

Incident ID	
District RP	<del>2RP-5092</del> & 2RP-5111
Facility ID	3001545101
Application ID	pAB1835130278

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>16.25</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

### **Characterization Report Checklist:** *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

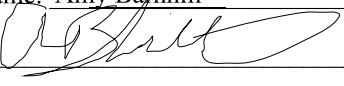
State of New Mexico  
Oil Conservation Division

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Incident ID	
District RP	<del>2RP-5092</del> & 2RP-5111
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Application ID	pAB1835130278

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

Printed Name: Amy Barnhill Title: Lead Environmental Specialist

Signature:  Date: 1-4-2021

email: ABarnhill@chevron.com Telephone: 432-940-8432

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_



Incident ID	
District RP	<del>2RP-5092 &amp; 2RP-5111</del>
Facility ID	3001545101
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## Remediation Plan

**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Amy Barnhill Title: Lead Environmental Specialist

Signature:  Date: 1-4-2021

email: ABarnhill@chevron.com Telephone: 432-940-8524

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	
District RP	<del>2RP-5092 &amp;</del> 2RP-5111
Facility ID	3001545101
Application ID	pAB1835130278

## Closure


The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

**Closure Report Attachment Checklist:** *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Amy Barnhill Title: Lead Environmental Specialist

Signature:  Date: 1-4-2021

email: ABarnhill@chevron.com Telephone: 432-940-8524

### OCD Only

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

**Appendix F**  
**Photographs**



2RP-5092 &amp; 2RP-5111

Chevron USA, Inc., Hayhurst SO 17 20 Federal 001 Pad

December 14, 2020



Chevron HH SO 17 20 Federal 001, November 15, 2019



Diesel Spill Area Viewing East, November 15, 2019



2RP-5092 &amp; 2RP-5111

Chevron USA, Inc., Hayhurst SO 17 20 Federal 001 Pad

December 14, 2020



Diesel Spill Area Viewing South, November 15, 2019



Oil Based Mud Spill Area Viewing Southwest, November 15, 2019



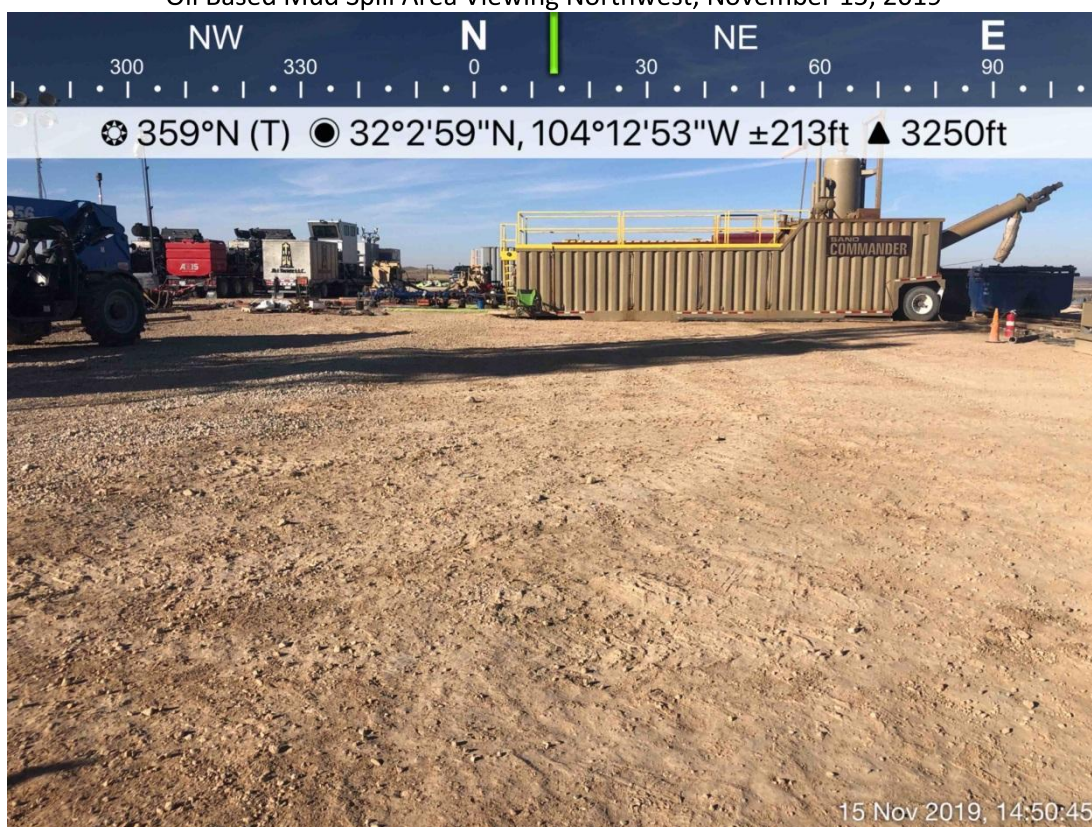
2RP-5092 & 2RP-5111

Chevron USA, Inc., Hayhurst SO 17 20 Federal 001 Pad

December 14, 2020



Oil Based Mud Spill Area Viewing Northwest, November 15, 2019



Oil Based Mud Spill Area Viewing Northeast, November 15, 2019



2RP-5092 &amp; 2RP-5111

Chevron USA, Inc., Hayhurst SO 17 20 Federal 001 Pad

December 14, 2020



Diesel Spill Area Excavation Viewing Northeast, November 5, 2020



Diesel Spill Area Excavation Viewing Southwest, November 5, 2020



2RP-5092 & 2RP-5111  
Chevron USA, Inc., Hayhurst SO 17 20 Federal 001 Pad  
December 14, 2020



Additional Soil Removed from the Sidewall (C-6 and C-7) and Bottom C-13 from the Diesel Spill Area  
Excavation Viewing Southwest, November 20, 2020



Additional Soil Removed from The Sidewalls (N-SW and S-SW) and Bottom (C'-3, C'-6, C'-14, and C'-20)  
From The Oil Based Mud Spill Excavation viewing South, November 20, 2020



2RP-5092 & 2RP-5111  
Chevron USA, Inc., Hayhurst SO 17 20 Federal 001 Pad  
December 14, 2020



Additional Soil Removed from Sidewall (S-SW) and Bottom C'-20 from the Oil Based Mud Spill Excavation  
viewing Northwest, November 20, 2020



Additional Soil Removed from the Sidewall (N-SW) and Bottom C'-6 from the Oil Based Mud Spill  
Excavation viewing Southwest, December 7, 2020



2RP-5092 & 2RP-5111  
Chevron USA, Inc., Hayhurst SO 17 20 Federal 001 Pad  
December 14, 2020



Backfilled Oil Based Mud Excavation Viewing Northwest, December 11, 2020



Backfilled Oil Based Mud Excavation Viewing Southeast, December 11, 2020



2RP-5092 & 2RP-5111  
Chevron USA, Inc., Hayhurst SO 17 20 Federal 001 Pad  
December 14, 2020



Backfilled Diesel Based Excavation Viewing Southwest, December 11, 2020



Backfilled Diesel Based Excavation Viewing North, December 11, 2020

**Appendix D**  
**Waste Manifests**





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company Man Contact Information

Name:

Phone No.

## GENERATOR

NO.

210967

Operator No. \_\_\_\_\_  
 Operators Name Chevron  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
 Lease/Well Name & No. HH 501720 Fed 1 1H  
 County 30-015-45100  
 API No. \_\_\_\_\_  
 Rig Name & No. \_\_\_\_\_  
 AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	<u>Belly</u>
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS 20 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's Name JHT  
 Address 8073  
 Phone No. \_\_\_\_\_

Driver's Name Adam Morik  
 Print Name \_\_\_\_\_  
 Phone No. \_\_\_\_\_  
 Truck No. 1173

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN: 10:31 AM OUT: \_\_\_\_\_

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. D-1

Site Name/Permit No. Red Bluff Facility/ STF-065  
 Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One) YES NO

Chloride

8 If YES, was reading &gt; 50 micro roentgens? (circle one) YES NO

Conductivity (mmhos/cm)

Chemical Analysis (Mg/l)

pH

## TANK BOTTOMS

Feet Inches  
 1st Gauge \_\_\_\_\_  
 2nd Gauge \_\_\_\_\_  
 Received \_\_\_\_\_

BS&W/BBLs Received	BS&W (%)
Free Water	
Total Received	

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

Company Man Contact Information

(PLEASE PRINT)

\*REQUIRED INFORMATION\* Name \_\_\_\_\_

Phone No. \_\_\_\_\_

## GENERATOR

NO. 210995

Operator No. \_\_\_\_\_  
 Operators Name Chevron  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
 Lease/Well \_\_\_\_\_  
 Name & No. H 11 80 1720 12c 11  
 County \_\_\_\_\_  
 API No. 3005 4100 45100  
 Rig Name & No. \_\_\_\_\_  
 AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS 20 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

\* see attached  
(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's Name J H T 8073  
 Address \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Driver's Name Osborne S.  
 Print Name \_\_\_\_\_  
 Phone No. \_\_\_\_\_  
 Truck No. 174

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

IN: 12:39 PM TRUCK TIME STAMP  
 OUT: \_\_\_\_\_

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. 12-1

Site Name/ Permit No. Red Bluff Facility/ STF-065  
 Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One)

YES

NO

If YES, was reading &gt; 50 micro roentgens? (circle one)

YES

NO

Chemical Analysis (Mg/l) \_\_\_\_\_  
 Chloride \_\_\_\_\_

Conductivity (mmhos/cm) \_\_\_\_\_  
 pH \_\_\_\_\_

## TANK BOTTOMS

1st Gauge Feet \_\_\_\_\_ Inches \_\_\_\_\_  
 2nd Gauge \_\_\_\_\_  
 Received \_\_\_\_\_

BS&W/BBLs Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

Company Man Contact Information

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name \_\_\_\_\_

Phone No. \_\_\_\_\_

## GENERATOR

NO. **210991**

Operator No. \_\_\_\_\_  
 Operators Name Chobion  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
 Lease/Well Name & No. HH501720 Fed 1 H  
 County 30-015 45700  
 API No. \_\_\_\_\_  
 Rig Name & No. \_\_\_\_\_  
 AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds _____	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings _____	Washout Water (Non-Injectable) _____	<u>BELLY</u>
Water Based Muds _____	Completion Fluid/Flow back (Non-Injectable) _____	
Water Based Cuttings _____	Produced Water (Non-Injectable) _____	
Produced Formation Solids _____	Gathering Line Water/Waste (Non-Injectable) _____	
Tank Bottoms _____	INTERNAL USE ONLY	
E&P Contaminated Soil _____	Truck Washout (exempt waste) _____	
Gas Plant Waste _____		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's Name SHT  
 Address \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Driver's Name EFran Castillo  
 Print Name \_\_\_\_\_  
 Phone No. \_\_\_\_\_  
 Truck No. N. 115

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN: 12:30 PM OUT: \_\_\_\_\_

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. D-1

Site Name/ Permit No. Red Bluff Facility/ STF-065  
 Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One)

YES

NO

If YES, was reading &gt; 50 micro roentgens? (circle one)

YES

NO

Chloride

Conductivity (mmhos/cm)

pH

Chemical Analysis (Mg/l)

## TANK BOTTOMS

1st Gauge \_\_\_\_\_  
 2nd Gauge \_\_\_\_\_  
 Received \_\_\_\_\_

BS&W/BLS Received	BS&W (%)
Free Water	
Total Received	

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

Company Man Contact Information

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name

Phone No.

## GENERATOR

NO.

210992

Operator No.

Operators Name CHevion

Address

City, State, Zip

Phone No.

Permit/RRC No.

Lease/Well

Name & No. HH 501720 Fed 11H

County

API No. 30-015-440045100

Rig Name &amp; No.

AFE/PO No.

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	<u>Belly</u>
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other

\*please select from Non-Exempt Waste List on back

## QUANTITY

B - BARRELS

20 Y - YARDS

E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

☐ RCRA EXEMPT:

Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT:

Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information☐ RCRA Hazardous Waste Analysis☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's

Name JHT 8073

Address

Phone No.

Driver's Name Robert Cota

Print Name

Phone No.

Truck No. 1171

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE 11/10/20

DRIVER'S SIGNATURE

DELIVERY DATE 11/10/20

DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN: 12:34 PM

OUT:

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. D-1

Site Name/

Permit No. Red Bluff Facility/ STF-065Address 5053 US Highway 285, Orla, TX 79770Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One)

YES

NO

If YES, was reading &gt; 50 micro roentgens? (circle one)

YES

NO

Chloride

Chemical Analysis (Mg/l)

Conductivity (mmhos/cm)

pH

## TANK BOTTOMS

Feet

Inches

1st Gauge

2nd Gauge

Received

BS&amp;W/BLS Received

Free Water

Total Received

BS&amp;W (%)

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

Company Man Contact Information

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name \_\_\_\_\_

Phone No. \_\_\_\_\_

**GENERATOR**NO. **210993**

Operator No. \_\_\_\_\_  
 Operators Name Chevron  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
 Lease/Well Name & No. H-N 501320 f/HH  
 County 30 015 46100  
 API No. \_\_\_\_\_  
 Rig Name & No. \_\_\_\_\_  
 AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds _____	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings _____	Washout Water (Non-Injectable) _____	<u>Bully</u>
Water Based Muds _____	Completion Fluid/Flow back (Non-Injectable) _____	
Water Based Cuttings _____	Produced Water (Non-Injectable) _____	
Produced Formation Solids _____	Gathering Line Water/Waste (Non-Injectable) _____	
Tank Bottoms _____	INTERNAL USE ONLY	
E&P Contaminated Soil _____	Truck Washout (exempt waste) _____	
Gas Plant Waste _____		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_

\*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS 20 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

**TRANSPORTER**

Transporter's Name JH 8073  
 Address \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Driver's Name Jose Herrera  
 Print Name Jose Herrera  
 Phone No. \_\_\_\_\_  
 Truck No. 152

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN: 12:30PM OUT: \_\_\_\_\_**DISPOSAL FACILITY****RECEIVING AREA**Name/No. D-1

Site Name/ Permit No. Red Bluff Facility/ STF-065  
 Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One)

YES

NO

If YES, was reading &gt; 50 micro roentgens? (circle one)

YES

NO

Chloride

Conductivity (mmhos/cm)

pH

Chemical Analysis (Mg/l)

**TANK BOTTOMS**

Feet

Inches

1st Gauge \_\_\_\_\_  
 2nd Gauge \_\_\_\_\_  
 Received \_\_\_\_\_

BS&W/BBLS Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why? See

NAME (PRINT)

DATE

TITLE

SIGNATURE





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

Company Man Contact Information

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name

Phone No.

## GENERATOR

NO.

210994

Operator No. \_\_\_\_\_  
 Operators Name Cherian  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
 Lease/Well Name & No. 111 50 1725 F-1 11H  
 County 30-25-4470045100  
 API No. \_\_\_\_\_  
 Rig Name & No. \_\_\_\_\_  
 AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	<u>Belly</u>
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other

\*please select from Non-Exempt Waste List on back

QUANTITY Belly B - BARRELS 20 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's Name JHT 8073  
 Address \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Driver's Name [Signature]  
 Print Name \_\_\_\_\_  
 Phone No. \_\_\_\_\_  
 Truck No. 162

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN: 12:37 PM OUT: 05:11 PM

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. D-1

Site Name/ Permit No. Red Bluff Facility/ STF-065  
 Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One) YES NO

If YES, was reading &gt; 50 micro roentgens? (circle one) YES NO

Chloride

Conductivity

Chemical Analysis (Mg/l)

(mmhos/cm)

pH

## TANK BOTTOMS

	Feet	Inches
1st Gauge		
2nd Gauge		
Received		

BS&W/BBLS Received	BS&W (%)
Free Water	
Total Received	

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company Man Contact Information

Name Stelson Gibbs

Phone No. \_\_\_\_\_

## GENERATOR

NO. **211126**

Operator No. \_\_\_\_\_

Operators Name Cherion

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_

Lease/Well \_\_\_\_\_

Name & No. HH 501720 Fed 001H

County \_\_\_\_\_

API No. 30-015-45100Rig Name & No. Non-Drilling

AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	_____	NON-INJECTABLE WATERS	_____	OTHER EXEMPT WASTES (type and generation process of the waste)	_____
Oil Based Cuttings	_____	Washout Water (Non-Injectable)	_____		
Water Based Muds	_____	Completion Fluid/Flow back (Non-Injectable)	_____		
Water Based Cuttings	_____	Produced Water (Non-Injectable)	_____		
Produced Formation Solids	_____	Gathering Line Water/Waste (Non-Injectable)	_____		
Tank Bottoms	_____	INTERNAL USE ONLY	_____		
E&P Contaminated Soil	_____	Truck Washout (exempt waste)	_____		
Gas Plant Waste	_____				

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

☐ RCRA EXEMPT:

Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT:

Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information☐ RCRA Hazardous Waste Analysis☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's Name THT

Address \_\_\_\_\_

Phone No. \_\_\_\_\_

Driver's Name Eric Herrera

Print Name \_\_\_\_\_

Phone No. \_\_\_\_\_

Truck No. 162

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE 11-19-20DRIVER'S SIGNATURE [Signature]DELIVERY DATE 11-19-20DRIVER'S SIGNATURE [Signature]

## TRUCK TIME STAMP

IN: 12:54 PM OUT: \_\_\_\_\_

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. 15-1Site Name/ Permit No. Red Bluff Facility/ STF-065Address 5053 US Highway 285, Orla, TX 79770Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One)

YES

NO

If YES, was reading &gt; 50 micro roentgens? (circle one)

YES

NO

Chemical Analysis (Mg/l) \_\_\_\_\_

Conductivity (mmhos/cm) \_\_\_\_\_

pH \_\_\_\_\_

## TANK BOTTOMS

	Feet	Inches
1st Gauge	_____	_____
2nd Gauge	_____	_____
Received	_____	_____

BS&W/BBLS Received	_____	BS&W (%)	_____
Free Water	_____		
Total Received	_____		

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why? \_\_\_\_\_

NAME (PRINT) Venice CalderonDATE 11/19/20TITLE RecSIGNATURE [Signature]





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company Man Contact Information

Name

Phone No.

Name Luis Mediano

Phone No. \_\_\_\_\_

<b>GENERATOR</b>		NO. <b>211029</b>
Operator No. <u>CHEVRON</u>	Permit/RRC No. <u>HHS</u>	
Operators Name _____	Lease/Well Name & No. <u>HHS 1720 rd 114</u>	
Address _____	County <u>36-015 4500</u>	
City, State, Zip _____	API No. _____	
Phone No. _____	Rig Name & No. _____	
	AFE/PO No. _____	

EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)		
Oil Based Muds _____	<b>NON-INJECTABLE WATERS</b>	OTHER EXEMPT WASTES (type and generation process of the waste) <u>Belly</u>
Oil Based Cuttings _____	Washout Water (Non-Injectable) _____	
Water Based Muds _____	Completion Fluid/Flow back (Non-Injectable) _____	
Water Based Cuttings _____	Produced Water (Non-Injectable) _____	
Produced Formation Solids _____	Gathering Line Water/Waste (Non-Injectable) _____	
Tank Bottoms _____	<b>INTERNAL USE ONLY</b>	
E&P Contaminated Soil <u>✓</u>	Truck Washout (exempt waste) _____	
Gas Plant Waste _____		
WASTE GENERATION PROCESS: <input type="checkbox"/> DRILLING <input type="checkbox"/> COMPLETION <input type="checkbox"/> PRODUCTION <input type="checkbox"/> GATHERING LINES		

NON-EXEMPT E&P Waste/Service Identification and Amount

All non-exempt E&P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

QUANTITY	B - BARRELS <u>20</u>	Y - YARDS	E - EACH
----------	-----------------------	-----------	----------

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENT'S SIGNATURE

DATE

SIGNATURE

<b>TRANSPORTER</b>	
Transporter's Name <u>JHT 8073</u>	Driver's Name <u>Adm Muro</u>
Address _____	Print Name _____
Phone No. _____	Phone No. _____
	Truck No. <u>M73</u>

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

<b>TRUCK TIME STAMP</b>	<b>DISPOSAL FACILITY</b>	<b>RECEIVING AREA</b>
IN: <u>15-31 AM</u> OUT: <u>2:15 PM</u>	Name/No. <u>D-1</u>	
Site Name/Permit No. <u>Red Bluff Facility/ STF-065</u>	Phone No. <u>432-448-4239</u>	
Address <u>5053 US Highway 285, Orla, TX 79770</u>		
NORM READINGS TAKEN? (Circle One) <u>YES</u> NO <u>8</u>	If YES, was reading > 50 micro roentgens? (circle one) YES NO <u>NO</u>	
Chemical Analysis (Mg/I) _____	Conductivity (mmhos/cm) _____	pH _____

TANK BOTTOMS			
1st Gauge	Feet	Inches	BS&W/BBLs Received
2nd Gauge			Free Water
Received			Total Received

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE



## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company Man Contact Information

Name 2115 m-drono

Phone No. \_\_\_\_\_

## GENERATOR

NO. **211025**

Operator No. \_\_\_\_\_

Operators Name Chevron

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_

Lease/Well \_\_\_\_\_

Name & No. HH 5017 20 Fed 1.H

County \_\_\_\_\_

API No. 30-01545100

Rig Name &amp; No. \_\_\_\_\_

AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	_____	NON-INJECTABLE WATERS	_____	OTHER EXEMPT WASTES (type and generation process of the waste)	_____
Oil Based Cuttings	_____	Washout Water (Non-Injectable)	_____	<b>BELLY</b>	
Water Based Muds	_____	Completion Fluid/Flow back (Non-Injectable)	_____		
Water Based Cuttings	_____	Produced Water (Non-Injectable)	_____		
Produced Formation Solids	_____	Gathering Line Water/Waste (Non-Injectable)	_____		
Tank Bottoms	_____	INTERNAL USE ONLY	_____		
E&P Contaminated Soil	_____	Truck Washout (exempt waste)	_____		
Gas Plant Waste	_____				

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_

\*please select from Non-Exempt Waste List on back

QUANTITY **20** B - BARRELS Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

☐ RCRA EXEMPT:

Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT:

Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information☐ RCRA Hazardous Waste Analysis☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_

SIGNATURE Efron Castillo

## TRANSPORTER

Transporter's Name JHT

Address \_\_\_\_\_

Phone No. \_\_\_\_\_

Driver's Name Efron Castillo

Print Name \_\_\_\_\_

Phone No. \_\_\_\_\_

Truck No. 115

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE 11/10/2020DRIVER'S SIGNATURE Efron CastilloDELIVERY DATE 11/10/2020DRIVER'S SIGNATURE Efron Castillo

## TRUCK TIME STAMP

IN: 2:15 PM OUT: \_\_\_\_\_

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. D-1

Site Name/

Red Bluff Facility/ STF-065Phone No. 432-448-4239

Permit No. \_\_\_\_\_

Address 5053 US Highway 285, Orla, TX 79770

NORM READINGS TAKEN? (Circle One)

YES

NO

If YES, was reading &gt; 50 micro roentgens? (circle one)

YES

NO

Chloride

Chemical Analysis (Mg/l) \_\_\_\_\_

Conductivity (mmhos/cm) \_\_\_\_\_

pH \_\_\_\_\_

## TANK BOTTOMS

Feet

Inches

1st Gauge	_____	_____
2nd Gauge	_____	_____
Received	_____	_____

BS&W/BLS Received	_____	BS&W (%)	_____
Free Water	_____		
Total Received	_____		

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why? FlammableNAME (PRINT) Deuce CardenDATE 11/10/20TITLE RecSIGNATURE Deuce Carden





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

Company Man Contact Information

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name

Phone No.

## GENERATOR

NO.

210996

Operator No. \_\_\_\_\_  
 Operators Name CHEVRON  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
 Lease/Well Name & No. HH 50 1726 Red HH  
 County 30-015-75100  
 API No. \_\_\_\_\_  
 Rig Name & No. \_\_\_\_\_  
 AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	<u>Reilly</u>
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

QUANTITY 70 B - BARRELS 70 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's Name JUT 8073  
 Address \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Driver's Name Michael Pota  
 Print Name \_\_\_\_\_  
 Phone No. 710 476 6841  
 Truck No. 171

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN: 2:45 PM OUT: \_\_\_\_\_

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. D-1

Site Name/ Permit No. Red Bluff Facility/ STF-065  
 Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One) YES NO

Chloride

8 If YES, was reading > 50 micro roentgens? (circle one) YES NO

Conductivity (mmhos/cm) \_\_\_\_\_ pH \_\_\_\_\_

Chemical Analysis (Mg/I)

## TANK BOTTOMS

1st Gauge \_\_\_\_\_  
 2nd Gauge \_\_\_\_\_  
 Received \_\_\_\_\_

BS&W/BBLS Received	BS&W (%)
Free Water	
Total Received	

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

Company Man Contact Information

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name \_\_\_\_\_

Phone No. \_\_\_\_\_

**GENERATOR**

NO.

**211042**

Operator No. \_\_\_\_\_

Operators Name Chenion

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_

Lease/Well \_\_\_\_\_

Name & No. H-H 501720 Fed H.

