

**3R - 425**

**APRIL 2011 GWMR**

**04/27/2011**



TETRA TECH, INC.

3R425  
6121 Indian School Rd. NE Suite 200  
Albuquerque, NM 87110  
(505) 237-8440

April 27, 2011

Mr. Glenn Von Gonten  
State of New Mexico Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

RE: (I) ConocoPhillips Company San Juan 29-7 Unit 37 Site, Rio Arriba County, New Mexico.  
Monitoring Well Installation and Groundwater Monitoring Report April 2011

Dear Mr. Von Gonten:

Enclosed please find a copy of the above-referenced document as compiled by Tetra Tech, Inc., for this San Juan Basin site.

Please do not hesitate to contact me at (505) 237-8440 if you have any questions or require additional information.

Sincerely,

A handwritten signature in black ink that reads "Kelly E. Blanchard".

Kelly E. Blanchard  
Project Manager/Geologist

Enclosures (I)

Cc: Brandon Powell, New Mexico Oil Conservation Division (Aztec, NM Office)  
Terri Lauck, ConocoPhillips Company Risk Management and Remediation (electronic only)  
Kelsi Harrington, ConocoPhillips Company San Juan Business Unit  
Richard Hodgson (landowner) c/o Derek Hines, ConocoPhillips Company San Juan Business Unit

# **MONITORING WELL INSTALLATION AND GROUNDWATER MONITORING REPORT**

**CONOCOPHILLIPS COMPANY  
SAN JUAN 29-7 UNIT 37  
PRODUCTION FACILITY  
RIO ARRIBA COUNTY, NEW MEXICO**

OCD Order # 3R-425  
API # 30-039-07643

Prepared for:



Risk Management and Remediation  
420 South Keeler Avenue  
Bartlesville, OK 74004

Prepared by:



TETRATECH, INC.

6121 Indian School Rd. NE, Suite 200  
Albuquerque, NM 87110  
Tetra Tech Project No. 114-690113

April 2011

## TABLE OF CONTENTS

<b>FIGURES.....</b>	<b>1</b>
1.0    INTRODUCTION .....	1
1.1    Site Background .....	1
1.2    Groundwater Monitor Well and Soil Boring Installation .....	2
2.0    MONITORING SUMMARY, SAMPLING METHODOLOGY AND RESULTS .....	4
2.1    Monitoring Summary.....	4
2.2    Groundwater Sampling Methodology.....	5
2.3    Groundwater Sampling Analytical Results.....	5
3.0    CONCLUSIONS AND RECOMMENDATIONS.....	6
3.1    Groundwater Monitoring .....	6
3.2    Additional Assessment .....	7
3.3    Preliminary Remediation Design.....	7

### FIGURES

1. Site Location Map
2. Site Detail Map
3. Generalized Geologic Cross Section
4. Groundwater Elevation Map – March 2011
5. Groundwater Concentration Map – March 2011
6. Proposed Monitoring Well Location Map
7. Conceptual SVE Pilot Test Wells
8. Conceptual SVE System

### TABLES

1. Site History Timeline
2. Soil Boring B-1 Analytical Results Summary
3. March 2011 Soil Boring Laboratory Analytical Results
4. Groundwater Elevation Data Summary
5. March 2011 Baseline Groundwater Laboratory Analytical Results
6. Preliminary Soil Remediation Options

## **APPENDICES**

- Appendix A. Soil Boring Logs and Well Completion Forms
- Appendix B. March 2011 Soil Boring Laboratory Analytical Report
- Appendix C. March 2011 Baseline Groundwater Sampling Field Forms
- Appendix D. March 2011 Baseline Groundwater Laboratory Analytical Report

# MONITORING WELL INSTALLATION AND GROUNDWATER MONITORING REPORT APRIL 2011

## SAN JUAN 29-7 UNIT 37, RIO ARRIBA COUNTY, NEW MEXICO

### I.0 INTRODUCTION

This report discusses the installation of four groundwater monitor wells and advancement of two additional soil borings by Tetra Tech, Inc. (Tetra Tech) between February 28 and March 4, 2011 at the ConocoPhillips Company (ConocoPhillips) San Juan 29-7 Unit 37 natural gas production well site located in Rio Arriba County, New Mexico (Site). The well is operated by Burlington Resources Oil and Gas Company LP, a wholly-owned subsidiary of ConocoPhillips. Also presented in this report are the results of the baseline groundwater monitoring event conducted at the Site by Tetra Tech on March 17, 2011.

The Site is located on private land leased to ConocoPhillips and is situated in Unit Letter N, Section 12, Township 29N, Range 07W, of Rio Arriba County, New Mexico (**Figure 1**). A Site detail map is included as **Figure 2**.

#### 1.1 Site Background

A summary of the historical timeline for the Site is presented in **Table I** and discussed in further detail in the following paragraphs.

The San Juan 29-7 Unit 37 natural gas production well was spudded in October of 1955 by El Paso Natural Gas Company. Meridian Oil, Inc., a subsidiary of Burlington Resources, Inc. (Burlington), took over operation of the well on November 1, 1986. A change in operatorship was documented on July 11, 1996 from Meridian Oil Inc. to Burlington. ConocoPhillips acquired Burlington on March 31, 2006.

A release of approximately 23 barrels (bbls) of condensate occurred within the bermed area around the condensate tank on August 26, 2010 with no recovery reported. Notification of the release was immediately reported to the New Mexico Oil Conservation Division (NMOCD) in the initial C-141 Release Notification and Corrective Action form filed by ConocoPhillips on September 16, 2010. Between September 24, 2010 and January 3, 2011, approximately 5100 cubic yards of soil were excavated from the area below the former tank location at the site. Upon completion of the excavation, horizontal delineation of hydrocarbon impacts had been reached, however, vertical extent of impacts had not been determined. For safety reasons and due to limitations posed by surface structures, the vertical extent of the excavation was halted at approximately 30 feet below ground surface. To further delineate vertically, Tetra Tech Inc. supervised the advancement of one soil boring, B-1, by Enviro Drill Inc., of Albuquerque, NM, between January 12 and 14, 2011 (**Figure 2**). During the advancement of B-1, photo-ionization detector (PID) readings remained above 100 parts per million (ppm), the NMOCD's recommended field screening level for organic vapors in soil, for all soil samples collected until total depth was reached at 123.5 feet below ground surface (bgs); at which point a dry shale layer was encountered with a PID reading of 0.5 ppm. Because the excavation had been back-filled

to within six feet of the original surface elevation, the total depth of boring B-1 from the surrounding surface elevation was approximately 129.5 feet.

Groundwater was encountered at approximately 105 feet bgs in soil boring B-1, approximately 111 feet bgs from the original surface elevation. During the boring installation, seven soil samples and one groundwater sample were collected for laboratory analysis. Soil and groundwater analytical results have been summarized and are presented in **Table 2**. NMOCD recommended remediation action levels for soil are dependant upon site-specific ranking criteria of: depth to groundwater; proximity of the wellhead to water sources or private domestic wells; and distance to surface water bodies including but not limited to perennial rivers, streams, creeks, irrigation canals, lakes, ponds and playas. Based on these criteria, the NMOCD action levels for hydrocarbons in soil for the Site are 10 mg/kg for benzene, 50 mg/kg for total BTEX, and 100 mg/kg for total petroleum hydrocarbons (TPH). All analytical results for soil samples collected from B-1 were below recommended NMOCD remediation action levels with the exception of the sample collected from 30 to 32 feet bgs. This sample contained total BTEX at a concentration of 433.25 mg/L and TPH at a concentration of 5,680 mg/kg. Analytical results from a groundwater sample collected on January 14, 2011 from the open boring indicated that hydrocarbon impacts to groundwater were present above New Mexico Water Quality Control (NMWQCC) standards with benzene at a concentration of 930 µg/L, toluene at 15,000 µg/L, ethylbenzene at 1,400 µg/L and total xylenes at 18,800 µg/L. Based on these analytical results, it was determined that further assessment and groundwater monitoring would be needed at the Site. During the week of February 28 through March 4, 2011, Tetra Tech supervised the installation of four groundwater monitoring wells and two additional soil borings at the Site.

## 1.2 Groundwater Monitor Well and Soil Boring Installation

Between February 28 and March 4, 2011, Enviro-Drill Inc. of Albuquerque, New Mexico (EnviroDrill) installed four groundwater monitor wells and the advancement of two additional investigational soil borings at the Site under the supervision of Tetra Tech: Monitoring Wells MW-1, MW-2, MW-3, MW-4, and soil borings B-2 and B-3. All borings were drilled using a CME-75 drill rig, hollow stem augers, and split-spoon sampling techniques; 10 feet of 0.010 polyvinylchloride (PVC) slotted screen was placed in MW-1 and 15 feet of slotted screen in wells MW-2, MW-3 and MW-4. Monitoring Well MW-4 was installed on March 28, 2011 to a total depth of 121 feet bgs with the screened interval placed from 106 to 121 feet bgs. The depth to water in MW-4 was recorded at 111.11 feet below top of casing (TOC), during the first groundwater monitoring event on March 17, 2011. MW-2 and MW-3 were installed on March 2 and 3 to 120 feet bgs with the screened interval in both wells placed from 105 to 120 feet bgs. Depth to water was recorded in MW-2 at 109.20 and in MW-3 at 109.49 feet below TOC. MW-1 was installed on March 3, 2011 to a total depth of 126 feet bgs. The depth to groundwater was recorded at 108.91 feet below TOC during groundwater monitoring conducted on March 17, 2011. The screened interval was placed from 116 to 126 feet bgs in MW-1. All wells were constructed using 2-inch PVC casing, and were above-ground completions set in three-foot by three-foot concrete pads with the exception of MW-1, which was installed flush with the ground surface in order to accommodate possible vehicle traffic in the area.

After installation, each monitor well was developed using a 1.5-inch diameter, polyethylene disposable bailer. Approximately 30 gallons of water were purged from Monitor Wells MW-2, MW-3, and MW-4 during the week of installation. Monitor Well MW-1 was purged of approximately 2.75 gallons of water for development purposes on March 15th, at which point the well bailed dry. Tetra Tech calculated that approximately one foot of sediment had been removed from the well casing during the purging process. Initial recharge of MW-1 was observed at approximately 0.32 gallons per hour. MW-1 was allowed to fully re-charge prior to baseline groundwater sampling conducted on March 17, 2011. Drawdown of groundwater in MW-1 was not as evident during groundwater sampling as it was during development on March 15, 2011, and the amount of fine sediment present in the purge water had decreased significantly. Purge water that was generated from monitoring well development during the week of well installation was contained in properly labeled 55 gallon drums and staged on-Site until disposal March 4, 2011. Drums were disposed of by Envirotech Inc. at the Industrial Ecosystems Inc. (IEI) landfarm. Additional purge water generated after March 4th was disposed of in the on-site, below grade produced water tank.

In order to determine the greatest impacts to groundwater, two additional soil borings were advanced in or near the center of the previously excavated area on March 1, 2011. Boring B-2 was completed approximately 35 feet to the northeast of MW-1 to a total depth of 57 feet bgs. B-3 was installed to a depth of 120 feet bgs approximately 20 feet north of MW-1. Field screening of soil samples collected from B-2 showed no signs of hydrocarbon impacts to a total depth of 57 feet bgs. All PID readings associated with B-2 samples were 20 ppm or lower. Soil boring B-2 was properly plugged using Portland cement grout since hydrocarbon impacts were not observed and groundwater was not encountered.

Field screening of soil samples collected from soil boring B-3 indicated impacts in soil above the NMOCD field screening action level extended to a depth of 102 to 104 feet bgs, with a PID reading of 222.9 ppm at this interval. The highest instance of hydrocarbon vapors in B-3 was recorded at 45 to 47 feet bgs with a PID reading of 6,190 ppm. Due to the presence of hydrocarbons above NMOCD action limits at a depth near anticipated groundwater, a well was set at 120 feet bgs in B-3, with a water bearing zone observed at approximately 108 feet bgs and the screened interval from 105 to 120 feet bgs. The well was allowed to recharge overnight. On March 2<sup>nd</sup>, groundwater was measured in B-3 at a depth of 118 feet bgs. The water column in B-3 was not consistent with the water columns observed in MW-2 and MW-4. In an attempt to stimulate better groundwater production in B-3, approximately two gallons of distilled water were placed into the well to provide an approximate additional water column of 10 feet in the well screen. The well was then surged using a PVC surge block. Approximately 2.5 gallons of water was bailed from the well after it was surged. Recharge was observed at approximately 0.16 gallons per hour. The well was then allowed to recharge overnight. On March 3, 2011 the water level measured in B-3 was approximately 119.10 feet below TOC with total depth of the well being measured at 120.95 feet below TOC. With only 1.85 feet of water column present and slow recharge observed in the B-3 well, it was determined that the well would not be conducive to proper groundwater sampling techniques if the current conditions persisted, therefore, B-3 was plugged and abandoned with grout and Portland cement. With the plugging of B-3, there was still a need for a well in the area of the prior excavation where impacts to soil were present. Subsequently, MW-1 was installed approximately 20 feet south of B-3.

During drilling of MW-1, the possible groundwater-bearing zone at 108 feet bgs was encountered again. However, since it did not produce sufficient water for sampling in B-3, the boring was advanced deeper to a total depth of 126 feet bgs. At approximately 118 feet bgs another possible water bearing zone was encountered. Screen was placed from 116 to 126 feet bgs to encompass this layer only. On March 4, 2011 groundwater was measured at 119.34 feet below TOC, consistent with the water level recorded in B-3 at 119.10 feet below TOC. With MW-1 being installed to 126 feet bgs, the measurable water column was 6.69 feet as opposed to the 1.85 feet of water column observed previously in B-3. When Tetra Tech returned to the site on March 17<sup>th</sup> to conduct baseline groundwater sampling the water level in MW-1 had risen to 108.91 feet below TOC. Boring logs and well completion forms for all monitoring wells and borings are included as **Appendix A**. A generalized geologic cross section for the Site is presented in **Figure 3**.

During soil boring activities conducted February 28 through March 4, 2011, soil samples were collected for laboratory analysis from the soil borings of all four site monitoring wells and B-3. No samples were collected for laboratory analysis from B-2 since no hydrocarbon impacts were observed and groundwater was not encountered. Soil samples were collected from MW-1 at depths of 50 to 52 feet bgs and from 114 to 116 feet bgs; MW-2 at a depth of 106 to 108 feet bgs; MW-3 at a depth of 106 to 108 feet bgs; MW-4 at depths of 102 to 104 and from 111 to 113 feet bgs; and from B-3 at depths of 45 to 47 feet bgs and from 106 to 108 feet bgs. Each soil sample was analyzed for major ions by EPA Method 300.0; for total mercury by EPA Method 7471A; dissolved metals by EPA Method 6010B; semivolatile organic compounds (SVOCs) by EPA Method 8270C; volatile organic compounds (VOCs) by EPA Method 8260B; and TPH gasoline range organics (GRO) and diesel range organics (DRO) by EPA Method 8015B.

Two of the soil samples collected for laboratory analysis returned analytical results above NMOCD recommended remediation action levels for TPH. Based on NMOCD site-specific ranking criteria, the recommended action level for total TPH in soil at the Site is 100 milligrams per kilogram (mg/kg). Soil sample MW-1 (50-52) contained TPH GRO at a concentration of 68 mg/kg and TPH DRO at a concentration of 110 mg/kg for a total TPH of 178 mg/kg. Soil sample B-3 (45-47) contained TPH GRO at a concentration of 630 mg/kg and TPH DRO at a concentration of 50 mg/kg for total TPH of 680 mg/kg. No other constituents were found to be above NMOCD recommended remediation action levels for soil. A summary of results of the soil analysis are shown in **Table 3** and the corresponding laboratory analytical report is included as **Appendix B**.

## 2.0 MONITORING SUMMARY, SAMPLING METHODOLOGY AND RESULTS

### 2.1 Monitoring Summary

A baseline groundwater quality monitoring event at the site was conducted on March 17, 2011. Prior to collection of groundwater samples from Monitor Wells MW-1, MW-2, MW-3 and MW-4, depth to groundwater in each well was determined. A summary of groundwater elevation data are presented in **Table 4**.

The casings for Site monitoring wells were surveyed on March 15, 2011 using an arbitrary reference-elevation of 200 feet above mean sea level (amsl). The data obtained from the Site survey and from the March 2011 sampling event were used to create a groundwater elevation contour map for the Site (**Figure 4**). Using these data, it was determined that the groundwater flow direction at the Site is to the south/southeast at a gradient of 0.0193 feet per foot (ft/ft).

## 2.2 Groundwater Sampling Methodology

During the baseline groundwater monitoring event, Site monitor wells, with the exception of MW-1, were purged of at least 3 casing volumes of groundwater using a 1.5-inch diameter, polyethylene bailer. On March 15<sup>th</sup>, MW-1 was purged of 2.75 gallons of groundwater for development purposes, at which point the well bailed dry. Initial recharge of MW-1 was observed at approximately 0.32 gallons per hour. MW-1 was allowed to fully re-charge prior to baseline groundwater sampling conducted on March 17, 2011. While bailing each well, groundwater parameter data such as temperature, pH, conductivity, total dissolved solids (TDS), oxidation-reduction potential (ORP) and dissolved oxygen (DO) were collected using a YSI 556 multi-parameter sonde and results were recorded on a Tetra Tech Water Sampling Field Form (**Appendix C**). Collected groundwater samples were placed in laboratory prepared bottles, packed on ice, and shipped under chain-of-custody documentation to Accutest Laboratories (Accutest) in Houston, Texas.

During the March 2011 groundwater monitoring event, each groundwater sample collected was analyzed for major ions by EPA Method 300.0; SVOCs by EPA Method 8270C; VOCs by EPA Method 8260B; general chemistry (alkalinity, hardness, total dissolved solids, and pH by various methods); NMWQCC dissolved metals by EPA Method 6010B; and TPH GRO and DRO by EPA Method 8015B. Results of the March 2011 analyses are displayed in **Table 5**. Future groundwater sampling events will include the analysis of BTEX and any other constituents of concern that returned analytical results above NMWQCC standards during the baseline analysis.

## 2.3 Groundwater Sampling Analytical Results

The NMWQCC mandates that groundwater quality in New Mexico be protected, and has issued groundwater quality standards in Title 20, Chapter 6, Part 2, Section 3103 of the New Mexico Administrative Code (20.6.2.3103 NMAC). Groundwater quality standards have been set for the protection of human health, domestic water supply, and irrigation use. Exceedences of NMWQCC groundwater quality standards in Site monitor wells are discussed below.

- **Benzene**
  - The groundwater quality standard for benzene is 10 micrograms per liter ( $\mu\text{g}/\text{L}$ ). Groundwater collected from Monitoring Well MW-1 contained a concentration of benzene of 66  $\mu\text{g}/\text{L}$ . No other Site monitoring wells had detectable concentrations of benzene.
- **Dissolved Manganese**

- The groundwater quality standard for dissolved manganese is 0.2 milligrams per liter (mg/L). Groundwater collected from all Site monitoring wells was found to be above the standard for dissolved manganese during the March 2011 baseline analysis, with values ranging from 0.0215 to 2.77 mg/L. Results are tabulated in **Table 5**.
- **Dissolved Selenium**
  - The groundwater quality standard for dissolved selenium is 0.05 mg/L. Groundwater collected from Monitoring Well, MW-2 contained a concentration of dissolved selenium of 0.0664 mg/L. All other Site wells had concentrations of dissolved selenium below the NMWQCC standard.
- **Total Dissolved Solids**
  - The groundwater quality standard for TDS is 1,000 mg/L. Groundwater collected from all Site monitoring wells was found to contain TDS at concentrations greater than 1,000 mg/L during the March 2011 baseline sampling event with values ranging from 2360 to 2730 mg/L. Results are tabulated in **Table 5**.
- **Sulfate**
  - The groundwater quality standard for sulfate is 600 mg/L. Groundwater collected from all Site monitoring wells was found to be above the standard for sulfate during the baseline analyses in March of 2011, with results ranging from 857 to 1610 mg/L. Results are tabulated in **Table 5**.
- **Nitrate**
  - The groundwater quality standard for nitrate is 10 mg/L. Groundwater collected from Monitoring Wells, MW-2, MW-3 and MW-4 was found to contain nitrate in concentrations ranging from 10.4 to 55.8 mg/L. Results are tabulated in **Table 5**.

No other analyzed constituents were found above NMWQCC groundwater quality standards in Site monitor wells during the baseline groundwater monitoring event.

The corresponding laboratory analytical report for the March 2011 groundwater sampling event, including quality control summaries, is included in **Appendix D**.

## 3.0 CONCLUSIONS AND RECOMMENDATIONS

### 3.1 Groundwater Monitoring

Tetra Tech has installed four groundwater monitoring wells at the Site and has conducted the baseline groundwater monitoring event. The groundwater monitoring wells will be sampled on a semi-annual

monitoring schedule, and the next groundwater monitoring event at the Site is scheduled for September 2011. The groundwater flow direction at the Site was determined to be towards the south/southeast. Tetra Tech will continue to monitor the groundwater flow direction at the Site and will note any changes should they occur.

As a result of the suite of chemical analyses conducted on all soil and groundwater at the Site, continued groundwater quality monitoring beyond BTEX analysis is recommended for dissolved manganese, dissolved selenium, TDS, sulfate and nitrate. It should be noted, however, that MW-4, an up-gradient, background monitoring well, revealed high concentrations of TDS and sulfate.

### 3.2 Additional Assessment

Tetra Tech recommends the installation of an additional groundwater monitoring well south of MW-1, where impacts to groundwater are expected to be greater based on preliminary site investigation and installation of soil boring B-1. This proposed monitoring well location is shown on **Figure 6**. Tetra Tech recommends the continuation of semi-annual groundwater monitoring until BTEX, nitrate, sulfate, TDS, dissolved manganese, and dissolved selenium concentrations are also below NMWQCC standards, appear stable or reach regional background levels; at which time quarterly groundwater monitoring will begin in order to move towards remediation project closure.

During installation, geotechnical soil samples will be collected for grain size distribution, bulk density, porosity, moisture content, and total organic carbon content.

### 3.3 Preliminary Remediation Design

Soil impacts have been excavated to approximately 34 feet below ground surface (bgs). Groundwater occurs at approximately 109 feet bgs in the source area. Soil impacts are found from the bottom of the excavation to the groundwater with relatively higher concentrations found above approximately 75 to 80 feet bgs. Based on the current data, remediation options for soil are presented in **Table 6**. Based on a preliminary review of soil remediation options, soil vapor extraction (SVE) was selected to evaluate further.

Tetra Tech recommends a pilot test to evaluate the feasibility of SVE and determine operating parameters such as the radius of influence (ROI), extraction flow rates, wellhead vacuum levels, and extracted vapor concentrations. **Figure 7** shows the proposed layout for the SVE pilot test wells. The design includes a single SVE extraction well SVE-1S (4-inch diameter, Schedule 40 PVC, 20-slot screen) screened from approximately 45 to 75 feet bgs as shown on **Figure 8**. The screen interval is selected to prevent short-circuiting of air flow from the higher permeability backfilled area and to focus on the shallow zone that shows relatively higher impacts.

Vacuum monitoring wells (VM-1, VM-2, and VM-3) will be installed as shown on **Figure 7**, are proposed for the purpose of measuring vacuum levels during SVE pilot testing. Results will then be used to calculate the ROI for a single SVE extraction well and determine the total number of extraction wells required to

remediate the lateral and vertical extent of soil impacts. **Figure 8** also shows the conceptual SVE design for the shallow and deep impacted soil zones. Operating individual extraction wells within each zone will allow the needed flexibility in SVE operation for each zone given the relative difference in soil impacts.

Tetra Tech is currently determining the availability of suitable electricity (i.e., volts and phase) at the Site, which directly impacts the selected remedy and equipment used. A generator powered by a fuel source may be required in the event that electricity is not a cost-effective option for the remote location of the Site. If SVE is found to be a suitable remedy, pilot test results will determine how many extraction wells will be needed and if vapor treatment and air permitting is required. ConocoPhillips must first obtain landowner permission for access to implement the Site cleanup using SVE.

Further design and a schedule for implementation of the SVE system will be detailed in a Remediation and Corrective Action Work Plan. Please contact Kelly Blanchard at 505-237-8440 or [kelly.blanchard@tetratech.com](mailto:kelly.blanchard@tetratech.com) if you have any questions or require additional information.

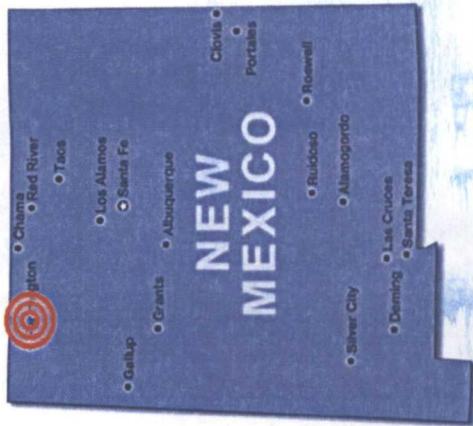
## **FIGURES**

1. Site Location Map
2. Site Detail Map
3. Generalized Geologic Cross Section
4. Groundwater Elevation Map – March 2011
5. Groundwater Concentration Map – March 2011
6. Proposed Monitoring Well Location Map
7. Conceptual SVE Pilot Test Wells
8. Conceptual SVE System

**FIGURE 1.**

**Site Location Map**

ConocoPhillips Company  
San Juan 29-7 Unit 37  
Rio Arriba County, NM



ConocoPhillips Company  
San Juan 29-7 Unit 37 Site  
Location

Latitude: 36.73552° N  
Longitude: -107.52488° W



**ConocoPhillips**



TETRATECH, INC.

ConocoPhillips High Resolution Aerial Imagery



**FIGURE 2:**  
SITE DETAIL MAP  
CONOCOPHILLIPS COMPANY  
SAN JUAN 29-7 UNIT 37  
GAS PRODUCTION WELL SITE  
Unit Letter N, Sec 12, T29N, R07W  
Rio Arriba County, New Mexico

ConocoPhillips San Juan 29-7 Unit 37 Wellhead

LEGEND

ConocoPhillips



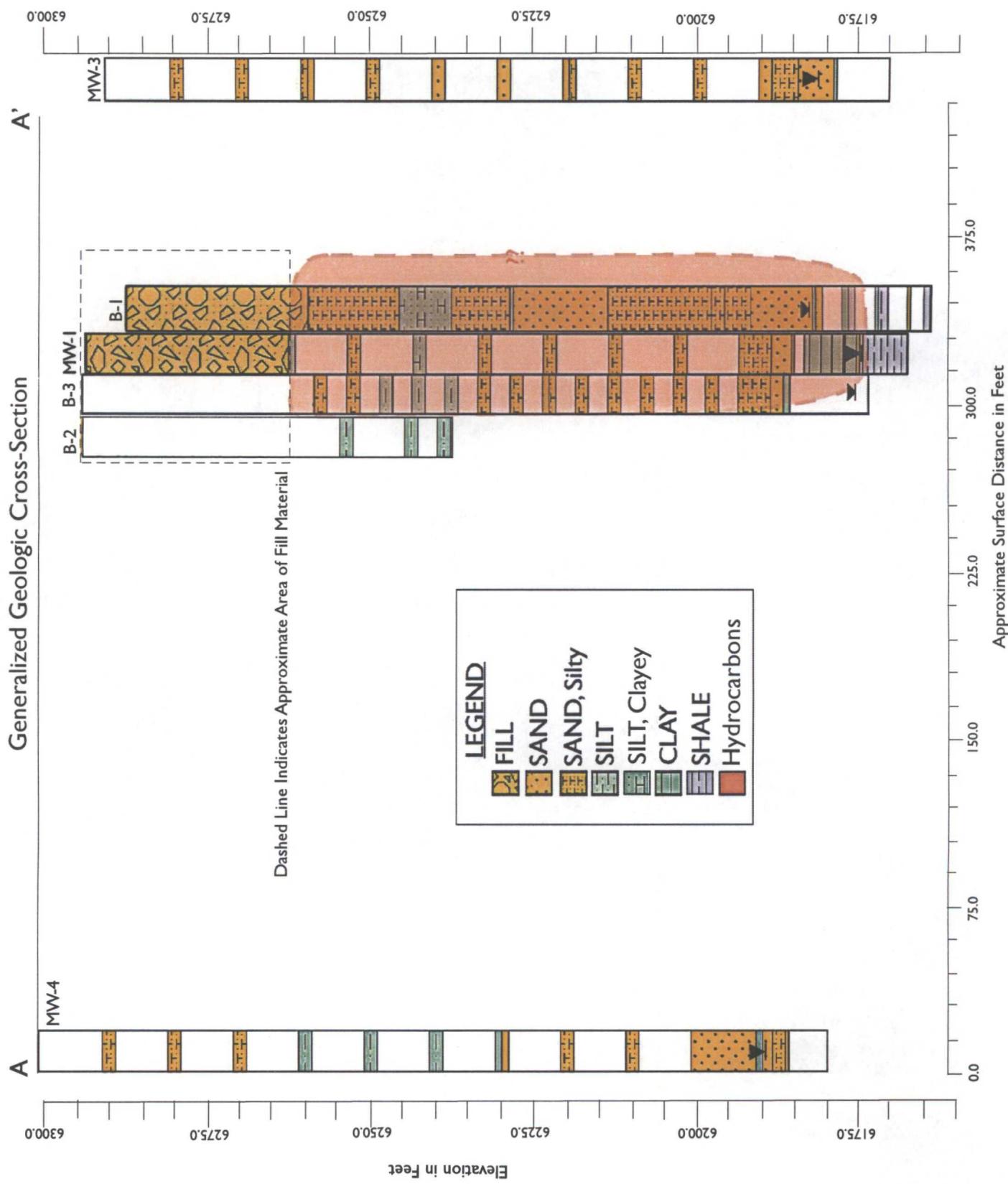
TETRA TECH, INC.

0 FEET 70

— ConocoPhillips Boring Location  
— Monitoring Well  
— Approximate 2010 Excavation Location  
- - - Approximate Location of Current San Juan 29-7 Unit 37 Tank Placement  
(aerial image shows prior tank placement)

A—A' Cross-section plot

Figure 3.  
San Juan 29-7 Unit 37  
Generalized Geologic Cross-Section







**FIGURE 5:**  
GROUNDWATER CONCENTRATION  
MAP MARCH 2011  
CONOCOPHILLIPS COMPANY  
SAN JUAN 29-7 UNIT 37  
GAS PRODUCTION WELL SITE  
Unit Letter N, Sec 12, T29N, R07W  
Rio Arriba County, New Mexico

**ConocoPhillips**



TETRA TECH, INC.

ConocoPhillips High Resolution Aerial Imagery 2008



**FIGURE 6:**  
PROPOSED MONITORING WELL  
LOCATION MAP MARCH 2011  
CONOCOPHILLIPS COMPANY  
SAN JUAN 29-7 UNIT 37  
GAS PRODUCTION WELL SITE  
Unit Letter N, Sec 12, T29N, R07W  
Rio Arriba County, New Mexico

**LEGEND**

- ConocoPhillips San Juan 29-7 Unit 37 Wellhead
- Completed Boring
- Monitoring Well
- Approximate 2010 Excavation Location
- Location of Current San Juan 29-7 Unit 37 Tank Placement  
(aerial image shows prior tank placement)
- Proposed Monitoring Well Location

ConocoPhillips High Resolution Aerial Imagery 2008

**ConocoPhillips**



TETRA TECH, INC.

0 FEET  
70



**FIGURE 7:**  
CONCEPTUAL SVE PILOT  
TEST WELLS

CONOCOPHILLIPS COMPANY  
SAN JUAN 29-7 UNIT 37  
GAS PRODUCTION WELL SITE  
Unit Letter N, Sec 12, T29N, R07W  
Rio Arriba County New Mexico

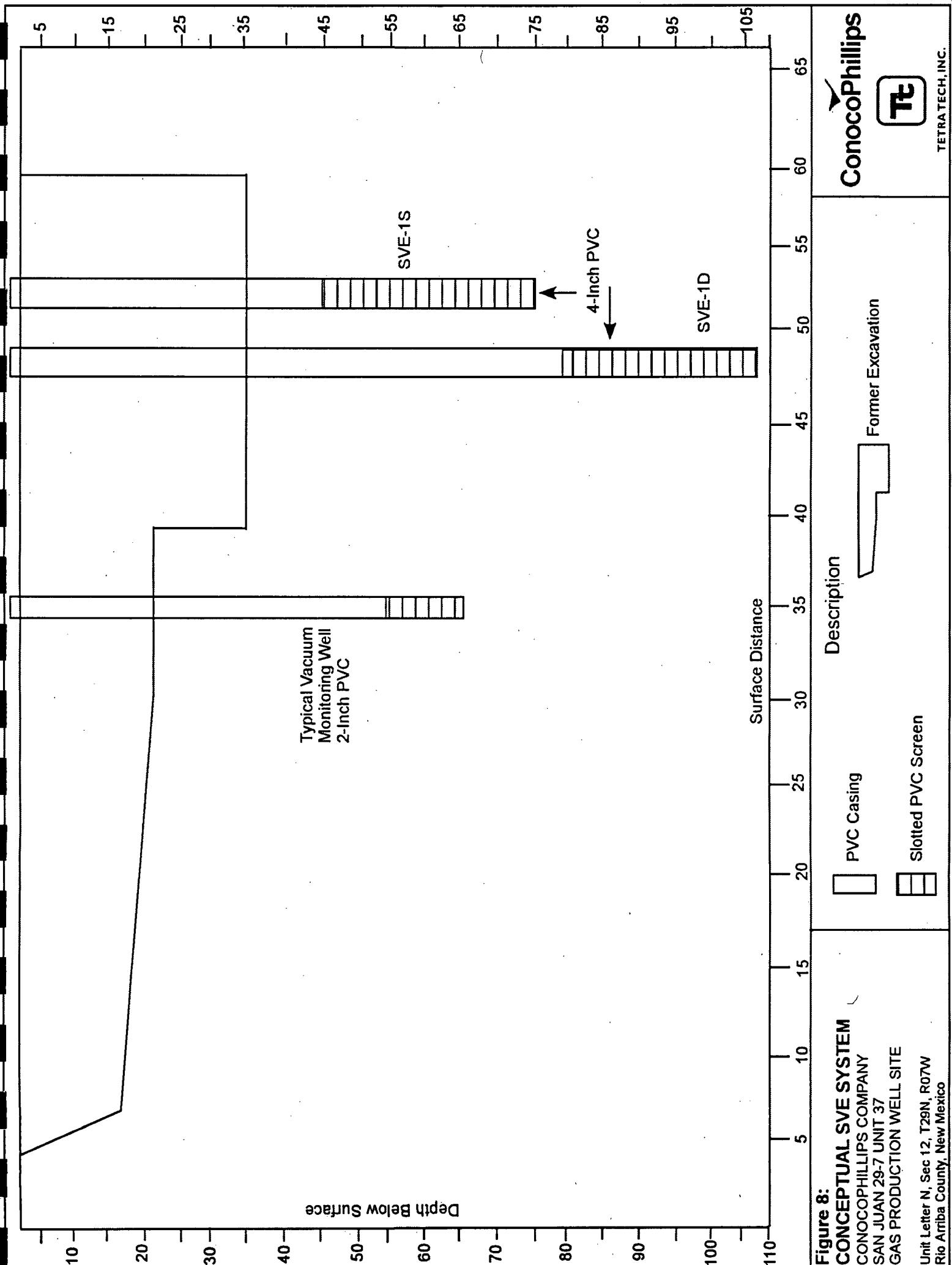
## LEGEND

- Proposed Vacuum Monitoring Location
- Proposed Soil Vapor Extraction (SVE) Location
- Completed Boring
- ▲ Monitoring Well
- Approximate 2010 Excavation Location
- — Location of Current San Juan 29-7 Unit 37 Tank Placement  
(aerial image shows prior tank placement)



TETRATECH, INC.

 ConocoPhillips



## **TABLES**

1. Site History Timeline
2. Soil Boring B-1 Analytical Results Summary
3. March 2011 Soil Boring Laboratory Analytical Results
4. Groundwater Elevation Data Summary
5. March 2011 Baseline Groundwater Laboratory Analytical Results
6. Preliminary Soil Remediation Options

**Table 1. Site History Timeline**

DATE	ACTION
October 2, 1955	Well spudded and completed by El Paso Natural Gas Company.
March 5, 1963	El Paso Natural Gas Company installed cathodic protection well, GB#1 to 120 feet below ground surface.
July 7, 1970	El Paso Natural Gas Company installed cathodic protection well, GB#2 to 450 feet below ground surface.
November 1, 1986	Operator changed from El Paso Natural Gas Company to Meridian Oil Inc. (a subsidiary of Burlington Resources, Inc.).
July 11, 1996	Operator changed from Meridian Oil Inc. to Burlington Resources Oil and Gas Company
December 31, 2000	Operator changed from Burlington Resources Oil and Gas Company to Burlington Resources Oil and Gas Company LP
March 31, 2006	ConocoPhillips Company completed acquisition of Burlington Resources.
August 26, 2010	ConocoPhillips discovered a leaking inspection plate gasket on the condensate tank. All fluid was contained within the berm but none was recovered. Inventory reconciliation revealed a discrepancy of approximately 23 bbls.
September 16, 2010	Initial C-141 Release Notification and Corrective Action form for soil impacts was submitted to the NMOCD by ConocoPhillips.
September 24, 2010	Envirotech, Inc. (Envirotech) of Farmington, NM conducted a brief site assessment and confirmation sampling of an excavation at the site with the dimensions of 60 feet long (north to south) by 20 feet wide (east to west) with a total depth on the north end of approximately 34 feet below ground surface (bgs). Soil samples collected from the bench, north wall, and excavation bottom exceeded NMOCD Guidelines for Remediation of Leaks, Spills and Releases field screening limits. Samples from the east, west, north, south, bench and bottom of the excavation were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8021, total petroleum hydrocarbons (TPH) by EPA Method 8015. Analytical results were above regulatory standards for both BTEX and TPH for the north wall and excavation bottom samples. The north wall sample was also above regulatory standards for benzene. Excavation was to continue.
November 10, 2010	Envirotech performed another round of confirmatory sampling of the excavation at the site. Excavation dimensions as of this date had reached 60 feet long by 40 feet wide and 34 feet below ground surface. Samples were collected from the east, west, south, north, bottom half of south and bottom half of north walls. All samples except for bottom half of south and north walls were below NMOCD field screening limits. Samples from the bottom half of south and north walls were analyzed for BTEX and TPH by EPA Methods 8021 and 8015 respectively. Analytical results from the bottom half of north wall sample were above regulatory standards for benzene, BTEX and TPH. Analytical results from the bottom half of south wall sample were above the regulatory standard for TPH. The maximum practical extent had been reached to the north and the bottom of the excavation so further delineation by excavation was not possible in those directions. Staining above the level of the excavation bench on the south wall was also observed on this date. A sample collected from the area of staining was field screened and was above the range of the photo-ionization organic vapor detector (PID). Further excavation to the south was required. The northern part of the excavation was backfilled with verbal approval from Brandon Powell of the NMOCD. The northern part of the excavation was backfilled with verbal approval from Brandon Powell of the NMOCD.
November 23, 2010	Envirotech performed additional confirmation sampling at the site. A composite sample was collected from the south wall and was above regulatory standards for both field screening and laboratory analysis for benzene, BTEX and TPH. Excavation was to continue to the south.
December 3, 2010	Envirotech completed confirmation sampling on a second excavation area to the south of the original excavation. The dimensions of the southern excavation were approximately 47 feet long by 40 feet wide and approximately 30 feet bgs. Samples were collected from the south, east, and west walls and the bottom of the excavation for field screening. The south, east and west wall samples were below regulatory field screening limits. The sample from the bottom of the excavation was above field screening limits and therefore taken to Envirotech for analysis of BTEX and TPH by EPA Methods 8021 and 8015 respectively. Analytical results for the south excavation bottom sample were above the regulatory standard for TPH. The maximum practical vertical extent of the south excavation had been reached.
January 3, 2011	Backfilling of the entire area, both north and south excavations, to within six feet of the ground surface was completed.
January 12 - 14, 2011	One soil boring, B-1, was advanced to a total depth of 123.5 feet from the top of the backfilled excavation by Enviro Drill, Inc., with oversight by Tetra Tech, Inc. PID readings were above field screening levels until total depth was reached. Groundwater was encountered at approximately 105 feet below the top of the backfilled excavation and approximately 111 feet bgs. Both soil samples and a groundwater sample were collected and sent to Southern Petroleum Laboratories (SPL) in Houston, TX to be analyzed for BTEX and TPH by EPA Methods 8260B (methanol extraction) and 8215B respectively for both soil and groundwater. The groundwater sample was also analyzed for polynuclear aromatic hydrocarbons (PAH) by EPA Method 8270C. Analytical results for a soil sample collected from 30-32 feet below the top of excavation was above NMOCD regulatory standards for BTEX and TPH. Groundwater analytical results were above New Mexico Water Quality Control Commission standards for benzene, toluene, ethylbenzene and total xylenes. Soil boring B-1 was backfilled with bentonite and grout by Enviro-Drill.
January 21, 2011	A license agreement was executed between ConocoPhillips Company and the site property owner.
January 27, 2011	Backfilling of the remainder of the open excavation was completed.
January 28, 2011	Initial C-141 Release Notification and Corrective Action form for groundwater impacts was submitted to the NMOCD by ConocoPhillips.
January 31, 2011	ConocoPhillips received a letter from Glenn Von Gonten of the NMOCD outlining the requirement to submit a Remediation Plan within 30 days of this date.
February 22, 2011	Tetra Tech, on behalf of ConocoPhillips, submitted a Remediation Plan, Monitoring Well Installation and Groundwater Monitoring Work Plan to the NMOCD.
February 28 through March 4, 2011	Enviro Drill Inc., under the supervision of Tetra Tech, installed four groundwater monitoring wells and two additional investigatory borings at the site.
March 15, 2011	Tetra Tech surveyed all site monitoring wells.
March 17, 2011	Tetra Tech conducted the initial groundwater sampling from site Monitoring Wells, MW-1, MW-2, MW-3 and MW-4. A baseline suite was completed including major ions, NMWQCC dissolved metals, SVOCs, VOCs including BTEX, diesel range organics, and gasoline range organics.

NMOCD = New Mexico Oil Conservation Division

NMWQCC = New Mexico Water Quality Control Commission

mg/kg - dry = milligrams per kilogram, analyzed after residual water removed from the soil

mg/kg - dry = micrograms per kilogram

**Table 2. San Juan 29-7 Unit 37 Site Soil Boring Laboratory Analytical Results B-1**

<u>Constituent</u>	<u>Method</u>	<u>Units</u>	Sample ID (soil samples collected January 11th-14th, 2011)				
			<u>B-1 (30-32 feet)*</u>	<u>B-1 (66-68 feet)*</u>	<u>B-1 (68-70 feet)*</u>	<u>B-1 (86-88 feet)*</u>	<u>B-1 (88-90 feet)*</u>
<u>PID Field Reading</u>	MiniRae PID calibrated with 100ppm Isobutylene	ppm	2686	467	346	103	485
<b>VOCs (BTEX only)</b>	<b>Method</b>	<b>Units</b>	<b>B-1 (30-32 feet)*</b>	<b>B-1 (66-68 feet)*</b>	<b>B-1 (68-70 feet)*</b>	<b>B-1 (86-88 feet)*</b>	<b>B-1 (92-94 feet)*</b>
Benzene	8260B	mg/kg - dry	0.25	ND	ND	ND	ND
Toluene	8260B	mg/kg - dry	48	0.11	0.014	0.006	0.096
Ethylbenzene	8260B	mg/kg - dry	11	0.082	<0.0058	ND	ND
Total Xylenes	8260B	mg/kg - dry	374	1.88	0.089	ND	0.022
Total BTEX	8260B	mg/kg - dry	433.25	2.072	0.103	ND	0.347
BTEX by SDIX Rapid Assay Test Kit	RPA-II	mg/kg - dry	67.54	7.336	0.1782	0.18	0.474
<b>Petroleum Hydrocarbons</b>	<b>Method</b>	<b>Units</b>	<b>B-1 (30-32 feet)*</b>	<b>B-1 (66-68 feet)*</b>	<b>B-1 (68-70 feet)*</b>	<b>B-1 (86-88 feet)*</b>	<b>B-1 (92-94 feet)*</b>
TPH Gasoline Range	8015B	mg/kg - dry	5300	14	0.38	ND	ND
TPH Diesel Range	8015B	mg/kg - dry	380	11	12	ND	ND
TPH by Remedaid Test Kit	A-9310 Instrument with BTEX as target compound for slope/intercept value	mg/kg - dry	161.97	19.98	28.65	34.05	27.89
TPH by Remedaid Test Kit	A-9310 Instrument with Unleaded Gas as target compound for slope/intercept value	mg/kg - dry	389.43	55.99	78.54	92.59	76.58
TPH by Remedaid Test Kit	NE	NE	NE	NE	NE	NE	NE

**San Juan 29-7 Unit 37 Site Groundwater Sample from B-1 (collected from drill rig augers in boring)**

<u>Constituent</u>	Sample ID (collected January 14th, 2011)			
	<u>Method</u>	<u>Units</u>	<u>B-1 Water</u>	<u>NMWQCC Standard</u>
<b>VOCs (BTEX only)</b>	8260B	µg/L	930	10
Benzene	8260B	µg/L	15000	750
Toluene	8260B	µg/L	1400	750
Ethylbenzene	8260B	µg/L	18800	620
Total Xylenes	8260B	µg/L	ND	ND
<b>SVOCs</b>	8270C	µg/L	ND	30
Naphthalenes	8270C	µg/L	ND	ND
<b>Petroleum Hydrocarbons</b>	<b>Method</b>	<b>Units</b>	<b>B-1 Water</b>	<b>NMWQCC Standard</b>
TPH Gasoline Range	8015B	mg/L	73	NE
TPH Diesel Range	8015B	mg/L	1.4	NE

**Notes:**  
**Bold** = results above recommended action levels or standards  
B = soil boring  
NMOCDD = New Mexico Oil Conservation Division recommended action level  
NMWQCC = New Mexico Water Quality Control Commission Standard  
PID = Photoionization Detector Field Instrument  
VOCs = Volatile organic compounds  
SVOCs = Semi-volatile organic compounds  
mg/kg - dry = Milligrams per kilogram (parts per million), analyzed after residual water removed from the soil  
µg/L = Micrograms per liter (parts per billion)  
NE = Not established  
ND = Not detected above laboratory method detection limits

**Table 3. Soil Boring Laboratory Analytical Results**

Sample ID (soil samples collected on between February 28 and March 3, 2011)																					
Constituent	Ions	Method	Units	MW-1 (50-52 feet)	MW-1 (114-116 feet)	MW-2 (106-108 feet)	MW-2 (114-116 feet)	MW-3 (106-108 feet)	MW-4 (102-104 feet)	MW-4 (111-113 feet)	B-2 (45-47 feet)	B-2 (45-47 feet)	B-2 (106-108 feet)	B-2 (106-108 feet)	NMOCD						
Bromide	E300.0	mg/kg - dry	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	NE	NE		
Chloride	E300.0	mg/kg - dry	24.9	20.1	19.3	39.4	53.2	62	24.9	24.9	24.9	24.9	24.9	24.9	24.9	24.9	14.1	14.1	NE	NE	
Fluoride	E300.0	mg/kg - dry	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	NE	NE	
Nitrate (as N)	E300.0	mg/kg - dry	184	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	NE	NE	
Nitrite (as N)	E300.0	mg/kg - dry	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	NE	NE	
Orthophosphate (as P)	E300.0	mg/kg - dry	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	NE	NE	
Sulfate	E300.0	mg/kg - dry	106	158	41	43.4	86.9	171	77.4	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	39.8	NE	NE	
Metals, Total		Method	Units	MW-1 (50-52 feet)	MW-1 (114-116 feet)	MW-2 (106-108 feet)	MW-2 (114-116 feet)	MW-3 (106-108 feet)	MW-4 (102-104 feet)	MW-4 (111-113 feet)	B-2 (45-47 feet)	B-2 (45-47 feet)	B-2 (106-108 feet)	B-2 (106-108 feet)	NMOCD						
Mercury	SW7471A	mg/kg - dry	<0.033	0.0415	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	<0.033	NE	NE	
Aluminum	SW6010B	mg/kg - dry	5550	7180	3130	3140	2930	4040	4040	4040	4040	4040	4040	4040	4040	4040	4040	4040	4700	4700	NE
Arsenic	SW6010B	mg/kg - dry	2.51	3.75	42.9	3.55	2.84	7.17	2.73	2.46	2.46	2.46	2.46	2.46	2.46	2.46	2.46	2.46	NE	NE	
Barium	SW6010B	mg/kg - dry	217	344	398	256	359	343	224	130	130	130	130	130	130	130	130	130	130	NE	
Boron	SW6010B	mg/kg - dry	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NE	NE	
Cadmium	SW6010B	mg/kg - dry	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NE	NE	
Chromium	SW6010B	mg/kg - dry	4.36	5.03	3.89	4.09	2.84	6.4	5.07	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	4.12	NE	NE	
Cobalt	SW6010B	mg/kg - dry	4.35	3.8	2.51	2.44	2.31	2.89	4.18	2.65	2.65	2.65	2.65	2.65	2.65	2.65	2.65	2.65	2.65	NE	
Iron	SW6010B	mg/kg - dry	7820	83900	6840	5080	6840	6840	6840	6840	6840	6840	6840	6840	6840	6840	6840	6840	6310	6310	NE
Lead	SW6010B	mg/kg - dry	6.56	9.23	4.35	4.51	3.85	5.9	6.8	6.02	6.02	6.02	6.02	6.02	6.02	6.02	6.02	6.02	6.02	NE	
Manganese	SW6010B	mg/kg - dry	247	264	228	144	309	376	238	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	85.9	NE	
Molybdenum	SW6010B	mg/kg - dry	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NE	
Nickel	SW6010B	mg/kg - dry	5.49	5.75	3.62	3.62	3.37	2.9	3.65	5.78	5.78	5.78	5.78	5.78	5.78	5.78	5.78	5.78	3.88	3.88	NE
Selenium	SW6010B	mg/kg - dry	<0.5	0.57	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NE	
Silver	SW6010B	mg/kg - dry	<0.5	20.8	24.3	25.6	30.8	12.9	20.4	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	26.9	25.6	NE	
SVOCs (detections only)		Method	Units	MW-1 (50-52 feet)	MW-1 (114-116 feet)	MW-2 (106-108 feet)	MW-2 (114-116 feet)	MW-3 (106-108 feet)	MW-4 (102-104 feet)	MW-4 (111-113 feet)	B-2 (45-47 feet)	B-2 (45-47 feet)	B-2 (106-108 feet)	B-2 (106-108 feet)	NMOCD						
Benzylalcohol	SW8270C	µg/kg - dry	190	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	NE	
2-Methylnaphthalene	SW8270C	µg/kg - dry	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	NE	
Ebis(2-ethylhexyl)phthalate	SW8270C	µg/kg - dry	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	<170	NE	
VOCs (detections and BTEX only)		Method	Units	MW-1 (50-52 feet)	MW-1 (114-116 feet)	MW-2 (106-108 feet)	MW-2 (114-116 feet)	MW-3 (106-108 feet)	MW-4 (102-104 feet)	MW-4 (111-113 feet)	B-2 (45-47 feet)	B-2 (45-47 feet)	B-2 (106-108 feet)	B-2 (106-108 feet)	NMOCD						
1,2,4-Trimethylbenzene	8260B	µg/kg - dry	3400	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	9.3	9.3	NE
1,3,5-Trimethylbenzene	8260B	µg/kg - dry	2700	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	20000	20000	NE
4-Isopropyltoluene	8260B	µg/kg - dry	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	1300	1300	NE
Isopropylbenzene	8260B	µg/kg - dry	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	<250	1800	1800	NE
Naphthalene	8260B	µg/kg - dry	370	<5	<5	<5	<5</														

Table 4. Groundwater Elevation Data Summary

Well ID	Total Depth (ft bgs)	Screen Interval (ft)	*Elevation (ft) (TOC)	Date Measured	Depth to Groundwater (ft below TOC)	Relative Groundwater Elevation
MW-1	126.00	116-126	189.86	4/8/2010	108.91	80.95
MW-2	120.00	105-120	188.94	4/8/2010	109.20	79.74
MW-3	120.00	105-120	188.35	4/8/2010	109.42	78.93
MW-4	121.00	106-121	198.16	4/8/2010	111.11	87.05

ft = Feet

TOC = Top of casing

bgs = Below ground surface

\* = Elevation relative to an arbitrary 200 feet

**Table 5. Groundwater Laboratory Analytical Results Summary, March 2011 Baseline Parameters**

		Sample ID (samples collected on March 17, 2011)										MW-3		MW-4		NMWQCC Groundwater Quality Standard	
		MW-1					MW-2					MW-3		MW-4		NMWQCC Groundwater Quality Standard	
Constituent	Ions	Method	Units	MW-1	MW-1 Duplicate	NA	MW-2	NA	MW-2 Duplicate	NA	MW-3	NA	MW-3 Duplicate	NA	MW-4	NA	NMWQCC Groundwater Quality Standard
Bromide	E300.0	mg/L	0.623	NA	0.877	NA	NA	0.761	NA	0.635	NE	NE	NE	NE	0.635	NE	
Chloride	E300.0	mg/L	32.9	NA	37.9	NA	NA	35.3	NA	37.8	250	250	250	250	37.8	250	
Fluoride	E300.0	mg/L	1.22	NA	1.18	NA	NA	1.03	NA	1.06	1.6	1.6	1.6	1.6	1.06	1.6	
Orthophosphate (as P)	E300.0	mg/L	< 0.500	NA	< 0.500	NA	NA	< 0.500	NA	< 0.500	NE	NE	NE	NE	< 0.500	NE	
Sulfate	E300.0	mg/L	1610	NA	1000	NA	NA	857	NA	1290	600	600	600	600	1290	600	
Nitrate + Nitrite (as N)	E300.0	mg/L	< 0.500	NA	55.8	NA	NA	29.7	NA	10.4	10	10	10	10	10.4	10	
<b>Metals, Total</b>		<b>Method</b>	<b>Units</b>	<b>MW-1</b>	<b>MW-1 Duplicate</b>	<b>NA</b>	<b>MW-2</b>	<b>NA</b>	<b>MW-2 Duplicate</b>	<b>NA</b>	<b>MW-3</b>	<b>NA</b>	<b>MW-4</b>	<b>NA</b>	<b>NMWQCC Groundwater Quality Standard</b>	<b>0.002</b>	
Mercury	SW7470A	mg/L	< 0.0002	NA	< 0.0002	NA	< 0.0002	NA	< 0.0002	NA	< 0.0002	NA	< 0.0002	NA	< 0.0002	NA	
Aluminum	SW6010B	mg/L	< 0.100	NA	< 0.100	NA	< 0.100	NA	< 0.100	NA	< 0.100	NA	< 0.100	NA	< 0.100	5	
Arsenic	SW6010B	mg/L	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	0.1	
Barium	SW6010B	mg/L	0.0123	NA	0.0246	NA	0.0246	NA	0.0246	NA	0.0115	1.0	1.0	1.0	0.0115	1.0	
Boron	SW6010B	mg/L	< 0.100	NA	< 0.100	NA	< 0.100	NA	< 0.100	NA	< 0.100	NA	< 0.100	NA	< 0.100	0.75	
Cadmium	SW6010B	mg/L	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	0.01	
Chromium	SW6010B	mg/L	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	0.05	
Cobalt	SW6010B	mg/L	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	0.05	
Copper	SW6010B	mg/L	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	0.10	
Iron	SW6010B	mg/L	< 0.0200	NA	< 0.0200	NA	< 0.0200	NA	< 0.0200	NA	< 0.0200	NA	< 0.0200	NA	< 0.0200	1.0	
Lead	SW6010B	mg/L	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	0.05	
Manganese	SW6010B	mg/L	2.77	NA	0.334	NA	0.334	NA	0.334	NA	1.79	0.0215	0.0215	0.0215	1.79	0.2	
Molybdenum	SW6010B	mg/L	0.0153	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	1.0	
Nickel	SW6010B	mg/L	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	0.2	
Selenium	SW6010B	mg/L	< 0.0100	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	NA	< 0.00500	0.05	
Silver	SW6010B	mg/L	< 0.0100	NA	< 0.0100	NA	< 0.0100	NA	< 0.0100	NA	< 0.0100	NA	< 0.0100	NA	< 0.0100	0.05	
Zinc	SW6010B	mg/L	< 0.0100	NA	< 0.0100	NA	< 0.0100	NA	< 0.0100	NA	< 0.0100	NA	< 0.0100	NA	< 0.0100	10	
<b>SVOCs (detections only)</b>		<b>Method</b>	<b>Units</b>	<b>MW-1</b>	<b>MW-1 Duplicate</b>	<b>NA</b>	<b>MW-2</b>	<b>NA</b>	<b>MW-2 Duplicate</b>	<b>NA</b>	<b>MW-3</b>	<b>NA</b>	<b>MW-4</b>	<b>NA</b>	<b>NMWQCC Groundwater Quality Standard</b>	<b>8.2</b>	
Bis(2-ethylhexyl)phthalate	8270C	µg/L	< 5.4	NA	< 5.3	NA	< 5.3	NA	< 5.3	NA	< 5.2	NA	< 5.2	NA	< 5.2	NE	
2-Methylphenol	8270C	µg/L	6.4	NA	< 5.3	NA	< 5.3	NA	< 5.3	NA	< 5.2	NA	< 5.2	NA	< 5.2	NE	
3 & 4-Methyphenol	8270C	µg/L	7.3	NA	< 5.3	NA	< 5.3	NA	< 5.3	NA	< 5.2	NA	< 5.2	NA	< 5.2	NE	
<b>VOCs (detections and BTEX only)</b>		<b>Method</b>	<b>Units</b>	<b>MW-1</b>	<b>Duplicate</b>	<b>NA</b>	<b>MW-2</b>	<b>NA</b>	<b>MW-2 Duplicate</b>	<b>NA</b>	<b>MW-3</b>	<b>NA</b>	<b>MW-4</b>	<b>NA</b>	<b>NMWQCC Groundwater Quality Standard</b>	<b>&lt; 1.0</b>	
1,3,5-Trimethylbenzene	8260B3	µg/L	13	13	< 1.0	NA	< 1.0	NA	< 1.0	NA	< 1.0	NA	< 1.0	NA	< 1.0	NE	
4-Isopropyltoluene	8260B3	µg/L	1.1	1.1	< 1.0	NA	< 1.0	NA	< 1.0	NA	< 1.0	NA	< 1.0	NA	< 1.0	NE	
Isopropylbenzene	8260B3	µg/L	1.6	1.6	< 1.5	NA	< 1.5	NA	< 1.5	NA	< 1.0	NA	< 1.0	NA	< 1.0	NE	
Naphthalene	8260B3	µg/L	1.1	1.1	< 1.0	NA	< 1.0	NA	< 1.0	NA	< 1.0	NA	< 1.0	NA	< 1.0	NE	
Benzene	8260B3	µg/L	66	64	< 1.0	NA	< 1.0	NA	< 1.0	NA	< 1.0	NA	< 1.0	NA	< 1.0	30	
Ethylbenzene	8260B3	µg/L	11	11	< 1.0	NA	< 1.0	NA	< 1.0	NA	< 1.0	NA	< 1.0	NA	< 1.0	10	
Toluene	8260B3	µg/L	390	380	< 1.0	NA	< 1.0	NA	< 1.0	NA	< 1.0	NA	< 1.0	NA	< 1.0	750	
Total Xylenes	8260B3	µg/L	84	82	< 1.0	NA	< 1.0	NA	< 1.0	NA	< 1.0	NA	< 1.0	NA	< 1.0	620	
<b>Total Petroleum Hydrocarbons</b>		<b>Method</b>	<b>Units</b>	<b>MW-1</b>	<b>MW-1 Duplicate</b>	<b>NA</b>	<b>MW-2</b>	<b>NA</b>	<b>MW-2 Duplicate</b>	<b>NA</b>	<b>MW-3</b>	<b>NA</b>	<b>MW-4</b>	<b>NA</b>	<b>NMWQCC Groundwater Quality Standard</b>	<b>8.2</b>	
Gasoline Range Organics	SW8015B	mg/L	1.5	NA	< 0.10	NA	< 0.10	NA	< 0.10	NA	< 0.10	NA	< 0.10	NA	< 0.10	NE	
Diesel Range Organics	SW8015B	mg/L	0.28	NA	< 0.11	NA	< 0.11	NA	< 0.11	NA	< 0.10	NA	< 0.10	NA	< 0.10	NE	
<b>Other</b>		<b>Method</b>	<b>Units</b>	<b>MW-1</b>	<b>MW-1 Duplicate</b>	<b>NA</b>											

**Table 6. Preliminary Soil Remediation Options**

Corrective Action	Approach	Pros	Cons	Cost	Comments
Excavation	Excavate soils above cleanup goals	<ul style="list-style-type: none"><li>- Relatively quick solution</li><li>- No long term monitoring/O&amp;M</li><li>- Minimal impact on site operations</li><li>- Eliminates groundwater risk</li><li>- Asset returned to use quickly</li></ul>	<ul style="list-style-type: none"><li>- Limited by safe depth to excavate</li><li>- Soil impacts occur to water table at ~110 bgs</li><li>- Backfill may require compaction and testing</li></ul>	High	Completed excavation down to 34 feet is the practical depth limit for this option.
Chemical Oxidation	Inject petroleum oxidizing chemicals or other proprietary product into the soil column through injection wells.	<ul style="list-style-type: none"><li>- Good access for injecting</li><li>- Possible quick solution</li><li>- Favorable lithology</li></ul>	<ul style="list-style-type: none"><li>- Could mobilize shallow impacts which could migrate into deeper zones</li><li>- Multiple injections likely needed</li><li>- Lab and bench scale testing required</li><li>- H&amp;S issues handling, storing, and injecting hazardous chemicals</li><li>- Depth of impacts not favorable to this option</li><li>- Insufficient soil moisture for effectiveness</li></ul>	Medium to High	This option is not well suited for the depth of impacts, nor the lack of soil moisture for the majority of the impacted area.
Soil Vapor Extraction	Use a vacuum pump to extract soil vapors from vertical extraction wells.	<ul style="list-style-type: none"><li>- Mature technology shown to work in the site lithology for petroleum hydrocarbons</li><li>- Eliminates groundwater risk</li><li>- Well understood technology</li></ul>	<ul style="list-style-type: none"><li>- Pilot testing needed</li><li>- Equipment and O&amp;M costs</li><li>- Air permit requirements may require off-gas treatment</li><li>- Decommissioning</li><li>- Electric power availability will dictate approach</li></ul>	Medium	This option is possible but will depend on available electricity and pilot test results.
Risk Assessment & Natural Attenuation	Conduct a risk assessment to determine if impacts can be left in place w/o treatment; allow impacts to naturally attenuate.	<ul style="list-style-type: none"><li>- Potential for impacts to remain in place</li><li>- Asset returned to use quickly</li><li>- No operating equipment used</li></ul>	<ul style="list-style-type: none"><li>- Long-term monitoring to demonstrate impacts not migrating deeper in soil or further down-gradient in groundwater.</li><li>- Risk to groundwater could continue</li><li>- Additional geochemical data collection needed</li></ul>	Low to Medium	Long-term soil and groundwater monitoring required demonstrating stable or decreasing impacts.
Passive Bioventing	Use wind-driven turbines to extract soil vapors from vertical extraction wells. Use natural barometric pumping effects to volatilize/bioremediate impacts.	<ul style="list-style-type: none"><li>- Inexpensive</li><li>- Minimal O&amp;M</li><li>- No energized equipment</li></ul>	<ul style="list-style-type: none"><li>- Could take a very long time to reach cleanup goals</li><li>- Increased monitoring may be required by state to ensure no groundwater risk</li><li>- Potential groundwater risk</li></ul>	Low	This option may not work given the depth of impacts in soil.

