# 3R - 437

# RELEASE ASSESSMENT REPORT

DATE: 03/09/2011



Animas Environmental Services, LLC

www.animasenvironmental.com

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

> Durango, Colorado 970-403-3274

March 9, 2012

Aaron Dailey Enterprise Products Company 614 Reilly Avenue Farmington, New Mexico 87401

RE: Smyers LS #1 Release Assessment Report San Juan County, New Mexico

Dear Mr. Dailey:

Animas Environmental Services, LLC (AES) is pleased to submit the final report for a natural gas condensate release, which occurred along the Enterprise Products Company (Enterprise) 2-inch diameter Smyers LS #1 pipeline. The release is located approximately 7 miles northeast of Aztec, San Juan County, New Mexico, on Federal land under jurisdiction of the Bureau of Land Management (BLM) land.

#### 1.0 Release Information

#### 1.1 Location

Location - SW¼, SW¼, Section 2, T31N, R11W, San Juan County, New Mexico Latitude/Longitude - N36.9234°and W107.96485°, respectively Surface Owner – Federal (BLM)

Figure 1 - Topographic Site Location Map

Figure 2 - Aerial Site Location Map

#### 1.2 NMOCD Ranking

Once on-site, AES personnel assessed the New Mexico Oil Conservation Division (NMOCD) ranking criteria using topographical interpretation, Global Position System (GPS) elevation readings, and visual reconnaissance. The release occurred in Kiffen Wash, and depth to groundwater is approximately 3 feet below ground surface (bgs). Additionally, a natural spring is located approximately 800 feet down gradient of the release location. The release location is not within a well head protection area according to a database search of the New Mexico Office of the State Engineer (NMOSE). Therefore, a NMOCD ranking score of 20 was assessed for the location.

#### 1.3 Assessment and Mitigation

On December 26, 2011, the release was discovered by Enterprise personnel. On the same date, Enterprise employees were dispatched to confirm the release and proceeded to shut in the affected well, de-pressurize the associated lines, and lock out/tag out associated control valves. Enterprise continued the release assessment on December 27, 2011, when it was determined that the release resulted from two ruptures in the Smyers LS #1 pipeline due to frozen water. On the same day, Enterprise contractor, Southwest Field Services (SWFS), excavated impacted soil within the two release areas.

On December 28, 2011, an initial release assessment was completed by AES personnel. Using a hand auger, four soil borings were each advanced to a total depth of 3 feet bgs, at which point groundwater was encountered. Soil samples were field screened, and confirmation soil and water samples were collected for laboratory analysis. Groundwater impact was confirmed, and excavation activities were scheduled.

On January 12 and 13, 2012, source removal excavation was conducted by AES and SWFS. A test hole was excavated near Release Point A (northeast release) to approximately 3 feet bgs. Soil, surface and groundwater samples were collected for laboratory analysis. The excavation was conducted near Release Point B (southwest release). The excavation was continuously field screened, and confirmation soil and groundwater samples were collected.

The final excavation dimensions measured approximately 21 feet long by 29 feet wide by 3 feet deep. Approximately 142 cubic yards of hydrocarbon contaminated soil were transported by SWFS to the Industrial Ecosystems (IEI) Landfarm, located near Farmington, New Mexico. Approximately 100 cubic yards of clean, sandy clay material obtained from IEI were used to backfill the test hole and the excavation. A copy of the waste manifest (Form C-138) is attached.

#### 2.0 Soil Sampling

On December 28, 2011, four soil borings were hand augered near Release Point B to a total depth of 3 feet bgs. Five confirmation soil samples were collected from SB-1 through SB-4 for laboratory analysis. Two samples were collected from SB-1, at 1 foot and 3 foot bgs, and one sample was collected from SB-2 through SB-4 at the base of each soil boring. Soil sample locations are presented on Figure 2.

On January 12 and 13, 2012, one soil sample was collected from the base (3 feet bgs) of the test hole for Release Area A (TH-1). Additionally, four discrete soil samples (EXC-1

through EXC-4) were collected from each wall of the Release Point B excavation at approximately 2 feet bgs. Soil sample locations are presented on Figure 4.

#### 2.1 Soil Field Screening

On December 28, 2011, the four soil borings were field screened at 1-foot intervals for volatile organic compound (VOC) vapors with a photo-ionization detector (PID) organic vapor meter (OVM). On January 12 and 13, 2012, 21 discrete samples were collected from the Release Area B excavation for field screening of VOC vapors. Before beginning field screening the PID-OVM was calibrated to 100 parts per million (ppm) with isobutylene gas.

#### 2.2 Soil Laboratory Analyses

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

#### 2.3 Soil Field Screening and Laboratory Analytical Results

Field screening of VOCs (via OVM) on December 28, 2011, showed concentrations that ranged from 1.3 ppm in SB-3 at 3 ft bgs up to 2,433 ppm in SB-1 at 1 ft bgs. On January 12 and 13, 2012, VOC concentrations ranged from 3.2 ppm in EXC-1 and TH-1 up to 46 ppm in EXC-2. Field screening results for soil samples submitted for laboratory analysis in December 2011 and January 2012 are summarized in Table 1 and on Figures 3 and 4.

Soil laboratory analytical results showed that benzene concentrations in December 2011 ranged from below detection limits in SB-1 at 1 ft bgs, SB-2, and SB-3 up to 98 mg/kg in SB-4. Total BTEX concentrations were below laboratory detection limits in SB-1 at 1 ft bgs, SB-3, and SB-3 and were reported at 1,800 mg/kg in SB-4. TPH concentrations were highest in SB-4 with 140 mg/kg GRO and 15,000 mg/kg DRO. January 2012 soil laboratory analytical results showed that benzene, total BTEX and TPH were all below laboratory detection limits for EXC-1 through EXC-4 and for TH-1. Laboratory analytical results are included in Table 1 and in Figures 3 and 4. Laboratory analytical reports are attached.

Table 1. Soil Field Screening and Analytical Results
Smyers LS#1 Pipeline Release, December 2011 and January 2012

Sample	Date	Depth	VOCs OVM	Benzene	BTEX	TPH- GRO	TPH- DRO
ID	Dute	(ft bgs)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
NMO	CD Action Le	vel*	100	10	50	10	00
CD 1	12/28/11	1	2,433	<0.049	<0.244	<4.9	<9.9
SB-1	12/28/11	3	521	0.14	3.41	37	<10
SB-2	12/28/11	3	3.5	<0.047	<0.236	<4.7	<9.8
SB-3	12/28/11	3	1.3	<0.048	<0.240	<4.8	<10
SB-4	12/28/11	3	1,643	98	1,800	140	15,000
EXC-1	1/12/12	2	3.2	<0.047	<0.235	<4.7	<10
EXC-2	1/12/12	2	46	<0.048	<0.241	<4.8	<10
EXC-3	1/13/12	2	32	<0.047	<0.236	<4.7	<10
EXC-4	1/13/12	2	43	<0.050	<0.25	<5.0	<10
TH-1	1/13/12	3	3.2	<0.050	<0.25	<5.0	<9.9

<sup>\*</sup> Action level determined by the NMOCD ranking score per NMOCD Guidelines for Leaks, Spills, and Releases (August 1993)

NMOCD action levels for releases are specified NMOCD's *Guidelines for Leaks, Spills, and Releases* (August 1993). Benzene, BTEX and TPH concentrations exceeded the NMOCD action levels in SB-4, which was located in the initial assessment area. OVM readings taken during the initial assessment in December 2011 exceeded NMOCD action levels in SB-1 (1 and 3 ft bgs) and in SB-4 (3 ft bgs). Once excavation work was completed in January 2012, soil confirmation sampling showed that field screening and laboratory analytical results were below all applicable NMOCD action levels.

#### 3.0 Groundwater Sampling

On December 28, 2011, one groundwater sample (SB-2W) was collected from SB-2, and one surface water sample (SW-1) was also collected from Release Point A. Additional groundwater samples were collected from the Release Point A test hole (THW-1) and Release Point B excavation (EXCW-1 and EXCW-2) on January 12 and 13, 2012.

#### 3.1 Groundwater Laboratory Analyses

The groundwater samples and surface water sample were placed into new, clean, laboratory-supplied VOAs preserved with hydrochloric acid (HCl), which were then labeled, placed on ice, and logged onto a sample chain of custody record. The sample

containers were maintained on ice until delivery to the analytical laboratory, Hall, in Albuquerque, New Mexico. The samples were laboratory analyzed for:

BTEX per USEPA Method 8021B;

#### 3.2 Groundwater Laboratory Analytical Results

Groundwater analytical results showed that benzene concentrations exceeded New Mexico Water Quality Control Commission (WQCC) standards in EXCW-1 (15,000  $\mu$ g/L) and EXCW-2 (1,000  $\mu$ g/L). EXCW-1 also had dissolved phase concentrations above applicable WQCC standards with 81,000  $\mu$ g/L toluene and 53,000  $\mu$ g/L total xylenes. Note that ethylbenzene in EXCW-1 was reported below a laboratory detection limit of 10,000  $\mu$ g/L. EXCW-2 also exceeded WQCC standards for toluene (4,800  $\mu$ g/L) and total xylenes (3,100  $\mu$ g/L). All other water samples collected were either below WQCC standards or below laboratory analytical detection limits for the parameters analyzed. The groundwater sample results are presented below in Table 2.

Table 2. Groundwater Analytical Results
Smyers LS#1 Pipeline Release, December 2011 and January 2012

Sample ID	Date Sampled	Depth (ft) tandards	Benzene (μg/L) 10	Toluene (μg/L) 750	Ethyl- benzene (μg/L) 750	Total Xylenes (µg/L) 620
SB-2W	12/28/11	3	<2.0	<2.0	<2.0	<4.0
SW-1	12/28/11	Surface	<1.0	11	2.0	28
EXCW-1	1/12/12	3	15,000	81,000	<10,000	53,000
EXCW-2	1/13/12	3	1,000	4,800	270	3,100
THW-1	1/13/12	3	5.1	81	17	200

Groundwater analytical results are included on Figure 5, and laboratory analytical reports are attached.

#### 4.0 Conclusions and Recommendations

Based on field observations, field screening values, and laboratory analytical results after the test hole and source excavation of the release areas, petroleum hydrocarbon contaminated soils have been removed from the release locations. Confirmation soil samples (EXC-1 through EXC-4 and TH-1) from January 2012 had OVM, benzene, total BTEX and TPH concentrations below NMOCD action levels. However, based on groundwater laboratory analytical results, groundwater has been impacted at Release

Mr. Aaron Dailey Smyers LS #1 Release Report March 9, 2012 Page 6 of 6

Area B. Dissolved phase benzene concentrations were well above WQCC standards in EXCW-1 (15,000  $\mu$ g/L) and EXCW-2 (1,000  $\mu$ g/L). Dissolved phase toluene, ethylbenzene and xylene concentrations were also above applicable WQCC standards, although note that the laboratory detection limit for ethylbenzene in EXCW-1 was 10,000  $\mu$ g/L.

The Smyers LS #1 pipeline crosses Kiffen Wash, which is an ephemeral stream. Therefore, AES recommends installing temporary groundwater monitor wells via hydropunching with a direct push GeoProbe rig to further delineate the dissolved phase contaminant plume. AES will submit a workplan under separate cover detailing a proposed scope of work.

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

Sincerely,

Thomas J. Long Project Manager

Elizabeth McNally, P.E.

