

3R - 434

OCT 2008

GWMR

03/04/2009



TETRATECH, INC.

3R 434

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

March 4, 2009

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

RE: (1) ConocoPhillips Shepherd & Kelsey IE 2008 Quarterly Report
Bloomfield, New Mexico
(2) ConocoPhillips Faye Burdette No. 1 2008 Quarterly Report ✓
Aztec, New Mexico
(3) ConocoPhillips El Paso 1A 2008 Quarterly Report
Blanco, New Mexico

Dear Mr. von Gonten:

Enclosed please find a copy of the above-referenced documents as compiled by Tetra Tech, Inc., formerly Maxim Technologies, for these Farmington area sites.

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

Sincerely,

Kelly E. Blanchard
Project Manager/Geologist

Enclosures (3)

**QUARTERLY GROUNDWATER
MONITORING REPORT
OCTOBER 2008 SAMPLING EVENT**

**CONOCOPHILLIPS
FAYE BURDETTE NO. 1
AZTEC, NEW MEXICO**

Prepared for:



420 South Keeler Avenue
Bartlesville, OK 74004

Prepared by:



TETRA TECH, INC.

6121 Indian School Rd. NE Suite 200
Albuquerque, NM 87110
Tetra Tech Project No. 9690127.100

February 11, 2009

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QUARTERLY GROUNDWATER MONITORING REPORT CONOCOPHILLIPS FAYE BURDETTE NO. 1, AZTEC, NEW MEXICO

1.0 INTRODUCTION

This report presents the results of quarterly groundwater monitoring completed by Tetra Tech, Inc. (Tetra Tech) on October 22, 2008, at the ConocoPhillips, formerly Burlington Resources, Faye Burdette No. 1 Site in Aztec, New Mexico. This event represents the first quarter of groundwater sampling conducted by Tetra Tech at the site.

The site is located near the intersection of Highway 550 and Pioneer in Aztec, NM. The site can be reached by turning onto Pioneer from 550 and staying on Pioneer until reaching Long Lane. Once reaching Long Lane, turn left and proceed forward until reaching the site on the left. The site consists of a gas production well head and associated equipment and installations. The location and general features of the Faye Burdette No. 1 site are shown on **Figures 1 and 2**, respectively.

1.1 Site History

The history of the ConocoPhillips Faye Burdette No. 1 Site is outlined in **Table 1**.

2.0 METHODOLOGY AND RESULTS

The following subsections describe the groundwater monitoring methodology and sampling analytical results.

2.1 Groundwater Monitoring Methodology

Groundwater sampling

Monitor well MWV-1 was sampled during this event to initiate quarterly groundwater monitoring at the site. Approximately 3 gallons of water, or greater than three well volumes, were purged from the monitoring well before sampling was performed. The purged water was disposed of in the waste water tank located on site (**Figure 2**). A 1.5-inch dedicated bailer was used to purge and collect groundwater samples. The samples were placed in laboratory prepared bottles, packed on ice, and shipped with chain of custody documentation to Southern Petroleum Laboratory located in Houston, Texas. The samples were analyzed for presence of volatile organic compounds (VOC) including but not limited to benzene, toluene, ethyl-benzene, and xylenes (BTEX) by Environmental Protection Agency (EPA) Method 8260B, semi-volatile organics compounds (SVOC) by EPA Method 8270C, total petroleum hydrocarbons (TPH) by EPA Method SW8015B, ion chromatography by EPA Method E300.0, metals including mercury by EPA Methods SW7470A, 6010B, 6020A, and nitrogen by EPA Method E353.2.

2.2 Groundwater Sampling Analytical Results

The October 2008 analysis of the collected groundwater samples indicates that all constituents of concern are below the NMWQCC standards. Laboratory analytical data from the October 2008

sampling are summarized on **Table 2**. The field groundwater sampling form is presented in **Appendix A** and the laboratory analytical report is presented in **Appendix B**.

3.0 CONCLUSIONS

Tetra Tech recommends continued quarterly groundwater sampling at Faye Burdette No. 1 in order to provide sufficient data for site closure. If results indicate all constituents of concern are below NMWQCC standards, groundwater monitoring will be discontinued and site closure will be requested.

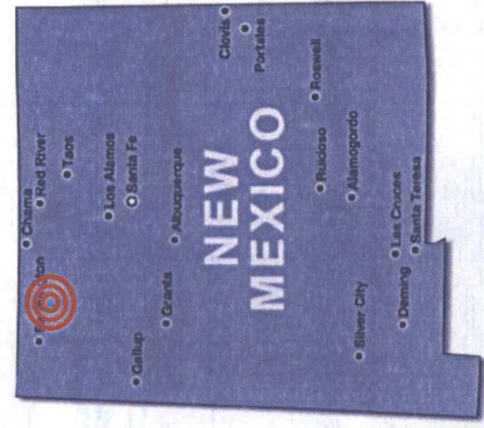
FIGURES

1. Site Location Map
2. Site Layout Map



FIGURE 1.

Site Location Map
ConocoPhillips
Faye Burdette No. 1
Aztec, NM



Directions from HW 550 to
ConocoPhillips
Faye Burdette No. 1 site
location

Approximate ConocoPhillips
Faye Burdette No. 1 Site
location



TETRA TECH, INC.

Anticipated groundwater
flow direction

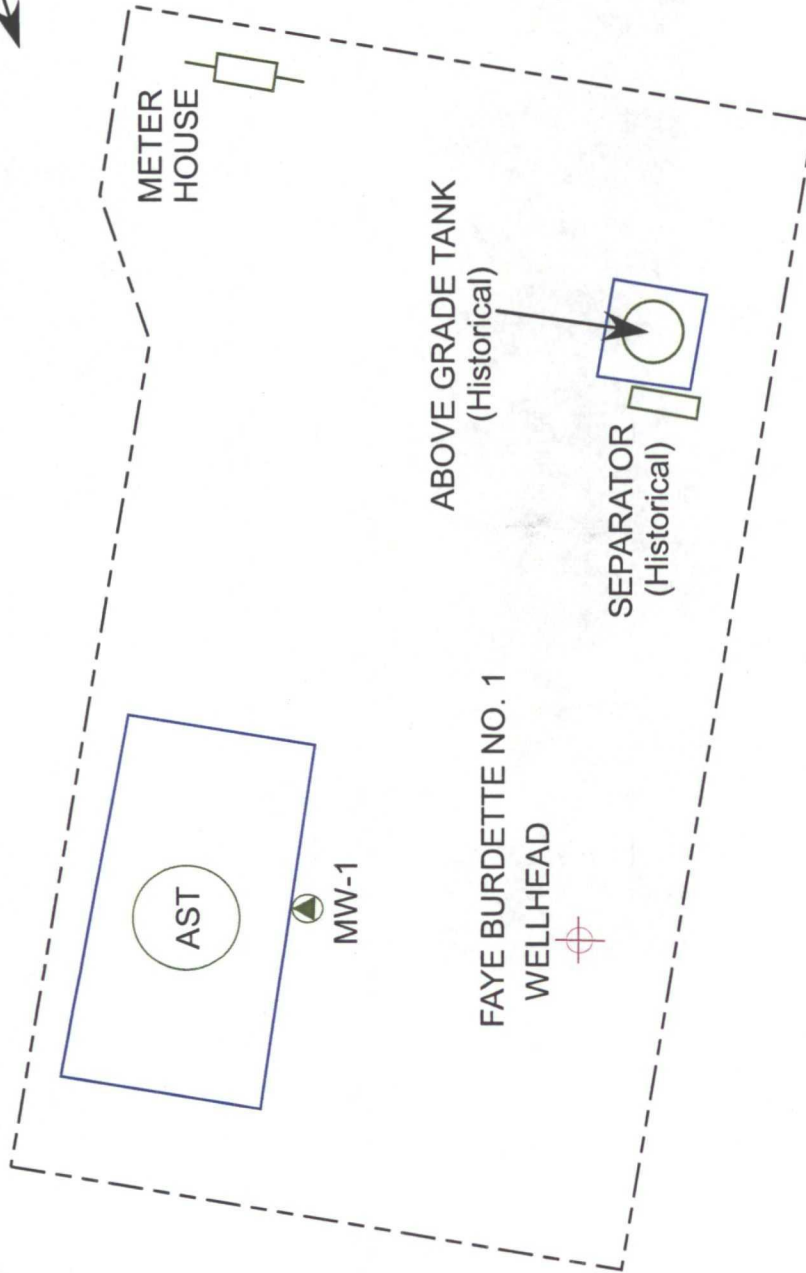


FIGURE 2.
SITE FEATURES
CONOCOPHILLIPS
FAYE BURDETTE NO.1 OIL AND GAS
PRODUCTION WELL
 Sec 9, T30N, R11W
 Aztec, New Mexico

LEGEND

- TEMPORARY MONITORING WELL
- MONITORING WELL LOCATION
- BERM
- FENCE LINE
- EQUIPMENT



TETRA TECH, INC.

TABLES

I. Site History Timeline

2. Laboratory Analytical Data Summary (January 2005 – October 2008)

Table 1. Site History Timeline - ConocoPhillips Faye Burdette No. 1

DATE	ACTIVITY
Jul-07	Contaminated soil excavated from the Site. Two ground water samples were obtained at the time of this excavation, and one (1) of these samples was found to contain total xylenes above the State of New Mexico drinking water standard. Original source of contamination is unknown.
26-Sep-07	Ground water monitoring well installed to a depth of 15 feet below ground surface (bgs) by Envirotech Inc. of Farmington, NM (Envirotech). A soil sample obtained from the well boring was analyzed for benzene, BTEX and total petroleum hydrocarbons (TPH). Results were below NMOCD regulations of 10 parts per million (ppm), 50 ppm, and 100 ppm, respectively.
26-Sep-07	A ground water sample was collected from the temporary monitoring well and analyzed for BTEX. Results were below the State of New Mexico drinking water standard for this constituent. Depth to ground water recorded at 9.5 feet bgs.
Nov-07	Envirotech report recommends plugging and abandonment of the temporary ground water monitoring well and a no further action determination for the Site (Envirotech, 2007).
Apr-08	Oil Conservation Division of NM Energy, Minerals, and Resources Dept. indicates additional investigation and sampling is necessary for closure consideration during a meeting with Glenn Von Gonten
22-Oct-08	1st quarter sampling of MW-1 by Tetra Tech
Jan-09	Installed additional monitoring wells MW-2, MW-3 and MW-4
29-Jan-09	2nd quarter sampling of MW-1 by Tetra Tech

Table 2.

Analytical Data Faye Burdette No. 1 October 22, 2008

NM Groundwater Standards		EPA Groundwater Standards	Well ID
MW-1			
Volatile Organic Compounds (ug/L)			
Benzene	10	5	<5
Toluene	750	-	<5
Ethylbenzene	750	700	<5
Xylenes	620	-	<5
General Chemistry (mg/L)			
Chloride	250	250	16.1
Nitrate	-	-	<1
Sulfate	600	250 / 400	203
Inorganic Contaminants (mg/L)			
Calcium	-	-	176
Iron	1	0.3	3.74
Magnesium	-	-	13.3
Sodium	-	-	54.8
Arsenic	0.1	0.05	0.00536
Lead	0.05	0.015	0.0103
Barium	1	2	0.0914
Manganese	0.2	0.05	2.09

Notes

Concentrations marked **bold** exceed NMWQCC standards
Only detected constituents included on Table 2.

APPENDIX A
GROUNDWATER SAMPLING FIELD FORM



WATER SAMPLING FIELD FORM

Project Name Fae Burdette #1Page 1 of 1

Project No. _____

Site Location Aztec, NMSite/Well No. MW-1Coded/
Replicate No. _____Date 10/22/08Weather windy, sunnyTime Sampling
Began 1520Time Sampling
Completed 1540

EVACUATION DATA

Description of Measuring Point (MP) TOC

Height of MP Above/Below Land Surface _____ MP Elevation _____

Total Sounded Depth of Well Below MP 14.42 Water-Level Elevation _____Held _____ Depth to Water Below MP 10.91 Diameter of Casing _____ 2"Wet _____ Water Column in Well 3.51 Gallons Pumped/Bailed
Prior to Sampling 3 gallonsGallons per Foot 0.16Gallons in Well 0.54 x 3 = Sampling Pump Intake Setting
(feet below land surface) _____Purging Equipment bailer / purge pump 1.68

SAMPLING DATA/FIELD PARAMETERS

Time	Temperature (C°)	pH	Conductivity	TDS in g/L	ORP (mV)	DO
<u>1530</u>	<u>16.81</u>	<u>6.96</u>	<u>1.674</u>	<u>0.496</u>	<u>46.9</u>	<u>2.66</u>

Sampling Equipment Disposable polyethylene bailer

Constituents Sampled

Container Description

Preservative

BTEX, VOCs, SVOCs 6 2-40 mL glass VOAs, 2 Ambers HCL, HNO₃
Total Metals, Gen 2 plastics/ba, 2 plastics 32oz
Chem & Anions, TPH

Remarks _____

Sampling Personnel Christine Mathews, Ana Moreno

Well Casing Volumes

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

APPENDIX B

LABORATORY ANALYTICAL REPORT



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

Conoco Phillips

Certificate of Analysis Number:
08101601

Report To: Tetra Tech EM, Inc. Kelly Blanchard 6121 Indian School Road, N.E. Suite 200 Albuquerque NM 87110- ph: (505) 881-3188 fax:	Project Name: COP Faye-Burdette Site: Aztec, NM Site Address: PO Number: State: New Mexico State Cert. No.: Date Reported: 11/17/2008
--	--

This Report Contains A Total Of 45 Pages

Excluding This Page, Chain Of Custody

And

Any Attachments

11/17/2008

Date



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

Case Narrative for:
Conoco Phillips

Certificate of Analysis Number:
08101601

Report To: Tetra Tech EM, Inc. Kelly Blanchard 6121 Indian School Road, N.E. Suite 200 Albuquerque NM 87110- ph: (505) 881-3188 fax:	Project Name: COP Faye-Burdette Site: Aztec, NM Site Address: PO Number: State: New Mexico State Cert. No.: Date Reported: 11/17/2008
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All samples received outside the 48-hour hold time for Nitrate and Orthophosphate analysis. Per historical records SPL, Inc continued with 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.

