



# AE Order Number Banner

## Report Description

This report shows an AE Order Number in Barcode format for purposes of scanning. The Barcode format is Code 39.



**App Number: pJK1424832159**

**3RP - 1011**

**ENTERPRISE PRODUCTS OPERATING, LLC**

**3R-1011**

**Release Report/ General  
Correspondence**

**Enterprise SJ**

**Date: Jan-Mar 2017**

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., 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-141  
Revised August 8, 2011

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

|  |  |
|--|--|
| Name of Company: Enterprise Field Services LLC | Contact: Thomas Long                                 |
| Address: 614 Reilly Ave, Farmington, NM 87401  | Telephone No. 505-599-2286                           |
| Facility Name: <b>Payne #221</b>               | Facility Type: <b>Natural Gas Gathering Pipeline</b> |
| Surface Owner: <b>Private</b>                  | Mineral Owner: <b>BLM</b> API No.                    |

**LOCATION OF RELEASE**

|                  |               |                 |              |                          |                     |                          |                   |                    |
|------------------|---------------|-----------------|--------------|--------------------------|---------------------|--------------------------|-------------------|--------------------|
| Unit Letter<br>D | Section<br>22 | Township<br>31N | Range<br>10W | Feet from<br>the<br>1759 | North/South<br>Line | Feet from<br>the<br>1127 | East/West<br>Line | County<br>San Juan |
|------------------|---------------|-----------------|--------------|--------------------------|---------------------|--------------------------|-------------------|--------------------|

**OIL CONS. DIV DIST. 3**

Latitude 36.974646 Longitude 107.874562

MAR 24 2017

**NATURE OF RELEASE**

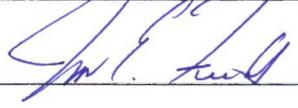
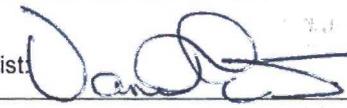
|  |  |  |
|--|--|--|
| Type of Release: Natural Gas and Natural Gas Liquids   | Volume of Release: <b>Unknown</b>                              | Volume Recovered: <b>None</b>                        |
| Source of Release: Suspected internal corrosion  | Date and Hour of Occurrence:<br>3/8/2017 @ 11:15 a.m.          | Date and Hour of Discovery:<br>3/8/2017 @ 11:15 a.m. |
| Was Immediate Notice Given?<br><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required | If YES, To Whom? Courtesy Notification: Vanessa Fields - NMOCD |  |
| By Whom? Thomas Long   | Date and Hour March 15, 2017 @ 11:17 a.m.                      |  |
| Was a Watercourse Reached?<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  | If YES, Volume Impacting the Watercourse                       |  |

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action: On March 8, 2017, during routine operations a field operation technician identified a natural gas release on Payne #221 pipeline. The pipeline was isolated, depressurized, locked out and tagged out. Repairs and remediation are currently in progress and Enterprise has determined this release is reportable per NMOCD regulation on March 8, 2017, due to the volume of subsurface impacts.

Describe Area Affected and Cleanup Action Taken.\* Repairs and remediation are currently in progress. Enterprise will remove the contaminant mass by mechanical excavation. A third party corrective action report will be included with the "Final." C-141.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

|  |  |  |
|--|--|--|
| Signature:  | <b>OIL CONSERVATION DIVISION</b>   |  |
| Printed Name: Jon E. Fields  | Approved by Environmental Specialist  |  |
| Title: Director, Environmental   | Approval Date: <u>3/27/2017</u>  | Expiration Date:                             |
| E-mail Address: jefields@eprod.com   | Conditions of Approval:  | Attached <input checked="" type="checkbox"/> |
| Date: <u>3-21-2017</u> Phone: (713)381-6684  | <u>NF1707656452</u>  |  |

\* Attach Additional Sheets If Necessary

Operator/Responsible Party,

The OCD has received the form C-141 you provided on \_ regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number **nVF1707656452** has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

*The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]*

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District III office in 30 days\_ on or before 4/8/2017. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

**Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.**

**Jim Griswold**

OCD Environmental Bureau Chief  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505  
505-476-3465  
jim.griswold@state.nm.us

District I  
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Form C-141  
Revised August 8, 2011

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

|  |   |
|--|---|
| Name of Company: Enterprise Field Services LLC | Contact: Thomas Long                        |
| Address: 614 Reilly Ave, Farmington, NM 87401  | Telephone No. 505-599-2286                  |
| Facility Name: Val Verde Plant                 | Facility Type: Natural Gas Processing Plant |

|                        |                        |                    |
|------------------------|------------------------|--------------------|
| Surface Owner: Private | Mineral Owner: Federal | Serial Number: N/A |
|------------------------|------------------------|--------------------|

**LOCATION OF RELEASE**

|                  |               |                 |              |                      |                     |                       |                   |                    |
|------------------|---------------|-----------------|--------------|----------------------|---------------------|-----------------------|-------------------|--------------------|
| Unit Letter<br>A | Section<br>14 | Township<br>29N | Range<br>11W | Feet from<br>the 823 | North/South<br>Line | Feet from<br>the 1193 | East/West<br>Line | County<br>San Juan |
|------------------|---------------|-----------------|--------------|----------------------|---------------------|-----------------------|-------------------|--------------------|

Latitude 36.730730

Longitude -107.955961

**NATURE OF RELEASE**

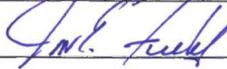
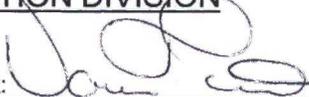
|  |   |   |
|--|---|---|
| Type of Release: 50% Water, 50% Amine Solution   | Volume of Release 5-7 BBLs  | Volume Recovered: None                            |
| Source of Release: Cracked Expansion Joint on a Booster Pump   | Date and Hour of Occurrence: 1/18/2017 @ 4:00 a.m.                          | Date and Hour of Discovery: 1/18/2017 @ 4:30 a.m. |
| Was Immediate Notice Given?<br><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required | If YES, To Whom? Courtesy Notification: Vanessa Fields - NMOCD on 1/19/2017 |   |
| By Whom?   | Date and Time.  | OIL CONS. DIV DIST. 3<br>MAR 13 2017              |
| Was a Watercourse Reached?<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  | If YES, Volume  |   |

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action: On January 18, 2017, Enterprise technicians discovered a release of a 50% Water, 50% Amine solution from a cracked expansion joint of a booster pump. Approximately 5-7 barrels or a 50% Water, 50% Amine solution was released and flowed approximately 170 feet south with in the facility. The pumped was isolated and removed from surface while repairs were completed.

Describe Area Affected and Cleanup Action: Enterprise excavated the impacted soil utilizing hand tools guided by olfactory and visual senses. Approximately 12 cubic yards of impacted soil was excavated as much as practical from around the operating equipment and properly disposed of at an NMOCD approved land farm facility. The bill of lading is attached.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

|  |   |                                   |
|--|---|-----------------------------------|
| Signature:  | <b>OIL CONSERVATION DIVISION</b>  |                                   |
| Printed Name: Jon E. Fields  | Approved by Environmental Specialist:  |                                   |
| Title: Director, Environmental   | Approval Date: 3/14/2017  | Expiration Date:                  |
| E-mail Address: jefields@eprod.com   | Conditions of Approval:   | Attached <input type="checkbox"/> |
| Date: 3-7-17   | Phone: (713)381-6684  | NVF 1703233142                    |

\* Attach Additional Sheets If Necessary

Envirotech Inc.  
 5796 Hwy 64  
 Farmington, NM 87401  
 Phone: 505-632-0615  
 Fax: 505-632-1865

**envirotech**

Invoice Number: 41948  
 Project/Job: 97057-0821-2 LF  
 DATE: 1/31/2017  
 Project Manager: EWL  
 Val Verde Plant - amine release  
 Accept contaminated soil  
 Ordered by Tom Long

Invoice

To:

Enterprise Products  
 Attn: Tom Long  
 614 Reilly Ave.  
 Farmington, NM 87401

**RECEIVED**  
 FEB 06 2017  
 BY: ...Approved TSL 2-7-17

| Service Date | Units | U/M | Description  | Rate  | Total   |
|--------------|-------|-----|--|-------|---------|
| 1/27/2017    | 12    | CY  | Soil Remediation at Permitted Facility - BOL 55994 | 18.00 | 216.00T |
| 1/27/2017    | 1     | Ea  | Paint Filter Test                                  | 10.00 | 10.00T  |
| 1/27/2017    | 1     | Ea  | Chloride Test                                      | 15.00 | 15.00T  |

*This may not be the final bill - if charges are received after this invoice has been mailed, you will receive a separate invoice for those costs.*

**TERMS: Net 30 Days from Invoice Date. Interest Charged at the Rate of 1.5% PER MONTH or 18% PER ANNUM on Accounts Not Paid Within 30 Days. PLEASE PAY FROM THIS INVOICE.**

|                            |          |
|----------------------------|----------|
| <b>Subtotal</b>            | \$241.00 |
| <b>Sales Tax (6.5625%)</b> | \$15.82  |

**Amount due this Invoice \$256.82**



envirotech

Bill of Lading

MANIFEST # 55894  
GENERATOR Enterprise  
POINT OF ORIGIN Val Verde Plant  
TRANSPORTER West States  
DATE 1-27-17 JOB # 97057-0821

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

| LOAD NO. | COMPLETE DESCRIPTION OF SHIPMENT |           |      |           |      | TRANSPORTING COMPANY |      |       |                  |
|----------|----------------------------------|-----------|------|-----------|------|----------------------|------|-------|------------------|
|          | DESTINATION                      | MATERIAL  | GRID | YDS       | BBLs | TKT#                 | TRK# | TIME  | DRIVER SIGNATURE |
| 1        | LF II-5                          | CONT SOIL | L-19 | 3         |      |                      | 188  | 1008  | Craig T          |
| 2        | LF II-5                          | " "       | L-19 | 3         |      |                      | 188  | 1118  | Craig T          |
| 3        | LF II-5                          | " "       | L-19 | 3         |      |                      | 188  | 1324  | Craig T          |
| 4        | "                                | " "       | "    | 3         |      |                      | 188  | 15:15 | Craig T          |
|          |                                  |           |      | <u>12</u> |      |                      |      |       |                  |

|         |                   |                   |  |       |
|---------|-------------------|-------------------|--|-------|
| RESULTS |                   | LANDFARM EMPLOYEE | <i>Bony Robinson</i> <sup>EL</sup><br>Certification of above receipt & placement | NOTES |
| < 303   | CHLORIDE TEST     |                   |  |       |
|         | PAINT FILTER TEST | 1                 |  |       |

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.

Generator Onsite Contact \_\_\_\_\_ Phone \_\_\_\_\_

Signatures required prior to distribution of the legal document. DISTRIBUTION: White - Company Records, Yellow - Billing, Pink - Customer, Goldenrod - LF Copy

District I  
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State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
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Form C-141  
Revised August 8, 2011

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

|  |   |
|--|---|
| Name of Company: Enterprise Field Services LLC | Contact: Thomas Long                        |
| Address: 614 Reilly Ave, Farmington, NM 87401  | Telephone No. 505-599-2286                  |
| Facility Name: Blanco Plant D-Turbine          | Facility Type: Natural Gas Processing Plant |
| Surface Owner: BLM                             | Mineral Owner: BLM                          |
| Serial Number: NM 0 014706                     |   |

**LOCATION OF RELEASE**

| Unit Letter | Section | Township | Range | Feet from the | North/South Line | Feet from the | East/West Line | County   |
|-------------|---------|----------|-------|---------------|------------------|---------------|----------------|----------|
| O           | 11      | 29N      | 11W   | 620           |                  | 152           |                | San Juan |

Latitude 36.734617 Longitude -107.960433

**NATURE OF RELEASE**

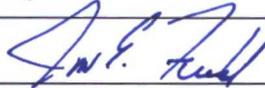
|  |  |  |
|--|--|--|
| Type of Release: Lubrication Oil   | Volume of Release <b>Approximately 15 barrels</b>                | Volume Recovered: <b>None</b>                            |
| Source of Release: Facility Blowdown Vent Pipe   | Date and Hour of Occurrence: <b>11/7/2016 @ 1:40 p.m.</b>        | Date and Hour of Discovery: <b>11/7/2016 @ 1:40 p.m.</b> |
| Was Immediate Notice Given?<br><input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required | If YES, To Whom? Vanessa Fields – NMOCD and Whitney Thomas - BLM |  |
| By Whom? Thomas Long   | Date and Time November 8, 2016 @ 2:27 p.m.                       | <b>OIL CONS. DIV DIST. 3</b>                             |
| Was a Watercourse Reached?<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  | If YES, Volume   |  |

**FEB 06 2017**

If a Watercourse was Impacted, Describe Fully.\*  
Describe Cause of Problem and Remedial Action: On November 7, 2016, a release of lubrication oil from facility blowdown vent pipe occurred. The release was a result of residual lubrication seal oil being ejected from the blowdown vent pipe during an Emergency Shutdown event. The Emergency Shutdown event occurred during equipment maintenance activities at the Blanco Plant facility. The blowdown vent pipe is used when the station is being depressurized due to either an emergency event or during maintenance activities

Describe Area Affected and Cleanup Action: An area of approximately 310 feet long by 90 feet wide was saturated with lubrication oil. An area of approximately 0.75 miles long was misted with the lubrication oil. The Conoco Phillips San Juan Gas Plant and residents located to west of the facility were impacted. Vehicles were impacted with a mist of lubrication oil. Enterprise provided cleaning services for impacted property owner's vehicles. Approximately 595 cubic yards of hydrocarbon impacted soil were excavated and transported to a New Mexico Oil Conservation Division approved land farm facility. A third party corrective action report is included with this "Final" C-141. This C-141 submittal is associated with Incident # nVF1631952275.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

|  |   |                                   |
|--|---|-----------------------------------|
| Signature:  | <b>OIL CONSERVATION DIVISION</b>  |                                   |
| Printed Name: Jon E. Fields  | Approved by Environmental Specialist:  |                                   |
| Title: Director, Environmental   | Approval Date: <u>2/8/2017</u>  | Expiration Date:                  |
| E-mail Address: jefields@eprod.com   | Conditions of Approval:   | Attached <input type="checkbox"/> |
| Date: <u>2/5/2017</u> Phone: (713)381-6684   | <b>NVF1631952275</b>  |                                   |

\* Attach Additional Sheets If Necessary

*\* Provide re-veg time frame  
\* Submit quarterly re-veg reports in 2017*

59

OIL CONS. DIV DIST. 3

FEB 06 2017

**Blanco Plant D-Turbine  
Lubrication Oil Release  
(11/7/2016) Report**

UL N & O, Sec 11, T29N, R11W  
San Juan County, New Mexico

January 12, 2017

Prepared for:  
Enterprise Field Services, LLC  
614 Reilly Avenue  
Farmington, New Mexico 87401

Prepared by:  
Rule Engineering, LLC  
501 Airport Drive, Suite 205  
Farmington, New Mexico 87401

**Rule** Engineering, LLC  
Solutions to Regulations for Industry

# Enterprise Field Services, LLC Blanco Plant D-Turbine Lubrication Oil Release (11/7/2016) Report

Prepared for:

Enterprise Field Services, LLC  
614 Reilly Avenue  
Farmington, New Mexico 87401

Prepared by:

Rule Engineering, LLC  
501 Airport Drive, Suite 205  
Farmington, New Mexico 87401



---

Heather M. Woods, P.G., Area Manager

Reviewed by:



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Russell Knight, PG, Principal Hydrogeologist

January 12, 2017

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| Table 2 | Confirmation Soil Sampling Laboratory Analytical Results – Metals     |
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## Figures

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## Appendices

|            |  |
|------------|--|
| Appendix A | Waste Characterization Analytical Laboratory Report      |
| Appendix B | Archaeological Report                                    |
| Appendix C | Executed C-138 Soil Waste Acceptance Form                |
| Appendix D | Confirmation Soil Sampling Analytical Laboratory Reports |

## 1.0 Introduction

The Enterprise Field Services, LLC (Enterprise) Blanco Plant D-Turbine Lubrication Oil release site is located in Unit Letters N & O, Section 11, Township 29 North, Range 11 West, in San Juan County, New Mexico. The release occurred on November 7, 2016, as the result of ejection of lubrication seal oil from the blowdown vent pipe during an emergency shutdown event at the Blanco Plant facility. Lubrication seal oil accumulated in the gas compressor and associated piping and was emitted through the blowdown vent stack during the depressurization event.