Elizabet V MeNelly-

#### Attachments:

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Location Map

Thomas f. Long

Figure 3. Soil Boring Locations and Soil Sample Results, December 2011

Figure 4. Excavation Location and Soil Sample Results, January 2012

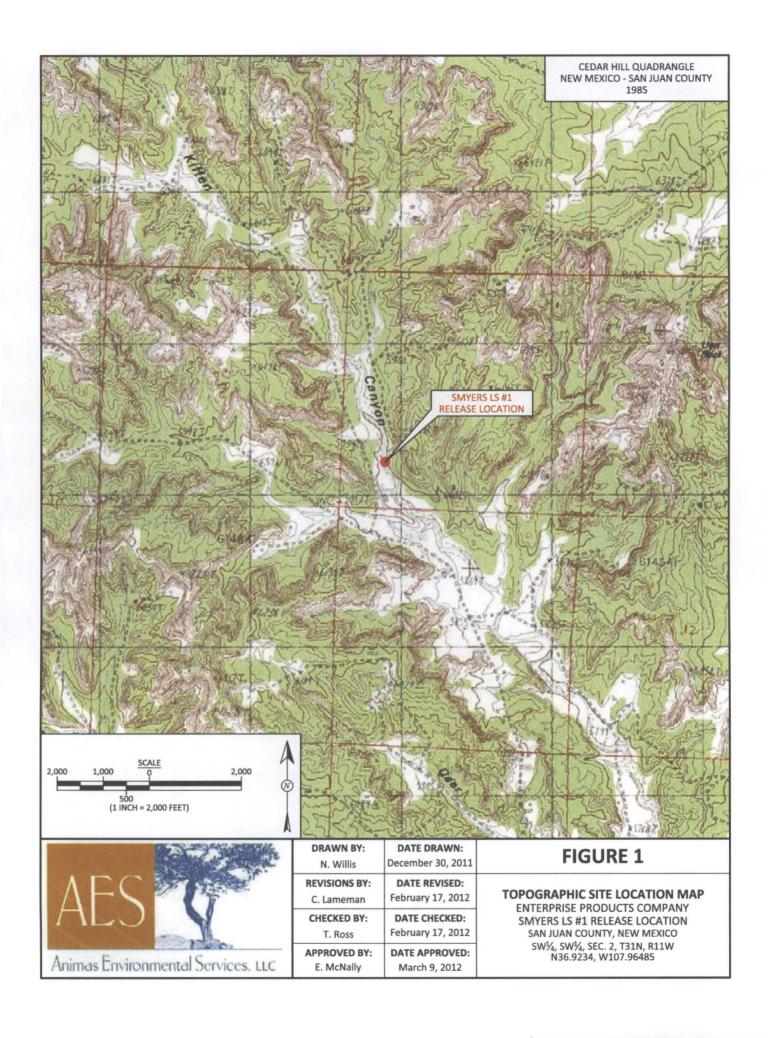
Figure 5. Groundwater Sample Locations and Analytical Results,
December 2011 and January 2012

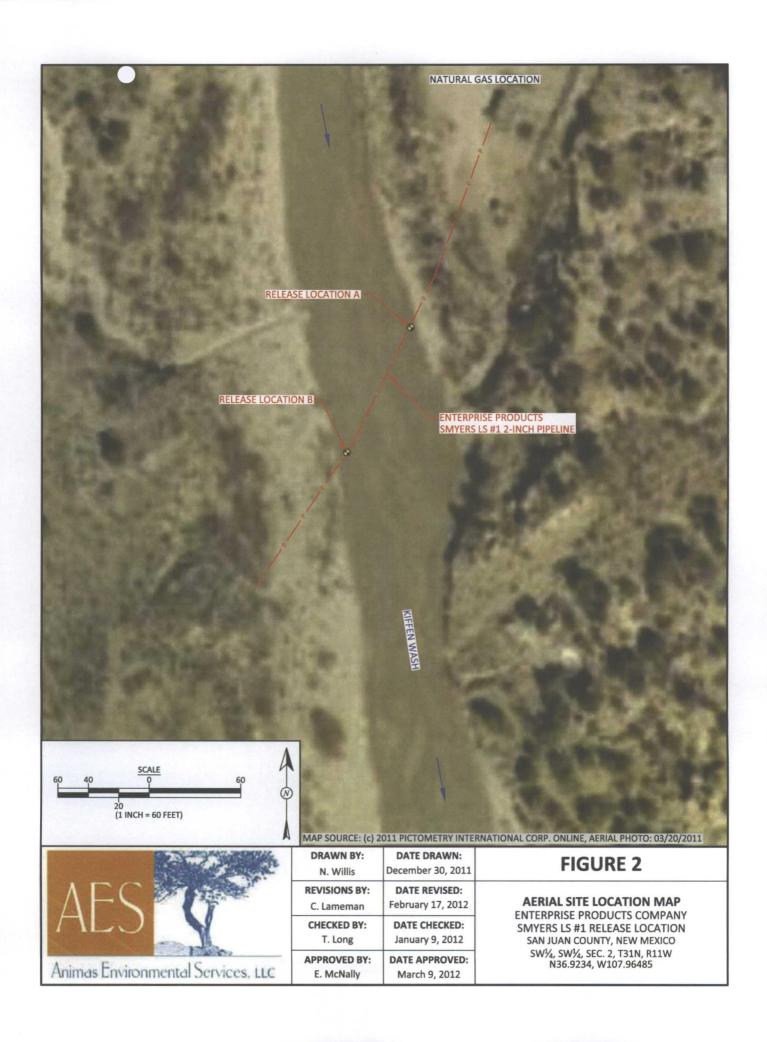
Photograph Log

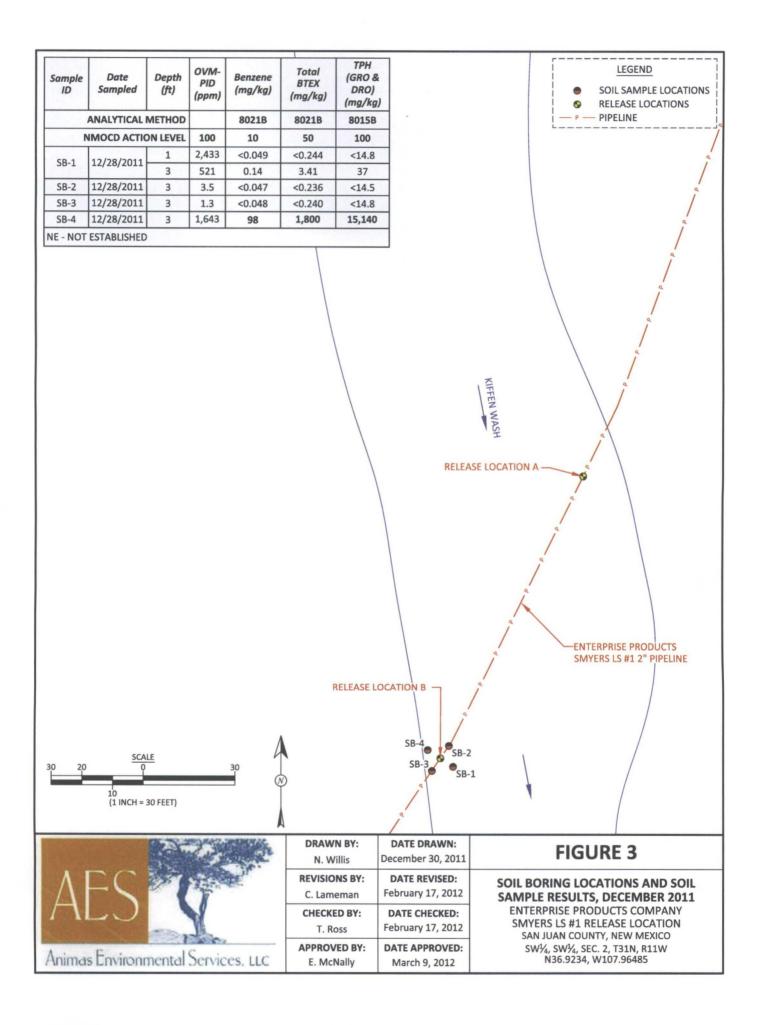
**IEI Waste Disposal Manifests** 

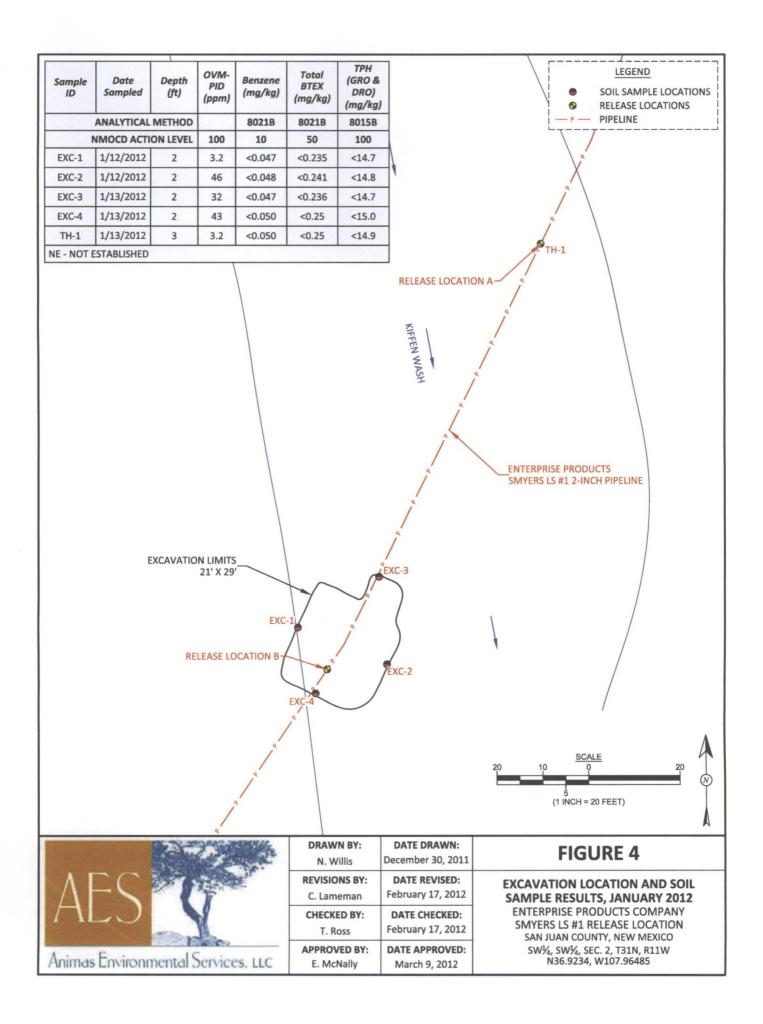
Laboratory Analytical Reports (Hall #1112A06A, 1201374, and 12014167)

