

3R – 457

GW WP

12 / 02 / 2013



ENTERPRISE PRODUCTS PARTNERS L.P.
ENTERPRISE PRODUCTS HOLDINGS LLC
(General Partner)

ENTERPRISE PRODUCTS OPERATING LLC

LAT C-64 / 2013

3R-457

December 2, 2013

Return Receipt Requested
7012 3460 0001 7236 2398

Mr. Glenn von Gonten
New Mexico Energy, Minerals & Natural Resources
Department - Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Attn: Jim Griswold

**Re: Continued Site Assessment Workplan
Lateral C-64 July 2013 Line Drip Release
NW ¼ NE ¼, Sec 24, T27N, R6W
Rio Arriba County, New Mexico**

RECEIVED OGD
MAY 03 - 5 P 2:21


Dear Mr. von Gonten:


Enterprise Field Services, LLC (Enterprise) is submitting two copies of the enclosed workplan entitled: *Continued Site Assessment Workplan, Lateral C-64 July 2013 Line Drip Release*, dated November 22, 2013. This workplan documents the initial release assessment at the Lateral C-64 line drip release that was discovered in July 2013 along with a workplan for a continued site assessment.

Soil laboratory analytical results from the July 2013 release assessment show total benzene, toluene, ethylbenzene, and xylene (BTEX) concentrations above New Mexico Oil Conservation Division (NMOCD) action levels in S-1, as well as total petroleum hydrocarbon (TPH) concentrations above NMOCD action levels in S-1 and S-4. Due to the assumed shallow depth to groundwater at this site, Enterprise has determined that a continued site assessment is appropriate in order to determine the vertical and horizontal extents of the release prior to implementing further mitigation measures.

Enterprise plans to install approximately five soil borings near the release location to delineate the extent of hydrocarbon impacted soils. Should groundwater be encountered before soils exhibit volatile organic compound (VOC) concentrations below NMOCD action levels, the soil borings will be completed as 2-inch diameter groundwater monitor wells. Soils and groundwater (if encountered) will be sampled for total BTEX and TPH per the attached workplan. Details of the continued site assessment and sampling results will be submitted. If you have any questions concerning the enclosed report and workplan, please do not hesitate to contact me at (713) 381-2286, or via email at: drsmith@eprod.com.

Sincerely,


David R. Smith, P.E.
Sr. Environmental Scientist


Gregory E. Miller
Supervisor, Remediation

/dep

Enclosure – *Continued Site Assessment Workplan, Lateral C-64 July 2013 Line Drip Release*

cc: Brandon Powell, New Mexico Oil Conservation Division, Aztec, NM
Jim Griswold, New Mexico Oil Conservation Division, Santa Fe, NM
ec: Heather Woods – Animas Environmental Services, LLC, Farmington, NM



Animas Environmental Services, LLC

www.animasenvironmental.com

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

Durango, Colorado
970-403-3084

November 22, 2013

David Smith
Enterprise Products Operating, LLC
P.O. Box 4324
Houston, Texas 77210

*Via email with delivery confirmation receipt to:
drsmith@eprod.com*

**RE: Continued Site Assessment Workplan
Lateral C-64 July 2013 Line Drip Release
NW¼ NE¼, Section 24, T27N, R6W
Rio Arriba County, New Mexico**

Dear Mr. Smith:

Animas Environmental Services, LLC (AES) has completed an initial release assessment and a workplan for continued assessment at the Lateral C-64 line drip release that was discovered by Enterprise Field Services, LLC (Enterprise) in July 2013. On July 31, 2013, AES completed an initial assessment associated with a release of unknown volume of natural gas and petroleum hydrocarbons from the Enterprise Lateral C-64 line drip. The release resulted from a leak caused by corrosion and was discovered by Enterprise personnel on July 24, 2013.

1.0 Site Information

1.1 Location

Location - NW¼ NE¼, Section 24, T27N, R6W, Rio Arriba County, New Mexico

Latitude/Longitude - N36.563695 and W107.414268, respectively

Surface Owner – Private

Figure 1. Topographic Site Location Map

Figure 2. Aerial Site Map

1.2 NMOCD Ranking

In accordance with New Mexico Oil Conservation Division (NMOCD) release protocols, action levels were established per NMOCD *Guidelines for Remediation of Leaks, Spills, and Releases* (August 1993) prior to the initial assessment. The release was given a ranking score of 40 based on the following factors:

- **Depth to Groundwater:** Based on elevation differential between the release location and Carrizo Wash of less than 10 feet, groundwater is estimated to be less than 50 feet below ground surface (bgs). (20 points)
- **Wellhead Protection Area:** The release location is not within a wellhead protection area. (0 points)
- **Distance to Surface Water Body:** The release location is approximately 115 west of Carrizo Wash. (20 points)

The ranking score of 40 dictates that concentrations for impacted soils left in place must be below the NMOCD action levels of 10 mg/kg benzene, 50 mg/kg total benzene, toluene, ethylbenzene, and xylenes (BTEX), and 100 mg/kg total petroleum hydrocarbons (TPH) as gasoline range organics (GRO) and diesel range organics (DRO).

2.0 Initial Release Assessment and Mitigation

On July 31, 2013, Enterprise contractors completed the excavation and removal of the line drip. The line drip was not replaced, and 6-inch pipeline was used to repair the Lateral C-64 pipeline. During the excavation work, AES collected six discrete soil samples (S-1 at 6 feet and 11 feet, and S-2 through S-5 from 2.5 feet) from the four walls and base of the excavation for field screening of volatile organic compounds (VOCs). The final excavation dimensions measured approximately 24 feet by 12 feet by 11 feet in depth. A photograph log is included in the Appendix.

Based on the field screening readings, shallow depth to groundwater, and the close proximity of additional pipelines, AES and Enterprise determined that a continued site assessment to determine the vertical and horizontal extents of the release would be appropriate prior to implementing further mitigation measures. The excavation was backfilled with clean, imported material, and the impacted soil was transported to the Envirotech Landfarm for proper disposal. The Envirotech Bills of Lading are included in the Appendix.

2.1 Field Screening

2.1.1 Volatile Organic Compounds

Field screening for VOC vapors was conducted 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.

2.2 Laboratory Analyses

The soil samples collected for laboratory analysis on July 31, 2013, were placed into new, clean, laboratory-supplied containers, which were then labeled, placed on ice, and logged onto a sample chain of custody record. Samples were maintained on ice until delivery to the analytical laboratory, Hall Environmental Analysis Laboratory (Hall) in Albuquerque, New Mexico. Soil samples were laboratory analyzed for:

- BTEX per U.S. Environmental Protection Agency (USEPA) Method 8021B; and
- TPH (GRO/DRO) per USEPA Method 8015D.

2.3 Field Screening and Laboratory Analytical Results

On July 31, 2013, initial assessment field screening results for VOCs via OVM showed concentrations ranging from 26.5 ppm in S-3 up to 3,854 ppm in S-1. Results are included below in Table 1 and on Figure 3.

Table 1. Field Screening VOCs Results
Lateral C-64 July 2013 Initial Release Assessment, July 2013

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>VOCs via OVM (ppm)</i>
<i>NMOCD Action Level*</i>			<i>100</i>
S-1	7/31/13	6	3,854
		11	3,364
S-2	7/31/13	2.5	275
S-3	7/31/13	2.5	26.5
S-4	7/31/13	2.5	1,072
S-5	7/31/13	2.5	31.3

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

Laboratory analytical results for S-1 at 6 feet, S-1 at 11 feet, and S-2 through S-5 were used to confirm field screening results during excavation activities. Benzene concentrations ranged from below the laboratory detection limit up to 3.0 mg/kg in S-1 at 11 feet. Total BTEX concentrations ranged from below laboratory detection limits up to 238 mg/kg in S-1 at 11 feet. TPH concentrations as GRO/DRO ranged from below laboratory detection limits up to 2,030 mg/kg in S-1 at 6 feet. Results are presented in Table 2 and on Figure 3. The laboratory analytical report is attached.