Due to limited sample volume, a Matrix Spike (MS) or Matrix Spike Duplicate (MSD) was not analyzed with Batch ID:84920 for the Diesel Range Organics analysis by SW846 Method 8015B. A Laboratory Control Sample (LCS) and a Laboratory Control Sample Duplicate (LCSD) were extracted with the analytical batch and serve as the batch quality control (QC). The LCS and LCSD recovered acceptably and precision criteria were met.

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

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

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

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

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

08101601 Page 1
11/17/2008

Erica Cardenas
Project Manager

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

Date



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

Conoco Phillips

Certificate of Analysis Number:

08101601

Report To: Tetra Tech EM, Inc.
Kelly Blanchard
6121 Indian School Road, N.E.
Suite 200
Albuquerque
NM
87110-
ph: (505) 881-3188 fax: (505) 881-3283

Project Name: COP Faye-Burdette

Site: Aztec, NM

Site Address:

PO Number:

State: New Mexico

State Cert. No.:

Date Reported: 11/17/2008

Fax To:

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
MW-1	08101601-01	Water	10/22/2008 3:40:00 PM	10/28/2008 9:30:00 AM		☐
Trip Blank	08101601-02	Water	10/27/2008	10/28/2008 9:30:00 AM		☐

11/17/2008

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

Collected: 10/22/2008 15:40

SPL Sample ID: 08101601-01

Site: Aztec, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
DIESEL RANGE ORGANICS				MCL	SW8015B	Units: mg/L	
Diesel Range Organics (C10-C28)	ND		0.1	1	11/06/08 16:36	NW	4757252
Surr: n-Pentacosane	73.4		% 20-150	1	11/06/08 16:36	NW	4757252

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	10/29/2008 18:43	N_M	1.00

GASOLINE RANGE ORGANICS				MCL	SW8015B	Units: mg/L	
Gasoline Range Organics	ND		0.1	1	11/02/08 6:39	WLV	4747582
Surr: 1,4-Difluorobenzene	89.0		% 60-155	1	11/02/08 6:39	WLV	4747582
Surr: 4-Bromofluorobenzene	90.2		% 50-158	1	11/02/08 6:39	WLV	4747582

ION CHROMATOGRAPHY				MCL	E300.0	Units: mg/L	
Chloride	16.1		2	4	11/10/08 19:42	TW	4766025
Fluoride	ND		1	2	10/28/08 21:13	TW	4743018
Ortho-phosphate (As P)	ND		1	2	10/28/08 21:13	TW	4743018
Sulfate	203		50	100	11/11/08 13:38	TW	4766442
Nitrogen, Nitrate (As N)	ND		1	2	10/28/08 21:13	TW	4743045

MERCURY, TOTAL				MCL	SW7470A	Units: mg/L	
Mercury	ND		0.0002	1	11/06/08 14:09	F_S	4755686

Prep Method	Prep Date	Prep Initials	Prep Factor
SW7470A	11/06/2008 13:18	F_S	1.00

METALS BY METHOD 6010B, TOTAL				MCL	SW6010B	Units: mg/L	
Calcium	176		0.1	1	10/31/08 14:37	SC	4745454
Iron	3.74		0.02	1	10/31/08 14:37	SC	4745454
Magnesium	13.3		0.1	1	10/31/08 14:37	SC	4745454
Manganese	2.09		0.005	1	10/31/08 14:37	SC	4745454
Sodium	54.8		0.5	1	10/31/08 14:37	SC	4745454

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	10/30/2008 15:30	BDG	1.00

METALS BY METHOD 6020A, TOTAL				MCL	SW6020A	Units: mg/L	
Arsenic	0.00536		0.005	1	10/31/08 16:47	AL_H	4746380
Barium	0.0914		0.005	1	10/31/08 16:47	AL_H	4746380
Cadmium	ND		0.005	1	10/31/08 16:47	AL_H	4746380
Chromium	ND		0.005	1	10/31/08 16:47	AL_H	4746380
Lead	0.0103		0.005	1	10/31/08 16:47	AL_H	4746380
Selenium	ND		0.005	1	10/31/08 16:47	AL_H	4746380
Silver	ND		0.005	1	10/31/08 16:47	AL_H	4746380

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: 10/22/2008 15:40 SPL Sample ID: 08101601-01

Site: Aztec, NM

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

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3010A	10/30/2008 15:30	BDG	1.00

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



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

Client Sample ID: MW-1

Collected: 10/22/2008 15:40

SPL Sample ID: 08101601-01

Site: Aztec, 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	10/31/08 12:59	GQ	4745628
1,2-Dichlorobenzene	ND		5	1	10/31/08 12:59	GQ	4745628
1,2-Diphenylhydrazine	ND		10	1	10/31/08 12:59	GQ	4745628
1,3-Dichlorobenzene	ND		5	1	10/31/08 12:59	GQ	4745628
1,4-Dichlorobenzene	ND		5	1	10/31/08 12:59	GQ	4745628
2,4,5-Trichlorophenol	ND		10	1	10/31/08 12:59	GQ	4745628
2,4,6-Trichlorophenol	ND		5	1	10/31/08 12:59	GQ	4745628
2,4-Dichlorophenol	ND		5	1	10/31/08 12:59	GQ	4745628
2,4-Dimethylphenol	ND		5	1	10/31/08 12:59	GQ	4745628
2,4-Dinitrophenol	ND		25	1	10/31/08 12:59	GQ	4745628
2,4-Dinitrotoluene	ND		5	1	10/31/08 12:59	GQ	4745628
2,6-Dinitrotoluene	ND		5	1	10/31/08 12:59	GQ	4745628
2-Chloronaphthalene	ND		5	1	10/31/08 12:59	GQ	4745628
2-Chlorophenol	ND		5	1	10/31/08 12:59	GQ	4745628
2-Methylnaphthalene	ND		5	1	10/31/08 12:59	GQ	4745628
2-Nitroaniline	ND		25	1	10/31/08 12:59	GQ	4745628
2-Nitrophenol	ND		5	1	10/31/08 12:59	GQ	4745628
3,3'-Dichlorobenzidine	ND		10	1	10/31/08 12:59	GQ	4745628
3-Nitroaniline	ND		25	1	10/31/08 12:59	GQ	4745628
4,6-Dinitro-2-methylphenol	ND		25	1	10/31/08 12:59	GQ	4745628
4-Bromophenyl phenyl ether	ND		5	1	10/31/08 12:59	GQ	4745628
4-Chloro-3-methylphenol	ND		5	1	10/31/08 12:59	GQ	4745628
4-Chloroaniline	ND		5	1	10/31/08 12:59	GQ	4745628
4-Chlorophenyl phenyl ether	ND		5	1	10/31/08 12:59	GQ	4745628
4-Nitroaniline	ND		25	1	10/31/08 12:59	GQ	4745628
4-Nitrophenol	ND		25	1	10/31/08 12:59	GQ	4745628
Acenaphthene	ND		5	1	10/31/08 12:59	GQ	4745628
Acenaphthylene	ND		5	1	10/31/08 12:59	GQ	4745628
Aniline	ND		5	1	10/31/08 12:59	GQ	4745628
Anthracene	ND		5	1	10/31/08 12:59	GQ	4745628
Benz(a)anthracene	ND		5	1	10/31/08 12:59	GQ	4745628
Benzo(a)pyrene	ND		5	1	10/31/08 12:59	GQ	4745628
Benzo(b)fluoranthene	ND		5	1	10/31/08 12:59	GQ	4745628
Benzo(g,h,i)perylene	ND		5	1	10/31/08 12:59	GQ	4745628
Benzo(k)fluoranthene	ND		5	1	10/31/08 12:59	GQ	4745628
Benzoic acid	ND		25	1	10/31/08 12:59	GQ	4745628
Benzyl alcohol	ND		5	1	10/31/08 12:59	GQ	4745628
Bis(2-chloroethoxy)methane	ND		5	1	10/31/08 12:59	GQ	4745628
Bis(2-chloroethyl)ether	ND		5	1	10/31/08 12:59	GQ	4745628

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: 10/22/2008 15:40 SPL Sample ID: 08101601-01

Site: Aztec, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Bis(2-chloroisopropyl)ether	ND		5	1	10/31/08 12:59	GQ	4745628
Bis(2-ethylhexyl)phthalate	ND		5	1	10/31/08 12:59	GQ	4745628
Butyl benzyl phthalate	ND		5	1	10/31/08 12:59	GQ	4745628
Carbazole	ND		5	1	10/31/08 12:59	GQ	4745628
Chrysene	ND		5	1	10/31/08 12:59	GQ	4745628
Dibenz(a,h)anthracene	ND		5	1	10/31/08 12:59	GQ	4745628
Dibenzofuran	ND		5	1	10/31/08 12:59	GQ	4745628
Diethyl phthalate	ND		5	1	10/31/08 12:59	GQ	4745628
Dimethyl phthalate	ND		5	1	10/31/08 12:59	GQ	4745628
Di-n-butyl phthalate	ND		5	1	10/31/08 12:59	GQ	4745628
Di-n-octyl phthalate	ND		5	1	10/31/08 12:59	GQ	4745628
Fluoranthene	ND		5	1	10/31/08 12:59	GQ	4745628
Fluorene	ND		5	1	10/31/08 12:59	GQ	4745628
Hexachlorobenzene	ND		5	1	10/31/08 12:59	GQ	4745628
Hexachlorobutadiene	ND		5	1	10/31/08 12:59	GQ	4745628
Hexachlorocyclopentadiene	ND		5	1	10/31/08 12:59	GQ	4745628
Hexachloroethane	ND		5	1	10/31/08 12:59	GQ	4745628
Indeno(1,2,3-cd)pyrene	ND		5	1	10/31/08 12:59	GQ	4745628
Isophorone	ND		5	1	10/31/08 12:59	GQ	4745628
Naphthalene	ND		5	1	10/31/08 12:59	GQ	4745628
Nitrobenzene	ND		5	1	10/31/08 12:59	GQ	4745628
N-Nitrosodi-n-propylamine	ND		5	1	10/31/08 12:59	GQ	4745628
N-Nitrosodiphenylamine	ND		5	1	10/31/08 12:59	GQ	4745628
Pentachlorophenol	ND		25	1	10/31/08 12:59	GQ	4745628
Phenanthrene	ND		5	1	10/31/08 12:59	GQ	4745628
Phenol	ND		5	1	10/31/08 12:59	GQ	4745628
Pyrene	ND		5	1	10/31/08 12:59	GQ	4745628
Pyridine	ND		5	1	10/31/08 12:59	GQ	4745628
2-Methylphenol	ND		5	1	10/31/08 12:59	GQ	4745628
3 & 4-Methylphenol	ND		5	1	10/31/08 12:59	GQ	4745628
Surr: 2,4,6-Tribromophenol	64.0		% 10-123	1	10/31/08 12:59	GQ	4745628
Surr: 2-Fluorobiphenyl	66.0		% 23-116	1	10/31/08 12:59	GQ	4745628
Surr: 2-Fluorophenol	42.7		% 16-110	1	10/31/08 12:59	GQ	4745628
Surr: Nitrobenzene-d5	60.0		% 21-114	1	10/31/08 12:59	GQ	4745628
Surr: Phenol-d5	33.3		% 10-110	1	10/31/08 12:59	GQ	4745628
Surr: Terphenyl-d14	64.0		% 22-141	1	10/31/08 12:59	GQ	4745628

Prep Method	Prep Date	Prep Initials	Prep Factor
SW3510C	10/28/2008 18:27	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: 10/22/2008 15:40

