1910 N. Big Spring St. Midland, Texas 79705 432-686-8081



October 29, 2009

Mr. Geoffrey Leking New Mexico Oil Conservation Division 1625 N. French Dr. Hobbs, NM 88240 Ms. Trisha Bad Bear US Bureau of Land Management 414 West Taylor Hobbs, NM 88240

RE: Elvis Battery Finding Report And Request for Closure Lea County, New Mexico Unit F, Sec. 20, T17S, R32E

Dear Mr. Leking and Ms. Bad Bear:

On behalf of ConocoPhillips, Tetra Tech is submitting this findings report for a subsurface investigation performed on October 3, 2009 at Elvis Battery (Site; Figure 1). This work is in support of ConocoPhillips efforts to delineate and remediate 20 barrel produced water release at the Site. The attached C141, submitted on April 15, 2008 to the New Mexico Oil Conservation Division (NMOCD), has not been approved by the agency. The battery is located approximately 1.3 miles northwest of the ConocoPhillips Maljamar office in Lea County, New Mexico (32.822380°N, 103.790333°W). The U.S. Bureau of Land Management is the land administrator.

The Elvis Battery is located in the Querecho Plains of eastern New Mexico. This area generally consists of a thin cover of Quaternary sand dunes overlying the undivided Triassic Upper Chinle Group. The soil consists of well-drained sand and sandy clay loam. Typically, the surface layer is reddish-brown loamy fine sand<sup>1</sup>. It is underlain by light red sandy clay. Below this is white moderately to well-indurated caliche. Underlying the caliche is dark reddish shales and thin sandstones of the undivided Triassic Upper Chinle Group<sup>2</sup>. The Upper Chinle Group consists of silty shale, thin bedded to massive, purplish red to reddish brown with greenish reduction spots. The Group is interbedded with thin beds of fine-grained sandstone with chert pebble gravel.

Soil in the area is the Kermit series and dune land<sup>3</sup>. It is reddish yellow fine grain sand.

<sup>&</sup>lt;sup>1</sup> Turner, M.T., D.N. Cox, B.C Mickelson, A.J. Roath, and C.D Wilson, 1973. Soil Survey Lea County, New Mexico. U.S. Depart of Agr Soil Conser Ser, 89p.

<sup>&</sup>lt;sup>2</sup> Nicholson, Alexander, Jr. and Alfred Clebsch, Jr. 1961. Geology and Ground-Water Conditions in Southern Lea County, New Mexico. GW Rpt 6, State Bur. Mines & Mineral Res., NM Instit Mining & Tech. Socorro, NM. 123p.

<sup>&</sup>lt;sup>3</sup> U.S. Natural Resources Conservation Service, 2009. Web Soil Survey. http://websoilsurvey.nrcs.usda.gov/

Mr. Leking and Ms. Bad Bear October 29, 2009 Page 2

### Exposure Pathway Analysis

Depth to water in the vicinity of the Site is estimated to be approximately 100 feet below ground surface (fbgs). This interpretation is based information gathered at another ConocoPhillips remediation project entitled "*Maljamar Gas Plant GW-020*," located approximately 1.3 miles southwest of the Site (Log attached). There is one dry playa approximately 0.4 miles southwest of the Site that briefly holds rain water following a storm event.

Following the ranking criteria presented in "*Guidelines for Remediation of Leaks, Spills, and Releases*" promulgated on August 13, 1993 by the NMOCD, this Site has the following score:

<u>Criteria</u>		Ranking <u>Score</u>
Depth to groundwater	> 100 feet	0
Distance from water source	>1,000 feet	0
Distance from domestic water source	>200 feet	0
Distance from surface water body	>1,000 feet	<u>0</u>
Total Ranking Score		0

The remediation action level for a ranking score of 0 is 10 parts per million (ppm) for benzene, 50 ppm for total benzene, toluene, ethylbenzene, and total xylenes (BTEX), and 5,000 ppm for total petroleum hydrocarbons (TPH).

In the event of oil/gas releases to the environment, the NMOCD uses the New Mexico Water Quality Control Commission's maximum contaminate level of 250 ppm for chloride (20.6.2.3103 NMAC, Subsection A) for delineation.

#### Scope of Work

The lateral extent of the release area is defined by soil discoloration (Figure 2). Most of the release was contained on the site caliche pad, with some flow reaching a sand dune swale located immediately west of the pad. Tetra Tech used a backhoe to delineate the vertical extent of the produced water affected area.

Four (4) trenches were excavated inside the affected area and soil samples were collected every four feet in each trench. Soil samples collected from the trenches were field tested using a photo-ionization detector (PID) to screen for volatile organic compounds (VOC). Field chloride titrations were used to describe chloride conditions.

Two soil samples from each soil trench (highest chloride concentration and basal sample, 8 total were submitted to a laboratory for confirmation analyses. The samples were placed into glass sample jars, sealed with Teflon-lined lids, and placed on ice for transportation to an analytical laboratory where they were analyzed for diesel and gasoline range petroleum hydrocarbons



Mr. Leking and Ms. Bad Bear October 29, 2009 Page 3

(TPH<sub>DRO</sub> and TPH<sub>GRO</sub>, Method 8015), BTEX (Method 8260), and chloride (Method 300.0). These analyses were used to evaluate subsurface conditions in the area of the produced water release. Excavated soil was returned to the trench.

Soil encountered at the Site was moist reddish yellow medium to very fine grained loose silty sands from the surface to varying depths. The dune sands overly red sandy clay interbedded with caliche.

TPH and BTEX laboratory analyses for this investigative event are presented in Table 1 and the Appendix. TPH and BTEX concentrations in all trenches were below NMOCD remedial guideline levels at all depths. BTEX was not detected in any of the soil samples.

### Table 1 **ConocoPhillips** Elvis Battery Lea County, NM October 3, 2009

[					····		Sampling	Locations				Action
c	constitu	ents	Units	Soil Tr	ench S1	Soil Tr	ench S2	Soil Tr	Soil Trench S3		Soll Trench S4	
				6 ft	10 ft	0.5 ft	6 ft	1 ft	3 ft	4 ft	15 ft	(ppm)
	трц	GRO	(mg/Kg)	ND	ND	ND	340	ND	ND	ND	ND	5 000
ses	IFN	DRO	(mg/Kg)	ND	6.9	9.5	1200	ND	ND	8	ND	5,000
ylar	Benzene		(mg/Kg)	ND	ND	ND	0.069	ND	ND	ND	ND	10
Ā	Ethylbenzene		(mg/Kg)	ND	ND	ND	4.1	ND	ND	ND	ND	
to	Toluene Xylenes Total		(mg/Kg)	ND	ND	ND	1.3	ND	ND	ND	ND	
ora			(mg/Kg)	ND	ND	ND	36.5	ND	ND	ND	ND	
Lab	Total E	BTEX	(mg/Kg)	ND	ND	ND	42.0	ND	ND	ND	ND	50
	Chloride (mg/Kg		(mg/Kg)	ND	126	ND	399	38	44.2	1250	897	
TPH =	Total pe	troleum h	ydrocarbo	าร			mg/Kg = miligrams per kilogram					
VOC =	Volatile	organic c	compounds				ppm = Parts Per million					

GRO = Gasoline range hydrocarbons

DRO = Diesel range hydrocarbons

ND = Not detected at or above laboratory level of detection

Chloride concentrations ranged from non-detect to 1,250 milligrams per kilogram (mg/Kg; Table 1).

ft = Feet

### Conclusions

According to laboratory analysis of soils collected during this investigation, TPH and BTEX were either not detected or were reported at low concentrations in all samples. Exposure pathway analysis indicated a ranking score of "0." Therefore, the site-specific remediation levels are 5,000 mg/Kg for TPH, 50 mg/Kg for BTEX and 10 mg/Kg for benzene. Based on laboratory analyses presented in Table 1, the impacts to soil are below the NMOCD action levels for both TPH and BTEX in all affected areas.



Mr. Leking and Ms. Bad Bear October 29, 2009 Page 4 Elvis Battery Findings Report

Laboratory analyses indicate the produced water penetrated and migrated downward in the sandy soil and stayed generally within a swell (trench location S4) located between the sand dunes (Figure 2). The chloride concentrations attenuated with depth at the S4 location.

### Recommendations

Tetra Tech recommends no further action be taken at the Elvis Battery, and requests closure of this Site.

If you concur with this recommendation or if you have any questions or require additional information, please contact me (432-686-8081) or Mr. John Gates (ConocoPhillips, 575-390-4821).