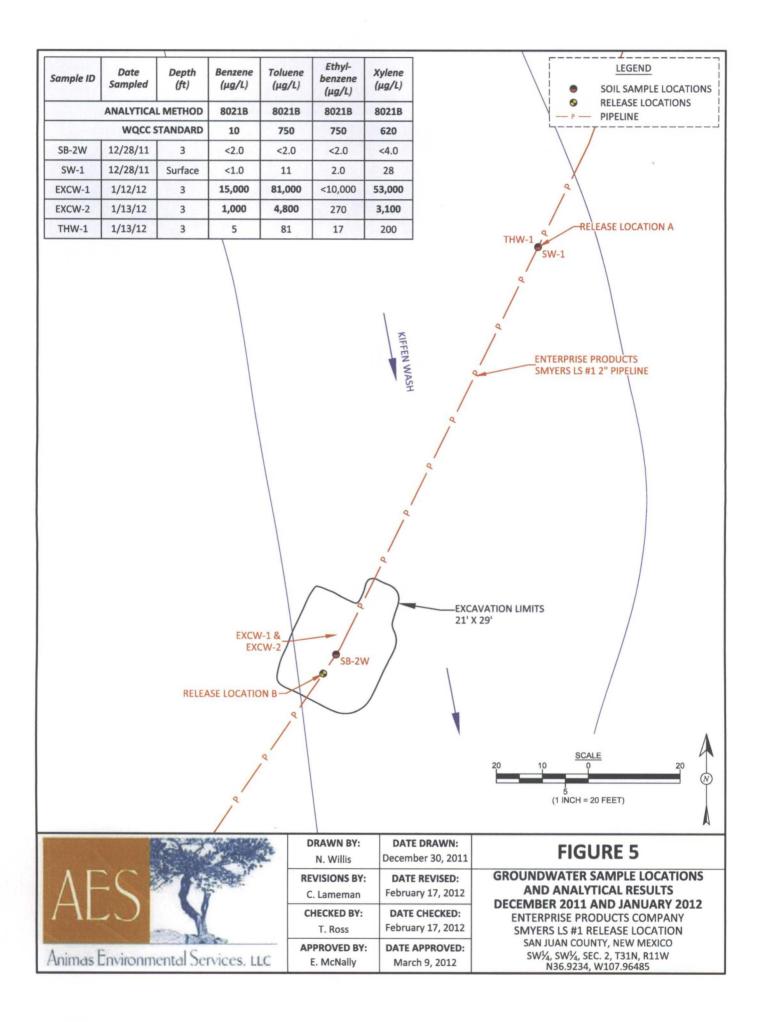
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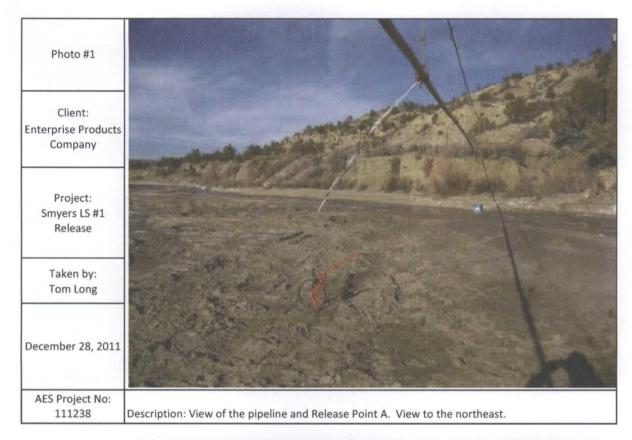


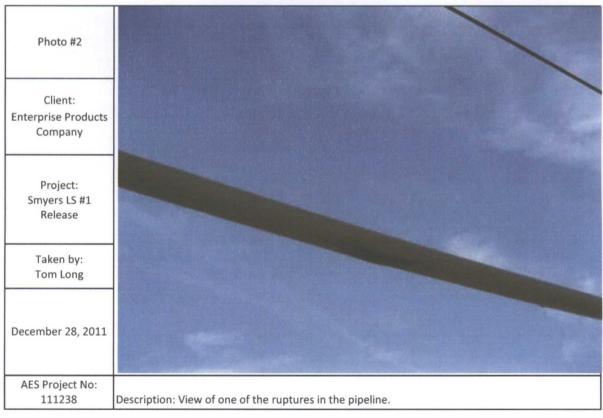


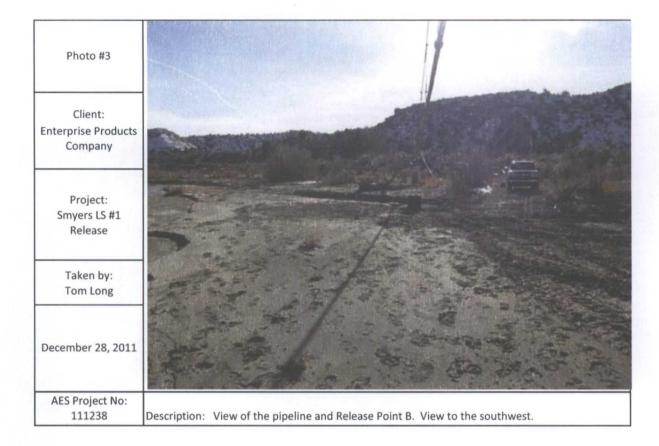












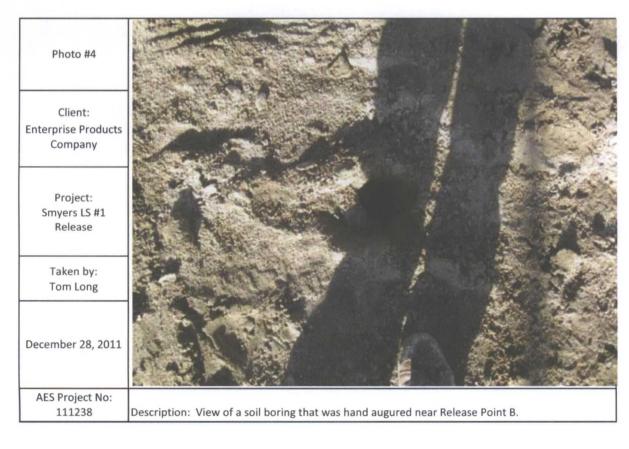


Photo #5

Client:
Enterprise Products
Company

Project:
Smyers LS #1
Release

Taken by:
Tom Long

December 28, 2011

AES Project No:
111238

Description: View of Release Point A.

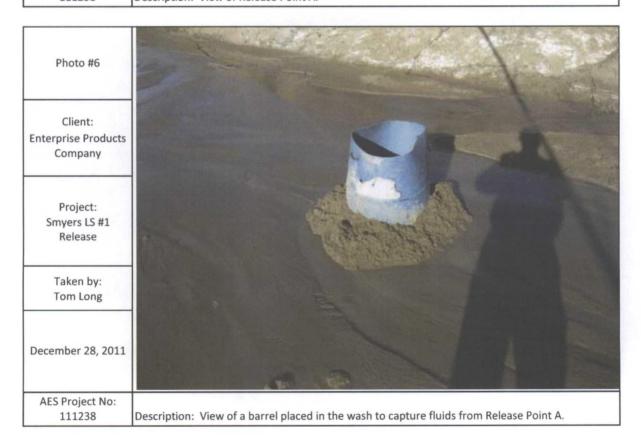


Photo #7

Client:
Enterprise Products
Company

Project:
Smyers LS #1
Release

Taken by:
Tom Long

January 12, 2012

AES Project No:
111238

Description: View of the excavation activities associated with Release Point B.

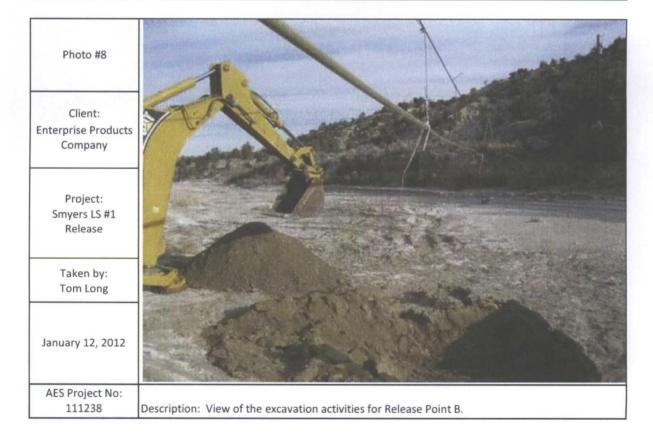


Photo #9

Client:
Enterprise Products
Company

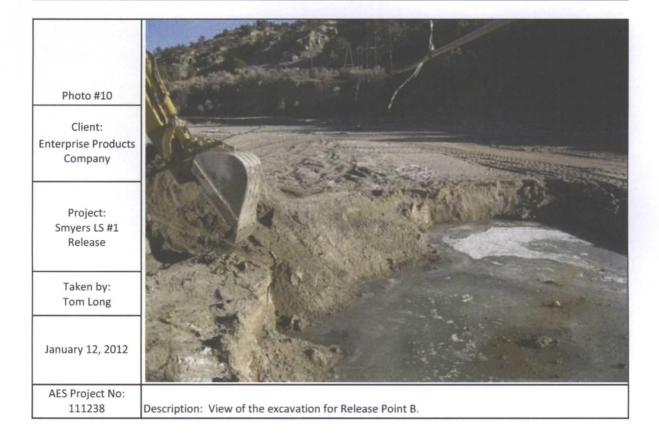
Project:
Smyers LS #1
Release

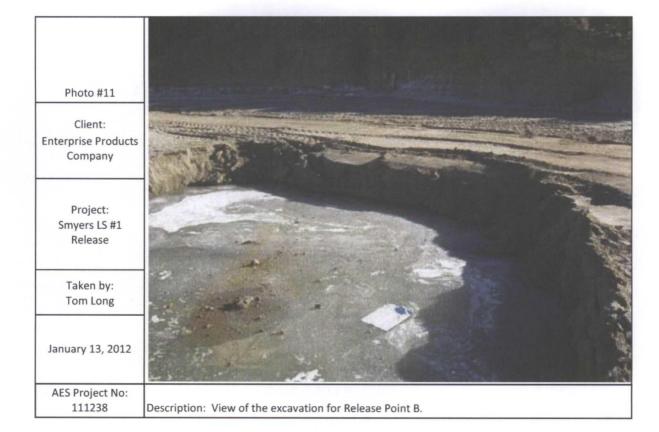
Taken by:
Tom Long

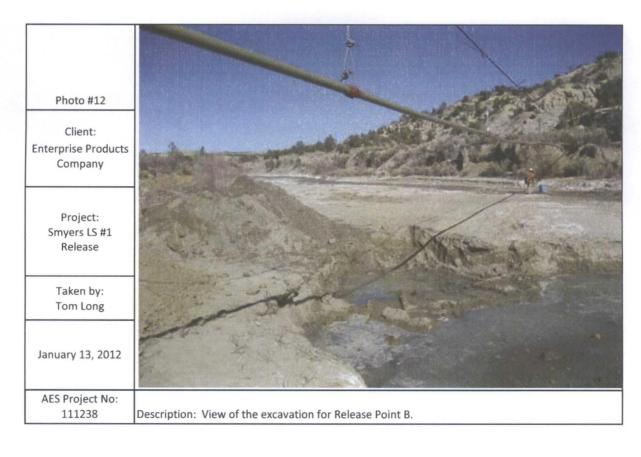
January 12, 2012

AES Project No:
111238

Description: View of the excavation for Release Point B.