SPL Sample ID: 08101601-01

Site: Aztec, 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	11/04/08 18:31	LT	4752374
1,1,1-Trichloroethane	ND		5	1	11/04/08 18:31	LT	4752374
1,1,2,2-Tetrachloroethane	ND		5	1	11/04/08 18:31	LT	4752374
1,1,2-Trichloroethane	ND		5	1	11/04/08 18:31	LT	4752374
1,1-Dichloroethane	ND		5	1	11/04/08 18:31	LT	4752374
1,1-Dichloroethene	ND		5	1	11/04/08 18:31	LT	4752374
1,1-Dichloropropene	ND		5	1	11/04/08 18:31	LT	4752374
1,2,3-Trichlorobenzene	ND		5	1	11/04/08 18:31	LT	4752374
1,2,3-Trichloropropane	ND		5	1	11/04/08 18:31	LT	4752374
1,2,4-Trichlorobenzene	ND		5	1	11/04/08 18:31	LT	4752374
1,2,4-Trimethylbenzene	ND		5	1	11/04/08 18:31	LT	4752374
1,2-Dibromo-3-chloropropane	ND		5	1	11/04/08 18:31	LT	4752374
1,2-Dibromoethane	ND		5	1	11/04/08 18:31	LT	4752374
1,2-Dichlorobenzene	ND		5	1	11/04/08 18:31	LT	4752374
1,2-Dichloroethane	ND		5	1	11/04/08 18:31	LT	4752374
1,2-Dichloropropane	ND		5	1	11/04/08 18:31	LT	4752374
1,3,5-Trimethylbenzene	ND		5	1	11/04/08 18:31	LT	4752374
1,3-Dichlorobenzene	ND		5	1	11/04/08 18:31	LT	4752374
1,3-Dichloropropane	ND		5	1	11/04/08 18:31	LT	4752374
1,4-Dichlorobenzene	ND		5	1	11/04/08 18:31	LT	4752374
2,2-Dichloropropane	ND		5	1	11/04/08 18:31	LT	4752374
2-Butanone	ND		20	1	11/04/08 18:31	LT	4752374
2-Chloroethyl vinyl ether	ND		10	1	11/04/08 18:31	LT	4752374
2-Chlorotoluene	ND		5	1	11/04/08 18:31	LT	4752374
2-Hexanone	ND		10	1	11/04/08 18:31	LT	4752374
4-Chlorotoluene	ND		5	1	11/04/08 18:31	LT	4752374
4-Isopropyltoluene	ND		5	1	11/04/08 18:31	LT	4752374
4-Methyl-2-pentanone	ND		10	1	11/04/08 18:31	LT	4752374
Acetone	ND		100	1	11/04/08 18:31	LT	4752374
Acrylonitrile	ND		50	1	11/04/08 18:31	LT	4752374
Benzene	ND		5	1	11/04/08 18:31	LT	4752374
Bromobenzene	ND		5	1	11/04/08 18:31	LT	4752374
Bromochloromethane	ND		5	1	11/04/08 18:31	LT	4752374
Bromodichloromethane	ND		5	1	11/04/08 18:31	LT	4752374
Bromoform	ND		5	1	11/04/08 18:31	LT	4752374
Bromomethane	ND		10	1	11/04/08 18:31	LT	4752374
Carbon disulfide	ND		5	1	11/04/08 18:31	LT	4752374
Carbon tetrachloride	ND		5	1	11/04/08 18:31	LT	4752374
Chlorobenzene	ND		5	1	11/04/08 18:31	LT	4752374

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: 10/22/2008 15:40

SPL Sample ID: 08101601-01

Site: Aztec, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Chloroethane	ND		10	1	11/04/08 18:31	LT	4752374
Chloroform	ND		5	1	11/04/08 18:31	LT	4752374
Chloromethane	ND		10	1	11/04/08 18:31	LT	4752374
Dibromochloromethane	ND		5	1	11/04/08 18:31	LT	4752374
Dibromomethane	ND		5	1	11/04/08 18:31	LT	4752374
Dichlorodifluoromethane	ND		10	1	11/04/08 18:31	LT	4752374
Ethylbenzene	ND		5	1	11/04/08 18:31	LT	4752374
Hexachlorobutadiene	ND		5	1	11/04/08 18:31	LT	4752374
Isopropylbenzene	ND		5	1	11/04/08 18:31	LT	4752374
Methyl tert-butyl ether	ND		5	1	11/04/08 18:31	LT	4752374
Methylene chloride	ND		5	1	11/04/08 18:31	LT	4752374
Naphthalene	ND		5	1	11/04/08 18:31	LT	4752374
n-Butylbenzene	ND		5	1	11/04/08 18:31	LT	4752374
n-Propylbenzene	ND		5	1	11/04/08 18:31	LT	4752374
sec-Butylbenzene	ND		5	1	11/04/08 18:31	LT	4752374
Styrene	ND		5	1	11/04/08 18:31	LT	4752374
tert-Butylbenzene	ND		5	1	11/04/08 18:31	LT	4752374
Tetrachloroethene	ND		5	1	11/04/08 18:31	LT	4752374
Toluene	ND		5	1	11/04/08 18:31	LT	4752374
Trichloroethene	ND		5	1	11/04/08 18:31	LT	4752374
Trichlorofluoromethane	ND		5	1	11/04/08 18:31	LT	4752374
Vinyl acetate	ND		10	1	11/04/08 18:31	LT	4752374
Vinyl chloride	ND		10	1	11/04/08 18:31	LT	4752374
cis-1,2-Dichloroethene	ND		5	1	11/04/08 18:31	LT	4752374
cis-1,3-Dichloropropene	ND		5	1	11/04/08 18:31	LT	4752374
m,p-Xylene	ND		5	1	11/04/08 18:31	LT	4752374
o-Xylene	ND		5	1	11/04/08 18:31	LT	4752374
trans-1,2-Dichloroethene	ND		5	1	11/04/08 18:31	LT	4752374
trans-1,3-Dichloropropene	ND		5	1	11/04/08 18:31	LT	4752374
1,2-Dichloroethene (total)	ND		5	1	11/04/08 18:31	LT	4752374
Xylenes, Total	ND		5	1	11/04/08 18:31	LT	4752374
Surr: 1,2-Dichloroethane-d4	106		% 62-130	1	11/04/08 18:31	LT	4752374
Surr: 4-Bromofluorobenzene	94.0		% 70-130	1	11/04/08 18:31	LT	4752374
Surr: Toluene-d8	108		% 74-122	1	11/04/08 18:31	LT	4752374

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: 10/27/2008 0:00

SPL Sample ID: 08101601-02

Site: Aztec, 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	11/05/08 23:46	LT	4754099
1,1,1-Trichloroethane	ND		5	1	11/05/08 23:46	LT	4754099
1,1,2,2-Tetrachloroethane	ND		5	1	11/05/08 23:46	LT	4754099
1,1,2-Trichloroethane	ND		5	1	11/05/08 23:46	LT	4754099
1,1-Dichloroethane	ND		5	1	11/05/08 23:46	LT	4754099
1,1-Dichloroethene	ND		5	1	11/05/08 23:46	LT	4754099
1,1-Dichloropropene	ND		5	1	11/05/08 23:46	LT	4754099
1,2,3-Trichlorobenzene	ND		5	1	11/05/08 23:46	LT	4754099
1,2,3-Trichloropropane	ND		5	1	11/05/08 23:46	LT	4754099
1,2,4-Trichlorobenzene	ND		5	1	11/05/08 23:46	LT	4754099
1,2,4-Trimethylbenzene	ND		5	1	11/05/08 23:46	LT	4754099
1,2-Dibromo-3-chloropropane	ND		5	1	11/05/08 23:46	LT	4754099
1,2-Dibromoethane	ND		5	1	11/05/08 23:46	LT	4754099
1,2-Dichlorobenzene	ND		5	1	11/05/08 23:46	LT	4754099
1,2-Dichloroethane	ND		5	1	11/05/08 23:46	LT	4754099
1,2-Dichloropropane	ND		5	1	11/05/08 23:46	LT	4754099
1,3,5-Trimethylbenzene	ND		5	1	11/05/08 23:46	LT	4754099
1,3-Dichlorobenzene	ND		5	1	11/05/08 23:46	LT	4754099
1,3-Dichloropropane	ND		5	1	11/05/08 23:46	LT	4754099
1,4-Dichlorobenzene	ND		5	1	11/05/08 23:46	LT	4754099
2,2-Dichloropropane	ND		5	1	11/05/08 23:46	LT	4754099
2-Butanone	ND		20	1	11/05/08 23:46	LT	4754099
2-Chloroethyl vinyl ether	ND		10	1	11/05/08 23:46	LT	4754099
2-Chlorotoluene	ND		5	1	11/05/08 23:46	LT	4754099
2-Hexanone	ND		10	1	11/05/08 23:46	LT	4754099
4-Chlorotoluene	ND		5	1	11/05/08 23:46	LT	4754099
4-Isopropyltoluene	ND		5	1	11/05/08 23:46	LT	4754099
4-Methyl-2-pentanone	ND		10	1	11/05/08 23:46	LT	4754099
Acetone	ND		100	1	11/05/08 23:46	LT	4754099
Acrylonitrile	ND		50	1	11/05/08 23:46	LT	4754099
Benzene	ND		5	1	11/05/08 23:46	LT	4754099
Bromobenzene	ND		5	1	11/05/08 23:46	LT	4754099
Bromochloromethane	ND		5	1	11/05/08 23:46	LT	4754099
Bromodichloromethane	ND		5	1	11/05/08 23:46	LT	4754099
Bromoform	ND		5	1	11/05/08 23:46	LT	4754099
Bromomethane	ND		10	1	11/05/08 23:46	LT	4754099
Carbon disulfide	ND		5	1	11/05/08 23:46	LT	4754099
Carbon tetrachloride	ND		5	1	11/05/08 23:46	LT	4754099
Chlorobenzene	ND		5	1	11/05/08 23:46	LT	4754099

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: 10/27/2008 0:00

SPL Sample ID: 08101601-02

Site: Aztec, NM

Analyses/Method	Result	QUAL	Rep.Limit	Dil. Factor	Date Analyzed	Analyst	Seq. #
Chloroethane	ND		10	1	11/05/08 23:46	LT	4754099
Chloroform	ND		5	1	11/05/08 23:46	LT	4754099
Chloromethane	ND		10	1	11/05/08 23:46	LT	4754099
Dibromochloromethane	ND		5	1	11/05/08 23:46	LT	4754099
Dibromomethane	ND		5	1	11/05/08 23:46	LT	4754099
Dichlorodifluoromethane	ND		10	1	11/05/08 23:46	LT	4754099
Ethylbenzene	ND		5	1	11/05/08 23:46	LT	4754099
Hexachlorobutadiene	ND		5	1	11/05/08 23:46	LT	4754099
Isopropylbenzene	ND		5	1	11/05/08 23:46	LT	4754099
Methyl tert-butyl ether	ND		5	1	11/05/08 23:46	LT	4754099
Methylene chloride	ND		5	1	11/05/08 23:46	LT	4754099
Naphthalene	ND		5	1	11/05/08 23:46	LT	4754099
n-Butylbenzene	ND		5	1	11/05/08 23:46	LT	4754099
n-Propylbenzene	ND		5	1	11/05/08 23:46	LT	4754099
sec-Butylbenzene	ND		5	1	11/05/08 23:46	LT	4754099
Styrene	ND		5	1	11/05/08 23:46	LT	4754099
tert-Butylbenzene	ND		5	1	11/05/08 23:46	LT	4754099
Tetrachloroethene	ND		5	1	11/05/08 23:46	LT	4754099
Toluene	ND		5	1	11/05/08 23:46	LT	4754099
Trichloroethene	ND		5	1	11/05/08 23:46	LT	4754099
Trichlorofluoromethane	ND		5	1	11/05/08 23:46	LT	4754099
Vinyl acetate	ND		10	1	11/05/08 23:46	LT	4754099
Vinyl chloride	ND		10	1	11/05/08 23:46	LT	4754099
cis-1,2-Dichloroethene	ND		5	1	11/05/08 23:46	LT	4754099
cis-1,3-Dichloropropene	ND		5	1	11/05/08 23:46	LT	4754099
m,p-Xylene	ND		5	1	11/05/08 23:46	LT	4754099
o-Xylene	ND		5	1	11/05/08 23:46	LT	4754099
trans-1,2-Dichloroethene	ND		5	1	11/05/08 23:46	LT	4754099
trans-1,3-Dichloropropene	ND		5	1	11/05/08 23:46	LT	4754099
1,2-Dichloroethene (total)	ND		5	1	11/05/08 23:46	LT	4754099
Xylenes, Total	ND		5	1	11/05/08 23:46	LT	4754099
Surr: 1,2-Dichloroethane-d4	100		% 62-130	1	11/05/08 23:46	LT	4754099
Surr: 4-Bromofluorobenzene	94.0		% 70-130	1	11/05/08 23:46	LT	4754099
Surr: Toluene-d8	108		% 74-122	1	11/05/08 23:46	LT	4754099

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

Quality Control Documentation



Quality Control Report

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

Conoco Phillips COP Faye-Burdette

Analysis: Diesel Range Organics
Method: SW8015B

WorkOrder: 08101601
Lab Batch ID: 84920

Method Blank

Samples in Analytical Batch:

RunID: HP_Z_081106A-4757246 Units: mg/L
Analysis Date: 11/06/2008 14:26 Analyst: NW
Preparation Date: 10/29/2008 18:43 Prep By: N_M Method: SW3510C

Lab Sample ID Client Sample ID
08101601-01D MW-1

Analyte	Result	Rep Limit
Diesel Range Organics (C10-C28)	ND	0.10
Surr: n-Pentacosane	57.8	20-150

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

RunID: HP_Z_081106A-4757247 Units: mg/L
Analysis Date: 11/06/2008 14:48 Analyst: NW
Preparation Date: 10/29/2008 18:43 Prep By: N_M Method: SW3510C

