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GROUNDWATER MONITOR WELL INSTALLATION AND BASELINE GROUNDWATER MONITORING REPORT

CONOCOPHILLIPS COMPANY

SATEGNA 2E
PRODUCTION FACILITY
SAN JUAN COUNTY, NEW MEXICO

OCD # TBD

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Prepared for:

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September 2009

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GROUNDWATER MONITOR WELL INSTALLATION AND BASELINE GROUNDWATER MONITORING REPORT SATEGNA 2E, SAN JUAN COUNTY, NEW MEXICO FIRST QUARTER 2009

1.0 INTRODUCTION

This report discusses the installation of 3 groundwater monitor wells by Tetra Tech, Inc. (Tetra Tech) in March 2009 at the ConocoPhillips Company Sategna 2E gas well site located in Bloomfield, New Mexico (Site), and presents the results of the baseline groundwater monitoring event conducted at the Site by Tetra Tech in April 2009. The Site is located on private land in Section 21, Township 29N, Range 11W, of San Juan County, New Mexico (**Figure 1**). A Site detail map is included as **Figure 2**.

1.1 Site Background

The historical timeline for the Site is summarized below, and is presented in more detail in **Table 1**.

On November 24, 2008, approximately 8 barrels of condensate were found to have been released from an on-Site, aboveground storage tank (AST) as a result of corrosion in the tank. New Mexico Oil Conservation Division (OCD) Form C-141 was filled out by ConocoPhillips staff and notice was given to OCD via electronic mail. Form C-141 stated that the well was shut down and the production tank was emptied. The spilled fluids remained in the berm and none of the condensate was recovered. On November 25, 2008, Envirotech Inc. of Farmington, New Mexico (Envirotech) obtained grab soil samples from just outside the affected area for analysis of organic vapors. Results of this analysis were below OCD recommended action levels. Envirotech also hand-augered 2 soil borings to groundwater at a depth of approximately 8 feet below ground surface (bgs) and submitted groundwater samples to an analytical laboratory for benzene, toluene, ethylbenzene and xylenes (BTEX) analysis. Results of these analyses revealed BTEX in concentrations below OCD action levels for these constituents.

On December 4, 2008, Envirotech returned to the Site and obtained grab and composite soil samples from an excavation measuring approximately 30 feet by 18 feet by 5 feet deep (**Figure 2**). Heated headspace organic vapor results ranged from 6.5 parts per million (ppm) in a grab soil sample obtained from the bottom of the excavation to 1,400 ppm from a composite soil sample taken from the former location of the AST; the OCD action level for organic vapors is 100 ppm. Total petroleum hydrocarbons (TPH), BTEX, and chloride samples were obtained for soils analysis, and results were all below OCD action levels for BTEX. Results for TPH analysis obtained through Environmental Protection Agency (EPA) method 8015B for the composite soil sample taken at the site of the AST revealed results of 205 mg/kg; the OCD action level is 100 mg/kg. Results for TPH analysis obtained through EPA method 418.1 for the composite soil sample obtained at the location of the below ground tank revealed results of 521 mg/kg. The below ground tank was located within the berm and adjacent to the AST (**Figure 2**).

Envirotech noted seepage of groundwater into the excavation on December 4, 2008, and returned to the Site on December 5, 2008 to collect groundwater samples from the excavation for BTEX analysis. The OCD groundwater action levels for benzene, toluene, and total xylenes are 10 ug/l, 750 ug/l, and 620 ug/l, respectively. Benzene was found at a concentration of 327 ug/l, toluene was detected at 4,300 ug/l, and total xylenes were found at a concentration of 8,480 ug/L. During the week of December 8, 2008, a vacuum truck was utilized to pump the groundwater seepage from the surface of the excavated area. Once removed, further excavation took place and groundwater slowly seeped into the excavation; this process was repeated a total of 4 times. The first time water was pumped from the surface of the excavation, a hydrocarbon odor and free-phase, light non-aqueous phase liquid (LNAPL) were present. By the fourth and last event, neither the hydrocarbon odor nor free-phase LNAPL was present in the groundwater seepage. Each pumping event removed approximately 30-60 barrels of liquid from the Site.

In January 2009, Tetra Tech conducted a site visit to determine proposed groundwater monitor well locations. Groundwater monitor wells were installed at the Site on March 4, 2009 and March 5, 2009. Tetra Tech conducted the first groundwater monitoring event at the Site on April 2, 2009.

1.2 Groundwater Monitor Well Installation

On March 4 and March 5, 2009, WDC Exploration and Wells (WDC) installed 3 groundwater monitor wells at the Site under the supervision of Tetra Tech: MW-1, MW-2, and MW-3. All wells were drilled using a CME-85 drill rig, hollow stem augers, and split-spoon sampling techniques; 15 feet of 0.010 polyvinylchloride (PVC) slotted screening was placed in each well. MW-1 was installed on March 5, 2009 to a total depth of 17.2 feet bgs. The depth to water was recorded at 8 feet bgs and the screened interval was placed from 2.2 feet bgs to 17.2 feet bgs. MW-2 was installed on March 5, 2009 to a total depth of 19.4 feet bgs. The screened interval was placed from 3.33 to 18.33 feet bgs and depth to water was recorded at approximately 5 feet bgs. MW-3 was installed on March 5, 2009 to a total depth of 20 feet bgs and the depth to water was recorded at approximately 6 feet bgs. The screened interval for MW-3 was placed from 3 to 18 feet bgs. Wells were constructed using 2-inch PVC casing, and were all above-ground completions set in concrete. After installation, each monitor well was developed using a Geotech Environmental Geosquirt™ electric purge pump. Approximately 70 gallons of water was purged from each well and was disposed of on-Site. No sheen or hydrocarbon odor was noted. Soil boring logs and well completion forms are included as **Appendix A**. A generalized geologic cross section for the Site is presented in **Figure 3**.

Prior to the start of drilling operations at any ConocoPhillips Company site, "hydro-excavation" is performed using a vacuum truck and high-pressure water. A hole with a diameter of 10 inches and a depth of approximately 5 feet is created at the location of each groundwater monitor well to ensure that drilling activities do not damage subsurface equipment or piping. During the "hydro-excavation" for groundwater monitor well MW-2, an organic odor and darkened soil was observed. A grab soil sample was obtained on March 2, 2009 from the "hydro-excavation" for MW-2 at a depth of approximately 2 feet bgs. This soil sample was submitted to the Envirotech laboratory in Farmington, NM and was analyzed for total chlorides by EPA Method 4500B, BTEX by EPA Method 8021B and TPH by EPA Method 8015B. None of the analytes were detected in concentrations above OCD recommended action levels. During soil boring activities on

March 4, 2009 and March 5, 2009 additional soil samples were obtained from the soil borings for MW-1, MW-2 and MW-3 from depths of 5 to 6.5 feet bgs; 5.5 to 7 feet bgs; and from 5 to 6.5 feet bgs, respectively. Each soil sample was analyzed for major ions by EPA Method 300.0; for total mercury by EPA Method 7471A; total metals by EPA Methods 6010B and 6020A; semivolatile organic compounds (SVOCs) by EPA Method 8270C; volatile organic compounds (VOCs) by EPA Method 8260B; and TPH by EPA Method 418.1. None of the analytes were detected in concentrations above OCD recommended action levels. Results of the soil analysis are shown in **Table 2** and **Appendix B**.

2.0 MONITORING SUMMARY AND SAMPLING METHODOLOGY / RESULTS

2.1 Monitoring Summary

A baseline groundwater monitoring event was conducted at the Site on April 2, 2009. Prior to collection of groundwater samples from monitor wells MW-1, MW-2 and MW-3, depth to groundwater in each well was determined. Results are displayed in **Table 3**.

The casings for monitor wells MW-1, MW-2, and MW-3 were surveyed in March 2009 using the Site gas production wellhead as an arbitrary reference-elevation of 100 feet above mean sea level (amsl). The data obtained from the Site survey and from the April 2009 sampling event was used to create a groundwater elevation map for the Site (**Figure 4**). Using these data, it was determined that the groundwater flow direction at the Site is to the southwest.

2.2 Groundwater Sampling Methodology

During the baseline groundwater monitoring event, Site monitor wells were purged of at least 3 casing volumes of groundwater using a 1.5-inch diameter, poly-vinyl chloride disposable bailer. 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 with chain-of-custody documentation. Analysis of all groundwater samples collected during the April 2009 groundwater monitoring event were performed by Southern Petroleum Laboratory (SPL) of Houston, Texas.

During the April 2009 groundwater monitoring event, each groundwater sample collected was analyzed for major ions by EPA Method 300.0; for total mercury by EPA Method 7470A; total metals by EPA Methods 6010B and 6020A; SVOCs by EPA Method 8270C; VOCs by EPA Method 8260B; alkalinity (as $CaCO_3$) by standard method 2320B; diesel range organics (DRO) and gasoline range organics (GRO) by EPA Method 8015B; and total dissolved solids by standard method 2540C. Results of these analyses are displayed in **Table 4**. As Site closure through OCD is dependent upon a decrease in BTEX concentrations over time, Tetra Tech has prepared an historical analytical results table for BTEX in Site wells for the April 2009 monitoring

event (**Table 5**). Results from future groundwater monitoring events at the Site will be appended to this table.

2.3 Groundwater Sampling Analytical Results

The New Mexico Water Quality Control Commission (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.

- **Sulfate**
  - The NMWQCC domestic water supply groundwater quality standard for sulfate is 600 milligrams per liter (mg/L); groundwater samples collected from monitor well MW-1, MW-2 and MW-3 were found to contain sulfate at concentrations of 1,790 mg/L, 1,850 mg/L, and 2,110 mg/L, respectively.
- **Aluminum**
  - The NMWQCC aluminum groundwater quality standard for irrigation use is 5 mg/L; groundwater samples collected from monitor well MW-1 and MW-2 were found to contain aluminum at concentrations of 7.25 mg/L and 10.1 mg/L, respectively.
- **Iron**
  - The NMWQCC domestic water supply groundwater quality standard for iron is 1 mg/L; groundwater samples collected from monitor well MW-1, MW-2 and MW-3 were found to contain iron at concentrations of 7.2 mg/L, 10.4 mg/L, and 1.02 mg/L, respectively.
- **Manganese**
  - The NMWQCC domestic water supply groundwater quality standard for manganese is 0.2 milligrams per liter (mg/L); groundwater samples collected from monitor well MW-1, MW-2 and MW-3 were found to contain manganese at concentrations of 2.7 mg/L, 6.76 mg/L, and 1.9 mg/L, respectively.
- **Total Dissolved Solids**
  - The NMWQCC domestic water supply groundwater quality standard for TDS is 1,000 mg/L; groundwater samples collected from monitor well MW-1, MW-2 and MW-3 were found to contain TDS at concentrations of 1,810 mg/L, 2,780 mg/L, and 3,380 mg/L, respectively.

The corresponding laboratory analysis reports for the April 2009 groundwater sampling event, including quality control summaries, are included in **Appendix D**. A map showing sulfate, aluminum, iron, manganese and TDS concentrations in Site wells during the April 2009 groundwater sampling event is included as **Figure 5**.

3.0 CONCLUSIONS AND RECOMMENDATIONS

Tetra Tech has installed 3 groundwater monitor wells (MW-1, MW-2 and MW-3) at the Site and has conducted the baseline groundwater monitoring event at the Site. The groundwater monitor wells have been incorporated into a quarterly monitoring schedule, and the next groundwater monitoring events at the Site are scheduled for June 2009, September 2009, and December 2010. The groundwater flow direction at the Site was determined to be to the southwest as of April 2009. Tetra Tech will continue to determine the groundwater flow direction at the Site and will note any changes as they occur.

As a result of the suite of chemical analyses conducted on all groundwater monitor wells at the Site (DRO/GRO, total metals, major ions, SVOCs and VOCs) during 2008, continued groundwater quality monitoring beyond BTEX analysis is warranted. Concentrations of sulfate, aluminum, iron, manganese and TDS have been detected above NMWQCC groundwater quality standards in varying combinations in all groundwater monitor wells at the Site. As a result, Tetra Tech recommends that these constituents be incorporated into the quarterly monitoring program for all Site groundwater monitor wells. Tetra Tech will continue to monitor for BTEX parameters in order to move toward Site closure.

Please contact Kelly Blanchard at 505-237-8440 or kelly.blanchard@tetratech.com if you have any questions or require additional information.

FIGURES

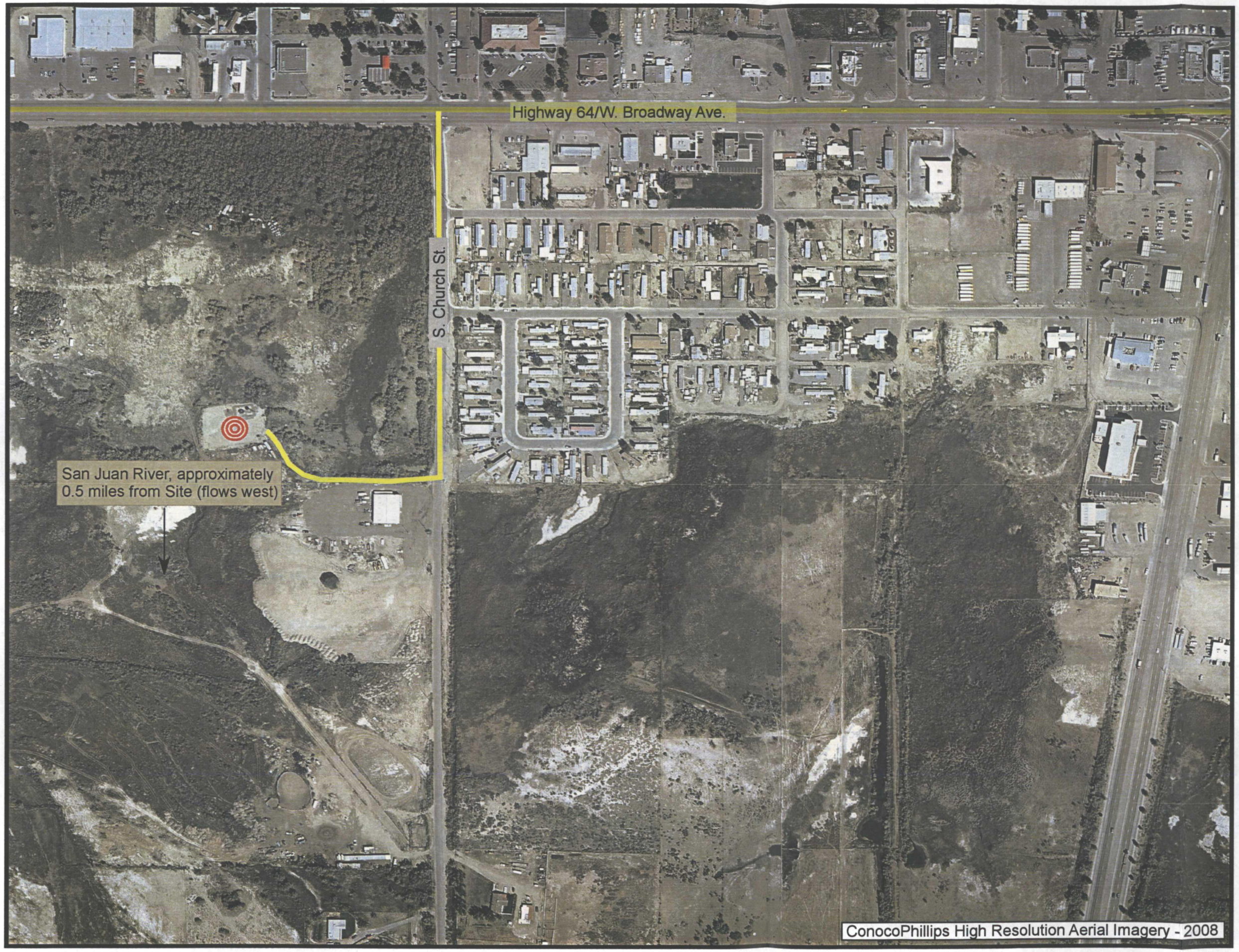

FIGURE 1.

Site Location Map
ConocoPhillips
Company
Sategna 2E
Bloomfield, NM

Directions from HWY 64 to ConocoPhillips Company Sategna 2E Site Location

ConocoPhillips Company Sategna 2E Site Location

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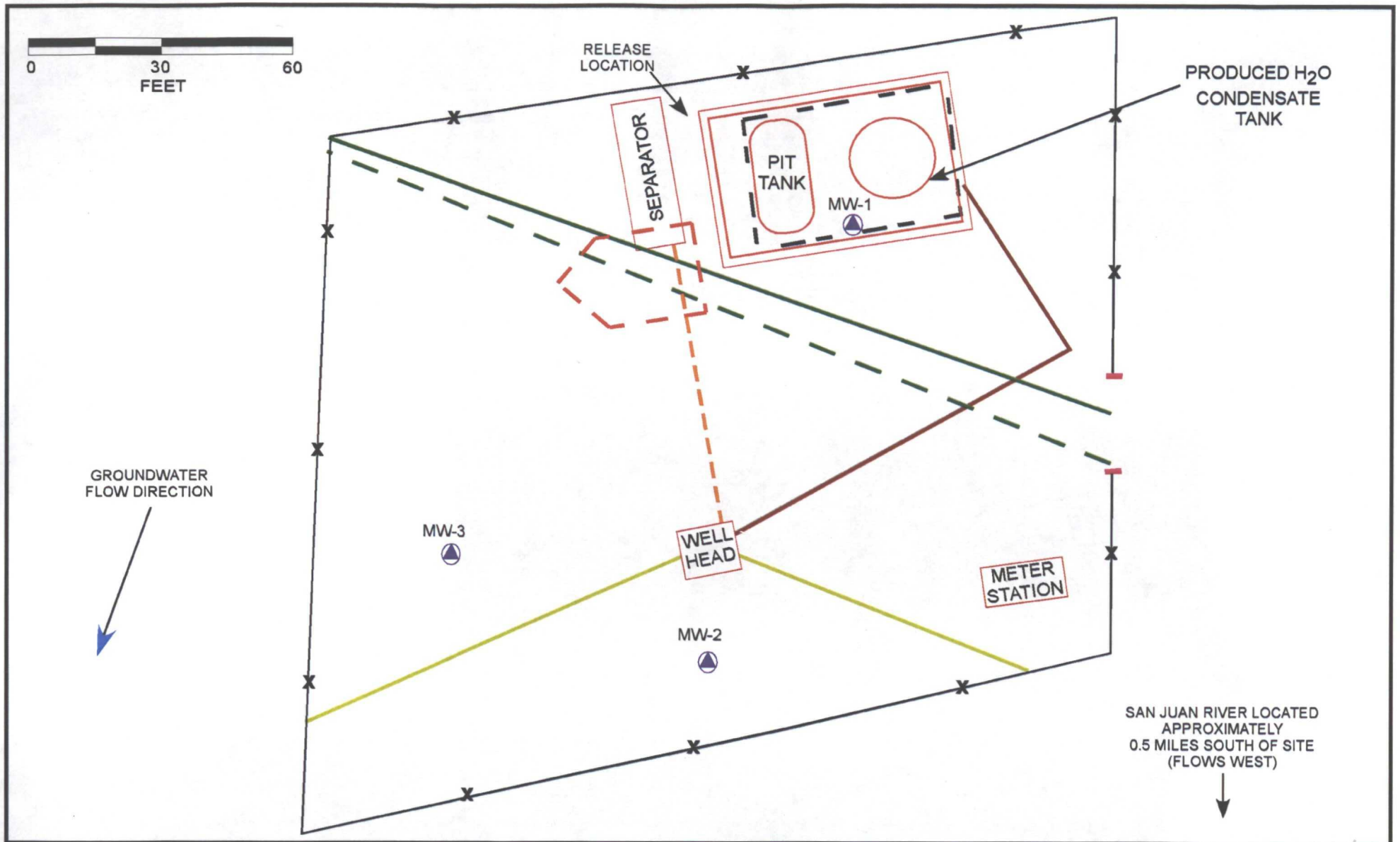

FIGURE 2:
SITE LAYOUT MAP
CONOCOPHILLIPS COMPANY
SATEGNA 2E GAS PRODUCTION WELL
Sec 21, T29N, R11W
Bloomfield, New Mexico

LEGEND

- GENERAL AREA OF DECEMBER 2008 EXCAVATION
- BERM AND ASSOCIATED EQUIPMENT
- GATED ENTRANCE
- FENCE LINE
- MONITOR WELL
- ACTIVE SEWER LINE
- ABANDONED SEWER LINE
- SEPARATOR LINE
- GAS LINE
- ELECTRIC LINE
- GENERAL AREA OF MAR/APR 2009 EXCAVATION

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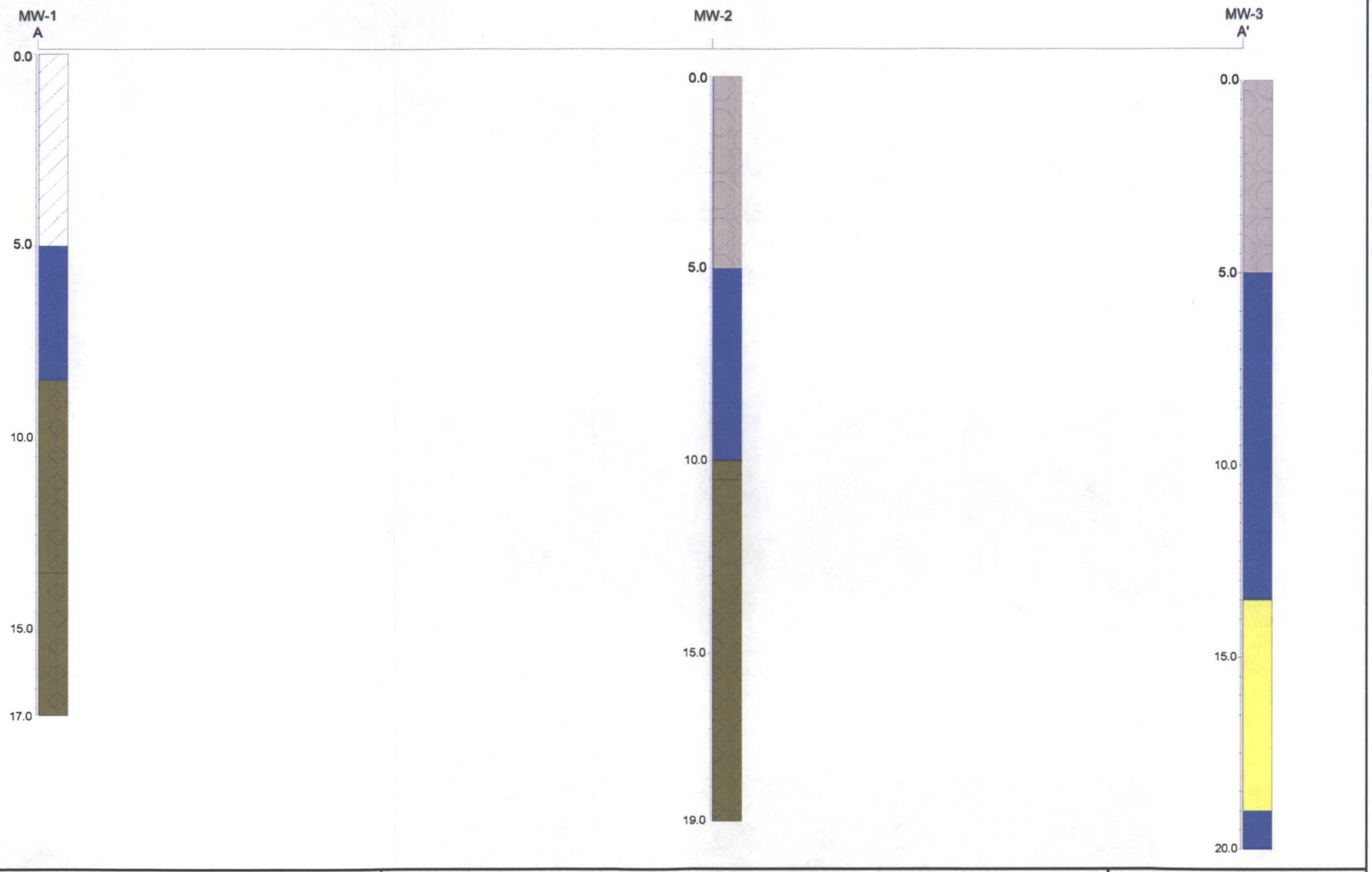

FIGURE 3:
GENERALIZED GEOLOGIC CROSS SECTION
CONOCOPHILLIPS COMPANY
SATEGNA 2E
Sec 21, T29N, R11W
Bloomfield, New Mexico

TETRA TECH, INC.

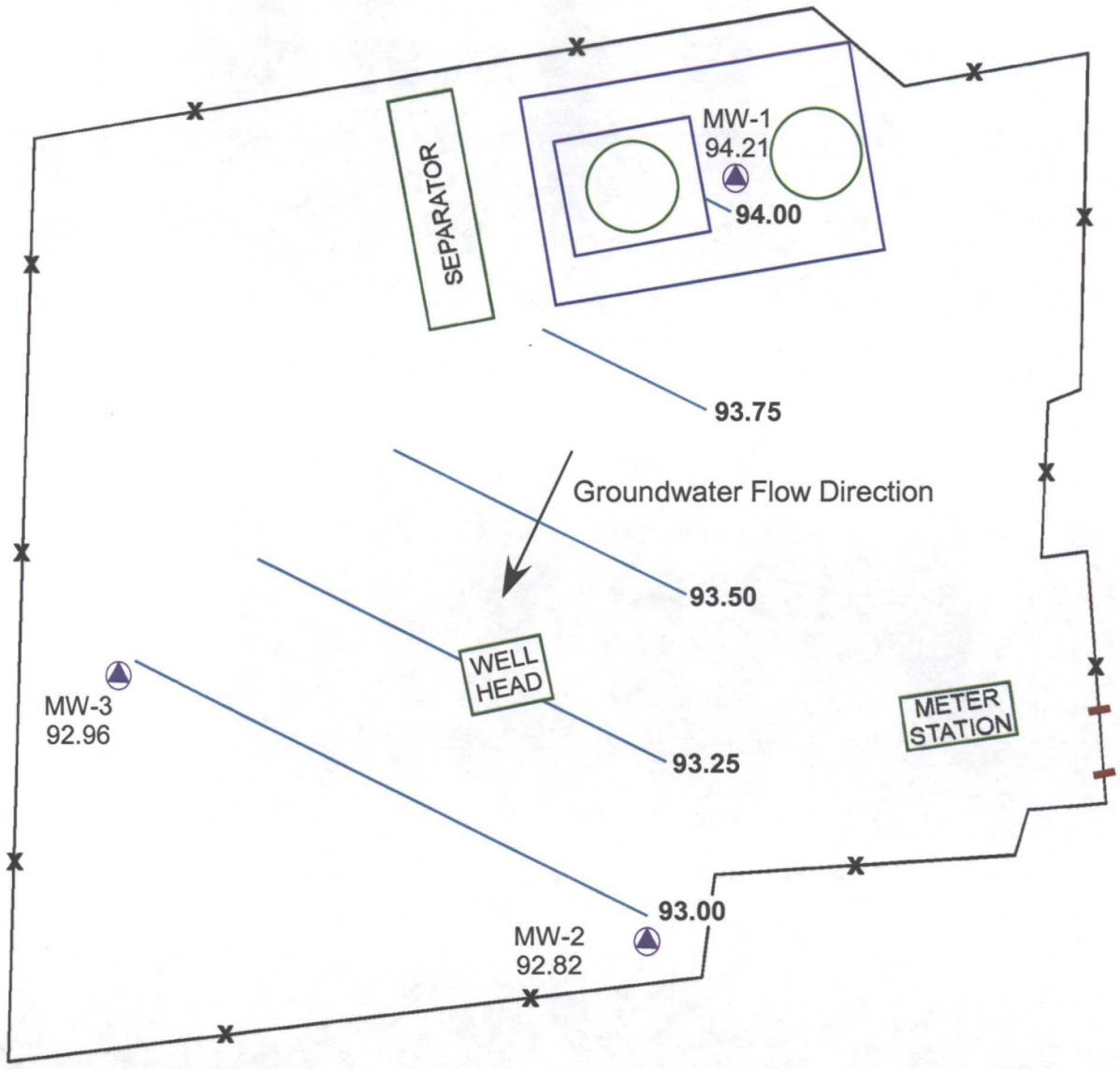

FIGURE 4:
GROUNDWATER ELEVATION MAP
April 2009
CONOCOPHILLIPS COMPANY
SATEGNA 2E GAS
PRODUCTION WELL
Sec 21, T29N, R11W
Bloomfield, New Mexico

LEGEND

- EQUIPMENT
- BERM
- GATED ENTRANCE
- FENCE LINE
- MONITORING WELL
- GROUNDWATER ELEVATION CONTOUR

0 30 60
FEET

N

TETRA TECH, INC.

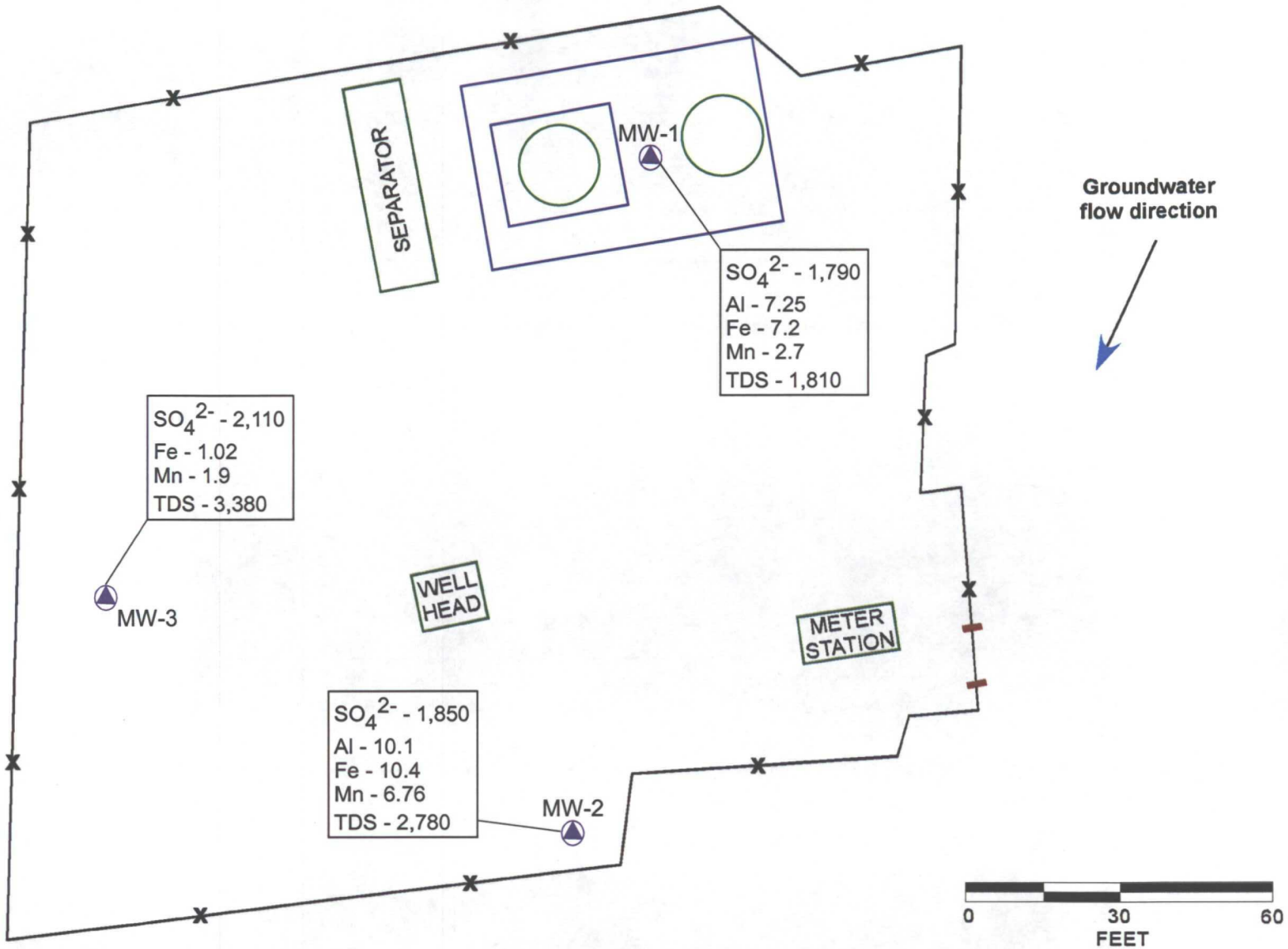

FIGURE 5:
GROUNDWATER QUALITY MAP
CONOCOPHILLIPS COMPANY
SATEGNA 2E GAS
PRODUCTION WELL
Sec 21, T29N, R11W
Bloomfield, New Mexico

LEGEND

- EQUIPMENT
- BERM
- GATED ENTRANCE
- FENCE LINE
- MONITORING WELL

SO_4^{2-} - 600
Al - 5.0
Fe - 1.0
Mn - 0.2
TDS - 1,000

Sulfate, Aluminum, Iron, Manganese, and Total Dissolved Solids Concentrations in Site Monitoring Wells. NMWQCC Groundwater Quality Standards Shown at Left (mg/L).

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TABLES

Table 1. Site History Timeline

Date	Activity
November 24, 2008	Approximately eight (8) barrels of condensate were found to have spilled from an on-Site, aboveground storage tank (AST); corrosion was thought to be the cause of the release. Form C-141 was filled out by ConocoPhillips staff and notice was given to Brandon Powell of the New Mexico Oil Conservation Division (OCD) via electronic mail. Form C-141 stated that the well was shut down and the production tank was emptied. The spilled fluids remained in the berm and none of the condensate was recovered.
November 25, 2008	Envirotech Inc. of Farmington, NM (Envirotech) obtained heated headspace soil results from just outside of the affected area; results were 0.2 and 1.1 parts per million (ppm). Depth of soil samples was not noted. Envirotech hand augered two soil borings to groundwater at a depth of approximately 8 feet below ground surface (bgs) and submitted groundwater samples for analysis. Results were below OCD action levels for benzene, toluene, ethylbenzene, and total xylenes (BTEX) in groundwater. Envirotech notes that groundwater levels in the soil borings increased to approximately 5 feet bgs, and groundwater beneath the Site was thought to be under confined aquifer conditions[1].
December 4, 2008	Envirotech returned to the Site and obtained grab and composite soil samples from an excavation measuring approximately 30 feet by 18 feet by 5 feet deep (Figure 2). Heated headspace results show values ranging from 6.5 ppm in a grab soil sample obtained from the bottom of the excavation to 1,400 ppm from a composite soil sample taken from the former location of the AST. Total petroleum hydrocarbons (TPH), BTEX, and chloride samples were obtained for soils analysis, and results were all below OCD action levels for BTEX; one soil sample obtained for chlorides showed results of 370 milligrams per kilogram (mg/kg). Results for TPH analysis obtained through Environmental Protection Agency (EPA) method 8015B for the composite soil sample taken at the site of the AST revealed results of 205 mg/kg; the OCD action level is 100 mg/kg. Results for TPH analysis obtained through EPA method 418.1 for the composite soil sample obtained at the location of the below ground tank revealed results of 521 mg/kg. The below ground tank was located within the berm and adjacent to the AST.
December 4, 2008	Results of all other soil analyses at all other sampling locations were below OCD action levels.
December 5, 2008	Envirotech notes seepage of groundwater into the excavation on December 4, 2008, and returns to the Site on December 5, 2008 to collect groundwater samples from the excavation for BTEX analysis[1]. The OCD groundwater action levels for benzene, toluene, and total xylenes are 10 ug/l, 750 ug/l, and 620 ug/l, respectively. Benzene was found at a concentration of 327 ug/l, toluene was detected at 4,300 ug/l, and total xylenes were found at a concentration of 8,480 ug/L.
Week of December 8, 2008	A vacuum truck was utilized to pump groundwater seepage from the surface of the excavated area. Once removed, further excavation took place and groundwater slowly seeped into the excavation; this process was repeated a total of four (4) times. The first time water was pumped from the surface of the excavation, a hydrocarbon odor and free-phase, light non-aqueous phase liquid (LNAPL) were present. By the fourth and last event, neither the hydrocarbon odor nor free-phase LNAPL was present in the groundwater seepage. Each pumping event removed approximately 30-60 barrels of liquid from the Site[2].
January 20, 2009 & January 30, 2009	Tetra Tech conducted a Site visit to determine proposed groundwater monitoring well locations.
March 4, 2009, & March 5, 2009	WDC Exploration and Wells (WDC) installed monitor wells MW-1, MW-2, and MW-3 on Site under the supervision of Tetra Tech.
April 2, 2009	Tetra Tech conducted a baseline groundwater monitoring event on Site.

1 - Kerr, K. (2009) Personal communication. Interview conducted by Gary Desselle, with Kyle Kerr of Envirotech. February 19, 2009.
2 - Frost, G. (2009) Personal communication. Interview conducted by Kelly Blanchard, with Gwendolynne Frost of ConocoPhillips Company. February 19, 2009.

Table 2. Soil Boring Laboratory Analytical Results

Constituent				Soil Sample ID (Depth, ft) & Sample Date			
Ions	**Method**	**Units**	**NMOCD**	**MW-1 (5 - 6.5) 3/4/2009**	**MW-2 (5.5 - 7) 3/5/2009**	**MW-2 (1.8 - 2) 3/2/2009**	**MW-3 (5 - 6.5) 3/4/2009**
Bromide	E300.0	mg/kg - dry	NE	< 6.97	< 6.93	NA	< 6.81
Chloride	E300.0	mg/kg - dry	NE	32.6	397	NA	214
Chloride, Total	E4500B	mg/kg	NE	NA	NA	320	NA
Fluoride	E300.0	mg/kg - dry	NE	< 6.97	< 6.93	NA	< 6.81
Orthophospate (as P)	E300.0	mg/kg - dry	NE	< 6.97	< 6.93	NA	57.7
Sulfate	E300.0	mg/kg - dry	NE	4,350	4,870	NA	3,850
Nitrate (as N)	E300.0	mg/kg - dry	NE	< 5	< 5	NA	< 5
Nitrite (as N)	E300.0	mg/kg - dry	NE	< 5	< 5	NA	< 5
Metals, Total	**Method**	**Units**	**NMOCD**	**MW-1 (5 - 6.5)**	**MW-2 (5.5 - 7)**	**MW-2 (1.8 - 2)**	**MW-3 (5 - 6.5)**
Mercury	SW7471A	mg/kg - dry	NE	< 0.0418	< 0.0416	NA	< 0.0409
Aluminum	SW6010B	mg/kg - dry	NE	20,300	18,900	NA	20,300
Boron	SW6010B	mg/kg - dry	NE	< 13.9	< 13.9	NA	< 13.6
Calcium	SW6010B	mg/kg - dry	NE	14,200	24,900	NA	10,700
Iron	SW6010B	mg/kg - dry	NE	21,200	18,900	NA	22,500
Magnesium	SW6010B	mg/kg - dry	NE	5,490	4,930	NA	5,190
Potassium	SW6010B	mg/kg - dry	NE	2,140	2,130	NA	2,150
Sodium	SW6010B	mg/kg - dry	NE	3,460	5,860	NA	8,310
Strontium	SW6010B	mg/kg - dry	NE	2.96	282	NA	221
Tin	SW6010B	mg/kg - dry	NE	< 6.97	< 6.93	NA	< 6.81
Antimony	SW6020A	mg/kg - dry	NE	< 0.697	< 0.693	NA	< 0.681
Arsenic	SW6020A	mg/kg - dry	NE	3.3	4.5	NA	3.12
Barium	SW6020A	mg/kg - dry	NE	154	152	NA	156
Beryllium	SW6020A	mg/kg - dry	NE	1.59	1.45	NA	1.54
Cadmium	SW6020A	mg/kg - dry	NE	< 0.697	< 0.693	NA	< 0.681
Chromium	SW6020A	mg/kg - dry	NE	11	12.7	NA	11.1
Cobalt	SW6020A	mg/kg - dry	NE	9.17	11.1	NA	9.38
Copper	SW6020A	mg/kg - dry	NE	23.8	26.4	NA	21.6
Lead	SW6020A	mg/kg - dry	NE	14.4	14.8	NA	15.9
Manganese	SW6020A	mg/kg - dry	NE	485	299	NA	372
Molybdenum	SW6020A	mg/kg - dry	NE	0.999	2.37	NA	< 0.681
Nickel	SW6020A	mg/kg - dry	NE	11.6	11.1	NA	11.7
Selenium	SW6020A	mg/kg - dry	NE	< 0.697	< 0.693	NA	< 0.681
Silver	SW6020A	mg/kg - dry	NE	< 0.697	< 0.693	NA	< 0.681
Thallium	SW6020A	mg/kg - dry	NE	< 0.697	< 0.693	NA	< 0.681
Vanadium	SW6020A	mg/kg - dry	NE	24.8	25.7	NA	22.6
Zinc	SW6020A	mg/kg - dry	NE	45.9	45	NA	46.9
SVOCS (detections only)	**Method**	**Units**	**NMOCD**	**MW-1 (5 - 6.5)**	**MW-2 (5.5 - 7)**	**MW-2 (1.8 - 2)**	**MW-3 (5 - 6.5)**
As listed	8270C	µg/kg - dry	--	--	--	NA	--
VOCs (detections and BTEX only)	**Method**	**Units**	**NMOCD**	**MW-1 (5 - 6.5)**	**MW-2 (5.5 - 7)**	**MW-2 (1.8 - 2)**	**MW-3 (5 - 6.5)**
Benzene	8260B	µg/kg - dry	10,000	< 7	< 6.9	NA	< 6.8
Toluene	8260B	µg/kg - dry	NE	< 7	< 6.9	NA	< 6.8
Ethylbenzene	8260B	µg/kg - dry	NE	< 7	< 6.9	NA	< 6.8
Total Xylenes	8260B	µg/kg - dry	NE	< 7	< 6.9	NA	< 6.8
Total BTEX	--	µg/kg - dry	50,000	< 7	< 6.9	NA	< 6.8
Benzene	8021B	µg/kg	10,000	NA	NA	120	NA
Toluene	8021B	µg/kg	NE	NA	NA	104	NA
Ethylbenzene	8021B	µg/kg	NE	NA	NA	114	NA
Total Xylenes	8021B	µg/kg	NE	NA	NA	660	NA
Total BTEX	--	µg/kg	50,000	NA	NA	998	NA
Other	**Method**	**Units**	**NMOCD**	**MW-1 (5 - 6.5)**	**MW-2 (5.5 - 7)**	**MW-2 (1.8 - 2)**	**MW-3 (5 - 6.5)**
Alkalinity (as Calcium Carbonate)	E310.1	mg/kg	NE	586	845	NA	368
Percent Moisture	D2216	%	NE	28.3	27.8	NA	26.6
Diesel Range Organics	8015B	mg/kg	NE	NA	NA	60.0	NA
Gasoline Range Organics	8015B	mg/kg	NE	NA	NA	27.4	NA
Total Petroleum Hydrocarbons	8015B	mg/kg	100	NA	NA	87.4	NA
Total Petroleum Hydrocarbons	E418.1	mg/L	100	< 14	< 14	NA	< 14

Notes:

MW = monitoring well
NMOCD = New Mexico Oil Conservation Division recommended action level
SVOCs = semi-volatile organic compounds
VOCs = volatile organic compounds
mg/kg - dry = milligrams per kilogram, analyzed after residual water removed from the soil
µg/kg - dry = micrograms per kilogram
P = phosphate
N = nitrogen
NE = not established
NA = not analyzed

Table 3 - 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	17.2	2.2 - 17.2	99.36	4/2/2009	5.15	94.21
MW-2	19.40	3.33 - 18.33	98.78	4/2/2009	5.96	92.82
MW-3	20.00	3.0 - 18.0	98.66	4/2/2009	5.70	92.96

ft = Feet

TOC = Top of casing

bgs = below ground surface

* Elevation relative to wellhead, set at 100 feet.