# Industrial Ecosystems Inc. Soil Reclamation Center



P.O. Box 2043 Farmington NM 87499 Phone: (505) 632-1782 Fax: (505) 632-1876 #49 CR 3150 Aztec NM 87410

Material Entry Record	
Date: 1-13-13	Company Representatives Name: Haron Dauly
Generator of Material Enter Drise	Phone Number:
Origin of Material (Location):	Rig #
Material Transported by: Sugara Sugara	H2S Gas   Non-Detect  Detect: Level
Driver's Name:	Chlorides PH TDS
Driver's Cell #:	Chlorides PH TDS
Pile Number:	Paint Filter Test: ☐ Passed ☐ Failed
☐ Logged in Corresponding BioPile Sheet	☐ Pit ☐ Tanks
T	D-DENIED / REJECTED Mud
Type of Material Soil	Tank Bottom Sludge
Gravel	Tank Cleaning Residue
Solidified Liquid	Charcoal Filter Media
Other	Washout by:
	leason and
Amount of Material	
Load #1 Load #2 Load #3 Load #4	Load #5 Load #6 Load #7 Load #8 Load #9 Load #10
Cubic Yards /2 /0 /0	10 10 10 18
Berrols VS 10 10 10	10 20 10 10
Washout	
Truck# 00 (2// 00/ A//	001 211 001 21 001
Time In 8.109142000411.8	5 11.35 1.05 p 15 (2 p 2 3 7 1 2 1 1 )
Time Out 8,2(40,0010)	\$1152 1: and 1:30 2:478 3:00
Login Initials Line W	The contract of
Exempt. XXX	$(\mathcal{O}(\mathcal{O}(\mathcal{O})))$
Non Exempt	
I certify that the quantity and type of waste is that listed	Jahaya. To the host of my knowledge no other
quantities or types of wastes have been added or remove	· · · · · · · · · · · · · · · · · · ·
Driver's signature: Way Juliages Rong	day XCC
Attendant's Signature:	



# Industrial Ecosystems Inc. Soil Reclamation Center



P.O. Box 2043 Farmington NM 87499 Phone: (505) 632-1782 Fax: (505) 632-1876 #49 CR 3150 Aztec NM 87410

Material Entry	y Record					u Os.		. 1
Date: 1 1 1 - 1	2		Company 1	Representa	itives Nam	e: <u>Mar</u>	2nD	aily
Generator of Material:	Enterpr	Sc	Phone Nur	nber:			·	
Origin of Material (Loca		101			<del></del>	-		
Material Transported by	Suffice Co	(Japa	H2S Gas	- Nor	n-Detect	☐ Det	ect: Level	
Driver's Name:	Fine Marshy (	May 1	58 Du	orides	\$ PH		TDS	9
Driver's Cell #:	TCO. WI		CIIIC	ภานุธร			ID(	,
Pile Number:		Ť	Paint Filte	r Test:	Passec			
☐ Logged in Corresp	oonding BioPile Sheet		□ DENIE	ED / REJE	CTED		□ Pit □ 1 Mud	ſaṇks
Type of Material							9	
Soil			Tank Botto					
Gravel			Tank Clear				-	
Solidified Liquid			Charcoal F					
Other			Washout b	y	<del></del>		J	
Amount of Material								
Load #1	Load #2 Load #3	Load #4	Load #5	Load #6	Load #7	Load #8	Load #9	Load #10
Cubic Yards	15 12		10	5	10	ļ		
			10					
Washout								
Truck#	12/6/00(	210	1001	2/6	001			
Time In 7072	04 15. KO12149	n/215	12:160	3/39	3.580			
Time Out	1/2/21/12:55	21.55	503	20.00	4:100			
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Attendant's Signature:	And the state of t			•				

District I
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

# State of New Mexico Energy Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-138 Revised 08/01/11

\*Surface Waste Management Facility Operator and Generator shall maintain and make this documentation available for Division inspection.

# REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. Generator Name and Address: Enterprise Products Operating, L.P.
2. Originating Site: Smyers LS #1 at Kiffen Wash
3. Location of Material (Street Address, City, State or ULSTR): SW/4 of Section 2, T31N, R 11W, NMPM, San Juan County, NM
4. Source and Description of Waste:  Source: Natural gas gathering line split  Description: Exempt condensate stained soil collected from soil remediation location  Estimated Volume20yd <sup>3</sup> / bbls Known Volume (to be entered by the operator at the end of the haul) yd <sup>3</sup> / bbls
5. GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS
I,, representative or authorized agent forEnterprise Products Operating do hereby  Generator Signature  certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (Check the appropriate classification)
RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste.  **Operator Use Only: Waste Acceptance Frequency   Monthly   Weekly   Per Load**
RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items)
☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Process Knowledge ☐ Other (Provide description in Box 4)
GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS
I,, representative forEnterprise Products Operating authorize JFJ/IEI to complete  Generator Signature the required testing/sign the Generator Waste Testing Certification.
1, do hereby certify that
Representative/Agent Signature representative samples of the oil field waste have been subjected to the paint filter test and tested for chloride content and that the samples have been found to conform to the specific requirements applicable to landfarms pursuant to Section 15 of 19.15.36 NMAC. The results of the representative samples are attached to demonstrate the above-described waste conform to the requirements of Section 15 of 19.15.36 NMAC.
5. Transporter: Southwest Field Services—Contact Ken Maestas at (505)320-3867
OCD Permitted Surface Waste Management Facility
Name and Facility Permit #: JFJ Landfarm/Industrial Ecosystems, Inc. * Permit #: NM 01-0010B
Address of Facility: # 49 CR 3150 Aztec, NM 87410
Method of Treatment and/or Disposal:
☐ Evaporation ☐ Injection ☐ Treating Plant ☐ Landfarm ☐ Landfill ☐ Other
Waste Acceptance Status:  APPROVED  DENIED (Must Be Maintained As Permanent Record)
PRINT NAME: TITLE: DATE:
SIGNATURE: TELEPHONE NO.: 505-632-1782 Surface Waste Management Facility Authorized Agent



#### **COVER LETTER**

Thursday, January 05, 2012

Tami Ross Animas Environmental Services 624 East Comanche Farmington, NM 87401

TEL: (505) 564-2281 FAX (505) 324-2022

RE: Enterprise Smyers LS #1

Dear Tami Ross:

Order No.: 1112A06

Hall Environmental Analysis Laboratory, Inc. received 7 sample(s) on 12/29/2011 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. 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.

Please do not hesitate to contact FIEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Laboratory Manager

NM Lab# NM9425 NM0901

AZ license # AZ0682

Date: 10-Jan-12 Analytical Report

CLIENT: Lab Order:

**Animas Environmental Services** 

1112A06

.1 1.12

Enterprise Smyers LS #1

Project: Lab ID:

1112A06-01

Client Sample ID: SB-1@3'

Collection Date: 12/28/2011 2:20:00 PM

Date Received: 12/29/2011

Matrix: SOLID

Analyses	Result	PQL	Qual Units	DF.	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E ORGANICS				Analyst: JB
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	1/3/2012 10:44:31 AM
Sun: DNOP	86.5	77.4-131	%REC	1	1/3/2012 10:44:31 AM
EPA METHOD 80158: GASOLINE RA	ANGE				Analyst: RAA
Gasolina Range Organics (GRO)	37	4.9	mg/Kg	1	1/3/2012 1:28:27 PM
Sum BFB	121	69.7-121	%REC	1	1/3/2012 1:28:27 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Веплене	0.14	0.049	mg/Kg	1	1/3/2012 1:28:27 PM
Toluene	1.1	0.049	mg/Kg	1	1/3/2012 1:28:27 PM
Ethylbenzene	0,17	0.049	mg/Kg	1	1/3/2012 1:28:27 PM
Xylenes, Total	2.0	0.097	mg/Kg	1	1/3/2012 1:28:27 PM
Surr: 4-Bromofluorobenzene	107	80-120	%REC	1	1/3/2012 1:28:27 PM

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Page 1 of 7

Date: 10-Jan-12 Analytical Report

CLIENT:

**Animas Environmental Services** 

Client Sample ID: SB-2@3'

Lab Order;

1112A06

Collection Date: 12/28/2011 2:16:00 PM

Project:

Enterprise Smyers LS #1

Date Received: 12/29/2011

Lab ID:

1112A06-02

Matrix: SOLID

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGI	E.ORGANICS	***				Analyst: JB
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	ì	1/3/2012 12:27:57 PM
Sur: DNOP	87:8	77.4-131		%REC	1	1/3/2012 12:27:57 PM
EPA METHOD 8015B: GASOLINE RAI	NĜE					Analyst: RAA
Gasoline Range Organics (GRO)	ŅD.	4.7		mg/Kg	1	1/3/2012 2:28:46 PM
Sun: BFB	96.2	69.7-121		%REC	1	1/3/2012 2:28:46 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzena	NĐ	0.047		mg/Kg	'n	1/3/2012 2:28:46 PM
Toluene	ND	0.047		mg/Kg	1	1/3/2012 2:28:46 PM
Ethylbenzene.	ŅĎ	0.047		mg/Kg	1	1/3/2012 2:28:46 PM
Xylenes, Total	ND	0.095		mg/Kg	1	1/3/2012 2:28:46 PM
Surr: 4-Bromofluorobenzene	95.6	80-120		%REC	1	1/3/2012 2:28:46 PM

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- E Estimated value
- Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- MCI. Maximum Contaminant Level
- ND Not Detected at the Reporting-Limit
- Spike recovery outside accepted recovery limits

Page 2 of 7

Date: 10-Jan-12

Analytical Report

CLIENT:

**Animas Environmental Services** 

1-112A06

Lab Order: Project:

Enterprise Smyers LS #1

Lab ID:

1112A06-03

Client Sample ID: SB-1@1'

Collection Date: 12/28/2011 2:22:00 PM

Date Received: 12/29/2011

Matrix: SOLID

Analyses	Result	PQL	Qual Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E ORGANICS		,	<del> </del>	Analyst: JB
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	1/3/2012 1:02;43 PM
Surr: DNOP	81.4	77.4-131	%REC	1	1/3/2012 1:02:43 PM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	1/3/2012 2:59:08 PM
Sun: BFB	92.9	69.7-121	%REC	1	1/3/2012 2:59:08 PM
EPA METHOD 8021B: VOLATILES					Analyst, RAA
Benzene	ND	0:049	mg/Kg	1	1/3/2012 2:59:08 PM
Toluene	ND	0.049	mg/Kg	1	1/3/2012 2:59:08 PM
Ethylbenzene	ND	0.049	mg/Kg	1	1/3/2012 2:59:08 PM
Xylenes, Total	ND	0.097	mg/Kg	1	1/3/2012 2:59:08 PM
Surr: 4-Bromofluorobenzene	94.5	80-120	%REC	4	1/3/2012 2:59:08 PM

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded

MCL Maximum Contaminant Level

- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Page 3 of 7

Date: 10-Jan-12 Analytical Report

CLIENT: Lab Order: **Animas Environmental Services** 

1112A06

Enterprise Smyers LS #1

Project: Lab ID:

1112A06-04

Client Sample ID: \$B-3@3'

Collection Date: 12/28/2011 2:42:00 PM

Date Received: 12/29/2011

Matrix: SOLID

Analyses	Result	PQL	Qual Ur	nits	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E ORGANICS					Analyst: JB
Diesel Range Organics (DRO)	ND.	10	mg	/Kg	1	1/3/2012 1:36:50 PM
Surr: DNOP	86.3	77:4-131	%F	REC	1	1/3/2012 1;36:50 PM
EPA METHOD 8015B: GASOLINE RA	NGE	•				Analyst: RAA
Gasoline Range Organics (GRO)	ND	4,8	mg	/Kg	1√	1/3/2012 3:29:21 PM
Surr; BFB	78.8	69.7-121	%F	REC	1	1/3/2012 3:29:21 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	ND	0.048	mg	/Kg	1	1/3/2012 3:29:21 PM
Toluene	ND	0.048	mg	ı/Kg	. 1	1/3/2012 3:29:21 PM
Ethylbenzene	ND.	0.048	mg	/Kg	1	1/3/2012 3:29:21 PM
Xylenes, Total	ND	0.096	mg	ı/Kg	11	1/3/2012 3:29:21 PM
Surr, 4-Bromofluorobenzene	82.7	80-120	%F	REC	1	1/3/2012 3:29:21 PM

#### Qualifièrs:

- Value exceeds Maximum Contaminant Level
- E Estimated value
- Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- Analyte detected in the associated Method Blank
- Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit.
- Spike recovery outside accepted recovery limits

Page 4 of 7

Date: 10-Jan-12 Analytical Report

CLIENT:

Animas Environmental Services

Client Sample ID: SB4@3'

Lab Order:

1112A06

Enterprise Smyers LS #1

Collection Date: 12/28/2011 3:00:00 PM

Project: Lab ID;

