District I 162# 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 Department **Oil Conservation Division** 1220 South St. Francis Dr. Santa Fe, NM 87505

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For temporary pits, below-grade tanks, and multi-well fluid management pits, submit to the appropriate NMOCD District Office. For permanent pits submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Below-Grade Tank	, or
Proposed Alternative Method Permit or Cl	osure Plan Application
Type of action: Below grade tank registration Permit of a pit or proposed alternative method Closure of a pit, below-grade tank, or propose Modification to an existing permit/or registration	d alternative method
Closure plan only submitted for an existing pe	rmitted or non-permitted pit, below-grade tank,
or proposed alternative method	
Instructions: Please submit one application (Form C-144) per individual Please be advised that approval of this request does not relieve the operator of liability should operate environment. Nor does approval relieve the operator of its responsibility to comply with any other approach the operator of the responsibility to comply with any other approach.	<i>pit, below-grade tank or alternative request</i> ions result in pollution of surface water, ground water or the pplicable governmental authority's rules, regulations or ordinances.
1. Operator: ConocoPhillips Company OGRID #: 217817	OIL CONS. DIV DIST 3
Address: PO BOX 4289, Farmington, NM 87499	contentity biol. g
Facility or well name: SAN JUAN 28-7 UNIT 217	MAR 1 3 2017
API Number: 30-039-20972 OCD Permit Number:	
U/L or Otr/Otr B Section 28 Township 27N Range 7	7W County: Rio Arriba
Center of Proposed Design: Latitude 36.54807 •N Longitude -107.57764 •N	W NAD: □1927 ⊠ 1983
Surface Owner: X Federal X State Private Tribal Trust or Indian Allotment	
2.	Net 10 to
<u>Pit</u>: Subsection F, G or J of 19.15.17.11 NMAC	OK SLIDMit Seperate
Temporary: Drilling Workover	2-141
Permanent Emergency Cavitation P&A Multi-Well Fluid Management	Low Chloride Drilling Fluid 🗌 yes 🗌 no
Lined Unlined Liner type: Thicknessmil LLDPE HDPE PVC	Cother
String-Reinforced	- Keport Submitted Over
Liner Seams: Welded Factory Other Volume:	_bbl h imensions: L x W x D
3.	an thes the
Below-grade tank: Subsection I of 19.15.17.11 NMAC	is wells a
Volume: <u>120</u> bbl Type of fluid: <u>Produced Water</u>	~ ~ ~
Tank Construction material: <u>Metal</u>	
Secondary containment with leak detection Visible sidewalls, liner, 6-inch lift and	automatic overflow shut-off
Visible sidewalls and liner Visible sidewalls only Other	
Liner type: Thickness mil HDPE PVC OtherUN	SPECIFIED
4.	
Alternative Method:	
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fo	e Environmental Bureau office for consideration of approval.
5. Fencing: Subsection D of 19 15 17.11 NMAC (Applies to permanent pits, temporary pits, or	and helow-grade tanks)
\Box Chain link, six feet in height, two strands of barbed wire at top <i>(Required if located within the strands)</i>	in 1000 feet of a permanent residence, school, hospital.
institution or church)	· · · ·
Four foot height, four strands of barbed wire evenly spaced between one and four feet	
Alternate. Please specify	
	I
Form C-144 Oil Conservation Division	Page 1 of 6

Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)

Screen Netting Other_

Monthly inspections (If netting or screening is not physically feasible)

Signs: Subsection C of 19.15.17.11 NMAC

12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers

Signed in compliance with 19.15.16.8 NMAC

Variances and Exceptions:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

Variance(s): Requests must be submitted to the appropriate division district for consideration of approval.
 Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Siting criteria does not apply to drying pads or above-grade tanks.

General siting	
 Ground water is less than 25 feet below the bottom of a low chloride temporary pit or below-grade tank. □ NM Office of the State Engineer - iWATERS database search; □ USGS; □ Data obtained from nearby wells 	□ Yes □ No ⊠ NA
Ground water is less than 50 feet below the bottom of a Temporary pit, permanent pit, or Multi-Well Fluid Management pit. NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	☐ Yes ☐ No ⊠ NA
 Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. (Does not apply to below grade tanks) Written confirmation or verification from the municipality; Written approval obtained from the municipality 	🗌 Yes 🗌 No
 Within the area overlying a subsurface mine. (Does not apply to below grade tanks) Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division 	Yes No
 Within an unstable area. (Does not apply to below grade tanks) Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map 	🗌 Yes 🗌 No
Within a 100-year floodplain. (Does not apply to below grade tanks) - FEMA map	Yes No
Below Grade Tanks	
 Within 100 feet of a continuously flowing watercourse, significant watercourse, lake bed, sinkhole, wetland or playa lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🛛 No
 Within 200 horizontal feet of a spring or a fresh water well used for public or livestock consumption;. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site 	🗌 Yes 🛛 No
Temporary Pit using Low Chloride Drilling Fluid (maximum chloride content 15,000 mg/liter)	
 Within 100 feet of a continuously flowing watercourse, or any other significant watercourse or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). (Applies to low chloride temporary pits.) Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🗌 No
Within 300 feet from a occupied permanent residence, school, hospital, institution, or church in existence at the time of initial application	🗌 Yes 🗌 No
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	
Within 200 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 300feet of any other fresh water well or spring, in existence at the time of the initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	Yes No

 Within 100 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site 	Yes No					
Temporary Pit Non-low chloride drilling fluid						
 Within 300 feet of a continuously flowing watercourse, or any other significant watercourse, or within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site 	Yes No					
 Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 						
 Within 500 horizontal feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, or 1000 feet of any other fresh water well or spring, in the existence at the time of the initial application; NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site 	🗌 Yes 🗌 No					
 Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🗌 No					
Permanent Pit or Multi-Well Fluid Management Pit						
 Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🗌 No					
 Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 						
 Within 500 horizontal feet of a spring or a fresh water well used for domestic or stock watering purposes, in existence at the time of initial application. NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site 	🗌 Yes 🗌 No					
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site						
10. Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.10 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC nut 19.15.17.13 NMAC Previously Approved Design (attach copy of design) API Number: or Permit Number: or Permit Number: or Permit Number:						
11. Multi-Well Fluid Management Pit Checklist: Subsection B of 19.15.17.9 NMAC						
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC A List of wells with approved application for permit to drill associated with the pit. Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC Hydrogeologic Data - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.10 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Previously Approved Design (attach conv of design) API Number:						

12. Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the attached. Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Climatological Factors Assessment Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC Quality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H ₂ S, Prevention Plan Emergency Response Plan Oil Field Waste Stream Characterization Monitoring and Inspection Plan Erosion Control Plan Closure Plan - based upon the appropriate requirements of 19.15.17.9 NMAC and 19.15.17.13 NMAC	documents are
13. Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan. Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Multi-well F Alternative Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial Alternative Closure Method	luid Management Pit
 Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be closure plan. Please indicate, by a check mark in the box, that the documents are attached. Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC 	attached to the
15. <u>Siting Criteria (regarding on-site closure methods only)</u> : 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable sour provided below. Requests regarding changes to certain siting criteria require justifications and/or demonstrations of equivalency. If 19.15.17.10 NMAC for guidance.	rce material are Please refer to
Ground water is less than 25 feet below the bottom of the buried waste.	□ Yes □ No
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells Ground water is between 25-50 feet below the bottom of the buried waste	□ NA □ Yes □ No
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	
 NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells 	
 Within 100 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse, lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). Topographic map; Visual inspection (certification) of the proposed site 	🗌 Yes 🗌 No
 Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. Visual inspection (certification) of the proposed site; Aerial photo; Satellite image 	Yes No
 Within 300 horizontal feet of a private, domestic fresh water well or spring used for domestic or stock watering purposes, in existence at the time of initial application. NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site 	🗌 Yes 🗌 No
Written confirmation or verification from the municipality; Written approval obtained from the municipality	Yes No
Within 300 feet of a wetland. US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	🗌 Yes 🗌 No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance	
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adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality						
	🗌 Yes 🗌 No					
 Within the area overlying a subsurface mine. Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division 	Yes No					
 Within an unstable area. Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society: Topographic map 						
Within a 100-year floodplain. - FEMA map	Yes No					
16. On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection E of 19.15.17.13 NMAC Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of Subsection K of 19.15.17.11 NMAC Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.13 NMAC Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of 19.15.17.13 NMAC Waste Material Sampling Plan - based upon the appropriate requirements of 19.15.17.13 NMAC Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved) Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Soil Cover Design						
17. Operator Application Certification:						
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and bel	ief.					
Name (Print): Title:						
e-mail address: Telephone:						
18.						
OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment)						
OCD Representative Signature: Approval Date: 32						
	710610					
Title: Env: ronmental Specialist OCD Permit Number:	0 0017					
Title: Commental Decidiat OCD Permit Number: 19. Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed. Image:	the closure report.					
Title: Commental pecialist OCD Permit Number: 19. Closure Report (required within 60 days of closure completion): 19.15.17.13 NMAC Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not section of the form until an approved closure plan has been obtained and the closure activities have been completed. 20. 20.	the closure report.					
Title:	the closure report. complete this					

Oil Conservation Division

Operator Closure Certification:

22.

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print)	Crystal Walker	Title:R	Regulatory Coordinator		
Signature:	Gotal U	Jalke	L	Date: 3/10/2017	
e-mail address:	crystal.walker@cop.com	Telephone: (5	505)326-9837		

ConocoPhillips Company San Juan Basin: New Mexico Assets Below Grade Tank Closure Report

Lease Name: San Juan 28-7 Unit 217 API No.: 30-039-20972

In accordance with Rule 19.15.17.13 NMAC, the following information describes the closure of the below-grade tank referenced above. All proper documentation regarding closure activities is being included with the C-144.

General Plan Requirements:

1. Prior to initiating any BGT closure, except in the case of an emergency, COPC will notify the surface owner of the intent to close the BGT by certified mail no later than 72 hours or one week before closure and a copy of this notification will be included in the closure report. In the case of an emergency, the surface owner will be notified as soon as practical.

The surface owner was notified by email of the closure process and the notification is attached.

- Notice of closure will be given to the Division District Office between 72 hours and one week of the scheduled closure via email or phone. The notification of closure will include the following:
 - a. Operators Name
 - b. Well Name and API Number
 - c. Location

Notification is attached.

 All liquids will be removed from the BGT following cessation of operation. Produced water will be disposed of at one of COP's approved Salt Water Disposal facilities or at a Division District Office approved facility.

All recovered liquids were disposed of at an approved SWD facility or an approved Division District Office facility within 60 days of cessation of operation.

 Solids and sludge's will be shoveled and/or vacuumed out for disposal at one of the Division District Office approved facilities, depending on the proximity of the BGT site: Envirotech Land Farm (Permit #NM-01-011), JFJ Land Farm % Industrial Ecosystems Inc. (Permit #NM-01-0010B), and Basin Disposal (Permit #NM-01-005).

Any sludge or soil required to be removed to facilitate closure was transported to Envirotech Land Farm (Permit # NM-01-011) and/or JFJ Landfarm % IEI (Permit# NM-01-0010B).

5. COPC will obtain prior approval from Division District Office to dispose, recycle, reuse, or reclaim the BGT and provide documentation of the disposition of the BGT in the closure report. Steel materials will be recycled or reused as approved by the Division District Office. Fiberglass tanks will be empty, cut up or shredded, and EPA cleaned for disposal as solid waste. Liner materials will be cleaned without soils or contaminated material for disposal as solid waste. Fiberglass tanks and liner materials will meet the conditions of 19.15.35 NMAC. Disposal will be at a licensed disposal facility, presently San Juan County Landfill operated by Waste Management under NMED Permit SWM-052426.

The below-grade tank was disposed of in a division-approved manner. The liner was cleaned per 19.15.35.8.C(1)(m) NMAC and disposed of at the San Juan County Regional Landfill located on CR 3100.

6. Any equipment associated with the BGT that is no longer required for some other purpose, following the closure, will be removed.

All on-site equipment associated with the below-grade tank was removed.

- 7. Following removal of the tank and any liner material, COPC will test the soils beneath the BGT as follows:
 - a. At a minimum, a five-point composite sample will be taken to include any obvious stained or wet soils or any other evidence of contamination.
 - b. The laboratory sample shall be analyzed for the constituents listed in Table I of 19.15.17.13.

A five point composite sample was taken of the below-grade tank using sampling tools and all samples tested per Table I of 19.15.17.13 and the results are attached.

8. If the Division District Office and/or COPC determine there is a release, COPC will comply with 19.15.17.13.C.3b.

A release was determined for the above referenced well.

9. Upon completion of the tank removal, pursuant to 19.15.17.13.C.3c, if all contaminant concentrations are less than or equal to the parameters listed in Table I of 19.15.17.13 NMAC, the excavation will be backfilled with non-waste earthen material compacted and covered with a minimum of one foot top soil or background thickness whichever is greater and to existing grade. The surface will be re-contoured to match the native grade and to prevent ponding.

The tank removal area passed all requirements of Table I of 19.15.17.13 NMAC and was backfilled with compacted, non-waste containing, earthen material which included at least one foot of suitable material to establish vegetation at the site.

Revised 10/14/2015

10. For those portions of the former BGT area no longer required for production activities, COPC will seed the disturbed area the first favorable growing season after the BGT is covered. Seeding will be accomplished via drilling on the contour whenever practical, or by other Division District Office approved methods. COPC will notify the Division District Office when reclamation and re-vegetation is complete.

Reclamation of the BGT shall be considered complete when:

- Vegetative cover reflects a life form ratio of +/- 50% of pre disturbance levels.
- Total percent plant cover of at least 70% of pre-disturbance levels (Excluding noxious weeds) OR
- Pursuant to 19.15.17.13.H.5d COPC will comply with obligations imposed by other applicable federal or tribal agencies in which there re-vegetation and reclamation requirements provide equal or better protection of fresh water, human health and the environment.

Provision 10 will be accomplished pursuant to 19.15.17.H.5d and notification will be submitted upon completion.

11. For those portions of the former BGT area required for production activities, reseeding will be done at well abandonment, and following the procedure noted above.

The former BGT area is required for production activities and reseeding will be completed upon P&A of the location per the procedure noted above.

Closure Report:

All closure activities will include proper documentation and will be submitted to OCD within 60 days of the BGT closure on a Closure Report using Division District Office Form C-144. The Report will include the following:

- Proof of Closure Notice (surface owner and Division District Office) (Attached)
- Backfilling & cover installation (See Report)
- Confirmation Sampling Analytical Results (Attached)
- Application Rate & Seeding techniques (See Report)
- Photo Documentation of Reclamation (Attached)

Revised 10/14/2015

Walker, Crystal

From:	Walker, Crystal
Sent:	Tuesday, July 12, 2016 9:19 AM
To:	Cory Smith; Fields, Vanessa, EMNRD; Katherina Diemer (kdiemer@blm.gov); Michael
	Porter
Cc:	Farrell, Juanita R; GRP:SJBU Regulatory; Jones, Lisa; SJBU E-Team
Subject:	BGT Closure Notification: San Juan 28-7 Unit 217

The subject well has a below-grade tank that will begin the closure process between 72 hours and one week from this notification. Please contact me at any time if you have any questions or concerns.

Well Name: San Juan 28-7 Unit 217

API#: 30-039-209720

Location: B-28-27N-7W

Footages: 1120' FNL & 1740' FEL

Operator: ConocoPhillips

Surface Owner: BLM

Scheduled Date of Removal: Monday, July 18th, 2016

Please let me know if you have any questions.