Sincerely,

Tetra Tech

Charles Durrett Digitally signed by Charles Dur

Charles Durrett Sr. Project Manager

Cc: Mr. John Gates, ConocoPhillips







District I 1625 N. French District II 1301 W. Grand District III 1000 Rio Brazo District IV 1220 S. St. Fran Name of Co Address 3: Facility Nar Surface Ow	Dr., Hobbs, Avenue, Art s Road, Azte cis Dr., Sant ompany C 300 North ne Elvis I ner BLN	NM 88240 esia, NM 88210 e., NM 87410 a Fe, NM 8750: ConocoPhilli a A St. Bldg Battery	5 Relo ps Comp 6, Midla	Sta Energy Min Oil C 1220 Sar ease Notific any nd, TX 79705-5- Mineral O LOCA	tte o nerali onse Sou nta l atic OF 406 406	f New Mex s and Natura ervation Di- th St. France Fe, NM 875 on and Co PERATOR Contact M Telephone 1 Facility Typ BLM N OF RE	ico Il Resources vision tis Dr. 505 <b>Drrective</b> A ickey Garner No. 505.391.3 be Oil and Ga	Form C-141 Revised October 10, 2003 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form ial Report Final Report 30-025-33584				
Unit Letter F	Section 20	Township 17S	Range 32E	Feet from the	Nort	h/South Line	Feet from the	East/West Line	County Lea			
L	[	<u> </u>	Ľ	atitude N 32 49. NAT	.342 URI	Longit	ude W 103 47.4 EASE	419				
Type of Rele	ase		<u> </u>		Vol	ume of Releas		Volume	Recovered			
Source of Re	Vater	<u> </u>			Dat	e and Hour of	Occurrence	Date an	d Hour of Dis	covery		
3" steel tra	nsfer line	; Siven?			4-1	0-2008 1600	<u></u> າ	4-10-20	08 1700	······		
Was minicula		(es No	🛛 Not	Required	N/A		:					
By Whom?	N/A	1 - 10			Dat	ate and Hour N/A N/A						
was a water	course Kead		Yes 🛛	No	N/A	ES, Volume II	npacting the wat	ercourse.				
If a Watercou N/A Describe Cau On Thursd water spill of discovered y installed an	rse was Im se of Proble ay April occurred water con emergene	pacted, Descri em and Remed 10, 2008 at 5 due to exter aing up from cy clamp to	tial Action 5:30 pm and anal correct the group the	a Taken.* at the Elvis Batt osion of a buried und near the wa leak. The area y	ery I I 3" s ater f will b	ocated 1 mile steel water tu transfer pum e remediatee	e NW of the M ansfer line. Up p. He shut dov l in accordance	aljamar, NM fi oon arriving on vn the pump, d e with NMOCI	eld office a location th ug down to ) guidelines	20 bbl produ e COPC MS the line and	uced O	
Describe Area The affected location to p	Affected a l area is 5 pick up th	and Cleanup A 5840 sq. ft. o e standing v	ction Tak f the bat water, th	en.* tery pad and 81 erefore no liquid	0 sq. d wa	ft. of pastur s recovered.	e land. The MS Chloride conce	SO was unable entration for th	to get a vac is battery is	uum truck to 5 38,000.	o the	
I hereby certif regulations all public health should their of or the environ federal, state,	y that the in l operators : or the envir perations have ment. In a or local law	nformation given are required to conment. The ave failed to a ddition, NMO vs and/or regu	ven above o report an acceptanc dequately CD accep lations.	is true and comple d/or file certain rel e of a C-141 report investigate and rer tance of a C-141 re	te to lease t by th nedia port	the best of my notifications ar ne NMOCD ma te contamination does not relieve	knowledge and u id perform correc arked as "Final R on that pose a thre the operator of i	nderstand that pu tive actions for re eport" does not re eat to ground wat esponsibility for	rsuant to NM leases which lieve the oper er, surface wa compliance w	OCD rules and may endanger rator of liability ter, human hea rith any other	y 11th	
L L	$\sim$	-1	-				OIL CON	SERVATION	DIVISIC	<u>N</u>	- 1	
Signature: Printed Name	Mickey (	Garner				Approved by	District Supervise	or:				
Title: HSER	Lead	_				Approval Dat	e:	Expiration	Date:			
E-mail Addres	ss: Mickey.	D.Garner@c	onocophi	llips.com		Conditions of Approval:			Attached			
Date: 4-15-: • Attach	2008 Addition	al Sheets If I	Phone: 5	575.391.3158 /				<u></u>			]	

**BORING LOG** 

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CHHOLOGIESIN

Page 3 of 3



I	Boring Terminated at 120' bgs		Bulk Sam	pling
	2690032	MAXIM	EXPLORATORY BORING LOG	MW-19

# APPENDIX

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LABORATORY REPORT

.



# Case Narrative for: Conoco Phillips

Certificate of Analysis Number:

# 09100141

Report To:	Project Name: COP Elvis Battery
Tetra Tech Charlie Durrett 1910 N. Big Spring St	<u>Site:</u> Maljamar, NM <u>Site Address:</u>
Midland TX 79705- ph: (432) 682-4559 fax:	<u>PO Number:</u> <u>State:</u> New Mexico <u>State Cert. No.:</u> <u>Date Reported:</u> 10/14/2009

I. SAMPLE RECEIPT:

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

A trip blank was received with the samples but was not listed on the chain of custody. Per your request, SPL, Inc. did not analyze the trip blank.

#### II: ANALYSES AND EXCEPTIONS:

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

Sample ID "S1-10" (SPL ID: 09100141-02) was randomly selected for use in SPL's quality control program. The Matrix Spike (MS) and Matrix Spike Duplicate (MSD) recoveries were outside of the advisable quality control limits due to possible matrix interference for Batch ID: R285673. A Laboratory Control Sample (LCS) was analyzed as a quality control check for the analytical batch and all recoveries were within acceptable limits.

#### III. GENERAL REPORTING COMMENTS:

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

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

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

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

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.

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

a Cardenas

09100141 Page 1 10/15/2009

Erica Cardenas Project Manager



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

### **Conoco Phillips**

	Certificate of Analysis Number:								
<u>09100141</u>									
<u>Report To:</u>	Tetra Tech Charlie Durrett 1910 N. Big Spring St			<u>Project Name:</u> <u>Site:</u> <u>Site Address:</u>	COP Elvis Battery Maljamar, NM				
	Midland TX 79705- ph: (432) 682-4559	fax: (432) 686-8085		<u>PO Number:</u> <u>State:</u> <u>State Cert. No.:</u>	New Mexico				
<u>Fax To:</u>				Date Reported:	10/14/2009				

Client Sample ID	Lab Sample ID	Matrix	Date Collected	Date Received	COC ID	HOLD
S1-6'	09100141-01	Soil	10/1/2009 11:30:00 AM	10/3/2009 9:30:00 AM		
S1-10'	09100141-02,	Soil	10/1/2009 11:30:00 AM	10/3/2009 9:30:00 AM		
S2-6'	09100141-03	Soil	10/1/2009 1:45:00 PM	10/3/2009 9:30:00 AM		
S2-6"	09100141-04	Soil	10/1/2009 1:45:00 PM	10/3/2009 9:30:00 AM		
S3-1'	09100141-05	Soil	10/1/2009 4:45:00 PM	10/3/2009 9:30:00 AM		
\$3-3'	09100141-06	Soil	10/1/2009 4:45:00 PM	10/3/2009 9:30:00 AM		
S4-6'	09100141-07	Soil	10/1/2009 7:00:00 PM	10/3/2009 9:30:00 AM		
S4-15'	09100141-08	Soil	10/1/2009 7:00:00 PM	10/3/2009 9:30:00 AM		
Trip Blank	09100141-09	Water	10/3/2009	10/3/2009 9:30:00 AM		