Table 4 - Groundwater Laboratory Analytical Results Summary, Baseline Parameters

Constituent			Groundwater Sample ID (Samples collected 4/2/09)				
Ions	**Method**	**Units**	**MW-1**	**Duplicate**	**MW-2**	**MW-3**	**NMWQCC Ground Water Standard**
Bromide	E300.0	mg/L	< 0.5	NA	< 0.5	< 0.5	NE
Chloride	E300.0	mg/L	7.77	NA	5.85	119	250
Fluoride	E300.0	mg/L	0.571	NA	0.59	0.551	1.6
Orthophospate (as P)	E300.0	mg/L	< 0.5	NA	0.579	< 0.5	NE
Sulfate	E300.0	mg/L	**1,790**	NA	**1,850**	**2,110**	600
Nitrate (as N)	E300.0	mg/L	< 0.5	NA	< 0.5	< 0.5	10
Nitrite (as N)	E300.0	mg/L	< 0.5	NA	< 0.5	< 0.5	NE
Metals, Total	**Method**	**Units**	**MW-1**	**Duplicate**	**MW-2**	**MW-3**	**NMWQCC Ground Water Standard**
Mercury	SW7470A	mg/L	< 0.0002	NA	< 0.0002	< 0.0002	0.002
Aluminum	SW6010B	mg/L	**7.25**	NA	**10.1**	0.848	5
Boron	SW6010B	mg/L	0.2	NA	0.194	0.216	0.75
Calcium	SW6010B	mg/L	460	NA	476	448	NE
Iron	SW6010B	mg/L	**7.2**	NA	**10.4**	**1.02**	1.0
Magnesium	SW6010B	mg/L	38	NA	38.7	38	NE
Potassium	SW6010B	mg/L	3.1	NA	3.28	6.41	NE
Sodium	SW6010B	mg/L	296	NA	290	405	NE
Strontium	SW6010B	mg/L	8.07	NA	8.53	7.86	NE
Tin	SW6010B	mg/L	< 0.005	NA	< 0.005	< 0.005	NE
Antimony	SW6020A	mg/L	< 0.005	NA	< 0.005	< 0.005	NE
Arsenic	SW6020A	mg/L	0.00972	NA	0.0126	< 0.005	0.1
Barium	SW6020A	mg/L	0.0471	NA	0.0975	0.0197	1.0
Beryllium	SW6020A	mg/L	0.00426	NA	< 0.004	< 0.004	NE
Cadmium	SW6020A	mg/L	< 0.005	NA	< 0.005	< 0.005	0.01
Chromium	SW6020A	mg/L	0.00831	NA	0.0111	< 0.005	0.05
Cobalt	SW6020A	mg/L	0.0227	NA	0.0411	< 0.005	0.05
Copper	SW6020A	mg/L	0.0459	NA	0.0839	< 0.005	1.0
Lead	SW6020A	mg/L	0.0222	NA	0.0108	< 0.005	0.05
Manganese	SW6020A	mg/L	**2.7**	NA	**6.76**	**1.9**	0.2
Molybdenum	SW6020A	mg/L	< 0.005	NA	< 0.005	0.0126	1.0
Nickel	SW6020A	mg/L	0.019	NA	0.0403	0.00544	0.2
Selenium	SW6020A	mg/L	< 0.005	NA	< 0.005	< 0.005	0.05
Silver	SW6020A	mg/L	< 0.005	NA	< 0.005	< 0.005	0.05
Thallium	SW6020A	mg/L	< 0.005	NA	< 0.005	< 0.005	NE
Vanadium	SW6020A	mg/L	0.033	NA	0.0268	0.00669	NE
Zinc	SW6020A	mg/L	0.0785	NA	0.105	0.0332	10
SVOCS (detections only)	**Method**	**Units**	**MW-1**	**Duplicate**	**MW-2**	**MW-3**	**NMWQCC Ground Water Standard**
As listed	8270C	µg/L	--	NA	--	--	--
VOCs (detections and BTEX only)	**Method**	**Units**	**MW-1**	**Duplicate**	**MW-2**	**MW-3**	**NMWQCC Ground Water Standard**
Benzene	8260B	µg/L	< 5	< 5	< 5	< 5	10
Toluene	8260B	µg/L	< 5	< 5	< 5	< 5	750
Ethylbenzene	8260B	µg/L	< 5	< 5	< 5	< 5	750
Total Xylenes	8260B	µg/L	< 5	< 5	< 5	< 5	620
Other	**Method**	**Units**	**MW-1**	**Duplicate**	**MW-2**	**MW-3**	**NMWQCC Ground Water Standard**
Alkalinity (as Calcium Carbonate)	SM2320B	mg/L	210	NA	203	202	NE
Diesel Range Organics	SW8015B	mg/L	< 0.05	NA	< 0.05	0.12	NE
Gasoline Range Organics	SW8015B	mg/L	< 0.1	NA	< 0.1	< 0.1	NE
Hardness (as Calcium Carbonate)	SM2340C	mg/L	1,500	NA	1,400	1,350	NE
pH	SM4500H-B	pH units	7.22	NA	7.14	7.34	NE
Specific Conductance @ 25 °C	SM2510B	µmhos/cm	2,370	NA	2,440	3,360	NE
Total Dissolved Solids	SM2540C	mg/L	**1,810**	NA	**2,780**	**3,380**	1000

Notes:
MW = monitoring well
NMWQCC = New Mexico Water Quality Control Commission
SVOCs = semi-volatile organic compounds
VOCs = volatile organic compounds
mg/L = milligrams per liter
µg/L = micrograms per liter
P = phosphate
N = nitrogen
µmhos/cm = micromhos per centimeter
NE = not established
NA = not analyzed
Analyte results in **BOLD** indicate an exceedence of NMWQCC groundwater quality standards

Table 5 - Groundwater Laboratory Analytical Results Summary - BTEX Parameters

Well ID	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)
MW-1	4/2/2009	< 5	< 5	< 5	< 5
MW-1 Duplicate	4/2/2009	< 5	< 5	< 5	< 5
MW-2	4/2/2009	< 5	< 5	< 5	< 5
MW-3	4/2/2009	< 5	< 5	< 5	< 5
NMWQCC Groundwater Quality Standards		**10 (µg/L)**	**750 (µg/L)**	**750 (µg/L)**	**620 (µg/L)**

Explanation

NMWQCC = New Mexico Water Quality Control Commission
µg/L = micrograms per liter (parts per billion)
< 5 = Below laboratory detection limit of 5 ug/L

APPENDICES

APPENDIX A

Soil Boring Logs and Well Completion Forms

PROJECT NAME: Sategna 2E

LOCATION: Bloomfield, NM

DRILLED BY: Matt Cain, WDC

DATE: HOLE STARTED: 3/4/09

DATE: HOLE COMPLETED: 3/4/09

SOIL BORING/WELL No: MW-1

DRILL TYPE: Hollow Stem Auger/18" Split Spoon

BOREHOLE DIAMETER: 8"

FIELD LOGGED BY: GD, AM

REMARKS: bgs = below ground surface
ppm = parts per million
Noted depth to water approximate

DEPTH (feet bgs)	SAMPLE INTERVAL	USCS	DESCRIPTION	Photoionization Detector (PID) Reading (ppm)	Percent Recovery	Sample ID
0	0-5		Non-native backfill from previous excavation; "daylighted" boring to this depth.	NA	NA	
5	5.0 - 6.5	CH	Gray and brown, firm, highly plastic fat clay; damp.	17.7	100	MW-1 (5-6.5)
▽	8.5 - 10		Brown, loose, poorly graded, coarse-grained flowing sand; wet.	14.8	50	
10	13.5-15	SP	As above; cobbles encountered at approximately 15 feet bgs. No further soil samples were possible below this depth.	12.7	100	
15						
20			Total depth of boring = 17.2 feet bgs			

Tt PROJECT #: 114-690105

TETRA TECH, INC.

BORING LOG

MW-1

PROJECT NAME: Sategna 2E

LOCATION: Bloomfield, NM

DRILLED BY: Matt Cain, WDC

DATE: HOLE STARTED: 3/5/09

DATE: HOLE COMPLETED: 3/5/09

SOIL BORING/WELL No: MW-2

DRILL TYPE: Hollow Stem Auger/18" Split Spoon

BOREHOLE DIAMETER: 8"

FIELD LOGGED BY: GD, AM

REMARKS: bgs = below ground surface
ppm = parts per million
NT = not taken
Noted depth to water approximate

DEPTH (feet bgs)	SAMPLE INTERVAL	USCS	DESCRIPTION	Photoionization Detector (PID) Reading (ppm)	Percent Recovery	Sample ID
0	0-5	SC	Black, sticky, wet, clayey sand with gravel. Hydrocarbon odor noted at approximately 2 feet bgs. "Daylighted" area prior to drilling; soil sample sent to Envirotech in Farmington, NM for 24 hour turn-around.	2.4	NA	MW-2 (1.8 - 2)
5 ▽	5.5 - 7.0	CL	Brown & black, firm, medium plasticity lean clay; wet. Slight organic odor.	4.5	100	MW-2 (5.5 - 7)
	9.0-10.5		Same as above from 9 to 10 feet bgs.	NT	100	
10			From 10 to 10.5 feet bgs, brown, poorly graded coarse-grained sand.			
	14 - 15.5	SP	Same as above.	NT	100	
15						
	19 -19.4		Same as above.	NT	40	
20			Total depth of boring = 19.4 feet bgs			

Tt PROJECT #:	TETRA TECH, INC.	BORING LOG	MW-2
114-690105			

PROJECT NAME: Sategna 2E

LOCATION: Bloomfield, NM

DRILLED BY: Matt Cain, WDC

DATE: HOLE STARTED: 3/4/09

DATE: HOLE COMPLETED: 3/4/09

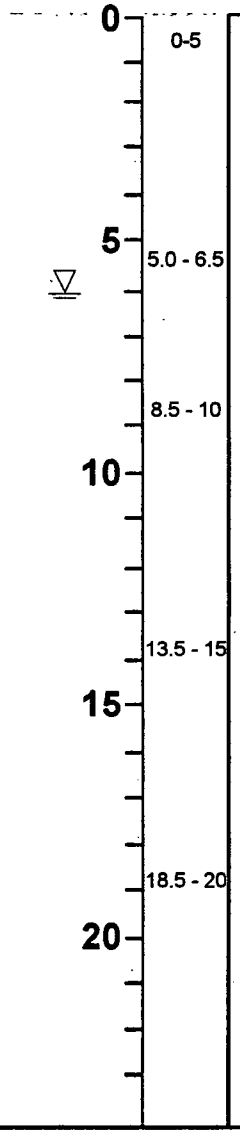
SOIL BORING/WELL No: MW-3

DRILL TYPE: Hollow Stem Auger/18" Split Spoon

BOREHOLE DIAMETER: 8"

FIELD LOGGED BY: GD, AM

REMARKS: bgs = below ground surface
ppm = parts per million
NT = not taken
Noted depth to water approximate



DEPTH (feet bgs)	SAMPLE INTERVAL	USCS	DESCRIPTION	Photolonization Detector (PID) Reading (ppm)	Percent Recovery	Sample ID
0	0-5	SC	Light brown, clayey sand with gravel. Soil observed during "daylighting" of boring.	NA	NA	
5	5.0 - 6.5	CH	Gray and brown, firm, highly plastic fat clay; damp.	1.2	100	MW-3 (5 - 6.5)
10	8.5 - 10		Brown, firm, highly plastic fat clay with gravel; wet.	NT	60	
15	13.5 - 15	SW-SC	Brown, well graded sand with clay. Clay lense at 13.8 feet to 14.2 feet bgs; wet.	NT	100	
20	18.5 - 20	CH	Same as above from 18.5 to 19 feet bgs. Gray and brown, firm, highly plastic, gravelly fat clay from 19 feet to 20 feet bgs. 2.25-inch cobbles encountered at 20 feet bgs; wet.	NT	67	
			Total depth of boring = 20 feet bgs			

Tt PROJECT #: 114-690105

TETRA TECH, INC.

BORING LOG

MW-3

TETRA TECH, INC.

Well Completion Diagram

Well ID MW-1

Job Name: Sategna 2E

Job No.: 114-690105 Date: 3/5/2009

Project Manager: Kelly Blanchard

Well I.D.: MW-1

Field Geologist: Ana Moreno/Gary Desselle

Driller: Matt Cain - WDC

Equipment: CME 85

Materials

200	Pounds	Silica Sand	Filter Pack
50	Pounds	Chips	Bentonite Seal
	Gallons		Grout
100	Pounds		Concrete
	Feet of native fill/ slough		
2.2	Feet of	2 inch pvc	Blank Casing
15	Feet of	2 inch 010 pvc	Slotted Screen
	Feet of		Outer Casing
	Feet of		Sump/ Silt Trap

Placement Method:

Notes: Casing and screen joint type - flush thread

Development

Method: Low Flow Pump

Date: 3/5/2009

Amount Purged: 75 gallons

Notes:

Stickup (feet): approx. 3 ft.

Steel Casing

Other:

2" locking cap

Casing:

0 ft. to 2.2 ft.

8 inch diameter Borehole:

0 ft. to 17.2 ft.

Outer Casing:

ft. to ft.

Concrete: approx. 4' well pads

0 ft. to +0.5 ft.

Grout:

ft. to ft.

Bentonite Seal:

0 ft. to 1.5 ft.

Filter Pack:

1.5 ft. to 17.2 ft.

Slotted Screen:

2.2 ft. to 17.2 ft.

Native fill/ slough:

ft. to ft.

8 inch diameter Borehole:

0 ft. to 17.2 ft.

Sump/ Silt Trap:

ft. to ft.

Total Depth Borehole (feet): 17.2

TETRA TECH, INC.

Well Completion Diagram

Well ID MW-2

Job Name: Sategna 2E

Job No.: 114-690105 Date: 3/5/2009

Project Manager: Kelly Blanchard

Well I.D.: MW-2

Field Geologist: Ana Moreno/Gary Desselle

Driller: Matt Cain - WDC

Equipment: CME 85

Materials

450	Pounds	Silica Sand	Filter Pack
50	Pounds	Chips	Bentonite Seal
	Gallons		Grout
100	Pounds		Concrete
	Feet of native fill/ slough		
3.3	Feet of	2 inch pvc	Blank Casing
15	Feet of	2 inch 010 pvc	Slotted Screen
	Feet of		Outer Casing
	Feet of		Sump/ Silt Trap

Placement Method:

Notes: Casing and screen joint type - flush thread

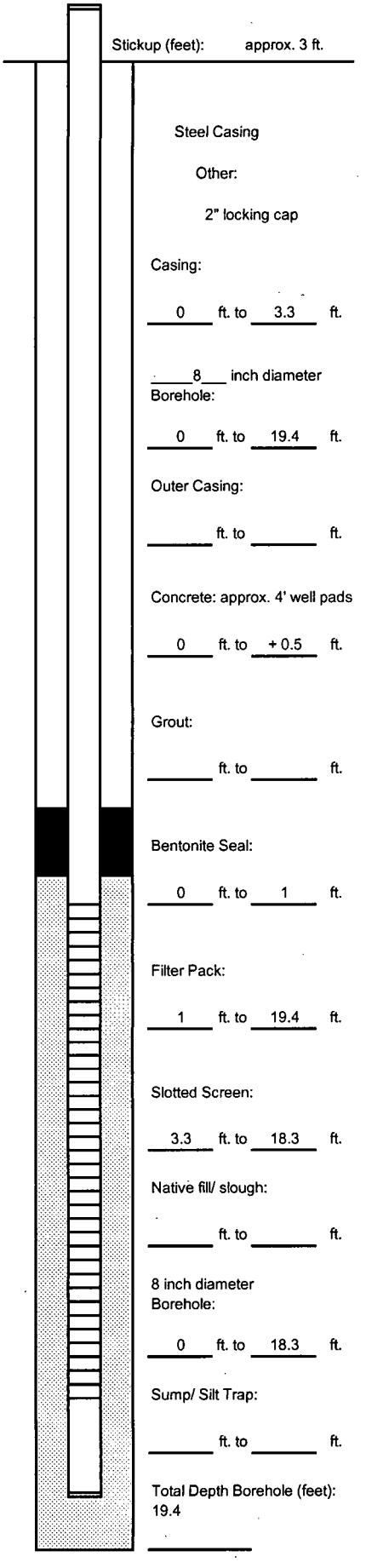
Development

Method: Low Flow Pump

Date: 3/5/2009

Amount Purged: 61 gallons

Notes:



Stickup (feet): approx. 3 ft.

Steel Casing

Other:

2" locking cap

Casing:

0 ft. to 3.3 ft.

8 inch diameter Borehole:

0 ft. to 19.4 ft.

Outer Casing:

ft. to ft.

Concrete: approx. 4' well pads

0 ft. to + 0.5 ft.

Grout:

ft. to ft.

Bentonite Seal:

0 ft. to 1 ft.

Filter Pack:

1 ft. to 19.4 ft.

Slotted Screen:

3.3 ft. to 18.3 ft.

Native fill/ slough:

ft. to ft.

8 inch diameter Borehole:

0 ft. to 18.3 ft.

Sump/ Silt Trap:

ft. to ft.

Total Depth Borehole (feet): 19.4

TETRA TECH, INC.

Well Completion Diagram

Well ID MW-3

Job Name: Sategna 2E

Job No.: 114-690105 Date: 3/5/2009

Project Manager: Kelly Blanchard

Well I.D.: MW-3

Field Geologist: Ana Moreno/Gary Desselle

Driller: Matt Cain - WDC

Equipment: CME 85

Materials

600	Pounds	Silica Sand	Filter Pack
50	Pounds	Chips	Bentonite Seal
	Gallons		Grout
100	Pounds		Concrete
	Feet of native fill/ slough		
3	Feet of	2 inch pvc	Blank Casing
15	Feet of	2 inch 010 pvc	Slotted Screen
	Feet of		Outer Casing
	Feet of		Sump/ Silt Trap

Placement Method:

Notes: Casing and screen joint type - flush thread

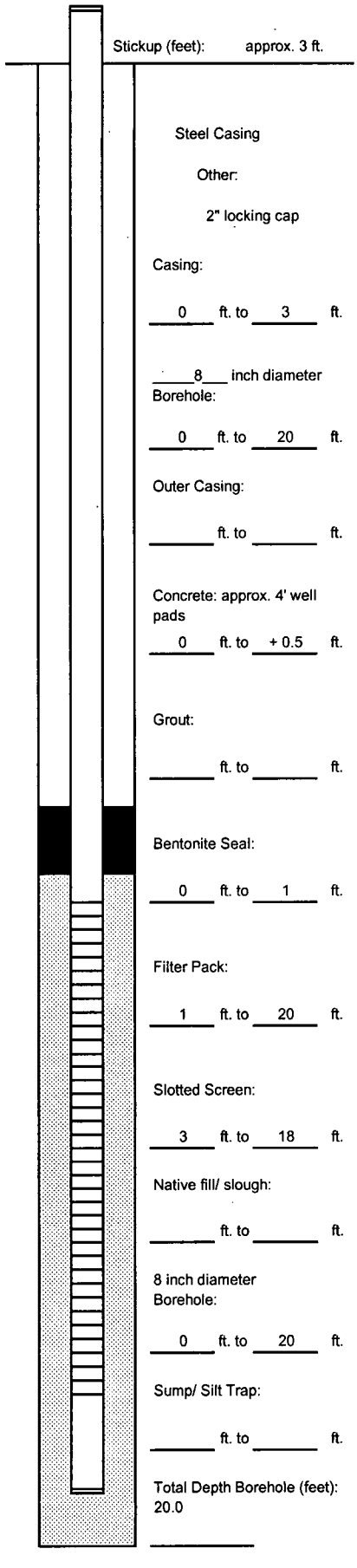
Development

Method: Low Flow Pump

Date: 3/5/2009

Amount Purged: < 5 gallons

Notes: Well did not produce appreciable amounts of water during development. Water was light brown with no hydrocarbon odor or sheen observed.



Stickup (feet): approx. 3 ft.

Steel Casing

Other:

2" locking cap

Casing:

0 ft. to 3 ft.

8 inch diameter Borehole:

0 ft. to 20 ft.

Outer Casing:

ft. to ft.

Concrete: approx. 4' well pads

0 ft. to + 0.5 ft.

Grout:

ft. to ft.

Bentonite Seal:

0 ft. to 1 ft.

Filter Pack:

1 ft. to 20 ft.

Slotted Screen:

3 ft. to 18 ft.

Native fill/ slough:

ft. to ft.

8 inch diameter Borehole:

0 ft. to 20 ft.

Sump/ Silt Trap:

ft. to ft.

Total Depth Borehole (feet): 20.0

APPENDIX B

Soil Boring Laboratory Analysis Report

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

Conoco Phillips

Certificate of Analysis Number:

09030293

Report To:		Project Name:	COP Sategna 2E
Tetra Tech, Inc.		Site:	Albuquerque, NM.
Kelly Blanchard		Site Address:	
6121 Indian School Road, N.E.			
Suite 200		PO Number:	
Albuquerque		State:	New Mexico
NM		State Cert. No.:	
87110-		Date Reported:	3/26/2009
ph: (505) 237-8440	fax:		

This Report Contains A Total Of 40 Pages

Excluding This Page, Chain Of Custody

And

Any Attachments

3/26/2009

Date

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

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

Case Narrative for:

Conoco Phillips

Certificate of Analysis Number:

09030293

Report To:		Project Name:	COP Sategna 2E
Tetra Tech, Inc.		Site:	Albuquerque, NM.
Kelly Blanchard		Site Address:	
6121 Indian School Road, N.E.			
Suite 200		PO Number:	
Albuquerque		State:	New Mexico
NM		State Cert. No.:	
87110-		Date Reported:	3/26/2009
ph: (505) 237-8440	fax:		

This report was revised on March 26, 2008 to add Al, B, K, Sr, Sn, Sb, Be, Tl, V, Z, Ni, Mn, Mo, Cu, Co to the Total Metals analysis by SW846 Method 6010/6020.

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.

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.

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

3/26/2009

Erica Cardenas
Project Manager

Date

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

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

Conoco Phillips

Certificate of Analysis Number:

09030293

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: COP Sategna 2E
Site: Albuquerque, NM.
Site Address:
PO Number:
State: New Mexico
State Cert. No.:
Date Reported: 3/26/2009

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
MW-2 (5.5-7)	09030293-01	Soil	3/5/2009 9:05:00 AM	3/6/2009 10:00:00 AM		☐

Erica Cardenas
Project Manager

3/26/2009
Date

Richard R. Reed
Laboratory Director

Ted Yen
Quality Assurance Officer

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

Client Sample ID: MW-2 (5.5-7) **Collected:** 03/05/2009 9:05 **SPL Sample ID:** 09030293-01

Site: Albuquerque, NM.

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
ALKALINITY (AS CACO3), TOTAL				**MCL**	**E310.1**	**Units: mg/Kg-dry**	
Alkalinity, Total (As CaCO3)	845		27.7	1	03/08/09 13:15	PAC	4936436
ION CHROMATOGRAPHY				**MCL**	**E300.0 MOD**	**Units: mg/kg-dry**	
Bromide	ND		6.93	1	03/10/09 20:50	BDG	4943096
Chloride	397		13.9	2	03/12/09 20:31	BDG	4945386
Fluoride	ND		6.93	1	03/10/09 20:50	BDG	4943096
Ortho-phosphate (As P)	ND		6.93	1	03/10/09 20:50	BDG	4943096
Sulfate	4870		346	50	03/11/09 19:35	BDG	4943695
Nitrogen,Nitrate (As N)	ND		5	1	03/10/09 20:50	BDG	4943119
Nitrogen,Nitrite (As N)	ND		5	1	03/10/09 20:50	BDG	4943119
MERCURY, TOTAL				**MCL**	**SW7471A**	**Units: mg/kg-dry**	
Mercury	ND		0.0416	1	03/10/09 15:42	F_S	4940541

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7471A	03/10/2009 12:00	F_S	1.00

METALS BY METHOD 6010B, TOTAL				**MCL**	**SW6010B**	**Units: mg/kg-dry**	
Aluminum	18900		13.9	1	03/12/09 17:19	EG	4945811
Boron	ND		13.9	1	03/12/09 17:19	EG	4945811
Calcium	24900		13.9	1	03/12/09 17:19	EG	4945811
Iron	18900		2.77	1	03/12/09 17:19	EG	4945811
Magnesium	4930		13.9	1	03/12/09 17:19	EG	4945811
Potassium	2130		277	1	03/12/09 17:19	EG	4945811
Sodium	5860		69.3	1	03/12/09 17:19	EG	4945811
Strontium	282		2.77	1	03/12/09 17:19	EG	4945811
Tin	ND		6.93	1	03/12/09 17:19	EG	4945811

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3050B	03/06/2009 15:00	AB1	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - 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

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

Client Sample ID: MW-2 (5.5-7) **Collected:** 03/05/2009 9:05 **SPL Sample ID:** 09030293-01

Site: Albuquerque, NM.

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020A, TOTAL				**MCL**	**SW6020A**	**Units: mg/kg-dry**	
Antimony	ND		0.693	1	03/11/09 18:27	S_C	4943366
Arsenic	4.5		0.693	1	03/11/09 18:27	S_C	4943366
Barium	152		0.693	1	03/11/09 18:27	S_C	4943366
Beryllium	1.45		0.554	1	03/23/09 18:50	S_C	4958073
Cadmium	ND		0.693	1	03/11/09 18:27	S_C	4943366
Chromium	12.7		0.693	1	03/11/09 18:27	S_C	4943366
Cobalt	11.1		0.693	1	03/11/09 18:27	S_C	4943366
Copper	26.4		0.693	1	03/11/09 18:27	S_C	4943366
Lead	14.8		0.693	1	03/11/09 18:27	S_C	4943366
Manganese	299		0.693	1	03/23/09 18:50	S_C	4958073
Molybdenum	2.37		0.693	1	03/11/09 18:27	S_C	4943366
Nickel	11.1		0.693	1	03/23/09 18:50	S_C	4958073
Selenium	ND		0.693	1	03/11/09 18:27	S_C	4943366
Silver	ND		0.693	1	03/11/09 18:27	S_C	4943366
Thallium	ND		0.693	1	03/11/09 18:27	S_C	4943366
Vanadium	25.7		0.693	1	03/11/09 18:27	S_C	4943366
Zinc	45		1.39	1	03/23/09 18:50	S_C	4958073

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3050B	03/06/2009 15:00	AB1	1.00

PERCENT MOISTURE				**MCL**	**D2216**	**Units: wt%**	
Percent Moisture	27.8		0	1	03/06/09 14:51	EB1	4935285

Qualifiers:

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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

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

Client Sample ID: MW-2 (5.5-7) **Collected:** 03/05/2009 9:05 **SPL Sample ID:** 09030293-01

Site: Albuquerque, NM.

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
SEMIVOLATILE ORGANICS BY METHOD 8270C				**MCL**	**SW8270C**	**Units: ug/kg-dry**	
1,2,4-Trichlorobenzene	ND		460	1	03/11/09 11:28	GY	4942860
1,2-Dichlorobenzene	ND		460	1	03/11/09 11:28	GY	4942860
1,2-Diphenylhydrazine	ND		460	1	03/11/09 11:28	GY	4942860
1,3-Dichlorobenzene	ND		460	1	03/11/09 11:28	GY	4942860
1,4-Dichlorobenzene	ND		460	1	03/11/09 11:28	GY	4942860
2,4,5-Trichlorophenol	ND		1100	1	03/11/09 11:28	GY	4942860
2,4,6-Trichlorophenol	ND		460	1	03/11/09 11:28	GY	4942860
2,4-Dichlorophenol	ND		460	1	03/11/09 11:28	GY	4942860
2,4-Dimethylphenol	ND		460	1	03/11/09 11:28	GY	4942860
2,4-Dinitrophenol	ND		1100	1	03/11/09 11:28	GY	4942860
2,4-Dinitrotoluene	ND		1100	1	03/11/09 11:28	GY	4942860
2,6-Dinitrotoluene	ND		460	1	03/11/09 11:28	GY	4942860
2-Chloronaphthalene	ND		460	1	03/11/09 11:28	GY	4942860
2-Chlorophenol	ND		460	1	03/11/09 11:28	GY	4942860
2-Methylnaphthalene	ND		460	1	03/11/09 11:28	GY	4942860
2-Nitroaniline	ND		1100	1	03/11/09 11:28	GY	4942860
2-Nitrophenol	ND		460	1	03/11/09 11:28	GY	4942860
3,3'-Dichlorobenzidine	ND		460	1	03/11/09 11:28	GY	4942860
3-Nitroaniline	ND		1100	1	03/11/09 11:28	GY	4942860
4,6-Dinitro-2-methylphenol	ND		1100	1	03/11/09 11:28	GY	4942860
4-Bromophenyl phenyl ether	ND		460	1	03/11/09 11:28	GY	4942860
4-Chloro-3-methylphenol	ND		460	1	03/11/09 11:28	GY	4942860
4-Chloroaniline	ND		460	1	03/11/09 11:28	GY	4942860
4-Chlorophenyl phenyl ether	ND		460	1	03/11/09 11:28	GY	4942860
4-Nitroaniline	ND		1100	1	03/11/09 11:28	GY	4942860
4-Nitrophenol	ND		1100	1	03/11/09 11:28	GY	4942860
Acenaphthene	ND		460	1	03/11/09 11:28	GY	4942860
Acenaphthylene	ND		460	1	03/11/09 11:28	GY	4942860
Aniline	ND		460	1	03/11/09 11:28	GY	4942860
Anthracene	ND		460	1	03/11/09 11:28	GY	4942860
Benz(a)anthracene	ND		460	1	03/11/09 11:28	GY	4942860
Benzo(a)pyrene	ND		460	1	03/11/09 11:28	GY	4942860
Benzo(b)fluoranthene	ND		460	1	03/11/09 11:28	GY	4942860
Benzo(g,h,i)perylene	ND		460	1	03/11/09 11:28	GY	4942860
Benzo(k)fluoranthene	ND		460	1	03/11/09 11:28	GY	4942860
Benzoic acid	ND		2200	1	03/11/09 11:28	GY	4942860
Benzyl alcohol	ND		460	1	03/11/09 11:28	GY	4942860
Bis(2-chloroethoxy)methane	ND		460	1	03/11/09 11:28	GY	4942860
Bis(2-chloroethyl)ether	ND		460	1	03/11/09 11:28	GY	4942860

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J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
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MI - Matrix Interference

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

Client Sample ID: MW-2 (5.5-7) **Collected:** 03/05/2009 9:05 **SPL Sample ID:** 09030293-01

Site: Albuquerque, NM.

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Bis(2-chloroisopropyl)ether	ND		460	1	03/11/09 11:28	GY	4942860
Bis(2-ethylhexyl)phthalate	ND		460	1	03/11/09 11:28	GY	4942860
Butyl benzyl phthalate	ND		460	1	03/11/09 11:28	GY	4942860
Carbazole	ND		460	1	03/11/09 11:28	GY	4942860
Chrysene	ND		460	1	03/11/09 11:28	GY	4942860
Dibenz(a,h)anthracene	ND		460	1	03/11/09 11:28	GY	4942860
Dibenzofuran	ND		460	1	03/11/09 11:28	GY	4942860
Diethyl phthalate	ND		460	1	03/11/09 11:28	GY	4942860
Dimethyl phthalate	ND		460	1	03/11/09 11:28	GY	4942860
Di-n-butyl phthalate	ND		460	1	03/11/09 11:28	GY	4942860
Di-n-octyl phthalate	ND		460	1	03/11/09 11:28	GY	4942860
Fluoranthene	ND		460	1	03/11/09 11:28	GY	4942860
Fluorene	ND		460	1	03/11/09 11:28	GY	4942860
Hexachlorobenzene	ND		460	1	03/11/09 11:28	GY	4942860
Hexachlorobutadiene	ND		460	1	03/11/09 11:28	GY	4942860
Hexachlorocyclopentadiene	ND		460	1	03/11/09 11:28	GY	4942860
Hexachloroethane	ND		460	1	03/11/09 11:28	GY	4942860
Indeno(1,2,3-cd)pyrene	ND		460	1	03/11/09 11:28	GY	4942860
Isophorone	ND		460	1	03/11/09 11:28	GY	4942860
Naphthalene	ND		460	1	03/11/09 11:28	GY	4942860
Nitrobenzene	ND		460	1	03/11/09 11:28	GY	4942860
N-Nitrosodi-n-propylamine	ND		460	1	03/11/09 11:28	GY	4942860
N-Nitrosodiphenylamine	ND		460	1	03/11/09 11:28	GY	4942860
Pentachlorophenol	ND		1100	1	03/11/09 11:28	GY	4942860
Phenanthrene	ND		460	1	03/11/09 11:28	GY	4942860
Phenol	ND		460	1	03/11/09 11:28	GY	4942860
Pyrene	ND		460	1	03/11/09 11:28	GY	4942860
Pyridine	ND		460	1	03/11/09 11:28	GY	4942860
2-Methylphenol	ND		460	1	03/11/09 11:28	GY	4942860
3 & 4-Methylphenol	ND		460	1	03/11/09 11:28	GY	4942860
Surr: 2,4,6-Tribromophenol	87.2		% 19-135	1	03/11/09 11:28	GY	4942860
Surr: 2-Fluorobiphenyl	75.9		% 15-140	1	03/11/09 11:28	GY	4942860
Surr: 2-Fluorophenol	74.4		% 15-122	1	03/11/09 11:28	GY	4942860
Surr: Nitrobenzene-d5	78.2		% 10-134	1	03/11/09 11:28	GY	4942860
Surr: Phenol-d5	77.6		% 10-123	1	03/11/09 11:28	GY	4942860
Surr: Terphenyl-d14	75.9		% 18-166	1	03/11/09 11:28	GY	4942860

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	03/09/2009 13:44	QMT	1.00

Qualifiers:

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

Client Sample ID: MW-2 (5.5-7) **Collected:** 03/05/2009 9:05 **SPL Sample ID:** 09030293-01

Site: Albuquerque, NM.

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
TOTAL PETROLEUM HYDROCARBONS				**MCL**	**E418.1**	**Units: mg/kg-dry**	
Petroleum Hydrocarbons,TR	ND		14	1	03/11/09 17:01	LLL	4943507

Prep Method	Prep Date	Prep Initials	Prep Factor
	03/11/2009 13:23		1.00

Qualifiers:

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

Client Sample ID: MW-2 (5.5-7) **Collected:** 03/05/2009 9:05 **SPL Sample ID:** 09030293-01

Site: Albuquerque, NM.

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B				**MCL**	**SW8260B**	**Units: ug/kg-dry**	
1,1,1,2-Tetrachloroethane	ND		6.9	1	03/11/09 20:10	TLE	4943612
1,1,1-Trichloroethane	ND		6.9	1	03/11/09 20:10	TLE	4943612
1,1,2,2-Tetrachloroethane	ND		6.9	1	03/11/09 20:10	TLE	4943612
1,1,2-Trichloroethane	ND		6.9	1	03/11/09 20:10	TLE	4943612
1,1-Dichloroethane	ND		6.9	1	03/11/09 20:10	TLE	4943612
1,1-Dichloroethene	ND		6.9	1	03/11/09 20:10	TLE	4943612
1,1-Dichloropropene	ND		6.9	1	03/11/09 20:10	TLE	4943612
1,2,3-Trichlorobenzene	ND		6.9	1	03/11/09 20:10	TLE	4943612
1,2,3-Trichloropropane	ND		6.9	1	03/11/09 20:10	TLE	4943612
1,2,4-Trichlorobenzene	ND		6.9	1	03/11/09 20:10	TLE	4943612
1,2,4-Trimethylbenzene	ND		6.9	1	03/11/09 20:10	TLE	4943612
1,2-Dibromo-3-chloropropane	ND		6.9	1	03/11/09 20:10	TLE	4943612
1,2-Dibromoethane	ND		6.9	1	03/11/09 20:10	TLE	4943612
1,2-Dichlorobenzene	ND		6.9	1	03/11/09 20:10	TLE	4943612
1,2-Dichloroethane	ND		6.9	1	03/11/09 20:10	TLE	4943612
1,2-Dichloropropane	ND		6.9	1	03/11/09 20:10	TLE	4943612
1,3,5-Trimethylbenzene	ND		6.9	1	03/11/09 20:10	TLE	4943612
1,3-Dichlorobenzene	ND		6.9	1	03/11/09 20:10	TLE	4943612
1,3-Dichloropropane	ND		6.9	1	03/11/09 20:10	TLE	4943612
1,4-Dichlorobenzene	ND		6.9	1	03/11/09 20:10	TLE	4943612
2,2-Dichloropropane	ND		6.9	1	03/11/09 20:10	TLE	4943612
2-Butanone	ND		28	1	03/11/09 20:10	TLE	4943612
2-Chloroethyl vinyl ether	ND		14	1	03/11/09 20:10	TLE	4943612
2-Chlorotoluene	ND		6.9	1	03/11/09 20:10	TLE	4943612
2-Hexanone	ND		14	1	03/11/09 20:10	TLE	4943612
4-Chlorotoluene	ND		6.9	1	03/11/09 20:10	TLE	4943612
4-Isopropyltoluene	ND		6.9	1	03/11/09 20:10	TLE	4943612
4-Methyl-2-pentanone	ND		14	1	03/11/09 20:10	TLE	4943612
Acetone	ND		140	1	03/11/09 20:10	TLE	4943612
Acrylonitrile	ND		69	1	03/11/09 20:10	TLE	4943612
Benzene	ND		6.9	1	03/11/09 20:10	TLE	4943612
Bromobenzene	ND		6.9	1	03/11/09 20:10	TLE	4943612
Bromochloromethane	ND		6.9	1	03/11/09 20:10	TLE	4943612
Bromodichloromethane	ND		6.9	1	03/11/09 20:10	TLE	4943612
Bromoform	ND		6.9	1	03/11/09 20:10	TLE	4943612
Bromomethane	ND		14	1	03/11/09 20:10	TLE	4943612
Carbon disulfide	ND		6.9	1	03/11/09 20:10	TLE	4943612
Carbon tetrachloride	ND		6.9	1	03/11/09 20:10	TLE	4943612
Chlorobenzene	ND		6.9	1	03/11/09 20:10	TLE	4943612

Qualifiers:

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

Client Sample ID: MW-2 (5.5-7) **Collected:** 03/05/2009 9:05 **SPL Sample ID:** 09030293-01

Site: Albuquerque, NM.

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Chloroethane	ND		14	1	03/11/09 20:10	TLE	4943612
Chloroform	ND		6.9	1	03/11/09 20:10	TLE	4943612
Chloromethane	ND		14	1	03/11/09 20:10	TLE	4943612
Dibromochloromethane	ND		6.9	1	03/11/09 20:10	TLE	4943612
Dibromomethane	ND		6.9	1	03/11/09 20:10	TLE	4943612
Dichlorodifluoromethane	ND		14	1	03/11/09 20:10	TLE	4943612
Ethylbenzene	ND		6.9	1	03/11/09 20:10	TLE	4943612
Hexachlorobutadiene	ND		6.9	1	03/11/09 20:10	TLE	4943612
Isopropylbenzene	ND		6.9	1	03/11/09 20:10	TLE	4943612
Methyl tert-butyl ether	ND		6.9	1	03/11/09 20:10	TLE	4943612
Methylene chloride	ND		6.9	1	03/11/09 20:10	TLE	4943612
Naphthalene	ND		6.9	1	03/11/09 20:10	TLE	4943612
n-Butylbenzene	ND		6.9	1	03/11/09 20:10	TLE	4943612
n-Propylbenzene	ND		6.9	1	03/11/09 20:10	TLE	4943612
sec-Butylbenzene	ND		6.9	1	03/11/09 20:10	TLE	4943612
Styrene	ND		6.9	1	03/11/09 20:10	TLE	4943612
tert-Butylbenzene	ND		6.9	1	03/11/09 20:10	TLE	4943612
Tetrachloroethene	ND		6.9	1	03/11/09 20:10	TLE	4943612
Toluene	ND		6.9	1	03/11/09 20:10	TLE	4943612
Trichloroethene	ND		6.9	1	03/11/09 20:10	TLE	4943612
Trichlorofluoromethane	ND		6.9	1	03/11/09 20:10	TLE	4943612
Vinyl acetate	ND		14	1	03/11/09 20:10	TLE	4943612
Vinyl chloride	ND		14	1	03/11/09 20:10	TLE	4943612
cis-1,2-Dichloroethene	ND		6.9	1	03/11/09 20:10	TLE	4943612
cis-1,3-Dichloropropene	ND		6.9	1	03/11/09 20:10	TLE	4943612
m,p-Xylene	ND		6.9	1	03/11/09 20:10	TLE	4943612
o-Xylene	ND		6.9	1	03/11/09 20:10	TLE	4943612
trans-1,2-Dichloroethene	ND		6.9	1	03/11/09 20:10	TLE	4943612
trans-1,3-Dichloropropene	ND		6.9	1	03/11/09 20:10	TLE	4943612
Xylenes,Total	ND		6.9	1	03/11/09 20:10	TLE	4943612
1,2-Dichloroethene (total)	ND		6.9	1	03/11/09 20:10	TLE	4943612
Surr: 1,2-Dichloroethane-d4	96.0		% 64-130	1	03/11/09 20:10	TLE	4943612
Surr: 4-Bromofluorobenzene	102		% 62-130	1	03/11/09 20:10	TLE	4943612
Surr: Toluene-d8	90.0		% 70-140	1	03/11/09 20:10	TLE	4943612

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5035A	03/06/2009 17:18	AG	1.00

Qualifiers:

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Quality Control Documentation

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

Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Total Petroleum Hydrocarbons
Method: E418.1
WorkOrder: 09030293
Lab Batch ID: R267517

Method Blank

RunID: EX_090311D-4943499 Units: mg/kg
Analysis Date: 03/11/2009 17:01 Analyst: LLL
Preparation Date: 03/11/2009 13:23 Prep By: Method:

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030293-01B	MW-2 (5.5-7)

Analyte	Result	Rep Limit
Petroleum Hydrocarbons,TR	ND	10

Laboratory Control Sample (LCS)

RunID: EX_090311D-4943500 Units: mg/kg
Analysis Date: 03/11/2009 17:01 Analyst: LLL
Preparation Date: 03/11/2009 13:23 Prep By: Method:

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Petroleum Hydrocarbons,TR	200	195	97.5	80	120

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

Sample Spiked: 09030249-01
RunID: EX_090311D-4943508 Units: mg/kg-dry
Analysis Date: 03/11/2009 17:01 Analyst: LLL
Preparation Date: 03/11/2009 13:23 Prep By: Method:

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Petroleum Hydrocarbons,TR	ND	279	258	90.0	279	272	95.0	5.26	20	75	125

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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.

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

Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Metals by Method 6010B, Total
Method: SW6010B
WorkOrder: 09030293
Lab Batch ID: 88562

Method Blank

RunID: ICP2_090312A-4945803 Units: mg/kg
Analysis Date: 03/12/2009 16:38 Analyst: EG
Preparation Date: 03/06/2009 15:00 Prep By: AB1 Method: SW3050B

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030293-01B	MW-2 (5.5-7)

Analyte	Result	Rep Limit
Aluminum	ND	10
Boron	ND	10
Calcium	ND	10
Iron	ND	2
Magnesium	ND	10
Potassium	ND	200
Sodium	ND	50
Strontium	ND	2
Tin	ND	5

Laboratory Control Sample (LCS)

RunID: ICP2_090312A-4945804 Units: mg/kg
Analysis Date: 03/12/2009 16:42 Analyst: EG
Preparation Date: 03/06/2009 15:00 Prep By: AB1 Method: SW3050B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Aluminum	7590	6122	80.66	58	142
Boron	96.60	81.64	84.51	56	144
Calcium	4320	4022	93.10	79	121
Iron	14400	12790	88.82	52	149
Magnesium	2220	2035	91.67	77	123
Potassium	2380	2154	90.50	71	129
Sodium	456.0	412.5	90.46	56	144
Strontium	113.0	107.4	95.04	80	120
Tin	175.0	162.9	93.09	70	130

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

Sample Spiked: 09030300-01
RunID: ICP2_090312A-4945809 Units: mg/kg
Analysis Date: 03/12/2009 17:02 Analyst: EG

Qualifiers:
- ND/U - Not Detected at the Reporting Limit
- B/V - Analyte detected in the associated Method Blank
- J - Estimated value between MDL and PQL
- E - Estimated Value exceeds calibration curve
- MI - Matrix Interference
- D - Recovery Unreportable due to Dilution
- * - Recovery Outside Advisable QC Limits
- 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.

