<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

Section

3

Township

31N

Produced Water

Below Grade Tank

Range

12W

Feet from the

1600

☐ Yes ☐ No ☒ Not Required

Unit Letter

K

Type of Release

Source of Release

Was Immediate Notice Given?

State of New Mexico Energy Minerals and Natural Resources

Revised August 8, 2011

Form C-141

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

Submit 1 Copy to appropriate District Office to accordance with 19.15.29 NMAC.

County

Date and Hour of Discovery

Volume Recovered

August 27, 2012

San Juan

Unknown

Releas	se Notification	on and Corrective Actio	n		
		OPERATOR	☐ Initial Report		
Name of Company Burlington Resources Oil &	Contact Crystal Tafoya				
Address 3401 East 30 th St, Farmington, NM	Telephone No.(505) 326-9837				
Facility Name: Davis 11E	Facility Type: Gas Well				
Surface Owner Federal	Mineral Owner Federal (API No.30045239	81	

Feet from the

1560

Unknown

East/West Line

West

Latitude 36.92483000 Longitude -107.08575

Unknown

Volume of Release

If YES, To Whom?

Date and Hour of Occurrence

LOCATION OF RELEASE

North/South Line

South

NATURE OF RELEASE

By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.* N/A		
IV/A		
Describe Cause of Problem and Remedial Action Taken.*		
Below-Grade Tank Closure activies with samples taken resulting in c	onstituents exceeded standards outlined by 19.15	3.17.13 NMAC.
Describe Area Affected and Cleanup Action Taken.* NMOCD action levels for releases are specified in NMOCD's Guideli		
score of 10. Samples were collected and analytical results are below a final report is attached for review.	applicable NMOCD action levels. No further wo	rk will be performed. The
·		
I hereby certify that the information given above is true and complete to t regulations all operators are required to report and/or file certain release n		
public health or the environment. The acceptance of a C-141 report by the should their operations have failed to adequately investigate and remediate		
or the environment. In addition, NMOCD acceptance of a C-141 report d		
federal, state, or local laws and/or regulations.	OH CONCEDIATION I	MARIONI
Cystal of Tajoya EED 96 2015	OIL CONSERVATION I	DIVISION
Cinnetonal / / / / / / / / / / / / / / / / / / /	Approved by Environmental Specialist:	1/1-/7
Printed Name: Crystal Tafoya	Approved by Environmental Specialist:	ref In
111111111111111111111111111111111111111	4/20/15	
Title: Field Environmental Specialist	Approval Date: 4/30//5 Expiration D	ate:
E-mail Address: crystal.tafoya@conocophillips.com	Conditions of Approval:	Attached
Date: 2/25/2015 Phone: (505) 326-9837		
Attach Additional Sheets If Necessary	‡NCS 1512041889	(IC)



September 28, 2012

Crystal Tafoya ConocoPhillips San Juan Business Unit Office 214-05 5525 Hwy 64 Farmington, New Mexico 87401 www.animasenvironmental.com

624 E. Comanche Farmington, NM 87401 505-564-2281

> Durango, Colorado 970-403-3274

RE: **Below Grade Tank Closure Report**

Davis #11E

San Juan County, New Mexico

Dear Ms. Tafoya:

Animas Environmental Services, LLC (AES) is pleased to provide the final report associated with the below grade tank (BGT) closure at ConocoPhillips (CoP) Davis #11E, located in San Juan County, New Mexico. Tank removal had been completed by CoP contractors prior to AES' arrival at the location.

Site Information 1.0

1.1 Location

Site Name - Davis #11E

Legal Description – NE% SW%, Section 3, T31N, R12W, San Juan County, New Mexico Well Latitude/Longitude – N36.92492 and W108.08642, respectively BGT Latitude/Longitude - N36.92511 and W108.08646, respectively Land Jurisdiction – Bureau of Land Management (BLM) Figure 1 - Topographic Site Location Map

Figure 2 – Aerial Site Map, August 2012

1.2 NMOCD Ranking

Prior to site work, the New Mexico Oil Conservation Division (NMOCD) dataset was reviewed, and a C-144 form dated October 2005 for the Davis #11E reported the depth to groundwater as greater than 100 feet below ground surface (bgs). The New Mexico Office of the State Engineer (NMOSE) database was also reviewed for nearby water wells, and no registered water wells were reported to be located within 1,000 feet of the location. Additionally, Google Earth and the New Mexico Tech Petroleum Recovery

Crystal Tafoya Davis #11E BGT Closure Report September 28, 2012 Page 2 of 5

Research Center online mapping tool (http://ford.nmt.edu/react/project.html) were accessed to aid in the identification of downgradient surface water.

Once on site, AES personnel furthered assessed the ranking using topographical interpretation, Global Positioning System (GPS) elevation readings, and visual reconnaissance. An unnamed ephemeral wash is located approximately 220 feet west-southwest of the location and drains to Blue Lake Wash. Based on this information, the site was assessed a ranking score of 10.

1.3 BGT Closure Assessment

AES was initially contacted by Jess Henson, CoP representative, on August 24, 2012, and on August 27, 2012, Heather Woods and Kelsey Christiansen of AES met with a CoP representative at the location.

AES personnel collected six soil samples from the below the BGT liner. Four samples were collected from the perimeter of the BGT footprint, one sample was collected from the center of the BGT footprint, and one sample was composited from the four perimeter samples and one center sample.