County \_\_\_\_\_

API No. 30015 45100

Rig Name &amp; No. \_\_\_\_\_

AFE/PO No. \_\_\_\_\_

**EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)**

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	<u>Belly</u>
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES**NON-EXEMPT E&P Waste/Service Identification and Amount**

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_

\*please select from Non-Exempt Waste List on back

**QUANTITY**

B - BARRELS

20 Y - YARDS

E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

☐ RCRA EXEMPT:

Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT:

Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information☐ RCRA Hazardous Waste Analysis☐ Other (Provide Description Below)(PRINT) AUTHORIZED AGENTS SIGNATURE X see attached

DATE

SIGNATURE

**TRANSPORTER**Transporter's Name JH + 8073

Address \_\_\_\_\_

Phone No. \_\_\_\_\_

Driver's Name Greg HerremPrint Name Greg HerremPhone No. 152Truck No. 152

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE 11-10-20DRIVER'S SIGNATURE [Signature]DELIVERY DATE 11-10-20DRIVER'S SIGNATURE [Signature]**TRUCK TIME STAMP**IN: 2:44 PM OUT: \_\_\_\_\_**DISPOSAL FACILITY****RECEIVING AREA**Name/No. D-1Site Name/ Permit No. Red Bluff Facility/ STF-065Phone No. 432-448-4239Address 5053 US Highway 285, Orla, TX 79770

NORM READINGS TAKEN? (Circle One)

YES

NO

If YES, was reading &gt; 50 micro roentgens? (circle one)

YES

NO

Chemical Analysis (Mg/l)

Conductivity (mmhos/cm)

pH

**TANK BOTTOMS**

Feet

Inches

1st Gauge		
2nd Gauge		
Received		

BS&W/BBLs Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why? X Caldwell

NAME (PRINT)

DATE

TITLE

SIGNATURE





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company Man Contact Information

Name

Phone No.

## GENERATOR

NO.

211041

Operator No. \_\_\_\_\_  
 Operators Name Shen  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
 Lease/Well Name & No. HH 5013205-1 11H  
 County \_\_\_\_\_  
 API No. \_\_\_\_\_  
 Rig Name & No. -30 015 4900  
 AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	<u>B-13</u>
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS 20 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

See attached  
 (PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's Name JH+ 8073  
 Address \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Driver's Name

Print Name

Phone No.

Truck No.

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN: 2:50 PM OUT: \_\_\_\_\_

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. D-1

Site Name/ Permit No. Red Bluff Facility/ STF-065  
 Address 5053 US Highway 285, Orla, TX 79770

Phone No.

432-448-4239

NORM READINGS TAKEN? (Circle One)

YES

NO

If YES, was reading &gt; 50 micro roentgens? (circle one)

YES

NO

Chemical Analysis (Mg/l)  
 Chloride

Conductivity  
 (mmhos/cm)

pH

## TANK BOTTOMS

1st Gauge \_\_\_\_\_ Feet \_\_\_\_\_ Inches \_\_\_\_\_  
 2nd Gauge \_\_\_\_\_  
 Received \_\_\_\_\_

BS&W/BBLs Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company Man Contact Information

Name Stetson Gibbs

Phone No. \_\_\_\_\_

<b>GENERATOR</b>		NO. <b>211134</b>
Operator No. _____	Permit/RRC No. _____	Lease/Well _____
Operators Name <u>Chevron</u>	Name & No. _____	County _____
Address _____	API No. _____	Rig Name & No. _____
City, State, Zip _____	AFE/PO No. _____	
Phone No. _____		

EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)		
Oil Based Muds _____ Oil Based Cuttings _____ Water Based Muds _____ Water Based Cuttings _____ Produced Formation Solids _____ Tank Bottoms _____ E&P Contaminated Soil _____ Gas Plant Waste _____	<b>NON-INJECTABLE WATERS</b> Washout Water (Non-Injectable) _____ Completion Fluid/Flow back (Non-Injectable) _____ Produced Water (Non-Injectable) _____ Gathering Line Water/Waste (Non-Injectable) _____ <b>INTERNAL USE ONLY</b> Truck Washout (exempt waste) _____	<b>OTHER EXEMPT WASTES</b> (type and generation process of the waste) <u>Belly</u>
WASTE GENERATION PROCESS: <input type="checkbox"/> DRILLING <input type="checkbox"/> COMPLETION <input type="checkbox"/> PRODUCTION <input type="checkbox"/> GATHERING LINES		

NON-EXEMPT E&P Waste/Service Identification and Amount			
All non-exempt E&P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.			
Non-Exempt Other _____		*please select from Non-Exempt Waste List on back	
QUANTITY	B - BARRELS	Y - YARDS	E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below) \_\_\_\_\_

(PRINT) AUTHORIZED AGENTS SIGNATURE _____	DATE _____	SIGNATURE _____
<b>TRANSPORTER</b>		
Transporter's Name <u>JAT</u>	Driver's Name <u>Rabien Contreras</u>	
Address _____	Print Name _____	
Phone No. _____	Phone No. _____	
	Truck No. <u>174</u>	

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE <u>11/17/20</u>	DRIVER'S SIGNATURE <u>[Signature]</u>	DELIVERY DATE <u>11/17/20</u>	DRIVER'S SIGNATURE <u>[Signature]</u>
<b>TRUCK TIME STAMP</b>		<b>DISPOSAL FACILITY</b>	
IN: <u>3:10 PM</u>	OUT: _____	Name/No. _____	
Site Name/ Permit No. <u>Red Bluff Facility/ STF-065</u>	Phone No. <u>432-448-4239</u>		
Address <u>5053 US Highway 285, Orla, TX 79770</u>			
NORM READINGS TAKEN? (Circle One) <u>YES</u> NO		If YES, was reading > 50 micro roentgens? (circle one) YES NO	
Chemical Analysis (Mg/l) _____		Conductivity (mmhos/cm) _____ pH _____	

<b>TANK BOTTOMS</b>			
1st Gauge _____	2nd Gauge _____	BS&W/BBLs Received _____	BS&W (%) _____
Received _____	Received _____	Free Water _____	Total Received _____

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why? \_\_\_\_\_

Vernice Calderon 11/19/20 Rac [Signature]

NAME (PRINT) DATE TITLE SIGNATURE





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

Company Man Contact Information

(PLEASE PRINT) \*REQUIRED INFORMATION\*

Name \_\_\_\_\_

Phone No. \_\_\_\_\_

## GENERATOR

NO. **211046**

Operator No. \_\_\_\_\_  
 Operators Name CHEVRON  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
 Lease/Well Name & No. HH 80 B/20 Federal-12H  
 County 30-015-45101  
 API No. \_\_\_\_\_  
 Rig Name & No. \_\_\_\_\_  
 AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_

\*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS 20 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

☐ RCRA EXEMPT:

Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT:

Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information☐ RCRA Hazardous Waste Analysis☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's Name JHT  
 Address \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Driver's Name Osborne

Print Name \_\_\_\_\_

Phone No. \_\_\_\_\_

Truck No. 174

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE 11-10-20DRIVER'S SIGNATURE OsborneDELIVERY DATE 11-10-20DRIVER'S SIGNATURE Osborne

IN: 3:15 PM TRUCK TIME STAMP OUT: \_\_\_\_\_ DISPOSAL FACILITY RECEIVING AREA Name/No. D-1

Site Name/ Permit No. Red Bluff Facility/ STF-065  
 Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One)

YES

NO

If YES, was reading &gt; 50 micro roentgens? (circle one)

YES

NO

Chloride

Conductivity

(mmhos/cm)

pH

Chemical Analysis (Mg/l) \_\_\_\_\_

## TANK BOTTOMS

1st Gauge \_\_\_\_\_ Feet \_\_\_\_\_ Inches  
 2nd Gauge \_\_\_\_\_  
 Received \_\_\_\_\_

BS&W/BBLs Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why?

NAME (PRINT) Denise Caldw...DATE 11/10/20TITLE KecSIGNATURE J Caldwell





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company Man Contact Information

Name Luis Mediano

Phone No. \_\_\_\_\_

## GENERATOR

NO.

211034

Operator No. \_\_\_\_\_  
 Operators Name CHEVRON  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
 Lease/Well Name & No. HH 501720 Fed 1 1H  
 County 30-015-45100  
 API No. \_\_\_\_\_  
 Rig Name & No. \_\_\_\_\_  
 AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	<u>Be 16</u>
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS 20 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

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- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's Name JHT 8073  
 Address \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Driver's Name John Mon 16  
 Print Name \_\_\_\_\_  
 Phone No. \_\_\_\_\_  
 Truck No. 1173

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN: 4:06PM OUT: \_\_\_\_\_

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. 11-1

Site Name/ Permit No. Red Bluff Facility/ STF-065  
 Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One)

YES

NO

8 If YES, was reading &gt; 50 micro roentgens? (circle one)

YES

NO

Chloride

Conductivity

(mmhos/cm)

pH

Chemical Analysis (Mg/l)

## TANK BOTTOMS

1st Gauge Feet \_\_\_\_\_ Inches \_\_\_\_\_  
 2nd Gauge \_\_\_\_\_  
 Received \_\_\_\_\_

BS&W/BBLS Received	BS&W (%)
Free Water	
Total Received	

I hereby certify that the above load material has been (circle one)

ACCEPTED

DENIED

If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

Company Man Contact Information

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name

Phone No.

## GENERATOR

NO. 211026

Operator No. \_\_\_\_\_  
 Operators Name CH Ebron  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
 Lease/Well Name & No. 1145017208114H  
 County 30015 45 100  
 API No. \_\_\_\_\_  
 Rig Name & No. \_\_\_\_\_  
 AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other

\*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's Name J H K  
 Address \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Driver's Name Steven Castillo  
 Print Name \_\_\_\_\_  
 Phone No. \_\_\_\_\_  
 Truck No. 115

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN: 4:17 PM OUT:

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. D-1

Site Name/ Permit No. Red Bluff Facility/ STF-065  
 Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One) YES NO

If YES, was reading &gt; 50 micro roentgens? (circle one) YES NO

Chloride

Conductivity

(mmhos/cm)

pH

Chemical Analysis (Mg/l)

## TANK BOTTOMS

	Feet	Inches
1st Gauge		
2nd Gauge		
Received		

BS&W/BBLs Received	BS&W (%)
Free Water	
Total Received	

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

Company Man Contact Information

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name

Phone No.

## GENERATOR

NO.

211044

Operator No. \_\_\_\_\_

Operators Name Chavira

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_

Lease/Well \_\_\_\_\_

Name & No. H 11 50 1325 11-4

County \_\_\_\_\_

API No. \_\_\_\_\_

Rig Name & No. 30-015 45100

AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	<u>Belly</u>
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_

\*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS 20 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

☐ RCRA EXEMPT:

Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT:

Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information☐ RCRA Hazardous Waste Analysis☐ Other (Provide Description Below)(PRINT) AUTHORIZED AGENTS SIGNATURE X see attached

DATE

SIGNATURE

## TRANSPORTER

Transporter's

Name JHT

Address \_\_\_\_\_

Phone No. \_\_\_\_\_

Driver's Name Brig HarlowPrint Name Brig Harlow

Phone No. \_\_\_\_\_

Truck No. 162

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE 11-10-20DRIVER'S SIGNATURE Brig HarlowDELIVERY DATE 11-10-20DRIVER'S SIGNATURE Brig Harlow

## TRUCK TIME STAMP

IN: 4:30 PM OUT: \_\_\_\_\_

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. D-1

Site Name/

Permit No. Red Bluff Facility/ STF-065Address 5053 US Highway 285, Orla, TX 79770Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One)

YES

NO

If YES, was reading &gt; 50 micro roentgens? (circle one)

YES

NO

Chloride

Conductivity (mmhos/cm)

pH

Chemical Analysis (Mg/l) \_\_\_\_\_

## TANK BOTTOMS

Feet

Inches

1st Gauge  
2nd Gauge  
Received


BS&amp;W/BBLS Received

Free Water

Total Received

BS&amp;W (%)

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why? See attached

NAME (PRINT)

DATE

TITLE

SIGNATURE





(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name Luis Medrano  
Phone No. \_\_\_\_\_**GENERATOR**NO. **211043**

Operator No. \_\_\_\_\_  
 Operators Name Chevron  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
 Lease/Well Name & No. H-H-50 1729/50 H-H  
 County 30013 43 100  
 API No. \_\_\_\_\_  
 Rig Name & No. \_\_\_\_\_  
 AFE/PO No. \_\_\_\_\_

**EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)**

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	<u>Belly</u>
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

**NON-EXEMPT E&P Waste/Service Identification and Amount**

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

QUANTITY 20 B - BARRELS Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

**TRANSPORTER**

Transporter's Name 7448073  
 Address \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Driver's Name Greg Herrera  
 Print Name \_\_\_\_\_  
 Phone No. \_\_\_\_\_  
 Truck No. 152

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

IN: 4:34 PM TRUCK TIME STAMP  
 OUT: \_\_\_\_\_

**DISPOSAL FACILITY****RECEIVING AREA**Name/No. D-1

Site Name/ Permit No. Red Bluff Facility/ STF-065  
 Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One) YES NO  
 Chloride \_\_\_\_\_  
 Chemical Analysis (Mg/l) \_\_\_\_\_

If YES, was reading > 50 micro roentgens? (circle one) YES NO  
 Conductivity (mmhos/cm) \_\_\_\_\_ pH \_\_\_\_\_

**TANK BOTTOMS**

	Feet	Inches
1st Gauge		
2nd Gauge		
Received		

BS&W/BBLS Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why?

Luis Medrano  
 NAME (PRINT)

11/10/20  
 DATE

Rec  
 TITLE

L Medrano  
 SIGNATURE

White - ORIGINAL

Blue - TRANSPORTER

Yellow - GENERATOR

Version 1





# TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

 Company Man Contact  
 Name LUIS  
 Phone No.                     

## GENERATOR

 Operator No.                       
 Operators Name CHEVRON  
 Address                       
 City, State, Zip                       
 Phone No.                     

 Permit/RRC No.  
 Lease/Well  
 Name & No. 114501720 FD  
 County                       
 API No. 30-015-451  
 Rig Name & No.                       
 AFE/PONo.                     

 NO. **211033**

### EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

 Oil Based Muds  
 Oil Based Cuttings  
 Water Based Muds  
 Water Based Cuttings  
 Produced Formation Solids  
 Tank Bottoms  
 E&P Contaminated Soil  
 Gas Plant Waste

**NON-INJECTABLE WATERS**  
 Washout Water (Non-Injectable)  
 Completion Fluid/Flow back (Non-Injectable)  
 Produced Water (Non-Injectable)  
 Gathering Line Water/Waste (Non-Injectable)  
**INTERNAL USE ONLY**  
 Truck Washout (exempt waste)

OTHER EXEMPT WASTES (type and generation process of the waste)

Belly

 WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

### NON-EXEMPT E&P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCPL), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other                     

\*please select from Non-Exempt Waste List on back

 QUANTITY 20 B - BARRELS Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

☐ RCRA EXEMPT:

Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT:

Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information☐ RCRA Hazardous Waste Analysis☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

 Transporter's  
 Name JHT 8073  
 Address                       
 Phone No.                     

## TRANSPORTER

 Driver's Name Adam Murch  
 Print Name                       
 Phone No.                       
 Truck No. 1173

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

 IN: 5:53 PM TRUCK TIME STAMP  
 OUT:                     

## DISPOSAL FACILITY

 RECEIVING AREA  
 Name/No. D-1

 Site Name/  
 Permit No. Red Bluff Facility/ STF-065  
 Address 5053 US Highway 285, Orla, TX 79770
Phone No. 432-448-4239
 NORM READINGS TAKEN? (Circle One) YES ☐ NO ☐  
 Chloride
Chemical Analysis (Mg/l)                     
 If YES, was reading > 50 micro roentgens? (circle one) YES ☐ NO ☐  
 Conductivity (mmhos/cm)                       
 pH                     

## TANK BOTTOMS

 1st Gauge                      Feet                      Inches                       
 2nd Gauge                       
 Received                     

BS&W/BBLS Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE



(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name

Phone No.

**GENERATOR**

NO.

**211027**

Operator No. \_\_\_\_\_  
Operators Name Chevron  
Address \_\_\_\_\_  
City, State, Zip \_\_\_\_\_  
Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
Lease/Well \_\_\_\_\_  
Name & No. HH 501720 Rd 1 H  
County \_\_\_\_\_  
API No. 30-015-45100  
Rig Name & No. \_\_\_\_\_  
AFE/PO No. \_\_\_\_\_

**EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)**

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	<u>BELLY</u>
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

**NON-EXEMPT E&P Waste/Service Identification and Amount**

All non-exempt E&P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

**TRANSPORTER**

Transporter's Name JAT  
Address \_\_\_\_\_  
Phone No. \_\_\_\_\_

Driver's Name Steven Castillo  
Print Name \_\_\_\_\_  
Phone No. \_\_\_\_\_  
Truck No. 115

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

TRUCK TIME STAMP	DISPOSAL FACILITY	RECEIVING AREA
IN: <u>5:50 PM</u> OUT: _____		Name/No. <u>151</u>

Site Name/ Red Bluff Facility/ STF-065  
Permit No. \_\_\_\_\_  
Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One) YES NO  
Chloride  
Chemical Analysis (Mg/l) \_\_\_\_\_  
If YES, was reading > 50 micro roentgens? (circle one) YES NO  
Conductivity (mmhos/cm) \_\_\_\_\_  
pH \_\_\_\_\_

**TANK BOTTOMS**

Feet	Inches	BS&W/BBLS Received	BS&W (%)
1st Gauge		Free Water	
2nd Gauge		Total Received	
Received			

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE

White - ORIGINAL

Blue - TRANSPORTER

Yellow - GENERATOR

Version 1





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

Company Man Contact Information

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name

Phone No.

## GENERATOR

NO. 211040

Operator No. \_\_\_\_\_  
 Operators Name CHEVRON  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
 Lease/Well \_\_\_\_\_  
 Name & No. HH 50 1370 RCD HH  
 County \_\_\_\_\_  
 API No. 30-015-45100  
 Rig Name & No. \_\_\_\_\_  
 AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	<u>Belly</u>
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other

\*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS Y - YARDS 20 E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's Name JHT 8077  
 Address \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Driver's Name Robert Polz  
 Print Name \_\_\_\_\_  
 Phone No. 710 436 6841  
 Truck No. 121

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN: 6:10 PM OUT: \_\_\_\_\_

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. \_\_\_\_\_

Site Name/ Permit No. Red Bluff Facility/ STF-065  
 Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One) YES NO  
 Chloride

If YES, was reading > 50 micro roentgens? (circle one) YES NO  
 Conductivity (mmhos/cm) pH

Chemical Analysis (Mg/l)

## TANK BOTTOMS

Feet Inches  
 1st Gauge \_\_\_\_\_  
 2nd Gauge \_\_\_\_\_  
 Received \_\_\_\_\_

BS&W/BBLs Received	BS&W (%)
Free Water	
Total Received	

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company Man Contact Information

Name \_\_\_\_\_

Phone No. \_\_\_\_\_

## GENERATOR

NO.

211054

Operator No. \_\_\_\_\_

Operators Name \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_

Lease/Well \_\_\_\_\_

Name &amp; No. \_\_\_\_\_

County \_\_\_\_\_

API No. \_\_\_\_\_

Rig Name &amp; No. \_\_\_\_\_

AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds _____	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings _____	Washout Water (Non-Injectable) _____	Cell 4
Water Based Muds _____	Completion Fluid/Flow back (Non-Injectable) _____	
Water Based Cuttings _____	Produced Water (Non-Injectable) _____	
Produced Formation Solids _____	Gathering Line Water/Waste (Non-Injectable) _____	
Tank Bottoms _____	INTERNAL USE ONLY	
E&P Contaminated Soil _____	Truck Washout (exempt waste) _____	
Gas Plant Waste _____		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_

\*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS Y - YARDS 20 E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

☐ RCRA EXEMPT:

Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT:

Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information☐ RCRA Hazardous Waste Analysis☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_

SIGNATURE \_\_\_\_\_

## TRANSPORTER

Transporter's

Name \_\_\_\_\_

Address \_\_\_\_\_

Phone No. \_\_\_\_\_

Driver's Name \_\_\_\_\_

Print Name \_\_\_\_\_

Phone No. \_\_\_\_\_

Truck No. \_\_\_\_\_

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE \_\_\_\_\_

DRIVER'S SIGNATURE \_\_\_\_\_

DELIVERY DATE \_\_\_\_\_

DRIVER'S SIGNATURE \_\_\_\_\_

## TRUCK TIME STAMP

IN: \_\_\_\_\_ OUT: \_\_\_\_\_

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. \_\_\_\_\_

Site Name/

Permit No. \_\_\_\_\_

Address \_\_\_\_\_

Red Bluff Facility/ STF-065

5053 US Highway 285, Orla, TX 79770

Phone No. \_\_\_\_\_

432-448-4239

NORM READINGS TAKEN? (Circle One)

YES

NO

If YES, was reading &gt; 50 micro roentgens? (circle one)

YES

NO

Chemical Analysis (Mg/l) \_\_\_\_\_

Conductivity (mmhos/cm) \_\_\_\_\_

pH \_\_\_\_\_

## TANK BOTTOMS

1st Gauge

2nd Gauge

Received

Feet

Inches

BS&amp;W/BBLS Received

Free Water

Total Received

BS&amp;W (%)

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why? \_\_\_\_\_

NAME (PRINT)

DATE

TITLE

SIGNATURE





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company Man Contact Information

Name

Phone No.

## GENERATOR

NO.

211045

Operator No. \_\_\_\_\_  
 Operators Name Chavon  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
 Lease/Well \_\_\_\_\_  
 Name & No. 11-11-20 11-11-20 001 #6  
 County \_\_\_\_\_  
 API No. \_\_\_\_\_  
 Rig Name & No. 22-015 75100  
 AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	<u>Brill</u>
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS 20 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's Name TAT  
 Address \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Driver's Name Chris H...  
 Print Name \_\_\_\_\_  
 Phone No. \_\_\_\_\_  
 Truck No. 162

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN: 11-11-20 OUT: 11-11-20

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. D1

Site Name/ Red Bluff Facility/ STF-065  
 Permit No. \_\_\_\_\_  
 Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One)

YES

NO

If YES, was reading &gt; 50 micro roentgens? (circle one)

YES

NO

Chemical Analysis (Mg/l)  
 Chloride \_\_\_\_\_

Conductivity  
 (mmhos/cm) \_\_\_\_\_

pH

## TANK BOTTOMS

1st Gauge \_\_\_\_\_  
 2nd Gauge \_\_\_\_\_  
 Received \_\_\_\_\_

BS&W/BBLs Received	BS&W (%)
Free Water	
Total Received	

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE





(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name

Phone No.

Company Man Contact Information  
Name Chris Medrano

## GENERATOR

NO. **211035**

Operator No. \_\_\_\_\_  
 Operators Name CHEVRON  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
 Lease/Well \_\_\_\_\_  
 Name & No. 11H 50 1720 F-2 11H  
 County \_\_\_\_\_  
 API No. 30-013-45100  
 Rig Name & No. \_\_\_\_\_  
 AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS 70 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's Name THT 8073  
 Address \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Driver's Name Victor Cota  
 Print Name \_\_\_\_\_  
 Phone No. 370 436-6841  
 Truck No. 171

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN: \_\_\_\_\_ OUT: \_\_\_\_\_

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. 15-1

Site Name/ Red Bluff Facility/ STF-065  
 Permit No. \_\_\_\_\_  
 Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One)

YES

NO

If YES, was reading &gt; 50 micro roentgens? (circle one)

YES

NO

Chloride

Conductivity

(mmhos/cm)

pH

Chemical Analysis (Mg/l)

## TANK BOTTOMS

Feet

Inches

1st Gauge		
2nd Gauge		
Received		

BS&W/BBLS Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE

White - ORIGINAL

Blue - TRANSPORTER

Yellow - GENERATOR

Version 1



(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name

Phone No.

**GENERATOR**

NO.

**211039**

Operator No. \_\_\_\_\_  
Operators Name Citexian  
Address \_\_\_\_\_  
City, State, Zip \_\_\_\_\_  
Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
Lease/Well Name & No. 111 50 1720 Fed 111  
County \_\_\_\_\_  
API No. 30-015-45100  
Rig Name & No. \_\_\_\_\_  
AFE/PO No. \_\_\_\_\_

**EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)**

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		<u>Belly Dump</u>

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

**NON-EXEMPT E&P Waste/Service Identification and Amount**

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS 20 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

**TRANSPORTER**

Transporter's Name JHT  
Address \_\_\_\_\_  
Phone No. \_\_\_\_\_

Driver's Name Robert Colon  
Print Name \_\_\_\_\_  
Phone No. 710 436 6841  
Truck No. 171

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

**TRUCK TIME STAMP**IN: 10:41 OUT: \_\_\_\_\_**DISPOSAL FACILITY****RECEIVING AREA**Name/No. 61

Site Name/ Permit No. Red Bluff Facility/ STF-065  
Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One) YES NO  
Chloride \_\_\_\_\_  
Chemical Analysis (Mg/l) \_\_\_\_\_

If YES, was reading > 50 micro roentgens? (circle one) YES NO  
Conductivity (mmhos/cm) \_\_\_\_\_  
pH \_\_\_\_\_

**TANK BOTTOMS**

1st Gauge \_\_\_\_\_  
2nd Gauge \_\_\_\_\_  
Received \_\_\_\_\_

BS&W/BBLs Received	BS&W (%)
Free Water	
Total Received	

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why? \_\_\_\_\_

NAME (PRINT)

DATE

TITLE

SIGNATURE

White - ORIGINAL Blue - TRANSPORTER Yellow - GENERATOR

Version 1





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company Man Contact Information

Name \_\_\_\_\_

Phone No. \_\_\_\_\_

## GENERATOR

NO.

211053

Operator No. \_\_\_\_\_

Operators Name

Chevron

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_

Lease/Well \_\_\_\_\_

Name &amp; No. \_\_\_\_\_

County \_\_\_\_\_

API No. \_\_\_\_\_

Rig Name &amp; No. \_\_\_\_\_

AFE/PO No. \_\_\_\_\_

H-H 501720 fud H-H

30013 45100

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	Bully
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_

\*please select from Non-Exempt Waste List on back

QUANTITY

B - BARRELS

20 Y - YARDS

E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

☐ RCRA EXEMPT:

Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT:

Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information☐ RCRA Hazardous Waste Analysis☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's

Name

JHT

Address \_\_\_\_\_

Phone No. \_\_\_\_\_

Driver's Name

Print Name

Phone No. \_\_\_\_\_

Truck No. \_\_\_\_\_

Ray Herrera  
 Luis Herrera  
 152

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN: 10:46 AM OUT: \_\_\_\_\_

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. \_\_\_\_\_

Site Name/

Permit No.