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HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Metals by Method 6010B, Total **WorkOrder:** 09030293
Method: SW6010B **Lab Batch ID:** 88562

Analyte	Sample Result	PDS Spike Added	PDS Result	PDS % Recovery	PDSD Spike Added	PDSD Result	PDSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Boron	ND	2000	2662	133.1 *	2000	2676	133.8 *	0.5245	20	75	125
Sodium	ND	2000	2960	121.2	2000	2948	120.6	0.4062	20	75	125

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

Sample Spiked: 09030300-01
RunID: ICP2_090312A-4945806 Units: mg/kg
Analysis Date: 03/12/2009 16:51 Analyst: EG
Preparation Date: 03/06/2009 15:00 Prep By: AB1 Method: SW3050B

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	3507	100	3087	N/C	100	3112	N/C	N/C	20	75	125
Boron	ND	100	16.25	16.25 *	100	16.39	16.39 *	0.8578	20	75	125
Calcium	28800	100	22150	N/C	100	22280	N/C	N/C	20	75	125
Iron	342300	100	334200	N/C	100	334100	N/C	N/C	20	75	125
Magnesium	5028	100	661.8	N/C	100	678.3	N/C	N/C	20	75	125
Potassium	ND	1000	1167	116.7	1000	1164	116.4	0.2574	20	75	125
Sodium	ND	100	570.0	N/C	100	565.2	N/C	N/C	20	75	125
Strontium	ND	100	130.4	97.67	100	130.7	97.97	0.2298	20	75	125
Tin	ND	100	166.0	97.92	100	168.3	100.2	1.376	20	75	125

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Metals by Method 6020A, Total **WorkOrder:** 09030293
Method: SW6020A **Lab Batch ID:** 88562B-I

Method Blank

RunID: ICPMS_090323A-4958065 Units: mg/kg
Analysis Date: 03/23/2009 18:11 Analyst: S_C
Preparation Date: 03/06/2009 15:00 Prep By: AB1 Method: SW3050B

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030293-01B	MW-2 (5.5-7)

Analyte	Result	Rep Limit
Beryllium	ND	0.4
Manganese	ND	0.5
Nickel	ND	0.5
Zinc	ND	1

Laboratory Control Sample (LCS)

RunID: ICPMS_090323A-4958066 Units: mg/kg
Analysis Date: 03/23/2009 18:16 Analyst: S_C
Preparation Date: 03/06/2009 15:00 Prep By: AB1 Method: SW3050B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Beryllium	143.0	153.1	107.1	82	118
Manganese	304.0	304.7	100.2	80	120
Nickel	49.60	55.59	112.1	81	119
Zinc	116.0	125.4	108.1	78	122

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

Sample Spiked: 09030300-01
RunID: ICPMS_090323A-4958071 Units: mg/kg
Analysis Date: 03/23/2009 18:40 Analyst: S_C

Analyte	Sample Result	PDS Spike Added	PDS Result	PDS % Recovery	PDSD Spike Added	PDSD Result	PDSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Antimony	7.76	100	104.2	96.44	100	104.1	96.34	0.09602	20	75	125
Barium	26.5	100	129.4	102.9	100	130.7	104.2	0.9996	20	75	125
Cobalt	25.5	100	123.5	98.01	100	123.8	98.31	0.2426	20	75	125
Lead	12.3	100	121.5	109.2	100	117.7	105.4	3.177	20	75	125
Selenium	ND	100	98.25	97.20	100	98.18	97.13	0.07127	20	75	125

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

Qualifiers:
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B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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

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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Metals by Method 6020A, Total
Method: SW6020A
WorkOrder: 09030293
Lab Batch ID: 88562B-I

Sample Spiked: 09030300-01
RunID: ICPMS_090323A-4958068 Units: mg/kg
Analysis Date: 03/23/2009 18:25 Analyst: S_C
Preparation Date: 03/06/2009 15:00 Prep By: AB1 Method: SW3050B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Antimony	7.762	10	14.36	65.98 *	10	14.27	65.08 *	0.6287	20	75	125
Arsenic	483.2	10	415.0	N/C	10	405.1	N/C	N/C	20	75	125
Barium	26.54	10	26.70	1.600 *	10	27.14	6.000 *	1.634	20	75	125
Beryllium	ND	10	9.223	92.23	10	9.505	95.05	3.012	20	75	125
Cadmium	ND	10	12.39	96.03	10	12.34	95.53	0.4044	20	75	125
Chromium	1016	10	572.4	N/C	10	578.1	N/C	N/C	20	75	125
Cobalt	25.49	10	29.77	42.80 *	10	30.27	47.80 *	1.666	20	75	125
Copper	637.0	10	596.2	N/C	10	588.5	N/C	N/C	20	75	125
Lead	12.26	10	18.38	61.20 *	10	18.31	60.50 *	0.3816	20	75	125
Manganese	3399	10	1829	N/C	10	1799	N/C	N/C	20	75	125
Molybdenum	136.5	10	132.9	N/C	10	135.0	N/C	N/C	20	75	125
Nickel	568.4	10	485.5	N/C	10	501.6	N/C	N/C	20	75	125
Selenium	ND	10	5.118	40.68 *	10	3.875	28.25 *	27.64 *	20	75	125
Silver	ND	10	10.85	108.5	10	11.24	112.4	3.531	20	75	125
Thallium	ND	10	9.267	77.75	10	9.306	78.14	0.4200	20	75	125
Vanadium	ND	10	9.836	98.36	10	12.71	127.1 *	25.49 *	20	75	125
Zinc	844.1	10	396.4	N/C	10	392.0	N/C	N/C	20	75	125

Qualifiers:
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J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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

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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Metals by Method 6020A, Total
Method: SW6020A
WorkOrder: 09030293
Lab Batch ID: 88562B-I

Method Blank

RunID: ICPMS_090311A-4943358 Units: mg/kg
Analysis Date: 03/11/2009 17:48 Analyst: S_C
Preparation Date: 03/06/2009 15:00 Prep By: AB1 Method: SW3050B

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030293-01B	MW-2 (5.5-7)

Analyte	Result	Rep Limit
Antimony	ND	0.5
Arsenic	ND	0.5
Barium	ND	0.5
Cadmium	ND	0.5
Chromium	ND	0.5
Cobalt	ND	0.5
Copper	ND	0.5
Lead	ND	0.5
Molybdenum	ND	0.5
Selenium	ND	0.5
Silver	ND	0.5
Thallium	ND	0.5
Vanadium	ND	0.5

Laboratory Control Sample (LCS)

RunID: ICPMS_090311A-4943359 Units: mg/kg
Analysis Date: 03/11/2009 17:53 Analyst: S_C
Preparation Date: 03/06/2009 15:00 Prep By: AB1 Method: SW3050B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Antimony	77.50	59.76	77.11	30	223
Arsenic	80.90	74.01	91.48	79	121
Barium	156.0	143.5	91.99	82	119
Cadmium	233.0	225.3	96.70	81	119
Chromium	60.80	58.91	96.89	78	121
Cobalt	68.60	71.18	103.8	82	118
Copper	131.0	124.8	95.27	79	118
Lead	76.80	68.16	88.75	81	120
Molybdenum	58.40	51.00	87.33	79	121
Selenium	82.90	83.39	100.6	76	124
Silver	80.00	73.18	91.48	61	139
Thallium	158.0	140.3	88.80	76	125
Vanadium	72.40	65.92	91.05	71	128

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

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
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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

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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Metals by Method 6020A, Total
Method: SW6020A
WorkOrder: 09030293
Lab Batch ID: 88562B-I

Sample Spiked: 09030300-01
RunID: ICPMS_090311A-4943364 Units: mg/kg
Analysis Date: 03/11/2009 18:17 Analyst: S_C

Analyte	Sample Result	PDS Spike Added	PDS Result	PDS % Recovery	PDSD Spike Added	PDSD Result	PDSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Antimony	6	10	14.23	82.27	10	13.92	79.17	2.202	20	75	125
Barium	18.9	10	27.83	88.90	10	27.3	83.60	1.923	20	75	125
Cobalt	22.3	10	32.42	100.8	10	32.43	100.9	0.03084	20	75	125
Lead	11.4	10	21.32	99.50	10	21.4	100.3	0.3745	20	75	125
Selenium	ND	10	3.7	37.00 *	10	3.808	38.08 *	2.877	20	75	125

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

Sample Spiked: 09030300-01
RunID: ICPMS_090311A-4943361 Units: mg/kg
Analysis Date: 03/11/2009 18:03 Analyst: S_C
Preparation Date: 03/06/2009 15:00 Prep By: AB1 Method: SW3050B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Antimony	6.003	10	12.84	68.37 *	10	13.20	71.97 *	2.765	20	75	125
Arsenic	244.7	10	224.6	N/C	10	238.3	N/C	N/C	20	75	125
Barium	18.94	10	26.00	70.60 *	10	29.47	105.3	12.51	20	75	125
Beryllium	ND	10	8.720	87.20	10	8.978	89.78	2.916	20	75	125
Cadmium	2.264	10	10.08	78.16	10	9.973	77.09	1.067	20	75	125
Chromium	606.9	10	605.6	N/C	10	651.3	N/C	N/C	20	75	125
Cobalt	22.34	10	29.49	71.50 *	10	31.49	91.50	6.560	20	75	125
Copper	390.7	10	357.2	N/C	10	370.4	N/C	N/C	20	75	125
Lead	11.37	10	17.63	62.60 *	10	18.45	70.80 *	4.545	20	75	125
Manganese	2092	10	1867	N/C	10	2018	N/C	N/C	20	75	125
Molybdenum	135.5	10	125.9	N/C	10	141.1	N/C	N/C	20	75	125
Nickel	517.9	10	468.9	N/C	10	505.9	N/C	N/C	20	75	125
Selenium	ND	10	1.816	18.16 *	10	1.372	13.72 *	27.85 *	20	75	125
Silver	ND	10	7.545	72.16 *	10	7.379	70.50 *	2.225	20	75	125
Thallium	ND	10	9.478	92.85	10	9.654	94.62	1.840	20	75	125
Vanadium	1.155	10	12.38	112.2	10	10.47	93.15	16.72	20	75	125
Zinc	201.2	10	195.2	N/C	10	211.5	N/C	N/C	20	75	125

Qualifiers:
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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Mercury, Total
Method: SW7471A
WorkOrder: 09030293
Lab Batch ID: 88616

Method Blank

RunID: HGLC_090310A-4940539 Units: mg/kg
Analysis Date: 03/10/2009 15:37 Analyst: F_S
Preparation Date: 03/10/2009 12:00 Prep By: F_S Method: SW7471A

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030293-01B	MW-2 (5.5-7)

Analyte	Result	Rep Limit
Mercury	ND	0.03

Laboratory Control Sample (LCS)

RunID: HGLC_090310A-4940540 Units: mg/kg
Analysis Date: 03/10/2009 15:39 Analyst: F_S
Preparation Date: 03/10/2009 12:00 Prep By: F_S Method: SW7471A

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Mercury	3.600	3.799	105.5	68	132

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

Sample Spiked: 09030293-01
RunID: HGLC_090310A-4940542 Units: mg/kg-dry
Analysis Date: 03/10/2009 15:44 Analyst: F_S
Preparation Date: 03/10/2009 12:00 Prep By: F_S 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	0.4155	0.4541	109.3	0.4155	0.4436	106.8	2.357	20	75	125

Qualifiers:

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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Semivolatile Organics by Method 8270C
Method: SW8270C
WorkOrder: 09030293
Lab Batch ID: 88587

Method Blank

RunID: H_090310A-4940120
Units: ug/kg
Analysis Date: 03/10/2009 9:33
Analyst: GY
Preparation Date: 03/09/2009 13:44
Prep By: QMT Method: SW3550B

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030293-01B	MW-2 (5.5-7)

Analyte	Result	Rep Limit
1,2,4-Trichlorobenzene	ND	330
1,2-Dichlorobenzene	ND	330
1,2-Diphenylhydrazine	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
2,4,5-Trichlorophenol	ND	800
2,4,6-Trichlorophenol	ND	330
2,4-Dichlorophenol	ND	330
2,4-Dimethylphenol	ND	330
2,4-Dinitrophenol	ND	800
2,4-Dinitrotoluene	ND	800
2,6-Dinitrotoluene	ND	330
2-Chloronaphthalene	ND	330
2-Chlorophenol	ND	330
2-Methylnaphthalene	ND	330
2-Nitroaniline	ND	800
2-Nitrophenol	ND	330
3,3'-Dichlorobenzidine	ND	330
3-Nitroaniline	ND	800
4,6-Dinitro-2-methylphenol	ND	800
4-Bromophenyl phenyl ether	ND	330
4-Chloro-3-methylphenol	ND	330
4-Chloroaniline	ND	330
4-Chlorophenyl phenyl ether	ND	330
4-Nitroaniline	ND	800
4-Nitrophenol	ND	800
Acenaphthene	ND	330
Acenaphthylene	ND	330
Aniline	ND	330
Anthracene	ND	330
Benz(a)anthracene	ND	330
Benzo(a)pyrene	ND	330
Benzo(b)fluoranthene	ND	330
Benzo(g,h,i)perylene	ND	330
Benzo(k)fluoranthene	ND	330
Benzoic acid	ND	1600
Benzyl alcohol	ND	330
Bis(2-chloroethoxy)methane	ND	330
Bis(2-chloroethyl)ether	ND	330
Bis(2-chloroisopropyl)ether	ND	330
Bis(2-ethylhexyl)phthalate	ND	330
Butyl benzyl phthalate	ND	330
Carbazole	ND	330
Chrysene	ND	330
Dibenz(a,h)anthracene	ND	330
Dibenzofuran	ND	330

Qualifiers:

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B/V - Analyte detected in the associated Method Blank
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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Semivolatile Organics by Method 8270C **WorkOrder:** 09030293
Method: SW8270C **Lab Batch ID:** 88587

Method Blank

RunID: H_090310A-4940120 Units: ug/kg
Analysis Date: 03/10/2009 9:33 Analyst: GY
Preparation Date: 03/09/2009 13:44 Prep By: QMT Method: SW3550B

Analyte	Result	Rep Limit
Diethyl phthalate	ND	330
Dimethyl phthalate	ND	330
Di-n-butyl phthalate	ND	330
Di-n-octyl phthalate	ND	330
Fluoranthene	ND	330
Fluorene	ND	330
Hexachlorobenzene	ND	330
Hexachlorobutadiene	ND	330
Hexachlorocyclopentadiene	ND	330
Hexachloroethane	ND	330
Indeno(1,2,3-cd)pyrene	ND	330
Isophorone	ND	330
Naphthalene	ND	330
Nitrobenzene	ND	330
N-Nitrosodi-n-propylamine	ND	330
N-Nitrosodiphenylamine	ND	330
Pentachlorophenol	ND	800
Phenanthrene	ND	330
Phenol	ND	330
Pyrene	ND	330
Pyridine	ND	330
2-Methylphenol	ND	330
3 & 4-Methylphenol	ND	330
Surr: 2,4,6-Tribromophenol	94.8	19-135
Surr: 2-Fluorobiphenyl	86.5	15-140
Surr: 2-Fluorophenol	80.8	15-122
Surr: Nitrobenzene-d5	82.9	10-134
Surr: Phenol-d5	83.2	10-123
Surr: Terphenyl-d14	83.5	18-166

Laboratory Control Sample (LCS)

RunID: H_090310A-4940121 Units: ug/kg
Analysis Date: 03/10/2009 10:05 Analyst: GY
Preparation Date: 03/09/2009 13:44 Prep By: QMT Method: SW3550B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,2,4-Trichlorobenzene	850	682	80.2	34	116
1,2-Dichlorobenzene	850	667	78.5	32	129
1,2-Diphenylhydrazine	850	692	81.4	10	256

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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TNTC - Too numerous to count

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Semivolatile Organics by Method 8270C **WorkOrder:** 09030293
Method: SW8270C **Lab Batch ID:** 88587

Laboratory Control Sample (LCS)

RunID: H_090310A-4940121 Units: ug/kg
Analysis Date: 03/10/2009 10:05 Analyst: GY
Preparation Date: 03/09/2009 13:44 Prep By: QMT Method: SW3550B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,3-Dichlorobenzene	850	670	78.8	10	172
1,4-Dichlorobenzene	850	644	75.8	20	124
2,4,5-Trichlorophenol	850	708	83.3	40	150
2,4,6-Trichlorophenol	850	717	84.4	37	144
2,4-Dichlorophenol	850	661	77.8	39	135
2,4-Dimethylphenol	850	689	81.1	32	119
2,4-Dinitrophenol	850	640	75.3	10	191
2,4-Dinitrotoluene	850	761	89.5	30	150
2,6-Dinitrotoluene	850	695	81.8	30	150
2-Chloronaphthalene	850	692	81.4	20	175
2-Chlorophenol	850	641	75.4	23	134
2-Methylnaphthalene	850	676	79.5	30	135
2-Nitroaniline	850	678	79.8	20	175
2-Nitrophenol	850	649	76.4	29	182
3,3'-Dichlorobenzidine	850	335	39.4	10	261
3-Nitroaniline	850	469	55.2	20	175
4,6-Dinitro-2-methylphenol	850	647	76.1	10	181
4-Bromophenyl phenyl ether	850	694	81.6	20	175
4-Chloro-3-methylphenol	850	720	84.7	22	147
4-Chloroaniline	850	628	73.9	20	175
4-Chlorophenyl phenyl ether	850	730	85.9	25	158
4-Nitroaniline	850	617	72.6	20	175
4-Nitrophenol	850	828	97.4	10	132
Acenaphthene	850	692	81.4	30	160
Acenaphthylene	850	698	82.1	10	150
Aniline	1700	809	47.6	10	160
Anthracene	850	701	82.5	27	133
Benz(a)anthracene	850	708	83.3	33	143
Benzo(a)pyrene	850	564	66.4	17	163
Benzo(b)fluoranthene	850	687	80.8	24	159
Benzo(g,h,i)perylene	850	730	85.9	10	219
Benzo(k)fluoranthene	850	670	78.8	11	162
Benzoic acid	850	893	105	10	450
Benzyl alcohol	850	663	78.0	30	160

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
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HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Semivolatile Organics by Method 8270C **WorkOrder:** 09030293
Method: SW8270C **Lab Batch ID:** 88587

Laboratory Control Sample (LCS)

RunID: H_090310A-4940121 Units: ug/kg
Analysis Date: 03/10/2009 10:05 Analyst: GY
Preparation Date: 03/09/2009 13:44 Prep By: QMT Method: SW3550B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Bis(2-chloroethoxy)methane	850	641	75.4	33	184
Bis(2-chloroethyl)ether	850	638	75.1	28	158
Bis(2-chloroisopropyl)ether	850	673	79.2	36	166
Bis(2-ethylhexyl)phthalate	850	726	85.4	10	158
Butyl benzyl phthalate	850	736	86.6	10	152
Carbazole	850	723	85.1	45	135
Chrysene	850	679	79.9	17	168
Dibenz(a,h)anthracene	850	729	85.8	10	227
Dibenzofuran	850	721	84.8	30	160
Diethyl phthalate	850	766	90.1	10	160
Dimethyl phthalate	850	732	86.1	10	112
Di-n-butyl phthalate	850	782	92.0	40	132
Di-n-octyl phthalate	850	746	87.8	10	146
Fluoranthene	850	803	94.5	26	137
Fluorene	850	702	82.6	35	135
Hexachlorobenzene	850	691	81.3	10	152
Hexachlorobutadiene	850	722	84.9	20	140
Hexachlorocyclopentadiene	850	900	106	10	152
Hexachloroethane	850	649	76.4	25	118
Indeno(1,2,3-cd)pyrene	850	787	92.6	10	171
Isophorone	850	722	84.9	21	196
Naphthalene	850	672	79.1	21	133
Nitrobenzene	850	681	80.1	35	180
N-Nitrosodi-n-propylamine	850	689	81.1	10	230
N-Nitrosodiphenylamine	1700	1670	98.2	30	160
Pentachlorophenol	850	717	84.4	14	176
Phenanthrene	850	681	80.1	35	135
Phenol	850	666	78.4	44	120
Pyrene	850	658	77.4	34	138
Pyridine	1700	1130	66.5	10	150
2-Methylphenol	850	643	75.6	40	160
3 & 4-Methylphenol	850	620	72.9	40	160
Surr: 2,4,6-Tribromophenol	2500	2720	109	19	135
Surr: 2-Fluorobiphenyl	1700	1580	92.9	15	140

Qualifiers:
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B/V - Analyte detected in the associated Method Blank
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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Semivolatile Organics by Method 8270C **WorkOrder:** 09030293
Method: SW8270C **Lab Batch ID:** 88587

Laboratory Control Sample (LCS)

RunID: H_090310A-4940121 Units: ug/kg
Analysis Date: 03/10/2009 10:05 Analyst: GY
Preparation Date: 03/09/2009 13:44 Prep By: QMT Method: SW3550B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Surr: 2-Fluorophenol	2500	2200	88.0	15	122
Surr: Nitrobenzene-d5	1700	1510	88.8	32	153
Surr: Phenol-d5	2500	2260	90.4	10	123
Surr: Terphenyl-d14	1700	1520	89.4	18	166

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

Sample Spiked: 09030276-01
RunID: H_090310A-4940124 Units: ug/kg
Analysis Date: 03/10/2009 11:40 Analyst: GY
Preparation Date: 03/09/2009 13:44 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
1,2,4-Trichlorobenzene	ND	850	582	68.5	850	625	73.5	7.13	28	34	116
1,2-Dichlorobenzene	ND	850	541	63.6	850	598	70.4	10.0	60	32	129
1,2-Diphenylhydrazine	ND	850	598	70.4	850	646	76.0	7.72	60	10	256
1,3-Dichlorobenzene	ND	850	532	62.6	850	614	72.2	14.3	60	10	172
1,4-Dichlorobenzene	ND	850	554	65.2	850	582	68.5	4.93	28	20	124
2,4,5-Trichlorophenol	ND	850	568	66.8	850	689	81.1	19.3	60	40	150
2,4,6-Trichlorophenol	ND	850	583	68.6	850	655	77.1	11.6	60	37	144
2,4-Dichlorophenol	ND	850	539	63.4	850	610	71.8	12.4	60	39	135
2,4-Dimethylphenol	ND	850	596	70.1	850	667	78.5	11.2	60	32	119
2,4-Dinitrophenol	ND	850	888	104	850	925	109	4.08	60	10	191
2,4-Dinitrotoluene	ND	850	579	68.1	850	631	74.2	8.60	50	30	150
2,6-Dinitrotoluene	ND	850	554	65.2	850	627	73.8	12.4	60	30	150
2-Chloronaphthalene	ND	850	627	73.8	850	684	80.5	8.70	60	20	175
2-Chlorophenol	ND	850	557	65.5	850	613	72.1	9.57	40	23	134
2-Methylnaphthalene	ND	850	601	70.7	850	664	78.1	9.96	60	30	135
2-Nitroaniline	ND	850	555	65.3	850	614	72.2	10.1	60	20	175
2-Nitrophenol	ND	850	495	58.2	850	556	65.4	11.6	60	29	182
3,3'-Dichlorobenzidine	ND	850	241	28.4	850	439	51.6	58.2	60	10	261

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Semivolatile Organics by Method 8270C **WorkOrder:** 09030293
Method: SW8270C **Lab Batch ID:** 88587

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

Sample Spiked: 09030276-01
RunID: H_090310A-4940124 Units: ug/kg
Analysis Date: 03/10/2009 11:40 Analyst: GY
Preparation Date: 03/09/2009 13:44 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
3-Nitroaniline	ND	850	487	57.3	850	596	70.1	20.1	60	20	175
4,6-Dinitro-2-methylphenol	ND	850	696	81.9	850	766	90.1	9.58	60	10	181
4-Bromophenyl phenyl ether	ND	850	592	69.6	850	634	74.6	6.85	60	20	175
4-Chloro-3-methylphenol	ND	850	588	69.2	850	672	79.1	13.3	42	22	147
4-Chloroaniline	ND	850	358	42.1	850	534	62.8	39.5	60	20	175
4-Chlorophenyl phenyl ether	ND	850	642	75.5	850	687	80.8	6.77	60	25	158
4-Nitroaniline	ND	850	544	64.0	850	691	81.3	23.8	60	20	175
4-Nitrophenol	ND	850	642	75.5	850	920	108	35.6	50	10	132
Acenaphthene	ND	850	586	68.9	850	675	79.4	14.1	31	30	160
Acenaphthylene	ND	850	594	69.9	850	656	77.2	9.92	50	10	150
Aniline	ND	1700	626	36.8	1700	928	54.6	38.9	60	10	160
Anthracene	ND	850	620	72.9	850	695	81.8	11.4	50	27	133
Benz(a)anthracene	ND	850	667	78.5	850	718	84.5	7.36	50	33	143
Benzo(a)pyrene	ND	850	530	62.4	850	572	67.3	7.62	60	17	163
Benzo(b)fluoranthene	ND	850	637	74.9	850	680	80.0	6.53	60	24	159
Benzo(g,h,i)perylene	ND	850	778	70.6	850	846	78.6	8.37	60	10	219
Benzo(k)fluoranthene	ND	850	573	67.4	850	635	74.7	10.3	60	11	162
Benzoic acid	ND	850	2980	351	850	3020	355	1.33	60	10	450
Benzyl alcohol	ND	850	538	63.3	850	609	71.6	12.4	60	30	160
Bis(2-chloroethoxy)methane	ND	850	556	65.4	850	639	75.2	13.9	60	33	184
Bis(2-chloroethyl)ether	ND	850	550	64.7	850	590	69.4	7.02	60	28	158
Bis(2-chloroisopropyl)ether	ND	850	588	69.2	850	627	73.8	6.42	60	36	166
Bis(2-ethylhexyl)phthalate	ND	850	772	90.8	850	834	98.1	7.72	60	10	158
Butyl benzyl phthalate	ND	850	668	78.6	850	709	83.4	5.95	60	10	152
Carbazole	ND	850	630	74.1	850	688	80.9	8.80	60	45	135
Chrysene	ND	850	730	54.8	850	742	56.2	1.63	60	17	168
Dibenz(a,h)anthracene	ND	850	584	68.7	850	623	73.3	6.46	60	10	227
Dibenzofuran	ND	850	632	74.4	850	680	80.0	7.32	60	45	135
Diethyl phthalate	ND	850	665	78.2	850	731	86.0	9.46	60	10	160
Dimethyl phthalate	ND	850	602	70.8	850	690	81.2	13.6	60	10	112
Di-n-butyl phthalate	ND	850	695	81.8	850	766	90.1	9.72	60	40	132
Di-n-octyl phthalate	ND	850	718	84.5	850	777	91.4	7.89	60	10	146

Qualifiers:

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8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Semivolatile Organics by Method 8270C **WorkOrder:** 09030293
Method: SW8270C **Lab Batch ID:** 88587

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

Sample Spiked: 09030276-01
RunID: H_090310A-4940124 Units: ug/kg
Analysis Date: 03/10/2009 11:40 Analyst: GY
Preparation Date: 03/09/2009 13:44 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
Fluoranthene	ND	850	728	85.6	850	802	94.4	9.67	60	26	137
Fluorene	ND	850	621	73.1	850	692	81.4	10.8	60	45	135
Hexachlorobenzene	ND	850	616	72.5	850	686	80.7	10.8	60	10	152
Hexachlorobutadiene	ND	850	626	73.6	850	691	81.3	9.87	60	20	140
Hexachlorocyclopentadiene	ND	850	843	99.2	850	904	106	6.98	60	10	152
Hexachloroethane	ND	850	574	67.5	850	640	75.3	10.9	60	25	118
Indeno(1,2,3-cd)pyrene	ND	850	686	80.7	850	693	81.5	1.02	60	10	171
Isophorone	ND	850	621	73.1	850	690	81.2	10.5	60	21	196
Naphthalene	ND	850	595	70.0	850	629	74.0	5.56	60	21	133
Nitrobenzene	ND	850	534	62.8	850	589	69.3	9.80	60	35	180
N-Nitrosodi-n-propylamine	ND	850	606	71.3	850	656	77.2	7.92	38	10	230
N-Nitrosodiphenylamine	ND	1700	1500	88.2	1700	1630	95.9	8.31	60	30	160
Pentachlorophenol	ND	850	582	68.5	850	632	74.4	8.24	50	14	176
Phenanthrene	ND	850	618	72.7	850	658	77.4	6.27	60	45	135
Phenol	ND	850	545	64.1	850	642	75.5	16.3	42	44	120
Pyrene	ND	850	729	54.7	850	794	62.4	8.54	31	26	127
Pyridine	ND	1700	670	39.4	1700	743	43.7	10.3	60	10	150
2-Methylphenol	ND	850	D	D	850	D	D	D	60	40	160
3 & 4-Methylphenol	ND	850	D	D	850	D	D	D	60	40	160
Surr: 2,4,6-Tribromophenol	ND	2500	2490	99.6	2500	2640	106	5.85	30	19	135
Surr: 2-Fluorobiphenyl	ND	1700	1460	85.9	1700	1390	81.8	4.91	30	15	140
Surr: 2-Fluorophenol	ND	2500	1850	74.0	2500	1860	74.4	0.539	30	15	122
Surr: Nitrobenzene-d5	ND	1700	1290	75.9	1700	1320	77.6	2.30	30	10	134
Surr: Phenol-d5	ND	2500	1960	78.4	2500	1910	76.4	2.58	30	10	123
Surr: Terphenyl-d14	ND	1700	1410	82.9	1700	1400	82.4	0.712	30	18	166

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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Volatile Organics by Method 8260B
Method: SW8260B
WorkOrder: 09030293
Lab Batch ID: R267539

Method Blank

RunID: M_090311B-4943608 Units: ug/kg
Analysis Date: 03/11/2009 13:51 Analyst: TLE

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030293-01A	MW-2 (5.5-7)

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
Chloromethane	ND	10
Dibromochloromethane	ND	5.0
Dibromomethane	ND	5.0
Dichlorodifluoromethane	ND	10
Ethylbenzene	ND	5.0

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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Volatile Organics by Method 8260B
Method: SW8260B
WorkOrder: 09030293
Lab Batch ID: R267539

Method Blank

RunID: M_090311B-4943608 Units: ug/kg
Analysis Date: 03/11/2009 13:51 Analyst: TLE

Analyte	Result	Rep Limit
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	92.0	64-130
Surr: 4-Bromofluorobenzene	96.0	62-130
Surr: Toluene-d8	92.0	70-140

Laboratory Control Sample (LCS)

RunID: M_090311B-4943607 Units: ug/kg
Analysis Date: 03/11/2009 12:40 Analyst: TLE

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1,1,2-Tetrachloroethane	20.0	16.0	80.0	35	175
1,1,1-Trichloroethane	20.0	21.0	105	35	175
1,1,2,2-Tetrachloroethane	20.0	15.0	75.0	35	175
1,1,2-Trichloroethane	20.0	16.0	80.0	35	175
1,1-Dichloroethane	20.0	22.0	110	35	175

Qualifiers:
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B/V - Analyte detected in the associated Method Blank
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MI - Matrix Interference
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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Volatile Organics by Method 8260B
Method: SW8260B
WorkOrder: 09030293
Lab Batch ID: R267539

Laboratory Control Sample (LCS)

RunID: M_090311B-4943607 Units: ug/kg
Analysis Date: 03/11/2009 12:40 Analyst: TLE

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1-Dichloroethene	20.0	25.0	125	59	172
1,1-Dichloropropene	20.0	22.0	110	35	175
1,2,3-Trichlorobenzene	20.0	15.0	75.0	20	200
1,2,3-Trichloropropane	20.0	16.0	80.0	35	175
1,2,4-Trichlorobenzene	20.0	15.0	75.0	40	200
1,2,4-Trimethylbenzene	20.0	17.0	85.0	35	175
1,2-Dibromo-3-chloropropane	20.0	18.0	90.0	15	175
1,2-Dibromoethane	20.0	16.0	80.0	35	175
1,2-Dichlorobenzene	20.0	17.0	85.0	35	175
1,2-Dichloroethane	20.0	21.0	105	35	175
1,2-Dichloropropane	20.0	19.0	95.0	35	175
1,3,5-Trimethylbenzene	20.0	16.0	80.0	35	175
1,3-Dichlorobenzene	20.0	17.0	85.0	35	175
1,3-Dichloropropane	20.0	16.0	80.0	35	175
1,4-Dichlorobenzene	20.0	16.0	80.0	35	175
2,2-Dichloropropane	20.0	22.0	110	35	175
2-Butanone	20.0	31.0	155	20	235
2-Chloroethyl vinyl ether	20.0	29.0	145	10	250
2-Chlorotoluene	20.0	18.0	90.0	31	175
2-Hexanone	20.0	22.0	110	10	250
4-Chlorotoluene	20.0	18.0	90.0	35	175
4-Isopropyltoluene	20.0	19.0	95.0	35	175
4-Methyl-2-pentanone	20.0	21.0	105	10	170
Acetone	20.0	42.0	210	10	350
Acrylonitrile	20.0	31.0	155	20	200
Benzene	20.0	19.0	95.0	66	142
Bromobenzene	20.0	16.0	80.0	35	175
Bromochloromethane	20.0	21.0	105	35	175
Bromodichloromethane	20.0	18.0	90.0	35	175
Bromoform	20.0	17.0	85.0	35	175
Bromomethane	20.0	15.0	75.0	35	175
Carbon disulfide	20.0	23.0	115	30	220
Carbon tetrachloride	20.0	18.0	90.0	35	175
Chlorobenzene	20.0	16.0	80.0	60	133

Qualifiers:

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J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
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HOUSTON LABORATORY
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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Volatile Organics by Method 8260B **WorkOrder:** 09030293
Method: SW8260B **Lab Batch ID:** R267539

Laboratory Control Sample (LCS)

RunID: M_090311B-4943607 Units: ug/kg
Analysis Date: 03/11/2009 12:40 Analyst: TLE

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Chloroethane	20.0	19.0	95.0	35	175
Chloroform	20.0	22.0	110	35	175
Chloromethane	20.0	20.0	100	35	175
Dibromochloromethane	20.0	15.0	75.0	35	175
Dibromomethane	20.0	19.0	95.0	35	175
Dichlorodifluoromethane	20.0	19.0	95.0	30	175
Ethylbenzene	20.0	16.0	80.0	35	175
Hexachlorobutadiene	20.0	18.0	90.0	35	175
Isopropylbenzene	20.0	16.0	80.0	35	175
Methyl tert-butyl ether	40.0	35.0	87.5	35	175
Methylene chloride	20.0	26.0	130	35	175
Naphthalene	20.0	17.0	85.0	20	175
n-Butylbenzene	20.0	20.0	100	35	175
n-Propylbenzene	20.0	15.0	75.0	35	175
sec-Butylbenzene	20.0	18.0	90.0	35	175
Styrene	20.0	16.0	80.0	35	175
tert-Butylbenzene	20.0	17.0	85.0	35	175
Tetrachloroethene	20.0	15.0	75.0	30	250
Toluene	20.0	16.0	80.0	59	139
Trichloroethene	20.0	19.0	95.0	60	140
Trichlorofluoromethane	20.0	21.0	105	17	250
Vinyl acetate	20.0	24.0	120	10	250
Vinyl chloride	20.0	20.0	100	30	175
cis-1,2-Dichloroethene	20.0	21.0	105	35	175
cis-1,3-Dichloropropene	20.0	18.0	90.0	35	175
m,p-Xylene	40.0	34.0	85.0	35	175
o-Xylene	20.0	16.0	80.0	35	175
trans-1,2-Dichloroethene	20.0	22.0	110	35	175
trans-1,3-Dichloropropene	20.0	17.0	85.0	35	175
1,2-Dichloroethene (total)	40	43	110	35	175
Xylenes,Total	60	50	83	35	175
Surr: 1,2-Dichloroethane-d4	50.0	44	88.0	64	130
Surr: 4-Bromofluorobenzene	50.0	51	102	62	130
Surr: Toluene-d8	50.0	45	90.0	70	140

Qualifiers:
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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Volatile Organics by Method 8260B **WorkOrder:** 09030293
Method: SW8260B **Lab Batch ID:** R267539

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

Sample Spiked: 09030253-09
RunID: M_090311B-4943610 Units: ug/kg
Analysis Date: 03/11/2009 15:18 Analyst: TLE
Preparation Date: 03/10/2009 13:53 Prep By: AG 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	16.0	80.0	20	19.0	95.0	17.1	30	35	175
1,1,1-Trichloroethane	ND	20	23.0	115	20	26.0	130	12.2	30	35	175
1,1,2,2-Tetrachloroethane	ND	20	18.0	90.0	20	19.0	95.0	5.41	30	35	175
1,1,2-Trichloroethane	ND	20	16.0	80.0	20	21.0	105	27.0	30	35	175
1,1-Dichloroethane	ND	20	23.0	115	20	26.0	130	12.2	30	35	175
1,1-Dichloroethene	ND	20	26.0	130	20	31.0	155	17.5	22	59	172
1,1-Dichloropropene	ND	20	22.0	110	20	27.0	135	20.4	30	35	175
1,2,3-Trichlorobenzene	ND	20	14.0	70.0	20	16.0	80.0	13.3	30	20	200
1,2,3-Trichloropropane	ND	20	20.0	100	20	20.0	100	0	30	35	175
1,2,4-Trichlorobenzene	ND	20	13.0	65.0	20	15.0	75.0	14.3	30	40	200
1,2,4-Trimethylbenzene	ND	20	17.0	85.0	20	18.0	90.0	5.71	30	35	175
1,2-Dibromo-3-chloropropane	ND	20	20.0	100	20	21.0	105	4.88	30	15	175
1,2-Dibromoethane	ND	20	17.0	85.0	20	19.0	95.0	11.1	30	35	175
1,2-Dichlorobenzene	ND	20	16.0	80.0	20	17.0	85.0	6.06	30	35	175
1,2-Dichloroethane	ND	20	22.0	110	20	26.0	130	16.7	30	35	175
1,2-Dichloropropane	ND	20	18.0	90.0	20	23.0	115	24.4	30	35	175
1,3,5-Trimethylbenzene	ND	20	15.0	75.0	20	16.0	80.0	6.45	30	35	175
1,3-Dichlorobenzene	ND	20	17.0	85.0	20	18.0	90.0	5.71	30	35	175
1,3-Dichloropropane	ND	20	16.0	80.0	20	21.0	105	27.0	30	35	175
1,4-Dichlorobenzene	ND	20	16.0	80.0	20	17.0	85.0	6.06	30	35	175
2,2-Dichloropropane	ND	20	22.0	110	20	26.0	130	16.7	30	35	175
2-Butanone	ND	20	36.0	180	20	45.0	225	22.2	30	10	230
2-Chloroethyl vinyl ether	ND	20	25.0	125	20	30.0	150	18.2	30	10	250
2-Chlorotoluene	ND	20	18.0	90.0	20	19.0	95.0	5.41	30	31	175
2-Hexanone	ND	20	25.0	125	20	26.0	130	3.92	30	10	250
4-Chlorotoluene	ND	20	17.0	85.0	20	18.0	90.0	5.71	30	35	175
4-Isopropyltoluene	ND	20	17.0	85.0	20	19.0	95.0	11.1	30	35	175
4-Methyl-2-pentanone	ND	20	24.0	120	20	28.0	140	15.4	30	10	170
Acetone	ND	20	59.0	295	20	70.0	350	17.1	30	10	350
Acrylonitrile	ND	20	38.0	190	20	41.0	205 *	7.59	30	20	200

Qualifiers:
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B/V - Analyte detected in the associated Method Blank
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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Volatile Organics by Method 8260B **WorkOrder:** 09030293
Method: SW8260B **Lab Batch ID:** R267539

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

Sample Spiked: 09030253-09
RunID: M_090311B-4943610 Units: ug/kg
Analysis Date: 03/11/2009 15:18 Analyst: TLE
Preparation Date: 03/10/2009 13:53 Prep By: AG 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
Benzene	ND	20	20.0	100	20	23.0	115	14.0	21	66	142
Bromobenzene	ND	20	16.0	80.0	20	17.0	85.0	6.06	30	35	175
Bromochloromethane	ND	20	23.0	115	20	25.0	125	8.33	30	35	175
Bromodichloromethane	ND	20	19.0	95.0	20	23.0	115	19.0	30	35	175
Bromoform	ND	20	18.0	90.0	20	20.0	100	10.5	30	35	175
Bromomethane	ND	20	17.0	85.0	20	18.0	90.0	5.71	30	35	175
Carbon disulfide	ND	20	24.0	120	20	28.0	140	15.4	30	30	220
Carbon tetrachloride	ND	20	22.0	110	20	26.0	130	16.7	30	35	175
Chlorobenzene	ND	20	16.0	80.0	20	18.0	90.0	11.8	21	60	133
Chloroethane	ND	20	22.0	110	20	29.0	145	27.5	30	35	175
Chloroform	ND	20	24.0	120	20	27.0	135	11.8	30	35	175
Chloromethane	ND	20	21.0	105	20	22.0	110	4.65	30	35	175
Dibromochloromethane	ND	20	17.0	85.0	20	20.0	100	16.2	30	35	175
Dibromomethane	ND	20	20.0	100	20	23.0	115	14.0	30	35	175
Dichlorodifluoromethane	ND	20	20.0	100	20	21.0	105	4.88	30	30	175
Ethylbenzene	ND	20	16.0	80.0	20	18.0	90.0	11.8	30	35	175
Hexachlorobutadiene	ND	20	16.0	80.0	20	19.0	95.0	17.1	30	35	175
Isopropylbenzene	ND	20	16.0	80.0	20	16.0	80.0	0	30	35	175
Methyl tert-butyl ether	ND	40	36.0	90.0	40	42.0	105	15.4	30	35	175
Methylene chloride	ND	20	27.0	115	20	31.0	135	13.8	30	35	175
Naphthalene	ND	20	15.0	75.0	20	18.0	90.0	18.2	30	20	175
n-Butylbenzene	ND	20	17.0	85.0	20	19.0	95.0	11.1	30	35	175
n-Propylbenzene	ND	20	15.0	75.0	20	16.0	80.0	6.45	30	35	175
sec-Butylbenzene	ND	20	18.0	90.0	20	20.0	100	10.5	30	35	175
Styrene	ND	20	17.0	85.0	20	18.0	90.0	5.71	30	35	175
tert-Butylbenzene	ND	20	17.0	85.0	20	18.0	90.0	5.71	30	35	175
Tetrachloroethene	ND	20	16.0	80.0	20	18.0	90.0	11.8	30	30	250
Toluene	ND	20	16.0	80.0	20	20.0	100	22.2 *	21	59	139
Trichloroethene	ND	20	20.0	100	20	23.0	115	14.0	24	60	140
Trichlorofluoromethane	ND	20	21.0	105	20	27.0	135	25.0	30	17	250
Vinyl acetate	ND	20	24.0	120	20	27.0	135	11.8	30	10	250
Vinyl chloride	ND	20	21.0	105	20	24.0	120	13.3	30	30	175

Qualifiers:
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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Volatile Organics by Method 8260B **WorkOrder:** 09030293
Method: SW8260B **Lab Batch ID:** R267539

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

Sample Spiked: 09030253-09
RunID: M_090311B-4943610 Units: ug/kg
Analysis Date: 03/11/2009 15:18 Analyst: TLE
Preparation Date: 03/10/2009 13:53 Prep By: AG 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
cis-1,2-Dichloroethene	ND	20	24.0	120	20	28.0	140	15.4	30	35	175
cis-1,3-Dichloropropene	ND	20	18.0	90.0	20	22.0	110	20.0	30	35	175
m,p-Xylene	ND	40	36.0	90.0	40	38.0	95.0	5.41	30	35	175
o-Xylene	ND	20	18.0	90.0	20	19.0	95.0	5.41	30	35	175
trans-1,2-Dichloroethene	ND	20	23.0	115	20	27.0	135	16.0	30	35	175
trans-1,3-Dichloropropene	ND	20	17.0	85.0	20	21.0	105	21.1	30	35	175
1,2-Dichloroethene (total)	ND	40	47	120	40	55	140	16	30	35	175
Xylenes,Total	ND	60	54	90	60	57	95	5.4	30	35	175
Surr: 1,2-Dichloroethane-d4	ND	50	46	92.0	50	44.0	88.0	4.44	30	64	130
Surr: 4-Bromofluorobenzene	ND	50	52	104	50	50.0	100	3.92	30	62	130
Surr: Toluene-d8	ND	50	45	90.0	50	49.0	98.0	8.51	30	70	140

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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: PERCENT MOISTURE
Method: D2216

WorkOrder: 09030293
Lab Batch ID: R266946A

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030293-01C	MW-2 (5.5-7)

Sample Duplicate

Original Sample: 09030285-04
RunID: WET_090306M-4935292 Units: wt%
Analysis Date: 03/06/2009 14:51 Analyst: EB1

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Percent Moisture	4.24	4.243	0	20

Qualifiers:
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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Alkalinity (as CaCO3), Total **WorkOrder:** 09030293
Method: E310.1 **Lab Batch ID:** R267018

Method Blank

RunID: WET_090308B-4936432 Units: mg/Kg
Analysis Date: 03/08/2009 13:15 Analyst: PAC

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030293-01C	MW-2 (5.5-7)

Analyte	Result	Rep Limit
Alkalinity, Total (As CaCO3)	ND	20

Laboratory Control Sample (LCS)

RunID: WET_090308B-4936434 Units: mg/Kg
Analysis Date: 03/08/2009 13:15 Analyst: PAC

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Alkalinity, Total (As CaCO3)	387.0	380.0	98.19	90	110

Sample Duplicate

Original Sample: 09030293-01
RunID: WET_090308B-4936436 Units: mg/Kg-dry
Analysis Date: 03/08/2009 13:15 Analyst: PAC

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Alkalinity, Total (As CaCO3)	845	844.9	0	20

Qualifiers:

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E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Ion Chromatography **WorkOrder:** 09030293
Method: E300.0 MOD **Lab Batch ID:** R267497

Method Blank

RunID: IC2_090310C-4943091 Units: mg/kg
Analysis Date: 03/10/2009 19:22 Analyst: BDG

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030293-01C	MW-2 (5.5-7)

Analyte	Result	Rep Limit
Bromide	ND	5.0
Fluoride	ND	5.0
Ortho-phosphate (As P)	ND	5.0

Laboratory Control Sample (LCS)

RunID: IC2_090310C-4943092 Units: mg/kg
Analysis Date: 03/10/2009 19:39 Analyst: BDG

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Bromide	100.0	99.39	99.39	80	120
Fluoride	100.0	99.17	99.17	80	120
Ortho-phosphate (As P)	100.0	102.8	102.8	80	120

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

Sample Spiked: 09020946-01
RunID: IC2_090310C-4943102 Units: mg/kg-dry
Analysis Date: 03/10/2009 22:52 Analyst: BDG

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	157.2	143.4	91.21	157.2	149.5	95.08	4.155	20	75	125
Fluoride	ND	157.2	141.9	87.88	157.2	148.0	91.78	4.231	20	75	125
Ortho-phosphate (As P)	ND	157.2	149.4	91.78	157.2	155.3	95.56	3.902	20	75	125

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Ion Chromatography **WorkOrder:** 09030293
Method: E300.0 MOD **Lab Batch ID:** R267498

Method Blank

RunID: IC2_090310D-4943115 Units: mg/kg
Analysis Date: 03/10/2009 19:22 Analyst: BDG

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030293-01C	MW-2 (5.5-7)

Analyte	Result	Rep Limit
Nitrogen,Nitrate (As N)	ND	5.0
Nitrogen,Nitrite (As N)	ND	5.0

Laboratory Control Sample (LCS)

RunID: IC2_090310D-4943116 Units: mg/kg
Analysis Date: 03/10/2009 19:39 Analyst: BDG

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Nitrogen,Nitrate (As N)	100.0	100.9	100.9	90	110
Nitrogen,Nitrite (As N)	100.0	102.9	102.9	90	110

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

Sample Spiked: 09020946-01
RunID: IC2_090310D-4943122 Units: mg/kg
Analysis Date: 03/10/2009 22:52 Analyst: BDG

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	100	91.36	91.36	100	95.52	95.52	4.452	20	80	120
Nitrogen,Nitrite (As N)	ND	100	93.90	93.90	100	97.98	97.98	4.253	20	80	120

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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.

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

Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Ion Chromatography **WorkOrder:** 09030293
Method: E300.0 MOD **Lab Batch ID:** R267500

Method Blank

RunID: IC2_090311A-4943144 Units: mg/kg
Analysis Date: 03/11/2009 16:23 Analyst: BDG

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030293-01C	MW-2 (5.5-7)

Analyte	Result	Rep Limit
Sulfate	ND	5.0

Laboratory Control Sample (LCS)

RunID: IC2_090311A-4943145 Units: mg/kg
Analysis Date: 03/11/2009 16:40 Analyst: BDG

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Sulfate	100.0	97.78	97.78	80	120

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

Sample Spiked: 09020953-01
RunID: IC2_090311A-4943150 Units: mg/kg-dry
Analysis Date: 03/11/2009 18:08 Analyst: BDG

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	2127	12690	13950	93.18	12690	14340	96.21	2.726	20	75	125

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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.

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

Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Ion Chromatography **WorkOrder:** 09030293
Method: E300.0 MOD **Lab Batch ID:** R267668

Method Blank

RunID: IC2_090312A-4945380 Units: mg/kg
Analysis Date: 03/12/2009 17:18 Analyst: BDG

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030293-01C	MW-2 (5.5-7)

Analyte	Result	Rep Limit
Chloride	ND	5.0

Laboratory Control Sample (LCS)

RunID: IC2_090312A-4945381 Units: mg/kg
Analysis Date: 03/12/2009 17:36 Analyst: BDG

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Chloride	100.0	96.79	96.79	80	120

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

Sample Spiked: 09030125-01
RunID: IC2_090312A-4945387 Units: mg/kg-dry
Analysis Date: 03/12/2009 20:48 Analyst: BDG

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	44.97	553.5	577.3	96.18	553.5	558.6	92.80	3.296	20	75	125

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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.

Sample Receipt Checklist

And

Chain of Custody

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

Sample Receipt Checklist

Workorder:	09030293	Received By:	L_C
Date and Time Received:	3/6/2009 10:00:00 AM	Carrier name:	Fedex-Priority
Temperature:	3.5°C	Chilled by:	Water Ice

1.	Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
2.	Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐
3.	Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
4.	Chain of custody present?	Yes ☑	No ☐	
5.	Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
6.	Chain of custody agrees with sample labels?	Yes ☑	No ☐	
7.	Samples in proper container/bottle?	Yes ☑	No ☐	
8.	Sample containers intact?	Yes ☑	No ☐	
9.	Sufficient sample volume for indicated test?	Yes ☑	No ☐	
10.	All samples received within holding time?	Yes ☑	No ☐	
11.	Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
12.	Water - VOA vials have zero headspace?	Yes ☐	No ☐	VOA Vials Not Present ☑
13.	Water - Preservation checked upon receipt (except VOA*)?	Yes ☐	No ☐	Not Applicable ☑

*VOA Preservation Checked After Sample Analysis

SPL Representative: _____ Contact Date & Time: _____

Client Name Contacted: _____

Non Conformance Issues: _____

Client Instructions: _____

Chain of Custody Record

Client: Tetra Tech/ Conoco Phillips — **SPL Workorder Number:** 09030293

Attention: Kelly Blanchard/Tetra Tech

Phone: 505-237-8440 | email: kelly.blanchard@tetratech.c

Address: 6121 Indian School Road, NE Ste. 200

City: Albuquerque | State: NM | Zip Code: 87110

Project Name: ~~Johnson Federal #4~~ Saturn 2E

P.O. Number:

Sampled By: signature — GARY Desselle print / ANA MORENO

Sample ID	Collected Date	Collected Time	Sample Type Comp	Sample Type Grab	Matrix Water	Matrix Soil	Bottle Type	Preservative Type	# of Containers	Requested Analysis: B260-BTEX	Gold Book Full List Metals & Hg 7470A/7471A	TPH GRO-8015	TPH DRO-8015	8270C SVOCs	TPH 418.1	General Chemistry Remainder		
~~MW~~ MW-2(5.5-7)	3/5/09	0905		X	X	X	7			X								
MW-2(5.5-7)	3/5/09	0905		X	X	X	6							X	X			
MW-2(5.5-7)	3/5/09	0905		X	X	X	6				X					X		
					X													
					X													
					X													
					X													
					X													
					X													
					X													

Turnaround Time Requirements
24 hr( ) 48 hr( )
72 hr( ) 5 wday( )
10 wday - Standard(X)

Remarks: LOGIN FULL METALS LIST: 6010/6020/7470 [7471. Chemistry = alkalinity, Br, Cl, F, orthophosphate SO_4^{2-}, nitrite, initrite

Intact? Y or N

Temperature: 3.5°C

Bottle Types: 1: 3/40ml Vials 2. 1L Glass 3. 1L Plastic 4. 1L Amber Glass 5. 8oz Plastic

Preservative Types: 1: NONE 2. HNO3 3. HCL 4. H2SO4

6 8oz jar 7.4 oz jar

	Date	Time	
Relinquished by Sampler:	3/5/09	1030	Received by:
Relinquished by:	Date	Time	Received by:
Relinquished by:	3/6/09	1600	Received by SPL Inc.