2.0 Soil Sampling

On August 27, 2012, AES personnel conducted field screening and collected five soil samples (S-1 through S-5) and one 5-point composite (SC-1) from below the BGT. Soil samples were collected from approximately 0.5 feet below the former BGT for field screening of volatile organic compounds (VOCs) and total petroleum hydrocarbons (TPH). Soil sample SC-1 was field screened for chlorides and submitted for confirmation laboratory analysis. Soil sample locations are included on Figure 2.

2.1 Field Screening

2.1.1 Volatile Organic Compounds

A portion of each sample was utilized for field screening of VOC vapors with a photo-ionization detector (PID) organic vapor meter (OVM). Before beginning field screening, the PID-OVM was first calibrated with 100 parts per million (ppm) isobutylene gas.

2.1.2 Total Petroleum Hydrocarbons

Soil samples were also analyzed in the field for TPH per USEPA Method 418.1 using a Buck Scientific Model HC-404 Total Hydrocarbon Analyzer Infrared Spectrometer (Buck). A 3-point calibration was completed prior to conducting soil analyses. Field analytical

protocol followed AES's Standard Operating Procedure: Field Analysis Total Petroleum Hydrocarbons per EPA Method 418.1.

2.1.3 Chlorides

Soil sample SC-1 was field screened for chlorides using Chloride Drop Count Titration with silver nitrate. Sampling and analysis methods followed procedures provided by Hach Company.

2.2 Laboratory Analyses

The composite soil sample SC-1 collected for laboratory analysis was placed into a new, clean, laboratory-supplied container, which was then labeled, placed on ice, and logged onto a sample chain of custody record. The sample was maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall), in Albuquerque, New Mexico. Soil sample SC-1 was laboratory analyzed for:

- Benzene, toluene, ethylbenzene, and xylene (BTEX) per U.S. Environmental Protection Agency (USEPA) Method 8021B;
- Total petroleum hydrocarbons (TPH) for gasoline range organics (GRO) and diesel range organics (DRO) per USEPA Method 8015B;
- Chloride per USEPA Method 300.0.

2.3 Field and Laboratory Analytical Results

Field screening for VOCs via OVM showed readings ranging from 0.1 ppm in S-2 up to 0.6 ppm in S-5. Field TPH concentrations ranged from 79.4 mg/kg in S-3 up to 147 mg/kg in S-1. The field chloride concentration in SC-1 was 80 mg/kg. Field screening results are summarized in Table 1 and presented on Figure 2. The AES Field Screening Report is attached.

Table 1. Soil Field Screening VOCs, TPH, and Chloride Results
Davis #11E BGT Closure, August 2012

Date Sampled	Depth below BGT (ft)	VOCs OVM Reading (ppm)	Field TPH (mg/kg)	Field Chlorides (mg/kg)
Level (NMAC 19.	15.17.13E)		100	250
8/27/12	0.5	0.2	147	NA
8/27/12	0.5	0.1	83.5	NA
8/27/12	0.5	0.2	79.4	NA
8/27/12	0.5	0.5	80.8	NA
8/27/12	0.5	0.6	118	NA
	Sampled Level (NMAC 19. 8/27/12 8/27/12 8/27/12 8/27/12	Date Sampled below BGT (ft) Level (NMAC 19.15.17.13E) 8/27/12 0.5 8/27/12 0.5 8/27/12 0.5 8/27/12 0.5 8/27/12 0.5	Date Sampled below BGT (ft) Reading (ppm) Level (NMAC 19.15.17.13E) 8/27/12 0.5 0.2 8/27/12 0.5 0.1 8/27/12 0.5 0.2 8/27/12 0.5 0.5 8/27/12 0.5 0.5	Date Sampled below BGT (ft) Reading (ppm) TPH (mg/kg) Level (NMAC 19.15.17.13E) 100 8/27/12 0.5 0.2 147 8/27/12 0.5 0.1 83.5 8/27/12 0.5 0.2 79.4 8/27/12 0.5 0.5 80.8

		Depth	VOCs OVM	Field	Field
	Date	below	Reading	TPH	Chlorides
Sample ID	Sampled	BGT (ft)	(ppm)	(mg/kg)	(mg/kg)
NMOCD Action L	evel (NMAC 19.		100	250	
SC-1	8/27/12	0.5	NA	NA	80

NA = not analyzed.

Laboratory analytical results showed that the benzene and total BTEX concentrations in SC-1 were below the laboratory detection limits of 0.050 mg/kg and 0.25 mg/kg, respectively. TPH concentrations were reported below the laboratory detection limits of 5.0 mg/kg GRO and 9.7 mg/kg DRO. The laboratory chloride concentration was less than 30 mg/kg. Laboratory analytical results are summarized in Table 2 and included on Figure 2. Laboratory analytical reports are attached.