F. On Cardenas 2

10/15/2009

Date

Erica Cardenas Project Manager

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

> > Ted Yen Quality Assurance Officer

> > > 09100141 Page 2 10/15/2009 8:15.56 AM



8880 INTERCHANGE DRIVE HOUSTON, TX 77054

(713) 660-0901

Client Sample ID:S1-6	5'			Col	lected	: 10/01/200	09 11:30	SPL Sam	ple l	I <b>D:</b> 0910	0141-01
				Sit	te: N	laljamar, N	M				
Analyses/Method	- w	Result	QUAL	R	ep.Limi	t	Dil. Facto	r Date Analy	/zed	Analyst	Seq. #
DIESEL RANGE ORG	ANICS					MCL	S	W8015B	Ur	nits: mg/k	g-dry
Diesel Range Organics (	C10-C28)	ND			6.2	2	1	10/08/09 1	9:16	NW	5240629
Surr: n-Pentacosane		81.2		%	20-154	4	1	10/08/09 1	9:16	NW	5240629
Prep Method	Prep Date		Prep Initials	Prep	Factor	7					
SW3550B	10/05/2009 9:43		FAK	1.00	)	]					
GASOLINE RANGE O	RGANICS					MCL	S	W8015B	Ur	nits: mg/k	g-dry
Gasoline Range Organic	s	ND			0.12	2	1	10/08/09	1:59	WLV	5237243
Surr: 1,4-Difluorobenz	ene	98.4		%	63-142	2	1	10/08/09	1:59	WLV	5237243
Surr: 4-Bromofluorobe	nzene	105		%	50-159	9	1	10/08/09	1:59	WLV	5237243
Prep Method	Prep Date		Prep Initials	Prep	Factor	7					
SW5030B	10/07/2009 11:3	1	XML	1.00	)						
ION CHROMATOGRA	PHY					MCL	E30	0.0 MOD	Ur	nits: mg/k	g-dry
Chloride		ND			6.19	9	1	10/06/09 2	23:01	BDG	5234717
PERCENT MOISTURE						MCL		D2216	Ur	nits: wt%	
Percent Moisture		19.2			(	)	1	10/05/09 1	5:41	CFS	5232251
PURGEABLE AROMA	TICS					MCL	S	W8021B	Ur	nits: ug/kg	-dry
Benzene		ND			1.2	2	1	10/08/09	1:59	WLV	5237455
Toluene		ND			1.2	2	1	10/08/09	1:59	WLV	5237455
Ethylbenzene		ND			1.2	2	1	10/08/09	1:59	WLV	5237455
Methyl tert-butyl ether		ND			1.2	2	1	10/08/09	1:59	WLV	5237455
m,p-Xylene		ND			1.2	2	1	10/08/09	1:59	WLV	5237455
o-Xylene		ND			1.2	2	1	10/08/09	1:59	WLV	5237455
Xylenes,Total		ND			1.2	2	1	10/08/09	1:59	WLV	5237455
Total BTEX		ND			1.2	2	1	10/08/09	1:59	WLV	5237455
Surr: 1,4-Difluorobenzo	ene	96.8		%	70-130	)	1	10/08/09	1:59	WLV	5237455
Surr: 4-Bromofluorobe	nzene	103		%	63-145	5	1	10/08/09	1:59	WLV	5237455

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	10/07/2009 11:31	XML	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

09100141 Page 3 10/15/2009 8 16 06 AM



8880 INTERCHANGE DRIVE HOUSTON, TX 77054

(713) 660-0901

Client Sample ID:S1-1	0'			Col	lected:	10/01/2009	11:30	SPL Sam	ple l	<b>D</b> : 09	100141-02
				Sit	te: M	aljamar, NN	1				
Analyses/Method		Result	QUAL	R	ep.Limit	Di	I. Factor	Date Analy	zed	Analys	t Seq. #
DIESEL RANGE ORGA	ANICS					MCL	SV	N8015B	Ur	nits: mg	/kg-dry
Diesel Range Organics (C	C10-C28)	6.9			6		1	10/08/09 1	9:37	NW	5240630
Surr: n-Pentacosane		105		%	20-154		1	10/08/09 1	9:37	NW	5240630
Prep Method	Prep Date		Prep Initials	Prer	5 Factor						
SW3550B	10/05/2009 9:43		FAK	1.00	)						
GASOLINE RANGE OI	RGANICS					MCL	SV	N8015B	Ur	nits: mg	/kg-dry
Gasoline Range Organics	;	ND			0.12		1	10/08/09	1:30	WLV	5237242
Surr: 1,4-Difluorobenze	ene	98.6	-	%	63-142		1	10/08/09	1:30	WLV	5237242
Surr: 4-Bromofluorober	nzene	106		%	50-159		1	10/08/09	1:30	WLV	5237242
Prep Method	Prep Date		Prep Initials	Pre	o Factor						
SW5030B	10/07/2009 11:40	)	XML	1.00	)						
ION CHROMATOGRA	PHY					MCL	E300	.0 MOD	Ur	nits: mg	/kg-dry
Chloride		126			5.98		1	10/06/09 2	3:18	BDG	5234718
PERCENT MOISTURE						MCL		D2216	Ur	nits: wt%	 6
Percent Moisture		16.4			0		1	10/05/09 1	5:41	CFS	5232249
PURGEABLE AROMA	TICS					MCL	SV	V8021B	Ur	nits: ug/	kg-dry
Benzene		ND			1.2		1	10/08/09	1:30	WLV	5237441
Toluene		ND			1.2		1	10/08/09	1:30	WLV	5237441
Ethylbenzene		ND			1.2		1	10/08/09	1:30	WLV	5237441
Methyl tert-butyl ether		ND			1.2		1	10/08/09	1:30	WLV	5237441
m,p-Xylene		ND			1.2		1	10/08/09	1:30	WLV	5237441
o-Xylene		ND			1.2		1	10/08/09	1:30	WLV	5237441
Xylenes, Total		ND			1.2		1	10/08/09	1:30	WLV	5237441
Total BTEX		ND			1.2		1	10/08/09	1:30	WLV	5237441
Surr: 1,4-Difluorobenze	ene	97.2		%	70-130		1	10/08/09	1:30	WLV	5237441
Surr: 4-Bromofluorober	zene	102		%	63-145	· · · · · · · · · · · · · · · · · · ·	1	10/08/09	1:30	WLV	5237441

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	10/07/2009 11:40	XML	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

,

09100141 Page 4 10/15/2009 8:16 07 AM



8880 INTERCHANGE DRIVE HOUSTON, TX 77054

(713) 660-0901

Client Sample ID:S2-	6'			Col	llected:	10/01/200	9 13:45	SPL Sam	ple i	I <b>D:</b> 091	00141-03
				Sit	te: M	aljamar, N	м				
Analyses/Method	F	Result	QUAL	R	ep.Limit	ſ	Dil. Facto	r Date Analy	/zed	Analyst	Seq. #
DIESEL RANGE ORG	ANICS					MCL	S	W8015B	Ur	nits: mg/	kg-dry
Diesel Range Organics	(C10-C28) 1	2000			600		100	10/09/09 1	0:42	NW	5240637
Surr: n-Pentacosane		D	*	%	20-154		100	10/09/09 1	0:42	NW	5240637
Prep Method	Prep Date		Prep Initials	Prer	5 Factor						
SW3550B	10/05/2009 9:43		FAK	1.00	)						
GASOLINE RANGE C	RGANICS					MCL	S	W8015B	Ur	nits: mg/	kg-dry
Gasoline Range Organic	S	340			24		200	10/08/09	5:48	WLV	5237248
Surr: 1,4-Difluorobenz	tene	102		%	63-142		200	10/08/09	5:48	WLV	5237248
Surr: 4-Bromofluorobe	enzene 2	09 MI	*	%	50-159		200	10/08/09	5:48	WLV	5237248
Prep Method	Pren Date		Pren Initials	Prer	Eactor						
SW5030B	10/03/2009 11:48		JWS	1.00	)						
				-		MCI	E30		l lr	nite: ma/	ka-dry
Chloride		399			59.5		10	10/06/09 2	3:36	BDG	5234719
PERCENT MOISTUR	=					MCI		D2216	Ur	nits: wt%	
Percent Moisture		16			0		1	10/05/09 1	5:41	CFS	5232248
PURGEABLE AROMA	ATICS					MCL	S	W8021B	Ur	nits: ua/k	a-drv
Benzene		69			6		1	10/09/09	4:04	WLV	5239240
Toluene		1300			60		50	10/14/09	1:02	WLV	5245315
Ethylbenzene		4100			60		50	10/14/09	1:02	WLV	5245315
Methyl tert-butyl ether		21			6		1	10/09/09	4:04	WLV	5239240
m,p-Xylene	2	7000			60		50	10/14/09	1:02	WLV	5245315
o-Xylene		9500			60		50	10/14/09	1:02	WLV	5245315
Xylenes,Total	3	6500			59.5		50	10/14/09	1:02	WLV	5245315
Total BTEX	4	1969			59.52		50	10/14/09	1:02	WLV	5245315
Surr: 1,4-Difluorobenz	ene	99.8		%	70-130		50	10/14/09	1:02	WLV	5245315
Surr: 1,4-Difluorobenz	ene 1	59MI	*	%	70-130		1	10/09/09	4:04	WLV	5239240
Surr: 4-Bromofluorobe	enzene 14	48MI	*	%	63-145		50	10/14/09	1:02	WLV	5245315
Surr: 4-Bromofluorobe	enzene 4	82MI	*	%	63-145		1	10/09/09	4:04	WLV	5239240
Duon Mathad	Dere Dete			<b>D</b>	<b>-</b> • 1						

Prep Method	Prep Date	Prep Initials	Prep Factor
SW 5030B	10/09/2009 13:59	XML	1.00
SW5030B	10/08/2009 16:03	JMM	5.00

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

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8880 INTERCHANGE DRIVE HOUSTON, TX 77054