Red Bluff Facility/ STF-065

Phone No.

432-448-4239

Address

5053 US Highway 285, Orla, TX 79770

NORM READINGS TAKEN? (Circle One)

YES

NO

If YES, was reading &gt; 50 micro roentgens? (circle one)

YES

NO

Chloride

Conductivity

(mmhos/cm)

pH

Chemical Analysis (Mg/l) \_\_\_\_\_

## TANK BOTTOMS

Feet

Inches

1st Gauge

2nd Gauge

Received


BS&W/BBLs Received	BS&W (%)
Free Water	
Total Received	

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why? \_\_\_\_\_

NAME (PRINT)

DATE

TITLE

SIGNATURE



(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name

Phone No.

**GENERATOR**

NO.

**211123**

Operator No. \_\_\_\_\_ Permit/RRC No. \_\_\_\_\_  
Operators Name John Lease/Well Name & No. HH 50 1320 66 144  
Address \_\_\_\_\_ County \_\_\_\_\_  
City, State, Zip \_\_\_\_\_ API No. \_\_\_\_\_  
Phone No. \_\_\_\_\_ Rig Name & No. 30 015 45100  
AFE/PO No. \_\_\_\_\_

**EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)**

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES**NON-EXEMPT E&P Waste/Service Identification and Amount**

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS 20 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

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- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

**TRANSPORTER**

Transporter's Name JMT Driver's Name Greg Howard  
Address \_\_\_\_\_ Print Name \_\_\_\_\_  
Phone No. \_\_\_\_\_ Phone No. \_\_\_\_\_  
Truck No. 162

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

**TRUCK TIME STAMP**IN: 10:50 AM OUT: \_\_\_\_\_**DISPOSAL FACILITY****RECEIVING AREA**Name/No. 11

Site Name/ Permit No. Red Bluff Facility/ STF-065  
Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One) YES ☐ NO ☒  
Chemical Analysis (Mg/l) \_\_\_\_\_

If YES, was reading > 50 micro roentgens? (circle one) YES ☐ NO ☒  
Conductivity (mmhos/cm) \_\_\_\_\_ pH \_\_\_\_\_

**TANK BOTTOMS**

1st Gauge \_\_\_\_\_ Feet \_\_\_\_\_ Inches \_\_\_\_\_  
2nd Gauge \_\_\_\_\_  
Received \_\_\_\_\_

BS&W/BBLs Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE

White - ORIGINAL

Blue - TRANSPORTER

Yellow - GENERATOR

Version 1





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company Man Contact Information

Name

Phone No.

## GENERATOR

NO. 211136

Operator No. \_\_\_\_\_  
 Operators Name Cherion  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
 Lease/Well Name & No. H450 BCO MWH  
 County BO-015-45101  
 API No. \_\_\_\_\_  
 Rig Name & No. \_\_\_\_\_  
 AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS Y - YARDS 20 E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's Name JHT  
 Address \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Driver's Name Orbaldo E.  
 Print Name \_\_\_\_\_  
 Phone No. \_\_\_\_\_  
 Truck No. 174

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN: 10:54 AM OUT:

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. 21

Site Name/ Permit No. Red Bluff Facility/ STF-065  
 Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One) YES ☐ NO ☒

If YES, was reading > 50 micro roentgens? (circle one) YES ☐ NO ☒

Chloride

Conductivity

Chemical Analysis (Mg/l)

(mmhos/cm)

pH

## TANK BOTTOMS

1st Gauge Feet \_\_\_\_\_ Inches \_\_\_\_\_  
 2nd Gauge \_\_\_\_\_  
 Received \_\_\_\_\_

BS&W/BBLS Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company Man Contact Information

Name

Phone No.

## GENERATOR

NO.

211031

Operator No. \_\_\_\_\_  
 Operators Name CHEVRON  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
 Lease/Well Name & No. HH 501720 Fld 1 H  
 County 30-013-45100  
 API No. \_\_\_\_\_  
 Rig Name & No. \_\_\_\_\_  
 AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-injectable)	<u>Belly</u>
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS 20 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's Name IHT 8073  
 Address \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Driver's Name Adan Morales  
 Print Name \_\_\_\_\_  
 Phone No. \_\_\_\_\_  
 Truck No. 1173

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN: 12:00 PM OUT: \_\_\_\_\_

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. 01

Site Name/ Red Bluff Facility/ STF-065  
 Permit No. \_\_\_\_\_  
 Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One) YES ☐ NO ☒  
 Chloride \_\_\_\_\_  
 Chemical Analysis (Mg/l) \_\_\_\_\_

If YES, was reading > 50 micro roentgens? (circle one) YES ☐ NO ☒  
 Conductivity (mmhos/cm) \_\_\_\_\_ pH \_\_\_\_\_

## TANK BOTTOMS

Feet

Inches

1st Gauge \_\_\_\_\_  
 2nd Gauge \_\_\_\_\_  
 Received \_\_\_\_\_

BS&W/BBLs Received	BS&W (%)
Free Water	
Total Received	

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why? \_\_\_\_\_

NAME (PRINT)

DATE

TITLE

SIGNATURE





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company Man Contact Information

Name

Phone No.

## GENERATOR

NO. 211036

Operator No. \_\_\_\_\_  
 Operators Name chevron  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
 Lease/Well \_\_\_\_\_  
 Name & No. HH 50 1920 Rd 11H  
 County \_\_\_\_\_  
 API No. 30-015-75100  
 Rig Name & No. \_\_\_\_\_  
 AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS 70 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's Name JHT  
 Address \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Driver's Name Robert Cota  
 Print Name \_\_\_\_\_  
 Phone No. \_\_\_\_\_  
 Truck No. 171

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN: 12:31 OUT:

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. 21

Site Name/ Permit No. Red Bluff Facility/ STF-065  
 Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One) YES ☐ NO ☒

If YES, was reading > 50 micro roentgens? (circle one) YES ☐ NO ☒

Chloride

Conductivity (mmhos/cm) \_\_\_\_\_ pH \_\_\_\_\_

Chemical Analysis (Mg/l)

## TANK BOTTOMS

	Feet	Inches
1st Gauge		
2nd Gauge		
Received		

BS&W/BBLs Received	BS&W (%)
Free Water	
Total Received	

I hereby certify that the above load material has been (circle one): ACCEPTED ☒ DENIED ☐ If denied, why? \_\_\_\_\_

NAME (PRINT)

DATE

TITLE

SIGNATURE





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company Man Contact Information

Name

Phone No.

## GENERATOR

NO.

211057

Operator No. \_\_\_\_\_

Operators Name Sherron

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone No. \_\_\_\_\_

Permit/RRC No.

Lease/Well

Name & No. H-H501220/11-H

County

API No. 30015-45100

Rig Name &amp; No.

AFE/PO No.

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	<u>Belly</u>
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_

\*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS 20 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE Eric S. 2

DATE

SIGNATURE

## TRANSPORTER

 Transporter's Name JHT  
 Address \_\_\_\_\_  
 Phone No. \_\_\_\_\_
Driver's Name Greg HurrenPrint Name Greg Hurren

Phone No. \_\_\_\_\_

Truck No. 152

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE 11-11-20DRIVER'S SIGNATURE Greg HurrenDELIVERY DATE 11-11-20DRIVER'S SIGNATURE Greg Hurren

## TRUCK TIME STAMP

IN: 12:47P OUT: \_\_\_\_\_

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. 81
 Site Name/ Permit No. Red Bluff Facility/ STF-065  
 Address 5053 US Highway 285, Orla, TX 79770
Phone No. 432-448-4239NORM READINGS TAKEN? (Circle One) YES ☐ NO ☒

Chloride

If YES, was reading > 50 micro roentgens? (circle one) YES ☐ NO ☒

Conductivity (mmhos/cm)

pH

Chemical Analysis (Mg/I) \_\_\_\_\_

## TANK BOTTOMS

	Feet	Inches
1st Gauge		
2nd Gauge		
Received		

BS&W/BBLS Received	BS&W (%)
Free Water	
Total Received	

I hereby certify that the above load material has been (circle one): ACCEPTED ☒ DENIED ☐ If denied, why? \_\_\_\_\_NAME (PRINT) JorgeDATE 11-11-20TITLE ReceiverSIGNATURE JHT





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

Company Man Contact Information

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name

Phone No.

## GENERATOR

NO. 211124

Operator No. \_\_\_\_\_  
 Operators Name Channon  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
 Lease/Well Name & No. HH 50132 Fed 11-H  
 County Edwards  
 API No. 30-015-45100  
 Rig Name & No. \_\_\_\_\_  
 AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	<u>20 1/2</u>
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCPL), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

Erik S. 12  
 (PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's Name JHT  
 Address \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Driver's Name Erik S. 12  
 Print Name \_\_\_\_\_  
 Phone No. \_\_\_\_\_  
 Truck No. 162

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

11-11-20 SHIPMENT DATE [Signature] DRIVER'S SIGNATURE

11-11-20 DELIVERY DATE [Signature] DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN: 12:52 PM OUT: \_\_\_\_\_

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. 21

Site Name/ Permit No. Red Bluff Facility/ STF-065  
 Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239NORM READINGS TAKEN? (Circle One) YES ☐ NO ☒If YES, was reading > 50 micro roentgens? (circle one) YES ☐ NO ☒

Chloride

Conductivity

Chemical Analysis (Mg/l) \_\_\_\_\_

(mmhos/cm) \_\_\_\_\_ pH \_\_\_\_\_

## TANK BOTTOMS

Feet Inches  
 1st Gauge \_\_\_\_\_  
 2nd Gauge \_\_\_\_\_  
 Received \_\_\_\_\_

BS&W/BBLs Received	BS&W (%)
Free Water	
Total Received	

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

Company Man Contact Information

(PLEASE PRINT) \*REQUIRED INFORMATION\*

Name \_\_\_\_\_

Phone No. \_\_\_\_\_

**GENERATOR**NO. **211137**

Operator No. \_\_\_\_\_  
 Operators Name CHEVRON  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
 Lease/Well Name & No. HHS01370 P/1001  
 County 30-015 4501  
 API No. \_\_\_\_\_  
 Rig Name & No. \_\_\_\_\_  
 AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS Y - YARDS 20 E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

**TRANSPORTER**

Transporter's Name JH  
 Address \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Driver's Name OSBORN E.  
 Print Name \_\_\_\_\_  
 Phone No. \_\_\_\_\_  
 Truck No. 174

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN: 11-05-20 OUT: \_\_\_\_\_**DISPOSAL FACILITY****RECEIVING AREA**Name/No. 21

Site Name/ Permit No. Red Bluff Facility/ STF-065  
 Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One) YES NO

Chloride

If YES, was reading &gt; 50 micro roentgens? (circle one) YES NO

Conductivity (mmhos/cm)

pH

Chemical Analysis (Mg/l)

**TANK BOTTOMS**

Feet

Inches

1st Gauge		
2nd Gauge		
Received		

BS&W/BBLs Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why? \_\_\_\_\_

NAME (PRINT)

DATE

TITLE

SIGNATURE





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company Man Contact Information

Name Luis Medina

Phone No. \_\_\_\_\_

## GENERATOR

NO.

211032

Operator No. \_\_\_\_\_

Operators Name CHEVRON

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_

Lease/Well \_\_\_\_\_

Name & No. HH 501720 Fed 1 1A

County \_\_\_\_\_

API No. 3003-45106

Rig Name &amp; No. \_\_\_\_\_

AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	<u>Belly</u>
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS:

☐ DRILLING☐ COMPLETION☐ PRODUCTION☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_

\*please select from Non-Exempt Waste List on back

QUANTITY

B - BARRELS

20

Y - YARDS

E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

☐ RCRA EXEMPT:

Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT:

Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information☐ RCRA Hazardous Waste Analysis☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's

Name JHT 8073

Address \_\_\_\_\_

Phone No. \_\_\_\_\_

Driver's Name Adan Murillo

Print Name \_\_\_\_\_

Phone No. \_\_\_\_\_

Truck No. 1173

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN: 2:18 PM

OUT: \_\_\_\_\_

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. DC

Site Name/

Red Bluff Facility/ STF-065

Permit No. \_\_\_\_\_

Phone No. 432-448-4239

Address

5053 US Highway 285, Orla, TX 79770

NORM READINGS TAKEN? (Circle One)

YES

NO

If YES, was reading &gt; 50 micro roentgens? (circle one)

YES

NO

Chloride

Conductivity

(mmhos/cm)

pH

Chemical Analysis (Mg/l) \_\_\_\_\_

## TANK BOTTOMS

Feet

Inches

1st Gauge

2nd Gauge

Received

BS&amp;W/BBLs Received

BS&amp;W (%)

Free Water

Total Received

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

Company Man Contact Information

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name

Phone No.

## GENERATOR

NO.

211038

Operator No.

Operators Name CHEVRON

Address

City, State, Zip

Phone No.

Permit/RRC No.

Lease/Well

Name &amp; No.

County

API No.

Rig Name &amp; No.

AFE/PO No.

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other

\*please select from Non-Exempt Waste List on back

QUANTITY

B - BARRELS

20 Y - YARDS

E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

☐ RCRA EXEMPT:

Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT:

Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information☐ RCRA Hazardous Waste Analysis☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's

Name

Address

Phone No.

Driver's Name

Print Name

Phone No.

Truck No.

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN: 2:24 PM

OUT:

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No.

Site Name/

Permit No.

Address

Red Bluff Facility/ STF-065

5053 US Highway 285, Orla, TX 79770

Phone No.

432-448-4239

NORM READINGS TAKEN? (Circle One)

YES

NO

If YES, was reading &gt; 50 micro roentgens? (circle one)

YES

NO

Chloride

Conductivity  
(mmhos/cm)

pH

Chemical Analysis (Mg/l)

## TANK BOTTOMS

Feet

Inches

1st Gauge

2nd Gauge

Received

BS&amp;W/BBLS Received

Free Water

Total Received

BS&amp;W (%)

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE





(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Name \_\_\_\_\_

Phone No. \_\_\_\_\_

**GENERATOR**

NO.

**211058**

Operator No. \_\_\_\_\_  
 Operators Name Chevron  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
 Lease/Well Name & No. H# 501720 pd 11-H  
 County Eddy  
 API No. \_\_\_\_\_  
 Rig Name & No. 30-015-45100  
 AFE/PO No. \_\_\_\_\_

**EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)**

Oil Based Muds	_____	<b>NON-INJECTABLE WATERS</b>	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	_____		<u>Bell + Dunp</u>
Water Based Muds	_____		
Water Based Cuttings	_____		
Produced Formation Solids	_____		
Tank Bottoms	_____	<b>INTERNAL USE ONLY</b>	
E&P Contaminated Soil	_____		
Gas Plant Waste	_____		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

**NON-EXEMPT E&P Waste/Service Identification and Amount**

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

**QUANTITY** B - BARRELS 20 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

**TRANSPORTER**

Transporter's Name J.H.T.  
 Address \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Driver's Name Greg Herrera  
 Print Name Greg Herrera  
 Phone No. \_\_\_\_\_  
 Truck No. 152

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below:

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

**TRUCK TIME STAMP**IN: 7:34 OUT: \_\_\_\_\_**DISPOSAL FACILITY****RECEIVING AREA**Name/No. 31

Site Name/ Permit No. Red Bluff Facility/ STF-065  
 Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One) YES ☐ NO ☒

If YES, was reading > 50 micro roentgens? (circle one) YES ☐ NO ☒

Chemical Analysis (Mg/l) \_\_\_\_\_ Conductivity (mmhos/cm) \_\_\_\_\_ pH \_\_\_\_\_

**TANK BOTTOMS**

1st Gauge \_\_\_\_\_ Feet \_\_\_\_\_ Inches \_\_\_\_\_  
 2nd Gauge \_\_\_\_\_  
 Received \_\_\_\_\_

BS&W/BBLs Received	_____	BS&W (%)	_____
Free Water	_____		
Total Received	_____		

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why? \_\_\_\_\_

NAME (PRINT)

DATE

TITLE

SIGNATURE

White - ORIGINAL

Blue - TRANSPORTER

Yellow - GENERATOR

Version 1





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company Man Contact Information

Name

Phone No.

## GENERATOR

NO.

211055

Operator No. \_\_\_\_\_

Operators Name chevron

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_

Lease/Well \_\_\_\_\_

Name & No. 4450 1320 1st 11A

County \_\_\_\_\_

API No. 30 015 45100

Rig Name &amp; No. \_\_\_\_\_

AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	_____	NON-INJECTABLE WATERS	_____	OTHER EXEMPT WASTES (type and generation process of the waste)	_____
Oil Based Cuttings	_____	Washout Water (Non-Injectable)	_____	<u>60/13</u>	
Water Based Muds	_____	Completion Fluid/Flow back (Non-Injectable)	_____		
Water Based Cuttings	_____	Produced Water (Non-Injectable)	_____		
Produced Formation Solids	<u>✓</u>	Gathering Line Water/Waste (Non-Injectable)	_____		
Tank Bottoms	_____	INTERNAL USE ONLY	_____		
E&P Contaminated Soil	_____	Truck Washout (exempt waste)	_____		
Gas Plant Waste	_____				

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS 20 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

☐ RCRA EXEMPT:

Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT:

Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☒ MSDS Information☐ RCRA Hazardous Waste Analysis☐ Other (Provide Description Below)(PRINT) AUTHORIZED AGENTS SIGNATURE Eric S. 2

DATE

SIGNATURE

## TRANSPORTER

Transporter's

Name JMT

Address \_\_\_\_\_

Phone No. \_\_\_\_\_

Driver's Name Anthony...

Print Name \_\_\_\_\_

Phone No. 1762

Truck No. \_\_\_\_\_

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE 11/11/20DRIVER'S SIGNATURE [Signature]DELIVERY DATE 11/11/20DRIVER'S SIGNATURE [Signature]

## TRUCK TIME STAMP

IN: 2:36:17

OUT: \_\_\_\_\_

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. 21

Site Name/

Red Bluff Facility/ STF-065

Phone No.

432-448-4239

Address

5053 US Highway 285, Orla, TX 79770

NORM READINGS TAKEN? (Circle One)

YES

NO

If YES, was reading &gt; 50 micro roentgens? (circle one)

YES

NO

Chloride

Conductivity

(mmhos/cm)

pH

Chemical Analysis (Mg/l) \_\_\_\_\_

## TANK BOTTOMS

Feet

Inches

1st Gauge

2nd Gauge

Received

BS&amp;W/BBLS Received

BS&amp;W (%)

Free Water

Total Received

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why? \_\_\_\_\_

NAME (PRINT) Joan CrainDATE 11/11/20TITLE ReceiverSIGNATURE [Signature]





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company Man Contact Information

Name

Phone No.

## GENERATOR

NO.

211030

Operator No.

Operators Name

Address

City, State, Zip

Phone No.

Permit/RRC No.

Lease/Well

Name &amp; No.

County

API No.

Rig Name &amp; No.

AFE/PO No.

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	Belly 11
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other

\*please select from Non-Exempt Waste List on back

QUANTITY

B - BARRELS

Y - YARDS

E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

☐ RCRA EXEMPT:

Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT:

Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information☐ RCRA Hazardous Waste Analysis☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's

Name

Address

Phone No.

Driver's Name

Print Name

Phone No.

Truck No.

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN: 10:33 AM OUT:

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No.

Site Name/

Permit No.

Address

Red Bluff Facility/ STF-065

Phone No.

432-448-4239

NORM READINGS TAKEN? (Circle One)

YES

NO

If YES, was reading &gt; 50 micro roentgens? (circle one)

YES

NO

Chloride

Conductivity

(mmhos/cm)

pH

Chemical Analysis (Mg/l)

## TANK BOTTOMS

Feet

Inches

1st Gauge  
2nd Gauge  
Received

BS&amp;W/BBLS Received

Free Water

Total Received

BS&amp;W (%)

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE



<h1 style="margin: 0;">CHEVRON</h1> <h2 style="margin: 0;">MCBU</h2> <h3 style="margin: 0;">Carlsbad, NM</h3>										
NO #CAR- <b>2615</b> <b>NON-HAZARDOUS WASTE MANIFEST</b>					1. PAGE ____ OF ____		2. TRAILER NO.			
GENERATOR	3. COMPANY NAME <b>CHEVRON CARLSBAD</b>			4. ADDRESS <b>3150 E. GREENE ST.</b>			5. PICK-UP DATE			
	PHONE NO. <b>575-887-5676</b>			CITY STATE ZIP <b>CARLSBAD, NM 88220</b>			6.			
	7. NAME OR DESCRIPTION OF WASTE SHIPPED:						8. CONTAINERS No. Type	9. TOTAL QUANTITY	10. UNIT WT/Vol.	11.
	a.									
	b.									
	c. <b>45100</b>									
	d.									
	12. COMMENTS OR SPECIAL INSTRUCTIONS:						13. WASTE PROFILE NO.			
	14. <b>IN CASE OF EMERGENCY OR SPILL, CONTACT</b>									
	<b>CHEVRON CARLSBAD</b>						24-HOUR EMERGENCY NO. <b>575-887-5676</b>			
OR	15. <b>GENERATOR'S CERTIFICATION:</b> Hereby declare that the contents of this consignment are fully and accurately described above.									
	PRINTED TYPED NAME				SIGNATURE				DATE	
TRANSPORTER	16. <b>TRANSPORTER (1)</b>				17. <b>TRANSPORTER (2)</b>					
	NAME				NAME					
	IN CASE OF EMERGENCY CONTACT:				IN CASE OF EMERGENCY CONTACT:					
	EMERGENCY PHONE:				EMERGENCY PHONE:					
RECEIVER	18. <b>TRANSPORTER (1):</b> Acknowledgment of receipt of material				19. <b>TRANSPORTER (2):</b> Acknowledgment of receipt of material					
	PRINTED/TYPED NAME _____				PRINTED/TYPED NAME _____					
	SIGNATURE _____ DATE _____				SIGNATURE _____ DATE _____					
DISPOSAL SITE				ADDRESS: <b>R360 Environmental Solutions - Red Bluff</b>			PHONE:			
				<b>5053 US Highway 285</b>						
	PERMIT NO.			20. COMMENTS <b>Orla, TX 79770 432-448-4239</b>						
	21. <b>DISPOSAL FACILITY'S CERTIFICATION:</b> I Herby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.									
L Y	AUTHORIZED SIGNATURE <b>Luice Calderon</b>				CELL NO.		DATE <b>11/19/20</b>		TIME <b>12:54 PM</b>	

Disposal Site: Please complete Disposal Facility section at bottom of form and  
mail copy of completed form to Chevron Carlsbad 3150 E. Greene St. Carlsbad, NM 88220

GENERATOR: COPY 1

TRANSPORTER: COPY 2

DISPOSAL SITE: COPY 3 &amp; 4





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company/Man Contact Information

Name Stetson GibbsPhone No. 942-7090

## GENERATOR

NO. **211127**

Operator No. \_\_\_\_\_  
 Operators Name Chellon  
 Address \_\_\_\_\_  
 City, State, Zip \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_  
 Lease/Well Name & No. HH50 1770 Fedday 1H  
 County 30-015-45100  
 API No. \_\_\_\_\_  
 Rig Name & No. \_\_\_\_\_  
 AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	<u>Belly</u>
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS 20 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

- ☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)
- ☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)
- ☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's Name JHT  
 Address \_\_\_\_\_  
 Phone No. \_\_\_\_\_

Driver's Name Fabian Contreras  
 Print Name \_\_\_\_\_  
 Phone No. \_\_\_\_\_  
 Truck No. 174

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN: 12:57PM OUT: \_\_\_\_\_

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. D-1

Site Name/ Red Bluff Facility/ STF-065  
 Permit No. \_\_\_\_\_  
 Address 5053 US Highway 285, Orla, TX 79770

Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One) YES NO

If YES, was reading &gt; 50 micro roentgens? (circle one) YES NO

Chloride

Conductivity

Chemical Analysis (Mg/l)

(mmhos/cm)

pH

## TANK BOTTOMS

	Feet	Inches
1st Gauge		
2nd Gauge		
Received		

BS&W/BBLS Received	BS&W (%)
Free Water	
Total Received	

I hereby certify that the above load/material has been (circle one): ACCEPTED DENIED If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE



<h1 style="margin: 0;">CHEVRON</h1> <h2 style="margin: 0;">MCBU</h2> <h3 style="margin: 0;">Carlsbad, NM</h3>									
NO #CAR- 2617 NON-HAZARDOUS WASTE MANIFEST					1. PAGE 3 OF 4		2. TRAILER NO. 158		
GENERATOR	3. COMPANY NAME <b>CHEVRON CARLSBAD</b>			4. ADDRESS <b>3150 E. GREENE ST.</b>			5. PICK-UP DATE <b>11-19-20</b>		
	PHONE NO. <b>575-887-5676</b>			CITY STATE ZIP <b>CARLSBAD, NM 88220</b>			6.		
	7. NAME OR DESCRIPTION OF WASTE SHIPPED: <i>Contaminated Dirt</i>						8. CONTAINERS No.	9. TOTAL QUANTITY	10. UNIT WT/Vol.
	a. <i>HH5017-20-fid 001 #5th</i>						1	TT	20yds
	b. <i>API-30015451020001</i>								
	c. <i>Cost Code-UCRE 11200</i>								
	d.								
	12. COMMENTS OR SPECIAL INSTRUCTIONS:						13. WASTE PROFILE NO.		
	14. IN CASE OF EMERGENCY OR SPILL, CONTACT								
	CHEVRON CARLSBAD						24-HOUR EMERGENCY NO. <b>575-887-5676</b>		
TRANSPORTER	15. GENERATOR'S CERTIFICATION: Hereby declare that the contents of this consignment are fully and accurately described above.								
	PRINTED TYPED NAME <i>Stetson Gibbs 6575/942-7090</i>					SIGNATURE <i>Stetson Gibbs</i>		DATE <i>11-19-20</i>	
	16. TRANSPORTER (1) NAME <i>Osbello E Rm</i> IN CASE OF EMERGENCY CONTACT: <i>Victor Loya</i> EMERGENCY PHONE: <i>432 232-1580</i>					17. TRANSPORTER (2) NAME  IN CASE OF EMERGENCY CONTACT: EMERGENCY PHONE:			
DISPOSAL	18. TRANSPORTER (1): Acknowledgment of receipt of material PRINTED/TYPED NAME _____ SIGNATURE _____ DATE _____					19. TRANSPORTER (2): Acknowledgment of receipt of material PRINTED/TYPED NAME _____ SIGNATURE _____ DATE _____			
	PERMIT NO.			ADDRESS:			PHONE:		
	21. DISPOSAL FACILITY'S CERTIFICATION: I Hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.			20. COMMENTS					
AUTHORIZED SIGNATURE					CELL NO.		DATE		TIME

Disposal Site: Please complete Disposal Facility section at bottom of form and  
mail copy of completed form to Chevron Carlsbad 3150 E. Greene St. Carlsbad, NM 88220

GENERATOR: COPY 1

TRANSPORTER: COPY 2

DISPOSAL SITE: COPY 3 &amp; 4





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company Man Contact Information

Name: Stetson Ellis

Phone No. \_\_\_\_\_

## GENERATOR

NO. **211135**

Operator No. \_\_\_\_\_

Operators Name Chen

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

Phone No. \_\_\_\_\_

Permit/RRC No. \_\_\_\_\_

Lease/Well \_\_\_\_\_

Name & No. HA 50 1720 F-d 02/14/11

County \_\_\_\_\_

API No. 30-015-45100-45155Rig Name & No. Mon - Dallas

AFE/PO No. \_\_\_\_\_

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other \_\_\_\_\_ \*please select from Non-Exempt Waste List on back

QUANTITY B - BARRELS 20 Y - YARDS E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.