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

Conoco Phillips

Certificate of Analysis Number:

09030249

Report To:		Project Name:	COP Sategna 2E
Tetra Tech, Inc.		Site:	Albuquerque, NM.
Kelly Blanchard		Site Address:	
6121 Indian School Road, N.E.			
Suite 200		PO Number:	
Albuquerque		State:	New Mexico
NM		State Cert. No.:	
87110-		Date Reported:	3/26/2009
ph: (505) 237-8440	fax:		

This Report Contains A Total Of 77 Pages

Excluding This Page, Chain Of Custody

And

Any Attachments

3/26/2009

Date

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

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

Case Narrative for:
Conoco Phillips

Certificate of Analysis Number:
09030249

Report To:		Project Name:	COP Sategna 2E
Tetra Tech, Inc.		Site:	Albuquerque, NM.
Kelly Blanchard		Site Address:	
6121 Indian School Road, N.E.			
Suite 200		PO Number:	
Albuquerque		State:	New Mexico
NM		State Cert. No.:	
87110-		Date Reported:	3/26/2009
ph: (505) 237-8440	fax:		

This report was revised on March 26, 2008 to add Al, B, K, Sr, Sn, Sb, Be, Tl, V, Z, Ni, Mn, Mo, Cu, Co to the Total Metals analysis by SW846 Method 6010/6020.

Upon receipt of your samples, the lab received an extra set of containers labeled as "MW-3 (5-6.5)" not listed on the chain of custody. Per your request, the lab logged in the containers for analysis.

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.

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.

Your sample ID "MW-3 (5-6.5)" (SPL ID:09030249-02) was randomly selected for use in SPL's quality control program for the Volatile Organics analysis by SW846 Method 8260B. The Matrix Spike (MS) and Matrix Spike Duplicate (MSD) recoveries were outside of the advisable quality control limits for several analytes (Batch ID:R267869) due to matrix interference. A Laboratory Control Sample (LCS) was analyzed as a quality control check for the analytical batch and all recoveries were within acceptable limits.

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.

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

Erica Cardenas
Project Manager

Date

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

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

Conoco Phillips

Certificate of Analysis Number:

09030249

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: COP Sategna 2E
Site: Albuquerque, NM.
Site Address:
PO Number:
State: New Mexico
State Cert. No.:
Date Reported: 3/26/2009

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
MW-1 (5-6.5)	09030249-01	Soil	3/4/2009 1:47:00 PM	3/5/2009 10:00:00 AM		☐
MW-3 (5-6.5)	09030249-02	Soil	3/4/2009 3:35:00 PM	3/5/2009 10:00:00 AM		☐

E Cardenas

3/26/2009

Erica Cardenas
Project Manager

Date

Richard R. Reed
Laboratory Director

Ted Yen
Quality Assurance Officer

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

Client Sample ID: MW-1 (5-6.5) **Collected:** 03/04/2009 13:47 **SPL Sample ID:** 09030249-01

Site: Albuquerque, NM.

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
ALKALINITY (AS CACO3), TOTAL				**MCL**	**E310.1**	**Units: mg/Kg-dry**	
Alkalinity, Total (As CaCO3)	586		27.9	1	03/08/09 13:15	PAC	4936435
ION CHROMATOGRAPHY				**MCL**	**E300.0 MOD**	**Units: mg/kg-dry**	
Bromide	ND		6.97	1	03/06/09 17:48	BDG	4940043
Chloride	32.6		6.97	1	03/06/09 17:48	BDG	4940043
Fluoride	ND		6.97	1	03/06/09 17:48	BDG	4940043
Ortho-phosphate (As P)	ND		6.97	1	03/06/09 17:48	BDG	4940043
Sulfate	4350		697	100	03/14/09 13:11	BDG	4947860
Nitrogen,Nitrate (As N)	ND		5	1	03/06/09 17:48	BDG	4940059
Nitrogen,Nitrite (As N)	ND		5	1	03/06/09 17:48	BDG	4940059
MERCURY, TOTAL				**MCL**	**SW7471A**	**Units: mg/kg-dry**	
Mercury	ND		0.0418	1	03/06/09 13:33	F_S	4935254

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7471A	03/06/2009 11:00	F_S	1.00

METALS BY METHOD 6010B, TOTAL				**MCL**	**SW6010B**	**Units: mg/kg-dry**	
Aluminum	20300		13.9	1	03/10/09 15:29	EG	4942134
Boron	ND		13.9	1	03/10/09 15:29	EG	4942134
Calcium	14200		13.9	1	03/10/09 15:29	EG	4942134
Iron	21200		2.79	1	03/10/09 15:29	EG	4942134
Magnesium	5490		13.9	1	03/10/09 15:29	EG	4942134
Potassium	2140		279	1	03/10/09 15:29	EG	4942134
Sodium	3460		69.7	1	03/10/09 15:29	EG	4942134
Strontium	2.96		2.79	1	03/10/09 15:29	EG	4956502
Tin	ND		6.97	1	03/10/09 15:29	EG	4942134

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3050B	03/06/2009 14:30	AB1	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - 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

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

Client Sample ID: MW-1 (5-6.5) **Collected:** 03/04/2009 13:47 **SPL Sample ID:** 09030249-01

Site: Albuquerque, NM.

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020A, TOTAL				**MCL**	**SW6020A**	**Units: mg/kg-dry**	
Antimony	ND		0.697	1	03/11/09 19:22	S_C	4943377
Arsenic	3.3		0.697	1	03/11/09 19:22	S_C	4943377
Barium	154		0.697	1	03/16/09 14:23	S_C	4948979
Beryllium	1.59		0.558	1	03/23/09 17:01	S_C	4958051
Cadmium	ND		0.697	1	03/11/09 19:22	S_C	4943377
Chromium	11		0.697	1	03/11/09 19:22	S_C	4943377
Cobalt	9.17		0.697	1	03/11/09 19:22	S_C	4943377
Copper	23.8		0.697	1	03/23/09 17:01	S_C	4958051
Lead	14.4		0.697	1	03/11/09 19:22	S_C	4943377
Manganese	485		0.697	1	03/16/09 14:23	S_C	4948979
Molybdenum	0.999		0.697	1	03/11/09 19:22	S_C	4943377
Nickel	11.6		0.697	1	03/16/09 14:23	S_C	4948979
Selenium	ND		0.697	1	03/11/09 19:22	S_C	4943377
Silver	ND		0.697	1	03/11/09 19:22	S_C	4943377
Thallium	ND		0.697	1	03/11/09 19:22	S_C	4943377
Vanadium	24.8		0.697	1	03/11/09 19:22	S_C	4943377
Zinc	45.9		1.39	1	03/23/09 17:01	S_C	4958051

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3050B	03/06/2009 14:30	AB1	1.00

PERCENT MOISTURE				**MCL**	**D2216**	**Units: wt%**	
Percent Moisture	28.3		0	1	03/06/09 14:51	EB1	4935286

Qualifiers:

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MI - Matrix Interference

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

Client Sample ID: MW-1 (5-6.5) **Collected:** 03/04/2009 13:47 **SPL Sample ID:** 09030249-01

Site: Albuquerque, NM.

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
SEMIVOLATILE ORGANICS BY METHOD 8270C			**MCL**	**SW8270C**	**Units: ug/kg-dry**		
1,2,4-Trichlorobenzene	ND		460	1	03/09/09 16:53	E_R	4939178
1,2-Dichlorobenzene	ND		460	1	03/09/09 16:53	E_R	4939178
1,2-Diphenylhydrazine	ND		460	1	03/09/09 16:53	E_R	4939178
1,3-Dichlorobenzene	ND		460	1	03/09/09 16:53	E_R	4939178
1,4-Dichlorobenzene	ND		460	1	03/09/09 16:53	E_R	4939178
2,4,5-Trichlorophenol	ND		1100	1	03/09/09 16:53	E_R	4939178
2,4,6-Trichlorophenol	ND		460	1	03/09/09 16:53	E_R	4939178
2,4-Dichlorophenol	ND		460	1	03/09/09 16:53	E_R	4939178
2,4-Dimethylphenol	ND		460	1	03/09/09 16:53	E_R	4939178
2,4-Dinitrophenol	ND		1100	1	03/09/09 16:53	E_R	4939178
2,4-Dinitrotoluene	ND		1100	1	03/09/09 16:53	E_R	4939178
2,6-Dinitrotoluene	ND		460	1	03/09/09 16:53	E_R	4939178
2-Chloronaphthalene	ND		460	1	03/09/09 16:53	E_R	4939178
2-Chlorophenol	ND		460	1	03/09/09 16:53	E_R	4939178
2-Methylnaphthalene	ND		460	1	03/09/09 16:53	E_R	4939178
2-Nitroaniline	ND		1100	1	03/09/09 16:53	E_R	4939178
2-Nitrophenol	ND		460	1	03/09/09 16:53	E_R	4939178
3,3'-Dichlorobenzidine	ND		460	1	03/09/09 16:53	E_R	4939178
3-Nitroaniline	ND		1100	1	03/09/09 16:53	E_R	4939178
4,6-Dinitro-2-methylphenol	ND		1100	1	03/09/09 16:53	E_R	4939178
4-Bromophenyl phenyl ether	ND		460	1	03/09/09 16:53	E_R	4939178
4-Chloro-3-methylphenol	ND		460	1	03/09/09 16:53	E_R	4939178
4-Chloroaniline	ND		460	1	03/09/09 16:53	E_R	4939178
4-Chlorophenyl phenyl ether	ND		460	1	03/09/09 16:53	E_R	4939178
4-Nitroaniline	ND		1100	1	03/09/09 16:53	E_R	4939178
4-Nitrophenol	ND		1100	1	03/09/09 16:53	E_R	4939178
Acenaphthene	ND		460	1	03/09/09 16:53	E_R	4939178
Acenaphthylene	ND		460	1	03/09/09 16:53	E_R	4939178
Aniline	ND		460	1	03/09/09 16:53	E_R	4939178
Anthracene	ND		460	1	03/09/09 16:53	E_R	4939178
Benz(a)anthracene	ND		460	1	03/09/09 16:53	E_R	4939178
Benzo(a)pyrene	ND		460	1	03/09/09 16:53	E_R	4939178
Benzo(b)fluoranthene	ND		460	1	03/09/09 16:53	E_R	4939178
Benzo(g,h,i)perylene	ND		460	1	03/09/09 16:53	E_R	4939178
Benzo(k)fluoranthene	ND		460	1	03/09/09 16:53	E_R	4939178
Benzoic acid	ND		2200	1	03/09/09 16:53	E_R	4939178
Benzyl alcohol	ND		460	1	03/09/09 16:53	E_R	4939178
Bis(2-chloroethoxy)methane	ND		460	1	03/09/09 16:53	E_R	4939178
Bis(2-chloroethyl)ether	ND		460	1	03/09/09 16:53	E_R	4939178

Qualifiers:

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

Client Sample ID: MW-1 (5-6.5) **Collected:** 03/04/2009 13:47 **SPL Sample ID:** 09030249-01

Site: Albuquerque, NM.

Analyses/Method	Result	QUAL		Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Bis(2-chloroisopropyl)ether	ND			460	1	03/09/09 16:53	E_R	4939178
Bis(2-ethylhexyl)phthalate	ND			460	1	03/09/09 16:53	E_R	4939178
Butyl benzyl phthalate	ND			460	1	03/09/09 16:53	E_R	4939178
Carbazole	ND			460	1	03/09/09 16:53	E_R	4939178
Chrysene	ND			460	1	03/09/09 16:53	E_R	4939178
Dibenz(a,h)anthracene	ND			460	1	03/09/09 16:53	E_R	4939178
Dibenzofuran	ND			460	1	03/09/09 16:53	E_R	4939178
Diethyl phthalate	ND			460	1	03/09/09 16:53	E_R	4939178
Dimethyl phthalate	ND			460	1	03/09/09 16:53	E_R	4939178
Di-n-butyl phthalate	ND			460	1	03/09/09 16:53	E_R	4939178
Di-n-octyl phthalate	ND			460	1	03/09/09 16:53	E_R	4939178
Fluoranthene	ND			460	1	03/09/09 16:53	E_R	4939178
Fluorene	ND			460	1	03/09/09 16:53	E_R	4939178
Hexachlorobenzene	ND			460	1	03/09/09 16:53	E_R	4939178
Hexachlorobutadiene	ND			460	1	03/09/09 16:53	E_R	4939178
Hexachlorocyclopentadiene	ND			460	1	03/09/09 16:53	E_R	4939178
Hexachloroethane	ND			460	1	03/09/09 16:53	E_R	4939178
Indeno(1,2,3-cd)pyrene	ND			460	1	03/09/09 16:53	E_R	4939178
Isophorone	ND			460	1	03/09/09 16:53	E_R	4939178
Naphthalene	ND			460	1	03/09/09 16:53	E_R	4939178
Nitrobenzene	ND			460	1	03/09/09 16:53	E_R	4939178
N-Nitrosodi-n-propylamine	ND			460	1	03/09/09 16:53	E_R	4939178
N-Nitrosodiphenylamine	ND			460	1	03/09/09 16:53	E_R	4939178
Pentachlorophenol	ND			1100	1	03/09/09 16:53	E_R	4939178
Phenanthrene	ND			460	1	03/09/09 16:53	E_R	4939178
Phenol	ND			460	1	03/09/09 16:53	E_R	4939178
Pyrene	ND			460	1	03/09/09 16:53	E_R	4939178
Pyridine	ND			460	1	03/09/09 16:53	E_R	4939178
2-Methylphenol	ND			460	1	03/09/09 16:53	E_R	4939178
3 & 4-Methylphenol	ND			460	1	03/09/09 16:53	E_R	4939178
Surr: 2,4,6-Tribromophenol	92.0		%	19-135	1	03/09/09 16:53	E_R	4939178
Surr: 2-Fluorobiphenyl	94.1		%	15-140	1	03/09/09 16:53	E_R	4939178
Surr: 2-Fluorophenol	88.0		%	15-122	1	03/09/09 16:53	E_R	4939178
Surr: Nitrobenzene-d5	88.2		%	10-134	1	03/09/09 16:53	E_R	4939178
Surr: Phenol-d5	88.0		%	10-123	1	03/09/09 16:53	E_R	4939178
Surr: Terphenyl-d14	94.1		%	18-166	1	03/09/09 16:53	E_R	4939178

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	03/06/2009 10:32	QMT	1.00

Qualifiers:

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B/V - Analyte detected in the associated Method Blank
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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

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

Client Sample ID: MW-1 (5-6.5) **Collected:** 03/04/2009 13:47 **SPL Sample ID:** 09030249-01

Site: Albuquerque, NM.

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
TOTAL PETROLEUM HYDROCARBONS				**MCL**	**E418.1**	**Units: mg/kg-dry**	
Petroleum Hydrocarbons,TR	ND		14	1	03/11/09 17:01	LLL	4943503

Prep Method	Prep Date	Prep Initials	Prep Factor
	03/11/2009 13:23		1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
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E - Estimated Value exceeds calibration curve
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HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW-1 (5-6.5) **Collected:** 03/04/2009 13:47 **SPL Sample ID:** 09030249-01

Site: Albuquerque, NM.

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/kg-dry**		
1,1,1,2-Tetrachloroethane	ND		7	1	03/06/09 15:30	TLE	4935850
1,1,1-Trichloroethane	ND		7	1	03/06/09 15:30	TLE	4935850
1,1,2,2-Tetrachloroethane	ND		7	1	03/06/09 15:30	TLE	4935850
1,1,2-Trichloroethane	ND		7	1	03/06/09 15:30	TLE	4935850
1,1-Dichloroethane	ND		7	1	03/06/09 15:30	TLE	4935850
1,1-Dichloroethene	ND		7	1	03/06/09 15:30	TLE	4935850
1,1-Dichloropropene	ND		7	1	03/06/09 15:30	TLE	4935850
1,2,3-Trichlorobenzene	ND		7	1	03/06/09 15:30	TLE	4935850
1,2,3-Trichloropropane	ND		7	1	03/06/09 15:30	TLE	4935850
1,2,4-Trichlorobenzene	ND		7	1	03/06/09 15:30	TLE	4935850
1,2,4-Trimethylbenzene	ND		7	1	03/06/09 15:30	TLE	4935850
1,2-Dibromo-3-chloropropane	ND		7	1	03/06/09 15:30	TLE	4935850
1,2-Dibromoethane	ND		7	1	03/06/09 15:30	TLE	4935850
1,2-Dichlorobenzene	ND		7	1	03/06/09 15:30	TLE	4935850
1,2-Dichloroethane	ND		7	1	03/06/09 15:30	TLE	4935850
1,2-Dichloropropane	ND		7	1	03/06/09 15:30	TLE	4935850
1,3,5-Trimethylbenzene	ND		7	1	03/06/09 15:30	TLE	4935850
1,3-Dichlorobenzene	ND		7	1	03/06/09 15:30	TLE	4935850
1,3-Dichloropropane	ND		7	1	03/06/09 15:30	TLE	4935850
1,4-Dichlorobenzene	ND		7	1	03/06/09 15:30	TLE	4935850
2,2-Dichloropropane	ND		7	1	03/06/09 15:30	TLE	4935850
2-Butanone	ND		28	1	03/06/09 15:30	TLE	4935850
2-Chloroethyl vinyl ether	ND		14	1	03/06/09 15:30	TLE	4935850
2-Chlorotoluene	ND		7	1	03/06/09 15:30	TLE	4935850
2-Hexanone	ND		14	1	03/06/09 15:30	TLE	4935850
4-Chlorotoluene	ND		7	1	03/06/09 15:30	TLE	4935850
4-Isopropyltoluene	ND		7	1	03/06/09 15:30	TLE	4935850
4-Methyl-2-pentanone	ND		14	1	03/06/09 15:30	TLE	4935850
Acetone	ND		140	1	03/06/09 15:30	TLE	4935850
Acrylonitrile	ND		70	1	03/06/09 15:30	TLE	4935850
Benzene	ND		7	1	03/06/09 15:30	TLE	4935850
Bromobenzene	ND		7	1	03/06/09 15:30	TLE	4935850
Bromochloromethane	ND		7	1	03/06/09 15:30	TLE	4935850
Bromodichloromethane	ND		7	1	03/06/09 15:30	TLE	4935850
Bromoform	ND		7	1	03/06/09 15:30	TLE	4935850
Bromomethane	ND		14	1	03/06/09 15:30	TLE	4935850
Carbon disulfide	ND		7	1	03/06/09 15:30	TLE	4935850
Carbon tetrachloride	ND		7	1	03/06/09 15:30	TLE	4935850
Chlorobenzene	ND		7	1	03/06/09 15:30	TLE	4935850

Qualifiers:

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J - Estimated Value between MDL and PQL
E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
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MI - Matrix Interference

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

Client Sample ID: MW-1 (5-6.5) **Collected:** 03/04/2009 13:47 **SPL Sample ID:** 09030249-01

Site: Albuquerque, NM.

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Chloroethane	ND		14	1	03/06/09 15:30	TLE	4935850
Chloroform	ND		7	1	03/06/09 15:30	TLE	4935850
Chloromethane	ND		14	1	03/06/09 15:30	TLE	4935850
Dibromochloromethane	ND		7	1	03/06/09 15:30	TLE	4935850
Dibromomethane	ND		7	1	03/06/09 15:30	TLE	4935850
Dichlorodifluoromethane	ND		14	1	03/06/09 15:30	TLE	4935850
Ethylbenzene	ND		7	1	03/06/09 15:30	TLE	4935850
Hexachlorobutadiene	ND		7	1	03/06/09 15:30	TLE	4935850
Isopropylbenzene	ND		7	1	03/06/09 15:30	TLE	4935850
Methyl tert-butyl ether	ND		7	1	03/06/09 15:30	TLE	4935850
Methylene chloride	ND		7	1	03/06/09 15:30	TLE	4935850
Naphthalene	ND		7	1	03/06/09 15:30	TLE	4935850
n-Butylbenzene	ND		7	1	03/06/09 15:30	TLE	4935850
n-Propylbenzene	ND		7	1	03/06/09 15:30	TLE	4935850
sec-Butylbenzene	ND		7	1	03/06/09 15:30	TLE	4935850
Styrene	ND		7	1	03/06/09 15:30	TLE	4935850
tert-Butylbenzene	ND		7	1	03/06/09 15:30	TLE	4935850
Tetrachloroethene	ND		7	1	03/06/09 15:30	TLE	4935850
Toluene	ND		7	1	03/06/09 15:30	TLE	4935850
Trichloroethene	ND		7	1	03/06/09 15:30	TLE	4935850
Trichlorofluoromethane	ND		7	1	03/06/09 15:30	TLE	4935850
Vinyl acetate	ND		14	1	03/06/09 15:30	TLE	4935850
Vinyl chloride	ND		14	1	03/06/09 15:30	TLE	4935850
cis-1,2-Dichloroethene	ND		7	1	03/06/09 15:30	TLE	4935850
cis-1,3-Dichloropropene	ND		7	1	03/06/09 15:30	TLE	4935850
m,p-Xylene	ND		7	1	03/06/09 15:30	TLE	4935850
o-Xylene	ND		7	1	03/06/09 15:30	TLE	4935850
trans-1,2-Dichloroethene	ND		7	1	03/06/09 15:30	TLE	4935850
trans-1,3-Dichloropropene	ND		7	1	03/06/09 15:30	TLE	4935850
Xylenes,Total	ND		7	1	03/06/09 15:30	TLE	4935850
1,2-Dichloroethene (total)	ND		7	1	03/06/09 15:30	TLE	4935850
Surr: 1,2-Dichloroethane-d4	96.0		% 64-130	1	03/06/09 15:30	TLE	4935850
Surr: 4-Bromofluorobenzene	96.0		% 62-130	1	03/06/09 15:30	TLE	4935850
Surr: Toluene-d8	98.0		% 70-140	1	03/06/09 15:30	TLE	4935850

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5035A	03/05/2009 17:35	AG	1.00

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

Client Sample ID: MW-3 (5-6.5) **Collected:** 03/04/2009 15:35 **SPL Sample ID:** 09030249-02

Site: Albuquerque, NM.

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
ALKALINITY (AS CACO3), TOTAL				**MCL**	**E310.1**	**Units: mg/Kg-dry**	
Alkalinity, Total (As CaCO3)	368		27.2	1	03/15/09 12:30	PAC	4947492
ION CHROMATOGRAPHY				**MCL**	**E300.0 MOD**	**Units: mg/kg-dry**	
Bromide	ND		6.81	1	03/10/09 20:31	BDG	4943095
Chloride	214		6.81	1	03/10/09 20:31	BDG	4943095
Fluoride	ND		6.81	1	03/10/09 20:31	BDG	4943095
Ortho-phosphate (As P)	57.7		6.81	1	03/10/09 20:31	BDG	4943095
Sulfate	3850		341	50	03/11/09 19:18	BDG	4943694
Nitrogen,Nitrate (As N)	ND		5	1	03/10/09 20:31	BDG	4943118
Nitrogen,Nitrite (As N)	ND		5	1	03/10/09 20:31	BDG	4943118
MERCURY, TOTAL				**MCL**	**SW7471A**	**Units: mg/kg-dry**	
Mercury	ND		0.0409	1	03/13/09 17:54	F_S	4946642

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7471A	03/13/2009 16:00	F_S	1.00

METALS BY METHOD 6010B, TOTAL				**MCL**	**SW6010B**	**Units: mg/kg-dry**	
Aluminum	20300		13.6	1	03/14/09 16:18	EG	4947298
Boron	ND		13.6	1	03/14/09 16:18	EG	4947298
Calcium	10700		13.6	1	03/14/09 19:26	EG	4947338
Iron	22500		2.72	1	03/14/09 16:18	EG	4947298
Magnesium	5190		13.6	1	03/14/09 16:18	EG	4947298
Potassium	2150		272	1	03/14/09 16:18	EG	4947298
Sodium	8310		68.1	1	03/14/09 16:18	EG	4947298
Strontium	221		2.72	1	03/14/09 19:26	EG	4947338
Tin	ND		6.81	1	03/14/09 16:18	EG	4947298

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3050B	03/13/2009 9:20	AB1	1.00

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TNTC - Too numerous to count
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HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW-3 (5-6.5) **Collected:** 03/04/2009 15:35 **SPL Sample ID:** 09030249-02

Site: Albuquerque, NM.

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
METALS BY METHOD 6020A, TOTAL				**MCL**	**SW6020A**	**Units: mg/kg-dry**	
Antimony	ND		0.681	1	03/13/09 20:58	S_C	4947815
Arsenic	3.12		0.681	1	03/13/09 20:58	S_C	4947815
Barium	156		0.681	1	03/16/09 14:38	S_C	4948982
Beryllium	1.54		0.545	1	03/23/09 17:56	S_C	4958062
Cadmium	ND		0.681	1	03/13/09 20:58	S_C	4947815
Chromium	11.1		0.681	1	03/13/09 20:58	S_C	4947815
Cobalt	9.38		0.681	1	03/16/09 14:38	S_C	4948982
Copper	21.6		0.681	1	03/13/09 20:58	S_C	4947815
Lead	15.9		0.681	1	03/13/09 20:58	S_C	4947815
Manganese	372		0.681	1	03/16/09 14:38	S_C	4948982
Molybdenum	ND		0.681	1	03/13/09 20:58	S_C	4947815
Nickel	11.7		0.681	1	03/16/09 14:38	S_C	4948982
Selenium	ND		0.681	1	03/13/09 20:58	S_C	4947815
Silver	ND		0.681	1	03/13/09 20:58	S_C	4947815
Thallium	ND		0.681	1	03/13/09 20:58	S_C	4947815
Vanadium	22.6		0.681	1	03/13/09 20:58	S_C	4947815
Zinc	46.9		1.36	1	03/23/09 17:56	S_C	4958062

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3050B	03/13/2009 9:20	AB1	1.00

PERCENT MOISTURE				**MCL**	**D2216**	**Units: wt%**	
Percent Moisture	26.6		0	1	03/13/09 16:35	CFS	4946242

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

Client Sample ID: MW-3 (5-6.5) **Collected:** 03/04/2009 15:35 **SPL Sample ID:** 09030249-02

Site: Albuquerque, NM.

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
SEMIVOLATILE ORGANICS BY METHOD 8270C			**MCL**	**SW8270C**	**Units: ug/kg-dry**		
1,2,4-Trichlorobenzene	ND		450	1	03/14/09 0:01	GY	4949082
1,2-Dichlorobenzene	ND		450	1	03/14/09 0:01	GY	4949082
1,2-Diphenylhydrazine	ND		450	1	03/14/09 0:01	GY	4949082
1,3-Dichlorobenzene	ND		450	1	03/14/09 0:01	GY	4949082
1,4-Dichlorobenzene	ND		450	1	03/14/09 0:01	GY	4949082
2,4,5-Trichlorophenol	ND		1100	1	03/14/09 0:01	GY	4949082
2,4,6-Trichlorophenol	ND		450	1	03/14/09 0:01	GY	4949082
2,4-Dichlorophenol	ND		450	1	03/14/09 0:01	GY	4949082
2,4-Dimethylphenol	ND		450	1	03/14/09 0:01	GY	4949082
2,4-Dinitrophenol	ND		1100	1	03/14/09 0:01	GY	4949082
2,4-Dinitrotoluene	ND		1100	1	03/14/09 0:01	GY	4949082
2,6-Dinitrotoluene	ND		450	1	03/14/09 0:01	GY	4949082
2-Chloronaphthalene	ND		450	1	03/14/09 0:01	GY	4949082
2-Chlorophenol	ND		450	1	03/14/09 0:01	GY	4949082
2-Methylnaphthalene	ND		450	1	03/14/09 0:01	GY	4949082
2-Nitroaniline	ND		1100	1	03/14/09 0:01	GY	4949082
2-Nitrophenol	ND		450	1	03/14/09 0:01	GY	4949082
3,3'-Dichlorobenzidine	ND		450	1	03/14/09 0:01	GY	4949082
3-Nitroaniline	ND		1100	1	03/14/09 0:01	GY	4949082
4,6-Dinitro-2-methylphenol	ND		1100	1	03/14/09 0:01	GY	4949082
4-Bromophenyl phenyl ether	ND		450	1	03/14/09 0:01	GY	4949082
4-Chloro-3-methylphenol	ND		450	1	03/14/09 0:01	GY	4949082
4-Chloroaniline	ND		450	1	03/14/09 0:01	GY	4949082
4-Chlorophenyl phenyl ether	ND		450	1	03/14/09 0:01	GY	4949082
4-Nitroaniline	ND		1100	1	03/14/09 0:01	GY	4949082
4-Nitrophenol	ND		1100	1	03/14/09 0:01	GY	4949082
Acenaphthene	ND		450	1	03/14/09 0:01	GY	4949082
Acenaphthylene	ND		450	1	03/14/09 0:01	GY	4949082
Aniline	ND		450	1	03/14/09 0:01	GY	4949082
Anthracene	ND		450	1	03/14/09 0:01	GY	4949082
Benz(a)anthracene	ND		450	1	03/14/09 0:01	GY	4949082
Benzo(a)pyrene	ND		450	1	03/14/09 0:01	GY	4949082
Benzo(b)fluoranthene	ND		450	1	03/14/09 0:01	GY	4949082
Benzo(g,h,i)perylene	ND		450	1	03/14/09 0:01	GY	4949082
Benzo(k)fluoranthene	ND		450	1	03/14/09 0:01	GY	4949082
Benzoic acid	ND		2200	1	03/14/09 0:01	GY	4949082
Benzyl alcohol	ND		450	1	03/14/09 0:01	GY	4949082
Bis(2-chloroethoxy)methane	ND		450	1	03/14/09 0:01	GY	4949082
Bis(2-chloroethyl)ether	ND		450	1	03/14/09 0:01	GY	4949082

Qualifiers:

ND/U - Not Detected at the Reporting Limit
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HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW-3 (5-6.5) **Collected:** 03/04/2009 15:35 **SPL Sample ID:** 09030249-02

Site: Albuquerque, NM.

Analyses/Method	Result	QUAL		Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Bis(2-chloroisopropyl)ether	ND			450	1	03/14/09 0:01	GY	4949082
Bis(2-ethylhexyl)phthalate	ND			450	1	03/14/09 0:01	GY	4949082
Butyl benzyl phthalate	ND			450	1	03/14/09 0:01	GY	4949082
Carbazole	ND			450	1	03/14/09 0:01	GY	4949082
Chrysene	ND			450	1	03/14/09 0:01	GY	4949082
Dibenz(a,h)anthracene	ND			450	1	03/14/09 0:01	GY	4949082
Dibenzofuran	ND			450	1	03/14/09 0:01	GY	4949082
Diethyl phthalate	ND			450	1	03/14/09 0:01	GY	4949082
Dimethyl phthalate	ND			450	1	03/14/09 0:01	GY	4949082
Di-n-butyl phthalate	ND			450	1	03/14/09 0:01	GY	4949082
Di-n-octyl phthalate	ND			450	1	03/14/09 0:01	GY	4949082
Fluoranthene	ND			450	1	03/14/09 0:01	GY	4949082
Fluorene	ND			450	1	03/14/09 0:01	GY	4949082
Hexachlorobenzene	ND			450	1	03/14/09 0:01	GY	4949082
Hexachlorobutadiene	ND			450	1	03/14/09 0:01	GY	4949082
Hexachlorocyclopentadiene	ND			450	1	03/14/09 0:01	GY	4949082
Hexachloroethane	ND			450	1	03/14/09 0:01	GY	4949082
Indeno(1,2,3-cd)pyrene	ND			450	1	03/14/09 0:01	GY	4949082
Isophorone	ND			450	1	03/14/09 0:01	GY	4949082
Naphthalene	ND			450	1	03/14/09 0:01	GY	4949082
Nitrobenzene	ND			450	1	03/14/09 0:01	GY	4949082
N-Nitrosodi-n-propylamine	ND			450	1	03/14/09 0:01	GY	4949082
N-Nitrosodiphenylamine	ND			450	1	03/14/09 0:01	GY	4949082
Pentachlorophenol	ND			1100	1	03/14/09 0:01	GY	4949082
Phenanthrene	ND			450	1	03/14/09 0:01	GY	4949082
Phenol	ND			450	1	03/14/09 0:01	GY	4949082
Pyrene	ND			450	1	03/14/09 0:01	GY	4949082
Pyridine	ND			450	1	03/14/09 0:01	GY	4949082
2-Methylphenol	ND			450	1	03/14/09 0:01	GY	4949082
3 & 4-Methylphenol	ND			450	1	03/14/09 0:01	GY	4949082
Surr: 2,4,6-Tribromophenol	76.0		%	19-135	1	03/14/09 0:01	GY	4949082
Surr: 2-Fluorobiphenyl	70.6		%	15-140	1	03/14/09 0:01	GY	4949082
Surr: 2-Fluorophenol	72.0		%	15-122	1	03/14/09 0:01	GY	4949082
Surr: Nitrobenzene-d5	76.5		%	10-134	1	03/14/09 0:01	GY	4949082
Surr: Phenol-d5	72.0		%	10-123	1	03/14/09 0:01	GY	4949082
Surr: Terphenyl-d14	70.6		%	18-166	1	03/14/09 0:01	GY	4949082

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3550B	03/13/2009 14:08	QMT	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - 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

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

Client Sample ID: MW-3 (5-6.5) **Collected:** 03/04/2009 15:35 **SPL Sample ID:** 09030249-02

Site: Albuquerque, NM.

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
TOTAL PETROLEUM HYDROCARBONS				**MCL**	**E418.1**	**Units: mg/kg-dry**	
Petroleum Hydrocarbons,TR	ND		14	1	03/11/09 17:01	LLL	4943504

Prep Method	Prep Date	Prep Initials	Prep Factor
	03/11/2009 13:23		1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - 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

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

Client Sample ID: MW-3 (5-6.5) **Collected:** 03/04/2009 15:35 **SPL Sample ID:** 09030249-02

Site: Albuquerque, NM.

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/kg-dry**		
1,1,1,2-Tetrachloroethane	ND		6.8	1	03/13/09 15:54	JWW	4948044
1,1,1-Trichloroethane	ND		6.8	1	03/13/09 15:54	JWW	4948044
1,1,2,2-Tetrachloroethane	ND		6.8	1	03/13/09 15:54	JWW	4948044
1,1,2-Trichloroethane	ND		6.8	1	03/13/09 15:54	JWW	4948044
1,1-Dichloroethane	ND		6.8	1	03/13/09 15:54	JWW	4948044
1,1-Dichloroethene	ND		6.8	1	03/13/09 15:54	JWW	4948044
1,1-Dichloropropene	ND		6.8	1	03/13/09 15:54	JWW	4948044
1,2,3-Trichlorobenzene	ND		6.8	1	03/13/09 15:54	JWW	4948044
1,2,3-Trichloropropane	ND		6.8	1	03/13/09 15:54	JWW	4948044
1,2,4-Trichlorobenzene	ND		6.8	1	03/13/09 15:54	JWW	4948044
1,2,4-Trimethylbenzene	ND		6.8	1	03/13/09 15:54	JWW	4948044
1,2-Dibromo-3-chloropropane	ND		6.8	1	03/13/09 15:54	JWW	4948044
1,2-Dibromoethane	ND		6.8	1	03/13/09 15:54	JWW	4948044
1,2-Dichlorobenzene	ND		6.8	1	03/13/09 15:54	JWW	4948044
1,2-Dichloroethane	ND		6.8	1	03/13/09 15:54	JWW	4948044
1,2-Dichloropropane	ND		6.8	1	03/13/09 15:54	JWW	4948044
1,3,5-Trimethylbenzene	ND		6.8	1	03/13/09 15:54	JWW	4948044
1,3-Dichlorobenzene	ND		6.8	1	03/13/09 15:54	JWW	4948044
1,3-Dichloropropane	ND		6.8	1	03/13/09 15:54	JWW	4948044
1,4-Dichlorobenzene	ND		6.8	1	03/13/09 15:54	JWW	4948044
2,2-Dichloropropane	ND		6.8	1	03/13/09 15:54	JWW	4948044
2-Butanone	ND		27	1	03/13/09 15:54	JWW	4948044
2-Chloroethyl vinyl ether	ND		14	1	03/13/09 15:54	JWW	4948044
2-Chlorotoluene	ND		6.8	1	03/13/09 15:54	JWW	4948044
2-Hexanone	ND		14	1	03/13/09 15:54	JWW	4948044
4-Chlorotoluene	ND		6.8	1	03/13/09 15:54	JWW	4948044
4-Isopropyltoluene	ND		6.8	1	03/13/09 15:54	JWW	4948044
4-Methyl-2-pentanone	ND		14	1	03/13/09 15:54	JWW	4948044
Acetone	ND		14	1	03/13/09 15:54	JWW	4948044
Acrylonitrile	ND		68	1	03/13/09 15:54	JWW	4948044
Benzene	ND		6.8	1	03/13/09 15:54	JWW	4948044
Bromobenzene	ND		6.8	1	03/13/09 15:54	JWW	4948044
Bromochloromethane	ND		6.8	1	03/13/09 15:54	JWW	4948044
Bromodichloromethane	ND		6.8	1	03/13/09 15:54	JWW	4948044
Bromoform	ND		6.8	1	03/13/09 15:54	JWW	4948044
Bromomethane	ND		14	1	03/13/09 15:54	JWW	4948044
Carbon disulfide	ND		6.8	1	03/13/09 15:54	JWW	4948044
Carbon tetrachloride	ND		6.8	1	03/13/09 15:54	JWW	4948044
Chlorobenzene	ND		6.8	1	03/13/09 15:54	JWW	4948044

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - 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

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

Client Sample ID: MW-3 (5-6.5) **Collected:** 03/04/2009 15:35 **SPL Sample ID:** 09030249-02

Site: Albuquerque, NM.

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Chloroethane	ND		14	1	03/13/09 15:54	JWW	4948044
Chloroform	ND		6.8	1	03/13/09 15:54	JWW	4948044
Chloromethane	ND		14	1	03/13/09 15:54	JWW	4948044
Dibromochloromethane	ND		6.8	1	03/13/09 15:54	JWW	4948044
Dibromomethane	ND		6.8	1	03/13/09 15:54	JWW	4948044
Dichlorodifluoromethane	ND		14	1	03/13/09 15:54	JWW	4948044
Ethylbenzene	ND		6.8	1	03/13/09 15:54	JWW	4948044
Hexachlorobutadiene	ND		6.8	1	03/13/09 15:54	JWW	4948044
Isopropylbenzene	ND		6.8	1	03/13/09 15:54	JWW	4948044
Methyl tert-butyl ether	ND		6.8	1	03/13/09 15:54	JWW	4948044
Methylene chloride	ND		6.8	1	03/13/09 15:54	JWW	4948044
Naphthalene	ND		6.8	1	03/13/09 15:54	JWW	4948044
n-Butylbenzene	ND		6.8	1	03/13/09 15:54	JWW	4948044
n-Propylbenzene	ND		6.8	1	03/13/09 15:54	JWW	4948044
sec-Butylbenzene	ND		6.8	1	03/13/09 15:54	JWW	4948044
Styrene	ND		6.8	1	03/13/09 15:54	JWW	4948044
tert-Butylbenzene	ND		6.8	1	03/13/09 15:54	JWW	4948044
Tetrachloroethene	ND		6.8	1	03/13/09 15:54	JWW	4948044
Toluene	ND		6.8	1	03/13/09 15:54	JWW	4948044
Trichloroethene	ND		6.8	1	03/13/09 15:54	JWW	4948044
Trichlorofluoromethane	ND		6.8	1	03/13/09 15:54	JWW	4948044
Vinyl acetate	ND		6.8	1	03/13/09 15:54	JWW	4948044
Vinyl chloride	ND		6.8	1	03/13/09 15:54	JWW	4948044
cis-1,2-Dichloroethene	ND		6.8	1	03/13/09 15:54	JWW	4948044
cis-1,3-Dichloropropene	ND		6.8	1	03/13/09 15:54	JWW	4948044
m,p-Xylene	ND		6.8	1	03/13/09 15:54	JWW	4948044
o-Xylene	ND		6.8	1	03/13/09 15:54	JWW	4948044
trans-1,2-Dichloroethene	ND		6.8	1	03/13/09 15:54	JWW	4948044
trans-1,3-Dichloropropene	ND		6.8	1	03/13/09 15:54	JWW	4948044
1,2-Dichloroethene (total)	ND		6.8	1	03/13/09 15:54	JWW	4948044
Xylenes,Total	ND		6.8	1	03/13/09 15:54	JWW	4948044
Surr: 1,2-Dichloroethane-d4	96.5		% 62-169	1	03/13/09 15:54	JWW	4948044
Surr: 4-Bromofluorobenzene	103		% 64-147	1	03/13/09 15:54	JWW	4948044
Surr: Toluene-d8	102		% 52-152	1	03/13/09 15:54	JWW	4948044

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	03/13/2009 13:28	AG	1.00

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>MCL - Result Over Maximum Contamination Limit(MCL)
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Quality Control Documentation

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

Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Total Petroleum Hydrocarbons **WorkOrder:** 09030249
Method: E418.1 **Lab Batch ID:** R267517

Method Blank

RunID: EX_090311D-4943499 Units: mg/kg
Analysis Date: 03/11/2009 17:01 Analyst: LLL
Preparation Date: 03/11/2009 13:23 Prep By: Method:

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-01B	MW-1 (5-6.5)
09030249-02B	MW-3 (5-6.5)

Analyte	Result	Rep Limit
Petroleum Hydrocarbons,TR	ND	10

Laboratory Control Sample (LCS)

RunID: EX_090311D-4943500 Units: mg/kg
Analysis Date: 03/11/2009 17:01 Analyst: LLL
Preparation Date: 03/11/2009 13:23 Prep By: Method:

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Petroleum Hydrocarbons,TR	200	195	97.5	80	120

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

Sample Spiked: 09030249-01
RunID: EX_090311D-4943508 Units: mg/kg-dry
Analysis Date: 03/11/2009 17:01 Analyst: LLL
Preparation Date: 03/11/2009 13:23 Prep By: Method:

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Petroleum Hydrocarbons,TR	ND	279	258	90.0	279	272	95.0	5.26	20	75	125

Qualifiers:
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E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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.

HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Volatile Organics by Method 8260B
Method: SW8260B
WorkOrder: 09030249
Lab Batch ID: R267869

Method Blank

RunID: MSDVOA4_090313B-4948052 Units: ug/kg
Analysis Date: 03/13/2009 13:43 Analyst: JWW
Preparation Date: 03/13/2009 13:43 Prep By: Method:

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-02A	MW-3 (5-6.5)

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	10
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
Chloromethane	ND	10
Dibromochloromethane	ND	5.0
Dibromomethane	ND	5.0
Dichlorodifluoromethane	ND	10
Ethylbenzene	ND	5.0

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
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D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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

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

Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Volatile Organics by Method 8260B **WorkOrder:** 09030249
Method: SW8260B **Lab Batch ID:** R267869

Method Blank

RunID: MSDVOA4_090313B-4948052 Units: ug/kg
Analysis Date: 03/13/2009 13:43 Analyst: JWW
Preparation Date: 03/13/2009 13:43 Prep By: Method:

Analyte	Result	Rep Limit
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	5.0
Vinyl chloride	ND	5.0
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	90.9	62-169
Surr: 4-Bromofluorobenzene	101.9	64-147
Surr: Toluene-d8	100.8	52-152

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: MSDVOA4_090313B-49480 Units: ug/kg
Analysis Date: 03/13/2009 12:37 Analyst: JWW
Preparation Date: 03/13/2009 12:37 Prep By: Method: SW5030B

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
1,1,1,2-Tetrachloroethane	20.0	17.4	87.0	20.0	17.7	88.4	1.7	30	77	126
1,1,1-Trichloroethane	20.0	17.3	86.3	20.0	17.2	86.0	0.3	35	70	130
1,1,2,2-Tetrachloroethane	20.0	20.1	100	20.0	19.8	99.2	1.1	27	71	130
1,1,2-Trichloroethane	20.0	20.2	101	20.0	20.6	103	2.1	31	75	126

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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.