(713) 660-0901

Client Sample ID:S2-6"			Coll	ected:	: 10/01/200	9 13:45	SPL Sam	ple l	<b>D</b> : 0910	0141-04
			Site	e: M	laljamar, N	м				
Analyses/Method	Result	QUAL	Re	ep.Limit	t C	Dil. Factor	Date Analy	zed	Analyst	Seq. #
DIESEL RANGE ORGANICS					MCL	S	W8015B	Ur	nits: mg/kg	g-dry
Diesel Range Organics (C10-C28)	9.5			e	5	1	10/09/09 1	0:01	NW	5240635
Surr: n-Pentacosane	60.3		%	20-154	1	1	10/09/09 1	0:01	NW	5240635
Prep Method Prep Date		Prep Initial	s Prep	Factor	]					
SW3550B 10/05/2009	9:43	FAK	1.00		]					
GASOLINE RANGE ORGANICS					MCL	SI	W8015B	Ur	nits: mg/kg	g-dry
Gasoline Range Organics	ND			0.12	2	1	10/08/09	6:45	WLV	5237249
Surr: 1,4-Difluorobenzene	99.7		%	63-142	2	1	10/08/09	6:45	WLV	5237249
Surr: 4-Bromofluorobenzene	104		%	50-159	)	1	10/08/09	6:45	WLV	5237249
Prep Method Prep Date		Prep Initials	s Prep	Factor	]					
SW5030B 10/07/2009	11:44	XML	1.00							
ION CHROMATOGRAPHY					MCL	E300	).0 MOD	Ur	nits: mg/kg	g-dry
Chlonde	ND			6.02	2	1	10/06/09 2	3:54	BDG	5234720
PERCENT MOISTURE	····				MCL		D2216	Ur	nits: wt%	
Percent Moisture	16.9			0	)	1	10/05/09 1	5:41	CFS	5232247
PURGEABLE AROMATICS					MCL	SI	W8021B	Ur	nits: ug/kg	-dry
Benzene	ND			1.2	2	1	10/08/09	6:45	WLV	5237447
Toluene	ND			1.2	2	1	10/08/09	6:45	WLV	5237447
Ethylbenzene	ND			1.2	2	1	10/08/09	6:45	WLV	5237447
Methyl tert-butyl ether	ND			1.2	2	1	10/08/09	6:45	WLV	5237447
m,p-Xylene	ND			1.2	2	1	10/08/09	6:45	WLV	5237447
o-Xylene	ND			1.2	2	1	10/08/09	6:45	WLV	5237447
Xylenes,Total	ND			1.2	2	1	10/08/09	6:45	WLV	5237447
Total BTEX	ND			1.2	2	1	10/08/09	6:45	WLV	5237447
Surr: 1,4-Difluorobenzene	97.8		%	70-130	)	1	10/08/09	6:45	WLV	5237447
Surr: 4-Bromofluorobenzene	104		%	63-145	;	1	10/08/09	6:45	WLV	5237447

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	10/07/2009 11:44	XML	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

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8880 INTERCHANGE DRIVE HOUSTON, TX 77054

(713) 660-0901

Client Sample ID:S3-1				Col	lected:	10/01/2009	9 16:45	SPL Samp	ole I	<b>D:</b> 091	00141-05
				Sit	te: M	aljamar, Ni	М				
Analyses/Method	I	Result	QUAL	R	ep.Limit	D	il. Factor	Date Analyz	zed	Analyst	Seq. #
DIESEL RANGE ORGA	NICS					MCL	SV	N8015B	Ur	nits: mg/l	kg-dry
Diesel Range Organics (C	(10-C28)	ND			6.2		1	10/08/09 19	9:57	NW	5240631
Surr: n-Pentacosane		80.7		%	20-154		1	10/08/09 19	9:57	NW	5240631
Prep Method	Prep Date		Prep Initials	Prer	Factor	]					
SW3550B	10/05/2009 9:43		FAK	1.00	}	j					
GASOLINE RANGE OF	RGANICS					MCL	SV	N8015B	Ur	nits: mg/l	
Gasoline Range Organics		ND			0.12		1	10/08/09 7	7:14	WLV	5237250
Surr: 1,4-Difluorobenze	ne	98.2		%	63-142		1	10/08/09 7	7:14	WLV	5237250
Surr: 4-Bromofluoroben	zene	103		%	50-159		1	10/08/09 7	7:14	WLV	5237250
Prep Method	Prep Date		Prep Initials	Prec	Factor	]					
SW5030B	10/07/2009 11:46		XML	1.00	)						
ION CHROMATOGRAF	РНҮ					MCL	E300	.0 MOD	Ur	nits: mg/l	
Chloride		38.3			6.15		1	10/07/09 (	):11	BDG	5234721
PERCENT MOISTURE						MCL		D2216	Ur	nits: wt%	
Percent Moisture		18.7			0		1	10/05/09 15	5:41	CFS	5232246
PURGEABLE AROMAT	rics					MCL	SV	N8021B	Ur	nits: ug/k	g-dry
Benzene		ND			1.2		1	10/08/09 7	7:14	WLV	5237448
Toluene		ND			1.2		1	10/08/09 7	7:14	WLV	5237448
Ethylbenzene		ND			1.2		1	10/08/09 7	7:14	WLV	5237448
Methyl tert-butyl ether		ND			1.2		1	10/08/09 7	7:14	WLV	5237448
m,p-Xylene		ND			1.2		1	10/08/09 7	7:14	WLV	5237448
o-Xylene		ND			1.2		1	10/08/09 7	7:14	WLV	5237448
Xylenes,Total		ND			1.2		1	10/08/09 7	7:14	WLV	5237448
Total BTEX		ND			1.2		1	10/08/09 7	7:14	WLV	5237448
Surr: 1,4-Difluorobenze	ne	98.0		%	70-130		1	10/08/09 7	7:14	WLV	5237448
Surr: 4-Bromofluoroben	zene	103	· · · · · · · · · · · · · · · · · · ·	%	63-145		1	10/08/09 7	7:14	WLV	5237448

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	10/07/2009 11:46	XML	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

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8880 INTERCHANGE DRIVE HOUSTON, TX 77054

(713) 660-0901

Client Sample ID:S3-	3'			Col	llected	1: 10/01/20	09 16:45	SPL Sam	ple l	D: 0910	0141-06
				Sit	te: N	/laljamar, l	NM				
Analyses/Method		Result	QUAL	R	ep.Lim	it	Dil. Facto	or Date Analy	zed	Analyst	Seq. #
DIESEL RANGE ORG	ANICS					MCL	. 9	W8015B	Un	its: mg/k	g-dry
Diesel Range Organics (	C10-C28)	ND			5.	8	1	10/08/09 2	0:18	NW	5240632
Surr: n-Pentacosane		81.8		%	20-15	4	1	10/08/09 2	0:18	NW	5240632
Prep Method	Prep Date		Prep Initials	Prep	o Factor						
SW3550B	10/05/2009 9:43	3	FAK	1.00	)	]					
GASOLINE RANGE O	RGANICS					MCL	. 9	W8015B	Un	its: mg/k	g-dry
Gasoline Range Organic	S	ND			0.1	2	1	10/08/09	7:42	WLV	5237251
Surr: 1,4-Difluorobenz	ene	98.3		%	63-14	2	1	10/08/09	7:42	WLV	5237251
Surr: 4-Bromofluorobe	enzene	105		%	50-15	9	1	10/08/09	7:42	WLV	5237251
Prep Method	Prep Date		Prep Initials	Prer	o Factor						
SW 5030B	10/07/2009 11:4	8	XML	1.00	)	]					
ION CHROMATOGRA	PHY					MCL	. E30	0.0 MOD	Un	its: mg/k	g-dry
Chloride		44.2			5.8	5	1	10/07/09	0:29	BDG	5234722
PERCENT MOISTURE						MCL	•	D2216	Un	its: wt%	
Percent Moisture		14.5				0	1	10/05/09 1	5:41	CFS	5232245
PURGEABLE AROMA	TICS					MCL	. s	W8021B	Un	its: ug/kg	j-dry
Benzene		ND			1.	2	1	10/08/09	7:42	WLV	5237449
Toluene		ND			1.	2	1	10/08/09	7:42	WLV	5237449
Ethylbenzene		ND			1.	2	1	10/08/09	7:42	WLV	5237449
Methyl tert-butyl ether		ND			1.	2	1	10/08/09	7:42	WLV	5237449
m,p-Xylene		ND			1.	2	1	10/08/09	7:42	WLV	5237449
o-Xylene		ND			1.	2	1	10/08/09	7:42	WLV	5237449
Xylenes, Total		ND			1.	2	1	10/08/09	7:42	WLV	5237449
Total BTEX		ND			1.	2	1	10/08/09	7:42	WLV	5237449
Surr: 1,4-Difluorobenz	ene	95.2		%	70-13	0	1	10/08/09	7:42	WLV	5237449
Surr: 4-Bromofluorobe	nzene	102		%	63-14	5	1	10/08/09	7:42	WLV	5237449

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	10/07/2009 11:48	XML	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