Thank you, Crystal Walker Regulatory Coordinator ConocoPhillips Lower 48

T: 505-326-9837 | M: 505-215-4361 | crystal.walker@cop.com

Visit the new Lower 48 website: www.conocophillipsuslower48.com

State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised August 8, 2011

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 1 Copy to appropriate District Office to accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

	OPERATOR	\boxtimes	Initial Report	\bowtie	Final Report
Name of Company ConocoPhillips Company	Contact Lisa Hunter				
Address 3401 East 30th St, Farmington, NM	Telephone No. (505) 258-1607				
Facility Name: San Juan 28-7 Unit 217	Facility Type: Gas Well				

Surface Owner Federal	Mineral Owner Federal	API No. 3003920972
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County	
B	28	27N	07W	1120	North	1740	East	Rio Arriba	

Latitude 36.54807 Longitude -107. 57764

NATURE OF RELEASE

Type of Release Hydrocarbon (Historic - BGT Closure)	Volume of Release Unknown	Volume Recovered 600 yds
Source of Release BGT	Date and Hour of Occurrence	Date and Hour of Discovery
	Unknown	07/17/2016 @ 10:00 a.m.
Was Immediate Notice Given?	If YES, To Whom?	
🗌 Yes 🗌 No 🔀 Not Required	N/A	
By Whom? N/A	Date and Hour N/A	
Was a Watercourse Reached?	If YES, Volume Impacting the Wate	ercourse.
🗌 Yes 🛛 No	N/A	
If a Watercourse was Impacted, Describe Fully.* N/A		
Describe Cause of Problem and Remedial Action Taken.*		
Contamination stain discovered on western sidewall of BGT cellar du	ring BGT Closure. Site assessment	was conducted by third-party
environmental for remediation. Rank: 20		
Describe Area Affected and Cleanup Action Taken *		
The below grade tank sample results were above regulatory standard	by USEPA method 418 1 for TPH a	nd Organic Vanors, confirming a
release Excavation was 35' x 40' x 16' Deen Analytical results	were below the regulatory stand	lards - no further action required
The soil sampling report is attached for review	were below the regulatory stand	larus – no further action required.
The son sampling report is attached for review.		
I hereby certify that the information given above is true and complete to the	he best of my knowledge and understan	nd that pursuant to NMOCD rules and
regulations all operators are required to report and/or file certain release no	otifications and perform corrective acti	ons for releases which may endanger
public health or the environment. The acceptance of a C-141 report by the	e NMOCD marked as "Final Report" d	oes not relieve the operator of liability
should their operations have failed to adequately investigate and remediate	e contamination that pose a threat to gr	round water, surface water, human health
or the environment. In addition, NMOCD acceptance of a C-141 report do	bes not relieve the operator of responsi	bility for compliance with any other
iederal, state, or local laws and/or regulations.	OUL CONSEDU	A TION DIVISION
(OIL CUNSER V	ATION DIVISION
July Ht		
Signature:	Approved by Environmental specialist	
	approved by Environmental Specialist	
Printed Name: Lisa Hunter		eru
Title: Field Environmental Specialist	Approval Date: 200124	Expiration Date:
TRIC. Field Environmental Specialist	Approval Date.	Expiration Date.
E-mail Address: Lisa.Hunter@cop.com	Conditions of Approval:	
	ALITIN O C	Attached
Date: December 27, 2016 Phone: (505) 258-1607	1VVH17024.505	79
Attach Additional Sheets If Necessary		0
-	- Submit Sc	sperale C-141
		11.00
	1 254	elask
	-	

San Juan 28-7 #217 Release Report

Unit Letter B, Section 28, Township 27 North, Range 7 West Rio Arriba County, New Mexico

December 26, 2016

Prepared for: ConocoPhillips 5525 Highway 64 Farmington, New Mexico 87401

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



ConocoPhillips San Juan 28-7 #217 Release Report

Prepared for:

ConocoPhillips 5525 Highway 64 Farmington, New Mexico 87401

Prepared by:

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

Heather M. W.

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

Reviewed by:

Russell Knight, PG, Principal Hydrogeologist

December 26, 2016

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Rule

1.0 Introduction

The ConocoPhillips San Juan 28-7 #217 release site is located in Unit Letter B, Section 28, Township 27 North, Range 7 West, in Rio Arriba County, New Mexico. A historical release was discovered on July 18, 2016, during below grade tank (BGT) closure sampling when stained soils were observed in the western sidewall of the BGT cellar.

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.

Site Name	San Juan 28-7 #217							
Site Location Description	Unit Letter B, Section 28, Township 27 North, Range 7 West							
Wellhead GPS Location	N36.54824 and W107.57748	Release GPS Location	N36.54807 and W107.57764					
Land Jurisdiction	Bureau of Land Management	Discovery Date	July 18, 2016					
Release Source	Unknown/Historical							
NMOCD Site Rank	20							
Distance to Nearest Surface Water	The site is located within the drainage of a small, ephemeral wash.							
Estimated Depth to Groundwater	Greater than 100 feet below ground surface (bgs)	<i>Distance to Nearest Water Well or Spring</i>	Greater than 1,000 feet					

2.0 Release Summary

3.0 NMOCD Site Ranking

In accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills, and Releases (August 1993), this site was assigned a ranking score of 20 (Table 1).

Depth to groundwater at the site is greater than 100 feet bgs based on the elevation differential between the location and Cuervo Canyon and the cathodic well report for San Juan 28-7 #153M reported "no groundwater encountered".

A review was completed of the New Mexico Office of the State Engineer (NMOSE) online New Mexico Water Rights Reporting System (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.

Rule

The site is located within the drainage area of a small, ephemeral wash.

Based on the ranking score of 20, action levels for remediated 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).

4.0 Below Grade Tank Closure Sampling

4.1 Field Activities

On July 17, 2016, Rule Engineering, LLC (Rule) personnel conducted a visual inspection for surface/subsurface indications of a release. Staining was observed in the western sidewall of the BGT cellar. Rule personnel then collected one composite soil sample from the base of the BGT cellar and one composite sample from the stained areas of the western sidewall. Soil sample locations are illustrated on Figure 2.

4.2 Soil Sampling

Rule collected a five-point composite sample (BGT-1) from approximately 0.5 feet below the base of the BGT cellar. Rule also collected a three-point composite sample (BGT-2) from the stained area of the western sidewall. A portion of each sample was field screened for volatile organic compounds (VOCs) and chlorides, and field analyzed for TPH.

Field screening for VOC vapors was conducted with a MiniRAE 3000 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 United States Environmental Protection Agency (USEPA) Method 418.1, utilizing a Buck Scientific HC-404 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 practical quantitation limit for USEPA Method 418.1 is 20 mg/kg.

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. The samples were analyzed for BTEX per USEPA Method 8021B, TPH per USEPA Method 8015M/D and 418.1, and chlorides per USEPA Method 300.0.

Field and laboratory results for BGT-1 and BGT-2 are summarized in Table 2, and the analytical report is included in Appendix A.

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4.3 Field Screening Results

Field sampling results for soil composite sample BGT-1 indicated a VOC concentration of 60 ppm and a TPH concentration below the reporting limit of 20 mg/kg. Field chloride concentration was recorded at 40 mg/kg.

Field sampling results for soil composite sample BGT-2 indicated a VOC concentration of 1,500 ppm and a TPH concentration of greater than 2,500 mg/kg. Field chloride concentration was recorded at 120 mg/kg.

Field screening results are summarized in Table 2.

4.4 Laboratory Analytical Results

Laboratory analytical results for sample BGT-1 reported benzene, total BTEX, TPH, and chloride concentrations below the laboratory reporting limits, which are below the BGT closure standards.

Laboratory analytical results for sample BGT-2 reported a benzene concentration below the laboratory reporting limit of 0.48 mg/kg and a total BTEX concentration of 33 mg/kg, which are below the applicable NMOCD action levels. Laboratory analytical results for sample BGT-2 reported TPH concentrations of 670 mg/kg as GRO per USEPA Method 8015 M/D, 7,000 mg/kg DRO per USEPA Method 8015 M/D, and 31,000 mg/kg per USEPA Method 418.1, which exceed the applicable NMOCD action levels. The laboratory analytical result for sample BGT-2 for chloride concentration was below the laboratory reporting limit of 30 mg/kg.

Laboratory analytical results are summarized in Table 2 and the analytical laboratory report is included in Appendix A.

5.0 Site Assessment

5.1 Field Activities

On August 26, 2016, Rule personnel conducted a site assessment to delineate the extent of the release which included advancing five soil borings (SB-1 through SB-5) utilizing a hand auger. Soil borings were advanced to depths ranging from approximately 8 to 12 feet bgs where refusal was encountered on hard soils or sandstone or the limit of the equipment was reached. Soil boring locations are illustrated on Figure 2.

5.2 Soil Sampling

Rule collected soil samples from the soil borings at 1 to 2 foot intervals with an approximately 0.5 foot sample length at each interval. The lithology encountered at the site included interbedded clayey sand and poorly graded sand underlain by sandstone or shale to the maximum depths of the soil borings.



3

A portion of each sample was field screened for VOCs and selected samples were also field analyzed for TPH. Field screening for VOC vapors was conducted with a PID. Prior to field screening, the PID was calibrated with 100 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 practical quantitation limit for USEPA Method 418.1 is 20 mg/kg.

Site assessment field screening results are summarized in Table 2.

5.3 Field Screening Results

Field screening results for samples collected from soil borings SB-1 through SB-5 indicated VOC concentrations ranging from 0.9 ppm to 1,320 ppm. Field TPH results for samples collected from soil borings SB-1 through SB-5 indicated TPH concentrations ranging from below the reporting limit of 20 mg/kg to 2,780 mg/kg. Field screening results are summarized in Table 2.

6.0 Excavation Confirmation Sampling

6.1 Field Activities

Hydrocarbon impacted soils were excavated prior to October 14, 2016, when Rule personnel returned to the site to collect confirmation samples from the resultant excavation which measured approximately 28 feet by 23 feet by 15 feet in depth. Laboratory analysis indicated TPH concentrations in excess of NMOCD action levels from the sample collected from the base of the excavation. An additional two feet of material was removed from the base of the excavation and resampling of the base now measuring approximately 17 feet in depth was conducted on October 21, 2016. Excavated hydrocarbon impacted soils and rock were transported to a local NMOCD approved landfarm for disposal/remediation and the excavation was backfilled with clean, imported material. A depiction of the final excavation with sample locations is included on Figure 3.

6.2 Soil Sampling

Rule collected five composite confirmation soil samples (SC-1 through SC-5) on October 14, 2016, and one additional sample (SC-6) on October 21, 2016. Each confirmation soil sample is a representative composite comprised of five equivalent portions of soil collected from the sampled area.

A portion of each sample was field screened for VOCs and field analyzed for TPH. Field screening for VOC vapors was conducted with a PID. Prior to field screening, the PID was calibrated with 100 ppm isobutylene gas. Field analysis for TPH was conducted for selected samples per USEPA Method 418.1, utilizing a total hydrocarbon analyzer. Prior

Rule

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 practical quantitation limit for USEPA Method 418.1 is 20 mg/kg.

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 excavation confirmation samples were analyzed for BTEX per USEPA Method 8021B, and TPH per USEPA Method 8015M/D.

Field screening and laboratory analytical results are summarized in Table 3. The analytical laboratory reports are included in Appendix A.

6.3 Field Screening Results

Field screening results for soil confirmation samples SC-1 through SC-6 indicated VOC concentrations ranging from 0.3 ppm to 900 ppm. Field TPH concentration results for these samples ranged from below the reporting limit of 20 mg/kg to 2,364 mg/kg. Field screening results are summarized in Table 3.

6.4 Laboratory Analytical Results

Sample Removed by Excavation: Sample SC-5, representing the base of the excavation at approximately 15 feet in depth, was removed by excavation due to NMOCD action level for TPH. Laboratory analytical results for this sample reported a benzene concentration below the laboratory reporting limit of 0.087 mg/kg, a total BTEX concentration of 10.7 mg/kg, and a TPH concentration of 2,480 mg/kg.

Final Excavation Confirmation Samples: Samples collected for final excavation confirmation include SC-1, SC-2, SC-3, SC-4, and SC-6. Laboratory analytical results for final excavation confirmation samples reported benzene, total BTEX, and TPH concentrations below the laboratory reporting limits, which are below the applicable NMOCD action levels for a site rank of 20.

Laboratory analytical results are summarized in Table 3. The analytical laboratory reports are included in Appendix A.

7.0 Conclusions

Hydrocarbon impacted soils associated with a historical release discovered during BGT closure activities at the ConocoPhillips San Juan 28-7 #217 have been excavated and transported to an NMOCD approved landfarm for disposal/remediation. Field screening and laboratory analytical results for samples collected from the final excavation sidewalls and base indicate that concentrations of benzene, total BTEX, and TPH are below NMOCD action levels for a site rank of 20. Therefore, no further work is recommended at this time.



Tables



8.0 Closure and Limitations

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

Rule

Table 1. NMOCD Site Ranking Determination ConocoPhillips San Juan 28-7 #217 Rio Arriba County, New Mexico

Ranking Criteria	Ranking	Site-Based	Basis for Determination	Data
	Score	Ranking Score		Sources
Depth to Groundwater				
<50 feet	20		Elevation differential between location and Cuervo	NMOCD Online database,
50-99 feet	10	0	Canyon derived from the topographic map of the area and no groundwater encountered on cathodic well report for the San Juan 28-7 #153M.	Gould Pass Quadrangle, Google Earth, and Visual Inspection
>100 feet	0			
	•			
Wellhead Protection Area				
<1,000 feet from a water source, or <200 feet from private domestic water source	20 (Yes) 0 (No)	- 0	No water source or recorded water wells within 1,000 foot radius of location.	NMOSE NMWRRS, Gould Pass Quadrangle, Google Earth, and Visual Inspection
-				•
Distance to Surface Water Body				
<200 horizontal feet	20			Gould Pass Quadrangle,
200 to 1,000 horizontal feet	10	20	ephemeral wash.	Google Earth, and Visual
>1,000 horizontal feet	0			Inspection
Site Based Total Rank	ing Score	20]	



Table 2. Site Assessment Field Screening and Laboratory Analytical Results ConocoPhillips San Juan 28-7 #217 **Rio Arriba County, New Mexico**

		Annewimete	Field Results			Laboratory Results					
Sample Name	Date	Sample Depth (ft bgs)	Field VOCs by PID (ppm)	Field TPH by 418.1 (mg/kg)	Field Chlorides (mg/kg)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH as GRO (mg/kg)	TPH as DRO (mg/kg)	TPH by 418.1 (mg/kg)	Chloride (mg/kg)
	BGT Closu	re Standards*		2,500	20,000	10	50	1,0	000	2,500	20,000
	NMOCD	Action Level**	100	100	100	10	50	1	00	100	
BGT-1	7/18/2016	4.5	60	<20.0	40	< 0.024	<0.213	<4.7	<9.6	<19	<30
BGT-2	7/18/2016	2.5 to 3.5	1,550	>2,500	120	<0.48	33	670	7,000	31,000	<30
		1	6.7				-				
		2	5.7								
		3	8.9								
SR 1	8/26/2016	4	9.1								
3D-1	0/20/2010	6	17.1								
		8	50.9	<20.0							
		10	44.5								
		12	45.7	<20.0							
		1	313								
		2	798								
	8/26/2016	3	350								
SB-2		4	1,320	2,780							
00-2	0/20/2010	6	307	117							
		8	304	39.2							
		10	275								
		12	167	45.0							
		1	5.9								
		2	0.9								
		3	32.9								
SB-3	8/26/2016	4	73.9								
		6	210								
		8	215	20.4							
		10	118								
		6	5.6								
SB-4	8/26/2016	8	13.4	<20.0							
		10	13.0								
		1	47.1								
		2	32.2								
SB-5	8/26/2016	3	60.0								
00-0	5/20/2010	4	37.0								
		6	99.7	<20.0							
		8	83.7								

Notes: VOCs - volatile organic compounds

PID - photoionization detector

ft bgs - feet below grade surface

ppm - parts per million

mg/kg - milligrams per kilogram

*19.15.17.13 NMAC

TPH - total petroleum hydrocarbons

GRO - gasoline range organics

DRO - diesel range organics

BTEX - benzene, toluene, ethylbenzene, and xylenes

NMOCD - New Mexico Oil Conservation Division

**Based on the NMOCD Guidelines for Remediation of Leaks, Spills and Releases (August 1993)



Table 3. Excavation Confirmation Field Screening and Laboratory Analytical Results ConocoPhillips San Juan 28-7 #217 **Rio Arriba County, New Mexico**

Sample Name	Date	Approximate Sample Depth (ft bgs)	Sample Location	Field VOCs by PID (ppm)	Field TPH by 418.1 (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylben- zene (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)
		NMOC	D Action Level*	100	100**	10	NE	NE	NE	50		100**	
	Samples Removed by Excavation												
SC-5	10/14/2016	15	Base	900	2,364	<0.087	0.22	1.0	9.5	10.7	280	1,800	400
					Excav	ation Confirm	nation Sampl	es					
SC-1	10/14/2016	0 to 15	North Wall	43.8	23.0	< 0.024	< 0.049	< 0.049	< 0.097	ND	<4.9	<9.7	<48
SC-2	10/14/2016	0 to 15	South Wall	102	<20	<0.024	< 0.049	< 0.049	<0.097	ND	<4.9	<9.7	<49
SC-3	10/14/2016	0 to 15	East Wall	2.2	<20	<0.024	< 0.047	<0.047	< 0.094	ND	<4.7	<9.9	<50
SC-4	10/14/2016	0 to 15	West Wall	2.2	<20	<0.024	<0.048	<0.048	<0.095	ND	<4.8	<9.9	<50
SC-6	10/21/2016	17	Base	0.3	<20	< 0.046	< 0.046	< 0.046	< 0.092	ND	<4.6	<10	<50

Notes:

VOCs - volatile organic compounds

PID - photoionization detector

ft bgs - feet below grade surface

ppm - parts per million

mg/kg - milligrams per kilogram

NE - not-established

ND - not detected above laboratory reporting limits

BTEX - benzene, toluene, ethylbenzene, and xylenes

TPH - total petroleum hydrocarbons

GRO - gasoline range organics

DRO - diesel range organics

NMOCD - New Mexico Oil Conservation Division

*Based on the NMOCD Guidelines for Remediation of Leaks, Spills and Releases (August 1993)

**Based on a site ranking of 20.



ConocoPhillips San Juan 28-7 #217 Release Report

Figures

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aument Patri: U.V.ConoccePhillips/Conocc/PhilipstSan Juan 29-7 #21/NFigure 3 San Juan 29-7 #217 Excavation Map.mu

Appendix A

Analytical Laboratory Reports



HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

July 28, 2016

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

RE: San Juan 28-7 217

OrderNo.: 1607859

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 2 sample(s) on 7/19/2016 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 <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytica	l Report
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Date Reported: 7/28/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Rule Engineering LLC		(Client Sampl	le ID: SC	-1 8/2016 0.20.00 AM	
Project:	San Juan 28-7 217			Conection	Date: //1	8/2010 9:30:00 AM	
Lab ID:	1607859-001	Matrix: S	SOIL	Received	Date: 7/1	9/2016 8:45:00 AM	
Analyses		Result	PQL Qual	Units	DF	Date Analyzed	Batch
EPA MET	HOD 418.1: TPH					Analyst:	MAB
Petroleur	m Hydrocarbons, TR	ND	19	mg/Kg	1	7/26/2016	26572
EPA MET	HOD 300.0: ANIONS					Analyst:	MRA
Chloride		ND	30	mg/Kg	20	7/21/2016 7:04:00 PM	26529
EPA MET	HOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst:	TOM
Diesel Ra	ange Organics (DRO)	ND	9.6	mg/Kg	1	7/21/2016 1:52:05 PM	26500
Surr: E	DNOP	103	70-130	%Rec	1	7/21/2016 1:52:05 PM	26500
EPA MET	HOD 8015D: GASOLINE RAN	GE				Analyst:	NSB
Gasoline	Range Organics (GRO)	ND	4.7	mg/Kg	1	7/20/2016 8:11:37 PM	26468
Surr: E	BFB	101	80-120	%Rec	1	7/20/2016 8:11:37 PM	26468
EPA MET	HOD 8021B: VOLATILES					Analyst:	NSB
Benzene		ND	0.024	mg/Kg	1	7/20/2016 8:11:37 PM	26468
Toluene		ND	0.047	mg/Kg	1	7/20/2016 8:11:37 PM	26468
Ethylben	zene	ND	0.047	mg/Kg	1	7/20/2016 8:11:37 PM	26468
Xylenes,	Total	ND	0.095	mg/Kg	1	7/20/2016 8:11:37 PM	26468
Surr: 4	-Bromofluorobenzene	95.9	80-120	%Rec	1	7/20/2016 8:11:37 PM	26468

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	Page 1 of 7
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	rage ror /
	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	t as specified

Analytical	Report
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Date Reported: 7/28/2016

Hall Environmental Analysis Laboratory, Inc.