☐ RCRA EXEMPT:

Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT:

Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information☐ RCRA Hazardous Waste Analysis☐ Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's Name TH 7

Address \_\_\_\_\_

Phone No. \_\_\_\_\_

Driver's Name Travis Harrison

Print Name \_\_\_\_\_

Phone No. \_\_\_\_\_

Truck No. 162

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE 11-19-20DRIVER'S SIGNATURE [Signature]DELIVERY DATE 11-19-20DRIVER'S SIGNATURE [Signature]

## TRUCK TIME STAMP

IN: 2:50 PM OUT: \_\_\_\_\_

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No. 131Site Name/ Permit No. Red Bluff Facility/ STF-065Address 5053 US Highway 28S, Orla, TX 79770Phone No. 432-448-4239

NORM READINGS TAKEN? (Circle One)

YES

NO

If YES, was reading &gt; 50 micro roentgens? (circle one)

YES

NO

Chloride

Conductivity

(mmhos/cm)

pH

Chemical Analysis (Mg/l)

## TANK BOTTOMS

Feet

Inches

1st Gauge	
2nd Gauge	
Received	

BS&W/BBLs Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one):

ACCEPTED

DENIED

If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE



<h1 style="margin: 0;">CHEVRON</h1> <h2 style="margin: 0;">MCBU</h2> <h3 style="margin: 0;">Carlsbad, NM</h3>										
NO #CAR- <b>2619</b> NON-HAZARDOUS WASTE MANIFEST					1. PAGE <u>5</u> OF <u>5</u>		2. TRAILER NO.			
GENERATOR'S CERTIFICATION:	3. COMPANY NAME <b>CHEVRON CARLSBAD</b>		4. ADDRESS <b>3150 E. GREENE ST.</b>			5. PICK-UP DATE <b>11-19-20</b>				
	PHONE NO. <b>575-887-5676</b>		CITY STATE ZIP <b>CARLSBAD, NM 88220</b>			6.				
	7. NAME OR DESCRIPTION OF WASTE SHIPPED:					8. CONTAINERS No. Type		9. TOTAL QUANTITY		10. UNIT WT/VOL
	a. <i>Contaminated Dirt</i>					1		TT		20 yds
	b. <i>H4 5013-20 Fed 001 #5 H</i>									
TRANSPORTER'S CERTIFICATION:	c. <i>API-30015451020001</i>									
	d. <i>Cost Code UCR 611200</i>									
	12. COMMENTS OR SPECIAL INSTRUCTIONS:					13. WASTE PROFILE NO.				
DISPOSAL SITE:	14. IN CASE OF EMERGENCY OR SPILL, CONTACT									
	CHEVRON CARLSBAD						24-HOUR EMERGENCY NO. <b>575-887-5676</b>			
	15. GENERATOR'S CERTIFICATION: Hereby declare that the contents of this consignment are fully and accurately described above.									
TRANSPORTER'S CERTIFICATION:	PRINTED TYPED NAME <i>Stetson Gibbs (575) 912-7090</i>				SIGNATURE <i>Stetson Gibbs</i>			DATE <i>11-19-20</i>		
	16. TRANSPORTER (1) NAME <i>Victor 1940</i>				17. TRANSPORTER (2) NAME					
	IN CASE OF EMERGENCY CONTACT: EMERGENCY PHONE:				IN CASE OF EMERGENCY CONTACT: EMERGENCY PHONE:					
DISPOSAL SITE:	18. TRANSPORTER (1): Acknowledgment of receipt of material PRINTED/TYPED NAME _____ SIGNATURE _____ DATE _____				19. TRANSPORTER (2): Acknowledgment of receipt of material PRINTED/TYPED NAME _____ SIGNATURE _____ DATE _____					
	20. COMMENTS				21. DISPOSAL FACILITY'S CERTIFICATION: I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.					
	AUTHORIZED SIGNATURE <i>Stetson Gibbs</i>				CELL NO.		DATE <i>11/19/20</i>		TIME <i>3:10 PM</i>	
DISPOSAL SITE:	ADDRESS: <b>360 Environmental Solutions - Red Bluff</b> <b>5053 US Highway 285</b> <b>Orla, TX 79776-4329</b>				PHONE:					
	PERMIT NO.				20. COMMENTS					
	21. DISPOSAL FACILITY'S CERTIFICATION: I hereby certify that the above described wastes were delivered to this facility, that the facility is authorized and permitted to receive such wastes.				20. COMMENTS					

Disposal Site: Please complete Disposal Facility section at bottom of form and  
mail copy of completed form to Chevron Carlsbad 3150 E. Greene St. Carlsbad, NM 88220

GENERATOR: COPY 1

TRANSPORTER: COPY 2

DISPOSAL SITE: COPY 3 &amp; 4





## TEXAS NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

\*REQUIRED INFORMATION\*

Company Man Contact Information

Name

Phone No.

## GENERATOR

NO.

212863

Operator No.

Operators Name

Address

City, State, Zip

Phone No.

Permit/RRC No.

Lease/Well

Name &amp; No.

County

API No.

Rig Name &amp; No.

AFE/PO No.

## EXEMPT E&amp;P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	OTHER EXEMPT WASTES (type and generation process of the waste)
Oil Based Cuttings	Washout Water (Non-Injectable)	Belly
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	
Water Based Cuttings	Produced Water (Non-Injectable)	
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	
Tank Bottoms	INTERNAL USE ONLY	
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

## NON-EXEMPT E&amp;P Waste/Service Identification and Amount

All non-exempt E&amp;P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other

\*please select from Non-Exempt Waste List on back

QUANTITY

B - BARRELS

Y - YARDS

E - EACH

I hereby certify that the above listed material(s), is (are) not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law. That each waste has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulation.



RCRA EXEMPT:

Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)



RCRA NON-EXEMPT:

Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)



MSDS Information



RCRA Hazardous Waste Analysis



Other (Provide Description Below)

(PRINT) AUTHORIZED AGENTS SIGNATURE

DATE

SIGNATURE

## TRANSPORTER

Transporter's

Name

Address

Phone No.

Driver's Name

Print Name

Phone No.

Truck No.

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE

DRIVER'S SIGNATURE

DELIVERY DATE

DRIVER'S SIGNATURE

## TRUCK TIME STAMP

IN:

OUT:

## DISPOSAL FACILITY

## RECEIVING AREA

Name/No.

Site Name/

Permit No.

Address

Red Bluff Facility/ STF-065

5053 US Highway 285, Orla, TX 79770

Phone No.

432-448-4239

NORM READINGS TAKEN? (Circle One)

YES

NO

If YES, was reading &gt; 50 micro roentgens? (circle one)

YES

NO

Chloride

Conductivity

(mmhos/cm)

pH

Chemical Analysis (Mg/l)

## TANK BOTTOMS

Feet

Inches

1st Gauge

2nd Gauge

Received

BS&amp;W/BBLS Received

BS&amp;W (%)

Free Water

Total Received

I hereby certify that the above load material has been (circle one)

ACCEPTED

DENIED

If denied, why?

NAME (PRINT)

DATE

TITLE

SIGNATURE

White - ORIGINAL

Blue - TRANSPORTER

Yellow - GENERATOR

Version 1



Incident ID	NAB1834044196
District RP	2RP- 5092
Facility ID	3001545101
Application ID	pAB1834043507

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	_____ )
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release 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?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

### **Characterization Report Checklist:** *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.




State of New Mexico  
Oil Conservation Division

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Incident ID	
District RP	2RP-5092 & <del>2RP-5111</del>
Facility ID	3001545101
Application ID	pAB1834043507

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

Printed Name: Amy Barnhill Title: Lead Environmental Specialist

Signature:  Date: 1-4-2021

email: ABarnhill@chevron.com Telephone: 432-940-8432

**OCD Only**

Received by: Cristina Eads Date: 01-04-2021



Incident ID	
District RP	2RP-5092 & <del>2RP-5111</del>
Facility ID	3001545101
Application ID	pAB1834043507

## Remediation Plan

**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Amy Barnhill Title: Lead Environmental Specialist

Signature:  Date: 1-4-2021

email: ABarnhill@chevron.com Telephone: 432-940-8524

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: \_\_\_\_\_ Date: \_\_\_\_\_



Incident ID	
District RP	2RP-5092 & <del>2RP-5111</del>
Facility ID	3001545101
Application ID	pAB1834043507

## Closure

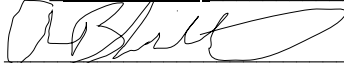
The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

**Closure Report Attachment Checklist:** *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Amy Barnhill Title: Lead Environmental Specialist

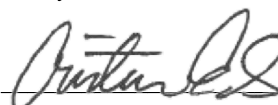
Signature:  Date: 1-4-2021

email: ABarnhill@chevron.com Telephone: 432-940-8524

### OCD Only

Received by: Cristina Eads Date: 01-04-2021

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by:  Date: 03-04-2021

Printed Name: Cristina Eads Title: Environmental Specialist



**2RP-5092 & 2RP-5111  
Closure Report  
HH SO 17 20 Federal 001 Pad  
Diesel Fuel and Oil Based Drilling Mud  
Eddy County, New Mexico**


Latitude: N 32.05114°  
Longitude: W 104.21480°

LAI Project No. 19-0180-06


December 11, 2020

Prepared for:  
Chevron USA Inc.  
6301 Deauville Blvd.  
Midland, Texas 79706

Prepared by:  
Larson & Associates, Inc.  
507 North Marienfeld Street, Suite 205  
Midland, Texas 79701



Mark J. Larson, P.G.  
Certified Professional Geologist #10490



Robert Nelson  
Sr. Geoscientist



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Appendix B	Regulatory Communications
Appendix C	Karst Risk Potential Map
Appendix D	Waste Manifests
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December 11, 2020

## 1.0 INTRODUCTION

Larson & Associates, Inc. (LAI), has prepared this closure report on behalf of Chevron USA Inc. (Chevron) for submittal to the New Mexico Oil Conservation Division (OCD) District 2 for a diesel fuel and oil based mud release at the Hayhurst SO 17 20 Federal 001 #002H (Site) located in Unit N (SE/4, SW/4), Section 8, Township 26 South, Range 27 East in Eddy County New Mexico. The geodetic position is North 32.05114° and West -104.21480°. Figure 1 presents a topographic map. Figure 2 presents an aerial map.

### 1.1 Background

The diesel fuel release was discovered on November 9, 2018. The spill occurred when the fuel valves to the cold start generator were left in the open position releasing approximately 6.86 barrels (bbls) of diesel fuel. No liquid was recovered. The initial C-141 was submitted to OCD District 2 on November 20, 2018 and assigned a remediation permit number 2RP-5092. The oil-based mud release occurred on December 7, 2018, when the dryer shaker tank overflowed to the secondary containment releasing approximately 48.83 bbls of fluid. Approximately 48.83 bbls were recovered by a vacuum truck from the secondary containment. Immediate notice was given by Josepha DeLeon to Maria Pruett via voicemail and followed up with an email notification to Maria Pruett and Mike Bratcher on December 10, 2018 at 10:33 AM. The initial C-141 was submitted on December 13, 2018 and assigned a remediation permit number of 2RP-5111. An extension for spill characterization was requested due to high activity on the pad through December 31, 2019. Victoria Venegas (OCD) approved the extension on April 22, 2019. Appendix A presents the Chevron spill calculation for 2RP-5111. Appendix B presents regulatory communications.

### 1.2 Physical Setting

The physical setting is as follows:

- The surface elevation is approximately 3,254 feet above mean sea level (msl).
- The surface topography decreases to the southeast.
- There are no surface water features within 1,000 feet of the Site.
- Karst Data provided by the USGS describes the Site as "High Risk" potential.
- The soils are designated as "Reeves-Gypsum land complex, 0 to 3 percent slopes", consisting of 0 to 8 inches of loam, underlain by 8 to 32 inches of a clay loam, and 32 to 60 inches of gypsiferous material.
- The geology consists of the Salado Formation (Upper Permian)- containing evaporate sequences, predominantly halite.
- Groundwater was reported at approximately 16.25 feet below ground surface (bgs) from a well located approximately 0.58 miles northwest of the Site and measurement in 1992 (USGS).

Appendix C presents the Karst Risk Potential map

### 1.3 Remediation Standards

The following remediation standards are based on closure criteria for soils impacted by a release as presented in Table 1 of 19.15.29 NMAC:

- Benzene 10 mg/Kg
- BTEX 50 mg/Kg



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- TPH 100 mg/Kg
- Chloride 600 mg/Kg

Further, 19.15.29.13 NMAC (Restoration, Reclamation and Re-Vegetation) requires the operator to restore the impacted surface area that existed prior to the release or their final land use.

## 2.0 DELINEATION

On November 15, 2019, LAI personnel used a stainless-steel hand auger to collect surface soil samples from twelve (12) locations inside of the spill areas (S-1 through S-6, S-8 and S-9) and outside of the spill areas (SP-7, S-10 through S-12) to vertically and horizontally delineate the release. The samples were collected to from 0 to 0.5 foot below ground surface (bgs). The soil samples were delivered under chain of custody and preservation to Permian Basin Environmental Laboratory (PBEL) in Midland, Texas. The laboratory analyzed the samples for benzene, toluene, ethylbenzene, and xylenes (BTEX) and total petroleum hydrocarbons (TPH), including gasoline range organics (C6-C12), diesel range organics (>C12-C28) and oil range organics (>C28-C35), and chloride by EPA SW-846 Methods 8021B and 8015M, and M300, respectively. Benzene and BTEX were reported below the remediation standards of 10 milligrams per kilogram (mg/Kg) and 50 mg/Kg, respectively, in all samples. TPH was reported above the remediation standard of 100 mg/Kg in the following surface samples (0 to 0.5 feet bgs):

S-2 (5,840 mg/Kg)	S-8 (5,280 mg/Kg)
S-3 (485 mg/Kg)	S-9 (5,610 mg/Kg)
S-4 (1,160 mg/Kg)	S-10 (3,420 mg/Kg)
S-5 (1,920 mg/Kg)	S-11 (5,350 mg/Kg)
S-6 (1,040 mg/Kg)	S-12 (148 mg/Kg).

Chloride was reported above the remediation standard of 600 mg/Kg in the following surface samples:

S-1 (1,580 mg/Kg)	S-6 (1,920 mg/Kg)
S-2 (2,320 mg/Kg)	S-8 (3,960 mg/Kg)
S-3 (4,060 mg/Kg)	S-9 (909 mg/Kg)
S-4 (1,720 mg/Kg)	S-10 (3,260 mg/Kg)
S-5 (1,770 mg/Kg)	S-12 (1,910 mg/Kg).

On December 19, 2019, LAI personnel used direct push technology (DPT) to complete vertical delineation of the release. During this sampling event, samples were collected at two (2) additional locations (S-13 and S-14) north and west of the release to complete horizontal delineation. Soil samples were collected between three (3) and six (6) feet bgs depending on subsurface conditions. The samples were delivered under chain of custody and preservation to Xenco Laboratories in Midland, Texas, and were analyzed for BTEX, TPH, including gasoline range organics (C6-C12), diesel range organics (>C12-C28) and oil range organics (>C28-C35), and chloride by EPA SW-846 Methods 8021B and 8015M, and M300, respectively. Benzene, BTEX, TPH, and chloride were delineated below the remediation standards of 10 mg/Kg, 50 mg/Kg, 100 mg/Kg, and 600 mg/Kg, respectively, in all sample locations. Table 1 presents the soil sample



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analytical data summary. Figure 2 presents an aerial map showing the soil sample locations. Appendix D presents the laboratory reports.

### 3.0 REMEDIATION

On November 3, 2020, P2 Construction, Inc. (P2) under supervision from LAI personnel utilized a backhoe to excavate soil from the diesel spill area encompassing sample locations S-9 through S-12 and measuring approximately 2,355 square feet. Soil was excavated to approximately two (2) feet bgs. Contaminated soil was stockpiled on a liner adjacent to the excavation prior to being hauled to the R360 Red Bluff disposal facility located approximately 13 miles northwest of Orla, Texas. On November 5, 2020, LAI personnel collected sixteen (16) confirmation soil samples from the bottom and sidewalls of the excavation. The soil samples were delivered under chain of custody and preservation to Xenco Laboratories (Xenco) in Carlsbad, New Mexico. The laboratory analyzed the samples for BTEX, TPH, and chloride by EPA SW-846 Methods 8021B, 8015M, and 300E, respectively. All confirmation soil samples reported benzene and BTEX below the OCD remediation levels. Chloride and/or TPH were reported above OCD remediation levels in the following confirmation samples:

Sample ID	Location	Depth (Feet)	TPH (mg/Kg)	Chloride (mg/Kg)
C-6	Sidewall	0 – 2	--	815
C-7	Sidewall	0 – 2	--	659
C-13	Bottom	2	1,280	610

On November 9, 2020, P2 excavated approximately two (2) feet of soil from the sidewalls at C-6 and C-7 and about one (1) foot below the bottom of the excavation at C-13. Laboratory analysis of composite soil samples reported benzene, BTEX, TPH, and chloride below the OCD remediation levels.

On November 5, 2020, P2 excavated soil from the oil-based mud spill area encompassing sample locations S-1 through S-6 and measuring approximately 6,891 square feet. Soil as excavated to a depth of approximately two (2) feet bgs. Contaminated soil was initially stockpiled within the excavation and later transported to the R360 Red Bluff disposal facility. On November 11, 2020, LAI personnel collected four (4) sidewalls composite samples and twenty (20) bottom samples from the excavation. All confirmation soil samples reported benzene and BTEX below the OCD remediation levels. Chloride and/or TPH were reported above OCD remediation levels in the following confirmation samples.

Sample ID	Location	Depth (Feet)	TPH (mg/Kg)	Chloride (mg/Kg)
N-SW	Sidewall	0 – 2	105	--
S-SW	Sidewall	0 – 2	--	755
C'-3	Bottom	2	--	822
C'-6	Bottom	2	1,410	2,110
C'-14	Bottom	2	113	--
C'-20	Bottom	2	676	--



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On November 19, 2020, P2 excavated approximately one (1) foot of soil from the N-SW and S-SW sidewalls and one (1) foot of soil from the bottom encompassing sample locations C'3, C'-6, C'-14, and C'-20. Approximately 100 hundred cubic yards of contaminated soil was removed and hauled to the R360 Red Bluff disposal facility. Laboratory reported TPH above the OCD remediation standard (100 mg/Kg) in the N-SW sidewall sample (358 mg/Kg) and bottom sample at C'-6 (144 mg/Kg).

On November 30, 2020, P2 excavated approximately two (2) feet of soil from the sidewall at N-SW and one foot from the bottom of the excavation at C'-6. Approximately 20 cubic yards of impacted material was removed and hauled to the R360 Red Bluff disposal facility. Subsequent confirmation soil samples reported TPH below the OCD remediation levels. Appendix E presents the waste manifests.

LAI personnel collected four (4) composite samples of clean caliche from a nearby State of New Mexico borrow pit. Benzene, BTEX, and TPH were below the analytical method reporting limit and chloride was less than 600 mg/Kg in the backfill composite samples. On December 7, 2020, the excavation was backfilled to ground surface with clean caliche. Table 2 presents the confirmation soil analytical data summary. Figure 3 presents the excavations and confirmation sample locations. Appendix F presents photographs.

## 4.0 CLOSURE REQUEST

Chevron USA requests no further action.



## **Tables**

Table 1

## Delineation Soil Sample Analytical Data Summary

Chevron USA, HH SO 17 20 Fed 001

Eddy County, New Mexico

North 32.05114 West 104.21480

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Sample	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)	
Remediation Level:											
				10	50	100					600
S-1	0 - 0.5	11/15/2019	In-Situ	<0.00100	<0.00600	<27.2	48.2	<27.2	48.2	1,580	
	5	12/19/2019	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	223	
S-2	0 - 0.5	11/15/2019	In-Situ	<0.00100	<0.00600	195	5,580	59	5,840	2,320	
	5	12/19/2019	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	<49.9	273	
S-3	0 - 0.5	11/15/2019	In-Situ	<0.00100	<0.00600	<26.3	422	62.5	485	4,060	
	4	12/19/2019	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	223	
S-4	0 - 0.5	11/15/2019	In-Situ	<0.00100	<0.00600	<30.9	1,050	111	1,160	1,720	
	3	12/19/2019	In-Situ	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	262	
S-5	0 - 0.5	11/15/2019	In-Situ	<0.00100	<0.00600	<26.9	1,740	181	1,920	1,770	
	5	12/19/2019	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	121	
S-6	0 - 0.5	11/15/2019	In-Situ	<0.00100	<0.00600	<27.8	910	132	1,040	1,920	
	5	12/19/2019	In-Situ	<0.00202	<0.00202	<49.8	<49.8	<49.8	<49.8	126	
S-7	0 - 0.5	11/15/2019	In-Situ	<0.00100	<0.00600	<27.8	<27.8	<27.8	<27.8	28.9	
	0.5	12/19/2019	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	15.9	
	1	12/19/2019	In-Situ	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	63.9	
S-8	0 - 0.5	11/15/2019	In-Situ	<0.00100	<0.00600	<26.6	4,880	406	5,280	3,960	
	5	12/19/2019	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	177	
	6	12/19/2019	In-Situ	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	56.4	



Table 1

**Delineation Soil Sample Analytical Data Summary**  
**Chevron USA, HH SO 17 20 Fed 001**  
**Eddy County, New Mexico**  
**North 32.05114 West 104.21480**

Page 2 of 2

Sample	Depth (Feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/kg)	C6 - C12 (mg/kg)	C12 - C28 (mg/kg)	C28 - C35 (mg/kg)	TPH (mg/kg)	Chloride (mg/Kg)	
Remediation Level:											
				10	50	100					600
S-9	0 - 0.5	11/15/2019	In-Situ	<0.00100	<0.00600	<27.8	5,170	440	5,610	909	
	5	12/19/2019	In-Situ	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	192	
S-10	0 - 0.5	11/15/2019	In-Situ	<0.00100	<0.00600	<25.5	3,170	253	3,420	3,260	
	5	12/19/2019	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	95.9	
	6	12/19/2019	In-Situ	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	5.89	
S-11	0 - 0.5	11/15/2019	In-Situ	<0.00100	<0.00600	40.4	5,180	125	5,350	247	
	5	12/19/2019	In-Situ	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	46.4	
S-12	0 - 0.5	11/15/2019	In-Situ	<0.00100	<0.00600	<26.0	148	<26.0	148	1,910	
	5	12/19/2019	In-Situ	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	103	
	6	12/19/2019	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	52.0	
S-13	0.5	12/19/2019	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<4.95	
	1	12/19/2019	In-Situ	<0.00201	<0.00201	<49.9	<49.9	<49.9	<49.9	99.2	
S-14	0.5	12/19/2019	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	38.0	
	1	12/19/2019	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	32.2	

Notes: Analysis performed by Permian Basin Environmental Laboratory and Xenco Laboratories by EPA SW-846 Methods 8021B (BTEX), 8015M (TPH), and M300 (chloride)

Depth in feet below ground surface (bgs)

mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)

<: denotes concentration less than analytical method reporting limit

**Bold and Highlighted exceeds OCD remediation levels**

**Table 2**  
**Confirmation Soil Sample Analytical Data Summary**  
**Chevron USA, HH SO 17 20 Fed 001**  
**Eddy County, New Mexico**  
**North 32.05114 West -104.21480**