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8880 INTERCHANGE DRIVE

HOUSTON, TX 77054

(713) 660-0901

Client Sample ID:S4-6	5'			Col	lected:	10/01/200	9 19:00	SPL Sam	ple ID:	0910	0141-07
				Sit	te: M	aljamar, N	IM				
Analyses/Method		Result	QUAL	R	ep.Limit	: i	Dil. Fact	or Date Analy	zed /	Analyst	Seq. #
DIESEL RANGE ORG	ANICS					MCL		SW8015B	Unit	s: mg/kg	g-dry
Diesel Range Organics (	C10-C28)	8			6.4	Ļ	1	10/08/09 1	8:56 N	W	5240628
Surr: n-Pentacosane		96.3		%	20-154		1	10/08/09 1	8:56 N	W	5240628
Prep Method	Prep Date		Prep Initials	Prer	Factor	]					
SW3550B	10/05/2009 9:43		FAK	1.00	)						
GASOLINE RANGE O	RGANICS					MCL		SW8015B	Unit	s: mg/kç	g-dry
Gasoline Range Organics	3	ND			0.13		1	10/08/09	8:11 W	'LV	5237252
Surr: 1,4-Difluorobenze	ene	99.8		%	63-142		1	10/08/09	8:11 W	'LV	5237252
Surr: 4-Bromofluorober	nzene	107		%	50-159		1	10/08/09	8:11 W	'LV	5237252
Prep Method	Prep Date		Prep Initials	Prep	Factor	]					
SW5030B	10/07/2009 11:49	)	XML	1.00	)						
ION CHROMATOGRA	РНҮ					MCL	E3	00.0 MOD	Unit	s: mg/kg	g-dry
Chloride		1250			63.6	5	10	10/07/09	0:47 BI	DG	5234723
PERCENT MOISTURE						MCL		D2216	Unit	s: wt%	
Percent Moisture		21.4			0		1	10/05/09 1	5:41 C	FS	5232244
PURGEABLE AROMA	TICS					MCL		SW8021B	Unit	s: ug/kg	-dry
Benzene		ND			1.3		1	10/08/09	8:11 W	'LV	5237450
Toluene		ND			1.3		1	10/08/09	8:11 W	'LV	5237450
Ethylbenzene		ND			1.3		1	10/08/09	8:11 W	'LV	5237450
Methyl tert-butyl ether		ND			1.3		1	10/08/09	8:11 W	'LV	5237450
m,p-Xylene	··· ···	ND		_	1.3		1	10/08/09	8:11 W	LV	5237450
o-Xylene		ND			1.3		1	10/08/09	8:11 W	LV	5237450
Xylenes,Total		ND			1.3		1	10/08/09	8:11 W	LV	5237450
Total BTEX		ND			1.3		1	10/08/09	8:11 W	LV	5237450
Surr: 1,4-Difluorobenze	ene	98.2		%	70-130		1	10/08/09	8:11 W	LV	5237450
Surr: 4-Bromofluorober	izene	106		%	63-145		1	10/08/09	8:11 W	LV	5237450

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	10/07/2009 11:49	XML	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)

J

D - Surrogate Recovery Unreportable due to Dilution

MI - Matrix Interference

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8880 INTERCHANGE DRIVE HOUSTON, TX 77054

(713) 660-0901

Client Sample ID:S4-1	5'			Col	lected:	10/01/2009	19:00	SPL Samp	ole I	<b>D:</b> 0910	0141-08
				Sit	e: M	aljamar, NM	I				
Analyses/Method	F	Result	QUAL	R	ep.Limit	Dil	. Factor	Date Analyz	zed	Analyst	Seq. #
DIESEL RANGE ORGA	NICS					MCL	SI	N8015B	Un	its: mg/k	g-dry
Diesel Range Organics (C	C10-C28)	ND			5.6		1	10/06/09 7	7:22	NW	5240623
Surr: n-Pentacosane		66.0		%	20-154		1	10/06/09 7	7:22	NW	5240623
Prep Method	Prep Date		Prep Initials	Prep	Factor						
SW3550B	10/05/2009 9:43		FAK	1.00							
GASOLINE RANGE OF	RGANICS					MCL	SI	N8015B	Un	its: mg/k	g-dry
Gasoline Range Organics		ND			0.11		1	10/08/09 8	8:39	WLV	5237253
Surr: 1,4-Difluorobenze	ne	98.6		%	63-142		1	10/08/09 8	8:39	WLV	5237253
Surr: 4-Bromofluoroben	zene	104		%	50-159		1	10/08/09 8	8:39	WLV	5237253
Prep Method	Prep Date		Prep Initials	Prep	Factor						
SW5030B	10/07/2009 11:50		XML	1.00							
ION CHROMATOGRA	РНҮ					MCL	E300	.0 MOD	Un	its: ma/k	a-drv
Chlonde		897			55.6		10	10/07/09	1:04	BDG	5234724
PERCENT MOISTURE						MCL		D2216	Un	its: wt%	
Percent Moisture		10.1			0		1	10/05/09 15	5:41	CFS	5232243
PURGEABLE AROMA	rics					MCL	SI	N8021B	Un	its: ug/kg	
Benzene		ND			1.1		1	10/08/09 8	8:39	WLV	5237451
Toluene		ND			1.1		1	10/08/09 8	8:39	WLV	5237451
Ethylbenzene		ND	· · · · · · · · · · · ·		1.1		1	10/08/09 8	3:39	WLV	5237451
Methyl tert-butyl ether		ND			1.1		1	10/08/09 8	3:39	WLV	5237451
m,p-Xylene		ND			1.1		1	10/08/09 8	3:39	WLV	5237451
o-Xylene		ND			1.1		1	10/08/09 8	8:39	WLV	5237451
Xylenes, Total		ND			1.1		1	10/08/09 8	3:39	WLV	5237451
Total BTEX		ND			1.1		1	10/08/09 8	3:39	WLV	5237451
Surr: 1,4-Difluorobenze	ne	97.6		%	70-130		1	10/08/09 8	3:39	WLV	5237451
Surr: 4-Bromofluoroben	геле	102		%	63-145		1	10/08/09 8	3:39	WLV	5237451

Prep Method	Prep Date	Prep Initials	Prep Factor
SW5030B	10/07/2009 11:50	XML	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

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**Quality Control Documentation** 

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

### Conoco Phillips COP Elvis Battery

Analysis: Method:	Diesel Range Organ SW8015B	ics					Worl Lab	kOrder: Batch ID:	09100141 94364	
	Met	nod Blank			Sam	ples in Analy	tical Batcl	n:		
RunID: HP_V_09	1006E-5240620	Units:	mg/kg		Lab	Sample I <u>D</u>		Client Sar	mple ID	
Analysis Date:	10/06/2009 2:15	Analyst:	NW		0910	0141-01B		S1-6'		
Preparation Date:	10/05/2009 9:43	Prep By:	FAK Method: S	SW3550B	0910	0141-02B		S1-10'		
					0910	0141-03B		S2-6'		
r					0910	0141-04B		S2-6"		
<u> </u>	Analyte	0)	Result Rep Lin		0910	0141-05B		S3-1'		
Ulese	rr: n-Pentacosane	(6)	85.4 20-1	54	0910	0141-06B		S3-3'		
					0910	0141-07B		S4-6'		
					0910	0141-08B		S4-15'		
						,				
			Laborator	Control	Sample (L	<u>.CS)</u>				
	RunID		HP V 091006E-524	40621	nits <sup>.</sup> r	na/ka				
	Δnalvs	is Date:	10/06/2009 2:35	Δ	nalvet N	19/N9 J\//				
	Prener	ation Date:	10/05/2009 2:00	P	ren Rv: F	AK Method	SW3550B			
	Tiopan	ation Date.	10/00/2000 0.40	• •	cp by. I	AIX Method.	01100000			
		Analid		Spike	Decult	Dereent	Lours	Unner		
		Analy	le	Added	Result	Recoverv	Limit	Limit		
	Diosol Ba		(C10 C28)	22.2	20.9	80.4	57	150		
	Surr: o	-Pontacosano	(C10-C20)	1 66	29.0	82.1	20	154		
	- Sun n	-r entacosane		1.00	1.50	02.1	20	1.54		
	······	Matrix	Spike (MS) / Mat	rix Spike	Dunlicate	(MSD)	<b>_</b>			
	Sam	ole Spiked:	09100141-08							
	Runli	D:	HP_V_091006E-5	240624	Units:	mg/kg-dry				
	Analy	sis Date:	10/06/2009 7:42	2 .	Analyst:	NW				
	Prepa	aration Date:	10/05/2009 9:43	3	Prep By:	FAK Method	I: SW3550	B		
				,						

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Diesel Range Organics (C10-C28)	ND	37	30.1	77.8	37	31.3	81.2	4.07	50	21	175
Surr: n-Pentacosane	ND	1.85	1.42	76.7	1.85	1.42	76.9	0.267	30	20	154

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

MI - Matrix Interference

e associated Method Blank D - Recovery Unreportable due to Dilution

\* - 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.