1112A06-05

Date Received: 12/29/2011

Matrix: SOLID

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E ORGANICS					Analyst: JB
Diesel Range Organics (DRO)	140	10		mg/Kg	1	1/3/2012 2:10:58 PM
Sun: DNOP	98.4	77,4-131		%REC	1	1/3/2012 2:10:58 PM
EPA METHOD 8015B: GASOLINE RA	NGE					Analyst: RAA
Gasoline Range Organics (GRO)	15000	250		mg/Kg	50	1/3/2012 3:59:42 PM
Surn BFB	188	69.7-121	S	%REC	50	1/3/2012 3:59:42 PM
EPA METHOD 8021B: VOLATILES						Analyst: RAA
Benzene	.98	2.5		mg/Kg <sup>-</sup>	50	1/3/2012.3:59:42 PM
Toluene	∘800	20		mg/Kg	400	1/4/2012 7:22:33 PM
Ethylbenzene	84	2.5		mg/Kg	50	1/3/2012 3:59:42 PM
Xylenes, Total	810	40		mg/Kg	400	1/4/2012 7:22:33 PM
Surr: 4-Bromofluorobenzene	117	80-120		%REC	50	1/3/2012 3:59:42 PM

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- E Estimated value
- Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
  - ND Not Detected at the Reporting Limit
  - Spike recovery outside accepted recovery limits

Page 5 of 7

Date: 10-Jan-12
Analytical Report

CLIENT:

Animas Environmental Services

Client Sample ID: SB-2W

Lab Order:

1112A06

Collection Date: 12/28/2011 2:40:00 PM

Project:

Enterprise Smyers LS #1

Date Received: 12/29/2011

Lab ID:

1112A06-06

Matrix: AQUEOUS

Analyses	Result	PQL Q	ual Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES	· · · · · · · · · · · · · · · · · · ·				Analyst: RAA
Benzene	ND	2.0	µg/L	2	1/3/2012 2:14:52 PM
Toluene	ND	2.0	µg/L	<b>2</b> ·	1/3/2012 2:14:52 PM
Ethylbenzene	ŃΩ	2.0	µg/L	2	1/3/2012 2:14:52 PM
Xylenes, Total	ND	4.0	µg/L	2	1/3/2012 2:14:52 PM
Surr. 4-Bromofluorobenzene	102	76,5-115	%REC	Ź:	1/3/2012 2:14:52 PM

#### Qualifiers:

- \* Value exceeds Maximum Contuminant Level
- E Estimated value
- Analyte detected below quantitution limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Page 6 of 7

Date: 10-Jan-12 Analytical Report

CLIENT:

**Animas Environmental Services** 

Client Sample ID: Wash Water South of 2nd Bucket

Lab Order:

1112A06

Project:

Enterprise Smyers LS #1

Collection Date: 12/28/2011 3:30:00 PM

Lab ID:

1112A06-07

Date Received: 12/29/2011

Matrix: AQUEOUS

(Ur

Analyses	Result	PQL Q	ial Units	DF	Date Analyzed
EPA METHOD 8021B; VOLATILES					Analyst: RAA
Benzene:	ND	1:0	μ <b>g/L</b>	1	1/3/2012 3:12:43 PM
Toluene	11	1.0	μg/L	1	1/3/2012 3:12:43 PM
Ethylbenzene	2.0	1.0	μg/L	1	1/3/2012 3:12:43 PM
Xylenes, Total	28	2.0	µg/L	1	1/3/2012 3:12:43 PM
Surr; 4-Bromofluoropenzene	103	76.5-115	%REC	1	1/3/2012 3:12:43 PM

#### Qualifiers:

- Value exceeds Maximum Contaminant Level
- Estimated value
- Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- Spike recovery outside accepted recovery limits

Page 7 of 7

Date: 10-Jan-12

# **QA/QC SUMMARY REPORT**

Client:

Animas Environmental Services

Project: Enterpi

Enterprise Smyers LS #1

Work Order:

1112A06

Analyte:	Result	Units	PQL	SPK Va	SPK ref	%Rec L	owLimit Hig	hLimit %RPD	RPDLImit Qual
Method: EPA Method 8016B:	Diesel Range	Organics							
Sample ID: 1112A06-01AMSD		MSD				Batch ID:	29922	Analysis Date:	1/3/2012 11:53:33 AM
Diesel Range Organics (DRO)	45,23	mg/Kg.	10	49.9	0	90.7	57.2	146 7.89	26.7
Sample ID: MB-29922	•	MBLK		•		Batch ID:	29922	Analysis Date:	1/3/2012 9:36:00 Al
Diesel Range Organics (DRO)	ND:	mg/Kg	10				·	•	
Sample ID: LCS-29922	1,00,	LCS				Batch ID:	29922	Analysis Date:	1/3/2012 10:10:08 A
Diesel Range Organics (DRO)	40.86	mg/Kg	10	50	0	81.7	62.7	139	
Sample ID: 1112A06-01AMS	40.00	MS		50	Ū	Batch ID:	29922	Analysis Date:	1/3/2012 11:19:11 A
Diesel Range Organics (DRO)	48.95	mg/Kg	10	51.92	٥.	94.3	57.2	146	
Market and the second s									
Method: EPA Method 8015B:	Gasoline Rar	. =				Boart In.		TACKELLE PROBLEM	4 10 10040 44-00-46 59
Sample ID: 1112A06-01AMSD		MSD				Batch ID:	29921	Analysis Date:	1/3/2012 11:32:16 PI
Gasoline Range Organics (GRO)	48,00	mg/Kg	4.9	24.68	37.05	44.4	72.4	149 9.46	19.2 S
Sample ID: MB-29921		MBLK				Batch ID:	29921	.Analysis Date:	1/3/2012 12:58:03 PI
Gasoline Range Organics (GRO)	ND	mg/Kg	5.0						
Sample ID: LCS-29921		LCS				Batch ID:	29921	Analysis Date:	1/3/2012 11:57:22 A
Gasoline Range Organics (GRO)	28.59	mg/Kg	5:0	25	0	114	86.4	132:	
Sample ID: 1112A06-01AMS	•	MS		•	• 1	Batch ID:	29921	Analysis Date:	1/3/2012 11:02:17 PI
Gasoline Range Organics (GRO)	52:76	mg/Kg	4.8	24.22	37.05	64.9:	72.4	149	S
Method: EPA Method 8021B:	Volatiles								
Sample ID: MB-29921	• ding.oo	MBLK				Batch ID:	29921	Analysis Date:	1/3/2012:12:58:03 PF
Benzene	ND.	mg/Kg	0.050						
Toluene.	ND	mg/Kg·	0.050						
Ethylbenzene	ND.	mg/Kg	0.050						
Xylenes, Total	ND:	mg/Kg	.0.10						4
Sample ID: LCS-29921		LCS				Batch IO:	29921	Analysis Date:	1/3/2012 12:27:40 Pf
Benzene	1.021	mg/Kg	0.050	1	0.0047	102	80	120	
Toluene	0.9809	mg/Kg	0.050	1	0.0067	97.4	80	120	
Ethylbenzene	1.044	mg/Kg	0.050	1	0.0104	103	80	120	
Xylenes, Total	3.231	mg/Kg	0.10	3	0.0232	107	80	120	
Method: EPA Method 8021B:	Volatiles								
Sample ID: 5ML-RB		MBLK				Batch ID:	R49902	Analysis Date:	1/3/2012 12:48:22 PI
Benzene	.ND:	µg/L	1.0						
Toluene	ND	μg/L	1.0						
Ethylbenzene	ND	µg/L	1.0.						
Kylenes, Total	ND	µg/L	2.0						
Sample ID: 100NG BTEX LCS	•	LCS				Batch ID:	R49902	Analysis Date:	1/3/2012 12:19:32 PI
Benzene	18.85	μ <b>g</b> /L	1.0	.20	O.	94.2	80	120	
Toluëne	19.39	µg/L	1.0	20	0.2666	95.6	80	120	
Ethylbenzene	19.10	µg/L	1.0	20	.0	95.5	80	120	
Xylenes, Total	58.03	μg/L	2.0	:60	0	96.7	78.6	121	

Qualifiers:

E Estimated value

Analyte detected below quantitation limits

ND Not Detected at the Reporting Limit:

H Holding times for preparation or analysis exceeded

NC Non-Chlorinated

R RPD outside accepted recovery limits

Page 1

C	hain-	of-Cu	istody Record	Turn-Around	Time:									NEW A	e e			4 <del>iż</del> 1	. Trá	
Client:	AF	5		□ Standard			L		E	_								1EN RA		•
				Project Name	): _/	mers 13 H1	] 1				ATATA	v hal	lenvi	iron	nedl	al.co	om.			
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Fr	r Mine	fon	. Jam	Project #:						5-34				•	_		4107			
Phone	#: 505	-56	4-72-81	*******								_	_			uesi				
email o				Project Mana				(ylu	sel)					(*)						
OA/OC	Package: dard		☐ Level 4 (Full Validation)	Ta.	Ross		s (802	(Gas o	as/Die					PO4,S	PCB's			i I		
Accredi		□ Othe	·r	Sampler:	Thumas L			HT1	15B (G	18.1)	14.1)	AH)		3,NO2	/ 8082		8			S L
	(Type)_				peralure;			띪	180	<b>4</b> D	d 5	٦ ة	tals	N,	ides	2	Ş			٤
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		BTEX LANT	BTEX + MTBE + TPH (Gas only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Metho	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F,Cl,NO3,NO2,PO4,SO4)	8081 Pesticides / 8082	8260B (VOA)	8270 (Semi-VOA)			Air Bubbles (Y or N)
 	1420	ا آڻي ک	SB-1e3'	402 1	Ter		X		X									1		
	1416		5B-2e31		2	2	4		1											
	1422		5B-1e1			3	1		Y											
	1442		SB-3E3			4	7		Æ											
	1500	1	5B4c 3'		1	5	17		4											
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Date:	1610	Relinquish	no Inel	Received by:  Received by:	m Walt	Date Time	1	nark	s:	اسا اکج انو لا	—— 	70	(i)	te	<b>်</b>	rise	<u></u>	<u></u>		4
2/29/11	(e50	Ch	with I color mitted to Hall Environmental may be sub	Mehlle	Corrio	12/89/1 1435	s nose											natylical	report	
-		U. T.	And the second s	L					•										• •	

Chain-of-Custody Record	Turn-Around				<b>4</b> P	•	НΔ	11	F	NV	/TR	20	NN	1EN	ITA	£
Client: AES	© Standard	Project Name: Smyrs 134  Enterprise Symers LS # 1													FOR	
	Project Name	sina S	mers 15 H 1			-	ŴW	v.ha	llenv	rironi	ment	tal.co	חחנ			
Malling Address: 624 Comanche		Misc D	JUL		4901	l Haw	dins t	VE -	Alb	uqu	erqu	e, Ni	vi 871	109		
Farming ton NM	Project:#:				Tel,	505-3	45-3	975	F	ах	505-	345-	4107			
Phone #: 505-564-3081				, ,				A	nal	/sis	Req	uest				
email or Fax#:	Project Mana	-		_	only)	Se!				(°						
QA/QC Package:  D Standard  D Level 4 (Full Validation)	1	L. Ross		s (8021)	TPH (Gas o	8015B (Gas/Diesel) 418.1)				PO,S	2 PCB's					
Accreditation	Sampler:	Thimas L	·c × 6)	1	푒	<u> </u>	=	=		Š	8082					9
□ NELAP □ Other			r⊡ No	1	+	18 25	504	PA	က်	ő	1/8		8			ŏ
☐ EDD (Type)	Sample Tem	peratur <b>e</b> :	<b>以</b> っ	9	136	ဗ္ဂ ၂ ဗ္ဂ	po	ō	eta	5	cide	द्व	<u> </u>			\ S
Date Time Matrix Sample Request ID	Container Type and #	Preservative Type	HEALING 1112 HO6	BTEX LA	BTEX + MTBE	TPH Method 8015B	EDB (Method 504.1)	8310 (PNA or PAH)	CCRA 8 M	Anions (F,CI,NO3,NO2,PO4,SO4)	8081 Pesticides /	8260B (VOA)	8270 (Semi-VOA)			Air Bubbles (Y or N)
12/28/11/12/2 Soil SB-1e3'	402-7.1	Ice	SAME TO SERVE DESCRIE	N/		<u> </u>	1 111	<u> </u>	-	1	<u> </u>				1	
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1416 SB-Je31	<del></del>	<del>  </del>	2	I		_	-							+	+	
1422 5B-101			3	1		*	_	<u> </u>		<b> </b>				$\dashv$		
1442 50-303			4	4		4	<u> </u>		<u> </u>							
1 1500 L 5B4e 31	4	1	5	7		4							<b></b>			
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Date: Time: Religibilished by: 12/19/11/65D Christolicely	Received by:	Corno	12/29/11 1435			EW,		_		,				<b>1</b> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
If necessary, samples submitted to Half Environmental may be s	ubconfragled to other a	corbidited laboratori	es. This serves as notice of this	s possii	biliny. Ar	ry sult-co	ntrocje	d data	will be	e clear	Ty nato	ated on	the an	atylical ri	eport.	