Sample ID	Location	Depth (feet)	Collection Date	Status	Benzene (mg/Kg)	BTEX (mg/Kg)	C6 - C12 (mg/Kg)	C12 - C28 (mg/Kg)	C28 - C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
<b>RAL:</b>											
<b>10 50 600</b>											
<b>Diesel Spill Area Excavation</b>											
C-1	Sidewall	0 - 2	11/5/2020	In-Situ	<0.00202	<0.00202	<49.9	<49.9	<49.9	<49.9	146
C-2	Sidewall	0 - 2	11/5/2020	In-Situ	<0.00198	<0.00198	<50.0	<50.0	<50.0	<50.0	51.8
C-3	Sidewall	0 - 2	11/5/2020	In-Situ	<0.00199	<0.00199	<50.2	<50.2	<50.2	<50.2	120
C-4	Sidewall	0 - 2	11/5/2020	In-Situ	<0.00198	<0.00198	<49.9	<49.9	<49.9	<49.9	107
C-5	Sidewall	0 - 2	11/5/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	154
C-6	Sidewall	0 - 2	11/5/2020	Excavated	<0.00200	<0.00200	<50.3	<50.3	<50.3	<50.3	815
			11/9/2020	In-Situ	<0.00201	<0.00201	<49.8	<49.8	<49.8	<49.8	118
C-7	Sidewall	0 - 2	11/5/2020	Excavated	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	659
			11/9/2020	In-Situ	<0.00200	<0.00200	<49.8	<49.8	<49.8	<49.8	91.9
C-8	Bottom	2	11/5/2020	In-Situ	<0.00201	<0.00201	<50.2	<50.2	<50.2	<50.2	134
C-9	Bottom	2	11/5/2020	In-Situ	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	128
C-10	Bottom	2	11/5/2020	In-Situ	<0.00198	<0.00198	<49.8	<49.8	<49.8	<49.8	119
C-11	Bottom	2	11/5/2020	In-Situ	<0.00200	<0.00200	<50.2	<50.2	<50.2	<50.2	209
C-12	Bottom	2	11/5/2020	In-Situ	<0.00199	<0.00199	<50.2	52.8	<50.2	52.8	145
C-13	Bottom	2	11/5/2020	Excavated	<0.00199	<0.00199	<49.8	1,280	<49.8	1,280	610
		3	11/9/2020	In-Situ	<0.00199	<0.00199	<50.1	<50.1	<50.1	<50.1	102
C-14	Bottom	2	11/5/2020	In-Situ	<0.00198	<0.00198	<49.0	<49.0	<49.0	<49.0	151
C-15	Bottom	2	11/5/2020	In-Situ	<0.00200	<0.00200	<48.5	<48.5	<48.5	<48.5	188
C-16	Bottom	2	11/5/2020	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	<50.0	64.5
<b>Oil-Based Mud Spill Area Excavation</b>											
E-SW	Sidewall	0 - 2	11/11/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	310
N-SW	Sidewall	0 - 2	11/11/2020	Excavated	<0.00202	<0.00202	<50.0	105	<50.0	105	572
			11/19/2020	Excavated	<0.00200	<0.00200	<49.9	358	<49.9	358	230
			11/30/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	389
W-SW	Sidewall	0 - 2	11/11/2020	In-Situ	<0.00201	<0.00201	<49.9	57.8	<49.9	57.8	354
S-SW	Sidewall	0 - 2	11/11/2020	Excavated	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	755
			11/19/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	<50.0	450
C'-1	Bottom	2	11/11/2020	In-Situ	<0.00201	<0.00201	<50.0	<50.0	<50.0	<50.0	578



**Table 2**  
**Confirmation Soil Sample Analytical Data Summary**  
**Chevron USA, HH SO 17 20 Fed 001**  
**Eddy County, New Mexico**  
**North 32.05114 West -104.21480**

C'-2	Bottom	2	11/11/2020	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	245
C'-3	Bottom	2	11/11/2020	Excavated	<0.00198	<0.00198	<49.8	<49.8	<49.8	<b>822</b>
		3	11/19/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	53.5	304
C'-4	Bottom	2	11/11/2020	In-Situ	<0.00201	<0.00201	<49.8	<49.8	<49.8	203
C'-5	Bottom	2	11/11/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	277
C'-6	Bottom	2	11/11/2020	Excavated	<0.00198	<0.00198	<49.9	<49.9	<b>1,410</b>	<b>2,110</b>
		3	11/19/2020	Excavated	<0.00199	<0.00199	<49.9	<49.9	<b>144</b>	275
		4	11/30/2020	In-Situ	<0.00198	<0.00198	<50.2	<50.2	<50.2	87.6
C'-7	Bottom	2	11/11/2020	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	148
C'-8	Bottom	2	11/11/2020	In-Situ	<0.00201	<0.00201	<49.8	<49.8	<49.8	170
C'-9	Bottom	2	11/11/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	192
C'-10	Bottom	2	11/11/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	365
C'-11	Bottom	2	11/11/2020	In-Situ	<0.00201	<0.00201	<49.8	<49.8	<49.8	496
C'-12	Bottom	2	11/11/2020	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	209
C'-13	Bottom	2	11/11/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	314
C'-14	Bottom	2	11/11/2020	Excavated	<0.00199	<0.00199	<49.9	<49.9	<b>113</b>	409
		3	11/19/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	183
C'-15	Bottom	2	11/11/2020	In-Situ	<0.00199	<0.00199	<49.9	<49.9	<49.9	244
C'-16	Bottom	2	11/11/2020	In-Situ	<0.00202	<0.00202	<50.0	<50.0	<50.0	329
C'-17	Bottom	2	11/11/2020	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	228
C'-18	Bottom	2	11/11/2020	In-Situ	<0.00198	<0.00198	<49.8	<49.8	<49.8	310
C'-19	Bottom	2	11/11/2020	In-Situ	<0.00200	<0.00200	<49.9	<49.9	<49.9	108
C'-20	Bottom	2	11/11/2020	Excavated	<0.00202	<0.00202	<50.0	123	<b>676</b>	411
		3	11/19/2020	In-Situ	<0.00202	<0.00202	<49.8	<49.8	<49.8	297
Backfill Caliche 1	--	--	11/13/2020	In-Situ	<0.00201	<0.00201	<50.3	<50.3	<50.3	103
Backfill Caliche 2	--	--	11/13/2020	In-Situ	<0.00202	<0.00202	<50.0	<50.0	<50.0	262
Backfill Caliche 3	--	--	11/13/2020	In-Situ	<0.00199	<0.00199	<50.0	<50.0	<50.0	247
Backfill Caliche 4	--	--	11/13/2020	In-Situ	<0.00200	<0.00200	<50.0	<50.0	<50.0	305

Notes: analysis performed by Xenco Laboratories (Xenco), Midland, Texas and Carlsbad, New Mexico by EPA SW-846 Methods 8021B (BTEX) and 8015M (TPH), and Method 300 (chloride)

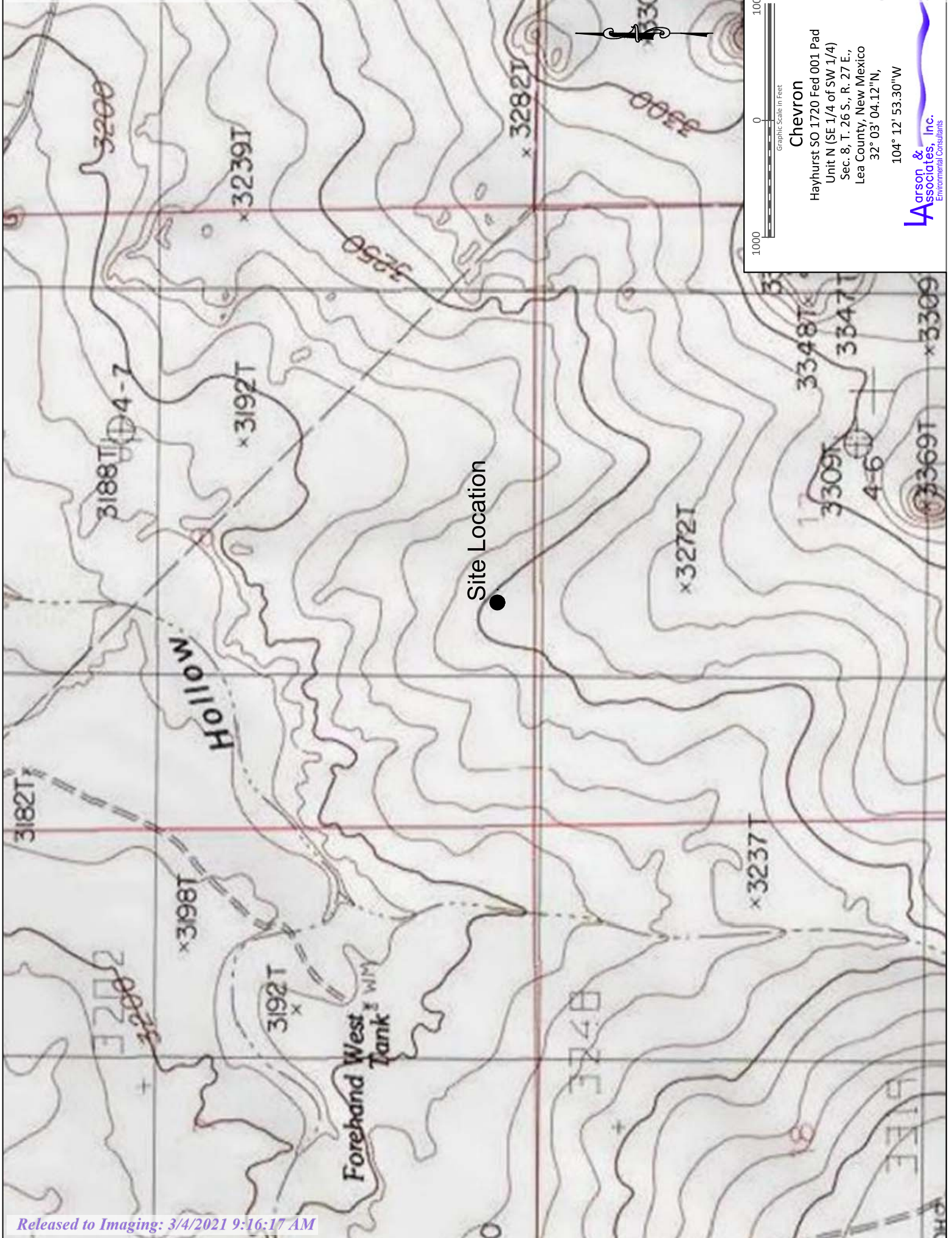
Depth in feet below ground surface (bgs)

mg/Kg: milligrams per kilogram equivalent to parts per million (ppm)

**Bold and Highlighted Denotes Concentrations Above OCD Closure Criteria**

## **Figures**







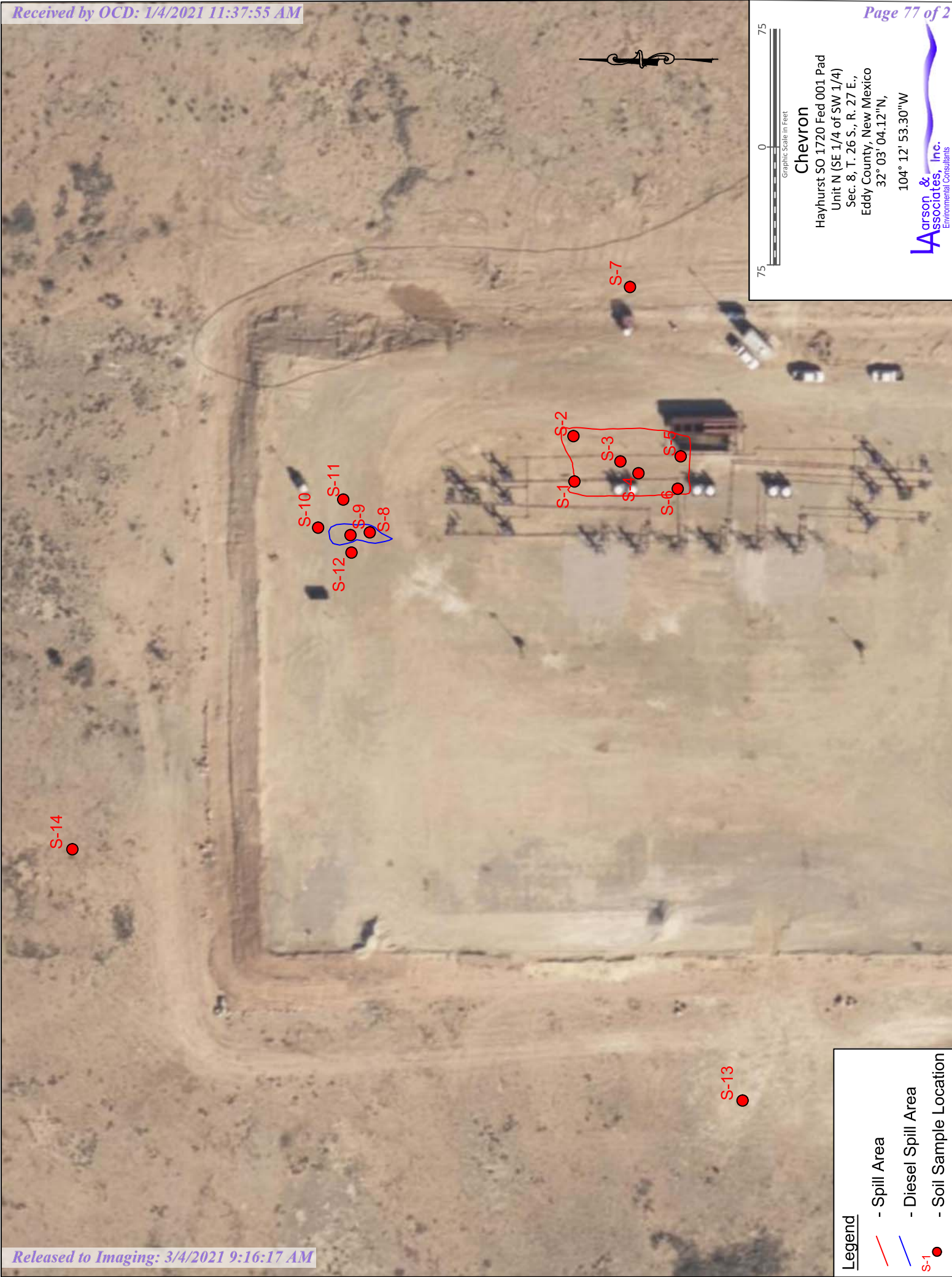
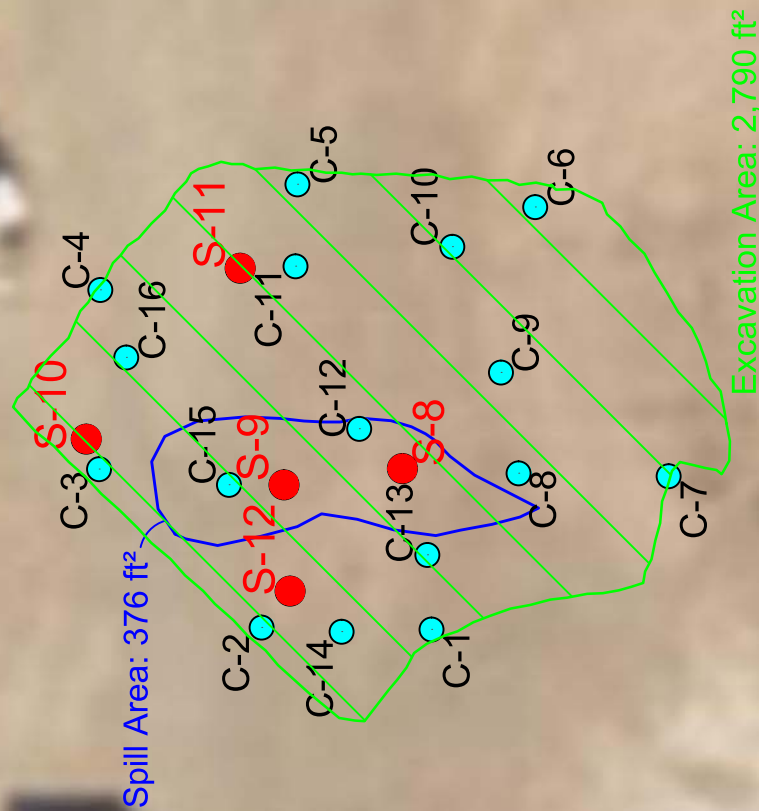


Figure 2 - Aerial Map





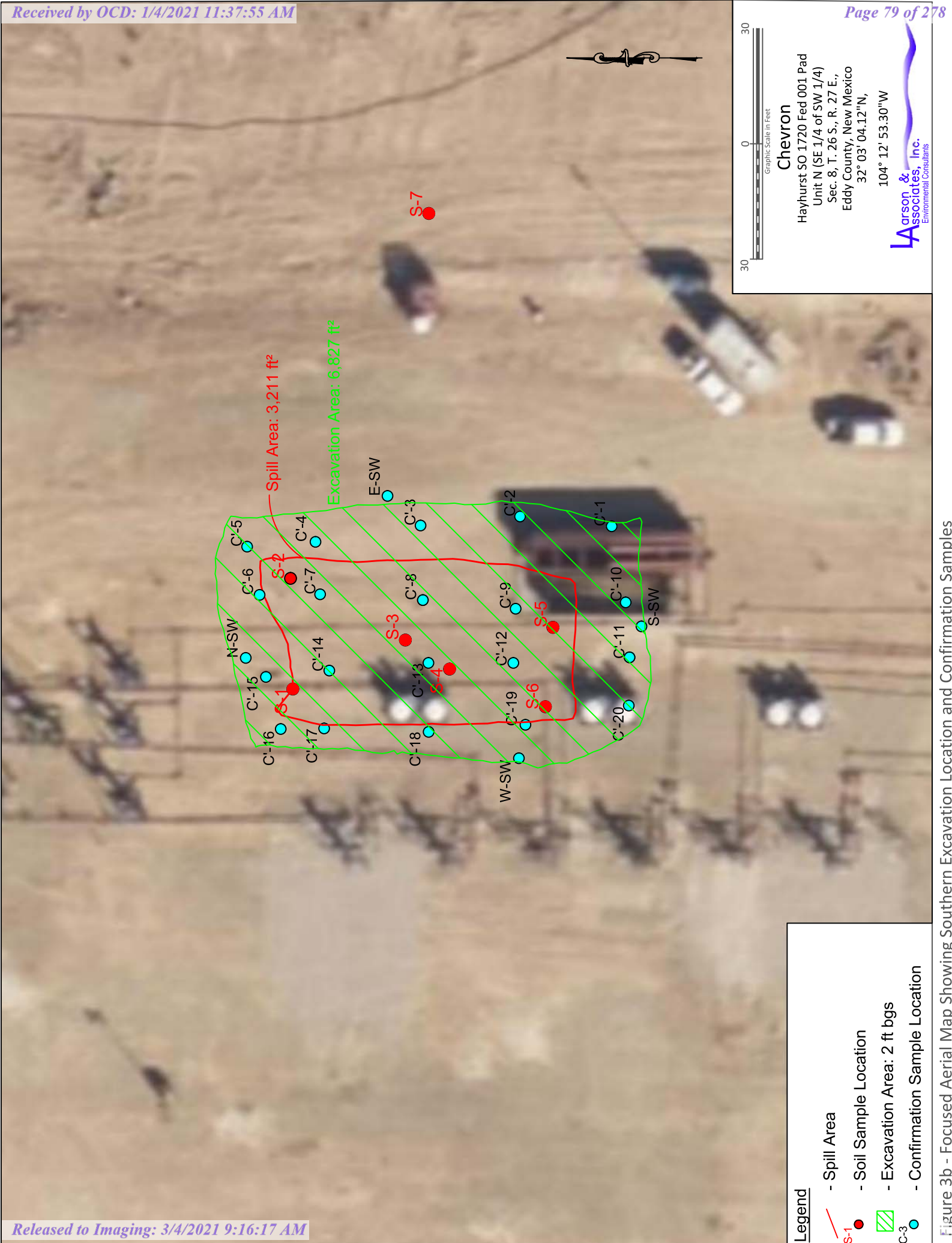
### Chevron

Hayhurst SO 1720 Fed 001 Pad  
Unit N (SE 1/4 of SW 1/4)  
Sec. 8, T. 26 S., R. 27 E.,  
Eddy County, New Mexico  
32° 03' 04.12"N,  
104° 12' 53.30"W

**LA**arson &  
Associates, Inc.  
Environmental Consultants

- Legend**
- Diesel Spill Area
  - Soil Sample Location
  - Excavation Area: 2 ft bgs
  - Confirmation Sample Location

Figure 3a - Focused Aerial Map Showing Northern Excavation Location and Confirmation Samples



**Chevron**  
 Hayhurst SO 1720 Fed 001 Pad  
 Unit N (SE 1/4 of SW 1/4)  
 Sec. 8, T. 26 S., R. 27 E.,  
 Eddy County, New Mexico  
 32° 03' 04.12"N,  
 104° 12' 53.30"W

**Larson & Associates, Inc.**  
 Environmental Consultants

Figure 3b - Focused Aerial Map Showing Southern Excavation Location and Confirmation Samples



**Appendix A**  
**Chevron Spill Calculation - Oil Based**  
**Mud Spill**

# HH SO 17 20 FED 001 1H

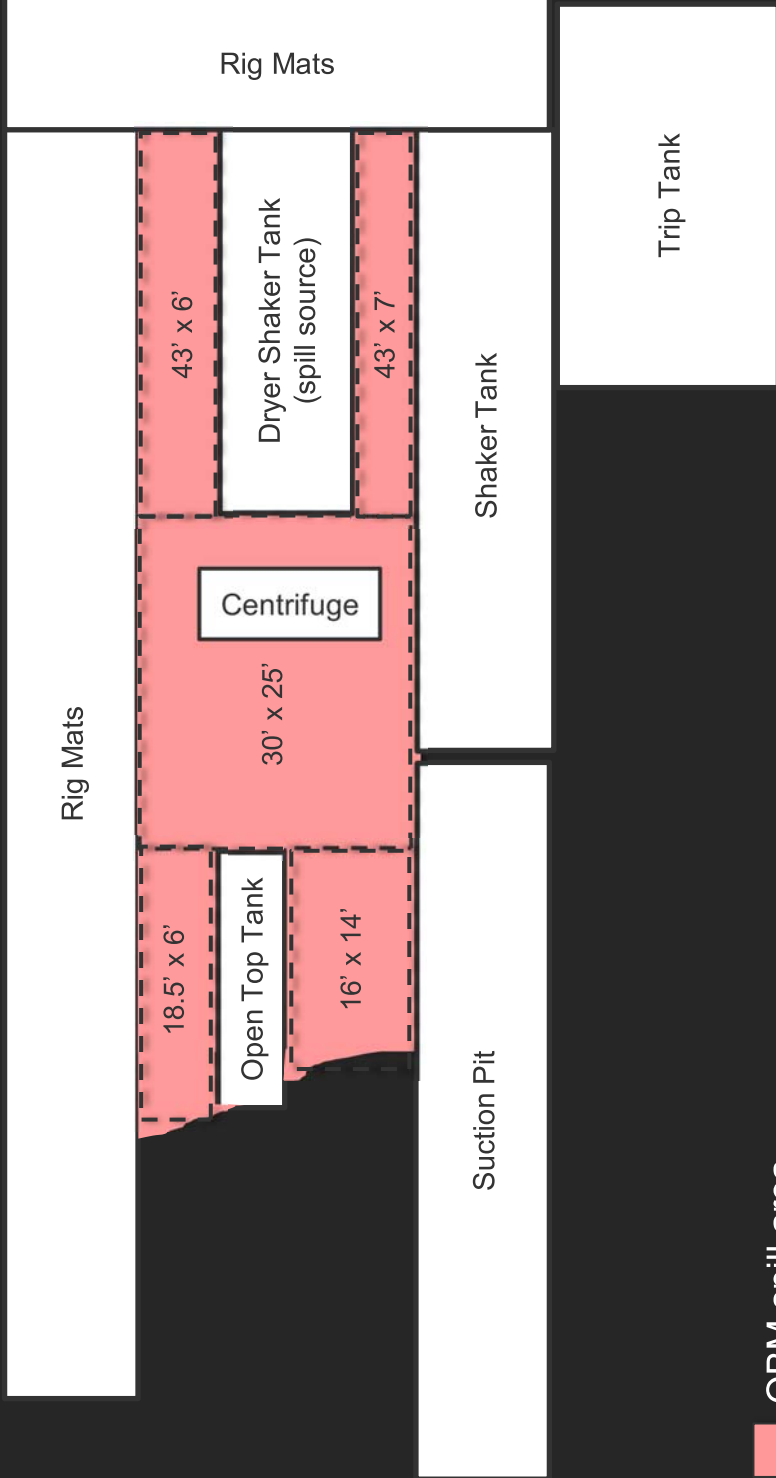
## OBM spill to secondary containment

Date: 12/07/2018



- Diagram not to scale
- Containment area in black extends beyond area depicted
- Spill area measurements taken by hand wheel

Spill Calculation:  
18.5' x 6' x 2" = 3.3 bbls  
16' x 14' x 2" = 6.65 bbls  
43' x 6' x 2" = 7.66 bbls  
43' x 7' x 2" = 8.94 bbls  
30' x 25' x 2" = 22.27 bbls  
**Total bbls = 48.82**



■ OBM spill area



## Diesel Based Spill Measurements and Calculation Photographs



**Appendix B**  
**Regulatory Communications**



**Rachel Owen**

---

**From:** Barnhill, Amy D. <ABarnhill@chevron.com>  
**Sent:** Wednesday, May 1, 2019 11:31 AM  
**To:** Weaver, Crystal  
**Cc:** Jim Amos; Deborah McKinney; Barnhill, Amy D.  
**Subject:** RE: **[\*\*EXTERNAL\*\*]** Re: [EXTERNAL] RE: 2RP-5092 and 2RP-5111  
**Attachments:** C141 - Diesel Spill 11092018 - HH SO.pdf; C-141 HH SO 17 20 Fed 001-1H.pdf; Spill Diagram.pptx

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Crystal,

Please see the C-141s for the spills addressed in your e-mail below. Spill 11-9-18 is 1RP-5092 and spill 12-7-19 is 1RP-5111.