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

Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Volatile Organics by Method 8260B **WorkOrder:** 09030249
Method: SW8260B **Lab Batch ID:** R267869

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: MSDVOA4_090313B-49480 Units: ug/kg
Analysis Date: 03/13/2009 12:37 Analyst: JWW
Preparation Date: 03/13/2009 12:37 Prep By: Method: SW5030B

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
1,1-Dichloroethane	20.0	19.2	96.1	20.0	18.9	94.7	1.5	35	70	130
1,1-Dichloroethene	20.0	21.1	105	20.0	21.7	108	2.8	35	70	130
1,1-Dichloropropene	20.0	19.6	98.1	20.0	20.1	100	2.2	34	70	130
1,2,3-Trichlorobenzene	20.0	19.4	96.9	20.0	20.3	101	4.5	32	67	114
1,2,3-Trichloropropane	20.0	19.1	95.5	20.0	19.4	97.1	1.6	27	77	128
1,2,4-Trichlorobenzene	20.0	19.7	98.6	20.0	20.1	100	1.8	28	50	123
1,2,4-Trimethylbenzene	20.0	19.7	98.7	20.0	19.2	95.8	3.0	27	67	128
1,2-Dibromo-3-chloropropane	20.0	15.4	77.0	20.0	15.9	79.4	3.1	34	66	135
1,2-Dibromoethane	20.0	19.9	99.7	20.0	20.7	103	3.6	17	70	130
1,2-Dichlorobenzene	20.0	19.5	97.7	20.0	19.7	98.4	0.6	20	70	130
1,2-Dichloroethane	20.0	18.5	92.5	20.0	18.8	94.2	1.8	16	70	130
1,2-Dichloropropane	20.0	18.2	90.8	20.0	18.9	94.4	3.8	20	76	122
1,3,5-Trimethylbenzene	20.0	19.8	99.0	20.0	19.4	96.8	2.2	37	62	129
1,3-Dichlorobenzene	20.0	20.3	101	20.0	19.6	98.1	3.3	33	70	130
1,3-Dichloropropane	20.0	20.1	100	20.0	21.1	106	5.0	16	70	125
1,4-Dichlorobenzene	20.0	19.1	95.5	20.0	19.5	97.6	2.2	27	70	130
2,2-Dichloropropane	20.0	16.7	83.4	20.0	16.7	83.6	0.3	39	70	130
2-Butanone	20.0	17.2	86.1	20.0	17.5	87.3	1.3	32	69	146
2-Chloroethyl vinyl ether	20.0	18.1	90.5	20.0	19.1	95.5	5.4	43	53	150
2-Chlorotoluene	20.0	20.6	103	20.0	20.1	101	2.2	46	70	130
2-Hexanone	20.0	16.2	81.0	20.0	18.0	89.9	10.5	41	74	139
4-Chlorotoluene	20.0	20.3	102	20.0	20.0	99.8	1.9	25	70	130
4-Isopropyltoluene	20.0	19.3	96.4	20.0	19.2	96.0	0.4	41	67	130
4-Methyl-2-pentanone	20.0	18.4	91.8	20.0	19.1	95.3	3.8	28	70	124
Acetone	20.0	19.6	97.9	20.0	20.2	101	3.2	42	64	158
Acrylonitrile	20.0	18.3	91.4	20.0	19.5	97.5	6.5	36	63	130
Benzene	20.0	20.2	101	20.0	20.6	103	1.6	33	65	132
Bromobenzene	20.0	19.7	98.7	20.0	19.5	97.4	1.4	31	70	130
Bromochloromethane	20.0	18.2	91.0	20.0	18.3	91.6	0.7	33	70	129
Bromodichloromethane	20.0	17.0	84.9	20.0	16.8	84.2	0.8	33	72	123
Bromoform	20.0	14.9	74.4	20.0	14.5	72.7	2.3	37	70	127
Bromomethane	20.0	20.3	102	20.0	20.3	102	0.2	33	65	150
Carbon disulfide	20.0	18.1	90.3	20.0	18.2	91.0	0.8	36	53	125

Qualifiers:
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HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Volatile Organics by Method 8260B **WorkOrder:** 09030249
Method: SW8260B **Lab Batch ID:** R267869

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: MSDVOA4_090313B-49480 Units: ug/kg
Analysis Date: 03/13/2009 12:37 Analyst: JWW
Preparation Date: 03/13/2009 12:37 Prep By: Method: SW5030B

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
Carbon tetrachloride	20.0	16.5	82.6	20.0	16.8	84.2	1.8	38	70	130
Chlorobenzene	20.0	19.2	95.9	20.0	19.0	95.0	0.9	31	70	130
Chloroethane	20.0	18.1	90.5	20.0	18.1	90.7	0.2	36	67	163
Chloroform	20.0	20.1	100	20.0	20.8	104	3.6	33	70	128
Chloromethane	20.0	18.3	91.4	20.0	18.4	91.9	0.6	36	53	131
Dibromochloromethane	20.0	16.3	81.5	20.0	17.3	86.4	5.9	32	72	122
Dibromomethane	20.0	18.4	92.1	20.0	20.2	101	9.1	30	70	130
Dichlorodifluoromethane	20.0	14.8	73.8	20.0	14.4	72.1	2.3	37	47	127
Ethylbenzene	20.0	19.1	95.3	20.0	18.9	94.3	1.1	35	71	140
Hexachlorobutadiene	20.0	19.1	95.3	20.0	19.3	96.3	1.1	31	78	121
Isopropylbenzene	20.0	19.9	99.7	20.0	20.0	99.8	0.1	38	62	139
Methyl tert-butyl ether	20.0	18.9	94.5	20.0	19.2	96.0	1.6	35	70	130
Methylene chloride	20.0	19.1	95.6	20.0	19.5	97.4	1.8	26	50	150
Naphthalene	20.0	19.3	96.7	20.0	20.5	103	6.0	37	63	130
n-Butylbenzene	20.0	19.6	98.1	20.0	19.9	99.6	1.5	33	62	132
n-Propylbenzene	20.0	20.2	101	20.0	19.2	95.9	4.9	35	62	124
sec-Butylbenzene	20.0	19.6	98.1	20.0	19.3	96.4	1.8	37	65	129
Styrene	20.0	19.0	95.0	20.0	18.7	93.3	1.8	24	70	130
tert-Butylbenzene	20.0	19.8	99.2	20.0	19.1	95.5	3.8	34	69	130
Tetrachloroethene	20.0	19.3	96.7	20.0	19.6	98.2	1.6	38	65	145
Toluene	20.0	20.6	103	20.0	20.7	104	0.9	36	65	140
Trichloroethene	20.0	19.8	99.1	20.0	19.9	99.4	0.3	41	70	130
Trichlorofluoromethane	20.0	19.7	98.6	20.0	20.8	104	5.2	34	58	119
Vinyl acetate	20.0	16.2	81.1	20.0	16.6	83.1	2.5	30	50	128
Vinyl chloride	20.0	19.9	99.3	20.0	17.7	88.7	11.3	39	50	175
cis-1,2-Dichloroethene	20.0	18.8	94.0	20.0	19.5	97.5	3.6	30	64	130
cis-1,3-Dichloropropene	20.0	17.8	89.0	20.0	17.8	88.8	0.2	27	76	120
m,p-Xylene	40.0	38.0	95.1	40.0	37.6	94.0	1.1	35	70	143
o-Xylene	20.0	19.4	96.8	20.0	19.2	96.0	0.9	35	75	140
trans-1,2-Dichloroethene	20.0	19.5	97.5	20.0	19.2	95.8	1.8	35	53	129
trans-1,3-Dichloropropene	20.0	16.2	81.0	20.0	16.6	82.8	2.3	24	74	119
1,2-Dichloroethene (total)	40.0	38.3	95.8	40.0	38.7	96.7	0.9	35	53	130
Xylenes,Total	60.0	57.4	95.7	60.0	56.8	94.7	1.0	35	70	143

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Volatile Organics by Method 8260B **WorkOrder:** 09030249
Method: SW8260B **Lab Batch ID:** R267869

Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD)

RunID: MSDVOA4_090313B-49480 Units: ug/kg
Analysis Date: 03/13/2009 12:37 Analyst: JWW
Preparation Date: 03/13/2009 12:37 Prep By: Method: SW5030B

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
Surr: 1,2-Dichloroethane-d4	50.0	46.0	91.9	50.0	46.4	92.7	0.9	30	62	169
Surr: 4-Bromofluorobenzene	50.0	50.1	100	50.0	49.4	98.9	1.2	30	64	147
Surr: Toluene-d8	50.0	50.6	101	50.0	50.6	101	0.0	30	52	152

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

Sample Spiked: 09030249-02
RunID: MSDVOA4_090313B-49480 Units: ug/kg-dry
Analysis Date: 03/13/2009 16:16 Analyst: JWW
Preparation Date: 03/13/2009 15:22 Prep By: EMB 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	27.2	16.1	59.3	27.2	21.3	78.1	27.4	30	41	144
1,1,1-Trichloroethane	ND	27.2	22.4	82.4	27.2	26.1	95.9	15.2	35	43	156
1,1,2,2-Tetrachloroethane	ND	27.2	15.2	55.9	27.2	24.4	89.5	46.3 *	27	52	140
1,1,2-Trichloroethane	ND	27.2	17.1	62.9	27.2	24.6	90.3	35.8 *	31	57	129
1,1-Dichloroethane	ND	27.2	21.7	79.5	27.2	27.6	101	23.9	35	46	161
1,1-Dichloroethene	ND	27.2	28.3	104	27.2	33.7	124	17.3	35	42	155
1,1-Dichloropropene	ND	27.2	26.5	97.4	27.2	30.3	111	13.4	34	46	154
1,2,3-Trichlorobenzene	ND	27.2	14.4	52.8	27.2	21.1	77.5	37.9 *	32	22	148
1,2,3-Trichloropropane	ND	27.2	15.6	57.3	27.2	23.7	86.9	41.0 *	27	55	135
1,2,4-Trichlorobenzene	ND	27.2	15.5	57.0	27.2	21.2	78.0	31.2 *	28	20	149
1,2,4-Trimethylbenzene	ND	27.2	21.0	77.0	27.2	27.1	99.4	25.3	27	46	151
1,2-Dibromo-3-chloropropane	ND	27.2	11.5	42.1	27.2	20.2	74.2	55.3 *	34	28	129
1,2-Dibromoethane	ND	27.2	16.7	61.4 *	27.2	24.6	90.2	38.0 *	17	64	139
1,2-Dichlorobenzene	ND	27.2	16.5	60.6	27.2	24.2	88.9	37.9 *	20	38	138
1,2-Dichloroethane	ND	27.2	15.7	57.7 *	27.2	22.7	83.5	36.5 *	16	62	130
1,2-Dichloropropane	ND	27.2	18.1	66.3	27.2	24.1	88.4	28.6 *	20	56	141
1,3,5-Trimethylbenzene	ND	27.2	22.9	84.0	27.2	28.0	103	20.0	37	46	153
1,3-Dichlorobenzene	ND	27.2	19.2	70.5	27.2	25.0	91.7	26.1	33	39	144

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Volatile Organics by Method 8260B **WorkOrder:** 09030249
Method: SW8260B **Lab Batch ID:** R267869

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

Sample Spiked: 09030249-02
RunID: MSDVOA4_090313B-49480 Units: ug/kg-dry
Analysis Date: 03/13/2009 16:16 Analyst: JWW
Preparation Date: 03/13/2009 15:22 Prep By: EMB 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
1,3-Dichloropropane	ND	27.2	17.1	62.6	27.2	24.3	89.1	35.0 *	16	49	135
1,4-Dichlorobenzene	ND	27.2	17.7	64.9	27.2	24.5	90.0	32.4 *	27	39	137
2,2-Dichloropropane	ND	27.2	21.2	77.8	27.2	23.6	86.5	10.6	39	44	155
2-Butanone	ND	27.2	21.5	78.8	27.2	28.2	103	26.9	32	14	157
2-Chloroethyl vinyl ether	ND	27.2	10.6	39.1	27.2	16.8	61.8	45.0 *	43	23	150
2-Chlorotoluene	ND	27.2	21.6	79.1	27.2	27.3	100	23.6	46	50	143
2-Hexanone	ND	27.2	14.2	52.2	27.2	20.3	74.5	35.3	41	16	132
4-Chlorotoluene	ND	27.2	20.5	75.2	27.2	27.3	100	28.4 *	25	30	154
4-Isopropyltoluene	ND	27.2	22.9	84.0	27.2	28.0	103	20.0	41	22	167
4-Methyl-2-pentanone	ND	27.2	14.2	52.0	27.2	22.1	81.0	43.7 *	28	28	142
Acetone	ND	27.2	29.5	85.7	27.2	40.4	126	31.3	42	34	176
Acrylonitrile	ND	27.2	18.2	66.8	27.2	24.3	89.2	28.8	36	34	162
Benzene	ND	27.2	22.8	83.8	27.2	28.1	103	20.8	33	41	154
Bromobenzene	ND	27.2	18.0	66.1	27.2	25.6	93.9	34.8 *	31	53	133
Bromochloromethane	ND	27.2	15.5	57.0	27.2	22.9	83.9	38.1 *	33	45	145
Bromodichloromethane	ND	27.2	15.2	55.6	27.2	21.5	79.0	34.7 *	33	39	140
Bromoform	ND	27.2	10.2	37.5	27.2	16.4	60.0	46.2 *	37	32	128
Bromomethane	ND	27.2	21.1	77.4	27.2	27.3	100	25.5	33	19	187
Carbon disulfide	ND	27.2	22.9	83.9	27.2	26.7	98.0	15.5	36	19	168
Carbon tetrachloride	ND	27.2	22.1	81.1	27.2	25.4	93.4	14.1	38	20	172
Chlorobenzene	ND	27.2	19.3	71.0	27.2	26.2	96.1	30.0	31	23	144
Chloroethane	ND	27.2	22.9	84.2	27.2	26.4	96.8	13.9	36	38	184
Chloroform	ND	27.2	20.8	76.2	27.2	28.8	106	32.5	33	51	152
Chloromethane	ND	27.2	22.8	83.8	27.2	26.7	97.9	15.5	36	31	180
Dibromochloromethane	ND	27.2	12.4	45.7	27.2	18.6	68.1	39.4 *	32	34	135
Dibromomethane	ND	27.2	16.4	60.3 *	27.2	23.0	84.5	33.5 *	30	61	132
Dichlorodifluoromethane	ND	27.2	22.4	82.3	27.2	24.3	89.3	8.21	37	37	179
Ethylbenzene	ND	27.2	22.2	81.5	27.2	27.7	102	22.1	35	32	160
Hexachlorobutadiene	ND	27.2	21.9	80.3	27.2	25.7	94.2	16.0	31	24	160
Isopropylbenzene	ND	27.2	24.3	89.2	27.2	29.2	107	18.4	38	12	180
Methyl tert-butyl ether	ND	27.2	14.9	54.8 *	27.2	22.4	82.1	39.9 *	35	55	138
Methylene chloride	ND	27.2	18.7	51.6	27.2	24.9	74.1	28.1 *	26	31	155

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Volatile Organics by Method 8260B **WorkOrder:** 09030249
Method: SW8260B **Lab Batch ID:** R267869

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

Sample Spiked: 09030249-02
RunID: MSDVOA4_090313B-49480 Units: ug/kg-dry
Analysis Date: 03/13/2009 16:16 Analyst: JWW
Preparation Date: 03/13/2009 15:22 Prep By: EMB 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
Naphthalene	ND	27.2	13.6	50.0	27.2	20.8	76.2	41.5 *	37	17	152
n-Butylbenzene	ND	27.2	24.3	89.0	27.2	29.1	107	18.2	33	27	163
n-Propylbenzene	ND	27.2	23.8	87.3	27.2	29.1	107	20.1	35	43	154
sec-Butylbenzene	ND	27.2	25.0	91.8	27.2	29.2	107	15.5	37	33	165
Styrene	ND	27.2	18.1	66.3	27.2	24.1	88.6	28.8 *	24	19	156
tert-Butylbenzene	ND	27.2	23.8	87.2	27.2	28.6	105	18.6	34	45	159
Tetrachloroethene	ND	27.2	25.7	94.2	27.2	29.6	109	14.2	38	32	172
Toluene	ND	27.2	24.0	87.9	27.2	29.3	108	20.2	36	50	151
Trichloroethene	ND	27.2	23.7	86.9	27.2	28.4	104	18.3	41	55	149
Trichlorofluoromethane	ND	27.2	29.7	109	27.2	33.7	124	12.5	34	29	186
Vinyl acetate	ND	27.2	5.68	20.8 *	27.2	4.44	16.3 *	24.6	30	50	200
Vinyl chloride	ND	27.2	28.3	104	27.2	27.9	102	1.45	39	20	200
cis-1,2-Dichloroethene	ND	27.2	20.7	75.9	27.2	26.4	96.8	24.1	30	58	141
cis-1,3-Dichloropropene	ND	27.2	15.0	54.9	27.2	20.9	76.7	33.2 *	27	45	132
m,p-Xylene	ND	54.5	43.0	79.0	54.5	55.4	102	25.1	35	49	155
o-Xylene	ND	27.2	21.1	77.5	27.2	26.8	98.5	23.9	35	62	143
trans-1,2-Dichloroethene	ND	27.2	23.4	85.8	27.2	28.5	104	19.6	35	40	168
trans-1,3-Dichloropropene	ND	27.2	12.1	44.5 *	27.2	18.3	67.1	40.4 *	24	47	124
1,2-Dichloroethene (total)	ND	54.5	44.1	80.9	54.5	54.9	101	21.8	35	40	168
Xylenes,Total	ND	81.7	64.1	78.5	81.7	82.2	101	24.7	35	49	155
Surr: 1,2-Dichloroethane-d4	ND	68.1	64.1	94.1	68.1	58.8	86.3	8.61	30	62	169
Surr: 4-Bromofluorobenzene	ND	68.1	69.8	102	68.1	67.6	99.3	3.19	30	64	147
Surr: Toluene-d8	ND	68.1	71.8	105	68.1	66.9	98.2	7.02	30	52	152

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Mercury, Total **WorkOrder:** 09030249
Method: SW7471A **Lab Batch ID:** 88531

Method Blank

RunID: HGLC_090306A-4935247 Units: mg/kg
Analysis Date: 03/06/2009 13:12 Analyst: F_S
Preparation Date: 03/06/2009 11:00 Prep By: F_S Method: SW7471A

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-01B	MW-1 (5-6.5)

Analyte	Result	Rep Limit
Mercury	ND	0.03

Laboratory Control Sample (LCS)

RunID: HGLC_090306A-4935248 Units: mg/kg
Analysis Date: 03/06/2009 13:15 Analyst: F_S
Preparation Date: 03/06/2009 11:00 Prep By: F_S Method: SW7471A

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Mercury	3.600	3.759	104.4	68	132

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

Sample Spiked: 09030142-01
RunID: HGLC_090306A-4935250 Units: mg/kg-dry
Analysis Date: 03/06/2009 13:20 Analyst: F_S
Preparation Date: 03/06/2009 11:00 Prep By: F_S 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	0.1762	0.4184	0.6374	110.2	0.4184	0.6369	110.1	0.07872	20	75	125

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Metals by Method 6010B, Total
Method: SW6010B
WorkOrder: 09030249
Lab Batch ID: 88563

Method Blank

RunID: ICP2_090310B-4942119 Units: mg/kg
Analysis Date: 03/10/2009 14:16 Analyst: EG
Preparation Date: 03/06/2009 14:30 Prep By: AB1 Method: SW3050B

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-01B	MW-1 (5-6.5)

Analyte	Result	Rep Limit
Aluminum	ND	10
Boron	ND	10
Calcium	ND	10
Iron	ND	2
Magnesium	ND	10
Potassium	ND	200
Sodium	ND	50
Tin	ND	5

Laboratory Control Sample (LCS)

RunID: ICP2_090310B-4942120 Units: mg/kg
Analysis Date: 03/10/2009 14:19 Analyst: EG
Preparation Date: 03/06/2009 14:30 Prep By: AB1 Method: SW3050B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Aluminum	7590	6197	81.65	58	142
Boron	96.60	81.69	84.57	56	144
Calcium	4320	4147	96.00	79	121
Iron	14400	12190	84.65	52	149
Magnesium	2220	2016	90.81	77	123
Potassium	2380	2154	90.50	71	129
Sodium	456.0	420.8	92.28	56	144
Tin	175.0	162.7	92.97	70	130

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

Sample Spiked: 09030142-01
RunID: ICP2_090310B-4942125 Units: mg/kg-dry
Analysis Date: 03/10/2009 14:40 Analyst: EG

Analyte	Sample Result	PDS Spike Added	PDS Result	PDS % Recovery	PDSD Spike Added	PDSD Result	PDSD % Recovery	RPD	RPD Limit	Low Limit	High Limit

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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.

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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Metals by Method 6010B, Total **WorkOrder:** 09030249
Method: SW6010B **Lab Batch ID:** 88563

Potassium	2390	1394.7	3657	90.60	1394.7	3661	90.90	0.1144	20	75	125

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

Sample Spiked: 09030142-01
RunID: ICP2_090310B-4942122 Units: mg/kg-dry
Analysis Date: 03/10/2009 14:28 Analyst: EG
Preparation Date: 03/06/2009 14:30 Prep By: AB1 Method: SW3050B

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	20630	139.5	25560	N/C	139.5	28480	N/C	N/C	20	75	125
Boron	16.12	139.5	130.1	81.75	139.5	135.6	85.67	4.115	20	75	125
Calcium	116.5	139.5	263.9	105.7	139.5	289.5	124.1	9.274	20	75	125
Iron	3575	139.5	3937	N/C	139.5	3957	N/C	N/C	20	75	125
Magnesium	64.90	139.5	216.0	108.4	139.5	228.9	117.6	5.768	20	75	125
Potassium	2393	1395	3812	101.7	1395	4413	144.8 *	14.62	20	75	125
Sodium	765.0	139.5	897.6	N/C	139.5	1098	N/C	N/C	20	75	125
Tin	ND	139.5	130.9	89.35	139.5	133.7	91.30	2.056	20	75	125

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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.

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Metals by Method 6010B, Total
Method: SW6010B
WorkOrder: 09030249
Lab Batch ID: 88563a

Method Blank

RunID: ICP2_090310C-4942462 Units: mg/kg
Analysis Date: 03/10/2009 20:52 Analyst: EG
Preparation Date: 03/06/2009 14:30 Prep By: AB1 Method: SW3050B

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-01B	MW-1 (5-6.5)

Analyte	Result	Rep Limit
Strontium	ND	2

Laboratory Control Sample (LCS)

RunID: ICP2_090310C-4942463 Units: mg/kg
Analysis Date: 03/10/2009 20:55 Analyst: EG
Preparation Date: 03/06/2009 14:30 Prep By: AB1 Method: SW3050B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Strontium	113.0	109.0	96.46	80	120

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

Sample Spiked: 09030142-01
RunID: ICP2_090310C-4942465 Units: mg/kg-dry
Analysis Date: 03/10/2009 21:04 Analyst: EG
Preparation Date: 03/06/2009 14:30 Prep By: AB1 Method: SW3050B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Strontium	563.0	139.5	643.0	N/C	139.5	658.2	N/C	N/C	20	75	125

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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.

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Metals by Method 6020A, Total
Method: SW6020A
WorkOrder: 09030249
Lab Batch ID: 88563B-I

Method Blank

RunID: ICPMS_090316A-4948977 Units: mg/kg
Analysis Date: 03/16/2009 14:13 Analyst: S_C
Preparation Date: 03/06/2009 14:30 Prep By: AB1 Method: SW3050B

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-01B	MW-1 (5-6.5)

Analyte	Result	Rep Limit
Barium	ND	0.5
Manganese	ND	0.5
Nickel	ND	0.5

Laboratory Control Sample (LCS)

RunID: ICPMS_090316A-4948978 Units: mg/kg
Analysis Date: 03/16/2009 14:18 Analyst: S_C
Preparation Date: 03/06/2009 14:30 Prep By: AB1 Method: SW3050B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Barium	156.0	159.6	102.3	82	119
Manganese	304.0	329.8	108.5	80	120
Nickel	49.60	58.18	117.3	81	119

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

Sample Spiked: 09030142-01
RunID: ICPMS_090316A-4949448 Units: mg/kg-dry
Analysis Date: 03/16/2009 16:41 Analyst: S_C
Preparation Date: 03/06/2009 14:30 Prep By: AB1 Method: SW3050B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Barium	1079	13.95	1044	N/C	13.95	1088	N/C	N/C	20	75	125
Beryllium	ND	13.95	D	D	13.95	D	D	D	20	75	125
Copper	ND	13.95	D	D	13.95	D	D	D	20	75	125
Manganese	98.12	13.95	101.2	N/C	13.95	98.06	N/C	N/C	20	75	125
Nickel	ND	13.95	15.38	110.3	13.95	15.24	109.3	0.9107	20	75	125
Zinc	189.7	13.95	160.3	N/C	13.95	130.5	N/C	N/C	20	75	125

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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.

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Metals by Method 6020A, Total
Method: SW6020A
WorkOrder: 09030249
Lab Batch ID: 88563B-I

Method Blank

RunID: ICPMS_090323A-4958043 Units: mg/kg
Analysis Date: 03/23/2009 16:21 Analyst: S_C
Preparation Date: 03/06/2009 14:30 Prep By: AB1 Method: SW3050B

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-01B	MW-1 (5-6.5)

Analyte	Result	Rep Limit
Beryllium	ND	0.4
Copper	ND	0.5
Zinc	ND	1

Laboratory Control Sample (LCS)

RunID: ICPMS_090323A-4958044 Units: mg/kg
Analysis Date: 03/23/2009 16:26 Analyst: S_C
Preparation Date: 03/06/2009 14:30 Prep By: AB1 Method: SW3050B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Beryllium	143.0	154.7	108.2	82	118
Copper	131.0	142.3	108.6	79	118
Zinc	116.0	122.9	105.9	78	122

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

Sample Spiked: 09030142-01
RunID: ICPMS_090323A-4958046 Units: mg/kg-dry
Analysis Date: 03/23/2009 16:36 Analyst: S_C
Preparation Date: 03/06/2009 14:30 Prep By: AB1 Method: SW3050B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Barium	1004	13.95	943.5	N/C	13.95	1052	N/C	N/C	20	75	125
Beryllium	ND	13.95	14.07	100.9	13.95	14.48	103.8	2.833	20	75	125
Copper	ND	13.95	18.97	112.0	13.95	18.66	109.8	1.631	20	75	125
Manganese	106.1	13.95	95.87	N/C	13.95	80.93	N/C	N/C	20	75	125
Nickel	ND	13.95	16.16	115.9	13.95	16.99	121.8	4.964	20	75	125
Zinc	ND	13.95	23.75	109.6	13.95	26.08	126.3 *	9.348	20	75	125

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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.

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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Metals by Method 6020A, Total
Method: SW6020A
WorkOrder: 09030249
Lab Batch ID: 88563-I

Method Blank

RunID: ICPMS_090311A-4943369 Units: mg/kg
Analysis Date: 03/11/2009 18:42 Analyst: S_C
Preparation Date: 03/06/2009 14:30 Prep By: AB1 Method: SW3050B

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-01B	MW-1 (5-6.5)

Analyte	Result	Rep Limit
Antimony	ND	0.5
Arsenic	ND	0.5
Cadmium	ND	0.5
Chromium	ND	0.5
Cobalt	ND	0.5
Lead	ND	0.5
Molybdenum	ND	0.5
Selenium	ND	0.5
Silver	ND	0.5
Thallium	ND	0.5
Vanadium	ND	0.5

Laboratory Control Sample (LCS)

RunID: ICPMS_090311A-4943370 Units: mg/kg
Analysis Date: 03/11/2009 18:47 Analyst: S_C
Preparation Date: 03/06/2009 14:30 Prep By: AB1 Method: SW3050B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Antimony	77.50	50.97	65.77	30	223
Arsenic	80.90	79.50	98.27	79	121
Cadmium	233.0	239.1	102.6	81	119
Chromium	60.80	61.61	101.3	78	121
Cobalt	68.60	73.49	107.1	82	118
Lead	76.80	68.53	89.23	81	120
Molybdenum	58.40	49.59	84.91	79	121
Selenium	82.90	87.06	105.0	76	124
Silver	80.00	74.90	93.62	61	139
Thallium	158.0	136.6	86.46	76	125
Vanadium	72.40	63.94	88.31	71	128

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

Sample Spiked: 09030142-01
RunID: ICPMS_090311A-4943375 Units: mg/kg-dry
Analysis Date: 03/11/2009 19:12 Analyst: S_C

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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.

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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Metals by Method 6020A, Total
Method: SW6020A
WorkOrder: 09030249
Lab Batch ID: 88563-I

Analyte	Sample Result	PDS Spike Added	PDS Result	PDS % Recovery	PDSD Spike Added	PDSD Result	PDSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Antimony	ND	13.947	12.94	92.78	13.947	13.01	93.26	0.5160	20	75	125
Arsenic	1.09	13.947	13.52	89.15	13.947	13.63	89.89	0.7603	20	75	125
Lead	38.3	13.947	52.48	102.0	13.947	51.79	97.00	1.338	20	75	125
Molybdenum	3.23	13.947	17.38	101.5	13.947	17	98.75	2.191	20	75	125
Selenium	3.72	13.947	15.55	84.84	13.947	16.14	89.04	3.697	20	75	125

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

Sample Spiked: 09030142-01
RunID: ICPMS_090311A-4943372 Units: mg/kg-dry
Analysis Date: 03/11/2009 18:57 Analyst: S_C
Preparation Date: 03/06/2009 14:30 Prep By: AB1 Method: SW3050B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Antimony	ND	13.95	3.081	22.09 *	13.95	3.197	22.92 *	3.688	20	75	125
Arsenic	1.090	13.95	7.965	49.30 *	13.95	8.314	51.80 *	4.284	20	75	125
Cadmium	ND	13.95	12.27	86.33	13.95	12.52	88.16	2.059	20	75	125
Chromium	1.150	13.95	15.16	100.5	13.95	14.95	98.96	1.390	20	75	125
Cobalt	ND	13.95	14.16	100.5	13.95	14.55	103.3	2.721	20	75	125
Lead	38.26	13.95	45.70	53.40 *	13.95	48.40	72.70 *	5.721	20	75	125
Molybdenum	3.229	13.95	12.10	63.62 *	13.95	12.69	67.86 *	4.770	20	75	125
Selenium	3.718	13.95	11.78	57.77 *	13.95	12.16	60.51 *	3.193	20	75	125
Silver	ND	13.95	11.49	82.41	13.95	11.38	81.57	1.025	20	75	125
Thallium	ND	13.95	12.44	86.47	13.95	12.86	89.47	3.307	20	75	125
Vanadium	14.85	13.95	26.37	82.60	13.95	27.77	92.60	5.152	20	75	125

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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.

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Metals by Method 6010B, Total
Method: SW6010B
WorkOrder: 09030249
Lab Batch ID: 88727

Method Blank

RunID: ICP2_090314A-4947288 Units: mg/kg
Analysis Date: 03/14/2009 15:37 Analyst: EG
Preparation Date: 03/13/2009 9:20 Prep By: AB1 Method: SW3050B

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-02B	MW-3 (5-6.5)

Analyte	Result	Rep Limit
Aluminum	ND	10
Boron	ND	10
Iron	ND	2
Magnesium	ND	10
Potassium	ND	200
Sodium	ND	50
Tin	ND	5

Laboratory Control Sample (LCS)

RunID: ICP2_090314A-4947289 Units: mg/kg
Analysis Date: 03/14/2009 15:40 Analyst: EG
Preparation Date: 03/13/2009 9:20 Prep By: AB1 Method: SW3050B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Aluminum	7590	6070	79.97	58	142
Boron	96.60	78.75	81.52	56	144
Iron	14400	12680	88.06	52	149
Magnesium	2220	2002	90.18	77	123
Potassium	2380	2157	90.63	71	129
Sodium	456.0	454.2	99.61	56	144
Tin	175.0	158.2	90.40	70	130

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

Sample Spiked: 09030561-03
RunID: ICP2_090314A-4947294 Units: mg/kg-dry
Analysis Date: 03/14/2009 16:01 Analyst: EG

Analyte	Sample Result	PDS Spike Added	PDS Result	PDS % Recovery	PDSD Spike Added	PDSD Result	PDSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Sodium	139	106.84	233.7	88.40	106.84	231.7	86.60	0.8264	20	75	125

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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.

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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Metals by Method 6010B, Total
Method: SW6010B
WorkOrder: 09030249
Lab Batch ID: 88727

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

Sample Spiked: 09030561-03
RunID: ICP2_090314A-4947291 Units: mg/kg-dry
Analysis Date: 03/14/2009 15:49 Analyst: EG
Preparation Date: 03/13/2009 9:20 Prep By: AB1 Method: SW3050B

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	1450	106.8	1980	N/C	106.8	1918	N/C	N/C	20	75	125
Boron	ND	106.8	100.6	93.46	106.8	101.5	94.25	0.8354	20	75	125
Iron	702.7	106.8	1000	N/C	106.8	807.5	N/C	N/C	20	75	125
Magnesium	497.0	106.8	669.8	N/C	106.8	622.9	N/C	N/C	20	75	125
Potassium	ND	1068	1174	103.6	1068	1165	102.7	0.8223	20	75	125
Sodium	139.2	106.8	255.0	108.4	106.8	323.4	172.4 *	23.64 *	20	75	125
Tin	ND	106.8	102.4	95.83	106.8	103.2	96.63	0.8313	20	75	125

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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.

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Metals by Method 6010B, Total **WorkOrder:** 09030249
Method: SW6010B **Lab Batch ID:** 88727a

Method Blank

RunID: ICP2_090314A-4947328 Units: mg/kg
Analysis Date: 03/14/2009 18:46 Analyst: EG
Preparation Date: 03/13/2009 9:20 Prep By: AB1 Method: SW3050B

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-02B	MW-3 (5-6.5)

Analyte	Result	Rep Limit
Calcium	ND	10
Strontium	ND	2

Laboratory Control Sample (LCS)

RunID: ICP2_090314A-4947329 Units: mg/kg
Analysis Date: 03/14/2009 18:50 Analyst: EG
Preparation Date: 03/13/2009 9:20 Prep By: AB1 Method: SW3050B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Calcium	4320	3851	89.14	79	121
Strontium	113.0	107.7	95.31	80	120

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

Sample Spiked: 09030561-03
RunID: ICP2_090314A-4947334 Units: mg/kg-dry
Analysis Date: 03/14/2009 19:09 Analyst: EG

Analyte	Sample Result	PDS Spike Added	PDS Result	PDS % Recovery	PDSD Spike Added	PDSD Result	PDSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Strontium	257	2136.8	268.3	0.5150 *	2136.8	2274	106.4	0	20	75	125

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

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8880 INTERCHANGE DRIVE
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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Metals by Method 6010B, Total **WorkOrder:** 09030249
Method: SW6010B **Lab Batch ID:** 88727a

Post Digestion Spike (PDS)

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

Sample Spiked: 09030561-03
RunID: ICP2_090314A-4947331 Units: mg/kg-dry
Analysis Date: 03/14/2009 18:58 Analyst: EG
Preparation Date: 03/13/2009 9:20 Prep By: AB1 Method: SW3050B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Calcium	61070	106.8	78650	N/C	106.8	78180	N/C	N/C	20	75	125
Strontium	257.3	106.8	417.3	149.8 *	106.8	415.7	148.3 *	0.3848	20	75	125

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Metals by Method 6020A, Total
Method: SW6020A
WorkOrder: 09030249
Lab Batch ID: 88727B-I

Method Blank

RunID: ICPMS_090316A-4948980 Units: mg/kg
Analysis Date: 03/16/2009 14:28 Analyst: S_C
Preparation Date: 03/13/2009 9:20 Prep By: AB1 Method: SW3050B

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-02B	MW-3 (5-6.5)

Analyte	Result	Rep Limit
Barium	ND	0.5
Cobalt	ND	0.5
Manganese	ND	0.5
Nickel	ND	0.5

Laboratory Control Sample (LCS)

RunID: ICPMS_090316A-4948981 Units: mg/kg
Analysis Date: 03/16/2009 14:33 Analyst: S_C
Preparation Date: 03/13/2009 9:20 Prep By: AB1 Method: SW3050B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Barium	156.0	153.3	98.27	82	119
Cobalt	68.60	72.35	105.5	82	118
Manganese	304.0	307.3	101.1	80	120
Nickel	49.60	54.12	109.1	81	119

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

Sample Spiked: 09030561-03
RunID: ICPMS_090316A-4949451 Units: mg/kg-dry
Analysis Date: 03/16/2009 16:56 Analyst: S_C

Analyte	Sample Result	PDS Spike Added	PDS Result	PDS % Recovery	PDSD Spike Added	PDSD Result	PDSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Barium	14.6	10.684	25.62	102.8	10.684	25.6	102.6	0.08344	20	75	125

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

Sample Spiked: 09030561-03
RunID: ICPMS_090316A-4949338 Units: mg/kg-dry
Analysis Date: 03/16/2009 16:22 Analyst: S_C
Preparation Date: 03/13/2009 9:20 Prep By: AB1 Method: SW3050B

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Metals by Method 6020A, Total
Method: SW6020A
WorkOrder: 09030249
Lab Batch ID: 88727B-I

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Barium	14.64	10.68	28.78	132.4 *	10.68	29.06	135.0 *	0.9605	20	75	125
Beryllium	ND	10.68	9.525	89.15	10.68	9.833	92.04	3.190	20	75	125
Cobalt	ND	10.68	10.99	100.4	10.68	10.98	100.3	0.09723	20	75	125
Manganese	5.919	10.68	15.87	93.10	10.68	15.91	93.50	0.2690	20	75	125
Nickel	1.985	10.68	12.77	100.9	10.68	12.98	102.9	1.660	20	75	125
Zinc	29.03	10.68	45.15	150.9 *	10.68	47.88	176.5 *	5.880	20	75	125

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Metals by Method 6020A, Total
Method: SW6020A
WorkOrder: 09030249
Lab Batch ID: 88727B-I

Method Blank

RunID: ICPMS_090323A-4958054 Units: mg/kg
Analysis Date: 03/23/2009 17:16 Analyst: S_C
Preparation Date: 03/13/2009 9:20 Prep By: AB1 Method: SW3050B

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-02B	MW-3 (5-6.5)

Analyte	Result	Rep Limit
Beryllium	ND	0.4
Zinc	ND	1

Laboratory Control Sample (LCS)

RunID: ICPMS_090323A-4958055 Units: mg/kg
Analysis Date: 03/23/2009 17:21 Analyst: S_C
Preparation Date: 03/13/2009 9:20 Prep By: AB1 Method: SW3050B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Beryllium	143.0	145.6	101.8	82	118
Zinc	116.0	116.8	100.7	78	122

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

Sample Spiked: 09030561-03
RunID: ICPMS_090323A-4958060 Units: mg/kg-dry
Analysis Date: 03/23/2009 17:46 Analyst: S_C

Analyte	Sample Result	PDS Spike Added	PDS Result	PDS % Recovery	PDSD Spike Added	PDSD Result	PDSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Barium	21.7	106.84	124.8	96.52	106.84	126.2	97.82	1.107	20	75	125

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

Sample Spiked: 09030561-03
RunID: ICPMS_090323A-4958057 Units: mg/kg-dry
Analysis Date: 03/23/2009 17:31 Analyst: S_C
Preparation Date: 03/13/2009 9:20 Prep By: AB1 Method: SW3050B

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Metals by Method 6020A, Total **WorkOrder:** 09030249
Method: SW6020A **Lab Batch ID:** 88727B-I

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Barium	21.67	10.68	29.20	70.50 *	10.68	27.29	52.60 *	6.771	20	75	125
Beryllium	ND	10.68	10.73	100.4	10.68	10.71	100.2	0.1994	20	75	125
Cobalt	ND	10.68	11.85	110.9	10.68	11.32	106.0	4.518	20	75	125
Manganese	8.326	10.68	15.93	71.17 *	10.68	15.90	70.87 *	0.2014	20	75	125
Nickel	ND	10.68	13.66	105.4	10.68	13.66	105.4	0	20	75	125
Zinc	46.44	10.68	56.52	N/C	10.68	54.46	N/C	N/C	20	75	125

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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

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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Metals by Method 6020A, Total
Method: SW6020A
WorkOrder: 09030249
Lab Batch ID: 88727-I

Method Blank

RunID: ICPMS_090313A-4947805 Units: mg/kg
Analysis Date: 03/13/2009 20:08 Analyst: S_C
Preparation Date: 03/13/2009 9:20 Prep By: AB1 Method: SW3050B

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-02B	MW-3 (5-6.5)

Analyte	Result	Rep Limit
Antimony	ND	0.5
Arsenic	ND	0.5
Cadmium	ND	0.5
Chromium	ND	0.5
Copper	ND	0.5
Lead	ND	0.5
Molybdenum	ND	0.5
Selenium	ND	0.5
Silver	ND	0.5
Thallium	ND	0.5
Vanadium	ND	0.5

Laboratory Control Sample (LCS)

RunID: ICPMS_090313A-4947806 Units: mg/kg
Analysis Date: 03/13/2009 20:13 Analyst: S_C
Preparation Date: 03/13/2009 9:20 Prep By: AB1 Method: SW3050B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Antimony	77.50	59.19	76.37	30	223
Arsenic	80.90	75.51	93.34	79	121
Cadmium	233.0	235.3	101.0	81	119
Chromium	60.80	57.93	95.28	78	121
Copper	131.0	121.3	92.60	79	118
Lead	76.80	70.01	91.16	81	120
Molybdenum	58.40	48.05	82.28	79	121
Selenium	82.90	79.46	95.85	76	124
Silver	80.00	86.82	108.5	61	139
Thallium	158.0	141.1	89.30	76	125
Vanadium	72.40	62.99	87.00	71	128

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

Sample Spiked: 09030561-03
RunID: ICPMS_090313A-4947811 Units: mg/kg-dry
Analysis Date: 03/13/2009 20:38 Analyst: S_C

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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

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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Metals by Method 6020A, Total
Method: SW6020A
WorkOrder: 09030249
Lab Batch ID: 88727-I

Analyte	Sample Result	PDS Spike Added	PDS Result	PDS % Recovery	PDSD Spike Added	PDSD Result	PDSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Antimony	ND	10.684	10.48	98.06	10.684	10.52	98.43	0.3766	20	75	125
Selenium	ND	10.684	9.418	87.38	10.684	9.173	85.09	2.632	20	75	125

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

Sample Spiked: 09030561-03
RunID: ICPMS_090313A-4947808 Units: mg/kg-dry
Analysis Date: 03/13/2009 20:23 Analyst: S_C
Preparation Date: 03/13/2009 9:20 Prep By: AB1 Method: SW3050B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Antimony	ND	10.68	6.616	61.93 *	10.68	6.496	60.80 *	1.841	20	75	125
Arsenic	ND	10.68	10.04	91.10	10.68	9.944	90.22	0.9410	20	75	125
Cadmium	ND	10.68	9.810	87.92	10.68	9.756	87.42	0.5460	20	75	125
Chromium	5.137	10.68	15.83	100.1	10.68	16.30	104.5	2.926	20	75	125
Copper	5.804	10.68	16.25	97.77	10.68	16.56	100.7	1.889	20	75	125
Lead	5.192	10.68	16.82	108.8	10.68	16.61	106.9	1.214	20	75	125
Molybdenum	1.437	10.68	11.50	94.15	10.68	12.06	99.45	4.807	20	75	125
Selenium	ND	10.68	8.010	74.20 *	10.68	8.026	74.35 *	0.1999	20	75	125
Silver	ND	10.68	9.950	93.13	10.68	9.715	90.93	2.391	20	75	125
Thallium	ND	10.68	11.04	101.9	10.68	11.11	102.6	0.6753	20	75	125
Vanadium	2.980	10.68	14.11	104.2	10.68	13.84	101.6	1.988	20	75	125

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
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MI - Matrix Interference
D - Recovery Unreportable due to Dilution
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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Mercury, Total
Method: SW7471A
WorkOrder: 09030249
Lab Batch ID: 88753

Method Blank

RunID: HGLC_090313B-4946637 Units: mg/kg
Analysis Date: 03/13/2009 17:43 Analyst: F_S
Preparation Date: 03/13/2009 16:00 Prep By: F_S Method: SW7471A

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-02B	MW-3 (5-6.5)

Analyte	Result	Rep Limit
Mercury	ND	0.03

Laboratory Control Sample (LCS)

RunID: HGLC_090313B-4946638 Units: mg/kg
Analysis Date: 03/13/2009 17:45 Analyst: F_S
Preparation Date: 03/13/2009 16:00 Prep By: F_S Method: SW7471A

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Mercury	3.600	3.948	109.7	68	132

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

Sample Spiked: 09030561-03
RunID: HGLC_090313B-4946640 Units: mg/kg-dry
Analysis Date: 03/13/2009 17:50 Analyst: F_S
Preparation Date: 03/13/2009 16:00 Prep By: F_S 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	0.3205	0.3583	108.2	0.3205	0.3595	108.6	0.3290	20	75	125

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B/V - 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
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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Semivolatile Organics by Method 8270C
Method: SW8270C
WorkOrder: 09030249
Lab Batch ID: 88521

Method Blank

RunID: R_090309A-4939145 Units: ug/kg
Analysis Date: 03/09/2009 8:45 Analyst: E_R
Preparation Date: 03/06/2009 10:32 Prep By: QMT Method: SW3550B

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-01B	MW-1 (5-6.5)

Analyte	Result	Rep Limit
1,2,4-Trichlorobenzene	ND	330
1,2-Dichlorobenzene	ND	330
1,2-Diphenylhydrazine	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
2,4,5-Trichlorophenol	ND	800
2,4,6-Trichlorophenol	ND	330
2,4-Dichlorophenol	ND	330
2,4-Dimethylphenol	ND	330
2,4-Dinitrophenol	ND	800
2,4-Dinitrotoluene	ND	800
2,6-Dinitrotoluene	ND	330
2-Chloronaphthalene	ND	330
2-Chlorophenol	ND	330
2-Methylnaphthalene	ND	330
2-Nitroaniline	ND	800
2-Nitrophenol	ND	330
3,3'-Dichlorobenzidine	ND	330
3-Nitroaniline	ND	800
4,6-Dinitro-2-methylphenol	ND	800
4-Bromophenyl phenyl ether	ND	330
4-Chloro-3-methylphenol	ND	330
4-Chloroaniline	ND	330
4-Chlorophenyl phenyl ether	ND	330
4-Nitroaniline	ND	800
4-Nitrophenol	ND	800
Acenaphthene	ND	330
Acenaphthylene	ND	330
Aniline	ND	330
Anthracene	ND	330
Benz(a)anthracene	ND	330
Benzo(a)pyrene	ND	330
Benzo(b)fluoranthene	ND	330
Benzo(g,h,i)perylene	ND	330
Benzo(k)fluoranthene	ND	330
Benzoic acid	ND	1600
Benzyl alcohol	ND	330
Bis(2-chloroethoxy)methane	ND	330
Bis(2-chloroethyl)ether	ND	330
Bis(2-chloroisopropyl)ether	ND	330
Bis(2-ethylhexyl)phthalate	ND	330
Butyl benzyl phthalate	ND	330
Carbazole	ND	330
Chrysene	ND	330
Dibenz(a,h)anthracene	ND	330
Dibenzofuran	ND	330

Qualifiers:

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B/V - 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

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Semivolatile Organics by Method 8270C **WorkOrder:** 09030249
Method: SW8270C **Lab Batch ID:** 88521

Method Blank

RunID: R_090309A-4939145 Units: ug/kg
Analysis Date: 03/09/2009 8:45 Analyst: E_R
Preparation Date: 03/06/2009 10:32 Prep By: QMT Method: SW3550B

Analyte	Result	Rep Limit
Diethyl phthalate	ND	330
Dimethyl phthalate	ND	330
Di-n-butyl phthalate	ND	330
Di-n-octyl phthalate	ND	330
Fluoranthene	ND	330
Fluorene	ND	330
Hexachlorobenzene	ND	330
Hexachlorobutadiene	ND	330
Hexachlorocyclopentadiene	ND	330
Hexachloroethane	ND	330
Indeno(1,2,3-cd)pyrene	ND	330
Isophorone	ND	330
Naphthalene	ND	330
Nitrobenzene	ND	330
N-Nitrosodi-n-propylamine	ND	330
N-Nitrosodiphenylamine	ND	330
Pentachlorophenol	ND	800
Phenanthrene	ND	330
Phenol	ND	330
Pyrene	ND	330
Pyridine	ND	330
2-Methylphenol	ND	330
3 & 4-Methylphenol	ND	330
Surr: 2,4,6-Tribromophenol	92.0	19-135
Surr: 2-Fluorobiphenyl	88.2	15-140
Surr: 2-Fluorophenol	88.0	15-122
Surr: Nitrobenzene-d5	82.4	10-134
Surr: Phenol-d5	84.0	10-123
Surr: Terphenyl-d14	94.1	18-166