Table 2. Laboratory Analytical Results – Benzene, Total BTEX, and TPH
Lateral C-64 July 2013 Initial Release Assessment, July 2013

<i>Sample ID</i>	<i>Date Sampled</i>	<i>Sample Depth (ft bgs)</i>	<i>Benzene (mg/kg)</i>	<i>Total BTEX (mg/kg)</i>	<i>GRO (mg/kg)</i>	<i>DRO (mg/kg)</i>
NMOCD Action Level*			10	50	100	
S-1	7/31/13	6	2.7	169	1,200	830
		11	3.0	238	1,500	260
S-2	7/31/13	2.5	<0.046	0.34	8.0	46
S-3	7/31/13	2.5	<0.048	<0.24	<4.8	<9.9
S-4	7/31/13	2.5	<0.23	3.3	72	61
S-5	7/31/13	2.5	<0.046	<0.231	<4.6	<10

NA = Not Analyzed

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

Field screening showed concentrations above the NMOCD action level of 100 ppm VOCs in S-1, S-2, and S-4. However, soil laboratory analytical results showed benzene concentrations below the NMOCD action level of 10 mg/kg in all the samples. Total BTEX concentrations were below the NMOCD action level of 50 mg/kg in S-2 through S-5; however, total BTEX concentration exceeded the action level in both samples from S-1. Concentrations of TPH as GRO/DRO were below the NMOCD action level of 100 mg/kg in S-2, S-3, and S-5, but exceeded the action level in S-1 and S-4. Based on the laboratory analytical results above NMOCD action levels and assumed shallow depth to groundwater, AES and Enterprise determined that a continued site assessment would be appropriate to determine the vertical and horizontal extents of the release prior to implementing further mitigation measures.

3.0 Proposed Continued Site Assessment

A continued site assessment is proposed in order to delineate the extent of the petroleum hydrocarbon impacted soil and determine whether groundwater has been impacted by the Lateral C-64 July 2013 pipeline release. The assessment procedures are designed to be protective of both surface water and groundwater in accordance with U.S. Environmental Protection Agency (USEPA) Environmental Response Team's Standard Operating Procedures (SOPs), applicable American Society of Testing and

Materials (ASTM) standards, and AES' SOPs. Work will be conducted within Enterprise's pipeline right of way (ROW).

3.1 Pre-Field Permits and Coordination

3.1.1 Utilities Notification

AES' drilling subcontractor will utilize the New Mexico One-Call system to identify and mark all underground utilities at the site before the start of any proposed field activities which could impact buried utilities. Any local utilities not participating in the New Mexico One-Call system will be contacted separately by the drilling contractor for utility locations. AES will coordinate with the area supervisor to schedule an Enterprise representative to be onsite during operations within the Enterprise ROW.

3.1.2 Office of the State Engineer Permits

Prior to initiating the groundwater investigation, AES will submit an Application for Permit to Drill a Well with No Consumptive Use of Water (WR-07) with the New Mexico Office of the State Engineer (NMOSE). Field work will commence following the receipt of the permits for the proposed wells. A Well Record & Log (WR-20) will be filed within 20 days of the completion of drilling by the drilling subcontractor.

3.1.3 Health and Safety Plan

AES has a company health and safety plan in place, and all on-site personnel are 40-hour HAZWOPER trained in accordance with OSHA regulations outlined in 29 CFR 1910.120(e). Prior to the start of the site investigation, AES will prepare a comprehensive site-specific Job Safety Analysis (JSA) addressing the site investigation activities and associated soil and groundwater sampling. All employees and subcontractors are required to read and sign the JSA to acknowledge their understanding of the information contained within the JSA. The JSA will be implemented and enforced on site by the assigned Site Safety and Health Officer.

3.2 Installation of Soil Borings

AES proposes to install approximately five soil borings near the release location to delineate the extent of hydrocarbon impacted soils. Soil borings will be advanced with a CME-75 drill rig using 7.25-inch outer diameter (OD) hollow stem augers. Drilling will be provided by Enviro-Drill, Inc., of Albuquerque, New Mexico. The locations of the proposed soil boring locations are shown on Figure 4.

Soil boring SB-1, slightly downgradient and nearest to the release location, will be advanced 4 to 8 feet below the total depth at which impacted soils with VOC concentrations above 100 ppm are encountered or to groundwater, whichever is encountered first. Should groundwater be reached before soils exhibiting VOC

concentrations below 100 ppm, SB-1 will be completed as a 2-inch diameter groundwater monitor well to delineate the extent of dissolved phase petroleum hydrocarbon impact. Soil borings SB-2 through SB-5 will extend to the total depth of SB-1 or to groundwater. Should SB-2 through SB-5 extend to groundwater, they will also be completed as 2-inch diameter groundwater monitor wells.

3.3 Soil Sampling and Analyses

Sampling will be conducted in accordance with USEPA Environmental Response Team's SOPs, applicable ASTM standards, and AES' SOPs.

3.3.1 Sample Collection

Each soil boring will be continuously sampled using a core-barrel sampler. Soil samples collected will be field screened for VOCs with a photo-ionization detector (PID) organic vapor meter (OVM). In the event that field screening results exceed 100 parts per million, soil samples will be collected from that boring for laboratory analysis. Generally, these samples will be collected from the vadose zone where the highest OVM-PID reading is observed and from the capillary fringe just above groundwater.

Each soil boring, a soil boring log will be completed. These logs will record sample identification, depth collected, and method of collection, as well as observations of soil moisture, color, density, grain size, plasticity, contaminant presence, and overall stratigraphy.

3.3.2 Field Screening

Samples will be field screened for VOC vapors utilizing a PID-OVM calibrated with isobutylene gas to obtain preliminary data regarding potential hydrocarbon impacted soil. The PID-OVM readings will be recorded onto the soil boring logs.

3.3.3 Laboratory Analyses

Discrete soil samples collected for laboratory analysis for the proposed continued site assessment will be placed into new, clean, laboratory-supplied containers, which will then be labeled, placed on ice, and logged onto a sample chain of custody record. Samples will be maintained on ice until delivery to the analytical laboratory, ALS Environmental Laboratory (ALS) in Houston, Texas. Soil samples will be laboratory analyzed for:

- Total BTEX per USEPA Method 8021B; and
- TPH as GRO/DRO per USEPA Method 8015D.

3.4 Groundwater Monitor Well Installation and Sampling

Monitor well installation and sampling protocols are designed to be protective of both surface water and groundwater and will be conducted in accordance with USEPA Environmental Response Team's SOPs, applicable ASTM standards, and AES' SOPs.

3.4.1 Groundwater Monitor Well Installation and Construction

For soil borings completed as a groundwater monitor wells, monitor well construction will consist of 2.375-inch outside diameter (OD) [2.067-inch inside diameter (ID)] Schedule 40 PVC screen and 2.0-inch blank riser casing. The screened interval will extend 15 feet across the water table. A bentonite seal will be placed above the sand pack, and concrete grout with approximately 5 percent bentonite will be poured from the top of the bentonite plug up to within 0.5 feet of ground surface. An above grade locking steel protective casing, enclosed with a shroud of concrete, will be installed on the well to prevent unauthorized access and damage. A monitor well construction schematic is presented on Figure 4.

