor	71	HR		60.00		60.00	$4,252		Average of estimates from USA, Columbia and TAS
Technician (2)	71	HR		80.00		80.00	$5,670		Average of estimates from USA, Columbia and TAS
Equipment Operator (4)	71	HR		220.00		220.00	$15,592		Average of estimates from USA, Columbia and TAS
Transportation - Petronila to Robstown, TX	10912	MI				4.00	$43,649		Messer Construction Quote
Disposal of RRC Solid Waste	2182	CY		74.25		74.25	$162,048		US Ecology Quote Dated 6 30 09
Disposal of Miscellaneous Debris at municipal landfill (garbage, shrubs, etc.)	400	CY		8.00		25.00	$12,800		El Centro Landfill quote - MSW in Robstown, TX
Decontamination Pad Construction and Removal	1	LS		4000.00		4000.00	$4,000		Average of estimates from USA, Columbia and TAS
Equipment Decontamination	1	LS		4000.00		4000.00	$4,000		Average of estimates from USA, Columbia and TAS
Disposal of Non-Hazardous Liquids	337	BBL		3.00		3.00	$1,012		Average of estimates from USA, Columbia and TAS
						Excavation & Disposal Subtotal	**$282,958**		
VERIFICATION SAMPLING									
Confirmation Testing (1/500 ft; 15 minimum)	15	Per Sample		200.00		200.00	$3,000		TRC Cost Model Template, Feb 2007
Soil Disposal Testing (1 per 500CY + 10% QAQC - Check w/ Landfill)	5	Per Sample		65.00		65.00	$325		TRC Cost Model Template, Feb 2007
						Verification Sampling Subtotal	**$3,325**		
						Construction Subtotal =	**$326,124**		
						Construction Contingency (15%) =	**$48,919**		
						Construction Total =	**$408,000**		
						Average Cost Per Cubic Yard	**$187**		

Appendix F - Engineers Cost Estimate

Railroad Commission of Texas - Petronila Creek Soil Feasibility Study

CONSTRUCTION COST ESTIMATE FOR EXCAVATION OF SEGMENTS IN AREA 6

Date: 08/18/09
By: DGS/JMH
Checked By: JAL

Areas of Excavation	Length	Width	Depth	Volume (CF)	Volume (CY)	Bulking Factor	Ex-Situ Volume (CY)	% Total	% Total
6-1	660	15	2.00	19800	733	1.4	1,027	46	$168,912.13
6-2	300	15	2.00	9000	333	1.4	467	21	$76,778.24
6-3	408	15	2.00	12240	453	1.4	635	28	$104,418.41
6-4	66	15	2.00	1980	73	1.4	103	5	$16,891.21
Total				**43020**	**1593**		**2,231**	**100**	**$367,000**
Total Area	21510	SF							

Estimated Project Total =	$367,000		
	Months	Weeks	Days
Estimated Project Duration =	0.2	1	4