Table 2. Soil Laboratory Analytical Results, Davis #11E BGT Closure, August 2012

Sample ID	Date Sampled	Depth (ft)	Benzene (mg/kg)	BTEX (mg/kg)	TPH- GRO (mg/kg)	TPH- DRO (mg/kg)	Chlorides (mg/kg)
NMOCD Action	Level (NMAC 19.15	.17.13E)	0.2	50	10	00	250
SC-1	8/27/12	0.5	<0.050	<0.25	<5.0	<9.7	<30

3.0 Conclusions and Recommendations

NMOCD action levels for BGT closures are specified in New Mexico Administrative Code (NMAC) 19.15.17.13E. Benzene concentrations in SC-1 were below the laboratory detection limit of 0.050 mg/kg, and total BTEX concentrations were below the NMOCD action level of 50 mg/kg. Field TPH concentrations exceeded the NMOCD action level of 100 mg/kg in two samples, S-1 (147 mg/kg) and S-5 (118 mg/kg). However, laboratory analytical results for TPH as GRO/DRO were below laboratory detection limits and the NMOCD action level of 100 mg/kg. The chloride concentration in SC-1 was below the NMOCD action level of 250 mg/kg. Based on field screening and laboratory analytical results for benzene, total BTEX, TPH, and chlorides, no further work is recommended.

If you have any questions about this report or site conditions, please do not hesitate to contact Deborah Watson at (505) 564-2281.

Crystal Tafoya Davis #11E BGT Closure Report September 28, 2012 Page 5 of 5

Sincerely,

Landrea Cupps

Landrea R. Cupps

Environmental Scientist

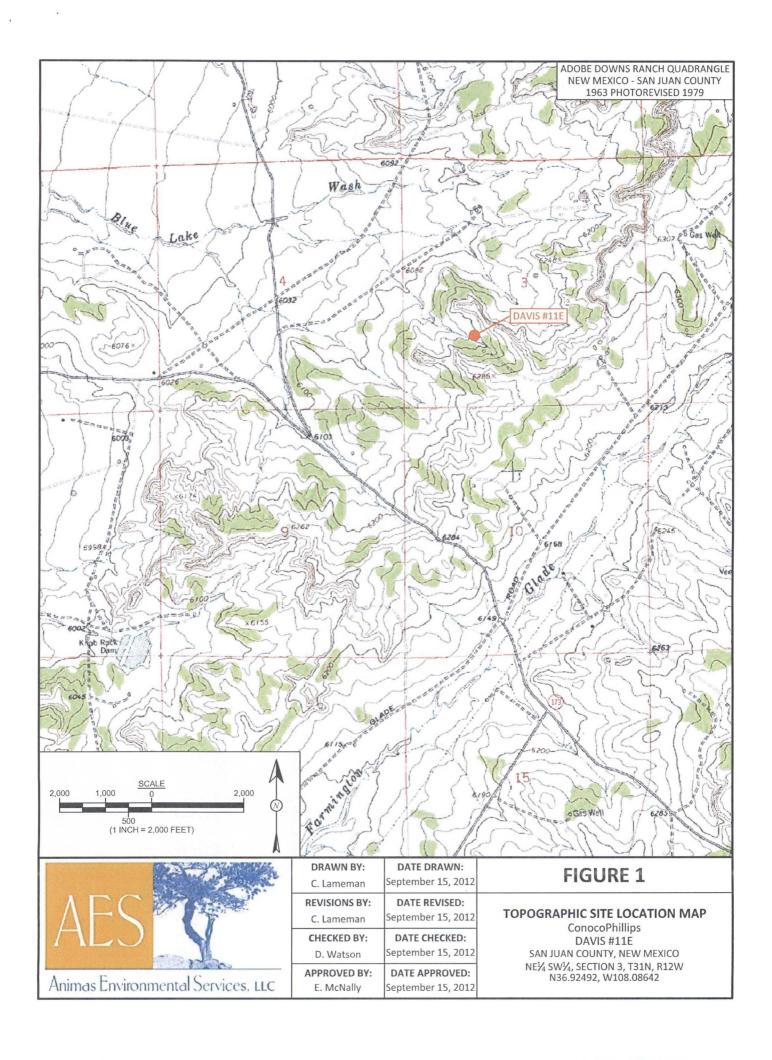
Elizabeth McNally, P.E.

Elizabeth V MeNdly

Attachments:

Figure 1. Topographic Site Location Map Figure 2. Aerial Site Map, August 2012 AES Field Screening Report 082712 Hall Analytical Report 1208C16

R:\Animas 2000\2012 Projects\Conoco Phillips\Davis #11E\Davis #11E BGT Closure Report 092812.docx





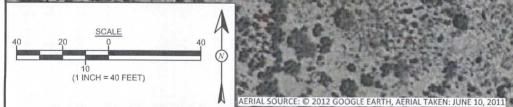
SAMPLE LOCATIONS

Sample Date		TPH (mg/kg)	Chloride: (mg/kg)	
ACTION LEVEL		100	250	
8/27/12	0.2	147	NA	
8/27/12	0.1	83.5	NA	
8/27/12	0.2	79.4	NA	
8/27/12	0.5	80.8	NA	
8/27/12	0.6	118	NA	
8/27/12	NA	NA	80	
	Date D ACTION LEVEL 8/27/12 8/27/12 8/27/12 8/27/12 8/27/12 8/27/12	Date OVM- (ppm) C ACTION LEVEL 8/27/12 0.2 8/27/12 0.1 8/27/12 0.5 8/27/12 0.6	Date PID (ppm) TPH (mg/kg)	

		Laborato	ry Analytico	al Results		
Sample ID	Date	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	Chlorides (mg/kg)
NMOCD ACTION LEVEL		0.2	50	100		250
SC-1	8/27/12	<0.050	<0.25	<5.0	<9.7	<30
SAMPLE WAS	ANALYZED	PER EPA M	ETHOD 802	1B. 8015B A	ND 300.0.	