- 1RP-5092

Fuel valves to the cold start generator were left in open position causing a spill of diesel to land. Standing fluid was recovered via vac truck and affected loose soil was picked up with a shovel. Pictures are attached to the initial C-141. The diesel spilled was located on the East side of the attached diagram.

- 1RP-5111

The dryer shaker tank overflowed to secondary containment, no spill to land. Spill kits were used to contain release, rig vac and vac trucks were used to recover fluid. The attached spill diagram shows the area of release.

We are going to sample the area for due diligence in determining if there were impacts to the soil. This cannot be done until all drilling and completions activities are complete, hence the request for extension. Please let me know if you have questions or concerns.

Thank you,

Amy Barnhill

Waste and Water Specialist

MCBU

Office: 432-687-7108

Cell: 432-940-8524

E-Mail: [ABarnhill@chevron.com](mailto:ABarnhill@chevron.com)

#OurEnvironmentMatters

**From:** Weaver, Crystal <caweaver@blm.gov>  
**Sent:** Wednesday, April 24, 2019 3:41 PM  
**To:** Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>

**Cc:** Barnhill, Amy D. <ABarnhill@chevron.com>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Jim Amos <jamos@blm.gov>; Deborah McKinney <dmckinne@blm.gov>  
**Subject:** [**\*\*EXTERNAL\*\***] Re: [EXTERNAL] RE: 2RP-5092 and 2RP-5111

Amy,

Again I have no record of the BLM receiving an initial C-141 for either of these spills. I looked back through all of the emails that Shelly Tucker forwarded me before she left the BLM to see if anything was in those. I have one record of conversation about HH SO 17 20 Federal 001-1H but no initial C-141 attached to that chain either. Can the BLM please get the initial C-141 documents for these spills and can you make sure that for these and any spills in the future that require BLM advisement, that Chevron makes sure to include Deborah McKinney on the initial submissions and especially the submissions with the initial reporting forms - [dmckinne@blm.gov](mailto:dmckinne@blm.gov).

Also again as for advisement from the BLM, if Chevron is going to ask for an extension till December this year in order to perform remediation at this location, then the BLM would like to see statements in writing that all of the standing fluids were recovered and also see what the volumes were that were unrecoverable and where location wise were the impacts of the unrecoverable volumes (i.e. include a KMZ or some shape file indicating where contaminates hit surface). i.e. If you can respond to this email similar to how you responded to the last one I sent asking for this same stuff that would be appropriate.

Thank you,

**Crystal Weaver**

**Environmental Protection Specialist**

**BLM - Carlsbad, NM**

**Desk: 575-234-5943**

**Cell: 575-200-0426**

**[caweaver@blm.gov](mailto:caweaver@blm.gov)**

**BLM Carlsbad Field Office**

**620 E. Greene Street**

**Carlsbad NM 88220**

**"3 percent of the water on this planet is considered freshwater. Of that 3 percent only 1 percent is considered accessible, meaning the majority of the remaining 2 percent is trapped in glaciers or snowfields." - National Geographic**

The **BLM acceptance/approval does not** relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health or the environment or if the location fails to reclaim properly. In such an event that the location does not re-vegetate, or future issues with contaminants are encountered, the operator will be asked to address the issues until the contaminant issues are fully mitigated and the location is successfully reclaimed. In addition, BLM approval does not relieve the operator of responsibility for compliance with any other federal, state or local laws/regulations.

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On Mon, Apr 22, 2019 at 12:31 PM Venegas, Victoria, EMNRD <[Victoria.Venegas@state.nm.us](mailto:Victoria.Venegas@state.nm.us)> wrote:

**2RP-5092 and 2RP-5111**

Hello Ms. Barnhill,

OCD has received your extension request for 2RP-5092 and 2RP-5111, thank you. OCD understands the technical difficulties that a complete delineation/remediation activity presents at this time. The requested extension for the releases mentioned above is approved. However, be advised of the following:

- **NMOCD recommends a completed Site Assessment/Characterization Plan be reviewed and approve BEFORE any significant remediation works towards closure.**
- This is a Federal site. Operators must notify BLM Carlsbad Field Office regarding all spills that impact or involve federal lands. Federal sites require like approval from BLM.
- Please include our Environmental Specialist [Robert.Hamlet@state.nm.us](mailto:Robert.Hamlet@state.nm.us) on all future correspondence.

Regards,

Victoria Venegas

EMNRD

OCD-District II

811 S First St. Artesia

NM 88210

[Victoria.Venegas@state.nm.us](mailto:Victoria.Venegas@state.nm.us)

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

---

**From:** Barnhill, Amy D. <[ABarnhill@chevron.com](mailto:ABarnhill@chevron.com)>

**Sent:** Monday, April 22, 2019 8:27 AM

**To:** Venegas, Victoria, EMNRD <[Victoria.Venegas@state.nm.us](mailto:Victoria.Venegas@state.nm.us)>

**Cc:** Bratcher, Mike, EMNRD <[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)>

**Subject:** [EXT] RE: 2RP-5092 and 2RP-5111

Victoria,

The two spills addressed above happened on the same pad. Although, I requested an extension on submitting a workplan until June 1, 2019, I am going to have to ask for a further extension. Unfortunately, I forgot to account for our completions crew getting on the site after drilling. The current projected date for drilling to move from this location is the end of April 2019. The completions crew will be rigging up in May and is projected to be on site through September due to the size of the pad, therefore, our third party contractor will not be able to access the location until after this date. If they try to get on site between drilling and completions, the bore sampling could compromise the compaction of the pad. We would like to ask for an extension until December 31, 2019. With the extended time, we will be able to access the location, collect samples and submit a work plan. We should also be able to have the site remediated by the end of the year, as well. Please let me know if this is acceptable. Thank you for your consideration.

Thank you,

Amy Barnhill

Waste and Water Specialist

MCBU

Office: 432-687-7108

Cell: 432-940-8524

E-Mail: [ABarnhill@chevron.com](mailto:ABarnhill@chevron.com)

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---

**From:** Hamlet, Robert, EMNRD <[Robert.Hamlet@state.nm.us](mailto:Robert.Hamlet@state.nm.us)>

**Sent:** Wednesday, February 27, 2019 9:03 AM

**To:** Barnhill, Amy D. <[ABarnhill@chevron.com](mailto:ABarnhill@chevron.com)>



**Cc:** Bratcher, Mike, EMNRD <[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)>; Venegas, Victoria, EMNRD <[Victoria.Venegas@state.nm.us](mailto:Victoria.Venegas@state.nm.us)>  
**Subject:** **[\*\*EXTERNAL\*\*]** RE: 2RP-5092 and 2RP-5111

RE: 2RP-5092 and 2RP-5111

Amy,

Your request for an extension to June 1st, 2019 is approved. Please expedite the sampling process and work plan submittal as soon as the rig is moved.

Thank you,

Robert J Hamlet

State of New Mexico

Energy, Minerals, and Natural Resources

Oil Conservation Division

811 S. First St., Artesia NM 88210

(575) 840-5963

[Robert.Hamlet@state.nm.us](mailto:Robert.Hamlet@state.nm.us)

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

---

**From:** Barnhill, Amy D. <[ABarnhill@chevron.com](mailto:ABarnhill@chevron.com)>  
**Sent:** Monday, February 25, 2019 6:49 AM  
**To:** Hamlet, Robert, EMNRD <[Robert.Hamlet@state.nm.us](mailto:Robert.Hamlet@state.nm.us)>  
**Cc:** Bratcher, Mike, EMNRD <[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)>; Venegas, Victoria, EMNRD <[Victoria.Venegas@state.nm.us](mailto:Victoria.Venegas@state.nm.us)>; Barnhill, Amy D. <[ABarnhill@chevron.com](mailto:ABarnhill@chevron.com)>  
**Subject:** [EXT] RE: 2RP-5092 and 2RP-5111

Mr. Hamlet,

As you know, the two spills addressed above happened on the same pad. Although, I requested an extension on submitting a workplan until March 7, 2019, I am going to have to ask for a further extension. The current projected date for drilling to move from this location is the end of April 2019. Therefore, our third party contractor will not be able to access the location until after this date. I would ask that we are granted an extension until June 1, 2019. With the extended time, we will be able to access the location, collect samples and submit a work plan. Please let me know if this is acceptable. Thank you for your consideration.

Thank you,

Amy Barnhill

Waste and Water Specialist

MCBU

Office: 432-687-7108

Cell: 432-940-8524

E-Mail: [ABarnhill@chevron.com](mailto:ABarnhill@chevron.com)

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---

**From:** Hamlet, Robert, EMNRD <[Robert.Hamlet@state.nm.us](mailto:Robert.Hamlet@state.nm.us)>  
**Sent:** Friday, February 8, 2019 9:06 AM  
**To:** Barnhill, Amy D. <[ABarnhill@chevron.com](mailto:ABarnhill@chevron.com)>  
**Cc:** Bratcher, Mike, EMNRD <[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)>; Venegas, Victoria, EMNRD <[Victoria.Venegas@state.nm.us](mailto:Victoria.Venegas@state.nm.us)>  
**Subject:** [\*\*EXTERNAL\*\*] RE: 2RP-5092 and 2RP-5111



RE: 2RP-5092

Amy,

Your request for an extension to March 7th, 2019 is approved.

Thank you,

Robert J Hamlet

State of New Mexico

Energy, Minerals, and Natural Resources

Oil Conservation Division

811 S. First St., Artesia NM 88210

(575) 840-5963

[Robert.Hamlet@state.nm.us](mailto:Robert.Hamlet@state.nm.us)

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

---

**From:** Barnhill, Amy D. <[ABarnhill@chevron.com](mailto:ABarnhill@chevron.com)>

**Sent:** Thursday, February 7, 2019 10:38 AM

**To:** Hamlet, Robert, EMNRD <[Robert.Hamlet@state.nm.us](mailto:Robert.Hamlet@state.nm.us)>; Venegas, Victoria, EMNRD <[Victoria.Venegas@state.nm.us](mailto:Victoria.Venegas@state.nm.us)>  
**Cc:** Bratcher, Mike, EMNRD <[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)>  
**Subject:** [EXT] 2RP-5092 and 2RP-5111

Hello All,

We had two spills at the same location as specified below. We have already reached the 90<sup>th</sup> day for submittal of a workplan on the first spill. Due to the second spill not at its 90 day time frame, I am asking if we can submit a workplan to include both RP numbers within the next 30 days. Thank you for your consideration.

2RP-5092 HH SO 17 20 Federal 001-2H 11/9/18

2RP-5111 HH SO 17 20 Federal 001-1H 12/7/18

Thank you,

Amy Barnhill

Waste and Water Specialist

MCBU

Office: 432-687-7108

Cell: 432-940-8524

E-Mail: [ABarnhill@chevron.com](mailto:ABarnhill@chevron.com)

#OurEnvironmentMatters

"The highest performance you can expect is the lowest standard you set"





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**From:** [Hamlet, Robert, EMNRD](#)  
**To:** [Bratcher, Mike, EMNRD](#); [Bustamante, Amalia, EMNRD](#)  
**Subject:** FW: Initial Notification - Major Spill to Secondary Containment - Oil Based Mud  
**Date:** Friday, December 28, 2018 8:27:25 AM  
**Attachments:** [image001.png](#)

---

Trying to archive all of these e-mails. Here's an initial notification from Chevron.

---

**From:** DeLeon, Josepha <JDxD@chevron.com>  
**Sent:** Thursday, December 13, 2018 8:19 AM  
**To:** Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>  
**Subject:** [EXT] FW: Initial Notification - Major Spill to Secondary Containment - Oil Based Mud

---

**From:** DeLeon, Josepha  
**Sent:** Thursday, December 13, 2018 8:17 AM  
**To:** 'robert.hamlet@st.nm.us' <[robert.hamlet@st.nm.us](mailto:robert.hamlet@st.nm.us)>  
**Subject:** FW: Initial Notification - Major Spill to Secondary Containment - Oil Based Mud

[Here is the info for the message I left Maria](#)

---

**From:** DeLeon, Josepha  
**Sent:** Monday, December 10, 2018 10:33 AM  
**To:** Bratcher, Mike, EMNRD <[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)>; 'stucker@blm.gov' <[stucker@blm.gov](mailto:stucker@blm.gov)>; 'Pruett, Maria, EMNRD' <[Maria.Pruett@state.nm.us](mailto:Maria.Pruett@state.nm.us)>  
**Subject:** Initial Notification - Major Spill to Secondary Containment - Oil Based Mud

Called Maria, no answer. Did not email as I did not have details Saturday. Will follow up with C-141.

Date of Spill: 12/7/2018 22:00  
Lease Name/ Number: Patterson Rig 270 - Hayhurst SO 17 20 FED 001 1H  
City: Malaga  
County: Eddy County  
State: New Mexico  
Lat / Long: N.32.050553/ W.104.214368  
API #: 30-015-45101  
Incident: Oil Based Mud SPILL TO SECONDARY CONTAINMENT (Rig Pad-compacted caliche on rig liner)  
Type of secondary. containment, if applicable: compacted caliche lined drill pad.  
NONE TO LAND



Material spilled: Oil Based Mud

Volume: 48.83 bbls OBM - (of this total volume, constituents are 64% oil/petroleum, 26.5% water, and 9.5% solids. This is reflected in mud report provided by MiSwaco.

Volume Recovered: 48.83 bbls

Description: Dryer shaker tank overflow. Fluid transfer from trip tank to active was stopped, spill kits were used to contain release, rig vac and vac trucks were used to recover fluid. Rig pad was washed and cleaned to confirm liner integrity was not compromised. Confirmed no spill or leak to land.

*Josie DeLeon, HES Specialist -  
Compliance Support - Environmental*

**Chevron - MCBU**

**(Carlsbad, Hobbs, Eunice, Vacuum, Buckeye Gas Plant)**

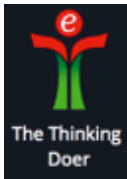
1616 W. Bender Blvd.

Hobbs, NM 88240

575-263-0424

432-425-1528 - cell

[jdxd@chevron.com](mailto:jdxd@chevron.com)



## **Appendix C**

### **Karst Risk Potential**





**Appendix E**  
**Laboratory Reports**



**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



# Analytical Report

**Prepared for:**

Mark Larson  
Larson & Associates, Inc.  
P.O. Box 50685  
Midland, TX 79710

Project: HH 50 17 20 FED 001 PAD

Project Number: 19-0180-06

Location: NM

Lab Order Number: 9K18006



NELAP/TCEQ # T104704516-17-8

Report Date: 12/04/19

Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: HH 50 17 20 FED 001 PAD  
Project Number: 19-0180-06  
Project Manager: Mark Larson

Fax: (432) 687-0456

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
S-1 @ (0-0.5')	9K18006-01	Soil	11/15/19 14:46	11-18-2019 09:14
S-2 @ (0-0.5')	9K18006-02	Soil	11/15/19 14:30	11-18-2019 09:14
S-3 @ (0-0.5')	9K18006-03	Soil	11/15/19 14:41	11-18-2019 09:14
S-4 @ (0-0.5')	9K18006-04	Soil	11/15/19 14:49	11-18-2019 09:14
S-5 @ (0-0.5')	9K18006-05	Soil	11/15/19 14:50	11-18-2019 09:14
S-6 @ (0-0.5')	9K18006-06	Soil	11/15/19 14:55	11-18-2019 09:14
S-7 @ (0-0.5')	9K18006-07	Soil	11/15/19 14:59	11-18-2019 09:14
S-8 @ (0-0.5')	9K18006-08	Soil	11/15/19 15:10	11-18-2019 09:14
S-9 @ (0-0.5')	9K18006-09	Soil	11/15/19 15:20	11-18-2019 09:14
S-10 @ (0-0.5')	9K18006-10	Soil	11/15/19 15:22	11-18-2019 09:14
S-11 @ (0-0.5')	9K18006-11	Soil	11/15/19 15:35	11-18-2019 09:14
S-12 @ (0-0.5')	9K18006-12	Soil	11/15/19 13:35	11-18-2019 09:14



Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: HH 50 17 20 FED 001 PAD  
Project Number: 19-0180-06  
Project Manager: Mark Larson

Fax: (432) 687-0456

**S-1 @ (0-0.5')**  
**9K18006-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B
Toluene	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B
Ethylbenzene	ND	0.00200	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B
Xylene (p/m)	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B
Xylene (o)	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B
Surrogate: 4-Bromofluorobenzene		95.6 %	75-125		P9K2102	11/21/19	11/21/19	EPA 8021B
Surrogate: 1,4-Difluorobenzene		86.8 %	75-125		P9K2102	11/21/19	11/21/19	EPA 8021B

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	1580	10.9	mg/kg dry	10	P9K2613	11/26/19	11/29/19	EPA 300.0
% Moisture	8.0	0.1	%	1	P9K1903	11/19/19	11/19/19	ASTM D2216

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	27.2	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M
>C12-C28	48.2	27.2	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M
>C28-C35	ND	27.2	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M
Surrogate: 1-Chlorooctane		111 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M
Surrogate: o-Terphenyl		124 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>48.2</b>	27.2	mg/kg dry	1	[CALC]	11/20/19	11/22/19	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: HH 50 17 20 FED 001 PAD  
Project Number: 19-0180-06  
Project Manager: Mark Larson

Fax: (432) 687-0456

**S-2 @ (0-0.5')**  
**9K18006-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Ethylbenzene	ND	0.00200	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Xylene (p/m)	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		97.4 %	75-125		P9K2102	11/21/19	11/21/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		86.2 %	75-125		P9K2102	11/21/19	11/21/19	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	2320	10.8	mg/kg dry	10	P9K2613	11/26/19	11/29/19	EPA 300.0	
% Moisture	7.0	0.1	%	1	P9K1903	11/19/19	11/19/19	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	195	26.9	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
>C12-C28	5580	26.9	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
>C28-C35	59.4	26.9	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
Surrogate: 1-Chlorooctane		119 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M	
Surrogate: o-Terphenyl		124 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	5840	26.9	mg/kg dry	1	[CALC]	11/20/19	11/22/19	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: HH 50 17 20 FED 001 PAD  
Project Number: 19-0180-06  
Project Manager: Mark Larson

Fax: (432) 687-0456

**S-3 @ (0-0.5')**  
**9K18006-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Ethylbenzene	ND	0.00200	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Xylene (p/m)	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		96.0 %	75-125		P9K2102	11/21/19	11/21/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		85.2 %	75-125		P9K2102	11/21/19	11/21/19	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	4060	10.5	mg/kg dry	10	P9K2613	11/26/19	11/29/19	EPA 300.0	
% Moisture	5.0	0.1	%	1	P9K1903	11/19/19	11/19/19	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.3	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
>C12-C28	422	26.3	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
>C28-C35	62.5	26.3	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
Surrogate: 1-Chlorooctane		107 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M	
Surrogate: o-Terphenyl		121 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	485	26.3	mg/kg dry	1	[CALC]	11/20/19	11/22/19	calc	

Permian Basin Environmental Lab, L.P.

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Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: HH 50 17 20 FED 001 PAD  
Project Number: 19-0180-06  
Project Manager: Mark Larson

Fax: (432) 687-0456

**S-4 @ (0-0.5')**  
**9K18006-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Ethylbenzene	ND	0.00200	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Xylene (p/m)	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		99.1 %	75-125		P9K2102	11/21/19	11/21/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		87.8 %	75-125		P9K2102	11/21/19	11/21/19	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	1720	12.3	mg/kg dry	10	P9K2613	11/26/19	11/29/19	EPA 300.0	
% Moisture	19.0	0.1	%	1	P9K1903	11/19/19	11/19/19	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	30.9	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
>C12-C28	1050	30.9	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
>C28-C35	111	30.9	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
Surrogate: 1-Chlorooctane		109 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M	
Surrogate: o-Terphenyl		127 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	1160	30.9	mg/kg dry	1	[CALC]	11/20/19	11/22/19	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: HH 50 17 20 FED 001 PAD  
Project Number: 19-0180-06  
Project Manager: Mark Larson

Fax: (432) 687-0456

**S-5 @ (0-0.5')**  
**9K18006-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Ethylbenzene	ND	0.00200	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Xylene (p/m)	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		104 %	75-125		P9K2102	11/21/19	11/21/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		99.4 %	75-125		P9K2102	11/21/19	11/21/19	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	1770	10.8	mg/kg dry	10	P9K2613	11/26/19	11/29/19	EPA 300.0	
% Moisture	7.0	0.1	%	1	P9K1903	11/19/19	11/19/19	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.9	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
>C12-C28	1740	26.9	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
>C28-C35	181	26.9	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
Surrogate: 1-Chlorooctane		110 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M	
Surrogate: o-Terphenyl		125 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	1920	26.9	mg/kg dry	1	[CALC]	11/20/19	11/22/19	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: HH 50 17 20 FED 001 PAD  
Project Number: 19-0180-06  
Project Manager: Mark Larson

Fax: (432) 687-0456

**S-6 @ (0-0.5')**  
**9K18006-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Ethylbenzene	ND	0.00200	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Xylene (p/m)	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		97.9 %	75-125		P9K2102	11/21/19	11/21/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		93.7 %	75-125		P9K2102	11/21/19	11/21/19	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	1920	11.1	mg/kg dry	10	P9K2613	11/26/19	11/29/19	EPA 300.0	
% Moisture	10.0	0.1	%	1	P9K1903	11/19/19	11/19/19	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	27.8	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
>C12-C28	910	27.8	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
>C28-C35	132	27.8	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
Surrogate: 1-Chlorooctane		113 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M	
Surrogate: o-Terphenyl		129 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	1040	27.8	mg/kg dry	1	[CALC]	11/20/19	11/22/19	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: HH 50 17 20 FED 001 PAD  
Project Number: 19-0180-06  
Project Manager: Mark Larson

Fax: (432) 687-0456

**S-7 @ (0-0.5')**  
**9K18006-07 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Ethylbenzene	ND	0.00200	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Xylene (p/m)	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		113 %	75-125		P9K2102	11/21/19	11/21/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		103 %	75-125		P9K2102	11/21/19	11/21/19	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	28.9	11.1	mg/kg dry	10	P9K2613	11/26/19	11/29/19	EPA 300.0	
% Moisture	10.0	0.1	%	1	P9K1903	11/19/19	11/19/19	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	27.8	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
>C12-C28	ND	27.8	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
>C28-C35	ND	27.8	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
Surrogate: 1-Chlorooctane		126 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M	
Surrogate: o-Terphenyl		135 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M	S-GC
Total Petroleum Hydrocarbon C6-C35	ND	27.8	mg/kg dry	1	[CALC]	11/20/19	11/22/19	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: HH 50 17 20 FED 001 PAD  
Project Number: 19-0180-06  
Project Manager: Mark Larson

Fax: (432) 687-0456

**S-8 @ (0-0.5')**  
**9K18006-08 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Ethylbenzene	ND	0.00200	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Xylene (p/m)	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		88.3 %	75-125		P9K2102	11/21/19	11/21/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		96.4 %	75-125		P9K2102	11/21/19	11/21/19	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	3960	10.6	mg/kg dry	10	P9K2613	11/26/19	11/29/19	EPA 300.0	
% Moisture	6.0	0.1	%	1	P9K1903	11/19/19	11/19/19	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.6	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
>C12-C28	4880	26.6	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
>C28-C35	406	26.6	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
Surrogate: 1-Chlorooctane		117 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M	
Surrogate: o-Terphenyl		132 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M	S-GC
Total Petroleum Hydrocarbon C6-C35	5280	26.6	mg/kg dry	1	[CALC]	11/20/19	11/22/19	calc	

Permian Basin Environmental Lab, L.P.

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Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: HH 50 17 20 FED 001 PAD  
Project Number: 19-0180-06  
Project Manager: Mark Larson

Fax: (432) 687-0456

**S-9 @ (0-0.5')**  
**9K18006-09 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Ethylbenzene	ND	0.00200	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Xylene (p/m)	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		102 %	75-125		P9K2102	11/21/19	11/21/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		102 %	75-125		P9K2102	11/21/19	11/21/19	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	909	11.1	mg/kg dry	10	P9K2714	11/27/19	11/30/19	EPA 300.0	
% Moisture	10.0	0.1	%	1	P9K1903	11/19/19	11/19/19	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	27.8	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
>C12-C28	5170	27.8	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
>C28-C35	440	27.8	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
Surrogate: 1-Chlorooctane		112 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M	
Surrogate: o-Terphenyl		128 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	5610	27.8	mg/kg dry	1	[CALC]	11/20/19	11/22/19	calc	

Permian Basin Environmental Lab, L.P.

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Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: HH 50 17 20 FED 001 PAD  
Project Number: 19-0180-06  
Project Manager: Mark Larson

Fax: (432) 687-0456

**S-10 @ (0-0.5')**  
**9K18006-10 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Ethylbenzene	ND	0.00200	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Xylene (p/m)	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P9K2102	11/21/19	11/21/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		99.8 %	75-125		P9K2102	11/21/19	11/21/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		100 %	75-125		P9K2102	11/21/19	11/21/19	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	3260	10.2	mg/kg dry	10	P9K2714	11/27/19	11/30/19	EPA 300.0	
% Moisture	2.0	0.1	%	1	P9K1903	11/19/19	11/19/19	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
>C12-C28	3170	25.5	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
>C28-C35	253	25.5	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
Surrogate: 1-Chlorooctane		98.3 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M	
Surrogate: o-Terphenyl		111 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	3420	25.5	mg/kg dry	1	[CALC]	11/20/19	11/22/19	calc	

Permian Basin Environmental Lab, L.P.