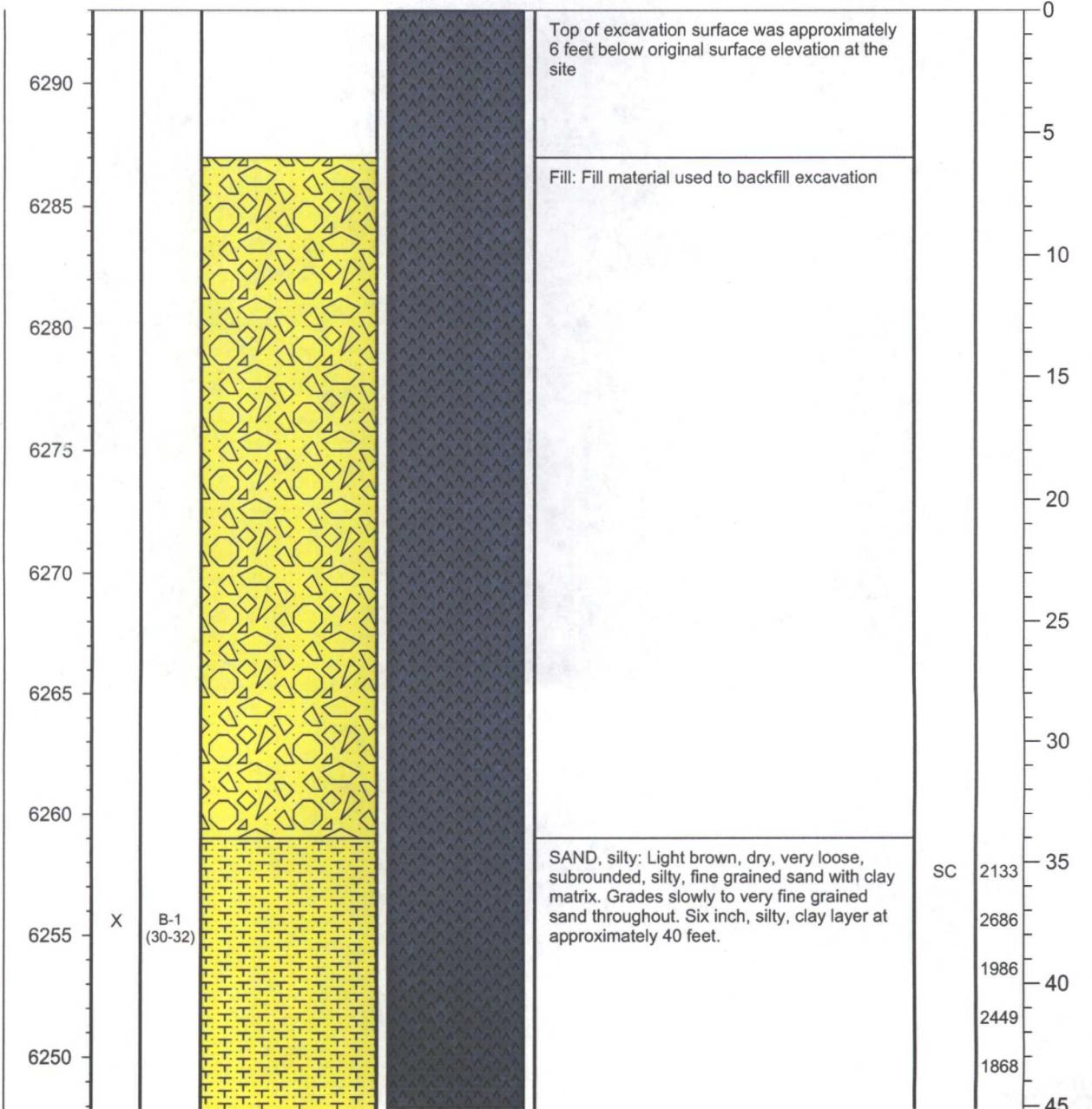


## **APPENDIX A**

**Soil Boring Logs and Well Completion Forms**

PROJECT NAME: San Juan 29-7 Unit 37	SOIL BORING NO. B-1
LOCATION: Rio Arriba County, NM	DRILL TYPE: CME 75
FIELD LOGGED BY: Cassie Brown	Hollow Stem Auger
SURFACE ELEVATION (msl): 6293 feet (top of excavation ~ 6287 feet)	BORE HOLE DIAMETER: 7 7/8 inches
GROUNDWATER ELEVATION (msl): 6188 feet	DRILLED BY: Enviro-Drill, Inc.
REMARKS: Once total depth was reached, boring was backfilled with bentonite and grout to excavation surface.	DATE/TIME: HOLE STARTED: January 12, 2011 at 10:30 AM
COORDINATES: 36.73569N, -107.52537W	DATE/TIME: COMPLETED: January 14, 2011 at 10:00 AM

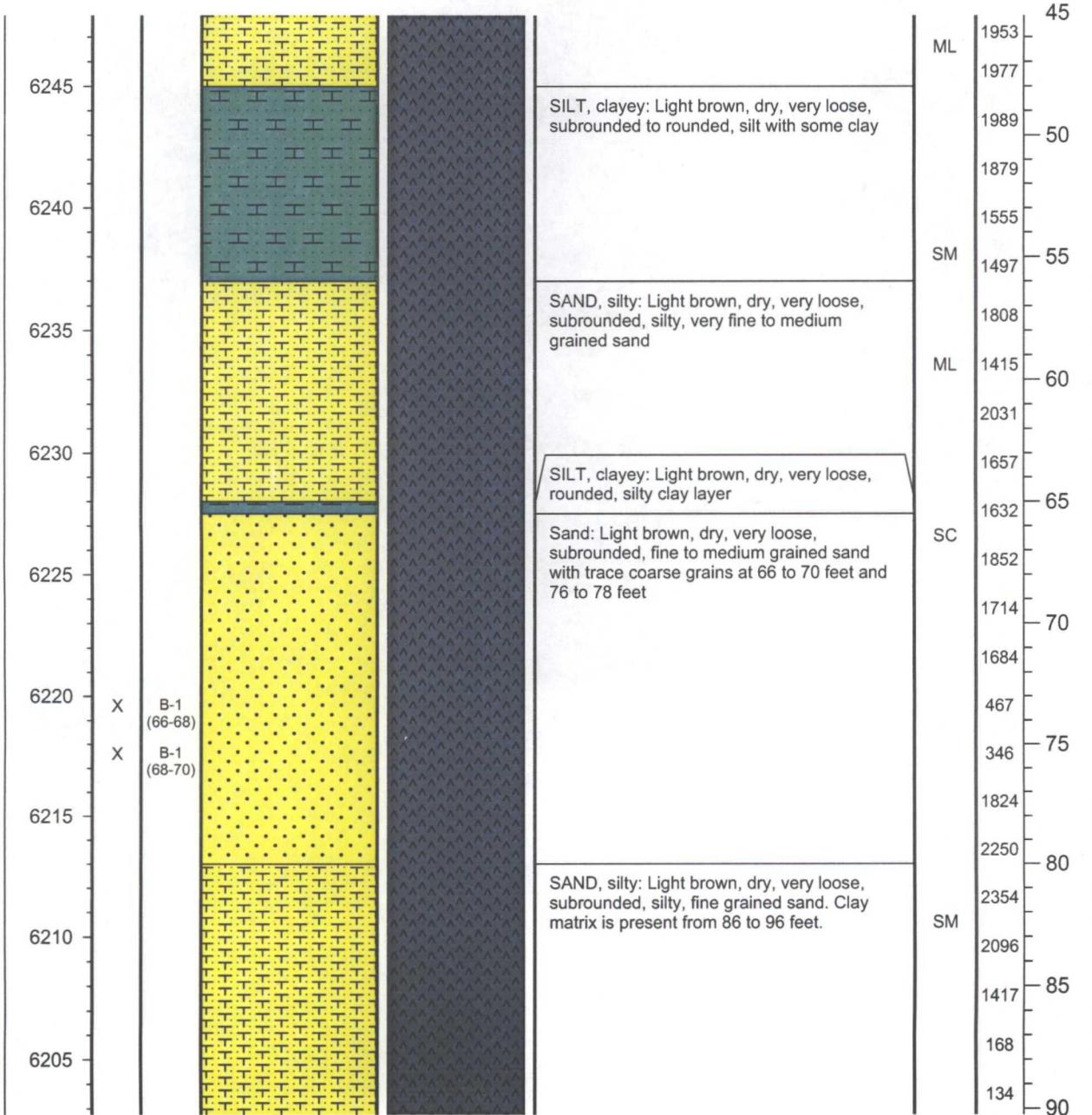
ELEVATION (msl) - ft	SAMPLE TO LAB	SAMPLE ID	WELL COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	PID RESULT (ppm)	DEPTH (bgs) - ft



PROJECT NAME: San Juan 29-7 Unit 37  
 LOCATION: Rio Arriba County, NM  
 FIELD LOGGED BY: Cassie Brown  
 SURFACE ELEVATION (msl): 6293 feet (top of excavation ~ 6287 feet)  
 GROUNDWATER ELEVATION (msl): 6188 feet  
 REMARKS: Once total depth was reached, boring was backfilled  
     with bentonite and grout to excavation surface.  
 COORDINATES: 36.73569N, -107.52537W

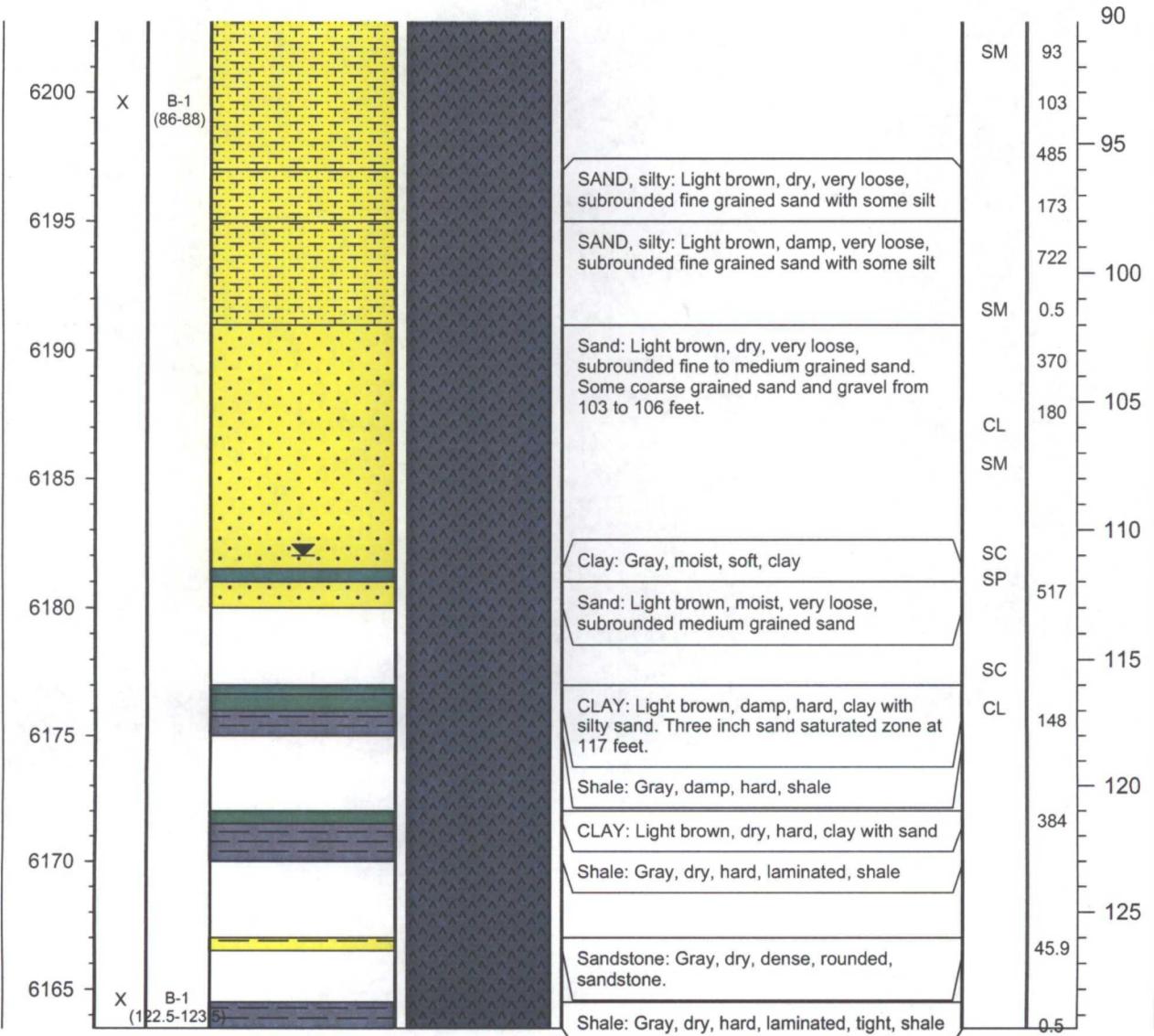
SOIL BORING NO. B-1  
 DRILL TYPE: CME 75  
 Hollow Stem Auger  
 BORE HOLE DIAMETER: 7 7/8 inches  
 DRILLED BY: Enviro-Drill, Inc.  
 DATE/TIME: HOLE STARTED: January 12, 2011 at 10:30 AM  
 DATE/TIME: COMPLETED: January 14, 2011 at 10:00 AM

ELEVATION (msl) - ft	SAMPLE TO LAB	SAMPLE ID	WELL COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	PID RESULT (ppm)	DEPTH (bgs) - ft
----------------------	---------------	-----------	-----------------------------	--------------------------------	-------------	------------------	------------------



PROJECT NAME: San Juan 29-7 Unit 37	SOIL BORING NO. B-1
LOCATION: Rio Arriba County, NM	DRILL TYPE: CME 75
FIELD LOGGED BY: Cassie Brown	Hollow Stem Auger
SURFACE ELEVATION (msl): 6293 feet (top of excavation ~ 6287 feet)	BORE HOLE DIAMETER: 7 7/8 inches
GROUNDWATER ELEVATION (msl): 6188 feet	DRILLED BY: Enviro-Drill, Inc.
REMARKS: Once total depth was reached, boring was backfilled with bentonite and grout to excavation surface.	DATE/TIME: HOLE STARTED: January 12, 2011 at 10:30 AM
COORDINATES: 36.73569N, -107.52537W	DATE/TIME: COMPLETED: January 14, 2011 at 10:00 AM

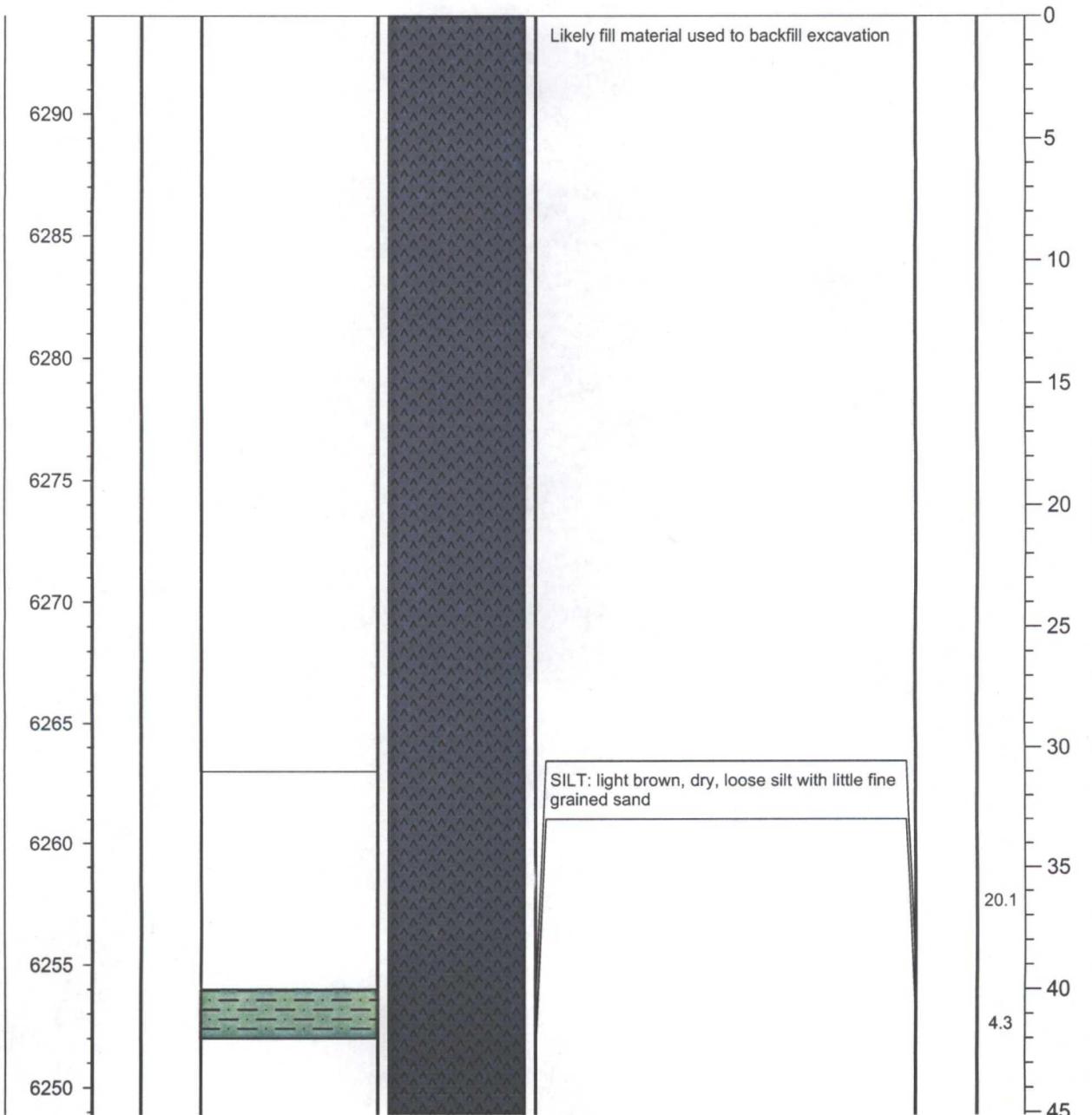
ELEVATION (msl) - ft	SAMPLE TO LAB	SAMPLE ID	WELL COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	PID RESULT (ppm)	DEPTH (bgs) - ft



PROJECT NAME: San Juan 29-7 Unit 37  
 LOCATION: Rio Arriba County, NM  
 FIELD LOGGED BY: Cassie Brown  
 SURFACE ELEVATION (msl) 6294 feet  
 GROUNDWATER ELEVATION (msl): Not Encountered  
 REMARKS:  
 COORDINATES: 36.73581N, -107.52530W

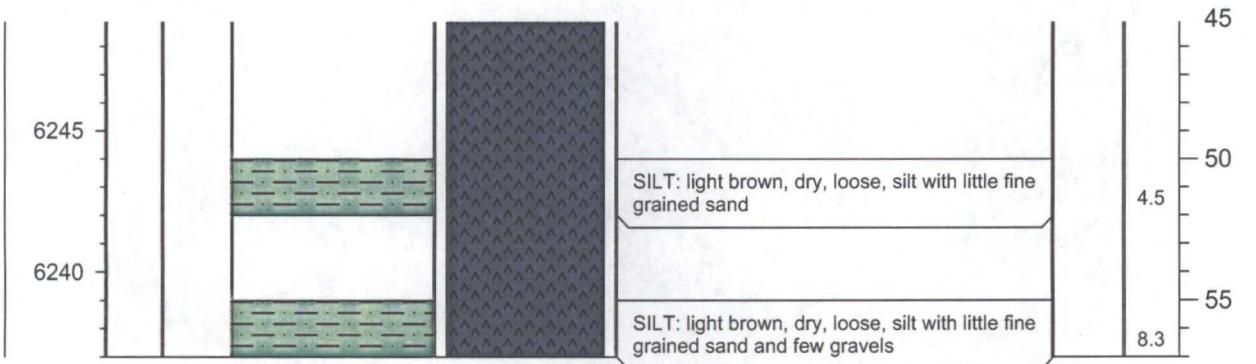
SOIL BORING NO. B-2  
 DRILL TYPE: CME 75  
 Hollow Stem Auger  
 BORE HOLE DIAMETER: 7 7/8 inches  
 DRILLED BY: Enviro-Drill, Inc.  
 DATE/TIME: HOLE STARTED: March 1, 2011 at 8:30 AM  
 DATE/TIME: COMPLETED: March 1, 2011 at 10:00 PM

ELEVATION (msl) - ft	SAMPLE TO LAB	SAMPLE ID	WELL COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	PID RESULT (ppm)	DEPTH (bgs) - ft



PROJECT NAME: San Juan 29-7 Unit 37	SOIL BORING NO. B-2
LOCATION: Rio Arriba County, NM	DRILL TYPE: CME 75
FIELD LOGGED BY: Cassie Brown	Hollow Stem Auger
SURFACE ELEVATION (msl) 6294 feet	BORE HOLE DIAMETER: 7 7/8 inches
GROUNDWATER ELEVATION (msl): Not Encountered	DRILLED BY: Enviro-Drill, Inc.
REMARKS:	DATE/TIME: HOLE STARTED: March 1, 2011 at 8:30 AM
COORDINATES: 36.73581N, -107.52530W	DATE/TIME: COMPLETED: March 1, 2011 at 10:00 PM

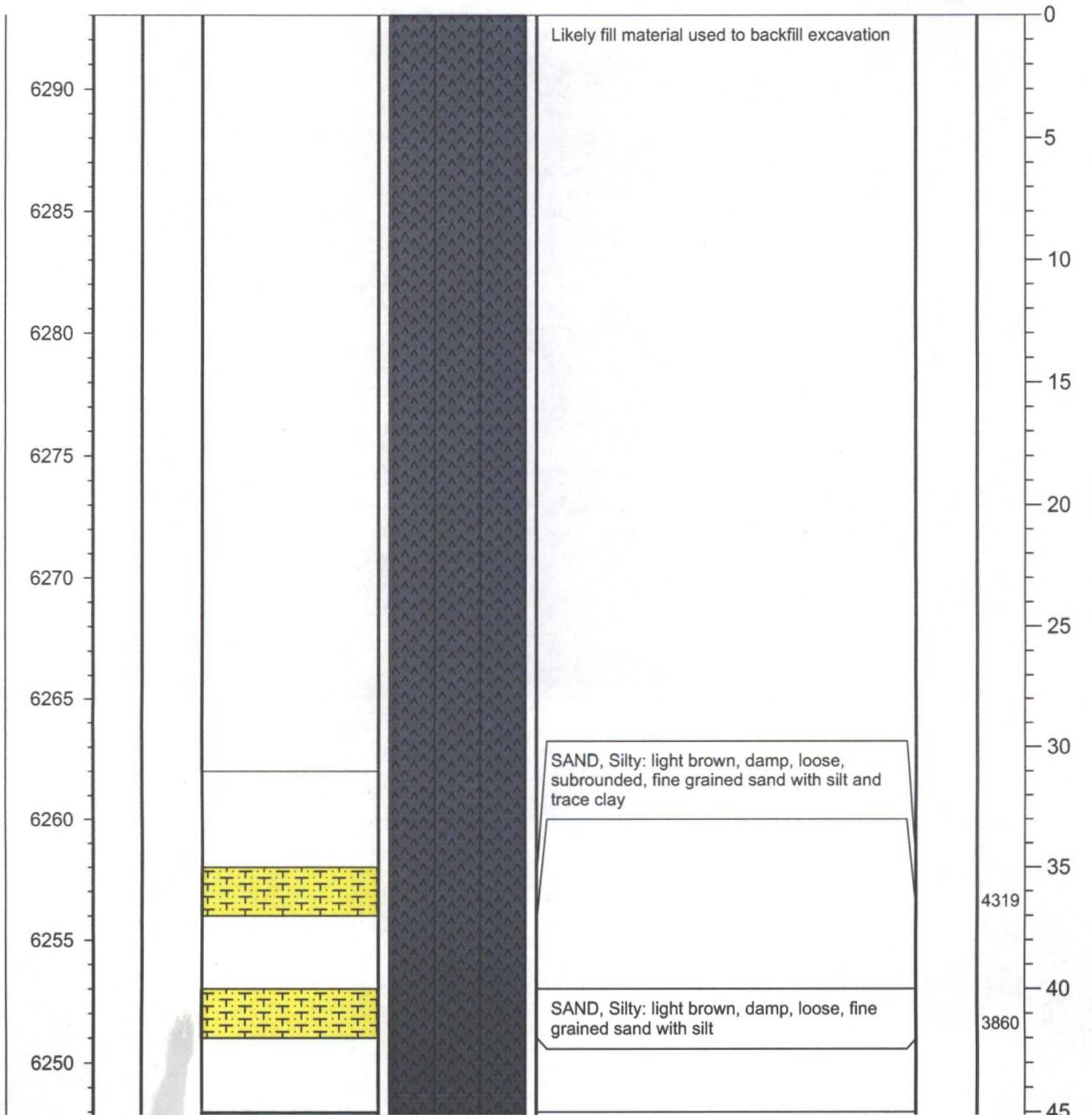
ELEVATION (msl) - ft	SAMPLE TO LAB	SAMPLE ID	WELL COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	PID RESULT (ppm)	DEPTH (bgs) - ft



PROJECT NAME: San Juan 29-7 Unit 37  
 LOCATION: Rio Arriba County, NM  
 FIELD LOGGED BY: Cassie Brown  
 SURFACE ELEVATION (msl): 6293 feet  
 GROUNDWATER ELEVATION (msl): 6175 feet  
 REMARKS:  
 COORDINATES: 36.73576N, -107.52536W

SOIL BORING NO. B-3  
 DRILL TYPE: CME 75  
 Hollow Stem Auger  
 BORE HOLE DIAMETER: 7 7/8 inches  
 DRILLED BY: Enviro-Drill, Inc.  
 DATE/TIME: HOLE STARTED: March 1, 2011 at 11:00 AM  
 DATE/TIME: COMPLETED: March 1, 2011 at 14:00 PM

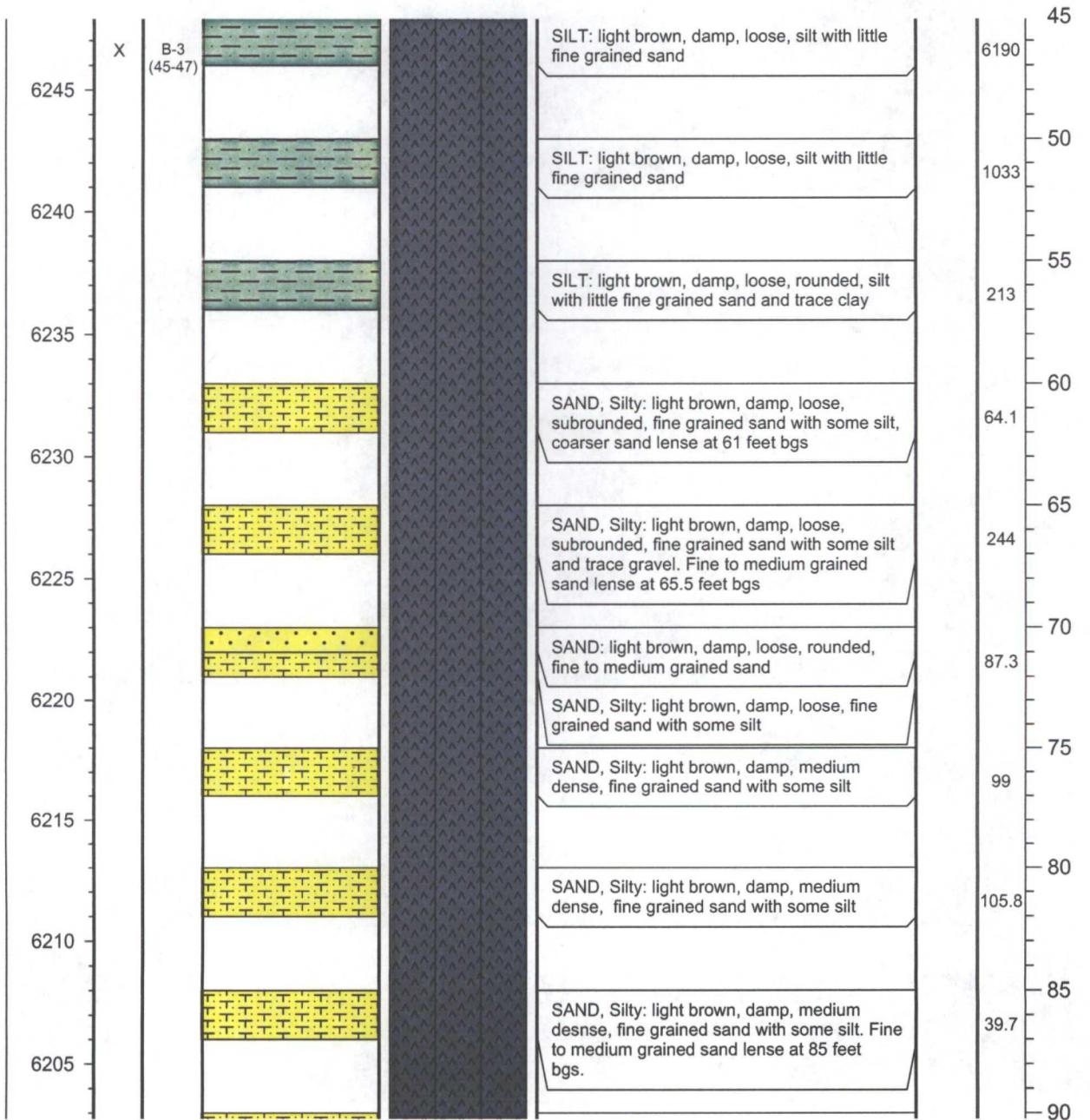
ELEVATION (msl) - ft	SAMPLE TO LAB	SAMPLE ID	WELL COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	PID RESULT (ppm)	DEPTH (bgs) - ft



PROJECT NAME: San Juan 29-7 Unit 37  
 LOCATION: Rio Arriba County, NM  
 FIELD LOGGED BY: Cassie Brown  
 SURFACE ELEVATION (msl): 6293 feet  
 GROUNDWATER ELEVATION (msl): 6175 feet  
 REMARKS:  
 COORDINATES: 36.73576N, -107.52536W

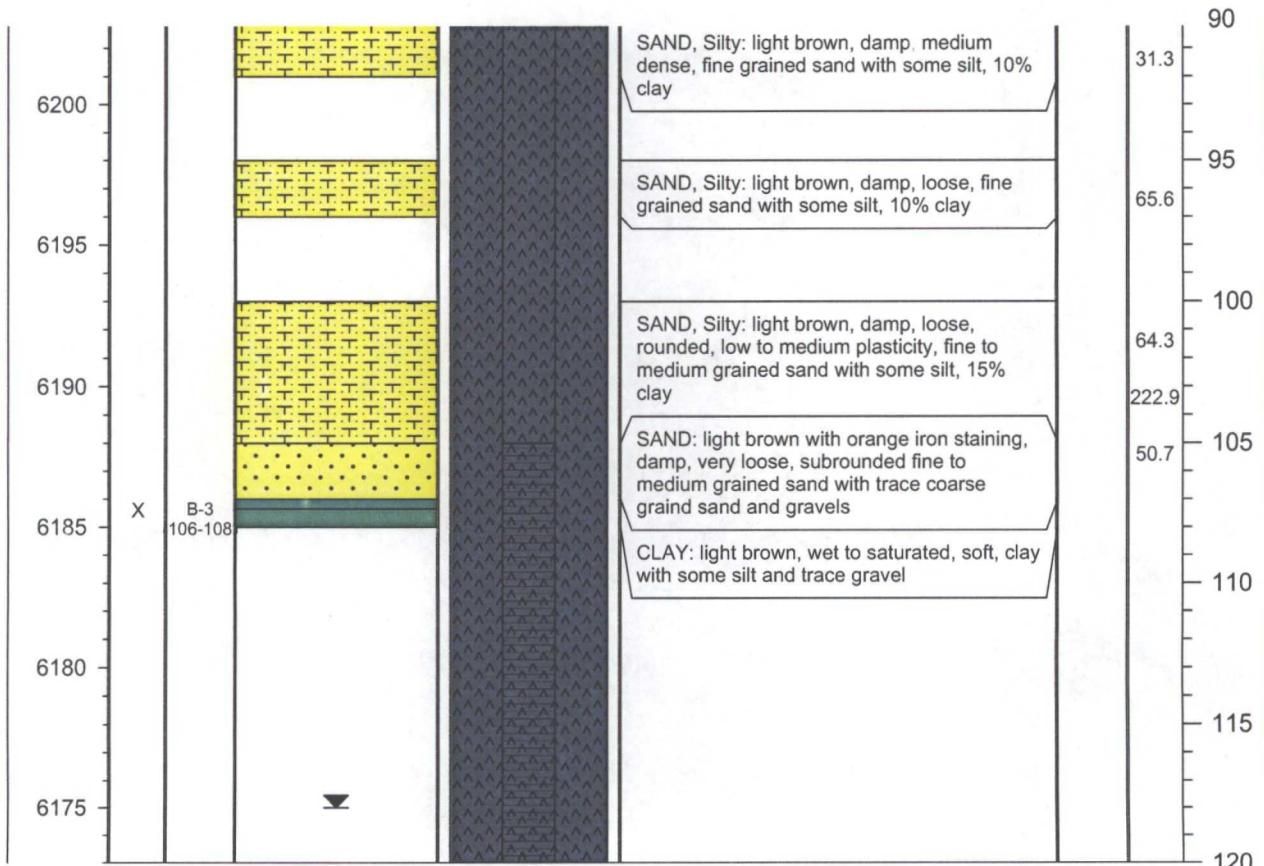
SOIL BORING NO. B-3  
 DRILL TYPE: CME 75  
 Hollow Stem Auger  
 BORE HOLE DIAMETER: 7 7/8 inches  
 DRILLED BY: Enviro-Drill, Inc.  
 DATE/TIME: HOLE STARTED: March 1, 2011 at 11:00 AM  
 DATE/TIME: COMPLETED: March 1, 2011 at 14:00 PM

ELEVATION (msl) - ft	SAMPLE TO LAB	SAMPLE ID	WELL COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	PID RESULT (ppm)	DEPTH (bgs) - ft



PROJECT NAME: San Juan 29-7 Unit 37	SOIL BORING NO. B-3
LOCATION: Rio Arriba County, NM	DRILL TYPE: CME 75
FIELD LOGGED BY: Cassie Brown	Hollow Stem Auger
SURFACE ELEVATION (msl) 6293 feet	BORE HOLE DIAMETER: 7 7/8 inches
GROUNDWATER ELEVATION (msl): 6175 feet	DRILLED BY: Enviro-Drill, Inc.
REMARKS:	DATE/TIME: HOLE STARTED: March 1, 2011 at 11:00 AM
COORDINATES: 36.73576N, -107.52536W	DATE/TIME: COMPLETED: March 1, 2011 at 14:00 PM

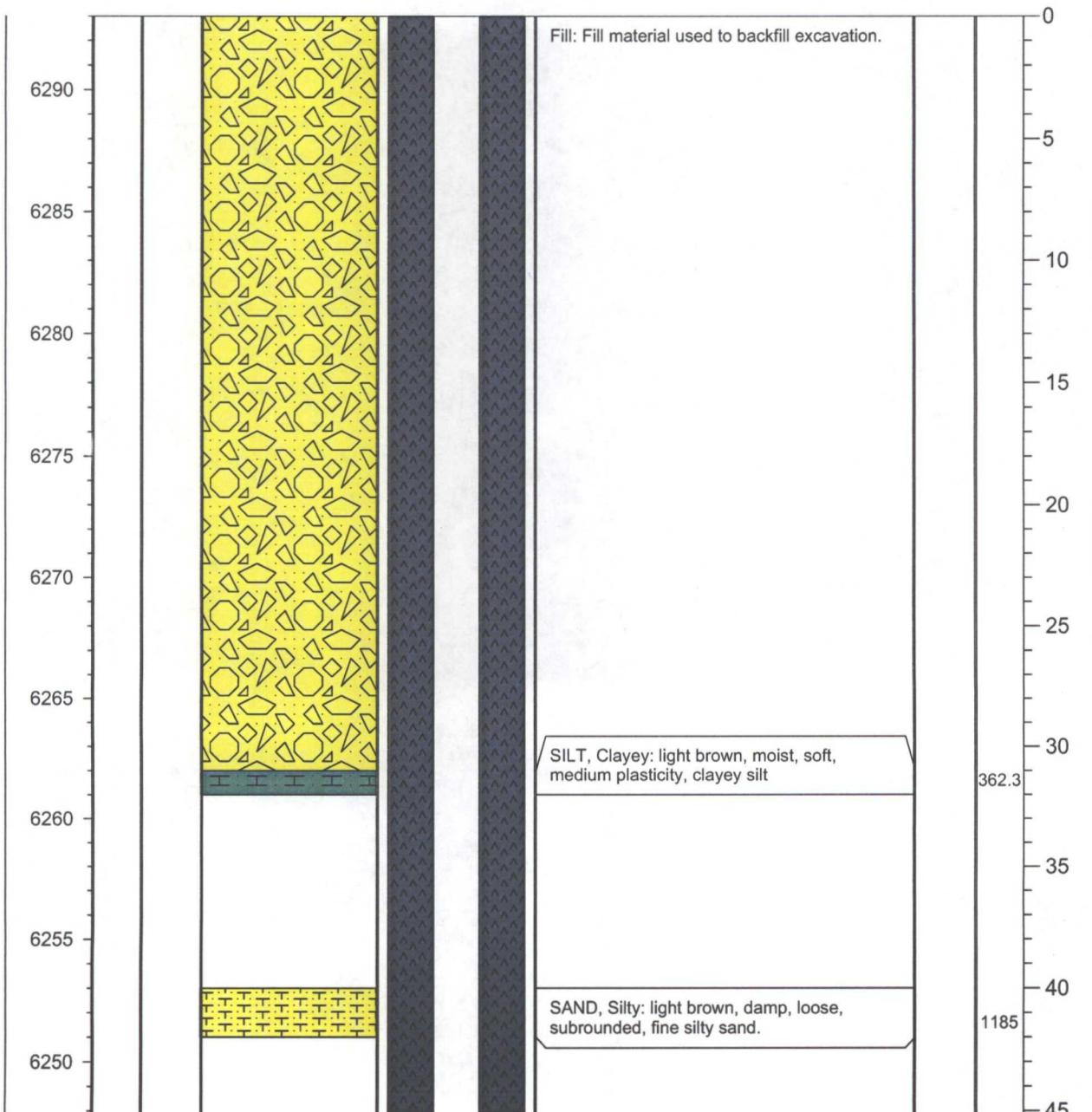
ELEVATION (msl) - ft	SAMPLE TO LAB	SAMPLE ID	WELL COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	PID RESULT (ppm)	DEPTH (bgs) - ft
6200				SAND, Silty: light brown, damp, medium dense, fine grained sand with some silt, 10% clay		31.3	90
6195				SAND, Silty: light brown, damp, loose, fine grained sand with some silt, 10% clay		65.6	95
6190				SAND, Silty: light brown, damp, loose, rounded, low to medium plasticity, fine to medium grained sand with some silt, 15% clay		64.3	100
6185	X	B-3 106-108		SAND: light brown with orange iron staining, damp, very loose, surrounded fine to medium grained sand with trace coarse grain sand and gravels		222.9	105
6180				CLAY: light brown, wet to saturated, soft, clay with some silt and trace gravel		50.7	110
6175							115
							120



PROJECT NAME: San Juan 29-7 Unit 37  
 LOCATION: Rio Arriba County, NM  
 FIELD LOGGED BY: Cassie Brown  
 SURFACE ELEVATION (msl): 6293 feet  
 GROUNDWATER ELEVATION (msl): 6175 feet  
 REMARKS:  
 COORDINATES: 36.73572N, -107.52532W

SOIL BORING NO. MW-1  
 DRILL TYPE: CME 75  
 Hollow Stem Auger  
 BORE HOLE DIAMETER: 7 7/8 inches  
 DRILLED BY: Enviro-Drill, Inc.  
 DATE/TIME: HOLE STARTED: March 3, 2011 at 12:00 PM  
 DATE/TIME: COMPLETED: March 4, 2011 at 9:30 AM

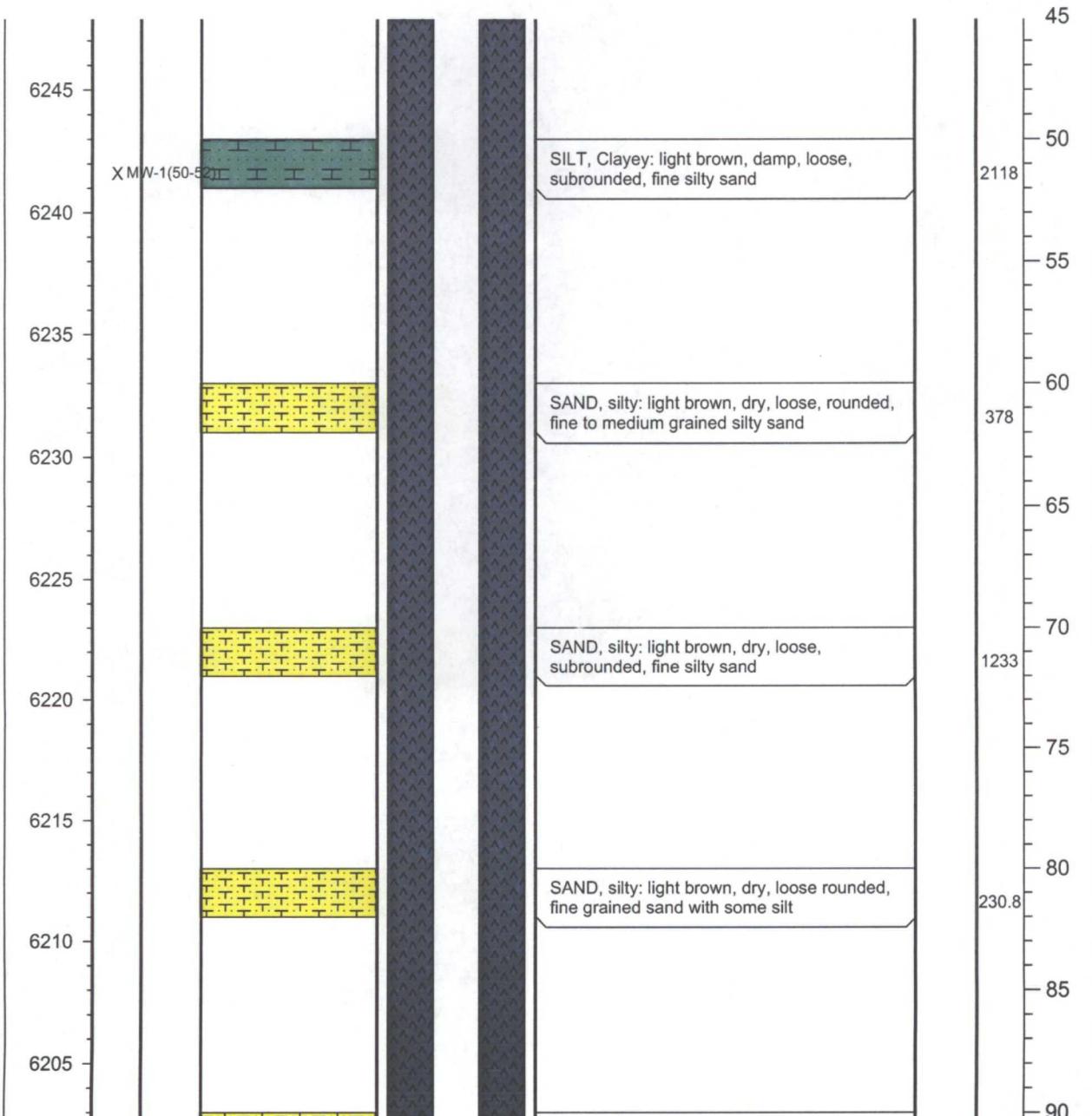
ELEVATION (msl) - ft	SAMPLE TO LAB	SAMPLE ID	WELL COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	PID RESULT (ppm)	DEPTH (bgs) - ft



PROJECT NAME: San Juan 29-7 Unit 37  
 LOCATION: Rio Arriba County, NM  
 FIELD LOGGED BY: Cassie Brown  
 SURFACE ELEVATION (msl): 6293 feet  
 GROUNDWATER ELEVATION (msl): 6175 feet  
 REMARKS:  
 COORDINATES: 36.73572N, -107.52532W

SOIL BORING NO. MW-1  
 DRILL TYPE: CME 75  
 Hollow Stem Auger  
 BORE HOLE DIAMETER: 7 7/8 inches  
 DRILLED BY: Enviro-Drill, Inc.  
 DATE/TIME: HOLE STARTED: March 3, 2011 at 12:00 PM  
 DATE/TIME: COMPLETED: March 4, 2011 at 9:30 AM

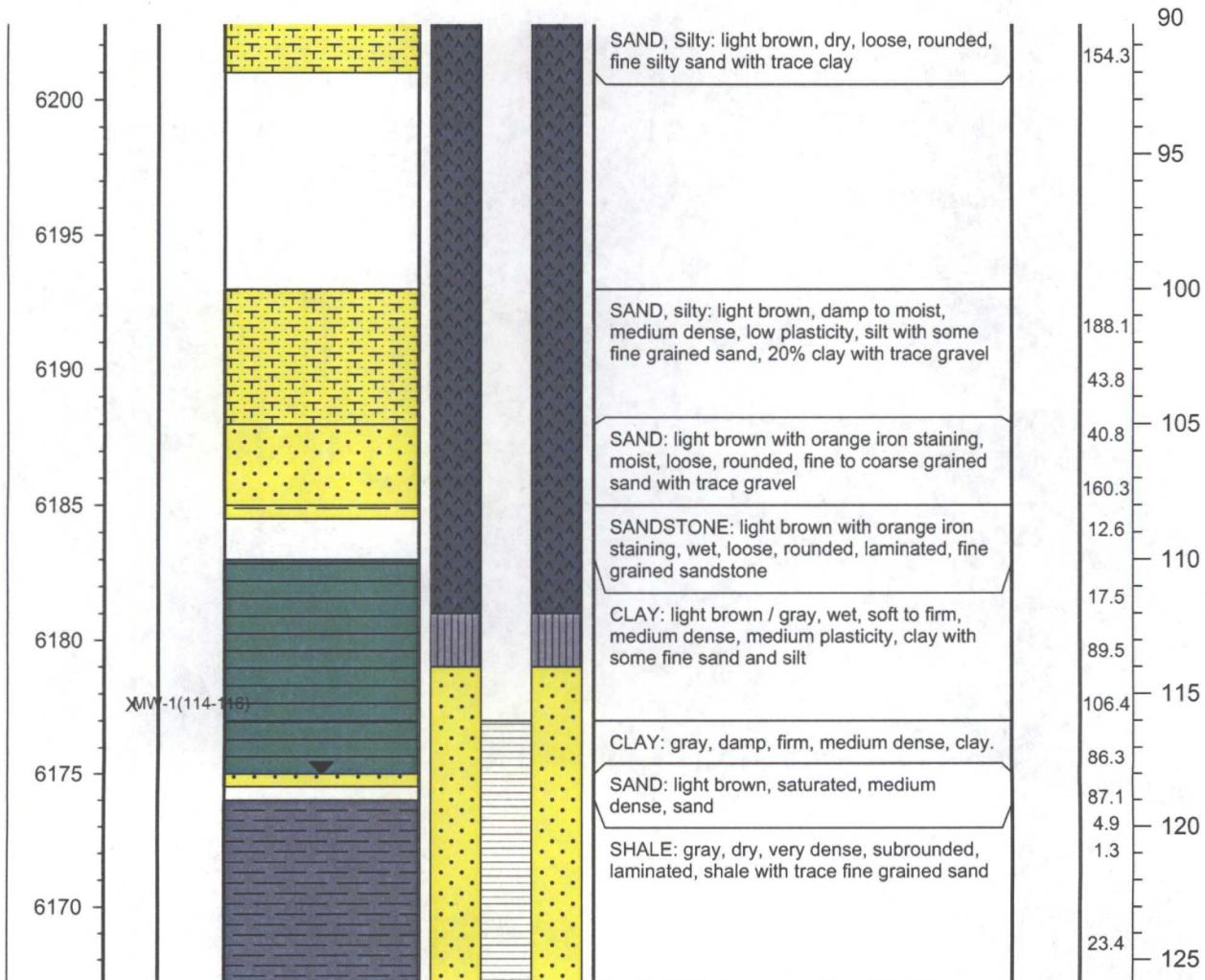
ELEVATION (msl) - ft	SAMPLE TO LAB	SAMPLE ID	WELL COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	PID RESULT (ppm)	DEPTH (bgs) - ft



PROJECT NAME: San Juan 29-7 Unit 37  
 LOCATION: Rio Arriba County, NM  
 FIELD LOGGED BY: Cassie Brown  
 SURFACE ELEVATION (msl) 6293 feet  
 GROUNDWATER ELEVATION (msl): 6175 feet  
 REMARKS:  
 COORDINATES: 36.73572N, -107.52532W

SOIL BORING NO. MW-1  
 DRILL TYPE: CME 75  
 Hollow Stem Auger  
 BORE HOLE DIAMETER: 7 7/8 inches  
 DRILLED BY: Enviro-Drill, Inc.  
 DATE/TIME: HOLE STARTED: March 3, 2011 at 12:00 PM  
 DATE/TIME: COMPLETED: March 4, 2011 at 9:30 AM

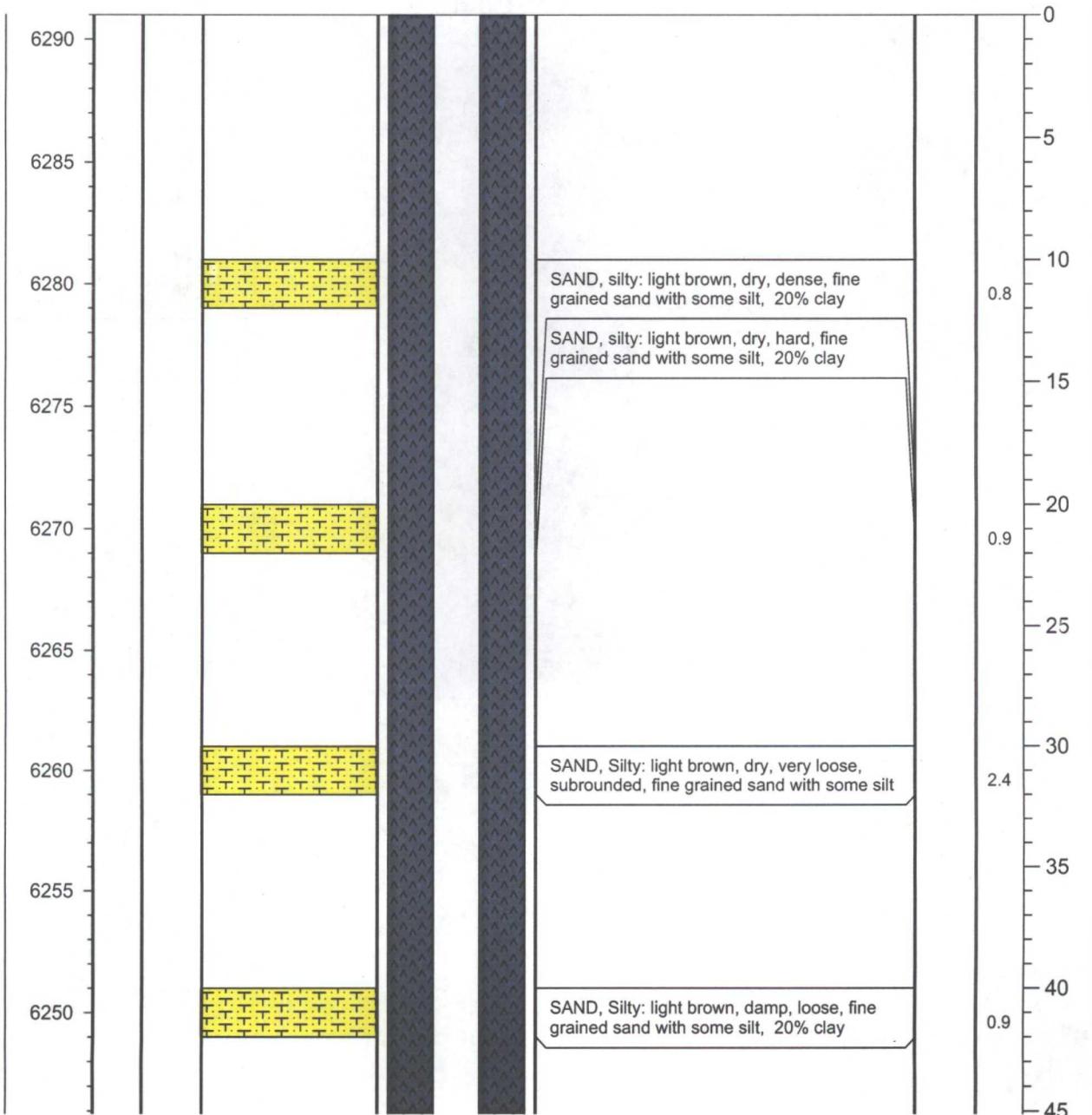
ELEVATION (msl) - ft	SAMPLE TO LAB	SAMPLE ID	WELL COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	PID RESULT (ppm)	DEPTH (bgs) - ft
6200				SAND, Silty: light brown, dry, loose, rounded, fine silty sand with trace clay		154.3	90
6195				SAND, silty: light brown, damp to moist, medium dense, low plasticity, silt with some fine grained sand, 20% clay with trace gravel		188.1	95
6190				SAND: light brown with orange iron staining, moist, loose, rounded, fine to coarse grained sand with trace gravel		43.8	100
6185				SANDSTONE: light brown with orange iron staining, wet, loose, rounded, laminated, fine grained sandstone		40.8	105
6180				CLAY: light brown / gray, wet, soft to firm, medium dense, medium plasticity, clay with some fine sand and silt		160.3	110
6175	XMW-1(114-116)			CLAY: gray, damp, firm, medium dense, clay.		12.6	115
6170				SAND: light brown, saturated, medium dense, sand		106.4	86.3
				SHALE: gray, dry, very dense, subrounded, laminated, shale with trace fine grained sand		87.1	87.1
						4.9	120
						1.3	1.3
						23.4	125



PROJECT NAME: San Juan 29-7 Unit 37  
 LOCATION: Rio Arriba County, NM  
 FIELD LOGGED BY: Cassie Brown  
 SURFACE ELEVATION (msl): 6291 feet  
 GROUNDWATER ELEVATION (msl): 6180 feet  
 REMARKS:  
 COORDINATES: 36.73542N, -107.52519W

SOIL BORING NO. MW-2  
 DRILL TYPE: CME 75  
 Hollow Stem Auger  
 BORE HOLE DIAMETER: 7 7/8 inches  
 DRILLED BY: Enviro-Drill, Inc.  
 DATE/TIME: HOLE STARTED: March 2, 2011 at 8:00 AM  
 DATE/TIME: COMPLETED: March 2, 2011 at 10:45 AM

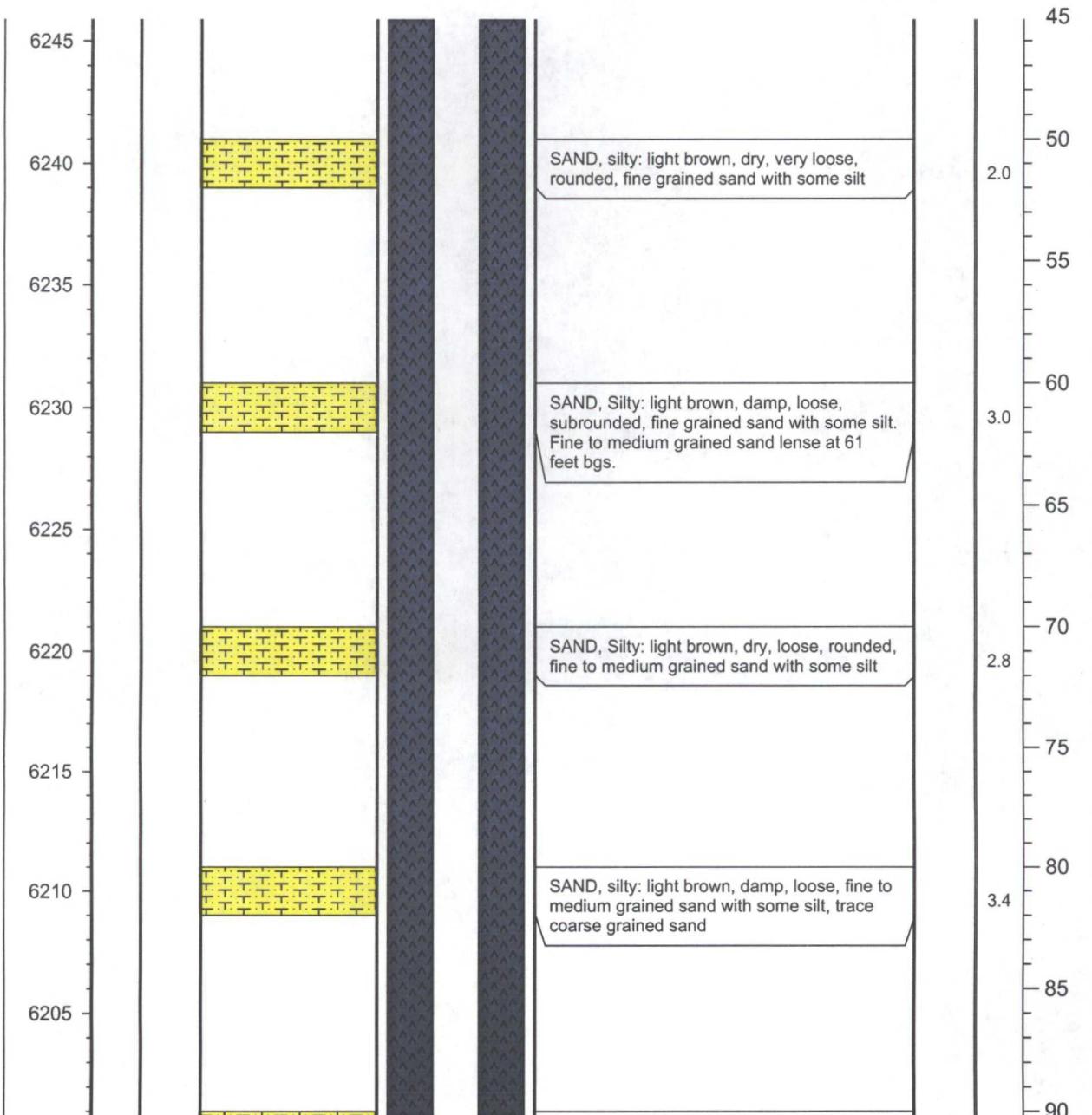
ELEVATION (msl) - ft	SAMPLE TO LAB	SAMPLE ID	WELL COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	PID RESULT (ppm)	DEPTH (bgs) - ft



PROJECT NAME: San Juan 29-7 Unit 37  
 LOCATION: Rio Arriba County, NM  
 FIELD LOGGED BY: Cassie Brown  
 SURFACE ELEVATION (msl): 6291 feet  
 GROUNDWATER ELEVATION (msl): 6180 feet  
 REMARKS:  
 COORDINATES: 36.73542N, -107.52519W

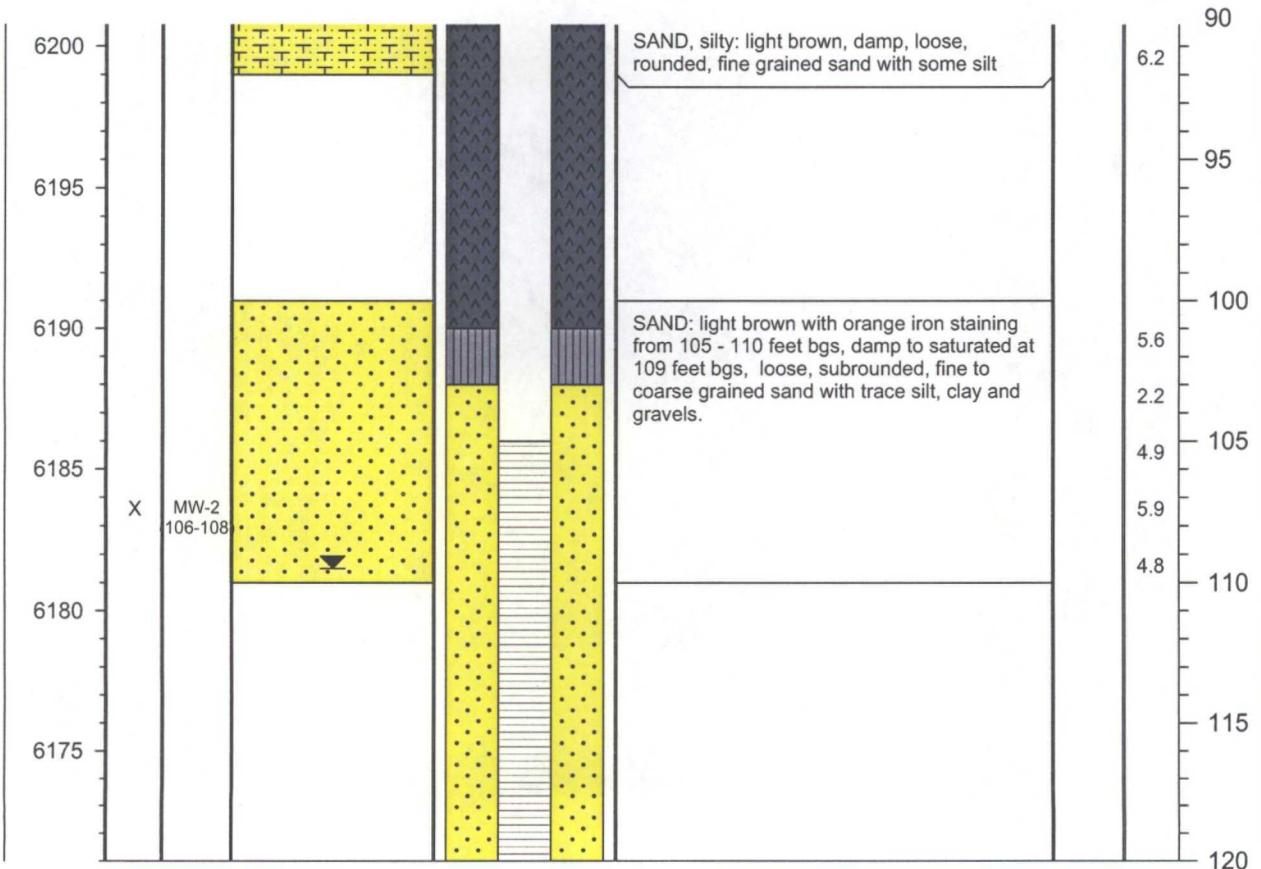
SOIL BORING NO. MW-2  
 DRILL TYPE: CME 75  
 Hollow Stem Auger  
 BORE HOLE DIAMETER: 7 7/8 inches  
 DRILLED BY: Enviro-Drill, Inc.  
 DATE/TIME: HOLE STARTED: March 2, 2011 at 8:00 AM  
 DATE/TIME: COMPLETED: March 2, 2011 at 10:45 AM

ELEVATION (msl) - ft	SAMPLE TO LAB	SAMPLE ID	WELL COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	PID RESULT (ppm)	DEPTH (bgs) - ft
6245							45

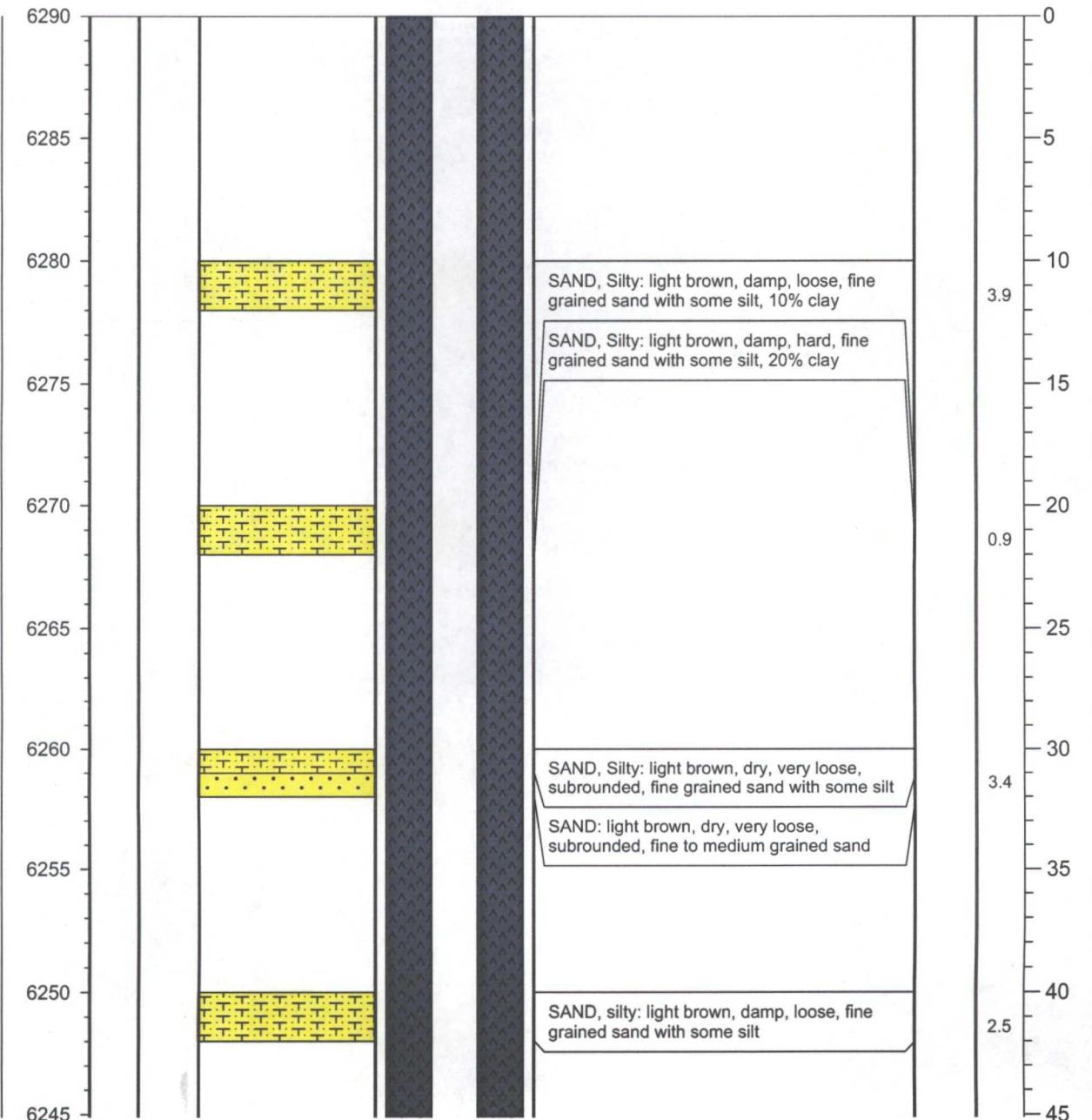


PROJECT NAME: San Juan 29-7 Unit 37	SOIL BORING NO. MW-2
LOCATION: Rio Arriba County, NM	DRILL TYPE: CME 75
FIELD LOGGED BY: Cassie Brown	Hollow Stem Auger
SURFACE ELEVATION (msl) 6291 feet	BORE HOLE DIAMETER: 7 7/8 inches
GROUNDWATER ELEVATION (msl): 6180 feet	DRILLED BY: Enviro-Drill, Inc.
REMARKS:	DATE/TIME: HOLE STARTED: March 2, 2011 at 8:00 AM
COORDINATES: 36.73542N, -107.52519W	DATE/TIME: COMPLETED: March 2, 2011 at 10:45 AM

ELEVATION (msl) - ft	SAMPLE TO LAB	SAMPLE ID	WELL COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	PID RESULT (ppm)	DEPTH (bgs) - ft
6200				SAND, silty: light brown, damp, loose, rounded, fine grained sand with some silt		6.2	90

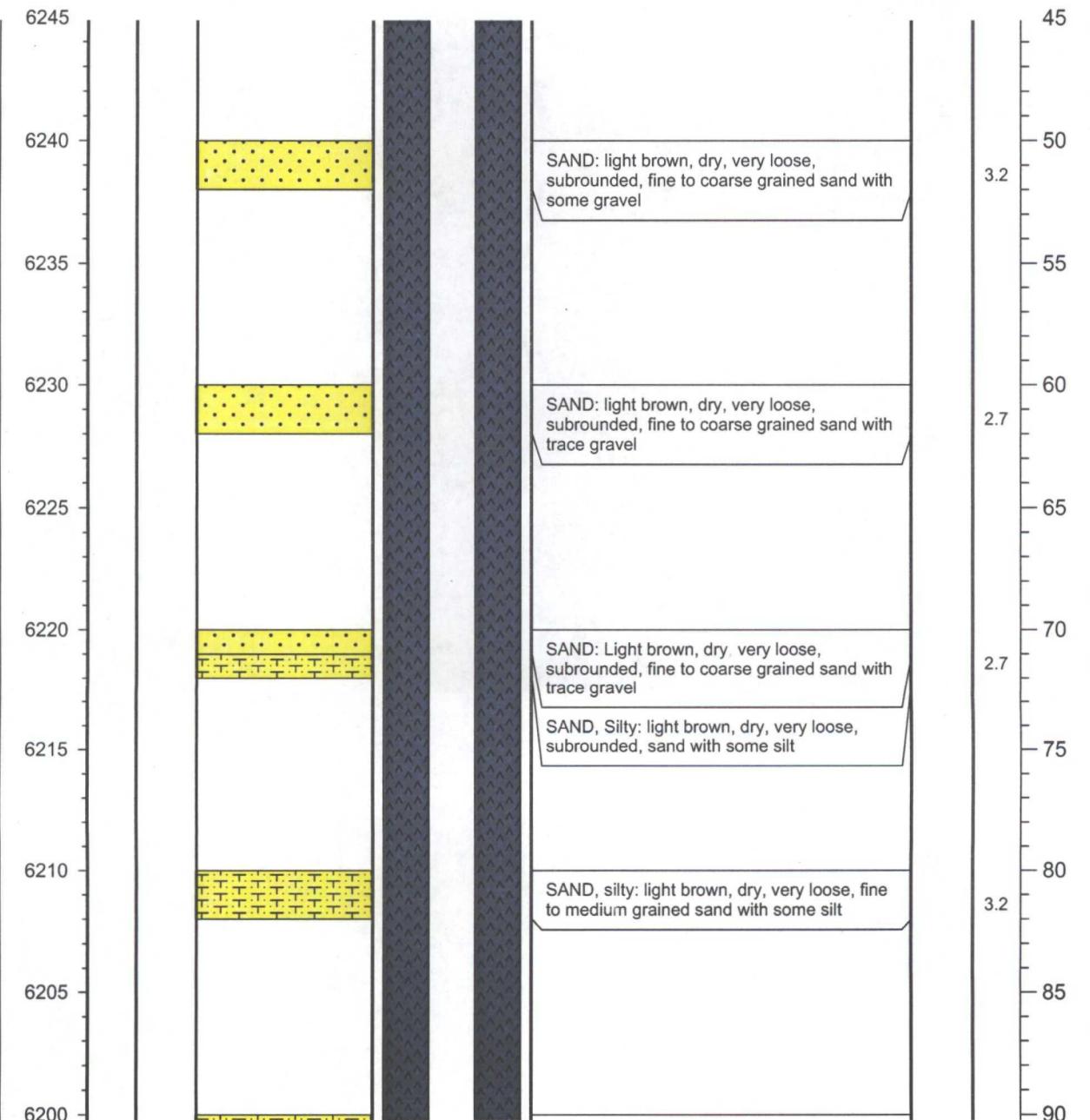


PROJECT NAME: San Juan 29-7 Unit 37	SOIL BORING NO. MW-3						
LOCATION: Rio Arriba County, NM	DRILL TYPE: CME 75						
FIELD LOGGED BY: Cassie Brown	Hollow Stem Auger						
SURFACE ELEVATION (msl): 6290 feet	BORE HOLE DIAMETER: 7 7/8 inches						
GROUNDWATER ELEVATION (msl): 6179 feet	DRILLED BY: Enviro-Drill, Inc.						
REMARKS:	DATE/TIME: HOLE STARTED: March 2, 2011 at 15:30 PM						
COORDINATES: 36.73534N, -107.52538W	DATE/TIME: COMPLETED: March 3, 2011 at 9:00 AM						
ELEVATION (msl) - ft	SAMPLE TO LAB	SAMPLE ID	WELL COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	PID RESULT (ppm)	DEPTH (bgs) - ft



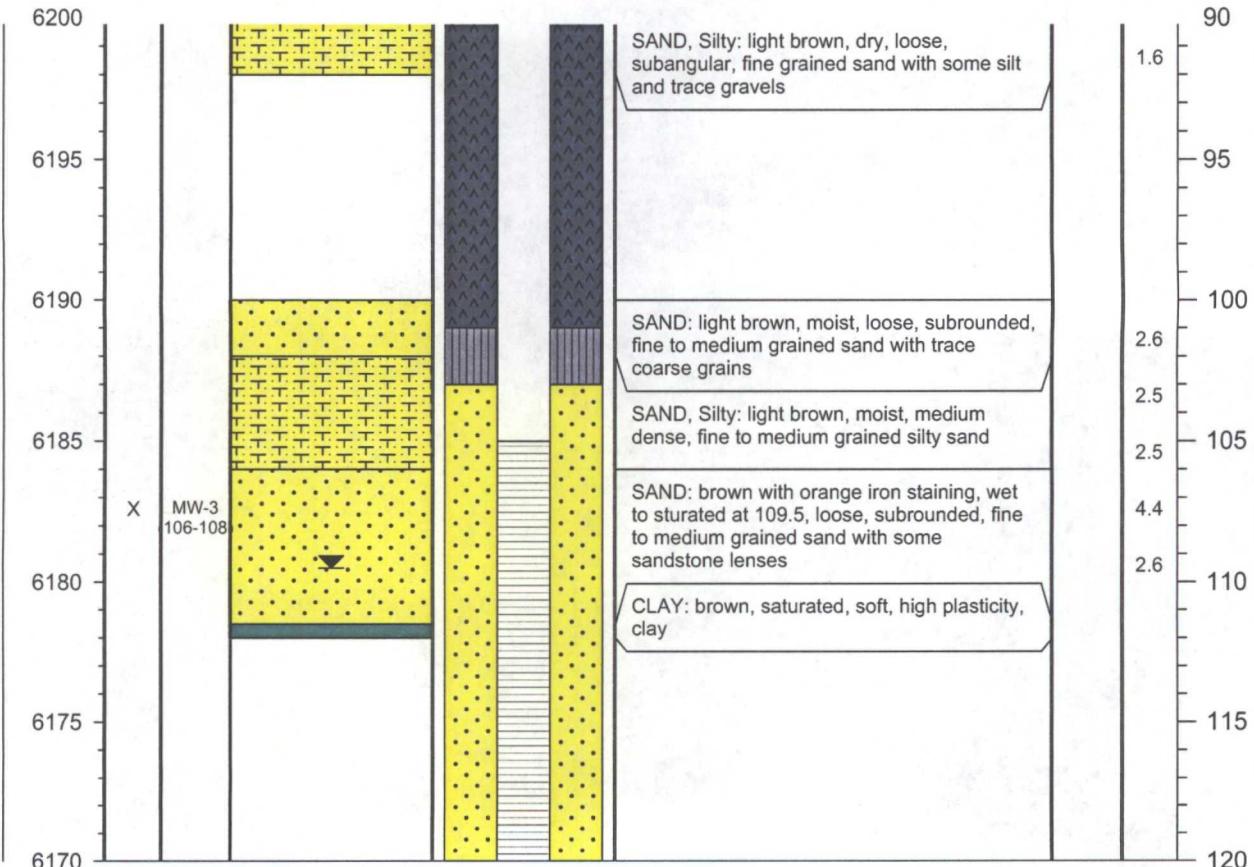
PROJECT NAME: San Juan 29-7 Unit 37	SOIL BORING NO. MW-3
LOCATION: Rio Arriba County, NM	DRILL TYPE: CME 75
FIELD LOGGED BY: Cassie Brown	Hollow Stem Auger
SURFACE ELEVATION (msl) 6290 feet	BORE HOLE DIAMETER: 7 7/8 inches
GROUNDWATER ELEVATION (msl): 6179 feet	DRILLED BY: Enviro-Drill, Inc.
REMARKS:	DATE/TIME: HOLE STARTED: March 2, 2011 at 15:30 PM
COORDINATES: 36.73534N, -107.52538W	DATE/TIME: COMPLETED: March 3, 2011 at 9:00 AM

ELEVATION (msl) - ft	SAMPLE TO LAB	SAMPLE ID	WELL COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	PID RESULT (ppm)	DEPTH (bgs) - ft
-------------------------	---------------	-----------	--------------------------------	-----------------------------------	-------------	------------------	---------------------



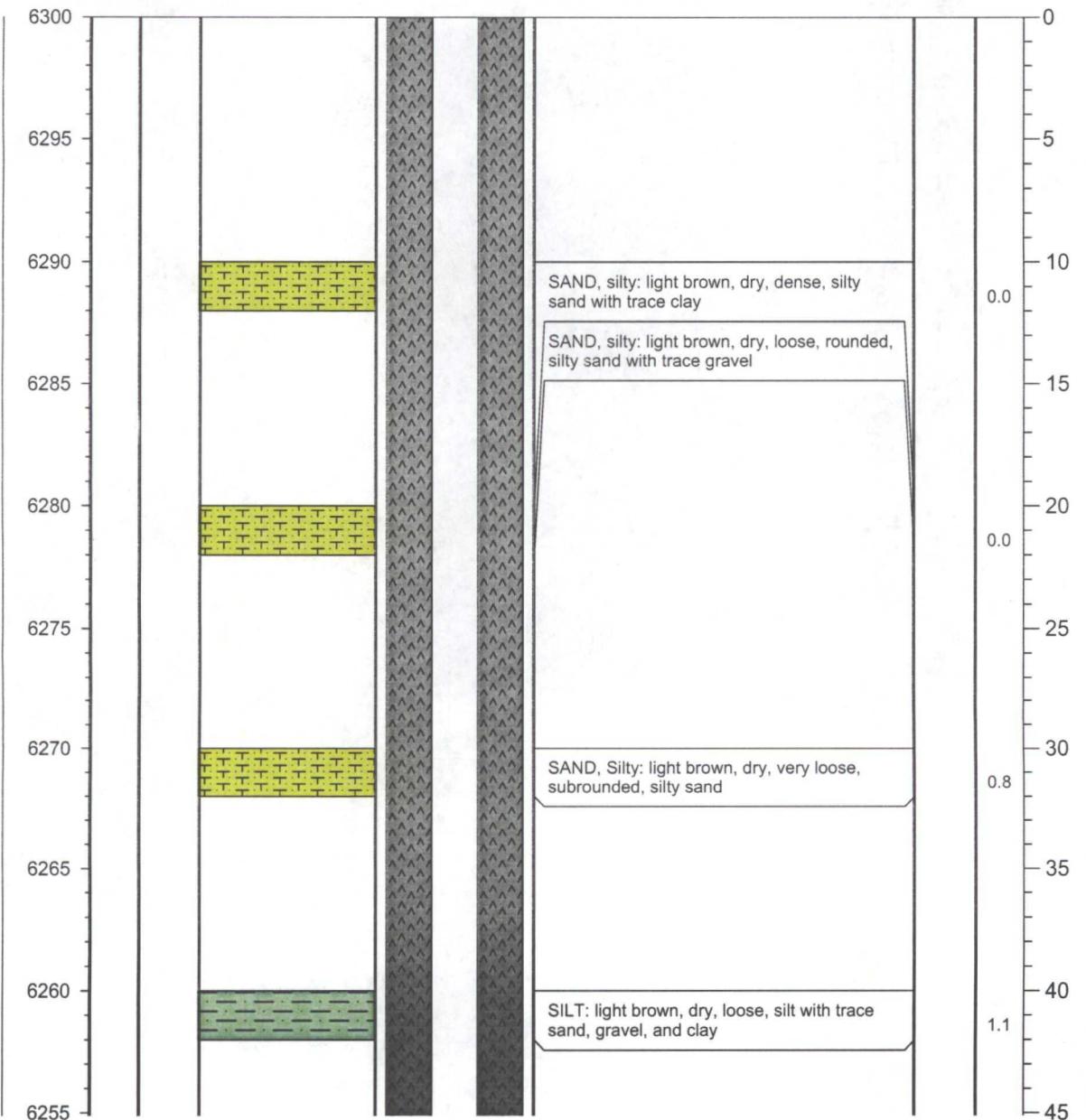
PROJECT NAME: San Juan 29-7 Unit 37	SOIL BORING NO. MW-3
LOCATION: Rio Arriba County, NM	DRILL TYPE: CME 75
FIELD LOGGED BY: Cassie Brown	Hollow Stem Auger
SURFACE ELEVATION (msl) 6290 feet	BORE HOLE DIAMETER: 7 7/8 inches
GROUNDWATER ELEVATION (msl) 6179 feet	DRILLED BY: Enviro-Drill, Inc.
REMARKS:	DATE/TIME: HOLE STARTED: March 2, 2011 at 15:30 PM
COORDINATES: 36.73534N, -107.52538W	DATE/TIME: COMPLETED: March 3, 2011 at 9:00 AM