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CLIENT:	Rule Engineering LLC	Client Sample ID: SC-2						
Project:	San Juan 28-7 217				Collection]	Date: 7/1	8/2016 9:45:00 AM	
Lab ID:	1607859-002	Matrix: S	SOIL		Received	Date: 7/1	9/2016 8:45:00 AM	
Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA MET	HOD 418.1: TPH						Analyst	MAB
Petroleur	m Hydrocarbons, TR	31000	1900		mg/Kg	100	7/26/2016	26572
EPA MET	HOD 300.0: ANIONS						Analyst	MRA
Chloride		ND	30		mg/Kg	20	7/21/2016 7:16:24 PM	26529
EPA MET	HOD 8015M/D: DIESEL RAN	GE ORGANICS					Analyst	TOM
Diesel Ra	ange Organics (DRO)	7000	97		mg/Kg	10	7/21/2016 3:46:00 PM	26500
Surr: D	DNOP	0	70-130	S	%Rec	10	7/21/2016 3:46:00 PM	26500
EPA MET	HOD 8015D: GASOLINE RA	NGE					Analyst	NSB
Gasoline	Range Organics (GRO)	670	96		mg/Kg	20	7/22/2016 1:53:17 AM	26468
Surr: E	BFB	282	80-120	S	%Rec	20	7/22/2016 1:53:17 AM	26468
EPA MET	HOD 8021B: VOLATILES						Analyst	NSB
Benzene		ND	0.48		mg/Kg	20	7/22/2016 1:53:17 AM	26468
Toluene		ND	0.96		mg/Kg	20	7/22/2016 1:53:17 AM	26468
Ethylben	zene	1.6	0.96		mg/Kg	20	7/22/2016 1:53:17 AM	26468
Xylenes,	Total	31	1.9		mg/Kg	20	7/22/2016 1:53:17 AM	26468
Surr: 4	-Bromofluorobenzene	110	80-120		%Rec	20	7/22/2016 1:53:17 AM	26468

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 2 of 7
	ND	Not Detected at the Reporting Limit	Р	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 SUMM	AKI KEPUK	1						WO#:	1607859
Hall Environ	mental Analysis	Laborat	ory, Inc.						28-Jul-16
Client: F Project: S	Rule Engineering LLC an Juan 28-7 217								
Sample ID MB-2652	9 SampType: I	mblk	Tes	tCode: El	PA Method	300.0: Anion	s		
Client ID: PBS	Batch ID: 2	26529	F	RunNo: 3	5903				
Prep Date: 7/21/20	Analysis Date:	7/21/2016	S	SeqNo: 1	111501	Units: mg/K	g		
Analyte	Result PQI	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND 1.	5							
Sample ID LCS-265	29 SampType: I	cs	Tes	tCode: El	PA Method	300.0: Anion	s		
Client ID: LCSS	Batch ID:	26529	F	RunNo: 3	5903				
Prep Date: 7/21/20	Analysis Date:	7/21/2016	S	SeqNo: 1	111502	Units: mg/K	g		
Analyte	Result PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15 1.	5 15.00	0	97.2	90	110			
Sample ID 1607747-	003AMS SampType:	ns	Tes	tCode: El	PA Method	300.0: Anion	s		

Client ID:

Prep Date:

Analyte

Chloride

BatchQC

7/21/2016

Result

17

Qualifiers:

* Value exceeds Maximum Contaminant Level.

OC SUMMARY REPORT

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

%RPD

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RPDLimit

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Qual

Batch ID: 26529 RunNo: 35903 Analysis Date: 7/21/2016 SeqNo: 1111513 Units: mg/Kg SPK value SPK Ref Val %REC HighLimit PQL LowLimit 1.5 15.00 2.609 98.9 70.8

Sample ID	1607747-003AMSD	SampTyp	e: ms	d	Test	tCode: El	PA Method	300.0: Anion	5			
Client ID:	BatchQC	Batch ID	: 26	529	R	unNo: 3	5903					
Prep Date:	7/21/2016	Analysis Date	: 7/	21/2016	S	eqNo: 1	111514	Units: mg/K	g			
Analyte		Result F	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride		18	1.5	15.00	2.609	100	70.8	119	0.939	20		

Hall Environmental Analysis Laboratory, Inc.

Client: Rule Engineering LLC **Project:** San Juan 28-7 217

Sample ID MB-26572	SampType: MBLK	TestCode: EPA Method	418.1: TPH	
Client ID: PBS	Batch ID: 26572	RunNo: 35993		
Prep Date: 7/25/2016	Analysis Date: 7/26/2016	SeqNo: 1114334	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Petroleum Hydrocarbons, TR	ND 20			
Sample ID LCS-26572	SampType: LCS	TestCode: EPA Method	418.1: TPH	
Client ID: LCSS	Batch ID: 26572	RunNo: 35993		
Prep Date: 7/25/2016	Analysis Date: 7/26/2016	SeqNo: 1114335	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Petroleum Hydrocarbons, TR	110 20 100.0	0 106 80.7	121	
Sample ID LCSD-26572	SampType: LCSD	TestCode: EPA Method	418.1: TPH	
Client ID: LCSS02	Batch ID: 26572	RunNo: 35993		
Prep Date: 7/25/2016	Analysis Date: 7/26/2016	SeqNo: 1114336	Units: mg/Kg	
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD	RPDLimit Qual
Petroleum Hydrocarbons, TR	110 20 100.0	0 111 80.7	121 5.36	20

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- Sample Diluted Due to Matrix D
- Η 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
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL **Reporting Detection Limit**
- W Sample container temperature is out of limit as specified

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WO#: 1607859

28-Jul-16

Hall Environmental Analysis Laboratory, Inc.

Client: Rule Engineering LLC

Project: San Juan 28-7 217

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Sample ID LCS-26500	Samp	Type: LC	s	Tes	tCode: E	PA Method	8015M/D: D	iesel Rang	e Organics	
Client ID: LCSS	Batc	h ID: 26	500	F	RunNo: 3	5868				
Prep Date: 7/20/2016	Analysis [Date: 7/	21/2016	5	SeqNo: 1	111810	Units: mg/l	Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
I Range Organics (DRO)	49	10	50.00	0	98.1	62.6	124			
Surr: DNOP	5.3		5.000		106	70	130			
Sample ID MB-26500	Samp	Гуре: МВ	BLK	Tes	tCode: E	PA Method	8015M/D: D	iesel Rang	e Organics	
Client ID: PBS	Batc	h ID: 26	500	F	RunNo: 3	5868				
Prep Date: 7/20/2016	Analysis [Date: 7/	21/2016	5	SeqNo: 1	111811	Units: mg/l	Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Surr: DNOP	9.5		10.00		94.8	70	130			
Sample ID 1607862-001AMS	Samp	Гуре: М	3	Tes	tCode: E	PA Method	8015M/D: Di	iesel Rang	e Organics	
Sample ID 1607862-001AMS Client ID: BatchQC	Samp	Гуре: М h ID: 26	S 500	Tes	tCode: E RunNo: 3	PA Method	8015M/D: Di	iesel Rang	e Organics	
Sample ID 1607862-001AMS Client ID: BatchQC Prep Date: 7/20/2016	Samp Batc Analysis I	Гуре: М h ID: 26 Date: 7/	5 500 22/2016	Tes F	tCode: E RunNo: 3 SeqNo: 1	PA Method 5915 112521	8015M/D: Di Units: mg/l	iesel Rang Kg	e Organics	
Sample ID 1607862-001AMS Client ID: BatchQC Prep Date: 7/20/2016 Analyte	Samp Batc Analysis I Result	Гуре: М h ID: 26 Date: 7 / PQL	5 500 122/2016 SPK value	Tes F S SPK Ref Val	tCode: E RunNo: 3 SeqNo: 1 %REC	PA Method 5915 112521 LowLimit	8015M/D: Di Units: mg/l HighLimit	iesel Rang Kg %RPD	e Organics RPDLimit	Qual
Sample ID 1607862-001AMS Client ID: BatchQC Prep Date: 7/20/2016 Analyte I Range Organics (DRO)	Samp Batc Analysis E Result 65	Type: MS h ID: 26 Date: 7 / PQL 9.3	5 500 22/2016 SPK value 46.43	Tes F S SPK Ref Val 27.38	tCode: E RunNo: 3 SeqNo: 1 %REC 80.9	PA Method 5915 112521 LowLimit 33.9	8015M/D: Di Units: mg/l HighLimit 141	iesel Rang Kg %RPD	e Organics RPDLimit	Qual
Sample ID 1607862-001AMS Client ID: BatchQC Prep Date: 7/20/2016 Analyte I Range Organics (DRO) Surr: DNOP	Samp ¹ Batc Analysis I Result 65 4.8	Гуре: М h ID: 26 Date: 7 / PQL 9.3	500 22/2016 SPK value 46.43 4.643	Tes F SPK Ref Val 27.38	tCode: E RunNo: 3 SeqNo: 1 %REC 80.9 104	PA Method 5915 112521 LowLimit 33.9 70	8015M/D: Di Units: mg/l HighLimit 141 130	iesel Rang Kg %RPD	e Organics RPDLimit	Qual
Sample ID 1607862-001AMS Client ID: BatchQC Prep Date: 7/20/2016 Analyte I Range Organics (DRO) Surr: DNOP Sample ID 1607862-001AMS	Samp [¬] Batc Analysis [<u>Result</u> 65 4.8 D Samp [¬]	Гуре: М h ID: 26 Date: 7 / PQL 9.3 Гуре: М	5 500 (22/2016 SPK value 46.43 4.643 SD	Tes F SPK Ref Val 27.38 Tes	tCode: E RunNo: 3 SeqNo: 1 %REC 80.9 104 tCode: E	PA Method 5915 112521 LowLimit 33.9 70 PA Method	8015M/D: Di Units: mg/l HighLimit 141 130 8015M/D: Di	Kg %RPD	e Organics RPDLimit	Qual
Sample ID 1607862-001AMS Client ID: BatchQC Prep Date: 7/20/2016 Analyte I Range Organics (DRO) Surr: DNOP Sample ID 1607862-001AMS Client ID: BatchQC	Samp [¬] Batcl Analysis I Result 65 4.8 D Samp [¬] Batcl	Fype: M h ID: 26 Date: 7 / PQL 9.3 Fype: M h ID: 26	5 500 22/2016 SPK value 46.43 4.643 5D 500	Tes F SPK Ref Val 27.38 Tes F	tCode: E RunNo: 3 SeqNo: 1 %REC 80.9 104 tCode: E RunNo: 3	PA Method 5915 112521 LowLimit 33.9 70 PA Method 5915	8015M/D: Di Units: mg/l HighLimit 141 130 8015M/D: Di	Kg %RPD	e Organics RPDLimit	Qual
Sample ID 1607862-001AMS Client ID: BatchQC Prep Date: 7/20/2016 Analyte I Range Organics (DRO) Surr: DNOP Sample ID 1607862-001AMS Client ID: BatchQC Prep Date: 7/20/2016	Samp [¬] Batc Analysis [Result 65 4.8 D Samp [¬] Batc Analysis [Type: MS h ID: 26 Date: 7/ 9.3 Type: MS h ID: 26 Date: 7/	5 500 (22/2016 SPK value 46.43 4.643 5D 500 (22/2016	Tes SPK Ref Val 27.38 Tes F	tCode: E RunNo: 3 SeqNo: 1 %REC 80.9 104 tCode: E RunNo: 3 SeqNo: 1	PA Method 5915 112521 LowLimit 33.9 70 PA Method 5915 112522	8015M/D: Di Units: mg/l HighLimit 141 130 8015M/D: Di Units: mg/l	Kg %RPD Wesel Rang	e Organics RPDLimit	Qual
Sample ID 1607862-001AMS Client ID: BatchQC Prep Date: 7/20/2016 Analyte I Range Organics (DRO) Surr: DNOP Sample ID 1607862-001AMS Client ID: BatchQC Prep Date: 7/20/2016 Analyte	Samp [¬] Batcl Analysis I Result 65 4.8 D Samp [¬] Batcl Analysis I Result	Type: MS h ID: 26 Date: 7/ PQL 9.3 Type: MS h ID: 26 Date: 7/ PQL	5 500 22/2016 SPK value 46.43 4.643 500 500 22/2016 SPK value	Tes F SPK Ref Val 27.38 Tes F SPK Ref Val	tCode: E RunNo: 3 SeqNo: 1 %REC 80.9 104 tCode: E RunNo: 3 SeqNo: 1 %REC	PA Method 5915 112521 LowLimit 33.9 70 PA Method 5915 112522 LowLimit	8015M/D: Di Units: mg/l HighLimit 141 130 8015M/D: Di Units: mg/l HighLimit	kesel Rang %RPD kesel Rang %RPD	e Organics RPDLimit e Organics	Qual
Sample ID 1607862-001AMS Client ID: BatchQC Prep Date: 7/20/2016 Analyte I Range Organics (DRO) Surr: DNOP Sample ID 1607862-001AMS Client ID: BatchQC Prep Date: 7/20/2016 Analyte I Range Organics (DRO)	Samp ^T Batc Analysis E Result 65 4.8 D Samp ^T Batc Analysis E Result 65	Fype: MS h ID: 26 Date: 7/ 9.3 Fype: MS h ID: 26 Date: 7/ PQL 9.8	5 500 22/2016 22/2016 46.43 4.643 4.643 500 500 22/2016 SPK value 48.78	Tes SPK Ref Val 27.38 Tes F SPK Ref Val 27.38	tCode: E RunNo: 3 SeqNo: 1 %REC 80.9 104 tCode: E RunNo: 3 SeqNo: 1 %REC 77.0	PA Method 5915 112521 LowLimit 33.9 70 PA Method 5915 112522 LowLimit 33.9	8015M/D: Di Units: mg/l HighLimit 141 130 8015M/D: Di Units: mg/l HighLimit 141	kesel Rang %RPD kesel Rang %RPD 0.0345	e Organics RPDLimit e Organics RPDLimit 20	Qual

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

1607859

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Client: Rule En Project: San Jua	gineering Ll n 28-7 217	LC							
Sample ID MB-26468	SampT	ype: ME	BLK	Test	tCode: El	PA Method	8015D: Gaso	line Rang	e
Client ID: PBS	Batch	ID: 26	468	R	RunNo: 3	5833			
Prep Date: 7/19/2016	Analysis D	ate: 7/	20/2016	S	SeqNo: 1	109484	Units: mg/K	(g	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit
Gasoline Range Organics (GRO)	ND	5.0							
Surr: BFB	1000		1000		102	80	120		