Laboratory Control Sample (LCS)

RunID: R_090309A-4939148 Units: ug/kg
Analysis Date: 03/09/2009 9:19 Analyst: E_R
Preparation Date: 03/06/2009 10:32 Prep By: QMT Method: SW3550B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,2,4-Trichlorobenzene	850	690	81.2	34	116
1,2-Dichlorobenzene	850	680	80.0	32	129
1,2-Diphenylhydrazine	850	780	91.8	10	256

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Semivolatile Organics by Method 8270C **WorkOrder:** 09030249
Method: SW8270C **Lab Batch ID:** 88521

Laboratory Control Sample (LCS)

RunID: R_090309A-4939148 Units: ug/kg
Analysis Date: 03/09/2009 9:19 Analyst: E_R
Preparation Date: 03/06/2009 10:32 Prep By: QMT Method: SW3550B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,3-Dichlorobenzene	850	660	77.6	10	172
1,4-Dichlorobenzene	850	660	77.6	20	124
2,4,5-Trichlorophenol	850	680	80.0	40	150
2,4,6-Trichlorophenol	850	690	81.2	37	144
2,4-Dichlorophenol	850	660	77.6	39	135
2,4-Dimethylphenol	850	690	81.2	32	119
2,4-Dinitrophenol	850	560	65.9	10	191
2,4-Dinitrotoluene	850	710	83.5	30	150
2,6-Dinitrotoluene	850	690	81.2	30	150
2-Chloronaphthalene	850	720	84.7	20	175
2-Chlorophenol	850	700	82.4	23	134
2-Methylnaphthalene	850	690	81.2	30	135
2-Nitroaniline	850	680	80.0	20	175
2-Nitrophenol	850	670	78.8	29	182
3,3'-Dichlorobenzidine	850	520	61.2	10	261
3-Nitroaniline	850	480	56.5	20	175
4,6-Dinitro-2-methylphenol	850	580	68.2	10	181
4-Bromophenyl phenyl ether	850	750	88.2	20	175
4-Chloro-3-methylphenol	850	680	80.0	22	147
4-Chloroaniline	850	670	78.8	20	175
4-Chlorophenyl phenyl ether	850	700	82.4	25	158
4-Nitroaniline	850	580	68.2	20	175
4-Nitrophenol	850	560	65.9	10	132
Acenaphthene	850	700	82.4	30	160
Acenaphthylene	850	720	84.7	10	150
Aniline	1700	1100	64.7	10	160
Anthracene	850	730	85.9	27	133
Benz(a)anthracene	850	730	85.9	33	143
Benzo(a)pyrene	850	630	74.1	17	163
Benzo(b)fluoranthene	850	740	87.1	24	159
Benzo(g,h,i)perylene	850	780	91.8	10	219
Benzo(k)fluoranthene	850	820	96.5	11	162
Benzoic acid	850	460	54.1	10	450
Benzyl alcohol	850	650	76.5	30	160

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
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HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Semivolatile Organics by Method 8270C
Method: SW8270C
WorkOrder: 09030249
Lab Batch ID: 88521

Laboratory Control Sample (LCS)

RunID: R_090309A-4939148 Units: ug/kg
Analysis Date: 03/09/2009 9:19 Analyst: E_R
Preparation Date: 03/06/2009 10:32 Prep By: QMT Method: SW3550B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Bis(2-chloroethoxy)methane	850	680	80.0	33	184
Bis(2-chloroethyl)ether	850	700	82.4	28	158
Bis(2-chloroisopropyl)ether	850	670	78.8	36	166
Bis(2-ethylhexyl)phthalate	850	740	87.1	10	158
Butyl benzyl phthalate	850	750	88.2	10	152
Carbazole	850	700	82.4	45	135
Chrysene	850	710	83.5	17	168
Dibenz(a,h)anthracene	850	760	89.4	10	227
Dibenzofuran	850	720	84.7	30	160
Diethyl phthalate	850	700	82.4	10	160
Dimethyl phthalate	850	710	83.5	10	112
Di-n-butyl phthalate	850	750	88.2	40	132
Di-n-octyl phthalate	850	720	84.7	10	146
Fluoranthene	850	760	89.4	26	137
Fluorene	850	690	81.2	35	135
Hexachlorobenzene	850	730	85.9	10	152
Hexachlorobutadiene	850	680	80.0	20	140
Hexachlorocyclopentadiene	850	880	104	10	152
Hexachloroethane	850	660	77.6	25	118
Indeno(1,2,3-cd)pyrene	850	730	85.9	10	171
Isophorone	850	750	88.2	21	196
Naphthalene	850	690	81.2	21	133
Nitrobenzene	850	680	80.0	35	180
N-Nitrosodi-n-propylamine	850	680	80.0	10	230
N-Nitrosodiphenylamine	1700	1800	106	30	160
Pentachlorophenol	850	670	78.8	14	176
Phenanthrene	850	710	83.5	35	135
Phenol	850	710	83.5	44	120
Pyrene	850	700	82.4	34	138
Pyridine	1700	1200	70.6	10	150
2-Methylphenol	850	690	81.2	40	160
3 & 4-Methylphenol	850	670	78.8	40	160
Surr: 2,4,6-Tribromophenol	2500	2200	88.0	19	135
Surr: 2-Fluorobiphenyl	1700	1400	82.4	15	140

Qualifiers:
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B/V - Analyte detected in the associated Method Blank
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E - Estimated Value exceeds calibration curve
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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Semivolatile Organics by Method 8270C **WorkOrder:** 09030249
Method: SW8270C **Lab Batch ID:** 88521

Laboratory Control Sample (LCS)

RunID: R_090309A-4939148 Units: ug/kg
Analysis Date: 03/09/2009 9:19 Analyst: E_R
Preparation Date: 03/06/2009 10:32 Prep By: QMT Method: SW3550B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Surr: 2-Fluorophenol	2500	2100	84.0	15	122
Surr: Nitrobenzene-d5	1700	1400	82.4	32	153
Surr: Phenol-d5	2500	2100	84.0	10	123
Surr: Terphenyl-d14	1700	1400	82.4	18	166

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

Sample Spiked: 09030256-04
RunID: H_090311A-4942847 Units: ug/kg
Analysis Date: 03/11/2009 13:46 Analyst: GY
Preparation Date: 03/06/2009 10:32 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
1,2,4-Trichlorobenzene	ND	850	640	75.3	850	600	70.6	6.45	28	34	116
1,2-Dichlorobenzene	ND	850	614	72.2	850	595	70.0	3.14	60	32	129
1,2-Diphenylhydrazine	ND	850	650	76.5	850	613	72.1	5.86	60	10	256
1,3-Dichlorobenzene	ND	850	594	69.9	850	568	66.8	4.48	60	10	172
1,4-Dichlorobenzene	ND	850	581	68.4	850	561	66.0	3.50	28	20	124
2,4,5-Trichlorophenol	ND	850	684	80.5	850	660	77.6	3.57	60	40	150
2,4,6-Trichlorophenol	ND	850	674	79.3	850	659	77.5	2.25	60	37	144
2,4-Dichlorophenol	ND	850	672	79.1	850	616	72.5	8.70	60	39	135
2,4-Dimethylphenol	ND	850	694	81.6	850	640	75.3	8.10	60	32	119
2,4-Dinitrophenol	ND	850	516	60.7	850	594	69.9	14.1	60	10	191
2,4-Dinitrotoluene	ND	850	719	84.6	850	740	87.1	2.88	50	30	150
2,6-Dinitrotoluene	ND	850	668	78.6	850	670	78.8	0.299	60	30	150
2-Chloronaphthalene	ND	850	626	73.6	850	604	71.1	3.58	60	20	175
2-Chlorophenol	ND	850	651	76.6	850	604	71.1	7.49	40	23	134
2-Methylnaphthalene	ND	850	655	77.1	850	596	70.1	9.43	60	30	135
2-Nitroaniline	ND	850	690	81.2	850	714	84.0	3.42	60	20	175
2-Nitrophenol	ND	850	642	75.5	850	593	69.8	7.94	60	29	182
3,3'-Dichlorobenzidine	ND	850	522	61.4	850	620	72.9	17.2	60	10	261

Qualifiers:
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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Semivolatile Organics by Method 8270C **WorkOrder:** 09030249
Method: SW8270C **Lab Batch ID:** 88521

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

Sample Spiked: 09030256-04
RunID: H_090311A-4942847 Units: ug/kg
Analysis Date: 03/11/2009 13:46 Analyst: GY
Preparation Date: 03/06/2009 10:32 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
3-Nitroaniline	ND	850	666	78.4	850	745	87.6	11.2	60	20	175
4,6-Dinitro-2-methylphenol	ND	850	576	67.8	850	594	69.9	3.08	60	10	181
4-Bromophenyl phenyl ether	ND	850	644	75.8	850	622	73.2	3.48	60	20	175
4-Chloro-3-methylphenol	ND	850	740	87.1	850	666	78.4	10.5	42	22	147
4-Chloroaniline	ND	850	691	81.3	850	652	76.7	5.81	60	20	175
4-Chlorophenyl phenyl ether	ND	850	658	77.4	850	631	74.2	4.19	60	25	158
4-Nitroaniline	ND	850	692	81.4	850	799	94.0	14.4	60	20	175
4-Nitrophenol	ND	850	760	89.4	850	847	99.6	10.8	50	10	132
Acenaphthene	ND	850	642	75.5	850	616	72.5	4.13	31	30	160
Acenaphthylene	ND	850	658	77.4	850	631	74.2	4.19	50	10	150
Aniline	ND	1700	1170	68.8	1700	1150	67.6	1.72	60	10	160
Anthracene	ND	850	664	78.1	850	667	78.5	0.451	50	27	133
Benz(a)anthracene	ND	850	678	79.8	850	696	81.9	2.62	50	33	143
Benzo(a)pyrene	ND	850	551	64.8	850	554	65.2	0.543	60	17	163
Benzo(b)fluoranthene	ND	850	684	80.5	850	666	78.4	2.67	60	24	159
Benzo(g,h,i)perylene	ND	850	654	76.9	850	659	77.5	0.762	60	10	219
Benzo(k)fluoranthene	ND	850	617	72.6	850	649	76.4	5.06	60	11	162
Benzoic acid	ND	850	737	86.7	850	788	92.7	6.69	60	10	450
Benzyl alcohol	ND	850	676	79.5	850	643	75.6	5.00	60	30	160
Bis(2-chloroethoxy)methane	ND	850	611	71.9	850	544	64.0	11.6	60	33	184
Bis(2-chloroethyl)ether	ND	850	609	71.6	850	548	64.5	10.5	60	28	158
Bis(2-chloroisopropyl)ether	ND	850	618	72.7	850	571	67.2	7.91	60	36	166
Bis(2-ethylhexyl)phthalate	ND	850	576	67.8	850	525	61.8	9.26	60	10	158
Butyl benzyl phthalate	ND	850	652	76.7	850	612	72.0	6.33	60	10	152
Carbazole	ND	850	678	79.8	850	725	85.3	6.70	60	45	135
Chrysene	ND	850	653	76.8	850	672	79.1	2.87	60	17	168
Dibenz(a,h)anthracene	ND	850	618	72.7	850	621	73.1	0.484	60	10	227
Dibenzofuran	ND	850	668	78.6	850	656	77.2	1.81	60	45	135
Diethyl phthalate	ND	850	687	80.8	850	655	77.1	4.77	60	10	160
Dimethyl phthalate	ND	850	668	78.6	850	660	77.6	1.20	60	10	112
Di-n-butyl phthalate	ND	850	650	76.5	850	620	72.9	4.72	60	40	132
Di-n-octyl phthalate	ND	850	563	66.2	850	516	60.7	8.71	60	10	146

Qualifiers:
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HOUSTON LABORATORY
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HOUSTON, TX 77054
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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Semivolatile Organics by Method 8270C
Method: SW8270C
WorkOrder: 09030249
Lab Batch ID: 88521

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

Sample Spiked: 09030256-04
RunID: H_090311A-4942847 Units: ug/kg
Analysis Date: 03/11/2009 13:46 Analyst: GY
Preparation Date: 03/06/2009 10:32 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
Fluoranthene	ND	850	709	83.4	850	750	88.2	5.62	60	26	137
Fluorene	ND	850	666	78.4	850	655	77.1	1.67	60	45	135
Hexachlorobenzene	ND	850	686	80.7	850	677	79.6	1.32	60	10	152
Hexachlorobutadiene	ND	850	654	76.9	850	575	67.6	12.9	60	20	140
Hexachlorocyclopentadiene	ND	850	620	72.9	850	606	71.3	2.28	60	10	152
Hexachloroethane	ND	850	613	72.1	850	549	64.6	11.0	60	25	118
Indeno(1,2,3-cd)pyrene	ND	850	616	72.5	850	669	78.7	8.25	60	10	171
Isophorone	ND	850	719	84.6	850	632	74.4	12.9	60	21	196
Naphthalene	ND	850	635	74.7	850	586	68.9	8.03	60	21	133
Nitrobenzene	ND	850	619	72.8	850	585	68.8	5.65	60	35	180
N-Nitrosodi-n-propylamine	ND	850	652	76.7	850	617	72.6	5.52	38	10	230
N-Nitrosodiphenylamine	ND	1700	1610	94.7	1700	1570	92.4	2.52	60	30	160
Pentachlorophenol	ND	850	657	77.3	850	666	78.4	1.36	50	14	176
Phenanthrene	ND	850	659	77.5	850	657	77.3	0.304	60	45	135
Phenol	ND	850	694	81.6	850	669	78.7	3.67	42	44	120
Pyrene	ND	850	708	83.3	850	713	83.9	0.704	31	26	127
Pyridine	ND	1700	832	48.9	1700	782	46.0	6.20	60	10	150
2-Methylphenol	ND	850	662	77.9	850	619	72.8	6.71	60	40	160
3 & 4-Methylphenol	ND	850	668	78.6	850	630	74.1	5.86	60	40	160
Surr: 2,4,6-Tribromophenol	ND	2500	2500	100	2500	2450	98.0	2.02	30	19	135
Surr: 2-Fluorobiphenyl	ND	1700	1260	74.1	1700	1210	71.2	4.05	30	15	140
Surr: 2-Fluorophenol	ND	2500	1870	74.8	2500	1820	72.8	2.71	30	15	122
Surr: Nitrobenzene-d5	ND	1700	1330	78.2	1700	1250	73.5	6.20	30	10	134
Surr: Phenol-d5	ND	2500	2050	82.0	2500	1980	79.2	3.47	30	10	123
Surr: Terphenyl-d14	ND	1700	1370	80.6	1700	1340	78.8	2.21	30	18	166

Qualifiers:
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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Semivolatile Organics by Method 8270C
Method: SW8270C
WorkOrder: 09030249
Lab Batch ID: 88718

Method Blank

RunID: R_090313A-4949072
Units: ug/kg
Analysis Date: 03/13/2009 14:05
Analyst: GY
Preparation Date: 03/13/2009 10:14
Prep By: QMT Method: SW3550B

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-02B	MW-3 (5-6.5)

Analyte	Result	Rep Limit
1,2,4-Trichlorobenzene	ND	330
1,2-Dichlorobenzene	ND	330
1,2-Diphenylhydrazine	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
2,4,5-Trichlorophenol	ND	800
2,4,6-Trichlorophenol	ND	330
2,4-Dichlorophenol	ND	330
2,4-Dimethylphenol	ND	330
2,4-Dinitrophenol	ND	800
2,4-Dinitrotoluene	ND	800
2,6-Dinitrotoluene	ND	330
2-Chloronaphthalene	ND	330
2-Chlorophenol	ND	330
2-Methylnaphthalene	ND	330
2-Nitroaniline	ND	800
2-Nitrophenol	ND	330
3,3'-Dichlorobenzidine	ND	330
3-Nitroaniline	ND	800
4,6-Dinitro-2-methylphenol	ND	800
4-Bromophenyl phenyl ether	ND	330
4-Chloro-3-methylphenol	ND	330
4-Chloroaniline	ND	330
4-Chlorophenyl phenyl ether	ND	330
4-Nitroaniline	ND	800
4-Nitrophenol	ND	800
Acenaphthene	ND	330
Acenaphthylene	ND	330
Aniline	ND	330
Anthracene	ND	330
Benz(a)anthracene	ND	330
Benzo(a)pyrene	ND	330
Benzo(b)fluoranthene	ND	330
Benzo(g,h,i)perylene	ND	330
Benzo(k)fluoranthene	ND	330
Benzoic acid	ND	1600
Benzyl alcohol	ND	330
Bis(2-chloroethoxy)methane	ND	330
Bis(2-chloroethyl)ether	ND	330
Bis(2-chloroisopropyl)ether	ND	330
Bis(2-ethylhexyl)phthalate	ND	330
Butyl benzyl phthalate	ND	330
Carbazole	ND	330
Chrysene	ND	330
Dibenz(a,h)anthracene	ND	330
Dibenzofuran	ND	330

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
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D - Recovery Unreportable due to Dilution
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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Semivolatile Organics by Method 8270C
Method: SW8270C
WorkOrder: 09030249
Lab Batch ID: 88718

Method Blank

RunID: R_090313A-4949072 Units: ug/kg
Analysis Date: 03/13/2009 14:05 Analyst: GY
Preparation Date: 03/13/2009 10:14 Prep By: QMT Method: SW3550B

Analyte	Result	Rep Limit
Diethyl phthalate	ND	330
Dimethyl phthalate	ND	330
Di-n-butyl phthalate	ND	330
Di-n-octyl phthalate	ND	330
Fluoranthene	ND	330
Fluorene	ND	330
Hexachlorobenzene	ND	330
Hexachlorobutadiene	ND	330
Hexachlorocyclopentadiene	ND	330
Hexachloroethane	ND	330
Indeno(1,2,3-cd)pyrene	ND	330
Isophorone	ND	330
Naphthalene	ND	330
Nitrobenzene	ND	330
N-Nitrosodi-n-propylamine	ND	330
N-Nitrosodiphenylamine	ND	330
Pentachlorophenol	ND	800
Phenanthrene	ND	330
Phenol	ND	330
Pyrene	ND	330
Pyridine	ND	330
2-Methylphenol	ND	330
3 & 4-Methylphenol	ND	330
Surr: 2,4,6-Tribromophenol	76.0	19-135
Surr: 2-Fluorobiphenyl	76.5	15-140
Surr: 2-Fluorophenol	80.0	15-122
Surr: Nitrobenzene-d5	82.4	10-134
Surr: Phenol-d5	80.0	10-123
Surr: Terphenyl-d14	88.2	18-166

Laboratory Control Sample (LCS)

RunID: R_090313A-4949077 Units: ug/kg
Analysis Date: 03/13/2009 14:40 Analyst: GY
Preparation Date: 03/13/2009 10:14 Prep By: QMT Method: SW3550B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,2,4-Trichlorobenzene	850	640	75.3	34	116
1,2-Dichlorobenzene	850	640	75.3	32	129
1,2-Diphenylhydrazine	850	680	80.0	10	256

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
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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

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Semivolatile Organics by Method 8270C **WorkOrder:** 09030249
Method: SW8270C **Lab Batch ID:** 88718

Laboratory Control Sample (LCS)

RunID: R_090313A-4949077 Units: ug/kg
Analysis Date: 03/13/2009 14:40 Analyst: GY
Preparation Date: 03/13/2009 10:14 Prep By: QMT Method: SW3550B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,3-Dichlorobenzene	850	630	74.1	10	172
1,4-Dichlorobenzene	850	620	72.9	20	124
2,4,5-Trichlorophenol	850	510	60.0	40	150
2,4,6-Trichlorophenol	850	610	71.8	37	144
2,4-Dichlorophenol	850	540	63.5	39	135
2,4-Dimethylphenol	850	640	75.3	32	119
2,4-Dinitrophenol	850	410	48.2	10	191
2,4-Dinitrotoluene	850	710	83.5	30	150
2,6-Dinitrotoluene	850	690	81.2	30	150
2-Chloronaphthalene	850	660	77.6	20	175
2-Chlorophenol	850	650	76.5	23	134
2-Methylnaphthalene	850	640	75.3	30	135
2-Nitroaniline	850	630	74.1	20	175
2-Nitrophenol	850	640	75.3	29	182
3,3'-Dichlorobenzidine	850	400	47.1	10	261
3-Nitroaniline	850	390	45.9	20	175
4,6-Dinitro-2-methylphenol	850	530	62.4	10	181
4-Bromophenyl phenyl ether	850	650	76.5	20	175
4-Chloro-3-methylphenol	850	640	75.3	22	147
4-Chloroaniline	850	580	68.2	20	175
4-Chlorophenyl phenyl ether	850	650	76.5	25	158
4-Nitroaniline	850	540	63.5	20	175
4-Nitrophenol	850	550	64.7	10	132
Acenaphthene	850	650	76.5	30	160
Acenaphthylene	850	660	77.6	10	150
Aniline	1700	770	45.3	10	160
Anthracene	850	660	77.6	27	133
Benz(a)anthracene	850	650	76.5	33	143
Benzo(a)pyrene	850	530	62.4	17	163
Benzo(b)fluoranthene	850	640	75.3	24	159
Benzo(g,h,i)perylene	850	640	75.3	10	219
Benzo(k)fluoranthene	850	690	81.2	11	162
Benzoic acid	850	220	25.9	10	450
Benzyl alcohol	850	560	65.9	30	160

Qualifiers:

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B/V - Analyte detected in the associated Method Blank
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E - Estimated Value exceeds calibration curve
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HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Semivolatile Organics by Method 8270C **WorkOrder:** 09030249
Method: SW8270C **Lab Batch ID:** 88718

Laboratory Control Sample (LCS)

RunID: R_090313A-4949077 Units: ug/kg
Analysis Date: 03/13/2009 14:40 Analyst: GY
Preparation Date: 03/13/2009 10:14 Prep By: QMT Method: SW3550B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Bis(2-chloroethoxy)methane	850	620	72.9	33	184
Bis(2-chloroethyl)ether	850	640	75.3	28	158
Bis(2-chloroisopropyl)ether	850	620	72.9	36	166
Bis(2-ethylhexyl)phthalate	850	570	67.1	10	158
Butyl benzyl phthalate	850	630	74.1	10	152
Carbazole	850	640	75.3	45	135
Chrysene	850	650	76.5	17	168
Dibenz(a,h)anthracene	850	610	71.8	10	227
Dibenzofuran	850	660	77.6	30	160
Diethyl phthalate	850	660	77.6	10	160
Dimethyl phthalate	850	670	78.8	10	112
Di-n-butyl phthalate	850	640	75.3	40	132
Di-n-octyl phthalate	850	550	64.7	10	146
Fluoranthene	850	680	80.0	26	137
Fluorene	850	650	76.5	35	135
Hexachlorobenzene	850	670	78.8	10	152
Hexachlorobutadiene	850	640	75.3	20	140
Hexachlorocyclopentadiene	850	540	63.5	10	152
Hexachloroethane	850	620	72.9	25	118
Indeno(1,2,3-cd)pyrene	850	630	74.1	10	171
Isophorone	850	680	80.0	21	196
Naphthalene	850	660	77.6	21	133
Nitrobenzene	850	640	75.3	35	180
N-Nitrosodi-n-propylamine	850	640	75.3	10	230
N-Nitrosodiphenylamine	1700	1600	94.1	30	160
Pentachlorophenol	850	450	52.9	14	176
Phenanthrene	850	650	76.5	35	135
Phenol	850	660	77.6	44	120
Pyrene	850	670	78.8	34	138
Pyridine	1700	1000	58.8	10	150
2-Methylphenol	850	640	75.3	40	160
3 & 4-Methylphenol	850	600	70.6	40	160
Surr: 2,4,6-Tribromophenol	2500	2100	84.0	19	135
Surr: 2-Fluorobiphenyl	1700	1300	76.5	15	140

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HOUSTON LABORATORY
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HOUSTON, TX 77054
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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Semivolatile Organics by Method 8270C **WorkOrder:** 09030249
Method: SW8270C **Lab Batch ID:** 88718

Laboratory Control Sample (LCS)

RunID: R_090313A-4949077 Units: ug/kg
Analysis Date: 03/13/2009 14:40 Analyst: GY
Preparation Date: 03/13/2009 10:14 Prep By: QMT Method: SW3550B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Surr: 2-Fluorophenol	2500	2000	80.0	15	122
Surr: Nitrobenzene-d5	1700	1400	82.4	32	153
Surr: Phenol-d5	2500	2000	80.0	10	123
Surr: Terphenyl-d14	1700	1300	76.5	18	166

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

Sample Spiked: 09030609-01
RunID: H_090316C-4950312 Units: ug/kg
Analysis Date: 03/16/2009 18:09 Analyst: GY
Preparation Date: 03/13/2009 10:14 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
1,2,4-Trichlorobenzene	ND	850	450	52.9	850	399	46.9	12.0	28	34	116
1,2-Dichlorobenzene	ND	850	388	45.6	850	323	38.0	18.3	60	32	129
1,2-Diphenylhydrazine	ND	850	569	66.9	850	426	50.1	28.7	60	10	256
1,3-Dichlorobenzene	ND	850	382	44.9	850	315	37.1	19.2	60	10	172
1,4-Dichlorobenzene	ND	850	377	44.4	850	317	37.3	17.3	28	20	124
2,4,5-Trichlorophenol	ND	850	383	45.1	850	295	34.7 *	26.0	60	40	150
2,4,6-Trichlorophenol	ND	850	416	48.9	850	327	38.5	24.0	60	37	144
2,4-Dichlorophenol	ND	850	404	47.5	850	360	42.4	11.5	60	39	135
2,4-Dimethylphenol	ND	850	1180	139 *	850	1140	134 *	3.45	60	32	119
2,4-Dinitrophenol	ND	850	442	52.0	850	370	43.5	17.7	60	10	191
2,4-Dinitrotoluene	ND	850	924	109	850	724	85.2	24.3	50	30	150
2,6-Dinitrotoluene	ND	850	450	52.9	850	339	39.9	28.1	60	30	150
2-Chloronaphthalene	ND	850	454	53.4	850	370	43.5	20.4	60	20	175
2-Chlorophenol	ND	850	412	48.5	850	333	39.2	21.2	40	23	134
2-Methylnaphthalene	19000	850	41500	N/C	850	34500	N/C	N/C	60	30	135
2-Nitroaniline	ND	850	848	99.8	850	687	80.8	21.0	60	20	175
2-Nitrophenol	ND	850	431	50.7	850	482	56.7	11.2	60	29	182
3,3'-Dichlorobenzidine	ND	850	371	43.6	850	300	35.3	21.2	60	10	261

Qualifiers:
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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Semivolatile Organics by Method 8270C
Method: SW8270C
WorkOrder: 09030249
Lab Batch ID: 88718

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

Sample Spiked: 09030609-01
RunID: H_090316C-4950312 Units: ug/kg
Analysis Date: 03/16/2009 18:09 Analyst: GY
Preparation Date: 03/13/2009 10:14 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
3-Nitroaniline	ND	850	403	47.4	850	347	40.8	14.9	60	20	175
4,6-Dinitro-2-methylphenol	ND	850	474	55.8	850	347	40.8	30.9	60	10	181
4-Bromophenyl phenyl ether	ND	850	464	54.6	850	413	48.6	11.6	60	20	175
4-Chloro-3-methylphenol	ND	850	464	54.6	850	346	40.7	29.1	42	22	147
4-Chloroaniline	ND	850	390	45.9	850	410	48.2	5.00	60	20	175
4-Chlorophenyl phenyl ether	ND	850	447	52.6	850	384	45.2	15.2	60	25	158
4-Nitroaniline	ND	850	429	50.5	850	362	42.6	16.9	60	20	175
4-Nitrophenol	ND	850	425	50.0	850	398	46.8	6.56	50	10	132
Acenaphthene	ND	850	643	60.4	850	533	47.4	18.7	31	30	160
Acenaphthylene	ND	850	478	56.2	850	393	46.2	19.5	50	10	150
Aniline	ND	1700	956	45.1	1700	771	34.2	21.4	60	10	160
Anthracene	ND	850	710	64.7	850	606	52.5	15.8	50	27	133
Benz(a)anthracene	ND	850	514	60.5	850	445	52.4	14.4	50	33	143
Benzo(a)pyrene	ND	850	391	46.0	850	313	36.8	22.2	60	17	163
Benzo(b)fluoranthene	ND	850	409	48.1	850	339	39.9	18.7	60	24	159
Benzo(g,h,i)perylene	ND	850	438	51.5	850	357	42.0	20.4	60	10	219
Benzo(k)fluoranthene	ND	850	409	48.1	850	341	40.1	18.1	60	11	162
Benzoic acid	ND	850	1820	214	850	1820	214	0	60	10	450
Benzyl alcohol	ND	850	437	51.4	850	369	43.4	16.9	60	30	160
Bis(2-chloroethoxy)methane	ND	850	831	97.8	850	825	97.1	0.725	60	33	184
Bis(2-chloroethyl)ether	ND	850	383	45.1	850	335	39.4	13.4	60	28	158
Bis(2-chloroisopropyl)ether	ND	850	402	47.3	850	327	38.5	20.6	60	36	166
Bis(2-ethylhexyl)phthalate	ND	850	841	56.6	850	728	43.3	14.4	60	10	158
Butyl benzyl phthalate	ND	850	423	49.8	850	358	42.1	16.6	60	10	152
Carbazole	ND	850	493	58.0	850	402	47.3	20.3	60	45	135
Chrysene	ND	850	459	54.0	850	403	47.4	13.0	60	17	168
Dibenz(a,h)anthracene	ND	850	360	42.4	850	314	36.9	13.6	60	10	227
Dibenzofuran	ND	850	444	52.2	850	396	46.6	11.4	60	45	135
Diethyl phthalate	ND	850	464	54.6	850	385	45.3	18.6	60	10	160
Dimethyl phthalate	ND	850	423	49.8	850	350	41.2	18.9	60	10	112
Di-n-butyl phthalate	ND	850	475	55.9	850	398	46.8	17.6	60	40	132
Di-n-octyl phthalate	ND	850	415	48.8	850	338	39.8	20.5	60	10	146

Qualifiers:
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8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Semivolatile Organics by Method 8270C **WorkOrder:** 09030249
Method: SW8270C **Lab Batch ID:** 88718

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

Sample Spiked: 09030609-01
RunID: H_090316C-4950312 Units: ug/kg
Analysis Date: 03/16/2009 18:09 Analyst: GY
Preparation Date: 03/13/2009 10:14 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
Fluoranthene	ND	850	542	63.8	850	436	51.3	21.7	60	26	137
Fluorene	ND	850	955	73.5	850	782	53.2	19.9	60	45	135
Hexachlorobenzene	ND	850	458	53.9	850	384	45.2	17.6	60	10	152
Hexachlorobutadiene	ND	850	464	54.6	850	374	44.0	21.5	60	20	140
Hexachlorocyclopentadiene	ND	850	D	D	850	D	D	D	60	10	152
Hexachloroethane	ND	850	D	D	850	D	D	D	60	25	118
Indeno(1,2,3-cd)pyrene	ND	850	450	52.9	850	365	42.9	20.9	60	10	171
Isophorone	ND	850	508	59.8	850	439	51.6	14.6	60	21	196
Naphthalene	16000	850	39700	N/C	850	33900	N/C	N/C	60	21	133
Nitrobenzene	ND	850	1360	160	850	1190	140	13.3	60	35	180
N-Nitrosodi-n-propylamine	ND	850	405	47.6	850	394	46.4	2.75	38	10	230
N-Nitrosodiphenylamine	ND	1700	1530	90.0	1700	1300	76.5	16.3	60	30	160
Pentachlorophenol	ND	850	286	33.6	850	179	21.1	46.0	50	14	176
Phenanthrene	ND	850	1050	80.0	850	864	58.1	19.4	60	45	135
Phenol	ND	850	548	64.5	850	411	48.4	28.6	42	44	120
Pyrene	ND	850	580	57.5	850	490	46.9	16.8	31	26	127
Pyridine	ND	1700	693	40.8	1700	515	30.3	29.5	60	10	150
2-Methylphenol	ND	850	D	D	850	D	D	D	60	40	160
3 & 4-Methylphenol	ND	850	D	D	850	D	D	D	60	40	160
Surr: 2,4,6-Tribromophenol	ND	2500	1500	60.0	2500	1240	49.6	19.0	30	19	135
Surr: 2-Fluorobiphenyl	ND	1700	875	51.5	1700	781	45.9	11.4	30	15	140
Surr: 2-Fluorophenol	ND	2500	1260	50.4	2500	1090	43.6	14.5	30	15	122
Surr: Nitrobenzene-d5	ND	1700	1050	61.8	1700	1090	64.1	3.74	30	10	134
Surr: Phenol-d5	ND	2500	1360	54.4	2500	1120	44.8	19.4	30	10	123
Surr: Terphenyl-d14	ND	1700	890	52.4	1700	791	46.5	11.8	30	18	166

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Volatile Organics by Method 8260B
Method: SW8260B
WorkOrder: 09030249
Lab Batch ID: R266977

Method Blank

RunID: M_090306A-4935849 Units: ug/kg
Analysis Date: 03/06/2009 13:42 Analyst: TLE

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-01A	MW-1 (5-6.5)

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
Chloromethane	ND	10
Dibromochloromethane	ND	5.0
Dibromomethane	ND	5.0
Dichlorodifluoromethane	ND	10
Ethylbenzene	ND	5.0

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Volatile Organics by Method 8260B **WorkOrder:** 09030249
Method: SW8260B **Lab Batch ID:** R266977

Method Blank

RunID: M_090306A-4935849 Units: ug/kg
Analysis Date: 03/06/2009 13:42 Analyst: TLE

Analyte	Result	Rep Limit
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	86.0	64-130
Surr: 4-Bromofluorobenzene	88.0	62-130
Surr: Toluene-d8	104.0	70-140

Laboratory Control Sample (LCS)

RunID: M_090306A-4935848 Units: ug/kg
Analysis Date: 03/06/2009 12:44 Analyst: TLE

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1,1,2-Tetrachloroethane	20.0	17.0	85.0	35	175
1,1,1-Trichloroethane	20.0	18.0	90.0	35	175
1,1,2,2-Tetrachloroethane	20.0	18.0	90.0	35	175
1,1,2-Trichloroethane	20.0	17.0	85.0	35	175
1,1-Dichloroethane	20.0	19.0	95.0	35	175

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
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E - Estimated Value exceeds calibration curve
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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Volatile Organics by Method 8260B
Method: SW8260B
WorkOrder: 09030249
Lab Batch ID: R266977

Laboratory Control Sample (LCS)

RunID: M_090306A-4935848 Units: ug/kg
Analysis Date: 03/06/2009 12:44 Analyst: TLE

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1-Dichloroethene	20.0	22.0	110	59	172
1,1-Dichloropropene	20.0	19.0	95.0	35	175
1,2,3-Trichlorobenzene	20.0	15.0	75.0	20	200
1,2,3-Trichloropropane	20.0	18.0	90.0	35	175
1,2,4-Trichlorobenzene	20.0	16.0	80.0	40	200
1,2,4-Trimethylbenzene	20.0	19.0	95.0	35	175
1,2-Dibromo-3-chloropropane	20.0	17.0	85.0	15	175
1,2-Dibromoethane	20.0	17.0	85.0	35	175
1,2-Dichlorobenzene	20.0	17.0	85.0	35	175
1,2-Dichloroethane	20.0	18.0	90.0	35	175
1,2-Dichloropropane	20.0	16.0	80.0	35	175
1,3,5-Trimethylbenzene	20.0	17.0	85.0	35	175
1,3-Dichlorobenzene	20.0	20.0	100	35	175
1,3-Dichloropropane	20.0	17.0	85.0	35	175
1,4-Dichlorobenzene	20.0	19.0	95.0	35	175
2,2-Dichloropropane	20.0	17.0	85.0	35	175
2-Butanone	20.0	26.0	130	20	235
2-Chloroethyl vinyl ether	20.0	19.0	95.0	10	250
2-Chlorotoluene	20.0	19.0	95.0	31	175
2-Hexanone	20.0	20.0	100	10	250
4-Chlorotoluene	20.0	19.0	95.0	35	175
4-Isopropyltoluene	20.0	20.0	100	35	175
4-Methyl-2-pentanone	20.0	19.0	95.0	10	170
Acetone	20.0	43.0	215	10	350
Acrylonitrile	20.0	26.0	130	20	200
Benzene	20.0	17.0	85.0	66	142
Bromobenzene	20.0	17.0	85.0	35	175
Bromochloromethane	20.0	17.0	85.0	35	175
Bromodichloromethane	20.0	17.0	85.0	35	175
Bromoform	20.0	18.0	90.0	35	175
Bromomethane	20.0	16.0	80.0	35	175
Carbon disulfide	20.0	21.0	105	30	220
Carbon tetrachloride	20.0	19.0	95.0	35	175
Chlorobenzene	20.0	18.0	90.0	60	133

Qualifiers:
ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
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HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Volatile Organics by Method 8260B
Method: SW8260B
WorkOrder: 09030249
Lab Batch ID: R266977

Laboratory Control Sample (LCS)

RunID: M_090306A-4935848 Units: ug/kg
Analysis Date: 03/06/2009 12:44 Analyst: TLE

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Chloroethane	20.0	18.0	90.0	35	175
Chloroform	20.0	18.0	90.0	35	175
Chloromethane	20.0	19.0	95.0	35	175
Dibromochloromethane	20.0	17.0	85.0	35	175
Dibromomethane	20.0	18.0	90.0	35	175
Dichlorodifluoromethane	20.0	20.0	100	30	175
Ethylbenzene	20.0	18.0	90.0	35	175
Hexachlorobutadiene	20.0	20.0	100	35	175
Isopropylbenzene	20.0	16.0	80.0	35	175
Methyl tert-butyl ether	40.0	30.0	75.0	35	175
Methylene chloride	20.0	22.0	110	35	175
Naphthalene	20.0	16.0	80.0	20	175
n-Butylbenzene	20.0	21.0	105	35	175
n-Propylbenzene	20.0	17.0	85.0	35	175
sec-Butylbenzene	20.0	20.0	100	35	175
Styrene	20.0	18.0	90.0	35	175
tert-Butylbenzene	20.0	18.0	90.0	35	175
Tetrachloroethene	20.0	16.0	80.0	30	250
Toluene	20.0	18.0	90.0	59	139
Trichloroethene	20.0	18.0	90.0	60	140
Trichlorofluoromethane	20.0	18.0	90.0	17	250
Vinyl acetate	20.0	22.0	110	10	250
Vinyl chloride	20.0	20.0	100	30	175
cis-1,2-Dichloroethene	20.0	19.0	95.0	35	175
cis-1,3-Dichloropropene	20.0	17.0	85.0	35	175
m,p-Xylene	40.0	37.0	92.5	35	175
o-Xylene	20.0	19.0	95.0	35	175
trans-1,2-Dichloroethene	20.0	19.0	95.0	35	175
trans-1,3-Dichloropropene	20.0	16.0	80.0	35	175
1,2-Dichloroethene (total)	40	38	95	35	175
Xylenes,Total	60	56	93	35	175
Surr: 1,2-Dichloroethane-d4	50.0	49	98.0	64	130
Surr: 4-Bromofluorobenzene	50.0	50	100	62	130
Surr: Toluene-d8	50.0	53	106	70	140

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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Volatile Organics by Method 8260B
Method: SW8260B
WorkOrder: 09030249
Lab Batch ID: R266977

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

Sample Spiked: 09030249-01
RunID: M_090306A-4935851 Units: ug/kg-dry
Analysis Date: 03/06/2009 15:59 Analyst: TLE
Preparation Date: 03/05/2009 17:36 Prep By: AG Method: SW5035A

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	27.9	23.7	85.0	27.9	20.9	75.0	12.5	30	35	175
1,1,1-Trichloroethane	ND	27.9	34.9	125	27.9	26.5	95.0	27.3	30	35	175
1,1,2,2-Tetrachloroethane	ND	27.9	18.1	65.0	27.9	18.1	65.0	0	30	35	175
1,1,2-Trichloroethane	ND	27.9	19.5	70.0	27.9	18.1	65.0	7.41	30	35	175
1,1-Dichloroethane	ND	27.9	33.5	120	27.9	26.5	95.0	23.3	30	35	175
1,1-Dichloroethene	ND	27.9	40.4	145	27.9	33.5	120	18.9	22	59	172
1,1-Dichloropropene	ND	27.9	34.9	125	27.9	26.5	95.0	27.3	30	35	175
1,2,3-Trichlorobenzene	ND	27.9	20.9	75.0	27.9	16.7	60.0	22.2	30	20	200
1,2,3-Trichloropropane	ND	27.9	19.5	70.0	27.9	19.5	70.0	0	30	35	175
1,2,4-Trichlorobenzene	ND	27.9	20.9	75.0	27.9	15.3	55.0	30.8 *	30	40	200
1,2,4-Trimethylbenzene	ND	27.9	29.3	105	27.9	23.7	85.0	21.1	30	35	175
1,2-Dibromo-3-chloropropane	ND	27.9	22.3	80.0	27.9	19.5	70.0	13.3	30	15	175
1,2-Dibromoethane	ND	27.9	16.7	60.0	27.9	16.7	60.0	0	30	35	175
1,2-Dichlorobenzene	ND	27.9	25.1	90.0	27.9	19.5	70.0	25.0	30	35	175
1,2-Dichloroethane	ND	27.9	23.7	85.0	27.9	19.5	70.0	19.4	30	35	175
1,2-Dichloropropane	ND	27.9	25.1	90.0	27.9	20.9	75.0	18.2	30	35	175
1,3,5-Trimethylbenzene	ND	27.9	27.9	100	27.9	20.9	75.0	28.6	30	35	175
1,3-Dichlorobenzene	ND	27.9	27.9	100	27.9	20.9	75.0	28.6	30	35	175
1,3-Dichloropropane	ND	27.9	19.5	70.0	27.9	18.1	65.0	7.41	30	35	175
1,4-Dichlorobenzene	ND	27.9	25.1	90.0	27.9	20.9	75.0	18.2	30	35	175
2,2-Dichloropropane	ND	27.9	33.5	120	27.9	25.1	90.0	28.6	30	35	175
2-Butanone	ND	27.9	39.1	140	27.9	39.1	140	0	30	10	230
2-Chloroethyl vinyl ether	ND	27.9	16.7	60.0	27.9	23.7	85.0	34.5 *	30	10	250
2-Chlorotoluene	ND	27.9	32.1	115	27.9	25.1	90.0	24.4	30	31	175
2-Hexanone	ND	27.9	19.5	70.0	27.9	22.3	80.0	13.3	30	10	250
4-Chlorotoluene	ND	27.9	29.3	105	27.9	22.3	80.0	27.0	30	35	175
4-Isopropyltoluene	ND	27.9	34.9	125	27.9	27.9	100	22.2	30	35	175
4-Methyl-2-pentanone	ND	27.9	19.5	70.0	27.9	20.9	75.0	6.90	30	10	170
Acetone	ND	27.9	87.9	240	27.9	89.3	245	1.57	30	10	350
Acrylonitrile	ND	27.9	39.1	140	27.9	36.3	130	7.41	30	20	200

Qualifiers:
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HOUSTON, TX 77054
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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Volatile Organics by Method 8260B
Method: SW8260B
WorkOrder: 09030249
Lab Batch ID: R266977

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

Sample Spiked: 09030249-01
RunID: M_090306A-4935851 Units: ug/kg-dry
Analysis Date: 03/06/2009 15:59 Analyst: TLE
Preparation Date: 03/05/2009 17:36 Prep By: AG Method: SW5035A

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Benzene	ND	27.9	27.9	100	27.9	22.3	80.0	22.2 *	21	66	142
Bromobenzene	ND	27.9	23.7	85.0	27.9	18.1	65.0	26.7	30	35	175
Bromochloromethane	ND	27.9	23.7	85.0	27.9	19.5	70.0	19.4	30	35	175
Bromodichloromethane	ND	27.9	23.7	85.0	27.9	19.5	70.0	19.4	30	35	175
Bromoform	ND	27.9	19.5	70.0	27.9	19.5	70.0	0	30	35	175
Bromomethane	ND	27.9	26.5	95.0	27.9	22.3	80.0	17.1	30	35	175
Carbon disulfide	ND	27.9	37.7	135	27.9	32.1	115	16.0	30	30	220
Carbon tetrachloride	ND	27.9	33.5	120	27.9	27.9	100	18.2	30	35	175
Chlorobenzene	ND	27.9	25.1	90.0	27.9	22.3	80.0	11.8	21	60	133
Chloroethane	ND	27.9	36.3	130	27.9	29.3	105	21.3	30	35	175
Chloroform	ND	27.9	30.7	110	27.9	23.7	85.0	25.6	30	35	175
Chloromethane	ND	27.9	29.3	105	27.9	25.1	90.0	15.4	30	35	175
Dibromochloromethane	ND	27.9	18.1	65.0	27.9	16.7	60.0	8.00	30	35	175
Dibromomethane	ND	27.9	20.9	75.0	27.9	18.1	65.0	14.3	30	35	175
Dichlorodifluoromethane	ND	27.9	39.1	140	27.9	34.9	125	11.3	30	30	175
Ethylbenzene	ND	27.9	29.3	105	27.9	25.1	90.0	15.4	30	35	175
Hexachlorobutadiene	ND	27.9	36.3	130	27.9	26.5	95.0	31.1 *	30	35	175
Isopropylbenzene	ND	27.9	27.9	100	27.9	23.7	85.0	16.2	30	35	175
Methyl tert-butyl ether	ND	55.8	33.5	60.0	55.8	29.3	52.5	13.3	30	35	175
Methylene chloride	ND	27.9	29.3	105	27.9	25.1	90.0	15.4	30	35	175
Naphthalene	ND	27.9	18.1	65.0	27.9	15.3	55.0	16.7	30	20	175
n-Butylbenzene	ND	27.9	39.1	140	27.9	29.3	105	28.6	30	35	175
n-Propylbenzene	ND	27.9	30.7	110	27.9	20.9	75.0	37.8 *	30	35	175
sec-Butylbenzene	ND	27.9	34.9	125	27.9	25.1	90.0	32.6 *	30	35	175
Styrene	ND	27.9	25.1	90.0	27.9	22.3	80.0	11.8	30	35	175
tert-Butylbenzene	ND	27.9	32.1	115	27.9	23.7	85.0	30.0 *	30	35	175
Tetrachloroethene	ND	27.9	25.1	90.0	27.9	20.9	75.0	18.2	30	30	250
Toluene	ND	27.9	30.7	100	27.9	27.9	90.0	9.52	21	59	139
Trichloroethene	ND	27.9	30.7	110	27.9	23.7	85.0	25.6 *	24	60	140
Trichlorofluoromethane	ND	27.9	39.1	140	27.9	30.7	110	24.0	30	17	250
Vinyl acetate	ND	27.9	19.5	70.0	27.9	13.9	50.0	33.3 *	30	10	250
Vinyl chloride	ND	27.9	30.7	110	27.9	26.5	95.0	14.6	30	30	175

Qualifiers:
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HOUSTON, TX 77054
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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Volatile Organics by Method 8260B **WorkOrder:** 09030249
Method: SW8260B **Lab Batch ID:** R266977

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

Sample Spiked: 09030249-01
RunID: M_090306A-4935851 Units: ug/kg-dry
Analysis Date: 03/06/2009 15:59 Analyst: TLE
Preparation Date: 03/05/2009 17:36 Prep By: AG Method: SW5035A

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
cis-1,2-Dichloroethene	ND	27.9	32.1	115	27.9	25.1	90.0	24.4	30	35	175
cis-1,3-Dichloropropene	ND	27.9	22.3	80.0	27.9	20.9	75.0	6.45	30	35	175
m,p-Xylene	ND	55.8	64.2	115	55.8	58.6	105	9.09	30	35	175
o-Xylene	ND	27.9	27.9	100	27.9	26.5	95.0	5.13	30	35	175
trans-1,2-Dichloroethene	ND	27.9	36.3	130	27.9	27.9	100	26.1	30	35	175
trans-1,3-Dichloropropene	ND	27.9	18.1	65.0	27.9	16.7	60.0	8.00	30	35	175
1,2-Dichloroethene (total)	ND	55.8	68.4	123	55.8	53.0	95.0	25.3	30	35	175
Xylenes,Total	ND	83.7	92.1	110	83.7	85.1	102	7.87	30	35	175
Surr: 1,2-Dichloroethane-d4	ND	69.7	62.8	90.0	69.7	58.6	84.0	6.90	30	64	130
Surr: 4-Bromofluorobenzene	ND	69.7	71.1	102	69.7	72.5	104	1.94	30	62	130
Surr: Toluene-d8	ND	69.7	68.3	98.0	69.7	73.9	106	7.84	30	70	140

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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: PERCENT MOISTURE
Method: D2216

WorkOrder: 09030249
Lab Batch ID: R266946A

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-01C	MW-1 (5-6.5)

Sample Duplicate

Original Sample: 09030285-04
RunID: WET_090306M-4935292 Units: wt%
Analysis Date: 03/06/2009 14:51 Analyst: EB1

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Percent Moisture	4.24	4.243	0	20

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - 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
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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Alkalinity (as CaCO3), Total **WorkOrder:** 09030249
Method: E310.1 **Lab Batch ID:** R267018

Method Blank

RunID: WET_090308B-4936432 Units: mg/Kg
Analysis Date: 03/08/2009 13:15 Analyst: PAC

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-01C	MW-1 (5-6.5)

Analyte	Result	Rep Limit
Alkalinity, Total (As CaCO3)	ND	20

Laboratory Control Sample (LCS)

RunID: WET_090308B-4936434 Units: mg/Kg
Analysis Date: 03/08/2009 13:15 Analyst: PAC

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Alkalinity, Total (As CaCO3)	387.0	380.0	98.19	90	110

Sample Duplicate

Original Sample: 09030293-01
RunID: WET_090308B-4936436 Units: mg/Kg-dry
Analysis Date: 03/08/2009 13:15 Analyst: PAC

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Alkalinity, Total (As CaCO3)	845	844.9	0	20

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Ion Chromatography
Method: E300.0 MOD
WorkOrder: 09030249
Lab Batch ID: R267274

Method Blank

RunID: IC2_090306B-4940037 Units: mg/kg
Analysis Date: 03/06/2009 11:22 Analyst: BDG

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-01C	MW-1 (5-6.5)

Analyte	Result	Rep Limit
Bromide	ND	5.0
Chloride	ND	5.0
Fluoride	ND	5.0
Ortho-phosphate (As P)	ND	5.0

Laboratory Control Sample (LCS)

RunID: IC2_090306B-4940038 Units: mg/kg
Analysis Date: 03/06/2009 11:39 Analyst: BDG

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Bromide	100.0	95.75	95.75	80	120
Chloride	100.0	102.7	102.7	80	120
Fluoride	100.0	92.62	92.62	80	120
Ortho-phosphate (As P)	100.0	97.87	97.87	80	120

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

Sample Spiked: 09030249-01
RunID: IC2_090306B-4940044 Units: mg/kg-dry
Analysis Date: 03/06/2009 18:06 Analyst: BDG

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	139.5	127.7	91.59	139.5	116.0	83.20	9.600	20	75	125
Chloride	32.61	139.5	161.9	92.68	139.5	162.6	93.20	0.4470	20	75	125
Fluoride	ND	139.5	124.3	87.45	139.5	113.3	79.58	9.240	20	75	125
Ortho-phosphate (As P)	ND	139.5	131.7	93.99	139.5	120.4	85.88	8.976	20	75	125

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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.