ELEVATION (msl) - ft	SAMPLE TO LAB	SAMPLE ID	WELL COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	PID RESULT (ppm)	DEPTH (bgs) - ft

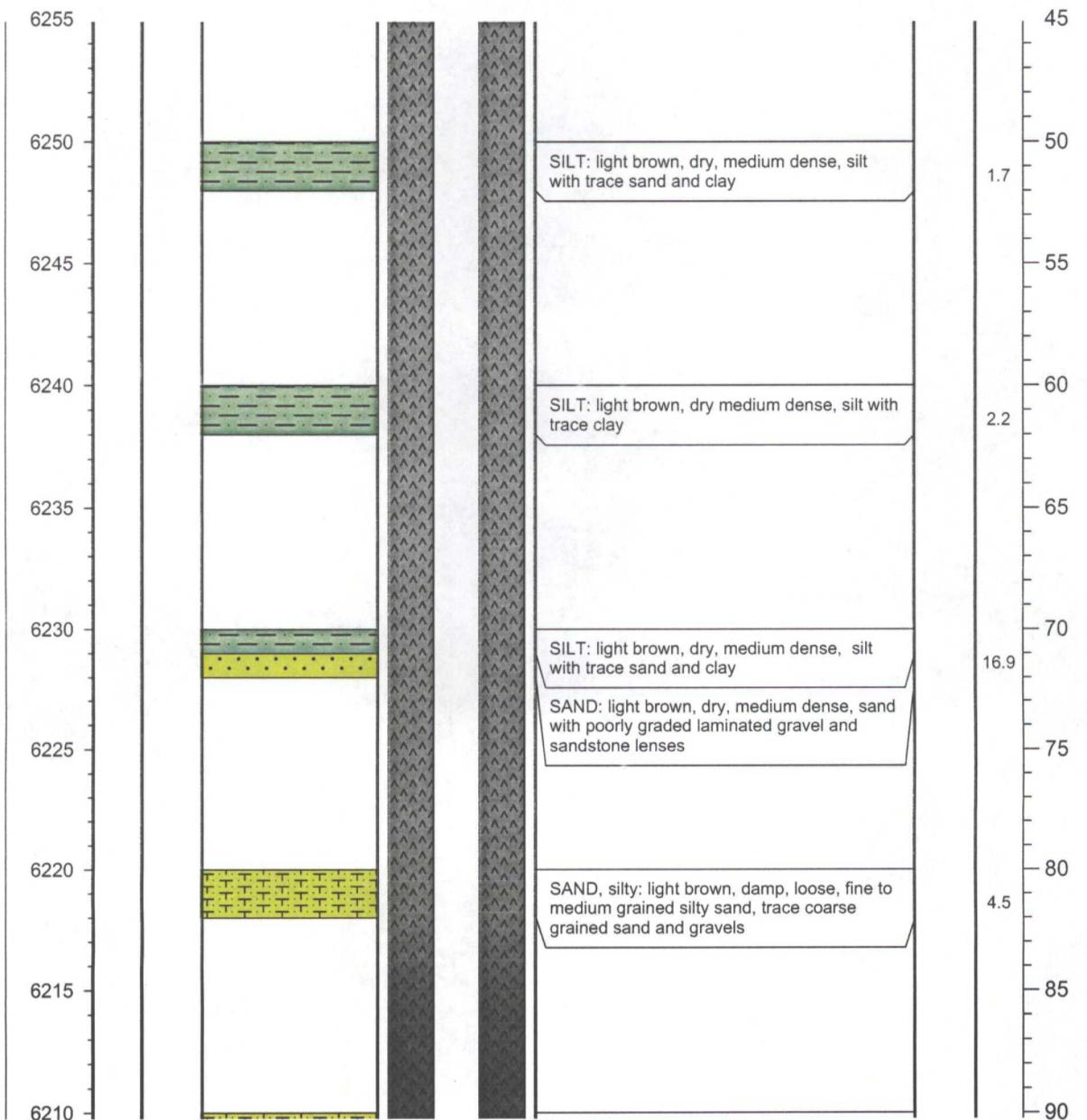


PROJECT NAME: San Juan 29-7 Unit 37	SOIL BORING NO. MW-4
LOCATION: Rio Arriba County, NM	DRILL TYPE: CME 75
FIELD LOGGED BY: Cassie Brown	Hollow Stem Auger
SURFACE ELEVATION (msl): 6300 feet	BORE HOLE DIAMETER: 7 7/8 inches
GROUNDWATER ELEVATION (msl): 6189 feet	DRILLED BY: Enviro-Drill, Inc.
REMARKS:	DATE/TIME: HOLE STARTED: February 28, 2011 at 13:00 PM
COORDINATES: 36.73659N, -107.52498W	DATE/TIME: COMPLETED: February 28, 2011 at 16:00 PM

ELEVATION (msl) - ft	SAMPLE TO LAB	SAMPLE ID	WELL COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	PID RESULT (ppm)	DEPTH (bgs) - ft



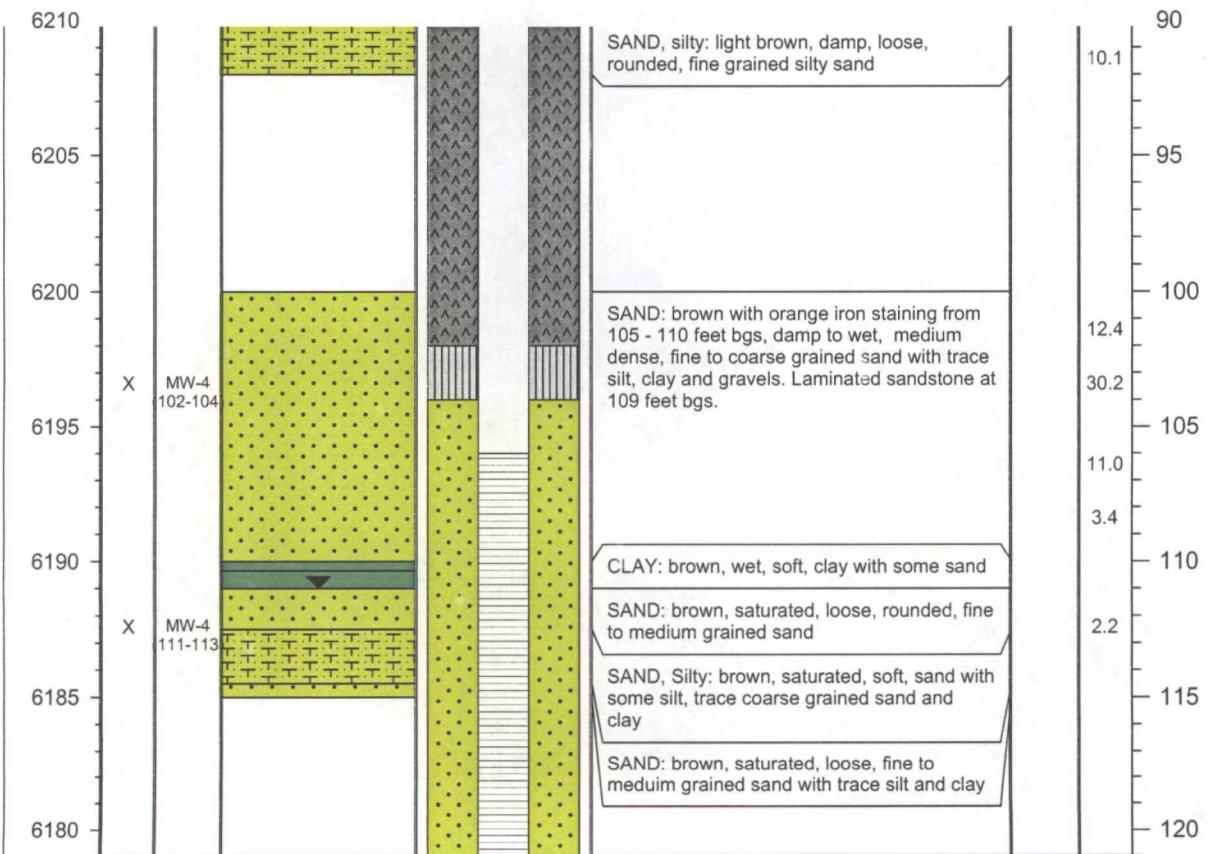
PROJECT NAME: San Juan 29-7 Unit 37	SOIL BORING NO. MW-4						
LOCATION: Rio Arriba County, NM	DRILL TYPE: CME 75						
FIELD LOGGED BY: Cassie Brown	Hollow Stem Auger						
SURFACE ELEVATION (msl) 6300 feet	BORE HOLE DIAMETER: 7 7/8 inches						
GROUNDWATER ELEVATION (msl): 6189 feet	DRILLED BY: Enviro-Drill, Inc.						
REMARKS:	DATE/TIME: HOLE STARTED: February 28, 2011 at 13:00 PM						
COORDINATES: 36.73659N, -107.52498W	DATE/TIME: COMPLETED: February 28, 2011 at 16:00 PM						
ELEVATION (msl) - ft	SAMPLE TO LAB	SAMPLE ID	WELL COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	PID RESULT (ppm)	DEPTH (bgs) - ft



PROJECT NAME: San Juan 29-7 Unit 37  
 LOCATION: Rio Arriba County, NM  
 FIELD LOGGED BY: Cassie Brown  
 SURFACE ELEVATION (msl): 6300 feet  
 GROUNDWATER ELEVATION (msl): 6189 feet  
 REMARKS:  
 COORDINATES: 36.73659N, -107.52498W

SOIL BORING NO. MW-4  
 DRILL TYPE: CME 75  
 Hollow Stem Auger  
 BORE HOLE DIAMETER: 7 7/8 inches  
 DRILLED BY: Enviro-Drill, Inc.  
 DATE/TIME: HOLE STARTED: February 28, 2011 at 13:00 PM  
 DATE/TIME: COMPLETED: February 28, 2011 at 16:00 PM

ELEVATION (msl) - ft	SAMPLE TO LAB	SAMPLE ID	WELL COMPLETION INFORMATION	CLASSIFICATION AND DESCRIPTION	USCS SYMBOL	PID RESULT (ppm)	DEPTH (bgs) - ft



## **APPENDIX B**

March 2011 Soil Boring Laboratory Analytical Report



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Conoco Phillips

### Certificate of Analysis Number:

**11030212**

<u>Report To:</u>  Tetra Tech, Inc. Kelly Blanchard 6121 Indian School Road, N.E. Suite 200 Albuquerque NM 87110- ph: (505) 237-8440      fax: (505) 881-3283	<u>Project Name:</u> San Juan 29-7 Unit 37 <u>Site:</u> Rio Ariba County <u>Site Address:</u>  <u>PO Number:</u> <u>State:</u> New Mexico <u>State Cert. No.:</u> <u>Date Reported:</u> 3/23/2011
--	--

This Report Contains A Total Of 113 Pages

Excluding This Page, Chain Of Custody

And

Any Attachments

3/23/2011

Date

Test results meet all requirements of NELAC, unless specified in the narrative.

Version 2.1 - Modified February 11, 2011



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Case Narrative for:  
**Conoco Phillips**

Certificate of Analysis Number:

**11030212**

<u>Report To:</u>  Tetra Tech, Inc. Kelly Blanchard 6121 Indian School Road, N.E. Suite 200 Albuquerque NM 87110- ph: (505) 237-8440      fax: (505) 881-3283	<u>Project Name:</u> San Juan 29-7 Unit 37 <u>Site:</u> Rio Ariba County <u>Site Address:</u>  <u>PO Number:</u> <u>State:</u> New Mexico <u>State Cert. No.:</u> <u>Date Reported:</u> 3/23/2011
--	--

I. SAMPLE RECEIPT:

All samples were received intact. The internal ice chest temperatures were measured on receipt and are recorded on the attached Sample Receipt Checklist.

II: ANALYSES AND EXCEPTIONS:

Per the Conoco Phillips TSM Revision 0, a copy of the internal chain of custody is to be included in final data package. However, due to LIMS limitations, this cannot be provided at this time.

SW8015B Diesel Range Organics (DRO):

The sample pattern does not resemble a diesel pattern for the following samples: "MW-4(102-104)", "B-2(45-47)", and "MW-1(50-52)" (Laboratory ID's: 11030212-01, -03, and -07).

Sample "MW-4(102-104)" (Laboratory ID: 11030212-01) was selected for use in Accutest/SPL's quality control program for Batch ID: 105406. The Matrix Spike Duplicate (MSD) recovery was outside of the advisory quality control limits due to possible matrix interference. A Laboratory Control Sample (LCS) was analyzed as a quality control check for the analytical batch and the recovery was within acceptable limits.

SW8260B Volatile Organics:

Due to the high concentration of target and non-target analytes, samples "B-2(45-47)" and "MW-1(50-52)" (Laboratory ID's: 11030212-03 and -07) required dilutions (methanol preparation), resulting in non-detected results at elevated reporting limits for several compounds.

Sample "MW-2(106-108)" (Laboratory ID: 11030212-05) was selected for use in Accutest/SPL's quality control program for Batch ID: R316855. The Matrix Spike Duplicate (MSD) recovery was outside of the advisory quality control limits for Vinyl acetate due to possible matrix interference. In addition, the Matrix Spike (MS) and Matrix Spike Duplicate (MSD) recoveries were outside of the advisory quality control limits for Tetrachloroethene. A Laboratory Control Sample (LCS) was analyzed as a quality control check for the analytical batch and all recoveries were within acceptable limits, except Tetrachloroethene. Tetrachloroethene was above the control limits in the LCS; however, all associated samples in the batch were non-detect for this compound and sample results were not affected by the LCS recovery for Tetrachloroethene.

Sample "B-2(45-47)" (Laboratory ID: 11030212-03) was selected for use in Accutest/SPL's quality control program for Batch ID: R316923. The Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) recoveries were outside of the advisory quality control limits for: 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, 2-Butanone, 2-Hexanone, 4-Methyl-2-pentanone, Acetone, Toluene, m/p-Xylene, o-Xylene, and Total Xylenes. A Laboratory Control Sample (LCS) was analyzed as a quality control check for the analytical batch and all recoveries were within acceptable limits.

EPA 300.0 Modified - Ion Chromatography:

11030212 Page 1

3/23/2011

Erica Cardenas  
Project Manager

Date

Test results meet all requirements of NELAC, unless specified in the narrative.



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Case Narrative for:  
**Conoco Phillips**

**Certificate of Analysis Number:**

**11030212**

Sample "B-2(45-47)" (Laboratory ID: 11030212-03) was selected for use in Accutest/SPL's quality control program for Batch ID: R316922. The Matrix Spike (MS) recovery was outside of the advisory quality control limits due to possible matrix interference for Nitrate Nitrogen (as N). A Laboratory Control Sample (LCS) was analyzed as a quality control check for the analytical batch and all recoveries were within acceptable limits.

**III. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report (" mg/kg-dry " or " ug/kg-dry " ).

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Some of the percent recoveries and RPD's on the QC report for the MS/MSD may be different than the calculated recoveries and RPD's using the sample result and the MS/MSD results that appear on the report because, the actual raw result is used to perform the calculations for percent recovery and RPD.

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or by his designee, as verified by the following signature.

Erica Cardenas  
Project Manager

11030212 Page 2  
3/23/2011

Test results meet all requirements of NELAC, unless specified in the narrative.



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Conoco Phillips

### Certificate of Analysis Number:

11030212

Report To: Tetra Tech, Inc.  
Kelly Blanchard  
6121 Indian School Road, N.E.  
Suite 200  
Albuquerque  
NM  
87110-  
ph: (505) 237-8440      fax: (505) 881-3283

Fax To:

Project Name: San Juan 29-7 Unit 37  
Site: Rio Ariba County  
Site Address:  
PO Number:  
State: New Mexico  
State Cert. No.:  
Date Reported: 3/23/2011

#	Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
MW-4(102-104)		11030212-01	Soil	02/28/2011 15:00	3/8/2011 9:16:00 AM	302524	<input type="checkbox"/>
MW-4(111-113)		11030212-02	Soil	02/28/2011 15:37	3/8/2011 9:16:00 AM	302524	<input type="checkbox"/>
B-2(45-47)		11030212-03	Soil	03/01/2011 11:20	3/8/2011 9:16:00 AM	302524	<input type="checkbox"/>
B-2(106-108)		11030212-04	Soil	03/01/2011 13:10	3/8/2011 9:16:00 AM	302524	<input type="checkbox"/>
MW-2(106-108)		11030212-05	Soil	03/02/2011 10:10	3/8/2011 9:16:00 AM	302524	<input type="checkbox"/>
MW-3(106-108)		11030212-06	Soil	03/02/2011 8:27	3/8/2011 9:16:00 AM	302524	<input type="checkbox"/>
MW-1(50-52)		11030212-07	Soil	03/03/2011 12:25	3/8/2011 9:16:00 AM	302524	<input type="checkbox"/>
MW1(114-116)		11030212-08	Soil	03/03/2011 13:53	3/8/2011 9:16:00 AM	302524	<input type="checkbox"/>

*Erica Cardenas*

3/23/2011

Erica Cardenas  
Project Manager

Date

Kesavalu M. Bagawandoss Ph.D., J.D.  
Laboratory Director

Ted Yen  
Quality Assurance Officer



**SPL ENVIRONMENTAL**  
 8880 INTERCHANGE DRIVE  
 HOUSTON, TX 77054  
 (713) 660-0901

Client Sample ID: MW-4(102-104)

Collected: 02/28/2011 15:00

SPL Sample ID: 11030212-01

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>ALKALINITY (AS CACO3), TOTAL IN SOIL</b>				<b>MCL</b>	<b>M2320 B</b>	<b>Units: mg/Kg CaCO</b>	
Alkalinity, Total (As CaCO3)	190		20	1	03/10/11 9:40	PAC	5741462
<b>ALKALINITY, BICARBONATE</b>				<b>MCL</b>	<b>SM2320B</b>	<b>Units: mg/kg</b>	
Alkalinity, Bicarbonate	190		20	1	03/10/11 9:40	PAC	5741488
<b>ALKALINITY, CARBONATE</b>				<b>MCL</b>	<b>M2320 B</b>	<b>Units: mg/kg</b>	
Alkalinity, Carbonate	ND		20	1	03/10/11 9:40	PAC	5741523
<b>DIESEL RANGE ORGANICS</b>				<b>MCL</b>	<b>SW8015B</b>	<b>Units: mg/kg</b>	
Diesel Range Organics (C10-C28)	91		5	1	03/15/11 15:44	NW	5745695
Surr: n-Pentacosane	100	%	20-154	1	03/15/11 15:44	NW	5745695

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	03/09/2011 15:16	QMT	1.00

GASOLINE RANGE ORGANICS			<b>MCL</b>	<b>SW8015B</b>	<b>Units: mg/kg</b>
Gasoline Range Organics	1.5		0.1	1	03/09/11 23:31 WLV
Surr: 1,4-Difluorobenzene	98.1	%	63-142	1	03/09/11 23:31 WLV
Surr: 4-Bromofluorobenzene	146	%	50-159	1	03/09/11 23:31 WLV

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	03/09/2011 9:12	XML	1.00

ION CHROMATOGRAPHY		<b>MCL</b>	<b>E300.0 MOD</b>	<b>Units: mg/kg</b>
Bromide	ND	5	1	03/10/11 23:27 ESK
Chloride	53.2	5	1	03/10/11 23:27 ESK
Fluoride	ND	5	1	03/10/11 23:27 ESK
Ortho-phosphate (As P)	ND	5	1	03/14/11 12:55 ESK
Sulfate	86.9	5	1	03/10/11 23:27 ESK
Nitrogen,Nitrate (As N)	ND	5	1	03/10/11 23:27 ESK
Nitrogen,Nitrite (As N)	ND	5	1	03/10/11 23:27 ESK

MERCURY, TOTAL		<b>MCL</b>	<b>SW7471A</b>	<b>Units: mg/kg</b>
Mercury	ND	0.033	1	03/16/11 12:52 F_S

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7471A	03/16/2011 9:00	M_B	1.00

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
 B - Analyte Detected In The Associated Method Blank  
 \* - Surrogate Recovery Outside Advisable QC Limits  
 J - Estimated value between MDL and PQL  
 E - Estimated Value exceeds calibration curve  
 TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
 D - Surrogate Recovery Unreportable due to Dilution  
 MI - Matrix Interference

11030212 Page 4  
 3/23/2011 2:36:14 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-4(102-104)

Collected: 02/28/2011 15:00 SPL Sample ID: 11030212-01

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>METALS BY METHOD 6010B, TOTAL</b>							
Aluminum	2930		10	1	03/09/11 16:07	R_V	5740625
Arsenic	2.84		0.5	1	03/09/11 16:07	R_V	5740625
Barium	359		0.5	1	03/09/11 16:07	R_V	5740625
Boron	ND		10	1	03/09/11 16:07	R_V	5740625
Cadmium	ND		0.5	1	03/09/11 16:07	R_V	5740625
Chromium	2.84		0.5	1	03/09/11 16:07	R_V	5740625
Cobalt	2.31		0.5	1	03/09/11 16:07	R_V	5740625
Iron	5080		2	1	03/09/11 16:07	R_V	5740625
Lead	3.85		0.5	1	03/09/11 16:07	R_V	5740625
Manganese	309		0.5	1	03/09/11 16:07	R_V	5740625
Molybdenum	ND		0.5	1	03/09/11 16:07	R_V	5740625
Nickel	2.9		0.5	1	03/09/11 16:07	R_V	5740625
Selenium	ND		0.5	1	03/09/11 16:07	R_V	5740625
Silver	ND		0.5	1	03/09/11 16:07	R_V	5740625
Zinc	12.9		1	1	03/09/11 16:07	R_V	5740625

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3050B	03/09/2011 10:00	M_B	1.00

PH	MCL	SW9045C	Units: pH Units
pH	9.12	0.1	1 03/09/11 9:45 PAC 5739750

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-4(102-104)

Collected: 02/28/2011 15:00

SPL Sample ID: 11030212-01

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>SEMIVOLATILE ORGANICS BY METHOD 8270C</b>							
1,2,4-Trichlorobenzene	ND		170	1	03/09/11 15:47	GY	5741159
1,2-Dichlorobenzene	ND		170	1	03/09/11 15:47	GY	5741159
1,2-Diphenylhydrazine	ND		170	1	03/09/11 15:47	GY	5741159
1,3-Dichlorobenzene	ND		170	1	03/09/11 15:47	GY	5741159
1,4-Dichlorobenzene	ND		170	1	03/09/11 15:47	GY	5741159
2,4,5-Trichlorophenol	ND		170	1	03/09/11 15:47	GY	5741159
2,4,6-Trichlorophenol	ND		170	1	03/09/11 15:47	GY	5741159
2,4-Dichlorophenol	ND		170	1	03/09/11 15:47	GY	5741159
2,4-Dimethylphenol	ND		170	1	03/09/11 15:47	GY	5741159
2,4-Dinitrophenol	ND		170	1	03/09/11 15:47	GY	5741159
2,4-Dinitrotoluene	ND		170	1	03/09/11 15:47	GY	5741159
2,6-Dinitrotoluene	ND		170	1	03/09/11 15:47	GY	5741159
2-Chloronaphthalene	ND		170	1	03/09/11 15:47	GY	5741159
2-Chlorophenol	ND		170	1	03/09/11 15:47	GY	5741159
2-Methylnaphthalene	ND		170	1	03/09/11 15:47	GY	5741159
2-Nitroaniline	ND		170	1	03/09/11 15:47	GY	5741159
2-Nitrophenol	ND		170	1	03/09/11 15:47	GY	5741159
3,3'-Dichlorobenzidine	ND		170	1	03/09/11 15:47	GY	5741159
3-Nitroaniline	ND		170	1	03/09/11 15:47	GY	5741159
4,6-Dinitro-2-methylphenol	ND		170	1	03/09/11 15:47	GY	5741159
4-Bromophenyl phenyl ether	ND		170	1	03/09/11 15:47	GY	5741159
4-Chloro-3-methylphenol	ND		170	1	03/09/11 15:47	GY	5741159
4-Chloroaniline	ND		170	1	03/09/11 15:47	GY	5741159
4-Chlorophenyl phenyl ether	ND		170	1	03/09/11 15:47	GY	5741159
4-Nitroaniline	ND		170	1	03/09/11 15:47	GY	5741159
4-Nitrophenol	ND		170	1	03/09/11 15:47	GY	5741159
Acenaphthene	ND		170	1	03/09/11 15:47	GY	5741159
Acenaphthylene	ND		170	1	03/09/11 15:47	GY	5741159
Aniline	ND		170	1	03/09/11 15:47	GY	5741159
Anthracene	ND		170	1	03/09/11 15:47	GY	5741159
Benz(a)anthracene	ND		170	1	03/09/11 15:47	GY	5741159
Benzo(a)pyrene	ND		170	1	03/09/11 15:47	GY	5741159
Benzo(b)fluoranthene	ND		170	1	03/09/11 15:47	GY	5741159
Benzo(g,h,i)perylene	ND		170	1	03/09/11 15:47	GY	5741159
Benzo(k)fluoranthene	ND		170	1	03/09/11 15:47	GY	5741159
Benzoic acid	ND		670	1	03/09/11 15:47	GY	5741159

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 6  
3/23/2011 2:36:16 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-4(102-104)

Collected: 02/28/2011 15:00 SPL Sample ID: 11030212-01

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Benzyl alcohol	ND		170	1	03/09/11 15:47	GY	5741159
Bis(2-chloroethoxy)methane	ND		170	1	03/09/11 15:47	GY	5741159
Bis(2-chloroethyl)ether	ND		170	1	03/09/11 15:47	GY	5741159
Bis(2-chloroisopropyl)ether	ND		170	1	03/09/11 15:47	GY	5741159
Bis(2-ethylhexyl)phthalate	ND		170	1	03/09/11 15:47	GY	5741159
Butyl benzyl phthalate	ND		170	1	03/09/11 15:47	GY	5741159
Carbazole	ND		170	1	03/09/11 15:47	GY	5741159
Chrysene	ND		170	1	03/09/11 15:47	GY	5741159
Dibenz(a,h)anthracene	ND		170	1	03/09/11 15:47	GY	5741159
Dibenzofuran	ND		170	1	03/09/11 15:47	GY	5741159
Diethyl phthalate	ND		170	1	03/09/11 15:47	GY	5741159
Dimethyl phthalate	ND		170	1	03/09/11 15:47	GY	5741159
Di-n-butyl phthalate	ND		170	1	03/09/11 15:47	GY	5741159
Di-n-octyl phthalate	ND		170	1	03/09/11 15:47	GY	5741159
Fluoranthene	ND		170	1	03/09/11 15:47	GY	5741159
Fluorene	ND		170	1	03/09/11 15:47	GY	5741159
Hexachlorobenzene	ND		170	1	03/09/11 15:47	GY	5741159
Hexachlorobutadiene	ND		170	1	03/09/11 15:47	GY	5741159
Hexachlorocyclopentadiene	ND		170	1	03/09/11 15:47	GY	5741159
Hexachloroethane	ND		170	1	03/09/11 15:47	GY	5741159
Indeno(1,2,3-cd)pyrene	ND		170	1	03/09/11 15:47	GY	5741159
Isophorone	ND		170	1	03/09/11 15:47	GY	5741159
Naphthalene	ND		170	1	03/09/11 15:47	GY	5741159
Nitrobenzene	ND		170	1	03/09/11 15:47	GY	5741159
N-Nitrosodi-n-propylamine	ND		170	1	03/09/11 15:47	GY	5741159
N-Nitrosodiphenylamine	ND		330	1	03/09/11 15:47	GY	5741159
Pentachlorophenol	ND		170	1	03/09/11 15:47	GY	5741159
Phenantrhene	ND		170	1	03/09/11 15:47	GY	5741159
Phenol	ND		170	1	03/09/11 15:47	GY	5741159
Pyrene	ND		170	1	03/09/11 15:47	GY	5741159
Pyridine	ND		170	1	03/09/11 15:47	GY	5741159
2-Methylphenol	ND		170	1	03/09/11 15:47	GY	5741159
3 & 4-Methylphenol	ND		330	1	03/09/11 15:47	GY	5741159
Surr: 2,4,6-Tribromophenol	86.8	%	23-157	1	03/09/11 15:47	GY	5741159
Surr: 2-Fluorobiphenyl	75.9	%	15-140	1	03/09/11 15:47	GY	5741159
Surr: 2-Fluorophenol	72.0	%	15-122	1	03/09/11 15:47	GY	5741159
Surr: Nitrobenzene-d5	75.9	%	10-134	1	03/09/11 15:47	GY	5741159

Qualifiers: ND/U - Not Detected at the Reporting Limit

>MCL - Result Over Maximum Contamination Limit(MCL)

B - Analyte Detected In The Associated Method Blank

D - Surrogate Recovery Unreportable due to Dilution

\* - Surrogate Recovery Outside Advisable QC Limits

MI - Matrix Interference

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

11030212 Page 7

3/23/2011 2:36:16 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-4(102-104)

Collected: 02/28/2011 15:00

SPL Sample ID: 11030212-01

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Surr: Phenol-d5	76.8	%	10-123	1	03/09/11 15:47	GY	5741159
Surr: Terphenyl-d14	82.4	%	18-166	1	03/09/11 15:47	GY	5741159

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550C	03/09/2011 10:41	QMT	1.00

SPECIFIC CONDUCTANCE	MCL	SW9050	Units: umhos/cm
Specific Conductance	909	100	1 03/10/11 9:15 PAC 5741277

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 8  
3/23/2011 2:36:17 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-4(102-104)

Collected: 02/28/2011 15:00 SPL Sample ID: 11030212-01

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>VOLATILE ORGANICS BY METHOD 8260B</b>							
1,1,1,2-Tetrachloroethane	ND		5	1	03/09/11 17:43	D_R	5740797
1,1,1-Trichloroethane	ND		5	1	03/09/11 17:43	D_R	5740797
1,1,2,2-Tetrachloroethane	ND		5	1	03/09/11 17:43	D_R	5740797
1,1,2-Trichloroethane	ND		5	1	03/09/11 17:43	D_R	5740797
1,1-Dichloroethane	ND		5	1	03/09/11 17:43	D_R	5740797
1,1-Dichloroethene	ND		5	1	03/09/11 17:43	D_R	5740797
1,1-Dichloropropene	ND		5	1	03/09/11 17:43	D_R	5740797
1,2,3-Trichlorobenzene	ND		5	1	03/09/11 17:43	D_R	5740797
1,2,3-Trichloropropane	ND		5	1	03/09/11 17:43	D_R	5740797
1,2,4-Trichlorobenzene	ND		5	1	03/09/11 17:43	D_R	5740797
1,2,4-Trimethylbenzene	ND		5	1	03/09/11 17:43	D_R	5740797
1,2-Dibromo-3-chloropropane	ND		5	1	03/09/11 17:43	D_R	5740797
1,2-Dibromoethane	ND		5	1	03/09/11 17:43	D_R	5740797
1,2-Dichlorobenzene	ND		5	1	03/09/11 17:43	D_R	5740797
1,2-Dichloroethane	ND		5	1	03/09/11 17:43	D_R	5740797
1,2-Dichloropropane	ND		5	1	03/09/11 17:43	D_R	5740797
1,3,5-Trimethylbenzene	ND		5	1	03/09/11 17:43	D_R	5740797
1,3-Dichlorobenzene	ND		5	1	03/09/11 17:43	D_R	5740797
1,3-Dichloropropane	ND		5	1	03/09/11 17:43	D_R	5740797
1,4-Dichlorobenzene	ND		5	1	03/09/11 17:43	D_R	5740797
2,2-Dichloropropane	ND		5	1	03/09/11 17:43	D_R	5740797
2-Butanone	ND		20	1	03/09/11 17:43	D_R	5740797
2-Chloroethyl vinyl ether	ND		10	1	03/09/11 17:43	D_R	5740797
2-Chlorotoluene	ND		5	1	03/09/11 17:43	D_R	5740797
2-Hexanone	ND		10	1	03/09/11 17:43	D_R	5740797
4-Chlorotoluene	ND		5	1	03/09/11 17:43	D_R	5740797
4-Isopropyltoluene	ND		5	1	03/09/11 17:43	D_R	5740797
4-Methyl-2-pentanone	ND		10	1	03/09/11 17:43	D_R	5740797
Acetone	ND		100	1	03/09/11 17:43	D_R	5740797
Acrylonitrile	ND		50	1	03/09/11 17:43	D_R	5740797
Benzene	ND		5	1	03/09/11 17:43	D_R	5740797
Bromobenzene	ND		5	1	03/09/11 17:43	D_R	5740797
Bromochloromethane	ND		5	1	03/09/11 17:43	D_R	5740797
Bromodichloromethane	ND		5	1	03/09/11 17:43	D_R	5740797
Bromoform	ND		5	1	03/09/11 17:43	D_R	5740797
Bromomethane	ND		10	1	03/09/11 17:43	D_R	5740797

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-4(102-104)

Collected: 02/28/2011 15:00

SPL Sample ID: 11030212-01

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Carbon disulfide	ND		5	1	03/09/11 17:43	D_R	5740797
Carbon tetrachloride	ND		5	1	03/09/11 17:43	D_R	5740797
Chlorobenzene	ND		5	1	03/09/11 17:43	D_R	5740797
Chloroethane	ND		10	1	03/09/11 17:43	D_R	5740797
Chloroform	ND		5	1	03/09/11 17:43	D_R	5740797
Chloromethane	ND		10	1	03/09/11 17:43	D_R	5740797
Dibromochloromethane	ND		5	1	03/09/11 17:43	D_R	5740797
Dibromomethane	ND		5	1	03/09/11 17:43	D_R	5740797
Dichlorodifluoromethane	ND		10	1	03/09/11 17:43	D_R	5740797
Ethylbenzene	ND		5	1	03/09/11 17:43	D_R	5740797
Hexachlorobutadiene	ND		5	1	03/09/11 17:43	D_R	5740797
Isopropylbenzene	ND		5	1	03/09/11 17:43	D_R	5740797
Methyl tert-butyl ether	ND		5	1	03/09/11 17:43	D_R	5740797
Methylene chloride	ND		5	1	03/09/11 17:43	D_R	5740797
Naphthalene	ND		5	1	03/09/11 17:43	D_R	5740797
n-Butylbenzene	ND		5	1	03/09/11 17:43	D_R	5740797
n-Propylbenzene	ND		5	1	03/09/11 17:43	D_R	5740797
sec-Butylbenzene	ND		5	1	03/09/11 17:43	D_R	5740797
Styrene	ND		5	1	03/09/11 17:43	D_R	5740797
tert-Butylbenzene	ND		5	1	03/09/11 17:43	D_R	5740797
Tetrachloroethene	ND		5	1	03/09/11 17:43	D_R	5740797
Toluene	ND		5	1	03/09/11 17:43	D_R	5740797
Trichloroethene	ND		5	1	03/09/11 17:43	D_R	5740797
Trichlorofluoromethane	ND		5	1	03/09/11 17:43	D_R	5740797
Vinyl acetate	ND		10	1	03/09/11 17:43	D_R	5740797
Vinyl chloride	ND		10	1	03/09/11 17:43	D_R	5740797
cis-1,2-Dichloroethene	ND		5	1	03/09/11 17:43	D_R	5740797
cis-1,3-Dichloropropene	ND		5	1	03/09/11 17:43	D_R	5740797
m,p-Xylene	ND		5	1	03/09/11 17:43	D_R	5740797
o-Xylene	ND		5	1	03/09/11 17:43	D_R	5740797
trans-1,2-Dichloroethene	ND		5	1	03/09/11 17:43	D_R	5740797
trans-1,3-Dichloropropene	ND		5	1	03/09/11 17:43	D_R	5740797
Xylenes, Total	ND		5	1	03/09/11 17:43	D_R	5740797
1,2-Dichloroethene (total)	ND		5	1	03/09/11 17:43	D_R	5740797
Surr: 1,2-Dichloroethane-d4	105	%	71-130	1	03/09/11 17:43	D_R	5740797
Surr: 4-Bromofluorobenzene	103	%	65-131	1	03/09/11 17:43	D_R	5740797
Surr: Toluene-d8	105	%	75-136	1	03/09/11 17:43	D_R	5740797

Qualifiers: ND/U - Not Detected at the Reporting Limit

>MCL - Result Over Maximum Contamination Limit(MCL)

B - Analyte Detected In The Associated Method Blank

D - Surrogate Recovery Unreportable due to Dilution

\* - Surrogate Recovery Outside Advisable QC Limits

MI - Matrix Interference

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

11030212 Page 10

3/23/2011 2:36:18 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-4(102-104)

Collected: 02/28/2011 15:00 SPL Sample ID: 11030212-01

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
-----------------	--------	------	-----------	-------------	---------------	---------	--------

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	03/09/2011 9:11	XML	1.00

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 11  
3/23/2011 2:36:19 PM



**SPL ENVIRONMENTAL**  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-4(111-113)

Collected: 02/28/2011 15:37

SPL Sample ID: 11030212-02

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>ALKALINITY (AS CACO3), TOTAL IN SOIL</b>				<b>MCL</b>	<b>M2320 B</b>	<b>Units: mg/Kg CaCO</b>	
Alkalinity, Total (As CaCO3)	240		20	1	03/10/11 9:40	PAC	5741463
<b>ALKALINITY, BICARBONATE</b>				<b>MCL</b>	<b>SM2320B</b>	<b>Units: mg/kg</b>	
Alkalinity, Bicarbonate	240		20	1	03/10/11 9:40	PAC	5741489
<b>ALKALINITY, CARBONATE</b>				<b>MCL</b>	<b>M2320 B</b>	<b>Units: mg/kg</b>	
Alkalinity, Carbonate	ND		20	1	03/10/11 9:40	PAC	5741524
<b>DIESEL RANGE ORGANICS</b>				<b>MCL</b>	<b>SW8015B</b>	<b>Units: mg/kg</b>	
Diesel Range Organics (C10-C28)	ND		5	1	03/16/11 10:40	NW	5745710
Surr: n-Pentacosane	117	%	20-154	1	03/16/11 10:40	NW	5745710

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	03/09/2011 15:16	QMT	1.00

<b>GASOLINE RANGE ORGANICS</b>		<b>MCL</b>	<b>SW8015B</b>	<b>Units: mg/kg</b>
Gasoline Range Organics	0.1	0.1	1	03/10/11 0:00 WLV
Surr: 1,4-Difluorobenzene	98.3	% 63-142	1	03/10/11 0:00 WLV
Surr: 4-Bromofluorobenzene	107	% 50-159	1	03/10/11 0:00 WLV

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	03/09/2011 9:15	XML	1.00

<b>ION CHROMATOGRAPHY</b>		<b>MCL</b>	<b>E300.0 MOD</b>	<b>Units: mg/kg</b>
Bromide	ND	5	1	03/10/11 23:44 ESK
Chloride	62	5	1	03/10/11 23:44 ESK
Fluoride	ND	5	1	03/10/11 23:44 ESK
Ortho-phosphate (As P)	ND	5	1	03/14/11 13:12 ESK
Sulfate	171	5	1	03/10/11 23:44 ESK
Nitrogen,Nitrate (As N)	ND	5	1	03/10/11 23:44 ESK
Nitrogen,Nitrite (As N)	ND	5	1	03/10/11 23:44 ESK

<b>MERCURY, TOTAL</b>		<b>MCL</b>	<b>SW7471A</b>	<b>Units: mg/kg</b>
Mercury	ND	0.033	1	03/16/11 12:55 F_S

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7471A	03/16/2011 9:00	M_B	1.00

**Qualifiers:** ND/U - Not Detected at the Reporting Limit

>MCL - Result Over Maximum Contamination Limit(MCL)

B - Analyte Detected In The Associated Method Blank

D - Surrogate Recovery Unreportable due to Dilution

\* - Surrogate Recovery Outside Advisable QC Limits

MI - Matrix Interference

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

11030212 Page 12

3/23/2011 2:36:21 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-4(111-113)

Collected: 02/28/2011 15:37 SPL Sample ID: 11030212-02

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>METALS BY METHOD 6010B, TOTAL</b>							
Aluminum	4040		10	1	03/09/11 16:13	R_V	5740626
Arsenic	7.17		0.5	1	03/09/11 16:13	R_V	5740626
Barium	343		0.5	1	03/09/11 16:13	R_V	5740626
Boron	ND		10	1	03/09/11 16:13	R_V	5740626
Cadmium	ND		0.5	1	03/09/11 16:13	R_V	5740626
Chromium	6.4		0.5	1	03/09/11 16:13	R_V	5740626
Cobalt	2.89		0.5	1	03/09/11 16:13	R_V	5740626
Iron	6840		2	1	03/09/11 16:13	R_V	5740626
Lead	5.9		0.5	1	03/09/11 16:13	R_V	5740626
Manganese	376		0.5	1	03/09/11 16:13	R_V	5740626
Molybdenum	ND		0.5	1	03/09/11 16:13	R_V	5740626
Nickel	3.65		0.5	1	03/09/11 16:13	R_V	5740626
Selenium	ND		0.5	1	03/09/11 16:13	R_V	5740626
Silver	ND		0.5	1	03/09/11 16:13	R_V	5740626
Zinc.	20.4		1	1	03/09/11 16:13	R_V	5740626

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3050B	03/09/2011 10:00	M_B	1.00

PH	MCL	SW9045C	Units: pH Units
pH	8.93	0.1	1 03/09/11 9:45 PAC 5739752

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 13  
3/23/2011 2:36:22 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-4(111-113)

Collected: 02/28/2011 15:37

SPL Sample ID: 11030212-02

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>SEMIVOLATILE ORGANICS BY METHOD 8270C</b>							
1,2,4-Trichlorobenzene	ND		170	1	03/09/11 16:22	GY	5741160
1,2-Dichlorobenzene	ND		170	1	03/09/11 16:22	GY	5741160
1,2-Diphenylhydrazine	ND		170	1	03/09/11 16:22	GY	5741160
1,3-Dichlorobenzene	ND		170	1	03/09/11 16:22	GY	5741160
1,4-Dichlorobenzene	ND		170	1	03/09/11 16:22	GY	5741160
2,4,5-Trichlorophenol	ND		170	1	03/09/11 16:22	GY	5741160
2,4,6-Trichlorophenol	ND		170	1	03/09/11 16:22	GY	5741160
2,4-Dichlorophenol	ND		170	1	03/09/11 16:22	GY	5741160
2,4-Dimethylphenol	ND		170	1	03/09/11 16:22	GY	5741160
2,4-Dinitrophenol	ND		170	1	03/09/11 16:22	GY	5741160
2,4-Dinitrotoluene	ND		170	1	03/09/11 16:22	GY	5741160
2,6-Dinitrotoluene	ND		170	1	03/09/11 16:22	GY	5741160
2-Chloronaphthalene	ND		170	1	03/09/11 16:22	GY	5741160
2-Chlorophenol	ND		170	1	03/09/11 16:22	GY	5741160
2-Methylnaphthalene	ND		170	1	03/09/11 16:22	GY	5741160
2-Nitroaniline	ND		170	1	03/09/11 16:22	GY	5741160
2-Nitrophenol	ND		170	1	03/09/11 16:22	GY	5741160
3,3'-Dichlorobenzidine	ND		170	1	03/09/11 16:22	GY	5741160
3-Nitroaniline	ND		170	1	03/09/11 16:22	GY	5741160
4,6-Dinitro-2-methylphenol	ND		170	1	03/09/11 16:22	GY	5741160
4-Bromophenyl phenyl ether	ND		170	1	03/09/11 16:22	GY	5741160
4-Chloro-3-methylphenol	ND		170	1	03/09/11 16:22	GY	5741160
4-Chloroaniline	ND		170	1	03/09/11 16:22	GY	5741160
4-Chlorophenyl phenyl ether	ND		170	1	03/09/11 16:22	GY	5741160
4-Nitroaniline	ND		170	1	03/09/11 16:22	GY	5741160
4-Nitrophendol	ND		170	1	03/09/11 16:22	GY	5741160
Acenaphthene	ND		170	1	03/09/11 16:22	GY	5741160
Acenaphthylene	ND		170	1	03/09/11 16:22	GY	5741160
Aniline	ND		170	1	03/09/11 16:22	GY	5741160
Anthracene	ND		170	1	03/09/11 16:22	GY	5741160
Benz(a)anthracene	ND		170	1	03/09/11 16:22	GY	5741160
Benzo(a)pyrene	ND		170	1	03/09/11 16:22	GY	5741160
Benzo(b)fluoranthene	ND		170	1	03/09/11 16:22	GY	5741160
Benzo(g,h,i)perylene	ND		170	1	03/09/11 16:22	GY	5741160
Benzo(k)fluoranthene	ND		170	1	03/09/11 16:22	GY	5741160
Benzoic acid	ND		670	1	03/09/11 16:22	GY	5741160

Qualifiers: ND/U - Not Detected at the Reporting Limit

>MCL - Result Over Maximum Contamination Limit(MCL)

B - Analyte Detected In The Associated Method Blank

D - Surrogate Recovery Unreportable due to Dilution

\* - Surrogate Recovery Outside Advisable QC Limits

MI - Matrix Interference

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

11030212 Page 14

3/23/2011 2:36:23 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-4(111-113)

Collected: 02/28/2011 15:37 SPL Sample ID: 11030212-02

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Benzyl alcohol	ND		170	1	03/09/11 16:22	GY	5741160
Bis(2-chloroethoxy)methane	ND		170	1	03/09/11 16:22	GY	5741160
Bis(2-chloroethyl)ether	ND		170	1	03/09/11 16:22	GY	5741160
Bis(2-chloroisopropyl)ether	ND		170	1	03/09/11 16:22	GY	5741160
Bis(2-ethylhexyl)phthalate	ND		170	1	03/09/11 16:22	GY	5741160
Butyl benzyl phthalate	ND		170	1	03/09/11 16:22	GY	5741160
Carbazole	ND		170	1	03/09/11 16:22	GY	5741160
Chrysene	ND		170	1	03/09/11 16:22	GY	5741160
Dibenz(a,h)anthracene	ND		170	1	03/09/11 16:22	GY	5741160
Dibenzofuran	ND		170	1	03/09/11 16:22	GY	5741160
Diethyl phthalate	ND		170	1	03/09/11 16:22	GY	5741160
Dimethyl phthalate	ND		170	1	03/09/11 16:22	GY	5741160
Di-n-butyl phthalate	ND		170	1	03/09/11 16:22	GY	5741160
Di-n-octyl phthalate	ND		170	1	03/09/11 16:22	GY	5741160
Fluoranthene	ND		170	1	03/09/11 16:22	GY	5741160
Fluorene	ND		170	1	03/09/11 16:22	GY	5741160
Hexachlorobenzene	ND		170	1	03/09/11 16:22	GY	5741160
Hexachlorobutadiene	ND		170	1	03/09/11 16:22	GY	5741160
Hexachlorocyclopentadiene	ND		170	1	03/09/11 16:22	GY	5741160
Hexachloroethane	ND		170	1	03/09/11 16:22	GY	5741160
Indeno(1,2,3-cd)pyrene	ND		170	1	03/09/11 16:22	GY	5741160
Isophorone	ND		170	1	03/09/11 16:22	GY	5741160
Naphthalene	ND		170	1	03/09/11 16:22	GY	5741160
Nitrobenzene	ND		170	1	03/09/11 16:22	GY	5741160
N-Nitrosodi-n-propylamine	ND		170	1	03/09/11 16:22	GY	5741160
N-Nitrosodiphenylamine	ND		330	1	03/09/11 16:22	GY	5741160
Pentachlorophenol	ND		170	1	03/09/11 16:22	GY	5741160
Phenanthrene	ND		170	1	03/09/11 16:22	GY	5741160
Phenol	ND		170	1	03/09/11 16:22	GY	5741160
Pyrene	ND		170	1	03/09/11 16:22	GY	5741160
Pyridine	ND		170	1	03/09/11 16:22	GY	5741160
2-Methylphenol	ND		170	1	03/09/11 16:22	GY	5741160
3 & 4-Methylphenol	ND		330	1	03/09/11 16:22	GY	5741160
Surr: 2,4,6-Tribromophenol	106	%	23-157	1	03/09/11 16:22	GY	5741160
Surr: 2-Fluorobiphenyl	83.5	%	15-140	1	03/09/11 16:22	GY	5741160
Surr: 2-Fluorophenol	82.0	%	15-122	1	03/09/11 16:22	GY	5741160
Surr: Nitrobenzene-d5	83.5	%	10-134	1	03/09/11 16:22	GY	5741160

Qualifiers: ND/U - Not Detected at the Reporting Limit

B - Analyte Detected In The Associated Method Blank

\* - Surrogate Recovery Outside Advisable QC Limits

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution

MI - Matrix Interference

11030212 Page 15

3/23/2011 2:36:23 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-4(111-113)

Collected: 02/28/2011 15:37

SPL Sample ID: 11030212-02

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Surf: Phenol-d5	85.6	%	10-123	1	03/09/11 16:22	GY	5741160
Surf: Terphenyl-d14	89.4	%	18-166	1	03/09/11 16:22	GY	5741160

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550C	03/09/2011 10:41	QMT	1.00

SPECIFIC CONDUCTANCE	MCL	SW9050	Units: umhos/cm
Specific Conductance	1240	100	1 03/10/11 9:15 PAC 5741279

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 16  
3/23/2011 2:36:24 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-4(111-113)

Collected: 02/28/2011 15:37 SPL Sample ID: 11030212-02

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>VOLATILE ORGANICS BY METHOD 8260B</b>							
1,1,1,2-Tetrachloroethane	ND		5	1	03/09/11 18:05	D_R	5740798
1,1,1-Trichloroethane	ND		5	1	03/09/11 18:05	D_R	5740798
1,1,2,2-Tetrachloroethane	ND		5	1	03/09/11 18:05	D_R	5740798
1,1,2-Trichloroethane	ND		5	1	03/09/11 18:05	D_R	5740798
1,1-Dichloroethane	ND		5	1	03/09/11 18:05	D_R	5740798
1,1-Dichloroethene	ND		5	1	03/09/11 18:05	D_R	5740798
1,1-Dichloropropene	ND		5	1	03/09/11 18:05	D_R	5740798
1,2,3-Trichlorobenzene	ND		5	1	03/09/11 18:05	D_R	5740798
1,2,3-Trichloropropane	ND		5	1	03/09/11 18:05	D_R	5740798
1,2,4-Trichlorobenzene	ND		5	1	03/09/11 18:05	D_R	5740798
1,2,4-Trimethylbenzene	ND		5	1	03/09/11 18:05	D_R	5740798
1,2-Dibromo-3-chloropropane	ND		5	1	03/09/11 18:05	D_R	5740798
1,2-Dibromoethane	ND		5	1	03/09/11 18:05	D_R	5740798
1,2-Dichlorobenzene	ND		5	1	03/09/11 18:05	D_R	5740798
1,2-Dichloroethane	ND		5	1	03/09/11 18:05	D_R	5740798
1,2-Dichloropropane	ND		5	1	03/09/11 18:05	D_R	5740798
1,3,5-Trimethylbenzene	ND		5	1	03/09/11 18:05	D_R	5740798
1,3-Dichlorobenzene	ND		5	1	03/09/11 18:05	D_R	5740798
1,3-Dichloropropane	ND		5	1	03/09/11 18:05	D_R	5740798
1,4-Dichlorobenzene	ND		5	1	03/09/11 18:05	D_R	5740798
2,2-Dichloropropane	ND		5	1	03/09/11 18:05	D_R	5740798
2-Butanone	ND		20	1	03/09/11 18:05	D_R	5740798
2-Chloroethyl vinyl ether	ND		10	1	03/09/11 18:05	D_R	5740798
2-Chlorotoluene	ND		5	1	03/09/11 18:05	D_R	5740798
2-Hexanone	ND		10	1	03/09/11 18:05	D_R	5740798
4-Chlorotoluene	ND		5	1	03/09/11 18:05	D_R	5740798
4-Isopropyltoluene	ND		5	1	03/09/11 18:05	D_R	5740798
4-Methyl-2-pentanone	ND		10	1	03/09/11 18:05	D_R	5740798
Acetone	ND		100	1	03/09/11 18:05	D_R	5740798
Acrylonitrile	ND		50	1	03/09/11 18:05	D_R	5740798
Benzene	ND		5	1	03/09/11 18:05	D_R	5740798
Bromobenzene	ND		5	1	03/09/11 18:05	D_R	5740798
Bromochloromethane	ND		5	1	03/09/11 18:05	D_R	5740798
Bromodichloromethane	ND		5	1	03/09/11 18:05	D_R	5740798
Bromoform	ND		5	1	03/09/11 18:05	D_R	5740798
Bromomethane	ND		10	1	03/09/11 18:05	D_R	5740798

Qualifiers: ND/U - Not Detected at the Reporting Limit

>MCL - Result Over Maximum Contamination Limit(MCL)

B - Analyte Detected In The Associated Method Blank

D - Surrogate Recovery Unreportable due to Dilution

\* - Surrogate Recovery Outside Advisable QC Limits

MI - Matrix Interference

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

11030212 Page 17

TNTC - Too numerous to count

3/23/2011 2:36:25 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-4(111-113)

Collected: 02/28/2011 15:37

SPL Sample ID: 11030212-02

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Carbon disulfide	ND		5	1	03/09/11 18:05	D_R	5740798
Carbon tetrachloride	ND		5	1	03/09/11 18:05	D_R	5740798
Chlorobenzene	ND		5	1	03/09/11 18:05	D_R	5740798
Chloroethane	ND		10	1	03/09/11 18:05	D_R	5740798
Chloroform	ND		5	1	03/09/11 18:05	D_R	5740798
Chloromethane	ND		10	1	03/09/11 18:05	D_R	5740798
Dibromochloromethane	ND		5	1	03/09/11 18:05	D_R	5740798
Dibromomethane	ND		5	1	03/09/11 18:05	D_R	5740798
Dichlorodifluoromethane	ND		10	1	03/09/11 18:05	D_R	5740798
Ethylbenzene	ND		5	1	03/09/11 18:05	D_R	5740798
Hexachlorobutadiene	ND		5	1	03/09/11 18:05	D_R	5740798
Isopropylbenzene	ND		5	1	03/09/11 18:05	D_R	5740798
Methyl tert-butyl ether	ND		5	1	03/09/11 18:05	D_R	5740798
Methylene chloride	ND		5	1	03/09/11 18:05	D_R	5740798
Naphthalene	ND		5	1	03/09/11 18:05	D_R	5740798
n-Butylbenzene	ND		5	1	03/09/11 18:05	D_R	5740798
n-Propylbenzene	ND		5	1	03/09/11 18:05	D_R	5740798
sec-Butylbenzene	ND		5	1	03/09/11 18:05	D_R	5740798
Styrene	ND		5	1	03/09/11 18:05	D_R	5740798
tert-Butylbenzene	ND		5	1	03/09/11 18:05	D_R	5740798
Tetrachloroethene	ND		5	1	03/09/11 18:05	D_R	5740798
Toluene	ND		5	1	03/09/11 18:05	D_R	5740798
Trichloroethene	ND		5	1	03/09/11 18:05	D_R	5740798
Trichlorofluoromethane	ND		5	1	03/09/11 18:05	D_R	5740798
Vinyl acetate	ND		10	1	03/09/11 18:05	D_R	5740798
Vinyl chloride	ND		10	1	03/09/11 18:05	D_R	5740798
cis-1,2-Dichloroethene	ND		5	1	03/09/11 18:05	D_R	5740798
cis-1,3-Dichloropropene	ND		5	1	03/09/11 18:05	D_R	5740798
m,p-Xylene	ND		5	1	03/09/11 18:05	D_R	5740798
o-Xylene	ND		5	1	03/09/11 18:05	D_R	5740798
trans-1,2-Dichloroethene	ND		5	1	03/09/11 18:05	D_R	5740798
trans-1,3-Dichloropropene	ND		5	1	03/09/11 18:05	D_R	5740798
Xylenes,Total	ND		5	1	03/09/11 18:05	D_R	5740798
1,2-Dichloroethene (total)	ND		5	1	03/09/11 18:05	D_R	5740798
Surr: 1,2-Dichloroethane-d4	102	%	71-130	1	03/09/11 18:05	D_R	5740798
Surr: 4-Bromofluorobenzene	102	%	65-131	1	03/09/11 18:05	D_R	5740798
Surr: Toluene-d8	105	%	75-136	1	03/09/11 18:05	D_R	5740798

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 18  
3/23/2011 2:36:26 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-4(111-113)

Collected: 02/28/2011 15:37 SPL Sample ID: 11030212-02

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
-----------------	--------	------	-----------	-------------	---------------	---------	--------

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	03/09/2011 9:14	XML	1.00

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 19  
3/23/2011 2:36:26 PM



**SPL ENVIRONMENTAL**  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID:B-2(45-47)

Collected: 03/01/2011 11:20

SPL Sample ID: 11030212-03

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>ALKALINITY (AS CACO3), TOTAL IN SOIL</b>				<b>MCL</b>	<b>M2320 B</b>	<b>Units: mg/Kg CaCO</b>	
Alkalinity, Total (As CaCO3)	150		20	1	03/10/11 9:40	PAC	5741465
<b>ALKALINITY, BICARBONATE</b>				<b>MCL</b>	<b>SM2320B</b>	<b>Units: mg/kg</b>	
Alkalinity, Bicarbonate	150		20	1	03/10/11 9:40	PAC	5741491
<b>ALKALINITY, CARBONATE</b>				<b>MCL</b>	<b>M2320 B</b>	<b>Units: mg/kg</b>	
Alkalinity, Carbonate	ND		20	1	03/10/11 9:40	PAC	5741526
<b>DIESEL RANGE ORGANICS</b>				<b>MCL</b>	<b>SW8015B</b>	<b>Units: mg/kg</b>	
Diesel Range Organics (C10-C28)	50		5	1	03/15/11 17:05	NW	5745698
Surr: n-Pentacosane	121	%	20-154	1	03/15/11 17:05	NW	5745698

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	03/09/2011 15:16	QMT	1.00

GASOLINE RANGE ORGANICS				<b>MCL</b>	<b>SW8015B</b>	<b>Units: mg/kg</b>	
Gasoline Range Organics	630		10	100	03/10/11 4:18	WLV	5740991
Surr: 1,4-Difluorobenzene	98.9	%	63-142	100	03/10/11 4:18	WLV	5740991
Surr: 4-Bromofluorobenzene	367MI	*	% 50-159	100	03/10/11 4:18	WLV	5740991

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	03/09/2011 9:57	XML	1.00

ION CHROMATOGRAPHY				<b>MCL</b>	<b>E300.0 MOD</b>	<b>Units: mg/kg</b>	
Bromide	ND		5	1	03/11/11 0:01	ESK	5741744
Chloride	24.9		5	1	03/11/11 0:01	ESK	5741744
Fluoride	ND		5	1	03/11/11 0:01	ESK	5741744
Ortho-phosphate (As P)	ND		5	1	03/14/11 13:29	ESK	5743752
Sulfate	77.4		5	1	03/11/11 0:01	ESK	5741744
Nitrogen,Nitrate (As N)	93.1		5	1	03/11/11 0:01	ESK	5741774
Nitrogen,Nitrite (As N)	ND		5	1	03/11/11 0:01	ESK	5741774

MERCURY, TOTAL				<b>MCL</b>	<b>SW7471A</b>	<b>Units: mg/kg</b>	
Mercury	ND		0.033	1	03/16/11 12:57	F_S	5744875

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7471A	03/16/2011 9:00	M_B	1.00

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
 B - Analyte Detected In The Associated Method Blank  
 \* - Surrogate Recovery Outside Advisable QC Limits  
 J - Estimated value between MDL and PQL  
 E - Estimated Value exceeds calibration curve  
 TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
 D - Surrogate Recovery Unreportable due to Dilution  
 MI - Matrix Interference

11030212 Page 20  
 3/23/2011 2:36:28 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID:B-2(45-47)

Collected: 03/01/2011 11:20 SPL Sample ID: 11030212-03

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>METALS BY METHOD 6010B, TOTAL</b>							
Aluminum	6040		10	1	03/09/11 16:19	R_V	5740627
Arsenic	2.73		0.5	1	03/09/11 16:19	R_V	5740627
Barium	224		0.5	1	03/09/11 16:19	R_V	5740627
Boron	ND		10	1	03/09/11 16:19	R_V	5740627
Cadmium	ND		0.5	1	03/09/11 16:19	R_V	5740627
Chromium	5.07		0.5	1	03/09/11 16:19	R_V	5740627
Cobalt	4.18		0.5	1	03/09/11 16:19	R_V	5740627
Iron	8250		2	1	03/09/11 16:19	R_V	5740627
Lead	6.8		0.5	1	03/09/11 16:19	R_V	5740627
Manganese	238		0.5	1	03/09/11 16:19	R_V	5740627
Molybdenum	ND		0.5	1	03/09/11 16:19	R_V	5740627
Nickel	5.78		0.5	1	03/09/11 16:19	R_V	5740627
Selenium	ND		0.5	1	03/09/11 16:19	R_V	5740627
Silver	ND		0.5	1	03/09/11 16:19	R_V	5740627
Zinc	26.9		1	1	03/09/11 16:19	R_V	5740627

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3050B	03/09/2011 10:00	M_B	1.00

PH	MCL	SW9045C	Units: pH Units
pH	8.26	0.1	1 03/09/11 9:45 PAC 5739753

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 21  
3/23/2011 2:36:29 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID:B-2(45-47)

Collected: 03/01/2011 11:20

SPL Sample ID: 11030212-03

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>SEMIVOLATILE ORGANICS BY METHOD 8270C</b>							
1,2,4-Trichlorobenzene	ND		170	1	03/09/11 16:57	GY	5741161
1,2-Dichlorobenzene	ND		170	1	03/09/11 16:57	GY	5741161
1,2-Diphenylhydrazine	ND		170	1	03/09/11 16:57	GY	5741161
1,3-Dichlorobenzene	ND		170	1	03/09/11 16:57	GY	5741161
1,4-Dichlorobenzene	ND		170	1	03/09/11 16:57	GY	5741161
2,4,5-Trichlorophenol	ND		170	1	03/09/11 16:57	GY	5741161
2,4,6-Trichlorophenol	ND		170	1	03/09/11 16:57	GY	5741161
2,4-Dichlorophenol	ND		170	1	03/09/11 16:57	GY	5741161
2,4-Dimethylphenol	ND		170	1	03/09/11 16:57	GY	5741161
2,4-Dinitrophenol	ND		170	1	03/09/11 16:57	GY	5741161
2,4-Dinitrotoluene	ND		170	1	03/09/11 16:57	GY	5741161
2,6-Dinitrotoluene	ND		170	1	03/09/11 16:57	GY	5741161
2-Chloronaphthalene	ND		170	1	03/09/11 16:57	GY	5741161
2-Chlorophenol	ND		170	1	03/09/11 16:57	GY	5741161
2-Methylnaphthalene	480		170	1	03/09/11 16:57	GY	5741161
2-Nitroaniline	ND		170	1	03/09/11 16:57	GY	5741161
2-Nitrophenol	ND		170	1	03/09/11 16:57	GY	5741161
3,3'-Dichlorobenzidine	ND		170	1	03/09/11 16:57	GY	5741161
3-Nitroaniline	ND		170	1	03/09/11 16:57	GY	5741161
4,6-Dinitro-2-methylphenol	ND		170	1	03/09/11 16:57	GY	5741161
4-Bromophenyl phenyl ether	ND		170	1	03/09/11 16:57	GY	5741161
4-Chloro-3-methylphenol	ND		170	1	03/09/11 16:57	GY	5741161
4-Chloroaniline	ND		170	1	03/09/11 16:57	GY	5741161
4-Chlorophenyl phenyl ether	ND		170	1	03/09/11 16:57	GY	5741161
4-Nitroaniline	ND		170	1	03/09/11 16:57	GY	5741161
4-Nitrophenol	ND		170	1	03/09/11 16:57	GY	5741161
Acenaphthene	ND		170	1	03/09/11 16:57	GY	5741161
Acenaphthylene	ND		170	1	03/09/11 16:57	GY	5741161
Aniline	ND		170	1	03/09/11 16:57	GY	5741161
Anthracene	ND		170	1	03/09/11 16:57	GY	5741161
Benz(a)anthracene	ND		170	1	03/09/11 16:57	GY	5741161
Benzo(a)pyrene	ND		170	1	03/09/11 16:57	GY	5741161
Benzo(b)fluoranthene	ND		170	1	03/09/11 16:57	GY	5741161
Benzo(g,h,i)perylene	ND		170	1	03/09/11 16:57	GY	5741161
Benzo(k)fluoranthene	ND		170	1	03/09/11 16:57	GY	5741161
Benzoic acid	ND		670	1	03/09/11 16:57	GY	5741161

Qualifiers: ND/U - Not Detected at the Reporting Limit

>MCL - Result Over Maximum Contamination Limit(MCL)

B - Analyte Detected In The Associated Method Blank

D - Surrogate Recovery Unreportable due to Dilution

\* - Surrogate Recovery Outside Advisable QC Limits

MI - Matrix Interference

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

11030212 Page 22

3/23/2011 2:36:30 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID:B-2(45-47)

Collected: 03/01/2011 11:20 SPL Sample ID: 11030212-03

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Benzyl alcohol	ND		170	1	03/09/11 16:57	GY	5741161
Bis(2-chloroethoxy)methane	ND		170	1	03/09/11 16:57	GY	5741161
Bis(2-chloroethyl)ether	ND		170	1	03/09/11 16:57	GY	5741161
Bis(2-chloroisopropyl)ether	ND		170	1	03/09/11 16:57	GY	5741161
Bis(2-ethylhexyl)phthalate	190		170	1	03/09/11 16:57	GY	5741161
Butyl benzyl phthalate	ND		170	1	03/09/11 16:57	GY	5741161
Carbazole	ND		170	1	03/09/11 16:57	GY	5741161
Chrysene	ND		170	1	03/09/11 16:57	GY	5741161
Dibenz(a,h)anthracene	ND		170	1	03/09/11 16:57	GY	5741161
Dibenzofuran	ND		170	1	03/09/11 16:57	GY	5741161
Diethyl phthalate	ND		170	1	03/09/11 16:57	GY	5741161
Dimethyl phthalate	ND		170	1	03/09/11 16:57	GY	5741161
Di-n-butyl phthalate	ND		170	1	03/09/11 16:57	GY	5741161
Di-n-octyl phthalate	ND		170	1	03/09/11 16:57	GY	5741161
Fluoranthene	ND		170	1	03/09/11 16:57	GY	5741161
Fluorene	ND		170	1	03/09/11 16:57	GY	5741161
Hexachlorobenzene	ND		170	1	03/09/11 16:57	GY	5741161
Hexachlorobutadiene	ND		170	1	03/09/11 16:57	GY	5741161
Hexachlorocyclopentadiene	ND		170	1	03/09/11 16:57	GY	5741161
Hexachloroethane	ND		170	1	03/09/11 16:57	GY	5741161
Indeno(1,2,3-cd)pyrene	ND		170	1	03/09/11 16:57	GY	5741161
Isophorone	ND		170	1	03/09/11 16:57	GY	5741161
Naphthalene	ND		170	1	03/09/11 16:57	GY	5741161
Nitrobenzene	ND		170	1	03/09/11 16:57	GY	5741161
N-Nitrosodi-n-propylamine	ND		170	1	03/09/11 16:57	GY	5741161
N-Nitrosodiphenylamine	ND		330	1	03/09/11 16:57	GY	5741161
Pentachlorophenol	ND		170	1	03/09/11 16:57	GY	5741161
Phenanthrone	ND		170	1	03/09/11 16:57	GY	5741161
Phenol	ND		170	1	03/09/11 16:57	GY	5741161
Pyrene	ND		170	1	03/09/11 16:57	GY	5741161
Pyridine	ND		170	1	03/09/11 16:57	GY	5741161
2-Methylphenol	ND		170	1	03/09/11 16:57	GY	5741161
3 & 4-Methylphenol	ND		330	1	03/09/11 16:57	GY	5741161
Surr: 2,4,6-Tribromophenol	90.0	%	23-157	1	03/09/11 16:57	GY	5741161
Surr: 2-Fluorobiphenyl	72.4	%	15-140	1	03/09/11 16:57	GY	5741161
Surr: 2-Fluorophenol	69.6	%	15-122	1	03/09/11 16:57	GY	5741161
Surr: Nitrobenzene-d5	70.6	%	10-134	1	03/09/11 16:57	GY	5741161

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 23  
3/23/2011 2:36:31 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID:B-2(45-47)

Collected: 03/01/2011 11:20

SPL Sample ID: 11030212-03

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Surr: Phenol-d5	73.2	%	10-123	1	03/09/11 16:57	GY	5741161
Surr: Terphenyl-d14	80.6	%	18-166	1	03/09/11 16:57	GY	5741161

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550C	03/09/2011 10:41	QMT	1.00

SPECIFIC CONDUCTANCE	MCL	SW9050	Units: umhos/cm
Specific Conductance	853	100	1 03/10/11 9:15 PAC 5741280

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 24  
3/23/2011 2:36:32 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID:B-2(45-47)

Collected: 03/01/2011 11:20 SPL Sample ID: 11030212-03

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>VOLATILE ORGANICS BY METHOD 8260B</b>							
1,1,1,2-Tetrachloroethane	ND		250	50	03/10/11 13:53	LU_L	5741884
1,1,1-Trichloroethane	ND		250	50	03/10/11 13:53	LU_L	5741884
1,1,2,2-Tetrachloroethane	ND		250	50	03/10/11 13:53	LU_L	5741884
1,1,2-Trichloroethane	ND		250	50	03/10/11 13:53	LU_L	5741884
1,1-Dichloroethane	ND		250	50	03/10/11 13:53	LU_L	5741884
1,1-Dichloroethene	ND		250	50	03/10/11 13:53	LU_L	5741884
1,1-Dichloropropene	ND		250	50	03/10/11 13:53	LU_L	5741884
1,2,3-Trichlorobenzene	ND		250	50	03/10/11 13:53	LU_L	5741884
1,2,3-Trichloropropane	ND		250	50	03/10/11 13:53	LU_L	5741884
1,2,4-Trichlorobenzene	ND		250	50	03/10/11 13:53	LU_L	5741884
1,2,4-Trimethylbenzene	30000		2500	500	03/10/11 17:23	LU_L	5741886
1,2-Dibromo-3-chloropropane	ND		250	50	03/10/11 13:53	LU_L	5741884
1,2-Dibromoethane	ND		250	50	03/10/11 13:53	LU_L	5741884
1,2-Dichlorobenzene	ND		250	50	03/10/11 13:53	LU_L	5741884
1,2-Dichloroethane	ND		250	50	03/10/11 13:53	LU_L	5741884
1,2-Dichloropropene	ND		250	50	03/10/11 13:53	LU_L	5741884
1,3,5-Trimethylbenzene	20000		2500	500	03/10/11 17:23	LU_L	5741886
1,3-Dichlorobenzene	ND		250	50	03/10/11 13:53	LU_L	5741884
1,3-Dichloropropane	ND		250	50	03/10/11 13:53	LU_L	5741884
1,4-Dichlorobenzene	ND		250	50	03/10/11 13:53	LU_L	5741884
2,2-Dichloropropane	ND		250	50	03/10/11 13:53	LU_L	5741884
2-Butanone	ND		1000	50	03/10/11 13:53	LU_L	5741884
2-Chloroethyl vinyl ether	ND		500	50	03/10/11 13:53	LU_L	5741884
2-Chlorotoluene	ND		250	50	03/10/11 13:53	LU_L	5741884
2-Hexanone	ND		500	50	03/10/11 13:53	LU_L	5741884
4-Chlorotoluene	ND		250	50	03/10/11 13:53	LU_L	5741884
4-Isopropyltoluene	1300		250	50	03/10/11 13:53	LU_L	5741884
4-Methyl-2-pentanone	ND		500	50	03/10/11 13:53	LU_L	5741884
Acetone	ND		5000	50	03/10/11 13:53	LU_L	5741884
Acrylonitrile	ND		2500	50	03/10/11 13:53	LU_L	5741884
Benzene	ND		250	50	03/10/11 13:53	LU_L	5741884
Bromobenzene	ND		250	50	03/10/11 13:53	LU_L	5741884
Bromochloromethane	ND		250	50	03/10/11 13:53	LU_L	5741884
Bromodichloromethane	ND		250	50	03/10/11 13:53	LU_L	5741884
Bromoform	ND		250	50	03/10/11 13:53	LU_L	5741884
Bromomethane	ND		500	50	03/10/11 13:53	LU_L	5741884