Sasoline Rang Surr: BFB	ge Organics (GRO)	ND 1000	5.0	1000		102	80	120			
Sample ID	LCS-26468	SampT	ype: LC	s	Tes	tCode: E	PA Method	8015D: Gas	oline Rang	e	
Client ID:	LCSS	Batch	n ID: 26	468	R	RunNo: 3	5833				
Prep Date:	7/19/2016	Analysis D	ate: 7/	20/2016	S	SeqNo: 1	109485	Units: mg/l	Kg		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	26	5.0	25.00	0	106	80	120			
Surr: BFB		1100		1000		115	80	120			
Sample ID	1607859-001AMS	SamnT	vne MS	3	Test	Code: E	PA Method	8015D. Gas	oline Rang	e	
oumpie ib	loor oor rand	Oumpi	ype. me	,	100		Amethou	00100. 003	onne raang	•	
Client ID:	SC-1	Batch	1 ID: 26	468	R	RunNo: 3	5833	0010D. 003	onno riang		
Client ID: Prep Date:	SC-1 7/19/2016	Batch Analysis D	Date: 7/	468 20/2016	R	RunNo: 3 SeqNo: 1	5833 109488	Units: mg/l	<g< td=""><td>•</td><td></td></g<>	•	
Client ID: Prep Date: Analyte	SC-1 7/19/2016	Batch Analysis D Result	Date: 7/	468 20/2016 SPK value	R SPK Ref Val	RunNo: 3 SeqNo: 1 %REC	5833 109488 LowLimit	Units: mg/l HighLimit	≺g %RPD	RPDLimit	Qual
Client ID: Prep Date: Analyte Gasoline Rang	SC-1 7/19/2016 ge Organics (GRO)	Batch Analysis D Result 23	PQL 4.6	468 20/2016 SPK value 23.23	SPK Ref Val	RunNo: 3 SeqNo: 1 %REC 98.4	5833 109488 LowLimit 59.3	Units: mg/l HighLimit 143	∕g %RPD	RPDLimit	Qual
Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB	SC-1 7/19/2016 ge Organics (GRO)	Batch Analysis D Result 23 1100	Date: 7/ PQL 4.6	468 20/2016 SPK value 23.23 929.4	R SPK Ref Val 0	RunNo: 3 SeqNo: 1 %REC 98.4 114	5833 109488 LowLimit 59.3 80	Units: mg/l HighLimit 143 120	≺g %RPD	RPDLimit	Qual
Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB	SC-1 7/19/2016 pe Organics (GRO) 1607859-001AMSE	Batch Analysis D Result 23 1100 O SampT	Date: 7/ PQL 4.6	468 20/2016 SPK value 23.23 929.4 SD	SPK Ref Val 0 Test	RunNo: 3 SeqNo: 1 %REC 98.4 114	5833 109488 LowLimit 59.3 80 PA Method	Units: mg/l HighLimit 143 120 8015D: Gase	Kg %RPD	RPDLimit	Qual
Client ID: Prep Date: Analyte Gasoline Rang Surr: BFB Sample ID Client ID:	SC-1 7/19/2016 re Organics (GRO) 1607859-001AMSE SC-1	Batch Analysis D Result 23 1100 SampT Batch	PQL 4.6 7/200000 7/20000 7/20000 7/20000000000	468 20/2016 SPK value 23.23 929.4 SD 468	SPK Ref Val 0 Test	RunNo: 3 BeqNo: 1 %REC 98.4 114 tCode: El	5833 109488 LowLimit 59.3 80 PA Method 5833	Units: mg/l HighLimit 143 120 8015D: Gas	Kg %RPD	e	Qual

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Gasoline Range Organics (GRO)	31	4.8	24.20	0	127	59.3	143	29.5	20	R	
Surr: BFB	1100		968.1		117	80	120	0	0		

Qualifiers:

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

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Qual

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QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

U

Client: Project:

Rule Engineering LLC San Juan 28-7 217

the second se										
Sample ID MB-26468	SampType: MBLK TestCode: EPA Method 8021B: Volatiles									
Client ID: PBS	Batc	h ID: 26	468	F	RunNo: 3	5833				
Prep Date: 7/19/2016	Analysis [Date: 7/	20/2016	S	SeqNo: 1	109545	Units: mg/K	g		
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		100	80	120			
Sample ID LCS-26468	Samp	Type: LC	S	Tes	tCode: El	PA Method	8021B: Volat	tiles		
Sample ID LCS-26468 Client ID: LCSS	Samp Batc	Гуре: LC h ID: 26 4	S 468	Tes	tCode: El RunNo: 3	PA Method 5833	8021B: Volat	tiles		
Sample ID LCS-26468 Client ID: LCSS Prep Date: 7/19/2016	Samp Batc Analysis [Гуре: LC h ID: 26 Date: 7/	S 468 20/2016	Tes F	tCode: El RunNo: 3 GeqNo: 1	PA Method 5833 109546	8021B: Volat	tiles		
Sample ID LCS-26468 Client ID: LCSS Prep Date: 7/19/2016 Analyte	Samp Batc Analysis I Result	Type: LC h ID: 264 Date: 7/ PQL	S 468 20/2016 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 3 SeqNo: 1 %REC	PA Method 5833 109546 LowLimit	8021B: Volat Units: mg/K HighLimit	tiles (g %RPD	RPDLimit	Qual
Sample ID LCS-26468 Client ID: LCSS Prep Date: 7/19/2016 Analyte Benzene	Samp Batc Analysis I Result 0.99	Type: LC h ID: 26 Date: 7/ PQL 0.025	S 468 20/2016 SPK value 1.000	Tes F S SPK Ref Val 0	tCode: El RunNo: 3 SeqNo: 1 %REC 98.7	PA Method 5833 109546 LowLimit 75.3	8021B: Volat Units: mg/K HighLimit 123	tiles Sg %RPD	RPDLimit	Qual
Sample ID LCS-26468 Client ID: LCSS Prep Date: 7/19/2016 Analyte Benzene Toluene	Samp Batc Analysis I Result 0.99 0.97	Type: LC h ID: 26 Date: 7/ PQL 0.025 0.050	S 468 20/2016 SPK value 1.000 1.000	Tes F S SPK Ref Val 0 0	tCode: El RunNo: 3 SeqNo: 1 %REC 98.7 96.6	PA Method 5833 109546 LowLimit 75.3 80	8021B: Volat Units: mg/K HighLimit 123 124	iiles g %RPD	RPDLimit	Qual
Sample ID LCS-26468 Client ID: LCSS Prep Date: 7/19/2016 Analyte Benzene Toluene Ethylbenzene	Samp Batc Analysis I Result 0.99 0.97 0.99	Type: LC h ID: 26 Date: 7/ PQL 0.025 0.050 0.050	S 468 20/2016 SPK value 1.000 1.000 1.000	Tes F SPK Ref Val 0 0 0 0	tCode: El RunNo: 3 SeqNo: 1 %REC 98.7 96.6 99.1	PA Method 5833 109546 LowLimit 75.3 80 82.8	8021B: Volat Units: mg/K HighLimit 123 124 121	iiles g %RPD	RPDLimit	Qual
Sample ID LCS-26468 Client ID: LCSS Prep Date: 7/19/2016 Analyte Benzene Toluene Ethylbenzene Xylenes, Total	Samp Batc Analysis I Result 0.99 0.97 0.99 2.9	Type: LC h ID: 26 Date: 7/ PQL 0.025 0.050 0.050 0.10	S 468 20/2016 SPK value 1.000 1.000 3.000	Tes F SPK Ref Val 0 0 0 0 0 0	tCode: El RunNo: 3 SeqNo: 1 %REC 98.7 96.6 99.1 96.9	PA Method 5833 109546 LowLimit 75.3 80 82.8 83.9	8021B: Volat Units: mg/K HighLimit 123 124 121 122	illes (g %RPD	RPDLimit	Qual

Qualifiers:

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- 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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- 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

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HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Analy 19(Albuquen TEL: 505-345-3975 FAX Website: www.hallenvi	sis Laboratory II Hawkins NE næ, NM 87199 565-345-4107 ronmental.com	Sam	ple Log-In Ch	eck List
Client Name: RULE ENGINEERING LL	Work Order Number: 160	7859		ReptNo: 1	1
Received by/date	19/12				10.000 NO. 1
Logged By: Lindsay Mangin 7/1	9/2016 8:45:00 AM	0	puly the go		
Completed By Lindsay Mangin 7/1	9/2016 8:58:25 AM	0	+ Hogo		
Reviewed By	110/16	V	V V		
Chain of Custody	101/10				
1. Custody seals intact on sample bottles?	Ye	s 🗌	No 🗌	Not Present 🗹	
2. Is Chain of Custody complete?	Ye	s 🖌	No 🗌	Not Present	
3. How was the sample delivered?	Co	urier			
Log In					
4. Was an attempt made to cool the samples?	Ye	s 🔽	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)?	Ye	s 🖌	No 🗌		
7. Sufficient sample volume for indicated test(s)?	Ye		No		
8. Are samples (except VOA and ONG) property p	reserved? Ye		No 🗆		
9. Was preservative added to bottles?	Ye	; 🗌	No Y	NA	
10.VOA vials have zero headspace?	Ye	•	No	No VOA Vials 🗹	
11. Were any sample containers received broken?	Ye	s	No 🔽	# of preserved bottles checked	
12. Does paperwork match bottle labels?	Ye		No 🗌	for pH:	
(Note discrepancies on chain of custody)	No. No.		No	Adjusted?	>12 unless not
13. Are matrices correctly identified on Chain of Cus	siccy re:		No 🗌	-) consequencies and adding to consecut on specifi
 14, is a clear what enargies were requisited? 15. Were all holding times able to be met? (If no, notify customer for authorization.) 	Ye		No 🗌	Checked by:	
Special Handling (if applicable) 16. Was client notified of all discrepancies with this	order? Ye		No 🗌	NA 🗹	
Person Notified:	Date				
By Whom:	Via: 📋 el	fail 🗌 Phon	e 📋 Fax	In Person	
Regarding: Client Instructions:					
17. Additional remarks:					
18. <u>Cooler Information</u>	Intert Casi Ma Casi	ata I Di-	med By		
Cooler No Temp C Condition Seal I	ntact Seal No Seal	Jate Sig	Inec By		

С	hain	of-Cu	stody Record	Turn-Around	Time:					н			NV		20	NN	1EF	AT A		
Client	hule	Ennine	verina LLC	Z Standard	C Rush					A	NA	LY	SI	5 L	A	30	RA	TO	RY	1
	1	3		Project Name	:					w	ww.h	allen	viron	men	tal.co	om				
Mailing	Address	201	firment br suile	Sun Jun	. 28-7	# 217		490)1 Ha	awkin	s NE	- AI	buqu	erau	e. N	M 87	109			
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Phone	#: 50-	5 79	3 9486									Ana	lysis	Req	uest	t				
email o	r Fax#:	vaide	canule endincering .com	Project Mana	ger:		~	(AL	6				1							\square
QAVQCI	Package:		ç <u> </u>	11 .	111 .		8021	as ol	A		ũ	2		CB's						
Z Stan	dard		Level 4 (Full Validation)	Heather	- Ubods		A	Ű)	RO		CIN		d.	32 P						
Accredi	AP	C Othe	r	Sampler:	ustin Val	dez	目	TP	10	8.1)	(1.4		H	808		-				Î
	(Type)	0 000		Sample Tem	perature: U		÷.	+	GR	41	0 20	als	Ł	des		VOA				Y oi
-Date-	-Time Date	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL NO.	BTEX + ME	BTEX + MTB	TPH 8015B (TPH (Method	EUB (Methox	RCRA 8 Met	Anions H.Cl	8081 Pesticit	8260B (VOA	8270 (Semi-				Air Bubbles (
9:20	TING	Soil	56-1	4 02 660	Call	- 001	+		+	5			×							
9:45	7/18/2	Soil	51-2	4 andess	Cu	-002	+		Y	+			X							
	4			j	Cac -															
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Date: 7/18/16	Time: 1732	Refinquish	ed by:	Received by:	Tuppe	ta Ilella 1732	Rer	narks Vea	·· Du 7	rect	bi	11 +	• G	ina	0	Ph	illi p	is by:	Lis	9
2/18/14	IPZ1	Im	ist likely	Marie	hat 0	7/19/16 0845	Ap	prov	er: A	A/T	TLU	v	yC19	of	t			14	weet es	Fr
1	f necessary	samples sub	mitted to Hall Environmental may be subc	ontracted to other a	coredited laboratori	cs. This serves as natice of this	s possi	Gility. /	Any su	b-contra	cted da	sta will	be clea	rly not	ated or	n the as	nalytical	repart		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

October 20, 2016

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

RE: San Juan 28-7 217

OrderNo.: 1610738

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 4 sample(s) on 10/15/2016 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 <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analy	tical	Re	port
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Date Reported: 10/20/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Rule Engineering LLC			Client Sampl	e ID: SC	2-1				
Project:	San Juan 28-7 217		Collection Date: 10/14/2016 10:50:00							
Lab ID:	1610738-001	Matrix:	SOIL	Received	Date: 10	/15/2016 1:15:00 PN	1			
Analyses		Result	PQL Q	ual Units	DF	Date Analyzed	Batch			
EPA MET	HOD 8015M/D: DIESEL RAN	GE ORGANIC	S			Analy	/st: TOM			
Diesel Ra	ange Organics (DRO)	ND	9.7	mg/Kg	1	10/19/2016 12:03:02	PM 28128			
Motor Oil	Range Organics (MRO)	ND	48	mg/Kg	1	10/19/2016 12:03:02	PM 28128			
Surr: D	DNOP	92.8	70-130	%Rec	1	10/19/2016 12:03:02	PM 28128			
EPA MET	HOD 8015D: GASOLINE RA	NGE				Analy	st: NSB			
Gasoline	Range Organics (GRO)	ND	4.9	mg/Kg	1	10/18/2016 10:48:29	AM 28094			
Surr: E	BFB	88.6	68.3-144	%Rec	1	10/18/2016 10:48:29	AM 28094			
EPA MET	HOD 8021B: VOLATILES					Analy	st: NSB			
Benzene		ND	0.024	mg/Kg	1	10/18/2016 10:48:29	AM 28094			
Toluene		ND	0.049	mg/Kg	1	10/18/2016 10:48:29	AM 28094			
Ethylben	zene	ND	0.049	mg/Kg	1	10/18/2016 10:48:29	AM 28094			
Xylenes,	Total	ND	0.097	mg/Kg	1	10/18/2016 10:48:29	AM 28094			
Surr: 4	-Bromofluorobenzene	102	80-120	%Rec	1	10/18/2016 10:48:29	AM 28094			

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method	Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	Page 1 of 7
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	Tage TOT /
	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	it as specified

Analytical	Report
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Date Reported: 10/20/2016

Batch

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC Client Sample ID: SC-2 Project: San Juan 28-7 217 Lab ID: 1610738-002 Matrix: SOIL Received Date: 10/15/2016 Analyses Result PQL Qual Units DF Date Analyzed

EPA METHOD 8015M/D: DIESEL RANG		s			Analyst: TOM
Diesel Range Organics (DRO)	ND	9.7	mg/Kg	1	10/19/2016 12:24:47 PM 28128
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	10/19/2016 12:24:47 PM 28128
Surr: DNOP	94.8	70-130	%Rec	1	10/19/2016 12:24:47 PM 28128
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	10/18/2016 12:01:29 PM 28094
Surr: BFB	90.8	68.3-144	%Rec	1	10/18/2016 12:01:29 PM 28094
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.024	mg/Kg	1	10/18/2016 12:01:29 PM 28094
Toluene	ND	0.049	mg/Kg	1	10/18/2016 12:01:29 PM 28094
Ethylbenzene	ND	0.049	mg/Kg	1	10/18/2016 12:01:29 PM 28094
Xylenes, Total	ND	0.097	mg/Kg	1	10/18/2016 12:01:29 PM 28094
Surr: 4-Bromofluorobenzene	105	80-120	%Rec	1	10/18/2016 12:01:29 PM 28094

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method I	Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	Page 2 of 7
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	1 age 2 01 /
	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	t as specified