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Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: HH 50 17 20 FED 001 PAD  
Project Number: 19-0180-06  
Project Manager: Mark Larson

Fax: (432) 687-0456

**S-11 @ (0-0.5')**  
**9K18006-11 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/kg dry	1	P9K2103	11/21/19	11/22/19	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P9K2103	11/21/19	11/22/19	EPA 8021B	
Ethylbenzene	ND	0.00200	mg/kg dry	1	P9K2103	11/21/19	11/22/19	EPA 8021B	
Xylene (p/m)	ND	0.00100	mg/kg dry	1	P9K2103	11/21/19	11/22/19	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P9K2103	11/21/19	11/22/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		107 %	75-125		P9K2103	11/21/19	11/22/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		104 %	75-125		P9K2103	11/21/19	11/22/19	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	247	5.10	mg/kg dry	5	P9K2714	11/27/19	11/30/19	EPA 300.0	
% Moisture	2.0	0.1	%	1	P9K1903	11/19/19	11/19/19	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	40.4	25.5	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
>C12-C28	5180	25.5	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
>C28-C35	125	25.5	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
Surrogate: 1-Chlorooctane		111 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M	
Surrogate: o-Terphenyl		118 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	5350	25.5	mg/kg dry	1	[CALC]	11/20/19	11/22/19	calc	

Permian Basin Environmental Lab, L.P.

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Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: HH 50 17 20 FED 001 PAD  
Project Number: 19-0180-06  
Project Manager: Mark Larson

Fax: (432) 687-0456

**S-12 @ (0-0.5')**  
**9K18006-12 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/kg dry	1	P9K2103	11/21/19	11/22/19	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P9K2103	11/21/19	11/22/19	EPA 8021B	
Ethylbenzene	ND	0.00200	mg/kg dry	1	P9K2103	11/21/19	11/22/19	EPA 8021B	
Xylene (p/m)	ND	0.00100	mg/kg dry	1	P9K2103	11/21/19	11/22/19	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P9K2103	11/21/19	11/22/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		105 %	75-125		P9K2103	11/21/19	11/22/19	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		104 %	75-125		P9K2103	11/21/19	11/22/19	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	1910	10.4	mg/kg dry	10	P9K2714	11/27/19	11/30/19	EPA 300.0	
% Moisture	4.0	0.1	%	1	P9K1903	11/19/19	11/19/19	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.0	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
>C12-C28	148	26.0	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P9K2006	11/20/19	11/22/19	TPH 8015M	
Surrogate: 1-Chlorooctane		101 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M	
Surrogate: o-Terphenyl		108 %	70-130		P9K2006	11/20/19	11/22/19	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	148	26.0	mg/kg dry	1	[CALC]	11/20/19	11/22/19	calc	

Permian Basin Environmental Lab, L.P.

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Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: HH 50 17 20 FED 001 PAD  
Project Number: 19-0180-06  
Project Manager: Mark Larson

Fax: (432) 687-0456

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9K2102 - General Preparation (GC)**

**Blank (P9K2102-BLK1)**

Prepared & Analyzed: 11/21/19

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00200	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	0.138		"	0.120		115	75-125			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.5	75-125			

**LCS (P9K2102-BS1)**

Prepared & Analyzed: 11/21/19

Benzene	0.0857	0.00100	mg/kg wet	0.100		85.7	80-120			
Toluene	0.0932	0.00100	"	0.100		93.2	80-120			
Ethylbenzene	0.113	0.00200	"	0.100		113	80-120			
Xylene (p/m)	0.183	0.00100	"	0.200		91.4	80-120			
Xylene (o)	0.0889	0.00100	"	0.100		88.9	80-120			
Surrogate: 4-Bromofluorobenzene	0.114		"	0.120		94.8	75-125			
Surrogate: 1,4-Difluorobenzene	0.122		"	0.120		102	75-125			

**LCS Dup (P9K2102-BSD1)**

Prepared & Analyzed: 11/21/19

Benzene	0.0940	0.00100	mg/kg wet	0.100		94.0	80-120	9.15	20	
Toluene	0.0996	0.00100	"	0.100		99.6	80-120	6.65	20	
Ethylbenzene	0.108	0.00200	"	0.100		108	80-120	4.01	20	
Xylene (p/m)	0.199	0.00100	"	0.200		99.6	80-120	8.54	20	
Xylene (o)	0.105	0.00100	"	0.100		105	80-120	16.8	20	
Surrogate: 4-Bromofluorobenzene	0.112		"	0.120		93.7	75-125			
Surrogate: 1,4-Difluorobenzene	0.127		"	0.120		106	75-125			

**Calibration Blank (P9K2102-CCB1)**

Prepared & Analyzed: 11/21/19

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.140		"	0.120		117	75-125			
Surrogate: 1,4-Difluorobenzene	0.119		"	0.120		99.5	75-125			

Permian Basin Environmental Lab, L.P.

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Project Manager: Mark Larson

Fax: (432) 687-0456

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9K2102 - General Preparation (GC)**

**Calibration Blank (P9K2102-CCB2)**

Prepared & Analyzed: 11/21/19

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.125		"	0.120		104	75-125			
Surrogate: 1,4-Difluorobenzene	0.115		"	0.120		96.0	75-125			

**Calibration Blank (P9K2102-CCB3)**

Prepared & Analyzed: 11/21/19

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.121		"	0.120		101	75-125			
Surrogate: 1,4-Difluorobenzene	0.120		"	0.120		100	75-125			

**Calibration Check (P9K2102-CCV1)**

Prepared & Analyzed: 11/21/19

Benzene	0.0845	0.00100	mg/kg wet	0.100		84.5	80-120			
Toluene	0.0888	0.00100	"	0.100		88.8	80-120			
Ethylbenzene	0.106	0.00200	"	0.100		106	80-120			
Xylene (p/m)	0.187	0.00100	"	0.200		93.5	80-120			
Xylene (o)	0.101	0.00100	"	0.100		101	80-120			
Surrogate: 4-Bromofluorobenzene	0.101		"	0.120		83.8	75-125			
Surrogate: 1,4-Difluorobenzene	0.115		"	0.120		95.9	75-125			

**Calibration Check (P9K2102-CCV2)**

Prepared & Analyzed: 11/21/19

Benzene	0.0914	0.00100	mg/kg wet	0.100		91.4	80-120			
Toluene	0.0953	0.00100	"	0.100		95.3	80-120			
Ethylbenzene	0.107	0.00200	"	0.100		107	80-120			
Xylene (p/m)	0.190	0.00100	"	0.200		95.2	80-120			
Xylene (o)	0.106	0.00100	"	0.100		106	80-120			
Surrogate: 4-Bromofluorobenzene	0.110		"	0.120		91.5	75-125			
Surrogate: 1,4-Difluorobenzene	0.128		"	0.120		107	75-125			

Permian Basin Environmental Lab, L.P.

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Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: HH 50 17 20 FED 001 PAD  
Project Number: 19-0180-06  
Project Manager: Mark Larson

Fax: (432) 687-0456

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9K2102 - General Preparation (GC)**

**Calibration Check (P9K2102-CCV3)**

Prepared & Analyzed: 11/21/19

Benzene	0.0890	0.00100	mg/kg wet	0.100		89.0	80-120			
Toluene	0.0891	0.00100	"	0.100		89.1	80-120			
Ethylbenzene	0.102	0.00200	"	0.100		102	80-120			
Xylene (p/m)	0.167	0.00100	"	0.200		83.3	80-120			
Xylene (o)	0.0932	0.00100	"	0.100		93.2	80-120			
Surrogate: 4-Bromofluorobenzene	0.113		"	0.120		94.4	75-125			
Surrogate: 1,4-Difluorobenzene	0.125		"	0.120		104	75-125			

**Matrix Spike (P9K2102-MS1)**

Source: 9K18001-05

Prepared & Analyzed: 11/21/19

Benzene	0.0788	0.00100	mg/kg dry	0.111	0.199	NR	80-120			QM-07
Toluene	0.0757	0.00100	"	0.111	0.0469	25.9	80-120			QM-07
Ethylbenzene	0.112	0.00200	"	0.111	0.0583	47.9	80-120			QM-07
Xylene (p/m)	0.170	0.00100	"	0.222	0.210	NR	80-120			QM-07
Xylene (o)	0.115	0.00100	"	0.111	0.190	NR	80-120			QM-07
Surrogate: 4-Bromofluorobenzene	0.137		"	0.133		103	75-125			
Surrogate: 1,4-Difluorobenzene	0.150		"	0.133		113	75-125			

**Matrix Spike Dup (P9K2102-MSD1)**

Source: 9K18001-05

Prepared & Analyzed: 11/21/19

Benzene	0.0679	0.00100	mg/kg dry	0.111	0.199	NR	80-120	NR	20	QM-07
Toluene	0.0598	0.00100	"	0.111	0.0469	11.6	80-120	76.4	20	QM-07, R
Ethylbenzene	0.109	0.00200	"	0.111	0.0583	45.8	80-120	4.44	20	QM-07
Xylene (p/m)	0.174	0.00100	"	0.222	0.210	NR	80-120	NR	20	QM-07
Xylene (o)	0.126	0.00100	"	0.111	0.190	NR	80-120	NR	20	QM-07
Surrogate: 4-Bromofluorobenzene	0.126		"	0.133		94.8	75-125			
Surrogate: 1,4-Difluorobenzene	0.133		"	0.133		99.4	75-125			

**Batch P9K2103 - General Preparation (GC)**

**Blank (P9K2103-BLK1)**

Prepared & Analyzed: 11/21/19

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00200	"							
Xylene (p/m)	ND	0.00100	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	0.128		"	0.120		107	75-125			
Surrogate: 1,4-Difluorobenzene	0.126		"	0.120		105	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: HH 50 17 20 FED 001 PAD  
Project Number: 19-0180-06  
Project Manager: Mark Larson

Fax: (432) 687-0456

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9K2103 - General Preparation (GC)**

**LCS (P9K2103-BS1)**

Prepared & Analyzed: 11/21/19

Benzene	0.0925	0.00100	mg/kg wet	0.100		92.5	80-120			
Toluene	0.0973	0.00100	"	0.100		97.3	80-120			
Ethylbenzene	0.110	0.00200	"	0.100		110	80-120			
Xylene (p/m)	0.178	0.00100	"	0.200		89.2	80-120			
Xylene (o)	0.0966	0.00100	"	0.100		96.6	80-120			
Surrogate: 4-Bromofluorobenzene	0.115		"	0.120		96.1	75-125			
Surrogate: 1,4-Difluorobenzene	0.122		"	0.120		102	75-125			

**LCS Dup (P9K2103-BS1)**

Prepared & Analyzed: 11/21/19

Benzene	0.0945	0.00100	mg/kg wet	0.100		94.5	80-120	2.17	20	
Toluene	0.0972	0.00100	"	0.100		97.2	80-120	0.113	20	
Ethylbenzene	0.107	0.00200	"	0.100		107	80-120	2.71	20	
Xylene (p/m)	0.181	0.00100	"	0.200		90.6	80-120	1.57	20	
Xylene (o)	0.0978	0.00100	"	0.100		97.8	80-120	1.34	20	
Surrogate: 4-Bromofluorobenzene	0.122		"	0.120		102	75-125			
Surrogate: 1,4-Difluorobenzene	0.135		"	0.120		113	75-125			

**Calibration Blank (P9K2103-CCB1)**

Prepared & Analyzed: 11/21/19

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.121		"	0.120		101	75-125			
Surrogate: 1,4-Difluorobenzene	0.120		"	0.120		100	75-125			

**Calibration Blank (P9K2103-CCB2)**

Prepared: 11/21/19 Analyzed: 11/22/19

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.125		"	0.120		104	75-125			
Surrogate: 1,4-Difluorobenzene	0.108		"	0.120		89.9	75-125			

Permian Basin Environmental Lab, L.P.

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Project Number: 19-0180-06  
Project Manager: Mark Larson

Fax: (432) 687-0456

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9K2103 - General Preparation (GC)**

Calibration Check (P9K2103-CCV1)				Prepared & Analyzed: 11/21/19						
Benzene	0.0890	0.00100	mg/kg wet	0.100		89.0	80-120			
Toluene	0.0891	0.00100	"	0.100		89.1	80-120			
Ethylbenzene	0.102	0.00200	"	0.100		102	80-120			
Xylene (p/m)	0.167	0.00100	"	0.200		83.3	80-120			
Xylene (o)	0.0932	0.00100	"	0.100		93.2	80-120			
Surrogate: 4-Bromofluorobenzene	0.113		"	0.120		94.4	75-125			
Surrogate: 1,4-Difluorobenzene	0.125		"	0.120		104	75-125			

Calibration Check (P9K2103-CCV2)				Prepared: 11/21/19 Analyzed: 11/22/19						
Benzene	0.0852	0.00100	mg/kg wet	0.100		85.2	80-120			
Toluene	0.0856	0.00100	"	0.100		85.6	80-120			
Ethylbenzene	0.0921	0.00200	"	0.100		92.1	80-120			
Xylene (p/m)	0.164	0.00100	"	0.200		82.0	80-120			
Xylene (o)	0.0907	0.00100	"	0.100		90.7	80-120			
Surrogate: 4-Bromofluorobenzene	0.105		"	0.120		87.8	75-125			
Surrogate: 1,4-Difluorobenzene	0.121		"	0.120		101	75-125			

Calibration Check (P9K2103-CCV3)				Prepared: 11/21/19 Analyzed: 11/22/19						
Benzene	0.0890	0.00100	mg/kg wet	0.100		89.0	80-120			
Toluene	0.0935	0.00100	"	0.100		93.5	80-120			
Ethylbenzene	0.103	0.00200	"	0.100		103	80-120			
Xylene (p/m)	0.175	0.00100	"	0.200		87.5	80-120			
Xylene (o)	0.0955	0.00100	"	0.100		95.5	80-120			
Surrogate: 4-Bromofluorobenzene	0.105		"	0.120		87.3	75-125			
Surrogate: 1,4-Difluorobenzene	0.128		"	0.120		106	75-125			

Matrix Spike (P9K2103-MS1)				Source: 9K18006-11		Prepared: 11/21/19 Analyzed: 11/22/19				
Benzene	0.0650	0.00100	mg/kg dry	0.102	ND	63.7	80-120			QM-07
Toluene	0.0598	0.00100	"	0.102	ND	58.6	80-120			QM-07
Ethylbenzene	0.0734	0.00200	"	0.102	ND	71.9	80-120			QM-07
Xylene (p/m)	0.116	0.00100	"	0.204	ND	56.7	80-120			QM-07
Xylene (o)	0.0604	0.00100	"	0.102	ND	59.2	80-120			QM-07
Surrogate: 4-Bromofluorobenzene	0.117		"	0.122		95.9	75-125			
Surrogate: 1,4-Difluorobenzene	0.135		"	0.122		110	75-125			

Permian Basin Environmental Lab, L.P.

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Midland TX, 79710

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Project Number: 19-0180-06  
Project Manager: Mark Larson

Fax: (432) 687-0456

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9K2103 - General Preparation (GC)**

Matrix Spike Dup (P9K2103-MSD1)		Source: 9K18006-11		Prepared: 11/21/19		Analyzed: 11/22/19				
Benzene	0.0568	0.00100	mg/kg dry	0.102	ND	55.6	80-120	13.5	20	QM-07
Toluene	0.0496	0.00100	"	0.102	ND	48.6	80-120	18.6	20	QM-07
Ethylbenzene	0.0591	0.00200	"	0.102	ND	57.9	80-120	21.6	20	QM-07
Xylene (p/m)	0.0998	0.00100	"	0.204	ND	48.9	80-120	14.7	20	QM-07
Xylene (o)	0.0567	0.00100	"	0.102	ND	55.5	80-120	6.30	20	QM-07
Surrogate: 4-Bromofluorobenzene	0.106		"	0.122		86.4	75-125			
Surrogate: 1,4-Difluorobenzene	0.120		"	0.122		97.8	75-125			

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**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9K1903 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P9K1903-BLK1)**

Prepared & Analyzed: 11/19/19

% Moisture ND 0.1 %

**Duplicate (P9K1903-DUP1)**

**Source: 9K18001-06**

Prepared & Analyzed: 11/19/19

% Moisture 7.0 0.1 % 6.0 15.4 20

**Duplicate (P9K1903-DUP2)**

**Source: 9K18004-02**

Prepared & Analyzed: 11/19/19

% Moisture 13.0 0.1 % 13.0 0.00 20

**Duplicate (P9K1903-DUP3)**

**Source: 9K18006-12**

Prepared & Analyzed: 11/19/19

% Moisture 3.0 0.1 % 4.0 28.6 20

**Batch P9K2613 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P9K2613-BLK1)**

Prepared: 11/26/19 Analyzed: 11/27/19

Chloride ND 0.100 mg/kg wet

**LCS (P9K2613-BS1)**

Prepared: 11/26/19 Analyzed: 11/27/19

Chloride 443 1.00 mg/kg wet 400 111 80-120

**LCS Dup (P9K2613-BSD1)**

Prepared: 11/26/19 Analyzed: 11/27/19

Chloride 434 1.00 mg/kg wet 400 109 80-120 2.06 20

**Calibration Blank (P9K2613-CCB1)**

Prepared: 11/26/19 Analyzed: 11/27/19

Chloride -0.0580 mg/kg wet

**Calibration Blank (P9K2613-CCB2)**

Prepared: 11/26/19 Analyzed: 11/29/19

Chloride -0.0580 mg/kg wet

Permian Basin Environmental Lab, L.P.

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**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P9K2613 - *** DEFAULT PREP ***</b>										
<b>Calibration Check (P9K2613-CCV1)</b>				Prepared: 11/26/19 Analyzed: 11/27/19						
Chloride	21.2		mg/kg	20.0		106	0-200			
<b>Calibration Check (P9K2613-CCV2)</b>				Prepared: 11/26/19 Analyzed: 11/29/19						
Chloride	21.6		mg/kg	20.0		108	0-200			
<b>Calibration Check (P9K2613-CCV3)</b>				Prepared: 11/26/19 Analyzed: 11/29/19						
Chloride	23.0		mg/kg	20.0		115	0-200			
<b>Matrix Spike (P9K2613-MS1)</b>				Source: 9K18004-08 Prepared: 11/26/19 Analyzed: 11/27/19						
Chloride	8450	31.2	mg/kg dry	3120	5120	107	80-120			
<b>Matrix Spike (P9K2613-MS2)</b>				Source: 9K18006-01 Prepared: 11/26/19 Analyzed: 11/29/19						
Chloride	2710	10.9	mg/kg dry	1090	1580	104	80-120			
<b>Matrix Spike Dup (P9K2613-MSD1)</b>				Source: 9K18004-08 Prepared: 11/26/19 Analyzed: 11/27/19						
Chloride	8330	31.2	mg/kg dry	3120	5120	103	80-120	1.43	20	
<b>Matrix Spike Dup (P9K2613-MSD2)</b>				Source: 9K18006-01 Prepared: 11/26/19 Analyzed: 11/29/19						
Chloride	2790	10.9	mg/kg dry	1090	1580	112	80-120	2.78	20	
<b>Batch P9K2714 - *** DEFAULT PREP ***</b>										
<b>Blank (P9K2714-BLK1)</b>				Prepared: 11/27/19 Analyzed: 11/30/19						
Chloride	ND	0.100	mg/kg wet							
<b>LCS (P9K2714-BS1)</b>				Prepared: 11/27/19 Analyzed: 11/30/19						
Chloride	376	1.00	mg/kg wet	400		94.1	80-120			

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Fax: (432) 687-0456

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9K2714 - \*\*\* DEFAULT PREP \*\*\***

**LCS Dup (P9K2714-BSD1)**

Prepared: 11/27/19 Analyzed: 11/30/19

Chloride	399	1.00	mg/kg wet	400	99.8	80-120	5.92	20
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**Calibration Blank (P9K2714-CCB1)**

Prepared: 11/27/19 Analyzed: 11/30/19

Chloride	0.00		mg/kg wet					
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**Calibration Blank (P9K2714-CCB2)**

Prepared: 11/27/19 Analyzed: 11/30/19

Chloride	-0.0580		mg/kg wet					
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**Calibration Check (P9K2714-CCV1)**

Prepared: 11/27/19 Analyzed: 11/30/19

Chloride	22.4		mg/kg	20.0	112	0-200		
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**Calibration Check (P9K2714-CCV2)**

Prepared: 11/27/19 Analyzed: 11/30/19

Chloride	22.4		mg/kg	20.0	112	0-200		
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**Calibration Check (P9K2714-CCV3)**

Prepared: 11/27/19 Analyzed: 12/01/19

Chloride	22.2		mg/kg	20.0	111	0-200		
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**Matrix Spike (P9K2714-MS1)**

**Source: 9K26020-09**

Prepared: 11/27/19 Analyzed: 11/30/19

Chloride	4010	11.2	mg/kg dry	1120	3000	90.0	80-120	
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**Matrix Spike (P9K2714-MS2)**

**Source: 9K18006-11**

Prepared: 11/27/19 Analyzed: 11/30/19

Chloride	815	5.10	mg/kg dry	510	247	111	80-120	
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**Matrix Spike Dup (P9K2714-MSD1)**

**Source: 9K26020-09**

Prepared: 11/27/19 Analyzed: 11/30/19

Chloride	4170	11.2	mg/kg dry	1120	3000	104	80-120	3.80	20
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**Matrix Spike Dup (P9K2714-MSD2)**

**Source: 9K18006-11**

Prepared: 11/27/19 Analyzed: 11/30/19

Chloride	822	5.10	mg/kg dry	510	247	113	80-120	0.810	20
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Fax: (432) 687-0456

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9K2006 - TX 1005**

**Blank (P9K2006-BLK1)**

Prepared: 11/20/19 Analyzed: 11/22/19

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	92.8		"	100		92.8	70-130			
Surrogate: o-Terphenyl	48.7		"	50.0		97.4	70-130			

**LCS (P9K2006-BS1)**

Prepared: 11/20/19 Analyzed: 11/22/19

C6-C12	890	25.0	mg/kg wet	1000		89.0	75-125			
>C12-C28	940	25.0	"	1000		94.0	75-125			
Surrogate: 1-Chlorooctane	111		"	100		111	70-130			
Surrogate: o-Terphenyl	47.0		"	50.0		94.1	70-130			

**LCS Dup (P9K2006-BSD1)**

Prepared: 11/20/19 Analyzed: 11/22/19

C6-C12	806	25.0	mg/kg wet	1000		80.6	75-125	9.93	20	
>C12-C28	846	25.0	"	1000		84.6	75-125	10.6	20	
Surrogate: 1-Chlorooctane	97.4		"	100		97.4	70-130			
Surrogate: o-Terphenyl	42.3		"	50.0		84.6	70-130			

**Calibration Check (P9K2006-CCV1)**

Prepared: 11/20/19 Analyzed: 11/22/19

C6-C12	474	25.0	mg/kg wet	500		94.9	85-115			
>C12-C28	511	25.0	"	500		102	85-115			
Surrogate: 1-Chlorooctane	112		"	100		112	70-130			
Surrogate: o-Terphenyl	48.6		"	50.0		97.1	70-130			

**Calibration Check (P9K2006-CCV2)**

Prepared: 11/20/19 Analyzed: 11/22/19

C6-C12	461	25.0	mg/kg wet	500		92.2	85-115			
>C12-C28	501	25.0	"	500		100	85-115			
Surrogate: 1-Chlorooctane	110		"	100		110	70-130			
Surrogate: o-Terphenyl	47.7		"	50.0		95.5	70-130			

Permian Basin Environmental Lab, L.P.

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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P9K2006 - TX 1005**

**Calibration Check (P9K2006-CCV3)**

Prepared: 11/20/19 Analyzed: 11/22/19

C6-C12	492	25.0	mg/kg wet	500		98.4	85-115			
>C12-C28	504	25.0	"	500		101	85-115			
Surrogate: 1-Chlorooctane	114		"	100		114	70-130			
Surrogate: o-Terphenyl	48.7		"	50.0		97.4	70-130			

**Matrix Spike (P9K2006-MS1)**

Source: 9K19001-01

Prepared: 11/20/19 Analyzed: 11/22/19

C6-C12	931	26.6	mg/kg dry	1060	11.8	86.4	75-125			
>C12-C28	1010	26.6	"	1060	12.2	94.0	75-125			
Surrogate: 1-Chlorooctane	125		"	106		118	70-130			
Surrogate: o-Terphenyl	51.6		"	53.2		97.0	70-130			

**Matrix Spike Dup (P9K2006-MSD1)**

Source: 9K19001-01

Prepared: 11/20/19 Analyzed: 11/22/19

C6-C12	958	26.6	mg/kg dry	1060	11.8	89.0	75-125	2.92	20	
>C12-C28	1050	26.6	"	1060	12.2	97.4	75-125	3.65	20	
Surrogate: 1-Chlorooctane	128		"	106		120	70-130			
Surrogate: o-Terphenyl	50.5		"	53.2		95.0	70-130			

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235



Larson & Associates, Inc.  
P.O. Box 50685  
Midland TX, 79710

Project: HH 50 17 20 FED 001 PAD  
Project Number: 19-0180-06  
Project Manager: Mark Larson

Fax: (432) 687-0456

### Notes and Definitions

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

ROI Received on Ice

R The RPD exceeded the method control limit. The individual analyte QA/QC recoveries, however, were within acceptance limits.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

BULK Samples received in Bulk soil containers

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date:

12/4/2019

Brent Barron, Laboratory Director/Technical Director

Permian Basin Environmental Lab, L.P.