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID:B-2(45-47)

Collected: 03/01/2011 11:20

SPL Sample ID: 11030212-03

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Carbon disulfide	ND		250	50	03/10/11 13:53	LU_L	5741884
Carbon tetrachloride	ND		250	50	03/10/11 13:53	LU_L	5741884
Chlorobenzene	ND		250	50	03/10/11 13:53	LU_L	5741884
Chloroethane	ND		500	50	03/10/11 13:53	LU_L	5741884
Chloroform	ND		250	50	03/10/11 13:53	LU_L	5741884
Chloromethane	ND		500	50	03/10/11 13:53	LU_L	5741884
Dibromochloromethane	ND		250	50	03/10/11 13:53	LU_L	5741884
Dibromomethane	ND		250	50	03/10/11 13:53	LU_L	5741884
Dichlorodifluoromethane	ND		500	50	03/10/11 13:53	LU_L	5741884
Ethylbenzene	4900		250	50	03/10/11 13:53	LU_L	5741884
Hexachlorobutadiene	ND		250	50	03/10/11 13:53	LU_L	5741884
Isopropylbenzene	1800		250	50	03/10/11 13:53	LU_L	5741884
Methyl tert-butyl ether	ND		250	50	03/10/11 13:53	LU_L	5741884
Methylene chloride	ND		250	50	03/10/11 13:53	LU_L	5741884
Naphthalene	1300		250	50	03/10/11 13:53	LU_L	5741884
n-Butylbenzene	840		250	50	03/10/11 13:53	LU_L	5741884
n-Propylbenzene	2700		250	50	03/10/11 13:53	LU_L	5741884
sec-Butylbenzene	ND		250	50	03/10/11 13:53	LU_L	5741884
Styrene	ND		250	50	03/10/11 13:53	LU_L	5741884
tert-Butylbenzene	ND		250	50	03/10/11 13:53	LU_L	5741884
Tetrachloroethene	ND		250	50	03/10/11 13:53	LU_L	5741884
Toluene	6600		250	50	03/10/11 13:53	LU_L	5741884
Trichloroethene	ND		250	50	03/10/11 13:53	LU_L	5741884
Trichlorofluoromethane	ND		250	50	03/10/11 13:53	LU_L	5741884
Vinyl acetate	ND		500	50	03/10/11 13:53	LU_L	5741884
Vinyl chloride	ND		500	50	03/10/11 13:53	LU_L	5741884
cis-1,2-Dichloroethene	ND		250	50	03/10/11 13:53	LU_L	5741884
cis-1,3-Dichloropropene	ND		250	50	03/10/11 13:53	LU_L	5741884
m,p-Xylene	91000		2500	500	03/10/11 17:23	LU_L	5741886
o-Xylene	20000		2500	500	03/10/11 17:23	LU_L	5741886
trans-1,2-Dichloroethene	ND		250	50	03/10/11 13:53	LU_L	5741884
trans-1,3-Dichloropropene	ND		250	50	03/10/11 13:53	LU_L	5741884
Xylenes,Total	111000		2500	500	03/10/11 17:23	LU_L	5741886
1,2-Dichloroethene (total)	ND		250	50	03/10/11 13:53	LU_L	5741884
Surr: 1,2-Dichloroethane-d4	90.3	%	78-116	50	03/10/11 13:53	LU_L	5741884
Surr: 1,2-Dichloroethane-d4	92.6	%	78-116	500	03/10/11 17:23	LU_L	5741886
Surr: 4-Bromofluorobenzene	92.8	%	74-125	500	03/10/11 17:23	LU_L	5741886

Qualifiers: ND/U - Not Detected at the Reporting Limit  
 B - Analyte Detected In The Associated Method Blank  
 \* - Surrogate Recovery Outside Advisable QC Limits  
 J - Estimated value between MDL and PQL  
 E - Estimated Value exceeds calibration curve  
 TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
 D - Surrogate Recovery Unreportable due to Dilution  
 MI - Matrix Interference

11030212 Page 26  
 3/23/2011 2:36:33 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID:B-2(45-47)

Collected: 03/01/2011 11:20 SPL Sample ID: 11030212-03

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Surr: 4-Bromofluorobenzene	102	%	74-125	50	03/10/11 13:53	LU_L	5741884
Surr: Toluene-d8	97.7	%	82-118	500	03/10/11 17:23	LU_L	5741886
Surr: Toluene-d8	104	%	82-118	50	03/10/11 13:53	LU_L	5741884

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	03/09/2011 9:54	XML	1.00

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 27  
3/23/2011 2:36:33 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID:B-2(106-108) Collected: 03/01/2011 13:10 SPL Sample ID: 11030212-04

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>ALKALINITY (AS CACO3), TOTAL IN SOIL</b>				<b>MCL</b>	<b>M2320 B</b>	<b>Units: mg/Kg CaCO</b>	
Alkalinity, Total (As CaCO3)	80		20	1	03/10/11 9:40	PAC	5741466
<b>ALKALINITY, BICARBONATE</b>				<b>MCL</b>	<b>SM2320B</b>	<b>Units: mg/kg</b>	
Alkalinity, Bicarbonate	80		20	1	03/10/11 9:40	PAC	5741492
<b>ALKALINITY, CARBONATE</b>				<b>MCL</b>	<b>M2320 B</b>	<b>Units: mg/kg</b>	
Alkalinity, Carbonate	ND		20	1	03/10/11 9:40	PAC	5741527
<b>DIESEL RANGE ORGANICS</b>				<b>MCL</b>	<b>SW8015B</b>	<b>Units: mg/kg</b>	
Diesel Range Organics (C10-C28)	ND		5	1	03/15/11 17:25	NW	5745699
Surr: n-Pentacosane	118	%	20-154	1	03/15/11 17:25	NW	5745699

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	03/09/2011 15:16	QMT	1.00

<b>GASOLINE RANGE ORGANICS</b>		<b>MCL</b>	<b>SW8015B</b>	<b>Units: mg/kg</b>	
Gasoline Range Organics	0.13	0.1	1	03/10/11 0:28	WLV
Surr: 1,4-Difluorobenzene	99.9	% 63-142	1	03/10/11 0:28	WLV
Surr: 4-Bromofluorobenzene	102	% 50-159	1	03/10/11 0:28	WLV

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	03/09/2011 9:17	XML	1.00

<b>ION CHROMATOGRAPHY</b>		<b>MCL</b>	<b>E300.0 MOD</b>	<b>Units: mg/kg</b>	
Bromide	ND	5	1	03/11/11 0:52	ESK
Chloride	14.1	5	1	03/11/11 0:52	ESK
Fluoride	ND	5	1	03/11/11 0:52	ESK
Ortho-phosphate (As P)	ND	5	1	03/14/11 14:20	ESK
Sulfate	39.8	5	1	03/11/11 0:52	ESK
Nitrogen,Nitrate (As N)	ND	5	1	03/11/11 0:52	ESK
Nitrogen,Nitrite (As N)	ND	5	1	03/11/11 0:52	ESK

<b>MERCURY, TOTAL</b>		<b>MCL</b>	<b>SW7471A</b>	<b>Units: mg/kg</b>	
Mercury	ND	0.033	1	03/16/11 13:00	F_S

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7471A	03/16/2011 9:00	M_B	1.00

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
 B - Analyte Detected In The Associated Method Blank  
 \* - Surrogate Recovery Outside Advisable QC Limits  
 J - Estimated value between MDL and PQL  
 E - Estimated Value exceeds calibration curve  
 TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
 D - Surrogate Recovery Unreportable due to Dilution  
 MI - Matrix Interference

11030212 Page 28  
 3/23/2011 2:36:35 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID:B-2(106-108)

Collected: 03/01/2011 13:10 SPL Sample ID: 11030212-04

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>METALS BY METHOD 6010B, TOTAL</b>							
Aluminum	4700		10	1	03/09/11 16:25	R_V	5740628
Arsenic	2.46		0.5	1	03/09/11 16:25	R_V	5740628
Barium	130		0.5	1	03/09/11 16:25	R_V	5740628
Boron	ND		10	1	03/09/11 16:25	R_V	5740628
Cadmium	ND		0.5	1	03/09/11 16:25	R_V	5740628
Chromium	4.12		0.5	1	03/09/11 16:25	R_V	5740628
Cobalt	2.65		0.5	1	03/09/11 16:25	R_V	5740628
Iron	6310		2	1	03/09/11 16:25	R_V	5740628
Lead	6.02		0.5	1	03/09/11 16:25	R_V	5740628
Manganese	85.9		0.5	1	03/09/11 16:25	R_V	5740628
Molybdenum	ND		0.5	1	03/09/11 16:25	R_V	5740628
Nickel	3.88		0.5	1	03/09/11 16:25	R_V	5740628
Selenium	ND		0.5	1	03/09/11 16:25	R_V	5740628
Silver	ND		0.5	1	03/09/11 16:25	R_V	5740628
Zinc	25.6		1	1	03/09/11 16:25	R_V	5740628

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3050B	03/09/2011 10:00	M_B	1.00

PH	MCL	SW9045C	Units: pH Units
pH	8.65	0.1	1 03/09/11 9:45 PAC 5739754

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID:B-2(106-108)

Collected: 03/01/2011 13:10

SPL Sample ID: 11030212-04

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>SEMIVOLATILE ORGANICS BY METHOD 8270C</b>							
1,2,4-Trichlorobenzene	ND		170	1	03/09/11 17:31	GY	5741162
1,2-Dichlorobenzene	ND		170	1	03/09/11 17:31	GY	5741162
1,2-Diphenylhydrazine	ND		170	1	03/09/11 17:31	GY	5741162
1,3-Dichlorobenzene	ND		170	1	03/09/11 17:31	GY	5741162
1,4-Dichlorobenzene	ND		170	1	03/09/11 17:31	GY	5741162
2,4,5-Trichlorophenol	ND		170	1	03/09/11 17:31	GY	5741162
2,4,6-Trichlorophenol	ND		170	1	03/09/11 17:31	GY	5741162
2,4-Dichlorophenol	ND		170	1	03/09/11 17:31	GY	5741162
2,4-Dimethylphenol	ND		170	1	03/09/11 17:31	GY	5741162
2,4-Dinitrophenol	ND		170	1	03/09/11 17:31	GY	5741162
2,4-Dinitrotoluene	ND		170	1	03/09/11 17:31	GY	5741162
2,6-Dinitrotoluene	ND		170	1	03/09/11 17:31	GY	5741162
2-Chloronaphthalene	ND		170	1	03/09/11 17:31	GY	5741162
2-Chlorophenol	ND		170	1	03/09/11 17:31	GY	5741162
2-Methylnaphthalene	ND		170	1	03/09/11 17:31	GY	5741162
2-Nitroaniline	ND		170	1	03/09/11 17:31	GY	5741162
2-Nitrophenol	ND		170	1	03/09/11 17:31	GY	5741162
3,3'-Dichlorobenzidine	ND		170	1	03/09/11 17:31	GY	5741162
3-Nitroaniline	ND		170	1	03/09/11 17:31	GY	5741162
4,6-Dinitro-2-methylphenol	ND		170	1	03/09/11 17:31	GY	5741162
4-Bromophenyl phenyl ether	ND		170	1	03/09/11 17:31	GY	5741162
4-Chloro-3-methylphenol	ND		170	1	03/09/11 17:31	GY	5741162
4-Chloroaniline	ND		170	1	03/09/11 17:31	GY	5741162
4-Chlorophenyl phenyl ether	ND		170	1	03/09/11 17:31	GY	5741162
4-Nitroaniline	ND		170	1	03/09/11 17:31	GY	5741162
4-Nitrophenol	ND		170	1	03/09/11 17:31	GY	5741162
Acenaphthene	ND		170	1	03/09/11 17:31	GY	5741162
Acenaphthylene	ND		170	1	03/09/11 17:31	GY	5741162
Aniline	ND		170	1	03/09/11 17:31	GY	5741162
Anthracene	ND		170	1	03/09/11 17:31	GY	5741162
Benz(a)anthracene	ND		170	1	03/09/11 17:31	GY	5741162
Benzo(a)pyrene	ND		170	1	03/09/11 17:31	GY	5741162
Benzo(b)fluoranthene	ND		170	1	03/09/11 17:31	GY	5741162
Benzo(g,h,i)perylene	ND		170	1	03/09/11 17:31	GY	5741162
Benzo(k)fluoranthene	ND		170	1	03/09/11 17:31	GY	5741162
Benzoic acid	ND		670	1	03/09/11 17:31	GY	5741162

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 30  
3/23/2011 2:36:37 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID:B-2(106-108)

Collected: 03/01/2011 13:10 SPL Sample ID: 11030212-04

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Benzyl alcohol	ND		170	1	03/09/11 17:31	GY	5741162
Bis(2-chloroethoxy)methane	ND		170	1	03/09/11 17:31	GY	5741162
Bis(2-chloroethyl)ether	ND		170	1	03/09/11 17:31	GY	5741162
Bis(2-chloroisopropyl)ether	ND		170	1	03/09/11 17:31	GY	5741162
Bis(2-ethylhexyl)phthalate	ND		170	1	03/09/11 17:31	GY	5741162
Butyl benzyl phthalate	ND		170	1	03/09/11 17:31	GY	5741162
Carbazole	ND		170	1	03/09/11 17:31	GY	5741162
Chrysene	ND		170	1	03/09/11 17:31	GY	5741162
Dibenz(a,h)anthracene	ND		170	1	03/09/11 17:31	GY	5741162
Dibenzofuran	ND		170	1	03/09/11 17:31	GY	5741162
Diethyl phthalate	ND		170	1	03/09/11 17:31	GY	5741162
Dimethyl phthalate	ND		170	1	03/09/11 17:31	GY	5741162
Di-n-butyl phthalate	ND		170	1	03/09/11 17:31	GY	5741162
Di-n-octyl phthalate	ND		170	1	03/09/11 17:31	GY	5741162
Fluoranthene	ND		170	1	03/09/11 17:31	GY	5741162
Fluorene	ND		170	1	03/09/11 17:31	GY	5741162
Hexachlorobenzene	ND		170	1	03/09/11 17:31	GY	5741162
Hexachlorobutadiene	ND		170	1	03/09/11 17:31	GY	5741162
Hexachlorocyclopentadiene	ND		170	1	03/09/11 17:31	GY	5741162
Hexachloroethane	ND		170	1	03/09/11 17:31	GY	5741162
Indeno(1,2,3-cd)pyrene	ND		170	1	03/09/11 17:31	GY	5741162
Isophorone	ND		170	1	03/09/11 17:31	GY	5741162
Naphthalene	ND		170	1	03/09/11 17:31	GY	5741162
Nitrobenzene	ND		170	1	03/09/11 17:31	GY	5741162
N-Nitrosodi-n-propylamine	ND		170	1	03/09/11 17:31	GY	5741162
N-Nitrosodiphenylamine	ND		330	1	03/09/11 17:31	GY	5741162
Pentachlorophenol	ND		170	1	03/09/11 17:31	GY	5741162
Phenanthrene	ND		170	1	03/09/11 17:31	GY	5741162
Phenol	ND		170	1	03/09/11 17:31	GY	5741162
Pyrene	ND		170	1	03/09/11 17:31	GY	5741162
Pyridine	ND		170	1	03/09/11 17:31	GY	5741162
2-Methylphenol	ND		170	1	03/09/11 17:31	GY	5741162
3 & 4-Methylphenol	ND		330	1	03/09/11 17:31	GY	5741162
Surr: 2,4,6-Tribromophenol	89.6	%	23-157	1	03/09/11 17:31	GY	5741162
Surr: 2-Fluorobiphenyl	65.9	%	15-140	1	03/09/11 17:31	GY	5741162
Surr: 2-Fluorophenol	65.2	%	15-122	1	03/09/11 17:31	GY	5741162
Surr: Nitrobenzene-d5	65.9	%	10-134	1	03/09/11 17:31	GY	5741162

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 31  
3/23/2011 2:36:37 PM



**SPL ENVIRONMENTAL**  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID:B-2(106-108)

Collected: 03/01/2011 13:10 SPL Sample ID: 11030212-04

**Site: Rio Ariba County**

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Sur: Phenol-d5	68.4	%	10-123	1	03/09/11 17:31	GY	5741162
Sur: Terphenyl-d14	82.9	%	18-166	1	03/09/11 17:31	GY	5741162

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550C	03/09/2011 10:41	QMT	1.00

SPECIFIC CONDUCTANCE	MCL	SW9050	Units: umhos/cm
Specific Conductance	159	100	1 03/10/11 9:15 PAC 5741281

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 32  
3/23/2011 2:36:39 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID:B-2(106-108)

Collected: 03/01/2011 13:10 SPL Sample ID: 11030212-04

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>VOLATILE ORGANICS BY METHOD 8260B</b>							
1,1,1,2-Tetrachloroethane	ND		5	1	03/09/11 18:27	D_R	5740799
1,1,1-Trichloroethane	ND		5	1	03/09/11 18:27	D_R	5740799
1,1,2,2-Tetrachloroethane	ND		5	1	03/09/11 18:27	D_R	5740799
1,1,2-Trichloroethane	ND		5	1	03/09/11 18:27	D_R	5740799
1,1-Dichloroethane	ND		5	1	03/09/11 18:27	D_R	5740799
1,1-Dichloroethene	ND		5	1	03/09/11 18:27	D_R	5740799
1,1-Dichloropropene	ND		5	1	03/09/11 18:27	D_R	5740799
1,2,3-Trichlorobenzene	ND		5	1	03/09/11 18:27	D_R	5740799
1,2,3-Trichloropropane	ND		5	1	03/09/11 18:27	D_R	5740799
1,2,4-Trichlorobenzene	ND		5	1	03/09/11 18:27	D_R	5740799
1,2,4-Trimethylbenzene	9.3		5	1	03/09/11 18:27	D_R	5740799
1,2-Dibromo-3-chloropropane	ND		5	1	03/09/11 18:27	D_R	5740799
1,2-Dibromoethane	ND		5	1	03/09/11 18:27	D_R	5740799
1,2-Dichlorobenzene	ND		5	1	03/09/11 18:27	D_R	5740799
1,2-Dichloroethane	ND		5	1	03/09/11 18:27	D_R	5740799
1,2-Dichloropropane	ND		5	1	03/09/11 18:27	D_R	5740799
1,3,5-Trimethylbenzene	ND		5	1	03/09/11 18:27	D_R	5740799
1,3-Dichlorobenzene	ND		5	1	03/09/11 18:27	D_R	5740799
1,3-Dichloropropane	ND		5	1	03/09/11 18:27	D_R	5740799
1,4-Dichlorobenzene	ND		5	1	03/09/11 18:27	D_R	5740799
2,2-Dichloropropane	ND		5	1	03/09/11 18:27	D_R	5740799
2-Butanone	ND		20	1	03/09/11 18:27	D_R	5740799
2-Chloroethyl vinyl ether	ND		10	1	03/09/11 18:27	D_R	5740799
2-Chlorotoluene	ND		5	1	03/09/11 18:27	D_R	5740799
2-Hexanone	ND		10	1	03/09/11 18:27	D_R	5740799
4-Chlorotoluene	ND		5	1	03/09/11 18:27	D_R	5740799
4-Isopropyltoluene	ND		5	1	03/09/11 18:27	D_R	5740799
4-Methyl-2-pentanone	ND		10	1	03/09/11 18:27	D_R	5740799
Acetone	ND		100	1	03/09/11 18:27	D_R	5740799
Acrylonitrile	ND		50	1	03/09/11 18:27	D_R	5740799
Benzene	ND		5	1	03/09/11 18:27	D_R	5740799
Bromobenzene	ND		5	1	03/09/11 18:27	D_R	5740799
Bromochloromethane	ND		5	1	03/09/11 18:27	D_R	5740799
Bromodichloromethane	ND		5	1	03/09/11 18:27	D_R	5740799
Bromoform	ND		5	1	03/09/11 18:27	D_R	5740799
Bromomethane	ND		10	1	03/09/11 18:27	D_R	5740799

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 33  
3/23/2011 2:36:39 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID:B-2(106-108)

Collected: 03/01/2011 13:10

SPL Sample ID: 11030212-04

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Carbon disulfide	ND		5	1	03/09/11 18:27	D_R	5740799
Carbon tetrachloride	ND		5	1	03/09/11 18:27	D_R	5740799
Chlorobenzene	ND		5	1	03/09/11 18:27	D_R	5740799
Chloroethane	ND		10	1	03/09/11 18:27	D_R	5740799
Chloroform	ND		5	1	03/09/11 18:27	D_R	5740799
Chloromethane	ND		10	1	03/09/11 18:27	D_R	5740799
Dibromochloromethane	ND		5	1	03/09/11 18:27	D_R	5740799
Dibromomethane	ND		5	1	03/09/11 18:27	D_R	5740799
Dichlorodifluoromethane	ND		10	1	03/09/11 18:27	D_R	5740799
Ethylbenzene	ND		5	1	03/09/11 18:27	D_R	5740799
Hexachlorobutadiene	ND		5	1	03/09/11 18:27	D_R	5740799
Isopropylbenzene	ND		5	1	03/09/11 18:27	D_R	5740799
Methyl tert-butyl ether	ND		5	1	03/09/11 18:27	D_R	5740799
Methylene chloride	ND		5	1	03/09/11 18:27	D_R	5740799
Naphthalene	ND		5	1	03/09/11 18:27	D_R	5740799
n-Butylbenzene	ND		5	1	03/09/11 18:27	D_R	5740799
n-Propylbenzene	ND		5	1	03/09/11 18:27	D_R	5740799
sec-Butylbenzene	ND		5	1	03/09/11 18:27	D_R	5740799
Styrene	ND		5	1	03/09/11 18:27	D_R	5740799
tert-Butylbenzene	ND		5	1	03/09/11 18:27	D_R	5740799
Tetrachloroethene	ND		5	1	03/09/11 18:27	D_R	5740799
Toluene	12		5	1	03/09/11 18:27	D_R	5740799
Trichloroethene	ND		5	1	03/09/11 18:27	D_R	5740799
Trichlorofluoromethane	ND		5	1	03/09/11 18:27	D_R	5740799
Vinyl acetate	ND		10	1	03/09/11 18:27	D_R	5740799
Vinyl chloride	ND		10	1	03/09/11 18:27	D_R	5740799
cis-1,2-Dichloroethene	ND		5	1	03/09/11 18:27	D_R	5740799
cis-1,3-Dichloropropene	ND		5	1	03/09/11 18:27	D_R	5740799
m,p-Xylene	27		5	1	03/09/11 18:27	D_R	5740799
o-Xylene	7.3		5	1	03/09/11 18:27	D_R	5740799
trans-1,2-Dichloroethene	ND		5	1	03/09/11 18:27	D_R	5740799
trans-1,3-Dichloropropene	ND		5	1	03/09/11 18:27	D_R	5740799
Xylenes,Total	34.3		5	1	03/09/11 18:27	D_R	5740799
1,2-Dichloroethene (total)	ND		5	1	03/09/11 18:27	D_R	5740799
Surr: 1,2-Dichloroethane-d4	101	%	71-130	1	03/09/11 18:27	D_R	5740799
Surr: 4-Bromofluorobenzene	103	%	65-131	1	03/09/11 18:27	D_R	5740799
Surr: Toluene-d8	107	%	75-136	1	03/09/11 18:27	D_R	5740799

Qualifiers: ND/U - Not Detected at the Reporting Limit

>MCL - Result Over Maximum Contamination Limit(MCL)

B - Analyte Detected In The Associated Method Blank

D - Surrogate Recovery Unreportable due to Dilution

\* - Surrogate Recovery Outside Advisable QC Limits

MI - Matrix Interference

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

11030212 Page 34

3/23/2011 2:36:40 PM



**SPL ENVIRONMENTAL**  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID:B-2(106-108)

Collected: 03/01/2011 13:10 SPL Sample ID: 11030212-04

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
-----------------	--------	------	-----------	-------------	---------------	---------	--------

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	03/09/2011 9:16	XML	1.00

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 35  
3/23/2011 2:36:40 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-2(106-108)

Collected: 03/02/2011 10:10

SPL Sample ID: 11030212-05

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
ALKALINITY (AS CACO3), TOTAL IN SOIL				MCL	M2320 B	Units: mg/Kg CaCO	
Alkalinity, Total (As CaCO3)	90		20	1	03/10/11 9:40	PAC	5741467
ALKALINITY, BICARBONATE				MCL	SM2320B	Units: mg/kg	
Alkalinity, Bicarbonate	90		20	1	03/10/11 9:40	PAC	5741493
ALKALINITY, CARBONATE				MCL	M2320 B	Units: mg/kg	
Alkalinity, Carbonate	ND		20	1	03/10/11 9:40	PAC	5741528
DIESEL RANGE ORGANICS				MCL	SW8015B	Units: mg/kg	
Diesel Range Organics (C10-C28)	ND		5	1	03/15/11 17:45	NW	5745700
Surr: n-Pentacosane	98.9	%	20-154	1	03/15/11 17:45	NW	5745700

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	03/09/2011 15:16	QMT	1.00

GASOLINE RANGE ORGANICS			MCL	SW8015B	Units: mg/kg		
Gasoline Range Organics	ND		0.1	1	03/10/11 0:57	WLV	5740984
Surr: 1,4-Difluorobenzene	99.7	%	63-142	1	03/10/11 0:57	WLV	5740984
Surr: 4-Bromofluorobenzene	97.6	%	50-159	1	03/10/11 0:57	WLV	5740984

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	03/09/2011 9:26	XML	1.00

ION CHROMATOGRAPHY			MCL	E300.0 MOD	Units: mg/kg		
Bromide	ND		5	1	03/11/11 1:09	ESK	5741748
Chloride	19.3		5	1	03/11/11 1:09	ESK	5741748
Fluoride	ND		5	1	03/11/11 1:09	ESK	5741748
Ortho-phosphate (As P)	ND		5	1	03/14/11 14:37	ESK	5743756
Sulfate	41		5	1	03/11/11 1:09	ESK	5741748
Nitrogen,Nitrate (As N)	ND		5	1	03/11/11 1:09	ESK	5741778
Nitrogen,Nitrite (As N)	ND		5	1	03/11/11 1:09	ESK	5741778

MERCURY, TOTAL			MCL	SW7471A	Units: mg/kg		
Mercury	ND		0.033	1	03/16/11 13:02	F_S	5744877

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7471A	03/16/2011 9:00	M_B	1.00

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-2(106-108)

Collected: 03/02/2011 10:10 SPL Sample ID: 11030212-05

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>METALS BY METHOD 6010B, TOTAL</b>							
Aluminum	3130		10	1	03/09/11 16:31	R_V	5740629
Arsenic	42.9		0.5	1	03/09/11 16:31	R_V	5740629
Barium	398		0.5	1	03/09/11 16:31	R_V	5740629
Boron	ND		10	1	03/09/11 16:31	R_V	5740629
Cadmium	ND		0.5	1	03/09/11 16:31	R_V	5740629
Chromium	3.89		0.5	1	03/09/11 16:31	R_V	5740629
Cobalt	2.51		0.5	1	03/09/11 16:31	R_V	5740629
Iron	8390		2	1	03/09/11 16:31	R_V	5740629
Lead	4.35		0.5	1	03/09/11 16:31	R_V	5740629
Manganese	228		0.5	1	03/09/11 16:31	R_V	5740629
Molybdenum	0.8		0.5	1	03/09/11 16:31	R_V	5740629
Nickel	3.62		0.5	1	03/09/11 16:31	R_V	5740629
Selenium	ND		0.5	1	03/09/11 16:31	R_V	5740629
Silver	ND		0.5	1	03/09/11 16:31	R_V	5740629
Zinc	25.6		1	1	03/09/11 16:31	R_V	5740629

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3050B	03/09/2011 10:00	M_B	1.00

PH	MCL	SW9045C	Units: pH Units
pH	9.31	0.1	1 03/09/11 9:45 PAC 5739755

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 37  
3/23/2011 2:36:44 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-2(106-108)

Collected: 03/02/2011 10:10

SPL Sample ID: 11030212-05

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>SEMIVOLATILE ORGANICS BY METHOD 8270C</b>							
1,2,4-Trichlorobenzene	ND		170	1	03/09/11 18:04	GY	5741163
1,2-Dichlorobenzene	ND		170	1	03/09/11 18:04	GY	5741163
1,2-Diphenylhydrazine	ND		170	1	03/09/11 18:04	GY	5741163
1,3-Dichlorobenzene	ND		170	1	03/09/11 18:04	GY	5741163
1,4-Dichlorobenzene	ND		170	1	03/09/11 18:04	GY	5741163
2,4,5-Trichlorophenol	ND		170	1	03/09/11 18:04	GY	5741163
2,4,6-Trichlorophenol	ND		170	1	03/09/11 18:04	GY	5741163
2,4-Dichlorophenol	ND		170	1	03/09/11 18:04	GY	5741163
2,4-Dimethylphenol	ND		170	1	03/09/11 18:04	GY	5741163
2,4-Dinitrophenol	ND		170	1	03/09/11 18:04	GY	5741163
2,4-Dinitrotoluene	ND		170	1	03/09/11 18:04	GY	5741163
2,6-Dinitrotoluene	ND		170	1	03/09/11 18:04	GY	5741163
2-Chloronaphthalene	ND		170	1	03/09/11 18:04	GY	5741163
2-Chlorophenol	ND		170	1	03/09/11 18:04	GY	5741163
2-Methylnaphthalene	ND		170	1	03/09/11 18:04	GY	5741163
2-Nitroaniline	ND		170	1	03/09/11 18:04	GY	5741163
2-Nitrophenol	ND		170	1	03/09/11 18:04	GY	5741163
3,3'-Dichlorobenzidine	ND		170	1	03/09/11 18:04	GY	5741163
3-Nitroaniline	ND		170	1	03/09/11 18:04	GY	5741163
4,6-Dinitro-2-methylphenol	ND		170	1	03/09/11 18:04	GY	5741163
4-Bromophenyl phenyl ether	ND		170	1	03/09/11 18:04	GY	5741163
4-Chloro-3-methylphenol	ND		170	1	03/09/11 18:04	GY	5741163
4-Chloroaniline	ND		170	1	03/09/11 18:04	GY	5741163
4-Chlorophenyl phenyl ether	ND		170	1	03/09/11 18:04	GY	5741163
4-Nitroaniline	ND		170	1	03/09/11 18:04	GY	5741163
4-Nitrophenol	ND		170	1	03/09/11 18:04	GY	5741163
Acenaphthene	ND		170	1	03/09/11 18:04	GY	5741163
Acenaphthylene	ND		170	1	03/09/11 18:04	GY	5741163
Aniline	ND		170	1	03/09/11 18:04	GY	5741163
Anthracene	ND		170	1	03/09/11 18:04	GY	5741163
Benz(a)anthracene	ND		170	1	03/09/11 18:04	GY	5741163
Benzo(a)pyrene	ND		170	1	03/09/11 18:04	GY	5741163
Benzo(b)fluoranthene	ND		170	1	03/09/11 18:04	GY	5741163
Benzo(g,h,i)perylene	ND		170	1	03/09/11 18:04	GY	5741163
Benzo(k)fluoranthene	ND		170	1	03/09/11 18:04	GY	5741163
Benzoic acid	ND		670	1	03/09/11 18:04	GY	5741163

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 38  
3/29/2011 2:36:44 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-2(106-108)

Collected: 03/02/2011 10:10 SPL Sample ID: 11030212-05

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Benzyl alcohol	ND		170	1	03/09/11 18:04	GY	5741163
Bis(2-chloroethoxy)methane	ND		170	1	03/09/11 18:04	GY	5741163
Bis(2-chloroethyl)ether	ND		170	1	03/09/11 18:04	GY	5741163
Bis(2-chloroisopropyl)ether	ND		170	1	03/09/11 18:04	GY	5741163
Bis(2-ethylhexyl)phthalate	ND		170	1	03/09/11 18:04	GY	5741163
Butyl benzyl phthalate	ND		170	1	03/09/11 18:04	GY	5741163
Carbazole	ND		170	1	03/09/11 18:04	GY	5741163
Chrysene	ND		170	1	03/09/11 18:04	GY	5741163
Dibenz(a,h)anthracene	ND		170	1	03/09/11 18:04	GY	5741163
Dibenzofuran	ND		170	1	03/09/11 18:04	GY	5741163
Diethyl phthalate	ND		170	1	03/09/11 18:04	GY	5741163
Dimethyl phthalate	ND		170	1	03/09/11 18:04	GY	5741163
Di-n-butyl phthalate	ND		170	1	03/09/11 18:04	GY	5741163
Di-n-octyl phthalate	ND		170	1	03/09/11 18:04	GY	5741163
Fluoranthene	ND		170	1	03/09/11 18:04	GY	5741163
Fluorene	ND		170	1	03/09/11 18:04	GY	5741163
Hexachlorobenzene	ND		170	1	03/09/11 18:04	GY	5741163
Hexachlorobutadiene	ND		170	1	03/09/11 18:04	GY	5741163
Hexachlorocyclopentadiene	ND		170	1	03/09/11 18:04	GY	5741163
Hexachloroethane	ND		170	1	03/09/11 18:04	GY	5741163
Indeno(1,2,3-cd)pyrene	ND		170	1	03/09/11 18:04	GY	5741163
Isophorone	ND		170	1	03/09/11 18:04	GY	5741163
Naphthalene	ND		170	1	03/09/11 18:04	GY	5741163
Nitrobenzene	ND		170	1	03/09/11 18:04	GY	5741163
N-Nitrosodi-n-propylamine	ND		170	1	03/09/11 18:04	GY	5741163
N-Nitrosodiphenylamine	ND		330	1	03/09/11 18:04	GY	5741163
Pentachlorophenol	ND		170	1	03/09/11 18:04	GY	5741163
Phenanthrene	ND		170	1	03/09/11 18:04	GY	5741163
Phenol	ND		170	1	03/09/11 18:04	GY	5741163
Pyrene	ND		170	1	03/09/11 18:04	GY	5741163
Pyridine	ND		170	1	03/09/11 18:04	GY	5741163
2-Methylphenol	ND		170	1	03/09/11 18:04	GY	5741163
3 & 4-Methylphenol	ND		330	1	03/09/11 18:04	GY	5741163
Surr: 2,4,6-Tribromophenol	92.0	%	23-157	1	03/09/11 18:04	GY	5741163
Surr: 2-Fluorobiphenyl	66.5	%	15-140	1	03/09/11 18:04	GY	5741163
Surr: 2-Fluorophenol	62.0	%	15-122	1	03/09/11 18:04	GY	5741163
Surr: Nitrobenzene-d5	61.2	%	10-134	1	03/09/11 18:04	GY	5741163

Qualifiers: ND/U - Not Detected at the Reporting Limit

>MCL - Result Over Maximum Contamination Limit(MCL)

B - Analyte Detected In The Associated Method Blank

D - Surrogate Recovery Unreportable due to Dilution

\* - Surrogate Recovery Outside Advisable QC Limits

MI - Matrix Interference

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

11030212 Page 39

3/23/2011 2:36:45 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-2(106-108)

Collected: 03/02/2011 10:10

SPL Sample ID: 11030212-05

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Surr: Phenol-d5	66.8	%	10-123	1	03/09/11 18:04	GY	5741163
Surr: Terphenyl-d14	85.3	%	18-166	1	03/09/11 18:04	GY	5741163

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550C	03/09/2011 10:41	QMT	1.00

SPECIFIC CONDUCTANCE	MCL	SW9050	Units: umhos/cm
Specific Conductance	318	100	1 03/10/11 9:15 PAC 5741282

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 40  
3/23/2011 2:36:46 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-2(106-108)

Collected: 03/02/2011 10:10 SPL Sample ID: 11030212-05

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>VOLATILE ORGANICS BY METHOD 8260B</b>							
1,1,1,2-Tetrachloroethane	ND	5	1	03/09/11 16:16	D_R	5740794	
1,1,1-Trichloroethane	ND	5	1	03/09/11 16:16	D_R	5740794	
1,1,2,2-Tetrachloroethane	ND	5	1	03/09/11 16:16	D_R	5740794	
1,1,2-Trichloroethane	ND	5	1	03/09/11 16:16	D_R	5740794	
1,1-Dichloroethane	ND	5	1	03/09/11 16:16	D_R	5740794	
1,1-Dichloroethene	ND	5	1	03/09/11 16:16	D_R	5740794	
1,1-Dichloropropene	ND	5	1	03/09/11 16:16	D_R	5740794	
1,2,3-Trichlorobenzene	ND	5	1	03/09/11 16:16	D_R	5740794	
1,2,3-Trichloropropane	ND	5	1	03/09/11 16:16	D_R	5740794	
1,2,4-Trichlorobenzene	ND	5	1	03/09/11 16:16	D_R	5740794	
1,2,4-Trimethylbenzene	ND	5	1	03/09/11 16:16	D_R	5740794	
1,2-Dibromo-3-chloropropane	ND	5	1	03/09/11 16:16	D_R	5740794	
1,2-Dibromoethane	ND	5	1	03/09/11 16:16	D_R	5740794	
1,2-Dichlorobenzene	ND	5	1	03/09/11 16:16	D_R	5740794	
1,2-Dichloroethane	ND	5	1	03/09/11 16:16	D_R	5740794	
1,2-Dichloropropane	ND	5	1	03/09/11 16:16	D_R	5740794	
1,3,5-Trimethylbenzene	ND	5	1	03/09/11 16:16	D_R	5740794	
1,3-Dichlorobenzene	ND	5	1	03/09/11 16:16	D_R	5740794	
1,3-Dichloropropane	ND	5	1	03/09/11 16:16	D_R	5740794	
1,4-Dichlorobenzene	ND	5	1	03/09/11 16:16	D_R	5740794	
2,2-Dichloropropane	ND	5	1	03/09/11 16:16	D_R	5740794	
2-Butanone	ND	20	1	03/09/11 16:16	D_R	5740794	
2-Chloroethyl vinyl ether	ND	10	1	03/09/11 16:16	D_R	5740794	
2-Chlorotoluene	ND	5	1	03/09/11 16:16	D_R	5740794	
2-Hexanone	ND	10	1	03/09/11 16:16	D_R	5740794	
4-Chlorotoluene	ND	5	1	03/09/11 16:16	D_R	5740794	
4-Isopropyltoluene	ND	5	1	03/09/11 16:16	D_R	5740794	
4-Methyl-2-pentanone	ND	10	1	03/09/11 16:16	D_R	5740794	
Acetone	ND	100	1	03/09/11 16:16	D_R	5740794	
Acrylonitrile	ND	50	1	03/09/11 16:16	D_R	5740794	
Benzene	ND	5	1	03/09/11 16:16	D_R	5740794	
Bromobenzene	ND	5	1	03/09/11 16:16	D_R	5740794	
Bromochloromethane	ND	5	1	03/09/11 16:16	D_R	5740794	
Bromodichloromethane	ND	5	1	03/09/11 16:16	D_R	5740794	
Bromoform	ND	5	1	03/09/11 16:16	D_R	5740794	
Bromomethane	ND	10	1	03/09/11 16:16	D_R	5740794	

Qualifiers: ND/U - Not Detected at the Reporting Limit

>MCL - Result Over Maximum Contamination Limit(MCL)

B - Analyte Detected In The Associated Method Blank

D - Surrogate Recovery Unreportable due to Dilution

\* - Surrogate Recovery Outside Advisable QC Limits

MI - Matrix Interference

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

11030212 Page 41

3/23/2011 2:36:47 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-2(106-108)

Collected: 03/02/2011 10:10

SPL Sample ID: 11030212-05

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Carbon disulfide	ND		5	1	03/09/11 16:16	D_R	5740794
Carbon tetrachloride	ND		5	1	03/09/11 16:16	D_R	5740794
Chlorobenzene	ND		5	1	03/09/11 16:16	D_R	5740794
Chloroethane	ND		10	1	03/09/11 16:16	D_R	5740794
Chloroform	ND		5	1	03/09/11 16:16	D_R	5740794
Chloromethane	ND		10	1	03/09/11 16:16	D_R	5740794
Dibromochloromethane	ND		5	1	03/09/11 16:16	D_R	5740794
Dibromomethane	ND		5	1	03/09/11 16:16	D_R	5740794
Dichlorodifluoromethane	ND		10	1	03/09/11 16:16	D_R	5740794
Ethylbenzene	ND		5	1	03/09/11 16:16	D_R	5740794
Hexachlorobutadiene	ND		5	1	03/09/11 16:16	D_R	5740794
Isopropylbenzene	ND		5	1	03/09/11 16:16	D_R	5740794
Methyl tert-butyl ether	ND		5	1	03/09/11 16:16	D_R	5740794
Methylene chloride	ND		5	1	03/09/11 16:16	D_R	5740794
Naphthalene	ND		5	1	03/09/11 16:16	D_R	5740794
n-Butylbenzene	ND		5	1	03/09/11 16:16	D_R	5740794
n-Propylbenzene	ND		5	1	03/09/11 16:16	D_R	5740794
sec-Butylbenzene	ND		5	1	03/09/11 16:16	D_R	5740794
Styrene	ND		5	1	03/09/11 16:16	D_R	5740794
tert-Butylbenzene	ND		5	1	03/09/11 16:16	D_R	5740794
Tetrachloroethene	ND		5	1	03/09/11 16:16	D_R	5740794
Toluene	ND		5	1	03/09/11 16:16	D_R	5740794
Trichloroethene	ND		5	1	03/09/11 16:16	D_R	5740794
Trichlorofluoromethane	ND		5	1	03/09/11 16:16	D_R	5740794
Vinyl acetate	ND		10	1	03/09/11 16:16	D_R	5740794
Vinyl chloride	ND		10	1	03/09/11 16:16	D_R	5740794
cis-1,2-Dichloroethene	ND		5	1	03/09/11 16:16	D_R	5740794
cis-1,3-Dichloropropene	ND		5	1	03/09/11 16:16	D_R	5740794
m,p-Xylene	ND		5	1	03/09/11 16:16	D_R	5740794
o-Xylene	ND		5	1	03/09/11 16:16	D_R	5740794
trans-1,2-Dichloroethene	ND		5	1	03/09/11 16:16	D_R	5740794
trans-1,3-Dichloropropene	ND		5	1	03/09/11 16:16	D_R	5740794
Xylenes, Total	ND		5	1	03/09/11 16:16	D_R	5740794
1,2-Dichloroethene (total)	ND		5	1	03/09/11 16:16	D_R	5740794
Surr: 1,2-Dichloroethane-d4	102	%	71-130	1	03/09/11 16:16	D_R	5740794
Surr: 4-Bromofluorobenzene	99.3	%	65-131	1	03/09/11 16:16	D_R	5740794
Surr: Toluene-d8	104	%	75-136	1	03/09/11 16:16	D_R	5740794

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 42  
3/23/2011 2:36:47 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-2(106-108)

Collected: 03/02/2011 10:10 SPL Sample ID: 11030212-05

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
-----------------	--------	------	-----------	-------------	---------------	---------	--------

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	03/09/2011 9:20	XML	1.00

**Qualifiers:**  
ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 43  
3/23/2011 2:36:47 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-3(106-108)

Collected: 03/02/2011 8:27

SPL Sample ID: 11030212-06

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
ALKALINITY (AS CACO3), TOTAL IN SOIL				MCL	M2320 B	Units: mg/Kg CaCO	
Alkalinity, Total (As CaCO3)	120		20	1	03/10/11 9:40	PAC	5741468
ALKALINITY, BICARBONATE				MCL	SM2320B	Units: mg/kg	
Alkalinity, Bicarbonate	120		20	1	03/10/11 9:40	PAC	5741494
ALKALINITY, CARBONATE				MCL	M2320 B	Units: mg/kg	
Alkalinity, Carbonate	ND		20	1	03/10/11 9:40	PAC	5741529
DIESEL RANGE ORGANICS				MCL	SW8015B	Units: mg/kg	
Diesel Range Organics (C10-C28)	ND		5	1	03/15/11 18:06	NW	5745701
Surr: n-Pentacosane	114	%	20-154	1	03/15/11 18:06	NW	5745701

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	03/09/2011 15:16	QMT	1.00

GASOLINE RANGE ORGANICS				MCL	SW8015B	Units: mg/kg	
Gasoline Range Organics	ND		0.1	1	03/10/11 2:23	WLV	5740987
Surr: 1,4-Difluorobenzene	100	%	63-142	1	03/10/11 2:23	WLV	5740987
Surr: 4-Bromofluorobenzene	99.5	%	50-159	1	03/10/11 2:23	WLV	5740987

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	03/09/2011 9:33	XML	1.00

ION CHROMATOGRAPHY				MCL	E300.0 MOD	Units: mg/kg	
Bromide	ND		5	1	03/11/11 1:26	ESK	5741749
Chloride	39.4		5	1	03/11/11 1:26	ESK	5741749
Fluoride	ND		5	1	03/11/11 1:26	ESK	5741749
Ortho-phosphate (As P)	ND		5	1	03/14/11 14:54	ESK	5743757
Sulfate	43.4		5	1	03/11/11 1:26	ESK	5741749
Nitrogen,Nitrate (As N)	ND		5	1	03/11/11 1:26	ESK	5741779
Nitrogen,Nitrite (As N)	ND		5	1	03/11/11 1:26	ESK	5741779

MERCURY, TOTAL				MCL	SW7471A	Units: mg/kg	
Mercury	ND		0.033	1	03/16/11 13:04	F_S	5744878

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7471A	03/16/2011 9:00	M_B	1.00

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 44  
3/23/2011 2:36:49 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-3(106-108)

Collected: 03/02/2011 8:27

SPL Sample ID: 11030212-06

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>METALS BY METHOD 6010B, TOTAL</b>							
Aluminum	3140		10	1	03/09/11 16:38	R_V	5740630
Arsenic	3.55		0.5	1	03/09/11 16:38	R_V	5740630
Barium	256		0.5	1	03/09/11 16:38	R_V	5740630
Boron	ND		10	1	03/09/11 16:38	R_V	5740630
Cadmium	ND		0.5	1	03/09/11 16:38	R_V	5740630
Chromium	4.09		0.5	1	03/09/11 16:38	R_V	5740630
Cobalt	2.44		0.5	1	03/09/11 16:38	R_V	5740630
Iron	6840		2	1	03/09/11 16:38	R_V	5740630
Lead	4.51		0.5	1	03/09/11 16:38	R_V	5740630
Manganese	144		0.5	1	03/09/11 16:38	R_V	5740630
Molybdenum	ND		0.5	1	03/09/11 16:38	R_V	5740630
Nickel	3.37		0.5	1	03/09/11 16:38	R_V	5740630
Selenium	ND		0.5	1	03/09/11 16:38	R_V	5740630
Silver	ND		0.5	1	03/09/11 16:38	R_V	5740630
Zinc	30.8		1	1	03/09/11 16:38	R_V	5740630

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3050B	03/09/2011 10:00	M_B	1.00

PH	MCL	SW9045C	Units: pH Units
pH	9.41	0.1	1 03/09/11 9:45 PAC 5739756

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-3(106-108)

Collected: 03/02/2011 8:27

SPL Sample ID: 11030212-06

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>SEMIVOLATILE ORGANICS BY METHOD 8270C</b>							
1,2,4-Trichlorobenzene	ND		170	1	03/09/11 18:39	GY	5741164
1,2-Dichlorobenzene	ND		170	1	03/09/11 18:39	GY	5741164
1,2-Diphenylhydrazine	ND		170	1	03/09/11 18:39	GY	5741164
1,3-Dichlorobenzene	ND		170	1	03/09/11 18:39	GY	5741164
1,4-Dichlorobenzene	ND		170	1	03/09/11 18:39	GY	5741164
2,4,5-Trichlorophenol	ND		170	1	03/09/11 18:39	GY	5741164
2,4,6-Trichlorophenol	ND		170	1	03/09/11 18:39	GY	5741164
2,4-Dichlorophenol	ND		170	1	03/09/11 18:39	GY	5741164
2,4-Dimethylphenol	ND		170	1	03/09/11 18:39	GY	5741164
2,4-Dinitrophenol	ND		170	1	03/09/11 18:39	GY	5741164
2,4-Dinitrotoluene	ND		170	1	03/09/11 18:39	GY	5741164
2-Chloronaphthalene	ND		170	1	03/09/11 18:39	GY	5741164
2-Chlorophenol	ND		170	1	03/09/11 18:39	GY	5741164
2-Methylnaphthalene	ND		170	1	03/09/11 18:39	GY	5741164
2-Nitroaniline	ND		170	1	03/09/11 18:39	GY	5741164
2-Nitrophenol	ND		170	1	03/09/11 18:39	GY	5741164
3,3'-Dichlorobenzidine	ND		170	1	03/09/11 18:39	GY	5741164
3-Nitroaniline	ND		170	1	03/09/11 18:39	GY	5741164
4,6-Dinitro-2-methylphenol	ND		170	1	03/09/11 18:39	GY	5741164
4-Bromophenyl phenyl ether	ND		170	1	03/09/11 18:39	GY	5741164
4-Chloro-3-methylphenol	ND		170	1	03/09/11 18:39	GY	5741164
4-Chloroaniline	ND		170	1	03/09/11 18:39	GY	5741164
4-Chlorophenyl phenyl ether	ND		170	1	03/09/11 18:39	GY	5741164
4-Nitroaniline	ND		170	1	03/09/11 18:39	GY	5741164
4-Nitrophenol	ND		170	1	03/09/11 18:39	GY	5741164
Acenaphthene	ND		170	1	03/09/11 18:39	GY	5741164
Acenaphthylene	ND		170	1	03/09/11 18:39	GY	5741164
Aniline	ND		170	1	03/09/11 18:39	GY	5741164
Anthracene	ND		170	1	03/09/11 18:39	GY	5741164
Benz(a)anthracene	ND		170	1	03/09/11 18:39	GY	5741164
Benzo(a)pyrene	ND		170	1	03/09/11 18:39	GY	5741164
Benzo(b)fluoranthene	ND		170	1	03/09/11 18:39	GY	5741164
Benzo(g,h,i)perylene	ND		170	1	03/09/11 18:39	GY	5741164
Benzo(k)fluoranthene	ND		170	1	03/09/11 18:39	GY	5741164
Benzoic acid	ND		670	1	03/09/11 18:39	GY	5741164

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 46  
3/23/2011 2:36:51 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-3(106-108)

Collected: 03/02/2011 8:27

SPL Sample ID: 11030212-06

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Benzyl alcohol	ND		170	1	03/09/11 18:39	GY	5741164
Bis(2-chloroethoxy)methane	ND		170	1	03/09/11 18:39	GY	5741164
Bis(2-chloroethyl)ether	ND		170	1	03/09/11 18:39	GY	5741164
Bis(2-chloroisopropyl)ether	ND		170	1	03/09/11 18:39	GY	5741164
Bis(2-ethylhexyl)phthalate	ND		170	1	03/09/11 18:39	GY	5741164
Butyl benzyl phthalate	ND		170	1	03/09/11 18:39	GY	5741164
Carbazole	ND		170	1	03/09/11 18:39	GY	5741164
Chrysene	ND		170	1	03/09/11 18:39	GY	5741164
Dibenz(a,h)anthracene	ND		170	1	03/09/11 18:39	GY	5741164
Dibenzofuran	ND		170	1	03/09/11 18:39	GY	5741164
Diethyl phthalate	ND		170	1	03/09/11 18:39	GY	5741164
Dimethyl phthalate	ND		170	1	03/09/11 18:39	GY	5741164
Di-n-butyl phthalate	ND		170	1	03/09/11 18:39	GY	5741164
Di-n-octyl phthalate	ND		170	1	03/09/11 18:39	GY	5741164
Fluoranthene	ND		170	1	03/09/11 18:39	GY	5741164
Fluorene	ND		170	1	03/09/11 18:39	GY	5741164
Hexachlorobenzene	ND		170	1	03/09/11 18:39	GY	5741164
Hexachlorobutadiene	ND		170	1	03/09/11 18:39	GY	5741164
Hexachlorocyclopentadiene	ND		170	1	03/09/11 18:39	GY	5741164
Hexachloroethane	ND		170	1	03/09/11 18:39	GY	5741164
Indeno(1,2,3-cd)pyrene	ND		170	1	03/09/11 18:39	GY	5741164
Isophorone	ND		170	1	03/09/11 18:39	GY	5741164
Naphthalene	ND		170	1	03/09/11 18:39	GY	5741164
Nitrobenzene	ND		170	1	03/09/11 18:39	GY	5741164
N-Nitrosodi-n-propylamine	ND		170	1	03/09/11 18:39	GY	5741164
N-Nitrosodiphenylamine	ND		330	1	03/09/11 18:39	GY	5741164
Pentachlorophenol	ND		170	1	03/09/11 18:39	GY	5741164
Phenanthrone	ND		170	1	03/09/11 18:39	GY	5741164
Phenol	ND		170	1	03/09/11 18:39	GY	5741164
Pyrene	ND		170	1	03/09/11 18:39	GY	5741164
Pyridine	ND		170	1	03/09/11 18:39	GY	5741164
2-Methylphenol	ND		170	1	03/09/11 18:39	GY	5741164
3 & 4-Methylphenol	ND		330	1	03/09/11 18:39	GY	5741164
Surr: 2,4,6-Tribromophenol	89.2	%	23-157	1	03/09/11 18:39	GY	5741164
Surr: 2-Fluorobiphenyl	58.4	%	15-140	1	03/09/11 18:39	GY	5741164
Surr: 2-Fluorophenol	54.4	%	15-122	1	03/09/11 18:39	GY	5741164
Surr: Nitrobenzene-d5	51.5	%	10-134	1	03/09/11 18:39	GY	5741164

Qualifiers: ND/U - Not Detected at the Reporting Limit

>MCL - Result Over Maximum Contamination Limit(MCL)

B - Analyte Detected In The Associated Method Blank

D - Surrogate Recovery Unreportable due to Dilution

\* - Surrogate Recovery Outside Advisable QC Limits

MI - Matrix Interference

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

11030212 Page 47

3/23/2011 2:36:51 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-3(106-108)

Collected: 03/02/2011 8:27

SPL Sample ID: 11030212-06

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Surr: Phenol-d5	59.6	%	10-123	1	03/09/11 18:39	GY	5741164
Surr: Terphenyl-d14	87.1	%	18-166	1	03/09/11 18:39	GY	5741164

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550C	03/09/2011 10:41	QMT	1.00

SPECIFIC CONDUCTANCE	MCL	SW9050	Units: umhos/cm
Specific Conductance	732	100	1 03/10/11 9:15 PAC 5741283

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 48  
3/23/2011 2:36:53 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-3(106-108)

Collected: 03/02/2011 8:27

SPL Sample ID: 11030212-06

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>VOLATILE ORGANICS BY METHOD 8260B</b>							
1,1,1,2-Tetrachloroethane	ND		5	1	03/09/11 18:49	D_R	5740800
1,1,1-Trichloroethane	ND		5	1	03/09/11 18:49	D_R	5740800
1,1,2,2-Tetrachloroethane	ND		5	1	03/09/11 18:49	D_R	5740800
1,1,2-Trichloroethane	ND		5	1	03/09/11 18:49	D_R	5740800
1,1-Dichloroethane	ND		5	1	03/09/11 18:49	D_R	5740800
1,1-Dichloroethene	ND		5	1	03/09/11 18:49	D_R	5740800
1,1-Dichloropropene	ND		5	1	03/09/11 18:49	D_R	5740800
1,2,3-Trichlorobenzene	ND		5	1	03/09/11 18:49	D_R	5740800
1,2,3-Trichloropropane	ND		5	1	03/09/11 18:49	D_R	5740800
1,2,4-Trichlorobenzene	ND		5	1	03/09/11 18:49	D_R	5740800
1,2,4-Trimethylbenzene	ND		5	1	03/09/11 18:49	D_R	5740800
1,2-Dibromo-3-chloropropane	ND		5	1	03/09/11 18:49	D_R	5740800
1,2-Dibromoethane	ND		5	1	03/09/11 18:49	D_R	5740800
1,2-Dichlorobenzene	ND		5	1	03/09/11 18:49	D_R	5740800
1,2-Dichloroethane	ND		5	1	03/09/11 18:49	D_R	5740800
1,2-Dichloropropane	ND		5	1	03/09/11 18:49	D_R	5740800
1,3,5-Trimethylbenzene	ND		5	1	03/09/11 18:49	D_R	5740800
1,3-Dichlorobenzene	ND		5	1	03/09/11 18:49	D_R	5740800
1,3-Dichloropropane	ND		5	1	03/09/11 18:49	D_R	5740800
1,4-Dichlorobenzene	ND		5	1	03/09/11 18:49	D_R	5740800
2,2-Dichloropropane	ND		5	1	03/09/11 18:49	D_R	5740800
2-Butanone	ND		20	1	03/09/11 18:49	D_R	5740800
2-Chloroethyl vinyl ether	ND		10	1	03/09/11 18:49	D_R	5740800
2-Chlorotoluene	ND		5	1	03/09/11 18:49	D_R	5740800
2-Hexanone	ND		10	1	03/09/11 18:49	D_R	5740800
4-Chlorotoluene	ND		5	1	03/09/11 18:49	D_R	5740800
4-Isopropyltoluene	ND		5	1	03/09/11 18:49	D_R	5740800
4-Methyl-2-pentanone	ND		10	1	03/09/11 18:49	D_R	5740800
Acetone	ND		100	1	03/09/11 18:49	D_R	5740800
Acrylonitrile	ND		50	1	03/09/11 18:49	D_R	5740800
Benzene	ND		5	1	03/09/11 18:49	D_R	5740800
Bromobenzene	ND		5	1	03/09/11 18:49	D_R	5740800
Bromochloromethane	ND		5	1	03/09/11 18:49	D_R	5740800
Bromodichloromethane	ND		5	1	03/09/11 18:49	D_R	5740800
Bromoform	ND		5	1	03/09/11 18:49	D_R	5740800
Bromomethane	ND		10	1	03/09/11 18:49	D_R	5740800

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 49  
3/23/2011 2:36:54 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-3(106-108)

Collected: 03/02/2011 8:27

SPL Sample ID: 11030212-06

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Carbon disulfide	ND		5	1	03/09/11 18:49	D_R	5740800
Carbon tetrachloride	ND		5	1	03/09/11 18:49	D_R	5740800
Chlorobenzene	ND		5	1	03/09/11 18:49	D_R	5740800
Chloroethane	ND		10	1	03/09/11 18:49	D_R	5740800
Chloroform	ND		5	1	03/09/11 18:49	D_R	5740800
Chloromethane	ND		10	1	03/09/11 18:49	D_R	5740800
Dibromochloromethane	ND		5	1	03/09/11 18:49	D_R	5740800
Dibromomethane	ND		5	1	03/09/11 18:49	D_R	5740800
Dichlorodifluoromethane	ND		10	1	03/09/11 18:49	D_R	5740800
Ethylbenzene	ND		5	1	03/09/11 18:49	D_R	5740800
Hexachlorobutadiene	ND		5	1	03/09/11 18:49	D_R	5740800
Isopropylbenzene	ND		5	1	03/09/11 18:49	D_R	5740800
Methyl tert-butyl ether	ND		5	1	03/09/11 18:49	D_R	5740800
Methylene chloride	ND		5	1	03/09/11 18:49	D_R	5740800
Naphthalene	ND		5	1	03/09/11 18:49	D_R	5740800
n-Butylbenzene	ND		5	1	03/09/11 18:49	D_R	5740800
n-Propylbenzene	ND		5	1	03/09/11 18:49	D_R	5740800
sec-Butylbenzene	ND		5	1	03/09/11 18:49	D_R	5740800
Styrene	ND		5	1	03/09/11 18:49	D_R	5740800
tert-Butylbenzene	ND		5	1	03/09/11 18:49	D_R	5740800
Tetrachloroethene	ND		5	1	03/09/11 18:49	D_R	5740800
Toluene	ND		5	1	03/09/11 18:49	D_R	5740800
Trichloroethene	ND		5	1	03/09/11 18:49	D_R	5740800
Trichlorofluoromethane	ND		5	1	03/09/11 18:49	D_R	5740800
Vinyl acetate	ND		10	1	03/09/11 18:49	D_R	5740800
Vinyl chloride	ND		10	1	03/09/11 18:49	D_R	5740800
cis-1,2-Dichloroethene	ND		5	1	03/09/11 18:49	D_R	5740800
cis-1,3-Dichloropropene	ND		5	1	03/09/11 18:49	D_R	5740800
m,p-Xylene	ND		5	1	03/09/11 18:49	D_R	5740800
o-Xylene	ND		5	1	03/09/11 18:49	D_R	5740800
trans-1,2-Dichloroethene	ND		5	1	03/09/11 18:49	D_R	5740800
trans-1,3-Dichloropropene	ND		5	1	03/09/11 18:49	D_R	5740800
Xylenes, Total	ND		5	1	03/09/11 18:49	D_R	5740800
1,2-Dichloroethene (total)	ND		5	1	03/09/11 18:49	D_R	5740800
Surr: 1,2-Dichloroethane-d4	104	%	71-130	1	03/09/11 18:49	D_R	5740800
Surr: 4-Bromofluorobenzene	101	%	65-131	1	03/09/11 18:49	D_R	5740800
Surr: Toluene-d8	104	%	75-136	1	03/09/11 18:49	D_R	5740800

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 50  
3/23/2011 2:36:54 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-3(106-108)

Collected: 03/02/2011 8:27

SPL Sample ID: 11030212-06

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
-----------------	--------	------	-----------	-------------	---------------	---------	--------

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	03/09/2011 9:32	XML	1.00

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 51  
3/23/2011 2:36:54 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-1(50-52)

Collected: 03/03/2011 12:25 SPL Sample ID: 11030212-07

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
ALKALINITY (AS CACO3), TOTAL IN SOIL				MCL	M2320 B	Units: mg/Kg CaCO	
Alkalinity, Total (As CaCO3)	110		20	1	03/10/11 9:40	PAC	5741469
ALKALINITY, BICARBONATE				MCL	SM2320B	Units: mg/kg	
Alkalinity, Bicarbonate	110		20	1	03/10/11 9:40	PAC	5741495
ALKALINITY, CARBONATE				MCL	M2320 B	Units: mg/kg	
Alkalinity, Carbonate	ND		20	1	03/10/11 9:40	PAC	5741530
DIESEL RANGE ORGANICS				MCL	SW8015B	Units: mg/kg	
Diesel Range Organics (C10-C28)	110		5	1	03/15/11 19:26	NW	5745704
Surr: n-Pentacosane	88.5	%	20-154	1	03/15/11 19:26	NW	5745704

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	03/09/2011 15:16	QMT	1.00

GASOLINE RANGE ORGANICS			MCL	SW8015B	Units: mg/kg		
Gasoline Range Organics	68		5	50	03/10/11 5:15	WLV	5740992
Surr: 1,4-Difluorobenzene	89.1	%	63-142	50	03/10/11 5:15	WLV	5740992
Surr: 4-Bromofluorobenzene	132	%	50-159	50	03/10/11 5:15	WLV	5740992

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	03/09/2011 10:00	XML	1.00

ION CHROMATOGRAPHY			MCL	E300.0 MOD	Units: mg/kg		
Bromide	ND		5	1	03/11/11 2:17	ESK	5741752
Chloride	24.9		5	1	03/11/11 2:17	ESK	5741752
Fluoride	ND		5	1	03/11/11 2:17	ESK	5741752
Ortho-phosphate (As P)	ND		5	1	03/14/11 15:11	ESK	5743758
Sulfate	106		5	1	03/11/11 2:17	ESK	5741752
Nitrogen,Nitrate (As N)	184		5	1	03/11/11 2:17	ESK	5741782
Nitrogen,Nitrite (As N)	ND		5	1	03/11/11 2:17	ESK	5741782

MERCURY, TOTAL			MCL	SW7471A	Units: mg/kg		
Mercury	ND		0.033	1	03/16/11 13:07	F_S	5744879

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7471A	03/16/2011 9:00	M_B	1.00

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 52  
3/23/2011 2:36:57 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-1(50-52)

Collected: 03/03/2011 12:25 SPL Sample ID: 11030212-07

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>METALS BY METHOD 6010B, TOTAL</b>							
Aluminum	5550		10	1	03/09/11 16:44	R_V	5740631
Arsenic	2.51		0.5	1	03/09/11 16:44	R_V	5740631
Barium	217		0.5	1	03/09/11 16:44	R_V	5740631
Boron	ND		10	1	03/09/11 16:44	R_V	5740631
Cadmium	ND		0.5	1	03/09/11 16:44	R_V	5740631
Chromium	4.36		0.5	1	03/09/11 16:44	R_V	5740631
Cobalt	4.35		0.5	1	03/09/11 16:44	R_V	5740631
Iron	7820		2	1	03/09/11 16:44	R_V	5740631
Lead	6.56		0.5	1	03/09/11 16:44	R_V	5740631
Manganese	247		0.5	1	03/09/11 16:44	R_V	5740631
Molybdenum	ND		0.5	1	03/09/11 16:44	R_V	5740631
Nickel	5.49		0.5	1	03/09/11 16:44	R_V	5740631
Selenium	ND		0.5	1	03/09/11 16:44	R_V	5740631
Silver	ND		0.5	1	03/09/11 16:44	R_V	5740631
Zinc	20.8		1	1	03/09/11 16:44	R_V	5740631

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3050B	03/09/2011 10:00	M_B	1.00

PH	MCL	SW9045C	Units: pH Units
pH	8.2	0.1	1 03/09/11 9:45 PAC 5739757

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 53  
3/23/2011 2:36:58 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-1(50-52)

Collected: 03/03/2011 12:25 SPL Sample ID: 11030212-07

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>SEMIVOLATILE ORGANICS BY METHOD 8270C</b>							
1,2,4-Trichlorobenzene	ND		170	1	03/09/11 19:13	GY	5741165
1,2-Dichlorobenzene	ND		170	1	03/09/11 19:13	GY	5741165
1,2-Diphenylhydrazine	ND		170	1	03/09/11 19:13	GY	5741165
1,3-Dichlorobenzene	ND		170	1	03/09/11 19:13	GY	5741165
1,4-Dichlorobenzene	ND		170	1	03/09/11 19:13	GY	5741165
2,4,5-Trichlorophenol	ND		170	1	03/09/11 19:13	GY	5741165
2,4,6-Trichlorophenol	ND		170	1	03/09/11 19:13	GY	5741165
2,4-Dichlorophenol	ND		170	1	03/09/11 19:13	GY	5741165
2,4-Dimethylphenol	ND		170	1	03/09/11 19:13	GY	5741165
2,4-Dinitrophenol	ND		170	1	03/09/11 19:13	GY	5741165
2,4-Dinitrotoluene	ND		170	1	03/09/11 19:13	GY	5741165
2,6-Dinitrotoluene	ND		170	1	03/09/11 19:13	GY	5741165
2-Chloronaphthalene	ND		170	1	03/09/11 19:13	GY	5741165
2-Chlorophenol	ND		170	1	03/09/11 19:13	GY	5741165
2-Methylnaphthalene	ND		170	1	03/09/11 19:13	GY	5741165
2-Nitroaniline	ND		170	1	03/09/11 19:13	GY	5741165
2-Nitrophenol	ND		170	1	03/09/11 19:13	GY	5741165
3,3'-Dichlorobenzidine	ND		170	1	03/09/11 19:13	GY	5741165
3-Nitroaniline	ND		170	1	03/09/11 19:13	GY	5741165
4,6-Dinitro-2-methylphenol	ND		170	1	03/09/11 19:13	GY	5741165
4-Bromophenyl phenyl ether	ND		170	1	03/09/11 19:13	GY	5741165
4-Chloro-3-methylphenol	ND		170	1	03/09/11 19:13	GY	5741165
4-Chloroaniline	ND		170	1	03/09/11 19:13	GY	5741165
4-Chlorophenyl phenyl ether	ND		170	1	03/09/11 19:13	GY	5741165
4-Nitroaniline	ND		170	1	03/09/11 19:13	GY	5741165
4-Nitrophenol	ND		170	1	03/09/11 19:13	GY	5741165
Acenaphthene	ND		170	1	03/09/11 19:13	GY	5741165
Acenaphthylene	ND		170	1	03/09/11 19:13	GY	5741165
Aniline	ND		170	1	03/09/11 19:13	GY	5741165
Anthracene	ND		170	1	03/09/11 19:13	GY	5741165
Benz(a)anthracene	ND		170	1	03/09/11 19:13	GY	5741165
Benzo(a)pyrene	ND		170	1	03/09/11 19:13	GY	5741165
Benzo(b)fluoranthene	ND		170	1	03/09/11 19:13	GY	5741165
Benzo(g,h,i)perylene	ND		170	1	03/09/11 19:13	GY	5741165
Benzo(k)fluoranthene	ND		170	1	03/09/11 19:13	GY	5741165
Benzoic acid	ND		670	1	03/09/11 19:13	GY	5741165

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 54  
3/23/2011 2:36:58 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-1(50-52)

Collected: 03/03/2011 12:25 SPL Sample ID: 11030212-07

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Benzyl alcohol	190		170	1	03/09/11 19:13	GY	5741165
Bis(2-chloroethoxy)methane	ND		170	1	03/09/11 19:13	GY	5741165
Bis(2-chloroethyl)ether	ND		170	1	03/09/11 19:13	GY	5741165
Bis(2-chloroisopropyl)ether	ND		170	1	03/09/11 19:13	GY	5741165
Bis(2-ethylhexyl)phthalate	ND		170	1	03/09/11 19:13	GY	5741165
Butyl benzyl phthalate	ND		170	1	03/09/11 19:13	GY	5741165
Carbazole	ND		170	1	03/09/11 19:13	GY	5741165
Chrysene	ND		170	1	03/09/11 19:13	GY	5741165
Dibenz(a,h)anthracene	ND		170	1	03/09/11 19:13	GY	5741165
Dibenzofuran	ND		170	1	03/09/11 19:13	GY	5741165
Diethyl phthalate	ND		170	1	03/09/11 19:13	GY	5741165
Dimethyl phthalate	ND		170	1	03/09/11 19:13	GY	5741165
Di-n-butyl phthalate	ND		170	1	03/09/11 19:13	GY	5741165
Di-n-octyl phthalate	ND		170	1	03/09/11 19:13	GY	5741165
Fluoranthene	ND		170	1	03/09/11 19:13	GY	5741165
Fluorene	ND		170	1	03/09/11 19:13	GY	5741165
Hexachlorobenzene	ND		170	1	03/09/11 19:13	GY	5741165
Hexachlorobutadiene	ND		170	1	03/09/11 19:13	GY	5741165
Hexachlorocyclopentadiene	ND		170	1	03/09/11 19:13	GY	5741165
Hexachloroethane	ND		170	1	03/09/11 19:13	GY	5741165
Indeno(1,2,3-cd)pyrene	ND		170	1	03/09/11 19:13	GY	5741165
Isophorone	ND		170	1	03/09/11 19:13	GY	5741165
Naphthalene	ND		170	1	03/09/11 19:13	GY	5741165
Nitrobenzene	ND		170	1	03/09/11 19:13	GY	5741165
N-Nitrosodi-n-propylamine	ND		170	1	03/09/11 19:13	GY	5741165
N-Nitrosodiphenylamine	ND		330	1	03/09/11 19:13	GY	5741165
Pentachlorophenol	ND		170	1	03/09/11 19:13	GY	5741165
Phenanthrene	ND		170	1	03/09/11 19:13	GY	5741165
Phenol	ND		170	1	03/09/11 19:13	GY	5741165
Pyrene	ND		170	1	03/09/11 19:13	GY	5741165
Pyridine	ND		170	1	03/09/11 19:13	GY	5741165
2-Methylphenol	ND		170	1	03/09/11 19:13	GY	5741165
3 & 4-Methylphenol	ND		330	1	03/09/11 19:13	GY	5741165
Surr: 2,4,6-Tribromophenol	98.0	%	23-157	1	03/09/11 19:13	GY	5741165
Surr: 2-Fluorobiphenyl	62.4	%	15-140	1	03/09/11 19:13	GY	5741165
Surr: 2-Fluorophenol	58.4	%	15-122	1	03/09/11 19:13	GY	5741165
Surr: Nitrobenzene-d5	58.0	%	10-134	1	03/09/11 19:13	GY	5741165