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

### Conoco Phillips COP Elvis Battery

Analysis: Mathod:	Gasoline Range Orga	nics			WorkOrder:	09100141 P285831
	Meth	od Blank		Samples in Analyti	ical Batch:	
RunID: HP_O_0 Analysis Date: Preparation Date:	91007C-5237240 10/08/2009 0:32 10/08/2009 0:32	Units: Analyst: Prep By:	mg/kg WLV Method: SW5030B	Lab Sample ID 09100141-01A 09100141-02A 09100141-03A 09100141-04A	<u>Client Sar</u> S1-6' S1-10' S2-6' S2-6'	nple ID
Gasc Su Su	oline Range Organics Jurr: 1,4-Difluorobenzene Jurr: 4-Bromofluorobenzene		ND 010 100.8 63-142 104.5 50-159	09100141-05A 09100141-06A 09100141-07A 09100141-08A	53-1' 53-3' 54-6' 54-15'	
	Methanolic P	reparation	<u>Blank</u>			
RunID: HP_O_0 Analysis Date: Preparation Date:	91007C-5237241 10/08/2009 1:01 10/08/2009 1:01	Units: Analyst: Prep By:	mg/kg WLV Method: SW5030B			
Gaso Su Su	Analyte oline Range Organics urr: 1,4-Difluorobenzene urr: 4-Bromofluorobenzene		Result         Rep Limit           ND         2.5           98.6         63-142           104 7         50-159			

#### Laboratory Control Sample (LCS)

RunID:	HP_O_091007C-5237239	Units:	mg/kg
Analysis Date:	10/08/2009 0:03	Analyst:	WLV
Preparation Date:	10/08/2009 0:03	Prep By:	Method: SW 5030B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Gasoline Range Organics	1.00	1.03	103	70	130
Surr: 1,4-Difluorobenzene	0.100	0.102	102	63	142
Surr: 4-Bromofluorobenzene	0.100	0.106	106	50	159

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

ked: 09100141-01		
HP_O_091007C	C-5237244 Units:	mg/kg-dry
te: 10/08/2009 3:2	25 Analyst:	WLV
Date: 10/07/2009 11	:33 Prep By:	XML Method: SW5030B
	ked:         09100141-01           HP_O_0910070         HP_O           te:         10/08/2009 3:           Date:         10/07/2009 11	Ked:         09100141-01           HP_O_091007C-5237244         Units:           te:         10/08/2009 3:25         Analyst:           Date:         10/07/2009 11:33         Prep By:

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.

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### Conoco Phillips COP Elvis Battery

Analysis: Method:	Gasoline Range ( SW8015B	Organics						WorkOrder Lab Batch	: 091 ID: R23	00141 85831		
Ą	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 C	Drganics	ND	1.24	0.889	71.8	1.24	1.04	84.3	16.0	50	26	147
Surr: 1,4-Difluo	robenzene	ND	0.124	0.124	100	0.124	0.123	99.2	1.20	30	63	142
Surr: 4-Bromofi	uorobenzene	ND	0.124	0.127	103	0.124	0.130	105	2.21	30	50	159

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

B/V - Analyte detected in the associated Method Blank

E - Estimated Value exceeds calibration curve

J - Estimated value between MDL and PQL

MI - Matrix Interference

D - Recovery Unreportable due to Dilution

\* - Recovery Outside Advisable QC Limits

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

'TNTC - Too numerous to count

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

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### Conoco Phillips COP Elvis Battery

Analysis: Method:	Purgeable Aromat SW8021B	ics				WorkOrder: Lab Batch ID:	09100141 R285847	
	<u>M</u>	ethod Blank		· · · · · · · · · · · · · · · · · · ·	Samples in Analyt	ical Batch:		
RunID: HP	P_O_091007E-5237440	Units:	ug/kg		Lab Sample ID	Client Sa	nple ID	
Analysis Date	e: 10/08/2009 0:32	Analyst:	WLV		09100141-01A	S1-6'		
Preparation [	Date: 10/08/2009 0:32	Prep By:	N	lethod: SW 5030B	09100141-02A	S1-10'		
					09100141-04A	S2-6"		
					09100141-05A	S3-1'		
	Analyte		Result	Rep Limit	09100141-06A	S3-3'		
	Benzene		ND	1.0	09100141-07A	S4-6'		
	Ethylbenzene			1.0	00100141 000	01.0		
	Taluar			1.0	09100141-08A	54-15		
			2.2	1.0				
	m,p-Xylene			1.0				
	O-Aylene		20	1.0				
	Yudanaa Tatal		2.2	1.0				
	Xylenes, I otal		2.2	1.0				
	Surr: 1,4-Diffuorobenzene		98.3	70-130				
	Surr 4-Bromofluorobenzer	e	103.1	63-145				

### Laboratory Control Sample (LCS)

RunID:	HP_O_091007E-5237439	Units:	ug/kg	
Analysis Date:	10/07/2009 23:35	Analyst:	WLV	
Preparation Date:	10/07/2009 23:35	Prep By:	I	Method: SW 5030B

Analyte	Spike Added	Result	Percent Recovery	Lower Lımit	Upper Limit
Benzene	20.0	17.1	85.3	70	130
Ethylbenzene	20.0	16.9	84.4	75	122
Methyl tert-butyl ether	20.0	17.7	88.5	74	127
Toluene	20.0	17.4	87.0	75	123
m,p-Xylene	40.0	33.8	84.6	74	122
o-Xylene	20.0	16.6	83.0	70	130
Total BTEX	120.0	101.8	84.81	70	130
Xylenes, Total	60.0	50.4	84.0	70	130
Surr: 1,4-Difluorobenzene	100	95.6	95.6	70	130
Surr: 4-Bromofluorobenzene	100	100	100	63	145

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

	Sample Spiked: RunID: Analysis Date: Preparation Date:	09100141-01 HP_O_091007E-5237456 10/08/2009 2:27 10/07/2009 11:33	Units: Analyst: Prep By:	ug/kg-dry WLV XML Method: SW5030B		
Qualifiers:	Qualifiers: ND/U - Not Detected at the Reporting Limit		MI - Matrix Ir	Iterference		
	B/V - Analyte detected in the associ	ated Method Blank	D - Recovery Unreportable due to Dilution			
	J - Estimated value between MDL a	nd PQL	* - Recovery	Outside Advisable QC Limits		
	E - Estimated Value exceeds calibration curve					
	N/C - Not Calculated - Sample conc	entration is greater than 4	times the ar	nount of spike added. Control limits do not apply	<i>י</i> .	
	TNTC - Too numerous to count				09100141 Page 15	

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

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

### Conoco Phillips COP Elvis Battery

Analysis:	Purgeable Aromatics	WorkOrder:	09100141
Method:	SW8021B	Lab Batch ID:	R285847
· · · · · · · · · · · · · · · · · · ·			

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	24.8	20.7	83.8	24.8	21.1	85.1	1.52	31	41	133
Ethylbenzene	ND	24.8	19.7	79.6	24.8	20.2	81.4	2.28	39	31	129
Methyl tert-butyl ether	ND	24.8	20.5	82.8	24.8	21.2	85.8	3.57	25	29	148
Toluene	ND	24.8	20.7	83.5	24.8	21.2	85.6	2.42	25	34	130
m,p-Xylene	ND	49.5	38.2	77.2	49.5	39.4	79.5	2.98	26	35	123
o-Xylene	ND	24.8	19.1	77.2	24.8	19.3	78.0	0.996	35	33	124
Total BTEX	ND	148.5	118.4	79.75	148.5	121.2	81.52	2.195	32	31	133
Xylenes,Total	ND	74.3	57.3	77.2	74.3	58.7	79.0	2.32	35	33	124
Surr: 1,4-Difluorobenzene	ND	124	121	97.8	124	120	96.7	1.07	30	70	130
Surr: 4-Bromofluorobenzene	ND	124	130	105	124	128	103	1.47	30	63	145

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

B/V - Analyte detected in the associated Method Blank

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

MI - Matrix Interference

D - Recovery Unreportable due to Dilution

\* - Recovery Outside Advisable QC Limits

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

TNTC - Too numerous to count

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

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### Conoco Phillips COP Elvis Battery

Analysis: Method:	Purgeable Aromatics SW8021B	•			WorkOrder: Lab Batch ID:	09100141 R285935
	Meth	od Blank		Samples in Analyti	cal Batch:	
RuniD: HP_O_0	91008A-5239229	Units:	ug/kg	Lab Sample ID	Client San	nple ID
Analysis Date: Preparation Date:	10/08/2009 18:01 10/08/2009 18:01	Analyst: Prep By:	WLV Method: SW5030B	09100141-03A	S2-6'	

Analyte	Result	Rep Limit
Benzene	ND	1.0
Methyl tert-butyl ether	ND	1.0
Surr: 1,4-Difluorobenzene	98.1	70-130
Surr: 4-Bromofluorobenzene	102.5	63-145