A topographic map of the location reproduced from the United States Geological Society quadrangle map of the area is included as Figure 1 and an aerial site map is included as Figure 2.

## 2.0 Release Summary

|  |   |   |  |
|--|---|---|--|
| <b>Site Name</b>   | Blanco Plant D-Turbine Lubrication Oil Release  |   |  |
| <b>Site Location Description</b>                           | Unit Letters N & O, Section 11, Township 29 North, Range 11 West (N36.73462, W107.96039)                |   |  |
| <b>Land Jurisdiction</b>                                   | Bureau of Land Management (BLM) and Private   |   |  |
| <b>Release Date</b>  | November 7, 2016  | <b>Reported by</b>                              | Thomas Long                              |
| <b>Agency Notification</b>                                 | New Mexico Oil Conservation Division (NMOCD) and BLM  |   |  |
| <b>NMOCD Site Rank</b>                                     | 30  | <b>Release Source</b>                           | Blowdown Vent                            |
| <b>Substance Released</b>                                  | Lubrication seal oil  |   |  |
| <b>Distance to Nearest Surface Water</b>                   | Unnamed, ephemeral wash approximately 140 feet east of release location                                 |   |  |
| <b>Estimated Depth to Groundwater</b>                      | Between 50 to 100 feet below grade surface (bgs)  | <b>Distance to Nearest Water Well or Spring</b> | Greater than 1,000 feet                  |
| <b>Approx. Excavation Dimensions</b>                       | Irregularly shaped, maximum dimensions of approximately 310 feet by 90 feet by 0.5 to 1.0 feet in depth |   |  |
| <b>Contractor</b>  | West States Energy Contractor, Inc. (West States)   |   |  |
| <b>Volume of Soil Transported for Disposal Remediation</b> | Approximately 595 cubic yards   | <b>Disposal Facility</b>                        | Envirotech Landfarm (Permit #NM-01-0011) |

## 3.0 NMED Soil Screening Levels/Site Specific Remediation Standards

The release included Resource Conservation and Recovery Act (RCRA) non-exempt oil field waste shown to be non-hazardous via laboratory analysis (see Table 1 and Waste Characterization Laboratory Analytical Report in Appendix A). Based on the nature of the released material, the composite sample collected from saturated soils in the release area

was analyzed for constituents of concern. Soil screening levels for industrial use per the New Mexico Environment Department (NMED) Risk Assessment Guidance for Site Investigations and Remediation (July 2015) for these constituents of concern are provided in Table 1.

Depth to groundwater at the site is estimated to be between 50 and 100 feet bgs based on the elevation differential between the release location and the wash in Bloomfield Canyon and Citizens Ditch, as well as depth to groundwater information available for nearby water wells registered on the New Mexico Office of the State Engineer online New Mexico Water Rights Reporting System (NMWRRS). A review was completed of the NMWRRS and no water wells were identified within a 1,000 foot radius of the location. No water wells were observed within a 1,000 foot radius of the location during a visual inspection. An unnamed, ephemeral wash traverses the area approximately 140 feet east of the release location.

Site specific remediation standards based on the NMOCD Guidelines for Remediation of Leaks, Spills, and Releases (August 1993), were accepted by the BLM and NMOCD. Site specific remediation standards soils at the site are as follows: 10 milligrams per kilogram (mg/kg) benzene, 50 mg/kg total benzene, toluene, ethylbenzene, and total xylenes (BTEX), and 100 mg/kg total petroleum hydrocarbons (TPH) as gasoline range organics (GRO), diesel range organics (DRO), and motor oil range organics (MRO).

#### **4.0 Field Activities**

On November 7, 2016, Enterprise provided cleaning services for impacted property owner's vehicles. Forty-one vehicles were cleaned by Donny's Power Wash Company. Property owners declined cleaning of the exterior of their homes. Impacted bales of hay for feeding livestock were replaced. The waste characterization sample was collected from saturated soils near the release location by Enterprise personnel on November 8, 2016.

Prior to surface disturbance at the site, an archaeological survey was completed which found no cultural material in the work area. On November 17 and 18, 2016, Enterprise performed remedial excavation activities of the surface soils in the impacted area. West States provided heavy equipment operation and repair support. Rule Engineering, LLC (Rule) personnel provided excavation guidance and collected confirmation samples from the resultant excavation. Laboratory results for the two western most confirmation samples indicated TPH concentrations in excess of 100 mg/kg. Therefore, additional excavation was performed in the affected area and additional confirmation samples were collected on November 30, 2016. The final excavation was an irregular shape of which the maximum dimensions measured approximately 310 feet by 90 feet by 0.5 to 1.0 feet in depth. Approximately 595 cubic yards were transported to Envirotech Landfarm for disposal/remediation. The remedial excavation was backfilled with clean, imported soils.

A summary of the laboratory results for the waste characterization sample is presented in Table 1 and the analytical laboratory report is included in Appendix A. The

archaeological report is included as Appendix B. A depiction of the excavation with sample locations is included as Figure 2. A copy of the executed C-138 Solid Waste Acceptance Form is included in Appendix C.

## 5.0 Soil Sampling

Rule collected confirmation excavation soil samples SC-1 through SC-5 on November 18, 2016, from the excavated area. Laboratory results for samples SC-4 and SC-5 exceeded the site specific remediation standard for TPH and subsequent to additional excavation of the corresponding areas, were resampled as SC-6 and SC-7 on November 30, 2016. Each confirmation soil sample is a representative composite comprised of five equivalent aliquots of soil collected from the sampled area.

Soil samples collected for laboratory analysis were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico. All samples were analyzed for BTEX per U.S. Environmental Protection Agency (USEPA) Method 8021B and TPH (GRO/DRO/MRO) per USEPA Method 8015M/D. Sample SC-1 was also analyzed for selected metals per USEPA Methods 6010B and 7471. Laboratory analytical results are summarized in Tables 2 and 3, and the analytical laboratory reports are included in Appendix D.

A portion of each sample was field screened for volatile organic compounds (VOCs) and TPH. Field screening for VOC vapors was conducted with a photoionization detector (PID). Prior to field screening, the PID was calibrated with 100 parts per million (ppm) isobutylene gas. Field analysis for TPH was conducted for selected samples per USEPA Method 418.1, utilizing a total hydrocarbon analyzer. Prior to field analysis, the machine was calibrated following the manufacturer's procedure which includes calculation of a calibration curve using known concentration standards. Rule's reporting limit for TPH using this method is 20 mg/kg.

## 6.0 Laboratory Analytical Results

Laboratory analytical results for the excavation confirmation samples (SC-1 through SC-7) reported benzene and total BTEX concentrations below the laboratory reporting limits, which are below the site specific remediation standards. Laboratory analytical results for the excavation confirmation samples SC-4 and SC-5 reported TPH (GRO/DRO/MRO) concentrations of 216 mg/kg and 159 mg/kg, respectively, which exceed the site specific remediation standard of 100 mg/kg. The areas associated with samples SC-4 and SC-5 were resampled as SC-6 and SC-7 subsequent to additional excavation and laboratory results for these samples reported TPH (GRO/DRO/MRO) concentrations of below the laboratory reporting limits, which are below site specific remediation standard. Laboratory analytical results for the remainder of the samples reported TPH (GRO/DRO/MRO) concentrations ranging from below the laboratory reporting limits to 79 mg/kg, which are below the site specific remediation standard. Laboratory analytical results for excavation confirmation sample SC-1 report arsenic, barium, cadmium, chromium, lead, selenium,

silver, and mercury concentrations below applicable NMED soil screening levels for industrial use.

Laboratory analytical results are summarized in Table 2 and 3. The analytical laboratory reports are included in Appendix D.

## 7.0 Conclusions

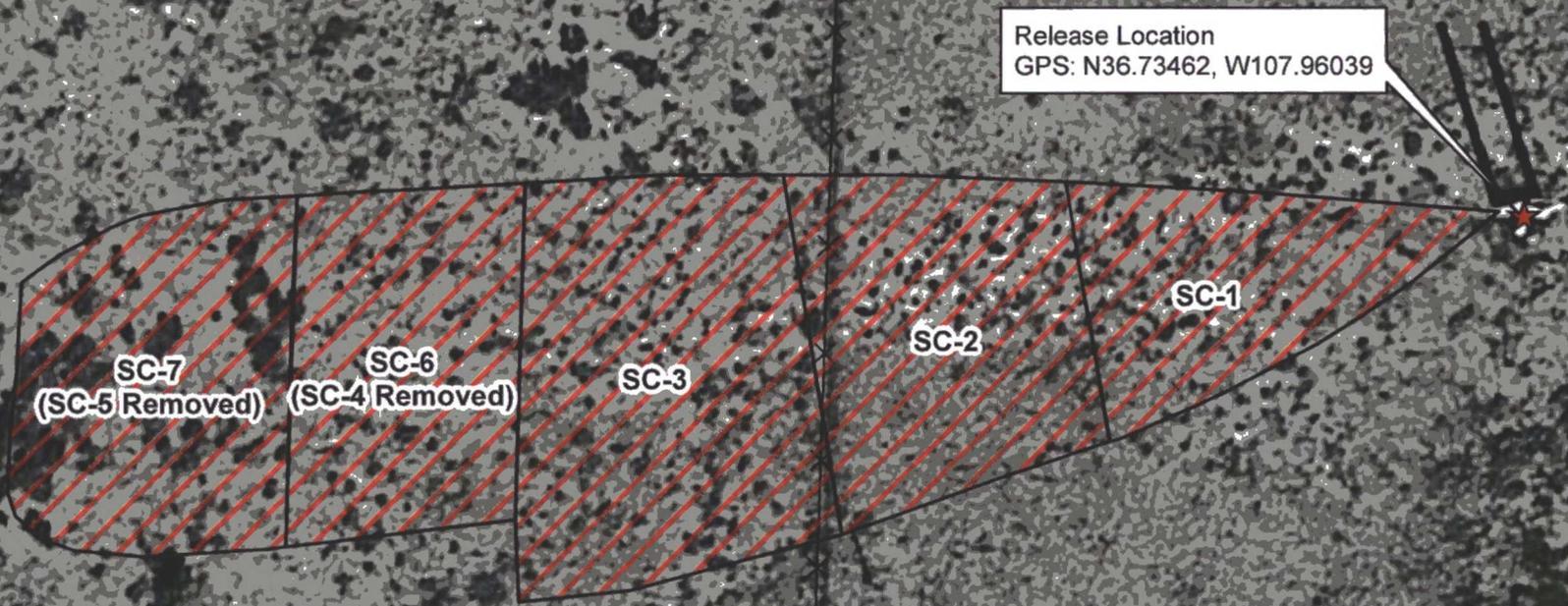
Hydrocarbon impacted soils associated with the November 7, 2016, release of lubrication seal oil at the Enterprise Blanco Plant release site have been excavated and transported to Envirotech Landfarm for disposal/remediation. Cleaning services have been provided for impacted property owner's vehicles and bales of hay for feeding livestock have been replaced. The excavated area has been backfilled with clean, imported soils and the area will be reseeded utilizing the BLM approved seed mixture. Laboratory analytical results for samples collected from the final excavation indicate that concentrations of benzene, total BTEX, TPH, and selected metals are below the site specific remediation standards and NMED soil screening levels for industrial use. Therefore, no further soil remediation work is recommended. Quarterly vegetation surveys will be conducted for the next six months.

## 8.0 Closure and Limitations

This report has been prepared for the exclusive use of Enterprise and is subject to the terms, conditions, and limitations stated in Rule's report and Service Agreement with Enterprise. All work has been performed in accordance with generally accepted professional environmental consulting practices. No other warranty is expressed or implied.

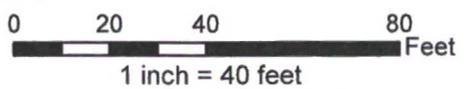
### Legend

- ★ Release Location
- ▨ Release Sampling Areas
- X— Fence



Source: Google Earth

**Rule** Engineering, LLC  
Solutions to Regulations for Industry



UL N&O-S11-T29-R11W  
N36.73462, W107.96039  
San Juan County, NM

**Figure 2**  
**Sample Location Map**  
Blanco Plant D-Turbine Lubrication  
Oil (11/7/2016) Release

## Tables

**Table 1. Waste Characterization Laboratory Analytical Results  
Enterprise Field Services, LLC  
Blanco Plant D-Turbine Lubrication Oil (11/7/2016) Release  
San Juan County, New Mexico**

| Sample Name                                    | Date      | Sample Location | Benzene (mg/kg) | Toluene (mg/kg) | Ethylbenzene (mg/kg) | Total Xylenes (mg/kg) | Total BTEX (mg/kg) | TPH as GRO (mg/kg) | TPH as DRO (mg/kg) | TPH as MRO (mg/kg) |
|--|-----------|-----------------|-----------------|-----------------|----------------------|-----------------------|--------------------|--------------------|--------------------|--------------------|
| NMED Soil Screening Levels for Industrial Use* |           |                 | 87.2            | 61,300          | 368                  | 4,280                 | --                 | 5,000              |                    |                    |
| Site Specific Remediation Standards**          |           |                 | 10              | NE              | NE                   | NE                    | 50                 | 100                |                    |                    |
| SC-1   | 11/8/2016 | Saturated Soils | <0.017          | 0.084           | <0.034               | 0.48                  | 0.56               | 7.1                | 3,500              | 15,000             |

| Sample Name                                    | Date      | Sample Location | Arsenic (mg/kg) | Barium (mg/kg) | Cadmium (mg/kg) | Chromium (mg/kg) | Lead (mg/kg) | Selenium (mg/kg) | Silver (mg/kg) | Mercury (mg/kg) |
|--|-----------|-----------------|-----------------|----------------|-----------------|------------------|--------------|------------------|----------------|-----------------|
| NMED Soil Screening Levels for Industrial Use* |           |                 | 21.5            | 25,500         | 1,110           | 505              | 800          | 6,490            | 6,490          | 112             |
| SC-1   | 11/8/2016 | Saturated Soils | <2.5            | 60             | <0.10           | 2.4              | 2.0          | <2.5             | <0.25          | 0.036           |

Notes: ft bgs - feet below grade surface  
 mg/kg - milligrams per kilogram  
 NMED - New Mexico Environment Department  
 NMOCD - New Mexico Oil Conservation Division  
 BTEX - benzene, toluene, ethylbenzene, and xylenes  
 \*Per New Mexico Environment Department Risk Assessment Guidance for Investigations and Remediation (July 2015)  
 \*\*Site specific remediation standards based on the NMOCD *Guidelines for Remediation of Leaks, Spills and Releases (August 1993)*

TPH - total petroleum hydrocarbons  
 GRO - gasoline range organics  
 DRO - diesel range organics  
 MRO - motor oil range organics  
 ND - not detected above laboratory reporting limits

**Table 2. Confirmation Soil Sampling Laboratory Analytical Results - Metals**  
**Enterprise Field Services, LLC**  
**Blanco Plant D-Turbine Lubrication Oil (11/7/2016) Release**  
**San Juan County, New Mexico**

| Sample Name                                    | Date       | Sample Location (ft bgs) | Arsenic (mg/kg) | Barium (mg/kg) | Cadmium (mg/kg) | Chromium (mg/kg) | Lead (mg/kg) | Selenium (mg/kg) | Silver (mg/kg) | Mercury (mg/kg) |
|--|------------|--------------------------|-----------------|----------------|-----------------|------------------|--------------|------------------|----------------|-----------------|
| NMED Soil Screening Levels for Industrial Use* |            |                          | 21.5            | 25,500         | 1,110           | 505              | 800          | 6,490            | 6,490          | 112             |
| SC-1   | 11/18/2016 | 0.5 to 1                 | <2.4            | 93             | <0.096          | 2.8              | 2.2          | <2.4             | <0.24          | <0.033          |

Notes: ft bgs - feet below grade surface  
 mg/kg - milligrams per kilogram  
 NMED - New Mexico Environment Department  
 \*Per New Mexico Environment Department Risk Assessment Guidance for Investigations and Remediation (July 2015)  
 \*\*Site specific remediaton standards based on the NMOCD *Guidelines for Remediation of Leaks, Spills and Releases (August 1993)*