S-3 S-4 BGT - N36.92511 W108.08646

DAVIS #11E WELLHEAD



SERVICE STATE OF THE PARTY OF T	
1	R
	(
·	_

Animas Environmental Services, LLC

DRAWN BY:	DATE DRAWN:
C. Lameman	September 15, 2012
REVISIONS BY:	DATE REVISED:
C. Lameman	September 15, 2012
CHECKED BY:	DATE CHECKED:
D. Watson	September 15, 2012
APPROVED BY:	DATE APPROVED:
E. McNally	September 15, 2012

FIGURE 2

AERIAL SITE MAP BELOW GRADE TANK CLOSURE AUGUST 2012

ConocoPhillips DAVIS #11E SAN JUAN COUNTY, NEW MEXICO NE¼ SW¼, SECTION 3, T31N, R12W N36.92492, W108.08642

AES Field Screening Report

Animas Environmental Services, LLC

www.animasenvironmental.com

624 E. Comanche Farmington, NM 87401 505-564-2281

> Durango, Colorado 970-403-3274

Client: ConocoPhillips

Project Location: Davis #11E

Date: 8/27/2012

Matrix: Soil

Sample ID	Collection Date	Time of Sample Collection	Sample Location	OVIM (ppm)	Field Chloride (mg/kg)	Field TPH Analysis Time	Field TPH* (mg/kg)	TPH PQL (mg/kg)	DF	TPH Analysts Initials
S-1	8/27/2012	11:10	North	0.2	NA	12:11	147	20.0	1	HMW
S-2	8/27/2012	11:12	South	0.1	NA	12:16	83.5	20.0	1	HMW
S-3	8/27/2012	11:14	East	0.2	NA	12:21	79.4	20.0	1	HMW
S-4	8/27/2012	11:16	West	0.5	NA	12:25	80.8	20.0	1	HMW
S-5	8/27/2012	11:18	Center	0.6	NA	12:30	118	20.0	1	HMW
SC-1	8/27/2012	11:20	Composite	NA	80	Not Analyzed for TPH.				

PQL

Practical Quantitation Limit

Field Chloride - Quantab Chloride Titrators or Drop Count Titration with

Heather M. Woods

Silver Nitrate

Not Detected at the Reporting Limit

Total Petroleum Hydrocarbons - USEPA 418.1

ND NA

Not Analyzed

DF

Dilution Factor

*Field TPH concentrations recorded may be below PQL.

Analyst:

Report Finalized: 08/27/12



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

August 29, 2012

Debbie Watson Animas Environmental Services 624 East Comanche Farmington, NM 87401 TEL: (505) 486-4071

FAX

RE: CoP Davis 11E

OrderNo.: 1208C16

Dear Debbie Watson:

Hall Environmental Analysis Laboratory received 1 sample(s) on 8/28/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman

Laboratory Manager

Only

4901 Hawkins NE

Albuquerque, NM 87109

Analytical Report

Lab Order 1208C16

Date Reported: 8/29/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: SC-1

CoP Davis 11E Project:

Collection Date: 8/27/2012 11:20:00 AM

1208C16-001 Lab ID:

Received Date: 8/28/2012 10:00:00 AM Matrix: MEOH (SOIL)

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E ORGANICS				Analyst: JMP
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	8/28/2012 11:21:05 AM
Surr: DNOP	105	77.6-140	%REC	1	8/28/2012 11:21:05 AM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	8/28/2012 12:44:22 PM
Surr: BFB	94.6	84-116	%REC	1	8/28/2012 12:44:22 PM
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.050	mg/Kg	1	8/28/2012 12:44:22 PM
Toluene	ND	0.050	mg/Kg	1	8/28/2012 12:44:22 PM
Ethylbenzene	ND	0.050	mg/Kg	1	8/28/2012 12:44:22 PM
Xylenes, Total	ND	0.10	mg/Kg	1	8/28/2012 12:44:22 PM
Surr: 4-Bromofluorobenzene	96.2	80-120	%REC	1	8/28/2012 12:44:22 PM
EPA METHOD 300.0: ANIONS					Analyst: SRM
Chloride	ND	30	mg/Kg	20	8/28/2012 12:23:21 PM

Qualifiers:

- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded Н
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- Value exceeds Maximum Contaminant Level.
- Value above quantitation range
- Analyte detected below quantitation limits
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits
 Page 1 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#:

1208C16

29-Aug-12

Client:

Animas Environmental Services

Project:

CoP Davis 11E

Sample ID	MB-3507
Client ID:	PBS

SampType: MBLK

PQL

TestCode: EPA Method 300.0: Anions

Batch ID: 3507

RunNo: 5152

8/28/2012 Analysis Date: 8/28/2012

14

Result

SeqNo: 146388 Units: mg/Kg

HighLimit %RPD

RPDLimit Qual

Analyte Chloride

Prep Date:

ND 1.5

Sample ID LCS-3507 Client ID:

LCSS

SampType: LCS Batch ID: 3507 TestCode: EPA Method 300.0: Anions

RunNo: 5152

Units: mg/Kg

Prep Date: 8/28/2012 Analyte

Analysis Date: 8/28/2012

SeqNo: 146389

RPDLimit Qual

Chloride

PQL

SPK value SPK Ref Val %REC 0

SPK value SPK Ref Val %REC LowLimit

LowLimit 94.1 90 HighLimit %RPD 110

Sample ID

Client ID:

1208B07-001AMS

SampType: MS

1.5

15.00

15.00

TestCode: EPA Method 300.0: Anions

Prep Date: 8/28/2012

BatchQC

Batch ID: 3507

RunNo: 5152

Analysis Date: 8/28/2012

SeqNo: 146391

Units: mg/Kg

Analyte

Result PQL SPK value SPK Ref Val

15

%REC LowLimit

HighLimit

%RPD **RPDLimit** Qual

Chloride

81.8 TestCode: EPA Method 300.0: Anions

Client ID: **BatchQC** SampType: MSD Batch ID: 3507

RunNo: 5152

Prep Date:

Sample ID 1208B07-001AMSD

Analyte

8/28/2012

Analysis Date: 8/28/2012

SegNo: 146392

Units: mg/Kg

15

%REC

HighLimit

RPDLimit

20

Qual

Chloride

Result PQL 34

SPK value SPK Ref Val 19.96 15.00

19.96

93.4

64.4

LowLimit

64.4

%RPD 5.24

Qualifiers:

Analyte detected in the associated Method Blank В

Holding times for preparation or analysis exceeded H

Not Detected at the Reporting Limit ND

Value above quantitation range

Analyte detected below quantitation limits J

Spike Recovery outside accepted recovery limits

Page 2 of 6

Reporting Detection Limit

R RPD outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

WO#:

1208C16

29-Aug-12

Client:

Animas Environmental Services

Project:	CoP Dav	is 11E											
Sample ID	MB-3497	TestCode: EPA Method 8015B: Diesel Range Organics											
Client ID:	PBS	Batch	ID: 34	97	RunNo: 5130								
Prep Date:	8/27/2012	Analysis Da	ite: 8/	28/2012	45851	Units: mg/Kg							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Diesel Range (Organics (DRO)	ND	10										
Surr: DNOP		11		10.00		108	77.6	140					
Sample ID	LCS-3497	SampTy	S	Tes	tCode: El	PA Method	8015B: Diese	el Range C	Organics				
Client ID:	LCSS	Batch	ID: 34	97	F	tunNo: 5	130						
Prep Date:	8/27/2012	Analysis Da	28/2012	S	eqNo: 1	46003	Units: mg/Kg						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Diesel Range (Organics (DRO)	44	10	50.00	0	88.4	52.6	130					
Surr: DNOP		4.3		5.000		86.4	77.6	140					
Sample ID	1208C15-001AMS	SampTy	ре: МS	3	TestCode: EPA Method 8015B: Diesel Range Organics								
Client ID:	BatchQC	Batch	ID: 35	09	RunNo: 5159								
Prep Date:	8/28/2012	Analysis Da	ite: 8/	29/2012	S	eqNo: 1	46661	Units: %RE	С				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Surr: DNOP		4.4		5.149		85.9	77.6	140					
Sample ID	1208C15-001AMS	D SampTy	pe: MS	SD	Tes	Code: El	PA Method	8015B: Diese	el Range C	Organics			
Client ID:	BatchQC	Batch	ID: 35	09	R	tunNo: 5	159						
Prep Date:	8/28/2012	Analysis Da	ite: 8/	29/2012	S	eqNo: 1	47002	Units: %RE	С				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Surr: DNOP		4.4		4.931		88.3	77.6	140	0	0			

Qualifiers:

- Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

- Value above quantitation range
- Analyte detected below quantitation limits J
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits

Page 3 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208C16

29-Aug-12

Client:

Animas Environmental Services

Project:	CoP Davi	is 11E											
Sample ID	5ML RB	SampT	ype: ME	BLK	TestCode: EPA Method 8015B: Gasoline Range								
Client ID:	PBS	Batch	ID: R5	146	F	RunNo: 5	5146						
Prep Date:		Analysis D	ate: 8/	28/2012	5	SeqNo: 1	46743	Units: mg/h	⟨g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
Gasoline Rang	e Organics (GRO)	ND	5.0										
Surr: BFB		970		1000		96.6	84	116					
Sample ID	2.5UG GRO LCS	SampT	ype: LC	s	Tes	tCode: E	PA Method	8015B: Gaso	oline Rang	e			
Client ID:	LCSS	Batch	ID: R5	146	F	RunNo: 5	5146						
Prep Date:		Analysis D	ate: 8/	28/2012		SeqNo: 1	46744	Units: mg/k	〈 g				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual		
,	e Organics (GRO)	24	5.0	25.00	0	95.6	74	117					
Surr: BFB		1000		1000		101	84	116					
Sample ID	1208C16-001AMS	SampT	ype: MS	3	Tes	tCode: E	PA Method	8015B: Gaso	oline Rang	e			
Client ID:	SC-1	Batch	ID: R5	146	F	RunNo: 5	146						
Dron Doto:													
Prep Date:		Analysis D	ate: 8/	28/2012	5	SeqNo: 1	46746	Units: mg/k	(g				
Analyte		Analysis D	ate: 8/ PQL		SPK Ref Val		46746 LowLimit	Units: mg/h HighLimit	(g %RPD	RPDLimit	Qual		
Analyte	e Organics (GRO)									RPDLimit	Qual		
Analyte	e Organics (GRO)	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit		RPDLimit	Qual		
Analyte Gasoline Rang Surr: BFB	e Organics (GRO)	Result 16 700	PQL 5.0	SPK value 16.99 679.7	SPK Ref Val	%REC 95.5 102	LowLimit 70 84	HighLimit 130	%RPD		Qual		
Analyte Gasoline Rang Surr: BFB	1208C16-001AMSI	Result 16 700 SampTy	PQL 5.0	SPK value 16.99 679.7	SPK Ref Val 0	%REC 95.5 102	LowLimit 70 84 PA Method	HighLimit 130 116	%RPD		Qual		
Analyte Gasoline Rang Surr: BFB Sample ID	1208C16-001AMSI	Result 16 700 SampTy	PQL 5.0 ype: MS	SPK value 16.99 679.7 6D	SPK Ref Val 0	%REC 95.5 102 tCode: E	LowLimit 70 84 PA Method	HighLimit 130 116	%RPD		Qual		
Analyte Gasoline Rang Surr: BFB Sample ID Client ID:	1208C16-001AMSI	Result 16 700 D SampTy Batch	PQL 5.0 ype: MS	SPK value 16.99 679.7 6D 4146 28/2012	SPK Ref Val 0	%REC 95.5 102 tCode: E RunNo: 5	LowLimit 70 84 PA Method	HighLimit 130 116 8015B: Gaso	%RPD		Qual		
Analyte Gasoline Rang Surr: BFB Sample ID Client ID: Prep Date: Analyte	1208C16-001AMSI	Result 16 700 D SampTy Batch Analysis D	PQL 5.0 ype: MS ID: R5 ate: 8/	SPK value 16.99 679.7 6D 4146 28/2012	SPK Ref Val 0 Tes	%REC 95.5 102 tCode: E RunNo: 5	LowLimit 70 84 PA Method 3146 46747	HighLimit 130 116 8015B: Gasc Units: mg/k	%RPD	е			
Analyte Gasoline Rang Surr: BFB Sample ID Client ID: Prep Date: Analyte	1208C16-001AMSI SC-1	Result 16 700 D SampTy Batch Analysis Dane	PQL 5.0 ype: MS ID: R5 ate: 8/	SPK value 16.99 679.7 6D 146 28/2012 SPK value	SPK Ref Val 0 Tes F SPK Ref Val	%REC 95.5 102 tCode: E RunNo: 5 SeqNo: 1 %REC	20 LowLimit 70 84 PA Method 1146 46747 LowLimit	HighLimit 130 116 8015B: Gaso Units: mg/F	%RPD pline Rang (g %RPD	e RPDLimit			
Analyte Gasoline Rang Surr: BFB Sample ID Client ID: Prep Date: Analyte Gasoline Rang	1208C16-001AMSI SC-1 e Organics (GRO)	Result 16 700 D SampTy Batch Analysis Dane Result 16	PQL 5.0 ype: MS ID: R5 ate: 8/ PQL 5.0	SPK value 16.99 679.7 SD 146 28/2012 SPK value 16.99 679.7	SPK Ref Val 0 Tes F SPK Ref Val 0	%REC 95.5 102 tCode: E RunNo: 5 SeqNo: 1 %REC 96.2 102	LowLimit	HighLimit 130 116 8015B: Gasc Units: mg/F HighLimit 130	%RPD bline Rang (g %RPD 0.751 0	e RPDLimit 22.1 0			
Analyte Gasoline Rang Surr: BFB Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB	1208C16-001AMSI SC-1 e Organics (GRO)	Result 16 700 D SampTy Batch Analysis Do Result 16 690 SampTy	PQL 5.0 ype: MS ID: R5 ate: 8/ PQL 5.0	SPK value 16.99 679.7 6D 146 28/2012 SPK value 16.99 679.7	SPK Ref Val 0 Tes SPK Ref Val 0	%REC 95.5 102 tCode: E RunNo: 5 SeqNo: 1 %REC 96.2 102	LowLimit	HighLimit 130 116 8015B: Gasc Units: mg/F HighLimit 130 116	%RPD bline Rang (g %RPD 0.751 0	e RPDLimit 22.1 0			
Analyte Gasoline Rang Surr: BFB Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID	1208C16-001AMSI SC-1 e Organics (GRO)	Result 16 700 D SampTy Batch Analysis Do Result 16 690 SampTy	PQL 5.0 ID: R5 ate: 8/ PQL 5.0 JD: R5 ID: R5	SPK value 16.99 679.7 6D 146 28/2012 SPK value 16.99 679.7 BLK 146	SPK Ref Val 0 Tes F SPK Ref Val 0 Tes	%REC 95.5 102 tCode: E RunNo: 5 SeqNo: 1 %REC 96.2 102 tCode: E	LowLimit	HighLimit 130 116 8015B: Gasc Units: mg/F HighLimit 130 116	%RPD Oline Rang (g %RPD 0.751 0 Oline Rang	e RPDLimit 22.1 0			
Analyte Gasoline Rang Surr: BFB Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID Client ID:	1208C16-001AMSI SC-1 e Organics (GRO)	Result 16 700 D SampTy Batch Analysis Dame Result 16 690 SampTy Batch	PQL 5.0 ID: R5 ate: 8/ PQL 5.0 JD: R5 ID: R5	SPK value 16.99 679.7 6D 146 28/2012 SPK value 16.99 679.7 8LK 146 28/2012	SPK Ref Val 0 Tes F SPK Ref Val 0 Tes	%REC 95.5 102 tCode: E RunNo: 5 SeqNo: 1 %REC 96.2 102 tCode: E RunNo: 5	LowLimit	HighLimit 130 116 8015B: Gaso Units: mg/k HighLimit 130 116 8015B: Gaso	%RPD Oline Rang (g %RPD 0.751 0 Oline Rang	e RPDLimit 22.1 0			
Analyte Gasoline Rang Surr: BFB Sample ID Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID Client ID: Prep Date: Analyte	1208C16-001AMSI SC-1 e Organics (GRO)	Result 16 700 D SampTy Batch Analysis Dame Result 16 690 SampTy Batch Analysis Dame Analysis Dame	PQL 5.0 ype: MS ID: R5 ate: 8/ PQL 5.0 ype: ME ID: R5 ate: 8/	SPK value 16.99 679.7 6D 146 28/2012 SPK value 16.99 679.7 8LK 146 28/2012	SPK Ref Val 0 Tes SPK Ref Val 0 Tes F	%REC 95.5 102 tCode: E RunNo: 5 SeqNo: 1 %REC 96.2 102 tCode: E RunNo: 5	LowLimit	HighLimit 130 116 8015B: Gasc Units: mg/k HighLimit 130 116 8015B: Gasc Units: mg/k	%RPD Oline Rang (g %RPD 0.751 0 Oline Rang	e RPDLimit 22.1 0	Qual		