Qualifiers: ND/U - Not Detected at the Reporting Limit

>MCL - Result Over Maximum Contamination Limit(MCL)

B - Analyte Detected In The Associated Method Blank

D - Surrogate Recovery Unreportable due to Dilution

\* - Surrogate Recovery Outside Advisable QC Limits

MI - Matrix Interference

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

11030212 Page 55

3/23/2011 2:36:59 PM



**SPL ENVIRONMENTAL**  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-1(50-52)

Collected: 03/03/2011 12:25 SPL Sample ID: 11030212-07

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Surr: Phenol-d5	64.8	%	10-123	1	03/09/11 19:13	GY	5741165
Surr: Terphenyl-d14	84.7	%	18-166	1	03/09/11 19:13	GY	5741165

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550C	03/09/2011 10:41	QMT	1.00

SPECIFIC CONDUCTANCE	MCL	SW9050	Units: umhos/cm
Specific Conductance	2280	100	1 03/10/11 9:15 PAC 5741284

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 56  
3/23/2011 2:37:00 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-1(50-52)

Collected: 03/03/2011 12:25 SPL Sample ID: 11030212-07

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>VOLATILE ORGANICS BY METHOD 8260B</b>							
1,1,1,2-Tetrachloroethane	ND		250	50	03/10/11 16:58	LU_L	5741885
1,1,1-Trichloroethane	ND		250	50	03/10/11 16:58	LU_L	5741885
1,1,2,2-Tetrachloroethane	ND		250	50	03/10/11 16:58	LU_L	5741885
1,1,2-Trichloroethane	ND		250	50	03/10/11 16:58	LU_L	5741885
1,1-Dichloroethane	ND		250	50	03/10/11 16:58	LU_L	5741885
1,1-Dichloroethene	ND		250	50	03/10/11 16:58	LU_L	5741885
1,1-Dichloropropene	ND		250	50	03/10/11 16:58	LU_L	5741885
1,2,3-Trichlorobenzene	ND		250	50	03/10/11 16:58	LU_L	5741885
1,2,3-Trichloropropane	ND		250	50	03/10/11 16:58	LU_L	5741885
1,2,4-Trichlorobenzene	ND		250	50	03/10/11 16:58	LU_L	5741885
1,2,4-Trimethylbenzene	3400		250	50	03/10/11 16:58	LU_L	5741885
1,2-Dibromo-3-chloropropane	ND		250	50	03/10/11 16:58	LU_L	5741885
1,2-Dibromoethane	ND		250	50	03/10/11 16:58	LU_L	5741885
1,2-Dichlorobenzene	ND		250	50	03/10/11 16:58	LU_L	5741885
1,2-Dichloroethane	ND		250	50	03/10/11 16:58	LU_L	5741885
1,2-Dichloropropane	ND		250	50	03/10/11 16:58	LU_L	5741885
1,3,5-Trimethylbenzene	2700		250	50	03/10/11 16:58	LU_L	5741885
1,3-Dichlorobenzene	ND		250	50	03/10/11 16:58	LU_L	5741885
1,3-Dichloropropane	ND		250	50	03/10/11 16:58	LU_L	5741885
1,4-Dichlorobenzene	ND		250	50	03/10/11 16:58	LU_L	5741885
2,2-Dichloropropane	ND		250	50	03/10/11 16:58	LU_L	5741885
2-Butanone	ND		1000	50	03/10/11 16:58	LU_L	5741885
2-Chloroethyl vinyl ether	ND		500	50	03/10/11 16:58	LU_L	5741885
2-Chlorotoluene	ND		250	50	03/10/11 16:58	LU_L	5741885
2-Hexanone	ND		500	50	03/10/11 16:58	LU_L	5741885
4-Chlorotoluene	ND		250	50	03/10/11 16:58	LU_L	5741885
4-Isopropyltoluene	ND		250	50	03/10/11 16:58	LU_L	5741885
4-Methyl-2-pentanone	ND		500	50	03/10/11 16:58	LU_L	5741885
Acetone	ND		5000	50	03/10/11 16:58	LU_L	5741885
Acrylonitrile	ND		2500	50	03/10/11 16:58	LU_L	5741885
Benzene	ND		250	50	03/10/11 16:58	LU_L	5741885
Bromobenzene	ND		250	50	03/10/11 16:58	LU_L	5741885
Bromochloromethane	ND		250	50	03/10/11 16:58	LU_L	5741885
Bromodichloromethane	ND		250	50	03/10/11 16:58	LU_L	5741885
Bromoform	ND		250	50	03/10/11 16:58	LU_L	5741885
Bromomethane	ND		500	50	03/10/11 16:58	LU_L	5741885

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-1(50-52)

Collected: 03/03/2011 12:25

SPL Sample ID: 11030212-07

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Carbon disulfide	ND		250	50	03/10/11 16:58	LU_L	5741885
Carbon tetrachloride	ND		250	50	03/10/11 16:58	LU_L	5741885
Chlorobenzene	ND		250	50	03/10/11 16:58	LU_L	5741885
Chloroethane	ND		500	50	03/10/11 16:58	LU_L	5741885
Chloroform	ND		250	50	03/10/11 16:58	LU_L	5741885
Chloromethane	ND		500	50	03/10/11 16:58	LU_L	5741885
Dibromochloromethane	ND		250	50	03/10/11 16:58	LU_L	5741885
Dibromomethane	ND		250	50	03/10/11 16:58	LU_L	5741885
Dichlorodifluoromethane	ND		500	50	03/10/11 16:58	LU_L	5741885
Ethylbenzene	ND		250	50	03/10/11 16:58	LU_L	5741885
Hexachlorobutadiene	ND		250	50	03/10/11 16:58	LU_L	5741885
Isopropylbenzene	ND		250	50	03/10/11 16:58	LU_L	5741885
Methyl tert-butyl ether	ND		250	50	03/10/11 16:58	LU_L	5741885
Methylene chloride	ND		250	50	03/10/11 16:58	LU_L	5741885
Naphthalene	370		250	50	03/10/11 16:58	LU_L	5741885
n-Butylbenzene	ND		250	50	03/10/11 16:58	LU_L	5741885
n-Propylbenzene	320		250	50	03/10/11 16:58	LU_L	5741885
sec-Butylbenzene	ND		250	50	03/10/11 16:58	LU_L	5741885
Styrene	ND		250	50	03/10/11 16:58	LU_L	5741885
tert-Butylbenzene	ND		250	50	03/10/11 16:58	LU_L	5741885
Tetrachloroethene	ND		250	50	03/10/11 16:58	LU_L	5741885
Toluene	ND		250	50	03/10/11 16:58	LU_L	5741885
Trichloroethene	ND		250	50	03/10/11 16:58	LU_L	5741885
Trichlorofluoromethane	ND		250	50	03/10/11 16:58	LU_L	5741885
Vinyl acetate	ND		500	50	03/10/11 16:58	LU_L	5741885
Vinyl chloride	ND		500	50	03/10/11 16:58	LU_L	5741885
cis-1,2-Dichloroethene	ND		250	50	03/10/11 16:58	LU_L	5741885
cis-1,3-Dichloropropene	ND		250	50	03/10/11 16:58	LU_L	5741885
m,p-Xylene	3400		250	50	03/10/11 16:58	LU_L	5741885
o-Xylene	1000		250	50	03/10/11 16:58	LU_L	5741885
trans-1,2-Dichloroethene	ND		250	50	03/10/11 16:58	LU_L	5741885
trans-1,3-Dichloropropene	ND		250	50	03/10/11 16:58	LU_L	5741885
Xylenes, Total	4400		250	50	03/10/11 16:58	LU_L	5741885
1,2-Dichloroethene (total)	ND		250	50	03/10/11 16:58	LU_L	5741885
Surr: 1,2-Dichloroethane-d4	90.7	%	78-116	50	03/10/11 16:58	LU_L	5741885
Surr: 4-Bromofluorobenzene	98.8	%	74-125	50	03/10/11 16:58	LU_L	5741885
Surr: Toluene-d8	104	%	82-118	50	03/10/11 16:58	LU_L	5741885

Qualifiers: ND/U - Not Detected at the Reporting Limit

>MCL - Result.Over Maximum Contamination Limit(MCL)

B - Analyte Detected In The Associated Method Blank

D - Surrogate Recovery Unreportable due to Dilution

\* - Surrogate Recovery Outside Advisable QC Limits

MI - Matrix Interference

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

11030212 Page 58

3/23/2011 2:37:01 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-1(50-52)

Collected: 03/03/2011 12:25 SPL Sample ID: 11030212-07

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
-----------------	--------	------	-----------	-------------	---------------	---------	--------

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	03/09/2011 9:58	XML	1.00

**Qualifiers:**  
ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 59  
3/23/2011 2:37:01 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW1(114-116)

Collected: 03/03/2011 13:53

SPL Sample ID: 11030212-08

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
ALKALINITY (AS CACO3), TOTAL IN SOIL				MCL	M2320 B	Units: mg/Kg CaCO	
Alkalinity, Total (As CaCO3)	280		20	1	03/10/11 9:40	PAC	5741470
ALKALINITY, BICARBONATE				MCL	SM2320B	Units: mg/kg	
Alkalinity, Bicarbonate	280		20	1	03/10/11 9:40	PAC	5741496
ALKALINITY, CARBONATE				MCL	M2320 B	Units: mg/kg	
Alkalinity, Carbonate	ND		20	1	03/10/11 9:40	PAC	5741531
DIESEL RANGE ORGANICS				MCL	SW8015B	Units: mg/kg	
Diesel Range Organics (C10-C28)	ND		5	1	03/15/11 19:46	NW	5745705
Surr: n-Pentacosane	107	%	20-154	1	03/15/11 19:46	NW	5745705

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	03/09/2011 15:16	QMT	1.00

GASOLINE RANGE ORGANICS				MCL	SW8015B	Units: mg/kg	
Gasoline Range Organics	0.73		0.1	1	03/10/11 3:49	WLV	5740990
Surr: 1,4-Difluorobenzene	103	%	63-142	1	03/10/11 3:49	WLV	5740990
Surr: 4-Bromofluorobenzene	129	%	50-159	1	03/10/11 3:49	WLV	5740990

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	03/09/2011 9:37	XML	1.00

ION CHROMATOGRAPHY				MCL	E300.0 MOD	Units: mg/kg	
Bromide	ND		5	1	03/11/11 2:34	ESK	5741753
Chloride	20.1		5	1	03/11/11 2:34	ESK	5741753
Fluoride	ND		5	1	03/11/11 2:34	ESK	5741753
Ortho-phosphate (As P)	ND		5	1	03/14/11 15:28	ESK	5743759
Sulfate	158		5	1	03/12/11 12:41	ESK	5742877
Nitrogen,Nitrate (As N)	ND		5	1	03/11/11 2:34	ESK	5741783
Nitrogen,Nitrite (As N)	ND		5	1	03/11/11 2:34	ESK	5741783

MERCURY, TOTAL				MCL	SW7471A	Units: mg/kg	
Mercury	0.0415		0.033	1	03/16/11 13:09	F_S	5744880

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7471A	03/16/2011 9:00	M_B	1.00

Qualifiers:	ND/U - Not Detected at the Reporting Limit	>MCL - Result Over Maximum Contamination Limit(MCL)
	B - Analyte Detected In The Associated Method Blank	D - Surrogate Recovery Unreportable due to Dilution
	* - Surrogate Recovery Outside Advisable QC Limits	MI - Matrix Interference
	J - Estimated value between MDL and PQL	
	E - Estimated Value exceeds calibration curve	
	TNTC - Too numerous to count	



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW1(114-116)

Collected: 03/03/2011 13:53 SPL Sample ID: 11030212-08

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>METALS BY METHOD 6010B, TOTAL</b>							
Aluminum	7180		10	1	03/09/11 16:50	R_V	5740632
Arsenic	3.75		0.5	1	03/09/11 16:50	R_V	5740632
Barium	344		0.5	1	03/09/11 16:50	R_V	5740632
Boron	ND		10	1	03/09/11 16:50	R_V	5740632
Cadmium	ND		0.5	1	03/09/11 16:50	R_V	5740632
Chromium	5.03		0.5	1	03/09/11 16:50	R_V	5740632
Cobalt	3.8		0.5	1	03/09/11 16:50	R_V	5740632
Iron	7820		2	1	03/09/11 16:50	R_V	5740632
Lead	9.23		0.5	1	03/09/11 16:50	R_V	5740632
Manganese	264		0.5	1	03/09/11 16:50	R_V	5740632
Molybdenum	ND		0.5	1	03/09/11 16:50	R_V	5740632
Nickel	5.75		0.5	1	03/09/11 16:50	R_V	5740632
Selenium	0.57		0.5	1	03/10/11 13:11	R_V	5741786
Silver	ND		0.5	1	03/09/11 16:50	R_V	5740632
Zinc	24.3		1	1	03/09/11 16:50	R_V	5740632

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3050B	03/09/2011 10:00	M_B	1.00

PH	MCL	SW9045C	Units: pH Units
pH	9.38	0.1	1 03/09/11 9:45 PAC 5739758

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 61  
3/23/2011 2:37:05 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW1(114-116)

Collected: 03/03/2011 13:53 SPL Sample ID: 11030212-08

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>SEMIVOLATILE ORGANICS BY METHOD 8270C</b>							
1,2,4-Trichlorobenzene	ND		170	1	03/09/11 19:47	GY	5741166
1,2-Dichlorobenzene	ND		170	1	03/09/11 19:47	GY	5741166
1,2-Diphenylhydrazine	ND		170	1	03/09/11 19:47	GY	5741166
1,3-Dichlorobenzene	ND		170	1	03/09/11 19:47	GY	5741166
1,4-Dichlorobenzene	ND		170	1	03/09/11 19:47	GY	5741166
2,4,5-Trichlorophenol	ND		170	1	03/09/11 19:47	GY	5741166
2,4,6-Trichlorophenol	ND		170	1	03/09/11 19:47	GY	5741166
2,4-Dichlorophenol	ND		170	1	03/09/11 19:47	GY	5741166
2,4-Dimethylphenol	ND		170	1	03/09/11 19:47	GY	5741166
2,4-Dinitrophenol	ND		170	1	03/09/11 19:47	GY	5741166
2,4-Dinitrotoluene	ND		170	1	03/09/11 19:47	GY	5741166
2,6-Dinitrotoluene	ND		170	1	03/09/11 19:47	GY	5741166
2-Chloronaphthalene	ND		170	1	03/09/11 19:47	GY	5741166
2-Chlorophenol	ND		170	1	03/09/11 19:47	GY	5741166
2-Methylnaphthalene	ND		170	1	03/09/11 19:47	GY	5741166
2-Nitroaniline	ND		170	1	03/09/11 19:47	GY	5741166
2-Nitrophenol	ND		170	1	03/09/11 19:47	GY	5741166
3,3'-Dichlorobenzidine	ND		170	1	03/09/11 19:47	GY	5741166
3-Nitroaniline	ND		170	1	03/09/11 19:47	GY	5741166
4,6-Dinitro-2-methylphenol	ND		170	1	03/09/11 19:47	GY	5741166
4-Bromophenyl phenyl ether	ND		170	1	03/09/11 19:47	GY	5741166
4-Chloro-3-methylphenol	ND		170	1	03/09/11 19:47	GY	5741166
4-Chloroaniline	ND		170	1	03/09/11 19:47	GY	5741166
4-Chlorophenyl phenyl ether	ND		170	1	03/09/11 19:47	GY	5741166
4-Nitroaniline	ND		170	1	03/09/11 19:47	GY	5741166
4-Nitrophenol	ND		170	1	03/09/11 19:47	GY	5741166
Acenaphthene	ND		170	1	03/09/11 19:47	GY	5741166
Acenaphthylene	ND		170	1	03/09/11 19:47	GY	5741166
Aniline	ND		170	1	03/09/11 19:47	GY	5741166
Anthracene	ND		170	1	03/09/11 19:47	GY	5741166
Benz(a)anthracene	ND		170	1	03/09/11 19:47	GY	5741166
Benzo(a)pyrene	ND		170	1	03/09/11 19:47	GY	5741166
Benzo(b)fluoranthene	ND		170	1	03/09/11 19:47	GY	5741166
Benzo(g,h,i)perylene	ND		170	1	03/09/11 19:47	GY	5741166
Benzo(k)fluoranthene	ND		170	1	03/09/11 19:47	GY	5741166
Benzoic acid	ND		670	1	03/09/11 19:47	GY	5741166

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 62  
3/23/2011 2:37:05 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW1(114-116)

Collected: 03/03/2011 13:53 SPL Sample ID: 11030212-08

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Benzyl alcohol	ND		170	1	03/09/11 19:47	GY	5741166
Bis(2-chloroethoxy)methane	ND		170	1	03/09/11 19:47	GY	5741166
Bis(2-chloroethyl)ether	ND		170	1	03/09/11 19:47	GY	5741166
Bis(2-chloroisopropyl)ether	ND		170	1	03/09/11 19:47	GY	5741166
Bis(2-ethylhexyl)phthalate	ND		170	1	03/09/11 19:47	GY	5741166
Butyl benzyl phthalate	ND		170	1	03/09/11 19:47	GY	5741166
Carbazole	ND		170	1	03/09/11 19:47	GY	5741166
Chrysene	ND		170	1	03/09/11 19:47	GY	5741166
Dibenz(a,h)anthracene	ND		170	1	03/09/11 19:47	GY	5741166
Dibenzofuran	ND		170	1	03/09/11 19:47	GY	5741166
Diethyl phthalate	ND		170	1	03/09/11 19:47	GY	5741166
Dimethyl phthalate	ND		170	1	03/09/11 19:47	GY	5741166
Di-n-butyl phthalate	ND		170	1	03/09/11 19:47	GY	5741166
Di-n-octyl phthalate	ND		170	1	03/09/11 19:47	GY	5741166
Fluoranthene	ND		170	1	03/09/11 19:47	GY	5741166
Fluorene	ND		170	1	03/09/11 19:47	GY	5741166
Hexachlorobenzene	ND		170	1	03/09/11 19:47	GY	5741166
Hexachlorobutadiene	ND		170	1	03/09/11 19:47	GY	5741166
Hexachlorocyclopentadiene	ND		170	1	03/09/11 19:47	GY	5741166
Hexachloroethane	ND		170	1	03/09/11 19:47	GY	5741166
Indeno(1,2,3-cd)pyrene	ND		170	1	03/09/11 19:47	GY	5741166
Isophorone	ND		170	1	03/09/11 19:47	GY	5741166
Naphthalene	ND		170	1	03/09/11 19:47	GY	5741166
Nitrobenzene	ND		170	1	03/09/11 19:47	GY	5741166
N-Nitrosodi-n-propylamine	ND		170	1	03/09/11 19:47	GY	5741166
N-Nitrosodiphenylamine	ND		330	1	03/09/11 19:47	GY	5741166
Pentachlorophenol	ND		170	1	03/09/11 19:47	GY	5741166
Phenanthrone	ND		170	1	03/09/11 19:47	GY	5741166
Phenol	ND		170	1	03/09/11 19:47	GY	5741166
Pyrene	ND		170	1	03/09/11 19:47	GY	5741166
Pyridine	ND		170	1	03/09/11 19:47	GY	5741166
2-Methylphenol	ND		170	1	03/09/11 19:47	GY	5741166
3 & 4-Methylphenol	ND		330	1	03/09/11 19:47	GY	5741166
Surr: 2,4,6-Tribromophenol	95.2	%	23-157	1	03/09/11 19:47	GY	5741166
Surr: 2-Fluorobiphenyl	61.2	%	15-140	1	03/09/11 19:47	GY	5741166
Surr: 2-Fluorophenol	60.4	%	15-122	1	03/09/11 19:47	GY	5741166
Surr: Nitrobenzene-d5	58.2	%	10-134	1	03/09/11 19:47	GY	5741166

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW1(114-116)

Collected: 03/03/2011 13:53

SPL Sample ID: 11030212-08

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Surr: Phenol-d5	64.8	%	10-123	1	03/09/11 19:47	GY	5741166
Surr: Terphenyl-d14	87.6	%	18-166	1	03/09/11 19:47	GY	5741166

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550C	03/09/2011 10:41	QMT	1.00

SPECIFIC CONDUCTANCE	MCL	SW9050	Units: umhos/cm
Specific Conductance	1180	100	1 03/10/11 9:15 PAC 5741285

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 64  
3/23/2011 2:37:07 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW1(114-116)

Collected: 03/03/2011 13:53 SPL Sample ID: 11030212-08

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>VOLATILE ORGANICS BY METHOD 8260B</b>							
1,1,1,2-Tetrachloroethane	ND		5	1	03/09/11 19:11	D_R	5740801
1,1,1-Trichloroethane	ND		5	1	03/09/11 19:11	D_R	5740801
1,1,2,2-Tetrachloroethane	ND		5	1	03/09/11 19:11	D_R	5740801
1,1,2-Trichloroethane	ND		5	1	03/09/11 19:11	D_R	5740801
1,1-Dichloroethane	ND		5	1	03/09/11 19:11	D_R	5740801
1,1-Dichloroethene	ND		5	1	03/09/11 19:11	D_R	5740801
1,1-Dichloropropene	ND		5	1	03/09/11 19:11	D_R	5740801
1,2,3-Trichlorobenzene	ND		5	1	03/09/11 19:11	D_R	5740801
1,2,3-Trichloropropane	ND		5	1	03/09/11 19:11	D_R	5740801
1,2,4-Trichlorobenzene	ND		5	1	03/09/11 19:11	D_R	5740801
1,2,4-Trimethylbenzene	ND		5	1	03/09/11 19:11	D_R	5740801
1,2-Dibromo-3-chloropropane	ND		5	1	03/09/11 19:11	D_R	5740801
1,2-Dibromoethane	ND		5	1	03/09/11 19:11	D_R	5740801
1,2-Dichlorobenzene	ND		5	1	03/09/11 19:11	D_R	5740801
1,2-Dichloroethane	ND		5	1	03/09/11 19:11	D_R	5740801
1,2-Dichloropropane	ND		5	1	03/09/11 19:11	D_R	5740801
1,3,5-Trimethylbenzene	ND		5	1	03/09/11 19:11	D_R	5740801
1,3-Dichlorobenzene	ND		5	1	03/09/11 19:11	D_R	5740801
1,3-Dichloropropane	ND		5	1	03/09/11 19:11	D_R	5740801
1,4-Dichlorobenzene	ND		5	1	03/09/11 19:11	D_R	5740801
2,2-Dichloropropane	ND		5	1	03/09/11 19:11	D_R	5740801
2-Butanone	ND		20	1	03/09/11 19:11	D_R	5740801
2-Chloroethyl vinyl ether	ND		10	1	03/09/11 19:11	D_R	5740801
2-Chlorotoluene	ND		5	1	03/09/11 19:11	D_R	5740801
2-Hexanone	ND		10	1	03/09/11 19:11	D_R	5740801
4-Chlorotoluene	ND		5	1	03/09/11 19:11	D_R	5740801
4-Isopropyltoluene	ND		5	1	03/09/11 19:11	D_R	5740801
4-Methyl-2-pentanone	ND		10	1	03/09/11 19:11	D_R	5740801
Acetone	ND		100	1	03/09/11 19:11	D_R	5740801
Acrylonitrile	ND		50	1	03/09/11 19:11	D_R	5740801
Benzene	ND		5	1	03/09/11 19:11	D_R	5740801
Bromobenzene	ND		5	1	03/09/11 19:11	D_R	5740801
Bromochloromethane	ND		5	1	03/09/11 19:11	D_R	5740801
Bromodichloromethane	ND		5	1	03/09/11 19:11	D_R	5740801
Bromoform	ND		5	1	03/09/11 19:11	D_R	5740801
Bromomethane	ND		10	1	03/09/11 19:11	D_R	5740801

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 65  
3/23/2011 2:37:08 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW1(114-116)

Collected: 03/03/2011 13:53

SPL Sample ID: 11030212-08

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Carbon disulfide	ND		5	1	03/09/11 19:11	D_R	5740801
Carbon tetrachloride	ND		5	1	03/09/11 19:11	D_R	5740801
Chlorobenzene	ND		5	1	03/09/11 19:11	D_R	5740801
Chloroethane	ND		10	1	03/09/11 19:11	D_R	5740801
Chloroform	ND		5	1	03/09/11 19:11	D_R	5740801
Chloromethane	ND		10	1	03/09/11 19:11	D_R	5740801
Dibromochloromethane	ND		5	1	03/09/11 19:11	D_R	5740801
Dibromomethane	ND		5	1	03/09/11 19:11	D_R	5740801
Dichlorodifluoromethane	ND		10	1	03/09/11 19:11	D_R	5740801
Ethylbenzene	ND		5	1	03/09/11 19:11	D_R	5740801
Hexachlorobutadiene	ND		5	1	03/09/11 19:11	D_R	5740801
Isopropylbenzene	ND		5	1	03/09/11 19:11	D_R	5740801
Methyl tert-butyl ether	ND		5	1	03/09/11 19:11	D_R	5740801
Methylene chloride	ND		5	1	03/09/11 19:11	D_R	5740801
Naphthalene	ND		5	1	03/09/11 19:11	D_R	5740801
n-Butylbenzene	ND		5	1	03/09/11 19:11	D_R	5740801
n-Propylbenzene	ND		5	1	03/09/11 19:11	D_R	5740801
sec-Butylbenzene	ND		5	1	03/09/11 19:11	D_R	5740801
Styrene	ND		5	1	03/09/11 19:11	D_R	5740801
tert-Butylbenzene	ND		5	1	03/09/11 19:11	D_R	5740801
Tetrachloroethene	ND		5	1	03/09/11 19:11	D_R	5740801
Toluene	ND		5	1	03/09/11 19:11	D_R	5740801
Trichloroethene	ND		5	1	03/09/11 19:11	D_R	5740801
Trichlorofluoromethane	ND		5	1	03/09/11 19:11	D_R	5740801
Vinyl acetate	ND		10	1	03/09/11 19:11	D_R	5740801
Vinyl chloride	ND		10	1	03/09/11 19:11	D_R	5740801
cis-1,2-Dichloroethene	ND		5	1	03/09/11 19:11	D_R	5740801
cis-1,3-Dichloropropene	ND		5	1	03/09/11 19:11	D_R	5740801
m,p-Xylene	ND		5	1	03/09/11 19:11	D_R	5740801
o-Xylene	ND		5	1	03/09/11 19:11	D_R	5740801
trans-1,2-Dichloroethene	ND		5	1	03/09/11 19:11	D_R	5740801
trans-1,3-Dichloropropene	ND		5	1	03/09/11 19:11	D_R	5740801
Xylenes, Total	ND		5	1	03/09/11 19:11	D_R	5740801
1,2-Dichloroethene (total)	ND		5	1	03/09/11 19:11	D_R	5740801
Surr: 1,2-Dichloroethane-d4	99.8	%	71-130	1	03/09/11 19:11	D_R	5740801
Surr: 4-Bromofluorobenzene	101	%	65-131	1	03/09/11 19:11	D_R	5740801
Surr: Toluene-d8	105	%	75-136	1	03/09/11 19:11	D_R	5740801

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 66  
3/23/2011 2:37:08 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW1(114-116)

Collected: 03/03/2011 13:53 SPL Sample ID: 11030212-08

Site: Rio Ariba County

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
-----------------	--------	------	-----------	-------------	---------------	---------	--------

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	03/09/2011 9:35	XML	1.00

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030212 Page 67  
3/23/2011 2:37:08 PM

# *Quality Control Documentation*



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Diesel Range Organics WorkOrder: 11030212  
Method: SW8015B Lab Batch ID: 105406

### Method Blank

### Samples in Analytical Batch:

RunID: HP\_V\_110315B-5745694 Units: mg/kg

Lab Sample ID

Client Sample ID

Analysis Date: 03/15/2011 15:24

Analyst: NW

11030212-01B

MW-4(102-104)

Preparation Date: 03/09/2011 15:16

Prep By: QMT Method: SW3550B

11030212-02B

MW-4(111-113)

11030212-03C

B-2(45-47)

11030212-04B

B-2(106-108)

11030212-05B

MW-2(106-108)

11030212-06B

MW-3(106-108)

11030212-07B

MW-1(50-52)

11030212-08B

MW1(114-116)

Analyte	Result	Rep Limit
Diesel Range Organics (C10-C28)	ND	5.0
Surr: n-Pentacosane	90.2	20-154

### Laboratory Control Sample (LCS)

RunID: HP\_V\_110315B-5745693 Units: mg/kg

Analysis Date: 03/15/2011 15:05 Analyst: NW

Preparation Date: 03/09/2011 15:16 Prep By: QMT Method: SW3550B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Diesel Range Organics (C10-C28)	33.3	31.1	93.3	57	150
Surr: n-Pentacosane	1.66	1.65	99.1	20	154

### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030212-01

RunID: HP\_V\_110315B-5745696 Units: mg/kg

Analysis Date: 03/15/2011 16:05 Analyst: NW

Preparation Date: 03/09/2011 15:16 Prep By: QMT Method: SW3550B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Diesel Range Organics (C10-C28)	90.6	33.3	109	54.9	33.3	79.8	-32.4 *	30.8	50	21	175
Surr: n-Pentacosane	ND	1.66	1.85	112	1.66	1.27	76.4	37.5 *	30	20	154

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030212 Page 69

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/23/2011 2:37:18 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Gasoline Range Organics  
Method: SW8015B

WorkOrder: 11030212  
Lab Batch ID: R316369

#### Method Blank

RunID: HP\_O\_110309B-5740979 Units: mg/kg

Analysis Date: 03/09/2011 22:33 Analyst: WLV

Preparation Date: 03/09/2011 22:33 Prep By: Method: SW5030B

#### Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
11030212-01B	MW-4(102-104)
11030212-02B	MW-4(111-113)
11030212-03C	B-2(45-47)
11030212-04B	B-2(106-108)
11030212-05B	MW-2(106-108)
11030212-06B	MW-3(106-108)
11030212-07B	MW-1(50-52)
11030212-08B	MW1(114-116)

#### Methanolic Preparation Blank

RunID: HP\_O\_110309B-5740980 Units: mg/kg

Analysis Date: 03/09/2011 23:02 Analyst: WLV

Preparation Date: 03/09/2011 23:02 Prep By: Method: SW5030B

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.10
Surr: 1,4-Difluorobenzene	95.9	63-142
Surr: 4-Bromofluorobenzene	91.0	50-159

#### Laboratory Control Sample (LCS)

RunID: HP\_O\_110309B-5740978 Units: mg/kg

Analysis Date: 03/09/2011 22:05 Analyst: WLV

Preparation Date: 03/09/2011 22:05 Prep By: Method: SW5030B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1.00	0.919	91.9	70	130
Surr: 1,4-Difluorobenzene	0.100	0.0996	99.6	63	142
Surr: 4-Bromofluorobenzene	0.100	0.0992	99.2	50	159

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030212 Page 70

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/23/2011 2:37:18 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Gasoline Range Organics  
Method: SW8015B

WorkOrder: 11030212  
Lab Batch ID: R316869

Sample Spiked: 11030212-05  
RunID: HP\_O\_110309B-5740985 Units: mg/kg  
Analysis Date: 03/10/2011 1:26 Analyst: WLV  
Preparation Date: 03/09/2011 9:27 Prep By: XML Method: SW5030B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Gasoline Range Organics	ND	1	0.795	79.5	1	0.764	76.4	4.04	50	26	147
Surrogate: 1,4-Difluorobenzene	ND	0.1	0.104	103	0.1	0.102	102	1.75	30	63	142
Surrogate: 4-Bromofluorobenzene	ND	0.1	0.102	102	0.1	0.0994	99.4	2.39	30	50	159

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference

D - Recovery Unreportable due to Dilution

\* - Recovery Outside Advisable QC Limits

11030212 Page 71

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/23/2011 2:37:19 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Metals by Method 6010B, Total  
Method: SW6010B

WorkOrder: 11030212  
Lab Batch ID: 105396

Method Blank			Samples in Analytical Batch:	
RunID: ICP2_110309A-5740614	Units: mg/kg		<u>Lab Sample ID</u>	<u>Client Sample ID</u>
Analysis Date: 03/09/2011 15:00	Analyst: R_V		11030212-01C	MW-4(102-104)
Preparation Date: 03/09/2011 10:00	Prep By: M_B Method: SW3050B		11030212-02C	MW-4(111-113)
			11030212-03C	B-2(45-47)
			11030212-04C	B-2(106-108)
			11030212-05C	MW-2(106-108)
			11030212-06C	MW-3(106-108)
			11030212-07C	MW-1(50-52)
			11030212-08C	MW1(114-116)
Analyte	Result	Rep Limit		
Aluminum	ND	10		
Arsenic	ND	0.5		
Barium	ND	0.5		
Boron	ND	10		
Cadmium	ND	0.5		
Chromium	ND	0.5		
Cobalt	ND	0.5		
Iron	ND	2		
Lead	ND	0.5		
Manganese	ND	0.5		
Molybdenum	ND	0.5		
Nickel	ND	0.5		
Selenium	ND	0.5		
Silver	ND	0.5		
Zinc	ND	1		

### Laboratory Control Sample (LCS)

RunID: ICP2\_110309A-5740615 Units: mg/kg  
Analysis Date: 03/09/2011 15:06 Analyst: R\_V  
Preparation Date: 03/09/2011 10:00 Prep By: M\_B Method: SW3050B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Aluminum	9780	6667	68.17	44	155
Arsenic	109.0	96.19	88.25	83	117
Barium	325.0	303.1	93.26	83	117
Boron	142.0	131.1	92.32	64	136
Cadmium	110.0	102.1	92.82	81	119
Chromium	93.40	84.88	90.88	81	120
Cobalt	133.0	126.6	95.19	81.2	118
Iron	13100	9909	75.64	51	149
Lead	152.0	144.7	95.20	79	121
Manganese	443.0	427.3	96.46	77	123

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030212 Page 72

3/23/2011 2:37:19 PM

**Quality Control Report**
**Conoco Phillips**

San Juan 29-7 Unit 37

**Analysis:** Metals by Method 6010B, Total  
**Method:** SW6010B

**WorkOrder:** 11030212  
**Lab Batch ID:** 105396

Laboratory Control Sample (LCS)

RunID: ICP2\_110309A-5740615 Units: mg/kg  
 Analysis Date: 03/09/2011 15:06 Analyst: R\_V  
 Preparation Date: 03/09/2011 10:00 Prep By: M\_B Method: SW3050B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Molybdenum	82.50	85.58	103.7	72	129
Nickel	109.0	100.1	91.83	81	118
Selenium	207.0	187.9	90.77	79	120
Silver	51.90	46.62	89.83	66	134
Zinc	299.0	273.2	91.37	82	118

Post Digestion Spike (PDS) / Post Digestion Spike Duplicate (PDSD)

Sample Spiked: 11030219-01  
 RunID: ICP2\_110309A-5740620 Units: mg/Kg-dry  
 Analysis Date: 03/09/2011 15:37 Analyst: R\_V

Analyte	Sample Result	PDS Spike Added	PDS Result	PDS % Recovery	PDS SPIKE ADDED	PDSD Result	PDSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Boron	28.7	105.16	115.3	82.31	105.16	116.7	83.71	1.269	20	80	120
Chromium	10.9	10.516	19.91	85.20	10.516	19.83	84.50	0.3705	20	80	120
Lead	3.84	10.516	12.17	79.20 *	10.516	12.23	79.80 *	0.5172	20	80	120
Nickel	16.7	10.516	25.12	79.70 *	10.516	25.23	80.70	0.4177	20	80	120

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030219-01  
 RunID: ICP2\_110309A-5740617 Units: mg/Kg-dry  
 Analysis Date: 03/09/2011 15:18 Analyst: R\_V  
 Preparation Date: 03/09/2011 10:00 Prep By: M\_B Method: SW3050B

**Qualifiers:** ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030212 Page 73

3/23/2011 2:37:19 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

### Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Metals by Method 6010B, Total  
Method: SW6010B

WorkOrder: 11030212  
Lab Batch ID: 105396

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Aluminum	7703	105.2	6044	N/C	105.2	6764	N/C	N/C	20	75	125
Arsenic	5.079	10.52	13.70	82.00	10.52	14.16	86.30	3.247	20	75	125
Barium	256.7	10.52	199.5	N/C	10.52	238.5	N/C	N/C	20	75	125
Boron	28.70	105.2	107.2	74.61 *	105.2	111.2	78.41	3.661	20	75	125
Cadmium	ND	10.52	9.013	84.50	10.52	9.013	84.50	0	20	75	125
Chromium	10.95	10.52	17.55	62.80 *	10.52	18.66	73.30 *	6.099	20	75	125
Cobalt	4.080	10.52	11.99	75.20	10.52	12.24	77.60	2.083	20	75	125
Iron	6199	105.2	5057	N/C	105.2	5648	N/C	N/C	20	75	125
Lead	3.838	10.52	11.68	74.60 *	10.52	11.81	75.80	1.074	20	75	125
Manganese	279.7	10.52	228.7	N/C	10.52	251.6	N/C	N/C	20	75	125
Molybdenum	2.303	10.52	10.79	80.70	10.52	11.33	85.80	4.850	20	75	125
Nickel	16.74	10.52	21.62	46.40 *	10.52	23.00	59.50 *	6.175	20	75	125
Selenium	1.020	10.52	10.19	87.20	10.52	10.45	89.70	2.547	20	75	125
Silver	ND	10.52	10.13	96.30	10.52	10.04	95.50	0.8342	20	75	125
Zinc	365.8	10.52	217.4	N/C	10.52	197.5	N/C	N/C	20	75	125

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030212 Page 74

3/23/2011 2:37:19 PM

### Quality Control Report

**Conoco Phillips**

San Juan 29-7 Unit 37

<b>Analysis:</b> Mercury, Total	<b>WorkOrder:</b> 11030212
<b>Method:</b> SW7471A	<b>Lab Batch ID:</b> 105495

#### Method Blank

#### Samples in Analytical Batch:

RunID: HGLC_110316A-5744863	Units: mg/kg	<u>Lab Sample ID</u>	<u>Client Sample ID</u>
Analysis Date: 03/16/2011 11:47	Analyst: F_S	11030212-01C	MW-4(102-104)
Preparation Date: 03/16/2011 9:00	Prep By: M_B Method: SW7471A	11030212-02C	MW-4(111-113)
		11030212-03C	B-2(45-47)
		11030212-04C	B-2(106-108)
		11030212-05C	MW-2(106-108)
		11030212-06C	MW-3(106-108)
		11030212-07C	MW-1(50-52)
		11030212-08C	MW1(114-116)

#### Laboratory Control Sample (LCS)

RunID: HGLC_110316A-5744864	Units: mg/kg
Analysis Date: 03/16/2011 11:49	Analyst: F_S
Preparation Date: 03/16/2011 9:00	Prep By: M_B Method: SW7471A

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Mercury	16.30	16.31	100.0	71.2	129

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030369-01	
RunID: HGLC_110316A-5744866	Units: mg/Kg-dry
Analysis Date: 03/16/2011 11:54	Analyst: F_S
Preparation Date: 03/16/2011 9:00	Prep By: M_B Method: SW7471A

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Mercury	ND	0.381	0.3794	99.58	0.381	0.3798	99.67	0.08980	20	80	120

**Qualifiers:** ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030212 Page 75

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/23/2011 2:37:20 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Semivolatile Organics by Method 8270C  
Method: SW8270C

WorkOrder: 11030212  
Lab Batch ID: 105398

### Method Blank

Analyte	Result	Rep Limit
1,2,4-Trichlorobenzene	ND	170
1,2-Dichlorobenzene	ND	170
1,2-Diphenylhydrazine	ND	170
1,3-Dichlorobenzene	ND	170
1,4-Dichlorobenzene	ND	170
2,4,5-Trichlorophenol	ND	170
2,4,6-Trichlorophenol	ND	170
2,4-Dichlorophenol	ND	170
2,4-Dimethylphenol	ND	170
2,4-Dinitrophenol	ND	170
2,4-Dinitrotoluene	ND	170
2,6-Dinitrotoluene	ND	170
2-Chloronaphthalene	ND	170
2-Chlorophenol	ND	170
2-Methylnaphthalene	ND	170
2-Nitroaniline	ND	170
2-Nitrophenol	ND	170
3,3'-Dichlorobenzidine	ND	170
3-Nitroaniline	ND	170
4,6-Dinitro-2-methylphenol	ND	170
4-Bromophenyl phenyl ether	ND	170
4-Chloro-3-methylphenol	ND	170
4-Chloroaniline	ND	170
4-Chlorophenyl phenyl ether	ND	170
4-Nitroaniline	ND	170
4-Nitrophenol	ND	170
Acenaphthene	ND	170
Acenaphthylene	ND	170
Aniline	ND	170
Anthracene	ND	170
Benz(a)anthracene	ND	170
Benz(a)pyrene	ND	170
Benz(b)fluoranthene	ND	170
Benz(q,h,i)perylene	ND	170
Benz(k)fluoranthene	ND	170
Benzoic acid	ND	670
Benzyl alcohol	ND	170
Bis(2-chloroethoxy)methane	ND	170
Bis(2-chloroethyl)ether	ND	170
Bis(2-chloroisopropyl)ether	ND	170
Bis(2-ethylhexyl)phthalate	ND	170

### Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
11030212-01B	MW-4(102-104)
11030212-02B	MW-4(111-113)
11030212-03C	B-2(45-47)
11030212-04B	B-2(106-108)
11030212-05B	MW-2(106-108)
11030212-06B	MW-3(106-108)
11030212-07B	MW-1(50-52)
11030212-08B	MW1(114-116)

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030212 Page 76

3/23/2011 2:37:20 PM

**Quality Control Report**
**Conoco Phillips**

San Juan 29-7 Unit 37

**Analysis:** Semivolatile Organics by Method 8270C  
**Method:** SW8270C

**WorkOrder:** 11030212  
**Lab Batch ID:** 105398

Method Blank

RunID: R\_110309B-5741157 Units: ug/kg  
 Analysis Date: 03/09/2011 14:40 Analyst: GY  
 Preparation Date: 03/09/2011 10:41 Prep By: QMT Method: SW3550C

Analyte	Result	Rep Limit
Butyl benzyl phthalate	ND	170
Carbazole	ND	170
Chrysene	ND	170
Dibenz(a,h)anthracene	ND	170
Dibenzofuran	ND	170
Diethyl phthalate	ND	170
Dimethyl phthalate	ND	170
Di-n-butyl phthalate	ND	170
Di-n-octyl phthalate	ND	170
Fluoranthene	ND	170
Fluorene	ND	170
Hexachlorobenzene	ND	170
Hexachlorobutadiene	ND	170
Hexachlorocyclopentadiene	ND	170
Hexachloroethane	ND	170
Indeno(1,2,3-cd)pyrene	ND	170
Isophorone	ND	170
Naphthalene	ND	170
Nitrobenzene	ND	170
N-Nitrosodi-n-propylamine	ND	170
N-Nitrosodiphenylamine	ND	330
Pentachlorophenol	ND	170
Phenanthrene	ND	170
Phenol	ND	170
Pyrene	ND	170
Pyridine	ND	170
2-Methylphenol	ND	170
3 & 4-Methylphenol	ND	330
Surr: 2,4,6-Tribromophenol	99.6	23-157
Surr: 2-Fluorobiphenyl	91.8	15-140
Surr: 2-Fluorophenol	86.0	15-122
Surr: Nitrobenzene-d5	91.2	10-134
Surr: Phenol-d5	88.8	10-123
Surr: Terphenyl-d14	105.9	18-166

Laboratory Control Sample (LCS)

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
 B - Analyte Detected In The Associated Method Blank  
 J - Estimated Value Between MDL And PQL  
 E - Estimated Value exceeds calibration curve  
 N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
 TNTC - Too numerous to count

MI - Matrix Interference  
 D - Recovery Unreportable due to Dilution  
 \* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030212 Page 77

3/23/2011 2:37:20 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Semivolatile Organics by Method 8270C WorkOrder: 11030212  
Method: SW8270C Lab Batch ID: 105398

RunID: R\_110309B-5741158 Units: ug/kg  
Analysis Date: 03/09/2011 15:14 Analyst: GY  
Preparation Date: 03/09/2011 10:41 Prep By: QMT Method: SW3550C

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,2,4-Trichlorobenzene	850	652	76.7	34	116
1,2-Dichlorobenzene	850	641	75.4	32	129
1,2-Diphenylhydrazine	850	664	78.1	10	256
1,3-Dichlorobenzene	850	624	73.4	10	172
1,4-Dichlorobenzene	850	621	73.1	20	124
2,4,5-Trichlorophenol	850	683	80.4	40	150
2,4,6-Trichlorophenol	850	678	79.8	37	144
2,4-Dichlorophenol	850	654	76.9	39	135
2,4-Dimethylphenol	850	667	78.5	32	119
2,4-Dinitrophenol	850	835	98.2	10	191
2,4-Dinitrotoluene	850	803	94.5	30	150
2,6-Dinitrotoluene	850	764	89.9	30	150
2-Chloronaphthalene	850	687	80.8	20	175
2-Chlorophenol	850	658	77.4	23	134
2-Methylnaphthalene	850	650	76.5	30	135
2-Nitroaniline	850	693	81.5	20	175
2-Nitrophenol	850	715	84.1	29	182
3,3'-Dichlorobenzidine	850	448	52.7	10	261
3-Nitroaniline	850	598	70.4	20	175
4,6-Dinitro-2-methylphenol	850	769	90.5	10	181
4-Bromophenyl phenyl ether	850	684	80.5	20	175
4-Chloro-3-methylphenol	850	712	83.8	22	147
4-Chloroaniline	850	680	80.0	20	175
4-Chlorophenyl phenyl ether	850	697	82.0	25	158
4-Nitroaniline	850	647	76.1	20	175
4-Nitrophenol	850	709	83.4	10	132
Acenaphthene	850	679	79.9	30	160
Acenaphthylene	850	680	80.0	10	150
Aniline	1700	1220	71.8	10	160
Anthracene	850	680	80.0	27	133
Benz(a)anthracene	850	683	80.4	33	143

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
B - Analyte Detected In The Associated Method Blank D - Recovery Unreportable due to Dilution  
J - Estimated Value Between MDL And PQL \* - Recovery Outside Advisable QC Limits  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030212 Page 78

3/23/2011 2:37:21 PM

### Quality Control Report

**Conoco Phillips**

San Juan 29-7 Unit 37

<b>Analysis:</b>	Semivolatile Organics by Method 8270C	<b>WorkOrder:</b>	11030212
<b>Method:</b>	SW8270C	<b>Lab Batch ID:</b>	105398

#### Laboratory Control Sample (LCS)

RunID: R\_110309B-5741158      Units: ug/kg  
 Analysis Date: 03/09/2011 15:14      Analyst: GY  
 Preparation Date: 03/09/2011 10:41      Prep By: QMT Method: SW3550C

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzo(a)pyrene	850	559	65.8	17	163
Benzo(b)fluoranthene	850	616	72.5	24	159
Benzo(g,h,i)perylene	850	656	77.2	10	219
Benzo(k)fluoranthene	850	653	76.8	11	162
Benzoic acid	850	672	79.1	10	450
Benzyl alcohol	850	660	77.6	30	160
Bis(2-chloroethoxy)methane	850	685	80.6	33	184
Bis(2-chloroethyl)ether	850	659	77.5	28	158
Bis(2-chloroisopropyl)ether	850	558	65.6	36	166
Bis(2-ethylhexyl)phthalate	850	649	76.4	10	158
Butyl benzyl phthalate	850	712	83.8	10	152
Carbazole	850	664	78.1	45	135
Chrysene	850	690	81.2	17	168
Dibenz(a,h)anthracene	850	623	73.3	10	227
Dibenzofuran	850	698	82.1	30	160
Diethyl phthalate	850	718	84.5	10	160
Dimethyl phthalate	850	716	84.2	10	112
Di-n-butyl phthalate	850	693	81.5	40	132
Di-n-octyl phthalate	850	624	73.4	10	146
Fluoranthene	850	695	81.8	26	137
Fluorene	850	690	81.2	35	135
Hexachlorobenzene	850	677	79.6	10	152
Hexachlorobutadiene	850	636	74.8	20	140
Hexachlorocyclopentadiene	850	491	57.8	10	152
Hexachloroethane	850	596	70.1	25	118
Indeno(1,2,3-cd)pyrene	850	651	76.6	10	171
Isophorone	850	791	93.1	21	196
Naphthalene	850	626	73.6	21	133
Nitrobenzene	850	676	79.5	35	180
N-Nitrosodi-n-propylamine	850	630	74.1	10	230

<b>Qualifiers:</b>	ND/U - Not Detected at the Reporting Limit	MI - Matrix Interference
	B - Analyte Detected In The Associated Method Blank	D - Recovery Unreportable due to Dilution
	J - Estimated Value Between MDL And PQL	* - Recovery Outside Advisable QC Limits
	E - Estimated Value exceeds calibration curve	
	N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.	
	TNTC - Too numerous to count	

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030212 Page 79

3/23/2011 2:37:21 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Semivolatile Organics by Method 8270C  
Method: SW8270C

WorkOrder: 11030212  
Lab Batch ID: 105398

### Laboratory Control Sample (LCS)

RunID: R\_110309B-5741158 Units: ug/kg  
Analysis Date: 03/09/2011 15:14 Analyst: GY  
Preparation Date: 03/09/2011 10:41 Prep By: QMT Method: SW3550C

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
N-Nitrosodiphenylamine	1700	1480	87.1	30	160
Pentachlorophenol	850	699	82.2	14	176
Phenanthrene	850	707	83.2	35	135
Phenol	850	726	85.4	44	120
Pyrene	850	682	80.2	34	138
Pyridine	1700	1090	64.1	10	150
2-Methylphenol	850	648	76.2	40	160
3 & 4-Methylphenol	850	654	76.9	40	160
Surr: 2,4,6-Tribromophenol	2500	2580	103	23	157
Surr: 2-Fluorobiphenyl	1700	1400	82.4	15	140
Surr: 2-Fluorophenol	2500	2060	82.4	15	122
Surr: Nitrobenzene-d5	1700	1420	83.5	32	153
Surr: Phenol-d5	2500	2140	85.6	10	123
Surr: Terphenyl-d14	1700	1470	86.5	18	166

### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030219-01  
RunID: R\_110309B-5741168 Units: mg/kg-dry  
Analysis Date: 03/09/2011 20:55 Analyst: GY  
Preparation Date: 03/09/2011 10:41 Prep By: QMT Method: SW3550C

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
1,2,4-Trichlorobenzene	ND	0.894	0.597	66.8	0.894	0.749	83.8	22.5	28	34	116
1,2-Dichlorobenzene	ND	0.894	0.539	60.4	0.894	0.650	72.7	18.6	60	32	129
1,2-Diphenylhydrazine	ND	0.894	0.615	68.8	0.894	0.616	68.9	0.171	60	10	256
1,3-Dichlorobenzene	ND	0.894	0.511	57.2	0.894	0.625	69.9	20.0	60	10	172

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030212 Page 80

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/23/2011 2:37:21 PM

### Quality Control Report

**Conoco Phillips**

San Juan 29-7 Unit 37

**Analysis:** Semivolatile Organics by Method 8270C  
**Method:** SW8270C

**WorkOrder:** 11030212  
**Lab Batch ID:** 105398

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030219-01  
 RunID: R\_110309B-5741168 Units: mg/kg-dry  
 Analysis Date: 03/09/2011 20:55 Analyst: GY  
 Preparation Date: 03/09/2011 10:41 Prep By: QMT Method: SW3550C

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
1,4-Dichlorobenzene	ND	0.894	0.512	57.3	0.894	0.628	70.2	20.3	28	20	124
2,4,5-Trichlorophenol	ND	0.894	0	0 *	0.894	0	0 *	0	60	40	150
2,4,6-Trichlorophenol	ND	0.894	0	0 *	0.894	0	0 *	0	60	37	144
2,4-Dichlorophenol	ND	0.894	0	0 *	0.894	0	0 *	0	60	39	135
2,4-Dimethylphenol	ND	0.894	0.465	52.0	0.894	0.492	55.1	5.71	60	32	119
2,4-Dinitrophenol	ND	0.89	0	0 *	0.89	0	0 *	0	60	10	191
2,4-Dinitrotoluene	ND	0.894	0.725	81.1	0.894	0.724	80.9	0.145	50	30	150
2,6-Dinitrotoluene	ND	0.894	0.756	84.6	0.894	0.788	88.1	4.09	60	30	150
2-Chloronaphthalene	ND	0.894	0.655	73.3	0.894	0.701	78.5	6.82	60	20	175
2-Chlorophenol	ND	0.894	0.0512	5.73 *	0.894	0.0507	5.67 *	1.03	40	23	134
2-Methylnaphthalene	ND	0.894	0.627	70.1	0.894	0.741	82.9	16.8	60	30	135
2-Nitroaniline	ND	0.894	0.721	80.7	0.894	0.677	75.8	6.32	60	20	175
2-Nitrophenol	ND	0.894	0	0 *	0.894	0	0 *	0	60	29	182
3,3'-Dichlorobenzidine	ND	0.894	0.780	87.3	0.894	0.760	85.1	2.59	60	10	261
3-Nitroaniline	ND	0.894	0.735	82.2	0.894	0.770	86.1	4.61	60	20	175
4,6-Dinitro-2-methylphenol	ND	0.894	0.166	18.6	0.894	0.178	19.9	6.73	60	10	181
4-Bromophenyl phenyl ether	ND	0.894	0.717	80.2	0.894	0.721	80.7	0.585	60	20	175
4-Chloro-3-methylphenol	ND	0.894	0.164	18.4 *	0.894	0.157	17.5 *	4.59	42	22	147
4-Chloroaniline	ND	0.894	0.655	73.3	0.894	0.721	80.7	9.63	60	20	175
4-Chlorophenyl phenyl ether	ND	0.894	0.704	78.7	0.894	0.745	83.3	5.66	60	25	158
4-Nitroaniline	ND	0.894	0.736	82.4	0.894	0.712	79.6	3.34	60	20	175
4-Nitrophenol	ND	0.89	0	0 *	0.89	0	0 *	0	50	10	132
Acenaphthene	0.245	0.894	0.760	57.6	0.894	0.753	56.8	0.973	31	30	160
Acenaphthylene	ND	0.894	0.658	73.6	0.894	0.705	78.8	6.79	50	10	150
Aniline	ND	1.79	1.24	69.4	1.79	1.16	64.7	7.02	60	10	160
Anthracene	ND	0.894	0.702	78.6	0.894	0.708	79.2	0.746	50	27	133
Benz(a)anthracene	ND	0.894	0.758	84.8	0.894	0.766	85.6	0.966	50	33	143
Benzo(a)pyrene	ND	0.894	0.623	69.6	0.894	0.648	72.5	3.97	60	17	163

**Qualifiers:** ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030212 Page 81

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/23/2011 2:37:21 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Semivolatile Organics by Method 8270C  
Method: SW8270C

WorkOrder: 11030212  
Lab Batch ID: 105398

### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030219-01  
RunID: R\_110309B-5741168 Units: mg/kg-dry  
Analysis Date: 03/09/2011 20:55 Analyst: GY  
Preparation Date: 03/09/2011 10:41 Prep By: QMT Method: SW3550C

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Benzo(b)fluoranthene	ND	0.894	0.699	78.2	0.894	0.716	80.1	2.38	60	24	159
Benzo(g,h,i)perylene	ND	0.894	0.443	49.5	0.894	0.762	85.3	53.1	60	10	219
Benzo(k)fluoranthene	ND	0.894	0.613	68.6	0.894	0.632	70.7	3.04	60	11	162
Benzoic acid	ND	0.89	0	0 *	0.89	0	0 *	0	60	10	450
Benzyl alcohol	0.565	0.894	0.752	20.9 *	0.894	1.09	59.2	37.0	60	30	160
Bis(2-chloroethoxy)methane	ND	0.894	0.649	72.6	0.894	0.762	85.3	16.1	60	33	184
Bis(2-chloroethyl)ether	ND	0.894	0.631	70.6	0.894	0.733	82.0	15.0	60	28	158
Bis(2-chloroisopropyl)ether	ND	0.894	0.485	54.2	0.894	0.571	63.9	16.3	60	36	166
Bis(2-ethylhexyl)phthalate	4.25	0.894	3.78	N/C	0.894	3.74	N/C	N/C	60	10	158
Butyl benzyl phthalate	ND	0.894	0.786	82.4	0.894	0.792	83.1	0.800	60	10	152
Carbazole	ND	0.894	0.688	76.9	0.894	0.693	77.5	0.762	60	45	135
Chrysene	ND	0.894	0.759	84.9	0.894	0.782	87.5	3.00	60	17	168
Dibenz(a,h)anthracene	ND	0.894	0.715	80.0	0.894	0.738	82.6	3.18	60	10	227
Dibenzofuran	ND	0.894	0.614	68.7	0.894	0.713	79.8	14.9	60	45	135
Diethyl phthalate	ND	0.894	0.710	79.4	0.894	0.729	81.5	2.63	60	10	160
Dimethyl phthalate	ND	0.894	0.710	79.4	0.894	0.730	81.6	2.78	60	10	112
Di-n-butyl phthalate	ND	0.894	0.839	88.9	0.894	0.805	85.0	4.22	60	40	132
Di-n-octyl phthalate	ND	0.894	0.833	93.2	0.894	0.936	105	11.7	60	10	146
Fluoranthene	ND	0.894	0.782	77.4	0.894	0.846	84.4	7.75	60	26	137
Fluorene	ND	0.894	0.688	76.9	0.894	0.720	80.6	4.63	60	45	135
Hexachlorobenzene	ND	0.894	0.722	80.8	0.894	0.722	80.8	0	60	10	152
Hexachlorobutadiene	ND	0.894	0.579	64.8	0.894	0.748	83.6	25.4	60	20	140
Hexachlorocyclopentadiene	ND	0.894	0.190	21.3	0.894	0.264	29.5	32.4	60	10	152
Hexachloroethane	ND	0.894	0.471	52.7	0.894	0.598	66.9	23.8	60	25	118
Indeno(1,2,3-cd)pyrene	ND	0.894	0.840	79.8	0.894	0.867	82.7	3.08	60	10	171
Isophorone	ND	0.894	0.726	81.2	0.894	0.856	95.8	16.5	60	21	196
Naphthalene	ND	0.894	0.584	65.3	0.894	0.700	78.4	18.2	60	21	133
Nitrobenzene	ND	0.894	0.598	66.9	0.894	0.724	80.9	18.9	60	35	180

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030212 Page 82

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/23/2011 2:37:21 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Semivolatile Organics by Method 8270C  
Method: SW8270C

WorkOrder: 11030212  
Lab Batch ID: 105398

### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030219-01  
RunID: R\_110309B-5741168 Units: mg/kg-dry  
Analysis Date: 03/09/2011 20:55 Analyst: GY  
Preparation Date: 03/09/2011 10:41 Prep By: QMT Method: SW3550C

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
N-Nitrosodi-n-propylamine	ND	0.894	0.583	65.2	0.894	0.650	72.7	10.9	38	10	230
N-Nitrosodiphenylamine	ND	1.79	1.48	82.9	1.79	1.46	81.8	1.43	60	30	160
Pentachlorophenol	ND	0.89	0	0 *	0.89	0	0 *	0	50	14	176
Phenanthrene	ND	0.894	0.752	84.1	0.894	0.776	86.8	3.17	60	45	135
Phenol	ND	0.894	0.307	15.5 *	0.894	0.361	21.5 *	16.1	42	44	120
Pyrene	ND	0.894	0.245	27.4	0.894	0.298	33.3	19.4	31	26	127
Pyridine	ND	1.79	0.789	44.1	1.79	1.03	57.5	26.4	60	10	150
2-Methylphenol	ND	0.894	0.373	41.8	0.894	0.361	40.4	3.44	60	40	160
3 & 4-Methylphenol	ND	0.894	ND	29.5 *	0.894	ND	26.6 *	10.5	60	40	160
Surr: 2,4,6-Tribromophenol	ND	2630	0	0 *	2630	0.0 MI	0 *	0	30	23	157
Surr: 2-Fluorobiphenyl	ND	1790	1280	71.8	1790	1380	77.1	7.11	30	15	140
Surr: 2-Fluorophenol	ND	2630	84	3.20 *	2630	2.87 MI	2.87 *	10.8	30	15	122
Surr: Nitrobenzene-d5	ND	1790	1260	70.6	1790	1510	84.7	18.2	30	10	134
Surr: Phenol-d5	ND	2630	552	21.0	2630	512	19.5	7.51	30	10	123
Surr: Terphenyl-d14	ND	1790	1440	80.6	1790	1470	82.4	2.17	30	18	166

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030212 Page 83

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/23/2011 2:37:21 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 11030212  
Lab Batch ID: R316855

### Method Blank

Analyte	Result	Rep Limit
1,1,1,2-Tetrachloroethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
1,1-Dichloroethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloropropene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0
1,2,3-Trichloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
1,2-Dibromo-3-chloropropane	ND	5.0
1,2-Dibromoethane	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dichloroethane	ND	5.0
1,2-Dichloropropane	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,3-Dichloropropane	ND	5.0
1,4-Dichlorobenzene	ND	5.0
2,2-Dichloropropane	ND	5.0
2-Butanone	ND	20
2-Chloroethyl vinyl ether	ND	10
2-Chlorotoluene	ND	5.0
2-Hexanone	ND	10
4-Chlorotoluene	ND	5.0
4-Isopropyltoluene	ND	5.0
4-Methyl-2-pentanone	ND	10
Acetone	ND	100
Acrylonitrile	ND	50
Benzene	ND	5.0
Bromobenzene	ND	5.0
Bromochloromethane	ND	5.0
Bromodichloromethane	ND	5.0
Bromoform	ND	5.0
Bromomethane	ND	10
Carbon disulfide	ND	5.0
Carbon tetrachloride	ND	5.0
Chlorobenzene	ND	5.0
Chloroethane	ND	10
Chloroform	ND	5.0

### Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
11030212-01A	MW-4(102-104)
11030212-02A	MW-4(111-113)
11030212-04A	B-2(106-108)
11030212-05A	MW-2(106-108)
11030212-06A	MW-3(106-108)
11030212-08A	MW1(114-116)

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030212 Page 84

3/23/2011 2:37:22 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 11030212  
Lab Batch ID: R316855

### Method Blank

RunID: MSDVOA4\_110309C-5740793 Units: ug/kg

Analysis Date: 03/09/2011 12:09 Analyst: D\_R

Analyte	Result	Rep Limit
Chloromethane	ND	10
Dibromochloromethane	ND	5.0
Dibromomethane	ND	5.0
Dichlorodifluoromethane	ND	10
Ethylbenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Isopropylbenzene	ND	5.0
Methyl tert-butyl ether	ND	5.0
Methylene chloride	ND	5.0
Naphthalene	ND	5.0
n-Butylbenzene	ND	5.0
n-Propylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
Styrene	ND	5.0
tert-Butylbenzene	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Trichloroethene	ND	5.0
Trichlorofluoromethane	ND	5.0
Vinyl acetate	ND	10
Vinyl chloride	ND	10
cis-1,2-Dichloroethene	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
m,p-Xylene	ND	5.0
o-Xylene	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,2-Dichloroethene (total)	ND	5.0
Xylenes, Total	ND	5.0
Surr: 1,2-Dichloroethane-d4	106.4	71-130
Surr: 4-Bromofluorobenzene	102.5	65-131
Surr: Toluene-d8	104.7	75-136

### Laboratory Control Sample (LCS)

RunID: MSDVOA4\_110309C-57407 Units: ug/kg  
Analysis Date: 03/09/2011 11:03 Analyst: D\_R

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030212 Page 85

3/23/2011 2:37:22 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips  
San Juan 29-7 Unit 37

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 11030212  
Lab Batch ID: R316855

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1,1,2-Tetrachloroethane	20.0	20.7	103	56	140
1,1,1-Trichloroethane	20.0	19.6	98.0	58	135
1,1,2,2-Tetrachloroethane	20.0	20.1	101	52	139
1,1,2-Trichloroethane	20.0	20.0	100	81	138
1,1-Dichloroethane	20.0	20.1	100	56	137
1,1-Dichloroethene	20.0	19.8	98.8	56	135
1,1-Dichloropropene	20.0	20.7	103	62	132
1,2,3-Trichlorobenzene	20.0	20.9	105	53	144
1,2,3-Trichloropropane	20.0	21.1	105	44	141
1,2,4-Trichlorobenzene	20.0	22.0	110	51	143
1,2,4-Trimethylbenzene	20.0	21.0	105	59	148
1,2-Dibromo-3-chloropropane	20.0	20.8	104	53	144
1,2-Dibromoethane	20.0	20.8	104	55	138
1,2-Dichlorobenzene	20.0	20.0	100	63	137
1,2-Dichloroethane	20.0	20.6	103	56	135
1,2-Dichloropropane	20.0	19.1	95.4	62	132
1,3,5-Trimethylbenzene	20.0	20.8	104	54	145
1,3-Dichlorobenzene	20.0	20.3	102	66	137
1,3-Dichloropropane	20.0	19.5	97.4	59	138
1,4-Dichlorobenzene	20.0	20.4	102	61	142
2,2-Dichloropropane	20.0	19.5	97.4	55	138
2-Butanone	50.0	64.8	130	10	191
2-Chloroethyl vinyl ether	20.0	21.4	107	10	181
2-Chlorotoluene	20.0	20.1	101	64	139
2-Hexanone	50.0	62.3	125	18	182
4-Chlorotoluene	20.0	20.8	104	63	138
4-Isopropyltoluene	20.0	21.9	110	59	156
4-Methyl-2-pentanone	50.0	56.0	112	10	166
Acetone	50.0	81.6	163	10	200
Acrylonitrile	20.0	19.1	95.7	38	169
Benzene	20.0	18.9	94.4	64	130
Bromobenzene	20.0	19.5	97.6	58	139
Bromochloromethane	20.0	20.0	100	66	127
Bromodichloromethane	20.0	21.4	107	59	134
Bromoform	20.0	19.0	95.1	65	135

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030212 Page 86

3/23/2011 2:37:22 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Volatile Organics by Method 8260B WorkOrder: 11030212  
Method: SW8260B Lab Batch ID: R316855

### Laboratory Control Sample (LCS)

RunID: MSDVOA4\_110309C-57407 Units: ug/kg  
Analysis Date: 03/09/2011 11:03 Analyst: D\_R

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Bromomethane	20.0	21.8	109	40	134
Carbon disulfide	20.0	22.6	113	53	130
Carbon tetrachloride	20.0	20.3	101	61	132
Chlorobenzene	20.0	19.8	98.8	60	140
Chloroethane	20.0	21.3	106	45	140
Chloroform	20.0	19.2	96.2	64	131
Chloromethane	20.0	21.6	108	39	140
Dibromochloromethane	20.0	19.6	98.0	54	138
Dibromomethane	20.0	20.5	102	64	131
Dichlorodifluoromethane	20.0	19.7	98.3	35	133
Ethylbenzene	20.0	20.1	101	58	143
Hexachlorobutadiene	20.0	22.7	114	56	166
Isopropylbenzene	20.0	22.4	112	58	133
Methyl tert-butyl ether	20.0	19.6	97.8	50	132
Methylene chloride	20.0	21.6	108	52	144
Naphthalene	20.0	21.7	109	51	139
n-Butylbenzene	20.0	23.0	115	59	164
n-Propylbenzene	20.0	21.0	105	57	140
sec-Butylbenzene	20.0	21.6	108	63	146
Styrene	20.0	21.2	106	57	134
tert-Butylbenzene	20.0	20.6	103	57	144
Tetrachloroethene	20.0	32.6	163 *	41	156
Toluene	20.0	19.1	95.7	63	139
Trichloroethene	20.0	19.9	99.3	62	135
Trichlorofluoromethane	20.0	20.5	102	53	140
Vinyl acetate	20.0	20.4	102	17	163
Vinyl chloride	20.0	21.0	105	45	148
cis-1,2-Dichloroethene	20.0	19.7	98.4	70	129
cis-1,3-Dichloropropene	20.0	18.6	92.9	58	132
m,p-Xylene	40.0	40.9	102	64	137

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030212 Page 87

3/23/2011 2:37:22 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 11030212  
Lab Batch ID: R316855

### Laboratory Control Sample (LCS)

RunID: MSDVOA4\_110309C-57407 Units: ug/kg  
Analysis Date: 03/09/2011 11:03 Analyst: D\_R

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
o-Xylene	20.0	20.1	100	64	143
trans-1,2-Dichloroethene	20.0	19.7	98.7	63	130
trans-1,3-Dichloropropene	20.0	18.8	94.0	58	128
1,2-Dichloroethene (total)	40.0	39.4	98.5	63	130
Xylenes, Total	60	61	100	64	143
Surr: 1,2-Dichloroethane-d4	50.0	50.6	101	71	130
Surr: 4-Bromofluorobenzene	50.0	52.3	105	65	131
Surr: Toluene-d8	50.0	51.9	104	75	136

### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030212-05  
RunID: MSDVOA4\_110309C-57407 Units: ug/kg  
Analysis Date: 03/09/2011 16:37 Analyst: D\_R  
Preparation Date: 03/09/2011 9:22 Prep By: XML Method: SW5030B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
1,1,1,2-Tetrachloroethane	ND	20	16.9	84.7	20	18.3	91.7	7.99	30	38	129
1,1,1-Trichloroethane	ND	20	17.3	86.7	20	19.1	95.3	9.35	30	44	154
1,1,2,2-Tetrachloroethane	ND	20	16.7	83.6	20	18.6	93.2	10.9	30	14	143
1,1,2-Trichloroethane	ND	20	17.5	87.4	20	18.4	92.2	5.28	30	34	135
1,1-Dichloroethane	ND	20	19.3	96.5	20	21.1	105	8.89	30	42	146
1,1-Dichloroethene	ND	20	21.0	105	20	22.2	111	5.31	22	39	168
1,1-Dichloropropene	ND	20	20.0	100	20	21.0	105	4.79	30	42	156
1,2,3-Trichlorobenzene	ND	20	16.4	82.2	20	17.9	89.6	8.70	30	10	125
1,2,3-Trichloropropane	ND	20	17.3	86.4	20	19.1	95.7	10.2	30	10	154
1,2,4-Trichlorobenzene	ND	20	17.2	85.9	20	18.3	91.7	6.56	30	10	128

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030212 Page 88

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/23/2011 2:37:23 PM

### Quality Control Report

**Conoco Phillips**

San Juan 29-7 Unit 37

**Analysis:** Volatile Organics by Method 8260B  
**Method:** SW8260B

**WorkOrder:** 11030212  
**Lab Batch ID:** R316855

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030212-05  
 RunID: MSDVOA4\_110309C-57407 Units: ug/kg  
 Analysis Date: 03/09/2011 16:37 Analyst: D\_R  
 Preparation Date: 03/09/2011 9:22 Prep By: XML Method: SW5030B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
1,2,4-Trimethylbenzene	ND	20	18.6	93.1	20	19.2	96.1	3.10	30	22	139
1,2-Dibromo-3-chloropropane	ND	20	14.1	70.5	20	17.2	85.8	19.6	30	23	139
1,2-Dibromoethane	ND	20	17.4	86.8	20	19.2	96.0	10.1	30	32	129
1,2-Dichlorobenzene	ND	20	17.2	86.1	20	18.1	90.6	5.06	30	17	130
1,2-Dichloroethane	ND	20	18.8	92.5	20	19.8	97.2	4.86	30	15	158
1,2-Dichloropropane	ND	20	17.7	88.3	20	18.9	94.5	6.75	30	42	133
1,3,5-Trimethylbenzene	ND	20	19.0	95.1	20	19.3	96.7	1.63	30	22	135
1,3-Dichlorobenzene	ND	20	17.7	88.5	20	18.4	91.8	3.66	30	22	130
1,3-Dichloropropane	ND	20	17.2	86.0	20	18.6	93.2	8.03	30	37	131
1,4-Dichlorobenzene	ND	20	17.7	88.3	20	18.3	91.5	3.46	30	20	129
2,2-Dichloropropane	ND	20	16.2	80.9	20	18.3	91.6	12.5	30	39	155
2-Butanone	ND	50	49.3	98.6	50	57.7	115	15.7	30	10	200
2-Chloroethyl vinyl ether	ND	20	17.3	86.5	20	19.2	95.8	10.3	30	10	168
2-Chlorotoluene	ND	20	18.2	90.8	20	19.0	95.0	4.56	30	30	133
2-Hexanone	ND	50	48.6	97.3	50	56.2	112	14.4	30	14	151
4-Chlorotoluene	ND	20	18.3	91.3	20	18.7	93.7	2.67	30	24	133
4-Isopropyltoluene	ND	20	19.6	97.9	20	19.8	99.1	1.22	30	17	143
4-Methyl-2-pentanone	ND	50	44.4	88.8	50	50.0	100	11.9	30	10	176
Acetone	ND	50	61.8	124	50	68.2	136	9.86	30	10	200
Acrylonitrile	ND	20	17.2	86.2	20	20.4	102	16.9	30	10	200
Benzene	ND	20	18.2	90.8	20	19.1	95.7	5.28	21	49	135
Bromobenzene	ND	20	17.5	87.5	20	18.3	91.5	4.50	30	29	127
Bromochloromethane	ND	20	18.1	90.7	20	19.3	96.7	6.42	30	27	147
Bromodichloromethane	ND	20	18.1	90.7	20	19.7	98.7	8.45	30	32	138
Bromoform	ND	20	13.4	67.1	20	15.1	75.5	11.8	30	27	129
Bromomethane	ND	20	19.5	97.6	20	20.1	100	2.81	30	32	142
Carbon disulfide	ND	20	19.9	99.5	20	21.6	108	8.02	30	25	168
Carbon tetrachloride	ND	20	17.1	85.5	20	18.5	92.5	7.89	30	48	151