#### Laboratory Control Sample (LCS)

RunID: Analysis Date: Preparation Date:

10/08/2009 17:03 10/08/2009 17:03

HP\_O\_091008A-5239228

Units: ug/kg Analyst: WLV Prep By: Method: SW5030B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Benzene	20.0	17.2	85.8	70	130
Methyl tert-butyl ether	20.0	18.4	92.1	74	127
Surr: 1,4-Difluorobenzene	100	97.3	97.3	70	130
Surr: 4-Bromofluorobenzene	100	105	105	63	145

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

Sample Spiked:	09100331-01		
RunID:	HP_O_091008A-5239243	Units:	ug/kg
Analysis Date:	10/09/2009 12:29	Analyst:	WLV
Preparation Date:	10/09/2009 11:17	Prep By:	XML Method: SW5030B

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limit
Benzene	ND	20	14.1	70.6	20	13.8	69.2	1.94	31	41	133
Methyl tert-butyl ether	ND	20	13.7	68.5	20	14.5	72.6	5.73	25	29	148
Surr: 1,4-Difluorobenzene	ND	100	97.5	97.5	100	96.8	96.8	0.775	30	70	130
Surr: 4-Bromofluorobenzene	ND	100	103	103	100	103	103	0.749	30	63	145

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

D - Recovery Unreportable due to Dilution

MI - Matrix Interference

\* - 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.

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ated Method Blank D - Re



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

### **Conoco Phillips COP Elvis Battery**

Analysis: Method:	Purgeable Aromatics SW8021B	6				WorkOrder: Lab Batch ID:	09100141 R286338
	Meti	nod Blank	<u></u>		Samples in Analytic	al Batch:	
RunID: HP_0	_091013C-5245005	Units:	ug/kg		Lab Sample ID	Client Sar	n <u>ple I</u> D
Analysis Date:	10/13/2009 21:42	Analyst:	WLV		09100141-03A	S2-6'	<u></u>
Preparation Dat	e: 10/13/2009 21:42	Prep By:	N	lethod: SW5030B			
Γ	Analyte		Result	Rep Limit			
Et	hylbenzene		ND	1.0			
Τc	oluene		ND	10			
m	,p-Xylene		ND	1.0			
0-	Xylene		ND	1.0			
Тс	otal BTEX		ND	1.0			
X	/ienes,Total		ND	1.0			
	0 4 4 0 9		00.7	70.400			

			33.1	10-100	
	Surr: 4-Bromofluorobenzene		97.4	63-145	
	Methanolic F	Preparation E	llank		
RunID:	HP_O_091013C-5245006	Units:	ug/kg		
Analumia	D-t 40/42/2000 22-44	A malumati	14/1 17		

Analysis Date:	10/13/2009 22:11	Analyst:	WLV
Preparation Date:	10/13/2009 22:11	Prep By:	Method: SW5030B

Analyte	Result	Rep Limit
Ethylbenzene	ND	25
Toluene	ND	25
m,p-Xylene	ND	25
o-Xylene	ND	25
Total BTEX	ND	25
Xylenes, Total	ND	25
Surr: 1,4-Difluorobenzene	97.4	70-130
Surr 4-Bromofluorobenzene	103.8	63-145

#### Laboratory Control Sample (LCS)

RunID:	HP_O_091013C-5245004	Units:	ug/kg
Analysis Date:	10/13/2009 20:45	Analyst:	WLV
Preparation Date:	10/13/2009 20:45	Prep By:	Method: SW 5030B

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Ethylbenzene	20.0	15.9	79.5	75	122
Toluene	20.0	16.4	82.2	75	123
m,p-Xylene	40.0	31.1	77.7	74	122
o-Xylene	20.0	15.2	76.1	70	130
Total BTEX	120	62.3	78.8	70	130
Xylenes,Total	60.0	46.3	77.2	70	130

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

B/V - Analyte detected in the associated Method Blank

J - Estimated value between MDL and PQL

E - Estimated Value exceeds calibration curve

MI - Matrix Interference

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

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

TNTC - Too numerous to count

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

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Conoco Phillips COP Elvis Battery

Analysis: Method:	Purgeable A SW8021B	Aromatics					Worl Lab	kOrder: Batch ID:	091 R28
			Laboratory	Control S	Sample (L	<u>CS)</u>			
		RunID: Analysis Date: Preparation Date:	HP_O_091013C-52 10/13/2009 20:45 10/13/2009 20:45	45004 Ur Ar Pr	nits: u nalyst: V ep By:	g/kg VLV Method:	SW 5030B	3	
	ſ	Anal	yte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit	
		Surr: 1,4-Difluorobe	enzene	100	93.6	93.6	70	130	
		Surr: 4-Bromofluor	obenzene	100	101	101	63	145	

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

Sample Spiked
RunID:
Analysis Date:

Spiked: H0910003400 HP\_O\_091013C-5 Date: 10/14/2009 0:05

HP\_O\_091013C-5245008 Units: ug/kg 10/14/2009 0:05 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
Ethylbenzene	ND	20	15.6	77.8	20	18.3	91.3	16.0	39	31	129
Toluene	ND	20	16.1	80.4	20	19.1	95.5	<sup></sup> 17.2	25	34	130
m,p-Xylene	ND	40	30.1	75.2	40	35.6	88.9	16.7	26	35	123
o-Xylene	ND	20	14.9	74.6	20	17.3	86.7	15.0	35	33	124
Total BTEX	ND	120	45.0	77.0	120	52.9	90.7	16.4	32	31	133
Xylenes,Total	ND	60	45.0	75.0	60	52.9	88.2	16.2	35	33	124
Surr: 1,4-Difluorobenzene	ND	100	96.2	96.2	100	99.2	99.2	3.12	30	70	130
Surr: 4-Bromofluorobenzene	ND	100	103	103	100	107	107	4.15	30	63	145

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

B/V - Analyte detected in the associated Method Blank

MI - Matrix Interference

associated Method Blank D - Recovery Unreportable due to Dilution

\* - Recovery Outside Advisable QC Limits

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

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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S1-10'

S2-6'

S2-6"

S3-1'

S3-3'

S4-6'

S4-15'

### Conoco Phillips COP Elvis Battery

Analysis:	PERCENT MOISTURE		WorkOrder:	09100141	
Method:	D2216		Lab Batch ID:	R285537	
		Samples in Analytica	l Batch:		
		Lab Sample ID	Client Sar	nple ID	
		09100141-01B	S1-6'		

09100141-02B

09100141-03B

09100141-04B

09100141-05B

09100141-06B

09100141-07B

09100141-08B

#### Sample Duplicate

Original Sample:	09100141-01		
RunID:	WET_091005I-5232251	Units:	wt%
Analvsis Date:	10/05/2009 15:41	Analvst:	CFS

Analyte	Sample Result	DUP Result	RPD	RPD Limit
Percent Moisture	19.2	19.23	0	20

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

B/V - Analyte detected in the associated Method Blank

ethod Blank D - Recover

J - Estimated value between MDL and PQL

MI - Matrix Interference D - Recovery Unreportable due to Dilution

\* - 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.

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### **Conoco Phillips COP Elvis Battery**

Analysis: Method:	Ion Chromatography E300.0 MOD	,			WorkOrder: Lab Batch ID:	09100141 R285673
-	Meth	od Blank		Samples in Analytica	al Batch:	· · · · · · · · · · · · · · · · · · ·
RunID: IC1_09	1006B-5234707	Units:	mg/kg	Lab Sample ID	Client San	nple ID
Analysis Date:	10/06/2009 19:29	Analyst:	BDG	09100141-02B	S1-10'	
				09100141-05B	S3-1'	
				09100141-06B	S3-3'	
[	Anobto		Depuilt Dep Limit	09100141-07B	S4-6'	
Ch	loride		ND 5.0	09100141-08B	S4-15'	

#### Laboratory Control Sample (LCS)

RunID: Analysis Date:

IC1\_091006B-5234708 10/06/2009 19:46

Units: mg/kg BDG Analyst:

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Chloride	100.0	104.5	104.5	80	120

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

Sample Spiked: RunID: Analysis Date:

09100141-02 IC1 091006B-5234730 10/07/2009 2:50

Units: mg/kg-dry BDG Analyst:

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Lımit
Chloride	126.3	119.6	288.0	135.2 *	119.6	284.3	132.1 *	1.296	20	75	125

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 \* - Recovery Outside Advisable QC Limits

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

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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### Conoco Phillips COP Elvis Battery

Analysis: Method:	lon Chromatography E300.0 MOD				WorkOrder: Lab Batch ID:	09100141 R285673A
	Meth	od Biank		Samples in Analyti	cal Batch:	
RunID: IC1_091	006B-5234707	Units:	mg/kg	Lab Sample ID	Client San	nple ID
Analysis Date:	10/06/2009 19:29	Analyst:	BDG	09100141-01B	S1-6'	
				09100141-03B	S2-6'	
				09100141-04B	S2-6"	
Chic	Analyte		Result Rep Limit			