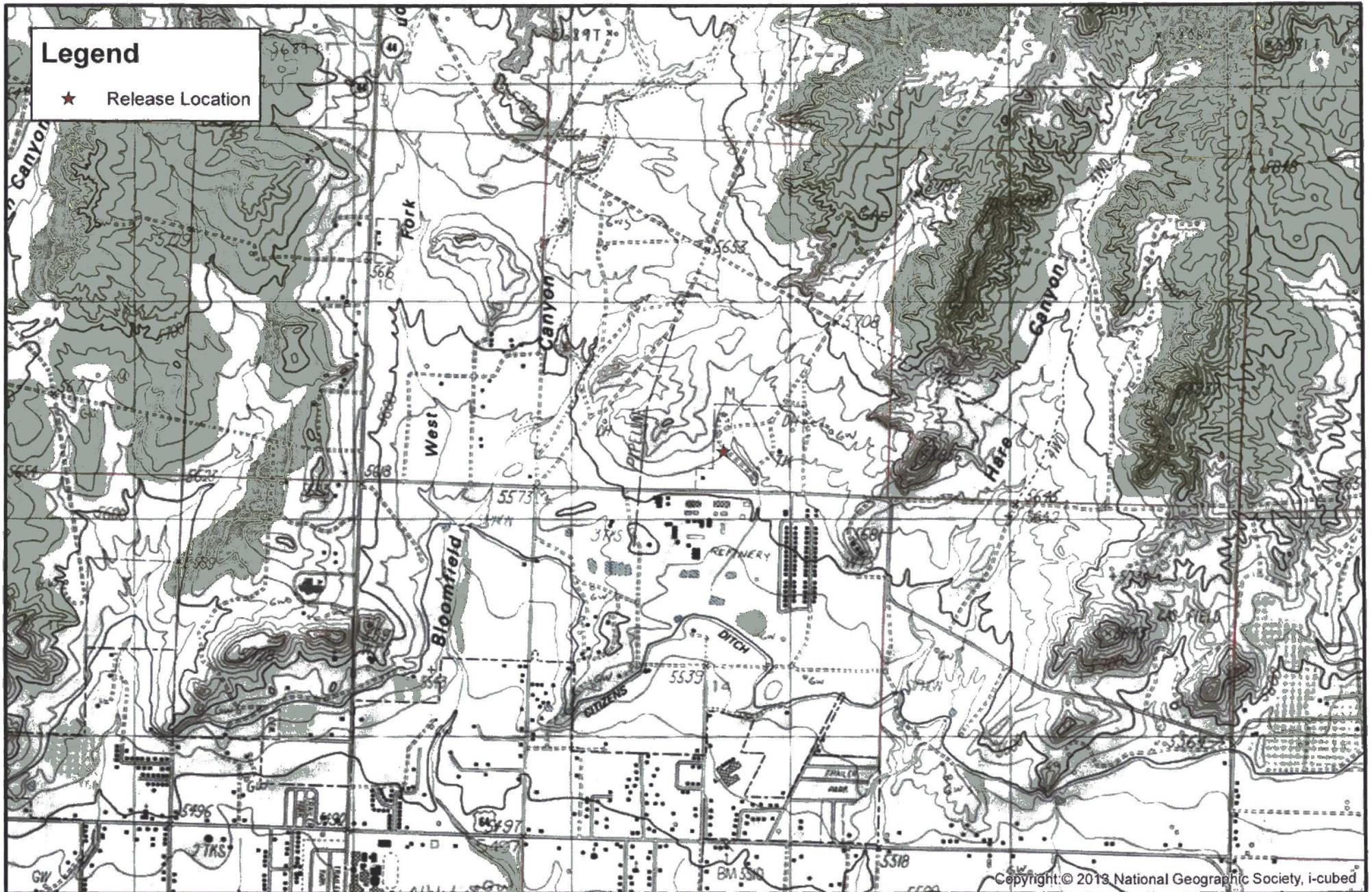
**Table 3. Confirmation Soil Sampling Laboratory Analytical Results - BTEX and TPH**  
**Enterprise Field Services, LLC**  
**Blanco Plant D-Turbine Lubrication Oil (11/7/2016) Release**  
**San Juan County, New Mexico**

| Sample Name   | Date       | Approximate Sample Depth (ft bgs) | Benzene (mg/kg) | Toluene (mg/kg) | Ethylbenzene (mg/kg) | Total Xylenes (mg/kg) | Total BTEX (mg/kg) | TPH as GRO (mg/kg) | TPH as DRO (mg/kg) | TPH as MRO (mg/kg) |
|---|------------|-----------------------------------|-----------------|-----------------|----------------------|-----------------------|--------------------|--------------------|--------------------|--------------------|
| <b>NMED Soil Screening Levels for Industrial Use*</b> |            |                                   | 87.2            | 61,300          | 368                  | 4,280                 | --                 | 5,000              |                    |                    |
| <b>Site Specific Remediation Standards**</b>          |            |                                   | 10              | NE              | NE                   | NE                    | 50                 | 100                |                    |                    |
| <b>Excavation Confirmation Samples</b>                |            |                                   |                 |                 |                      |                       |                    |                    |                    |                    |
| SC-1  | 11/18/2016 | 0.5 to 1                          | <0.048          | <0.048          | <0.048               | <0.097                | ND                 | <4.8               | 16                 | 63                 |
| SC-2  | 11/18/2016 | 0.5 to 1                          | <0.024          | <0.049          | <0.049               | <0.098                | ND                 | <4.9               | <9.9               | <49                |
| SC-3  | 11/18/2016 | 0.5 to 1                          | <0.023          | <0.046          | <0.046               | <0.092                | ND                 | <4.6               | <10                | <50                |
| SC-6  | 11/30/2016 | 0.5 to 1                          | <0.022          | <0.044          | <0.044               | <0.088                | ND                 | <4.4               | <9.6               | <48                |
| SC-7  | 11/30/2016 | 0.5 to 1                          | <0.018          | <0.037          | <0.037               | <0.073                | ND                 | <3.7               | <9.8               | <49                |
| <b>Samples Removed by Excavation</b>                  |            |                                   |                 |                 |                      |                       |                    |                    |                    |                    |
| SC-4  | 11/18/2016 | 0.5 to 1                          | <0.024          | <0.047          | <0.047               | <0.094                | ND                 | <4.7               | <b>46</b>          | <b>170</b>         |
| SC-5  | 11/18/2016 | 0.5 to 1                          | <0.025          | <0.049          | <0.049               | <0.099                | ND                 | <4.9               | <b>29</b>          | <b>130</b>         |

Notes: ft bgs - feet below grade surface  
mg/kg - milligrams per kilogram  
NMOCD - New Mexico Oil Conservation Division  
NMED - New Mexico Environment Department  
BTEX - benzene, toluene, ethylbenzene, and xylenes  
\*Per New Mexico Environmental Department Risk Assessment Guidance for Investigations and Remediation (July 2015)  
\*\*Site specific remediation standards based on the NMOCD *Guidelines for Remediation of Leaks, Spills and Releases (August 1993)*

TPH - total petroleum hydrocarbons  
GRO - gasoline range organics  
DRO - diesel range organics  
MRO - motor oil range organics  
ND - not detected above laboratory reporting limits

## Figures



### Legend

★ Release Location

**Rule Engineering, LLC**  
Solutions to Regulations for Industry



1:24,000  
Bloomfield Quadrangle



UL N&O-S11-T29-R11W  
N36.73462, W107.96039  
San Juan County, NM

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**Figure 1**  
**Topographic Site Map**  
Blanco Plant D-Turbine Lubrication  
Oil (11/7/2016) Release

## Appendix A

### Waste Characterization Analytical Laboratory Report



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

November 15, 2016

Thomas Long  
Enterprise Field Services  
614 Reilly Ave.  
Farmington, NM 87401  
TEL: (505) 599-2141  
FAX

RE: Blanco Plant Blow Down Vent Stack

OrderNo.: 1611445

Dear Thomas Long:

Hall Environmental Analysis Laboratory received 1 sample(s) on 11/9/2016 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](http://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 qualifiers 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', is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1611445

Date Reported: 11/15/2016

CLIENT: Enterprise Field Services

Client Sample ID: SC-1

Project: Blanco Plant Blow Down Vent Stack

Collection Date: 11/8/2016 2:40:00 PM

Lab ID: 1611445-001

Matrix: SOIL

Received Date: 11/9/2016 8:00:00 AM

| Analyses   | Result | PQL      | Qual | Units | DF  | Date Analyzed          | Batch  |
|--|--------|----------|------|-------|-----|------------------------|--------|
| <b>EPA METHOD 7471: MERCURY</b>                  |        |          |      |       |     |                        |        |
|  |        |          |      |       |     | Analyst: JLF           |        |
| Mercury  | 0.036  | 0.033    |      | mg/Kg | 1   | 11/11/2016 4:28:23 PM  | 28623  |
| <b>EPA METHOD 6010B: SOIL METALS</b>             |        |          |      |       |     |                        |        |
|  |        |          |      |       |     | Analyst: MED           |        |
| Arsenic  | ND     | 2.5      |      | mg/Kg | 1   | 11/11/2016 1:46:17 PM  | 28592  |
| Barium   | 60     | 0.10     |      | mg/Kg | 1   | 11/11/2016 1:46:17 PM  | 28592  |
| Cadmium  | ND     | 0.10     |      | mg/Kg | 1   | 11/11/2016 1:46:17 PM  | 28592  |
| Chromium   | 2.4    | 0.30     |      | mg/Kg | 1   | 11/11/2016 1:46:17 PM  | 28592  |
| Lead   | 2.0    | 0.25     |      | mg/Kg | 1   | 11/11/2016 1:46:17 PM  | 28592  |
| Selenium   | ND     | 2.5      |      | mg/Kg | 1   | 11/11/2016 1:46:17 PM  | 28592  |
| Silver   | ND     | 0.25     |      | mg/Kg | 1   | 11/11/2016 1:46:17 PM  | 28592  |
| <b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b> |        |          |      |       |     |                        |        |
|  |        |          |      |       |     | Analyst: TOM           |        |
| Diesel Range Organics (DRO)                      | 3500   | 940      |      | mg/Kg | 100 | 11/11/2016 12:25:02 PM | 28604  |
| Motor Oil Range Organics (MRO)                   | 15000  | 4700     |      | mg/Kg | 100 | 11/11/2016 12:25:02 PM | 28604  |
| Surr: DNOP                                       | 0      | 70-130   | S    | %Rec  | 100 | 11/11/2016 12:25:02 PM | 28604  |
| <b>EPA METHOD 8015D: GASOLINE RANGE</b>          |        |          |      |       |     |                        |        |
|  |        |          |      |       |     | Analyst: NSB           |        |
| Gasoline Range Organics (GRO)                    | 7.1    | 3.4      |      | mg/Kg | 1   | 11/9/2016 11:04:38 AM  | G38567 |
| Surr: BFB  | 112    | 68.3-144 |      | %Rec  | 1   | 11/9/2016 11:04:38 AM  | G38567 |
| <b>EPA METHOD 8021B: VOLATILES</b>               |        |          |      |       |     |                        |        |
|  |        |          |      |       |     | Analyst: NSB           |        |
| Benzene  | ND     | 0.017    |      | mg/Kg | 1   | 11/9/2016 11:04:38 AM  | B38567 |
| Toluene  | 0.084  | 0.034    |      | mg/Kg | 1   | 11/9/2016 11:04:38 AM  | B38567 |
| Ethylbenzene                                     | ND     | 0.034    |      | mg/Kg | 1   | 11/9/2016 11:04:38 AM  | B38567 |
| Xylenes, Total                                   | 0.48   | 0.067    |      | mg/Kg | 1   | 11/9/2016 11:04:38 AM  | B38567 |
| Surr: 4-Bromofluorobenzene                       | 103    | 80-120   |      | %Rec  | 1   | 11/9/2016 11:04:38 AM  | B38567 |

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

|                    |   |   |
|--------------------|---|---|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
|                    | D Sample Diluted Due to Matrix                          | 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                  | P Sample pH Not In Range                                    |
|                    | R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                                |
|                    | S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611445

15-Nov-16

**Client:** Enterprise Field Services  
**Project:** Blanco Plant Blow Down Vent Stack

|                             |                   |                |                   |             |  |          |              |      |          |      |
|-----------------------------|-------------------|----------------|-------------------|-------------|--|----------|--------------|------|----------|------|
| Sample ID                   | <b>LCS-28604</b>  | SampType:      | <b>LCS</b>        | TestCode:   | <b>EPA Method 8015M/D: Diesel Range Organics</b> |          |              |      |          |      |
| Client ID:                  | <b>LCSS</b>       | Batch ID:      | <b>28604</b>      | RunNo:      | <b>38641</b>                                     |          |              |      |          |      |
| Prep Date:                  | <b>11/10/2016</b> | Analysis Date: | <b>11/11/2016</b> | SeqNo:      | <b>1207021</b>                                   | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte                     | Result            | PQL            | SPK value         | SPK Ref Val | %REC   | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 44                | 10             | 50.00             | 0           | 87.5   | 62.6     | 124          |      |          |      |
| Surr: DNOP                  | 4.4               |                | 5.000             |             | 88.8   | 70       | 130          |      |          |      |

|                                |                   |                |                   |             |  |          |              |      |          |      |
|--------------------------------|-------------------|----------------|-------------------|-------------|--|----------|--------------|------|----------|------|
| Sample ID                      | <b>MB-28604</b>   | SampType:      | <b>MBLK</b>       | TestCode:   | <b>EPA Method 8015M/D: Diesel Range Organics</b> |          |              |      |          |      |
| Client ID:                     | <b>PBS</b>        | Batch ID:      | <b>28604</b>      | RunNo:      | <b>38641</b>                                     |          |              |      |          |      |
| Prep Date:                     | <b>11/10/2016</b> | Analysis Date: | <b>11/11/2016</b> | SeqNo:      | <b>1207022</b>                                   | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte                        | Result            | PQL            | SPK value         | SPK Ref Val | %REC   | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)    | ND                | 10             |                   |             |  |          |              |      |          |      |
| Motor Oil Range Organics (MRO) | ND                | 50             |                   |             |  |          |              |      |          |      |
| Surr: DNOP                     | 9.3               |                | 10.00             |             | 93.2   | 70       | 130          |      |          |      |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611445

15-Nov-16

Client: Enterprise Field Services  
Project: Blanco Plant Blow Down Vent Stack

| Sample ID <b>RB</b>           | SampType: <b>MBLK</b>           | TestCode: <b>EPA Method 8015D: Gasoline Range</b> |           |             |                     |          |           |      |          |      |
|-------------------------------|---------------------------------|---|-----------|-------------|---------------------|----------|-----------|------|----------|------|
| Client ID: <b>PBS</b>         | Batch ID: <b>G38567</b>         | RunNo: <b>38567</b>                               |           |             |                     |          |           |      |          |      |
| Prep Date:                    | Analysis Date: <b>11/9/2016</b> | SeqNo: <b>1205218</b>                             |           |             | Units: <b>mg/Kg</b> |          |           |      |          |      |
| Analyte                       | Result                          | PQL   | SPK value | SPK Ref Val | %REC                | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | ND                              | 5.0   |           |             |                     |          |           |      |          |      |
| Surr: BFB                     | 840                             |   | 1000      |             | 84.1                | 68.3     | 144       |      |          |      |

| Sample ID <b>2.5UG GRO LCS</b> | SampType: <b>LCS</b>            | TestCode: <b>EPA Method 8015D: Gasoline Range</b> |           |             |                     |          |           |      |          |      |
|--------------------------------|---------------------------------|---|-----------|-------------|---------------------|----------|-----------|------|----------|------|
| Client ID: <b>LCSS</b>         | Batch ID: <b>G38567</b>         | RunNo: <b>38567</b>                               |           |             |                     |          |           |      |          |      |
| Prep Date:                     | Analysis Date: <b>11/9/2016</b> | SeqNo: <b>1205219</b>                             |           |             | Units: <b>mg/Kg</b> |          |           |      |          |      |
| Analyte                        | Result                          | PQL   | SPK value | SPK Ref Val | %REC                | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO)  | 24                              | 5.0   | 25.00     | 0           | 94.6                | 74.6     | 123       |      |          |      |
| Surr: BFB                      | 910                             |   | 1000      |             | 90.8                | 68.3     | 144       |      |          |      |