3.4.2 Professional Survey

The location and elevation of the top of each well casing will be surveyed to the nearest 0.01 foot with reference to mean sea level by a licensed surveyor in order to accurately determine the local groundwater depth and flow direction beneath the site. Each well will be tied to an existing USGS benchmark. AES will arrange with a New Mexico Licensed Professional Surveyor or with an Enterprise approved and provided surveyor to complete the survey after the monitor well installation.

3.4.3 Monitor Well Development

Following monitor well installation and completion, each well will be developed by a combination of surging and bailing techniques. Groundwater purged from the wells will be contained in a labeled and sealed 55-gallon drum and transported to Envirotech Landfarm for proper disposal.

3.4.4 Groundwater Sampling

Upon well completion and development, the monitor wells will be allowed to sit undisturbed for a minimum of 48 hours. The monitor wells will then be gauged to determine water table elevation and direction of groundwater flow. The wells will then be purged until groundwater quality parameters stabilize, and a groundwater sample will be collected from each well.

Groundwater samples will be collected from each well using a low flow peristaltic pump. Purging data, including pH, temperature, conductivity, oxidation-reduction potential (ORP), and dissolved oxygen (DO), will be measured with a YSI water quality meter and documented on a Water Sample Collection Form along with purged water volume and

sample depth. All sampling equipment will be thoroughly decontaminated between uses. Purged water will be contained in a labeled and sealed 55-gallon drum and transported to the Envirotech Landfarm for proper disposal.

3.4.5 Laboratory Analyses

All groundwater analytical samples collected from the monitor wells will be submitted to ALS for analysis of the following parameters:

- BTEX per USEPA Method 8021B;
- TPH as GRO, DRO, and motor oil range organics (MRO) per USEPA Method 8015D.

Once collected, sample containers will be packed per standard protocol with ice in insulated coolers and shipped to the analytical laboratory.

3.5 Equipment Decontamination

In order to prevent cross-contamination between sampling locations, strict decontamination procedures will be employed during the continued site assessment. All drilling equipment will be decontaminated after completing each well, and sampling equipment (i.e. hand auger, spoon sampler and other hand tools) will be decontaminated following each use at an individual depth or location. All decontamination procedures will be completed in strict accordance with applicable USEPA Environmental Response Team's SOPs, applicable ASTM standards, and AES' SOPs.

4.0 Deliverables

Following completion of the continued assessment activities, a Continued Site Assessment Report summarizing the investigation activities will be submitted to Enterprise. The report will include the following:

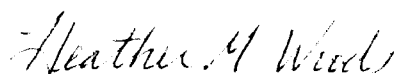
1. A summary of all work conducted in the implementation of the assessment;
2. Maps of all sampling locations, including groundwater contaminant concentrations and contours;
3. Soil boring logs and geologic cross-sections;
4. All laboratory data and quality assurance and quality control information;
5. Site photographs;
6. Professional survey data; and
7. Recommendations for further action, if applicable.

5.0 Implementation Schedule

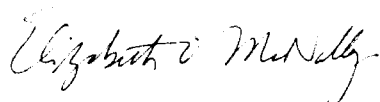
Soil boring installation will be scheduled one to two weeks following workplan approval, pending site accessibility and drill rig availability. Monitor well development and sampling will occur the following week. Note, this schedule assumes that no inclement weather occurs, which could result in a delay in implementing the field work.

AES appreciates the opportunity to provide Enterprise with environmental services. If you have any questions about the proposed scope of work or site conditions, please do not hesitate to contact me or Ross Kennemer at 505.564.2281.

Respectfully submitted,



Heather M. Woods, P.G.
Project Manager



Elizabeth McNally, P.E.
Principal

Attachments:

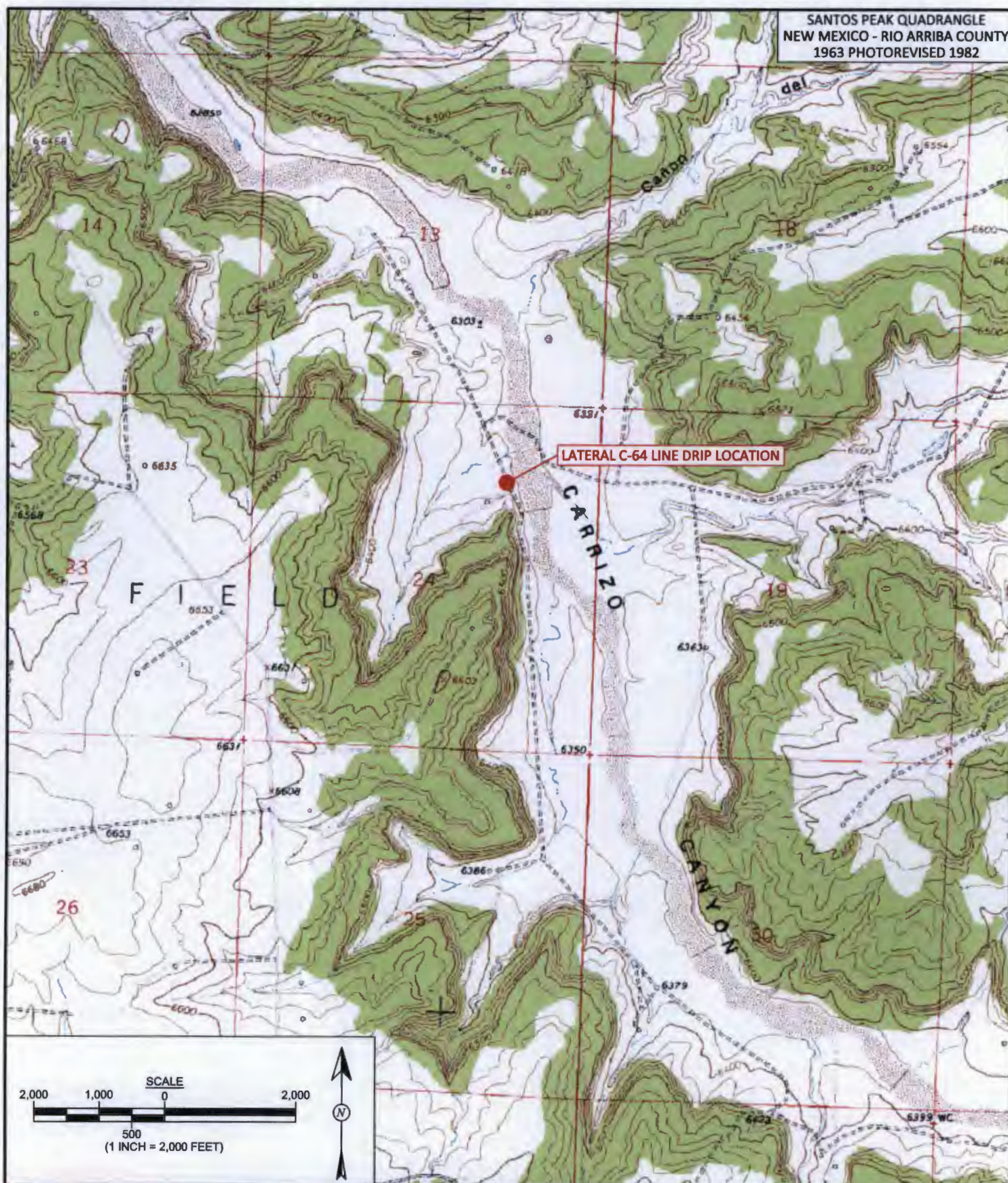
- Figure 1. Topographic Site Location Map
- Figure 2. Aerial Site Map
- Figure 3. Initial Release Assessment Sample Locations and Results, July 2013
- Figure 4. Proposed Soil Boring/Monitor Well Locations and Well Schematic
- Photograph Log
- Bills of Lading (Envirotech 44260, 44335, 44341 and 44355)
- Laboratory Analytical Report (Hall 1308004)