Analytical l	Report
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Date Reported: 10/20/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Rule Engineering LLC		Client Sample ID: SC-3 Collection Date: 10/14/2016 9:00:00 AM									
Project:	San Juan 28-7 217											
Lab ID:	1610738-003	Matrix:	SOIL	Received I	Date: 10	/15/2016 1:15:00 PM						
Analyses		Result	PQL Q	ual Units	DF	Date Analyzed	Batch					
EPA MET	HOD 8015M/D: DIESEL RAM		6			Analys	st: TOM					
Diesel R	ange Organics (DRO)	ND	9.9	mg/Kg	1	10/19/2016 12:46:27	PM 28128					
Motor Oi	Range Organics (MRO)	ND	50	mg/Kg	1	10/19/2016 12:46:27	PM 28128					
Surr: [DNOP	94.7	70-130	%Rec	1	10/19/2016 12:46:27	PM 28128					
EPA MET	HOD 8015D: GASOLINE RA	NGE				Analys	st: NSB					
Gasoline	Range Organics (GRO)	ND	4.7	mg/Kg	1	10/18/2016 1:16:49 Pl	M 28094					
Surr: E	BFB	90.9	68.3-144	%Rec	1	10/18/2016 1:16:49 Pl	M 28094					
EPA MET	HOD 8021B: VOLATILES					Analys	st: NSB					
Benzene		ND	0.024	mg/Kg	1	10/18/2016 1:16:49 PI	M 28094					
Toluene		ND	0.047	mg/Kg	1	10/18/2016 1:16:49 PI	M 28094					
Ethylben	zene	ND	0.047	mg/Kg	1	10/18/2016 1:16:49 PI	M 28094					
Xylenes,	Total	ND	0.094	mg/Kg	1	10/18/2016 1:16:49 PI	M 28094					
Surr: 4	l-Bromofluorobenzene	105	80-120	%Rec	1	10/18/2016 1:16:49 PI	M 28094					

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	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	Page 3 of 7
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	1 age 5 01 7
	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	it as specified

Analytical Report

Lab Order 1610738

Date Reported: 10/20/2016

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Rule Engineering LLC Project: San Juan 28-7 217

1610738-004

Lab ID:

Client Sample ID: SC-4 Collection Date: 10/14/2016 11:00:00 AM Received Date: 10/15/2016 1:15:00 PM

Analyses	Result	PQL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE		S			Analyst	том
Diesel Range Organics (DRO)	ND	9.9	mg/Kg	1	10/19/2016 1:08:10 PM	28128
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	10/19/2016 1:08:10 PM	28128
Surr: DNOP	96.2	70-130	%Rec	1	10/19/2016 1:08:10 PM	28128
EPA METHOD 8015D: GASOLINE RANG	E				Analyst	NSB
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	10/18/2016 1:40:56 PM	28094
Surr: BFB	94.8	68.3-144	%Rec	1	10/18/2016 1:40:56 PM	28094
EPA METHOD 8021B: VOLATILES					Analyst	NSB
Benzene	ND	0.024	mg/Kg	1	10/18/2016 1:40:56 PM	28094
Toluene	ND	0.048	mg/Kg	1	10/18/2016 1:40:56 PM	28094
Ethylbenzene	ND	0.048	mg/Kg	1	10/18/2016 1:40:56 PM	28094
Xylenes, Total	ND	0.095	mg/Kg	1	10/18/2016 1:40:56 PM	28094
Surr: 4-Bromofluorobenzene	110	80-120	%Rec	1	10/18/2016 1:40:56 PM	28094

Matrix: SOIL

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	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	Page 4 of 7	
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	1 age 4 01 7
	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 lim	it as specified

Hall Environmental Analysis Laboratory, Inc.

Client: Rule Engineering LLC **Project:**

San Juan 28-7 217

Sample ID LCS-28128	SampType: LCS TestCode: EPA Method 8015M/D: Diesel Range Organics									
Client ID: LCSS	Batch ID: 28128 RunNo: 38041									
Prep Date: 10/18/2016	Analysis Da	ate: 10	0/19/2016	S	SeqNo: 1	186160	Units: mg/k	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	10	50.00	0	87.2	62.6	124			
Surr: DNOP	4.3		5.000		85.8	70	130			
0 1 10 100 00100	- T			-						
Sample ID MB-28128	SampTy	/pe: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Sample ID MB-28128 Client ID: PBS	SampTy Batch	/pe: ME	3LK 128	Tes	tCode: El	PA Method 8041	8015M/D: Di	esel Rang	e Organics	
Sample ID MB-28128 Client ID: PBS Prep Date: 10/18/2016	SampTy Batch Analysis Da	/pe: ME ID: 28 ate: 10	3LK 128 0/19/2016	Tes F	tCode: El RunNo: 3 SeqNo: 1	PA Method 8041 186161	8015M/D: Die Units: mg/k	esel Rang (g	e Organics	
Sample ID MB-28128 Client ID: PBS Prep Date: 10/18/2016 Analyte	SampTy Batch Analysis Da Result	/pe: ME ID: 28 ate: 10 PQL	3LK 128 0/19/2016 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 3 SeqNo: 1 %REC	PA Method 8041 186161 LowLimit	8015M/D: Die Units: mg/H HighLimit	esel Rang (g %RPD	e Organics	Qual
Sample ID MB-28128 Client ID: PBS Prep Date: 10/18/2016 Analyte Diesel Range Organics (DRO)	SampTy Batch Analysis Da Result ND	vpe: ME ID: 28 ate: 10 PQL 10	BLK 128 0/19/2016 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 3 SeqNo: 1 %REC	PA Method 8041 186161 LowLimit	8015M/D: Di Units: mg/k HighLimit	esel Rang (g %RPD	e Organics	Qual
Sample ID MB-28128 Client ID: PBS Prep Date: 10/18/2016 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO)	SampTy Batch Analysis Da Result ND ND	/pe: ME ID: 28 ate: 10 PQL 10 50	3LK 128 0/19/2016 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 3 SeqNo: 1 %REC	PA Method 8041 186161 LowLimit	8015M/D: Di Units: mg/k HighLimit	esel Rang (g %RPD	e Organics	Qual

Qualifiers:

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

1610738

WO#:

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20-Oct-16

Hall Environmenta	al Ana	lysis	La	bora	tory,	Inc.
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Client: Rule Engineering LLC **Project:**

San Juan 28-7 217

Sample ID MB-28094	Samp	Гуре: М	BLK	Tes	tCode: E	PA Method	8015D: Gas	oline Rang	е	
Client ID: PBS	Batc	h ID: 28	094	F	RunNo: 3	8022				
Prep Date: 10/17/2016	Analysis E	Date: 1	0/18/2016	5	SeqNo: 1	185899	Units: mg /l	Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	890		1000		88.6	68.3	144			
Sample ID LCS-28094	SampT	Type: LC	s	Tes	tCode: E	PA Method	8015D: Gas	oline Rang	e	
Client ID: LCSS	Batcl	h ID: 28	094	F	RunNo: 3	8022				
Prep Date: 10/17/2016	Analysis D	Date: 10	0/18/2016	5	SeqNo: 1	185900	Units: mg/l	Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	74.6	123			
Curr DED	960		1000		96.2	68.3	144			
Suil. BFB	500					00.0				
Sample ID 1610738-002AMS	SampT	Гуре: М	3	Tes	tCode: El	PA Method	8015D: Gas	oline Rang	e	
Sample ID 1610738-002AMS Client ID: SC-2	SampT	Гуре: М h ID: 28	3 094	Tes	tCode: El RunNo: 3	PA Method 8022	8015D: Gas	oline Rang	e	
Sample ID 1610738-002AMS Client ID: SC-2 Prep Date: 10/17/2016	Samp1 Batcl Analysis D	Type: MS h ID: 28 Date: 10	3 094 0/18/2016	Tes F	tCode: El RunNo: 3 GeqNo: 1	PA Method 8022 185903	8015D: Gas Units: mg/l	oline Rang Kg	e	
Sample ID 1610738-002AMS Client ID: SC-2 Prep Date: 10/17/2016 Analyte	Samp1 Batcl Analysis D Result	Гуре: М h ID: 28 Date: 1 0 PQL	5 094 0/18/2016 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 3 SeqNo: 1 %REC	PA Method 8022 185903 LowLimit	8015D: Gas Units: mg/l HighLimit	oline Rang Kg %RPD	e RPDLimit	Qual
Sample ID 1610738-002AMS Client ID: SC-2 Prep Date: 10/17/2016 Analyte Gasoline Range Organics (GRO)	Samp1 Batcl Analysis D Result 27	Type: MS h ID: 28 Date: 10 PQL 4.8	094 0/18/2016 SPK value 24.18	Tes F S SPK Ref Val 0	tCode: El RunNo: 3 SeqNo: 1 %REC 113	PA Method 8022 185903 LowLimit 61.3	8015D: Gas Units: mg/l HighLimit 150	oline Rang Kg %RPD	e RPDLimit	Qual
Sample ID 1610738-002AMS Client ID: SC-2 Prep Date: 10/17/2016 Analyte Gasoline Range Organics (GRO) Surr: BFB	Sampī Batcl Analysis E Result 27 880	Type: MS h ID: 28 Date: 10 PQL 4.8	3 094 0/18/2016 SPK value 24.18 967.1	Tes F S SPK Ref Val 0	tCode: El RunNo: 3 SeqNo: 1 %REC 113 90.6	PA Method 8022 185903 LowLimit 61.3 68.3	8015D: Gas Units: mg/l HighLimit 150 144	oline Rang Kg %RPD	e RPDLimit	Qual
Sample ID 1610738-002AMS Client ID: SC-2 Prep Date: 10/17/2016 Analyte Gasoline Range Organics (GRO) Surr: BFB	SampT Batcl Analysis E Result 27 880 D SampT	Гуре: М h ID: 28 Date: 10 PQL 4.8	5 094 0/18/2016 SPK value 24.18 967.1	Tes F SPK Ref Val 0 Tes	tCode: El RunNo: 3 SeqNo: 1 %REC 113 90.6 tCode: El	PA Method 8022 185903 LowLimit 61.3 68.3 PA Method	8015D: Gas Units: mg/l HighLimit 150 144 8015D: Gas	oline Rang Kg %RPD oline Rang	e RPDLimit e	Qual
Sample ID 1610738-002AMS Client ID: SC-2 Prep Date: 10/17/2016 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1610738-002AMS Client ID: SC-2	Sampī Batcl Analysis D Result 27 880 D Sampī Batcl	Fype: MS h ID: 28 Date: 10 PQL 4.8 Fype: MS h ID: 28	3 094 0/18/2016 SPK value 24.18 967.1 3D 094	Tes F SPK Ref Val 0 Tes F	tCode: El RunNo: 3 SeqNo: 1 %REC 113 90.6 tCode: El RunNo: 3	PA Method 8022 185903 LowLimit 61.3 68.3 PA Method 8022	8015D: Gas Units: mg/l HighLimit 150 144 8015D: Gas	oline Rang Kg %RPD oline Rang	e RPDLimit e	Qual
Sample ID 1610738-002AMS Client ID: SC-2 Prep Date: 10/17/2016 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1610738-002AMS Client ID: SC-2 Prep Date: 10/17/2016	SampT Batcl Analysis D Result 27 880 D SampT Batcl Analysis D	Type: MS h ID: 28 Date: 10 PQL 4.8 Type: MS h ID: 28 Date: 10	S S S S S S S S S S S S S S	Tes SPK Ref Val 0 Tes S	tCode: El RunNo: 3 SeqNo: 1 %REC 113 90.6 tCode: El RunNo: 3 SeqNo: 1	PA Method 8022 185903 LowLimit 61.3 68.3 PA Method 8022 185905	8015D: Gas Units: mg/l HighLimit 150 144 8015D: Gas Units: mg/l	oline Rang Kg %RPD oline Rang Kg	e RPDLimit e	Qual
Suir. BPB Sample ID 1610738-002AMS Client ID: SC-2 Prep Date: 10/17/2016 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1610738-002AMS Client ID: SC-2 Prep Date: 10/17/2016 Analyte	SampT Batcl Analysis D Result 27 880 D SampT Batcl Analysis D Result	Type: MS h ID: 28 Date: 10 PQL 4.8 Type: MS h ID: 28 Date: 10 PQL	3 094 0/18/2016 SPK value 24.18 967.1 3D 094 0/18/2016 SPK value	Tes F SPK Ref Val 0 Tes F SPK Ref Val	tCode: El RunNo: 3 SeqNo: 1 %REC 113 90.6 tCode: El RunNo: 3 SeqNo: 1 %REC	PA Method 8022 185903 LowLimit 61.3 68.3 PA Method 8022 185905 LowLimit	8015D: Gas Units: mg/l HighLimit 150 144 8015D: Gas Units: mg/l HighLimit	oline Rang Kg %RPD oline Rang Kg %RPD	e RPDLimit e RPDLimit	Qual
Suir. BPB Sample ID 1610738-002AMS Client ID: SC-2 Prep Date: 10/17/2016 Analyte Gasoline Range Organics (GRO) Surr: BFB Sample ID 1610738-002AMS Client ID: SC-2 Prep Date: 10/17/2016 Analyte Gasoline Range Organics (GRO)	SampT Batcl Analysis D Result 27 880 D SampT Batcl Analysis D Result 29	Fype: MS h ID: 28 Date: 10 PQL 4.8 Fype: MS h ID: 28 Date: 10 PQL 4.7	3 3 3 3 3 3 3 3 3 3 3 3 3 3	Tes SPK Ref Val 0 Tes F SPK Ref Val 0	tCode: El RunNo: 3 SeqNo: 1 %REC 113 90.6 tCode: El RunNo: 3 SeqNo: 1 %REC 122	PA Method 8022 185903 LowLimit 61.3 68.3 PA Method 8022 185905 LowLimit 61.3	8015D: Gas Units: mg/l HighLimit 150 144 8015D: Gas Units: mg/l HighLimit 150	oline Rang %g %RPD oline Rang %g %RPD 4.72	e RPDLimit e RPDLimit 20	Qual

Qualifiers:

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

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20-Oct-16

WO#: 1610738

Hall Environmental Analysis Laboratory, Inc.