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

- E Value above quantitation range
- J Analyte detected below quantitation limits

Spike Recovery outside accepted recovery limits

- R RPD outside accepted recovery limits
- Page 4 of 6

Hall Environmental Analysis Laboratory, Inc.

WO#: 1208C16

29-Aug-12

Client:

Animas Environmental Services

Project:	CoP Davi	s 11E												
Sample ID	5ML RB	Samp	Гуре: МЕ	BLK	Tes	TestCode: EPA Method 8021B: Volatiles								
Client ID:	PBS	Batc	h ID: R5	146	F	RunNo: 5	146							
Prep Date:		Analysis Date: 8/28/2012			S	SeqNo: 1	46803	Units: mg/h	(g					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene		ND	0.050											
Toluene		ND	0.050											
Ethylbenzene		ND	0.050											
Xylenes, Total		ND	0.10											
Surr: 4-Bron	nofluorobenzene	0.98		1.000		98.2	80	120						
Sample ID	100NG BTEX LCS	Samp	Гуре: LC	S	Tes	tCode: El	PA Method	8021B: Vola	tiles					
Client ID:	LCSS	Batc	h ID: R5	146	F	RunNo: 5	146							
Prep Date:		Analysis [Date: 8/	28/2012	S	SeqNo: 1	46804	Units: mg/h	〈 g					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene		1.0	0.050	1.000	0	102	76.3	117						
Toluene		1.0	0.050	1.000	0	104	80	120						
Ethylbenzene		1.0	0.050	1.000	0	105	77	116						
Xylenes, Total		3.2	0.10	3.000	0	106	76.7	117						
Surr: 4-Bron	nofluorobenzene	1.0		1.000		104	80	120						
Sample ID	1208C15-001AMS	Samp	Гуре: МЅ	3	Tes	tCode: El	PA Method	8021B: Vola	tiles					
Client ID:	BatchQC	Batc	h ID: R5	146	RunNo: 5146									
Prep Date:		Analysis [Date: 8/	28/2012	SeqNo: 146814 Units: mg/Kg									
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene		0.84	0.050	0.8373	0	101	67.2	113						
Toluene		0.88	0.050	0.8373	0	105	62.1	116						
Ethylbenzene		0.90	0.050	0.8373	0	107	67.9	127						
Xylenes, Total		2.7	0.10	2.512	0	109	60.6	134						
Surr: 4-Bron	nofluorobenzene	0.87		0.8373		104	80	120						
Sample ID	1208C15-001AMSI	D Samp	Гуре: МЅ	SD	Tes	tCode: El	PA Method	8021B: Vola	tiles					
Client ID:	BatchQC	Batc	h ID: R5	146	F	RunNo: 5	146							
Prep Date:		Analysis [Date: 8/	28/2012	8	SeqNo: 1	46828	Units: mg/l	⟨g					
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene		0.85	0.050	0.8373	0	102	67.2	113	1.20	14.3				
Toluene		0.86	0.050	0.8373	0	103	62.1	116	1.54	15.9				
Ethylbenzene		0.89	0.050	0.8373	0	106	67.9	127	1.19	14.4				
Xylenes, Total		2.7	0.10	2.512	0	107	60.6	134	1.68	12.6				
	nofluorobenzene	0.88		0.8373		105	80	120	0	0				

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

WO#:

1208C16

29-Aug-12

Client:

Animas Environmental Services

Project:

CoP Davis 11E

Sample ID MB-2494	sample ID MB-2494 SampType: MBLK				TestCode: EPA Method 8021B: Volatiles								
Client ID: PBS	Batch ID: R5146			R	RunNo: 5	146							
Prep Date:	Analysis Date: 8/28/2012			S	SeqNo: 1	46847	Units: mg/Kg						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	ND	0.050											
Toluene	ND	0.050											
Ethylbenzene	ND	0.050											
Xylenes, Total	ND	0.10											
Surr: 4-Bromofluorobenzene	0.99		1.000		99.5	80	120						