Analyte	LCS Spike Added	LCS Result	LCS Percent Recovery	LCSD Spike Added	LCSD Result	LCSD Percent Recovery	RPD	RPD Limit	Lower Limit	Upper Limit
Diesel Range Organics (C10-C28)	2.00	1.90	94.9	2.00	2.07	104	8.8	20	21	130
Surr: n-Pentacosane	0.0500	0.0443	88.6	0.0500	0.0478	95.6	7.6	30	20	150

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

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



Quality Control Report

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

Conoco Phillips COP Faye-Burdette

Analysis: Gasoline Range Organics
Method: SW8015B

WorkOrder: 08101601
Lab Batch ID: R255738

Method Blank

Samples in Analytical Batch:

RunID: HP_P_081102A-4747577 Units: mg/L
Analysis Date: 11/02/2008 4:16 Analyst: WLV
Preparation Date: 11/02/2008 4:16 Prep By: Method: SW5030B

Lab Sample ID 08101601-01B
Client Sample ID MW-1

Analyte	Result	Rep Limit
Gasoline Range Organics	ND	0.10
Surr: 1,4-Difluorobenzene	89.3	60-155
Surr: 4-Bromofluorobenzene	90.4	50-158

Laboratory Control Sample (LCS)

RunID: HP_P_081102A-4747576 Units: mg/L
Analysis Date: 11/02/2008 3:19 Analyst: WLV
Preparation Date: 11/02/2008 3:19 Prep By: Method: SW5030B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1.00	0.812	81.2	42	136
Surr: 1,4-Difluorobenzene	0.100	0.0932	93.2	60	155
Surr: 4-Bromofluorobenzene	0.100	0.104	104	50	158

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

Sample Spiked: 08101530-01
RunID: HP_P_081102A-4747588 Units: mg/L
Analysis Date: 11/02/2008 9:29 Analyst: WLV

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Gasoline Range Organics	ND	1	0.672	67.2	1	0.470	47.0	35.4	36	22	174
Surr: 1,4-Difluorobenzene	ND	0.1	0.0942	94.2	0.1	0.0927	92.7	1.61	30	60	155
Surr: 4-Bromofluorobenzene	ND	0.1	0.0907	90.7	0.1	0.0918	91.8	1.21	30	50	158

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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11/17/2008 2:56:39 PM



Quality Control Report

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

Conoco Phillips COP Faye-Burdette

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

WorkOrder: 08101601
Lab Batch ID: 84958

Method Blank

Samples in Analytical Batch:

RunID: TJA_081031A-4745434 Units: mg/L
Analysis Date: 10/31/2008 12:49 Analyst: SC
Preparation Date: 10/30/2008 15:30 Prep By: BDG Method: SW3010A

Lab Sample ID 08101601-01C
Client Sample ID MW-1

Analyte	Result	Rep Limit
Calcium	ND	0.1
Iron	ND	0.02
Magnesium	ND	0.1
Manganese	ND	0.005
Sodium	ND	0.5

Laboratory Control Sample (LCS)

RunID: TJA_081031A-4745435 Units: mg/L
Analysis Date: 10/31/2008 12:54 Analyst: SC
Preparation Date: 10/30/2008 15:30 Prep By: BDG Method: SW3010A

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Calcium	1.000	1.149	114.9	80	120
Iron	1.000	1.125	112.5	80	120
Magnesium	1.000	1.122	112.2	80	120
Manganese	1.000	1.121	112.1	80	120
Sodium	1.000	1.008	100.8	80	120

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

Sample Spiked: 08101602-02
RunID: TJA_081031A-4745440 Units: mg/L
Analysis Date: 10/31/2008 13:17 Analyst: SC

Analyte	Sample Result	PDS Spike Added	PDS Result	PDS % Recovery	PDSD Spike Added	PDSD Result	PDSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Iron	0.542	1	1.563	102.1	1	1.466	92.47	6.375	20	75	125

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

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

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Quality Control Report

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

Conoco Phillips COP Faye-Burdette

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

WorkOrder: 08101601
Lab Batch ID: 84958

Sample Spiked: 08101602-02
RunID: TJA_081031A-4745437 Units: mg/L
Analysis Date: 10/31/2008 13:03 Analyst: SC
Preparation Date: 10/30/2008 15:30 Prep By: BDG Method: SW3010A

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	406.3	1	403.5	N/C	1	447.5	N/C	N/C	20	75	125
Iron	0.5418	1	1.504	96.23	1	2.372	183.0 *	44.78 *	20	75	125
Magnesium	45.32	1	46.01	N/C	1	48.67	N/C	N/C	20	75	125
Manganese	1.428	1	2.398	96.93	1	2.557	112.8	6.415	20	75	125
Sodium	81.33	1	81.57	N/C	1	83.01	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
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

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8880 INTERCHANGE DRIVE
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Conoco Phillips COP Faye-Burdette

Analysis: Metals by Method 6020A, Total
Method: SW6020A

WorkOrder: 08101601
Lab Batch ID: 84958-I

Method Blank

Samples in Analytical Batch:

RunID: ICPMS2_081031A-4745588 Units: mg/L
Analysis Date: 10/31/2008 14:46 Analyst: AL_H
Preparation Date: 10/30/2008 15:30 Prep By: BDG Method: SW3010A

Lab Sample ID 08101601-01C
Client Sample ID MW-1

Analyte	Result	Rep Limit
Arsenic	ND	0.005
Barium	ND	0.005
Cadmium	ND	0.005
Chromium	ND	0.005
Lead	ND	0.005
Selenium	ND	0.005
Silver	ND	0.005

Laboratory Control Sample (LCS)

RunID: ICPMS2_081031A-4745595 Units: mg/L
Analysis Date: 10/31/2008 15:06 Analyst: AL_H
Preparation Date: 10/30/2008 15:30 Prep By: BDG Method: SW3010A

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Arsenic	0.1000	0.09881	98.81	80	120
Barium	0.1000	0.09559	95.59	80	120
Cadmium	0.1000	0.1016	101.6	80	120
Chromium	0.1000	0.09065	90.65	80	120
Lead	0.1000	0.08910	89.10	80	120
Selenium	0.1000	0.1006	100.6	80	120
Silver	0.1000	0.1157	115.7	80	120

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

Sample Spiked: 08101602-02
RunID: ICPMS2_081031A-4745597 Units: mg/L
Analysis Date: 10/31/2008 15:12 Analyst: AL_H
Preparation Date: 10/30/2008 15:30 Prep By: BDG Method: SW3010A

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Arsenic	ND	0.1	0.1013	97.62	0.1	0.1022	98.52	0.8845	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

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(713) 660-0901

Conoco Phillips COP Faye-Burdette

Analysis: Metals by Method 6020A, Total
Method: SW6020A

WorkOrder: 08101601
Lab Batch ID: 84958-I

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

Sample Spiked: 08101602-02
RunID: ICPMS2_081031A-4745597 Units: mg/L
Analysis Date: 10/31/2008 15:12 Analyst: AL_H
Preparation Date: 10/30/2008 15:30 Prep By: BDG Method: SW3010A

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	0.05154	0.1	0.1599	108.4	0.1	0.1574	105.9	1.576	20	75	125
Cadmium	ND	0.1	0.09856	98.56	0.1	0.09554	95.54	3.112	20	75	125
Chromium	ND	0.1	0.09150	91.50	0.1	0.09256	92.56	1.152	20	75	125
Lead	ND	0.1	0.09164	91.64	0.1	0.09132	91.32	0.3498	20	75	125
Selenium	ND	0.1	0.09221	92.21	0.1	0.09133	91.33	0.9589	20	75	125
Silver	ND	0.1	0.1145	114.5	0.1	0.1127	112.7	1.585	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

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Quality Control Report

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

Conoco Phillips COP Faye-Burdette

Analysis: Mercury, Total
Method: SW7470A

WorkOrder: 08101601
Lab Batch ID: 85178

Method Blank

Samples in Analytical Batch:

RunID: HGLC_081106A-4755670 Units: mg/L
Analysis Date: 11/06/2008 13:32 Analyst: F_S
Preparation Date: 11/06/2008 13:18 Prep By: F_S Method: SW7470A

Lab Sample ID 08101601-01C
Client Sample ID MW-1

Analyte	Result	Rep Limit
Mercury	ND	0.0002

Laboratory Control Sample (LCS)

RunID: HGLC_081106A-4755671 Units: mg/L
Analysis Date: 11/06/2008 13:35 Analyst: F_S
Preparation Date: 11/06/2008 13:18 Prep By: F_S Method: SW7470A

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Mercury	0.002000	0.001983	99.15	80	120

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

Sample Spiked: 08101734-09
RunID: HGLC_081106A-4755673 Units: mg/L
Analysis Date: 11/06/2008 13:39 Analyst: F_S
Preparation Date: 11/06/2008 13:18 Prep By: F_S Method: SW7470A

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Mercury	ND	0.002	0.001885	94.26	0.002	0.001843	92.14	2.266	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

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Quality Control Report

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

Conoco Phillips COP Faye-Burdette

Analysis: Semivolatile Organics by Method 8270C
Method: SW8270C

WorkOrder: 08101601
Lab Batch ID: 84874

Method Blank

Samples in Analytical Batch:

RunID: P_081030A-4744708 Units: ug/L
Analysis Date: 10/30/2008 18:16 Analyst: GQ
Preparation Date: 10/28/2008 18:27 Prep By: N_M Method: SW3510C

Lab Sample ID 08101601-01F
Client Sample ID MW-1

Analyte	Result	Rep Limit
1,2,4-Trichlorobenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Diphenylhydrazine	ND	10
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
2,4,5-Trichlorophenol	ND	10
2,4,6-Trichlorophenol	ND	5.0
2,4-Dichlorophenol	ND	5.0
2,4-Dimethylphenol	ND	5.0
2,4-Dinitrophenol	ND	25
2,4-Dinitrotoluene	ND	5.0
2,6-Dinitrotoluene	ND	5.0
2-Chloronaphthalene	ND	5.0
2-Chlorophenol	ND	5.0
2-Methylnaphthalene	ND	5.0
2-Nitroaniline	ND	25
2-Nitrophenol	ND	5.0
3,3'-Dichlorobenzidine	ND	10
3-Nitroaniline	ND	25
4,6-Dinitro-2-methylphenol	ND	25
4-Bromophenyl phenyl ether	ND	5.0
4-Chloro-3-methylphenol	ND	5.0
4-Chloroaniline	ND	5.0
4-Chlorophenyl phenyl ether	ND	5.0
4-Nitroaniline	ND	25
4-Nitrophenol	ND	25
Acenaphthene	ND	5.0
Acenaphthylene	ND	5.0
Aniline	ND	5.0
Anthracene	ND	5.0
Benz(a)anthracene	ND	5.0
Benzo(a)pyrene	ND	5.0
Benzo(b)fluoranthene	ND	5.0
Benzo(g,h,i)perylene	ND	5.0
Benzo(k)fluoranthene	ND	5.0
Benzoic acid	ND	25
Benzyl alcohol	ND	5.0
Bis(2-chloroethoxy)methane	ND	5.0
Bis(2-chloroethyl)ether	ND	5.0
Bis(2-chloroisopropyl)ether	ND	5.0
Bis(2-ethylhexyl)phthalate	ND	5.0
Butyl benzyl phthalate	ND	5.0
Carbazole	ND	5.0
Chrysene	ND	5.0
Dibenz(a,h)anthracene	ND	5.0
Dibenzofuran	ND	5.0

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

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Quality Control Report

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

Conoco Phillips COP Faye-Burdette

Analysis: Semivolatile Organics by Method 8270C
Method: SW8270C

WorkOrder: 08101601
Lab Batch ID: 84874

Method Blank

RunID: P_081030A-4744708 Units: ug/L
Analysis Date: 10/30/2008 18:16 Analyst: GQ
Preparation Date: 10/28/2008 18:27 Prep By: N_M Method: SW3510C

Analyte	Result	Rep Limit
Diethyl phthalate	ND	5.0
Dimethyl phthalate	ND	5.0
Di-n-butyl phthalate	ND	5.0
Di-n-octyl phthalate	ND	5.0
Fluoranthene	ND	5.0
Fluorene	ND	5.0
Hexachlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Hexachlorocyclopentadiene	ND	5.0
Hexachloroethane	ND	5.0
Indeno(1,2,3-cd)pyrene	ND	5.0
Isophorone	ND	5.0
Naphthalene	ND	5.0
Nitrobenzene	ND	5.0
N-Nitrosodi-n-propylamine	ND	5.0
N-Nitrosodiphenylamine	ND	5.0
Pentachlorophenol	ND	25
Phenanthrene	ND	5.0
Phenol	ND	5.0
Pyrene	ND	5.0
Pyridine	ND	5.0
2-Methylphenol	ND	5.0
3 & 4-Methylphenol	ND	5.0
Surr: 2,4,6-Tribromophenol	82.7	10-123
Surr: 2-Fluorobiphenyl	82.0	23-116
Surr: 2-Fluorophenol	74.7	16-110
Surr: Nitrobenzene-d5	76.0	21-114
Surr: Phenol-d5	85.3	10-110
Surr: Terphenyl-d14	90.0	22-141

Laboratory Control Sample (LCS)