Client: Rule Engineering LLC **Project:**

San Juan 28-7 217

Sample ID	MB-28094	Samp	Туре: МВ	BLK	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	PBS	Batc	h ID: 28	094	F	RunNo: 3	8022				
Prep Date:	10/17/2016	Analysis [Date: 10	0/18/2016	S	SeqNo: 1	185924	Units: mg/k	(g		
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-Bron	nofluorobenzene	1.0		1.000		102	80	120			
Sample ID	LCS-28094	Samp	Type: LC	S	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batc	h ID: 28	094	F	RunNo: 3	8022				
Prep Date:	10/17/2016	Analysis [Date: 10	0/18/2016	5	SeqNo: 1	185925	Units: mg/k	(g		
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		0.93	0.050	1.000	0	93.3	80.7	112			
Ethylbenzene		0.90	0.050	1.000	0	89.8	78.9	117			
Xylenes, Total		2.8	0.10	3.000	0	94.3	79.2	115			
Surr: 4-Bron	nofluorobenzene	1.0		1.000		102	80	120			
Sample ID	1610738-001AMS	Samp	Гуре: МS	3	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Sample ID Client ID:	1610738-001AMS SC-1	Samp ⁻ Batc	Type: MS h ID: 28	5 094	Tes F	tCode: El	PA Method 8022	8021B: Vola	tiles		
Sample ID Client ID: Prep Date:	1610738-001AMS SC-1 10/17/2016	Samp Batc Analysis [Type: MS h ID: 28 Date: 10	3 094 0/18/2016	Tes F	tCode: El RunNo: 3 SeqNo: 1	PA Method 8022 185929	8021B: Vola Units: mg/H	tiles (g		
Sample ID Client ID: Prep Date: Analyte	1610738-001AMS SC-1 10/17/2016	Samp Batc Analysis [Result	Type: MS h ID: 28 Date: 10 PQL	3 094 0/18/2016 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 3 SeqNo: 1 %REC	PA Method 8022 185929 LowLimit	8021B: Vola Units: mg/k HighLimit	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene	1610738-001AMS SC-1 10/17/2016	Samp Batc Analysis [Result 1.0	Type: MS h ID: 28 Date: 10 PQL 0.023	5 094 0/18/2016 SPK value 0.9311	Tes F S SPK Ref Val 0	tCode: El RunNo: 3 SeqNo: 1 %REC 107	PA Method 8022 185929 LowLimit 71.5	8021B: Vola Units: mg/F HighLimit 122	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene	1610738-001AMS SC-1 10/17/2016	Samp Batc Analysis [Result 1.0 0.98	Type: MS h ID: 28 Date: 10 PQL 0.023 0.047	5 094 0/18/2016 SPK value 0.9311 0.9311	Tes F SPK Ref Val 0 0	tCode: El RunNo: 3 SeqNo: 1 %REC 107 106	PA Method 8022 185929 LowLimit 71.5 71.2	8021B: Vola Units: mg/k HighLimit 122 123	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene	1610738-001AMS SC-1 10/17/2016	Samp Batc Analysis I Result 1.0 0.98 0.97	Type: MS h ID: 28 Date: 10 PQL 0.023 0.047 0.047	5 094 0/18/2016 SPK value 0.9311 0.9311 0.9311	Tes F SPK Ref Val 0 0 0 0	tCode: El RunNo: 3 SeqNo: 1 %REC 107 106 104	PA Method 8022 185929 LowLimit 71.5 71.2 75.2	8021B: Vola Units: mg/H HighLimit 122 123 130	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	1610738-001AMS SC-1 10/17/2016	Samp Batc Analysis I Result 1.0 0.98 0.97 3.0	Type: MS h ID: 28 Date: 10 PQL 0.023 0.047 0.047 0.093	5 094 0/18/2016 SPK value 0.9311 0.9311 0.9311 2.793	Tes F SPK Ref Val 0 0 0 0.02255	tCode: El RunNo: 3 SeqNo: 1 %REC 107 106 104 106	PA Method 8022 185929 LowLimit 71.5 71.2 75.2 72.4	8021B: Vola Units: mg/k HighLimit 122 123 130 131	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron	1610738-001AMS SC-1 10/17/2016	Samp Batc Analysis [Result 1.0 0.98 0.97 3.0 0.95	Type: MS h ID: 28 / Date: 10 <u>PQL</u> 0.023 0.047 0.047 0.093	3 094 0/18/2016 SPK value 0.9311 0.9311 0.9311 2.793 0.9311	Tes F SPK Ref Val 0 0 0 0 0.02255	tCode: El RunNo: 3 SeqNo: 1 %REC 107 106 104 106 102	PA Method 8022 185929 LowLimit 71.5 71.2 75.2 72.4 80	8021B: Vola Units: mg/P HighLimit 122 123 130 131 120	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron	1610738-001AMS SC-1 10/17/2016 nofluorobenzene 1610738-001AMSE	Samp Batc Analysis I Result 1.0 0.98 0.97 3.0 0.95 0 Samp	Type: MS h ID: 28 Date: 10 0.023 0.047 0.093	5 094 0/18/2016 SPK value 0.9311 0.9311 0.9311 2.793 0.9311 50	Tes F SPK Ref Val 0 0 0 0.02255 Tes	tCode: El RunNo: 3 SeqNo: 1 %REC 107 106 104 106 102 tCode: El	PA Method 8022 185929 LowLimit 71.5 71.2 75.2 72.4 80 PA Method	8021B: Vola Units: mg/F HighLimit 122 123 130 131 120 8021B: Vola	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID Client ID:	1610738-001AMS SC-1 10/17/2016 nofluorobenzene 1610738-001AMSE SC-1	Samp Batc Analysis I Result 1.0 0.98 0.97 3.0 0.95 Samp Batc	Type: MS h ID: 28 / Date: 10 PQL 0.023 0.047 0.093 Type: MS h ID: 28 /	3 094 0/18/2016 SPK value 0.9311 0.9311 0.9311 2.793 0.9311 5D 094	Tes F SPK Ref Val 0 0 0 0.02255 Tes F	tCode: El RunNo: 3 SeqNo: 1 %REC 107 106 104 106 102 tCode: El RunNo: 3	PA Method 8022 185929 LowLimit 71.5 71.2 75.2 72.4 80 PA Method 8022	8021B: Vola Units: mg/P HighLimit 122 123 130 131 120 8021B: Vola	tiles (g %RPD tiles	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID Client ID: Prep Date:	1610738-001AMS SC-1 10/17/2016 nofluorobenzene 1610738-001AMSE SC-1 10/17/2016	Samp Batc Analysis I Result 1.0 0.98 0.97 3.0 0.95 0 Samp Batc Analysis I	Type: MS h ID: 28 Date: 10 PQL 0.023 0.047 0.047 0.047 0.093 Type: MS h ID: 28 Date: 10	3 094 0/18/2016 SPK value 0.9311 0.9311 0.9311 2.793 0.9311 5D 094 0/18/2016	Tes F SPK Ref Val 0 0 0 0 0.02255 Tes F S	tCode: EI RunNo: 3 SeqNo: 1 %REC 107 106 104 106 104 106 102 tCode: EI RunNo: 3 SeqNo: 1	PA Method 8022 185929 LowLimit 71.5 71.2 75.2 72.4 80 PA Method 8022 185931	8021B: Vola Units: mg/k HighLimit 122 123 130 131 120 8021B: Vola Units: mg/k	tiles (g %RPD tiles	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID Client ID: Prep Date: Analyte	1610738-001AMS SC-1 10/17/2016 nofluorobenzene 1610738-001AMSE SC-1 10/17/2016	Samp Batc Analysis [Result 1.0 0.98 0.97 3.0 0.95 0.95 0.95 0.95 Batc Analysis [Result	Type: MS h ID: 28/ Date: 10 PQL 0.023 0.047 0.093 Type: MS h ID: 28/ Date: 10 PQL	3 094 0/18/2016 SPK value 0.9311 0.9311 0.9311 2.793 0.9311 30 0.9311 50 094 0/18/2016 SPK value	Tes F SPK Ref Val 0 0 0 0.02255 Tes F SPK Ref Val	tCode: EI RunNo: 3 SeqNo: 1 %REC 107 106 104 106 102 tCode: EI RunNo: 3 SeqNo: 1 %REC	PA Method 8022 185929 LowLimit 71.5 71.2 75.2 72.4 80 PA Method 8022 185931 LowLimit	8021B: Vola Units: mg/F HighLimit 122 123 130 131 120 8021B: Vola Units: mg/F HighLimit	tiles (g %RPD tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Sample ID Client ID: Prep Date: Analyte Benzene	1610738-001AMS SC-1 10/17/2016 nofluorobenzene 1610738-001AMSE SC-1 10/17/2016	Samp Batc Analysis I Result 1.0 0.98 0.97 3.0 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.	Type: MS h ID: 28/ Date: 10 PQL 0.023 0.047 0.047 0.093 Type: MS h ID: 28/ Date: 10 PQL 0.025	3 094 0/18/2016 SPK value 0.9311 0.9311 0.9311 2.793 0.9311 30 094 0/18/2016 SPK value 0.9823	Tes F SPK Ref Val 0 0 0 0 0.02255 Tes F SPK Ref Val 0	tCode: El RunNo: 3 SeqNo: 1 %REC 107 106 104 106 102 tCode: El RunNo: 3 SeqNo: 1 %REC 105	PA Method 8022 185929 LowLimit 71.5 71.2 75.2 72.4 80 PA Method 8022 185931 LowLimit 71.5	8021B: Vola Units: mg/k HighLimit 122 123 130 131 120 8021B: Vola Units: mg/k HighLimit 122	tiles (g %RPD tiles (g %RPD 3.96	RPDLimit RPDLimit 20	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Client ID: Prep Date: Analyte Benzene Toluene	1610738-001AMS SC-1 10/17/2016 nofluorobenzene 1610738-001AMSE SC-1 10/17/2016	Samp Batc Analysis I Result 1.0 0.98 0.97 3.0 0.95 0.95 0.95 0.95 Batc Analysis I Result 1.0 1.0	Type: MS h ID: 28/ Date: 10 PQL 0.023 0.047 0.047 0.093 Type: MS h ID: 28/ Date: 10 PQL 0.025 0.049	3 094 0/18/2016 SPK value 0.9311 0.9311 0.9311 2.793 0.9311 30 094 0/18/2016 SPK value 0.9823 0.9823 0.9823	Tes F SPK Ref Val 0 0 0 0 0.02255 Tes F SPK Ref Val 0 0	tCode: El RunNo: 3 SeqNo: 1 %REC 107 106 104 106 102 tCode: El RunNo: 3 SeqNo: 1 %REC 105 103	PA Method 8022 185929 LowLimit 71.5 71.2 75.2 72.4 80 PA Method 8022 185931 LowLimit 71.5 71.2	8021B: Vola Units: mg/k HighLimit 122 123 130 131 120 8021B: Vola 8021B: Vola Units: mg/k HighLimit 122 123	tiles (g %RPD tiles (g %RPD 3.96 2.68	RPDLimit RPDLimit 20 20	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene	1610738-001AMS SC-1 10/17/2016 nofluorobenzene 1610738-001AMSE SC-1 10/17/2016	Samp Batc Analysis I Result 1.0 0.98 0.97 3.0 0.95 0 Samp Batc Analysis I Result 1.0 1.0 1.0	Type: MS h ID: 28 Date: 10 PQL 0.023 0.047 0.047 0.093 Type: MS h ID: 28 Date: 10 PQL 0.025 0.049 0.049	3 094 0/18/2016 SPK value 0.9311 0.9311 2.793 0.9311 2.793 0.9311 5D 094 0/18/2016 SPK value 0.9823 0.9823 0.9823	Tes F SPK Ref Val 0 0 0 0 0 0.02255 Tes F SPK Ref Val 0 0 0 0 0	tCode: EI RunNo: 3 SeqNo: 1 %REC 107 106 104 106 104 106 102 tCode: EI RunNo: 3 SeqNo: 1 %REC 105 103 103	PA Method 8022 185929 LowLimit 71.5 71.2 75.2 72.4 80 PA Method 8022 185931 LowLimit 71.5 71.2 75.2	8021B: Vola Units: mg/k HighLimit 122 123 130 131 120 8021B: Vola 8021B: Vola Units: mg/k HighLimit 122 123 130	tiles (g %RPD tiles (g %RPD 3.96 2.68 4.61	RPDLimit RPDLimit 20 20 20 20	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Bron Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	1610738-001AMS SC-1 10/17/2016 nofluorobenzene 1610738-001AMSE SC-1 10/17/2016	Samp Batc Analysis I Result 1.0 0.98 0.97 3.0 0.95 0 Samp Batc Analysis I Result 1.0 1.0 1.0 3.2	Type: MS h ID: 28 Date: 10 PQL 0.023 0.047 0.047 0.047 0.093 Type: MS h ID: 28 Date: 10 PQL 0.025 0.049 0.049 0.098	3 094 0/18/2016 SPK value 0.9311 0.9311 2.793 0.9311 2.793 0.9311 5D 094 0/18/2016 SPK value 0.9823 0.9823 0.9823 0.9823 2.947	Tes F SPK Ref Val 0 0 0 0 0 0.02255 F SPK Ref Val 0 0 0 0 0 0.02255	tCode: El RunNo: 3 SeqNo: 1 %REC 107 106 104 106 104 106 102 tCode: El RunNo: 3 SeqNo: 1 %REC 105 103 103 103 107	PA Method 8022 185929 LowLimit 71.5 71.2 75.2 72.4 80 PA Method 8022 185931 LowLimit 71.5 71.2 75.2 75.2 72.4	8021B: Vola Units: mg/k HighLimit 122 123 130 131 120 8021B: Vola 8021B: Vola Units: mg/k HighLimit 122 123 130 131	tiles (g %RPD tiles (g %RPD 3.96 2.68 4.61 5.94	RPDLimit RPDLimit 20 20 20 20 20	Qual

Qualifiers:

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

Page 7 of 7

20-Oct-16

WO#: 1610738

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental Albu Albu TEL: 505-345-3975 Website: www.hal	Analysis 4901 I querque FAX: 50 lenviron	Laboratory Hawkins NE , NM 87105 15-345-4107 amental.com	Sam	ple Log-In Cł	neck List
Client Name: RULE ENGINEERING LL	Work Order Number:	161073	38		RcptNo:	1
Received by/date:	10/15/16 10/15/2016 1:15:00 PM			time hay Hogings		
Completed By: Indexy Mangin	10/15/2016 2:16:49 PM		V	timber Allow		
Reviewed By: TC 10/17/16	10/10/2010 2.10.431 1		0	911000		
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?		<u>Courie</u>	er			
Log In						
4. Was an attempt made to cool the samples?		Yes		No 🗌		
5. Were all samples received at a temperature	of >0° C to 6.0°C	Yes		No 🗌		
6. Sample(s) in proper container(s)?		Yes		No 🗌		
7, Sufficient sample volume for indicated test(s	3)?	Yes		No 🗌		
8. Are samples (except VOA and ONG) proper	ly 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 broke	en?	Yes		No 🛃	# of processed	
12.Does paperwork match bottle labels?		Yes		No 🗌	bottles checked for pH:	>12 unless noted)
13 Are matrices correctly identified on Chain of	Custody?	Yes		No 🗌	Adjusted?	
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 🗔	Checked by:	
Special Handling (if applicable)						
16. Was client notified of all discrepancies with	his order?	Yes		No 🗌	NA 🖈	
Person Notified:	Date:				8.8 B. E	
By Whom:	Via:	eMai	Phon	e 🗌 Fax	In Person	
Regarding:						
Client Instructions:	EAR AFTACARTING AND AND AN AN AN AN AND AN AN AND AN AND AN AND AND					
17. Additional remarks:	* * * ** ******************************					
18. <u>Cooler Information</u>	al Intact Seal No. 9	eal Det		ned By	I	
1 4.4 Good Yes	B B B B B B B B B B B B B B B B B B B	Jul Del	o oig	ind by		
Бараличин нарагин баналан нарагин баналан балан. 	na i stan mata kana sa kata sa			· · · · · · · · · · ·	et da artenna dt e e	• • •

C	hain	-of-C	ustody Record	Turn-Around	Time:					ы				J	ТР	20		AF	МТ		
ient:	hale	Enginee	ring, LLC	Ø Standard Project Name	C Rush	ı				A	N/	AL'	YS	IS	5 L	AE	30	RA	ТС	R	r
ailing	Address	501 Ai	1004 Dr. Suile 207 87401	Project #:	Juan 28-7	# 217		49 T€	01 H el. 50	v awkir 5-34	www ns N 5-39	Lhalle E - 75	envii Albu Fa	ronn uque ax {	nent erque 505-	al.co e, NI 345-	om VI 87 4107	109 7			
none	#: 50	5 70	13 9486									Ar	naly	sis	Req	uest					
nail o √QC	r Fax#:) Package:	laldez@	culerngineening. Lom	Project Mana	iger:		8021)	as only)	/ MRO)			(S)		04,SO4)	CB's						
-Star	Idard		Level 4 (Full Validation)	Heather	Woods		- FR	1 (G	RO			SIS		2,P(32 P						
cred NEL	itation AP	□ Oth	er	Sampler:) On Ice:	Ves Vald	62. 	世	+ TPI-	RO / D	.18.1)	04.1)	8270		03,NO	s / 808		(A)				or N)
EDD	(Type)			Sample Tenr	perature: \mathcal{U}_{i}	¥	麗	BE	D)	od 4	po	0 0	etals	Ž,	cide	(A	2-1				Z
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		BTEX + A	BTEX + M1	TPH 8015E	TPH (Meth	EDB (Meth	PAH's (831	RCRA 8 M	Anions (F,C	8081 Pestic	8260B (VO	8270 (Sem				Air Bubbles
114	1050		56-1	MOZ Glass	Cold	-001	+		+												
410	1055		56-2			-002	+		+												
4/16	900		56-3			-003	+		+												
4/14	1100		56-4			-004	+		+			+									
																			_	_	
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ate: 4[[6	Time:	Relinquis	hed by: Jallen	Received by:	Valle	Date Time	Rei	mark	s:	incut	- 6	ill	f		Con	1.000	Phi	llipe	 5		
ate:	Time:	Relinquis	the Walter	Received Dx:	A_{iolis}	Date Time 5/1/2/3/5	AP	o:2 prove	50F	1110 641	7 TLI Eru	w in 1	Ny	cko	ff	C	L L	red	by: Hur	ider	
	If necessary,	samples su	bmitted to Hail Environmental may be sub	contracted to other a	ccredited laborator	ries. This serves as notice of the	s poss	ibility.	Any s	ub-cont	racted	data v	vill be	clear	ly nota	ated or	n the a	nalytica	al repor	t.	

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

October 18, 2016

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

RE: San Juan 28-7 217

OrderNo.: 1610737

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 1 sample(s) on 10/15/2016 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 <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical	Report
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Date Reported: 10/18/2016

Hall Environmental Analysis Laboratory, Inc.