Cc: Glenn von Gonten
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

*David Smith
Lateral C-64 July 2013 Line Drip Release
Continued Site Assessment Workplan
November 22, 2013
Page 10*

Brandon Powell
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, NM 87410

R:\Animas 2000\Dropbox\2013 Projects\Enterprise\Lateral C-64\Lateral C-64 July 2013 Release Workplan
112213.docx



Animas Environmental Services, LLC

DRAWN BY: C. Lameman	DATE DRAWN: September 26, 2013
REVISIONS BY: C. Lameman	DATE REVISED: September 26, 2013
CHECKED BY: H. Woods	DATE CHECKED: September 26, 2013
APPROVED BY: E. McNally	DATE APPROVED: September 26, 2013

FIGURE 1

TOPOGRAPHIC SITE LOCATION MAP
ENTERPRISE FIELD SERVICES, LLC
LATERAL C-64 LINE DRIP RELEASE
NW¼ NE¼, SECTION 24, T27N, R6W
RIO ARriba COUNTY, NEW MEXICO
N36.563695, W107.414268



Animas Environmental Services, LLC

DRAWN BY: C. Lameman	DATE DRAWN: September 26, 2013
REVISIONS BY: C. Lameman	DATE REVISED: September 26, 2013
CHECKED BY: H. Woods	DATE CHECKED: September 26, 2013
APPROVED BY: E. McNally	DATE APPROVED: September 26, 2013

FIGURE 2

AERIAL SITE MAP
 ENTERPRISE FIELD SERVICES, LLC
 LATERAL C-64 LINE DRIP RELEASE
 NW¼ NE¼, SECTION 24, T27N, R6W
 RIO ARriba COUNTY, NEW MEXICO
 N36.563695, W107.414268

FIGURE 3

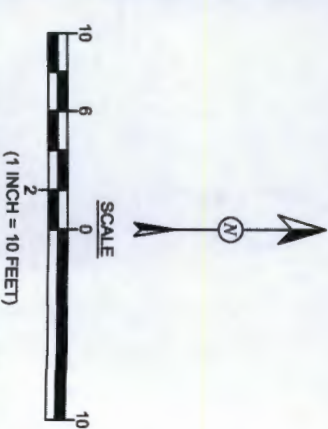
EXCAVATION SAMPLE LOCATIONS AND RESULTS
JULY 2013
ENTERPRISE FIELD SERVICES, LLC
LATERAL C-64 LINE DRIP RELEASE
NW¼ NE¼, SECTION 24, T72N, R6W
RIO ARriba COUNTY, NEW MEXICO
N36.563695, W107.414268



Animas Environmental Services, LLC

DRAWN BY: C. Lameman	DATE DRAWN: October 14, 2013
REVISIONS BY: C. Lameman	DATE REVISED: October 14, 2013
CHECKED BY: H. Woods	DATE CHECKED: October 14, 2013
APPROVED BY: E. McNally	DATE APPROVED: October 14, 2013

- LEGEND
- SAMPLE LOCATIONS
 - ===== SECONDARY CONTAINMENT BERM
 - x- FENCE
 - p- BURIED PIPELINE (APPROXIMATE)



Field Screening and Laboratory Analytical Results							
Sample ID	Date	Depth (ft)	OVM-PID (ppm)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)
NMOC ACTION LEVEL			100	10	50	100	
S-1	7/31/13	6	3,854	2.7	169	1,200	830
		11	3,364	3.0	238	1,500	260
S-2	7/31/13	2.5	275	<0.046	0.34	8.0	46
S-3	7/31/13	2.5	26.5	<0.048	<0.24	<4.8	<9.9
S-4	7/31/13	2.5	1,072	<0.23	3.3	72	61
S-5	7/31/13	2.5	31.3	<0.046	<0.23	<4.6	<10

ALL SAMPLES WERE ANALYZED PER EPA METHOD 8021B AND 8015D.

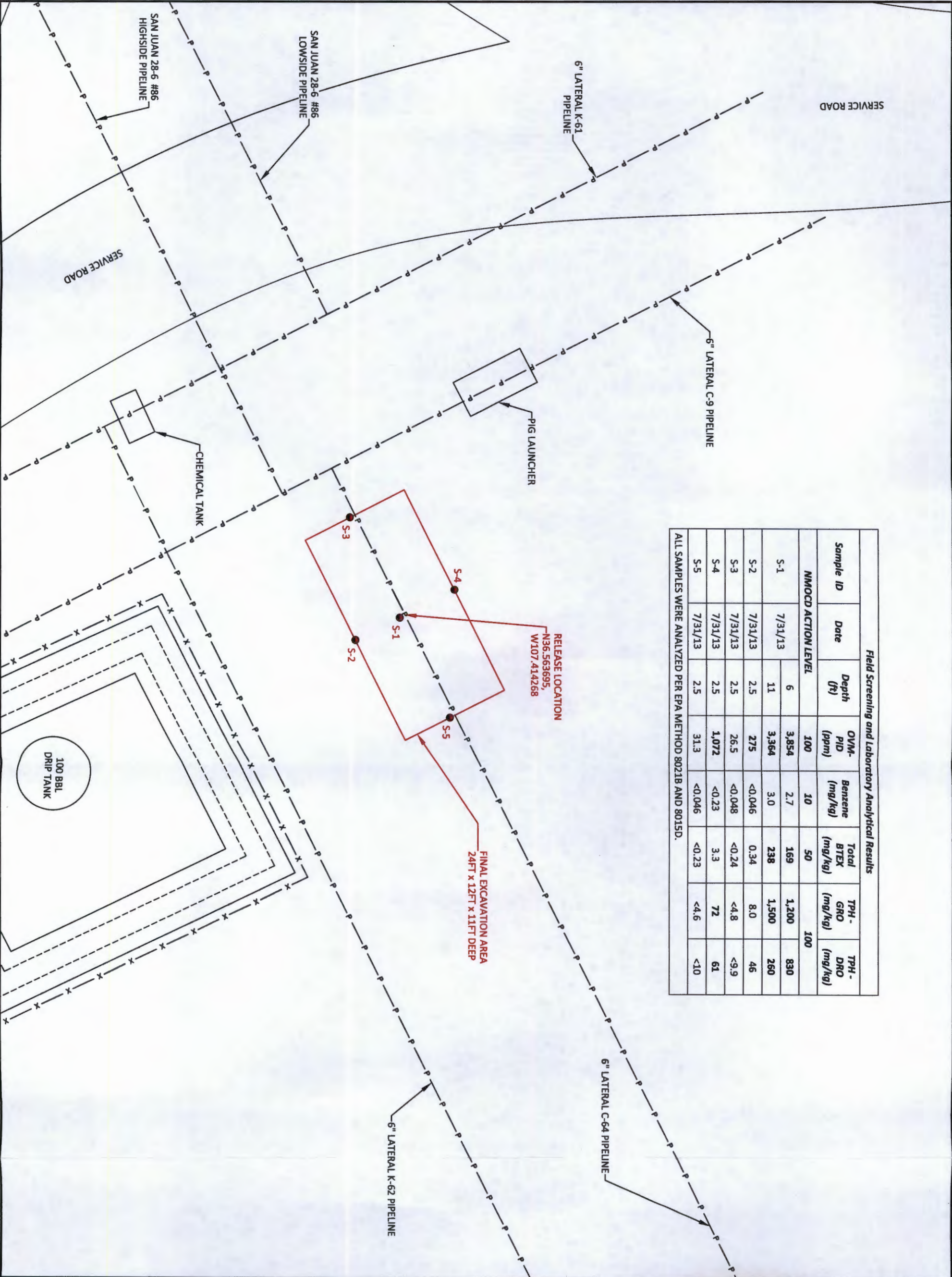


FIGURE 4

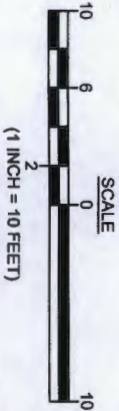
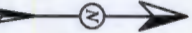
PROPOSED SOIL BORINGS AND
MONITOR WELL LOCATIONS
ENTERPRISE FIELD SERVICES, LLC
LATERAL C-64 LINE DRIP RELEASE
NW¼ NE¼, SECTION 24, T27N, R6W
RIO ARriba COUNTY, NEW MEXICO
N36.563695, W107.414268