RunID: P_081030A-4744709 Units: ug/L
Analysis Date: 10/30/2008 18:50 Analyst: GQ
Preparation Date: 10/28/2008 18:27 Prep By: N_M Method: SW3510C

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,2,4-Trichlorobenzene	25.0	22.0	88.0	10	142
1,2-Dichlorobenzene	25.0	22.0	88.0	20	150
1,2-Diphenylhydrazine	25.0	18.0	72.0	10	251

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

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Quality Control Report

HOUSTON LABORATORY
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HOUSTON, TX 77054
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Conoco Phillips COP Faye-Burdette

Analysis: Semivolatile Organics by Method 8270C
Method: SW8270C

WorkOrder: 08101601
Lab Batch ID: 84874

Laboratory Control Sample (LCS)

RunID: P_081030A-4744709 Units: ug/L
Analysis Date: 10/30/2008 18:50 Analyst: GQ
Preparation Date: 10/28/2008 18:27 Prep By: N_M Method: SW3510C

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,3-Dichlorobenzene	25.0	22.0	88.0	20	150
1,4-Dichlorobenzene	25.0	22.0	88.0	20	150
2,4,5-Trichlorophenol	25.0	24.0	96.0	30	150
2,4,6-Trichlorophenol	25.0	23.0	92.0	30	150
2,4-Dichlorophenol	25.0	23.0	92.0	30	150
2,4-Dimethylphenol	25.0	23.0	92.0	32	140
2,4-Dinitrophenol	25.0	21.0	84.0	10	160
2,4-Dinitrotoluene	25.0	23.0	92.0	30	150
2,6-Dinitrotoluene	25.0	22.0	88.0	30	150
2-Chloronaphthalene	25.0	20.0	80.0	30	150
2-Chlorophenol	25.0	22.0	88.0	23	134
2-Methylnaphthalene	25.0	24.0	96.0	20	170
2-Nitroaniline	25.0	21.0	84.0	20	160
2-Nitrophenol	25.0	22.0	88.0	29	182
3,3'-Dichlorobenzidine	25.0	8.00	32.0	30	200
3-Nitroaniline	25.0	18.0	72.0	20	160
4,6-Dinitro-2-methylphenol	25.0	19.0	76.0	10	160
4-Bromophenyl phenyl ether	25.0	24.0	96.0	30	150
4-Chloro-3-methylphenol	25.0	24.0	96.0	25	160
4-Chloroaniline	25.0	21.0	84.0	20	160
4-Chlorophenyl phenyl ether	25.0	24.0	96.0	25	158
4-Nitroaniline	25.0	20.0	80.0	20	160
4-Nitrophenol	25.0	18.0	72.0	10	132
Acenaphthene	25.0	22.0	88.0	30	150
Acenaphthylene	25.0	23.0	92.0	33	250
Aniline	50.0	35.0	70.0	10	135
Anthracene	25.0	21.0	84.0	27	133
Benz(a)anthracene	25.0	20.0	80.0	33	143
Benzo(a)pyrene	25.0	18.0	72.0	17	163
Benzo(b)fluoranthene	25.0	21.0	84.0	24	159
Benzo(g,h,i)perylene	25.0	21.0	84.0	30	160
Benzo(k)fluoranthene	25.0	23.0	92.0	11	162
Benzoic acid	25.0	16.0	64.0	10	400
Benzyl alcohol	25.0	21.0	84.0	30	160

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

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Conoco Phillips COP Faye-Burdette

Analysis: Semivolatile Organics by Method 8270C
Method: SW8270C

WorkOrder: 08101601
Lab Batch ID: 84874

Laboratory Control Sample (LCS)

RunID: P_081030A-4744709 Units: ug/L
Analysis Date: 10/30/2008 18:50 Analyst: GQ
Preparation Date: 10/28/2008 18:27 Prep By: N_M Method: SW3510C

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Bis(2-chloroethoxy)methane	25.0	33.0	132	33	184
Bis(2-chloroethyl)ether	25.0	21.0	84.0	12	158
Bis(2-chloroisopropyl)ether	25.0	22.0	88.0	20	160
Bis(2-ethylhexyl)phthalate	25.0	19.0	76.0	10	158
Butyl benzyl phthalate	25.0	19.0	76.0	30	160
Carbazole	25.0	21.0	84.0	30	150
Chrysene	25.0	20.0	80.0	17	168
Dibenz(a,h)anthracene	25.0	21.0	84.0	30	160
Dibenzofuran	25.0	23.0	92.0	30	150
Diethyl phthalate	25.0	21.0	84.0	30	160
Dimethyl phthalate	25.0	22.0	88.0	30	160
Di-n-butyl phthalate	25.0	21.0	84.0	30	160
Di-n-octyl phthalate	25.0	18.0	72.0	20	150
Fluoranthene	25.0	21.0	84.0	26	137
Fluorene	25.0	23.0	92.0	30	150
Hexachlorobenzene	25.0	22.0	88.0	20	150
Hexachlorobutadiene	25.0	23.0	92.0	20	140
Hexachlorocyclopentadiene	25.0	25.0	100	10	150
Hexachloroethane	25.0	21.0	84.0	10	140
Indeno(1,2,3-cd)pyrene	25.0	21.0	84.0	30	160
Isophorone	25.0	23.0	92.0	21	196
Naphthalene	25.0	22.0	88.0	21	133
Nitrobenzene	25.0	20.0	80.0	20	160
N-Nitrosodi-n-propylamine	25.0	22.0	88.0	30	160
N-Nitrosodiphenylamine	50.0	52.0	104	30	150
Pentachlorophenol	25.0	20.0	80.0	14	176
Phenanthrene	25.0	21.0	84.0	10	140
Phenol	25.0	23.0	92.0	40	132
Pyrene	25.0	21.0	84.0	30	150
Pyridine	50.0	35.0	70.0	10	150
2-Methylphenol	25.0	23.0	92.0	30	160
3 & 4-Methylphenol	25.0	24.0	96.0	10	160
Surr: 2,4,6-Tribromophenol	75.0	65	86.7	10	123
Surr: 2-Fluorobiphenyl	50.0	41	82.0	23	116

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

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

Conoco Phillips COP Faye-Burdette

Analysis: Semivolatile Organics by Method 8270C
Method: SW8270C

WorkOrder: 08101601
Lab Batch ID: 84874

Laboratory Control Sample (LCS)

RunID: P_081030A-4744709 Units: ug/L
Analysis Date: 10/30/2008 18:50 Analyst: GQ
Preparation Date: 10/28/2008 18:27 Prep By: N_M Method: SW3510C

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Surr: 2-Fluorophenol	75.0	58	77.3	16	110
Surr: Nitrobenzene-d5	50.0	39	78.0	21	114
Surr: Phenol-d5	75.0	61	81.3	10	110
Surr: Terphenyl-d14	50.0	43	86.0	22	141

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

Sample Spiked: 08101398-04
RunID: P_081030A-4744711 Units: ug/L
Analysis Date: 10/30/2008 20:11 Analyst: GQ
Preparation Date: 10/28/2008 18:27 Prep By: N_M Method: SW3510C

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
1,2,4-Trichlorobenzene	ND	25	19.0	76.0	25	18.0	72.0	5.41	39	10	142
1,2-Dichlorobenzene	ND	25	18.0	72.0	25	17.0	68.0	5.71	50	20	150
1,2-Diphenylhydrazine	ND	25	16.0	64.0	25	16.0	64.0	0	50	10	251
1,3-Dichlorobenzene	ND	25	17.0	68.0	25	16.0	64.0	6.06	50	20	150
1,4-Dichlorobenzene	ND	25	18.0	72.0	25	16.0	64.0	11.8	45	20	150
2,4,5-Trichlorophenol	ND	25	21.0	84.0	25	18.0	72.0	15.4	50	30	150
2,4,6-Trichlorophenol	ND	25	20.0	80.0	25	19.0	76.0	5.13	50	30	150
2,4-Dichlorophenol	ND	25	19.0	76.0	25	18.0	72.0	5.41	50	30	150
2,4-Dimethylphenol	ND	25	18.0	72.0	25	16.0	64.0	11.8	50	32	140
2,4-Dinitrophenol	ND	25	19.0	76.0	25	19.0	76.0	0	50	10	160
2,4-Dinitrotoluene	ND	25	19.0	76.0	25	19.0	76.0	0	50	30	150
2,6-Dinitrotoluene	ND	25	20.0	80.0	25	18.0	72.0	10.5	50	30	150
2-Chloronaphthalene	ND	25	18.0	72.0	25	17.0	68.0	5.71	50	30	150
2-Chlorophenol	ND	25	18.0	72.0	25	16.0	64.0	11.8	40	23	134
2-Methylnaphthalene	ND	25	20.0	80.0	25	19.0	76.0	5.13	50	20	170
2-Nitroaniline	ND	25	14.0	56.0	25	13.0	52.0	7.41	50	20	160
2-Nitrophenol	ND	25	20.0	80.0	25	19.0	76.0	5.13	50	29	182
3,3'-Dichlorobenzidine	ND	25	0	0 *	25	0	0 *	0	50	30	200

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

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Quality Control Report

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

Conoco Phillips COP Faye-Burdette

Analysis: Semivolatile Organics by Method 8270C
Method: SW8270C

WorkOrder: 08101601
Lab Batch ID: 84874

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

Sample Spiked: 08101398-04
RunID: P_081030A-4744711 Units: ug/L
Analysis Date: 10/30/2008 20:11 Analyst: GQ
Preparation Date: 10/28/2008 18:27 Prep By: N_M Method: SW3510C

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
3-Nitroaniline	ND	25	12.0	48.0	25	12.0	48.0	0	50	20	160
4,6-Dinitro-2-methylphenol	ND	25	17.0	68.0	25	17.0	68.0	0	50	10	160
4-Bromophenyl phenyl ether	ND	25	21.0	84.0	25	20.0	80.0	4.88	50	30	150
4-Chloro-3-methylphenol	ND	25	21.0	84.0	25	18.0	72.0	15.4	42	25	160
4-Chloroaniline	ND	25	11.0	44.0	25	12.0	48.0	8.70	50	20	160
4-Chlorophenyl phenyl ether	ND	25	21.0	84.0	25	20.0	80.0	4.88	50	25	158
4-Nitroaniline	ND	25	9.00	36.0	25	8.00	32.0	11.8	50	20	160
4-Nitrophenol	ND	25	9.00	36.0	25	8.00	32.0	11.8	50	10	132
Acenaphthene	ND	25	19.0	76.0	25	18.0	72.0	5.41	31	30	150
Acenaphthylene	ND	25	20.0	80.0	25	20.0	80.0	0	50	33	250
Aniline	ND	50	16.0	32.0	50	20.0	40.0	22.2	50	10	135
Anthracene	ND	25	18.0	72.0	25	18.0	72.0	0	50	27	133
Benz(a)anthracene	ND	25	16.0	64.0	25	16.0	64.0	0	50	33	143
Benzo(a)pyrene	ND	25	15.0	60.0	25	12.0	48.0	22.2	50	17	163
Benzo(b)fluoranthene	ND	25	17.0	68.0	25	16.0	64.0	6.06	50	24	159
Benzo(g,h,i)perylene	ND	25	17.0	68.0	25	15.0	60.0	12.5	50	30	160
Benzo(k)fluoranthene	ND	25	18.0	72.0	25	15.0	60.0	18.2	50	11	162
Benzoic acid	ND	25	22.0	88.0	25	20.0	80.0	9.52	50	10	400
Benzyl alcohol	ND	25	15.0	60.0	25	14.0	56.0	6.90	50	30	160
Bis(2-chloroethoxy)methane	ND	25	28.0	112	25	27.0	108	3.64	50	33	184
Bis(2-chloroethyl)ether	ND	25	18.0	72.0	25	17.0	68.0	5.71	50	12	158
Bis(2-chloroisopropyl)ether	ND	25	18.0	72.0	25	17.0	68.0	5.71	50	20	160
Bis(2-ethylhexyl)phthalate	ND	25	15.0	60.0	25	14.0	56.0	6.90	50	10	158
Butyl benzyl phthalate	ND	25	18.0	72.0	25	17.0	68.0	5.71	50	30	160
Carbazole	ND	25	18.0	72.0	25	18.0	72.0	0	50	30	150
Chrysene	ND	25	17.0	68.0	25	16.0	64.0	6.06	50	17	168
Dibenz(a,h)anthracene	ND	25	16.0	64.0	25	15.0	60.0	6.45	50	30	160
Dibenzofuran	ND	25	20.0	80.0	25	19.0	76.0	5.13	50	30	150
Diethyl phthalate	ND	25	19.0	76.0	25	18.0	72.0	5.41	50	30	160
Dimethyl phthalate	ND	25	20.0	80.0	25	19.0	76.0	5.13	50	30	160
Di-n-butyl phthalate	ND	25	19.0	76.0	25	18.0	72.0	5.41	50	30	160
Di-n-octyl phthalate	ND	25	14.0	56.0	25	12.0	48.0	15.4	50	20	150

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

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

Conoco Phillips COP Faye-Burdette

Analysis: Semivolatile Organics by Method 8270C
Method: SW8270C

WorkOrder: 08101601
Lab Batch ID: 84874

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

Sample Spiked: 08101398-04
RunID: P_081030A-4744711 Units: ug/L
Analysis Date: 10/30/2008 20:11 Analyst: GQ
Preparation Date: 10/28/2008 18:27 Prep By: N_M Method: SW3510C