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

January 19, 2012

Thomas Long
Animas Environmental Services
624 East Comanche
Farmington, NM 87401

TEL: (505) 564-2281 FAX (505) 324-2022

RE: Enterprise Smyers

OrderNo.: 1201374

#### Dear Thomas: Long:

Hall Environmental Analysis Laboratory received 3 sample(s) on 1/13/2012 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative. Analytical results designated with a "J" qualifier are estimated and represent a detection above the Method Detection Limit (MDL) and less than the Reporting Limit (PQL). These analytes are not reviewed nor narrated as to whether they are laboratory artifacts.

Quality control data is within laboratory defined or method specified acceptance limits-except if noted.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

#### **Analytical Report**

#### Lab Order 1201374

Date Reported: 1/19/2012

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Project: Enterprise Smyers

Lab ID: 1201374-001

Client Sample ID: WS-1 Excavation

Collection Date: 1/12/2012 10:07:00 AM

Received Date: 1/13/2012 8:50:00 AM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8260: VOLATILES S	HORT LIST				Analyst: MMS
Benzene	15,000	10,000	μg/L	10000	1/13/2012.1:06:22 PM
Toluene	81,000	10,000	μg/L	10000	1/13/2012 1:06:22 PM
Ethylbenzene	ND	10,000	μg/L	10000	1/13/2012 1:06:22 PM
Xylenes, Total	53,000	20,000	μg/L	10000	1/13/2012 1:06:22 PM
Surr. 1,2-Dichloroethane-d4	95.6	70-130	%REC	10000	1/13/2012 1:06:22 PM
Surr: 4-Bromofluorobenzene	102	73-131	%REC	10000	1/13/2012 1:06:22 PM
Surr: Dibromofluoromethene	88.1	70-130	%REC	10000	1/13/2012 1:06:22 PM
Sum: Toluene-d8	105	70-130	%REC	10000	1/13/2012 1:06:22 PM

Matrix: AQUEOUS

Qualifiers:

\*/X Value exceeds Maximum Contaminant Level,

E Volue above quantitation range

J Analyte détected below quantitation limits

R RPD outside necepted recovery limits

S Spike Recovery outside accepted recovery limits

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

Page 2 of 8.

## Analytical Report

#### Lab Order 1201374

Date Reported: 1/19/2012

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Project: Enterprise Smyers

Lab ID: 1201374-002

Client Sample ID: S-17

Collection Date: 1/12/2012 2:18:00 PM

Received Date: 1/13/2012 8:50:00 AM



Analyses	Result	RL Qual Units		DF	Date Analyzed
EPA METHOD 8015B: DIESEL RAN	GE ORGANICS				Analyst: JMP
Diesel Range Organics (DRO)	ND	10	mg/Kg.	1	1/15/2012 10:44:52 AM
Sun; DNOP	86:6	77.4-131	%REC.	1	1/15/2012 10:44:52 AM
EPA METHOD 8015B: GASOLINE R	ANGE				Analyst: RAA
Gasoline Range Organics (GRO)	ND	418.	mg/Kg	· 1	1/17/2012 3:49:14 PM
Sur: BFB	102	89.7-121	%REC	1	1/17/2012 3:49:14 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND.	0.048	mg/Kg	1	1/16/2012 3:10:34 PM
Toluene	ND	0.048	mg/Kg	1	1/16/2012 3:10:34 PM
Ethylbenzene	ND.	0.048	mg/Kg	1	1/16/2012 3:10:34 PM
Xylenes, Total	ND	0.097	mg/Kg	1	1/16/2012 3:10:34 PM
Surr. 4-Bromofluorobenzene	103	85:3-139	%REC	1	1/16/2012 3:10:34 PM

Matrix: SOIL

Qualifiers:

\*/X Value exceeds Maximum Contaminant Level,

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

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

Page 3 of 8

#### **Analytical Report**

### Lab Order 1201374

Date Reported: 1/19/2012

# Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Enterprise Smycrs

Lab ID: 1201374-003

Project:

Client Sample ID; S-16

Collection Date: 1/12/2012 2:20:00 PM

Received Date: 1/13/2012 8:50:00 AM



Analyses	Result	RL Qu	al Units.	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	SE ORGANICS				Analyst: JMP
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	1/15/2012 11:18:29 AM
Sum DNOP	85.0	77.4-131	%REC	1	1/15/2012 11:18:29 AM
EPA METHOD 8015B: GASOLINE R	ANGE				Analyst: RAA
Gasoline Range Organics (GRO)	ND	4.7	mg/Kg	1	1/17/2012.5:49:58 PM
Sum BFB	101	69.7-121	%REC	1	1/17/2012 5:49:58 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.047	mg/Kg	1	1/16/2012 3:39:28 PM
Toluene	ND:	0.047	mg/Kg	1	1/16/2012 3:39:28 PM
Ethylbenzene	ND;	0.047	mg/Kg	1	1/16/2012 3:39:28 PM
Xytenes, Total	ND	0.094	mg/Kg	1	1/16/2012 3:39:28 PM

Matrix: SOIL

#### Qualifiers:

- \*/X. Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits'
- 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

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1201374 19-Jan-12

Client:

**Animas Environmental Services** 

Project: Enterp	orișe Smyers					
Sample ID MB-255	SampType: MBLK	TestCode: EF	A Method 801	SB: Diesel Range (	Organics	
Client ID: PBS	Batch ID: 255	RunNo: 37	79			
Prep Date: 1/13/2012	Analysis Date: 1/14/2012	SeqNo: 11	1238 Un	its: mg/Kg		
Analyte	Result POL SPK valu	e SPK Ref Val %REC	LowLimit Hi	ghUmit %RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND 10					
Surt: DNOP	9.0 10.0	0 89.9	77.4	131		
Sample ID LCS-255	SampType: LCS	TestCode: EF	A Method 801	5B: Diesel Range (	Organics	
Client ID; LCSS	Balch ID: 255	RunNo: 37	9.			
Prep Date: 1/13/2012	Analysis Date: 1/14/2012	SeqNo: 11	1239 Uni	its: mg/Kg		
Analyte	Result POL SPK valu	e S⊮K Rel Val %REC	LowLimit Hi	ghLimit %RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37 10 50.0	0 0 7,4.2	62.7	139		
Suit. DNOP	4:7 5.00	94:2	77.4	131		

#### Qualifiers:

\*/X Value exceeds Maximum Contominant Level

E Value above quantitation range

Analyte detected below quantitation limits

RPD outside accepted recovery limits

Analyte detected in the associated Method Blank

Holding times for preparation or unalysis exceeded H

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Page 5 of 8

### Hall Environmental Analysis Laboratory, Inc.

WO#: 1201374 19-Jan-12

Client:

**Animas Environmental Services** 

Project:

Prep Date: 1/13/2012

**Enterprise Smyers** 

Sample ID MB-257 SampType: MBLK TestCode: EPA Mothod 8015B: Gasoline Range Client ID: PBS RunNo: 429 Batch ID: 257 Analysis Date: 1/17/2012 SeqNo: 12419 Prep Date: 1/13/2012 Units: mg/Kg POL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLImit** Qual Result Analyte Gasofine Range Organics (GRO) ND 5.0 SUR: 8FB. 810 1,000 80.9 69.7 121 Sample ID LCS-257 TestCode: EPA Mothod 8015B: Gasoline Range SampType: LCS Client ID; LCSS Batch ID: 257 RunNo: 429

COV. July CDV-Dat Vol. XDEC

SeqNo: 12423

Units: mg/Kg

Libral Legit

%RPD

**RPDLimit** 

Qual

Analyte	resun	FUL	OLV ATION	OLK MEI ARI	MULL	COMPILIT	Luditarium
Gasofine Range Organics (GRO)	27.	5.0	25.00	0	109	86.4	132
Sum BF8	900		1,000		89.8	69.7	121

Analysis Date: 1/17/2012

#### Qualifiers:

\*/X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside necepted recovery limits

H 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

Page 6 of 8

# Hall Environmental Analysis Laboratory, Inc.

WÓ#: 1201374

19-Jan-12

Client:

**Animas Environmental Services** 

Project:

**Enterprise Smyers** 

Sample ID MB-257	Sampi	Type: ME	BLK	Tes	tCode: E	PA Method	80218: Vola	tilos		
Client ID: PBS	Balc	h ID: 25	7	ı	RunNo: 4	11				
Prep Date: 1/13/2012	Analysis I	Date: 1/	16/2012	:	SeqNo: 1	2116	Units: mg/h	<b>(</b> 9		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.050								
Tatuene	ND.	0.050								
Ethylbenzene	ND	0.050								
(ylenes: Total	ND	0,10								
Surr: 4-Bromo@uorobenzene	1.0		1,000		102	85.3	139			
			_						200	

Sample ID LCS-257	Samp	Type: LC	s	Tes	8021B: Voia	tilos	-31			
Client ID: LCSS	Batc	h ID: 25	7	F	RunNo: 4	11				
Prep Date: 1/13/2012	Analysis (	Óate: 1/	16/2012	\$	SeqNo: 1	2119	Units: mg/l	€ģ		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLImit	Qual
Benzene	0.95	0.050	1.000	0	95.4	83.3	107			
Totuene	0,98	0.050	1.000	0	97.9	74:3	115			
Ethylbenzene	0.98	0.050	1.000	- 0	97.9	80.9	122			
Xytenes, Total	2.9	0.10	3.000	0.	96,4	85.2	123			
Sun: 4-Bromofluorobenzene	1,1		1.000	•	105	85,3	139			

#### Qualiflers:

\*/X Value exceeds Maximum Contaminant Level.

E Value above quantitation range.