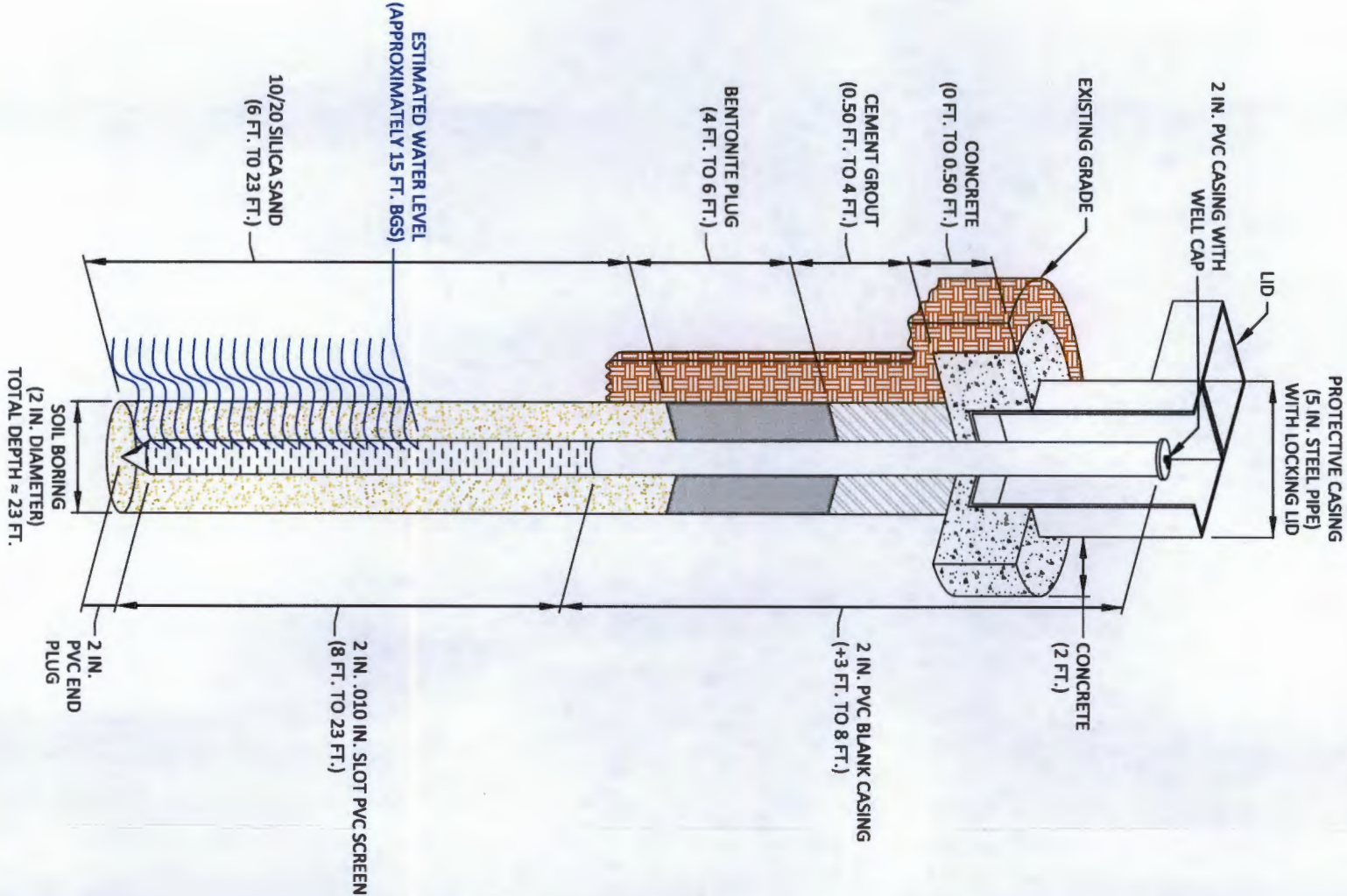
Animas Environmental Services, LLC

DRAWN BY:	C. Lammeman	DATE DRAWN:	October 14, 2013
REVISIONS BY:	C. Lammeman	DATE REVISED:	October 14, 2013
CHECKED BY:	H. Woods	DATE CHECKED:	October 14, 2013
APPROVED BY:	E. McNally	DATE APPROVED:	October 14, 2013

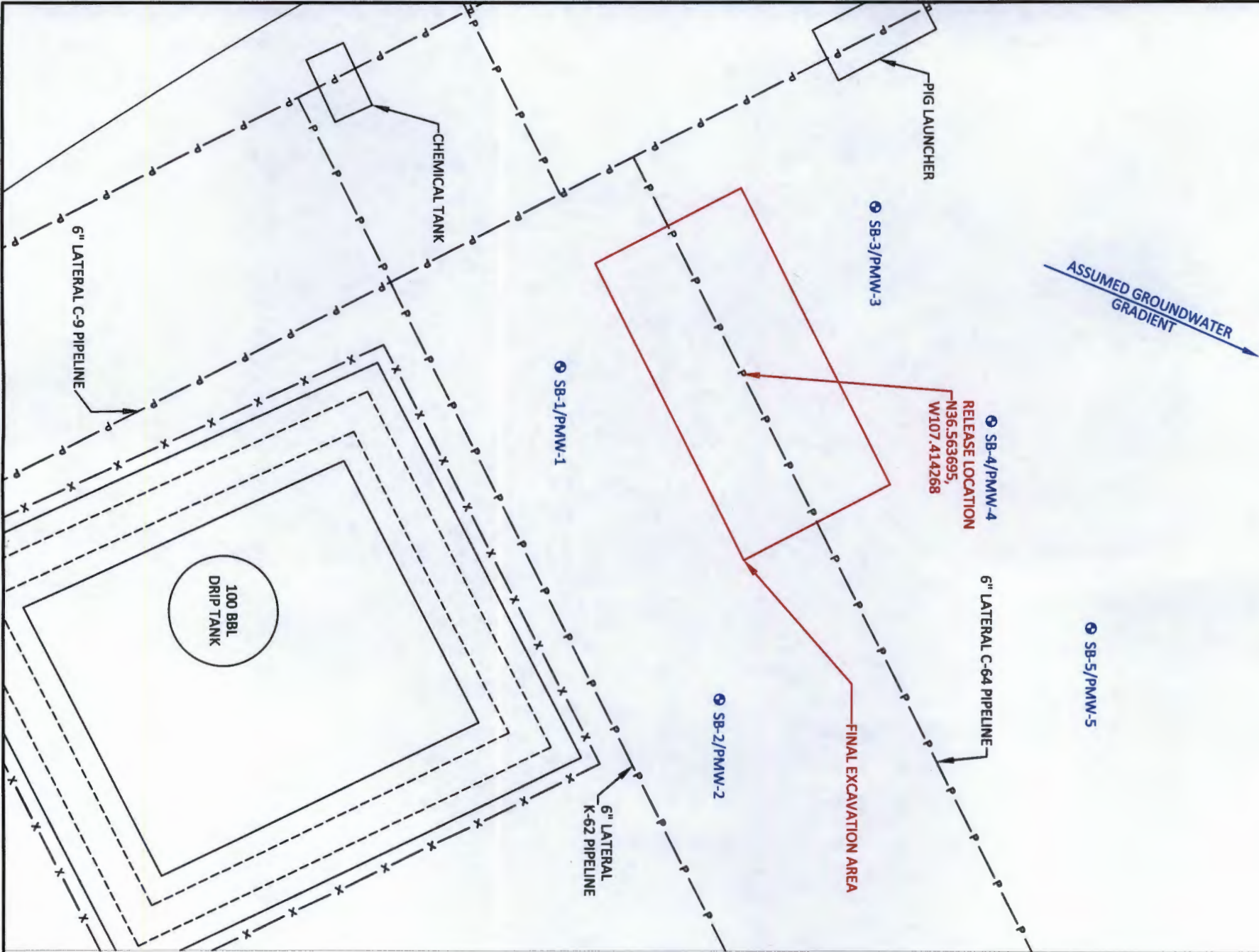
LEGEND	
⊕	PROPOSED SOIL BORING AND WELL LOCATIONS
=====	SECONDARY CONTAINMENT BERM
-X-	FENCE
-P-	BURIED PIPELINE (APPROXIMATE)