**Qualifiers:** ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030212 Page 89

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/23/2011 2:37:23 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 11030212  
Lab Batch ID: R316855

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030212-05  
RunID: MSDVOA4\_110309C-57407 Units: ug/kg  
Analysis Date: 03/09/2011 16:37 Analyst: D\_R  
Preparation Date: 03/09/2011 9:22 Prep By: XML Method: SW5030B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Chlorobenzene	ND	20	18.2	91.2	20	18.9	94.7	3.84	21	38	130
Chloroethane	ND	20	19.8	98.9	20	20.2	101	2.22	30	29	161
Chloroform	ND	20	18.4	92.1	20	19.7	98.3	6.59	30	34	153
Chloromethane	ND	20	19.8	99.2	20	20.1	100	1.25	30	31	151
Dibromochloromethane	ND	20	15.3	76.3	20	16.8	83.8	9.43	30	31	127
Dibromomethane	ND	20	17.6	87.9	20	19.0	95.0	7.76	30	30	141
Dichlorodifluoromethane	ND	20	17.3	86.7	20	18.5	92.7	6.65	30	15	167
Ethylbenzene	ND	20	19.0	95.0	20	19.6	98.0	3.15	30	39	135
Hexachlorobutadiene	ND	20	19.2	95.8	20	19.3	96.7	0.984	30	10	149
Isopropylbenzene	ND	20	20.9	105	20	21.5	107	2.64	30	25	142
Methyl tert-butyl ether	ND	20	16.3	81.5	20	18.0	90.2	10.1	30	19	142
Methylene chloride	ND	20	19.7	98.6	20	20.9	104	5.64	30	13	170
Naphthalene	ND	20	16.7	83.6	20	19.5	97.4	15.2	30	10	124
n-Butylbenzene	ND	20	19.5	97.3	20	19.8	99.0	1.66	30	10	156
n-Propylbenzene	ND	20	19.0	95.2	20	19.3	96.5	1.31	30	20	141
sec-Butylbenzene	ND	20	19.5	97.7	20	19.9	99.3	1.65	30	29	142
Styrene	ND	20	19.2	95.8	20	19.9	99.6	3.84	30	28	133
tert-Butylbenzene	ND	20	19.1	95.6	20	19.6	98.1	2.56	30	26	141
Tetrachloroethene	ND	20	30.7	154 *	20	32.7	164 *	6.37	30	33	149
Toluene	ND	20	18.3	90.6	20	19.5	96.3	6.02	21	49	133
Trichloroethene	ND	20	18.1	90.7	20	19.1	95.7	5.38	24	51	142
Trichlorofluoromethane	ND	20	18.6	92.8	20	19.4	97.1	4.49	30	24	184
Vinyl acetate	ND	20	2.48	12.4	20	1.72	8.60 *	36.2 *	30	10	174
Vinyl chloride	ND	20	17.9	89.5	20	19.0	95.2	6.15	30	29	177
cis-1,2-Dichloroethene	ND	20	19.0	95.0	20	20.2	101	6.18	30	38	151
cis-1,3-Dichloropropene	ND	20	15.5	77.5	20	16.9	84.6	8.74	30	31	131
m,p-Xylene	ND	40	38.1	94.6	40	39.2	97.5	2.97	30	32	140
o-Xylene	ND	20	18.8	94.1	20	19.4	96.9	2.89	30	36	142

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030212 Page 90

3/23/2011 2:37:23 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Volatile Organics by Method 8260B WorkOrder: 11030212  
Method: SW8260B Lab Batch ID: R316855

### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030212-05  
RunID: MSDVOA4\_110309C-57407 Units: ug/kg  
Analysis Date: 03/09/2011 16:37 Analyst: D\_R  
Preparation Date: 03/09/2011 9:22 Prep By: XML Method: SW5030B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
trans-1,2-Dichloroethene	ND	20	19.4	96.9	20	20.5	103	5.70	30	41	153
trans-1,3-Dichloropropene	ND	20	15.0	75.2	20	16.6	83.1	9.94	30	27	128
1,2-Dichloroethene (total)	ND	40	38.4	96.0	40	40.7	102	5.94	30	38	153
Xylenes, Total	ND	60	56.9	94.5	60	58.6	97.3	2.94	30	32	142
Surr: 1,2-Dichloroethane-d4	ND	50	50.8	102	50	50.6	101	0.340	30	71	130
Surr: 4-Bromofluorobenzene	ND	50	51.3	103	50	51.4	103	0.185	30	65	131
Surr: Toluene-d8	ND	50	52.1	104	50	52.1	104	0.00788	30	75	136

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030212 Page 91

3/23/2011 2:37:23 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 11030212  
Lab Batch ID: R316923

### Method Blank

### Samples in Analytical Batch:

RunID: K\_110310A-5741882 Units: ug/kg  
Analysis Date: 03/10/2011 13:01 Analyst: LU\_L

Lab Sample ID	Client Sample ID
11030212-03A	B-2(45-47)
11030212-07A	MW-1(50-52)

Analyte	Result	Rep Limit
1,1,1,2-Tetrachloroethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
1,1-Dichloroethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloropropene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0
1,2,3-Trichloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
1,2-Dibromo-3-chloropropane	ND	5.0
1,2-Dibromoethane	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dichloroethane	ND	5.0
1,2-Dichloropropene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,3-Dichloropropane	ND	5.0
1,4-Dichlorobenzene	ND	5.0
2,2-Dichloropropene	ND	5.0
2-Butanone	ND	20
2-Chloroethyl vinyl ether	ND	10
2-Chlorotoluene	ND	5.0
2-Hexanone	ND	10
4-Chlorotoluene	ND	5.0
4-Isopropyltoluene	ND	5.0
4-Methyl-2-pentanone	ND	10
Acetone	ND	100
Acrylonitrile	ND	50
Benzene	ND	5.0
Bromobenzene	ND	5.0
Bromoform	ND	5.0
Bromomethane	ND	10
Carbon disulfide	ND	5.0
Carbon tetrachloride	ND	5.0
Chlorobenzene	ND	5.0
Chloroethane	ND	10
Chloroform	ND	5.0

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030212 Page 92

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/23/2011 2:37:24 PM

## Quality Control Report

**Conoco Phillips**

San Juan 29-7 Unit 37

**Analysis:** Volatile Organics by Method 8260B  
**Method:** SW8260B

**WorkOrder:** 11030212  
**Lab Batch ID:** R316923

### Method Blank

RunID: K\_110310A-5741882 Units: ug/kg  
 Analysis Date: 03/10/2011 13:01 Analyst: LU\_L

Analyte	Result	Rep Limit
Chloromethane	ND	10
Dibromochloromethane	ND	5.0
Dibromomethane	ND	5.0
Dichlorodifluoromethane	ND	10
Ethylbenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Isopropylbenzene	ND	5.0
Methyl tert-butyl ether	ND	5.0
Methylene chloride	ND	5.0
Naphthalene	ND	5.0
n-Butylbenzene	ND	5.0
n-Propylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
Styrene	ND	5.0
tert-Butylbenzene	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Trichloroethene	ND	5.0
Trichlorofluoromethane	ND	5.0
Vinyl acetate	ND	10
Vinyl chloride	ND	10
cis-1,2-Dichloroethene	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
m,p-Xylene	ND	5.0
o-Xylene	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,2-Dichloroethene (total)	ND	5.0
Xylenes, Total	ND	5.0
Surr: 1,2-Dichloroethane-d4	88.0	71-130
Surr: 4-Bromofluorobenzene	98.8	65-131
Surr: Toluene-d8	101.6	75-136

### Methanolic Preparation Blank

RunID: K\_110310A-5741883 Units: ug/kg  
 Analysis Date: 03/10/2011 13:27 Analyst: LU\_L

<b>Qualifiers:</b>	ND/U - Not Detected at the Reporting Limit	MI - Matrix Interference
	B - Analyte Detected In The Associated Method Blank	D - Recovery Unreportable due to Dilution
	J - Estimated Value Between MDL And PQL	* - Recovery Outside Advisable QC Limits
	E - Estimated Value exceeds calibration curve	
	N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.	
	TNTC - Too numerous to count	

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030212 Page 93

3/23/2011 2:37:24 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 11030212  
Lab Batch ID: R316923

Analyte	Result	Rep Limit
1,1,1,2-Tetrachloroethane	ND	250
1,1,1-Trichloroethane	ND	250
1,1,2,2-Tetrachloroethane	ND	250
1,1,2-Trichloroethane	ND	250
1,1-Dichloroethane	ND	250
1,1-Dichloroethene	ND	250
1,1-Dichloropropene	ND	250
1,2,3-Trichlorobenzene	ND	250
1,2,3-Trichloropropane	ND	250
1,2,4-Trichlorobenzene	ND	250
1,2,4-Trimethylbenzene	ND	250
1,2-Dibromo-3-chloropropane	ND	250
1,2-Dibromoethane	ND	250
1,2-Dichlorobenzene	ND	250
1,2-Dichloroethane	ND	250
1,2-Dichloropropane	ND	250
1,3,5-Trimethylbenzene	ND	250
1,3-Dichlorobenzene	ND	250
1,3-Dichloropropane	ND	250
1,4-Dichlorobenzene	ND	250
2,2-Dichloropropane	ND	250
2-Butanone	ND	1000
2-Chloroethyl vinyl ether	ND	500
2-Chlorotoluene	ND	250
2-Hexanone	ND	500
4-Chlorotoluene	ND	250
4-Isopropyltoluene	ND	250
4-Methyl-2-pentanone	ND	500
Acetone	ND	5000
Acrylonitrile	ND	2500
Benzene	ND	250
Bromobenzene	ND	250
Bromochloromethane	ND	250
Bromodichloromethane	ND	250
Bromoform	ND	250
Bromomethane	ND	500
Carbon disulfide	ND	250
Carbon tetrachloride	ND	250
Chlorobenzene	ND	250
Chloroethane	ND	500
Chloroform	ND	250
Chloromethane	ND	500
Dibromochloromethane	ND	250
Dibromomethane	ND	250
Dichlorodifluoromethane	ND	500
Ethylbenzene	ND	250
Hexachlorobutadiene	ND	250
Isopropylbenzene	ND	250
Methyl tert-butyl ether	ND	250

- Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count
- MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030212 Page 94

3/23/2011 2:37:24 PM

### Quality Control Report

**Conoco Phillips**  
San Juan 29-7 Unit 37

**Analysis:** Volatile Organics by Method 8260B  
**Method:** SW8260B

**WorkOrder:** 11030212  
**Lab Batch ID:** R316923

#### Methanolic Preparation Blank

RunID: K\_110310A-5741883 Units: ug/kg  
Analysis Date: 03/10/2011 13:27 Analyst: LU\_L

Analyte	Result	Rep Limit
Methylene chloride	ND	250
Naphthalene	ND	250
n-Butylbenzene	ND	250
n-Propylbenzene	ND	250
sec-Butylbenzene	ND	250
Styrene	ND	250
tert-Butylbenzene	ND	250
Tetrachloroethene	ND	250
Toluene	ND	250
Trichloroethene	ND	250
Trichlorofluoromethane	ND	250
Vinyl acetate	ND	500
Vinyl chloride	ND	500
cis-1,2-Dichloroethene	ND	250
cis-1,3-Dichloropropene	ND	250
m,p-Xylene	ND	250
o-Xylene	ND	250
trans-1,2-Dichloroethene	ND	250
trans-1,3-Dichloropropene	ND	250
1,2-Dichloroethene (total)	ND	250
Xylenes, Total	ND	250
Surr: 1,2-Dichloroethane-d4	91.2	78-116
Surr: 4-Bromofluorobenzene	98.5	74-125
Surr: Toluene-d8	100.0	82-118

#### Laboratory Control Sample (LCS)

RunID: K\_110310A-5741881 Units: ug/kg  
Analysis Date: 03/10/2011 12:35 Analyst: LU\_L

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1,1,2-Tetrachloroethane	20.0	18.3	91.4	71	128
1,1,1-Trichloroethane	20.0	16.9	84.3	61	135
1,1,2,2-Tetrachloroethane	20.0	19.3	96.6	60	133

**Qualifiers:** ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030212 Page 95

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/23/2011 2:37:24 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

### Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 11030212  
Lab Batch ID: R316923

#### Laboratory Control Sample (LCS)

RunID: K\_110310A-5741881 Units: ug/kg  
Analysis Date: 03/10/2011 12:35 Analyst: LU\_L

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1,2-Trichloroethane	20.0	20.1	101	77	127
1,1-Dichloroethane	20.0	19.8	99.2	68	132
1,1-Dichloroethene	20.0	17.1	85.6	65	134
1,1-Dichloropropene	20.0	19.8	99.1	68	126
1,2,3-Trichlorobenzene	20.0	17.9	89.4	36	154
1,2,3-Trichloropropane	20.0	19.7	98.7	38	153
1,2,4-Trichlorobenzene	20.0	16.2	81.1	69	144
1,2,4-Trimethylbenzene	20.0	17.0	85.1	64	128
1,2-Dibromo-3-chloropropane	20.0	18.2	91.1	44	141
1,2-Dibromoethane	20.0	20.0	100	75	124
1,2-Dichlorobenzene	20.0	17.7	88.7	68	124
1,2-Dichloroethane	20.0	16.8	84.2	61	138
1,2-Dichloropropane	20.0	20.2	101	76	123
1,3,5-Trimethylbenzene	20.0	17.1	85.7	61	127
1,3-Dichlorobenzene	20.0	17.8	88.9	68	127
1,3-Dichloropropane	20.0	19.8	99.0	76	125
1,4-Dichlorobenzene	20.0	18.1	90.5	68	124
2,2-Dichloropropane	20.0	17.4	87.0	42	142
2-Butanone	50.0	52.6	105	22	183
2-Chloroethyl vinyl ether	20.0	22.8	114	10	179
2-Chlorotoluene	20.0	19.0	95.2	64	132
2-Hexanone	50.0	49.7	99.3	31	178
4-Chlorotoluene	20.0	18.9	94.4	61	132
4-Isopropyltoluene	20.0	17.0	85.1	63	136
4-Methyl-2-pentanone	50.0	49.3	98.5	10	159
Acetone	50.0	55.3	111	10	200
Acrylonitrile	20.0	21.4	107	54	155
Benzene	20.0	19.0	95.0	74	123
Bromobenzene	20.0	17.9	89.7	68	125
Bromochloromethane	20.0	20.4	102	71	124

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030212 Page 96

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/23/2011 2:37:24 PM

### Quality Control Report

**Conoco Phillips**

San Juan 29-7 Unit 37

**Analysis:** Volatile Organics by Method 8260B  
**Method:** SW8260B

**WorkOrder:** 11030212  
**Lab Batch ID:** R316923

#### Laboratory Control Sample (LCS)

RunID:	K_110310A-5741881	Units:	ug/kg
Analysis Date:	03/10/2011 12:35	Analyst:	LU_L

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Bromodichloromethane	20.0	17.1	85.3	72	128
Bromoform	20.0	17.6	87.9	73	143
Bromomethane	20.0	18.8	94.2	53	130
Carbon disulfide	20.0	19.8	99.2	41	143
Carbon tetrachloride	20.0	17.2	86.1	59	142
Chlorobenzene	20.0	19.1	95.7	75	125
Chloroethane	20.0	20.7	104	60	134
Chloroform	20.0	17.9	89.4	71	127
Chloromethane	20.0	21.3	106	50	139
Dibromochloromethane	20.0	18.7	93.7	65	130
Dibromomethane	20.0	17.8	89.2	79	124
Dichlorodifluoromethane	20.0	16.2	81.0	22	162
Ethylbenzene	20.0	20.1	100	72	127
Hexachlorobutadiene	20.0	16.4	81.9	45	152
Isopropylbenzene	20.0	18.7	93.3	58	130
Methyl tert-butyl ether	20.0	19.3	96.5	63	123
Methylene chloride	20.0	18.0	89.9	61	135
Naphthalene	20.0	20.6	103	33	148
n-Butylbenzene	20.0	16.6	83.2	62	136
n-Propylbenzene	20.0	18.5	92.4	57	131
sec-Butylbenzene	20.0	17.0	85.0	63	131
Styrene	20.0	18.7	93.7	69	120
tert-Butylbenzene	20.0	16.0	80.2	59	131
Tetrachloroethene	20.0	18.3	91.7	45	173
Toluene	20.0	19.6	97.9	74	126
Trichloroethene	20.0	18.9	94.4	79	131
Trichlorofluoromethane	20.0	19.9	99.4	49	153
Vinyl acetate	20.0	20.7	104	10	167
Vinyl chloride	20.0	22.4	112	51	148
cis-1,2-Dichloroethene	20.0	19.7	98.7	71	128

**Qualifiers:** ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030212 Page 97

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/23/2011 2:37:24 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 11030212  
Lab Batch ID: R316923

### Laboratory Control Sample (LCS)

RunID: K\_110310A-5741881 Units: ug/kg  
Analysis Date: 03/10/2011 12:35 Analyst: LU\_L

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
cis-1,3-Dichloropropene	20.0	17.7	88.3	67	128
m,p-Xylene	40.0	39.8	99.5	71	129
o-Xylene	20.0	19.7	98.5	74	130
trans-1,2-Dichloroethene	20.0	18.4	92.2	66	128
trans-1,3-Dichloropropene	20.0	16.8	83.9	60	128
1,2-Dichloroethene (total)	40.0	38.1	95.4	66	128
Xylenes, Total	60.0	59.5	99.2	71	130
Surr: 1,2-Dichloroethane-d4	50.0	45.8	91.6	78	116
Surr: 4-Bromofluorobenzene	50.0	47.5	95.0	74	125
Surr: Toluene-d8	50.0	50	100	82	118

### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030212-03  
RunID: K\_110310A-5741887 Units: ug/kg  
Analysis Date: 03/10/2011 17:52 Analyst: LU\_L  
Preparation Date: 03/09/2011 9:54 Prep By: Method: SW5030B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
1,1,1,2-Tetrachloroethane	ND	10000	9410	94.1	10000	9190	91.9	2.38	20	68	124
1,1,1-Trichloroethane	ND	10000	8340	83.4	10000	8670	86.7	3.91	20	69	123
1,1,2,2-Tetrachloroethane	ND	10000	9940	99.4	10000	10100	101	1.37	20	69	130
1,1,2-Trichloroethane	ND	10000	11200	112	10000	10500	105	6.14	20	75	126
1,1-Dichloroethane	ND	10000	11300	113	10000	11300	113	0.0443	20	65	129
1,1-Dichloroethene	ND	10000	10200	102	10000	10400	104	1.48	22	61	139
1,1-Dichloropropene	ND	10000	10100	101	10000	10700	107	5.77	20	69	121
1,2,3-Trichlorobenzene	ND	10000	7380	73.8	10000	8720	87.2	16.7	20	53	127

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030212-Page 98

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/23/2011 2:37:25 PM

### Quality Control Report

**Conoco Phillips**

San Juan 29-7 Unit 37

<b>Analysis:</b>	Volatile Organics by Method 8260B	<b>WorkOrder:</b>	11030212
<b>Method:</b>	SW8260B	<b>Lab Batch ID:</b>	R316923

**Matrix Spike (MS) / Matrix Spike Duplicate (MSD)**

Sample Spiked: 11030212-03  
 RunID: K\_110310A-5741887 Units: ug/kg  
 Analysis Date: 03/10/2011 17:52 Analyst: LU\_L  
 Preparation Date: 03/09/2011 9:54 Prep By: Method: SW5030B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
1,2,3-Trichloropropane	ND	10000	10500	105	10000	10100	101	3.78	20	79	124
1,2,4-Trichlorobenzene	ND	10000	8100	81.0	10000	8790	87.9	8.09	20	58	118
1,2,4-Trimethylbenzene	23800	10000	37400	136 *	10000	38700	148 *	3.28	20	43	132
1,2-Dibromo-3-chloropropane	ND	10000	11500	115	10000	13000	130	12.0	20	46	131
1,2-Dibromoethane	ND	10000	11000	110	10000	10200	102	7.25	20	76	122
1,2-Dichlorobenzene	ND	10000	9460	94.6	10000	9780	97.8	3.31	20	74	110
1,2-Dichloroethane	ND	10000	9560	95.6	10000	9680	96.8	1.24	20	60	129
1,2-Dichloropropane	ND	10000	10300	103	10000	10800	108	4.33	20	76	116
1,3,5-Trimethylbenzene	16100	10000	28400	124 *	10000	27700	116	2.78	20	51	121
1,3-Dichlorobenzene	ND	10000	8760	87.6	10000	8970	89.7	2.32	20	71	110
1,3-Dichloropropane	ND	10000	10700	107	10000	10300	103	3.56	20	80	119
1,4-Dichlorobenzene	ND	10000	10000	100	10000	8530	85.3	16.0	20	69	110
2,2-Dichloropropane	ND	10000	9110	91.1	10000	8370	83.7	8.42	20	52	122
2-Butanone	ND	10000	29000	290 *	10000	32200	322 *	10.4	20	10	133
2-Chloroethyl vinyl ether	ND	10000	11600	116	10000	12200	122	4.76	20	10	182
2-Chlorotoluene	ND	10000	9520	95.2	10000	9790	97.9	2.83	20	69	112
2-Hexanone	ND	10000	35200	352 *	10000	32200	322 *	9.01	20	10	163
4-Chlorotoluene	ND	10000	10900	109	10000	10900	109	0.0408	20	37	110
4-Isopropyltoluene	ND	10000	9710	84.2	10000	11400	101	15.6	20	65	116
4-Methyl-2-pentanone	ND	10000	27200	272 *	10000	28100	281 *	3.10	20	10	103
Acetone	ND	10000	39600	396 *	10000	43600	436 *	9.60	20	10	160
Acrylonitrile	ND	10000	11400	114	10000	11300	113	1.26	20	45	155
Benzene	ND	10000	9860	98.6	10000	9960	99.6	1.03	22	70	124
Bromobenzene	ND	10000	8980	89.8	10000	9220	92.2	2.62	20	72	111
Bromochloromethane	ND	10000	10500	105	10000	10500	105	0.197	20	73	126
Bromodichloromethane	ND	10000	9000	90.0	10000	8750	87.5	2.82	20	68	125
Bromoform	ND	10000	9350	93.5	10000	8820	88.2	5.81	20	44	132
Bromomethane	ND	10000	8860	88.6	10000	8600	86.0	2.91	20	50	140

**Qualifiers:**  
 ND/U - Not Detected at the Reporting Limit  
 B - Analyte Detected In The Associated Method Blank  
 J - Estimated Value Between MDL And PQL  
 E - Estimated Value exceeds calibration curve  
 N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
 TNTC - Too numerous to count

MI - Matrix Interference  
 D - Recovery Unreportable due to Dilution  
 \* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030212 Page 99

3/23/2011 2:37:25 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 11030212  
Lab Batch ID: R316923

### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030212-03  
RunID: K\_110310A-5741887 Units: ug/kg  
Analysis Date: 03/10/2011 17:52 Analyst: LU\_L  
Preparation Date: 03/09/2011 9:54 Prep By: Method: SW5030B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Carbon disulfide	ND	10000	11100	111	10000	11300	113	1.63	20	46	143
Carbon tetrachloride	ND	10000	8560	85.6	10000	8610	86.1	0.622	20	66	126
Chlorobenzene	ND	10000	10200	102	10000	9880	98.8	3.16	21	68	123
Chloroethane	ND	10000	10000	100	10000	9700	97.0	3.52	20	59	134
Chloroform	ND	10000	9670	96.7	10000	9210	92.1	4.95	20	68	127
Chloromethane	ND	10000	9900	99.0	10000	10100	101	2.20	20	51	137
Dibromochloromethane	ND	10000	9980	99.8	10000	9650	96.5	3.36	20	58	131
Dibromomethane	ND	10000	9540	95.4	10000	9770	97.7	2.39	20	82	123
Dichlorodifluoromethane	ND	10000	7680	76.8	10000	7490	74.9	2.47	20	35	143
Ethylbenzene	4930	10000	17100	122	10000	16700	118	2.12	20	76	122
Hexachlorobutadiene	ND	10000	8640	86.4	10000	9770	97.7	12.2	20	43	137
Isopropylbenzene	ND	10000	12300	105	10000	11700	98.9	4.82	20	57	124
Methyl tert-butyl ether	ND	20000	10500	52.4	20000	10600	52.8	0.676	20	10	200
Methylene chloride	ND	10000	9950	99.5	10000	9890	98.9	0.598	20	70	134
Naphthalene	ND	10000	10900	96.8	10000	12500	112	12.9	20	42	140
n-Butylbenzene	ND	10000	10500	96.5	10000	10600	97.1	0.542	20	82	112
n-Propylbenzene	2710	10000	12200	95.3	10000	13000	103	5.88	20	73	108
sec-Butylbenzene	ND	10000	9560	95.6	10000	9820	98.2	2.69	20	76	110
Styrene	ND	10000	9850	98.5	10000	9460	94.6	4.04	20	58	152
tert-Butylbenzene	ND	10000	7300	73.0	10000	7530	75.3	3.16	20	66	120
Tetrachloroethene	ND	10000	9870	98.7	10000	9500	95.0	3.82	20	71	130
Toluene	6630	10000	19900	133 *	10000	19100	124 *	4.39	24	80	117
Trichloroethene	ND	10000	9930	99.3	10000	9890	98.9	0.463	21	82	121
Trichlorofluoromethane	ND	10000	9670	96.7	10000	9680	96.8	0.0831	20	74	138
Vinyl acetate	ND	10000	10700	107	10000	11100	111	3.46	20	66	135
Vinyl chloride	ND	10000	10000	100	10000	9260	92.6	7.70	20	45	143
cis-1,2-Dichloroethene	ND	10000	10800	108	10000	10300	103	3.86	20	67	132
cis-1,3-Dichloropropene	ND	10000	9260	92.6	10000	9000	90.0	2.81	20	67	116

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030212 Page 100

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/23/2011 2:37:25 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 11030212  
Lab Batch ID: R316923

### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030212-03  
RunID: K\_110310A-5741887 Units: ug/kg  
Analysis Date: 03/10/2011 17:52 Analyst: LU\_L  
Preparation Date: 03/09/2011 9:54 Prep By: Method: SW5030B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
m,p-Xylene	65100	20000	116000	254 *	20000	113000	241 *	2.33	20	69	127
o-Xylene	15000	10000	30200	152 *	10000	29900	149 *	0.861	20	84	114
trans-1,2-Dichloroethene	ND	10000	9790	97.9	10000	10000	100	2.38	20	68	131
trans-1,3-Dichloropropene	ND	10000	8600	86.0	10000	8720	87.2	1.30	20	56	131
1,2-Dichloroethene (total)	ND	20000	20590	102.7	20000	20300	101.9	0.8368	20	67	132
Xylenes,Total	80050	30000	146200	220.0 *	30000	142900	210.3 *	2.022	20	69	127
Surr: 1,2-Dichloroethane-d4	ND	25000	22500	89.9	25000	22200	88.8	1.22	30	78	116
Surr: 4-Bromofluorobenzene	ND	25000	25000	99.9	25000	23000	92.0	8.25	30	74	125
Surr: Toluene-d8	ND	25000	25700	103	25000	24400	97.8	4.87	30	82	118

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030212 Page 101

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/23/2011 2:37:25 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: pH  
Method: SW9045C

WorkOrder: 11030212  
Lab Batch ID: R316783

### Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
11030212-01C	MW-4(102-104)
11030212-02C	MW-4(111-113)
11030212-03C	B-2(45-47)
11030212-04C	B-2(106-108)
11030212-05C	MW-2(106-108)
11030212-06C	MW-3(106-108)
11030212-07C	MW-1(50-52)
11030212-08C	MW1(114-116)

### Laboratory Control Sample (LCS)

RunID: WET\_110309B-5739749 Units: pH Units  
Analysis Date: 03/09/2011 9:45 Analyst: PAC

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
pH	7.000	7.000	100.0	98	102

### Sample Duplicate

Original Sample: 11030212-01  
RunID: WET\_110309B-5739750 Units: pH Units  
Analysis Date: 03/09/2011 9:45 Analyst: PAC

Analyte	Sample Result	DUP Result	RPD	RPD Limit
pH	9.12	9.13	0.110	5

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference

D - Recovery Unreportable due to Dilution

\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030212 Page 102

3/23/2011 2:37:25 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Specific Conductance  
Method: SW9050

WorkOrder: 11030212  
Lab Batch ID: R316889

### Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
11030212-01C	MW-4(102-104)
11030212-02C	MW-4(111-113)
11030212-03C	B-2(45-47)
11030212-04C	B-2(106-108)
11030212-05C	MW-2(106-108)
11030212-06C	MW-3(106-108)
11030212-07C	MW-1(50-52)
11030212-08C	MW1(114-116)

### Laboratory Control Sample (LCS)

RunID: WET\_110310C-5741276 Units: umhos/cm  
Analysis Date: 03/10/2011 9:15 Analyst: PAC

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Specific Conductance	1413	1385	98.02	90	110

### Sample Duplicate

Original Sample: 11030212-01  
RunID: WET\_110310C-5741277 Units: umhos/cm  
Analysis Date: 03/10/2011 9:15 Analyst: PAC

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Specific Conductance	909	908	0.110	10

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference

D - Recovery Unreportable due to Dilution

\* - Recovery Outside Advisable QC Limits

11030212 Page 103

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/23/2011 2:37:26 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips  
San Juan 29-7 Unit 37

Analysis: Alkalinity (as CaCO<sub>3</sub>), Total in Soil  
Method: M2320 B

WorkOrder: 11030212  
Lab Batch ID: R316900

### Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
11030212-01C	MW-4(102-104)
11030212-02C	MW-4(111-113)
11030212-03C	B-2(45-47)
11030212-04C	B-2(106-108)
11030212-05C	MW-2(106-108)
11030212-06C	MW-3(106-108)
11030212-07C	MW-1(50-52)
11030212-08C	MW1(114-116)

### Laboratory Control Sample (LCS)

RunID: WET\_110310K-5741461 Units: mg/L  
Analysis Date: 03/10/2011 9:40 Analyst: PAC

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Alkalinity, Total (As CaCO <sub>3</sub> )	48.70	49.00	100.6	90	110

### Sample Duplicate

Original Sample: 11030212-02  
RunID: WET\_110310K-5741463 Units: mg/Kg CaCO<sub>3</sub>  
Analysis Date: 03/10/2011 9:40 Analyst: PAC

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Alkalinity, Total (As CaCO <sub>3</sub> )	240	240	0	20

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030212 Page 104

3/23/2011 2:37:26 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Alkalinity, Bicarbonate  
Method: SM2320B

WorkOrder: 11030212  
Lab Batch ID: R316902

#### Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
11030212-01C	MW-4(102-104)
11030212-02C	MW-4(111-113)
11030212-03C	B-2(45-47)
11030212-04C	B-2(106-108)
11030212-05C	MW-2(106-108)
11030212-06C	MW-3(106-108)
11030212-07C	MW-1(50-52)
11030212-08C	MW1(114-116)

#### Laboratory Control Sample (LCS)

RunID: WET\_110310L-5741487 Units: mg/L CaCO<sub>3</sub>  
Analysis Date: 03/10/2011 9:40 Analyst: PAC

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Alkalinity, Bicarbonate	48.70	49.00	100.6	90	110

#### Sample Duplicate

Original Sample: 11030212-02  
RunID: WET\_110310L-5741489 Units: mg/kg  
Analysis Date: 03/10/2011 9:40 Analyst: PAC

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Alkalinity, Bicarbonate	240	240	0	20

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030212 Page 105

3/23/2011 2:37:26 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Alkalinity, Carbonate  
Method: M2320 B

WorkOrder: 11030212  
Lab Batch ID: R316905

#### Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
11030212-01C	MW-4(102-104)
11030212-02C	MW-4(111-113)
11030212-03C	B-2(45-47)
11030212-04C	B-2(106-108)
11030212-05C	MW-2(106-108)
11030212-06C	MW-3(106-108)
11030212-07C	MW-1(50-52)
11030212-08C	MW1(114-116)

#### Laboratory Control Sample (LCS)

RunID: WET\_110310N-5741522 Units: mg/L CaCO3  
Analysis Date: 03/10/2011 9:40 Analyst: PAC

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Alkalinity, Carbonate	48.70	49.00	100.6	90	110

#### Sample Duplicate

Original Sample: 11030212-02  
RunID: WET\_110310N-5741524 Units: mg/kg  
Analysis Date: 03/10/2011 9:40 Analyst: PAC

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Alkalinity, Carbonate	ND	ND	0	20

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030212 Page 106

3/23/2011 2:37:26 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Ion Chromatography  
Method: E300.0 MOD

WorkOrder: 11030212  
Lab Batch ID: R316921

#### Method Blank

#### Samples in Analytical Batch:

RunID: IC2\_110310C-5741740 Units: mg/kg

#### Lab Sample ID

#### Client Sample ID

Analysis Date: 03/10/2011 22:53

Analyst: ESK

11030212-01C

MW-4(102-104)

Analyte	Result	Rep Limit
Bromide	ND	5.0
Chloride	ND	5.0
Fluoride	ND	5.0
Sulfate	ND	5.0

11030212-02C

MW-4(111-113)

11030212-03C

B-2(45-47)

11030212-04C

B-2(106-108)

11030212-05C

MW-2(106-108)

11030212-06C

MW-3(106-108)

11030212-07C

MW-1(50-52)

11030212-08C

MW1(114-116)

#### Laboratory Control Sample (LCS)

RunID: IC2\_110310C-5741741 Units: mg/kg

Analysis Date: 03/10/2011 23:10 Analyst: ESK

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Bromide	100.0	102.3	102.3	90	110
Chloride	100.0	100.5	100.5	90	110
Fluoride	100.0	102.2	102.2	90	110
Sulfate	100.0	100.7	100.7	90	110

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030212-03

RunID: IC2\_110310C-5741745 Units: mg/kg

Analysis Date: 03/11/2011 0:18 Analyst: ESK

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Bromide	ND	50	56.47	112.9	50	54.44	108.9	3.661	15	80	120

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030212 Page 107

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/23/2011 2:37:27 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

### Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37

Analysis: Ion Chromatography  
Method: E300.0 MOD

WorkOrder: 11030212  
Lab Batch ID: R316921

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030212-03  
RunID: IC2\_110310C-5741745 Units: mg/kg  
Analysis Date: 03/11/2011 0:18 Analyst: ESK

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Chloride	24.93	50	80.60	111.3	50	78.97	108.1	2.043	15	80	120
Fluoride	ND	50	56.94	110.0	50	54.42	105.0	4.526	15	80	120
Sulfate	77.40	50	132.6	110.3	50	129.7	104.6	2.173	15	80	120

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030212 Page 108

3/23/2011 2:37:27 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37

Analysis:	Ion Chromatography	WorkOrder:	11030212
Method:	E300.0 MOD	Lab Batch ID:	R316922

#### Method Blank

#### Samples in Analytical Batch:

RunID: IC2\_110310D-5741770 Units: mg/kg

Analysis Date: 03/10/2011 22:53 Analyst: ESK

#### Lab Sample ID

#### Client Sample ID

11030212-01C	MW-4(102-104)
11030212-02C	MW-4(111-113)
11030212-03C	B-2(45-47)
11030212-04C	B-2(106-108)
11030212-05C	MW-2(106-108)
11030212-06C	MW-3(106-108)
11030212-07C	MW-1(50-52)
11030212-08C	MW1(114-116)

Analyte	Result	Rep Limit
Nitrogen,Nitrate (As N)	ND	5.0
Nitrogen,Nitrite (As N)	ND	5.0

#### Laboratory Control Sample (LCS)

RunID: IC2\_110310D-5741771 Units: mg/kg  
Analysis Date: 03/10/2011 23:10 Analyst: ESK

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Nitrogen,Nitrate (As N)	100.0	96.89	96.89	90	110
Nitrogen,Nitrite (As N)	100.0	102.3	102.3	90	110

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030212-03  
RunID: IC2\_110310D-5741775 Units: mg/kg  
Analysis Date: 03/11/2011 0:18 Analyst: ESK

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Nitrogen,Nitrate (As N)	93.11	50	154.7	123.2 *	50	151.8	117.4	1.905	15	80	120
Nitrogen,Nitrite (As N)	ND	50	59.00	111.2	50	56.41	106.0	4.488	15	80	120

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030212 Page 109

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/23/2011 2:37:27 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

### Quality Control Report

Conoco Phillips  
San Juan 29-7 Unit 37

Analysis: Ion Chromatography  
Method: E300.0 MOD

WorkOrder: 11030212  
Lab Batch ID: R316996

#### Method Blank

#### Samples in Analytical Batch:

RunID: IC2\_110312A-5742873 Units: mg/kg  
Analysis Date: 03/12/2011 11:33 Analyst: ESK

Lab Sample ID

Client Sample ID

11030212-08C

MW1(114-116)

Analyte	Result	Rep Limit
Sulfate	ND	5.0

#### Laboratory Control Sample (LCS)

RunID: IC2\_110312A-5742874 Units: mg/kg  
Analysis Date: 03/12/2011 11:50 Analyst: ESK

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Sulfate	100.0	98.02	98.02	90	110

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030112-01  
RunID: IC2\_110312A-5742883 Units: mg/kg-dry  
Analysis Date: 03/12/2011 14:40 Analyst: ESK

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Sulfate	393.1	542	983.5	108.9	542	896.7	92.90	0	15	80	120

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030212 Page 110

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/23/2011 2:37:28 PM

### Quality Control Report

**Conoco Phillips**

San Juan 29-7 Unit 37

<b>Analysis:</b>	<b>Ion Chromatography</b>	<b>WorkOrder:</b>	<b>11030212</b>
<b>Method:</b>	<b>E300.0 MOD</b>	<b>Lab Batch ID:</b>	<b>R317044</b>

#### Method Blank

#### Samples in Analytical Batch:

RunID:	Units:	Lab Sample ID	Client Sample ID
IC2_110314A-5743746	mg/kg	11030212-01C	MW-4(102-104)
Analysis Date:	Analyst:	11030212-02C	MW-4(111-113)
03/14/2011 11:47	ESK	11030212-03C	B-2(45-47)
		11030212-04C	B-2(106-108)
		11030212-05C	MW-2(106-108)
		11030212-06C	MW-3(106-108)
		11030212-07C	MW-1(50-52)
		11030212-08C	MW1(114-116)

#### Laboratory Control Sample (LCS)

RunID:	IC2_110314A-5743747	Units:	mg/kg
Analysis Date:	03/14/2011 12:04	Analyst:	ESK

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Ortho-phosphate (As P)	100.0	102.3	102.3	90	110

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked:	11030212-03		
RunID:	IC2_110314A-5743753	Units:	mg/kg
Analysis Date:	03/14/2011 13:46	Analyst:	ESK

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Ortho-phosphate (As P)	ND	50	54.51	109.0	50	50.81	101.6	7.026	15	80	120

<b>Qualifiers:</b>	ND/U - Not Detected at the Reporting Limit	MI - Matrix Interference
	B - Analyte Detected In The Associated Method Blank	D - Recovery Unreportable due to Dilution
	J - Estimated Value Between MDL And PQL	* - Recovery Outside Advisable QC Limits
	E - Estimated Value exceeds calibration curve	
	N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.	
	TNTC - Too numerous to count	

11030212 Page 111

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/23/2011 2:37:28 PM

*Sample Receipt Checklist*  
And  
*Chain of Custody*



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Sample Receipt Checklist

Workorder:	11030212	Received By:	NB
Date and Time Received:	3/8/2011 9:16:00 AM	Carrier name:	Fedex-Standard Overnight
Temperature:	2.0/2.0°C	Chilled by:	Water Ice

- |  |   |                             |   |
|--|---|-----------------------------|---|
| 1. Shipping container/cooler in good condition?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>                      |
| 2. Custody seals intact on shipping container/cooler?        | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/>           |
| 3. Custody seals intact on sample bottles?                   | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/>           |
| 4. Chain of custody present?                                 | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 5. Chain of custody signed when relinquished and received?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 6. Chain of custody agrees with sample labels?               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 7. Samples in proper container/bottle?                       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 8. Sample containers intact?                                 | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 9. Sufficient sample volume for indicated test?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 10. All samples received within holding time?                | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 11. Container/Temp Blank temperature in compliance?          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 12. Water - VOA vials have zero headspace?                   | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | VOA Vials Not Present <input checked="" type="checkbox"/> |
| 13. Water - Preservation checked upon receipt (except VOA*)? | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Applicable <input checked="" type="checkbox"/>        |

\*VOA Preservation Checked After Sample Analysis

SPL Representative:

Contact Date & Time:

Client Name Contacted:

Non Conformance Issues:	<input type="text"/>
Client Instructions:	<input type="text"/>



SPL, Inc.

## Analysis Request &amp; Chain of Custody Record

302524

(128)

11030212

page

of

## Requested Analysis

General Chem / Metal / Other

Client Name:	Tech Indian School #200	
Address:	Highview	
City:	505-237-8440	505-237-8656
Phone/Fax:	Patty Blanchard	Email: <a href="mailto:patty.banchard@tetratech.com">patty.banchard@tetratech.com</a>
Client Contact:	San Juan	29-7 Unit 37 MW Install
Project Name/No.:	San Juan	29-7 Unit 37
Site Name:	Bio Arrix	
Site Location:	Conoco Phillips	Ph:
Invoice To:	SAMPLE ID	DATE
		TIME
MW-4	(102-104)	2.28.11
MW-4	(111-113)	2.28.11
B-2	(45-47)	3.1.11
B-2	(106-108)	3.1.11
MW-2	(106-108)	3.2.11
MW-3	(106-108)	3.2.11
MW-1	(50-52)	3.3.11
MW-1	(114-116)	3.3.11

Client/Contractor Remarks:	General Chem = Alkalinity, Bromide, Chloride, Fluoride, Nitrate, Nitrite, Phosphate, Sulfate, Inorganic, Specific Metals = Aluminum, Barium, Cadmium, Chromium, Cobalt, Lead, manganese, molibdenum, Nickel, Zinc, Special Reporting Requirements, Results: Email <input type="checkbox"/> Fax <input type="checkbox"/> PDF <input type="checkbox"/> Standard TAT <input checked="" type="checkbox"/> Level 3 QC <input type="checkbox"/> Level 4 QC <input type="checkbox"/> TX TRRP <input type="checkbox"/> LA RECAP <input type="checkbox"/>	
Requested TAT	<input type="checkbox"/> 1 Business Day <input type="checkbox"/> 2 Business Days <input type="checkbox"/> 3 Business Days <input type="checkbox"/> Other _____	
1. Kept up-to-date by:	Reinquished by:	date 3-7-11 time 7:00
2. Received by:	4. Received by:	time
5. Relinquished by:	6. Received by Laboratory:	date 3/8/11 time 8:15 AM

- Rush TAT requires prior notice  Houston, TX 77054 (713) 660-0901  8880 Interchange Drive  500 Ambassador Caffery Parkway Scott, LA 70583 (337) 237-4775  459 Hughes Drive Traverse City, MI 49686 (231) 947-5777

## **APPENDIX C**

March 2011 Baseline Groundwater Sampling Field Forms



TETRA TECH, INC.

## WATER SAMPLING FIELD FORM

Project Name San Juan 29-7 Unit 37Page 1 of 4

Act No. \_\_\_\_\_

Site Location Rio Arriba County, NMSite/Well No. MW-1Coded/  
Replicate No. Duplicate @ 1135Date 3-17-11Weather DRY, OVERCAST,Time Sampling  
Began 1125Time Sampling  
Completed 1130500

## EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface \_\_\_\_\_

MP Elevation \_\_\_\_\_

Total Sounded Depth of Well Below MP \_\_\_\_\_

125.4

Water-Level Elevation \_\_\_\_\_

Held \_\_\_\_\_ Depth to Water Below MP \_\_\_\_\_

108.91Diameter of Casing 2"

Wet \_\_\_\_\_ Water Column in Well \_\_\_\_\_

125.4 - 108.91 = 16.49Gallons Pumped/Bailed \_\_\_\_\_  
Prior to Sampling \_\_\_\_\_

Gallons per Foot \_\_\_\_\_

0.16Sampling Pump Intake Setting  
(feet below land surface) 2.6 x 3 = 7.91

Gallons in Well \_\_\_\_\_

Purging Equipment \_\_\_\_\_

Purge pump/Bailer

## SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity ( $\mu\text{S}/\text{cm}^3$ )	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)

Sampling Equipment \_\_\_\_\_

Purge Pump/Bailer

Constituents Sampled \_\_\_\_\_

Container Description \_\_\_\_\_

Preservative \_\_\_\_\_

Remarks

Well recharge is poor. Bailed dry on 3-15-11. Will collect samples from volume in well.Sampling Personnel Christine Mathews, Cassie Brown

## Well Casing Volumes

Gal./ft.	$1 \frac{1}{4}'' = 0.077$	$2'' = 0.16$	$3'' = 0.37$	$4'' = 0.65$
	$1 \frac{1}{2}'' = 0.10$	$2 \frac{1}{2}'' = 0.24$	$3 \frac{1}{2}'' = 0.50$	$6'' = 1.46$

No  
parameters  
will be  
collected.

hydrocarbon odor  
observed, no sheen.



TETRA TECH, INC.

## WATER SAMPLING FIELD FORM

Project Name San Juan 29-7 Unit 37Page 2 of 4

Act No. \_\_\_\_\_

Site Location Rio Arriba County, NMSite/Well No. MW-2 Coded/  
Replicate No. \_\_\_\_\_Date 3-17-11Weather overcast Time Sampling  
Began 1015Time Sampling  
Completed 1055

## EVACUATION DATA

Description of Measuring Point (MI Top of Casing)

Height of MP Above/Below Land Surface \_\_\_\_\_ MP Elevation \_\_\_\_\_

Total Sounded Depth of Well Below MP 120.65 Water-Level Elevation \_\_\_\_\_Held \_\_\_\_\_ Depth to Water Below MP 109.20 Diameter of Casing 2"Wet \_\_\_\_\_ Water Column in Well 11.45 Gallons Pumped/Bailed \_\_\_\_\_Prior to Sampling 5.5Gallons per Foot 0.16Sampling Pump Intake  
(feet below land) \_\_\_\_\_Gallons in Well 1.8313 = 5.49Purging Equipment Purge pump / Bailer

## SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity ( $\mu\text{S}/\text{cm}^3$ )	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
1047	14.31	7.12	2230	1.822	5.82	57.2	38.8	4.5
1049	14.30	7.10	2232	1.824	5.82	57.2	51.8	5.0
1052	14.28	7.08	2232	1.825	5.92	58.2	59.8	5.5

Sampling Equipment Purge Pump/Bailer

Constituents Sampled \_\_\_\_\_ Container Description \_\_\_\_\_ Preservative \_\_\_\_\_

Remarks H<sub>2</sub>O is brown & silty, no odor or sheen observed.Sampling Personnel Christine Mathews, Cassie Brown

## Well Casing Volumes

Gal./ft. 1 1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
1 1/2" = 0.10	2 1/2" = 0.24	3 1/2" = 0.50	6" = 1.46



TETRATECH, INC.

## WATER SAMPLING FIELD FORM

Project Name San Juan 29-7 Unit 37Page 3 of 4

Project No. \_\_\_\_\_

Site Location Rio Arriba County, NMSite/Well No. MW-3

Coded/

Replicate No. \_\_\_\_\_

Weather overcast & breezy

Time Sampling

Began \_\_\_\_\_

0955Date 3/17/11

Time Sampling

Completed \_\_\_\_\_

1045SD

## EVACUATION DATA

Description of Measuring Point (MP) Top of Casing

Height of MP Above/Below Land Surface \_\_\_\_\_

MP Elevation \_\_\_\_\_

Total Sounded Depth of Well Below MP 121.81

Water-Level Elevation \_\_\_\_\_

Held \_\_\_\_\_ Depth to Water Below MP 109.42Diameter of Casing 2"Wet \_\_\_\_\_ Water Column in Well 12.39Gallons Pumped/Bailed  
Prior to Sampling \_\_\_\_\_6.0Gallons per Foot 0.16Sampling Pump Intake Setting  
(feet below land surface) \_\_\_\_\_Gallons in Well 1.98 x 3 =

Purging Equipment

Purge pump / Bailer

## SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity ( $\mu\text{S}/\text{cm}^3$ )	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
1035	15.17	7.20	21607	1.734	7.10	40.8	-30.9	1035 5
1038	15.15	7.15	2163	1.732	2.61	26.0	-29.7	3.5
1040	15.10	7.10	2160	1.731	2.67	26.8	-28.2	6.0

Sampling Equipment

Purge Pump/Bailer

Constituents Sampled

Container Description

Preservative

Remarks

H<sub>2</sub>O is brown & saltySampling Personnel Christine Mathews, Cassie Brown

## Well Casing Volumes

Gal./ft.  $1 \frac{1}{4}'' = 0.077$  $2'' = 0.16$  $3'' = 0.37$  $4'' = 0.65$  $1 \frac{1}{2}'' = 0.10$  $2 \frac{1}{2}'' = 0.24$  $3 \frac{1}{2}'' = 0.50$  $6'' = 1.46$



TETRA TECH, INC.

## WATER SAMPLING FIELD FORM

Project Name San Juan 29-7 Unit 37Page 4 of 4

Project No. \_\_\_\_\_

Site Location Rio Arriba County, NMSite/Well No. MW - 4Coded/  
Replicate No. \_\_\_\_\_Weather overcast, breezyTime Sampling  
Began 1210Date 3/17/11Time Sampling  
Completed 1245

## EVACUATION DATA

Description of Measuring Point (MP Top of Casing)

Height of MP Above/Below Land Surface \_\_\_\_\_

MP Elevation \_\_\_\_\_

Total Sounded Depth of Well Below MP 123.37

Water-Level Elevation \_\_\_\_\_

Held 111.11 Depth to Water Below MP 111.11Diameter of Casing 2" \_\_\_\_\_Wet 12.26 Water Column in Well 12.26Gallons Pumped/Bailed 6.0 \_\_\_\_\_Gallons per Foot .16

Prior to Sampling \_\_\_\_\_

Gallons in Well 1.966Sampling Pump Intake Setting  
(feet below land surface) \_\_\_\_\_Purging Equipment Purge pump / Bailer

## SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (°C)	pH	Conductivity ( $\mu\text{S}/\text{cm}^3$ )	TDS (g/L)	DO (mg/L)	DO %	ORP (mV)	Volume (gal.)
1230	13.97	7.64	2247	1,851	8.44	81.0	84.2	5.0
1238	13.84	7.62	2234	1,846	7.29	71.1	89.4	5.5
1241	13.81	7.50	2233	1,8410	6.75	65.7	88.6	6.0

Sampling Equipment Purge Pump/Bailer

Constituents Sampled

Container Description

Preservative

Remarks H<sub>2</sub>O is brown & saltySampling Personnel Christine Mathews, Cassie Brown

## Well Casing Volumes

Gal./ft.  $1 \frac{1}{4}'' = 0.077$  $2'' = 0.16$  $3'' = 0.37$  $4'' = 0.65$  $1 \frac{1}{2}'' = 0.10$  $2 \frac{1}{2}'' = 0.24$  $3 \frac{1}{2}'' = 0.50$  $6'' = 1.46$

## **APPENDIX D**

March 2011 Baseline Groundwater Laboratory Analytical Report



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Conoco Phillips

### Certificate of Analysis Number:

**11030471**

<b><u>Report To:</u></b>	<b><u>Project Name:</u></b>
Tetra Tech, Inc. Kelly Blanchard 6121 Indian School Road, N.E. Suite 200 Albuquerque NM 87110- ph: (505) 237-8440      fax: (505) 881-3283	San Juan 29-7 Unit 37 GW Baseline
	<b><u>Site:</u></b> Rio Ariba County, NM
	<b><u>Site Address:</u></b>
	<b><u>PO Number:</u></b>
	<b><u>State:</u></b> New Mexico
	<b><u>State Cert. No.:</u></b>
	<b><u>Date Reported:</u></b> 3/30/2011

This Report Contains A Total Of 77 Pages

Excluding This Page, Chain Of Custody

And

Any Attachments

3/31/2011

Date

Test results meet all requirements of NELAC, unless specified in the narrative.

Version 2.1 - Modified February 11, 2011



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Case Narrative for:  
**Conoco Phillips**

Certificate of Analysis Number:

**11030471**

<b>Report To:</b>  Tetra Tech, Inc. Kelly Blanchard 6121 Indian School Road, N.E. Suite 200 Albuquerque NM 87110- ph: (505) 237-8440      fax: (505) 881-3283	<b>Project Name:</b> San Juan 29-7 Unit 37 GW Baseline <b>Site:</b> Rio Ariba County, NM <b>Site Address:</b>  <b>PO Number:</b> <b>State:</b> New Mexico <b>State Cert. No.:</b> <b>Date Reported:</b> 3/30/2011
--	--

I. SAMPLE RECEIPT:

All samples were received intact. The internal ice chest temperatures were measured on receipt and are recorded on the attached Sample Receipt Checklist.

II: ANALYSES AND EXCEPTIONS:

Per the Conoco Phillips TSM Revision 0, a copy of the internal chain of custody is to be included in final data package. However, due to LIMS limitations, this cannot be provided at this time.

SW8260B Volatile Organics:

The results for 2-chloroethyl vinyl ether should be considered estimated due to compound decomposition as a result of acid preservation. The result for this compound is reported as " ND J" for all samples in the report.

SW8015B Diesel Range Organics:

Due to limited sample volume, a Matrix Spike (MS) or Matrix Spike Duplicate (MSD) was not extracted for Batch ID: 105605. A Laboratory Control Sample (LCS) and a Laboratory Control Sample Duplicate (LCSD) were extracted with the analytical batch and serve as the batch quality control (QC). The LCS and LCSD recovered acceptably and precision criteria were met.

III. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report (" mg/kg-dry " or " ug/kg-dry " ).

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Some of the percent recoveries and RPD's on the QC report for the MS/MSD may be different than the calculated recoveries and RPD's using the sample result and the MS/MSD results that appear on the report because, the actual raw result is used to perform the calculations for percent recovery and RPD.

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

11030471 Page 1

3/31/2011

Erica Cardenas  
Project Manager

Date

Test results meet all requirements of NELAC, unless specified in the narrative.



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Case Narrative for:  
**Conoco Phillips**

---

Certificate of Analysis Number:  
**11030471**

---

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or by his designee, as verified by the following signature.

A handwritten signature in black ink that reads "Erica Cardenas".

Erica Cardenas  
Project Manager

Test results meet all requirements of NELAC, unless specified in the narrative.

11030471 Page 2  
3/31/2011

Date



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Conoco Phillips

### Certificate of Analysis Number:

11030471

<u>Report To:</u>	Tetra Tech, Inc. Kelly Blanchard 6121 Indian School Road, N.E. Suite 200 Albuquerque NM 87110- ph: (505) 237-8440      fax: (505) 881-3283	<u>Project Name:</u>	San Juan 29-7 Unit 37 GW Baseline
		<u>Site:</u>	Rio Arriba County, NM
		<u>Site Address:</u>	
		<u>PO Number:</u>	
		<u>State:</u>	New Mexico
		<u>State Cert. No.:</u>	
<u>Fax To:</u>		<u>Date Reported:</u>	3/30/2011

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
MW-1	11030471-01	Water	03/17/2011 11:30	3/18/2011 9:06:00 AM		<input type="checkbox"/>
MW-2	11030471-02	Water	03/17/2011 10:55	3/18/2011 9:06:00 AM		<input type="checkbox"/>
MW-3	11030471-03	Water	03/17/2011 10:45	3/18/2011 9:06:00 AM		<input type="checkbox"/>
MW-4	11030471-04	Water	03/17/2011 12:45	3/18/2011 9:06:00 AM		<input type="checkbox"/>
Duplicate	11030471-05	Water	03/17/2011 11:35	3/18/2011 9:06:00 AM		<input type="checkbox"/>
Trip Blank	11030471-06	Water	03/17/2011 0:00	3/18/2011 9:06:00 AM		<input type="checkbox"/>

3/31/2011

Erica Cardenas  
Project Manager

Date

Kesavulu M. Bagawandoss Ph.D., J.D.  
Laboratory Director

Ted Yen  
Quality Assurance Officer



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-1

Collected: 03/17/2011 11:30 SPL Sample ID: 11030471-01

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>ALKALINITY (AS CACO3), TOTAL</b>				<b>MCL</b>	<b>SM2320B</b>	<b>Units: mg/L</b>	
Alkalinity, Total (As CaCO3)	271		2	1	03/18/11 13:30	PAC	5746945
<b>DIESEL RANGE ORGANICS</b>				<b>MCL</b>	<b>SW8015B</b>	<b>Units: mg/L</b>	
Diesel Range Organics (C10-C28)	0.28		0.11	1	03/25/11 11:47	NW	5752586
Surr: n-Pentacosane	55.5	%	20-150	1	03/25/11 11:47	NW	5752586

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	03/22/2011 16:08	N_M	1.06

<b>GASOLINE RANGE ORGANICS</b>			<b>MCL</b>	<b>SW8015B</b>	<b>Units: mg/L</b>	
Gasoline Range Organics	1.5		0.1	1	03/23/11 14:07	NMa
Surr: 1,4-Difluorobenzene	103	%	60-155	1	03/23/11 14:07	NMa
Surr: 4-Bromofluorobenzene	106	%	50-158	1	03/23/11 14:07	NMa

<b>HARDNESS, TOTAL (TITRIMETRIC, EDTA)</b>			<b>MCL</b>	<b>SM2340C</b>	<b>Units: mg/L</b>	
Hardness (As CaCO3)	1000		100	20	03/21/11 11:00	PAC

<b>ION CHROMATOGRAPHY</b>			<b>MCL</b>	<b>E300.0</b>	<b>Units: mg/L</b>	
Bromide	0.623		0.5	1	03/18/11 15:37	ESK
Chloride	32.9		2.5	5	03/18/11 19:23	ESK
Fluoride	1.22		0.5	1	03/18/11 15:37	ESK
Ortho-phosphate (As P)	ND		0.5	1	03/18/11 15:37	ESK
Sulfate	1610		50	100	03/18/11 20:28	ESK
Nitrogen,Nitrate (As N)	ND		0.5	1	03/18/11 15:37	ESK
Nitrogen,Nitrite (As N)	ND		0.5	1	03/18/11 15:37	ESK

<b>MERCURY, TOTAL</b>			<b>MCL</b>	<b>SW7470A</b>	<b>Units: mg/L</b>	
Mercury	ND		0.0002	1	03/24/11 15:27	F_S

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7470A	03/24/2011 9:35	F_S	1.00

Qualifiers: ND/U - Not Detected at the Reporting Limit

>MCL - Result Over Maximum Contamination Limit(MCL)

B - Analyte Detected In The Associated Method Blank

D - Surrogate Recovery Unreportable due to Dilution

\* - Surrogate Recovery Outside Advisable QC Limits

MI - Matrix Interference

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

11030471 Page 4

3/31/2011 5:55:48 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-1

Collected: 03/17/2011 11:30

SPL Sample ID: 11030471-01

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>METALS BY METHOD 6010B, DISSOLVED</b>							
Aluminum	ND		0.1	1	03/26/11 14:18	EG	5752470
Arsenic	ND		0.005	1	03/26/11 14:18	EG	5752470
Barium	0.0123		0.005	1	03/26/11 14:18	EG	5752470
Boron	ND		0.1	1	03/26/11 14:18	EG	5752470
Cadmium	ND		0.005	1	03/26/11 14:18	EG	5752470
Chromium	ND		0.005	1	03/26/11 14:18	EG	5752470
Cobalt	ND		0.005	1	03/26/11 14:18	EG	5752470
Copper	ND		0.005	1	03/26/11 14:18	EG	5752470
Iron	ND		0.02	1	03/26/11 14:18	EG	5752470
Lead	ND		0.005	1	03/26/11 14:18	EG	5752470
Manganese	2.77		0.005	1	03/26/11 14:18	EG	5752470
Molybdenum	0.0153		0.005	1	03/26/11 14:18	EG	5752470
Nickel	ND		0.005	1	03/26/11 14:18	EG	5752470
Selenium	ND		0.01	1	03/26/11 14:18	EG	5752470
Silver	ND		0.005	1	03/26/11 14:18	EG	5752470
Zinc	ND		0.01	1	03/26/11 14:18	EG	5752470

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3005A	03/18/2011 14:00	M_W	1.00

PH			MCL	SM4500-H B	Units: pH Units
pH	7.4		0.1	1	03/18/11 13:00 PAC 5746927

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 5  
3/31/2011 5:55:49 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-1

Collected: 03/17/2011 11:30 SPL Sample ID: 11030471-01

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>SEMIVOLATILE ORGANICS BY METHOD 8270C</b>							
1,2,4-Trichlorobenzene	ND		5.4	1	03/24/11 20:23	GY	5751461
1,2-Dichlorobenzene	ND		5.4	1	03/24/11 20:23	GY	5751461
1,2-Diphenylhydrazine	ND		11	1	03/24/11 20:23	GY	5751461
1,3-Dichlorobenzene	ND		5.4	1	03/24/11 20:23	GY	5751461
1,4-Dichlorobenzene	ND		5.4	1	03/24/11 20:23	GY	5751461
2,4,5-Trichlorophenol	ND		11	1	03/24/11 20:23	GY	5751461
2,4,6-Trichlorophenol	ND		5.4	1	03/24/11 20:23	GY	5751461
2,4-Dichlorophenol	ND		5.4	1	03/24/11 20:23	GY	5751461
2,4-Dimethylphenol	ND		5.4	1	03/24/11 20:23	GY	5751461
2,4-Dinitrophenol	ND		27	1	03/24/11 20:23	GY	5751461
2,4-Dinitrotoluene	ND		5.4	1	03/24/11 20:23	GY	5751461
2,6-Dinitrotoluene	ND		5.4	1	03/24/11 20:23	GY	5751461
2-Chloronaphthalene	ND		5.4	1	03/24/11 20:23	GY	5751461
2-Chlorophenol	ND		5.4	1	03/24/11 20:23	GY	5751461
2-Methylnaphthalene	ND		5.4	1	03/24/11 20:23	GY	5751461
2-Nitroaniline	ND		27	1	03/24/11 20:23	GY	5751461
2-Nitrophenol	ND		5.4	1	03/24/11 20:23	GY	5751461
3,3'-Dichlorobenzidine	ND		11	1	03/24/11 20:23	GY	5751461
3-Nitroaniline	ND		27	1	03/24/11 20:23	GY	5751461
4,6-Dinitro-2-methylphenol	ND		27	1	03/24/11 20:23	GY	5751461
4-Bromophenyl phenyl ether	ND		5.4	1	03/24/11 20:23	GY	5751461
4-Chloro-3-methylphenol	ND		5.4	1	03/24/11 20:23	GY	5751461
4-Chloroaniline	ND		5.4	1	03/24/11 20:23	GY	5751461
4-Chlorophenyl phenyl ether	ND		5.4	1	03/24/11 20:23	GY	5751461
4-Nitroaniline	ND		27	1	03/24/11 20:23	GY	5751461
4-Nitrophenol	ND		27	1	03/24/11 20:23	GY	5751461
Acenaphthene	ND		5.4	1	03/24/11 20:23	GY	5751461
Acenaphthylene	ND		5.4	1	03/24/11 20:23	GY	5751461
Aniline	ND		5.4	1	03/24/11 20:23	GY	5751461
Anthracene	ND		5.4	1	03/24/11 20:23	GY	5751461
Benz(a)anthracene	ND		5.4	1	03/24/11 20:23	GY	5751461
Benzo(a)pyrene	ND		5.4	1	03/24/11 20:23	GY	5751461
Benzo(b)fluoranthene	ND		5.4	1	03/24/11 20:23	GY	5751461
Benzo(g,h,i)perylene	ND		5.4	1	03/24/11 20:23	GY	5751461
Benzo(k)fluoranthene	ND		5.4	1	03/24/11 20:23	GY	5751461
Benzoic acid	ND		27	1	03/24/11 20:23	GY	5751461

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-1

Collected: 03/17/2011 11:30

SPL Sample ID: 11030471-01

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Benzyl alcohol	ND		5.4	1	03/24/11 20:23	GY	5751461
Bis(2-chloroethoxy)methane	ND		5.4	1	03/24/11 20:23	GY	5751461
Bis(2-chloroethyl)ether	ND		5.4	1	03/24/11 20:23	GY	5751461
Bis(2-chloroisopropyl)ether	ND		5.4	1	03/24/11 20:23	GY	5751461
Bis(2-ethylhexyl)phthalate	ND		5.4	1	03/24/11 20:23	GY	5751461
Butyl benzyl phthalate	ND		5.4	1	03/24/11 20:23	GY	5751461
Carbazole	ND		5.4	1	03/24/11 20:23	GY	5751461
Chrysene	ND		5.4	1	03/24/11 20:23	GY	5751461
Dibenz(a,h)anthracene	ND		5.4	1	03/24/11 20:23	GY	5751461
Dibenzofuran	ND		5.4	1	03/24/11 20:23	GY	5751461
Diethyl phthalate	ND		5.4	1	03/24/11 20:23	GY	5751461
Dimethyl phthalate	ND		5.4	1	03/24/11 20:23	GY	5751461
Di-n-butyl phthalate	ND		5.4	1	03/24/11 20:23	GY	5751461
Di-n-octyl phthalate	ND		5.4	1	03/24/11 20:23	GY	5751461
Fluoranthene	ND		5.4	1	03/24/11 20:23	GY	5751461
Fluorene	ND		5.4	1	03/24/11 20:23	GY	5751461
Hexachlorobenzene	ND		5.4	1	03/24/11 20:23	GY	5751461
Hexachlorobutadiene	ND		5.4	1	03/24/11 20:23	GY	5751461
Hexachlorocyclopentadiene	ND		5.4	1	03/24/11 20:23	GY	5751461
Hexachloroethane	ND		5.4	1	03/24/11 20:23	GY	5751461
Indeno(1,2,3-cd)pyrene	ND		5.4	1	03/24/11 20:23	GY	5751461
Isophorone	ND		5.4	1	03/24/11 20:23	GY	5751461
Naphthalene	ND		5.4	1	03/24/11 20:23	GY	5751461
Nitrobenzene	ND		5.4	1	03/24/11 20:23	GY	5751461
N-Nitrosodi-n-propylamine	ND		5.4	1	03/24/11 20:23	GY	5751461
N-Nitrosodiphenylamine	ND		5.4	1	03/24/11 20:23	GY	5751461
Pentachlorophenol	ND		27	1	03/24/11 20:23	GY	5751461
Phenanthrene	ND		5.4	1	03/24/11 20:23	GY	5751461
Phenol	ND		5.4	1	03/24/11 20:23	GY	5751461
Pyrene	ND		5.4	1	03/24/11 20:23	GY	5751461
Pyridine	ND		5.4	1	03/24/11 20:23	GY	5751461
2-Methylphenol	6.4		5.4	1	03/24/11 20:23	GY	5751461
3 & 4-Methylphenol	7.3		5.4	1	03/24/11 20:23	GY	5751461
Surr: 2,4,6-Tribromophenol	93.7	%	25-154	1	03/24/11 20:23	GY	5751461
Surr: 2-Fluorobiphenyl	97.5	%	45-108	1	03/24/11 20:23	GY	5751461
Surr: 2-Fluorophenol	73.4	%	18-113	1	03/24/11 20:23	GY	5751461
Surr: Nitrobenzene-d5	96.8	%	41-113	1	03/24/11 20:23	GY	5751461

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 7  
3/31/2011 5:55:50 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-1

Collected: 03/17/2011 11:30 SPL Sample ID: 11030471-01

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Sur: Phenol-d6	60.8	%	10-113	1	03/24/11 20:23	GY	5751461
Sur: Terphenyl-d14	103	%	43-122	1	03/24/11 20:23	GY	5751461

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	03/21/2011 16:18	N_M	1.09

SPECIFIC CONDUCTANCE @ 25 C		MCL	SM2510B	Units: umhos/cm
Specific Conductance	3050	10	1	03/18/11 13:15 PAC 5746936
TOTAL DISSOLVED SOLIDS				MCL
Total Dissolved Solids (Residue,Filterable)	2730	20	2	03/22/11 11:30 MM1 5749766

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 8  
3/31/2011 5:55:51 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-1

Collected: 03/17/2011 11:30

SPL Sample ID: 11030471-01

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>VOLATILE ORGANICS BY METHOD 8260B</b>							
1,1,1,2-Tetrachloroethane	ND		1	1	03/18/11 16:35	JC	5747520
1,1,1-Trichloroethane	ND		1	1	03/18/11 16:35	JC	5747520
1,1,2,2-Tetrachloroethane	ND		1	1	03/18/11 16:35	JC	5747520
1,1,2-Trichloroethane	ND		1	1	03/18/11 16:35	JC	5747520
1,1-Dichloroethane	ND		1	1	03/18/11 16:35	JC	5747520
1,1-Dichloroethene	ND		1	1	03/18/11 16:35	JC	5747520
1,1-Dichloropropene	ND		1	1	03/18/11 16:35	JC	5747520
1,2,3-Trichlorobenzene	ND		1	1	03/18/11 16:35	JC	5747520
1,2,3-Trichloropropane	ND		1	1	03/18/11 16:35	JC	5747520
1,2,4-Trichlorobenzene	ND		1	1	03/18/11 16:35	JC	5747520
1,2,4-Trimethylbenzene	ND		1	1	03/18/11 16:35	JC	5747520
1,2-Dibromo-3-chloropropane	ND		5	1	03/18/11 16:35	JC	5747520
1,2-Dibromoethane	ND		1	1	03/18/11 16:35	JC	5747520
1,2-Dichlorobenzene	ND		1	1	03/18/11 16:35	JC	5747520
1,2-Dichloroethane	ND		1	1	03/18/11 16:35	JC	5747520
1,2-Dichloropropane	ND		1	1	03/18/11 16:35	JC	5747520
1,3,5-Trimethylbenzene	13		1	1	03/18/11 16:35	JC	5747520
1,3-Dichlorobenzene	ND		1	1	03/18/11 16:35	JC	5747520
1,3-Dichloropropane	ND		1	1	03/18/11 16:35	JC	5747520
1,4-Dichlorobenzene	ND		1	1	03/18/11 16:35	JC	5747520
2,2-Dichloropropane	ND		1	1	03/18/11 16:35	JC	5747520
2-Butanone	ND		12	1	03/18/11 16:35	JC	5747520
2-Chloroethyl vinyl ether	ND J		5	1	03/18/11 16:35	JC	5747520
2-Chlorotoluene	ND		1	1	03/18/11 16:35	JC	5747520
2-Hexanone	ND		12	1	03/18/11 16:35	JC	5747520
4-Chlorotoluene	ND		1	1	03/18/11 16:35	JC	5747520
4-Isopropyltoluene	1.1		1	1	03/18/11 16:35	JC	5747520
4-Methyl-2-pentanone	ND		12	1	03/18/11 16:35	JC	5747520
Acetone	ND		12	1	03/18/11 16:35	JC	5747520
Acrylonitrile	ND		5	1	03/18/11 16:35	JC	5747520
Benzene	66		1	1	03/18/11 16:35	JC	5747520
Bromobenzene	ND		1	1	03/18/11 16:35	JC	5747520
Bromochloromethane	ND		1	1	03/18/11 16:35	JC	5747520
Bromodichloromethane	ND		1	1	03/18/11 16:35	JC	5747520
Bromoform	ND		1	1	03/18/11 16:35	JC	5747520
Bromomethane	ND		1	1	03/18/11 16:35	JC	5747520

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 9  
3/31/2011 5:55:52 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-1