Qualifiers:

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

- E Value above quantitation range
- J Analyte detected below quantitation limits

Spike Recovery outside accepted recovery limits

- R RPD outside accepted recovery limits
- Page 6 of 6



tiati Environmentat Anatysis Laborator) 4901 Hawkins NE Albuquerque, NM 87105

TEL: 505-345-3975 FAX: 505-345-410; Website: www.hallenvironmental.con

Sample Log-In Check List

Client Name: Animas Environmental Work Order Number: 1208C16 Received by/date Logged By: 8/28/2012 10:00:00 AM Michelle Garcia Completed By: Michelle Garcia 8/28/2012 10:07t34 AM Reviewed By: 6 Chain of Custody Yes No 1. Were seals intact? Not Present ✓ Yes V No Not Present 2. Is Chain of Custody complete? 3. How was the sample delivered? Courier Log In Yes V No NA 🗌 4. Coolers are present? (see 19. for cooler specific information) Yes V No NA 🗌 5. Was an attempt made to cool the samples? Yes V No NA 🗌 6. Were all samples received at a temperature of >0° C to 6.0°C Yes V No 7. Sample(s) in proper container(s)? Yes V No 8 Sufficient sample volume for indicated test(s)? Yes V No 9. Are samples (except VOA and ONG) properly preserved? Yes 🗌 No 🗸 NA 🗌 10. Was preservative added to bottles? Yes No No VOA Vials 11. VOA vials have zero headspace? Yes No V 12. Were any sample containers received broken? # of preserved 13. Does paperwork match bottle labels? Yes No 🗆 bottles checked (Note discrepancies on chain of custody) for pH: Yes V No (<2 or >12 unless noted) 14. Are matrices correctly identified on Chain of Custody? Yes V No Adjusted? 15. Is it clear what analyses were requested? Yes V No 16. Were all holding times able to be met? (If no, notify customer for authorization.) Checked by: Special Handling (if applicable) Yes No 17. Was client notified of all discrepancies with this order? NA V Person Notified: Date: By Whom: Via: eMail Phone Fax In Person Regarding: **Client Instructions:** 18 Additional remarks: 19. Cooler Information Cooler No Temp °C Condition Seal Intact Seal No Seal Date

1.6

Good

Chain-of-Custody Record			Turn-Around	HALL ENVIRONMENTAL																
Client: Dell Animas Environmental			□ Standard	Rush	Some Day															
	500	vices		Project Name	ANALYSIS LABORATORY www.hallenvironmental.com															
Mailing Address: 624 E. Commone			COP DOVIS 11E				4901 Hawkins NE - Albuquerque, NM 87109													
Formington AIM 87401			Project #:			Tel. 505-345-3975 Fax 505-345-4107														
Farmington, NM 87401 Phone #: 505-564-2281						Analysis Request														
email or Fax#:			Project Mana	ger:			200	G G				(4)								
	Package:			1			021	Son	8				SC	PCB's						
□ Stan			☐ Level 4 (Full Validation)	D. War	tson	,	TMB% (8021)	BTEX + MTBE + TPH (Gas only)	day				Anions (F,CI,NO3,NO2,PO4,SO4)	S						
Accredi	tation			Sampler: 1	Christia	en Sen	#	금		=			202	8082						=
□ NEL	AP	☐ Othe	r	On Ice	及FYES 力。	ENDME	+	+ 2	100	504	AH		03,1	8/8		(A)	- 1			or N
□ EDD	(Type)_			Sample/Tem	oeralure :		*	BE	od 4	po g	or F	stals	Ž	ide	F		J			>
				Container	Preservative		+ 2010	Σ	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	(F,C	8081 Pesticides /	8260B (VOA)	8270 (Semi-VOA)				Air Bubbles (Y or N)
Date	Time	Matrix	Sample Request ID	Container Type and #	Type	AHEAE'No.	X	X		3	0 (F	&	suc	1 P	0B	0 (8	300.D		1	Rih
					.,,,-	1963(16	BTEX	BT		EDI	831	RC	Anic	808	826	827	30			Air
8/27/12	1120	Sail	Sc-1	402 Jacoh MeDH	MeOH	-001	X	X									X			T
1-11-	11-2-			, mo	770												1	\top	\top	\top
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									-		\vdash	_	_	_	_		\dashv	+	\dashv	_
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7/21/12	Time:	Relinquish	ed by:	Received by:	().	Date Time	Ken	narks: (5111	to	Ce	2/0/	co P						•	, A
•	1701	Vels	us //hhr	Mettre	Waller	127/12 1761	W.O: 10336168 User 10: KGARCIA										AI.			
Date:	Time:	Relinquish	ed by:	Received by: Date Time Activity Code: C200 work ordered							tere	d k	24:							
8/27/12	1720	1/ Three	thelibeters	404	2 08/2	8/12/00	Sug	pervis	61:	Ha	my	De	<u>e</u>		Jes	S	He	NZE	<u>></u>	
If	necessary.	samples subr	mitted to Hall Environmental may be subc	ontracted to other ad	credited laboratorie	s. This serves as notice of this	possit	oility. Any	sub-cor	tracted	data v	vill be	clearly	/ notat	ed on	the an	alvfical	report	i.	