Laboratory	Control	Sample	(LCS)

RunID: Analysis Date:

Date: 1

IC1\_091006B-5234708 10/06/2009 19:46

Units: mg/kg Analyst: BDG

Analyte	Spike Added	Result	Percent Recovery	Lower Limit	Upper Limit
Chloride	100.0	104.5	104.5	80	120

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

Sample Spiked: RunID: Analysis Date:

ed: 09100141-01 IC1\_091006B-5234728 e: 10/07/2009 2:15

Units: mg/kg-dry Analyst: BDG

Analyte	Sample Result	MS Spike Added	MS Result	MS % Recovery	MSD Spike Added	MSD Result	MSD % Recovery	RPD	RPD Limit	Low Limit	High Limít
Chloride	ND	123.8	141.3	109.6	123.8	146.5	113.8	3.622	20	75	125

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

detected at the Reporting Limit

B/V - Analyte detected in the associated Method Blank

MI - Matrix Interference

D - Recovery Unreportable due to Dilution

\* - Recovery Outside Advisable QC Limits

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

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

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HOUSTON LABORATORY 8880 INTERCHANGE DRIVE HOUSTON, TX 77054

# (713) 660-0901

# Sample Receipt Checklist

						<b>DF</b>							
vvo													
Dat	e and Time Received:	10/3/2009 9:30:00 AM		(	Carrier name:	Fedex-Priority							
Ter	nperature:	3.4°C			Chilled by:	Water Ice							
1.	Shipping container/co	oler in good condition?	Yes 🔽	] No	, 🗆	Not Present							
2.	Custody seals intact o	n shippping container/cooler?	Yes ⊻	] No	<b>,</b> 🗆	Not Present							
3.	Custody seals intact o	n sample bottles?	Yes 🗌	] No		Not Present							
4.	Chain of custody pres	ent?	Yes 🗹	] No	<b>,</b> 🗆								
5.	Chain of custody sign	ed when relinquished and received?	Yes 🗹	] No									
6.	Chain of custody agre 1.Received 1-set of Tr chain vs S3-6' on cont	es with sample labels? ip Blank not written on chain. 2. ID S3-3' on ainer label	Yes 🗌	] No									
7.	Samples in proper cor	tainer/bottle?	Yes 🗹	] No									
8.	Sample containers int	act?	Yes 🗹	] No									
9.	Sufficient sample volu	me for indicated test?	Yes 🗹	] No									
10.	All samples received v	vithin holding time?	Yes 🗹	] No									
11.	Container/Temp Blank	temperature in compliance?	Yes 🗹	] No									
12.	Water - VOA vials have	e zero headspace?	Yes 🗌	] No	D VOA Via	als Not Present							
13.	Water - Preservation c	hecked upon receipt (except VOA*)?	Yes 🗌	] <b>N</b> o		Not Applicable							
·	*VOA Preservation Ch	ecked After Sample Analysis											
	SPL Representative: Contact Date & Time:												
	Client Name Contacte	d:											
	Non Conformance 1.L Issues:	ogged in Trip Blanks per PM. Logged in using	ID on chair	until client ca	an be notified.								
	Client Instructions:												
	L												

Loge Ser

Chain of Custody Record         Iterition C Conoco Phillips         SPL Warkorder Number:         Official Semicle         SPL Warkorder Number:         Official Semicle         SPL Warkorder Number:         Official Semicle         Semicle         Address:         Collected Semple Type         Matrix         Sample ID       Collected Semple Type         Date Time Comp Grab Water Sell         Sample ID       Collected Semple Type Matrix         Sample ID       Collecte												Ô	9100	014	17		
Ilent: Tetra Tech/ Conoco Phillips       SPL Workorder Number: 0100000000000000000000000000000000000				Ch	ain a	of Cu	stoc	ly R	ec	ord		<u></u>	210	~~~	111	0	2
tenhon: $C$ $Oyrell Crob: (32) CBF 7231 [small:(32)$ $CBF$ $7231$ [small: (32) $CBF$ $7311$ [small: (32) $CBF$ $7311$ [small: (32) $CBF$ $731$	Client: Tetra Tech/ Conoco	> Philli	ps					SPL	Work	order	Numb	er: U	ŦĦĐ	θÐ	97		<b></b>
cone: $\frac{132}{93}$ ( $\frac{136}{93}$ $\frac{1}{723}$ ) is mail: cone: $\frac{132}{93}$ ( $\frac{136}{93}$ $\frac{1}{723}$ ) State: $74$ ( $12$ ) Code: $777255$ operations in $\frac{1}{12}$ ( $\frac{12}{12}$ ) Code: $\frac{1}{12}$ ( $\frac{1}{7255}$ ) operations in $\frac{1}{12}$ ( $\frac{12}{12}$ ) Code: $\frac{1}{12}$ ( $\frac{1}{7255}$ ) operations in $\frac{1}{12}$ ( $\frac{1}{12}$ ) Code: $\frac{1}{12}$	Attention: C Durrett	······	J														
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circle Name: COP Mational CLUIS BALLens C. Number: $2LUOO 44CO$ make $M$ sumple ID Date Time Comp Grab Water Soil 3 Singular Soil 3 Sin	Silv: midnd	State:	Th	Zip Co	de: /	9705	•	]	1		0						
C. Number: $364000 44460$ redellow: for a first of the type: $1130$	roject Name: COP Maljamar	Ē	LV15	Ball	en			]			В.						
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	".O. Number: ,8640044	160	)					]	2	5	918	72					
Sample ID       Collected       Sample Type       Matrix       a       b       a       a       b       a	armpled By:					print	ŀ	Type	Athe	ontain	ITEX/B	RO/C					
Sample ID       Date       Time       Cample Grab       Water       Soil $2$ $2$ $3$ $3$ $SI = 40^{\circ}$ $IIab$ $IIab$ $X$ $5$ $2$ $4$ $4$ $X$ $5$ $1$ $2$ $4$ $4$ $X$ $5$ $1$ $2$ $4$		Coll	ected	Sampl	e lype	Ma	hix		1 Sec	U T	21-8	15-C					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Sample ID	Date	Time	Comp	Grab	Water	Soil	<u>n</u>	<u>۽</u>		8	8			<b> </b>		
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Induct? Y of N/ Temperature: 3.1 C Temperature: 3.1 C Temperatu	and the first of the second	1 Care	1 Z. Li-p.	<b>}</b>	<u> </u>		X. M.		<b>+!</b>	0	*>			-	1		
Intract?       Y or NU         24 hrt       48 hrt       1:3/40ml Vials 2. 1L Glass 3. 1L Plastic 4. 1L Amber Glass 5. 4oz Glass         24 hrt       5 wday()       Bottle Types:       1:3/40ml Vials 2. 1L Glass 3. 1L Plastic 4. 1L Amber Glass 5. 4oz Glass         10 wday - Standard()       Preservative Types:       1: NONE       2. HNO3       3. HCL       4. H2SO4         Inne       Received by:       Date       Time       Received by:       Monetation         SA Dee_S       Date       Time       Received by:       Monetation         Inquished by:       Date       Time       Received by:         Inquished by:       Date       Time       Received by:         Inquished by:       Date       Time       Received by:	مىلىنى ئۇرى ئۆر يەر يۈرك بىر	<b>}</b>		+	<b>}</b>			+	<u>+</u>	<u>+</u> -							╞╴┅┈┥╍┉╵
24 hr       48 hr       1       34 hr       1       <	umarcund Time Requirements	Rema	rks:			L		- 4			<b></b>		Inta	ct?	Y or	, NC	Tr.
12 mile ()       5 wady()       Bome types:       1: 3/40mil viais 2. 11 Glass 3. 11 plashe 4. 11 Amber Glass 5. 402 Glass         10 wday - Standard()       Preservative Types:       1: NONE       2. HNO3       3. HCL       4. H2SO4       4.         Inquished by Sampler:       Date       Time       Received by:       4.       10 mile (1995)       10 mile (1995)         SA Dec.5       Date       Time       Received by:       10 mile (1995)       10 mile (1995)         Inquished by:       Date       Time       Received by:       10 mile (1995)         Inquished by:       Date       Time       Received by:       10 mile (1995)         Inquished by:       Date       Time       Received by:       10 mile (1995)         Inquished by:       Date       Time       Received by:       10 mile (1995)         Inquished by:       Date       Time       Received by:       10 mile (1995)         Inquished by:       Date       Time       Received by:       10 mile (1995)         Inquished by:       Date       Time       Received by:       10 mile (1995)         Inquished by:       Date       Time       Received by:       10 mile (1995)	24 fire ) 48 fire ) 75 km ) 6 under ( ) Rettle Turner				1. 2/4	0		1 Class 2 11 Diasta 4 1						peran	яе: <u>ч</u>		
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