### Qualifiers:

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
| D Sample Diluted Due to Matrix                          | 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                  | P Sample pH Not In Range                                    |
| R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                                |
| S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611445

15-Nov-16

**Client:** Enterprise Field Services  
**Project:** Blanco Plant Blow Down Vent Stack

| Sample ID                  | RB     | SampType:      | MBLK      | TestCode:   | EPA Method 8021B: Volatiles |          |           |      |          |      |
|----------------------------|--------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Client ID:                 | PBS    | Batch ID:      | B38567    | RunNo:      | 38567                       |          |           |      |          |      |
| Prep Date:                 |        | Analysis Date: | 11/9/2016 | SeqNo:      | 1205233                     | Units:   | mg/Kg     |      |          |      |
| Analyte                    | Result | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene                    | ND     | 0.025          |           |             |                             |          |           |      |          |      |
| Toluene                    | ND     | 0.050          |           |             |                             |          |           |      |          |      |
| Ethylbenzene               | ND     | 0.050          |           |             |                             |          |           |      |          |      |
| Xylenes, Total             | ND     | 0.10           |           |             |                             |          |           |      |          |      |
| Surr: 4-Bromofluorobenzene | 0.99   |                | 1.000     |             | 98.6                        | 80       | 120       |      |          |      |

| Sample ID                  | 100NG BTEX LCS | SampType:      | LCS       | TestCode:   | EPA Method 8021B: Volatiles |          |           |      |          |      |
|----------------------------|----------------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Client ID:                 | LCSS           | Batch ID:      | B38567    | RunNo:      | 38567                       |          |           |      |          |      |
| Prep Date:                 |                | Analysis Date: | 11/9/2016 | SeqNo:      | 1205234                     | Units:   | mg/Kg     |      |          |      |
| Analyte                    | Result         | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene                    | 1.2            | 0.025          | 1.000     | 0           | 118                         | 75.2     | 115       |      |          | S    |
| Toluene                    | 1.1            | 0.050          | 1.000     | 0           | 108                         | 80.7     | 112       |      |          |      |
| Ethylbenzene               | 1.0            | 0.050          | 1.000     | 0           | 102                         | 78.9     | 117       |      |          |      |
| Xylenes, Total             | 3.1            | 0.10           | 3.000     | 0           | 102                         | 79.2     | 115       |      |          |      |
| Surr: 4-Bromofluorobenzene | 1.1            |                | 1.000     |             | 106                         | 80       | 120       |      |          |      |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1611445

15-Nov-16

**Client:** Enterprise Field Services  
**Project:** Blanco Plant Blow Down Vent Stack

|            |                   |                |                   |             |                                 |          |              |      |          |      |
|------------|-------------------|----------------|-------------------|-------------|---------------------------------|----------|--------------|------|----------|------|
| Sample ID  | <b>LCS-28623</b>  | SampType:      | <b>LCS</b>        | TestCode:   | <b>EPA Method 7471: Mercury</b> |          |              |      |          |      |
| Client ID: | <b>LCSS</b>       | Batch ID:      | <b>28623</b>      | RunNo:      | <b>38656</b>                    |          |              |      |          |      |
| Prep Date: | <b>11/11/2016</b> | Analysis Date: | <b>11/11/2016</b> | SeqNo:      | <b>1207343</b>                  | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte    | Result            | PQL            | SPK value         | SPK Ref Val | %REC                            | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | 0.17              | 0.033          | 0.1667            | 0           | 102                             | 80       | 120          |      |          |      |

|            |                   |                |                   |             |                                 |          |              |      |          |      |
|------------|-------------------|----------------|-------------------|-------------|---------------------------------|----------|--------------|------|----------|------|
| Sample ID  | <b>MB-28623</b>   | SampType:      | <b>MBLK</b>       | TestCode:   | <b>EPA Method 7471: Mercury</b> |          |              |      |          |      |
| Client ID: | <b>PBS</b>        | Batch ID:      | <b>28623</b>      | RunNo:      | <b>38656</b>                    |          |              |      |          |      |
| Prep Date: | <b>11/11/2016</b> | Analysis Date: | <b>11/11/2016</b> | SeqNo:      | <b>1207345</b>                  | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte    | Result            | PQL            | SPK value         | SPK Ref Val | %REC                            | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | ND                | 0.033          |                   |             |                                 |          |              |      |          |      |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
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- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611445

15-Nov-16

**Client:** Enterprise Field Services  
**Project:** Blanco Plant Blow Down Vent Stack

| Sample ID  | <b>MB-28592</b>   | SampType:      | <b>MBLK</b>       | TestCode:   | <b>EPA Method 6010B: Soil Metals</b> |          |              |      |          |      |
|------------|-------------------|----------------|-------------------|-------------|--------------------------------------|----------|--------------|------|----------|------|
| Client ID: | <b>PBS</b>        | Batch ID:      | <b>28592</b>      | RunNo:      | <b>38646</b>                         |          |              |      |          |      |
| Prep Date: | <b>11/10/2016</b> | Analysis Date: | <b>11/11/2016</b> | SeqNo:      | <b>1207115</b>                       | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte    | Result            | PQL            | SPK value         | SPK Ref Val | %REC                                 | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Arsenic    | ND                | 2.5            |                   |             |                                      |          |              |      |          |      |
| Barium     | ND                | 0.10           |                   |             |                                      |          |              |      |          |      |
| Cadmium    | ND                | 0.10           |                   |             |                                      |          |              |      |          |      |
| Chromium   | ND                | 0.30           |                   |             |                                      |          |              |      |          |      |
| Lead       | ND                | 0.25           |                   |             |                                      |          |              |      |          |      |
| Selenium   | ND                | 2.5            |                   |             |                                      |          |              |      |          |      |
| Silver     | ND                | 0.25           |                   |             |                                      |          |              |      |          |      |

| Sample ID  | <b>LCS-28592</b>  | SampType:      | <b>LCS</b>        | TestCode:   | <b>EPA Method 6010B: Soil Metals</b> |          |              |      |          |      |
|------------|-------------------|----------------|-------------------|-------------|--------------------------------------|----------|--------------|------|----------|------|
| Client ID: | <b>LCSS</b>       | Batch ID:      | <b>28592</b>      | RunNo:      | <b>38646</b>                         |          |              |      |          |      |
| Prep Date: | <b>11/10/2016</b> | Analysis Date: | <b>11/11/2016</b> | SeqNo:      | <b>1207116</b>                       | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte    | Result            | PQL            | SPK value         | SPK Ref Val | %REC                                 | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Arsenic    | 23                | 2.5            | 25.00             | 0           | 90.9                                 | 80       | 120          |      |          |      |
| Barium     | 23                | 0.10           | 25.00             | 0           | 91.8                                 | 80       | 120          |      |          |      |
| Cadmium    | 23                | 0.10           | 25.00             | 0           | 91.3                                 | 80       | 120          |      |          |      |
| Chromium   | 23                | 0.30           | 25.00             | 0           | 92.6                                 | 80       | 120          |      |          |      |
| Lead       | 23                | 0.25           | 25.00             | 0           | 90.8                                 | 80       | 120          |      |          |      |
| Selenium   | 23                | 2.5            | 25.00             | 0           | 90.1                                 | 80       | 120          |      |          |      |
| Silver     | 4.8               | 0.25           | 5.000             | 0           | 96.0                                 | 80       | 120          |      |          |      |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# Sample Log-In Check List

Client Name: Enterprise

Work Order Number: 1611445

RcptNo: 1

Received by/date: LC 11/09/16

Logged By: Anne Thorne 11/9/2016 8:00:00 AM *Anne Thorne*

Completed By: Anne Thorne 11/9/2016 *Anne Thorne*

Reviewed By: *aj* 11/09/16

**Chain of Custody**

- 1. Custody seals intact on sample bottles? Yes  No  Not Present
- 2. Is Chain of Custody complete? Yes  No  Not Present
- 3. How was the sample delivered? Courier

**Log In**

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

# of preserved bottles checked for pH: \_\_\_\_\_  
(<2 or >12 unless noted)

Adjusted? \_\_\_\_\_

Checked by: \_\_\_\_\_

**Special Handling (if applicable)**

- 16. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_

By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

17. Additional remarks:

**18. Cooler Information**

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|---------|-----------|-------------|---------|-----------|-----------|
| 1         | 1.6     | Good      | Yes         |         |           |           |



Appendix B  
Archeological Report

# WCRM

Western Cultural Resource Management, Inc.

May 23, 2016

Mr. Thomas J. Long  
Senior Environmental Scientist  
Enterprise Production Company  
614 Reilly Ave.  
Farmington, NM 87401

Dear Thomas:

As requested, the client copy of our report on the archaeological survey of the proposed Blanco Plant-D Turbine Lube Oil Release project has been submitted electronically to you. During the survey, no cultural material was encountered.

Cultural resource clearance for this undertaking to proceed is recommended. The agency copies of the report have been submitted to the Bureau of Land Management, Farmington Field Office, who will review this report and make the final decision on archaeological approval for your project.

Please contact us if you have any questions concerning the report.

Sincerely,



Charles W. Wheeler, Ph.D., RPA  
Vice President

enc.

cc: Jim Copeland, BLM  
Heather Woods, Rule Engineering (electronic)  
Tom Lennon, WCRM

COLORADO  
NEW MEXICO  
NEVADA  
ARIZONA

P.O. Box 2326, Boulder, CO 80306 · Phone 303-449-1151 Fax 303-530-7716  
2603 W. Main St., Suite B, Farmington, NM 87401 · Phone 505-326-7420 Fax 505-324-1107  
50 Freeport Blvd., Suite 15, Sparks, NV 89431 · Phone 775-358-9003 Fax 775-358-1387  
3014 N. Hayden Rd., Suite 118, Scottsdale, AZ 85251 · Phone 480-423-6837 Fax 480-874-4719

## NMCRIIS INVESTIGATION ABSTRACT FORM (NIAF)

| <b>1. NMCRIIS Activity No.:</b> 135794   | <b>2a. Lead (Sponsoring) Agency:</b><br>Bureau of Land Management, Farmington Field Office | <b>2b. Other Permitting Agency(ies):</b>                   | <b>3. Lead Agency Report No.:</b>  |   |                             |              |  |                                     |      |  |                                     |  |
|--|--|--|--|---|-----------------------------|--------------|--|-------------------------------------|------|--|-------------------------------------|--|
| <b>4. Title of Report:</b> Cultural Resource Inventory of Enterprise Production Company Blanco Plant-D Turbine Lube Oil Release Project, San Juan County, New Mexico<br><br><b>Author:</b> Michael J. Proper   |  |  | <b>5. Type of Report</b><br><input checked="" type="checkbox"/> Negative <input type="checkbox"/> Positive   |   |                             |              |  |                                     |      |  |                                     |  |
| <b>6. Investigation Type</b><br><input type="checkbox"/> Research Design <input checked="" type="checkbox"/> Survey/Inventory <input type="checkbox"/> Test Excavation <input type="checkbox"/> Excavation <input type="checkbox"/> Collections/Non-Field Study<br><input type="checkbox"/> Overview/Lit Review <input type="checkbox"/> Monitoring <input type="checkbox"/> Ethnographic study <input type="checkbox"/> Site specific visit <input type="checkbox"/> Other  |  |  |  |   |                             |              |  |                                     |      |  |                                     |  |
| <b>7. Description of Undertaking (what does the project entail?):</b> Enterprise Production Company proposes to remediate an area of approximately 250 x 450 ft. The area affected is enclosed by a T-post and snow fence barrier and will have an area of potential effect (APE) of 2.58 acres. The reclamation will involve mechanical equipment used during all phases of the restoration. Currently, the remediation plan is under development to determine a method to treat the area affected by the oil release.  |  |  | <b>8. Dates of Investigation:</b><br>May 10, 2016<br><br><b>9. Report Date:</b> May 23, 2016   |   |                             |              |  |                                     |      |  |                                     |  |
| <b>10. Performing Agency/Consultant:</b> Western Cultural Resource Management, Inc.<br><b>Principal Investigator:</b> Thomas J. Lennon<br><b>Field Supervisor:</b> Michael J. Proper<br><b>Field Personnel Names:</b> Michael J. Proper  |  |  | <b>11. Performing Agency/Consultant Report No.:</b> WCRM(F)1438<br><b>Project No.:</b> 16F042<br><br><b>12. Applicable Cultural Resource Permit No(s):</b> 25-2920-15-QQ |   |                             |              |  |                                     |      |  |                                     |  |
| <b>13. Client/Customer (project proponent):</b> Enterprise Production Company<br><b>Contact:</b> Thomas J. Long<br><b>Address:</b> 614 Reilly Ave., Farmington, New Mexico 87401<br><b>Phone:</b> (505) 599-2286   |  |  | <b>14. Client/Customer Project No.:</b><br>AFE No. A25492  |   |                             |              |  |                                     |      |  |                                     |  |
| <b>15. Land Ownership Status (<i>Must be indicated on project map</i>):</b> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Land Owner</th> <th style="text-align: center;">Acres Surveyed*</th> <th style="text-align: center;">Acres in APE</th> </tr> </thead> <tbody> <tr> <td>Bureau of Land Management, Farmington Field Office</td> <td style="text-align: center;">4.14</td> <td style="text-align: center;">2.58</td> </tr> <tr> <td style="text-align: right;"><b>TOTALS</b></td> <td style="text-align: center;"><b>4.14</b></td> <td style="text-align: center;"><b>2.58</b></td> </tr> </tbody> </table> <p style="font-size: small; margin-top: 5px;">*as calculated in ArcGIS</p>   |  |  |  | Land Owner                                | Acres Surveyed*             | Acres in APE | Bureau of Land Management, Farmington Field Office | 4.14                                | 2.58 | <b>TOTALS</b>                              | <b>4.14</b>                         | <b>2.58</b>  |
| Land Owner   | Acres Surveyed*  | Acres in APE   |  |   |                             |              |  |                                     |      |  |                                     |  |
| Bureau of Land Management, Farmington Field Office   | 4.14   | 2.58   |  |   |                             |              |  |                                     |      |  |                                     |  |
| <b>TOTALS</b>  | <b>4.14</b>  | <b>2.58</b>  |  |   |                             |              |  |                                     |      |  |                                     |  |
| <b>16. Records Search(es):</b> A literature review was conducted prior to the cultural resource inventory. Two previously recorded sites are located within 0.25 mi of the project area (Appendix B. for agency use only). No sites in the vicinity of the project area are listed on the National Register of Historic Places or State Register of Cultural Properties. According to Van Valkenburgh (1974) no place sacred to the Navajo is located in the vicinity of the project area. A search was conducted of the online GLO records which identified several historic features. On the 1878 GLO map a road was identified as "Road to Las Animas River" it passes 1.0 mi southwest of the project area. Citizens Ditch was illustrated 0.3 mi to the south and a cabin was identified 0.5 mi to the southwest on the 1910 GLO map. Two fences are also shown, running east-west and are over a 0.3 mi southeast of the project area.<br><br>Van Valkenburgh, Richard F.<br>1974 <i>Navajo Sacred Places and A Short History of the Navajo People</i> . Garland American Indian Ethnohistory Series, Navajo Indians, 3 Vols. Garland Publishing, Inc., New York and London. |  |  |  |   |                             |              |  |                                     |      |  |                                     |  |
| <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%;">Date of ARMS File Review: 5/9/2016</td> <td style="width: 33%;">Name of Reviewer: Bob Estes</td> <td style="width: 34%;"></td> </tr> <tr> <td>Date of NR/SR File Review: 5/11/2016</td> <td>Name of Reviewer: Michael J. Proper</td> <td></td> </tr> <tr> <td>Date of Other Agency File Review: 5/9/2016</td> <td>Name of Reviewer: Deborah V. Gibson</td> <td>Agency: Bureau of Land Management, Farmington Field Office</td> </tr> </table>  |  |  |  | Date of ARMS File Review: 5/9/2016        | Name of Reviewer: Bob Estes |              | Date of NR/SR File Review: 5/11/2016               | Name of Reviewer: Michael J. Proper |      | Date of Other Agency File Review: 5/9/2016 | Name of Reviewer: Deborah V. Gibson | Agency: Bureau of Land Management, Farmington Field Office |
| Date of ARMS File Review: 5/9/2016   | Name of Reviewer: Bob Estes  |  |  |   |                             |              |  |                                     |      |  |                                     |  |
| Date of NR/SR File Review: 5/11/2016   | Name of Reviewer: Michael J. Proper  |  |  |   |                             |              |  |                                     |      |  |                                     |  |
| Date of Other Agency File Review: 5/9/2016   | Name of Reviewer: Deborah V. Gibson  | Agency: Bureau of Land Management, Farmington Field Office |  |   |                             |              |  |                                     |      |  |                                     |  |
| <b>17. Survey Data:</b><br><b>a. Source Graphics</b> <input type="checkbox"/> NAD 27 <input checked="" type="checkbox"/> NAD 83<br><input checked="" type="checkbox"/> USGS 7.5' (1:24,000) topo map <input type="checkbox"/> Other topo map, Scale:<br><input checked="" type="checkbox"/> GPS Unit    Accuracy <input type="checkbox"/> <1.0m <input checked="" type="checkbox"/> 1-10m <input type="checkbox"/> 10-100m <input type="checkbox"/> >100m<br><br><b>b. USGS 7.5' Topographic Map Name</b> <b>USGS Quad Code</b><br><table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="width: 70%;">Bloomfield, NM 1985 (provisional edition)</td> <td style="width: 30%;">36107-F8</td> </tr> </table><br><b>c. County:</b> San Juan  |  |  |  | Bloomfield, NM 1985 (provisional edition) | 36107-F8                    |              |  |                                     |      |  |                                     |  |
| Bloomfield, NM 1985 (provisional edition)  | 36107-F8   |  |  |   |                             |              |  |                                     |      |  |                                     |  |