DESCRIPTION	QUANTITY	UNIT	MATERIAL $ / UNIT	LABOR $ / UNIT	EQUIPMENT $ / UNIT	TOTAL UNIT PRICE $ / UNIT	COST	Duration (hours)	BASIS OF ESTIMATE
PRE-PLANNING									
Coordination	60	HR		85.00		85.00	$5,100	60	Average of estimates from USA, Columbia and TAS
Health and Safety Plan	1	LS		4000.00		4000.00	$4,000	-	Average of estimates from USA, Columbia and TAS
Soil Management Plan	1	LS		5000.00		5000.00	$5,000	-	Average of estimates from USA, Columbia and TAS
Traffic Control Plan	48	HR		$85.00		85.00	$4,080		TRC Exp with TxDOT Sites
						Pre-Planning Subtotal	**18,180**		
MOBILIZATION/DEMOBILIZATION									
Mobilization/Demobilization Equipment, Materials, and Personnel	1	LS				29373.67	$29,374	-	10% of Construction Subtotal Cost
						Mob/Demob Subtotal	**$29,374**		
GENERAL SITE PREPARATION									
Construction Fencing	67.5	LF	2.16	0.21	0.11	2.48	$214		Means 18 04 0110 (2004) adj. for inflation
PPE - boots, hard hats, ear plugs, gloves, safety glasses	50	EA	65.37			65.37	$4,184		Env. Means 33-01-0414, 0415, 0418, 0421, 0423, 0424, 0425, 0426, 0428, 0429 (2004) adj. for inflation
Medium Brush with average grub and some trees, clearing	1.0	ACRE	0.00	217.84	399.18	617.02	$790		Means 17 01 0103 (2004) adj. for inflation
Filter Barrier	67.5	LF	0.70	1.41		2.11	$182		Means 18 05 0206 (2004) adj. for inflation
General Area Cleanup	1.0	ACRE	0.00		114.34	114.34	$146		Means 17 04 0101 (2004) adj. for inflation
Traffic Control Equipment (Signs/Barricades, etc)	0.2	MO			10000.00	10000.00	$1,932		N-Line Traffic - Austin
						General Site Prep Subtotal	**$7,448**		
EXCAVATION & DISPOSAL									
Excavation Contractor Expendables and Misc. Equipment	1	LS		10000.00		10000.00	$10,000		Average of estimates from USA, Columbia and TAS
Long Arm Excavator (1)	5	DA		1800.00		1800.00	$8,149		Average of estimates from USA, Columbia and TAS
Case 580 Backhoe (1)	5	DA		300.00		300.00	$1,358		Average of estimates from USA, Columbia and TAS
Roller attachment	5	DA		150.00		150.00	$679		Average of estimates from USA, Columbia and TAS
Supervisor	36	HR		60.00		60.00	$2,173		Average of estimates from USA, Columbia and TAS
Technician (2)	36	HR		80.00		80.00	$2,898		Average of estimates from USA, Columbia and TAS
Equipment Operator (4)	36	HR		220.00		220.00	$7,968		Average of estimates from USA, Columbia and TAS
Transportation - Petronila to Robstown, TX	11153	MI				4.00	$44,613		Messer Construction Quote
Disposal of RRC Solid Waste	2231	CY		74.25		74.25	$165,627		US Ecology Quote Dated 6 30 09
Disposal of Miscellaneous Debris at municipal landfill (garbage, shrubs, etc.)	400	CY		8.00		25.00	$12,800		El Centro Landfill quote - MSW in Robstown, TX
Decontamination Pad Construction and Removal	1	LS		4000.00		4000.00	$4,000		Average of estimates from USA, Columbia and TAS
Equipment Decontamination	1	LS		4000.00		4000.00	$4,000		Average of estimates from USA, Columbia and TAS
Disposal of Non-Hazardous Liquids	172	BBL		3.00		3.00	$517		Average of estimates from USA, Columbia and TAS
						Excavation & Disposal Subtotal	**$264,784**		
VERIFICATION SAMPLING									
Confirmation Testing (1/500 ft; 15 minimum)	15	Per Sample		200.00		200.00	$3,000		TRC Cost Model Template, Feb 2007
Soil Disposal Testing (1 per 500CY + 10% QAQC - Check w/ Landfill)	5	Per Sample		65.00		65.00	$325		TRC Cost Model Template, Feb 2007
						Verification Sampling Subtotal	**$3,325**		
						Construction Subtotal =	**$293,737**		
						Construction Contingency (15%) =	**$44,061**		
						Construction Total =	**$367,000**		
						Average Cost Per Cubic Yard	**$165**		