Analyses		Result	PQL	Qual	Units	DF Date Analyzed	Batch
Lab ID:	1610737-001	Matrix:	MEOH (Se	OIL)	Received	Date: 10/15/2016 1:15:00 PM	
Project:	San Juan 28-7 217				Collection	Date: 10/14/2016 1:50:00 PM	
CLIENT:	Rule Engineering LLC			0	lient Sam	ple ID: SC-5	

EPA METHOD 8015M/D: DIESEL RANGE	ORGANIC	S				Analyst: TOM
Diesel Range Organics (DRO)	1800	50		mg/Kg	5	10/17/2016 2:45:02 PM 28084
Motor Oil Range Organics (MRO)	400	250		mg/Kg	5	10/17/2016 2:45:02 PM 28084
Surr: DNOP	73.0	70-130		%Rec	5	10/17/2016 2:45:02 PM 28084
EPA METHOD 8015D: GASOLINE RANGE	=					Analyst: NSB
Gasoline Range Organics (GRO)	280	17		mg/Kg	5	10/17/2016 10:50:17 AM 28066
Surr: BFB	351	68.3-144	S	%Rec	5	10/17/2016 10:50:17 AM 28066
EPA METHOD 8021B: VOLATILES						Analyst: NSB
Benzene	ND	0.087		mg/Kg	5	10/17/2016 10:50:17 AM 28066
Toluene	0.22	0.17		mg/Kg	5	10/17/2016 10:50:17 AM 28066
Ethylbenzene	1.0	0.17		mg/Kg	5	10/17/2016 10:50:17 AM 28066
Xylenes, Total	9.5	0.35		mg/Kg	5	10/17/2016 10:50:17 AM 28066
Surr: 4-Bromofluorobenzene	126	80-120	S	%Rec	5	10/17/2016 10:50:17 AM 28066

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank	ĸ
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	Η	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page	relof 4
	ND	Not Detected at the Reporting Limit	Р	Sample pH Not In Range	ge I OI 4
	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 s	specified

Hall Environmental Analysis Laboratory	, Inc.
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Client: Rule Engineering LLC **Project:**

San Juan 28-7 217

Sample ID LCS-28084	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 28084	RunNo: 37981	
Prep Date: 10/17/2016	Analysis Date: 10/17/2016	SeqNo: 1183848	Units: mg/Kg
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Diesel Range Organics (DRO)	50 10 50.00	0 100 62.6	124
Surr: DNOP	4.6 5.000	91.8 70	130
Sample ID MB-28084	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 28084	RunNo: 37981	
Prep Date: 10/17/2016	Analysis Date: 10/17/2016	SeqNo: 1183849	Units: mg/Kg
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	9.9 10.00	98.8 70	130
Sample ID LCS-28085	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: LCSS	Batch ID: 28085	RunNo: 37982	
Prep Date: 10/17/2016	Analysis Date: 10/17/2016	SeqNo: 1183862	Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Surr: DNOP	4.7 5.000	94.5 70	130
Sample ID MB-28085	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 28085	RunNo: 37982	
Prep Date: 10/17/2016	Analysis Date: 10/17/2016	SeqNo: 1183863	Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Surr: DNOP	8.9 10.00	89.5 70	130
Sample ID MB-28076	SampType: MBLK	TestCode: EPA Method	8015M/D: Diesel Range Organics
Client ID: PBS	Batch ID: 28076	RunNo: 37981	
Prep Date: 10/14/2016	Analysis Date: 10/17/2016	SeqNo: 1184449	Units: %Rec
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual
Sur DNOP	8.6 10.00	85.7 70	130

Qualifiers:

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

Page 2 of 4

WO#: 1610737

18-Oct-16

Hall Environmental Analysis Laboratory, Inc.

Rule Engineering LLC **Client:** San Juan 28-7 217 **Project:**

Sample ID MB-28066	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID: PBS	Batcl	h ID: 28	066	RunNo: 37988						
Prep Date: 10/14/2016	Analysis D	Date: 10	0/17/2016	SeqNo: 1184548 Units: mg/Kg				g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO) Surr: BFB	ND 810	5.0	1000		81.3	68.3	144			
Sample ID LCS-28066	SampT	ype: LC	S	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Sample ID LCS-28066 Client ID: LCSS	Samp1 Batcl	ype: LC	S 066	Tes	tCode: El RunNo: 3	PA Method 7988	8015D: Gaso	line Rang	e	
Sample ID LCS-28066 Client ID: LCSS Prep Date: 10/14/2016	SampT Batcl Analysis D	ype: LC n ID: 28 Date: 10	S 066 0/17/2016	Tes F	tCode: El RunNo: 3 SeqNo: 1	PA Method 7988 184549	8015D: Gaso Units: mg/M	oline Rang	e	
Sample ID LCS-28066 Client ID: LCSS Prep Date: 10/14/2016 Analyte	SampT Batcl Analysis D Result	Type: LC n ID: 28 Date: 10 PQL	S 066 0/17/2016 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 3 SeqNo: 1 %REC	PA Method 7988 184549 LowLimit	8015D: Gaso Units: mg/k HighLimit	line Rang (g %RPD	e RPDLimit	Qual
Sample ID LCS-28066 Client ID: LCSS Prep Date: 10/14/2016 Analyte Gasoline Range Organics (GRO)	SampT Batcl Analysis D Result 26	ype: LC n ID: 28 Date: 10 PQL 5.0	S 066 0/17/2016 SPK value 25.00	Tes F S SPK Ref Val 0	tCode: El RunNo: 3 SeqNo: 1 %REC 103	PA Method 7988 184549 LowLimit 74.6	8015D: Gaso Units: mg/M HighLimit 123	Sine Rang	e RPDLimit	Qual

Qualifiers:

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

1610737

WO#:

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18-Oct-16

Hall Environmental Analysis Laboratory, Inc.

Client: Project: Rule Engineering LLC San Juan 28-7 217

Sample ID MB-28066	Samp	Гуре: МЕ	BLK	TestCode: EPA Method 8021B: Volatiles						
Client ID: PBS	Batc	h ID: 28	066	RunNo: 37988						
Prep Date: 10/14/2016	Analysis E	Date: 10	0/17/2016	S	SeqNo: 1	184561	Units: mg/K	g		
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-28066	Samp	Type: LC	S	Tes	tCode: E	PA Method	8021B: Volat	tiles		
Client ID: LCSS	Batc	h ID 28	220	F	unNo: 3	7988				
Client ID. LCCS	Date	1110. 20	000	1.	unito. J	7500				
Prep Date: 10/14/2016	Analysis D	Date: 10)/17/2016	S	SeqNo: 1	184562	Units: mg/K	g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	92.6	75.2	115			
Toluene	0.96	0.050	1.000	0	96.1	80.7	112			
Ethylbenzene	0.99	0.050	1.000	0	98.6	78.9	117			
Xylenes, Total	2.9	0.10	3.000	0	97.9	79.2	115			

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

WO#: 1610737 18-Oct-16

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Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environmental A Albu TEL: 505-345-3975 I Website: www.hal	Analysi 4901 querqu FAX: 5 lenviro	s Laborau Hawkins e, NM 87 05-345-4 nmental.c	NE 105 Sam 107 com	ole Log-In C	heck List
Client Name: RULE ENGINEERING LL	Work Order Number:	16107	37		RcptNo:	1
Received by/date:	10/15/16					1
Logged By: Lindsay Mangin	10/15/2016 1:15:00 PM			Andytherpo		
Completed By: Lindsay Mangin	10/15/2016 2:14:49 PM			Analy Henry		
Reviewed By: AT 10/ 17115						
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?		Cour	ier			
logh						
A Was as attempt made to easily the complexity		Vee		No 🗌		
4. Was an attempt made to cool the samples	ſ	res				
5. Were all samples received at a temperature	e of >0° C to 6.0°C	Yes		No 🗌		
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) prope	rly 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 brok	en?	Yes		No 🛃		
12.Does paperwork match bottle labels?		Yes		No 🗆	# of preserved bottles checked for pH:	
(Note discrepancies on chain of custody)	Custodu?	Vac		No 🗌	Adjusted?	or >12 unless hoted)
13. Are matrices correctly identified on Chain of 14. Is it clear what analyses were requested?	Custody?	Yes				
15. Were all holding times able to be met? (If no, notify customer for authorization.)		Yes		No 🗆	Checked by:	· · · · · · · · · · · · · · · · · · ·
Special Handling (if applicable)						
16. Was client notified of all discrepancies with	this order?	Yes		No 🗌	NA 🛃	
Person Notified:	Date:	10.07.01 LVC 8.07.01		WATATH BEAM MUMMER OF STATIST		
By Whom:	Via:	eMa	uil 🗌 P	hone 🗌 Fax	In Person	
Regarding:						
Client Instructions:						
17. Additional remarks:						
18. <u>Cooler Information</u> Cooler No Temp ^o C Condition S	eal Intact Seal No S	eal D	ate	Signed By		
1 4.4 Good Ye	S		-			

A REAL PROPERTY OF A REAL PROPER

С	hain	of-Cu	stody Record	Turn-Around	Time:	(F	IA	LL	EI	NV	IF	20	NM	1EP	AT/	NL	
Client:	Lule F	Enviren	My, LLC	□ Standard	Rush	Sam	Day				A	N	AL	YS	SIS	5 L	AE	30	RA'	го	RY	r
		7	5	Project Name	:	I.						wwv	v.hall	lenv	ironr	nent	tal.co	m				
Mailing	Address	:501 A	inport or Suite	Gan Ju	an 28-7	#21	7		490	01 H	awki	ins N	IE -	Alb	uque	erqu	e, N	M 87	109			
205	E. M	. \um 4	IM GTUDI	Project #:				1	Te	el. 50)5-34	15-39	975	F	ax	505-	345-	4107	,			
Phone	# 505	J-nz	GU AC -										А	naly	rsis	Req	uest	t				
email o	r Fax#: 10	alde 7 De	HE PALLOPERING (Om	Project Mana	ger:				(<u>y</u>	Ô					(4)					T	Τ	
QA/QC	Package:	AUCOUNT	all register ing of the	1.,	0			021	uo s	MR					s,	B's						
É Stan	dard		Level 4 (Full Validation)	Heather	Woods			s (8)	Ga	0			WIN		PO	PC						
Accredi	tation			Sampler:	stick Uplder			團	H	E	÷	-	20 S		102,	082						-
D NEL	AP	□ Othe	r	On Ice:	Z Yes	Q No	Leg and the	₩ (F +	0	18.	04.	827		0 ³ , N	\$/8		(A				or N
	(Type)			Sample Ten	perature: 4	4		一品	H	Ð	d 4	od 5	0 or	tals	I'NC	ide	F	2				E
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type		k No. 7377	BTEX + INF	BTEX + MT	TPH 8015B	TPH (Metho	EDB (Metho	PAH's (831	RCRA 8 Me	Anions (F,C	3081 Pestic	3260B (VO)	8270 (Semi				Air Bubbles
Interle.	1350	Soil	51-5	Unz Ciler	144	- (NI.	×	-	+										+		Ħ
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	f necessary	samples sub	mitted to Hall Environmental may be sub	contracted to other a	ccredited laboratori	les. This serve	s as notice of th	is poss	ibility.	Any s	ub-con	tracte	d data	will be	e clear	rly not	ated o	n the ar	nalytical	report.		

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

October 26, 2016

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

RE: San Juan 28-7 #217

OrderNo.: 1610B31

Dear Heather Woods:

Hall Environmental Analysis Laboratory received 1 sample(s) on 10/22/2016 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 <u>www.hallenvironmental.com</u> or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

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

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report
Lab Order 1610B31

Date Reported: 10/26/2016

Hall Environmental Analysis Laboratory, Inc.

Analyses		Result	PQL	Qual	Units	DF	Date Analyzed	Batch
Lab ID:	1610B31-001	Matrix:	SOIL		Received	Date: 10	/22/2016 8:20:00 AM	[
Project:	San Juan 28-7 #217				Collection	Date: 10	/21/2016 10:20:00 AM	Ν
CLIENT:	Rule Engineering LLC			C	lient Samp	le ID: SC	2-6	

EPA METHOD 8015M/D: DIESEL RANGE	ORGANIC	S			Analyst: TOM
Diesel Range Organics (DRO)	ND	10	mg/Kg	1	10/25/2016 12:57:27 PM 28237
Motor Oil Range Organics (MRO)	ND	50	mg/Kg	1	10/25/2016 12:57:27 PM 28237
Surr: DNOP	86.0	70-130	%Rec	1	10/25/2016 12:57:27 PM 28237
EPA METHOD 8015D: GASOLINE RANG	E				Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6	mg/Kg	1	10/25/2016 11:22:27 PM 28236
Surr: BFB	86.6	68.3-144	%Rec	1	10/25/2016 11:22:27 PM 28236
EPA METHOD 8021B: VOLATILES					Analyst: NSB
Benzene	ND	0.046	mg/Kg	1	10/25/2016 11:22:27 PM 28236
Toluene	ND	0.046	mg/Kg	1	10/25/2016 11:22:27 PM 28236
Ethylbenzene	ND	0.046	mg/Kg	1	10/25/2016 11:22:27 PM 28236
Xylenes, Total	ND	0.092	mg/Kg	1	10/25/2016 11:22:27 PM 28236
Surr: 4-Bromofluorobenzene	102	80-120	%Rec	1	10/25/2016 11:22:27 PM 28236

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	В	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	Н	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits Page 1 of 4
	ND	Not Detected at the Reporting Limit	Р	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 LLCProject:San Juan 28-7 #217

Sample ID LCS-28237	SampT	ype: LC	S	Tes	tCode: E	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS	Batch	ID: 28	237	F	RunNo: 3	8183				
Prep Date: 10/24/2016	Analysis D	ate: 10)/25/2016	S	SeqNo: 1	191886	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	95.6	62.6	124			
Surr: DNOP	4.7		5.000		93.3	70	130			
Sample ID MP 29227	SamnT	VDO: ME		Toe	tCode: El	PA Mothod	9015M/D: Di	ocol Pana	Organice	
Sample ID MB-28237	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Range	e Organics	
Sample ID MB-28237 Client ID: PBS	SampT Batch	ype: ME	3LK 237	Tes F	tCode: El RunNo: 3	PA Method 8183	8015M/D: Di	esel Range	e Organics	
Sample ID MB-28237 Client ID: PBS Prep Date: 10/24/2016	SampT Batch Analysis D	ype: ME 1D: 282 ate: 10	3LK 237 0/25/2016	Tes F	tCode: El RunNo: 3 SeqNo: 1	PA Method 8183 191887	8015M/D: Di	esel Range (g	e Organics	
Sample ID MB-28237 Client ID: PBS Prep Date: 10/24/2016 Analyte	SampT Batch Analysis D Result	ype: ME 1D: 282 ate: 10 PQL	3LK 237 0/25/2016 SPK value	Tes F SPK Ref Val	tCode: El RunNo: 3 SeqNo: 1 %REC	PA Method 8183 191887 LowLimit	8015M/D: Di Units: mg/H HighLimit	esel Rango (g %RPD	e Organics RPDLimit	Qual
Sample ID MB-28237 Client ID: PBS Prep Date: 10/24/2016 Analyte Diesel Range Organics (DRO)	SampT Batch Analysis D Result ND	ype: ME 1D: 282 ate: 10 PQL 10	3LK 237 0/25/2016 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 3 SeqNo: 1 %REC	PA Method 8183 191887 LowLimit	8015M/D: Di Units: mg/k HighLimit	esel Rango (g %RPD	e Organics RPDLimit	Qual
Sample ID MB-28237 Client ID: PBS Prep Date: 10/24/2016 Analyte Diesel Range Organics (DRO) Motor Oil Range Organics (MRO)	SampT Batch Analysis D Result ND ND	ype: ME 1D: 282 ate: 10 PQL 10 50	3LK 237)/25/2016 SPK value	Tes F SPK Ref Val	tCode: El RunNo: 3 SeqNo: 1 %REC	PA Method 8183 191887 LowLimit	8015M/D: Di Units: mg/F HighLimit	esel Rango (g %RPD	e Organics RPDLimit	Qual

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

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WO#:

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Hall Environmental Analysis Laboratory, Inc.

Client: Rule Engineering LLC **Project:**

San Juan 28-7 #217

Sample ID MB-28236	SampT	Type: ME	BLK	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Client ID: PBS	Batch	h ID: 28	236	F	RunNo: 3	8202				
Prep Date: 10/24/2016	Analysis D	Date: 10	0/25/2016	S	SeqNo: 1	192363	Units: mg/k	(g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	850		1000		85.0	68.3	144			
Sample ID LCS-28236	SampT	Type: LC	s	Tes	tCode: El	PA Method	8015D: Gaso	line Rang	e	
Sample ID LCS-28236 Client ID: LCSS	Samp1 Batcl	Type: LC	:S 236	Tesi	tCode: El	PA Method 8202	8015D: Gasc	oline Rang	6	
Sample ID LCS-28236 Client ID: LCSS Prep Date: 10/24/2016	SampT Batcl Analysis D	Type: LC h ID: 28 Date: 10	S 236 0/25/2016	Tesi R S	tCode: El RunNo: 3 SeqNo: 1	PA Method 8202 192364	8015D: Gaso Units: mg/K	bline Rang	e	
Sample ID LCS-28236 Client ID: LCSS Prep Date: 10/24/2016 Analyte	SampT Batcl Analysis D Result	Type: LC h ID: 28 Date: 10 PQL	:S 236 0/25/2016 SPK value	Tesi R S SPK Ref Val	tCode: El RunNo: 3 SeqNo: 1 %REC	PA Method 8202 192364 LowLimit	8015D: Gaso Units: mg/M HighLimit	oline Rang (g %RPD	e RPDLimit	Qual
Sample ID LCS-28236 Client ID: LCSS Prep Date: 10/24/2016 Analyte Gasoline Range Organics (GRO)	SampT Batcl Analysis D Result 22	Type: LC h ID: 28 Date: 10 PQL 5.0	S 236 0/25/2016 SPK value 25.00	Tesi F S SPK Ref Val 0	tCode: EF RunNo: 3 SeqNo: 1 %REC 89.8	PA Method 8202 192364 LowLimit 74.6	8015D: Gaso Units: mg/F HighLimit 123	oline Rang (g %RPD	e RPDLimit	Qual

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- D Sample Diluted Due to Matrix
- Н 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
- В Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL **Reporting Detection Limit**
- W Sample container temperature is out of limit as specified

WO#: 1610B31 26-Oct-16

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Hall Environmental Analysis Laboratory, Inc.