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Fluoranthene	ND	25	18.0	72.0	25	18.0	72.0	0	50	26	137
Fluorene	ND	25	20.0	80.0	25	19.0	76.0	5.13	50	30	150
Hexachlorobenzene	ND	25	19.0	76.0	25	18.0	72.0	5.41	50	20	150
Hexachlorobutadiene	ND	25	19.0	76.0	25	18.0	72.0	5.41	50	20	140
Hexachlorocyclopentadiene	ND	25	22.0	88.0	25	22.0	88.0	0	50	10	150
Hexachloroethane	ND	25	18.0	72.0	25	16.0	64.0	11.8	50	10	140
Indeno(1,2,3-cd)pyrene	ND	25	18.0	72.0	25	15.0	60.0	18.2	50	30	160
Isophorone	ND	25	20.0	80.0	25	18.0	72.0	10.5	50	21	196
Naphthalene	ND	25	20.0	80.0	25	20.0	80.0	0	50	21	133
Nitrobenzene	ND	25	22.0	88.0	25	20.0	80.0	9.52	50	20	160
N-Nitrosodi-n-propylamine	ND	25	19.0	76.0	25	17.0	68.0	11.1	38	30	160
N-Nitrosodiphenylamine	ND	50	46.0	92.0	50	44.0	88.0	4.44	50	30	150
Pentachlorophenol	ND	25	18.0	72.0	25	18.0	72.0	0	50	14	176
Phenanthrene	ND	25	19.0	76.0	25	18.0	72.0	5.41	50	10	140
Phenol	ND	25	12.0	48.0	25	10.0	40.0	18.2	42	40	132
Pyrene	ND	25	20.0	80.0	25	19.0	76.0	5.13	38	30	150
Pyridine	ND	50	11.0	22.0	50	11.0	22.0	0	50	10	150
2-Methylphenol	ND	25	18.0	72.0	25	15.0	60.0	18.2	50	30	160
3 & 4-Methylphenol	ND	25	17.0	68.0	25	16.0	64.0	6.06	50	10	160
Surr: 2,4,6-Tribromophenol	ND	75	56	74.7	75	52.0	69.3	7.41	30	10	123
Surr: 2-Fluorobiphenyl	ND	50	36	72.0	50	34.0	68.0	5.71	30	23	116
Surr: 2-Fluorophenol	ND	75	34	45.3	75	30.0	40.0	12.5	30	16	110
Surr: Nitrobenzene-d5	ND	50	34	68.0	50	32.0	64.0	6.06	30	21	114
Surr: Phenol-d5	ND	75	30	40.0	75	23.0	30.7	26.4	30	10	110
Surr: Terphenyl-d14	ND	50	36	72.0	50	30.0	60.0	18.2	30	22	141

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

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Quality Control Report

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

Conoco Phillips COP Faye-Burdette

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 08101601
Lab Batch ID: R256001

Method Blank

Samples in Analytical Batch:

RunID: N_081104A-4752370 Units: ug/L
Analysis Date: 11/04/2008 16:12 Analyst: LT
Preparation Date: 11/04/2008 16:12 Prep By: Method:

Lab Sample ID Client Sample ID
08101601-01A MW-1

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

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

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

Conoco Phillips COP Faye-Burdette

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 08101601
Lab Batch ID: R256001

Method Blank

RunID: N_081104A-4752370 Units: ug/L
Analysis Date: 11/04/2008 16:12 Analyst: LT
Preparation Date: 11/04/2008 16:12 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	10
Vinyl chloride	ND	10
cis-1,2-Dichloroethene	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
m,p-Xylene	ND	5.0
o-Xylene	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,2-Dichloroethene (total)	ND	5.0
Xylenes, Total	ND	5.0
Surr: 1,2-Dichloroethane-d4	106.0	62-130
Surr: 4-Bromofluorobenzene	96.0	70-130
Surr: Toluene-d8	106.0	74-122

Laboratory Control Sample (LCS)

RunID: N_081104A-4752369 Units: ug/L
Analysis Date: 11/04/2008 15:32 Analyst: LT
Preparation Date: 11/04/2008 15:32 Prep By: Method:

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1,1,2-Tetrachloroethane	20.0	19.0	95.0	71	136
1,1,1-Trichloroethane	20.0	20.0	100	66	132
1,1,2,2-Tetrachloroethane	20.0	19.0	95.0	55	139
1,1,2-Trichloroethane	20.0	20.0	100	70	130
1,1-Dichloroethane	20.0	20.0	100	67	131

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

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

Conoco Phillips COP Faye-Burdette

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 08101601
Lab Batch ID: R256001

Laboratory Control Sample (LCS)

RunID: N_081104A-4752369 Units: ug/L
Analysis Date: 11/04/2008 15:32 Analyst: LT
Preparation Date: 11/04/2008 15:32 Prep By: Method:

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1-Dichloroethene	20.0	19.0	95.0	71	146
1,1-Dichloropropene	20.0	19.0	95.0	59	138
1,2,3-Trichlorobenzene	20.0	17.0	85.0	37	155
1,2,3-Trichloropropane	20.0	21.0	105	70	145
1,2,4-Trichlorobenzene	20.0	17.0	85.0	39	133
1,2,4-Trimethylbenzene	20.0	18.0	90.0	53	147
1,2-Dibromo-3-chloropropane	20.0	18.0	90.0	43	137
1,2-Dibromoethane	20.0	19.0	95.0	63	126
1,2-Dichlorobenzene	20.0	18.0	90.0	70	130
1,2-Dichloroethane	20.0	19.0	95.0	64	150
1,2-Dichloropropane	20.0	19.0	95.0	76	124
1,3,5-Trimethylbenzene	20.0	17.0	85.0	57	146
1,3-Dichlorobenzene	20.0	19.0	95.0	72	134
1,3-Dichloropropane	20.0	19.0	95.0	78	130
1,4-Dichlorobenzene	20.0	18.0	90.0	70	130
2,2-Dichloropropane	20.0	21.0	105	45	156
2-Butanone	120	83.0	69.2	20	235
2-Chloroethyl vinyl ether	20.0	23.0	115	13	179
2-Chlorotoluene	20.0	18.0	90.0	64	122
2-Hexanone	20.0	17.0	85.0	34	182
4-Chlorotoluene	20.0	18.0	90.0	64	142
4-Isopropyltoluene	20.0	17.0	85.0	60	134
4-Methyl-2-pentanone	20.0	17.0	85.0	11	145
Acetone	200	100	50.0	13	386
Acrylonitrile	100	100	100	43	194
Benzene	20.0	20.0	100	76	126
Bromobenzene	20.0	19.0	95.0	70	130
Bromochloromethane	20.0	18.0	90.0	63	131
Bromodichloromethane	20.0	20.0	100	77	138
Bromoform	20.0	17.0	85.0	55	129
Bromomethane	20.0	20.0	100	58	148
Carbon disulfide	20.0	18.0	90.0	46	146
Carbon tetrachloride	20.0	19.0	95.0	66	137
Chlorobenzene	20.0	18.0	90.0	67	136

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

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

Conoco Phillips COP Faye-Burdette

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 08101601
Lab Batch ID: R256001

Laboratory Control Sample (LCS)

RunID: N_081104A-4752369 Units: ug/L
Analysis Date: 11/04/2008 15:32 Analyst: LT
Preparation Date: 11/04/2008 15:32 Prep By: Method:

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Chloroethane	20.0	19.0	95.0	50	137
Chloroform	20.0	19.0	95.0	70	135
Chloromethane	20.0	23.0	115	51	140
Dibromochloromethane	20.0	18.0	90.0	69	127
Dibromomethane	20.0	20.0	100	74	130
Dichlorodifluoromethane	20.0	22.0	110	32	161
Ethylbenzene	20.0	18.0	90.0	67	122
Hexachlorobutadiene	20.0	15.0	75.0	43	144
Isopropylbenzene	20.0	15.0	75.0	60	135
Methyl tert-butyl ether	40.0	35.0	87.5	48	160
Methylene chloride	20.0	20.0	100	52	143
Naphthalene	20.0	17.0	85.0	24	150
n-Butylbenzene	20.0	16.0	80.0	50	140
n-Propylbenzene	20.0	16.0	80.0	62	137
sec-Butylbenzene	20.0	15.0	75.0	66	126
Styrene	20.0	18.0	90.0	60	139
tert-Butylbenzene	20.0	17.0	85.0	67	140
Tetrachloroethene	20.0	22.0	110	26	200
Toluene	20.0	20.0	100	70	131
Trichloroethene	20.0	19.0	95.0	64	137
Trichlorofluoromethane	20.0	21.0	105	46	167
Vinyl acetate	20.0	20.0	100	10	193
Vinyl chloride	20.0	20.0	100	31	147
cis-1,2-Dichloroethene	20.0	19.0	95.0	70	142
cis-1,3-Dichloropropene	20.0	17.0	85.0	61	134
m,p-Xylene	40.0	37.0	92.5	72	150
o-Xylene	20.0	19.0	95.0	78	141
trans-1,2-Dichloroethene	20.0	19.0	95.0	67	141
trans-1,3-Dichloropropene	20.0	17.0	85.0	56	136
1,2-Dichloroethene (total)	40	38	95	73	139
Xylenes, Total	60	56	93	72	150
Surr: 1,2-Dichloroethane-d4	50.0	48	96.0	62	130
Surr: 4-Bromofluorobenzene	50.0	51	102	70	130
Surr: Toluene-d8	50.0	52	104	74	122

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

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

Conoco Phillips COP Faye-Burdette

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 08101601
Lab Batch ID: R256001

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

Sample Spiked: 08101658-01
RunID: N_081104A-4752372 Units: ug/L
Analysis Date: 11/04/2008 17:07 Analyst: LT

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	18.0	90.0	20	18.0	90.0	0	20	35	175
1,1,1-Trichloroethane	ND	20	20.0	100	20	19.0	95.0	5.13	20	35	175
1,1,2,2-Tetrachloroethane	ND	20	20.0	100	20	20.0	100	0	20	35	175
1,1,2-Trichloroethane	ND	20	20.0	100	20	19.0	95.0	5.13	20	35	175
1,1-Dichloroethane	ND	20	20.0	100	20	19.0	95.0	5.13	20	35	175
1,1-Dichloroethene	ND	20	18.0	90.0	20	17.0	85.0	5.71	22	61	145
1,1-Dichloropropene	ND	20	19.0	95.0	20	19.0	95.0	0	20	35	175
1,2,3-Trichlorobenzene	ND	20	15.0	75.0	20	15.0	75.0	0	20	27	187
1,2,3-Trichloropropane	ND	20	21.0	105	20	19.0	95.0	10.0	20	35	175
1,2,4-Trichlorobenzene	ND	20	14.0	70.0	20	14.0	70.0	0	20	34	150
1,2,4-Trimethylbenzene	ND	20	16.0	80.0	20	16.0	80.0	0	20	35	175
1,2-Dibromo-3-chloropropane	ND	20	20.0	100	20	18.0	90.0	10.5	20	15	175
1,2-Dibromoethane	ND	20	18.0	90.0	20	18.0	90.0	0	20	35	175
1,2-Dichlorobenzene	ND	20	18.0	90.0	20	18.0	90.0	0	20	35	175
1,2-Dichloroethane	ND	20	20.0	100	20	19.0	95.0	5.13	20	35	175
1,2-Dichloropropane	ND	20	19.0	95.0	20	19.0	95.0	0	20	35	175
1,3,5-Trimethylbenzene	ND	20	16.0	80.0	20	16.0	80.0	0	20	35	175
1,3-Dichlorobenzene	ND	20	18.0	90.0	20	17.0	85.0	5.71	20	35	175
1,3-Dichloropropane	ND	20	20.0	100	20	19.0	95.0	5.13	20	35	175
1,4-Dichlorobenzene	ND	20	18.0	90.0	20	18.0	90.0	0	20	35	175
2,2-Dichloropropane	ND	20	20.0	100	20	19.0	95.0	5.13	20	35	175
2-Butanone	ND	20	31.0	155	20	27.0	135	13.8	20	10	230
2-Chloroethyl vinyl ether	ND	20	0	0 *	20	0	0 *	0	20	10	250
2-Chlorotoluene	ND	20	18.0	90.0	20	18.0	90.0	0	20	31	175
2-Hexanone	ND	20	24.0	120	20	24.0	120	0	20	10	250
4-Chlorotoluene	ND	20	18.0	90.0	20	18.0	90.0	0	20	31	175
4-Isopropyltoluene	ND	20	15.0	75.0	20	15.0	75.0	0	20	35	175
4-Methyl-2-pentanone	ND	20	19.0	95.0	20	18.0	90.0	5.41	20	10	175
Acetone	ND	100	140	140	100	140	140	0	20	10	400
Acrylonitrile	ND	200	190	95.0	200	180	90.0	5.41	20	15	250

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

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

Conoco Phillips COP Faye-Burdette

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 08101601
Lab Batch ID: R256001

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

Sample Spiked: 08101658-01
RunID: N_081104A-4752372 Units: ug/L
Analysis Date: 11/04/2008 17:07 Analyst: LT