**17. Survey Data (continued):**

**d. Nearest City or Town:** Bloomfield, New Mexico

**e. Legal Description:**

| Township (N/S) | Range (E/W) | Section | ¼ ¼ ¼         |
|----------------|-------------|---------|---------------|
| 29N            | 11W         | 11*     | E½, SE¼, SW¼. |
|                |             |         | W½, SW¼, SE¼  |

\* template anchored on SE corner and southern section line

**Projected legal description?** Yes [ ], No [ X ]      **Unplatted** [ ]

**f. Other Description (e.g. well pad footages, mile markers, plats, land grant name, etc.):**

**18. Survey Field Methods:**

**Intensity:**  100% coverage     <100% coverage

**Configuration:**  block survey units     linear survey units (l x w):       other survey units (specify):

**Scope:**  non-selective (all sites recorded)     selective/thematic (selected sites recorded)

**Coverage Method:**  systematic pedestrian coverage     other method (describe)

**Survey Interval (m):** 15    **Crew Size:** 1    **Fieldwork Dates:** May 10, 2016

**Survey Person Hours:** 6    **Recording Person Hours:** 0    **Total Hours:** 6

**Additional Narrative:** Survey of the project area was conducted on May 10, 2016, under partly cloudy skies with warm temperatures by WCRM archaeologist Michael J. Proper who walked parallel transects 50 ft apart. The area of inventory for the project area includes the 250 x 450 ft fenced area and a 100 ft cultural buffer zone, for a total surveyed area of 450 x 650 ft. Relevant waypoints were recorded in the field using a handheld GPS unit accurate to 1 to 10 m.

**19. Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.):** The project area is located on south-facing slopes of a low mesa between West Fork of Bloomfield and Hare Canyons, approximately 0.42 mi north from Citizens Ditch. Elevation ranges from 5620 to 5660 ft. Sediment is sandy loam with gravel inclusions. Vegetation in the project area consists of an overstory of juniper with an understory of big sagebrush, four-wing saltbush, Indian ricegrass, cheat grass, ephedra, prickly pear cactus, snakeweed, Russian thistle, narrowleaf yucca, wolfberry, and cholla.

**20. a. Percent Ground Visibility:** 50    **b. Condition of Survey Area (grazed, bladed, undisturbed, etc.):** Energy development, livestock grazing, and recreation are activities currently taking place in the project area.

**21. CULTURAL RESOURCE FINDINGS**     Yes, See Page 3       No, Discuss Why: No cultural resources were located.

**22. Required Attachments (check all appropriate boxes):**

- USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn
- Copy of NMCRIS Mapserver Map Check
- LA Site Forms - new sites (with sketch map & topographic map)
- LA Site Forms (update) - previously recorded & un-relocated sites (first 2 pages minimum)
- Historic Cultural Property Inventory Forms
- List and Description of isolates, if applicable (see p. 3)
- List and Description of Collections, if applicable

**23. Other Attachments:**  
 Photographs and Log  
 Other Attachments  
 (Describe):

**24. I certify the information provided above is correct and accurate and meets all applicable agency standards.**

**Principal Investigator/Responsible Archaeologist:** Charles W. Wheeler, Ph.D., RPA

Signature Charles W. Wheeler      Date 5/23/16      Title (if not PI):

**25. Reviewing Agency:**

Reviewer's Name/Date

Accepted ( )    Rejected ( )

Tribal Consultation (if applicable):  Yes     No

**26. SHPO**

Reviewer's Name/Date:

HPD Log #:

SHPO File Location:

Date sent to ARMS:

## CULTURAL RESOURCE FINDINGS

*[fill in appropriate section(s)]*

|                                       |   |                                   |
|---------------------------------------|---|-----------------------------------|
| <b>1. NMCRIS Activity No.:</b> 135794 | <b>2. Lead (Sponsoring) Agency:</b><br>Bureau of Land Management, Farmington Field Office | <b>3. Lead Agency Report No.:</b> |
|---------------------------------------|---|-----------------------------------|

**SURVEY RESULTS:** No cultural resources were located during the survey.

Sites discovered and registered: 0  
 Sites discovered and NOT registered: 0  
 Previously recorded sites revisited *(site update form required)*: 0  
 Previously recorded sites not relocated *(site update form required)*: 0  
 TOTAL SITES VISITED: 0  
 Total isolates recorded: 0                      Non-selective isolate recording?   
 Total structures recorded *(new and previously recorded, including acequias)*: 0

**MANAGEMENT SUMMARY:** Cultural resource approval for this undertaking to proceed is recommended.

IF REPORT IS NEGATIVE YOU ARE DONE AT THIS POINT.

**SURVEY LA NUMBER LOG**

Sites Discovered:

| LA No. | Field/Agency No. | Eligible? (Y/N, applicable criteria) |
|--------|------------------|--------------------------------------|
|        |                  |                                      |
|        |                  |                                      |
|        |                  |                                      |

Previously recorded revisited sites:

| LA No. | Field/Agency No. | Eligible? (Y/N, applicable criteria) |
|--------|------------------|--------------------------------------|
|        |                  |                                      |
|        |                  |                                      |
|        |                  |                                      |

**MONITORING LA NUMBER LOG** *(site form required)*

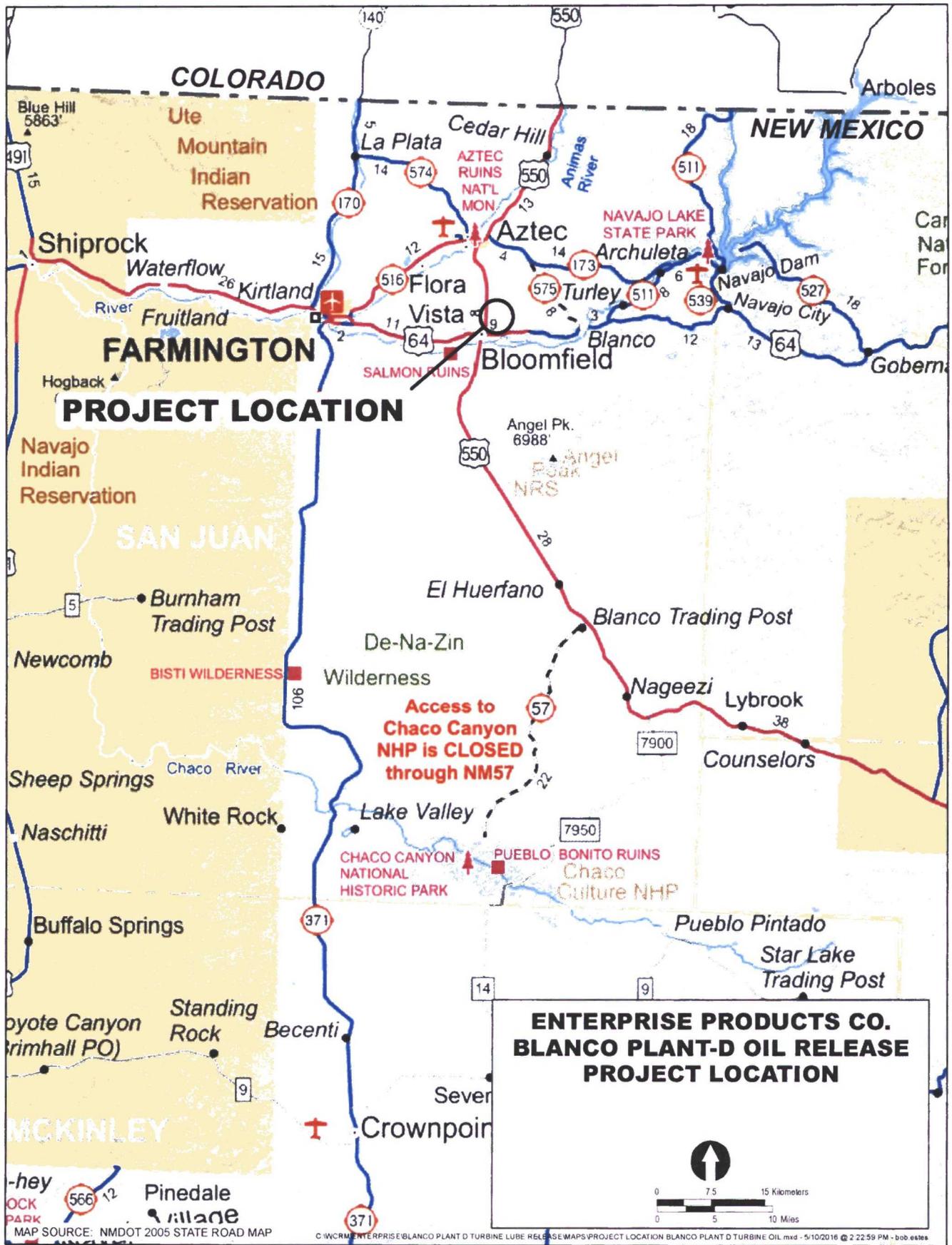
Sites Discovered *(site form required)* :                      Previously recorded sites *(Site update form required)*:

| LA No. | Field/Agency No. | LA No. | Field/Agency No. |
|--------|------------------|--------|------------------|
|        |                  |        |                  |
|        |                  |        |                  |
|        |                  |        |                  |

Areas outside known nearby site boundaries monitored? Yes , No  If no explain why:

**TESTING & EXCAVATION LA NUMBER LOG** *(site form required)*

| Tested LA number(s) | Excavated LA number(s) |
|---------------------|------------------------|
|                     |                        |
|                     |                        |
|                     |                        |



COLORADO

NEW MEXICO

FARMINGTON

SAN JUAN

MCKINLEY

Ute Mountain Indian Reservation

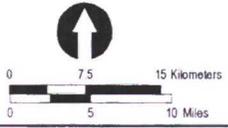
Navajo Indian Reservation

BISTI WILDERNESS

CHACO CANYON NATIONAL HISTORIC PARK

PUEBLO BONITO RUINS Chaco Culture NHP

**ENTERPRISE PRODUCTS CO. BLANCO PLANT-D OIL RELEASE PROJECT LOCATION**

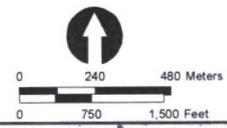


BLOOMFIELD QUADRANGLE  
 NEW MEXICO - SAN JUAN CO.  
 7.5 MINUTE SERIES (TOPOGRAPHIC)  
 PROVISIONAL EDITION 1985  
 NAD83, ZONE 13

T29N - R11W

**ENTERPRISE PRODUCTS CO.  
 BLANCO PLANT-D OIL RELEASE  
 PROJECT AREA**

- BLM
- PRIVATE
- STATE TRUST
- SURVEYED AREA
- AREA OF EFFECT



**Appendix A**

No plats

**Appendix B**  
Nearby Sites  
(for agency use only)

## Appendix C

### Executed C-138 Solid Waste Acceptance Form

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., 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 97057-0776  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-138  
Revised August 1, 2011

\*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. <b>Generator Name and Address:</b><br>Enterprise Field Services, LLC, 614 Reilly Avenue, Farmington, NM 87401   |
| 2. <b>Originating Site:</b><br>Blanco Plant D-Turbine Lube Oil Release Site  |
| 3. <b>Location of Material (Street Address, City, State or ULSTR):</b><br>Unit Letter O Section 11 Township 29 North Range 11 West; 36.734617, -107.960433<br><i>November 2016</i>   |
| 4. <b>Source and Description of Waste:</b> Hydrocarbon impacted soil from a lubrication oil release.<br>5. Estimated Volume <u>50</u> (yd <sup>3</sup> ) bbls Known Volume (to be entered by the operator at the end of the haul) <u>595</u> (yd <sup>3</sup> ) bbls   |
| 5. <b>GENERATOR CERTIFICATION STATEMENT OF WASTE STATUS</b><br>I, <u>Thomas Long</u> representative or authorized agent for <u>Enterprise Field Services, LLC</u> do hereby<br><b>PRINT &amp; SIGN NAME</b> <b>COMPANY NAME</b><br>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)<br><input type="checkbox"/> RCRA Exempt: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste. <i>Operator Use Only: Waste Acceptance Frequency</i> <input type="checkbox"/> Monthly <input type="checkbox"/> Weekly <input type="checkbox"/> Per Load<br><input checked="" type="checkbox"/> 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)<br><input type="checkbox"/> MSDS Information <input checked="" type="checkbox"/> RCRA Hazardous Waste Analysis <input checked="" type="checkbox"/> Process Knowledge <input type="checkbox"/> Other (Provide description in Box 4)<br><b>GENERATOR 19.15.36.15 WASTE TESTING CERTIFICATION STATEMENT FOR LANDFARMS</b><br>I, <u>Thomas Long</u> <u>11-16-16</u> , representative for <u>Enterprise Field Services, LLC</u> authorize Envirotech, Inc. to<br><b>Generator Signature</b><br>complete the required testing/sign the Generator Waste Testing Certification.<br>I, <u>[Signature]</u> , representative for <u>Envirotech, Inc.</u> do hereby certify that 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. |
| 6. <b>Transporter:</b> West States Energy Contractors, Flying M, HBL, Doug Foutz   |

#### OCD Permitted Surface Waste Management Facility

Name and Facility Permit #: **Envirotech, Inc. Soil Remediation Facility** \* Permit #: NM 01-0011  
Address of Facility: **Hilltop, NM**

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: Greg Cratzer TITLE: Environmental Manager DATE: 11/17/16

SIGNATURE: [Signature] TELEPHONE NO.: 505-632-0615

Surface Waste Management Facility Authorized Agent

## Appendix D

### Confirmation Soil Sampling Analytical Laboratory Reports



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

December 02, 2016

Heather Woods  
Rule Engineering LLC  
501 Airport Dr., Ste 205  
Farmington, NM 87401  
TEL: (505) 325-1055  
FAX

RE: Enterprise Blanco D Turbine

OrderNo.: 1611A80

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 5 sample(s) on 11/19/2016 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](http://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 qualifiers 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', is written over a horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1611A80