Client: Project: Rule Engineering LLC San Juan 28-7 #217

		6			-						
Sample ID	MB-28236	Samp	lype: ME	BLK	Tes	tCode: E	PA Method	8021B: Vola	tiles		
Client ID:	PBS	Batc	h ID: 28	236	F	RunNo: 3	8202				
Prep Date:	10/24/2016	Analysis [Date: 10	0/25/2016	5	SeqNo: 1	192384	Units: mg/k	٢g		
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-Brom	nofluorobenzene	0.99		1.000		99.0	80	120			
Sample ID	LCS-28236	Samp	Type: LC	S	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batc	h ID: 28	236	F	RunNo: 3	8202				
Prep Date:	10/24/2016	Analysis [Date: 10	0/25/2016	S	SeqNo: 1	192385	Units: mg/k	(g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.93	0.025	1.000	0	92.8	75.2	115			
Toluene		0.93	0.050	1.000	0	92.9	80.7	112			
Ethylbenzene		0.95	0.050	1.000	0	95.4	78.9	117			
Xylenes, Total		2.8	0.10	3.000	0	93.6	79.2	115			
Surr: 4-Brom	ofluorobenzene	1.0		1.000		103	80	120			
Sample ID	1610B31-001AMS	Samp	Гуре: МS	3	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Sample ID Client ID:	1610B31-001AMS SC-6	Samp ⁻ Batc	Гуре: МS h ID: 28	3 236	Tes	tCode: El RunNo: 3	PA Method 8202	8021B: Vola	tiles		
Sample ID Client ID: Prep Date:	1610B31-001AMS SC-6 10/24/2016	Samp Batc Analysis [Гуре: МS h ID: 28 Date: 10	3 236 0/25/2016	Tes F S	tCode: El RunNo: 3 SeqNo: 1	PA Method 8202 192387	8021B: Vola Units: mg/F	tiles		
Sample ID Client ID: Prep Date: Analyte	1610B31-001AMS SC-6 10/24/2016	Samp Batc Analysis [Result	Fype: MS h ID: 282 Date: 10 PQL	3 236)/25/2016 SPK value	Tes F S SPK Ref Val	tCode: El RunNo: 3 SeqNo: 1 %REC	PA Method 8202 192387 LowLimit	8021B: Vola Units: mg/K HighLimit	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene	1610B31-001AMS SC-6 10/24/2016	Samp Batc Analysis I Result 0.92	Type: MS h ID: 28 Date: 10 PQL 0.024	236 2/25/2016 SPK value 0.9434	Tes F S SPK Ref Val 0	tCode: El RunNo: 3 SeqNo: 1 %REC 97.4	PA Method 8202 192387 LowLimit 71.5	8021B: Vola Units: mg/k HighLimit 122	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene	1610B31-001AMS SC-6 10/24/2016	Samp Batc Analysis I Result 0.92 0.95	Fype: MS h ID: 28; Date: 10 PQL 0.024 0.047	5 236)/25/2016 SPK value 0.9434 0.9434	Tes F S SPK Ref Val 0 0	tCode: El RunNo: 3 SeqNo: 1 %REC 97.4 101	PA Method 8202 192387 LowLimit 71.5 71.2	8021B: Vola Units: mg/F HighLimit 122 123	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene	1610B31-001AMS SC-6 10/24/2016	Samp Batc Analysis [Result 0.92 0.95 0.98	Fype: MS h ID: 28; Date: 10 PQL 0.024 0.047 0.047	236 225/2016 SPK value 0.9434 0.9434 0.9434	Tes F SPK Ref Val 0 0 0 0	tCode: El RunNo: 3 SeqNo: 1 %REC 97.4 101 104	PA Method 8202 192387 LowLimit 71.5 71.2 75.2	8021B: Vola Units: mg/F HighLimit 122 123 130	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	1610B31-001AMS SC-6 10/24/2016	Samp Batc Analysis I Result 0.92 0.95 0.98 2.9	Type: MS h ID: 28: Date: 10 PQL 0.024 0.047 0.047 0.094	236 225/2016 SPK value 0.9434 0.9434 0.9434 0.9434 2.830	Tes F SPK Ref Val 0 0 0 0 0	tCode: El RunNo: 3 SeqNo: 1 %REC 97.4 101 104 103	PA Method 8202 192387 LowLimit 71.5 71.2 75.2 72.4	8021B: Volar Units: mg/k HighLimit 122 123 130 131	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom	1610B31-001AMS SC-6 10/24/2016	Samp Batc Analysis I Result 0.92 0.95 0.98 2.9 1.0	Type: MS h ID: 28 Date: 10 0.024 0.024 0.047 0.047 0.094	236 275/2016 SPK value 0.9434 0.9434 0.9434 2.830 0.9434	Tes F S SPK Ref Val 0 0 0 0 0	tCode: El RunNo: 3 SeqNo: 1 %REC 97.4 101 104 103 106	PA Method 8202 192387 LowLimit 71.5 71.2 75.2 72.4 80	8021B: Vola Units: mg/k HighLimit 122 123 130 131 120	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom	1610B31-001AMS SC-6 10/24/2016 nofluorobenzene 1610B31-001AMSI	Samp Batc Analysis I Result 0.92 0.95 0.98 2.9 1.0 D Samp	Type: MS h ID: 28 Date: 10 0.024 0.047 0.047 0.094	236 225/2016 SPK value 0.9434 0.9434 0.9434 2.830 0.9434 2.830	Tes F SPK Ref Val 0 0 0 0 0 Tes	tCode: El RunNo: 3 SeqNo: 1 %REC 97.4 101 104 103 106 tCode: El	PA Method 8202 192387 LowLimit 71.5 71.2 75.2 72.4 80 PA Method	8021B: Volar Units: mg/k HighLimit 122 123 130 131 120 8021B: Volar	tiles (g %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID Client ID:	1610B31-001AMS SC-6 10/24/2016 nofluorobenzene 1610B31-001AMSI SC-6	Samp Batc Analysis I Result 0.92 0.95 0.98 2.9 1.0 D Samp Batc	Type: MS h ID: 28 Date: 10 0.024 0.047 0.047 0.094 Type: MS h ID: 28	236 2/25/2016 SPK value 0.9434 0.9434 0.9434 2.830 0.9434 30 236	Tes F SPK Ref Val 0 0 0 0 Tes F	tCode: El RunNo: 3 SeqNo: 1 %REC 97.4 101 104 103 106 tCode: El RunNo: 3	PA Method 8202 192387 LowLimit 71.5 71.2 75.2 72.4 80 PA Method 8202	8021B: Volat Units: mg/F HighLimit 122 123 130 131 120 8021B: Volat	tiles Kg %RPD	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date:	1610B31-001AMS SC-6 10/24/2016 nofluorobenzene 1610B31-001AMSI SC-6 10/24/2016	Samp Batc Analysis [Result 0.92 0.95 0.98 2.9 1.0 D Samp Batc Analysis [Type: MS h ID: 28 Date: 10 PQL 0.024 0.047 0.047 0.094 Type: MS h ID: 28 Date: 10	236 277 277 277 277 277 277 277 27	Tes F SPK Ref Val 0 0 0 0 0 Tes F S	tCode: El RunNo: 3 SeqNo: 1 %REC 97.4 101 104 103 106 tCode: El RunNo: 3 SeqNo: 1	PA Method 8202 192387 LowLimit 71.5 71.2 75.2 72.4 80 PA Method 8202 192388	8021B: Volar Units: mg/P HighLimit 122 123 130 131 120 8021B: Volar Units: mg/P	tiles (g %RPD tiles	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte	1610B31-001AMS SC-6 10/24/2016 nofluorobenzene 1610B31-001AMSI SC-6 10/24/2016	Samp Batc Analysis [0.92 0.95 0.98 2.9 1.0 D Samp Batc Analysis [Result	Type: MS h ID: 28 Date: 10 0.024 0.047 0.047 0.094 Type: MS h ID: 28 Date: 10 PQL	236 236 225/2016 SPK value 0.9434 0.9434 2.830 0.9434 2.830 0.9434 2.830 0.9434 2.830 0.9434 2.830 0.9434 SPK value SPK value	Tes SPK Ref Val 0 0 0 0 Tes SPK Ref Val	tCode: El RunNo: 3 SeqNo: 1 97.4 101 104 103 106 tCode: El RunNo: 3 SeqNo: 1 %REC	PA Method 8202 192387 LowLimit 71.5 71.2 75.2 72.4 80 PA Method 8202 192388 LowLimit	8021B: Volar Units: mg/F HighLimit 122 123 130 131 120 8021B: Volar Units: mg/F HighLimit	tiles %RPD tiles	RPDLimit	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene	1610B31-001AMS SC-6 10/24/2016 tofluorobenzene 1610B31-001AMSI SC-6 10/24/2016	Samp Batc Analysis [Result 0.92 0.95 0.98 2.9 1.0 D Samp Batc Analysis [Result 0.88	Type: MS h ID: 28: Date: 10 PQL 0.024 0.047 0.047 0.094 Type: MS h ID: 28: Date: 10 PQL 0.023	236)/25/2016 SPK value 0.9434 0.9434 0.9434 2.830 0.9434 2.830 0.9434 5D 236)/26/2016 SPK value 0.9372	Tes SPK Ref Val 0 0 0 0 Tes SPK Ref Val 0	tCode: El RunNo: 3 SeqNo: 1 97.4 101 104 103 106 tCode: El RunNo: 3 SeqNo: 1 %REC 93.7	PA Method 8202 192387 LowLimit 71.5 71.2 75.2 72.4 80 PA Method 8202 192388 LowLimit 71.5	8021B: Volar Units: mg/F HighLimit 122 123 130 131 120 8021B: Volar Units: mg/F HighLimit 122	tiles (g %RPD tiles (g %RPD 4.57	RPDLimit RPDLimit 20	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Toluene	1610B31-001AMS SC-6 10/24/2016 nofluorobenzene 1610B31-001AMSI SC-6 10/24/2016	Samp Batc Analysis [Result 0.92 0.95 0.98 2.9 1.0 D Samp Batc Analysis [Result 0.88 0.89	Type: MS h ID: 28: Date: 10 PQL 0.024 0.047 0.094 Type: MS h ID: 28: Date: 10 PQL 0.023 0.047	236)/25/2016 SPK value 0.9434 0.9434 0.9434 2.830 0.9434 2.830 0.9434 5D 236)/26/2016 SPK value 0.9372 0.9372 0.9372	Tes F SPK Ref Val 0 0 0 0 0 Tes F SPK Ref Val 0 0	tCode: El RunNo: 3 SeqNo: 1 %REC 97.4 101 104 103 106 tCode: El RunNo: 3 SeqNo: 1 %REC 93.7 95.0	PA Method 8202 192387 LowLimit 71.5 71.2 75.2 72.4 80 PA Method 8202 192388 LowLimit 71.5 71.2	8021B: Volar Units: mg/P HighLimit 122 123 130 131 120 8021B: Volar Units: mg/P HighLimit 122 123	tiles (g %RPD tiles (g %RPD 4.57 6.51	RPDLimit RPDLimit 20 20	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene	1610B31-001AMS SC-6 10/24/2016 nofluorobenzene 1610B31-001AMSI SC-6 10/24/2016	Samp Batc Analysis I Result 0.92 0.95 0.98 2.9 1.0 D Samp Batc Analysis I Result 0.88 0.89 0.92	Type: MS h ID: 28: Date: 10 PQL 0.024 0.047 0.094 Type: MS h ID: 28: Date: 10 PQL 0.023 0.047 0.047	236)/25/2016 SPK value 0.9434 0.9434 0.9434 2.830 0.9434 2.830 0.9434 5D 236)/26/2016 SPK value 0.9372 0.9372 0.9372 0.9372	Tes F SPK Ref Val 0 0 0 0 0 Tes F SPK Ref Val 0 0 0 0	tCode: El RunNo: 3 SeqNo: 1 %REC 97.4 101 104 103 106 tCode: El RunNo: 3 SeqNo: 1 %REC 93.7 95.0 98.0	PA Method 8202 192387 LowLimit 71.5 71.2 75.2 72.4 80 PA Method 8202 192388 LowLimit 71.5 71.2 75.2	8021B: Volar Units: mg/P HighLimit 122 123 130 131 120 8021B: Volar Units: mg/P HighLimit 122 123 130	tiles (g %RPD tiles (g %RPD 4.57 6.51 6.33	RPDLimit RPDLimit 20 20 20	Qual
Sample ID Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total Surr: 4-Brom Client ID: Prep Date: Analyte Benzene Toluene Ethylbenzene Xylenes, Total	1610B31-001AMS SC-6 10/24/2016 nofluorobenzene 1610B31-001AMSI SC-6 10/24/2016	Samp Batc Analysis [Result 0.92 0.95 0.98 2.9 1.0 D Samp Batc Analysis [Result 0.88 0.89 0.92 2.7	Type: MS h ID: 28: Date: 10 PQL 0.024 0.047 0.094 Type: MS h ID: 28: Date: 10 PQL 0.023 0.047 0.047 0.047	236 277 277 277 277 277 277 277 27	Tes SPK Ref Val 0 0 0 0 0 0 0 Tes SPK Ref Val 0 0 0 0 0 0 0	tCode: El RunNo: 3 SeqNo: 1 %REC 97.4 101 104 103 106 tCode: El RunNo: 3 SeqNo: 1 %REC 93.7 95.0 98.0 95.9	PA Method 8202 192387 LowLimit 71.5 71.2 75.2 72.4 80 PA Method 8202 192388 LowLimit 71.5 71.2 75.2 75.2 72.4	8021B: Vola Units: mg/P HighLimit 122 123 130 131 120 8021B: Vola 8021B: Vola Units: mg/P HighLimit 122 123 130 131	tiles (g %RPD tiles (g %RPD 4.57 6.51 6.33 7.44	RPDLimit RPDLimit 20 20 20 20 20 20 20	Qual

Qualifiers:

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

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WO#:

1610B31 26-Oct-16

HALL Hall Enviro ENVIRONMENTAL ANALYSIS LABORATORY TEL: 505-3 Website:	nmental Analysis Laborat 4901 Hawkins Albuquerque, NM 87 45-3975 FAX: 505-345-4 www.hallenvironmental.	NE 109 107 com	ple Log-In Ch	eck List
Client Name: RULE ENGINEERING LL Work Order N	Number: 1610B31		RcptNo: 1	
Received by/date: Cm 10/22//G				
Logged By: Anne Thorne 10/22/2016 8:2	0:00 AM	anne Am	-	
Completed By: Anne Thorne 10/24/2016		anne Hom	_	
Reviewed By:				
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 🗌		
5. Were all samples received at a temperature of >0° C to 6.0°	°C Yes 🗹	No 🗌		
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 🗹	# . f	
12. Does paperwork match bottle labels?	Yes 🔽	No 🗌	# of preserved bottles checked for pH:	
(Note discrepancies on chain of custody)		N- []	Adjusted?	>12 unless noted)
13. Are matrices correctly identified on Chain of Custody?	Yes 🗹			
14, is it clear what analyses were requested?	Yes V		Checked by:	
(If no, notify customer for authorization.)				
Special Handling (if applicable)	_			
16. Was client notified of all discrepancies with this order?	Yes 🗌	No	NA 🗹	
Person Notified:	Date	1,9 9 2 April 9 4 1 4 4 1 4 1 4		
By Whom:	Via: eMail F	Phone 🗌 Fax	In Person	
Regarding:	e a conservation of the second second		and an entry of the second density	

17. Additional remarks:

18. Cooler Information

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

Page 1 of 1

Chain-of-Custody Record :lient: Rule Engineering, LLC Tailing Address: 501 Airport Dr. Suite D5 Farmington, NM	Turn-Around Time: Standard ZRush 3 Day Project Name: San Juan 26-7 #217 Project #:	HALL ENVIRONMENTAL ANALYSIS LABORATORY www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107
'hone #: 575 743 94600 mail or Fax#: Wolderword entroperior. Com IA/QC Package: I Standard I Level 4 (Full Validation) Iccreditation I NELAP I EDD (Type)	Project Manager: Heather Woods Sampler: Justin Under On Ice: Pres P.No Sample Temperature 34	IBE + TPH (Gas only) 3 (GRO / DRO / MRO) 3 (GRO / DRO / MRO) od 418.1) od 504.1) od 504.1) 10 or 8270 SIMS) 10 or 8270 SIMS) etals cides / 8082 PCB's (A) i-VOA) i-VOA)
DateTimeMatrixSample Request ID21161020SoilSc 6	Container Type and #Preservative TypeHEAL No.I/I/I/OB31I/I/I/OB31I/I/I/OB31I/I/I/OB31	 子 BTEX + 4 BTEX + 4 BTEX + M REX 48 M PAH's (83' PAH's (
late: Time: Relinquished by: /] /	Received by: Date Time	Remarks: wol 213110 7 UStr KALTHUL Survey Former
21 2:00 With With Pate: Time: Relinquished by: 21 2:00 If necessary, samples submitted to Hall Environmental may be sub-	Received by: Received by: Contracted to other accredited laboratories. This serves as notice of this	Dinest Bill to Conoco Ahillips ordered by: Lisa Hunter s possibility. Any sub-contracted data will be clearly notated on the analytical report.