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	19.0	95.0	20	19.0	95.0	0	22	76	127
Bromobenzene	ND	20	18.0	90.0	20	19.0	95.0	5.41	20	35	175
Bromochloromethane	ND	20	18.0	90.0	20	19.0	95.0	5.41	20	35	175
Bromodichloromethane	ND	20	19.0	95.0	20	18.0	90.0	5.41	20	35	175
Bromoform	ND	20	17.0	85.0	20	18.0	90.0	5.71	20	35	175
Bromomethane	ND	20	17.0	85.0	20	16.0	80.0	6.06	20	35	175
Carbon disulfide	ND	20	19.0	95.0	20	18.0	90.0	5.41	20	30	225
Carbon tetrachloride	ND	20	19.0	95.0	20	19.0	95.0	0	20	35	175
Chlorobenzene	ND	20	19.0	95.0	20	19.0	95.0	0	21	70	130
Chloroethane	ND	20	19.0	95.0	20	18.0	90.0	5.41	20	35	175
Chloroform	ND	20	19.0	95.0	20	18.0	90.0	5.41	20	35	175
Chloromethane	ND	20	18.0	90.0	20	18.0	90.0	0	20	35	175
Dibromochloromethane	ND	20	18.0	90.0	20	19.0	95.0	5.41	20	35	175
Dibromomethane	ND	20	19.0	95.0	20	20.0	100	5.13	20	35	175
Dichlorodifluoromethane	ND	20	14.0	70.0	20	12.0	60.0	15.4	20	35	175
Ethylbenzene	ND	20	18.0	90.0	20	18.0	90.0	0	20	35	175
Hexachlorobutadiene	ND	20	14.0	70.0	20	14.0	70.0	0	20	43	144
Isopropylbenzene	ND	20	18.0	90.0	20	18.0	90.0	0	20	35	175
Methyl tert-butyl ether	ND	20	18.0	90.0	20	17.0	85.0	5.71	20	35	175
Methylene chloride	ND	20	20.0	100	20	19.0	95.0	5.13	20	35	175
Naphthalene	ND	20	16.0	80.0	20	15.0	75.0	6.45	20	20	210
n-Butylbenzene	ND	20	14.0	70.0	20	14.0	70.0	0	20	35	175
n-Propylbenzene	ND	20	16.0	80.0	20	16.0	80.0	0	20	35	175
sec-Butylbenzene	ND	20	14.0	70.0	20	14.0	70.0	0	20	35	175
Styrene	ND	20	19.0	95.0	20	19.0	95.0	0	20	35	175
tert-Butylbenzene	ND	20	16.0	80.0	20	15.0	75.0	6.45	20	35	175
Tetrachloroethene	ND	20	17.0	85.0	20	17.0	85.0	0	20	30	250
Toluene	ND	20	19.0	95.0	20	19.0	95.0	0	24	70	131
Trichloroethene	ND	20	19.0	95.0	20	19.0	95.0	0	21	60	140
Trichlorofluoromethane	ND	20	19.0	95.0	20	18.0	90.0	5.41	20	17	250
Vinyl acetate	ND	20	20.0	100	20	19.0	95.0	5.13	20	10	250
Vinyl chloride	ND	20	16.0	80.0	20	16.0	80.0	0	20	35	175

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

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

Conoco Phillips COP Faye-Burdette

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 08101601
Lab Batch ID: R256001

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

Sample Spiked: 08101658-01
RunID: N_081104A-4752372 Units: ug/L
Analysis Date: 11/04/2008 17:07 Analyst: LT

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	20.0	100	20	18.0	90.0	10.5	20	35	175
cis-1,3-Dichloropropene	ND	20	17.0	85.0	20	18.0	90.0	5.71	20	35	175
m,p-Xylene	ND	40	36.0	90.0	40	36.0	90.0	0	20	35	175
o-Xylene	ND	20	19.0	95.0	20	19.0	95.0	0	20	35	175
trans-1,2-Dichloroethene	ND	20	19.0	95.0	20	18.0	90.0	5.41	20	35	175
trans-1,3-Dichloropropene	ND	20	17.0	85.0	20	17.0	85.0	0	20	35	175
1,2-Dichloroethene (total)	ND	40	39	98	40	36	90	8.0	20	35	175
Xylenes, Total	ND	60	55	92	60	55	92	0	20	35	175
Surr: 1,2-Dichloroethane-d4	ND	50	50	100	50	48.0	96.0	4.08	30	62	130
Surr: 4-Bromofluorobenzene	ND	50	51	102	50	53.0	106	3.85	30	70	130
Surr: Toluene-d8	ND	50	54	108	50	53.0	106	1.87	30	74	122

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

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Quality Control Report

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

Conoco Phillips COP Faye-Burdette

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 08101601
Lab Batch ID: R256099

Method Blank

Samples in Analytical Batch:

RunID: N_081105B-4754087 Units: ug/L
Analysis Date: 11/05/2008 17:43 Analyst: LT
Preparation Date: 11/05/2008 17:43 Prep By: Method:

Lab Sample ID 08101601-02A
Client Sample ID Trip Blank

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

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

Conoco Phillips COP Faye-Burdette

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 08101601
Lab Batch ID: R256099

Method Blank

RunID: N_081105B-4754087 Units: ug/L
Analysis Date: 11/05/2008 17:43 Analyst: LT
Preparation Date: 11/05/2008 17:43 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	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	104.0	62-130
Surr: 4-Bromofluorobenzene	92.0	70-130
Surr: Toluene-d8	104.0	74-122

Laboratory Control Sample (LCS)

RunID: N_081105B-4754086 Units: ug/L
Analysis Date: 11/05/2008 17:15 Analyst: LT
Preparation Date: 11/05/2008 17:15 Prep By: Method:

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1,1,2-Tetrachloroethane	20.0	19.0	95.0	71	136
1,1,1-Trichloroethane	20.0	21.0	105	66	132
1,1,2,2-Tetrachloroethane	20.0	19.0	95.0	55	139
1,1,2-Trichloroethane	20.0	21.0	105	70	130
1,1-Dichloroethane	20.0	21.0	105	67	131

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

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Quality Control Report

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

Conoco Phillips COP Faye-Burdette

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 08101601
Lab Batch ID: R256099

Laboratory Control Sample (LCS)

RunID: N_081105B-4754086 Units: ug/L
Analysis Date: 11/05/2008 17:15 Analyst: LT
Preparation Date: 11/05/2008 17:15 Prep By: Method:

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
1,1-Dichloroethene	20.0	20.0	100	71	146
1,1-Dichloropropene	20.0	21.0	105	59	138
1,2,3-Trichlorobenzene	20.0	17.0	85.0	37	155
1,2,3-Trichloropropane	20.0	22.0	110	70	145
1,2,4-Trichlorobenzene	20.0	16.0	80.0	39	133
1,2,4-Trimethylbenzene	20.0	19.0	95.0	53	147
1,2-Dibromo-3-chloropropane	20.0	20.0	100	43	137
1,2-Dibromoethane	20.0	20.0	100	63	126
1,2-Dichlorobenzene	20.0	18.0	90.0	70	130
1,2-Dichloroethane	20.0	20.0	100	64	150
1,2-Dichloropropane	20.0	19.0	95.0	76	124
1,3,5-Trimethylbenzene	20.0	18.0	90.0	57	146
1,3-Dichlorobenzene	20.0	20.0	100	72	134
1,3-Dichloropropane	20.0	19.0	95.0	78	130
1,4-Dichlorobenzene	20.0	19.0	95.0	70	130
2,2-Dichloropropane	20.0	21.0	105	45	156
2-Butanone	120	84.0	70.0	20	235
2-Chloroethyl vinyl ether	20.0	23.0	115	13	179
2-Chlorotoluene	20.0	19.0	95.0	64	122
2-Hexanone	20.0	18.0	90.0	34	182
4-Chlorotoluene	20.0	18.0	90.0	64	142
4-Isopropyltoluene	20.0	17.0	85.0	60	134
4-Methyl-2-pentanone	20.0	18.0	90.0	11	145
Acetone	200	180	90.0	13	386
Acrylonitrile	100	110	110	43	194
Benzene	20.0	21.0	105	76	126
Bromobenzene	20.0	20.0	100	70	130
Bromochloromethane	20.0	20.0	100	63	131
Bromodichloromethane	20.0	20.0	100	77	138
Bromoform	20.0	19.0	95.0	55	129
Bromomethane	20.0	20.0	100	58	148
Carbon disulfide	20.0	20.0	100	46	146
Carbon tetrachloride	20.0	20.0	100	66	137
Chlorobenzene	20.0	19.0	95.0	67	136

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

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

Conoco Phillips COP Faye-Burdette

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 08101601
Lab Batch ID: R256099

Laboratory Control Sample (LCS)

RunID: N_081105B-4754086 Units: ug/L
Analysis Date: 11/05/2008 17:15 Analyst: LT
Preparation Date: 11/05/2008 17:15 Prep By: Method:

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Chloroethane	20.0	22.0	110	50	137
Chloroform	20.0	20.0	100	70	135
Chloromethane	20.0	25.0	125	51	140
Dibromochloromethane	20.0	20.0	100	69	127
Dibromomethane	20.0	20.0	100	74	130
Dichlorodifluoromethane	20.0	23.0	115	32	161
Ethylbenzene	20.0	19.0	95.0	67	122
Hexachlorobutadiene	20.0	16.0	80.0	43	144
Isopropylbenzene	20.0	16.0	80.0	60	135
Methyl tert-butyl ether	40.0	38.0	95.0	48	160
Methylene chloride	20.0	22.0	110	52	143
Naphthalene	20.0	18.0	90.0	24	150
n-Butylbenzene	20.0	16.0	80.0	50	140
n-Propylbenzene	20.0	17.0	85.0	62	137
sec-Butylbenzene	20.0	16.0	80.0	66	126
Styrene	20.0	18.0	90.0	60	139
tert-Butylbenzene	20.0	16.0	80.0	67	140
Tetrachloroethene	20.0	23.0	115	26	200
Toluene	20.0	22.0	110	70	131
Trichloroethene	20.0	19.0	95.0	64	137
Trichlorofluoromethane	20.0	21.0	105	46	167
Vinyl acetate	20.0	21.0	105	10	193
Vinyl chloride	20.0	21.0	105	31	147
cis-1,2-Dichloroethene	20.0	22.0	110	70	142
cis-1,3-Dichloropropene	20.0	19.0	95.0	61	134
m,p-Xylene	40.0	40.0	100	72	150
o-Xylene	20.0	20.0	100	78	141
trans-1,2-Dichloroethene	20.0	21.0	105	67	141
trans-1,3-Dichloropropene	20.0	18.0	90.0	56	136
1,2-Dichloroethene (total)	40	43	110	73	139
Xylenes, Total	60	60	100	72	150
Surr: 1,2-Dichloroethane-d4	50.0	52	104	62	130
Surr: 4-Bromofluorobenzene	50.0	52	104	70	130
Surr: Toluene-d8	50.0	53	106	74	122

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

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

Conoco Phillips COP Faye-Burdette

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 08101601
Lab Batch ID: R256099

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

Sample Spiked: 08101839-02
RunID: N_081105B-4754097 Units: ug/L
Analysis Date: 11/05/2008 22:50 Analyst: LT

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	18.0	90.0	20	18.0	90.0	0	20	35	175
1,1,1-Trichloroethane	ND	20	21.0	105	20	20.0	100	4.88	20	35	175
1,1,2,2-Tetrachloroethane	ND	20	20.0	100	20	19.0	95.0	5.13	20	35	175
1,1,2-Trichloroethane	ND	20	20.0	100	20	20.0	100	0	20	35	175
1,1-Dichloroethane	ND	20	21.0	105	20	21.0	105	0	20	35	175
1,1-Dichloroethene	ND	20	19.0	95.0	20	19.0	95.0	0	22	61	145
1,1-Dichloropropene	ND	20	20.0	100	20	20.0	100	0	20	35	175
1,2,3-Trichlorobenzene	ND	20	14.0	70.0	20	15.0	75.0	6.90	20	27	187
1,2,3-Trichloropropane	ND	20	20.0	100	20	20.0	100	0	20	35	175
1,2,4-Trichlorobenzene	ND	20	14.0	70.0	20	14.0	70.0	0	20	34	150
1,2,4-Trimethylbenzene	ND	20	18.0	90.0	20	18.0	90.0	0	20	35	175
1,2-Dibromo-3-chloropropane	ND	20	18.0	90.0	20	18.0	90.0	0	20	15	175
1,2-Dibromoethane	ND	20	19.0	95.0	20	20.0	100	5.13	20	35	175
1,2-Dichlorobenzene	ND	20	18.0	90.0	20	19.0	95.0	5.41	20	35	175
1,2-Dichloroethane	ND	20	20.0	100	20	20.0	100	0	20	35	175
1,2-Dichloropropane	ND	20	20.0	100	20	19.0	95.0	5.13	20	35	175
1,3,5-Trimethylbenzene	ND	20	18.0	90.0	20	17.0	85.0	5.71	20	35	175
1,3-Dichlorobenzene	ND	20	18.0	90.0	20	18.0	90.0	0	20	35	175
1,3-Dichloropropane	ND	20	19.0	95.0	20	20.0	100	5.13	20	35	175
1,4-Dichlorobenzene	ND	20	18.0	90.0	20	18.0	90.0	0	20	35	175
2,2-Dichloropropane	ND	20	19.0	95.0	20	19.0	95.0	0	20	35	175
2-Butanone	ND	20	28.0	140	20	22.0	110	24.0 *	20	10	230
2-Chloroethyl vinyl ether	ND	20	19.0	95.0	20	20.0	100	5.13	20	10	250
2-Chlorotoluene	ND	20	18.0	90.0	20	18.0	90.0	0	20	31	175
2-Hexanone	ND	20	19.0	95.0	20	22.0	110	14.6	20	10	250
4-Chlorotoluene	ND	20	69.0	345 *	20	40.0	200 *	53.2 *	20	31	175
4-Isopropyltoluene	ND	20	17.0	85.0	20	16.0	80.0	6.06	20	35	175
4-Methyl-2-pentanone	ND	20	16.0	80.0	20	18.0	90.0	11.8	20	10	175
Acetone	ND	100	160	160	100	130	130	20.7 *	20	10	400
Acrylonitrile	ND	200	170	85.0	200	190	95.0	11.1	20	15	250