PROPOSED GROUNDWATER
MONITOR WELL SCHEMATIC

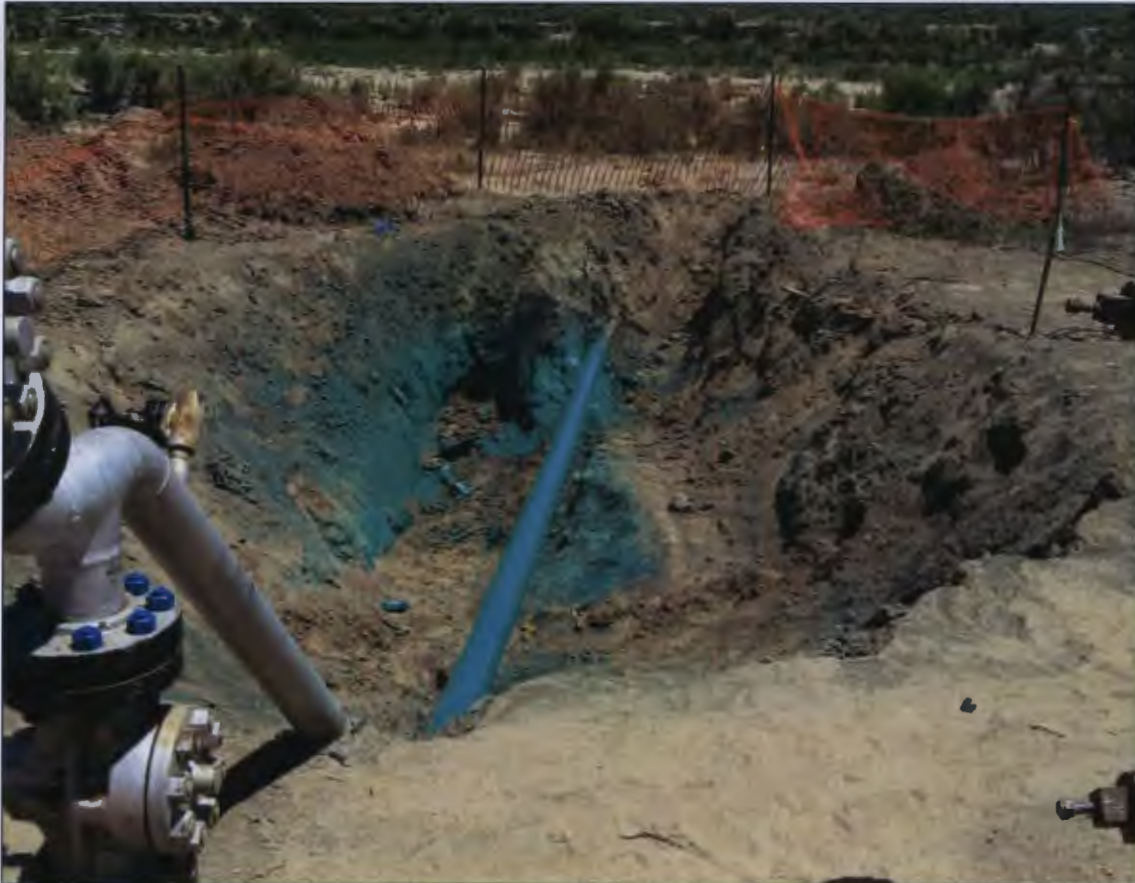


NOT TO SCALE

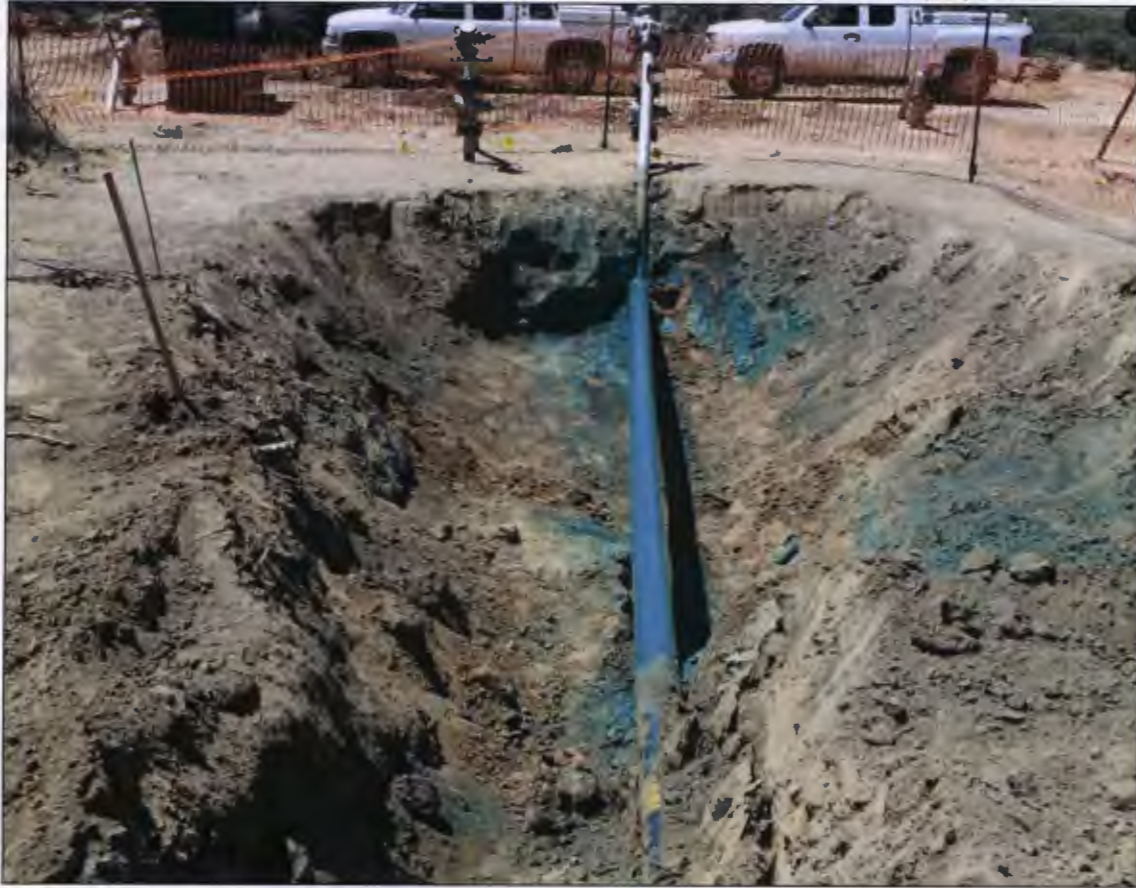




Description: Removed line drip.