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

Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Ion Chromatography
Method: E300.0 MOD
WorkOrder: 09030249
Lab Batch ID: R267277

Method Blank

RunID: IC2_090306C-4940052 Units: mg/kg
Analysis Date: 03/06/2009 11:22 Analyst: BDG

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-01C	MW-1 (5-6.5)

Analyte	Result	Rep Limit
Nitrogen,Nitrate (As N)	ND	5.0
Nitrogen,Nitrite (As N)	ND	5.0

Laboratory Control Sample (LCS)

RunID: IC2_090306C-4940053 Units: mg/kg
Analysis Date: 03/06/2009 11:39 Analyst: BDG

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Nitrogen,Nitrate (As N)	100.0	95.96	95.96	90	110
Nitrogen,Nitrite (As N)	100.0	97.35	97.35	90	110

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

Sample Spiked: 09030249-01
RunID: IC2_090306C-4940060 Units: mg/kg
Analysis Date: 03/06/2009 18:06 Analyst: BDG

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	100	91.09	91.09	100	82.76	82.76	9.583	20	80	120
Nitrogen,Nitrite (As N)	ND	100	92.98	92.98	100	84.92	84.92	9.061	20	80	120

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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.

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

Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Ion Chromatography
Method: E300.0 MOD
WorkOrder: 09030249
Lab Batch ID: R267497

Method Blank

RunID: IC2_090310C-4943091 Units: mg/kg
Analysis Date: 03/10/2009 19:22 Analyst: BDG

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-02C	MW-3 (5-6.5)

Analyte	Result	Rep Limit
Bromide	ND	5.0
Chloride	ND	5.0
Fluoride	ND	5.0
Ortho-phosphate (As P)	ND	5.0

Laboratory Control Sample (LCS)

RunID: IC2_090310C-4943092 Units: mg/kg
Analysis Date: 03/10/2009 19:39 Analyst: BDG

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Bromide	100.0	99.39	99.39	80	120
Chloride	100.0	104.4	104.4	80	120
Fluoride	100.0	99.17	99.17	80	120
Ortho-phosphate (As P)	100.0	102.8	102.8	80	120

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

Sample Spiked: 09020946-01
RunID: IC2_090310C-4943102 Units: mg/kg-dry
Analysis Date: 03/10/2009 22:52 Analyst: BDG

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	157.2	143.4	91.21	157.2	149.5	95.08	4.155	20	75	125
Chloride	ND	157.2	146.4	93.10	157.2	153.0	97.33	4.443	20	75	125
Fluoride	ND	157.2	141.9	87.88	157.2	148.0	91.78	4.231	20	75	125
Ortho-phosphate (As P)	ND	157.2	149.4	91.78	157.2	155.3	95.56	3.902	20	75	125

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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.

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Ion Chromatography **WorkOrder:** 09030249
Method: E300.0 MOD **Lab Batch ID:** R267498

Method Blank

RunID: IC2_090310D-4943115 Units: mg/kg
Analysis Date: 03/10/2009 19:22 Analyst: BDG

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-02C	MW-3 (5-6.5)

Analyte	Result	Rep Limit
Nitrogen,Nitrate (As N)	ND	5.0
Nitrogen,Nitrite (As N)	ND	5.0

Laboratory Control Sample (LCS)

RunID: IC2_090310D-4943116 Units: mg/kg
Analysis Date: 03/10/2009 19:39 Analyst: BDG

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Nitrogen,Nitrate (As N)	100.0	100.9	100.9	90	110
Nitrogen,Nitrite (As N)	100.0	102.9	102.9	90	110

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

Sample Spiked: 09020946-01
RunID: IC2_090310D-4943122 Units: mg/kg
Analysis Date: 03/10/2009 22:52 Analyst: BDG

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	100	91.36	91.36	100	95.52	95.52	4.452	20	80	120
Nitrogen,Nitrite (As N)	ND	100	93.90	93.90	100	97.98	97.98	4.253	20	80	120

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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.

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HOUSTON, TX 77054
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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: Ion Chromatography **WorkOrder:** 09030249
Method: E300.0 MOD **Lab Batch ID:** R267500

Method Blank

RunID: IC2_090311A-4943144 Units: mg/kg
Analysis Date: 03/11/2009 16:23 Analyst: BDG

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-02C	MW-3 (5-6.5)

Analyte	Result	Rep Limit
Sulfate	ND	5.0

Laboratory Control Sample (LCS)

RunID: IC2_090311A-4943145 Units: mg/kg
Analysis Date: 03/11/2009 16:40 Analyst: BDG

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Sulfate	100.0	97.78	97.78	80	120

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

Sample Spiked: 09020953-01
RunID: IC2_090311A-4943150 Units: mg/kg-dry
Analysis Date: 03/11/2009 18:08 Analyst: BDG

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	2127	12690	13950	93.18	12690	14340	96.21	2.726	20	75	125

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

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HOUSTON, TX 77054
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Quality Control Report

Conoco Phillips
COP Sategna 2E

Analysis: PERCENT MOISTURE
Method: D2216

WorkOrder: 09030249
Lab Batch ID: R267722A

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-02C	MW-3 (5-6.5)

Sample Duplicate

Original Sample: 09030591-15
RunID: WET_090313I-4946247 Units: wt%
Analysis Date: 03/13/2009 16:35 Analyst: CFS

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Percent Moisture	7.16	7.182	0.276	20

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - 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.

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Alkalinity (as CaCO3), Total
Method: E310.1
WorkOrder: 09030249
Lab Batch ID: R267827

Method Blank

RunID: WET_090315A-4947489 Units: mg/Kg
Analysis Date: 03/15/2009 12:30 Analyst: PAC

Samples in Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-02C	MW-3 (5-6.5)

Analyte	Result	Rep Limit
Alkalinity, Total (As CaCO3)	ND	20

Laboratory Control Sample (LCS)

RunID: WET_090315A-4947491 Units: mg/Kg
Analysis Date: 03/15/2009 12:30 Analyst: PAC

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Alkalinity, Total (As CaCO3)	387.0	380.0	98.19	90	110

Sample Duplicate

Original Sample: 09030249-02
RunID: WET_090315A-4947492 Units: mg/Kg-dry
Analysis Date: 03/15/2009 12:30 Analyst: PAC

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Alkalinity, Total (As CaCO3)	368	367.8	0	20

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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.

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Quality Control Report

Conoco Phillips

COP Sategna 2E

Analysis: Ion Chromatography **WorkOrder:** 09030249
Method: E300.0 MOD **Lab Batch ID:** R267855

Method Blank

RunID: IC2_090314A-4947855 Units: mg/kg
Analysis Date: 03/14/2009 12:02 Analyst: BDG

Samples In Analytical Batch:

Lab Sample ID	Client Sample ID
09030249-01C	MW-1 (5-6.5)

Analyte	Result	Rep Limit
Sulfate	ND	5.0

Laboratory Control Sample (LCS)

RunID: IC2_090314A-4947856 Units: mg/kg
Analysis Date: 03/14/2009 12:19 Analyst: BDG

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Sulfate	100.0	92.47	92.47	80	120

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

Sample Spiked: 09030249-01
RunID: IC2_090314A-4947861 Units: mg/kg-dry
Analysis Date: 03/14/2009 13:28 Analyst: BDG

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	4351	13950	17970	97.63	13950	17600	95.00	2.060	20	75	125

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - Analyte detected in the associated Method Blank
J - Estimated value between MDL and PQL
E - Estimated Value exceeds calibration curve
MI - Matrix Interference
D - Recovery Unreportable due to Dilution
* - Recovery Outside Advisable QC Limits
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.

Sample Receipt Checklist

And

Chain of Custody

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

Sample Receipt Checklist

Workorder:	09030249	Received By:	L_C
Date and Time Received:	3/5/2009 10:00:00 AM	Carrier name:	Fedex-Priority
Temperature:	3.0°C	Chilled by:	Water Ice

1.	Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐		
2.	Custody seals intact on shippping container/cooler?	Yes ☑	No ☐	Not Present ☐		
3.	Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑		
4.	Chain of custody present?	Yes ☑	No ☐			
5.	Chain of custody signed when relinquished and received?	Yes ☑	No ☐			
6.	Chain of custody agrees with sample labels? 1. Received an extra set of samples not listed on chain with sample ID:"MW-3 (5-6.5)".	Yes ☐	No ☑			
7.	Samples in proper container/bottle?	Yes ☑	No ☐			
8.	Sample containers intact?	Yes ☑	No ☐			
9.	Sufficient sample volume for indicated test?	Yes ☑	No ☐			
10.	All samples received within holding time?	Yes ☑	No ☐			
11.	Container/Temp Blank temperature in compliance?	Yes ☑	No ☐			
12.	Water - VOA vials have zero headspace?	Yes ☐	No ☐	VOA Vials Not Present ☑		
13.	Water - Preservation checked upon receipt (except VOA*)?	Yes ☐	No ☐	Not Applicable ☑		

*VOA Preservation Checked After Sample Analysis

SPL Representative: Brown, Electa
Contact Date & Time: 3/9/2009 4:45:00 PM
Client Name Contacted: Kelly Blanchard

Non Conformance Issues: 1. Logged in for analysis as per PM.

Client Instructions: Per Kelly run sample " MW-3 (5-6.5)", for the analysis listed on the chain of custody.

Chain of Custody Record

Client: Tetra Tech/ Conoco Phillips | **SPL Workorder Number:** 0903024 9

Attention: Kelly Blanchard/Tetra Tech

Phone: 505-237-8440 | email: kelly.blanchard@tetratech.c

Address: 6121 Indian School Road, NE Ste. 200

City: Albuquerque | State: NM | Zip Code: 87110

Project Name: ~~Hawell K-1~~ ~~El Paso 1A~~ Salegna 2E

P.O. Number:

Sampled By: Gary Dessellé / Kelly Blanchard

signature: Kelly Blanchard

Sample ID	Collected Date	Collected Time	Sample Type Comp	Sample Type Grab	Matrix Water	Matrix Soil	Bottle Type	Preservative Type	# of Containers	Requested Analysis: ~~8260B~~ VOCs BTEX	SVOCs 8270C	TPH 418.1	Total Metals	General Chem
(5-6.5) ~~MW-1~~ MW-1	3/4/09	1347		X	~~X~~	X	7			X				
(5-6.5) MW-1	3/4/09	1347		X		X	6				X	X		
(5-6.5) MW-1	3/4/09	1347		X		X	6						X	X

~~RUSH~~ 3D

Turnaround Time Requirements
24 hr( ) 48 hr( )
72 hr( ) 5 wday( )
10 wday - Standard( )

Remarks: Gen Chem: Alkalinity, bromide, Cl, Flonde, Hard, Si, NO_3, SO_4
Metals by 6010/6020/7470A/7471A

Intact? Y or N
Temperature: 3.0c

Bottle Types: 1: 3/40ml Vials 2. 1L Glass 3. 1L Plastic 4. 1L Amber Glass 5. 8oz Plastic

Preservative Types: 1: NONE 2. HNO3 3. HCL 4. H2SO4

6.8oz jar 7.4oz jar

Relinquished by Sampler:	Date	Time	Received by:
Kelly E Blanchard	3-4-09	16:30	
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date	Time	Received by SPL, Inc.
	3/5/09	10:06	

Page of

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March 9, 2009

Tetra Tech
Ms. Kelly Blanchard
6121 Indian School Rd
Ste 200
Albuquerque, NM 87110

Phone: (505) 237-8440

Client No.: 00550-0003

Dear Ms. Blanchard,

Enclosed are the analytical results for the sample collected from the location designated as "Sategna 2E". One soil sample and was collected by Tetra Tech personnel 3/02/09 and were received by the Envirotech laboratory on 3/02/09 for BTEX per USEPA Method 8021, Total Petroleum Hydrocarbons (TPH) per USEPA Method 8015 and Chloride rush analysis.

The sample was documented on Envirotech Chain of Custody No. 6435 and assigned Laboratory No. 49169 (MW-2) for tracking purposes.

The sample was analyzed on 3/03/09 using USEPA or equivalent methods.

Should you have any questions or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully submitted,
Envirotech, Inc.

Christine M. Walters
Laboratory Manager

enc.

envirotech
Analytical Laboratory

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client:	Tetra Tech	Project #:	05005-0003
Sample ID:	MW-2 (1.8-2)	Date Reported:	03-04-09
Laboratory Number:	49169	Date Sampled:	03-02-09
Chain of Custody No:	6435	Date Received:	03-02-09
Sample Matrix:	Soil	Date Extracted:	03-02-09
Preservative:	Cool	Date Analyzed:	03-03-09
Condition:	Intact	Analysis Requested:	8015 TPH

Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	**27.4**	**0.2**
Diesel Range (C10 - C28)	**60.0**	**0.1**
Total Petroleum Hydrocarbons	**87.4**	**0.2**

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Sategna 2E.**

Analyst

Review

5796 US Highway 64, Farmington, NM 87401 | Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com

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EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	03-03-09 QA/QC	Date Reported:	03-04-09
Laboratory Number:	49122	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-03-09
Condition:	N/A	Analysis Requested:	TPH

Calibration	Date	Initial Cal.	Cont. Cal.	%Difference	Accept. Range
Gasoline Range C5 - C10	05-07-07	9.8401E+002	9.8441E+002	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	1.0122E+003	1.0126E+003	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	4.7	4.6	2.1%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	%Recovery	Accept. Range
Gasoline Range C5 - C10	ND	250	250	100%	75 - 125%
Diesel Range C10 - C28	4.7	250	253	99.2%	75 - 125%

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **QA/QC for Samples 49122 - 49124, 49143, 49151 - 49153 and 49169.**

Analyst

Review

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Tetra Tech	Project #:	05005-0003
Sample ID:	MW-2 (1.8-2)	Date Reported:	03-04-09
Laboratory Number:	49169	Date Sampled:	03-02-09
Chain of Custody:	6435	Date Received:	03-02-09
Sample Matrix:	Soil	Date Analyzed:	03-03-09
Preservative:	Cool	Date Extracted:	03-02-09
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)		Det. Limit (ug/Kg)
		mg/kg	
Benzene	**120**	0.12	**0.9**
Toluene	**104**	0.104	**1.0**
Ethylbenzene	**114**	0.114	**1.0**
p,m-Xylene	**376**	0.376	**1.2**
o-Xylene	**284**	0.284	**0.9**
Total BTEX	**998**	0.998	

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	**98.0 %**
	1,4-difluorobenzene	**98.0 %**
	Bromochlorobenzene	**98.0 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Sategna 2E.**

Analyst

Review

5796 US Highway 64, Farmington, NM 87401 | Ph (505)632-0615 Fr (800)362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com

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EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	03-03-BT QA/QC	Date Reported:	03-04-09
Laboratory Number:	49122	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	03-03-09
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	% Diff.	Blank Conc.	Detect. Limit
Benzene	2.2416E+005	2.2461E+005	0.2%	ND	0.1
Toluene	2.5727E+005	2.5779E+005	0.2%	ND	0.1
Ethylbenzene	2.6047E+005	2.6099E+005	0.2%	ND	0.1
p,m-Xylene	6.6790E+005	6.6924E+005	0.2%	ND	0.1
o-Xylene	3.1716E+005	3.1780E+005	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	% Diff.	Accept. Range	Detect. Limit
Benzene	6.4	6.2	3.1%	0 - 30%	0.9
Toluene	17.5	17.1	2.3%	0 - 30%	1.0
Ethylbenzene	10.3	10.1	1.9%	0 - 30%	1.0
p,m-Xylene	36.6	36.2	1.1%	0 - 30%	1.2
o-Xylene	18.3	17.8	2.7%	0 - 30%	0.9

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept. Range
Benzene	6.4	50.0	56.0	99.3%	39 - 150
Toluene	17.5	50.0	64.5	95.6%	46 - 148
Ethylbenzene	10.3	50.0	59.3	98.3%	32 - 160
p,m-Xylene	36.6	100	132	96.3%	46 - 148
o-Xylene	18.3	50.0	71.3	104%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **QA/QC for Samples 49122 - 49124, 49141, 49143, 49144, 49151 - 49153, and 49169.**

Analyst

Review

5796 US Highway 64, Farmington, NM 87401 | Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com

envirotech
Analytical Laboratory

Chloride

Client:	Tetra Tech	Project #:	05005-0003
Sample ID:	MW-2 (1.8-2)	Date Reported:	03-05-09
Lab ID#:	49169	Date Sampled:	03-02-09
Sample Matrix:	Soil	Date Received:	03-02-09
Preservative:	Cool	Date Analyzed:	03-03-09
Condition:	Intact	Chain of Custody:	6435

Parameter	Concentration (mg/Kg)
Total Chloride	**320**

Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983. Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Sategna 2E.**

Analyst

Review

5796 US Highway 64, Farmington, NM 87401 | Ph (505) 632-0615 Fr (800) 362-1879 Fx (505) 632-1865 lab@envirotech-inc.com envirotech-inc.com

CHAIN OF CUSTODY RECORD

6435

Client: Tetra Tech

Project Name / Location: Safeguard 2E

Client Address: 6121 Indian School Rd Ste 200 ABQ 87110

Sampler Name: Kelly Blanchard

Client Phone No.: 505 237 8440

Client No.: 114-690105-100 05005-0003

ANALYSIS / PARAMETERS

Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative $HgCl_2$	Preservative HCl	Preservative Ice	TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE (Added by phone 3/2/09)				Sample Cool	Sample Intact
MW-2 (1.8-2)	3/2/09	1545	49169	(Soil) Solid Sludge Aqueous	1/16oz			✓	X	X								X				✓	✓
				Soil Solid Sludge Aqueous																			
				Soil Solid Sludge Aqueous																			
				Soil Solid Sludge Aqueous																			
				Soil Solid Sludge Aqueous																			
				Soil Solid Sludge Aqueous																			
				Soil Solid Sludge Aqueous																			
				Soil Solid Sludge Aqueous																			
				Soil Solid Sludge Aqueous																			
				Soil Solid Sludge Aqueous																			

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time
[signature]	3/2/09	1623	[signature]	3/2/09	1623

Call w/ results
505 975-2803
Kelly Blanchard

24 hour RUSH

ENVIROTECH INC.

5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505-632-0615

ACCENT Printing • Form 28-0807

APPENDIX C

Groundwater Sampling Field Forms

WATER SAMPLING FIELD FORM

Project No. Segtegna 2E — 1 of 3

Site Location Bloomfield

Site/Well No. MW- 1 — Coded/ Replicate No. * duplicate collected from MW-1 (14:20) — Date 4-2-09

Weather Sunny with Zephyr — Time Sampling Began 1305 — Time Sampling Complete 1410

EVACUATION DATA

Description of Measuring Pt (MP) TOC

Height of MP Above/Below Land Surface — MP Elevation

Total Sounded Depth of Well Below MP 20.3 — Water-Level Elevation

Held — Depth to Water Below MP 5.15 — Diameter of Casing (2 inch) 4 inch

Wet — Water Column in Well 15.15 — Gallons Pumped/Bailed Prior to Sampling 5 gallons / parameters stable

Gallons per Foot .16

Gallons in Well 2.424 — Sampling Pump Intake (feet below land surface)

Purging Equipment bailer X3=7.272

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature	pH	Conductivity	TDS	DO	DO%	ORP	Other
1400	11.80	7.19	2734	1.77	2.53	22.3	97.7	
1402	12.01	7.22	2729	1.77	1.18	11.0	90.1	
1404	12.08	7.23	2728	1.77	1.08	10.1	82.4	
1406	12.05	7.23	2734	1.77	1.06	9.8	85.4	

Sampling Equipment ~~Low Flow Pump~~ / (Disposable Bailer)

VOCs Constituents Sampled	Container Description	Preservative
BTEX, TPH GRO/DRO		
Total Metals, Gen Chem, SVOCs		

Remarks

Sampling Personnel CB, KB, LM

Well Casing Volumes

Gal./ft.								
	1 ¼" = 0.077		2" = 0.16		3" = 0.37		4" = 0.65	
	1 ½" = 0.10		2 ½" = 0.24		3" ½ = 0.50		6" = 1.46	

WATER SAMPLING FIELD FORM

Project No. Segtegna 2E — 2 of 3

Site Location Bloomfield, NM

Site/Well No. MW-2 — Coded/ Replicate No. ____ — Date 4-2-09

Weather Sunny slight breeze — Time Sampling Began ____ — Time Sampling Completed 1250

EVACUATION DATA

Description of Measuring Pt (MP) TOC

Height of MP Above/Below Land Surface ____ — MP Elevation ____

Total Sounded Depth of Well Below MP 20.9 — Water-Level Elevation ____

Hold ____ — Depth to Water Below MP 5.96 — Diameter of Casing (2 inch / 4 inch)

Wet ____ — Water Column in Well 14.94 — Gallons Pumped/Bailed Prior to Sampling ____

Gallons per Foot .16

Gallons in Well 2.390H — Sampling Pump Intake (feet below land surface) ____

Purging Equipment bailer X3=7.1712

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature	pH	Conductivity	TDS	DO	DO%	ORP	Other
12:45	10.93	7.18	2810	1.824	2.11	18.7	92A	
12:46	11.00	7.17	2794	1.816	1.38	12.5	92.5	2 gallons
12:47	11.67	7.16	2795	1.815	0.99	8.7	91.8	
12:48	11.92	7.16	2788	1.811	0.93	8.8	90.5	

Sampling Equipment ~~Low Flow Pump~~ / Disposable Bailer

Constituents Sampled	Container Description	Preservative
VOCs, TPH GRO/DRO		
Total Metals, Gen		
Chem, SVOCs		

Remarks ____

Sampling Personnel CB, CH, KB

Well Casing Volumes

Gal./ft.								
	1 ¼" = 0.077		2" = 0.16		3" = 0.37		4" = 0.65	
	1 ½" = 0.10		2 ½" = 0.24		3" ½ = 0.50		6" = 1.46	

WATER SAMPLING FIELD FORM

Project No. Bloomfield, NM — 3 of 3

Site Location Sagegna 2E

Site/Well No. MW-3 — Coded/ Replicate No. — Date 4-2-09

Weather Sunny, Zephyr — Time Sampling Began 13:14 — Time Sampling Completed 1330

EVACUATION DATA

Description of Measuring Pt (MP) TOC

Height of MP Above/Below Land Surface — MP Elevation

Total Sounded Depth of Well Below MP 20.25 — Water-Level Elevation

Held — Depth to Water Below MP 5.70 — Diameter of Casing (2 inch) / 4 inch

Wet — Water Column in Well 14.55 — Gallons Pumped/Bailed Prior to Sampling

Gallons per Foot .16

Gallons in Well 2.328 x 3 = 6.984 — Sampling Pump Intake (feet below land surface)

Purging Equipment bailer

gal 3

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature	pH	Conductivity	TDS	DO	DO%	ORP	Other
13:19	11.46	7.29	4250	2.76	0.70	6.6	81.7	
13:21	11.97	7.27	3862	2.56	1.07	10.2	78.3	
13:23	11.96	7.27	3843	2.48	1.16	10.3	76.2	
13:25	11.98	7.27	3810	2.45	1.15	14.3	75.9	

Sampling Equipment ~~Low Flow Pump~~ / Disposable Bailer

Constituents Sampled	Container Description	Preservative
VOCs		
BTEX, TPH GRO/DRO,		
Total metals, Gen. chem. (cations/		
SVOCs (cations)		

Remarks

Sampling Personnel CB, KB, CM

Well Casing Volumes

Gal./ft.				
	1 ¼" = 0.077	~~2" = 0.16~~	3" = 0.37	4" = 0.65
	1 ½" = 0.10	2 ½" = 0.24	3" ½ = 0.50	6" = 1.46

APPENDIX D

Groundwater Laboratory Analysis Reports

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

Conoco Phillips

Certificate of Analysis Number:

09040110

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: COP Sategna 2E
Site: Albuquerque, NM
Site Address:
PO Number:
State: New Mexico
State Cert. No.:
Date Reported:

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
MW-2	09040110-01	Water	4/2/2009 12:50:00 PM	4/3/2009 10:00:00 AM		☐
MW-3	09040110-02	Water	4/2/2009 1:30:00 PM	4/3/2009 10:00:00 AM		☐
MW-1	09040110-03	Water	4/2/2009 2:10:00 PM	4/3/2009 10:00:00 AM		☐
Trip Blank	09040110-04	Water	4/2/2009 2:30:00 PM	4/3/2009 10:00:00 AM		☐
Duplicate	09040110-05	Water	4/2/2009 2:20:00 PM	4/3/2009 10:00:00 AM		☐

Erica Cardenas
Project Manager

4/14/2009
Date

Kesavalu M. Bagawandoss
Laboratory Director

Ted Yen
Quality Assurance Officer

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

Client Sample ID: MW-2 **Collected:** 04/02/2009 12:50 **SPL Sample ID:** 09040110-01

Site: Albuquerque, 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)	203		2	1	04/09/09 10:45	PAC	4980128
DIESEL RANGE ORGANICS			**MCL**	**SW8015B**	**Units: mg/L**		
Diesel Range Organics	ND		0.05	1	04/13/09 11:25	E_S1	4982946
Surr: n-Pentacosane	74.2	%	20-150	1	04/13/09 11:25	E_S1	4982946

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	04/06/2009 10:34	N_M	1.00

GASOLINE RANGE ORGANICS			**MCL**	**SW8015B**	**Units: mg/L**		
Gasoline Range Organics	ND		0.1	1	04/07/09 1:25	CLJ	4978587
Surr: 1,4-Difluorobenzene	93.6	%	60-155	1	04/07/09 1:25	CLJ	4978587
Surr: 4-Bromofluorobenzene	102	%	50-158	1	04/07/09 1:25	CLJ	4978587
HARDNESS, TOTAL (TITRIMETRIC, EDTA)			**MCL**	**SM2340C**	**Units: mg/L**		
Hardness (As CaCO3)	1400		125	25	04/08/09 12:00	PAC	4978653
ION CHROMATOGRAPHY			**MCL**	**E300.0**	**Units: mg/L**		
Bromide	ND		0.5	1	04/03/09 19:16	BDG	4981774
Chloride	5.85		0.5	1	04/12/09 21:13	BDG	4981812
Fluoride	0.59		0.5	1	04/03/09 19:16	BDG	4981774
Ortho-phosphate (As P)	0.579		0.5	1	04/03/09 19:16	BDG	4981774
Sulfate	1850		50	100	04/12/09 21:31	BDG	4981813
Nitrogen,Nitrate (As N)	ND		0.5	1	04/03/09 19:16	BDG	4976953
Nitrogen,Nitrite (As N)	ND		0.5	1	04/03/09 19:16	BDG	4976953
MERCURY, TOTAL			**MCL**	**SW7470A**	**Units: mg/L**		
Mercury	ND		0.0002	1	04/13/09 17:21	EMB	4983375

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7470A	04/13/2009 12:30	AB1	1.00

METALS BY METHOD 6010B, TOTAL			**MCL**	**SW6010B**	**Units: mg/L**		
Aluminum	10.1		0.1	1	04/11/09 14:50	EG	4982407
Boron	0.194		0.1	1	04/11/09 14:50	EG	4982407
Calcium	476		0.1	1	04/11/09 14:50	EG	4982407
Iron	10.4		0.1	1	04/11/09 14:50	EG	4982407
Magnesium	38.7		0.1	1	04/11/09 14:50	EG	4982407
Potassium	3.28		1	1	04/11/09 14:50	EG	4982407
Sodium	290		1	10	04/13/09 12:21	EG	4982795
Strontium	8.53		0.5	10	04/11/09 17:10	EG	4982440
Tin	ND		0.005	1	04/11/09 14:50	EG	4982407

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - 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

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

Client Sample ID: MW-2 **Collected:** 04/02/2009 12:50 **SPL Sample ID:** 09040110-01

Site: Albuquerque, NM

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

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	04/07/2009 12:00	AB1	1.00

METALS BY METHOD 6020A, TOTAL			MCL	SW6020A	Units: mg/L	
Antimony	ND	0.005	1	04/08/09 23:51	S_C	4979482
Arsenic	0.0126	0.005	1	04/08/09 23:51	S_C	4979482
Barium	0.0975	0.005	1	04/08/09 23:51	S_C	4979482
Beryllium	ND	0.004	1	04/08/09 23:51	S_C	4979482
Cadmium	ND	0.005	1	04/08/09 23:51	S_C	4979482
Chromium	0.0111	0.005	1	04/11/09 21:20	AL_H	4982627
Cobalt	0.0411	0.005	1	04/08/09 23:51	S_C	4979482
Copper	0.0839	0.005	1	04/09/09 16:43	S_C	4980209
Lead	0.0108	0.005	1	04/08/09 23:51	S_C	4979482
Manganese	6.76	0.005	1	04/08/09 23:51	S_C	4979482
Molybdenum	ND	0.005	1	04/11/09 18:31	AL_H	4982173
Nickel	0.0403	0.005	1	04/09/09 16:43	S_C	4980209
Selenium	ND	0.005	1	04/11/09 18:31	AL_H	4982173
Silver	ND	0.005	1	04/08/09 23:51	S_C	4979482
Thallium	ND	0.005	1	04/08/09 23:51	S_C	4979482
Vanadium	0.0268	0.005	1	04/08/09 23:51	S_C	4979482
Zinc	0.105	0.01	1	04/08/09 23:51	S_C	4979482

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	04/07/2009 12:00	AB1	1.00

PH			MCL	SM4500-H B	Units: pH Units	
pH	7.14	0.1	1	04/03/09 15:10	S_H	4974143
Temperature (oC)	20.6	0.1	1	04/03/09 15:10	S_H	4974143

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - 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

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

Client Sample ID: MW-2 **Collected:** 04/02/2009 12:50 **SPL Sample ID:** 09040110-01

Site: Albuquerque, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
SEMIVOLATILE ORGANICS BY METHOD 8270C			**MCL**	**SW8270C**	**Units: ug/L**		
1,2,4-Trichlorobenzene	ND		5	1	04/06/09 21:25	GY	4977004
1,2-Dichlorobenzene	ND		5	1	04/06/09 21:25	GY	4977004
1,2-Diphenylhydrazine	ND		10	1	04/06/09 21:25	GY	4977004
1,3-Dichlorobenzene	ND		5	1	04/06/09 21:25	GY	4977004
1,4-Dichlorobenzene	ND		5	1	04/06/09 21:25	GY	4977004
2,4,5-Trichlorophenol	ND		10	1	04/06/09 21:25	GY	4977004
2,4,6-Trichlorophenol	ND		5	1	04/06/09 21:25	GY	4977004
2,4-Dichlorophenol	ND		5	1	04/06/09 21:25	GY	4977004
2,4-Dimethylphenol	ND		5	1	04/06/09 21:25	GY	4977004
2,4-Dinitrophenol	ND		25	1	04/06/09 21:25	GY	4977004
2,4-Dinitrotoluene	ND		5	1	04/06/09 21:25	GY	4977004
2,6-Dinitrotoluene	ND		5	1	04/06/09 21:25	GY	4977004
2-Chloronaphthalene	ND		5	1	04/06/09 21:25	GY	4977004
2-Chlorophenol	ND		5	1	04/06/09 21:25	GY	4977004
2-Methylnaphthalene	ND		5	1	04/06/09 21:25	GY	4977004
2-Nitroaniline	ND		25	1	04/06/09 21:25	GY	4977004
2-Nitrophenol	ND		5	1	04/06/09 21:25	GY	4977004
3,3'-Dichlorobenzidine	ND		10	1	04/06/09 21:25	GY	4977004
3-Nitroaniline	ND		25	1	04/06/09 21:25	GY	4977004
4,6-Dinitro-2-methylphenol	ND		25	1	04/06/09 21:25	GY	4977004
4-Bromophenyl phenyl ether	ND		5	1	04/06/09 21:25	GY	4977004
4-Chloro-3-methylphenol	ND		5	1	04/06/09 21:25	GY	4977004
4-Chloroaniline	ND		5	1	04/06/09 21:25	GY	4977004
4-Chlorophenyl phenyl ether	ND		5	1	04/06/09 21:25	GY	4977004
4-Nitroaniline	ND		25	1	04/06/09 21:25	GY	4977004
4-Nitrophenol	ND		25	1	04/06/09 21:25	GY	4977004
Acenaphthene	ND		5	1	04/06/09 21:25	GY	4977004
Acenaphthylene	ND		5	1	04/06/09 21:25	GY	4977004
Aniline	ND		5	1	04/06/09 21:25	GY	4977004
Anthracene	ND		5	1	04/06/09 21:25	GY	4977004
Benz(a)anthracene	ND		5	1	04/06/09 21:25	GY	4977004
Benzo(a)pyrene	ND		5	1	04/06/09 21:25	GY	4977004
Benzo(b)fluoranthene	ND		5	1	04/06/09 21:25	GY	4977004
Benzo(g,h,i)perylene	ND		5	1	04/06/09 21:25	GY	4977004
Benzo(k)fluoranthene	ND		5	1	04/06/09 21:25	GY	4977004
Benzoic acid	ND		25	1	04/06/09 21:25	GY	4977004
Benzyl alcohol	ND		5	1	04/06/09 21:25	GY	4977004
Bis(2-chloroethoxy)methane	ND		5	1	04/06/09 21:25	GY	4977004
Bis(2-chloroethyl)ether	ND		5	1	04/06/09 21:25	GY	4977004

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - 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

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

Client Sample ID: MW-2 **Collected:** 04/02/2009 12:50 **SPL Sample ID:** 09040110-01

Site: Albuquerque, NM

Analyses/Method	Result	QUAL		Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Bis(2-chloroisopropyl)ether	ND			5	1	04/06/09 21:25	GY	4977004
Bis(2-ethylhexyl)phthalate	ND			5	1	04/06/09 21:25	GY	4977004
Butyl benzyl phthalate	ND			5	1	04/06/09 21:25	GY	4977004
Carbazole	ND			5	1	04/06/09 21:25	GY	4977004
Chrysene	ND			5	1	04/06/09 21:25	GY	4977004
Dibenz(a,h)anthracene	ND			5	1	04/06/09 21:25	GY	4977004
Dibenzofuran	ND			5	1	04/06/09 21:25	GY	4977004
Diethyl phthalate	ND			5	1	04/06/09 21:25	GY	4977004
Dimethyl phthalate	ND			5	1	04/06/09 21:25	GY	4977004
Di-n-butyl phthalate	ND			5	1	04/06/09 21:25	GY	4977004
Di-n-octyl phthalate	ND			5	1	04/06/09 21:25	GY	4977004
Fluoranthene	ND			5	1	04/06/09 21:25	GY	4977004
Fluorene	ND			5	1	04/06/09 21:25	GY	4977004
Hexachlorobenzene	ND			5	1	04/06/09 21:25	GY	4977004
Hexachlorobutadiene	ND			5	1	04/06/09 21:25	GY	4977004
Hexachlorocyclopentadiene	ND			5	1	04/06/09 21:25	GY	4977004
Hexachloroethane	ND			5	1	04/06/09 21:25	GY	4977004
Indeno(1,2,3-cd)pyrene	ND			5	1	04/06/09 21:25	GY	4977004
Isophorone	ND			5	1	04/06/09 21:25	GY	4977004
Naphthalene	ND			5	1	04/06/09 21:25	GY	4977004
Nitrobenzene	ND			5	1	04/06/09 21:25	GY	4977004
N-Nitrosodi-n-propylamine	ND			5	1	04/06/09 21:25	GY	4977004
N-Nitrosodiphenylamine	ND			5	1	04/06/09 21:25	GY	4977004
Pentachlorophenol	ND			25	1	04/06/09 21:25	GY	4977004
Phenanthrene	ND			5	1	04/06/09 21:25	GY	4977004
Phenol	ND			5	1	04/06/09 21:25	GY	4977004
Pyrene	ND			5	1	04/06/09 21:25	GY	4977004
Pyridine	ND			5	1	04/06/09 21:25	GY	4977004
2-Methylphenol	ND			5	1	04/06/09 21:25	GY	4977004
3 & 4-Methylphenol	ND			5	1	04/06/09 21:25	GY	4977004
Surr: 2,4,6-Tribromophenol	86.0		%	10-123	1	04/06/09 21:25	GY	4977004
Surr: 2-Fluorobiphenyl	86.0		%	23-116	1	04/06/09 21:25	GY	4977004
Surr: 2-Fluorophenol	63.9		%	16-110	1	04/06/09 21:25	GY	4977004
Surr: Nitrobenzene-d5	84.2		%	21-114	1	04/06/09 21:25	GY	4977004
Surr: Phenol-d5	47.9		%	10-110	1	04/06/09 21:25	GY	4977004
Surr: Terphenyl-d14	76.6		%	22-141	1	04/06/09 21:25	GY	4977004

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	04/06/2009 9:53	N_M	1.00

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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

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

Client Sample ID: MW-2 **Collected:** 04/02/2009 12:50 **SPL Sample ID:** 09040110-01

Site: Albuquerque, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
SPECIFIC CONDUCTANCE @ 25 C				**MCL**	**E120.1**	**Units: umhos/cm**	
Specific Conductance	2440		10	1	04/07/09 8:45	PAC	4976922
TOTAL DISSOLVED SOLIDS				**MCL**	**SM2540 C**	**Units: mg/L**	
Total Dissolved Solids (Residue,Filterable)	2780		20	2	04/07/09 17:30	CFS	4978181

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

Client Sample ID: MW-2 **Collected:** 04/02/2009 12:50 **SPL Sample ID:** 09040110-01

Site: Albuquerque, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/L**		
1,1,1,2-Tetrachloroethane	ND		5	1	04/09/09 4:36	JC	4981529
1,1,1-Trichloroethane	ND		5	1	04/09/09 4:36	JC	4981529
1,1,2,2-Tetrachloroethane	ND		5	1	04/09/09 4:36	JC	4981529
1,1,2-Trichloroethane	ND		5	1	04/09/09 4:36	JC	4981529
1,1-Dichloroethane	ND		5	1	04/09/09 4:36	JC	4981529
1,1-Dichloroethene	ND		5	1	04/09/09 4:36	JC	4981529
1,1-Dichloropropene	ND		5	1	04/09/09 4:36	JC	4981529
1,2,3-Trichlorobenzene	ND		5	1	04/09/09 4:36	JC	4981529
1,2,3-Trichloropropane	ND		5	1	04/09/09 4:36	JC	4981529
1,2,4-Trichlorobenzene	ND		5	1	04/09/09 4:36	JC	4981529
1,2,4-Trimethylbenzene	ND		5	1	04/09/09 4:36	JC	4981529
1,2-Dibromo-3-chloropropane	ND		5	1	04/09/09 4:36	JC	4981529
1,2-Dibromoethane	ND		5	1	04/09/09 4:36	JC	4981529
1,2-Dichlorobenzene	ND		5	1	04/09/09 4:36	JC	4981529
1,2-Dichloroethane	ND		5	1	04/09/09 4:36	JC	4981529
1,2-Dichloropropane	ND		5	1	04/09/09 4:36	JC	4981529
1,3,5-Trimethylbenzene	ND		5	1	04/09/09 4:36	JC	4981529
1,3-Dichlorobenzene	ND		5	1	04/09/09 4:36	JC	4981529
1,3-Dichloropropane	ND		5	1	04/09/09 4:36	JC	4981529
1,4-Dichlorobenzene	ND		5	1	04/09/09 4:36	JC	4981529
2,2-Dichloropropane	ND		5	1	04/09/09 4:36	JC	4981529
2-Butanone	ND		20	1	04/09/09 4:36	JC	4981529
2-Chloroethyl vinyl ether	ND J		10	1	04/09/09 4:36	JC	4981529
2-Chlorotoluene	ND		5	1	04/09/09 4:36	JC	4981529
2-Hexanone	ND		10	1	04/09/09 4:36	JC	4981529
4-Chlorotoluene	ND		5	1	04/09/09 4:36	JC	4981529
4-Isopropyltoluene	ND		5	1	04/09/09 4:36	JC	4981529
4-Methyl-2-pentanone	ND		10	1	04/09/09 4:36	JC	4981529
Acetone	ND		20	1	04/09/09 4:36	JC	4981529
Acrylonitrile	ND		10	1	04/09/09 4:36	JC	4981529
Benzene	ND		5	1	04/09/09 4:36	JC	4981529
Bromobenzene	ND		5	1	04/09/09 4:36	JC	4981529
Bromochloromethane	ND		5	1	04/09/09 4:36	JC	4981529
Bromodichloromethane	ND		5	1	04/09/09 4:36	JC	4981529
Bromoform	ND		5	1	04/09/09 4:36	JC	4981529
Bromomethane	ND		10	1	04/09/09 4:36	JC	4981529
Carbon disulfide	ND		5	1	04/09/09 4:36	JC	4981529
Carbon tetrachloride	ND		5	1	04/09/09 4:36	JC	4981529
Chlorobenzene	ND		5	1	04/09/09 4:36	JC	4981529

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E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
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MI - Matrix Interference

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

Client Sample ID: MW-2 **Collected:** 04/02/2009 12:50 **SPL Sample ID:** 09040110-01