Appendix F - Engineers Cost Estimate

Railroad Commission of Texas - Petronila Creek Soil Feasibility Study

CONSTRUCTION COST ESTIMATE FOR EXCAVATION OF AREA 7

Date: 08/18/09
By: DGS/JMH
Checked By: JAL

Areas of Excavation	Length	Width	Depth	Volume (CF)	Volume (CY)	Bulking Factor	Ex-Situ Volume (CY)	% Total	% Total
EA-7A	197	15	2.00	5910	219	1.4	306	4	$46,008.29
EA-7B	1016	15	2.00	30480	1129	1.4	1,580	23	$237,296.05
EA-7C	3231	15	2.00	96940	3590	1.4	5,027	73	$754,695.66
Total				**133330**	**4938**		**6,913**	**100**	**$1,038,000**
Total Area	51425	SF							

Estimated Project Total =	$1,038,000		
	Months	Weeks	Days
Estimated Project Duration =	0.5	2	13

DESCRIPTION	QUANTITY	UNIT	MATERIAL $ / UNIT	LABOR $ / UNIT	EQUIPMENT $ / UNIT	TOTAL UNIT PRICE $ / UNIT	COST	Duration (hours)	BASIS OF ESTIMATE
PRE-PLANNING									
Coordination	60	HR		85.00		85.00	$5,100	60	Average of estimates from USA, Columbia and TAS
Health and Safety Plan	1	LS		4000.00		4000.00	$4,000	-	Average of estimates from USA, Columbia and TAS
Soil Management Plan	1	LS		5000.00		5000.00	$5,000	-	Average of estimates from USA, Columbia and TAS
Traffic Control Plan	48	HR		$85.00		85.00	$4,080		TRC Exp with TxDOT Sites
						Pre-Planning Subtotal	**18,180**		
MOBILIZATION/DEMOBILIZATION									
Mobilization/Demobilization Equipment, Materials, and Personnel	1	LS				83009.40	$83,009	-	10% of Construction Subtotal Cost
						Mob/Demob Subtotal	**$83,009**		
GENERAL SITE PREPARATION									
Field Office Staff - PjM, Super, Clerk, Field Engr, Laborer, H&S, QC	3.2	MWK					$0		Env. Means 17 03 0201 (2004) adj. for inflation
Temporary Storage Trailer and Office with heat	1	MO					$0		Means 99-04-0202, 0101, 0601 (2004) adj. for inflation
Construction Fencing	6733.99875	LF	2.16	0.21	0.11	2.48	$21,376		Means 18 04 0110 (2004) adj. for inflation
PPE - boots, hard hats, ear plugs, gloves, safety glasses	50	EA	65.37			65.37	$4,184		Env. Means 33-01-0414, 0415, 0418, 0421, 0423, 0424, 0425, 0426, 0428, 0429 (2004) adj. for inflation
Medium Brush with average grub and some trees, clearing	2.0	ACRE	0.00	217.84	399.18	617.02	$1,580		Means 17 01 0103 (2004) adj. for inflation
Filter Barrier	6733.99875	LF	0.70	1.41		2.11	$18,187		Means 18 05 0206 (2004) adj. for inflation
General Area Cleanup	2.0	ACRE	0.00		114.34	228.68	$585		Means 17 04 0101 (2004) adj. for inflation
Traffic Control Equipment (Signs/Barricades, etc)	0.5	MO			10000.00	10000.00	$5,987		N-Line Traffic - Austin
						General Site Prep Subtotal	**$51,899**		
EXCAVATION & DISPOSAL									
Excavation Contractor Expendables and Misc. Equipment	1	LS		10000.00		10000.00	$10,000		Average of estimates from USA, Columbia and TAS
Long Arm Excavator (1)	14	DA		1800.00		1800.00	$25,257		Average of estimates from USA, Columbia and TAS
Case 580 Backhoe (1)	14	DA		300.00		300.00	$4,210		Average of estimates from USA, Columbia and TAS
Roller attachment	14	DA		150.00		150.00	$2,105		Average of estimates from USA, Columbia and TAS
Supervisor	112	HR		60.00		60.00	$6,735		Average of estimates from USA, Columbia and TAS
Technician (2)	112	HR		80.00		80.00	$8,980		Average of estimates from USA, Columbia and TAS
Equipment Operator (4)	112	HR		220.00		220.00	$24,696		Average of estimates from USA, Columbia and TAS
Transportation - Petronila to Robstown, TX	34567	MI				4.00	$138,268		Messer Construction Quote
Disposal of RRC Solid Waste	6913	CY		74.25		74.25	$513,320		US Ecology Quote Dated 6 30 09
Disposal of Miscellaneous Debris at municipal landfill (garbage, shrubs, etc.)	400	CY		8.00		25.00	$12,800		El Centro Landfill quote - MSW in Robstown, TX
Decontamination Pad Construction and Removal	1	LS		4000.00		4000.00	$4,000		Average of estimates from USA, Columbia and TAS
Equipment Decontamination	1	LS		4000.00		4000.00	$4,000		Average of estimates from USA, Columbia and TAS
Disposal of Non-Hazardous Liquids	535	BBL		3.00		3.00	$1,604		Average of estimates from USA, Columbia and TAS
						Excavation & Disposal Subtotal	**$755,975**		
VERIFICATION SAMPLING									
Confirmation Testing (1/500 ft; 15 minimum)	15	Per Sample		200.00		200.00	$3,000		TRC Cost Model Template, Feb 2007
Soil Disposal Testing (1 per 500CY + 10% QAQC - Check w/ Landfill)	16	Per Sample		65.00		65.00	$1,040		TRC Cost Model Template, Feb 2007
						Verification Sampling Subtotal	**$4,040**		
						Construction Subtotal =	**$830,094**		
						Construction Contingency (15%) =	**$124,514**		
						Construction Total =	**$1,038,000**		
						Average Cost Per Cubic Yard	**$150**		