Description: View looking east of repaired pipeline.



Description: View looking west of repaired pipeline.

envirotech

Bill of Lading

MANIFEST # 44260

44260

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

DATE 7-24-13

JOB #

#97057-05876

[illegible]

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

TRANSPORTER CO. Nelson Revere.

NAME Daniel Garcia

SIGNATURE Daniel Hachen

COMPANY CONTACT Johnny Sandoval

PHONE 320-1625

DATE 7-24-13

Signatures required prior to distribution of the legal document.

White - Company Records Yellow - Billing Pink - Customer



Bill of Lading

MANIFEST # 44335

DATE 8-2-13

[illegible]

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

TRANSPORTER CO. *EnviroTech*

NAME Rick Smith SIGNATURE Rick Smith

COMPANY CONTACT: *Baron*

PHONE

DATE 8-2-13

Signatures required prior to distribution of the legal document.

White : Company Records Yellow : Billing Book Customer

[illegible]



Bill of Lading

MANIFEST #

44341

PHONE: (505) 632-0615 • 5796 U.S. HIGHWAY 64 • FARMINGTON, NEW MEXICO 87401

DATE 8-2-13 JOB #

JOB # 9750-516

By signing as the driver/transporter, I certify the material hauled from the above location has not been added to or tampered with. I certify the material is from the above mentioned Generator/Point of Origin and that no additional material has been added or mixed into the load.

TRANSPORTER CO.	<i>E-Tech</i>	NAME	<i>Buck Burkham</i>	SIGNATURE	<i>[Signature]</i>
COMPANY CONTACT	<i>Jimmy M</i>	PHONE	<i>632-0615</i>	DATE	<i>8.2.13</i>

Signatures required prior to distribution of the legal document.

White • Company Records Yellow • Billing Pink • Customer



COMPLETE DESCRIPTION OF SHIPMENT

Certification of above receipt & placement

DATE 8/4/3

White - Company Records - Billings Dink - Customs



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

August 08, 2013

Ross Kennemer

Animas Environmental Services
624 East Comanche
Farmington, NM 87401
TEL: (505) 486-1776
FAX (505) 324-2022

RE: Enterprise C-64 Line Drip

OrderNo.: 1308004

Dear Ross Kennemer:

Hall Environmental Analysis Laboratory received 6 sample(s) on 8/1/2013 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. In order to properly interpret your results it is imperative that you review this report in its entirety. 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. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. 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.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", with a stylized flourish at the end.

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1308004

Date Reported: 8/8/2013

CLIENT: Animas Environmental Services

Client Sample ID: S-1@6' BGS

Project: Enterprise C-64 Line Drip

Collection Date: 7/31/2013 11:41:00 AM

Lab ID: 1308004-001

Matrix: SOIL

Received Date: 8/1/2013 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: GSA
Diesel Range Organics (DRO)	830	9.9		mg/Kg	1	8/3/2013 12:50:39 AM	8673
Surr: DNOP	112	63-147		%REC	1	8/3/2013 12:50:39 AM	8673
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DAM
Gasoline Range Organics (GRO)	1200	240		mg/Kg	50	8/2/2013 6:41:35 PM	8677
Surr: BFB	141	80-120	S	%REC	50	8/2/2013 6:41:35 PM	8677
EPA METHOD 8021B: VOLATILES							Analyst: DAM
Benzene	2.7	2.4		mg/Kg	50	8/2/2013 6:41:35 PM	8677
Toluene	39	2.4		mg/Kg	50	8/2/2013 6:41:35 PM	8677
Ethylbenzene	7.5	2.4		mg/Kg	50	8/2/2013 6:41:35 PM	8677
Xylenes, Total	120	4.7		mg/Kg	50	8/2/2013 6:41:35 PM	8677
Surr: 4-Bromofluorobenzene	107	80-120		%REC	50	8/2/2013 6:41:35 PM	8677

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1308004

Date Reported: 8/8/2013

CLIENT: Animas Environmental Services

Client Sample ID: S-1@11' BGS

Project: Enterprise C-64 Line Drip

Collection Date: 7/31/2013 12:00:00 PM

Lab ID: 1308004-002

Matrix: SOIL

Received Date: 8/1/2013 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: GSA
Diesel Range Organics (DRO)	260	10		mg/Kg	1	8/3/2013 1:20:49 AM	8673
Surr: DNOP	97.0	63-147		%REC	1	8/3/2013 1:20:49 AM	8673
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DAM
Gasoline Range Organics (GRO)	1500	240		mg/Kg	50	8/2/2013 7:10:17 PM	8677
Surr: BFB	143	80-120	S	%REC	50	8/2/2013 7:10:17 PM	8677
EPA METHOD 8021B: VOLATILES							Analyst: DAM
Benzene	3.0	2.4		mg/Kg	50	8/2/2013 7:10:17 PM	8677
Toluene	63	2.4		mg/Kg	50	8/2/2013 7:10:17 PM	8677
Ethylbenzene	12	2.4		mg/Kg	50	8/2/2013 7:10:17 PM	8677
Xylenes, Total	160	4.8		mg/Kg	50	8/2/2013 7:10:17 PM	8677
Surr: 4-Bromofluorobenzene	108	80-120		%REC	50	8/2/2013 7:10:17 PM	8677

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1308004

Date Reported: 8/8/2013

CLIENT: Animas Environmental Services

Client Sample ID: S-2@2.5' BGS

Project: Enterprise C-64 Line Drip

Collection Date: 7/31/2013 12:15:00 PM

Lab ID: 1308004-003

Matrix: SOIL

Received Date: 8/1/2013 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: GSA
Diesel Range Organics (DRO)	46	10		mg/Kg	1	8/3/2013 1:50:55 AM	8673
Surr: DNOP	92.0	63-147		%REC	1	8/3/2013 1:50:55 AM	8673
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DAM
Gasoline Range Organics (GRO)	8.0	4.6		mg/Kg	1	8/2/2013 10:59:18 PM	8677
Surr: BFB	120	80-120	S	%REC	1	8/2/2013 10:59:18 PM	8677
EPA METHOD 8021B: VOLATILES							Analyst: DAM
Benzene	ND	0.046		mg/Kg	1	8/2/2013 10:59:18 PM	8677
Toluene	ND	0.046		mg/Kg	1	8/2/2013 10:59:18 PM	8677
Ethylbenzene	ND	0.046		mg/Kg	1	8/2/2013 10:59:18 PM	8677
Xylenes, Total	0.34	0.093		mg/Kg	1	8/2/2013 10:59:18 PM	8677
Surr: 4-Bromofluorobenzene	99.8	80-120		%REC	1	8/2/2013 10:59:18 PM	8677

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- 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
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1308004