Site: Albuquerque, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Chloroethane	ND		10	1	04/09/09 4:36	JC	4981529
Chloroform	ND		5	1	04/09/09 4:36	JC	4981529
Chloromethane	ND		10	1	04/09/09 4:36	JC	4981529
Dibromochloromethane	ND		5	1	04/09/09 4:36	JC	4981529
Dibromomethane	ND		5	1	04/09/09 4:36	JC	4981529
Dichlorodifluoromethane	ND		10	1	04/09/09 4:36	JC	4981529
Ethylbenzene	ND		5	1	04/09/09 4:36	JC	4981529
Hexachlorobutadiene	ND		5	1	04/09/09 4:36	JC	4981529
Isopropylbenzene	ND		5	1	04/09/09 4:36	JC	4981529
Methyl tert-butyl ether	ND		5	1	04/09/09 4:36	JC	4981529
Methylene chloride	ND		5	1	04/09/09 4:36	JC	4981529
Naphthalene	ND		5	1	04/09/09 4:36	JC	4981529
n-Butylbenzene	ND		5	1	04/09/09 4:36	JC	4981529
n-Propylbenzene	ND		5	1	04/09/09 4:36	JC	4981529
sec-Butylbenzene	ND		5	1	04/09/09 4:36	JC	4981529
Styrene	ND		5	1	04/09/09 4:36	JC	4981529
tert-Butylbenzene	ND		5	1	04/09/09 4:36	JC	4981529
Tetrachloroethene	ND		5	1	04/09/09 4:36	JC	4981529
Toluene	ND		5	1	04/09/09 4:36	JC	4981529
Trichloroethene	ND		5	1	04/09/09 4:36	JC	4981529
Trichlorofluoromethane	ND		5	1	04/09/09 4:36	JC	4981529
Vinyl acetate	ND		10	1	04/09/09 4:36	JC	4981529
Vinyl chloride	ND		2	1	04/09/09 4:36	JC	4981529
cis-1,2-Dichloroethene	ND		5	1	04/09/09 4:36	JC	4981529
cis-1,3-Dichloropropene	ND		5	1	04/09/09 4:36	JC	4981529
m,p-Xylene	ND		5	1	04/09/09 4:36	JC	4981529
o-Xylene	ND		5	1	04/09/09 4:36	JC	4981529
trans-1,2-Dichloroethene	ND		5	1	04/09/09 4:36	JC	4981529
trans-1,3-Dichloropropene	ND		5	1	04/09/09 4:36	JC	4981529
1,2-Dichloroethene (total)	ND		5	1	04/09/09 4:36	JC	4981529
Xylenes,Total	ND		5	1	04/09/09 4:36	JC	4981529
Surr: 1,2-Dichloroethane-d4	102		% 62-130	1	04/09/09 4:36	JC	4981529
Surr: 4-Bromofluorobenzene	104		% 70-130	1	04/09/09 4:36	JC	4981529
Surr: Toluene-d8	90.0		% 74-122	1	04/09/09 4:36	JC	4981529

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

Client Sample ID: MW-3 **Collected:** 04/02/2009 13:30 **SPL Sample ID:** 09040110-02

Site: Albuquerque, 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)	202		2	1	04/09/09 10:45	PAC	4980129
DIESEL RANGE ORGANICS			**MCL**	**SW8015B**	**Units: mg/L**		
Diesel Range Organics	0.12		0.05	1	04/13/09 13:48	E_S1	4982948
Surr: n-Pentacosane	75.0		% 20-150	1	04/13/09 13:48	E_S1	4982948

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	04/06/2009 10:34	N_M	1.00

GASOLINE RANGE ORGANICS			**MCL**	**SW8015B**	**Units: mg/L**		
Gasoline Range Organics	ND		0.1	1	04/07/09 1:54	CLJ	4978588
Surr: 1,4-Difluorobenzene	91.8		% 60-155	1	04/07/09 1:54	CLJ	4978588
Surr: 4-Bromofluorobenzene	101		% 50-158	1	04/07/09 1:54	CLJ	4978588
HARDNESS, TOTAL (TITRIMETRIC, EDTA)			**MCL**	**SM2340C**	**Units: mg/L**		
Hardness (As CaCO3)	1350		125	25	04/08/09 12:00	PAC	4978654
ION CHROMATOGRAPHY			**MCL**	**E300.0**	**Units: mg/L**		
Bromide	ND		0.5	1	04/03/09 19:33	BDG	4981775
Chloride	119		5	10	04/12/09 21:48	BDG	4981814
Fluoride	0.551		0.5	1	04/03/09 19:33	BDG	4981775
Ortho-phosphate (As P)	ND		0.5	1	04/03/09 19:33	BDG	4981775
Sulfate	2110		100	200	04/12/09 22:06	BDG	4981815
Nitrogen,Nitrate (As N)	ND		0.5	1	04/03/09 19:33	BDG	4976954
Nitrogen,Nitrite (As N)	ND		0.5	1	04/03/09 19:33	BDG	4976954
MERCURY, TOTAL			**MCL**	**SW7470A**	**Units: mg/L**		
Mercury	ND		0.0002	1	04/13/09 17:23	EMB	4983376

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7470A	04/13/2009 12:30	AB1	1.00

METALS BY METHOD 6010B, TOTAL			**MCL**	**SW6010B**	**Units: mg/L**		
Aluminum	0.848		0.1	1	04/11/09 14:55	EG	4982408
Boron	0.216		0.1	1	04/11/09 14:55	EG	4982408
Calcium	448		0.1	1	04/11/09 14:55	EG	4982408
Iron	1.02		0.1	1	04/11/09 14:55	EG	4982408
Magnesium	38		0.1	1	04/11/09 14:55	EG	4982408
Potassium	6.41		1	1	04/11/09 14:55	EG	4982408
Sodium	405		1	10	04/13/09 12:25	EG	4982796
Strontium	7.86		0.5	10	04/11/09 17:18	EG	4982441
Tin	ND		0.005	1	04/11/09 14:55	EG	4982408

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

Client Sample ID: MW-3 **Collected:** 04/02/2009 13:30 **SPL Sample ID:** 09040110-02

Site: Albuquerque, NM

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

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	04/07/2009 12:00	AB1	1.00

METALS BY METHOD 6020A, TOTAL			MCL	SW6020A	Units: mg/L	
Antimony	ND	0.005	1	04/08/09 23:56	S_C	4979483
Arsenic	ND	0.005	1	04/08/09 23:56	S_C	4979483
Barium	0.0197	0.005	1	04/08/09 23:56	S_C	4979483
Beryllium	ND	0.004	1	04/08/09 23:56	S_C	4979483
Cadmium	ND	0.005	1	04/08/09 23:56	S_C	4979483
Chromium	ND	0.005	1	04/11/09 21:25	AL_H	4982628
Cobalt	ND	0.005	1	04/08/09 23:56	S_C	4979483
Copper	ND	0.005	1	04/09/09 16:48	S_C	4980210
Lead	ND	0.005	1	04/08/09 23:56	S_C	4979483
Manganese	1.9	0.005	1	04/08/09 23:56	S_C	4979483
Molybdenum	0.0126	0.005	1	04/11/09 18:52	AL_H	4982176
Nickel	0.00544	0.005	1	04/09/09 16:48	S_C	4980210
Selenium	ND	0.005	1	04/11/09 18:52	AL_H	4982176
Silver	ND	0.005	1	04/08/09 23:56	S_C	4979483
Thallium	ND	0.005	1	04/08/09 23:56	S_C	4979483
Vanadium	0.00669	0.005	1	04/08/09 23:56	S_C	4979483
Zinc	0.0332	0.01	1	04/08/09 23:56	S_C	4979483

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	04/07/2009 12:00	AB1	1.00

PH			MCL	SM4500-H B	Units: pH Units	
pH	7.34	0.1	1	04/03/09 15:10	S_H	4974144
Temperature (oC)	20.5	0.1	1	04/03/09 15:10	S_H	4974144

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

Client Sample ID: MW-3 **Collected:** 04/02/2009 13:30 **SPL Sample ID:** 09040110-02

Site: Albuquerque, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
SEMIVOLATILE ORGANICS BY METHOD 8270C			**MCL**	**SW8270C**	**Units: ug/L**		
1,2,4-Trichlorobenzene	ND		5	1	04/06/09 21:56	GY	4977005
1,2-Dichlorobenzene	ND		5	1	04/06/09 21:56	GY	4977005
1,2-Diphenylhydrazine	ND		10	1	04/06/09 21:56	GY	4977005
1,3-Dichlorobenzene	ND		5	1	04/06/09 21:56	GY	4977005
1,4-Dichlorobenzene	ND		5	1	04/06/09 21:56	GY	4977005
2,4,5-Trichlorophenol	ND		10	1	04/06/09 21:56	GY	4977005
2,4,6-Trichlorophenol	ND		5	1	04/06/09 21:56	GY	4977005
2,4-Dichlorophenol	ND		5	1	04/06/09 21:56	GY	4977005
2,4-Dimethylphenol	ND		5	1	04/06/09 21:56	GY	4977005
2,4-Dinitrophenol	ND		25	1	04/06/09 21:56	GY	4977005
2,4-Dinitrotoluene	ND		5	1	04/06/09 21:56	GY	4977005
2,6-Dinitrotoluene	ND		5	1	04/06/09 21:56	GY	4977005
2-Chloronaphthalene	ND		5	1	04/06/09 21:56	GY	4977005
2-Chlorophenol	ND		5	1	04/06/09 21:56	GY	4977005
2-Methylnaphthalene	ND		5	1	04/06/09 21:56	GY	4977005
2-Nitroaniline	ND		25	1	04/06/09 21:56	GY	4977005
2-Nitrophenol	ND		5	1	04/06/09 21:56	GY	4977005
3,3'-Dichlorobenzidine	ND		10	1	04/06/09 21:56	GY	4977005
3-Nitroaniline	ND		25	1	04/06/09 21:56	GY	4977005
4,6-Dinitro-2-methylphenol	ND		25	1	04/06/09 21:56	GY	4977005
4-Bromophenyl phenyl ether	ND		5	1	04/06/09 21:56	GY	4977005
4-Chloro-3-methylphenol	ND		5	1	04/06/09 21:56	GY	4977005
4-Chloroaniline	ND		5	1	04/06/09 21:56	GY	4977005
4-Chlorophenyl phenyl ether	ND		5	1	04/06/09 21:56	GY	4977005
4-Nitroaniline	ND		25	1	04/06/09 21:56	GY	4977005
4-Nitrophenol	ND		25	1	04/06/09 21:56	GY	4977005
Acenaphthene	ND		5	1	04/06/09 21:56	GY	4977005
Acenaphthylene	ND		5	1	04/06/09 21:56	GY	4977005
Aniline	ND		5	1	04/06/09 21:56	GY	4977005
Anthracene	ND		5	1	04/06/09 21:56	GY	4977005
Benz(a)anthracene	ND		5	1	04/06/09 21:56	GY	4977005
Benzo(a)pyrene	ND		5	1	04/06/09 21:56	GY	4977005
Benzo(b)fluoranthene	ND		5	1	04/06/09 21:56	GY	4977005
Benzo(g,h,i)perylene	ND		5	1	04/06/09 21:56	GY	4977005
Benzo(k)fluoranthene	ND		5	1	04/06/09 21:56	GY	4977005
Benzoic acid	ND		25	1	04/06/09 21:56	GY	4977005
Benzyl alcohol	ND		5	1	04/06/09 21:56	GY	4977005
Bis(2-chloroethoxy)methane	ND		5	1	04/06/09 21:56	GY	4977005
Bis(2-chloroethyl)ether	ND		5	1	04/06/09 21:56	GY	4977005

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

Client Sample ID: MW-3 **Collected:** 04/02/2009 13:30 **SPL Sample ID:** 09040110-02

Site: Albuquerque, NM

Analyses/Method	Result	QUAL		Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Bis(2-chloroisopropyl)ether	ND			5	1	04/06/09 21:56	GY	4977005
Bis(2-ethylhexyl)phthalate	ND			5	1	04/06/09 21:56	GY	4977005
Butyl benzyl phthalate	ND			5	1	04/06/09 21:56	GY	4977005
Carbazole	ND			5	1	04/06/09 21:56	GY	4977005
Chrysene	ND			5	1	04/06/09 21:56	GY	4977005
Dibenz(a,h)anthracene	ND			5	1	04/06/09 21:56	GY	4977005
Dibenzofuran	ND			5	1	04/06/09 21:56	GY	4977005
Diethyl phthalate	ND			5	1	04/06/09 21:56	GY	4977005
Dimethyl phthalate	ND			5	1	04/06/09 21:56	GY	4977005
Di-n-butyl phthalate	ND			5	1	04/06/09 21:56	GY	4977005
Di-n-octyl phthalate	ND			5	1	04/06/09 21:56	GY	4977005
Fluoranthene	ND			5	1	04/06/09 21:56	GY	4977005
Fluorene	ND			5	1	04/06/09 21:56	GY	4977005
Hexachlorobenzene	ND			5	1	04/06/09 21:56	GY	4977005
Hexachlorobutadiene	ND			5	1	04/06/09 21:56	GY	4977005
Hexachlorocyclopentadiene	ND			5	1	04/06/09 21:56	GY	4977005
Hexachloroethane	ND			5	1	04/06/09 21:56	GY	4977005
Indeno(1,2,3-cd)pyrene	ND			5	1	04/06/09 21:56	GY	4977005
Isophorone	ND			5	1	04/06/09 21:56	GY	4977005
Naphthalene	ND			5	1	04/06/09 21:56	GY	4977005
Nitrobenzene	ND			5	1	04/06/09 21:56	GY	4977005
N-Nitrosodi-n-propylamine	ND			5	1	04/06/09 21:56	GY	4977005
N-Nitrosodiphenylamine	ND			5	1	04/06/09 21:56	GY	4977005
Pentachlorophenol	ND			25	1	04/06/09 21:56	GY	4977005
Phenanthrene	ND			5	1	04/06/09 21:56	GY	4977005
Phenol	ND			5	1	04/06/09 21:56	GY	4977005
Pyrene	ND			5	1	04/06/09 21:56	GY	4977005
Pyridine	ND			5	1	04/06/09 21:56	GY	4977005
2-Methylphenol	ND			5	1	04/06/09 21:56	GY	4977005
3 & 4-Methylphenol	ND			5	1	04/06/09 21:56	GY	4977005
Surr: 2,4,6-Tribromophenol	85.3		%	10-123	1	04/06/09 21:56	GY	4977005
Surr: 2-Fluorobiphenyl	84.0		%	23-116	1	04/06/09 21:56	GY	4977005
Surr: 2-Fluorophenol	56.9		%	16-110	1	04/06/09 21:56	GY	4977005
Surr: Nitrobenzene-d5	83.8		%	21-114	1	04/06/09 21:56	GY	4977005
Surr: Phenol-d5	39.7		%	10-110	1	04/06/09 21:56	GY	4977005
Surr: Terphenyl-d14	77.6		%	22-141	1	04/06/09 21:56	GY	4977005

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	04/06/2009 9:53	N_M	1.00

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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

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

Client Sample ID: MW-3 **Collected:** 04/02/2009 13:30 **SPL Sample ID:** 09040110-02

Site: Albuquerque, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
SPECIFIC CONDUCTANCE @ 25 C			**MCL**	**E120.1**	**Units: umhos/cm**		
Specific Conductance	3360		10	1	04/07/09 8:45	PAC	4976923
TOTAL DISSOLVED SOLIDS			**MCL**	**SM2540 C**	**Units: mg/L**		
Total Dissolved Solids (Residue,Filterable)	3380		20	2	04/07/09 17:30	CFS	4978182

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

Client Sample ID: MW-3 **Collected:** 04/02/2009 13:30 **SPL Sample ID:** 09040110-02

Site: Albuquerque, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/L**		
1,1,1,2-Tetrachloroethane	ND		5	1	04/09/09 5:04	JC	4981530
1,1,1-Trichloroethane	ND		5	1	04/09/09 5:04	JC	4981530
1,1,2,2-Tetrachloroethane	ND		5	1	04/09/09 5:04	JC	4981530
1,1,2-Trichloroethane	ND		5	1	04/09/09 5:04	JC	4981530
1,1-Dichloroethane	ND		5	1	04/09/09 5:04	JC	4981530
1,1-Dichloroethene	ND		5	1	04/09/09 5:04	JC	4981530
1,1-Dichloropropene	ND		5	1	04/09/09 5:04	JC	4981530
1,2,3-Trichlorobenzene	ND		5	1	04/09/09 5:04	JC	4981530
1,2,3-Trichloropropane	ND		5	1	04/09/09 5:04	JC	4981530
1,2,4-Trichlorobenzene	ND		5	1	04/09/09 5:04	JC	4981530
1,2,4-Trimethylbenzene	ND		5	1	04/09/09 5:04	JC	4981530
1,2-Dibromo-3-chloropropane	ND		5	1	04/09/09 5:04	JC	4981530
1,2-Dibromoethane	ND		5	1	04/09/09 5:04	JC	4981530
1,2-Dichlorobenzene	ND		5	1	04/09/09 5:04	JC	4981530
1,2-Dichloroethane	ND		5	1	04/09/09 5:04	JC	4981530
1,2-Dichloropropane	ND		5	1	04/09/09 5:04	JC	4981530
1,3,5-Trimethylbenzene	ND		5	1	04/09/09 5:04	JC	4981530
1,3-Dichlorobenzene	ND		5	1	04/09/09 5:04	JC	4981530
1,3-Dichloropropane	ND		5	1	04/09/09 5:04	JC	4981530
1,4-Dichlorobenzene	ND		5	1	04/09/09 5:04	JC	4981530
2,2-Dichloropropane	ND		5	1	04/09/09 5:04	JC	4981530
2-Butanone	ND		20	1	04/09/09 5:04	JC	4981530
2-Chloroethyl vinyl ether	ND	J	10	1	04/09/09 5:04	JC	4981530
2-Chlorotoluene	ND		5	1	04/09/09 5:04	JC	4981530
2-Hexanone	ND		10	1	04/09/09 5:04	JC	4981530
4-Chlorotoluene	ND		5	1	04/09/09 5:04	JC	4981530
4-Isopropyltoluene	ND		5	1	04/09/09 5:04	JC	4981530
4-Methyl-2-pentanone	ND		10	1	04/09/09 5:04	JC	4981530
Acetone	ND		20	1	04/09/09 5:04	JC	4981530
Acrylonitrile	ND		10	1	04/09/09 5:04	JC	4981530
Benzene	ND		5	1	04/09/09 5:04	JC	4981530
Bromobenzene	ND		5	1	04/09/09 5:04	JC	4981530
Bromochloromethane	ND		5	1	04/09/09 5:04	JC	4981530
Bromodichloromethane	ND		5	1	04/09/09 5:04	JC	4981530
Bromoform	ND		5	1	04/09/09 5:04	JC	4981530
Bromomethane	ND		10	1	04/09/09 5:04	JC	4981530
Carbon disulfide	ND		5	1	04/09/09 5:04	JC	4981530
Carbon tetrachloride	ND		5	1	04/09/09 5:04	JC	4981530
Chlorobenzene	ND		5	1	04/09/09 5:04	JC	4981530

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E - Estimated Value exceeds calibration curve
TNTC - Too numerous to count
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MI - Matrix Interference

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

Client Sample ID: MW-3 **Collected:** 04/02/2009 13:30 **SPL Sample ID:** 09040110-02

Site: Albuquerque, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Chloroethane	ND		10	1	04/09/09 5:04	JC	4981530
Chloroform	ND		5	1	04/09/09 5:04	JC	4981530
Chloromethane	ND		10	1	04/09/09 5:04	JC	4981530
Dibromochloromethane	ND		5	1	04/09/09 5:04	JC	4981530
Dibromomethane	ND		5	1	04/09/09 5:04	JC	4981530
Dichlorodifluoromethane	ND		10	1	04/09/09 5:04	JC	4981530
Ethylbenzene	ND		5	1	04/09/09 5:04	JC	4981530
Hexachlorobutadiene	ND		5	1	04/09/09 5:04	JC	4981530
Isopropylbenzene	ND		5	1	04/09/09 5:04	JC	4981530
Methyl tert-butyl ether	ND		5	1	04/09/09 5:04	JC	4981530
Methylene chloride	ND		5	1	04/09/09 5:04	JC	4981530
Naphthalene	ND		5	1	04/09/09 5:04	JC	4981530
n-Butylbenzene	ND		5	1	04/09/09 5:04	JC	4981530
n-Propylbenzene	ND		5	1	04/09/09 5:04	JC	4981530
sec-Butylbenzene	ND		5	1	04/09/09 5:04	JC	4981530
Styrene	ND		5	1	04/09/09 5:04	JC	4981530
tert-Butylbenzene	ND		5	1	04/09/09 5:04	JC	4981530
Tetrachloroethene	ND		5	1	04/09/09 5:04	JC	4981530
Toluene	ND		5	1	04/09/09 5:04	JC	4981530
Trichloroethene	ND		5	1	04/09/09 5:04	JC	4981530
Trichlorofluoromethane	ND		5	1	04/09/09 5:04	JC	4981530
Vinyl acetate	ND		10	1	04/09/09 5:04	JC	4981530
Vinyl chloride	ND		2	1	04/09/09 5:04	JC	4981530
cis-1,2-Dichloroethene	ND		5	1	04/09/09 5:04	JC	4981530
cis-1,3-Dichloropropene	ND		5	1	04/09/09 5:04	JC	4981530
m,p-Xylene	ND		5	1	04/09/09 5:04	JC	4981530
o-Xylene	ND		5	1	04/09/09 5:04	JC	4981530
trans-1,2-Dichloroethene	ND		5	1	04/09/09 5:04	JC	4981530
trans-1,3-Dichloropropene	ND		5	1	04/09/09 5:04	JC	4981530
1,2-Dichloroethene (total)	ND		5	1	04/09/09 5:04	JC	4981530
Xylenes,Total	ND		5	1	04/09/09 5:04	JC	4981530
Surr: 1,2-Dichloroethane-d4	100		% 62-130	1	04/09/09 5:04	JC	4981530
Surr: 4-Bromofluorobenzene	106		% 70-130	1	04/09/09 5:04	JC	4981530
Surr: Toluene-d8	98.0		% 74-122	1	04/09/09 5:04	JC	4981530

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

Client Sample ID: MW-1 **Collected:** 04/02/2009 14:10 **SPL Sample ID:** 09040110-03

Site: Albuquerque, 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)	210		2	1	04/12/09 14:00	PAC	4981719
DIESEL RANGE ORGANICS			**MCL**	**SW8015B**	**Units: mg/L**		
Diesel Range Organics	ND		0.05	1	04/13/09 13:15	E_S1	4982947
Surr: n-Pentacosane	78.8		% 20-150	1	04/13/09 13:15	E_S1	4982947

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	04/06/2009 10:34	N_M	1.00

GASOLINE RANGE ORGANICS			**MCL**	**SW8015B**	**Units: mg/L**		
Gasoline Range Organics	ND		0.1	1	04/07/09 2:23	CLJ	4978589
Surr: 1,4-Difluorobenzene	91.6		% 60-155	1	04/07/09 2:23	CLJ	4978589
Surr: 4-Bromofluorobenzene	101		% 50-158	1	04/07/09 2:23	CLJ	4978589
HARDNESS, TOTAL (TITRIMETRIC, EDTA)			**MCL**	**SM2340C**	**Units: mg/L**		
Hardness (As CaCO3)	1500		125	25	04/08/09 12:00	PAC	4978655
ION CHROMATOGRAPHY			**MCL**	**E300.0**	**Units: mg/L**		
Bromide	ND		0.5	1	04/03/09 19:51	BDG	4981776
Chloride	7.77		0.5	1	04/12/09 22:23	BDG	4981816
Fluoride	0.571		0.5	1	04/03/09 19:51	BDG	4981776
Ortho-phosphate (As P)	ND		0.5	1	04/03/09 19:51	BDG	4981776
Sulfate	1790		50	100	04/12/09 22:41	BDG	4981817
Nitrogen,Nitrate (As N)	ND		0.5	1	04/03/09 19:51	BDG	4976955
Nitrogen,Nitrite (As N)	ND		0.5	1	04/03/09 19:51	BDG	4976955
MERCURY, TOTAL			**MCL**	**SW7470A**	**Units: mg/L**		
Mercury	ND		0.0002	1	04/13/09 17:25	EMB	4983377

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7470A	04/13/2009 12:30	AB1	1.00

METALS BY METHOD 6010B, TOTAL			**MCL**	**SW6010B**	**Units: mg/L**		
Aluminum	7.25		0.1	1	04/11/09 14:59	EG	4982409
Boron	0.2		0.1	1	04/11/09 14:59	EG	4982409
Calcium	460		0.1	1	04/11/09 14:59	EG	4982409
Iron	7.2		0.1	1	04/11/09 14:59	EG	4982409
Magnesium	38		0.1	1	04/11/09 14:59	EG	4982409
Potassium	3.1		1	1	04/11/09 14:59	EG	4982409
Sodium	296		1	10	04/13/09 12:29	EG	4982797
Strontium	8.07		0.5	10	04/11/09 17:26	EG	4982442
Tin	ND		0.005	1	04/11/09 14:59	EG	4982409

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

Client Sample ID: MW-1 **Collected:** 04/02/2009 14:10 **SPL Sample ID:** 09040110-03

Site: Albuquerque, NM

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

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	04/07/2009 12:00	AB1	1.00

METALS BY METHOD 6020A, TOTAL			MCL	SW6020A	Units: mg/L	
Antimony	ND	0.005	1	04/09/09 0:02	S_C	4979484
Arsenic	0.00972	0.005	1	04/09/09 0:02	S_C	4979484
Barium	0.0471	0.005	1	04/09/09 0:02	S_C	4979484
Beryllium	0.00426	0.004	1	04/09/09 0:02	S_C	4979484
Cadmium	ND	0.005	1	04/09/09 0:02	S_C	4979484
Chromium	0.00831	0.005	1	04/11/09 21:30	AL_H	4982629
Cobalt	0.0227	0.005	1	04/09/09 0:02	S_C	4979484
Copper	0.0459	0.005	1	04/09/09 16:53	S_C	4980211
Lead	0.0222	0.005	1	04/09/09 0:02	S_C	4979484
Manganese	2.7	0.005	1	04/09/09 0:02	S_C	4979484
Molybdenum	ND	0.005	1	04/11/09 18:58	AL_H	4982177
Nickel	0.019	0.005	1	04/09/09 16:53	S_C	4980211
Selenium	ND	0.005	1	04/11/09 18:58	AL_H	4982177
Silver	ND	0.005	1	04/09/09 0:02	S_C	4979484
Thallium	ND	0.005	1	04/09/09 0:02	S_C	4979484
Vanadium	0.033	0.005	1	04/09/09 0:02	S_C	4979484
Zinc	0.0785	0.01	1	04/09/09 0:02	S_C	4979484

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	04/07/2009 12:00	AB1	1.00

PH			MCL	SM4500-H B	Units: pH Units	
pH	7.22	0.1	1	04/03/09 15:10	S_H	4974145
Temperature (oC)	20.5	0.1	1	04/03/09 15:10	S_H	4974145

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

Client Sample ID: MW-1 **Collected:** 04/02/2009 14:10 **SPL Sample ID:** 09040110-03

Site: Albuquerque, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
SEMIVOLATILE ORGANICS BY METHOD 8270C			**MCL**	**SW8270C**	**Units: ug/L**		
1,2,4-Trichlorobenzene	ND		5	1	04/06/09 22:27	GY	4977006
1,2-Dichlorobenzene	ND		5	1	04/06/09 22:27	GY	4977006
1,2-Diphenylhydrazine	ND		10	1	04/06/09 22:27	GY	4977006
1,3-Dichlorobenzene	ND		5	1	04/06/09 22:27	GY	4977006
1,4-Dichlorobenzene	ND		5	1	04/06/09 22:27	GY	4977006
2,4,5-Trichlorophenol	ND		10	1	04/06/09 22:27	GY	4977006
2,4,6-Trichlorophenol	ND		5	1	04/06/09 22:27	GY	4977006
2,4-Dichlorophenol	ND		5	1	04/06/09 22:27	GY	4977006
2,4-Dimethylphenol	ND		5	1	04/06/09 22:27	GY	4977006
2,4-Dinitrophenol	ND		25	1	04/06/09 22:27	GY	4977006
2,4-Dinitrotoluene	ND		5	1	04/06/09 22:27	GY	4977006
2,6-Dinitrotoluene	ND		5	1	04/06/09 22:27	GY	4977006
2-Chloronaphthalene	ND		5	1	04/06/09 22:27	GY	4977006
2-Chlorophenol	ND		5	1	04/06/09 22:27	GY	4977006
2-Methylnaphthalene	ND		5	1	04/06/09 22:27	GY	4977006
2-Nitroaniline	ND		25	1	04/06/09 22:27	GY	4977006
2-Nitrophenol	ND		5	1	04/06/09 22:27	GY	4977006
3,3'-Dichlorobenzidine	ND		10	1	04/06/09 22:27	GY	4977006
3-Nitroaniline	ND		25	1	04/06/09 22:27	GY	4977006
4,6-Dinitro-2-methylphenol	ND		25	1	04/06/09 22:27	GY	4977006
4-Bromophenyl phenyl ether	ND		5	1	04/06/09 22:27	GY	4977006
4-Chloro-3-methylphenol	ND		5	1	04/06/09 22:27	GY	4977006
4-Chloroaniline	ND		5	1	04/06/09 22:27	GY	4977006
4-Chlorophenyl phenyl ether	ND		5	1	04/06/09 22:27	GY	4977006
4-Nitroaniline	ND		25	1	04/06/09 22:27	GY	4977006
4-Nitrophenol	ND		25	1	04/06/09 22:27	GY	4977006
Acenaphthene	ND		5	1	04/06/09 22:27	GY	4977006
Acenaphthylene	ND		5	1	04/06/09 22:27	GY	4977006
Aniline	ND		5	1	04/06/09 22:27	GY	4977006
Anthracene	ND		5	1	04/06/09 22:27	GY	4977006
Benz(a)anthracene	ND		5	1	04/06/09 22:27	GY	4977006
Benzo(a)pyrene	ND		5	1	04/06/09 22:27	GY	4977006
Benzo(b)fluoranthene	ND		5	1	04/06/09 22:27	GY	4977006
Benzo(g,h,i)perylene	ND		5	1	04/06/09 22:27	GY	4977006
Benzo(k)fluoranthene	ND		5	1	04/06/09 22:27	GY	4977006
Benzoic acid	ND		25	1	04/06/09 22:27	GY	4977006
Benzyl alcohol	ND		5	1	04/06/09 22:27	GY	4977006
Bis(2-chloroethoxy)methane	ND		5	1	04/06/09 22:27	GY	4977006
Bis(2-chloroethyl)ether	ND		5	1	04/06/09 22:27	GY	4977006

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TNTC - Too numerous to count
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HOUSTON LABORATORY
8880 INTERCHANGE DRIVE
HOUSTON, TX 77054
(713) 660-0901

Client Sample ID: MW-1 **Collected:** 04/02/2009 14:10 **SPL Sample ID:** 09040110-03

Site: Albuquerque, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Bis(2-chloroisopropyl)ether	ND		5	1	04/06/09 22:27	GY	4977006
Bis(2-ethylhexyl)phthalate	ND		5	1	04/06/09 22:27	GY	4977006
Butyl benzyl phthalate	ND		5	1	04/06/09 22:27	GY	4977006
Carbazole	ND		5	1	04/06/09 22:27	GY	4977006
Chrysene	ND		5	1	04/06/09 22:27	GY	4977006
Dibenz(a,h)anthracene	ND		5	1	04/06/09 22:27	GY	4977006
Dibenzofuran	ND		5	1	04/06/09 22:27	GY	4977006
Diethyl phthalate	ND		5	1	04/06/09 22:27	GY	4977006
Dimethyl phthalate	ND		5	1	04/06/09 22:27	GY	4977006
Di-n-butyl phthalate	ND		5	1	04/06/09 22:27	GY	4977006
Di-n-octyl phthalate	ND		5	1	04/06/09 22:27	GY	4977006
Fluoranthene	ND		5	1	04/06/09 22:27	GY	4977006
Fluorene	ND		5	1	04/06/09 22:27	GY	4977006
Hexachlorobenzene	ND		5	1	04/06/09 22:27	GY	4977006
Hexachlorobutadiene	ND		5	1	04/06/09 22:27	GY	4977006
Hexachlorocyclopentadiene	ND		5	1	04/06/09 22:27	GY	4977006
Hexachloroethane	ND		5	1	04/06/09 22:27	GY	4977006
Indeno(1,2,3-cd)pyrene	ND		5	1	04/06/09 22:27	GY	4977006
Isophorone	ND		5	1	04/06/09 22:27	GY	4977006
Naphthalene	ND		5	1	04/06/09 22:27	GY	4977006
Nitrobenzene	ND		5	1	04/06/09 22:27	GY	4977006
N-Nitrosodi-n-propylamine	ND		5	1	04/06/09 22:27	GY	4977006
N-Nitrosodiphenylamine	ND		5	1	04/06/09 22:27	GY	4977006
Pentachlorophenol	ND		25	1	04/06/09 22:27	GY	4977006
Phenanthrene	ND		5	1	04/06/09 22:27	GY	4977006
Phenol	ND		5	1	04/06/09 22:27	GY	4977006
Pyrene	ND		5	1	04/06/09 22:27	GY	4977006
Pyridine	ND		5	1	04/06/09 22:27	GY	4977006
2-Methylphenol	ND		5	1	04/06/09 22:27	GY	4977006
3 & 4-Methylphenol	ND		5	1	04/06/09 22:27	GY	4977006
Surr: 2,4,6-Tribromophenol	55.1		% 10-123	1	04/06/09 22:27	GY	4977006
Surr: 2-Fluorobiphenyl	56.2		% 23-116	1	04/06/09 22:27	GY	4977006
Surr: 2-Fluorophenol	39.7		% 16-110	1	04/06/09 22:27	GY	4977006
Surr: Nitrobenzene-d5	55.6		% 21-114	1	04/06/09 22:27	GY	4977006
Surr: Phenol-d5	28.4		% 10-110	1	04/06/09 22:27	GY	4977006
Surr: Terphenyl-d14	47.4		% 22-141	1	04/06/09 22:27	GY	4977006

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	04/06/2009 9:53	N_M	1.00

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - 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

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

Client Sample ID: MW-1 **Collected:** 04/02/2009 14:10 **SPL Sample ID:** 09040110-03

Site: Albuquerque, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
SPECIFIC CONDUCTANCE @ 25 C			**MCL**	**E120.1**	**Units: umhos/cm**		
Specific Conductance	2370		10	1	04/07/09 8:45	PAC	4976924
TOTAL DISSOLVED SOLIDS			**MCL**	**SM2540 C**	**Units: mg/L**		
Total Dissolved Solids (Residue,Filterable)	1810		100	10	04/07/09 17:30	CFS	4978183

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - 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

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

Client Sample ID: MW-1 **Collected:** 04/02/2009 14:10 **SPL Sample ID:** 09040110-03

Site: Albuquerque, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B				**MCL**	**SW8260B**	**Units: ug/L**	
1,1,1,2-Tetrachloroethane	ND		5	1	04/09/09 5:31	JC	4981531
1,1,1-Trichloroethane	ND		5	1	04/09/09 5:31	JC	4981531
1,1,2,2-Tetrachloroethane	ND		5	1	04/09/09 5:31	JC	4981531
1,1,2-Trichloroethane	ND		5	1	04/09/09 5:31	JC	4981531
1,1-Dichloroethane	ND		5	1	04/09/09 5:31	JC	4981531
1,1-Dichloroethene	ND		5	1	04/09/09 5:31	JC	4981531
1,1-Dichloropropene	ND		5	1	04/09/09 5:31	JC	4981531
1,2,3-Trichlorobenzene	ND		5	1	04/09/09 5:31	JC	4981531
1,2,3-Trichloropropane	ND		5	1	04/09/09 5:31	JC	4981531
1,2,4-Trichlorobenzene	ND		5	1	04/09/09 5:31	JC	4981531
1,2,4-Trimethylbenzene	ND		5	1	04/09/09 5:31	JC	4981531
1,2-Dibromo-3-chloropropane	ND		5	1	04/09/09 5:31	JC	4981531
1,2-Dibromoethane	ND		5	1	04/09/09 5:31	JC	4981531
1,2-Dichlorobenzene	ND		5	1	04/09/09 5:31	JC	4981531
1,2-Dichloroethane	ND		5	1	04/09/09 5:31	JC	4981531
1,2-Dichloropropane	ND		5	1	04/09/09 5:31	JC	4981531
1,3,5-Trimethylbenzene	ND		5	1	04/09/09 5:31	JC	4981531
1,3-Dichlorobenzene	ND		5	1	04/09/09 5:31	JC	4981531
1,3-Dichloropropane	ND		5	1	04/09/09 5:31	JC	4981531
1,4-Dichlorobenzene	ND		5	1	04/09/09 5:31	JC	4981531
2,2-Dichloropropane	ND		5	1	04/09/09 5:31	JC	4981531
2-Butanone	ND		20	1	04/09/09 5:31	JC	4981531
2-Chloroethyl vinyl ether	ND	J	10	1	04/09/09 5:31	JC	4981531
2-Chlorotoluene	ND		5	1	04/09/09 5:31	JC	4981531
2-Hexanone	ND		10	1	04/09/09 5:31	JC	4981531
4-Chlorotoluene	ND		5	1	04/09/09 5:31	JC	4981531
4-Isopropyltoluene	ND		5	1	04/09/09 5:31	JC	4981531
4-Methyl-2-pentanone	ND		10	1	04/09/09 5:31	JC	4981531
Acetone	ND		20	1	04/09/09 5:31	JC	4981531
Acrylonitrile	ND		10	1	04/09/09 5:31	JC	4981531
Benzene	ND		5	1	04/09/09 5:31	JC	4981531
Bromobenzene	ND		5	1	04/09/09 5:31	JC	4981531
Bromochloromethane	ND		5	1	04/09/09 5:31	JC	4981531
Bromodichloromethane	ND		5	1	04/09/09 5:31	JC	4981531
Bromoform	ND		5	1	04/09/09 5:31	JC	4981531
Bromomethane	ND		10	1	04/09/09 5:31	JC	4981531
Carbon disulfide	ND		5	1	04/09/09 5:31	JC	4981531
Carbon tetrachloride	ND		5	1	04/09/09 5:31	JC	4981531
Chlorobenzene	ND		5	1	04/09/09 5:31	JC	4981531

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - 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

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

Client Sample ID: MW-1 **Collected:** 04/02/2009 14:10 **SPL Sample ID:** 09040110-03

Site: Albuquerque, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Chloroethane	ND		10	1	04/09/09 5:31	JC	4981531
Chloroform	ND		5	1	04/09/09 5:31	JC	4981531
Chloromethane	ND		10	1	04/09/09 5:31	JC	4981531
Dibromochloromethane	ND		5	1	04/09/09 5:31	JC	4981531
Dibromomethane	ND		5	1	04/09/09 5:31	JC	4981531
Dichlorodifluoromethane	ND		10	1	04/09/09 5:31	JC	4981531
Ethylbenzene	ND		5	1	04/09/09 5:31	JC	4981531
Hexachlorobutadiene	ND		5	1	04/09/09 5:31	JC	4981531
Isopropylbenzene	ND		5	1	04/09/09 5:31	JC	4981531
Methyl tert-butyl ether	ND		5	1	04/09/09 5:31	JC	4981531
Methylene chloride	ND		5	1	04/09/09 5:31	JC	4981531
Naphthalene	ND		5	1	04/09/09 5:31	JC	4981531
n-Butylbenzene	ND		5	1	04/09/09 5:31	JC	4981531
n-Propylbenzene	ND		5	1	04/09/09 5:31	JC	4981531
sec-Butylbenzene	ND		5	1	04/09/09 5:31	JC	4981531
Styrene	ND		5	1	04/09/09 5:31	JC	4981531
tert-Butylbenzene	ND		5	1	04/09/09 5:31	JC	4981531
Tetrachloroethene	ND		5	1	04/09/09 5:31	JC	4981531
Toluene	ND		5	1	04/09/09 5:31	JC	4981531
Trichloroethene	ND		5	1	04/09/09 5:31	JC	4981531
Trichlorofluoromethane	ND		5	1	04/09/09 5:31	JC	4981531
Vinyl acetate	ND		10	1	04/09/09 5:31	JC	4981531
Vinyl chloride	ND		2	1	04/09/09 5:31	JC	4981531
cis-1,2-Dichloroethene	ND		5	1	04/09/09 5:31	JC	4981531
cis-1,3-Dichloropropene	ND		5	1	04/09/09 5:31	JC	4981531
m,p-Xylene	ND		5	1	04/09/09 5:31	JC	4981531
o-Xylene	ND		5	1	04/09/09 5:31	JC	4981531
trans-1,2-Dichloroethene	ND		5	1	04/09/09 5:31	JC	4981531
trans-1,3-Dichloropropene	ND		5	1	04/09/09 5:31	JC	4981531
1,2-Dichloroethene (total)	ND		5	1	04/09/09 5:31	JC	4981531
Xylenes,Total	ND		5	1	04/09/09 5:31	JC	4981531
Surr: 1,2-Dichloroethane-d4	98.0		% 62-130	1	04/09/09 5:31	JC	4981531
Surr: 4-Bromofluorobenzene	102		% 70-130	1	04/09/09 5:31	JC	4981531
Surr: Toluene-d8	90.0		% 74-122	1	04/09/09 5:31	JC	4981531

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - 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

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

Client Sample ID: Trip Blank **Collected:** 04/02/2009 14:30 **SPL Sample ID:** 09040110-04

Site: Albuquerque, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	ND		5	1	04/09/09 5:57	JC	4981532
Ethylbenzene	ND		5	1	04/09/09 5:57	JC	4981532
Toluene	ND		5	1	04/09/09 5:57	JC	4981532
m,p-Xylene	ND		5	1	04/09/09 5:57	JC	4981532
o-Xylene	ND		5	1	04/09/09 5:57	JC	4981532
Xylenes,Total	ND		5	1	04/09/09 5:57	JC	4981532
Surr: 1,2-Dichloroethane-d4	100		% 62-130	1	04/09/09 5:57	JC	4981532
Surr: 4-Bromofluorobenzene	104		% 70-130	1	04/09/09 5:57	JC	4981532
Surr: Toluene-d8	96.0		% 74-122	1	04/09/09 5:57	JC	4981532

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - 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

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

Client Sample ID: Duplicate **Collected:** 04/02/2009 14:20 **SPL Sample ID:** 09040110-05

Site: Albuquerque, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
VOLATILE ORGANICS BY METHOD 8260B			**MCL**	**SW8260B**	**Units: ug/L**		
Benzene	ND		5	1	04/09/09 6:25	JC	4979856
Ethylbenzene	ND		5	1	04/09/09 6:25	JC	4979856
Toluene	ND		5	1	04/09/09 6:25	JC	4979856
m,p-Xylene	ND		5	1	04/09/09 6:25	JC	4979856
o-Xylene	ND		5	1	04/09/09 6:25	JC	4979856
Xylenes,Total	ND		5	1	04/09/09 6:25	JC	4979856
Surr: 1,2-Dichloroethane-d4	104		% 62-130	1	04/09/09 6:25	JC	4979856
Surr: 4-Bromofluorobenzene	104		% 70-130	1	04/09/09 6:25	JC	4979856
Surr: Toluene-d8	90.0		% 74-122	1	04/09/09 6:25	JC	4979856

Qualifiers:

ND/U - Not Detected at the Reporting Limit
B/V - 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

Chain of Custody Record

09040110
~~090400~~ B

Client: Tetra Tech/ Conoco Phillips

SPL Workorder Number:

Attention: Kelly Blanchard/Tetra Tech

Phone: 505-237-8440 | Email: kelly.blanchard@tetratech.com

Address: 6121 Indian School Road, NE Ste. 200

City: Albuquerque | State: NM | Zip Code: 87110

Project Name: Salegna 2E

P.O. Number:

Sampled By: Signature: Cassie Brown — Print: Cassie Brown

Sample ID	Collected Date	Collected Time	Sample Type Comp	Sample Type Grab	Matrix Water	Matrix Soil	Bottle Type	Preservative Type	# of Containers	Volatile Organics by 8260	Semivolatile Org by 8270	TPH - DRO	TPH - GRO	Total Metals	General Chemistry (*)
MW-2	4.2.09	1250		X	X		1	3	3	X					
MW-2	4.2.09	1250		X	X		4	1	2		X				
MW-2	4.2.09	1250		X	X		6	3	2			X			
MW-2	4.2.09	1250		X	X		1	3	3				X		
MW-2	4.2.09	1250		X	X		3	2	1					X	
MW-2	4.2.09	1250		X	X		3	1	2						X
MW-3	4.2.09	1330		X	X		1	3	3	X					
MW-3	4.2.09	1330		X	X		4	1	2		X				
MW-3	4.2.09	1330		X	X		6	3	2			X			
MW-3	4.2.09	1330		X	X		1	3	3				X		

REQUESTED ANALYSIS

Turnaround Time Requirements

24 hr ( ) 48 hr ( )

72 hr ( ) 5 wday ( )

10 wday - Standard ( )

Remarks: (*) Alkalinity, Bromide, Chloride, Fluoride, orthophosphate, Sulfate, Nitrate, Nitrite, pH, Specific Conductance, TDS, Hardness

Intact? Y or N

Temperature: 5.0c

Bottle Types: 1: 3-40ml Vials 2: 1L Glass 3: 1L Plastic 4: 1L Amber Glass 5: 8oz Plastic 6. 60ml Vials(Amber)

Preservative Types: 1: NONE 2: HNO3 3: HCL 4: H2SO4

RUSH

	Date	Time	
Relinquished by Sampler:	4-2-09	1630	Received by:
Relinquished by:			Received by:
Relinquished by:	4/3/09	1000	Received by SPL Inc.

Page___of___

Chain of Custody Record

Client: Tetra Tech/ Conoco Phillips

SPL Workorder Number: 09040110

Attention: Kelly Blanchard/Tetra Tech

Phone: 505-237-8440 | Email: kelly.blanchard@tetratech.com

Address: 6121 Indian School Road, NE Ste. 200

City: Albuquerque | State: NM | Zip Code: 87110

Project Name: Salegna 2E

P.O. Number:

Sampled By: Signature [signature] Print Cassie Brown

Sample ID	Collected Date	Collected Time	Sample Type Comp	Sample Type Grab	Matrix Water	Matrix Soil	Bottle Type	Preservative Type	# of Containers	Volatile Organics by 8260	Semivolatile Org by 8270	TPH - DRO	TPH - GRO	Total Metals	General Chemistry (*)	BTEX ONLY		
MW-3	4.2.09	1330		X	X		3	2	1					X				
MW-3	4.2.09	1330		X	X		3	1	2						X			
MW-1	4.2.09	1410		X	X		1	3	3	X								
MW-1	4.2.09	1410		X	X		4	1	2		X							
MW-1	4.2.09	1410		X	X		6	3	2			X						
MW-1	4.2.09	1410		X	X		1	3	3				X					
MW-1	4.2.09	1410		X	X		3	2	1					X				
MW-1	4.2.09	1410		X	X		3	1	2						X			
Trip Blank	4.2.09	1430			X		1	3	2	MRM						X		
Duplicate	4.2.09	1420		X	X		1	3	3							X		

Turnaround Time Requirements

24 hr ( ) 48 hr ( )

72 hr ( ) 5 wday ( )

10 wday - Standard ( )

Remarks: (*) Alkalinity, Bromide, Chloride, Fluoride, orthophosphate, Sulfate, Nitrate, Nitrite, pH, Specific Conductance, TDS, Hardness

Intact? Y or N

Temperature: 3.0c

Bottle Types: 1: 3-40ml Vials 2: 1L Glass 3: 1L Plastic 4: 1L Amber Glass 5: 8oz Plastic 6. 60ml Amber Vial

Preservative Types: 1: NONE 2: HNO3 3: HCL 4: H2SO4

	Date	Time	
Relinquished by Sampler: [signature]	4-2-09	1630	Received by:
Relinquished by:	Date	Time	Received by:
Relinquished by:	Date 4/3/09	Time 1000	Received by SPL, Inc. [signature]