Collected: 03/17/2011 11:30 SPL Sample ID: 11030471-01

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Carbon disulfide	ND		5	1	03/18/11 16:35	JC	5747520
Carbon tetrachloride	ND		1	1	03/18/11 16:35	JC	5747520
Chlorobenzene	ND		1	1	03/18/11 16:35	JC	5747520
Chloroethane	ND		1	1	03/18/11 16:35	JC	5747520
Chloroform	ND		1	1	03/18/11 16:35	JC	5747520
Chloromethane	ND		1	1	03/18/11 16:35	JC	5747520
Dibromochloromethane	ND		1	1	03/18/11 16:35	JC	5747520
Dibromomethane	ND		1	1	03/18/11 16:35	JC	5747520
Dichlorodifluoromethane	ND		1	1	03/18/11 16:35	JC	5747520
Ethylbenzene	11		1	1	03/18/11 16:35	JC	5747520
Hexachlorobutadiene	ND		1	1	03/18/11 16:35	JC	5747520
Isopropylbenzene	1.6		1	1	03/18/11 16:35	JC	5747520
Methyl tert-butyl ether	ND		1	1	03/18/11 16:35	JC	5747520
Methylene chloride	ND		1	1	03/18/11 16:35	JC	5747520
Naphthalene	1.1		1	1	03/18/11 16:35	JC	5747520
n-Butylbenzene	ND		1	1	03/18/11 16:35	JC	5747520
n-Propylbenzene	ND		1	1	03/18/11 16:35	JC	5747520
sec-Butylbenzene	ND		1	1	03/18/11 16:35	JC	5747520
Styrene	ND		1	1	03/18/11 16:35	JC	5747520
tert-Butylbenzene	ND		1	1	03/18/11 16:35	JC	5747520
Tetrachloroethene	ND		1	1	03/18/11 16:35	JC	5747520
Toluene	390		5	5	03/22/11 13:10	JC	5749336
Trichloroethene	ND		1	1	03/18/11 16:35	JC	5747520
Trichlorofluoromethane	ND		1	1	03/18/11 16:35	JC	5747520
Vinyl acetate	ND		1	1	03/18/11 16:35	JC	5747520
Vinyl chloride	ND		1	1	03/18/11 16:35	JC	5747520
cis-1,2-Dichloroethene	ND		1	1	03/18/11 16:35	JC	5747520
cis-1,3-Dichloropropene	ND		1	1	03/18/11 16:35	JC	5747520
m,p-Xylene	34		2	1	03/18/11 16:35	JC	5747520
o-Xylene	50		1	1	03/18/11 16:35	JC	5747520
trans-1,2-Dichloroethene	ND		1	1	03/18/11 16:35	JC	5747520
trans-1,3-Dichloropropene	ND		1	1	03/18/11 16:35	JC	5747520
1,2-Dichloroethene (total)	ND		1	1	03/18/11 16:35	JC	5747520
Xylenes, Total	84		1	1	03/18/11 16:35	JC	5747520
Surr: 1,2-Dichloroethane-d4	91.7	%	70-130	1	03/18/11 16:35	JC	5747520
Surr: 1,2-Dichloroethane-d4	83.2	%	70-130	5	03/22/11 13:10	JC	5749336
Surr: 4-Bromofluorobenzene	94.8	%	74-125	1	03/18/11 16:35	JC	5747520

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 10  
3/31/2011 5:55:52 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-1

Collected: 03/17/2011 11:30

SPL Sample ID: 11030471-01

Site: Rio Arriba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Surr: 4-Bromofluorobenzene	95.3	%	74-125	5	03/22/11 13:10	JC	5749336
Surr: Toluene-d8	97.0	%	82-118	1	03/18/11 16:35	JC	5747520
Surr: Toluene-d8	99.9	%	82-118	5	03/22/11 13:10	JC	5749336

**Qualifiers:**  
ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 11  
3/31/2011 5:55:53 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-2

Collected: 03/17/2011 10:55 SPL Sample ID: 11030471-02

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
ALKALINITY (AS CACO3), TOTAL				MCL	SM2320B	Units: mg/L	
Alkalinity, Total (As CaCO3)	355		2	1	03/18/11 13:30	PAC	5746947

DIESEL RANGE ORGANICS				MCL	SW8015B	Units: mg/L	
Diesel Range Organics (C10-C28)	ND		0.11	1	03/25/11 15:28	NW	5752592
Surr: n-Pentacosane	72.0	%	20-150	1	03/25/11 15:28	NW	5752592

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	03/22/2011 16:08	N_M	1.05

GASOLINE RANGE ORGANICS				MCL	SW8015B	Units: mg/L	
Gasoline Range Organics	ND		0.1	1	03/23/11 15:41	NMa	5750370
Surr: 1,4-Difluorobenzene	102	%	60-155	1	03/23/11 15:41	NMa	5750370
Surr: 4-Bromofluorobenzene	105	%	50-158	1	03/23/11 15:41	NMa	5750370

HARDNESS, TOTAL (TITRIMETRIC, EDTA)				MCL	SM2340C	Units: mg/L	
Hardness (As CaCO3)	700		50	10	03/21/11 11:00	PAC	5747786

ION CHROMATOGRAPHY				MCL	E300.0	Units: mg/L	
Bromide	0.877		0.5	1	03/18/11 15:54	ESK	5747349
Chloride	37.9		5	10	03/18/11 18:51	ESK	5747360
Fluoride	1.18		0.5	1	03/18/11 15:54	ESK	5747349
Ortho-phosphate (As P)	ND		0.5	1	03/18/11 15:54	ESK	5747349
Sulfate	1000		50	100	03/18/11 20:44	ESK	5747367
Nitrogen,Nitrate (As N)	55.8		5	10	03/18/11 18:51	ESK	5747328
Nitrogen,Nitrite (As N)	ND		0.5	1	03/18/11 15:54	ESK	5747332

MERCURY, TOTAL				MCL	SW7470A	Units: mg/L	
Mercury	ND		0.0002	1	03/24/11 15:36	F_S	5751053

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7470A	03/24/2011 9:35	F_S	1.00

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 12  
3/31/2011 5:55:54 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-2

Collected: 03/17/2011 10:55

SPL Sample ID: 11030471-02

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>METALS BY METHOD 6010B, DISSOLVED</b>							
Aluminum	ND		0.1	1	03/26/11 15:24	EG	5752476
Arsenic	ND		0.005	1	03/26/11 15:24	EG	5752476
Barium	0.0246		0.005	1	03/26/11 15:24	EG	5752476
Boron	ND		0.1	1	03/26/11 15:24	EG	5752476
Cadmium	ND		0.005	1	03/26/11 15:24	EG	5752476
Chromium	ND		0.005	1	03/26/11 15:24	EG	5752476
Cobalt	ND		0.005	1	03/26/11 15:24	EG	5752476
Copper	ND		0.005	1	03/26/11 15:24	EG	5752476
Iron	ND		0.02	1	03/26/11 15:24	EG	5752476
Lead	ND		0.005	1	03/26/11 15:24	EG	5752476
Manganese	0.334		0.005	1	03/26/11 15:24	EG	5752476
Molybdenum	ND		0.005	1	03/26/11 15:24	EG	5752476
Nickel	ND		0.005	1	03/26/11 15:24	EG	5752476
Selenium	0.0664		0.01	1	03/26/11 15:24	EG	5752476
Silver	ND		0.005	1	03/26/11 15:24	EG	5752476
Zinc	ND		0.01	1	03/26/11 15:24	EG	5752476

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3005A	03/18/2011 14:00	M_W	1.00

PH		MCL	SM4500-H B	Units: pH Units
pH	6.98	0.1	1	03/18/11 13:00 PAC

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 13  
3/31/2011 5:55:55 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-2

Collected: 03/17/2011 10:55 SPL Sample ID: 11030471-02

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>SEMIVOLATILE ORGANICS BY METHOD 8270C</b>							
1,2,4-Trichlorobenzene	ND		5.3	1	03/24/11 20:57	GY	5751462
1,2-Dichlorobenzene	ND		5.3	1	03/24/11 20:57	GY	5751462
1,2-Diphenylhydrazine	ND		11	1	03/24/11 20:57	GY	5751462
1,3-Dichlorobenzene	ND		5.3	1	03/24/11 20:57	GY	5751462
1,4-Dichlorobenzene	ND		5.3	1	03/24/11 20:57	GY	5751462
2,4,5-Trichlorophenol	ND		11	1	03/24/11 20:57	GY	5751462
2,4,6-Trichlorophenol	ND		5.3	1	03/24/11 20:57	GY	5751462
2,4-Dichlorophenol	ND		5.3	1	03/24/11 20:57	GY	5751462
2,4-Dimethylphenol	ND		5.3	1	03/24/11 20:57	GY	5751462
2,4-Dinitrophenol	ND		26	1	03/24/11 20:57	GY	5751462
2,4-Dinitrotoluene	ND		5.3	1	03/24/11 20:57	GY	5751462
2,6-Dinitrotoluene	ND		5.3	1	03/24/11 20:57	GY	5751462
2-Chloronaphthalene	ND		5.3	1	03/24/11 20:57	GY	5751462
2-Chlorophenol	ND		5.3	1	03/24/11 20:57	GY	5751462
2-Methylnaphthalene	ND		5.3	1	03/24/11 20:57	GY	5751462
2-Nitroaniline	ND		26	1	03/24/11 20:57	GY	5751462
2-Nitrophenol	ND		5.3	1	03/24/11 20:57	GY	5751462
3,3'-Dichlorobenzidine	ND		11	1	03/24/11 20:57	GY	5751462
3-Nitroaniline	ND		26	1	03/24/11 20:57	GY	5751462
4,6-Dinitro-2-methylphenol	ND		26	1	03/24/11 20:57	GY	5751462
4-Bromophenyl phenyl ether	ND		5.3	1	03/24/11 20:57	GY	5751462
4-Chloro-3-methylphenol	ND		5.3	1	03/24/11 20:57	GY	5751462
4-Chloroaniline	ND		5.3	1	03/24/11 20:57	GY	5751462
4-Chlorophenyl phenyl ether	ND		5.3	1	03/24/11 20:57	GY	5751462
4-Nitroaniline	ND		26	1	03/24/11 20:57	GY	5751462
4-Nitrophenol	ND		26	1	03/24/11 20:57	GY	5751462
Acenaphthene	ND		5.3	1	03/24/11 20:57	GY	5751462
Acenaphthylene	ND		5.3	1	03/24/11 20:57	GY	5751462
Aniline	ND		5.3	1	03/24/11 20:57	GY	5751462
Anthracene	ND		5.3	1	03/24/11 20:57	GY	5751462
Benz(a)anthracene	ND		5.3	1	03/24/11 20:57	GY	5751462
Benzo(a)pyrene	ND		5.3	1	03/24/11 20:57	GY	5751462
Benzo(b)fluoranthene	ND		5.3	1	03/24/11 20:57	GY	5751462
Benzo(g,h,i)perylene	ND		5.3	1	03/24/11 20:57	GY	5751462
Benzo(k)fluoranthene	ND		5.3	1	03/24/11 20:57	GY	5751462
Benzoic acid	ND		26	1	03/24/11 20:57	GY	5751462

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 14  
3/31/2011 5:55:56 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-2

Collected: 03/17/2011 10:55

SPL Sample ID: 11030471-02

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Benzyl alcohol	ND		5.3	1	03/24/11 20:57	GY	5751462
Bis(2-chloroethoxy)methane	ND		5.3	1	03/24/11 20:57	GY	5751462
Bis(2-chloroethyl)ether	ND		5.3	1	03/24/11 20:57	GY	5751462
Bis(2-chloroisopropyl)ether	ND		5.3	1	03/24/11 20:57	GY	5751462
Bis(2-ethylhexyl)phthalate	ND		5.3	1	03/24/11 20:57	GY	5751462
Butyl benzyl phthalate	ND		5.3	1	03/24/11 20:57	GY	5751462
Carbazole	ND		5.3	1	03/24/11 20:57	GY	5751462
Chrysene	ND		5.3	1	03/24/11 20:57	GY	5751462
Dibenz(a,h)anthracene	ND		5.3	1	03/24/11 20:57	GY	5751462
Dibenzofuran	ND		5.3	1	03/24/11 20:57	GY	5751462
Diethyl phthalate	ND		5.3	1	03/24/11 20:57	GY	5751462
Dimethyl phthalate	ND		5.3	1	03/24/11 20:57	GY	5751462
Di-n-butyl phthalate	ND		5.3	1	03/24/11 20:57	GY	5751462
Di-n-octyl phthalate	ND		5.3	1	03/24/11 20:57	GY	5751462
Fluoranthene	ND		5.3	1	03/24/11 20:57	GY	5751462
Fluorene	ND		5.3	1	03/24/11 20:57	GY	5751462
Hexachlorobenzene	ND		5.3	1	03/24/11 20:57	GY	5751462
Hexachlorobutadiene	ND		5.3	1	03/24/11 20:57	GY	5751462
Hexachlorocyclopentadiene	ND		5.3	1	03/24/11 20:57	GY	5751462
Hexachloroethane	ND		5.3	1	03/24/11 20:57	GY	5751462
Indeno(1,2,3-cd)pyrene	ND		5.3	1	03/24/11 20:57	GY	5751462
Isophorone	ND		5.3	1	03/24/11 20:57	GY	5751462
Naphthalene	ND		5.3	1	03/24/11 20:57	GY	5751462
Nitrobenzene	ND		5.3	1	03/24/11 20:57	GY	5751462
N-Nitrosodi-n-propylamine	ND		5.3	1	03/24/11 20:57	GY	5751462
N-Nitrosodiphenylamine	ND		5.3	1	03/24/11 20:57	GY	5751462
Pentachlorophenol	ND		26	1	03/24/11 20:57	GY	5751462
Phenanthrene	ND		5.3	1	03/24/11 20:57	GY	5751462
Phenol	ND		5.3	1	03/24/11 20:57	GY	5751462
Pyrene	ND		5.3	1	03/24/11 20:57	GY	5751462
Pyridine	ND		5.3	1	03/24/11 20:57	GY	5751462
2-Methylphenol	ND		5.3	1	03/24/11 20:57	GY	5751462
3 & 4-Methylphenol	ND		5.3	1	03/24/11 20:57	GY	5751462
Surr: 2,4,6-Tribromophenol	88.7	%	25-154	1	03/24/11 20:57	GY	5751462
Surr: 2-Fluorobiphenyl	99.2	%	45-108	1	03/24/11 20:57	GY	5751462
Surr: 2-Fluorophenol	76.5	%	18-113	1	03/24/11 20:57	GY	5751462
Surr: Nitrobenzene-d5	97.5	%	41-113	1	03/24/11 20:57	GY	5751462

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 15  
3/31/2011 5:55:56 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-2

Collected: 03/17/2011 10:55 SPL Sample ID: 11030471-02

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Surr: Phenol-d6	65.4	%	10-113	1	03/24/11 20:57	GY	5751462
Surr: Terphenyl-d14	100	%	43-122	1	03/24/11 20:57	GY	5751462

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	03/21/2011 16:18	N_M	1.05

SPECIFIC CONDUCTANCE @ 25 C		MCL	SM2510B	Units: umhos/cm	
Specific Conductance	2660	10	1	03/18/11 13:15	PAC
<b>TOTAL DISSOLVED SOLIDS</b>					
Total Dissolved Solids (Residue,Filterable)	2950	20	2	03/22/11 11:30	MM1

Qualifiers:	ND/U - Not Detected at the Reporting Limit	>MCL - Result Over Maximum Contamination Limit(MCL)
	B - Analyte Detected In The Associated Method Blank	D - Surrogate Recovery Unreportable due to Dilution
	* - Surrogate Recovery Outside Advisable QC Limits	MI - Matrix Interference
	J - Estimated value between MDL and PQL	
	E - Estimated Value exceeds calibration curve	
	TNTC - Too numerous to count	

11030471 Page 16  
3/31/2011 5:55:58 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-2

Collected: 03/17/2011 10:55

SPL Sample ID: 11030471-02

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>VOLATILE ORGANICS BY METHOD 8260B</b>							
1,1,1,2-Tetrachloroethane	ND		1	1	03/18/11 17:04	JC	5747521
1,1,1-Trichloroethane	ND		1	1	03/18/11 17:04	JC	5747521
1,1,2,2-Tetrachloroethane	ND		1	1	03/18/11 17:04	JC	5747521
1,1,2-Trichloroethane	ND		1	1	03/18/11 17:04	JC	5747521
1,1-Dichloroethane	ND		1	1	03/18/11 17:04	JC	5747521
1,1-Dichloroethene	ND		1	1	03/18/11 17:04	JC	5747521
1,1-Dichloropropene	ND		1	1	03/18/11 17:04	JC	5747521
1,2,3-Trichlorobenzene	ND		1	1	03/18/11 17:04	JC	5747521
1,2,3-Trichloropropane	ND		1	1	03/18/11 17:04	JC	5747521
1,2,4-Trichlorobenzene	ND		1	1	03/18/11 17:04	JC	5747521
1,2,4-Trimethylbenzene	ND		1	1	03/18/11 17:04	JC	5747521
1,2-Dibromo-3-chloropropane	ND		5	1	03/18/11 17:04	JC	5747521
1,2-Dibromoethane	ND		1	1	03/18/11 17:04	JC	5747521
1,2-Dichlorobenzene	ND		1	1	03/18/11 17:04	JC	5747521
1,2-Dichloroethane	ND		1	1	03/18/11 17:04	JC	5747521
1,2-Dichloropropane	ND		1	1	03/18/11 17:04	JC	5747521
1,3,5-Trimethylbenzene	ND		1	1	03/18/11 17:04	JC	5747521
1,3-Dichlorobenzene	ND		1	1	03/18/11 17:04	JC	5747521
1,3-Dichloropropane	ND		1	1	03/18/11 17:04	JC	5747521
1,4-Dichlorobenzene	ND		1	1	03/18/11 17:04	JC	5747521
2,2-Dichloropropane	ND		1	1	03/18/11 17:04	JC	5747521
2-Butanone	ND		12	1	03/18/11 17:04	JC	5747521
2-Chloroethyl vinyl ether	ND J		5	1	03/18/11 17:04	JC	5747521
2-Chlorotoluene	ND		1	1	03/18/11 17:04	JC	5747521
2-Hexanone	ND		12	1	03/18/11 17:04	JC	5747521
4-Chlorotoluene	ND		1	1	03/18/11 17:04	JC	5747521
4-Isopropyltoluene	ND		1	1	03/18/11 17:04	JC	5747521
4-Methyl-2-pentanone	ND		12	1	03/18/11 17:04	JC	5747521
Acetone	ND		12	1	03/18/11 17:04	JC	5747521
Acrylonitrile	ND		5	1	03/18/11 17:04	JC	5747521
Benzene	ND		1	1	03/18/11 17:04	JC	5747521
Bromobenzene	ND		1	1	03/18/11 17:04	JC	5747521
Bromochloromethane	ND		1	1	03/18/11 17:04	JC	5747521
Bromodichloromethane	ND		1	1	03/18/11 17:04	JC	5747521
Bromoform	ND		1	1	03/18/11 17:04	JC	5747521
Bromomethane	ND		1	1	03/18/11 17:04	JC	5747521

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 17  
3/31/2011 5:55:58 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-2

Collected: 03/17/2011 10:55 SPL Sample ID: 11030471-02

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Carbon disulfide	ND		5	1	03/18/11 17:04	JC	5747521
Carbon tetrachloride	ND		1	1	03/18/11 17:04	JC	5747521
Chlorobenzene	ND		1	1	03/18/11 17:04	JC	5747521
Chloroethane	ND		1	1	03/18/11 17:04	JC	5747521
Chloroform	ND		1	1	03/18/11 17:04	JC	5747521
Chloromethane	ND		1	1	03/18/11 17:04	JC	5747521
Dibromochloromethane	ND		1	1	03/18/11 17:04	JC	5747521
Dibromomethane	ND		1	1	03/18/11 17:04	JC	5747521
Dichlorodifluoromethane	ND		1	1	03/18/11 17:04	JC	5747521
Ethylbenzene	ND		1	1	03/18/11 17:04	JC	5747521
Hexachlorobutadiene	ND		1	1	03/18/11 17:04	JC	5747521
Isopropylbenzene	ND		1	1	03/18/11 17:04	JC	5747521
Methyl tert-butyl ether	ND		1	1	03/18/11 17:04	JC	5747521
Methylene chloride	ND		1	1	03/18/11 17:04	JC	5747521
Naphthalene	ND		1	1	03/18/11 17:04	JC	5747521
n-Butylbenzene	ND		1	1	03/18/11 17:04	JC	5747521
n-Propylbenzene	ND		1	1	03/18/11 17:04	JC	5747521
sec-Butylbenzene	ND		1	1	03/18/11 17:04	JC	5747521
Styrene	ND		1	1	03/18/11 17:04	JC	5747521
tert-Butylbenzene	ND		1	1	03/18/11 17:04	JC	5747521
Tetrachloroethene	ND		1	1	03/18/11 17:04	JC	5747521
Toluene	ND		1	1	03/18/11 17:04	JC	5747521
Trichloroethene	ND		1	1	03/18/11 17:04	JC	5747521
Trichlorofluoromethane	ND		1	1	03/18/11 17:04	JC	5747521
Vinyl acetate	ND		1	1	03/18/11 17:04	JC	5747521
Vinyl chloride	ND		1	1	03/18/11 17:04	JC	5747521
cis-1,2-Dichloroethene	ND		1	1	03/18/11 17:04	JC	5747521
cis-1,3-Dichloropropene	ND		1	1	03/18/11 17:04	JC	5747521
m,p-Xylene	ND		2	1	03/18/11 17:04	JC	5747521
o-Xylene	ND		1	1	03/18/11 17:04	JC	5747521
trans-1,2-Dichloroethene	ND		1	1	03/18/11 17:04	JC	5747521
trans-1,3-Dichloropropene	ND		1	1	03/18/11 17:04	JC	5747521
1,2-Dichloroethene (total)	ND		1	1	03/18/11 17:04	JC	5747521
Xylenes, Total	ND		1	1	03/18/11 17:04	JC	5747521
Surr: 1,2-Dichloroethane-d4	85.0	%	70-130	1	03/18/11 17:04	JC	5747521
Surr: 4-Bromofluorobenzene	89.1	%	74-125	1	03/18/11 17:04	JC	5747521
Surr: Toluene-d8	95.0	%	82-118	1	03/18/11 17:04	JC	5747521

Qualifiers: ND/U - Not Detected at the Reporting Limit

>MCL - Result Over Maximum Contamination Limit(MCL)

B - Analyte Detected In The Associated Method Blank

D - Surrogate Recovery Unreportable due to Dilution

\* - Surrogate Recovery Outside Advisable QC Limits

MI - Matrix Interference

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

11030471 Page 18

3/31/2011 5:55:59 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-3

Collected: 03/17/2011 10:45 SPL Sample ID: 11030471-03

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
-----------------	--------	------	-----------	-------------	---------------	---------	--------

ALKALINITY (AS CACO3), TOTAL			MCL	SM2320B	Units: mg/L		
Alkalinity, Total (As CaCO3)	377		2	1	03/18/11 13:30	PAC	5746948

DIESEL RANGE ORGANICS			MCL	SW8015B	Units: mg/L		
Diesel Range Organics (C10-C28)	ND		0.1	1	03/25/11 13:06	NW	5752587
Surr: n-Pentacosane	68.5	%	20-150	1	03/25/11 13:06	NW	5752587

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	03/22/2011 16:08	N_M	1.04

GASOLINE RANGE ORGANICS			MCL	SW8015B	Units: mg/L		
Gasoline Range Organics	ND		0.1	1	03/23/11 16:12	NMa	5750371
Surr: 1,4-Difluorobenzene	101	%	60-155	1	03/23/11 16:12	NMa	5750371
Surr: 4-Bromofluorobenzene	105	%	50-158	1	03/23/11 16:12	NMa	5750371

HARDNESS, TOTAL (TITRIMETRIC, EDTA)			MCL	SM2340C	Units: mg/L		
Hardness (As CaCO3)	640		50	10	03/21/11 11:00	PAC	5747787

ION CHROMATOGRAPHY			MCL	E300.0	Units: mg/L		
Bromide	0.761		0.5	1	03/18/11 16:10	ESK	5747350
Chloride	35.3		2	4	03/18/11 19:07	ESK	5747361
Fluoride	1.03		0.5	1	03/18/11 16:10	ESK	5747350
Ortho-phosphate (As P)	ND		0.5	1	03/18/11 16:10	ESK	5747350
Sulfate	857		50	100	03/19/11 11:58	ESK	5747464
Nitrogen,Nitrate (As N)	29.7		2	4	03/18/11 19:07	ESK	5747329
Nitrogen,Nitrite (As N)	ND		0.5	1	03/18/11 16:10	ESK	5747333

MERCURY, TOTAL			MCL	SW7470A	Units: mg/L		
Mercury	ND		0.0002	1	03/24/11 15:39	F_S	5751054

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7470A	03/24/2011 9:35	F_S	1.00

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 19  
3/31/2011 5:56:00 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-3

Collected: 03/17/2011 10:45 SPL Sample ID: 11030471-03

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>METALS BY METHOD 6010B, DISSOLVED</b>							
Aluminum	ND		0.1	1	03/26/11 15:30	EG	5752477
Arsenic	ND		0.005	1	03/26/11 15:30	EG	5752477
Barium	0.024		0.005	1	03/26/11 15:30	EG	5752477
Boron	ND		0.1	1	03/26/11 15:30	EG	5752477
Cadmium	ND		0.005	1	03/26/11 15:30	EG	5752477
Chromium	ND		0.005	1	03/26/11 15:30	EG	5752477
Cobalt	ND		0.005	1	03/26/11 15:30	EG	5752477
Copper	ND		0.005	1	03/26/11 15:30	EG	5752477
Iron	ND		0.02	1	03/26/11 15:30	EG	5752477
Lead	ND		0.005	1	03/26/11 15:30	EG	5752477
Manganese	1.79		0.005	1	03/26/11 15:30	EG	5752477
Molybdenum	ND		0.005	1	03/26/11 15:30	EG	5752477
Nickel	ND		0.005	1	03/26/11 15:30	EG	5752477
Selenium	0.0316		0.01	1	03/26/11 15:30	EG	5752477
Silver	ND		0.005	1	03/26/11 15:30	EG	5752477
Zinc	ND		0.01	1	03/26/11 15:30	EG	5752477

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3005A	03/18/2011 14:00	M_W	1.00

PH		MCL	SM4500-H B	Units: pH Units
pH	7.12	0.1	1	03/18/11 13:00 PAC 5746930

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-3

Collected: 03/17/2011 10:45 SPL Sample ID: 11030471-03

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>SEMIVOLATILE ORGANICS BY METHOD 8270C</b>							
1,2,4-Trichlorobenzene	ND		5.2	1	03/24/11 21:30	GY	5751463
1,2-Dichlorobenzene	ND		5.2	1	03/24/11 21:30	GY	5751463
1,2-Diphenylhydrazine	ND		10	1	03/24/11 21:30	GY	5751463
1,3-Dichlorobenzene	ND		5.2	1	03/24/11 21:30	GY	5751463
1,4-Dichlorobenzene	ND		5.2	1	03/24/11 21:30	GY	5751463
2,4,5-Trichlorophenol	ND		10	1	03/24/11 21:30	GY	5751463
2,4,6-Trichlorophenol	ND		5.2	1	03/24/11 21:30	GY	5751463
2,4-Dichlorophenol	ND		5.2	1	03/24/11 21:30	GY	5751463
2,4-Dimethylphenol	ND		5.2	1	03/24/11 21:30	GY	5751463
2,4-Dinitrophenol	ND		26	1	03/24/11 21:30	GY	5751463
2,4-Dinitrotoluene	ND		5.2	1	03/24/11 21:30	GY	5751463
2-Chloronaphthalene	ND		5.2	1	03/24/11 21:30	GY	5751463
2-Chlorophenol	ND		5.2	1	03/24/11 21:30	GY	5751463
2-Methylnaphthalene	ND		5.2	1	03/24/11 21:30	GY	5751463
2-Nitroaniline	ND		26	1	03/24/11 21:30	GY	5751463
2-Nitrophenol	ND		5.2	1	03/24/11 21:30	GY	5751463
3,3'-Dichlorobenzidine	ND		10	1	03/24/11 21:30	GY	5751463
3-Nitroaniline	ND		26	1	03/24/11 21:30	GY	5751463
4,6-Dinitro-2-methylphenol	ND		26	1	03/24/11 21:30	GY	5751463
4-Bromophenyl phenyl ether	ND		5.2	1	03/24/11 21:30	GY	5751463
4-Chloro-3-methylphenol	ND		5.2	1	03/24/11 21:30	GY	5751463
4-Chloroaniline	ND		5.2	1	03/24/11 21:30	GY	5751463
4-Chlorophenyl phenyl ether	ND		5.2	1	03/24/11 21:30	GY	5751463
4-Nitroaniline	ND		26	1	03/24/11 21:30	GY	5751463
4-Nitrophenol	ND		26	1	03/24/11 21:30	GY	5751463
Acenaphthene	ND		5.2	1	03/24/11 21:30	GY	5751463
Acenaphthylene	ND		5.2	1	03/24/11 21:30	GY	5751463
Aniline	ND		5.2	1	03/24/11 21:30	GY	5751463
Anthracene	ND		5.2	1	03/24/11 21:30	GY	5751463
Benz(a)anthracene	ND		5.2	1	03/24/11 21:30	GY	5751463
Benzo(a)pyrene	ND		5.2	1	03/24/11 21:30	GY	5751463
Benzo(b)fluoranthene	ND		5.2	1	03/24/11 21:30	GY	5751463
Benzo(g,h,i)perylene	ND		5.2	1	03/24/11 21:30	GY	5751463
Benzo(k)fluoranthene	ND		5.2	1	03/24/11 21:30	GY	5751463
Benzoic acid	ND		26	1	03/24/11 21:30	GY	5751463

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 21  
3/31/2011 5:56:02 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-3

Collected: 03/17/2011 10:45 SPL Sample ID: 11030471-03

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Benzyl alcohol	ND		5.2	1	03/24/11 21:30	GY	5751463
Bis(2-chloroethoxy)methane	ND		5.2	1	03/24/11 21:30	GY	5751463
Bis(2-chloroethyl)ether	ND		5.2	1	03/24/11 21:30	GY	5751463
Bis(2-chloroisopropyl)ether	ND		5.2	1	03/24/11 21:30	GY	5751463
Bis(2-ethylhexyl)phthalate	ND		5.2	1	03/24/11 21:30	GY	5751463
Butyl benzyl phthalate	ND		5.2	1	03/24/11 21:30	GY	5751463
Carbazole	ND		5.2	1	03/24/11 21:30	GY	5751463
Chrysene	ND		5.2	1	03/24/11 21:30	GY	5751463
Dibenz(a,h)anthracene	ND		5.2	1	03/24/11 21:30	GY	5751463
Dibenzofuran	ND		5.2	1	03/24/11 21:30	GY	5751463
Diethyl phthalate	ND		5.2	1	03/24/11 21:30	GY	5751463
Dimethyl phthalate	ND		5.2	1	03/24/11 21:30	GY	5751463
Di-n-butyl phthalate	ND		5.2	1	03/24/11 21:30	GY	5751463
Di-n-octyl phthalate	ND		5.2	1	03/24/11 21:30	GY	5751463
Fluoranthene	ND		5.2	1	03/24/11 21:30	GY	5751463
Fluorene	ND		5.2	1	03/24/11 21:30	GY	5751463
Hexachlorobenzene	ND		5.2	1	03/24/11 21:30	GY	5751463
Hexachlorobutadiene	ND		5.2	1	03/24/11 21:30	GY	5751463
Hexachlorocyclopentadiene	ND		5.2	1	03/24/11 21:30	GY	5751463
Hexachloroethane	ND		5.2	1	03/24/11 21:30	GY	5751463
Indeno(1,2,3-cd)pyrene	ND		5.2	1	03/24/11 21:30	GY	5751463
Isophorone	ND		5.2	1	03/24/11 21:30	GY	5751463
Naphthalene	ND		5.2	1	03/24/11 21:30	GY	5751463
Nitrobenzene	ND		5.2	1	03/24/11 21:30	GY	5751463
N-Nitrosodi-n-propylamine	ND		5.2	1	03/24/11 21:30	GY	5751463
N-Nitrosodiphenylamine	ND		5.2	1	03/24/11 21:30	GY	5751463
Pentachlorophenol	ND		26	1	03/24/11 21:30	GY	5751463
Phenanthrene	ND		5.2	1	03/24/11 21:30	GY	5751463
Phenol	ND		5.2	1	03/24/11 21:30	GY	5751463
Pyrene	ND		5.2	1	03/24/11 21:30	GY	5751463
Pyridine	ND		5.2	1	03/24/11 21:30	GY	5751463
2-Methylphenol	ND		5.2	1	03/24/11 21:30	GY	5751463
3 & 4-Methylphenol	ND		5.2	1	03/24/11 21:30	GY	5751463
Surr: 2,4,6-Tribromophenol	81.8	%	25-154	1	03/24/11 21:30	GY	5751463
Surr: 2-Fluorobiphenyl	93.7	%	45-108	1	03/24/11 21:30	GY	5751463
Surr: 2-Fluorophenol	63.7	%	18-113	1	03/24/11 21:30	GY	5751463
Surr: Nitrobenzene-d5	94.7	%	41-113	1	03/24/11 21:30	GY	5751463

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 22  
3/31/2011 5:56:02 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-3

Collected: 03/17/2011 10:45 SPL Sample ID: 11030471-03

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Surr: Phenol-d6	52.1	%	10-113	1	03/24/11 21:30	GY	5751463
Surr: Terphenyl-d14	84.7	%	43-122	1	03/24/11 21:30	GY	5751463

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	03/21/2011 16:18	N_M	1.04

SPECIFIC CONDUCTANCE @ 25 C		MCL	SM2510B	Units: umhos/cm
Specific Conductance	2500	10	1	03/18/11 13:15 PAC 5746939
<hr/>				
TOTAL DISSOLVED SOLIDS		MCL	SM2540 C	Units: mg/L
Total Dissolved Solids (Residue,Filterable)	2360	20	2	03/22/11 11:30 MM1 5749768

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 23  
3/31/2011 5:56:03 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-3

Collected: 03/17/2011 10:45 SPL Sample ID: 11030471-03

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>VOLATILE ORGANICS BY METHOD 8260B</b>							
1,1,1,2-Tetrachloroethane	ND		1	1	03/18/11 17:33	JC	5747522
1,1,1-Trichloroethane	ND		1	1	03/18/11 17:33	JC	5747522
1,1,2,2-Tetrachloroethane	ND		1	1	03/18/11 17:33	JC	5747522
1,1,2-Trichloroethane	ND		1	1	03/18/11 17:33	JC	5747522
1,1-Dichloroethane	ND		1	1	03/18/11 17:33	JC	5747522
1,1-Dichloroethene	ND		1	1	03/18/11 17:33	JC	5747522
1,1-Dichloropropene	ND		1	1	03/18/11 17:33	JC	5747522
1,2,3-Trichlorobenzene	ND		1	1	03/18/11 17:33	JC	5747522
1,2,3-Trichloropropane	ND		1	1	03/18/11 17:33	JC	5747522
1,2,4-Trichlorobenzene	ND		1	1	03/18/11 17:33	JC	5747522
1,2,4-Trimethylbenzene	ND		1	1	03/18/11 17:33	JC	5747522
1,2-Dibromo-3-chloropropane	ND		5	1	03/18/11 17:33	JC	5747522
1,2-Dibromoethane	ND		1	1	03/18/11 17:33	JC	5747522
1,2-Dichlorobenzene	ND		1	1	03/18/11 17:33	JC	5747522
1,2-Dichloroethane	ND		1	1	03/18/11 17:33	JC	5747522
1,2-Dichloropropane	ND		1	1	03/18/11 17:33	JC	5747522
1,3,5-Trimethylbenzene	ND		1	1	03/18/11 17:33	JC	5747522
1,3-Dichlorobenzene	ND		1	1	03/18/11 17:33	JC	5747522
1,3-Dichloropropane	ND		1	1	03/18/11 17:33	JC	5747522
1,4-Dichlorobenzene	ND		1	1	03/18/11 17:33	JC	5747522
2,2-Dichloropropane	ND		1	1	03/18/11 17:33	JC	5747522
2-Butanone	ND		12	1	03/18/11 17:33	JC	5747522
2-Chloroethyl vinyl ether	ND		5	1	03/18/11 17:33	JC	5747522
2-Chlorotoluene	ND		1	1	03/18/11 17:33	JC	5747522
2-Hexanone	ND		12	1	03/18/11 17:33	JC	5747522
4-Chlorotoluene	ND		1	1	03/18/11 17:33	JC	5747522
4-Isopropyltoluene	ND		1	1	03/18/11 17:33	JC	5747522
4-Methyl-2-pentanone	ND		12	1	03/18/11 17:33	JC	5747522
Acetone	ND		12	1	03/18/11 17:33	JC	5747522
Acrylonitrile	ND		5	1	03/18/11 17:33	JC	5747522
Benzene	ND		1	1	03/18/11 17:33	JC	5747522
Bromobenzene	ND		1	1	03/18/11 17:33	JC	5747522
Bromochloromethane	ND		1	1	03/18/11 17:33	JC	5747522
Bromodichloromethane	ND		1	1	03/18/11 17:33	JC	5747522
Bromoform	ND		1	1	03/18/11 17:33	JC	5747522
Bromomethane	ND		1	1	03/18/11 17:33	JC	5747522

Qualifiers: ND/U - Not Detected at the Reporting Limit

>MCL - Result Over Maximum Contamination Limit(MCL)

B - Analyte Detected In The Associated Method Blank

D - Surrogate Recovery Unreportable due to Dilution

\* - Surrogate Recovery Outside Advisable QC Limits

MI - Matrix Interference

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

11030471 Page 24

3/31/2011 5:56:04 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-3

Collected: 03/17/2011 10:45

SPL Sample ID: 11030471-03

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Carbon disulfide	ND		5	1	03/18/11 17:33	JC	5747522
Carbon tetrachloride	ND		1	1	03/18/11 17:33	JC	5747522
Chlorobenzene	ND		1	1	03/18/11 17:33	JC	5747522
Chloroethane	ND		1	1	03/18/11 17:33	JC	5747522
Chloroform	ND		1	1	03/18/11 17:33	JC	5747522
Chloromethane	ND		1	1	03/18/11 17:33	JC	5747522
Dibromochloromethane	ND		1	1	03/18/11 17:33	JC	5747522
Dibromomethane	ND		1	1	03/18/11 17:33	JC	5747522
Dichlorodifluoromethane	ND		1	1	03/18/11 17:33	JC	5747522
Ethylbenzene	ND		1	1	03/18/11 17:33	JC	5747522
Hexachlorobutadiene	ND		1	1	03/18/11 17:33	JC	5747522
Isopropylbenzene	ND		1	1	03/18/11 17:33	JC	5747522
Methyl tert-butyl ether	ND		1	1	03/18/11 17:33	JC	5747522
Methylene chloride	ND		1	1	03/18/11 17:33	JC	5747522
Naphthalene	ND		1	1	03/18/11 17:33	JC	5747522
n-Butylbenzene	ND		1	1	03/18/11 17:33	JC	5747522
n-Propylbenzene	ND		1	1	03/18/11 17:33	JC	5747522
sec-Butylbenzene	ND		1	1	03/18/11 17:33	JC	5747522
Styrene	ND		1	1	03/18/11 17:33	JC	5747522
tert-Butylbenzene	ND		1	1	03/18/11 17:33	JC	5747522
Tetrachloroethene	ND		1	1	03/18/11 17:33	JC	5747522
Toluene	13		1	1	03/18/11 17:33	JC	5747522
Trichloroethene	ND		1	1	03/18/11 17:33	JC	5747522
Trichlorofluoromethane	ND		1	1	03/18/11 17:33	JC	5747522
Vinyl acetate	ND		1	1	03/18/11 17:33	JC	5747522
Vinyl chloride	ND		1	1	03/18/11 17:33	JC	5747522
cis-1,2-Dichloroethene	ND		1	1	03/18/11 17:33	JC	5747522
cis-1,3-Dichloropropene	ND		1	1	03/18/11 17:33	JC	5747522
m,p-Xylene	4.2		2	1	03/18/11 17:33	JC	5747522
o-Xylene	ND		1	1	03/18/11 17:33	JC	5747522
trans-1,2-Dichloroethene	ND		1	1	03/18/11 17:33	JC	5747522
trans-1,3-Dichloropropene	ND		1	1	03/18/11 17:33	JC	5747522
1,2-Dichloroethene (total)	ND		1	1	03/18/11 17:33	JC	5747522
Xylenes, Total	4.2		1	1	03/18/11 17:33	JC	5747522
Surr: 1,2-Dichloroethane-d4	81.3	%	70-130	1	03/18/11 17:33	JC	5747522
Surr: 4-Bromofluorobenzene	92.4	%	74-125	1	03/18/11 17:33	JC	5747522
Surr: Toluene-d8	98.8	%	82-118	1	03/18/11 17:33	JC	5747522

Qualifiers: ND/U - Not Detected at the Reporting Limit

>MCL - Result Over Maximum Contamination Limit(MCL)

B - Analyte Detected In The Associated Method Blank

D - Surrogate Recovery Unreportable due to Dilution

\* - Surrogate Recovery Outside Advisable QC Limits

MI - Matrix Interference

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

11030471 Page 25

3/31/2011 5:56:05 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-4

Collected: 03/17/2011 12:45 SPL Sample ID: 11030471-04

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>ALKALINITY (AS CACO3), TOTAL</b>				<b>MCL</b>	<b>SM2320B</b>	<b>Units: mg/L</b>	
Alkalinity, Total (As CaCO3)	246		2	1	03/18/11 13:30	PAC	5746949

DIESEL RANGE ORGANICS				<b>MCL</b>	<b>SW8015B</b>	<b>Units: mg/L</b>	
Diesel Range Organics (C10-C28)	0.14		0.11	1	03/25/11 13:27	NW	5752588
Surr: n-Pentacosane	58.7	%	20-150	1	03/25/11 13:27	NW	5752588

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	03/22/2011 16:08	N_M	1.06

GASOLINE RANGE ORGANICS				<b>MCL</b>	<b>SW8015B</b>	<b>Units: mg/L</b>	
Gasoline Range Organics	ND		0.1	1	03/23/11 16:43	NMa	5750372
Surr: 1,4-Difluorobenzene	102	%	60-155	1	03/23/11 16:43	NMa	5750372
Surr: 4-Bromofluorobenzene	105	%	50-158	1	03/23/11 16:43	NMa	5750372

HARDNESS, TOTAL (TITRIMETRIC, EDTA)				<b>MCL</b>	<b>SM2340C</b>	<b>Units: mg/L</b>	
Hardness (As CaCO3)	600		50	10	03/21/11 11:00	PAC	5747788

ION CHROMATOGRAPHY				<b>MCL</b>	<b>E300.0</b>	<b>Units: mg/L</b>	
Bromide	0.635		0.5	1	03/18/11 16:26	ESK	5747351
Chloride	37.8		2.5	5	03/18/11 20:12	ESK	5747365
Fluoride	1.06		0.5	1	03/18/11 16:26	ESK	5747351
Ortho-phosphate (As P)	ND		0.5	1	03/18/11 16:26	ESK	5747351
Sulfate	1290		50	100	03/19/11 13:24	ESK	5747465
Nitrogen,Nitrate (As N)	10.4		0.5	1	03/18/11 16:26	ESK	5747321
Nitrogen,Nitrite (As N)	ND		0.5	1	03/18/11 16:26	ESK	5747321

MERCURY, TOTAL				<b>MCL</b>	<b>SW7470A</b>	<b>Units: mg/L</b>	
Mercury	ND		0.0002	1	03/24/11 15:42	F_S	5751055

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7470A	03/24/2011 9:35	F_S	1.00

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 26  
3/31/2011 5:56:06 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-4

Collected: 03/17/2011 12:45

SPL Sample ID: 11030471-04

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>METALS BY METHOD 6010B, DISSOLVED</b>							
Aluminum	ND		0.1	1	03/26/11 15:36	EG	5752478
Arsenic	ND		0.005	1	03/26/11 15:36	EG	5752478
Barium	0.0115		0.005	1	03/26/11 15:36	EG	5752478
Boron	ND		0.1	1	03/26/11 15:36	EG	5752478
Cadmium	ND		0.005	1	03/26/11 15:36	EG	5752478
Chromium	ND		0.005	1	03/26/11 15:36	EG	5752478
Cobalt	ND		0.005	1	03/26/11 15:36	EG	5752478
Copper	ND		0.005	1	03/26/11 15:36	EG	5752478
Iron	ND		0.02	1	03/26/11 15:36	EG	5752478
Lead	ND		0.005	1	03/26/11 15:36	EG	5752478
Manganese	0.0215		0.005	1	03/26/11 15:36	EG	5752478
Molybdenum	ND		0.005	1	03/26/11 15:36	EG	5752478
Nickel	ND		0.005	1	03/26/11 15:36	EG	5752478
Selenium	0.042		0.01	1	03/26/11 15:36	EG	5752478
Silver	ND		0.005	1	03/26/11 15:36	EG	5752478
Zinc	ND		0.01	1	03/26/11 15:36	EG	5752478

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3005A	03/18/2011 14:00	M_W	1.00

PH		MCL	SM4500-H B	Units: pH Units
pH	7.46	0.1	1	03/18/11 13:00 PAC 5746931

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 27  
3/31/2011 5:56:07 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-4

Collected: 03/17/2011 12:45 SPL Sample ID: 11030471-04

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>SEMIVOLATILE ORGANICS BY METHOD 8270C</b>							
1,2,4-Trichlorobenzene	ND		5.4	1	03/24/11 22:03	GY	5751464
1,2-Dichlorobenzene	ND		5.4	1	03/24/11 22:03	GY	5751464
1,2-Diphenylhydrazine	ND		11	1	03/24/11 22:03	GY	5751464
1,3-Dichlorobenzene	ND		5.4	1	03/24/11 22:03	GY	5751464
1,4-Dichlorobenzene	ND		5.4	1	03/24/11 22:03	GY	5751464
2,4,5-Trichlorophenol	ND		11	1	03/24/11 22:03	GY	5751464
2,4,6-Trichlorophenol	ND		5.4	1	03/24/11 22:03	GY	5751464
2,4-Dichlorophenol	ND		5.4	1	03/24/11 22:03	GY	5751464
2,4-Dimethylphenol	ND		5.4	1	03/24/11 22:03	GY	5751464
2,4-Dinitrophenol	ND		27	1	03/24/11 22:03	GY	5751464
2,4-Dinitrotoluene	ND		5.4	1	03/24/11 22:03	GY	5751464
2,6-Dinitrotoluene	ND		5.4	1	03/24/11 22:03	GY	5751464
2-Chloronaphthalene	ND		5.4	1	03/24/11 22:03	GY	5751464
2-Chlorophenol	ND		5.4	1	03/24/11 22:03	GY	5751464
2-Methylnaphthalene	ND		5.4	1	03/24/11 22:03	GY	5751464
2-Nitroaniline	ND		27	1	03/24/11 22:03	GY	5751464
2-Nitrophenol	ND		5.4	1	03/24/11 22:03	GY	5751464
3,3'-Dichlorobenzidine	ND		11	1	03/24/11 22:03	GY	5751464
3-Nitroaniline	ND		27	1	03/24/11 22:03	GY	5751464
4,6-Dinitro-2-methylphenol	ND		27	1	03/24/11 22:03	GY	5751464
4-Bromophenyl phenyl ether	ND		5.4	1	03/24/11 22:03	GY	5751464
4-Chloro-3-methylphenol	ND		5.4	1	03/24/11 22:03	GY	5751464
4-Chloroaniline	ND		5.4	1	03/24/11 22:03	GY	5751464
4-Chlorophenyl phenyl ether	ND		5.4	1	03/24/11 22:03	GY	5751464
4-Nitroaniline	ND		27	1	03/24/11 22:03	GY	5751464
4-Nitrophenol	ND		27	1	03/24/11 22:03	GY	5751464
Acenaphthene	ND		5.4	1	03/24/11 22:03	GY	5751464
Acenaphthylene	ND		5.4	1	03/24/11 22:03	GY	5751464
Aniline	ND		5.4	1	03/24/11 22:03	GY	5751464
Anthracene	ND		5.4	1	03/24/11 22:03	GY	5751464
Benz(a)anthracene	ND		5.4	1	03/24/11 22:03	GY	5751464
Benzo(a)pyrene	ND		5.4	1	03/24/11 22:03	GY	5751464
Benzo(b)fluoranthene	ND		5.4	1	03/24/11 22:03	GY	5751464
Benzo(g,h,i)perylene	ND		5.4	1	03/24/11 22:03	GY	5751464
Benzo(k)fluoranthene	ND		5.4	1	03/24/11 22:03	GY	5751464
Benzoic acid	ND		27	1	03/24/11 22:03	GY	5751464

Qualifiers: ND/U - Not Detected at the Reporting Limit

>MCL - Result Over Maximum Contamination Limit(MCL)

B - Analyte Detected In The Associated Method Blank

D - Surrogate Recovery Unreportable due to Dilution

\* - Surrogate Recovery Outside Advisable QC Limits

MI - Matrix Interference

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

11030471 Page 28

TNTC - Too numerous to count

3/31/2011 5:56:08 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-4

Collected: 03/17/2011 12:45

SPL Sample ID: 11030471-04

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Benzyl alcohol	ND		5.4	1	03/24/11 22:03	GY	5751464
Bis(2-chloroethoxy)methane	ND		5.4	1	03/24/11 22:03	GY	5751464
Bis(2-chloroethyl)ether	ND		5.4	1	03/24/11 22:03	GY	5751464
Bis(2-chloroisopropyl)ether	ND		5.4	1	03/24/11 22:03	GY	5751464
Bis(2-ethylhexyl)phthalate	8.2		5.4	1	03/24/11 22:03	GY	5751464
Butyl benzyl phthalate	ND		5.4	1	03/24/11 22:03	GY	5751464
Carbazole	ND		5.4	1	03/24/11 22:03	GY	5751464
Chrysene	ND		5.4	1	03/24/11 22:03	GY	5751464
Dibenz(a,h)anthracene	ND		5.4	1	03/24/11 22:03	GY	5751464
Dibenzofuran	ND		5.4	1	03/24/11 22:03	GY	5751464
Diethyl phthalate	ND		5.4	1	03/24/11 22:03	GY	5751464
Dimethyl phthalate	ND		5.4	1	03/24/11 22:03	GY	5751464
Di-n-butyl phthalate	ND		5.4	1	03/24/11 22:03	GY	5751464
Di-n-octyl phthalate	ND		5.4	1	03/24/11 22:03	GY	5751464
Fluoranthene	ND		5.4	1	03/24/11 22:03	GY	5751464
Fluorene	ND		5.4	1	03/24/11 22:03	GY	5751464
Hexachlorobenzene	ND		5.4	1	03/24/11 22:03	GY	5751464
Hexachlorobutadiene	ND		5.4	1	03/24/11 22:03	GY	5751464
Hexachlorocyclopentadiene	ND		5.4	1	03/24/11 22:03	GY	5751464
Hexachloroethane	ND		5.4	1	03/24/11 22:03	GY	5751464
Indeno(1,2,3-cd)pyrene	ND		5.4	1	03/24/11 22:03	GY	5751464
Isophorone	ND		5.4	1	03/24/11 22:03	GY	5751464
Naphthalene	ND		5.4	1	03/24/11 22:03	GY	5751464
Nitrobenzene	ND		5.4	1	03/24/11 22:03	GY	5751464
N-Nitrosodi-n-propylamine	ND		5.4	1	03/24/11 22:03	GY	5751464
N-Nitrosodiphenylamine	ND		5.4	1	03/24/11 22:03	GY	5751464
Pentachlorophenol	ND		27	1	03/24/11 22:03	GY	5751464
Phenanthrene	ND		5.4	1	03/24/11 22:03	GY	5751464
Phenol	ND		5.4	1	03/24/11 22:03	GY	5751464
Pyrene	ND		5.4	1	03/24/11 22:03	GY	5751464
Pyridine	ND		5.4	1	03/24/11 22:03	GY	5751464
2-Methylphenol	ND		5.4	1	03/24/11 22:03	GY	5751464
3 & 4-Methylphenol	ND		5.4	1	03/24/11 22:03	GY	5751464
Surr: 2,4,6-Tribromophenol	69.8	%	25-154	1	03/24/11 22:03	GY	5751464
Surr: 2-Fluorobiphenyl	78.3	%	45-108	1	03/24/11 22:03	GY	5751464
Surr: 2-Fluorophenol	59.5	%	18-113	1	03/24/11 22:03	GY	5751464
Surr: Nitrobenzene-d5	77.2	%	41-113	1	03/24/11 22:03	GY	5751464

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 29  
3/31/2011 5:56:08 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-4

Collected: 03/17/2011 12:45 SPL Sample ID: 11030471-04

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Surr: Phenol-d6	51.5	%	10-113	1	03/24/11 22:03	GY	5751464
Surr: Terphenyl-d14	81.1	%	43-122	1	03/24/11 22:03	GY	5751464

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	03/21/2011 16:18	N_M	1.08

SPECIFIC CONDUCTANCE @ 25 C		MCL	SM2510B	Units: umhos/cm
Specific Conductance	2700	10	1	03/18/11 13:15 PAC 5746940

TOTAL DISSOLVED SOLIDS		MCL	SM2540 C	Units: mg/L
Total Dissolved Solids (Residue,Filterable)	2650	20	2	03/22/11 11:30 MM1 5749769

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 30  
3/31/2011 5:56:09 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-4

Collected: 03/17/2011 12:45 SPL Sample ID: 11030471-04

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>VOLATILE ORGANICS BY METHOD 8260B</b>							
1,1,1,2-Tetrachloroethane	ND		1	1	03/18/11 18:02	JC	5747523
1,1,1-Trichloroethane	ND		1	1	03/18/11 18:02	JC	5747523
1,1,2,2-Tetrachloroethane	ND		1	1	03/18/11 18:02	JC	5747523
1,1,2-Trichloroethane	ND		1	1	03/18/11 18:02	JC	5747523
1,1-Dichloroethane	ND		1	1	03/18/11 18:02	JC	5747523
1,1-Dichloroethene	ND		1	1	03/18/11 18:02	JC	5747523
1,1-Dichloropropene	ND		1	1	03/18/11 18:02	JC	5747523
1,2,3-Trichlorobenzene	ND		1	1	03/18/11 18:02	JC	5747523
1,2,3-Trichloropropane	ND		1	1	03/18/11 18:02	JC	5747523
1,2,4-Trichlorobenzene	ND		1	1	03/18/11 18:02	JC	5747523
1,2,4-Trimethylbenzene	ND		1	1	03/18/11 18:02	JC	5747523
1,2-Dibromo-3-chloropropane	ND		5	1	03/18/11 18:02	JC	5747523
1,2-Dibromoethane	ND		1	1	03/18/11 18:02	JC	5747523
1,2-Dichlorobenzene	ND		1	1	03/18/11 18:02	JC	5747523
1,2-Dichloroethane	ND		1	1	03/18/11 18:02	JC	5747523
1,2-Dichloropropane	ND		1	1	03/18/11 18:02	JC	5747523
1,3,5-Trimethylbenzene	ND		1	1	03/18/11 18:02	JC	5747523
1,3-Dichlorobenzene	ND		1	1	03/18/11 18:02	JC	5747523
1,3-Dichloropropane	ND		1	1	03/18/11 18:02	JC	5747523
1,4-Dichlorobenzene	ND		1	1	03/18/11 18:02	JC	5747523
2,2-Dichloropropane	ND		1	1	03/18/11 18:02	JC	5747523
2-Butanone	ND		12	1	03/18/11 18:02	JC	5747523
2-Chloroethyl vinyl ether	ND J		5	1	03/18/11 18:02	JC	5747523
2-Chlorotoluene	ND		1	1	03/18/11 18:02	JC	5747523
2-Hexanone	ND		12	1	03/18/11 18:02	JC	5747523
4-Chlorotoluene	ND		1	1	03/18/11 18:02	JC	5747523
4-Isopropyltoluene	ND		1	1	03/18/11 18:02	JC	5747523
4-Methyl-2-pentanone	ND		12	1	03/18/11 18:02	JC	5747523
Acetone	ND		12	1	03/18/11 18:02	JC	5747523
Acrylonitrile	ND		5	1	03/18/11 18:02	JC	5747523
Benzene	ND		1	1	03/18/11 18:02	JC	5747523
Bromobenzene	ND		1	1	03/18/11 18:02	JC	5747523
Bromochloromethane	ND		1	1	03/18/11 18:02	JC	5747523
Bromodichloromethane	ND		1	1	03/18/11 18:02	JC	5747523
Bromoform	ND		1	1	03/18/11 18:02	JC	5747523
Bromomethane	ND		1	1	03/18/11 18:02	JC	5747523

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 31  
3/31/2011 5:56:10 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: MW-4

Collected: 03/17/2011 12:45 SPL Sample ID: 11030471-04

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Carbon disulfide	ND		5	1	03/18/11 18:02	JC	5747523
Carbon tetrachloride	ND		1	1	03/18/11 18:02	JC	5747523
Chlorobenzene	ND		1	1	03/18/11 18:02	JC	5747523
Chloroethane	ND		1	1	03/18/11 18:02	JC	5747523
Chloroform	ND		1	1	03/18/11 18:02	JC	5747523
Chloromethane	ND		1	1	03/18/11 18:02	JC	5747523
Dibromochloromethane	ND		1	1	03/18/11 18:02	JC	5747523
Dibromomethane	ND		1	1	03/18/11 18:02	JC	5747523
Dichlorodifluoromethane	ND		1	1	03/18/11 18:02	JC	5747523
Ethylbenzene	ND		1	1	03/18/11 18:02	JC	5747523
Hexachlorobutadiene	ND		1	1	03/18/11 18:02	JC	5747523
Isopropylbenzene	ND		1	1	03/18/11 18:02	JC	5747523
Methyl tert-butyl ether	ND		1	1	03/18/11 18:02	JC	5747523
Methylene chloride	ND		1	1	03/18/11 18:02	JC	5747523
Naphthalene	ND		1	1	03/18/11 18:02	JC	5747523
n-Butylbenzene	ND		1	1	03/18/11 18:02	JC	5747523
n-Propylbenzene	ND		1	1	03/18/11 18:02	JC	5747523
sec-Butylbenzene	ND		1	1	03/18/11 18:02	JC	5747523
Styrene	ND		1	1	03/18/11 18:02	JC	5747523
tert-Butylbenzene	ND		1	1	03/18/11 18:02	JC	5747523
Tetrachloroethene	ND		1	1	03/18/11 18:02	JC	5747523
Toluene	ND		1	1	03/18/11 18:02	JC	5747523
Trichloroethene	ND		1	1	03/18/11 18:02	JC	5747523
Trichlorofluoromethane	ND		1	1	03/18/11 18:02	JC	5747523
Vinyl acetate	ND		1	1	03/18/11 18:02	JC	5747523
Vinyl chloride	ND		1	1	03/18/11 18:02	JC	5747523
cis-1,2-Dichloroethene	ND		1	1	03/18/11 18:02	JC	5747523
cis-1,3-Dichloropropene	ND		1	1	03/18/11 18:02	JC	5747523
m,p-Xylene	ND		2	1	03/18/11 18:02	JC	5747523
o-Xylene	ND		1	1	03/18/11 18:02	JC	5747523
trans-1,2-Dichloroethene	ND		1	1	03/18/11 18:02	JC	5747523
trans-1,3-Dichloropropene	ND		1	1	03/18/11 18:02	JC	5747523
1,2-Dichloroethene (total)	ND		1	1	03/18/11 18:02	JC	5747523
Xylenes, Total	ND		1	1	03/18/11 18:02	JC	5747523
Surr: 1,2-Dichloroethane-d4	80.8	%	70-130	1	03/18/11 18:02	JC	5747523
Surr: 4-Bromofluorobenzene	93.9	%	74-125	1	03/18/11 18:02	JC	5747523
Surr: Toluene-d8	98.6	%	82-118	1	03/18/11 18:02	JC	5747523

Qualifiers: ND/U - Not Detected at the Reporting Limit

>MCL - Result Over Maximum Contamination Limit(MCL)

B - Analyte Detected In The Associated Method Blank

D - Surrogate Recovery Unreportable due to Dilution

\* - Surrogate Recovery Outside Advisable QC Limits

MI - Matrix Interference

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

11030471 Page 32

3/31/2011 5:56:11 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: Duplicate

Collected: 03/17/2011 11:35

SPL Sample ID: 11030471-05

Site: Rio Arriba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>VOLATILE ORGANICS BY METHOD 8260B</b>							
1,1,1,2-Tetrachloroethane	ND		1	1	03/18/11 18:31	JC	5747524
1,1,1-Trichloroethane	ND		1	1	03/18/11 18:31	JC	5747524
1,1,2,2-Tetrachloroethane	ND		1	1	03/18/11 18:31	JC	5747524
1,1,2-Trichloroethane	ND		1	1	03/18/11 18:31	JC	5747524
1,1-Dichloroethane	ND		1	1	03/18/11 18:31	JC	5747524
1,1-Dichloroethene	ND		1	1	03/18/11 18:31	JC	5747524
1,1-Dichloropropene	ND		1	1	03/18/11 18:31	JC	5747524
1,2,3-Trichlorobenzene	ND		1	1	03/18/11 18:31	JC	5747524
1,2,3-Trichloropropane	ND		1	1	03/18/11 18:31	JC	5747524
1,2,4-Trichlorobenzene	ND		1	1	03/18/11 18:31	JC	5747524
1,2,4-Trimethylbenzene	ND		1	1	03/18/11 18:31	JC	5747524
1,2-Dibromo-3-chloropropane	ND		5	1	03/18/11 18:31	JC	5747524
1,2-Dibromoethane	ND		1	1	03/18/11 18:31	JC	5747524
1,2-Dichlorobenzene	ND		1	1	03/18/11 18:31	JC	5747524
1,2-Dichloroethane	ND		1	1	03/18/11 18:31	JC	5747524
1,2-Dichloropropane	ND		1	1	03/18/11 18:31	JC	5747524
1,3,5-Trimethylbenzene	13		1	1	03/18/11 18:31	JC	5747524
1,3-Dichlorobenzene	ND		1	1	03/18/11 18:31	JC	5747524
1,3-Dichloropropane	ND		1	1	03/18/11 18:31	JC	5747524
1,4-Dichlorobenzene	ND		1	1	03/18/11 18:31	JC	5747524
2,2-Dichloropropane	ND		1	1	03/18/11 18:31	JC	5747524
2-Butanone	ND		12	1	03/18/11 18:31	JC	5747524
2-Chloroethyl vinyl ether	ND J		5	1	03/18/11 18:31	JC	5747524
2-Chlorotoluene	ND		1	1	03/18/11 18:31	JC	5747524
2-Hexanone	ND		12	1	03/18/11 18:31	JC	5747524
4-Chlorotoluene	ND		1	1	03/18/11 18:31	JC	5747524
4-Isopropyltoluene	ND		1	1	03/18/11 18:31	JC	5747524
4-Methyl-2-pentanone	ND		12	1	03/18/11 18:31	JC	5747524
Acetone	ND		12	1	03/18/11 18:31	JC	5747524
Acrylonitrile	ND		5	1	03/18/11 18:31	JC	5747524
Benzene	64		1	1	03/18/11 18:31	JC	5747524
Bromobenzene	ND		1	1	03/18/11 18:31	JC	5747524
Bromochloromethane	ND		1	1	03/18/11 18:31	JC	5747524
Bromodichloromethane	ND		1	1	03/18/11 18:31	JC	5747524
Bromoform	ND		1	1	03/18/11 18:31	JC	5747524
Bromomethane	ND		1	1	03/18/11 18:31	JC	5747524

**Qualifiers:**  
ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 33  
3/31/2011 5:56:11 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: Duplicate

Collected: 03/17/2011 11:35 SPL Sample ID: 11030471-05

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Carbon disulfide	ND		5	1	03/18/11 18:31	JC	5747524
Carbon tetrachloride	ND		1	1	03/18/11 18:31	JC	5747524
Chlorobenzene	ND		1	1	03/18/11 18:31	JC	5747524
Chloroethane	ND		1	1	03/18/11 18:31	JC	5747524
Chloroform	ND		1	1	03/18/11 18:31	JC	5747524
Chloromethane	ND		1	1	03/18/11 18:31	JC	5747524
Dibromochloromethane	ND		1	1	03/18/11 18:31	JC	5747524
Dibromomethane	ND		1	1	03/18/11 18:31	JC	5747524
Dichlorodifluoromethane	ND		1	1	03/18/11 18:31	JC	5747524
Ethylbenzene	11		1	1	03/18/11 18:31	JC	5747524
Hexachlorobutadiene	ND		1	1	03/18/11 18:31	JC	5747524
Isopropylbenzene	1.5		1	1	03/18/11 18:31	JC	5747524
Methyl tert-butyl ether	ND		1	1	03/18/11 18:31	JC	5747524
Methylene chloride	ND		1	1	03/18/11 18:31	JC	5747524
Naphthalene	ND		1	1	03/18/11 18:31	JC	5747524
n-Butylbenzene	ND		1	1	03/18/11 18:31	JC	5747524
n-Propylbenzene	ND		1	1	03/18/11 18:31	JC	5747524
sec-Butylbenzene	ND		1	1	03/18/11 18:31	JC	5747524
Styrene	ND		1	1	03/18/11 18:31	JC	5747524
tert-Butylbenzene	ND		1	1	03/18/11 18:31	JC	5747524
Tetrachloroethene	ND		1	1	03/18/11 18:31	JC	5747524
Toluene	380		5	5	03/22/11 13:38	JC	5749337
Trichloroethene	ND		1	1	03/18/11 18:31	JC	5747524
Trichlorofluoromethane	ND		1	1	03/18/11 18:31	JC	5747524
Vinyl acetate	ND		1	1	03/18/11 18:31	JC	5747524
Vinyl chloride	ND		1	1	03/18/11 18:31	JC	5747524
cis-1,2-Dichloroethene	ND		1	1	03/18/11 18:31	JC	5747524
cis-1,3-Dichloropropene	ND		1	1	03/18/11 18:31	JC	5747524
m,p-Xylene	33		2	1	03/18/11 18:31	JC	5747524
o-Xylene	49		1	1	03/18/11 18:31	JC	5747524
trans-1,2-Dichloroethene	ND		1	1	03/18/11 18:31	JC	5747524
trans-1,3-Dichloropropene	ND		1	1	03/18/11 18:31	JC	5747524
1,2-Dichloroethene (total)	ND		1	1	03/18/11 18:31	JC	5747524
Xylenes, Total	82		1	1	03/18/11 18:31	JC	5747524
Surr: 1,2-Dichloroethane-d4	68 MI	*	% 70-130	1	03/18/11 18:31	JC	5747524
Surr: 1,2-Dichloroethane-d4	68 MI	*	% 70-130	5	03/22/11 13:38	JC	5749337
Surr: 4-Bromofluorobenzene	93.7		% 74-125	1	03/18/11 18:31	JC	5747524

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 34  
3/31/2011 5:56:12 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: Duplicate

Collected: 03/17/2011 11:35

SPL Sample ID: 11030471-05

Site: Rio Arriba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Surr: 4-Bromofluorobenzene	96.7	%	74-125	5	03/22/11 13:38	JC	5749337
Surr: Toluene-d8	89.3	%	82-118	1	03/18/11 18:31	JC	5747524
Surr: Toluene-d8	98.9	%	82-118	5	03/22/11 13:38	JC	5749337

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

11030471 Page 35  
3/31/2011 5:56:12 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: Trip Blank

Collected: 03/17/2011 0:00

SPL Sample ID: 11030471-06

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
<b>VOLATILE ORGANICS BY METHOD 8260B</b>							
1,1,1,2-Tetrachloroethane	ND		1	1	03/18/11 19:00	JC	5747525
1,1,1-Trichloroethane	ND		1	1	03/18/11 19:00	JC	5747525
1,1,2,2-Tetrachloroethane	ND		1	1	03/18/11 19:00	JC	5747525
1,1,2-Trichloroethane	ND		1	1	03/18/11 19:00	JC	5747525
1,1-Dichloroethane	ND		1	1	03/18/11 19:00	JC	5747525
1,1-Dichloroethene	ND		1	1	03/18/11 19:00	JC	5747525
1,1-Dichloropropene	ND		1	1	03/18/11 19:00	JC	5747525
1,2,3-Trichlorobenzene	ND		1	1	03/18/11 19:00	JC	5747525
1,2,3-Trichloropropane	ND		1	1	03/18/11 19:00	JC	5747525
1,2,4-Trichlorobenzene	ND		1	1	03/18/11 19:00	JC	5747525
1,2,4-Trimethylbenzene	ND		1	1	03/18/11 19:00	JC	5747525
1,2-Dibromo-3-chloropropane	ND		5	1	03/18/11 19:00	JC	5747525
1,2-Dibromoethane	ND		1	1	03/18/11 19:00	JC	5747525
1,2-Dichlorobenzene	ND		1	1	03/18/11 19:00	JC	5747525
1,2-Dichloroethane	ND		1	1	03/18/11 19:00	JC	5747525
1,2-Dichloropropane	ND		1	1	03/18/11 19:00	JC	5747525
1,3,5-Trimethylbenzene	ND		1	1	03/18/11 19:00	JC	5747525
1,3-Dichlorobenzene	ND		1	1	03/18/11 19:00	JC	5747525
1,3-Dichloropropane	ND		1	1	03/18/11 19:00	JC	5747525
1,4-Dichlorobenzene	ND		1	1	03/18/11 19:00	JC	5747525
2,2-Dichloropropane	ND		1	1	03/18/11 19:00	JC	5747525
2-Butanone	ND		12	1	03/18/11 19:00	JC	5747525
2-Chloroethyl vinyl ether	ND J		5	1	03/18/11 19:00	JC	5747525
2-Chlorotoluene	ND		1	1	03/18/11 19:00	JC	5747525
2-Hexanone	ND		12	1	03/18/11 19:00	JC	5747525
4-Chlorotoluene	ND		1	1	03/18/11 19:00	JC	5747525
4-Isopropyltoluene	ND		1	1	03/18/11 19:00	JC	5747525
4-Methyl-2-pentanone	ND		12	1	03/18/11 19:00	JC	5747525
Acetone	ND		12	1	03/18/11 19:00	JC	5747525
Acrylonitrile	ND		5	1	03/18/11 19:00	JC	5747525
Benzene	ND		1	1	03/18/11 19:00	JC	5747525
Bromobenzene	ND		1	1	03/18/11 19:00	JC	5747525
Bromochloromethane	ND		1	1	03/18/11 19:00	JC	5747525
Bromodichloromethane	ND		1	1	03/18/11 19:00	JC	5747525
Bromoform	ND		1	1	03/18/11 19:00	JC	5747525
Bromomethane	ND		1	1	03/18/11 19:00	JC	5747525

Qualifiers: ND/U - Not Detected at the Reporting Limit

>MCL - Result Over Maximum Contamination Limit(MCL)