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

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

Page 7 of 8

### Hall Environmental Analysis Laboratory, Inc.

WO#: 1201374

19-Jan-12

Client:

Animas Environmental Services

Project:

**Enterprise Smyers** 

Sample ID 5ml rb Client ID: PBW Prep Date:		Type: ME h ID: R3 late: 1/	65	RunNo: 385 2 SeqNo: 10979				thod 8260: Volatiles Short List Units: ug/L					
Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	ND	1.0	<del>-</del>										
Toluene	ND	1.0											
Ethylbenzene	ND.	1.0,											
Xylenes, Total	ND	2.0											
Surr: 1,2-Dichtoroethane-d4	9.5		10.00		95.2	70	130						
Surr: 4-Bromoduorobenzene	9.8		10.00		98.1	73	131						
Surr: Dibromofluoromethane	8.9		10.00		89.0	70	130						
Surr: Toluene-d8	10		10.00		101	70	130						

Sample ID 100ng Ics	Samp1	ype: LC	LCS TestCode: EPA Method 8260: Volatiles Short List							
Client-ID: LCSW	Batc	n ID: R3	65	F	RunNo; 3	65 <sup>.</sup>				
Prep Date:	Analysis E	)ate: 1/	13/2012	\$	SedNo: 1	0980	Units: µgi/L			
Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.9	85.2	121			
Toluene	21	1.0	20.00	0	107	88.3	121			
Surr: 1,2-Dichloroethane-d4	9.2	•-	10.00		91.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	73	131			
Sun: Divromofluoromethane	8.5		10,00		85.2	70	130			
Suin: Totuene-d8	11		10.00		107	70	130			

### Qualifiers:

\*/X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

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

Page 8 of 8



Hall Environmental Analysis Laboratory 4901 Hawkins NI Albuquerque, NM-8710; TEL: 505-345-3975 FAX; 505-345-410;

Website: www.hallenvironmental.com

### Sample Log-In Check List

Client Name: Animas Environmental Work Order Number: 1201374 Mitale Cours 1/13/2012 8:50:00 AM Logged by: Michelle Garcia Completed By: Michelle Garcia 1/13/2012 9:08:51 AM Reviewed By: Chain of Custody Yes 🔲 No 🔲 Not Present 1. Were seals intact? Yes W No 🗆 Not Present 2. Is Chain of Custody complete? 3. How was the sample delivered? **FedEx** 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 U NA 🗆 6. Were all samples received at a temperature of >0° C to 6.0°C Yes 🗹 No 🗆 7 Sample(s) in proper container(s)? Yes 🔽 No 🗌 8 Sufficient sample volume for indicated test(s)? Yes 🗹 No 🗌 9. Are samples (except VOA and ONG) properly preserved? NA [] Yes 🔲 No 🕢 10. Was preservative added to bottles? Yes No No VOA Viels 2 11, is the headspace in the VOA vials less than 1/4 inch or 6 mm? Yes No V 12. Were any sample containers received broken? # of preserved Yes V No 13. Does paperwork match bottle labels? bottles checked (Note discrepancies on chain of custody) for pH: Yes 🗹 No 🗆 14. Are matrices correctly identified on Chain of Custody? (<2 or >12 unless noted) 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) 17. Was client notified of all discrepancies with this order? Yes No NA 🗹 Person: Notified: Date: eMail Prione Fax In Person Via; By Whom: Regarding: **Client Instructions:** 18: Additional remarks: 19 Cooler Information Cooler No Temp C Condition | Seal Intect | Seal No | Seal Date | Good Yes

	hain	of-Cu	stody	Record	Turn-Around	Time: S	Daywaler Sample ON-					AI		EN	VI	r D /	^Ni	ra e	- RIT	TAL	
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	1 . , , , _							BTEX + MTBE	BTEX + MTBE	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals	۶ ا	82608 (V/OA)	8270 (Semi-VOA)				Air Bubbles (Y or N)
Date	Time	Matrix	Sample	Request ID	1	Preservative	HEAL NO.	+	+>	Met	S S	<b>3</b>		8 3	2 6	r a	S		.		9
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ŧ	necessary.	sampos subi	milled to Hall Ent	ritorumentsi may ba subc	minuted to other or	acreuneo (Aborolon)	ea. A usa seizez se sones et nis	MESSI	icity, i	wiy su	u-conin	acieO C	w wa	u (PI) CE	oury fi	MINING	un me.	пенущ	sa tabbi	A.	



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

January 23, 2012

Thomas Long
Animas Environmental Services
624 East Comanche
Farmington, NM 87401

TEL: (505) 564-2281 FAX (505) 324-2022

RE: Smyers LS#1

OrderNo.: 1201467

Dear Thomas Long:

Hall Environmental Analysis Laboratory received 5 sample(s) on 1/17/2012 for the analyses presented in the following report.

There were no problems with the analytical events associated with this report unless noted in the Case Narrative. Analytical results designated with a "J" qualifier are estimated and represent a detection above the Method Detection Limit (MDL) and less than the Reporting Limit (PQL). These analytes are not reviewed nor narrated as to whether they are laboratory artifacts.

Quality control data is within laboratory defined or method specified acceptance limits except if noted.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

Date Reported: 1/23/2012

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services Client Sample 1D: S-20

 Project:
 Smyers LS#1
 Collection Date: 1/13/2012 10:40:00 AM

 Lab ID:
 1201467-001
 Matrix: SOIL
 Received Date: 1/17/2012 2:35:00 PM

Result RL Qual Units DF Date Analyzed Analyses **EPA METHOD 8015B: DIESEL RANGE ORGANICS** Analyst: JMP NO: 1/20/2012 8:39:51 AM Diesel Range Organics (DRO) 10 mg/Kg 1 Motor Oil Range Organics (MRO) ND 50 mg/Kg 1/20/2012 8;39:51 AM Surr DNOP 122 77.4-131 %REC 1/20/2012 8:39:51 AM **EPA METHOD 8015B: GASOLINE RANGE** Analyst: RAA Gasoline Range Organics (GRO) ND 4:7/ 1/19/2012 1:47:28 PM mg/Kg Sum. BFB 92:3 69.7-121 %REC 1/19/2012 1:47:28 PM **EPA METHOD 8021B: VOLATILES** Analyst: RAA ND 1/19/2012 1:47:28 PM Benzene 0.047 mg/Kg 1 Toluene ND 0.047 mg/Kg 1/19/2012 1:47:28 PM Ethylbenzene ND. 0.047 mg/Kg 1/19/2012 1:47.28 PM Xylenes, Total ND. 0.095 mg/Kg 1. 1/19/2012 1:47:28 PM Surr, 4-Bromofluorobenzene 98:3 85.3-139 **%REC** 1/19/2012 1:47:28 PM

Qualifiers:

\*/X- Value exceeds Maximum Contaminant Level,

E Value above quantitation range

J Analyte descreed below quantitation limits

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or unalysis exceeded.

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Page 2 of 10

Date Reported: 1/23/2012

### Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

1201467-002

Client Sample 1D: S-21

EXC.4

Project: Smyers LS#1

Lab ID:

Matrix: SOIL

Collection Date: 1/13/2012 11:22:00 AM

Received Date: 1/17/2012 2:35:00 PM

Analyses.	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8015B: DIESEL RANG	E ORGANICS				Analyst: JMP
Diesel Range Organics (DRO)	ND	10:	mg/Kg	1	1/20/2012 11:31:52 AM
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	1/20/2012 11:31:52 AM
Sur: DNOP	126	77.4-131	%REC	1	1/20/2012 11:31:52 AM
EPA METHOD 8015B: GASOLINE RA	NGE				Analyst: RAA
Gasoline Range Organics (GRO)	ND.	5.0	mg/Kg	.1	1/19/2012 2:16:17 PM
Surr: BFB	92.6	.69.7-121	%REC	1	1/19/2012 2:16:17 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND.	0.050	mg/Kg	1	1/19/2012 2:16:17 PM
Toluene	ND	0:050	mg/Kg	1	1/19/2012 2:16:17 PM
Ethylbenzene	ND	0.050	mg/Kg	1	1/19/2012 2:16:17 PM
Xylenes, Total	ND	0.10	mg/Kg	1	1/19/2012 2:16:17 PM
Surr: 4-Bromoffuorobenzene	99.9	85.3-139	%REC	1	1/19/2012 2:16:17 PM

Qualifiers:

\*/X Value exceeds Maximum Contaminant Level,

E Value above quantitation range

J. Analyte detected below quantitation limits

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits,

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

Page 3 of 10

### Hall Environmental Analysis Laboratory, Inc.

Date Reported: 1/23/2012

CLIENT: Animas Environmental Services

Project: Smyers LS#1

Lab ID: 1201467-003

Client Sample ID: TH-1

Collection Date: 1/13/2012 11:40:00 AM Received Date: 1/17/2012 2:35:00 PM

Analyses	Result	RL Qu	al Units	ĎF	Date Analyzed
EPA METHOD 8015B: DIESEL RANGI	E ORGANICS				Analyst: JMP
Diesel Range Organics (DRO)	ND	9,9	mg/Kg	1	1/20/2012 12:06:32 PM
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	1/20/2012 12:06:32 PM
Surr. DNOP	128	77,4-131	%REC	1	1/20/2012 12:06:32 PM
EPA METHOD 8015B: GASOLINE RA	NGE		•		Analyst: RAA
Gasoline Range Organics (GRO)	ND	5.0	mg/Kġ	1	1/19/2012 2:45:11 PM
Surr. BFB	92.0	69.7-121	%REC	1.	1/19/2012 2:45:11 PM
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	ND	0.050	mg/Kg	-1	1/19/2012 2:45:11 PM
Toluene	ND.	0.050	mg/Kg	1	1/19/2012 2:45:11 PM
Ethyfbenzene	ND.	0.050	mg/Kg	- 1	1/19/2012:2:45:11 PM
Xylenes, Total	ND:	0.10	mg/Kg	1:	-1/19/2012 2:45:11 PM
Surr: 4-Bromofluorobenzene	97.7	85.3-139	%REC	1	1/19/2012 2:45:11 PM

Matrix: SOIL

Qualifiers:

- \*/X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- 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

Page 4 of 10

Date Reported: 1/23/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Animas Environmental Services

Client Sample ID: TH-1w

Project: Smyers LS#1

Collection Date: 1/13/2012-11:38:00 AM

Lab ID: 1201467-004 Matrix: AQUEOUS

Received Date: 1/17/2012 2:35:00 PM

Analyses	Result	RL Qu	al Units	ĎF	Date Analyzed
EPA METHOD 80218: VOLATILES					Analyst: RAA
Benzene	5.1	1:0	μg/L	.1	1/19/2012:2:16:28 PM;
Toluene	81	1.0	μg/L	1	1/19/2012;2;16;28 PM
Ethylbenzene	117	1.0	μg/L	1	1/19/2012 2:16:28 PM
Xylenes, Total	200	2.0	μg/L	1	1/19/2012 2:16:28 PM
Sur: 4-Bromoflugrobenzene	110	76.5-115	%REC	1	1/19/2012 2:16:28 PM

Qualifiers:

\*/X Vulue exceeds Maximum Contaminant Level,

Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits.

S. Spike Recovery outside accepted recovery limits

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

Page 5 of 10.