Date Reported: 8/8/2013

CLIENT: Animas Environmental Services

Client Sample ID: S-3@2.5' BGS

Project: Enterprise C-64 Line Drip

Collection Date: 7/31/2013 12:23:00 PM

Lab ID: 1308004-004

Matrix: SOIL

Received Date: 8/1/2013 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: GSA
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	8/3/2013 2:20:58 AM	8673
Surr: DNOP	92.5	63-147		%REC	1	8/3/2013 2:20:58 AM	8673
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DAM
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	8/2/2013 11:27:53 PM	8677
Surr: BFB	89.8	80-120		%REC	1	8/2/2013 11:27:53 PM	8677
EPA METHOD 8021B: VOLATILES							Analyst: DAM
Benzene	ND	0.048		mg/Kg	1	8/2/2013 11:27:53 PM	8677
Toluene	ND	0.048		mg/Kg	1	8/2/2013 11:27:53 PM	8677
Ethylbenzene	ND	0.048		mg/Kg	1	8/2/2013 11:27:53 PM	8677
Xylenes, Total	ND	0.096		mg/Kg	1	8/2/2013 11:27:53 PM	8677
Surr: 4-Bromofluorobenzene	95.9	80-120		%REC	1	8/2/2013 11:27:53 PM	8677

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1308004

Date Reported: 8/8/2013

CLIENT: Animas Environmental Services

Client Sample ID: S-4@2.5' BGS

Project: Enterprise C-64 Line Drip

Collection Date: 7/31/2013 12:27:00 PM

Lab ID: 1308004-005

Matrix: SOIL

Received Date: 8/1/2013 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: GSA
Diesel Range Organics (DRO)	61	9.9		mg/Kg	1	8/3/2013 2:51:06 AM	8673
Surr: DNOP	101	63-147		%REC	1	8/3/2013 2:51:06 AM	8673
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DAM
Gasoline Range Organics (GRO)	72	23		mg/Kg	5	8/2/2013 11:56:29 PM	8677
Surr: BFB	151	80-120	S	%REC	5	8/2/2013 11:56:29 PM	8677
EPA METHOD 8021B: VOLATILES							Analyst: DAM
Benzene	ND	0.23		mg/Kg	5	8/2/2013 11:56:29 PM	8677
Toluene	0.25	0.23		mg/Kg	5	8/2/2013 11:56:29 PM	8677
Ethylbenzene	0.23	0.23		mg/Kg	5	8/2/2013 11:56:29 PM	8677
Xylenes, Total	2.8	0.46		mg/Kg	5	8/2/2013 11:56:29 PM	8677
Surr: 4-Bromofluorobenzene	103	80-120		%REC	5	8/2/2013 11:56:29 PM	8677

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1308004

Date Reported: 8/8/2013

CLIENT: Animas Environmental Services

Client Sample ID: S-5@2.5' BGS

Project: Enterprise C-64 Line Drip

Collection Date: 7/31/2013 12:32:00 PM

Lab ID: 1308004-006

Matrix: SOIL

Received Date: 8/1/2013 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015D: DIESEL RANGE ORGANICS							Analyst: GSA
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	8/3/2013 3:21:29 AM	8673
Surr: DNOP	102	63-147		%REC	1	8/3/2013 3:21:29 AM	8673
EPA METHOD 8015D: GASOLINE RANGE							Analyst: DAM
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	8/3/2013 12:25:02 AM	8677
Surr: BFB	93.7	80-120		%REC	1	8/3/2013 12:25:02 AM	8677
EPA METHOD 8021B: VOLATILES							Analyst: DAM
Benzene	ND	0.046		mg/Kg	1	8/3/2013 12:25:02 AM	8677
Toluene	ND	0.046		mg/Kg	1	8/3/2013 12:25:02 AM	8677
Ethylbenzene	ND	0.046		mg/Kg	1	8/3/2013 12:25:02 AM	8677
Xylenes, Total	ND	0.093		mg/Kg	1	8/3/2013 12:25:02 AM	8677
Surr: 4-Bromofluorobenzene	97.2	80-120		%REC	1	8/3/2013 12:25:02 AM	8677

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1308004

08-Aug-13

Client: Animas Environmental Services

Project: Enterprise C-64 Line Drip

Sample ID	MB-8673	SampType:	MBLK	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	PBS	Batch ID:	8673	RunNo:	12376					
Prep Date:	8/1/2013	Analysis Date:	8/2/2013	SeqNo:	352295	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	8.9		10.00		89.1	63	147			

Sample ID	LCS-8673	SampType:	LCS	TestCode:	EPA Method 8015D: Diesel Range Organics					
Client ID:	LCSS	Batch ID:	8673	RunNo:	12400					
Prep Date:	8/1/2013	Analysis Date:	8/5/2013	SeqNo:	352842	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	56	10	50.00	0	112	77.1	128			
Surr: DNOP	4.0		5.000		79.2	63	147			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
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
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1308004

08-Aug-13

Client: Animas Environmental Services

Project: Enterprise C-64 Line Drip

Sample ID	MB-8677	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBS	Batch ID:	8677	RunNo:	12401					
Prep Date:	8/1/2013	Analysis Date:	8/2/2013	SeqNo:	352882	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	860		1000		85.6	80	120			

Sample ID	LCS-8677	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSS	Batch ID:	8677	RunNo:	12401					
Prep Date:	8/1/2013	Analysis Date:	8/2/2013	SeqNo:	352883	Units:	mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	91.2	62.6	136			
Surr: BFB	960		1000		95.5	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
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
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1308004

08-Aug-13

Client: Animas Environmental Services

Project: Enterprise C-64 Line Drip

Sample ID	MB-8677		SampType:	MBLK		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	PBS		Batch ID:	8677		RunNo:	12401			
Prep Date:	8/1/2013		Analysis Date:	8/2/2013		SeqNo:	352917		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	0.97		1.000		96.5	80	120			

Sample ID	LCS-8677		SampType:	LCS		TestCode:	EPA Method 8021B: Volatiles			
Client ID:	LCSS		Batch ID:	8677		RunNo:	12401			
Prep Date:	8/1/2013		Analysis Date:	8/2/2013		SeqNo:	352918		Units: mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.050	1.000	0	100	80	120			
Toluene	0.96	0.050	1.000	0	96.4	80	120			
Ethylbenzene	0.99	0.050	1.000	0	98.7	80	120			
Xylenes, Total	3.0	0.10	3.000	0	100	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		102	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
E Value above quantitation range
J Analyte detected below quantitation limits
O RSD is greater than RSDlimit
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
P Sample pH greater than 2 for VOA and TOC only.
RL Reporting Detection Limit

Sample Log-In Check List

Client Name: Animas Environmental

Work Order Number: 1308004

RcptNo: 1

Received by/date:	<i>KT</i>	<i>08/01/13</i>
Logged By:	Lindsay Mangin	8/1/2013 7:30:00 AM
Completed By:	Lindsay Mangin	8/1/2013 8:43:15 AM
Reviewed By:	<i>mg</i>	<i>08/01/13</i>

Chain of Custody

- Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒
- Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
- How was the sample delivered? Courier

Log In

- Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
- Were all samples received at a temperature of >0° C to 6.0°C Yes ☒ No ☐ NA ☐
- Sample(s) in proper container(s)? Yes ☒ No ☐
- Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
- Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
- Was preservative added to bottles? Yes ☐ No ☒ NA ☐
- VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☒
- Were any sample containers received broken? Yes ☐ No ☒
- Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
- Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
- Is it clear what analyses were requested? Yes ☒ No ☐
- Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH:

(<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

- Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

- Additional remarks:

18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.4	Good	Yes			