B - Analyte Detected In The Associated Method Blank

D - Surrogate Recovery Unreportable due to Dilution

\* - Surrogate Recovery Outside Advisable QC Limits

MI - Matrix Interference

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

11030471 Page 36

3/31/2011 5:56:13 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

Client Sample ID: Trip Blank

Collected: 03/17/2011 0:00

SPL Sample ID: 11030471-06

Site: Rio Ariba County, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Carbon disulfide	ND		5	1	03/18/11 19:00	JC	5747525
Carbon tetrachloride	ND		1	1	03/18/11 19:00	JC	5747525
Chlorobenzene	ND		1	1	03/18/11 19:00	JC	5747525
Chloroethane	ND		1	1	03/18/11 19:00	JC	5747525
Chloroform	ND		1	1	03/18/11 19:00	JC	5747525
Chloromethane	ND		1	1	03/18/11 19:00	JC	5747525
Dibromochloromethane	ND		1	1	03/18/11 19:00	JC	5747525
Dibromomethane	ND		1	1	03/18/11 19:00	JC	5747525
Dichlorodifluoromethane	ND		1	1	03/18/11 19:00	JC	5747525
Ethylbenzene	ND		1	1	03/18/11 19:00	JC	5747525
Hexachlorobutadiene	ND		1	1	03/18/11 19:00	JC	5747525
Isopropylbenzene	ND		1	1	03/18/11 19:00	JC	5747525
Methyl tert-butyl ether	ND		1	1	03/18/11 19:00	JC	5747525
Methylene chloride	ND		1	1	03/18/11 19:00	JC	5747525
Naphthalene	ND		1	1	03/18/11 19:00	JC	5747525
n-Butylbenzene	ND		1	1	03/18/11 19:00	JC	5747525
n-Propylbenzene	ND		1	1	03/18/11 19:00	JC	5747525
sec-Butylbenzene	ND		1	1	03/18/11 19:00	JC	5747525
Styrene	ND		1	1	03/18/11 19:00	JC	5747525
tert-Butylbenzene	ND		1	1	03/18/11 19:00	JC	5747525
Tetrachloroethene	ND		1	1	03/18/11 19:00	JC	5747525
Toluene	ND		1	1	03/18/11 19:00	JC	5747525
Trichloroethene	ND		1	1	03/18/11 19:00	JC	5747525
Trichlorofluoromethane	ND		1	1	03/18/11 19:00	JC	5747525
Vinyl acetate	ND		1	1	03/18/11 19:00	JC	5747525
Vinyl chloride	ND		1	1	03/18/11 19:00	JC	5747525
cis-1,2-Dichloroethene	ND		1	1	03/18/11 19:00	JC	5747525
cis-1,3-Dichloropropene	ND		1	1	03/18/11 19:00	JC	5747525
m,p-Xylene	ND		2	1	03/18/11 19:00	JC	5747525
o-Xylene	ND		1	1	03/18/11 19:00	JC	5747525
trans-1,2-Dichloroethene	ND		1	1	03/18/11 19:00	JC	5747525
trans-1,3-Dichloropropene	ND		1	1	03/18/11 19:00	JC	5747525
1,2-Dichloroethene (total)	ND		1	1	03/18/11 19:00	JC	5747525
Xylenes,Total	ND		1	1	03/18/11 19:00	JC	5747525
Surr: 1,2-Dichloroethane-d4	82.9	%	70-130	1	03/18/11 19:00	JC	5747525
Surr: 4-Bromofluorobenzene	89.8	%	74-125	1	03/18/11 19:00	JC	5747525
Surr: Toluene-d8	96.2	%	82-118	1	03/18/11 19:00	JC	5747525

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
\* - Surrogate Recovery Outside Advisable QC Limits  
J - Estimated value between MDL and PQL  
E - Estimated Value exceeds calibration curve  
TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)  
D - Surrogate Recovery Unreportable due to Dilution  
MI - Matrix Interference

# *Quality Control Documentation*



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Diesel Range Organics WorkOrder: 11030471  
Method: SW8015B Lab Batch ID: 105605

#### Method Blank

RunID:	HP_V_110325A-5752585	Units:	mg/L
Analysis Date:	03/25/2011 11:26	Analyst:	NW
Preparation Date:	03/22/2011 16:08	Prep By:	N_M Method: SW3510C
<hr/>			
Analyte	Result	Rep Limit	
Diesel Range Organics (C10-C28)	ND	0.10	
Surr: n-Pentacosane	99.0	20-150	

#### Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
11030471-01D	MW-1
11030471-02D	MW-2
11030471-03D	MW-3
11030471-04D	MW-4

#### Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: HP\_V\_110325A-5752583 Units: mg/L  
Analysis Date: 03/25/2011 10:46 Analyst: NW  
Preparation Date: 03/22/2011 16:08 Prep By: N\_M Method: SW3510C

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
Diesel Range Organics (C10-C28)	1.00	1.17	117	2.00	1.25	62.3	6.4	39	21	130
Surr: n-Pentacosane	0.0500	0.0551	110	0.0500	0.0522	104	5.4	30	20	150

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030471 Page 39

3/31/2011 5:56:21 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis:	Gasoline Range Organics	WorkOrder:	11030471
Method:	SW8015B	Lab Batch ID:	R317474

#### Method Blank

#### Samples in Analytical Batch:

RunID: HP\_U\_110322A-5750366 Units: mg/L

#### Lab Sample ID

#### Client Sample ID

Analysis Date: 03/23/2011 13:36 Analyst: NMa

11030471-01C

MW-1

11030471-02C

MW-2

11030471-03C

MW-3

11030471-04C

MW-4

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.10
Surr: 1,4-Difluorobenzene	101.4	60-155
Surr: 4-Bromofluorobenzene	104.8	50-158

#### Laboratory Control Sample (LCS)

RunID: HP\_U\_110322A-5750365 Units: mg/L

Analysis Date: 03/23/2011 13:05 Analyst: NMa

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1.00	1.01	101	42	136
Surr: 1,4-Difluorobenzene	0.100	0.104	104	60	155
Surr: 4-Bromofluorobenzene	0.100	0.108	108	50	158

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030471-01

RunID: HP\_U\_110322A-5750368 Units: mg/L

Analysis Date: 03/23/2011 14:38 Analyst: NMa

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Gasoline Range Organics	1.50	1	2.49	99.6	1	2.47	97.0	1.05	36	22	174
Surr: 1,4-Difluorobenzene	ND	0.1	0.107	107	0.1	0.107	107	0.0938	30	60	155
Surr: 4-Bromofluorobenzene	ND	0.1	0.112	112	0.1	0.111	111	0.900	30	50	158

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030471 Page 40

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/31/2011 5:56:21 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Metals by Method 6010B, Dissolved  
Method: SW6010B

WorkOrder: 11030471  
Lab Batch ID: 105550

#### Method Blank

#### Samples in Analytical Batch:

RunID: ICP2_110326A-5752468	Units: mg/L	<u>Lab Sample ID</u>	<u>Client Sample ID</u>
Analysis Date: 03/26/2011 14:07	Analyst: EG	11030471-01E	MW-1
Preparation Date: 03/18/2011 14:00	Prep By: M_ Method: SW3005A	11030471-02E	MW-2

11030471-03E MW-3  
11030471-04E MW-4

Analyte	Result	Rep Limit
Aluminum	ND	0.1
Arsenic	ND	0.005
Barium	ND	0.005
Boron	ND	0.1
Cadmium	ND	0.005
Chromium	ND	0.005
Cobalt	ND	0.005
Copper	ND	0.005
Iron	ND	0.02
Lead	ND	0.005
Manganese	ND	0.005
Molybdenum	ND	0.005
Nickel	ND	0.005
Selenium	ND	0.01
Silver	ND	0.005
Zinc	ND	0.01

#### Laboratory Control Sample (LCS)

RunID: ICP2\_110326A-5752469 Units: mg/L  
Analysis Date: 03/26/2011 14:13 Analyst: EG  
Preparation Date: 03/18/2011 14:00 Prep By: M\_ Method: SW3005A

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Aluminum	1.000	0.9866	98.66	80	120
Arsenic	0.1000	0.09800	98.00	80	120
Barium	0.1000	0.1039	103.9	80	120
Boron	1.000	0.9690	96.90	80	120
Cadmium	0.1000	0.09970	99.70	80	120
Chromium	0.1000	0.1012	101.2	80	120
Cobalt	0.1000	0.1013	101.3	80	120
Copper	0.1000	0.1027	102.7	80	120
Iron	1.000	1.023	102.3	80	120

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030471 Page 41

3/31/2011 5:56:22 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis:	Metals by Method 6010B, Dissolved	WorkOrder:	11030471
Method:	SW6010B	Lab Batch ID:	105550

#### Laboratory Control Sample (LCS)

RunID: ICP2\_110326A-5752469 Units: mg/L  
Analysis Date: 03/26/2011 14:13 Analyst: EG  
Preparation Date: 03/18/2011 14:00 Prep By: M\_ Method: SW3005A

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Lead	0.1000	0.1029	102.9	80	120
Manganese	0.1000	0.1019	101.9	80	120
Molybdenum	0.1000	0.09860	98.60	80	120
Nickel	0.1000	0.1002	100.2	80	120
Selenium	0.1000	0.09820	98.20	80	120
Silver	0.1000	0.09840	98.40	80	120
Zinc	0.1000	0.1034	103.4	80	120

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030471-01  
RunID: ICP2\_110326A-5752471 Units: mg/L  
Analysis Date: 03/26/2011 14:25 Analyst: EG  
Preparation Date: 03/18/2011 14:00 Prep By: M\_ Method: SW3005A

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Aluminum	ND	1	1.006	100.6	1	1.027	102.7	2.066	20	75	125
Arsenic	ND	0.1	0.1048	104.8	0.1	0.1056	105.6	0.7605	20	75	125
Barium	0.01230	0.1	0.1156	103.3	0.1	0.1185	106.2	2.478	20	75	125
Boron	ND	1	1.008	93.48	1	1.016	94.28	0.7905	20	75	125
Cadmium	ND	0.1	0.09550	95.50	0.1	0.09650	96.50	1.042	20	75	125
Chromium	ND	0.1	0.1024	101.3	0.1	0.1044	103.3	1.934	20	75	125
Cobalt	ND	0.1	0.09510	92.10	0.1	0.09790	94.90	2.902	20	75	125
Copper	ND	0.1	0.1069	105.2	0.1	0.1102	108.5	3.040	20	75	125
Iron	ND	1	1.011	101.1	1	1.038	103.8	2.635	20	75	125
Lead	ND	0.1	0.09250	90.30	0.1	0.09330	91.10	0.8611	20	75	125
Manganese	2.768	0.1	2.792	N/C	0.1	2.888	N/C	N/C	20	75	125

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030471 Page 42

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/31/2011 5:56:22 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Metals by Method 6010B, Dissolved  
Method: SW6010B

WorkOrder: 11030471  
Lab Batch ID: 105550

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030471-01  
RunID: ICP2\_110326A-5752471 Units: mg/L  
Analysis Date: 03/26/2011 14:25 Analyst: EG  
Preparation Date: 03/18/2011 14:00 Prep By: M\_ Method: SW3005A

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Molybdenum	0.01530	0.1	0.1105	95.20	0.1	0.1135	98.20	2.679	20	75	125
Nickel	ND	0.1	0.09330	92.20	0.1	0.09460	93.50	1.384	20	75	125
Selenium	ND	0.1	0.1134	109.1	0.1	0.1121	107.8	1.153	20	75	125
Silver	ND	0.1	0.1056	105.6	0.1	0.1088	108.8	2.985	20	75	125
Zinc	ND	0.1	0.1076	105.3	0.1	0.1100	107.7	2.206	20	75	125

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030471 Page 43

3/31/2011 5:56:22 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis:	Mercury, Total	WorkOrder:	11030471
Method:	SW7470A	Lab Batch ID:	105668

#### Method Blank

#### Samples in Analytical Batch:

RunID: HGLC_110324A-5751047	Units: mg/L	Lab Sample ID	Client Sample ID
Analysis Date: 03/24/2011 15:22	Analyst: F_S	11030471-01F	MW-1
Preparation Date: 03/24/2011 9:35	Prep By: F_S Method: SW7470A	11030471-02F	MW-2
		11030471-03F	MW-3
		11030471-04F	MW-4
Analyte	Result	Rep Limit	
Mercury	ND	0.0002	

#### Laboratory Control Sample (LCS)

RunID: HGLC\_110324A-5751048 Units: mg/L  
Analysis Date: 03/24/2011 15:24 Analyst: F\_S  
Preparation Date: 03/24/2011 9:35 Prep By: F\_S Method: SW7470A

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Mercury	0.002000	0.002117	105.8	80	120

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030471-01  
RunID: HGLC\_110324A-5751050 Units: mg/L  
Analysis Date: 03/24/2011 15:29 Analyst: F\_S  
Preparation Date: 03/24/2011 9:35 Prep By: F\_S Method: SW7470A

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Mercury	ND	0.002	0.002080	104.0	0.002	0.002059	103.0	0.9721	20	80	120

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added: Control limits do not apply.

TNTC - Too numerous to count

11030471 Page 44

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/31/2011 5:56:22 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Semivolatile Organics by Method 8270C WorkOrder: 11030471  
Method: SW8270C Lab Batch ID: 105578a

### Method Blank

### Samples in Analytical Batch:

RunID: R_110324D-5751460	Units: ug/L	<u>Lab Sample ID</u>	<u>Client Sample ID</u>
Analysis Date: 03/24/2011 16:32	Analyst: GY	11030471-01B	MW-1
Preparation Date: 03/21/2011 16:18	Prep By: N_M Method: SW3510C	11030471-02B	MW-2
		11030471-03B	MW-3
		11030471-04B	MW-4

Analyte	Result	Rep Limit
1,2,4-Trichlorobenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Diphenylhydrazine	ND	10
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
2,4,5-Trichlorophenol	ND	10
2,4,6-Trichlorophenol	ND	5.0
2,4-Dichlorophenol	ND	5.0
2,4-Dimethylphenol	ND	5.0
2,4-Dinitrophenol	ND	25
2,4-Dinitrotoluene	ND	5.0
2,6-Dinitrotoluene	ND	5.0
2-Chloronaphthalene	ND	5.0
2-Chlorophenol	ND	5.0
2-Methylnaphthalene	ND	5.0
2-Nitroaniline	ND	25
2-Nitrophenol	ND	5.0
3,3'-Dichlorobenzidine	ND	10
3-Nitroaniline	ND	25
4,6-Dinitro-2-methylphenol	ND	25
4-Bromophenyl phenyl ether	ND	5.0
4-Chloro-3-methylphenol	ND	5.0
4-Chloroaniline	ND	5.0
4-Chlorophenyl phenyl ether	ND	5.0
4-Nitroaniline	ND	25
4-Nitrophenol	ND	25
Acenaphthene	ND	5.0
Acenaphthylene	ND	5.0
Aniline	ND	5.0
Anthracene	ND	5.0
Benz(a)anthracene	ND	5.0
Benz(a)pyrene	ND	5.0
Benzo(b)fluoranthene	ND	5.0
Benzo(g,h,i)perylene	ND	5.0
Benzo(k)fluoranthene	ND	5.0
Benzoic acid	ND	25
Benzyl alcohol	ND	5.0
Bis(2-chloroethoxy)methane	ND	5.0
Bis(2-chloroethyl)ether	ND	5.0
Bis(2-chloroisopropyl)ether	ND	5.0
Bis(2-ethylhexyl)phthalate	ND	5.0

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030471 Page 45

3/31/2011 5:56:23 PM

**Quality Control Report**
**Conoco Phillips**

San Juan 29-7 Unit 37 GW Baseline

**Analysis:** Semivolatile Organics by Method 8270C  
**Method:** SW8270C

**WorkOrder:** 11030471  
**Lab Batch ID:** 105578a

Method Blank

RunID: R\_110324D-5751460      Units: ug/L  
 Analysis Date: 03/24/2011 16:32      Analyst: GY  
 Preparation Date: 03/21/2011 16:18      Prep By: N\_M Method: SW3510C

Analyte	Result	Rep Limit
Butyl benzyl phthalate	ND	5.0
Carbazole	ND	5.0
Chrysene	ND	5.0
Dibenz(a,h)anthracene	ND	5.0
Dibenzofuran	ND	5.0
Diethyl phthalate	ND	5.0
Dimethyl phthalate	ND	5.0
Di-n-butyl phthalate	ND	5.0
Di-n-octyl phthalate	ND	5.0
Fluoranthene	ND	5.0
Fluorene	ND	5.0
Hexachlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Hexachlorocyclopentadiene	ND	5.0
Hexachloroethane	ND	5.0
Indeno(1,2,3-cd)pyrene	ND	5.0
Isophorone	ND	5.0
Naphthalene	ND	5.0
Nitrobenzene	ND	5.0
N-Nitrosodi-n-propylamine	ND	5.0
N-Nitrosodiphenylamine	ND	5.0
Pentachlorophenol	ND	25
Phenanthrene	ND	5.0
Phenol	ND	5.0
Pyrene	ND	5.0
Pyridine	ND	5.0
2-Methylphenol	ND	5.0
3 & 4-Methylphenol	ND	5.0
Surr: 2,4,6-Tribromophenol	83.2	25-154
Surr: 2-Fluorobiphenyl	101.4	45-108
Surr: 2-Fluorophenol	94.5	18-113
Surr: Nitrobenzene-d5	100.6	41-113
Surr: Phenol-d6	101.9	10-113
Surr: Terphenyl-d14	113.2	43-122

Laboratory Control Sample (LCS)

**Qualifiers:** ND/U - Not Detected at the Reporting Limit  
 B - Analyte Detected In The Associated Method Blank  
 J - Estimated Value Between MDL And PQL  
 E - Estimated Value exceeds calibration curve  
 N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
 TNTC - Too numerous to count

MI - Matrix Interference  
 D - Recovery Unreportable due to Dilution  
 \* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030471 Page 46

3/31/2011 5:56:23 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

#### San Juan 29-7 Unit 37 GW Baseline

Analysis: Semivolatile Organics by Method 8270C WorkOrder: 11030471  
Method: SW8270C Lab Batch ID: 105578a

RunID: J\_110322A-5749494 Units: ug/L  
Analysis Date: 03/22/2011 11:20 Analyst: S\_G  
Preparation Date: 03/21/2011 16:18 Prep By: N\_M Method: SW3510C

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,2,4-Trichlorobenzene	25.0	22.0	88.0	52	109
1,2-Dichlorobenzene	25.0	21.4	85.6	50	109
1,2-Diphenylhydrazine	25.0	24.6	98.4	40	142
1,3-Dichlorobenzene	25.0	21.1	84.4	49	106
1,4-Dichlorobenzene	25.0	20.8	83.2	48	106
2,4,5-Trichlorophenol	25.0	21.9	87.6	48	120
2,4,6-Trichlorophenol	25.0	21.8	87.2	38	150
2,4-Dichlorophenol	25.0	21.4	85.6	50	110
2,4-Dimethylphenol	25.0	22.7	90.8	50	120
2,4-Dinitrophenol	25.0	17.2	68.8	10	122
2,4-Dinitrotoluene	25.0	22.7	90.8	50	129
2,6-Dinitrotoluene	25.0	22.3	89.2	48	127
2-Chloronaphthalene	25.0	22.9	91.6	52	118
2-Chlorophenol	25.0	21.8	87.2	50	115
2-Methylnaphthalene	25.0	21.7	86.8	52	116
2-Nitroaniline	25.0	21.5	86.0	43	127
2-Nitrophenol	25.0	22.3	89.2	48	114
3,3'-Dichlorobenzidine	25.0	15.6	62.4	30	104
3-Nitroaniline	25.0	18.7	74.8	31	114
4,6-Dinitro-2-methylphenol	25.0	19.9	79.6	23	127
4-Bromophenyl phenyl ether	25.0	22.9	91.6	53	121
4-Chloro-3-methylphenol	25.0	21.9	87.6	49	120
4-Chloroaniline	25.0	22.2	88.8	54	116
4-Chlorophenyl phenyl ether	25.0	22.4	89.6	54	116
4-Nitroaniline	25.0	19.8	79.2	41	118
4-Nitrophenol	25.0	22.0	88.0	21	130
Acenaphthene	25.0	22.1	88.4	52	117
Acenaphthylene	25.0	22.4	89.6	53	122
Aniline	50.0	41.7	83.4	47	106
Anthracene	25.0	22.8	91.2	49	126
Benz(a)anthracene	25.0	23.1	92.4	53	121

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
B - Analyte Detected In The Associated Method Blank D - Recovery Unreportable due to Dilution  
J - Estimated Value Between MDL And PQL \* - Recovery Outside Advisable QC Limits  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030471 Page 47

3/31/2011 5:56:23 PM

### Quality Control Report

#### Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis:	Semivolatile Organics by Method 8270C	WorkOrder:	11030471
Method:	SW8270C	Lab Batch ID:	105578a

#### Laboratory Control Sample (LCS)

RunID:	J_110322A-5749494	Units:	ug/L
Analysis Date:	03/22/2011 11:20	Analyst:	S_G
Preparation Date:	03/21/2011 16:18	Prep By:	N_M Method: SW3510C

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzo(a)pyrene	25.0	20.5	82.0	47	100
Benzo(b)fluoranthene	25.0	23.2	92.8	52	113
Benzo(g,h,i)perylene	25.0	21.2	84.8	52	121
Benzo(k)fluoranthene	25.0	22.8	91.2	54	117
Benzoic acid	25.0	4.58	18.3	10	133
Benzyl alcohol	25.0	21.9	87.6	40	127
Bis(2-chloroethoxy)methane	25.0	22.7	90.8	47	113
Bis(2-chloroethyl)ether	25.0	22.0	88.0	48	112
Bis(2-chloroisopropyl)ether	25.0	22.2	88.8	50	150
Bis(2-ethylhexyl)phthalate	25.0	26.5	106	42	139
Butyl benzyl phthalate	25.0	25.9	104	40	139
Carbazole	25.0	22.3	89.2	47	123
Chrysene	25.0	23.3	93.2	53	117
Dibenz(a,h)anthracene	25.0	22.9	91.6	49	120
Dibenzofuran	25.0	22.5	90.0	55	119
Diethyl phthalate	25.0	20.7	82.8	45	129
Dimethyl phthalate	25.0	22.8	91.2	52	122
Di-n-butyl phthalate	25.0	24.8	99.2	42	141
Di-n-octyl phthalate	25.0	25.3	101	40	135
Fluoranthene	25.0	22.8	91.2	49	132
Fluorene	25.0	22.0	88.0	54	119
Hexachlorobenzene	25.0	22.5	90.0	53	117
Hexachlorobutadiene	25.0	21.7	86.8	49	106
Hexachlorocyclopentadiene	25.0	18.1	72.4	17	105
Hexachloroethane	25.0	21.2	84.8	42	110
Indeno(1,2,3-cd)pyrene	25.0	22.9	91.6	50	129
Isophorone	25.0	26.8	107	52	134
Naphthalene	25.0	21.2	84.8	53	111
Nitrobenzene	25.0	22.4	89.6	47	116
N-Nitrosodi-n-propylamine	25.0	22.5	90.0	47	118

**Qualifiers:** ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030471 Page 48

3/31/2011 5:56:23 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Semivolatile Organics by Method 8270C  
Method: SW8270C

WorkOrder: 11030471  
Lab Batch ID: 105578a

#### Laboratory Control Sample (LCS)

RunID: J\_110322A-5749494 Units: ug/L  
Analysis Date: 03/22/2011 11:20 Analyst: S\_G  
Preparation Date: 03/21/2011 16:18 Prep By: N\_M Method: SW3510C

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
N-Nitrosodiphenylamine	50.0	51.5	103	62	136
Pentachlorophenol	25.0	15.6	62.4	44	102
Phenanthrene	25.0	24.0	96.0	49	124
Phenol	25.0	24.2	96.8	37	128
Pyrene	25.0	23.9	95.6	52	122
Pyridine	50.0	36.7	73.4	37	99
2-Methylphenol	25.0	21.8	87.2	49	118
3 & 4-Methylphenol	25.0	20.0	80.0	44	132
Surr: 2,4,6-Tribromophenol	75.0	71	94.7	25	154
Surr: 2-Fluorobiphenyl	50.0	44.8	89.6	45	108
Surr: 2-Fluorophenol	75.0	64.9	86.5	18	113
Surr: Nitrobenzene-d5	50.0	44.4	88.8	41	113
Surr: Terphenyl-d14	50.0	49.1	98.2	43	122

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030446-02  
RunID: J\_110329B-5754423 Units: mg/L  
Analysis Date: 03/29/2011 14:47 Analyst: S\_G  
Preparation Date: 03/21/2011 16:18 Prep By: N\_M Method: SW3510C

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
1,2,4-Trichlorobenzene	ND	0.026	0.0220	84.5	0.026	0.0214	82.2	2.76	30	10	142
1,2-Dichlorobenzene	ND	0.026	0.0210	80.6	0.026	0.0202	77.6	3.88	30	20	150
1,2-Diphenylhydrazine	ND	0.026	0.0260	99.8	0.026	0.0251	96.4	3.52	30	10	251
1,3-Dichlorobenzene	ND	0.026	0.0200	76.8	0.026	0.0194	74.5	3.05	30	20	150
1,4-Dichlorobenzene	ND	0.026	0.0202	77.6	0.026	0.0198	76.0	2.00	30	20	150

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030471 Page 49

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/31/2011 5:56:23 PM

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis:	Semivolatile Organics by Method 8270C	WorkOrder:	11030471
Method:	SW8270C	Lab Batch ID:	105578a

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030446-02  
 RunID: J\_110329B-5754423 Units: mg/L  
 Analysis Date: 03/29/2011 14:47 Analyst: S\_G  
 Preparation Date: 03/21/2011 16:18 Prep By: N\_M Method: SW3510C

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
2,4,5-Trichlorophenol	ND	0.026	0.0249	95.6	0.026	0.0245	94.1	1.62	30	30	150
2,4,6-Trichlorophenol	ND	0.026	0.0243	93.3	0.026	0.0249	95.6	2.44	30	30	150
2,4-Dichlorophenol	ND	0.026	0.0244	93.7	0.026	0.0245	94.1	0.409	30	30	150
2,4-Dimethylphenol	ND	0.026	0.0253	97.2	0.026	0.0252	96.8	0.396	30	32	140
2,4-Dinitrophenol	ND	0.026	0.0245	94.1	0.026	0.0239	91.8	2.48	30	10	160
2,4-Dinitrotoluene	ND	0.026	0.0255	97.9	0.026	0.0260	99.8	1.94	30	30	150
2,6-Dinitrotoluene	ND	0.026	0.0242	92.9	0.026	0.0247	94.8	2.04	30	30	150
2-Chloronaphthalene	ND	0.026	0.0227	87.2	0.026	0.0228	87.6	0.440	30	30	150
2-Chlorophenol	ND	0.026	0.0236	90.6	0.026	0.0228	87.6	3.45	30	23	134
2-Methylnaphthalene	ND	0.026	0.0226	86.8	0.026	0.0226	86.8	0	30	20	170
2-Nitroaniline	ND	0.026	0.0257	98.7	0.026	0.0263	101	2.31	30	20	160
2-Nitrophenol	ND	0.026	0.0249	95.6	0.026	0.0246	94.5	1.21	30	29	182
3,3'-Dichlorobenzidine	ND	0.026	0.0219	84.1	0.026	0.0215	82.6	1.84	30	30	200
3-Nitroaniline	ND	0.026	0.0245	94.1	0.026	0.0252	96.8	2.82	30	20	160
4,6-Dinitro-2-methylphenol	ND	0.026	0.0229	87.9	0.026	0.0225	86.4	1.76	30	10	160
4-Bromophenyl phenyl ether	ND	0.026	0.0242	92.9	0.026	0.0232	89.1	4.22	30	30	150
4-Chloro-3-methylphenol	ND	0.026	0.0265	102	0.026	0.0264	101	0.378	30	25	160
4-Chloroaniline	ND	0.026	0.0251	96.4	0.026	0.0243	93.3	3.24	30	20	160
4-Chlorophenyl phenyl ether	ND	0.026	0.0230	88.3	0.026	0.0232	89.1	0.866	30	25	158
4-Nitroaniline	ND	0.026	0.0215	82.6	0.026	0.0222	85.2	3.20	30	20	160
4-Nitrophenol	ND	0.026	0.0239	91.8	0.026	0.0243	93.3	1.66	30	10	132
Acenaphthene	ND	0.026	0.0226	86.8	0.026	0.0226	86.8	0	30	30	150
Acenaphthylene	ND	0.026	0.0226	86.8	0.026	0.0230	88.3	1.75	30	33	250
Aniline	ND	0.0521	0.0454	87.2	0.0521	0.0436	83.7	4.04	30	10	135
Anthracene	ND	0.026	0.0250	96.0	0.026	0.0243	93.3	2.84	30	27	133
Benz(a)anthracene	ND	0.026	0.0244	93.7	0.026	0.0238	91.4	2.49	30	33	143
Benzo(a)pyrene	ND	0.026	0.0230	88.3	0.026	0.0224	86.0	2.64	30	17	163
Benzo(b)fluoranthene	ND	0.026	0.0244	93.7	0.026	0.0245	94.1	0.409	30	24	159

Qualifiers: ND/U - Not Detected at the Reporting Limit  
 B - Analyte Detected In The Associated Method Blank  
 J - Estimated Value Between MDL And PQL  
 E - Estimated Value exceeds calibration curve  
 N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
 TNTC - Too numerous to count

MI - Matrix Interference  
 D - Recovery Unreportable due to Dilution  
 \* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030471 Page 50

3/31/2011 5:56:24 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Semivolatile Organics by Method 8270C  
Method: SW8270C

WorkOrder: 11030471  
Lab Batch ID: 105578a

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030446-02  
RunID: J\_110329B-5754423 Units: mg/L  
Analysis Date: 03/29/2011 14:47 Analyst: S\_G  
Preparation Date: 03/21/2011 16:18 Prep By: N\_M Method: SW3510C

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Benzo(g,h,i)perylene	ND	0.026	0.0261	100	0.026	0.0257	98.7	1.54	30	30	160
Benzo(k)fluoranthene	ND	0.026	0.0245	94.1	0.026	0.0235	90.2	4.17	30	11	162
Benzoic acid	ND	0.026	0.0305	117	0.026	0.0279	107	8.90	30	10	400
Benzyl alcohol	ND	0.026	0.0253	97.2	0.026	0.0245	94.1	3.21	30	30	160
Bis(2-chloroethoxy)methane	ND	0.026	0.0238	91.4	0.026	0.0237	91.0	0.421	30	33	184
Bis(2-chloroethyl)ether	0.0367	0.026	0.0560	74.1	0.026	0.0544	68.0	2.90	30	12	158
Bis(2-chloroisopropyl)ether	0.0222	0.026	0.0439	83.3	0.026	0.0428	79.1	2.54	30	20	160
Bis(2-ethylhexyl)phthalate	ND	0.026	0.0282	108	0.026	0.0283	109	0.354	30	10	158
Butyl benzyl phthalate	ND	0.026	0.0278	107	0.026	0.0274	105	1.45	30	30	160
Carbazole	ND	0.026	0.0244	93.7	0.026	0.0238	91.4	2.49	30	30	150
Chrysene	ND	0.026	0.0243	93.3	0.026	0.0239	91.8	1.66	30	17	168
Dibenz(a,h)anthracene	ND	0.026	0.0251	96.4	0.026	0.0248	95.2	1.20	30	30	160
Dibenzofuran	ND	0.026	0.0228	87.6	0.026	0.0233	89.5	2.17	30	30	150
Diethyl phthalate	ND	0.026	0.0223	85.6	0.026	0.0223	85.6	0	30	30	160
Dimethyl phthalate	ND	0.026	0.0239	91.8	0.026	0.0240	92.2	0.418	30	30	160
Di-n-butyl phthalate	ND	0.026	0.0280	108	0.026	0.0274	105	2.17	30	30	160
Di-n-octyl phthalate	ND	0.026	0.0270	104	0.026	0.0260	99.8	3.77	30	20	150
Fluoranthene	ND	0.026	0.0251	96.4	0.026	0.0242	92.9	3.65	30	26	137
Fluorene	ND	0.026	0.0228	87.6	0.026	0.0235	90.2	3.02	30	30	150
Hexachlorobenzene	ND	0.026	0.0236	90.6	0.026	0.0225	86.4	4.77	30	20	150
Hexachlorobutadiene	ND	0.026	0.0205	78.7	0.026	0.0204	78.3	0.489	30	20	140
Hexachlorocyclopentadiene	ND	0.026	0.0135	51.8	0.026	0.0136	52.2	0.738	30	10	150
Hexachloroethane	ND	0.026	0.0197	75.6	0.026	0.0188	72.2	4.68	30	10	140
Indeno(1,2,3-cd)pyrene	ND	0.026	0.0259	99.5	0.026	0.0251	96.4	3.14	30	30	160
Isophorone	ND	0.026	0.0287	110	0.026	0.0284	109	1.05	30	21	196
Naphthalene	ND	0.026	0.0214	82.2	0.026	0.0212	81.4	0.939	30	21	133
Nitrobenzene	ND	0.026	0.0230	88.3	0.026	0.0227	87.2	1.31	30	20	160
N-Nitrosodi-n-propylamine	ND	0.026	0.0239	91.8	0.026	0.0228	87.6	4.71	30	30	160

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030471 Page 51

3/31/2011 5:56:24 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Semivolatile Organics by Method 8270C  
Method: SW8270C

WorkOrder: 11030471  
Lab Batch ID: 105578a

### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030446-02  
RunID: J\_110329B-5754423 Units: mg/L  
Analysis Date: 03/29/2011 14:47 Analyst: S\_G  
Preparation Date: 03/21/2011 16:18 Prep By: N\_M Method: SW3510C

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
N-Nitrosodiphenylamine	ND	0.0521	0.0551	106	0.0521	0.0537	103	2.57	30	30	150
Pentachlorophenol	ND	0.026	0.0253	97.2	0.026	0.0252	96.8	0.396	30	14	176
Phenanthrene	ND	0.026	0.0261	100	0.026	0.0251	96.4	3.91	30	10	140
Phenol	ND	0.026	0.0270	104	0.026	0.0258	99.1	4.55	30	40	132
Pyrene	ND	0.026	0.0255	97.9	0.026	0.0251	96.4	1.58	30	30	150
Pyridine	ND	0.0521	0.0344	66.0	0.0521	0.0327	62.8	5.07	30	10	150
2-Methylphenol	ND	0.026	0.0252	96.8	0.026	0.0244	93.7	3.23	30	30	160
3 & 4-Methylphenol	ND	0.026	0.0233	89.5	0.026	0.0229	87.9	1.73	30	10	160
Surr: 2,4,6-Tribromophenol	ND	78.1	71.1	91.0	78.1	72.8	93.2	2.36	30	25	154
Surr: 2-Fluorobiphenyl	ND	52.1	42.7	82.0	52.1	42.9	82.4	0.467	30	45	108
Surr: 2-Fluorophenol	ND	78.1	61.6	78.8	78.1	59.3	75.9	3.80	30	18	113
Surr: Nitrobenzene-d5	ND	52.1	46.2	88.7	52.1	45.8	87.9	0.870	30	41	113
Surr: Phenol-d6	ND	78.1	55.9	71.6	78.1	54.0	69.1	3.46	30	10	113
Surr: Terphenyl-d14	ND	52.1	47.8	91.8	52.1	47.8	91.8	0	30	43	122

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030471 Page 52

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/31/2011 5:56:24 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 11030471  
Lab Batch ID: R317287

### Method Blank

RunID: Q\_110318B-5747512 Units: ug/L

Analysis Date: 03/18/2011 9:48 Analyst: JC

### Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
11030471-01A	MW-1
11030471-02A	MW-2
11030471-03A	MW-3
11030471-04A	MW-4
11030471-05A	Duplicate
11030471-06A	Trip Blank

Analyte	Result	Rep Limit
1,1,1,2-Tetrachloroethane	ND	1.0
1,1,1-Trichloroethane	ND	1.0
1,1,2,2-Tetrachloroethane	ND	1.0
1,1,2-Trichloroethane	ND	1.0
1,1-Dichloroethane	ND	1.0
1,1-Dichloroethene	ND	1.0
1,1-Dichloropropene	ND	1.0
1,2,3-Trichlorobenzene	ND	1.0
1,2,3-Trichloropropane	ND	1.0
1,2,4-Trichlorobenzene	ND	1.0
1,2,4-Trimethylbenzene	ND	1.0
1,2-Dibromo-3-chloropropane	ND	5.0
1,2-Dibromoethane	ND	1.0
1,2-Dichlorobenzene	ND	1.0
1,2-Dichloroethane	ND	1.0
1,2-Dichloropropane	ND	1.0
1,3,5-Trimethylbenzene	ND	1.0
1,3-Dichlorobenzene	ND	1.0
1,3-Dichloropropane	ND	1.0
1,4-Dichlorobenzene	ND	1.0
2,2-Dichloropropane	ND	1.0
2-Butanone	ND	12
2-Chloroethyl vinyl ether	ND	5.0
2-Chlorotoluene	ND	1.0
2-Hexanone	ND	12
4-Chlorotoluene	ND	1.0
4-Isopropyltoluene	ND	1.0
4-Methyl-2-pentanone	ND	12
Acetone	ND	12
Acrylonitrile	ND	5.0
Benzene	ND	1.0
Bromobenzene	ND	1.0
Bromochloromethane	ND	1.0
Bromodichloromethane	ND	1.0
Bromoform	ND	1.0
Bromomethane	ND	1.0
Carbon disulfide	ND	5.0
Carbon tetrachloride	ND	1.0
Chlorobenzene	ND	1.0
Chloroethane	ND	1.0
Chloroform	ND	1.0

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030471 Page 53

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/31/2011 5:56:24 PM

### Quality Control Report

**Conoco Phillips**

San Juan 29-7 Unit 37 GW Baseline

<b>Analysis:</b>	Volatile Organics by Method 8260B	<b>WorkOrder:</b>	11030471
<b>Method:</b>	SW8260B	<b>Lab Batch ID:</b>	R317287

**Method Blank**

RunID: Q\_110318B-5747512      Units: ug/L

Analysis Date: 03/18/2011 9:48      Analyst: JC

Analyte	Result	Rep Limit
Chloromethane	ND	1.0
Dibromochloromethane	ND	1.0
Dibromomethane	ND	1.0
Dichlorodifluoromethane	ND	1.0
Ethybenzene	ND	1.0
Hexachlorobutadiene	ND	1.0
Isopropylbenzene	ND	1.0
Methyl tert-butyl ether	ND	1.0
Methylene chloride	ND	1.0
Naphthalene	ND	1.0
n-Butylbenzene	ND	1.0
n-Propylbenzene	ND	1.0
sec-Butylbenzene	ND	1.0
Styrene	ND	1.0
tert-Butylbenzene	ND	1.0
Tetrachloroethene	ND	1.0
Toluene	ND	1.0
Trichloroethene	ND	1.0
Trichlorofluoromethane	ND	1.0
Vinyl acetate	ND	1.0
Vinyl chloride	ND	1.0
cis-1,2-Dichloroethene	ND	1.0
cis-1,3-Dichloropropene	ND	1.0
m,p-Xylene	ND	2.0
o-Xylene	ND	1.0
trans-1,2-Dichloroethene	ND	1.0
trans-1,3-Dichloropropene	ND	1.0
1,2-Dichloroethene (total)	ND	1.0
Xylenes, Total	ND	1.0
Surr: 1,2-Dichloroethane-d4	85.3	70-130
Surr: 4-Bromofluorobenzene	92.5	74-125
Surr: Toluene-d8	100.7	82-118

**Laboratory Control Sample (LCS)**

RunID:	Q_110318B-5747511	Units:	ug/L
Analysis Date:	03/18/2011 9:20	Analyst:	JC

<b>Qualifiers:</b>	ND/U - Not Detected at the Reporting Limit	MI - Matrix Interference
	B - Analyte Detected In The Associated Method Blank	D - Recovery Unreportable due to Dilution
	J - Estimated Value Between MDL And PQL	* - Recovery Outside Advisable QC Limits
	E - Estimated Value exceeds calibration curve	
	N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.	
	TNTC - Too numerous to count	

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030471 Page 54

3/31/2011 5:56:25 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 11030471  
Lab Batch ID: R317287

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1,1,2-Tetrachloroethane	20.0	19.3	96.4	71	128
1,1,1-Trichloroethane	20.0	19.1	95.7	61	135
1,1,2,2-Tetrachloroethane	20.0	20.0	100	60	133
1,1,2-Trichloroethane	20.0	20.3	102	77	127
1,1-Dichloroethane	20.0	16.8	84.0	68	132
1,1-Dichloroethene	20.0	17.5	87.5	65	134
1,1-Dichloropropene	20.0	18.5	92.5	68	126
1,2,3-Trichlorobenzene	20.0	18.5	92.4	36	154
1,2,3-Trichloropropane	20.0	19.9	99.5	38	153
1,2,4-Trichlorobenzene	20.0	17.9	89.5	69	144
1,2,4-Trimethylbenzene	20.0	18.0	90.1	64	128
1,2-Dibromo-3-chloropropane	20.0	18.9	94.6	44	141
1,2-Dibromoethane	20.0	19.5	97.7	75	124
1,2-Dichlorobenzene	20.0	18.2	91.1	68	124
1,2-Dichloroethane	20.0	19.0	95.2	61	138
1,2-Dichloropropane	20.0	20.3	102	76	123
1,3,5-Trimethylbenzene	20.0	18.1	90.5	61	127
1,3-Dichlorobenzene	20.0	19.2	95.9	68	127
1,3-Dichloropropane	20.0	19.7	98.3	76	125
1,4-Dichlorobenzene	20.0	18.9	94.5	68	124
2,2-Dichloropropane	20.0	15.3	76.7	42	142
2-Butanone	50.0	32.8	65.6	22	183
2-Chloroethyl vinyl ether	20.0	26.8	134	10	179
2-Chlorotoluene	20.0	18.4	91.8	64	132
2-Hexanone	50.0	46.4	92.8	31	178
4-Chlorotoluene	20.0	18.9	94.3	61	132
4-Isopropyltoluene	20.0	17.9	89.7	63	136
4-Methyl-2-pentanone	50.0	48.3	96.5	10	159
Acetone	50.0	20.9	41.8	10	200
Acrylonitrile	20.0	12.8	63.7	54	155
Benzene	20.0	17.2	85.8	74	123
Bromobenzene	20.0	18.3	91.5	68	125
Bromochloromethane	20.0	18.2	91.1	71	124
Bromodichloromethane	20.0	20.5	103	72	128
Bromoform	20.0	21.2	106	60	128

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030471 Page 55

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/31/2011 5:56:25 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 11030471  
Lab Batch ID: R317287

### Laboratory Control Sample (LCS)

RunID: Q\_110318B-5747511 Units: ug/L  
Analysis Date: 03/18/2011 9:20 Analyst: JC

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Bromomethane	20.0	14.1	70.6	53	130
Carbon disulfide	20.0	16.4	82.1	41	143
Carbon tetrachloride	20.0	18.7	93.3	59	142
Chlorobenzene	20.0	19.3	96.7	75	125
Chloroethane	20.0	14.9	74.7	60	134
Chloroform	20.0	19.5	97.3	71	127
Chloromethane	20.0	17.0	84.8	50	139
Dibromochloromethane	20.0	20.2	101	65	130
Dibromomethane	20.0	19.7	98.3	79	124
Dichlorodifluoromethane	20.0	17.4	87.1	22	162
Ethylbenzene	20.0	19.8	99.2	72	127
Hexachlorobutadiene	20.0	18.7	93.3	45	152
Isopropylbenzene	20.0	19.5	97.3	58	130
Methyl tert-butyl ether	20.0	15.8	78.8	63	123
Methylene chloride	20.0	16.4	82.2	61	135
Naphthalene	20.0	19.4	97.1	33	148
n-Butylbenzene	20.0	18.6	93.2	62	136
n-Propylbenzene	20.0	18.4	92.1	57	131
sec-Butylbenzene	20.0	17.6	88.0	63	131
Styrene	20.0	20.1	100	69	120
tert-Butylbenzene	20.0	18.0	90.2	59	131
Tetrachloroethene	20.0	19.9	99.7	45	173
Toluene	20.0	20.0	100	74	126
Trichloroethene	20.0	20.0	100	79	131
Trichlorofluoromethane	20.0	14.2	71.1	49	153
Vinyl acetate	20.0	16.7	83.6	10	167
Vinyl chloride	20.0	17.1	85.4	51	148
cis-1,2-Dichloroethene	20.0	18.0	89.8	71	128
cis-1,3-Dichloropropene	20.0	20.0	99.9	67	128
m,p-Xylene	40.0	40.0	100	71	129

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030471 Page 56

3/31/2011 5:56:25 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 11030471  
Lab Batch ID: R317287

#### Laboratory Control Sample (LCS)

RunID: Q\_110318B-5747511 Units: ug/L  
Analysis Date: 03/18/2011 9:20 Analyst: JC

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
o-Xylene	20.0	19.8	99.2	74	130
trans-1,2-Dichloroethene	20.0	14.7	73.4	66	128
trans-1,3-Dichloropropene	20.0	20.4	102	60	128
1,2-Dichloroethene (total)	40.0	32.7	81.6	66	128
Xylenes, Total	60.0	59.8	99.8	71	130
Surr: 1,2-Dichloroethane-d4	50.0	41.2	82.5	70	130
Surr: 4-Bromofluorobenzene	50.0	47	94.1	74	125
Surr: Toluene-d8	50.0	48.3	96.7	82	118

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030446-02  
RunID: Q\_110318B-5747514 Units: ug/L  
Analysis Date: 03/18/2011 13:12 Analyst: JC

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
1,1,1,2-Tetrachloroethane	ND	20	19.8	99.0	20	19.5	97.7	1.31	20	68	124
1,1,1-Trichloroethane	ND	20	19.3	96.5	20	18.9	94.4	2.18	20	69	123
1,1,2,2-Tetrachloroethane	ND	20	22.9	115	20	21.2	106	7.54	20	69	130
1,1,2-Trichloroethane	ND	20	21.8	109	20	20.1	100	8.06	20	75	126
1,1-Dichloroethane	ND	20	19.3	96.5	20	21.7	108	11.6	20	65	129
1,1-Dichloroethene	ND	20	19.3	96.7	20	21.9	109	12.2	22	61	139
1,1-Dichloropropene	ND	20	15.8	78.9	20	18.2	90.8	14.0	20	69	121
1,2,3-Trichlorobenzene	ND	20	19.2	95.8	20	20.6	103	7.05	20	53	127
1,2,3-Trichloropropane	ND	20	23.5	118	20	23.1	116	1.65	20	79	124
1,2,4-Trichlorobenzene	ND	20	19.5	97.6	20	20.1	101	3.13	20	58	118

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030471 Page 57

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/31/2011 5:56:25 PM

**Quality Control Report**
**Conoco Phillips**

San Juan 29-7 Unit 37 GW Baseline

<b>Analysis:</b>	Volatile Organics by Method 8260B	<b>WorkOrder:</b>	11030471
<b>Method:</b>	SW8260B	<b>Lab Batch ID:</b>	R317287

Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030446-02  
 RunID: Q\_110318B-5747514 Units: ug/L  
 Analysis Date: 03/18/2011 13:12 Analyst: JC

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
1,2,4-Trimethylbenzene	ND	20	18.9	94.6	20	18.4	92.0	2.73	20	43	132
1,2-Dibromo-3-chloropropane	ND	20	26.5	133 *	20	29.8	149 *	11.8	20	46	131
1,2-Dibromoethane	ND	20	21.5	107	20	20.5	103	4.58	20	76	122
1,2-Dichlorobenzene	ND	20	19.4	97.1	20	19.9	99.6	2.50	20	74	110
1,2-Dichloroethane	ND	20	21.2	106	20	20.7	104	2.49	20	60	129
1,2-Dichloropropane	ND	20	20.1	101	20	18.6	93.1	7.69	20	76	116
1,3,5-Trimethylbenzene	ND	20	18.6	92.9	20	16.5	82.6	11.8	20	51	121
1,3-Dichlorobenzene	ND	20	18.3	91.7	20	18.7	93.5	1.91	20	71	110
1,3-Dichloropropane	ND	20	20.6	103	20	20.9	104	1.25	20	80	119
1,4-Dichlorobenzene	ND	20	18.7	93.4	20	17.5	87.4	6.66	20	69	110
2,2-Dichloropropane	ND	20	16.5	82.5	20	16.6	83.2	0.833	20	52	122
2-Butanone	ND	50	66.9	134 *	50	50.1	100	28.8 *	20	10	133
2-Chloroethyl vinyl ether	ND	20	27.9	140	20	27.2	136	2.55	20	10	182
2-Chlorotoluene	ND	20	17.9	89.4	20	16.5	82.7	7.71	20	69	112
2-Hexanone	ND	50	80.6	161	50	75.5	151	6.45	20	10	163
4-Chlorotoluene	ND	20	19.2	96.0	20	16.9	84.7	12.5	20	37	110
4-Isopropyltoluene	ND	20	17.7	88.4	20	17.8	88.9	0.598	20	65	116
4-Methyl-2-pentanone	ND	50	77.2	154	50	74.4	149	3.72	20	10	159
Acetone	ND	50	55.6	111	50	40.4	80.9	31.6 *	20	10	160
Acrylonitrile	ND	20	16.7	83.4	20	20.4	102	19.9	20	45	155
Benzene	21.0	20	36.2	75.9	20	36.4	77.0	0.639	22	70	124
Bromobenzene	ND	20	19.2	95.8	20	18.1	90.4	5.79	20	72	111
Bromochloromethane	ND	20	19.5	97.4	20	19.2	96.1	1.31	20	73	126
Bromodichloromethane	ND	20	20.7	104	20	20.8	104	0.535	20	68	125
Bromoform	ND	20	23.5	118	20	24.9	124	5.67	20	44	132
Bromomethane	ND	20	11.8	58.8	20	16.3	81.6	32.4 *	20	50	140
Carbon disulfide	ND	20	15.4	77.1	20	21.5	107	32.9 *	20	46	143
Carbon tetrachloride	ND	20	18.3	91.6	20	19.8	99.0	7.82	20	66	126

**Qualifiers:** ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030471 Page 58

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/31/2011 5:56:25 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 11030471  
Lab Batch ID: R317287

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030446-02  
RunID: Q\_110318B-5747514 Units: ug/L  
Analysis Date: 03/18/2011 13:12 Analyst: JC

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Chlorobenzene	ND	20	19.9	99.6	20	18.9	94.5	5.32	21	68	123
Chloroethane	ND	20	14.3	71.5	20	18.6	92.9	26.0 *	20	59	134
Chloroform	ND	20	19.8	99.0	20	18.9	94.6	4.54	20	68	127
Chloromethane	ND	20	14.2	71.2	20	17.1	85.6	18.4	20	51	137
Dibromochloromethane	ND	20	21.5	108	20	21.3	106	1.20	20	58	131
Dibromomethane	ND	20	21.9	109	20	21.3	106	2.75	20	82	123
Dichlorodifluoromethane	ND	20	16.6	83.1	20	19.8	99.1	17.5	20	35	143
Ethylbenzene	ND	20	20.1	101	20	19.3	96.3	4.47	20	76	122
Hexachlorobutadiene	ND	20	17.4	86.9	20	17.6	88.2	1.50	20	43	137
Isopropylbenzene	ND	20	21.3	106	20	21.1	105	0.878	20	57	124
Methyl tert-butyl ether	ND	20	19.3	96.7	20	21.7	108	11.4	20	10	200
Methylene chloride	ND	20	17.8	89.1	20	20.0	99.9	11.4	20	70	134
Naphthalene	ND	20	23.3	117	20	25.7	129	9.89	20	42	140
n-Butylbenzene	ND	20	19.2	95.8	20	20.0	100	4.38	20	82	112
n-Propylbenzene	ND	20	19.0	94.9	20	15.9	79.6	17.5	20	73	108
sec-Butylbenzene	ND	20	18.1	90.6	20	17.4	87.0	4.11	20	76	110
Styrene	ND	20	21.1	105	20	20.0	100	5.16	20	58	152
tert-Butylbenzene	ND	20	18.1	90.4	20	16.9	84.3	7.00	20	66	120
Tetrachloroethene	ND	20	20.8	104	20	19.7	98.4	5.60	20	71	130
Toluene	ND	20	21.3	106	20	19.6	97.8	8.37	24	80	117
Trichloroethene	ND	20	19.9	99.7	20	20.1	101	0.789	21	82	121
Trichlorofluoromethane	ND	20	16.2	80.8	20	16.1	80.6	0.273	20	74	138
Vinyl acetate	ND	20	20.0	100	20	17.9	89.3	11.6	20	66	135
Vinyl chloride	ND	20	17.0	84.9	20	19.9	99.6	15.9	20	45	143
cis-1,2-Dichloroethene	ND	20	20.1	101	20	18.8	93.8	7.14	20	67	132
cis-1,3-Dichloropropene	ND	20	20.5	102	20	20.0	100	2.17	20	67	116
m,p-Xylene	ND	40	40.4	101	40	39.2	97.9	3.09	20	69	127
o-Xylene	ND	20	20.0	99.9	20	19.4	97.1	2.85	20	84	114

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030471 Page 59

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/31/2011 5:56:25 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 11030471  
Lab Batch ID: R317287

### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030446-02  
RunID: Q\_110318B-5747514 Units: ug/L  
Analysis Date: 03/18/2011 13:12 Analyst: JC

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
trans-1,2-Dichloroethene	ND	20	18.6	93.2	20	20.7	104	10.5	20	68	131
trans-1,3-Dichloropropene	ND	20	20.9	104	20	21.6	108	3.25	20	56	131
1,2-Dichloroethene (total)	ND	40	38.7	97.0	40	39.5	98.7	1.73	20	67	132
Xylenes, Total	ND	60	60.4	101	60	58.6	97.7	3.01	20	69	127
Surr: 1,2-Dichloroethane-d4	ND	50	43.2	86.4	50	43.9	87.8	1.68	30	70	130
Surr: 4-Bromofluorobenzene	ND	50	46.6	93.2	50	46.9	93.9	0.705	30	74	125
Surr: Toluene-d8	ND	50	49.6	99.1	50	46.3	92.7	6.73	30	82	118

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030471 Page 60

3/31/2011 5:56:26 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Volatile Organics by Method 8260B  
Method: SW8260B

WorkOrder: 11030471  
Lab Batch ID: R317397

### Method Blank

### Samples in Analytical Batch:

RunID: Q\_110322A-5749329 Units: ug/L

Lab Sample ID

Client Sample ID

Analysis Date: 03/22/2011 9:18

Analyst: JC

11030471-01A

MW-1

11030471-05A

Duplicate

Analyte	Result	Rep Limit
Toluene	ND	1.0
Surr: 1,2-Dichloroethane-d4	75.6	70-130
Surr: 4-Bromofluorobenzene	94.0	74-125
Surr: Toluene-d8	99.1	82-118

### Laboratory Control Sample (LCS)

RunID: Q\_110322A-5749328 Units: ug/L  
Analysis Date: 03/22/2011 8:49 Analyst: JC

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Toluene	20.0	22.2	111	74	126
Surr: 1,2-Dichloroethane-d4	50.0	40.1	80.2	70	130
Surr: 4-Bromofluorobenzene	50.0	48.6	97.1	74	125
Surr: Toluene-d8	50.0	49.4	98.7	82	118

### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030506-02  
RunID: Q\_110322A-5749339 Units: ug/L  
Analysis Date: 03/22/2011 15:34 Analyst: JC

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Toluene	ND	20	23.2	112	20	23.1	111	0.233	24	80	117
Surr: 1,2-Dichloroethane-d4	ND	50	38.3	76.7	50	34.9	69.8 *	9.37	30	70	130

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030471 Page 61

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/31/2011 5:56:26 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Volatile Organics by Method 8260B WorkOrder: 11030471  
Method: SW8260B Lab Batch ID: R317397

### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030506-02  
RunID: Q\_110322A-5749339 Units: ug/L  
Analysis Date: 03/22/2011 15:34 Analyst: JC

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Surr: 4-Bromofluorobenzene	ND	50	49.6	99.1	50	49.2	98.5	0.652	30	74	125
Surr: Toluene-d8	ND	50	48.2	96.3	50	50.5	101	4.79	30	82	118

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference  
B - Analyte Detected In The Associated Method Blank D - Recovery Unreportable due to Dilution  
J - Estimated Value Between MDL And PQL \* - Recovery Outside Advisable QC Limits  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030471 Page 62

3/31/2011 5:56:26 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: pH  
Method: SM4500-H B

WorkOrder: 11030471  
Lab Batch ID: R317250

#### Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
11030471-01G	MW-1
11030471-02G	MW-2
11030471-03G	MW-3
11030471-04G	MW-4

#### Laboratory Control Sample (LCS)

RunID: WET\_110318A-5746926 Units: pH Units  
Analysis Date: 03/18/2011 13:00 Analyst: PAC

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
pH	7.000	7.020	100.3	98	102

#### Sample Duplicate

Original Sample: 11030471-01  
RunID: WET\_110318A-5746927 Units: pH Units  
Analysis Date: 03/18/2011 13:00 Analyst: PAC

Analyte	Sample Result	DUP Result	RPD	RPD Limit
pH	7.4	7.41	0.135	5

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030471 Page 63

3/31/2011 5:56:26 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Specific Conductance @ 25 C WorkOrder: 11030471  
Method: SM2510B Lab Batch ID: R317252

### Method Blank

### Samples in Analytical Batch:

RunID:	WET_110318B-5746933	Units:	umhos/cm	Lab Sample ID	Client Sample ID
Analysis Date:	03/18/2011 13:15	Analyst:	PAC	11030471-01G	MW-1
				11030471-02G	MW-2
				11030471-03G	MW-3
				11030471-04G	MW-4
Analyte	Result	Rep Limit			
Specific Conductance	ND	10			

### Laboratory Control Sample (LCS)

RunID: WET\_110318B-5746935 Units: umhos/cm  
Analysis Date: 03/18/2011 13:15 Analyst: PAC

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Specific Conductance	1413	1391	98.44	90	110

### Sample Duplicate

Original Sample: 11030471-01  
RunID: WET\_110318B-5746936 Units: umhos/cm  
Analysis Date: 03/18/2011 13:15 Analyst: PAC

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Specific Conductance	3050	3040	0.328	10

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030471 Page 64

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/31/2011 5:56:27 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Alkalinity (as CaCO<sub>3</sub>), Total  
Method: SM2320B

WorkOrder: 11030471  
Lab Batch ID: R317253

#### Method Blank

RunID: WET\_110318C-5746942 Units: mg/L

#### Samples in Analytical Batch:

Analysis Date: 03/18/2011 13:30 Analyst: PAC

#### Lab Sample ID

11030471-01G

#### Client Sample ID

MW-1

11030471-02G

MW-2

11030471-03G

MW-3

11030471-04G

MW-4

Analyte	Result	Rep Limit
Alkalinity, Total (As CaCO <sub>3</sub> )	ND	2.0

#### Laboratory Control Sample (LCS)

RunID: WET\_110318C-5746944 Units: mg/L

Analysis Date: 03/18/2011 13:30 Analyst: PAC

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Alkalinity, Total (As CaCO <sub>3</sub> )	48.70	49.00	100.6	90	110

#### Sample Duplicate

Original Sample: 11030471-01

RunID: WET\_110318C-5746945 Units: mg/L

Analysis Date: 03/18/2011 13:30 Analyst: PAC

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Alkalinity, Total (As CaCO <sub>3</sub> )	271	271	0	20

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030471 Page 65

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/31/2011 5:56:27 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Ion Chromatography WorkOrder: 11030471  
Method: E300.0 Lab Batch ID: R317271

#### Method Blank

#### Samples in Analytical Batch:

RunID: IC1\_110318A-5747307

Units: mg/L

#### Lab Sample ID

#### Client Sample ID

Analysis Date: 03/18/2011 10:59

Analyst: ESK

11030471-01G

MW-1

11030471-02G

MW-2

11030471-03G

MW-3

11030471-04G

MW-4

Analyte	Result	Rep Limit
Nitrogen,Nitrate (As N)	ND	0.50
Nitrogen,Nitrite (As N)	ND	0.50

#### Laboratory Control Sample (LCS)

RunID: IC1\_110318A-5747308 Units: mg/L

Analysis Date: 03/18/2011 11:15 Analyst: ESK

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Nitrogen,Nitrate (As N)	10.00	9.998	99.98	90	110
Nitrogen,Nitrite (As N)	10.00	10.22	102.2	90	110

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030471-01

RunID: IC1\_110318A-5747324 Units: mg/L

Analysis Date: 03/18/2011 17:14 Analyst: ESK

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Nitrogen,Nitrate (As N)	ND	5	4.889	97.78	5	4.963	99.26	1.502	15	80	120
Nitrogen,Nitrite (As N)	ND	5	5.020	100.4	5	5.096	101.9	1.503	15	80	120

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030471 Page 66

3/31/2011 5:56:27 PM

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Ion Chromatography  
Method: E300.0

WorkOrder: 11030471  
Lab Batch ID: R317272A

#### Method Blank

#### Samples in Analytical Batch:

RunID: IC1\_110318B-5747337 Units: mg/L

#### Lab Sample ID

#### Client Sample ID

Analysis Date: 03/18/2011 10:59 Analyst: ESK

11030471-01G

MW-1

11030471-02G

MW-2

Analyte	Result	Rep Limit
Bromide	ND	0.50
Chloride	ND	0.50
Fluoride	ND	0.50
Ortho-phosphate (As P)	ND	0.50
Sulfate	ND	0.50

#### Laboratory Control Sample (LCS)

RunID: IC1\_110318B-5747338 Units: mg/L  
Analysis Date: 03/18/2011 11:15 Analyst: ESK

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Bromide	10.00	9.996	99.96	90	110
Chloride	10.00	10.34	103.4	90	110
Fluoride	10.00	10.42	104.2	90	110
Ortho-phosphate (As P)	10.00	10.10	101.0	90	110
Sulfate	10.00	10.22	102.2	90	110

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030471-02  
RunID: IC1\_110318B-5747368 Units: mg/L  
Analysis Date: 03/18/2011 21:00 Analyst: ESK

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030471 Page 67

3/31/2011 5:56:28 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Ion Chromatography  
Method: E300.0

WorkOrder: 11030471  
Lab Batch ID: R317272A

### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030471-02  
RunID: IC1\_110318B-5747368 Units: mg/L  
Analysis Date: 03/18/2011 21:00 Analyst: ESK

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Sulfate	1002	500	1567	113.1	500	1565	112.6	0.1699	15	80	120

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030471 Page 68

3/31/2011 5:56:28 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Ion Chromatography  
Method: E300.0

WorkOrder: 11030471  
Lab Batch ID: R317272B

### Method Blank

### Samples in Analytical Batch:

RunID: IC1\_110318B-5747337 Units: mg/L

#### Lab Sample ID

#### Client Sample ID

Analysis Date: 03/18/2011 10:59 Analyst: ESK

11030471-01G

MW-1

11030471-02G

MW-2

11030471-03G

MW-3

11030471-04G

MW-4

Analyte	Result	Rep Limit
Bromide	ND	0.50
Chloride	ND	0.50
Fluoride	ND	0.50
Ortho-phosphate (As P)	ND	0.50
Sulfate	ND	0.50

### Laboratory Control Sample (LCS)

RunID: IC1\_110318B-5747338 Units: mg/L

Analysis Date: 03/18/2011 11:15 Analyst: ESK

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Bromide	10.00	9.996	99.96	90	110
Chloride	10.00	10.34	103.4	90	110
Fluoride	10.00	10.42	104.2	90	110
Ortho-phosphate (As P)	10.00	10.10	101.0	90	110
Sulfate	10.00	10.22	102.2	90	110

### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030471-01

RunID: IC1\_110318B-5747363 Units: mg/L

Analysis Date: 03/18/2011 19:39 Analyst: ESK

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030471 Page 69

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/31/2011 5:56:28 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Ion Chromatography WorkOrder: 11030471  
Method: E300.0 Lab Batch ID: R317272B

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030471-01  
RunID: IC1\_110318B-5747363 Units: mg/L  
Analysis Date: 03/18/2011 19:39 Analyst: ESK

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Chloride	32.87	25	56.47	94.40	25	57.26	97.53	1.377	15	80	120

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030471 Page 70

3/31/2011 5:56:28 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Ion Chromatography  
Method: E300.0

WorkOrder: 11030471  
Lab Batch ID: R317272D

#### Method Blank

#### Samples in Analytical Batch:

RunID: IC1\_110318B-5747337 Units: mg/L

#### Lab Sample ID

#### Client Sample ID

Analysis Date: 03/18/2011 10:59

Analyst: ESK

11030471-01G

MW-1

11030471-02G

MW-2

11030471-03G

MW-3

11030471-04G

MW-4

Analyte	Result	Rep Limit
Bromide	ND	0.50
Chloride	ND	0.50
Fluoride	ND	0.50
Ortho-phosphate (As P)	ND	0.50
Sulfate	ND	0.50

#### Laboratory Control Sample (LCS)

RunID: IC1\_110318B-5747338 Units: mg/L

Analysis Date: 03/18/2011 11:15 Analyst: ESK

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Bromide	10.00	9.996	99.96	90	110
Chloride	10.00	10.34	103.4	90	110
Fluoride	10.00	10.42	104.2	90	110
Ortho-phosphate (As P)	10.00	10.10	101.0	90	110
Sulfate	10.00	10.22	102.2	90	110

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030456-06

RunID: IC1\_110318B-5747352 Units: mg/L

Analysis Date: 03/18/2011 16:42 Analyst: ESK

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030471 Page 71

3/31/2011 5:56:28 PM

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

**Quality Control Report****Conoco Phillips**

San Juan 29-7 Unit 37 GW Baseline

Analysis: Ion Chromatography  
Method: E300.0WorkOrder: 11030471  
Lab Batch ID: R317272D**Matrix Spike (MS) / Matrix Spike Duplicate (MSD)**

Sample Spiked: 11030456-06  
RunID: IC1\_110318B-5747352 Units: mg/L  
Analysis Date: 03/18/2011 16:42 Analyst: ESK

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Bromide	0.6460	5	5.528	97.64	5	5.657	100.2	2.307	15	80	120
Fluoride	ND	5	6.102	114.7	5	5.877	110.2	3.757	15	80	120
Ortho-phosphate (As P)	ND	5	5.516	110.3	5	5.841	116.8	5.723	15	80	120

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030471 Page 72

3/31/2011 5:56:29 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Ion Chromatography  
Method: E300.0

WorkOrder: 11030471  
Lab Batch ID: R317283

#### Method Blank

#### Samples in Analytical Batch:

RunID: IC1_110319A-5747460	Units: mg/L	Lab Sample ID	Client Sample ID
Analysis Date: 03/19/2011 10:31	Analyst: ESK	11030471-03G	MW-3
		11030471-04G	MW-4

Analyte	Result	Rep Limit
Sulfate	ND	0.50

#### Laboratory Control Sample (LCS)

RunID: IC1\_110319A-5747461 Units: mg/L  
Analysis Date: 03/19/2011 10:47 Analyst: ESK

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Sulfate	10.00	10.02	100.2	90	110

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030462-01  
RunID: IC1\_110319A-5747479 Units: mg/L  
Analysis Date: 03/19/2011 17:10 Analyst: ESK

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Sulfate	499.3	250	792.3	117.2	250	780.0	112.3	1.565	15	80	120

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030471 Page 73

3/31/2011 5:56:29 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis:	Hardness, Total (Titrimetric, EDTA)	WorkOrder:	11030471
Method:	SM2340C	Lab Batch ID:	R317306

#### Method Blank

#### Samples in Analytical Batch:

RunID:	WET_110321B-5747778	Units:	mg/L	Lab Sample ID	Client Sample ID
Analysis Date:	03/21/2011 11:00	Analyst:	PAC	11030471-01F	MW-1
				11030471-02F	MW-2
				11030471-03F	MW-3
				11030471-04F	MW-4

Analyte	Result	Rep Limit
Hardness (As CaCO <sub>3</sub> )	ND	5.0

#### Laboratory Control Sample (LCS)

RunID: WET\_110321B-5747780 Units: mg/L  
Analysis Date: 03/21/2011 11:00 Analyst: PAC

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Hardness (As CaCO <sub>3</sub> )	175.0	170.0	97.14	85	115

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 11030479-02  
RunID: WET\_110321B-5747783 Units: mg/L  
Analysis Date: 03/21/2011 11:00 Analyst: PAC

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Hardness (As CaCO <sub>3</sub> )	180.0	250	430.0	100.0	250	430.0	100.0	0	20	80	120

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B - Analyte Detected In The Associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated Value Between MDL And PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

11030471 Page 74

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

3/31/2011 5:56:29 PM



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

## Quality Control Report

### Conoco Phillips

San Juan 29-7 Unit 37 GW Baseline

Analysis: Total Dissolved Solids WorkOrder: 11030471  
Method: SM2540 C Lab Batch ID: R317419A

#### Method Blank

#### Samples in Analytical Batch:

RunID: WET_110322K-5749750	Units: mg/L	<u>Lab Sample ID</u>	<u>Client Sample ID</u>
Analysis Date: 03/22/2011 11:30	Analyst: MM1	11030471-01H	MW-1
		11030471-02H	MW-2
		11030471-03H	MW-3
		11030471-04H	MW-4
Analyte	Result	Rep Limit	
Total Dissolved Solids (Residue,Filterable)	ND	10	

#### Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: WET\_110322K-5749752 Units: mg/L  
Analysis Date: 03/22/2011 11:30 Analyst: MM1

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
Total Dissolved Solids (Residue,Filterabl)	200.0	205.0	102.5	200.0	205.0	102.5	0.0	10	95	107

#### Sample Duplicate

Original Sample: 11030491-03  
RunID: WET\_110322K-5749772 Units: mg/L  
Analysis Date: 03/22/2011 11:30 Analyst: MM1

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Total Dissolved Solids (Residue,Filterabl)	1220	1242	2.03	10

Qualifiers: ND/U - Not Detected at the Reporting Limit  
B - Analyte Detected In The Associated Method Blank  
J - Estimated Value Between MDL And PQL  
E - Estimated Value exceeds calibration curve  
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.  
TNTC - Too numerous to count

MI - Matrix Interference  
D - Recovery Unreportable due to Dilution  
\* - Recovery Outside Advisable QC Limits

QC results presented on the QC Summary Report have been rounded. RPD and percent recovery values calculated by the SPL LIMS system are derived from QC data prior to the application of rounding rules.

11030471 Page 75

3/31/2011 5:56:29 PM

*Sample Receipt Checklist  
And  
Chain of Custody*



SPL ENVIRONMENTAL  
8880 INTERCHANGE DRIVE  
HOUSTON, TX 77054  
(713) 660-0901

**Sample Receipt Checklist**

Workorder:	11030471	Received By:	NB
Date and Time Received:	3/18/2011 9:06:00 AM	Carrier name:	Fedex-Standard Overnight
Temperature:	2.0/2.0/2.5/2.5/2.5/2.5/	Chilled by:	Water Ice

- |   |   |                             |   |
|---|---|-----------------------------|---|
| <b>1.</b> Shipping container/cooler in good condition?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| <b>2.</b> Custody seals intact on shipping container/cooler?        | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| <b>3.</b> Custody seals intact on sample bottles?                   | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| <b>4.</b> Chain of custody present?                                 | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| <b>5.</b> Chain of custody signed when relinquished and received?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| <b>6.</b> Chain of custody agrees with sample labels?               | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| <b>7.</b> Samples in proper container/bottle?                       | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| <b>8.</b> Sample containers intact?                                 | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| <b>9.</b> Sufficient sample volume for indicated test?              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| <b>10.</b> All samples received within holding time?                | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| <b>11.</b> Container/Temp Blank temperature in compliance?          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| <b>12.</b> Water - VOA vials have zero headspace?                   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | VOA Vials Not Present <input type="checkbox"/>  |
| <b>13.</b> Water - Preservation checked upon receipt (except VOA*)? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Applicable <input type="checkbox"/>         |

\*VOA Preservation Checked After Sample Analysis

SPL Representative:

Contact Date & Time:

Client Name Contacted:

Non Conformance  
Issues:

Client Instructions:





# Analysis Request and Chain of Custody Record

BBBullard Change Due Huston 12/7/05

Company Name: Tetra Tech/Conec Philmont

Contact: Kelly Hindmarsh

Address: 6121 Linda Vista Road NE, Ste. 200

Phone/Fax: 505-237-8440

Email Address: kelly.hindmarsh@tetratech.com

Invoice To: TETRATECH

Purchase Order No:

Project Name/No.: San Juan 23.7 Unit 37 GWM Baseline

Site Address: Bernalillo County NM,

Sample ID: C\_Matthews\_2\_C\_Brown

Sample Date: 12/1/05

Time:

MM-3 3.17.11 1045 X

		REQUESTED ANALYSIS	
		VOCs by 8260	Semi-Voas by 8270
		Diss-Met's	TPH-DR0
		TGtal Hg-Hardness	TDS
		Alkalinity, pH, Specific Conducta	HCl, PCl, S, O, PO4, SO4, NO3, Na2
Sample Event Description			
Quantity			
Semi Annual			
WC-WasteChar.			
Other (describe below)			
Purchase Order No:			
Project Name/No.: San Juan 23.7 Unit 37 GWM Baseline			
Site Address: Bernalillo County NM,			
Sample ID: C_Matthews_2_C_Brown			
Sample Date: 12/1/05			
Time:			
Container Type			
Container Content			
Preservative			
Number Contaminants			
Comments/Requests			

**AMMCO Standards Provided to Lab**      **Do not filter metals before analysis**

Special Detection Limits Specified

Specified Reporting Quantities Specified

Chromatogram

Photograph

Report

Comments

Date

Time

Date

Time

Date

Time

Date

Time

Date

Time

**AMMCO Metals Provided to Lab**      **Do not filter metals before analysis**

Specified Reporting Quantities Specified

Chromatogram

Photograph

Report

Comments

Date

Time