Appendix F - Engineers Cost Estimate

Railroad Commission of Texas - Petronila Creek Soil Feasibility Study

CONSTRUCTION COST ESTIMATE FOR EXCAVATION OF SEGMENTS IN AREA 7

Date: 08/18/09
By: DGS/JMH
Checked By: JAL

Areas of Excavation	Length	Width	Depth	Volume (CF)	Volume (CY)	Bulking Factor	Ex-Situ Volume (CY)	% Total	% Total
7-1	224	15	2.00	6720	249	1.4	348	5	$49,879.78
7-2	1688	15	2.00	50640	1876	1.4	2,626	38	$375,879.78
7-3	320	15	2.00	9600	356	1.4	498	7	$71,256.83
7-4	1560	15	2.00	46800	1733	1.4	2,427	36	$347,377.05
7-5	80	15	2.00	2400	89	1.4	124	2	$17,814.21
7-6	520	15	2.00	15600	578	1.4	809	12	$115,792.35
Total				**131760**	**4880**		**6,832**	**100**	**$978,000**
Total Area	65880	SF							

Estimated Project Total =	$978,000		
	Months	Weeks	Days
Estimated Project Duration =	0.5	2	13

DESCRIPTION	QUANTITY	UNIT	MATERIAL $ / UNIT	LABOR $ / UNIT	EQUIPMENT $ / UNIT	TOTAL UNIT PRICE $ / UNIT	COST	Duration (hours)	BASIS OF ESTIMATE
PRE-PLANNING									
Coordination	60	HR		85.00		85.00	$5,100	60	Average of estimates from USA, Columbia and TAS
Health and Safety Plan	1	LS		4000.00		4000.00	$4,000	-	Average of estimates from USA, Columbia and TAS
Soil Management Plan	1	LS		5000.00		5000.00	$5,000	-	Average of estimates from USA, Columbia and TAS
Traffic Control Plan	48	HR		$85.00		85.00	$4,080		TRC Exp with TxDOT Sites
						Pre-Planning Subtotal	**18,180**		
MOBILIZATION/DEMOBILIZATION									
Mobilization/Demobilization Equipment, Materials, and Personnel	1	LS				78277.55	$78,278	-	10% of Construction Subtotal Cost
						Mob/Demob Subtotal	**$78,278**		
GENERAL SITE PREPARATION									
Field Office Staff - PjM, Super, Clerk, Field Engr, Laborer, H&S, QC	3.2	MWK					$0		Env. Means 17 03 0201 (2004) adj. for inflation
Temporary Storage Trailer and Office with heat	1	MO	357.82			357.82	$458		Means 99-04-0202, 0101, 0601 (2004) adj. for inflation
Construction Fencing	67.5	LF	2.16	0.21	0.11	2.48	$214		Means 18 04 0110 (2004) adj. for inflation
PPE - boots, hard hats, ear plugs, gloves, safety glasses	50	EA	65.37			65.37	$4,184		Env. Means 33-01-0414, 0415, 0418, 0421, 0423, 0424, 0425, 0426, 0428, 0429 (2004) adj. for inflation
Medium Brush with average grub and some trees, clearing	2.0	ACRE	0.00	217.84	399.18	617.02	$1,580		Means 17 01 0103 (2004) adj. for inflation