Qualifiers:

ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B/V - Analyte detected in the associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated value between MDL and PQL

* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

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Quality Control Report

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

Conoco Phillips COP Faye-Burdette

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 08101601
Lab Batch ID: R256099

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

Sample Spiked: 08101839-02
RunID: N_081105B-4754097 Units: ug/L
Analysis Date: 11/05/2008 22:50 Analyst: LT

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	19.0	95.0	5.13	22	76	127
Bromobenzene	ND	20	17.0	85.0	20	19.0	95.0	11.1	20	35	175
Bromochloromethane	ND	20	19.0	95.0	20	20.0	100	5.13	20	35	175
Bromodichloromethane	ND	20	19.0	95.0	20	19.0	95.0	0	20	35	175
Bromoform	ND	20	15.0	75.0	20	16.0	80.0	6.45	20	35	175
Bromomethane	ND	20	19.0	95.0	20	20.0	100	5.13	20	35	175
Carbon disulfide	ND	20	20.0	100	20	20.0	100	0	20	30	225
Carbon tetrachloride	ND	20	20.0	100	20	20.0	100	0	20	35	175
Chlorobenzene	ND	20	20.0	100	20	19.0	95.0	5.13	21	70	130
Chloroethane	ND	20	20.0	100	20	21.0	105	4.88	20	35	175
Chloroform	ND	20	19.0	95.0	20	20.0	100	5.13	20	35	175
Chloromethane	ND	20	21.0	105	20	24.0	120	13.3	20	35	175
Dibromochloromethane	ND	20	18.0	90.0	20	18.0	90.0	0	20	35	175
Dibromomethane	ND	20	20.0	100	20	20.0	100	0	20	35	175
Dichlorodifluoromethane	ND	20	18.0	90.0	20	23.0	115	24.4 *	20	35	175
Ethylbenzene	ND	20	19.0	95.0	20	18.0	90.0	5.41	20	35	175
Hexachlorobutadiene	ND	20	22.0	110	20	21.0	105	4.65	20	43	144
Isopropylbenzene	ND	20	18.0	90.0	20	17.0	85.0	5.71	20	35	175
Methyl tert-butyl ether	ND	20	18.0	90.0	20	20.0	100	10.5	20	35	175
Methylene chloride	ND	20	21.0	105	20	21.0	105	0	20	35	175
Naphthalene	ND	20	16.0	80.0	20	17.0	85.0	6.06	20	20	210
n-Butylbenzene	ND	20	17.0	85.0	20	16.0	80.0	6.06	20	35	175
n-Propylbenzene	ND	20	15.0	75.0	20	15.0	75.0	0	20	35	175
sec-Butylbenzene	ND	20	17.0	85.0	20	16.0	80.0	6.06	20	35	175
Styrene	ND	20	20.0	100	20	18.0	90.0	10.5	20	35	175
tert-Butylbenzene	ND	20	17.0	85.0	20	17.0	85.0	0	20	35	175
Tetrachloroethene	ND	20	20.0	100	20	18.0	90.0	10.5	20	30	250
Toluene	ND	20	20.0	100	20	20.0	100	0	24	70	131
Trichloroethene	ND	20	19.0	95.0	20	19.0	95.0	0	21	60	140
Trichlorofluoromethane	ND	20	21.0	105	20	21.0	105	0	20	17	250
Vinyl acetate	ND	20	19.0	95.0	20	20.0	100	5.13	20	10	250
Vinyl chloride	ND	20	18.0	90.0	20	20.0	100	10.5	20	35	175

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

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

Conoco Phillips COP Faye-Burdette

Analysis: Volatile Organics by Method 8260B
Method: SW8260B

WorkOrder: 08101601
Lab Batch ID: R256099

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

Sample Spiked: 08101839-02
RunID: N_081105B-4754097 Units: ug/L
Analysis Date: 11/05/2008 22:50 Analyst: LT

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	21.0	105	20	20.0	100	4.88	20	35	175
cis-1,3-Dichloropropene	ND	20	17.0	85.0	20	18.0	90.0	5.71	20	35	175
m,p-Xylene	ND	40	38.0	95.0	40	37.0	92.5	2.67	20	35	175
o-Xylene	ND	20	20.0	100	20	18.0	90.0	10.5	20	35	175
trans-1,2-Dichloroethene	ND	20	20.0	100	20	19.0	95.0	5.13	20	35	175
trans-1,3-Dichloropropene	ND	20	16.0	80.0	20	17.0	85.0	6.06	20	35	175
1,2-Dichloroethene (total)	ND	40	41	100	40	39	98	5.0	20	35	175
Xylenes, Total	ND	60	58	97	60	55	92	5.3	20	35	175
Surr: 1,2-Dichloroethane-d4	ND	50	48	96.0	50	49.0	98.0	2.06	30	62	130
Surr: 4-Bromofluorobenzene	ND	50	52	104	50	52.0	104	0	30	70	130
Surr: Toluene-d8	ND	50	54	108	50	54.0	108	0	30	74	122

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D - Recovery Unreportable due to Dilution
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Quality Control Report

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

Conoco Phillips COP Faye-Burdette

Analysis: Ion Chromatography
Method: E300.0

WorkOrder: 08101601
Lab Batch ID: R255465B

Method Blank

Samples in Analytical Batch:

RunID: IC1_081028A-4743014 Units: mg/L

Lab Sample ID

Client Sample ID

Analysis Date: 10/28/2008 18:12 Analyst: TW

08101601-01E

MW-1

Analyte	Result	Rep Limit
Fluoride	ND	0.50
Ortho-phosphate (As P)	ND	0.50

Laboratory Control Sample (LCS)

RunID: IC1_081028A-4743015 Units: mg/L

Analysis Date: 10/28/2008 18:29 Analyst: TW

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Fluoride	10.00	9.015	90.15	85	115
Ortho-phosphate (As P)	10.00	9.477	94.77	85	115

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

Sample Spiked: 08101600-01

RunID: IC1_081028A-4743111 Units: mg/L

Analysis Date: 10/28/2008 19:02 Analyst: TW

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Fluoride	ND	10	7.850	75.42 *	10	8.289	79.81 *	5.440	20	80	120
Ortho-phosphate (As P)	ND	10	6.675	66.75 *	10	7.153	71.53 *	6.914	20	80	120

Qualifiers:

ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B/V - Analyte detected in the associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated value between MDL and PQL

* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

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

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Quality Control Report

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

Conoco Phillips COP Faye-Burdette

Analysis: Ion Chromatography
Method: E300.0

WorkOrder: 08101601
Lab Batch ID: R255466C

Method Blank

RunID: IC1_081028B-4743034 Units: mg/L
Analysis Date: 10/28/2008 18:12 Analyst: TW

Samples in Analytical Batch:

Lab Sample ID Client Sample ID
08101601-01E MW-1

Analyte	Result	Rep Limit
Nitrogen,Nitrate (As N)	ND	0.50

Laboratory Control Sample (LCS)

RunID: IC1_081028B-4743035 Units: mg/L
Analysis Date: 10/28/2008 18:29 Analyst: TW

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Nitrogen,Nitrate (As N)	10.00	9.975	99.75	85	115

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

Sample Spiked: 08101600-01
RunID: IC1_081028B-4743037 Units: mg/L
Analysis Date: 10/28/2008 19:02 Analyst: TW

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)	5.471	10	14.76	92.89	10	15.25	97.78	3.259	20	80	120

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

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

Conoco Phillips COP Faye-Burdette

Analysis: Ion Chromatography
Method: E300.0

WorkOrder: 08101601
Lab Batch ID: R256813A

Method Blank

Samples in Analytical Batch:

RunID: IC1_081110B-4766069 Units: mg/L
Analysis Date: 11/10/2008 16:35 Analyst: TW

Lab Sample ID Client Sample ID
08101601-01E MW-1

Analyte	Result	Rep Limit
Chloride	ND	0.50

Laboratory Control Sample (LCS)

RunID: IC1_081110B-4766017 Units: mg/L
Analysis Date: 11/10/2008 16:51 Analyst: TW

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Chloride	10.00	9.409	94.09	85	115

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

Sample Spiked: 08101597-01
RunID: IC1_081110B-4766020 Units: mg/L
Analysis Date: 11/10/2008 18:20 Analyst: TW

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	18.90	40	58.79	99.73	40	56.56	94.14	3.874	20	80	120

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

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

Conoco Phillips COP Faye-Burdette

Analysis: Ion Chromatography
Method: E300.0

WorkOrder: 08101601
Lab Batch ID: R256827

Method Blank

Samples in Analytical Batch:

RunID: IC1_081111A-4766432 Units: mg/L
Analysis Date: 11/11/2008 10:53 Analyst: TW

Lab Sample ID Client Sample ID
08101601-01E MW-1

Analyte	Result	Rep Limit
Sulfate	ND	0.50

Laboratory Control Sample (LCS)

RunID: IC1_081111A-4766433 Units: mg/L
Analysis Date: 11/11/2008 11:10 Analyst: TW

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Sulfate	10.00	9.448	94.48	85	115

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

Sample Spiked: 08101597-01
RunID: IC1_081111A-4766437 Units: mg/L
Analysis Date: 11/11/2008 12:16 Analyst: TW

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	1482	1000	2451	96.96	1000	2461	97.94	0.4013	20	80	120

Qualifiers: ND/U - Not Detected at the Reporting Limit MI - Matrix Interference
B/V - Analyte detected in the associated Method Blank D - Recovery Unreportable due to Dilution
J - Estimated value between MDL and PQL * - Recovery Outside Advisable QC Limits
E - Estimated Value exceeds calibration curve
N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.
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*Sample Receipt Checklist
And
Chain of Custody*



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

Sample Receipt Checklist

Workorder:	08101601	Received By:	RE
Date and Time Received:	10/28/2008 9:30:00 AM	Carrier name:	Fedex-Priority
Temperature:	4.0°C	Chilled by:	Water Ice

- Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐
- Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒
- Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
- Chain of custody present? Yes ☒ No ☐
- Chain of custody signed when relinquished and received? Yes ☒ No ☐
- Chain of custody agrees with sample labels? Yes ☒ No ☐
- Samples in proper container/bottle? Yes ☒ No ☐
- Sample containers intact? Yes ☒ No ☐
- Sufficient sample volume for indicated test? Yes ☒ No ☐
- All samples received within holding time?
1. Received all Nitrates and Ortho-PO4 expired collected on 10/22/08. Yes ☐ No ☒
- Container/Temp Blank temperature in compliance? Yes ☒ No ☐
- Water - VOA vials have zero headspace? Yes ☒ No ☐ VOA Vials Not Present ☐
- Water - Preservation checked upon receipt (except VOA*)? Yes ☒ No ☐ Not Applicable ☐

*VOA Preservation Checked After Sample Analysis

SPL Representative: Elder, Allen

Contact Date & Time: 10/28/2008 3:00:00 PM

Client Name Contacted: Kelly Blanchard

Non Conformance Issues: Continue with Nitrate and Ortho-PO4 per historicals.

Client Instructions: Notified client of expirations via email and that we will continue with analysis per historicals.



Chain of Custody Record

Client: Tetra Tech/ Conoco Phillips

SPL Workorder Number: 08701601

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: Faye Burdette

P.O. Number:

Sampled By: Christine Matthews

Signature: [Signature]

Sample ID: MW-1

Date: 10/24/08

Time: 1540

Matrix: Soil

Water: X

Grab: X

Comp: X

Sample Type: X

Container: 3

Preservative Type: 3

Bottle Type: 1

8260-ATEX: X

8015-GRO: X

8015-DRO: X

8260-VOC: X

8270-SVOC: X

TotMetals&Hg-6010/7470: X

TotMetals-6020/7471: X

Anions/Chlorides: X

Intact? Y or N

Temperature:

Remarks: Anions=Fl,Cl,N,PO4,SO4,N03

Bottle Types: 1: 3/40ml Vials 2: 1L Glass 3: 1L Plastic 4: 1L Amber Glass 5: 8oz Plastic 6: 16oz Plastic

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

Received by: [Signature]

Date: 10/27/08

Time: 1500

Received by: [Signature]

Date: 10/28/08

Time: 0930

Received by: [Signature]

Date: 10/28/08

Time: 0930