Date Reported: 12/2/2016

CLIENT: Rule Engineering LLC

Client Sample ID: SC-1

Project: Enterprise Blanco D Turbine

Collection Date: 11/18/2016 10:00:00 AM

Lab ID: 1611A80-001

Matrix: SOIL

Received Date: 11/19/2016 8:15:00 AM

| Analyses   | Result | PQL      | Qual | Units | DF | Date Analyzed          | Batch               |
|--|--------|----------|------|-------|----|------------------------|---------------------|
| <b>EPA METHOD 7471: MERCURY</b>                  |        |          |      |       |    |                        |                     |
|  |        |          |      |       |    |                        | Analyst: <b>DBD</b> |
| Mercury  | ND     | 0.033    |      | mg/Kg | 1  | 11/23/2016 3:19:45 PM  | 28823               |
| <b>EPA METHOD 6010B: SOIL METALS</b>             |        |          |      |       |    |                        |                     |
|  |        |          |      |       |    |                        | Analyst: <b>MED</b> |
| Arsenic  | ND     | 2.4      |      | mg/Kg | 1  | 11/30/2016 9:59:27 AM  | 28886               |
| Barium   | 93     | 0.096    |      | mg/Kg | 1  | 11/30/2016 9:59:27 AM  | 28886               |
| Cadmium  | ND     | 0.096    |      | mg/Kg | 1  | 11/30/2016 9:59:27 AM  | 28886               |
| Chromium   | 2.8    | 0.29     |      | mg/Kg | 1  | 11/30/2016 9:59:27 AM  | 28886               |
| Lead   | 2.2    | 0.24     |      | mg/Kg | 1  | 11/30/2016 9:59:27 AM  | 28886               |
| Selenium   | ND     | 2.4      |      | mg/Kg | 1  | 11/30/2016 9:59:27 AM  | 28886               |
| Silver   | ND     | 0.24     |      | mg/Kg | 1  | 11/30/2016 9:59:27 AM  | 28886               |
| <b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b> |        |          |      |       |    |                        |                     |
|  |        |          |      |       |    |                        | Analyst: <b>TOM</b> |
| Diesel Range Organics (DRO)                      | 16     | 9.4      |      | mg/Kg | 1  | 11/23/2016 9:49:36 AM  | 28807               |
| Motor Oil Range Organics (MRO)                   | 63     | 47       |      | mg/Kg | 1  | 11/23/2016 9:49:36 AM  | 28807               |
| Surr: DNOP                                       | 94.6   | 70-130   |      | %Rec  | 1  | 11/23/2016 9:49:36 AM  | 28807               |
| <b>EPA METHOD 8015D: GASOLINE RANGE</b>          |        |          |      |       |    |                        |                     |
|  |        |          |      |       |    |                        | Analyst: <b>NSB</b> |
| Gasoline Range Organics (GRO)                    | ND     | 4.8      |      | mg/Kg | 1  | 11/22/2016 10:11:12 AM | 28828               |
| Surr: BFB  | 85.6   | 68.3-144 |      | %Rec  | 1  | 11/22/2016 10:11:12 AM | 28828               |
| <b>EPA METHOD 8021B: VOLATILES</b>               |        |          |      |       |    |                        |                     |
|  |        |          |      |       |    |                        | Analyst: <b>NSB</b> |
| Benzene  | ND     | 0.048    |      | mg/Kg | 1  | 11/22/2016 10:11:12 AM | 28828               |
| Toluene  | ND     | 0.048    |      | mg/Kg | 1  | 11/22/2016 10:11:12 AM | 28828               |
| Ethylbenzene                                     | ND     | 0.048    |      | mg/Kg | 1  | 11/22/2016 10:11:12 AM | 28828               |
| Xylenes, Total                                   | ND     | 0.097    |      | mg/Kg | 1  | 11/22/2016 10:11:12 AM | 28828               |
| Surr: 4-Bromofluorobenzene                       | 99.5   | 80-120   |      | %Rec  | 1  | 11/22/2016 10:11:12 AM | 28828               |

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

|                    |   |   |
|--------------------|---|---|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
|                    | D Sample Diluted Due to Matrix                          | 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                  | P Sample pH Not In Range                                    |
|                    | R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                                |
|                    | S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Rule Engineering LLC**Client Sample ID:** SC-2**Project:** Enterprise Blanco D Turbine**Collection Date:** 11/18/2016 11:00:00 AM**Lab ID:** 1611A80-002**Matrix:** SOIL**Received Date:** 11/19/2016 8:15:00 AM

| Analyses   | Result | PQL      | Qual | Units | DF | Date Analyzed          | Batch               |
|--|--------|----------|------|-------|----|------------------------|---------------------|
| <b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b> |        |          |      |       |    |                        | Analyst: <b>TOM</b> |
| Diesel Range Organics (DRO)                      | ND     | 9.9      |      | mg/Kg | 1  | 11/23/2016 10:16:34 AM | 28807               |
| Motor Oil Range Organics (MRO)                   | ND     | 49       |      | mg/Kg | 1  | 11/23/2016 10:16:34 AM | 28807               |
| Surr: DNOP                                       | 94.8   | 70-130   |      | %Rec  | 1  | 11/23/2016 10:16:34 AM | 28807               |
| <b>EPA METHOD 8015D: GASOLINE RANGE</b>          |        |          |      |       |    |                        | Analyst: <b>NSB</b> |
| Gasoline Range Organics (GRO)                    | ND     | 4.9      |      | mg/Kg | 1  | 11/22/2016 11:21:55 AM | 28828               |
| Surr: BFB  | 87.9   | 68.3-144 |      | %Rec  | 1  | 11/22/2016 11:21:55 AM | 28828               |
| <b>EPA METHOD 8021B: VOLATILES</b>               |        |          |      |       |    |                        | Analyst: <b>NSB</b> |
| Benzene  | ND     | 0.024    |      | mg/Kg | 1  | 11/22/2016 11:21:55 AM | 28828               |
| Toluene  | ND     | 0.049    |      | mg/Kg | 1  | 11/22/2016 11:21:55 AM | 28828               |
| Ethylbenzene                                     | ND     | 0.049    |      | mg/Kg | 1  | 11/22/2016 11:21:55 AM | 28828               |
| Xylenes, Total                                   | ND     | 0.098    |      | mg/Kg | 1  | 11/22/2016 11:21:55 AM | 28828               |
| Surr: 4-Bromofluorobenzene                       | 105    | 80-120   |      | %Rec  | 1  | 11/22/2016 11:21:55 AM | 28828               |

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           |
| D           | Sample Diluted Due to Matrix                          | 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                   | P  | Sample pH Not In Range                                    |
| R           | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                                 |
| S           | % Recovery outside of range due to dilution or matrix | W  | Sample container temperature is out of limit as specified |

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1611A80

Date Reported: 12/2/2016

CLIENT: Rule Engineering LLC

Client Sample ID: SC-3

Project: Enterprise Blanco D Turbine

Collection Date: 11/18/2016 9:40:00 AM

Lab ID: 1611A80-003

Matrix: SOIL

Received Date: 11/19/2016 8:15:00 AM

| Analyses   | Result | PQL      | Qual | Units | DF | Date Analyzed          | Batch        |
|--|--------|----------|------|-------|----|------------------------|--------------|
| <b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b> |        |          |      |       |    |                        | Analyst: TOM |
| Diesel Range Organics (DRO)                      | ND     | 10       |      | mg/Kg | 1  | 11/23/2016 10:43:35 AM | 28807        |
| Motor Oil Range Organics (MRO)                   | ND     | 50       |      | mg/Kg | 1  | 11/23/2016 10:43:35 AM | 28807        |
| Surr: DNOP                                       | 93.0   | 70-130   |      | %Rec  | 1  | 11/23/2016 10:43:35 AM | 28807        |
| <b>EPA METHOD 8015D: GASOLINE RANGE</b>          |        |          |      |       |    |                        | Analyst: NSB |
| Gasoline Range Organics (GRO)                    | ND     | 4.6      |      | mg/Kg | 1  | 11/22/2016 12:32:31 PM | 28828        |
| Surr: BFB  | 87.9   | 68.3-144 |      | %Rec  | 1  | 11/22/2016 12:32:31 PM | 28828        |
| <b>EPA METHOD 8021B: VOLATILES</b>               |        |          |      |       |    |                        | Analyst: NSB |
| Benzene  | ND     | 0.023    |      | mg/Kg | 1  | 11/22/2016 12:32:31 PM | 28828        |
| Toluene  | ND     | 0.046    |      | mg/Kg | 1  | 11/22/2016 12:32:31 PM | 28828        |
| Ethylbenzene                                     | ND     | 0.046    |      | mg/Kg | 1  | 11/22/2016 12:32:31 PM | 28828        |
| Xylenes, Total                                   | ND     | 0.092    |      | mg/Kg | 1  | 11/22/2016 12:32:31 PM | 28828        |
| Surr: 4-Bromofluorobenzene                       | 107    | 80-120   |      | %Rec  | 1  | 11/22/2016 12:32:31 PM | 28828        |

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           |
| D           | Sample Diluted Due to Matrix                          | 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                   | P Sample pH Not In Range                                    |
| R           | RPD outside accepted recovery limits                  | RL Reporting Detection Limit                                |
| S           | % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Rule Engineering LLC

Client Sample ID: SC-4

Project: Enterprise Blanco D Turbine

Collection Date: 11/18/2016 9:30:00 AM

Lab ID: 1611A80-004

Matrix: SOIL

Received Date: 11/19/2016 8:15:00 AM

| Analyses   | Result | PQL      | Qual | Units | DF | Date Analyzed          | Batch        |
|--|--------|----------|------|-------|----|------------------------|--------------|
| <b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b> |        |          |      |       |    |                        | Analyst: TOM |
| Diesel Range Organics (DRO)                      | 46     | 9.3      |      | mg/Kg | 1  | 11/23/2016 11:10:27 AM | 28807        |
| Motor Oil Range Organics (MRO)                   | 170    | 47       |      | mg/Kg | 1  | 11/23/2016 11:10:27 AM | 28807        |
| Surr: DNOP                                       | 101    | 70-130   |      | %Rec  | 1  | 11/23/2016 11:10:27 AM | 28807        |
| <b>EPA METHOD 8015D: GASOLINE RANGE</b>          |        |          |      |       |    |                        | Analyst: NSB |
| Gasoline Range Organics (GRO)                    | ND     | 4.7      |      | mg/Kg | 1  | 11/22/2016 12:56:01 PM | 28828        |
| Surr: BFB  | 88.0   | 68.3-144 |      | %Rec  | 1  | 11/22/2016 12:56:01 PM | 28828        |
| <b>EPA METHOD 8021B: VOLATILES</b>               |        |          |      |       |    |                        | Analyst: NSB |
| Benzene  | ND     | 0.024    |      | mg/Kg | 1  | 11/22/2016 12:56:01 PM | 28828        |
| Toluene  | ND     | 0.047    |      | mg/Kg | 1  | 11/22/2016 12:56:01 PM | 28828        |
| Ethylbenzene                                     | ND     | 0.047    |      | mg/Kg | 1  | 11/22/2016 12:56:01 PM | 28828        |
| Xylenes, Total                                   | ND     | 0.094    |      | mg/Kg | 1  | 11/22/2016 12:56:01 PM | 28828        |
| Surr: 4-Bromofluorobenzene                       | 104    | 80-120   |      | %Rec  | 1  | 11/22/2016 12:56:01 PM | 28828        |

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           |
| D           | Sample Diluted Due to Matrix                          | 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                   | P  | Sample pH Not In Range                                    |
| R           | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                                 |
| S           | % Recovery outside of range due to dilution or matrix | W  | Sample container temperature is out of limit as specified |

**Hall Environmental Analysis Laboratory, Inc.**

**Analytical Report**  
 Lab Order 1611A80  
 Date Reported: 12/2/2016

**CLIENT:** Rule Engineering LLC  
**Project:** Enterprise Blanco D Turbine  
**Lab ID:** 1611A80-005

**Matrix:** SOIL

**Client Sample ID:** SC-5  
**Collection Date:** 11/18/2016 9:20:00 AM  
**Received Date:** 11/19/2016 8:15:00 AM

| Analyses   | Result | PQL      | Qual | Units | DF | Date Analyzed          | Batch        |
|--|--------|----------|------|-------|----|------------------------|--------------|
| <b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b> |        |          |      |       |    |                        | Analyst: TOM |
| Diesel Range Organics (DRO)                      | 29     | 9.6      |      | mg/Kg | 1  | 11/23/2016 11:37:28 AM | 28807        |
| Motor Oil Range Organics (MRO)                   | 130    | 48       |      | mg/Kg | 1  | 11/23/2016 11:37:28 AM | 28807        |
| Surr: DNOP                                       | 97.2   | 70-130   |      | %Rec  | 1  | 11/23/2016 11:37:28 AM | 28807        |
| <b>EPA METHOD 8015D: GASOLINE RANGE</b>          |        |          |      |       |    |                        | Analyst: NSB |
| Gasoline Range Organics (GRO)                    | ND     | 4.9      |      | mg/Kg | 1  | 11/22/2016 1:19:35 PM  | 28828        |
| Surr: BFB  | 87.4   | 68.3-144 |      | %Rec  | 1  | 11/22/2016 1:19:35 PM  | 28828        |
| <b>EPA METHOD 8021B: VOLATILES</b>               |        |          |      |       |    |                        | Analyst: NSB |
| Benzene  | ND     | 0.025    |      | mg/Kg | 1  | 11/22/2016 1:19:35 PM  | 28828        |
| Toluene  | ND     | 0.049    |      | mg/Kg | 1  | 11/22/2016 1:19:35 PM  | 28828        |
| Ethylbenzene                                     | ND     | 0.049    |      | mg/Kg | 1  | 11/22/2016 1:19:35 PM  | 28828        |
| Xylenes, Total                                   | ND     | 0.099    |      | mg/Kg | 1  | 11/22/2016 1:19:35 PM  | 28828        |
| Surr: 4-Bromofluorobenzene                       | 103    | 80-120   |      | %Rec  | 1  | 11/22/2016 1:19:35 PM  | 28828        |

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

|                    |   |   |
|--------------------|---|---|
| <b>Qualifiers:</b> | * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank           |
|                    | D Sample Diluted Due to Matrix                          | 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                  | P Sample pH Not In Range                                    |
|                    | R RPD outside accepted recovery limits                  | RL Reporting Detection Limit                                |
|                    | S % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1611A80

02-Dec-16

**Client:** Rule Engineering LLC  
**Project:** Enterprise Blanco D Turbine

| Sample ID            | <b>LCS-28807</b>  | SampType:      | <b>LCS</b>        | TestCode:   | <b>EPA Method 8015M/D: Diesel Range Organics</b> |          |              |      |          |      |
|----------------------|-------------------|----------------|-------------------|-------------|--|----------|--------------|------|----------|------|
| Client ID:           | <b>LCSS</b>       | Batch ID:      | <b>28807</b>      | RunNo:      | <b>38942</b>                                     |          |              |      |          |      |
| Prep Date:           | <b>11/22/2016</b> | Analysis Date: | <b>11/23/2016</b> | SeqNo:      | <b>1217667</b>                                   | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte              | Result            | PQL            | SPK value         | SPK Ref Val | %REC   | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Range Organics (DRO) | 44                | 10             | 50.00             | 0           | 87.8   | 62.6     | 124          |      |          |      |
| Surr: DNOP           | 4.4               |                | 5.000             |             | 88.8   | 70       | 130          |      |          |      |

| Sample ID                      | <b>MB-28807</b>   | SampType:      | <b>MBLK</b>       | TestCode:   | <b>EPA Method 8015M/D: Diesel Range Organics</b> |          |              |      |          |      |
|--------------------------------|-------------------|----------------|-------------------|-------------|--|----------|--------------|------|----------|------|
| Client ID:                     | <b>PBS</b>        | Batch ID:      | <b>28807</b>      | RunNo:      | <b>38942</b>                                     |          |              |      |          |      |
| Prep Date:                     | <b>11/22/2016</b> | Analysis Date: | <b>11/23/2016</b> | SeqNo:      | <b>1217668</b>                                   | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte                        | Result            | PQL            | SPK value         | SPK Ref Val | %REC   | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)    | ND                | 10             |                   |             |  |          |              |      |          |      |
| Motor Oil Range Organics (MRO) | ND                | 50             |                   |             |  |          |              |      |          |      |
| Surr: DNOP                     | 9.6               |                | 10.00             |             | 96.4   | 70       | 130          |      |          |      |