Filter Barrier	67.5	LF	0.70	1.41		2.11	$182		Means 18 05 0206 (2004) adj. for inflation
General Area Cleanup	2.0	ACRE	0.00		114.34	228.68	$585		Means 17 04 0101 (2004) adj. for inflation
Traffic Control Equipment (Signs/Barricades, etc)	0.5	MO			10000.00	10000.00	$5,916		N-Line Traffic - Austin
						General Site Prep Subtotal	**$13,120**		
EXCAVATION & DISPOSAL									
Excavation Contractor Expendables and Misc. Equipment	1	LS		10000.00		10000.00	$10,000		Average of estimates from USA, Columbia and TAS
Long Arm Excavator (1)	14	DA		1800.00		1800.00	$24,960		Average of estimates from USA, Columbia and TAS
Case 580 Backhoe (1)	14	DA		300.00		300.00	$4,160		Average of estimates from USA, Columbia and TAS
Roller attachment	14	DA		150.00		150.00	$2,080		Average of estimates from USA, Columbia and TAS
Supervisor	111	HR		60.00		60.00	$6,656		Average of estimates from USA, Columbia and TAS
Technician (2)	111	HR		80.00		80.00	$8,875		Average of estimates from USA, Columbia and TAS
Equipment Operator (4)	111	HR		220.00		220.00	$24,405		Average of estimates from USA, Columbia and TAS
Transportation - Petronila to Robstown, TX	34160	MI				4.00	$136,640		Messer Construction Quote
Disposal of RRC Solid Waste	6832	CY		74.25		74.25	$507,276		US Ecology Quote Dated 6 30 09
Disposal of Miscellaneous Debris at municipal landfill (garbage, shrubs, etc.)	400	CY		8.00		25.00	$12,800		El Centro Landfill quote - MSW in Robstown, TX
Decontamination Pad Construction and Removal	1	LS		4000.00		4000.00	$4,000		Average of estimates from USA, Columbia and TAS
Equipment Decontamination	1	LS		4000.00		4000.00	$4,000		Average of estimates from USA, Columbia and TAS
Disposal of Non-Hazardous Liquids	528	BBL		3.00		3.00	$1,585		Average of estimates from USA, Columbia and TAS
						Excavation & Disposal Subtotal	**$747,436**		
VERIFICATION SAMPLING									
Confirmation Testing (1/500 ft; 15 minimum)	15	Per Sample		200.00		200.00	$3,000		TRC Cost Model Template, Feb 2007
Soil Disposal Testing (1 per 500CY + 10% QAQC - Check w/ Landfill)	16	Per Sample		65.00		65.00	$1,040		TRC Cost Model Template, Feb 2007
						Verification Sampling Subtotal	**$4,040**		
						Construction Subtotal =	**$782,775**		
						Construction Contingency (15%) =	**$117,416**		
						Construction Total =	**$978,000**		
						Average Cost Per Cubic Yard	**$143**		