Date Reported: 1/23/2012

### Hall Environmental Analysis Laboratory, Inc.

**CLIENT:** Animas Environmental Services

Project: Smyers LS#1

Lab ID: 1201467-005

Client Sample ID: Main Excavation water sample

Collection Date: 1/13/2012 11:42:00 AM

Received Date: 1/17/2012 2:35:00 PM

Analyses	Result	RL Qu	al Units	DF	Date Analyzed
EPA METHOD 8021B: VOLATILES					Analyst: RAA
Benzene	1,000	50	µg/L	50	1/20/2012 1:51:38 AM
Toluene:	4,800	50	µg/L	50	1/20/2012 1:51:38 AM
Ethylbenzene	270	50	μg/L	50	1/20/2012 1:51:38 AM
Xylenes, Total	3,100	100	μg/L	50	1/20/2012 1:51:38 AM
Sur: 4-Bromofluorobenzene	105	76.5-115	%REC	50	1/20/2012 1:51:38 AM

Matrix: AQUEOUS

Qualifiers:

\*/X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD autside accepted recovery limits

S Spike Recovery outside accepted recovery limits

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

Page 6 of 10

# Hall Environmental Analysis Laboratory, Inc.

WO#:

%RPD

RPDLIMI

1201467

23-Jan-12

Client:

**Animas Environmental Services** 

Project:

Analyte

Sum: DNOP

Diesel Range Organics (DRO)

Smyers LS#1

Sample ID MB-348.	SampT	ype; MI	3LK	Tes	tCode: El	PA Mothod	8015B: Dies	ol Range (	Organics	
Client ID: PBS	Batc	n ID: 34	8	÷	tunNo: 4	71				
Prep Date: 1/19/2012	Anatysis C	)ate: 1,	20/2012	\$	SeqNo: 1	3532	Units: mg/k	(g		
Analyte	Result	POL	SPK value	SFK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10				-				
Motor Oil Range Organics (MRO)	·ND	50								
Sun: DNOP	13		10.00		131	7.7.4	131			
Sample ID LCS-348	Samp1	ype: LC	s	Tès	(Code: El	PA Method	8015B: Dies	el'Range (	Organics	
Client ID: LCSS	Batc	1D: 34	8	F	RunNo: 4	71	•			
Prep Date: 1/19/2012	Analysis D	late: 1/	20/2012	Ė	eqNo: 1	3599	Units: mg/k	(a		

**%REC** 

78.0

123

LowLimit

62,7

77.4

HighLimit

139

131

SPK value SPK Ref Val

50.00

5.000

POL

10

Result 39

6.2-

#### Qualifiers:

\*/X Value exceeds Maximum Contaminant Level:

E. Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

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

Page 7 of 10

## Hall Environmental Analysis Laboratory, Inc.

W(,)#: 1201467 23-Jan-12

Client:

**Animas Environmental Services** 

990

Sur: BFB

Project: Smyers	LS#1											
Sample ID MB-338	SampType: MBLK	TestCode: EPA Method 8015B: Gasoline Range:										
Client ID: PBS	Batch ID: 338	RunNo: 481										
Prep Date: 1/18/2012	Analysis Date: 1/19/2012	SeqNo; 13802	Units: mg/Kg									
Analyte	Result PQL SPK value	SPK Ref-Val %REC LowLimit	HighLimit %RPD I	RPDLimit Qual								
Gasoline Range Organics (GRO) Suin: BFB	ND 5.0 920 1,000	92.3 69.7	121									
Sample ID LCS-338	SempType: LCS	TestCode: EPA Method	8015B: Gasoline Range									
Cilent ID: LCSS	Batch ID: 338	RunNo: 481										
Prep Date: 1/18/2012	Analysis Date: 1/19/2012	SeqNo: 13808	Units; mg/Kg									
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD (	RPDLimit Qual								
Gasoline Range Organics (GRO)	29 5.0 25.00	0 115 88.4	132									

1,000

69.7

98.8

121

#### Qualifiers:

\*/X Value exceeds Maximum Contaminant Level.

Value above quantitation range

Analyte detected below quantilation limits.

R RPD outside accepted recovery limits Analyte detected in the associated Method Blank

Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL. Reporting Detection Limit

Page 8 of 10

# Hall Environmental Analysis Laboratory, Inc.

WO#;

1201467 23-Jan-12

Client:

**Animas Environmental Services** 

Project:

Smyers LS#1

Sample ID MB-338	Samo	BLK	TestCode: EPA Method 8021B: Volatiles									
Client ID; PBS	Batc	h ID: 33	8	·R	tunNo: 41	B1						
Prep Date: 1/18/2012	Analysis Date: 1/19/2012			s	edNo. 1	3814	Units: mg/k	ig				
Analyte	Result	POL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit.	Qual		
Benzene	ND	0.050										
Toluene	ND	0.050										
Ethy/benzene	ND	0.050										
Xylenes, Total	ND	0.10										
Sur: 4-Bromofluorobenzene	0:99		1.000		99.4	85.3	139					

Sample ID LCS-336	S	TestCode: EPA Method 8021B: Volatiles											
Client ID: LCSS	Batc	n ID: 33	8	F	tunNo: 4	81							
Prep Date: 1/18/2012	Analysis C	ațe: 1/	19/2012	•	SeqNo: 1	3818	Units! mg/l	(g					
Analyte.	Result	PQL	SPK value	SPK Rel Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Benzene	1,0	0.050	1.000	O	101	83.3	107		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Tohuene,	1.0	0.050	1.000	: <b>o</b>	99.9	74.3	115						
Ethylbenzene	1.0	0.050	1.000	Ò	100	80.9	122						
Xylenes, Total	3.0	0.10	3.000	Ó	101	85:2	123						
Surr: 4-Bromofluorobenzene	1.0		1.000		99.6	85.3	139						

### Qualiflers:

\*/X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery timits

B Analyte detected in the associated Method Blank

14 Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

Page 9 of 10

# Hall Environmental Analysis Laboratory, Inc.

WO#:

1201467

23-Jan-12

Client:

Animas Environmental Services

Project:

Smyers LS#1

Sample ID 5ML-RB	TestCode: EPA Method 8021B: Volatiles										
Client ID: PBW	Batčh ID: R480 Analysis Date: 1/19/2012			F	tunNo: 4	80					
Prep Date:				S	SeqNo: 1	3786	Units: µg/L				
Analyte	Résult	PQL	SPK value	SPK Ref Val.	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	ND	1.0		_							
Totuene	ND.	1.0									
Ethyloenzene	ND	1.0									
Xylenes, Total	ND	2.0									
Sun: 4-Bromoflucrobenzene	20		20.00		100	76.5	115				

Sample ID 100NG BTEX LCS	Sampl	ype: LC	S	TestCode: EPA Method 8021B: Volatiles										
Client ID: LCSW	Batc	h ID: R4	80	Ě	RunNo: 4									
Prep Date:	Analysis Date: 1/19/2012			8	eqNo: 1	3790	Units: µg/L							
Analyte	Result	POL	SPK value	SPK Ref Val	%REC.	LowLimit	HighLimit	%RPD	RPDLimit	Qual				
Benzene	20	1.0	20.00	0	102	80	120							
Totuene.	20	1.0	20.00	.0	98.8	80	120							
Ethylbenzene	19	1.0	20.00	Õ.	95.0	80	120							
Xylenes, Total	58	2:0	60.00	<b>'0</b> .	96.8	78.6	121							
Sur: 4-Bromofluorobenzene	18	•	20.00	•	88.4	76:5	1.15							

#### Qualifiers:

RI. Reporting Detection Limit.

Page 10 of 10

<sup>\*/</sup>X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte delected below quantitation limits

R RPD outside decepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit



Hall Environmental Analysis Laboratory 4901 Hawkins NI Albuquerque, NM 87103

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

# Sample Log-In Check List

Client Name	: Animas Ér	vironmenta!		Work On	ler N	umb	er:	1201467		-
Logged by:	Michelle C	Sarcia	1/17/2012 2:35:00 PI	М			-17	fulle General		
Completed I	By: Michelle G	garcia	1/17/2012 4:11:35 PI	м			11	fibile Green Jubile Green		Ĩ
Reviewed B	y: MA 1/18	112 56								! : :
Chain of C	Custody									
1. Were s	eals intact?			Yes		No.		Not Present 🗹		
2. Is Chair	2. Is Chain of Custody complete?							Not Present		
3, How wa	s the sample def	ivered?		Cour	ier					
Log In										
4; Coolers	4. Coolers are present? (see 19. for cooler specific information)							NA []		
5. Was an	5. Was an attempt made to cool the samples?							NA []		
6. Were a	6. Were all samples received at a temperature of >0° C to 6.0°C							NA 🗆		
7 Sample	ainer(s)?	Yes	Ø:	No I						
	10. Was preservative added to bottles?						Z	NA 🗆		
11 (s.the h	eadsnace in the \	/OA vials less tha	n 1/4 inch or 6 mm?	Ýes		No i		No VOA Vials		
		ners received brish		Yes		٠.	V	production graduates	· >~4	
13, Does pa	aperwork match b screpancies on c	ottle labels?		Yes	Ø	No l		# of preserved bottles checked for pH;		
14. Are mal	rices correctly id:	entified on Chain (	f.Custody?	Yes					or >12 ûı	nless noted)
15. Is it clea	ır what analyses	were requested?		Yes				Adjusted?		- and the same of
	holding times at			Yes		No !				*
	otify customer for							Checked by:		
<del></del>	andling (if ap) ent notified of all	<u>plicable)</u> discrepancies with	this order?	'Yes'	<b>2</b> 1	4o. [		NA 🗀		
Pe	rson Notified:	Thomas Long	Date:		*********		1/1	8/2012		
	Whom;	1	Via			Phi	•	☐ Fax ☐ In Person	1	
	garding;	Sample Request		L.,	` U			Land .	·······. ,	
CII	ent Instructions:	iD on Co	15 correct. N	الخالية	<u>~</u>				;	
18, Addition	al remarks;	र है है। रहे	erre e Pere e Linguist	المتحدثان	∵. * ∵			iidayd Canadahalaan ay ibaanka daa aa a	<del></del>	
-, ,	, -									
19. Cooler	- 1	Condition   S   Good   Ye	eal Intact   Seal No	Seal Da	te	<u>s</u>	iigne	ed By		

	Chain-of-Custody Record			Turn-Around Time:										ERI	\/T	D/	- 14 C	8.4 E	NT	A 1	
Client:	Anima	s Enu.	Service 5	□ Standard	□ Rush				<b>P</b> 24												
				Project Name	myers L	. 41		ANALYSIS LABORATORY  www.hallenvironmental.com													
Mailing	Address	634	E. Comarche	7 5'	nyers L	5 7FJ		4901 Hawkins NE - Albuquerque, NM 87109													
-	4		87401	Project #:			<del></del>	Tel. 505-345-3975 Fax 505-345-4107													
			2281							00		. 00		alysi				ستنصصح			
			Elonge an mose number	Project Mana	iger:			+	( <u>y</u> i	sel)	T				<b>?</b>						
OA/OC Fackage:  ☐ Standard ☐ Level 4 (Full Validation)			71%	ines long			s (8624)	(Gas only)	(Gas/Diesel)				ŭ.	5 6	r S S S						
Accredi		☐ Othe	r		hones bur		08. 9 GC * 23 K + 27	TMB	+TPH		418.1)	⊋ l	£	Š		8087			:		î
□ EDD		LI Oute		Sample Tem	X Yes	1.4		7 4 1	+ =	801	418	8	Z.	န္အ		Sel	Q				ŏ ≺
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL	No.	BTEX + M <del>TB</del>	BTEX + MTBE	TPH Method 8015B	TPH (Method	EDB (Method 504.1)	8310 (PNA or PAH)	RCRA 8 Metals		8061 Pesticides / 8082	8270 (Semi-VOA)				Air Bubbles (Y or N)
(13/13	1040	Soil	5-20 (EXC-3/2)	iluz Jer	TCE	- 1		X	-	¥											
	1122	$\downarrow$	5-21 EXC-4 @			- 2	<u> </u>	X		X											
	1/40	1	TH-1		Hel	-3		X		X											
	1138	العلمونا	TH-IW	3 VOX'>	)	-4		X													
1	1143	7	Main Excavation	1	$\downarrow$	- 5		X													
			EXCN-2(	æ.				,													
	40-0-1										$\bot$	$\perp$									
6	<b>▼1</b> ′	Davis - Yak		Distributed by it		5-15	-														
Date; I/B/D Date;	1330	Relinquishe	more from	Received by:  Received by:  Received by:	Hucelon	Date   1/3   12.	Time 1552 Time	Ren	narks	Bil	1 to	F	Inte	rpri	:se	P	nd.	~c+s	, T		
16/12	1049	Mrs	t Water	Cen	m I	0/1/1/1	1														
N.	necessary,	amples aubo	nitted to Hall Environmental may be sub	contracted to other as	ocredited laboratorie	s This serves a	s natice of this	possit	Aty.	lny sut	onnira;	icled d	lata wi	l be cle	erly.n	oiated	on the r	analytica	al report		