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611A80

02-Dec-16

Client: Rule Engineering LLC  
Project: Enterprise Blanco D Turbine

|                               |                   |                |                   |             |   |          |              |      |          |      |
|-------------------------------|-------------------|----------------|-------------------|-------------|---|----------|--------------|------|----------|------|
| Sample ID                     | <b>MB-28828</b>   | SampType:      | <b>MBLK</b>       | TestCode:   | <b>EPA Method 8015D: Gasoline Range</b> |          |              |      |          |      |
| Client ID:                    | <b>PBS</b>        | Batch ID:      | <b>28828</b>      | RunNo:      | <b>38913</b>                            |          |              |      |          |      |
| Prep Date:                    | <b>11/21/2016</b> | Analysis Date: | <b>11/22/2016</b> | SeqNo:      | <b>1216601</b>                          | Units:   | <b>mg/Kg</b> |      |          |      |
| 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              |             | 85.9                                    | 68.3     | 144          |      |          |      |

|                               |                   |                |                   |             |   |          |              |      |          |      |
|-------------------------------|-------------------|----------------|-------------------|-------------|---|----------|--------------|------|----------|------|
| Sample ID                     | <b>LCS-28828</b>  | SampType:      | <b>LCS</b>        | TestCode:   | <b>EPA Method 8015D: Gasoline Range</b> |          |              |      |          |      |
| Client ID:                    | <b>LCSS</b>       | Batch ID:      | <b>28828</b>      | RunNo:      | <b>38913</b>                            |          |              |      |          |      |
| Prep Date:                    | <b>11/21/2016</b> | Analysis Date: | <b>11/22/2016</b> | SeqNo:      | <b>1216602</b>                          | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte                       | Result            | PQL            | SPK value         | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 26                | 5.0            | 25.00             | 0           | 103                                     | 74.6     | 123          |      |          |      |
| Surr: BFB                     | 910               |                | 1000              |             | 91.4                                    | 68.3     | 144          |      |          |      |

|                               |                       |                |                   |             |   |          |              |      |          |      |
|-------------------------------|-----------------------|----------------|-------------------|-------------|---|----------|--------------|------|----------|------|
| Sample ID                     | <b>1611A80-002AMS</b> | SampType:      | <b>MS</b>         | TestCode:   | <b>EPA Method 8015D: Gasoline Range</b> |          |              |      |          |      |
| Client ID:                    | <b>SC-2</b>           | Batch ID:      | <b>28828</b>      | RunNo:      | <b>38913</b>                            |          |              |      |          |      |
| Prep Date:                    | <b>11/21/2016</b>     | Analysis Date: | <b>11/22/2016</b> | SeqNo:      | <b>1216605</b>                          | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte                       | Result                | PQL            | SPK value         | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 26                    | 4.7            | 23.54             | 0           | 111                                     | 61.3     | 150          |      |          |      |
| Surr: BFB                     | 920                   |                | 941.6             |             | 97.2                                    | 68.3     | 144          |      |          |      |

|                               |                        |                |                   |             |   |          |              |      |          |      |
|-------------------------------|------------------------|----------------|-------------------|-------------|---|----------|--------------|------|----------|------|
| Sample ID                     | <b>1611A80-002AMSD</b> | SampType:      | <b>MSD</b>        | TestCode:   | <b>EPA Method 8015D: Gasoline Range</b> |          |              |      |          |      |
| Client ID:                    | <b>SC-2</b>            | Batch ID:      | <b>28828</b>      | RunNo:      | <b>38913</b>                            |          |              |      |          |      |
| Prep Date:                    | <b>11/21/2016</b>      | Analysis Date: | <b>11/22/2016</b> | SeqNo:      | <b>1216606</b>                          | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte                       | Result                 | PQL            | SPK value         | SPK Ref Val | %REC                                    | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 28                     | 4.9            | 24.53             | 0           | 113                                     | 61.3     | 150          | 5.70 | 20       |      |
| Surr: BFB                     | 930                    |                | 981.4             |             | 94.6                                    | 68.3     | 144          | 0    | 0        |      |

### Qualifiers:

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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1611A80

02-Dec-16

**Client:** Rule Engineering LLC  
**Project:** Enterprise Blanco D Turbine

| Sample ID                  | <b>MB-28828</b>   | SampType:      | <b>MBLK</b>       | TestCode:   | <b>EPA Method 8021B: Volatiles</b> |          |              |      |          |      |
|----------------------------|-------------------|----------------|-------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Client ID:                 | <b>PBS</b>        | Batch ID:      | <b>28828</b>      | RunNo:      | <b>38913</b>                       |          |              |      |          |      |
| Prep Date:                 | <b>11/21/2016</b> | Analysis Date: | <b>11/22/2016</b> | SeqNo:      | <b>1216628</b>                     | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte                    | Result            | PQL            | SPK value         | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Benzene                    | ND                | 0.025          |                   |             |                                    |          |              |      |          |      |
| Toluene                    | ND                | 0.050          |                   |             |                                    |          |              |      |          |      |
| Ethylbenzene               | ND                | 0.050          |                   |             |                                    |          |              |      |          |      |
| Xylenes, Total             | ND                | 0.10           |                   |             |                                    |          |              |      |          |      |
| Surr: 4-Bromofluorobenzene | 1.0               |                | 1.000             |             | 102                                | 80       | 120          |      |          |      |

| Sample ID                  | <b>LCS-28828</b>  | SampType:      | <b>LCS</b>        | TestCode:   | <b>EPA Method 8021B: Volatiles</b> |          |              |      |          |      |
|----------------------------|-------------------|----------------|-------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Client ID:                 | <b>LCSS</b>       | Batch ID:      | <b>28828</b>      | RunNo:      | <b>38913</b>                       |          |              |      |          |      |
| Prep Date:                 | <b>11/21/2016</b> | Analysis Date: | <b>11/22/2016</b> | SeqNo:      | <b>1216629</b>                     | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte                    | Result            | PQL            | SPK value         | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Benzene                    | 1.1               | 0.025          | 1.000             | 0           | 113                                | 75.2     | 115          |      |          |      |
| Toluene                    | 1.0               | 0.050          | 1.000             | 0           | 103                                | 80.7     | 112          |      |          |      |
| Ethylbenzene               | 0.99              | 0.050          | 1.000             | 0           | 98.9                               | 78.9     | 117          |      |          |      |
| Xylenes, Total             | 2.9               | 0.10           | 3.000             | 0           | 97.0                               | 79.2     | 115          |      |          |      |
| Surr: 4-Bromofluorobenzene | 1.1               |                | 1.000             |             | 107                                | 80       | 120          |      |          |      |

| Sample ID                  | <b>1611A80-001AMS</b> | SampType:      | <b>MS</b>         | TestCode:   | <b>EPA Method 8021B: Volatiles</b> |          |              |      |          |      |
|----------------------------|-----------------------|----------------|-------------------|-------------|------------------------------------|----------|--------------|------|----------|------|
| Client ID:                 | <b>SC-1</b>           | Batch ID:      | <b>28828</b>      | RunNo:      | <b>38913</b>                       |          |              |      |          |      |
| Prep Date:                 | <b>11/21/2016</b>     | Analysis Date: | <b>11/22/2016</b> | SeqNo:      | <b>1216631</b>                     | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte                    | Result                | PQL            | SPK value         | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Benzene                    | 1.1                   | 0.025          | 0.9843            | 0           | 116                                | 71.5     | 122          |      |          |      |
| Toluene                    | 1.1                   | 0.049          | 0.9843            | 0           | 110                                | 71.2     | 123          |      |          |      |
| Ethylbenzene               | 1.1                   | 0.049          | 0.9843            | 0           | 109                                | 75.2     | 130          |      |          |      |
| Xylenes, Total             | 3.2                   | 0.098          | 2.953             | 0           | 108                                | 72.4     | 131          |      |          |      |
| Surr: 4-Bromofluorobenzene | 1.0                   |                | 0.9843            |             | 106                                | -83.4    | 338          |      |          |      |

| Sample ID                  | <b>1611A80-001AMSD</b> | SampType:      | <b>MSD</b>        | TestCode:   | <b>EPA Method 8021B: Volatiles</b> |          |              |       |          |      |
|----------------------------|------------------------|----------------|-------------------|-------------|------------------------------------|----------|--------------|-------|----------|------|
| Client ID:                 | <b>SC-1</b>            | Batch ID:      | <b>28828</b>      | RunNo:      | <b>38913</b>                       |          |              |       |          |      |
| Prep Date:                 | <b>11/21/2016</b>      | Analysis Date: | <b>11/22/2016</b> | SeqNo:      | <b>1216632</b>                     | Units:   | <b>mg/Kg</b> |       |          |      |
| Analyte                    | Result                 | PQL            | SPK value         | SPK Ref Val | %REC                               | LowLimit | HighLimit    | %RPD  | RPDLimit | Qual |
| Benzene                    | 1.0                    | 0.025          | 0.9950            | 0           | 105                                | 71.5     | 122          | 9.38  | 20       |      |
| Toluene                    | 1.1                    | 0.050          | 0.9950            | 0           | 107                                | 71.2     | 123          | 1.46  | 20       |      |
| Ethylbenzene               | 1.1                    | 0.050          | 0.9950            | 0           | 109                                | 75.2     | 130          | 0.901 | 20       |      |
| Xylenes, Total             | 3.2                    | 0.10           | 2.985             | 0           | 108                                | 72.4     | 131          | 1.24  | 20       |      |
| Surr: 4-Bromofluorobenzene | 1.1                    |                | 0.9950            |             | 111                                | -83.4    | 338          | 0     | 0        |      |

**Qualifiers:**

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- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1611A80

02-Dec-16

**Client:** Rule Engineering LLC  
**Project:** Enterprise Blanco D Turbine

|            |                   |                |                   |             |                                 |          |              |      |          |      |
|------------|-------------------|----------------|-------------------|-------------|---------------------------------|----------|--------------|------|----------|------|
| Sample ID  | <b>MB-28823</b>   | SampType:      | <b>MBLK</b>       | TestCode:   | <b>EPA Method 7471: Mercury</b> |          |              |      |          |      |
| Client ID: | <b>PBS</b>        | Batch ID:      | <b>28823</b>      | RunNo:      | <b>38957</b>                    |          |              |      |          |      |
| Prep Date: | <b>11/22/2016</b> | Analysis Date: | <b>11/23/2016</b> | SeqNo:      | <b>1217974</b>                  | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte    | Result            | PQL            | SPK value         | SPK Ref Val | %REC                            | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | ND                | 0.033          |                   |             |                                 |          |              |      |          |      |

|            |                   |                |                   |             |                                 |          |              |      |          |      |
|------------|-------------------|----------------|-------------------|-------------|---------------------------------|----------|--------------|------|----------|------|
| Sample ID  | <b>LCS-28823</b>  | SampType:      | <b>LCS</b>        | TestCode:   | <b>EPA Method 7471: Mercury</b> |          |              |      |          |      |
| Client ID: | <b>LCSS</b>       | Batch ID:      | <b>28823</b>      | RunNo:      | <b>38957</b>                    |          |              |      |          |      |
| Prep Date: | <b>11/22/2016</b> | Analysis Date: | <b>11/23/2016</b> | SeqNo:      | <b>1217975</b>                  | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte    | Result            | PQL            | SPK value         | SPK Ref Val | %REC                            | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Mercury    | 0.16              | 0.033          | 0.1667            | 0           | 94.0                            | 80       | 120          |      |          |      |

**Qualifiers:**

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- S % Recovery outside of range due to dilution or matrix
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# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1611A80

02-Dec-16

Client: Rule Engineering LLC  
 Project: Enterprise Blanco D Turbine

| Sample ID  | MB-28886   | SampType:      | MBLK       | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
|------------|------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Client ID: | PBS        | Batch ID:      | 28886      | RunNo:      | 39039                         |          |           |      |          |      |
| Prep Date: | 11/29/2016 | Analysis Date: | 11/30/2016 | SeqNo:      | 1221126                       | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result     | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic    | ND         | 2.5            |            |             |                               |          |           |      |          |      |
| Barium     | ND         | 0.10           |            |             |                               |          |           |      |          |      |
| Cadmium    | ND         | 0.10           |            |             |                               |          |           |      |          |      |
| Chromium   | ND         | 0.30           |            |             |                               |          |           |      |          |      |
| Lead       | ND         | 0.25           |            |             |                               |          |           |      |          |      |
| Selenium   | ND         | 2.5            |            |             |                               |          |           |      |          |      |
| Silver     | ND         | 0.25           |            |             |                               |          |           |      |          |      |

| Sample ID  | LCS-28886  | SampType:      | LCS        | TestCode:   | EPA Method 6010B: Soil Metals |          |           |      |          |      |
|------------|------------|----------------|------------|-------------|-------------------------------|----------|-----------|------|----------|------|
| Client ID: | LCSS       | Batch ID:      | 28886      | RunNo:      | 39039                         |          |           |      |          |      |
| Prep Date: | 11/29/2016 | Analysis Date: | 11/30/2016 | SeqNo:      | 1221127                       | Units:   | mg/Kg     |      |          |      |
| Analyte    | Result     | PQL            | SPK value  | SPK Ref Val | %REC                          | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Arsenic    | 23         | 2.5            | 25.00      | 0           | 94.0                          | 80       | 120       |      |          |      |
| Barium     | 24         | 0.10           | 25.00      | 0           | 96.6                          | 80       | 120       |      |          |      |
| Cadmium    | 24         | 0.10           | 25.00      | 0           | 95.1                          | 80       | 120       |      |          |      |
| Chromium   | 24         | 0.30           | 25.00      | 0           | 95.7                          | 80       | 120       |      |          |      |
| Lead       | 23         | 0.25           | 25.00      | 0           | 91.1                          | 80       | 120       |      |          |      |
| Selenium   | 23         | 2.5            | 25.00      | 0           | 91.7                          | 80       | 120       |      |          |      |
| Silver     | 4.8        | 0.25           | 5.000      | 0           | 96.2                          | 80       | 120       |      |          |      |

**Qualifiers:**

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

# Sample Log-In Check List

Client Name: **RULE ENGINEERING LL**

Work Order Number: **1611A80**

RcptNo: 1

Received by/date:

*[Signature]* 11/19/16

Logged By: **Lindsay Mangin**

11/19/2016 8:15:00 AM

*[Signature]*

Completed By: **Lindsay Mangin**

11/21/2016 8:22:43 AM

*[Signature]*

Reviewed By:

AT 11/21/16

**Chain of Custody**

- 1. Custody seals intact on sample bottles? Yes  No  Not Present
- 2. Is Chain of Custody complete? Yes  No  Not Present
- 3. How was the sample delivered? Courier

**Log In**

- 4. Was an attempt made to cool the samples? Yes  No  NA
  - 5. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
  - 6. Sample(s) in proper container(s)? Yes  No
  - 7. Sufficient sample volume for indicated test(s)? Yes  No
  - 8. Are samples (except VOA and ONG) properly preserved? Yes  No
  - 9. Was preservative added to bottles? Yes  No  NA
  - 10. VOA vials have zero headspace? Yes  No  No VOA Vials
  - 11. Were any sample containers received broken? Yes  No
  - 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes  No
  - 13. Are matrices correctly identified on Chain of Custody? Yes  No
  - 14. Is it clear what analyses were requested? Yes  No
  - 15. 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)**

- 16. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via  eMail  Phone  Fax  In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

17. Additional remarks:

**18. Cooler Information**

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|---------|-----------|-------------|---------|-----------|-----------|
| 1         | 3.2     | Good      | Yes         |         |           |           |

# Chain-of-Custody Record

Client: Rule Engineering, LLC

Mailing Address: 501 Airport Dr, Suite 205  
Farmington, NM 87401

Phone #: (505) 716-2787

email or Fax#: hwoods@ruleengineering.com

QA/QC Package:  
 Standard  Level 4 (Full Validation)

Accreditation  
 NELAP  Other

EDD (Type)

Turn-Around Time:  
 Standard  Rush Results 11/23/16

Project Name:

Enterprise Blanco D-Turbine

Project #:

Project Manager:

Heather Woods

Sampler: Justin Valdez

On Ice:  Yes  No

Sample Temperature: 3.2



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

### Analysis Request

| Date           | Time | Matrix | Sample Request ID | Container Type and # | Preservative Type | HEAL No. | BTEX + MTBE + CMV's (8021) | BTEX + MTBF + TPH (Gas only) | TPH 8015B (GRO / DRO / MRO) | TPH (Method 418.1) | EDB (Method 504.1) | PAH's (8310 or 8270 SIMS) | RCRA 8 Metals | Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> ) | 8081 Pesticides / 8082 PCB's | 8260B (VOA) | 8270 (Semi-VOA) | Air Bubbles (Y or N) |  |
|----------------|------|--------|-------------------|----------------------|-------------------|----------|----------------------------|------------------------------|-----------------------------|--------------------|--------------------|---------------------------|---------------|--|------------------------------|-------------|-----------------|----------------------|--|
| 11/18/16       | 1000 | Soil   | SC-1              | (2) 4oz Glass        | /                 | -001     | X                          | X                            | X                           |                    |                    |                           | X             |  |                              |             |                 |                      |  |
| 11/18/16       | 1100 | Soil   | SC-2              | (1) 4oz Glass        | /                 | -002     | X                          | X                            | X                           |                    |                    |                           |               |  |                              |             |                 |                      |  |
| 11/18/16       | 0940 | Soil   | SC-3              | (1) 4oz Glass        | /                 | -003     | X                          | X                            | X                           |                    |                    |                           |               |  |                              |             |                 |                      |  |
| 11/18/16       | 0930 | Soil   | SC-4              | (1) 4oz Glass        | /                 | -004     | X                          | X                            | X                           |                    |                    |                           |               |  |                              |             |                 |                      |  |
| 11/18/16       | 0920 | Soil   | SC-5              | (1) 4oz Glass        | /                 | -005     | X                          | X                            | X                           |                    |                    |                           |               |  |                              |             |                 |                      |  |
| <del>NEE</del> |      |        |                   |                      |                   |          |                            |                              |                             |                    |                    |                           |               |  |                              |             |                 |                      |  |

Date: 11/18/16 Time: 1904 Relinquished by: Heather M. Woods

Received by: Justin Valdez Date: 11/18/16 Time: 1904

Remarks: Direct Bill to Enterprise  
Attn: Tom Long

Date: 11/18/16 Time: 1942 Relinquished by: Justin Valdez

Received by: [Signature] Date: 11/19/16 Time: 0815

AFE:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



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

December 02, 2016

Heather Woods  
Rule Engineering LLC  
501 Airport Dr., Ste 205  
Farmington, NM 87401  
TEL: (505) 325-1055  
FAX

RE: Enterprise Blanco D Turbine

OrderNo.: 1612007

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 2 sample(s) on 12/1/2016 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](http://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 qualifiers 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', is written over a light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1612007

Date Reported: 12/2/2016

CLIENT: Rule Engineering LLC

Client Sample ID: SC-6

Project: Enterprise Blanco D Turbine

Collection Date: 11/30/2016 9:30:00 AM

Lab ID: 1612007-001

Matrix: MEOH (SOIL)

Received Date: 12/1/2016 8:25:00 AM

| Analyses   | Result | PQL      | Qual | Units | DF | Date Analyzed         | Batch        |
|--|--------|----------|------|-------|----|-----------------------|--------------|
| <b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b> |        |          |      |       |    |                       | Analyst: TOM |
| Diesel Range Organics (DRO)                      | ND     | 9.6      |      | mg/Kg | 1  | 12/1/2016 12:01:58 PM | 28941        |
| Motor Oil Range Organics (MRO)                   | ND     | 48       |      | mg/Kg | 1  | 12/1/2016 12:01:58 PM | 28941        |
| Surr: DNOP                                       | 97.9   | 70-130   |      | %Rec  | 1  | 12/1/2016 12:01:58 PM | 28941        |
| <b>EPA METHOD 8015D: GASOLINE RANGE</b>          |        |          |      |       |    |                       | Analyst: NSB |
| Gasoline Range Organics (GRO)                    | ND     | 4.4      |      | mg/Kg | 1  | 12/1/2016 11:10:09 AM | 28928        |
| Surr: BFB  | 81.3   | 68.3-144 |      | %Rec  | 1  | 12/1/2016 11:10:09 AM | 28928        |
| <b>EPA METHOD 8021B: VOLATILES</b>               |        |          |      |       |    |                       | Analyst: NSB |
| Benzene  | ND     | 0.022    |      | mg/Kg | 1  | 12/1/2016 11:10:09 AM | 28928        |
| Toluene  | ND     | 0.044    |      | mg/Kg | 1  | 12/1/2016 11:10:09 AM | 28928        |
| Ethylbenzene                                     | ND     | 0.044    |      | mg/Kg | 1  | 12/1/2016 11:10:09 AM | 28928        |
| Xylenes, Total                                   | ND     | 0.088    |      | mg/Kg | 1  | 12/1/2016 11:10:09 AM | 28928        |
| Surr: 4-Bromofluorobenzene                       | 93.1   | 80-120   |      | %Rec  | 1  | 12/1/2016 11:10:09 AM | 28928        |

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           |
| D           | Sample Diluted Due to Matrix                          | 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                   | P Sample pH Not In Range                                    |
| R           | RPD outside accepted recovery limits                  | RL Reporting Detection Limit                                |
| S           | % Recovery outside of range due to dilution or matrix | W Sample container temperature is out of limit as specified |

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Rule Engineering LLC

Client Sample ID: SC-7

Project: Enterprise Blanco D Turbine

Collection Date: 11/30/2016 11:00:00 AM

Lab ID: 1612007-002

Matrix: MEOH (SOIL)

Received Date: 12/1/2016 8:25:00 AM

| Analyses   | Result | PQL      | Qual | Units | DF | Date Analyzed         | Batch               |
|--|--------|----------|------|-------|----|-----------------------|---------------------|
| <b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b> |        |          |      |       |    |                       | Analyst: <b>TOM</b> |
| Diesel Range Organics (DRO)                      | ND     | 9.8      |      | mg/Kg | 1  | 12/1/2016 12:24:55 PM | 28941               |
| Motor Oil Range Organics (MRO)                   | ND     | 49       |      | mg/Kg | 1  | 12/1/2016 12:24:55 PM | 28941               |
| Surr: DNOP                                       | 98.0   | 70-130   |      | %Rec  | 1  | 12/1/2016 12:24:55 PM | 28941               |
| <b>EPA METHOD 8015D: GASOLINE RANGE</b>          |        |          |      |       |    |                       | Analyst: <b>NSB</b> |
| Gasoline Range Organics (GRO)                    | ND     | 3.7      |      | mg/Kg | 1  | 12/1/2016 11:33:56 AM | 28928               |
| Surr: BFB  | 82.4   | 68.3-144 |      | %Rec  | 1  | 12/1/2016 11:33:56 AM | 28928               |
| <b>EPA METHOD 8021B: VOLATILES</b>               |        |          |      |       |    |                       | Analyst: <b>NSB</b> |
| Benzene  | ND     | 0.018    |      | mg/Kg | 1  | 12/1/2016 11:33:56 AM | 28928               |
| Toluene  | ND     | 0.037    |      | mg/Kg | 1  | 12/1/2016 11:33:56 AM | 28928               |
| Ethylbenzene                                     | ND     | 0.037    |      | mg/Kg | 1  | 12/1/2016 11:33:56 AM | 28928               |
| Xylenes, Total                                   | ND     | 0.073    |      | mg/Kg | 1  | 12/1/2016 11:33:56 AM | 28928               |
| Surr: 4-Bromofluorobenzene                       | 94.4   | 80-120   |      | %Rec  | 1  | 12/1/2016 11:33:56 AM | 28928               |

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           |
| D           | Sample Diluted Due to Matrix                          | 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                   | P  | Sample pH Not In Range                                    |
| R           | RPD outside accepted recovery limits                  | RL | Reporting Detection Limit                                 |
| S           | % Recovery outside of range due to dilution or matrix | W  | Sample container temperature is out of limit as specified |

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1612007

02-Dec-16

Client: Rule Engineering LLC  
Project: Enterprise Blanco D Turbine

|                             |                  |                |                  |             |  |          |              |      |          |      |
|-----------------------------|------------------|----------------|------------------|-------------|--|----------|--------------|------|----------|------|
| Sample ID                   | <b>LCS-28941</b> | SampType:      | <b>LCS</b>       | TestCode:   | <b>EPA Method 8015M/D: Diesel Range Organics</b> |          |              |      |          |      |
| Client ID:                  | <b>LCSS</b>      | Batch ID:      | <b>28941</b>     | RunNo:      | <b>39082</b>                                     |          |              |      |          |      |
| Prep Date:                  | <b>12/1/2016</b> | Analysis Date: | <b>12/1/2016</b> | SeqNo:      | <b>1222609</b>                                   | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte                     | Result           | PQL            | SPK value        | SPK Ref Val | %REC   | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO) | 44               | 10             | 50.00            | 0           | 87.4   | 62.6     | 124          |      |          |      |
| Surr: DNOP                  | 4.4              |                | 5.000            |             | 88.4   | 70       | 130          |      |          |      |

|                                |                  |                |                  |             |  |          |              |      |          |      |
|--------------------------------|------------------|----------------|------------------|-------------|--|----------|--------------|------|----------|------|
| Sample ID                      | <b>MB-28941</b>  | SampType:      | <b>MBLK</b>      | TestCode:   | <b>EPA Method 8015M/D: Diesel Range Organics</b> |          |              |      |          |      |
| Client ID:                     | <b>PBS</b>       | Batch ID:      | <b>28941</b>     | RunNo:      | <b>39082</b>                                     |          |              |      |          |      |
| Prep Date:                     | <b>12/1/2016</b> | Analysis Date: | <b>12/1/2016</b> | SeqNo:      | <b>1222610</b>                                   | Units:   | <b>mg/Kg</b> |      |          |      |
| Analyte                        | Result           | PQL            | SPK value        | SPK Ref Val | %REC   | LowLimit | HighLimit    | %RPD | RPDLimit | Qual |
| Diesel Range Organics (DRO)    | ND               | 10             |                  |             |  |          |              |      |          |      |
| Motor Oil Range Organics (MRO) | ND               | 50             |                  |             |  |          |              |      |          |      |
| Surr: DNOP                     | 9.4              |                | 10.00            |             | 94.5   | 70       | 130          |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1612007

02-Dec-16

Client: Rule Engineering LLC  
Project: Enterprise Blanco D Turbine

|                               |            |                |           |             |                                  |          |           |      |          |      |
|-------------------------------|------------|----------------|-----------|-------------|----------------------------------|----------|-----------|------|----------|------|
| Sample ID                     | MB-28928   | SampType:      | MBLK      | TestCode:   | EPA Method 8015D: Gasoline Range |          |           |      |          |      |
| Client ID:                    | PBS        | Batch ID:      | 28928     | RunNo:      | 39086                            |          |           |      |          |      |
| Prep Date:                    | 11/30/2016 | Analysis Date: | 12/1/2016 | SeqNo:      | 1222904                          | 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                     | 810        |                | 1000      |             | 81.3                             | 68.3     | 144       |      |          |      |

|                               |            |                |           |             |                                  |          |           |      |          |      |
|-------------------------------|------------|----------------|-----------|-------------|----------------------------------|----------|-----------|------|----------|------|
| Sample ID                     | LCS-28928  | SampType:      | LCS       | TestCode:   | EPA Method 8015D: Gasoline Range |          |           |      |          |      |
| Client ID:                    | LCSS       | Batch ID:      | 28928     | RunNo:      | 39086                            |          |           |      |          |      |
| Prep Date:                    | 11/30/2016 | Analysis Date: | 12/1/2016 | SeqNo:      | 1222905                          | Units:   | mg/Kg     |      |          |      |
| Analyte                       | Result     | PQL            | SPK value | SPK Ref Val | %REC                             | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Gasoline Range Organics (GRO) | 24         | 5.0            | 25.00     | 0           | 97.8                             | 74.6     | 123       |      |          |      |
| Surr: BFB                     | 880        |                | 1000      |             | 88.0                             | 68.3     | 144       |      |          |      |

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1612007

02-Dec-16

Client: Rule Engineering LLC  
Project: Enterprise Blanco D Turbine

|                            |            |                |           |             |                             |          |           |      |          |      |
|----------------------------|------------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID                  | MB-28928   | SampType:      | MBLK      | TestCode:   | EPA Method 8021B: Volatiles |          |           |      |          |      |
| Client ID:                 | PBS        | Batch ID:      | 28928     | RunNo:      | 39086                       |          |           |      |          |      |
| Prep Date:                 | 11/30/2016 | Analysis Date: | 12/1/2016 | SeqNo:      | 1222915                     | Units:   | mg/Kg     |      |          |      |
| Analyte                    | Result     | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene                    | ND         | 0.025          |           |             |                             |          |           |      |          |      |
| Toluene                    | ND         | 0.050          |           |             |                             |          |           |      |          |      |
| Ethylbenzene               | ND         | 0.050          |           |             |                             |          |           |      |          |      |
| Xylenes, Total             | ND         | 0.10           |           |             |                             |          |           |      |          |      |
| Surr: 4-Bromofluorobenzene | 0.95       |                | 1.000     |             | 94.8                        | 80       | 120       |      |          |      |

|                            |            |                |           |             |                             |          |           |      |          |      |
|----------------------------|------------|----------------|-----------|-------------|-----------------------------|----------|-----------|------|----------|------|
| Sample ID                  | LCS-28928  | SampType:      | LCS       | TestCode:   | EPA Method 8021B: Volatiles |          |           |      |          |      |
| Client ID:                 | LCSS       | Batch ID:      | 28928     | RunNo:      | 39086                       |          |           |      |          |      |
| Prep Date:                 | 11/30/2016 | Analysis Date: | 12/1/2016 | SeqNo:      | 1222916                     | Units:   | mg/Kg     |      |          |      |
| Analyte                    | Result     | PQL            | SPK value | SPK Ref Val | %REC                        | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
| Benzene                    | 0.95       | 0.025          | 1.000     | 0           | 95.4                        | 75.2     | 115       |      |          |      |
| Toluene                    | 0.95       | 0.050          | 1.000     | 0           | 94.7                        | 80.7     | 112       |      |          |      |
| Ethylbenzene               | 0.96       | 0.050          | 1.000     | 0           | 96.2                        | 78.9     | 117       |      |          |      |
| Xylenes, Total             | 2.8        | 0.10           | 3.000     | 0           | 94.8                        | 79.2     | 115       |      |          |      |
| Surr: 4-Bromofluorobenzene | 1.0        |                | 1.000     |             | 99.7                        | 80       | 120       |      |          |      |

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
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- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

**Sample Log-In Check List**

Client Name: **RULE ENGINEERING LL**

Work Order Number: **1612007**

RcptNo: **1**

Received by/date:

*[Signature]* 12/01/16

Logged By: **Lindsay Mangin**

12/1/2016 8:25:00 AM

*[Signature]*

Completed By: **Lindsay Mangin**

12/1/2016 8:56:32 AM

*[Signature]*

Reviewed By:

*[Signature]* 12/01/16

**Chain of Custody**

- 1. Custody seals intact on sample bottles? Yes  No  Not Present
- 2. Is Chain of Custody complete? Yes  No  Not Present
- 3. How was the sample delivered? Courier

**Log In**

- 4. Was an attempt made to cool the samples? Yes  No  NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- 6. Sample(s) in proper container(s)? Yes  No
- 7. Sufficient sample volume for indicated test(s)? Yes  No
- 8. Are samples (except VOA and ONG) properly preserved? Yes  No
- 9. Was preservative added to bottles? Yes  No  NA
- 10. VOA vials have zero headspace? Yes  No  No VOA Vials
- 11. Were any sample containers received broken? Yes  No
- 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes  No
- 13. Are matrices correctly identified on Chain of Custody? Yes  No
- 14. Is it clear what analyses were requested? Yes  No
- 15. 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)**

- 16. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

17. Additional remarks:

**18. Cooler Information**

| Cooler No | Temp °C | Condition | Seal Intact | Seal No | Seal Date | Signed By |
|-----------|---------|-----------|-------------|---------|-----------|-----------|
| 1         | 1.6     | Good      | Yes         |         |           |           |





608 SOUTH RIO GRANDE, SUITE A  
AZTEC, NEW MEXICO 87410

Project Name Florence A#21  
 Project No. \_\_\_\_\_ By \_\_\_\_\_ Checked \_\_\_\_\_  
 Date 7-31-17 Sheet \_\_\_\_\_ of \_\_\_\_\_