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If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

**Arson & Associates, Inc.**  
Environmental Consultants

507 N. Marientfield, Ste. 200  
Midland, TX 79701  
432-687-0901

Data Reported to:

TRRP report? ☐ Yes ☒ No  
TIME ZONE: MST  
Time zone/State:

S=SOIL  
W=WATER  
A=AIR  
P=PAINT  
SL=SLUDGE  
OT=OTHER

Field Sample I.D. Lab # Date Time Matrix

# of Containers  
HCl  
HNO<sub>3</sub>  
H<sub>2</sub>SO<sub>4</sub> ☐ NaOH ☐  
ICE  
UNPRESERVED

## ANALYSES

BTEX ☒ MTBE ☐  
TRPH 418.1 ☐ TPH 1005 ☒ TPH 1006 ☐  
GASOLINE MOD 8015 ☒  
DIESEL - MOD 8015 ☒  
OIL - MOD 8015 ☒  
VOC 8260 ☒  
SVOC 8270 ☒  
8081 PESTICIDES ☐ PAH 8270 ☐ HOLDPAH ☐  
8082 PCBS ☐ 8151 HERBICIDES ☐  
TCLP - METALS (RCRA) ☐ TCLP VOC ☐  
TCLP - PEST ☐ HERB ☐ Semi-VOC ☐  
TOTAL METALS (RCRA) ☐ OTHER LIST ☐  
LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐  
RCL ☐ TOX ☐ FLASHPOINT ☐  
TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐  
PH ☐ HEXAVALENT CHROMIUM ☐  
EXPLOSIVES ☐ PECTHLORATE ☐  
CHLORIDE ANIONS ☐ ALKALINITY ☐  
17300

FIELD NOTES

DATE: 11/18/2019 PAGE 1 OF 1  
PO#: 91218006 LAB WORK ORDER#:  
PROJECT LOCATION OR NAME: 4th SD 17-20 Fed Oil Rd  
LA PROJECT #: 19-018006 COLLECTOR: PO

CHAIN-OF-CUSTODY

NO 0830

Page 28 of 28

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/>	NaOH <input type="checkbox"/>	ICE	UNPRESERVED	ANALYSES	TURN AROUND TIME	LABORATORY USE ONLY
S-1 (0-0.5')	1	11/5/19	14:46	S	1							<input checked="" type="checkbox"/> BTEX <input type="checkbox"/> MTBE <input type="checkbox"/> TRPH 418.1 <input type="checkbox"/> TPH 1005 <input checked="" type="checkbox"/> TPH 1006 <input type="checkbox"/> GASOLINE MOD 8015 <input checked="" type="checkbox"/> DIESEL - MOD 8015 <input checked="" type="checkbox"/> OIL - MOD 8015 <input checked="" type="checkbox"/> VOC 8260 <input checked="" type="checkbox"/> SVOC 8270 <input checked="" type="checkbox"/> 8081 PESTICIDES <input type="checkbox"/> PAH 8270 <input type="checkbox"/> HOLDPAH <input type="checkbox"/> 8082 PCBS <input type="checkbox"/> 8151 HERBICIDES <input type="checkbox"/> TCLP - METALS (RCRA) <input type="checkbox"/> TCLP VOC <input type="checkbox"/> TCLP - PEST <input type="checkbox"/> HERB <input type="checkbox"/> Semi-VOC <input type="checkbox"/> TOTAL METALS (RCRA) <input type="checkbox"/> OTHER LIST <input type="checkbox"/> LEAD - TOTAL <input type="checkbox"/> D.W. 200.8 <input type="checkbox"/> TCLP <input type="checkbox"/> RCL <input type="checkbox"/> TOX <input type="checkbox"/> FLASHPOINT <input type="checkbox"/> TDS <input type="checkbox"/> TSS <input type="checkbox"/> % MOISTURE <input type="checkbox"/> CYANIDE <input type="checkbox"/> PH <input type="checkbox"/> HEXAVALENT CHROMIUM <input type="checkbox"/> EXPLOSIVES <input type="checkbox"/> PECTHLORATE <input type="checkbox"/> CHLORIDE ANIONS <input type="checkbox"/> ALKALINITY <input type="checkbox"/> <u>17300</u>	NORMAL <input checked="" type="checkbox"/> 1 DAY <input type="checkbox"/> 2 DAY <input type="checkbox"/> OTHER <input type="checkbox"/>	LABORATORY USE ONLY: RECEIVING TEMP: <u>55-45</u> THERM: <u>CE+1</u> CUSTODY SEALS - <input type="checkbox"/> BROKEN <input type="checkbox"/> INTACT <input type="checkbox"/> NOT USED CARRIER BILL # <u>                    </u> HAND DELIVERED <input type="checkbox"/>
S-2 (0-0.5')	2	11/5/19	14:30	S	1							<input checked="" type="checkbox"/> BTEX <input type="checkbox"/> MTBE <input type="checkbox"/> TRPH 418.1 <input type="checkbox"/> TPH 1005 <input checked="" type="checkbox"/> TPH 1006 <input type="checkbox"/> GASOLINE MOD 8015 <input checked="" type="checkbox"/> DIESEL - MOD 8015 <input checked="" type="checkbox"/> OIL - MOD 8015 <input checked="" type="checkbox"/> VOC 8260 <input checked="" type="checkbox"/> SVOC 8270 <input checked="" type="checkbox"/> 8081 PESTICIDES <input type="checkbox"/> PAH 8270 <input type="checkbox"/> HOLDPAH <input type="checkbox"/> 8082 PCBS <input type="checkbox"/> 8151 HERBICIDES <input type="checkbox"/> TCLP - METALS (RCRA) <input type="checkbox"/> TCLP VOC <input type="checkbox"/> TCLP - PEST <input type="checkbox"/> HERB <input type="checkbox"/> Semi-VOC <input type="checkbox"/> TOTAL METALS (RCRA) <input type="checkbox"/> OTHER LIST <input type="checkbox"/> LEAD - TOTAL <input type="checkbox"/> D.W. 200.8 <input type="checkbox"/> TCLP <input type="checkbox"/> RCL <input type="checkbox"/> TOX <input type="checkbox"/> FLASHPOINT <input type="checkbox"/> TDS <input type="checkbox"/> TSS <input type="checkbox"/> % MOISTURE <input type="checkbox"/> CYANIDE <input type="checkbox"/> PH <input type="checkbox"/> HEXAVALENT CHROMIUM <input type="checkbox"/> EXPLOSIVES <input type="checkbox"/> PECTHLORATE <input type="checkbox"/> CHLORIDE ANIONS <input type="checkbox"/> ALKALINITY <input type="checkbox"/> <u>17300</u>	NORMAL <input checked="" type="checkbox"/> 1 DAY <input type="checkbox"/> 2 DAY <input type="checkbox"/> OTHER <input type="checkbox"/>	LABORATORY USE ONLY: RECEIVING TEMP: <u>55-45</u> THERM: <u>CE+1</u> CUSTODY SEALS - <input type="checkbox"/> BROKEN <input type="checkbox"/> INTACT <input type="checkbox"/> NOT USED CARRIER BILL # <u>                    </u> HAND DELIVERED <input type="checkbox"/>
S-3 (0-0.5')	3	11/5/19	14:41	S	1							<input checked="" type="checkbox"/> BTEX <input type="checkbox"/> MTBE <input type="checkbox"/> TRPH 418.1 <input type="checkbox"/> TPH 1005 <input checked="" type="checkbox"/> TPH 1006 <input type="checkbox"/> GASOLINE MOD 8015 <input checked="" type="checkbox"/> DIESEL - MOD 8015 <input checked="" type="checkbox"/> OIL - MOD 8015 <input checked="" type="checkbox"/> VOC 8260 <input checked="" type="checkbox"/> SVOC 8270 <input checked="" type="checkbox"/> 8081 PESTICIDES <input type="checkbox"/> PAH 8270 <input type="checkbox"/> HOLDPAH <input type="checkbox"/> 8082 PCBS <input type="checkbox"/> 8151 HERBICIDES <input type="checkbox"/> TCLP - METALS (RCRA) <input type="checkbox"/> TCLP VOC <input type="checkbox"/> TCLP - PEST <input type="checkbox"/> HERB <input type="checkbox"/> Semi-VOC <input type="checkbox"/> TOTAL METALS (RCRA) <input type="checkbox"/> OTHER LIST <input type="checkbox"/> LEAD - TOTAL <input type="checkbox"/> D.W. 200.8 <input type="checkbox"/> TCLP <input type="checkbox"/> RCL <input type="checkbox"/> TOX <input type="checkbox"/> FLASHPOINT <input type="checkbox"/> TDS <input type="checkbox"/> TSS <input type="checkbox"/> % MOISTURE <input type="checkbox"/> CYANIDE <input type="checkbox"/> PH <input type="checkbox"/> HEXAVALENT CHROMIUM <input type="checkbox"/> EXPLOSIVES <input type="checkbox"/> PECTHLORATE <input type="checkbox"/> CHLORIDE ANIONS <input type="checkbox"/> ALKALINITY <input type="checkbox"/> <u>17300</u>	NORMAL <input checked="" type="checkbox"/> 1 DAY <input type="checkbox"/> 2 DAY <input type="checkbox"/> OTHER <input type="checkbox"/>	LABORATORY USE ONLY: RECEIVING TEMP: <u>55-45</u> THERM: <u>CE+1</u> CUSTODY SEALS - <input type="checkbox"/> BROKEN <input type="checkbox"/> INTACT <input type="checkbox"/> NOT USED CARRIER BILL # <u>                    </u> HAND DELIVERED <input type="checkbox"/>
S-4 (0-0.5')	4	11/5/19	14:49	S	1							<input checked="" type="checkbox"/> BTEX <input type="checkbox"/> MTBE <input type="checkbox"/> TRPH 418.1 <input type="checkbox"/> TPH 1005 <input checked="" type="checkbox"/> TPH 1006 <input type="checkbox"/> GASOLINE MOD 8015 <input checked="" type="checkbox"/> DIESEL - MOD 8015 <input checked="" type="checkbox"/> OIL - MOD 8015 <input checked="" type="checkbox"/> VOC 8260 <input checked="" type="checkbox"/> SVOC 8270 <input checked="" type="checkbox"/> 8081 PESTICIDES <input type="checkbox"/> PAH 8270 <input type="checkbox"/> HOLDPAH <input type="checkbox"/> 8082 PCBS <input type="checkbox"/> 8151 HERBICIDES <input type="checkbox"/> TCLP - METALS (RCRA) <input type="checkbox"/> TCLP VOC <input type="checkbox"/> TCLP - PEST <input type="checkbox"/> HERB <input type="checkbox"/> Semi-VOC <input type="checkbox"/> TOTAL METALS (RCRA) <input type="checkbox"/> OTHER LIST <input type="checkbox"/> LEAD - TOTAL <input type="checkbox"/> D.W. 200.8 <input type="checkbox"/> TCLP <input type="checkbox"/> RCL <input type="checkbox"/> TOX <input type="checkbox"/> FLASHPOINT <input type="checkbox"/> TDS <input type="checkbox"/> TSS <input type="checkbox"/> % MOISTURE <input type="checkbox"/> CYANIDE <input type="checkbox"/> PH <input type="checkbox"/> HEXAVALENT CHROMIUM <input type="checkbox"/> EXPLOSIVES <input type="checkbox"/> PECTHLORATE <input type="checkbox"/> CHLORIDE ANIONS <input type="checkbox"/> ALKALINITY <input type="checkbox"/> <u>17300</u>	NORMAL <input checked="" type="checkbox"/> 1 DAY <input type="checkbox"/> 2 DAY <input type="checkbox"/> OTHER <input type="checkbox"/>	LABORATORY USE ONLY: RECEIVING TEMP: <u>55-45</u> THERM: <u>CE+1</u> CUSTODY SEALS - <input type="checkbox"/> BROKEN <input type="checkbox"/> INTACT <input type="checkbox"/> NOT USED CARRIER BILL # <u>                    </u> HAND DELIVERED <input type="checkbox"/>
S-5 (0-0.5')	5	11/5/19	14:50	S	1							<input checked="" type="checkbox"/> BTEX <input type="checkbox"/> MTBE <input type="checkbox"/> TRPH 418.1 <input type="checkbox"/> TPH 1005 <input checked="" type="checkbox"/> TPH 1006 <input type="checkbox"/> GASOLINE MOD 8015 <input checked="" type="checkbox"/> DIESEL - MOD 8015 <input checked="" type="checkbox"/> OIL - MOD 8015 <input checked="" type="checkbox"/> VOC 8260 <input checked="" type="checkbox"/> SVOC 8270 <input checked="" type="checkbox"/> 8081 PESTICIDES <input type="checkbox"/> PAH 8270 <input type="checkbox"/> HOLDPAH <input type="checkbox"/> 8082 PCBS <input type="checkbox"/> 8151 HERBICIDES <input type="checkbox"/> TCLP - METALS (RCRA) <input type="checkbox"/> TCLP VOC <input type="checkbox"/> TCLP - PEST <input type="checkbox"/> HERB <input type="checkbox"/> Semi-VOC <input type="checkbox"/> TOTAL METALS (RCRA) <input type="checkbox"/> OTHER LIST <input type="checkbox"/> LEAD - TOTAL <input type="checkbox"/> D.W. 200.8 <input type="checkbox"/> TCLP <input type="checkbox"/> RCL <input type="checkbox"/> TOX <input type="checkbox"/> FLASHPOINT <input type="checkbox"/> TDS <input type="checkbox"/> TSS <input type="checkbox"/> % MOISTURE <input type="checkbox"/> CYANIDE <input type="checkbox"/> PH <input type="checkbox"/> HEXAVALENT CHROMIUM <input type="checkbox"/> EXPLOSIVES <input type="checkbox"/> PECTHLORATE <input type="checkbox"/> CHLORIDE ANIONS <input type="checkbox"/> ALKALINITY <input type="checkbox"/> <u>17300</u>	NORMAL <input checked="" type="checkbox"/> 1 DAY <input type="checkbox"/> 2 DAY <input type="checkbox"/> OTHER <input type="checkbox"/>	LABORATORY USE ONLY: RECEIVING TEMP: <u>55-45</u> THERM: <u>CE+1</u> CUSTODY SEALS - <input type="checkbox"/> BROKEN <input type="checkbox"/> INTACT <input type="checkbox"/> NOT USED CARRIER BILL # <u>                    </u> HAND DELIVERED <input type="checkbox"/>
S-6 (0-0.5')	6	11/5/19	14:55	S	1							<input checked="" type="checkbox"/> BTEX <input type="checkbox"/> MTBE <input type="checkbox"/> TRPH 418.1 <input type="checkbox"/> TPH 1005 <input checked="" type="checkbox"/> TPH 1006 <input type="checkbox"/> GASOLINE MOD 8015 <input checked="" type="checkbox"/> DIESEL - MOD 8015 <input checked="" type="checkbox"/> OIL - MOD 8015 <input checked="" type="checkbox"/> VOC 8260 <input checked="" type="checkbox"/> SVOC 8270 <input checked="" type="checkbox"/> 8081 PESTICIDES <input type="checkbox"/> PAH 8270 <input type="checkbox"/> HOLDPAH <input type="checkbox"/> 8082 PCBS <input type="checkbox"/> 8151 HERBICIDES <input type="checkbox"/> TCLP - METALS (RCRA) <input type="checkbox"/> TCLP VOC <input type="checkbox"/> TCLP - PEST <input type="checkbox"/> HERB <input type="checkbox"/> Semi-VOC <input type="checkbox"/> TOTAL METALS (RCRA) <input type="checkbox"/> OTHER LIST <input type="checkbox"/> LEAD - TOTAL <input type="checkbox"/> D.W. 200.8 <input type="checkbox"/> TCLP <input type="checkbox"/> RCL <input type="checkbox"/> TOX <input type="checkbox"/> FLASHPOINT <input type="checkbox"/> TDS <input type="checkbox"/> TSS <input type="checkbox"/> % MOISTURE <input type="checkbox"/> CYANIDE <input type="checkbox"/> PH <input type="checkbox"/> HEXAVALENT CHROMIUM <input type="checkbox"/> EXPLOSIVES <input type="checkbox"/> PECTHLORATE <input type="checkbox"/> CHLORIDE ANIONS <input type="checkbox"/> ALKALINITY <input type="checkbox"/> <u>17300</u>	NORMAL <input checked="" type="checkbox"/> 1 DAY <input type="checkbox"/> 2 DAY <input type="checkbox"/> OTHER <input type="checkbox"/>	LABORATORY USE ONLY: RECEIVING TEMP: <u>55-45</u> THERM: <u>CE+1</u> CUSTODY SEALS - <input type="checkbox"/> BROKEN <input type="checkbox"/> INTACT <input type="checkbox"/> NOT USED CARRIER BILL # <u>                    </u> HAND DELIVERED <input type="checkbox"/>
S-7 (0-0.5')	7	11/5/19	14:59	S	1							<input checked="" type="checkbox"/> BTEX <input type="checkbox"/> MTBE <input type="checkbox"/> TRPH 418.1 <input type="checkbox"/> TPH 1005 <input checked="" type="checkbox"/> TPH 1006 <input type="checkbox"/> GASOLINE MOD 8015 <input checked="" type="checkbox"/> DIESEL - MOD 8015 <input checked="" type="checkbox"/> OIL - MOD 8015 <input checked="" type="checkbox"/> VOC 8260 <input checked="" type="checkbox"/> SVOC 8270 <input checked="" type="checkbox"/> 8081 PESTICIDES <input type="checkbox"/> PAH 8270 <input type="checkbox"/> HOLDPAH <input type="checkbox"/> 8082 PCBS <input type="checkbox"/> 8151 HERBICIDES <input type="checkbox"/> TCLP - METALS (RCRA) <input type="checkbox"/> TCLP VOC <input type="checkbox"/> TCLP - PEST <input type="checkbox"/> HERB <input type="checkbox"/> Semi-VOC <input type="checkbox"/> TOTAL METALS (RCRA) <input type="checkbox"/> OTHER LIST <input type="checkbox"/> LEAD - TOTAL <input type="checkbox"/> D.W. 200.8 <input type="checkbox"/> TCLP <input type="checkbox"/> RCL <input type="checkbox"/> TOX <input type="checkbox"/> FLASHPOINT <input type="checkbox"/> TDS <input type="checkbox"/> TSS <input type="checkbox"/> % MOISTURE <input type="checkbox"/> CYANIDE <input type="checkbox"/> PH <input type="checkbox"/> HEXAVALENT CHROMIUM <input type="checkbox"/> EXPLOSIVES <input type="checkbox"/> PECTHLORATE <input type="checkbox"/> CHLORIDE ANIONS <input type="checkbox"/> ALKALINITY <input type="checkbox"/> <u>17300</u>	NORMAL <input checked="" type="checkbox"/> 1 DAY <input type="checkbox"/> 2 DAY <input type="checkbox"/> OTHER <input type="checkbox"/>	LABORATORY USE ONLY: RECEIVING TEMP: <u>55-45</u> THERM: <u>CE+1</u> CUSTODY SEALS - <input type="checkbox"/> BROKEN <input type="checkbox"/> INTACT <input type="checkbox"/> NOT USED CARRIER BILL # <u>                    </u> HAND DELIVERED <input type="checkbox"/>
S-8 (0-0.5')	8	11/5/19	15:10	S	1							<input checked="" type="checkbox"/> BTEX <input type="checkbox"/> MTBE <input type="checkbox"/> TRPH 418.1 <input type="checkbox"/> TPH 1005 <input checked="" type="checkbox"/> TPH 1006 <input type="checkbox"/> GASOLINE MOD 8015 <input checked="" type="checkbox"/> DIESEL - MOD 8015 <input checked="" type="checkbox"/> OIL - MOD 8015 <input checked="" type="checkbox"/> VOC 8260 <input checked="" type="checkbox"/> SVOC 8270 <input checked="" type="checkbox"/> 8081 PESTICIDES <input type="checkbox"/> PAH 8270 <input type="checkbox"/> HOLDPAH <input type="checkbox"/> 8082 PCBS <input type="checkbox"/> 8151 HERBICIDES <input type="checkbox"/> TCLP - METALS (RCRA) <input type="checkbox"/> TCLP VOC <input type="checkbox"/> TCLP - PEST <input type="checkbox"/> HERB <input type="checkbox"/> Semi-VOC <input type="checkbox"/> TOTAL METALS (RCRA) <input type="checkbox"/> OTHER LIST <input type="checkbox"/> LEAD - TOTAL <input type="checkbox"/> D.W. 200.8 <input type="checkbox"/> TCLP <input type="checkbox"/> RCL <input type="checkbox"/> TOX <input type="checkbox"/> FLASHPOINT <input type="checkbox"/> TDS <input type="checkbox"/> TSS <input type="checkbox"/> % MOISTURE <input type="checkbox"/> CYANIDE <input type="checkbox"/> PH <input type="checkbox"/> HEXAVALENT CHROMIUM <input type="checkbox"/> EXPLOSIVES <input type="checkbox"/> PECTHLORATE <input type="checkbox"/> CHLORIDE ANIONS <input type="checkbox"/> ALKALINITY <input type="checkbox"/> <u>17300</u>	NORMAL <input checked="" type="checkbox"/> 1 DAY <input type="checkbox"/> 2 DAY <input type="checkbox"/> OTHER <input type="checkbox"/>	LABORATORY USE ONLY: RECEIVING TEMP: <u>55-45</u> THERM: <u>CE+1</u> CUSTODY SEALS - <input type="checkbox"/> BROKEN <input type="checkbox"/> INTACT <input type="checkbox"/> NOT USED CARRIER BILL # <u>                    </u> HAND DELIVERED <input type="checkbox"/>
S-9 (0-0.5')	9	11/5/19	15:20	S	1							<input checked="" type="checkbox"/> BTEX <input type="checkbox"/> MTBE <input type="checkbox"/> TRPH 418.1 <input type="checkbox"/> TPH 1005 <input checked="" type="checkbox"/> TPH 1006 <input type="checkbox"/> GASOLINE MOD 8015 <input checked="" type="checkbox"/> DIESEL - MOD 8015 <input checked="" type="checkbox"/> OIL - MOD 8015 <input checked="" type="checkbox"/> VOC 8260 <input checked="" type="checkbox"/> SVOC 8270 <input checked="" type="checkbox"/> 8081 PESTICIDES <input type="checkbox"/> PAH 8270 <input type="checkbox"/> HOLDPAH <input type="checkbox"/> 8082 PCBS <input type="checkbox"/> 8151 HERBICIDES <input type="checkbox"/> TCLP - METALS (RCRA) <input type="checkbox"/> TCLP VOC <input type="checkbox"/> TCLP - PEST <input type="checkbox"/> HERB <input type="checkbox"/> Semi-VOC <input type="checkbox"/> TOTAL METALS (RCRA) <input type="checkbox"/> OTHER LIST <input type="checkbox"/> LEAD - TOTAL <input type="checkbox"/> D.W. 200.8 <input type="checkbox"/> TCLP <input type="checkbox"/> RCL <input type="checkbox"/> TOX <input type="checkbox"/> FLASHPOINT <input type="checkbox"/> TDS <input type="checkbox"/> TSS <input type="checkbox"/> % MOISTURE <input type="checkbox"/> CYANIDE <input type="checkbox"/> PH <input type="checkbox"/> HEXAVALENT CHROMIUM <input type="checkbox"/> EXPLOSIVES <input type="checkbox"/> PECTHLORATE <input type="checkbox"/> CHLORIDE ANIONS <input type="checkbox"/> ALKALINITY <input type="checkbox"/> <u>17300</u>	NORMAL <input checked="" type="checkbox"/> 1 DAY <input type="checkbox"/> 2 DAY <input type="checkbox"/> OTHER <input type="checkbox"/>	LABORATORY USE ONLY: RECEIVING TEMP: <u>55-45</u> THERM: <u>CE+1</u> CUSTODY SEALS - <input type="checkbox"/> BROKEN <input type="checkbox"/> INTACT <input type="checkbox"/> NOT USED CARRIER BILL # <u>                    </u> HAND DELIVERED <input type="checkbox"/>
S-10 (0-0.5')	10	11/5/19	15:28	S	1							<input checked="" type="checkbox"/> BTEX <input type="checkbox"/> MTBE <input type="checkbox"/> TRPH 418.1 <input type="checkbox"/> TPH 1005 <input checked="" type="checkbox"/> TPH 1006 <input type="checkbox"/> GASOLINE MOD 8015 <input checked="" type="checkbox"/> DIESEL - MOD 8015 <input checked="" type="checkbox"/> OIL - MOD 8015 <input checked="" type="checkbox"/> VOC 8260 <input checked="" type="checkbox"/> SVOC 8270 <input checked="" type="checkbox"/> 8081 PESTICIDES <input type="checkbox"/> PAH 8270 <input type="checkbox"/> HOLDPAH <input type="checkbox"/> 8082 PCBS <input type="checkbox"/> 8151 HERBICIDES <input type="checkbox"/> TCLP - METALS (RCRA) <input type="checkbox"/> TCLP VOC <input type="checkbox"/> TCLP - PEST <input type="checkbox"/> HERB <input type="checkbox"/> Semi-VOC <input type="checkbox"/> TOTAL METALS (RCRA) <input type="checkbox"/> OTHER LIST <input type="checkbox"/> LEAD - TOTAL <input type="checkbox"/> D.W. 200.8 <input type="checkbox"/> TCLP <input type="checkbox"/> RCL <input type="checkbox"/> TOX <input type="checkbox"/> FLASHPOINT <input type="checkbox"/> TDS <input type="checkbox"/> TSS <input type="checkbox"/> % MOISTURE <input type="checkbox"/> CYANIDE <input type="checkbox"/> PH <input type="checkbox"/> HEXAVALENT CHROMIUM <input type="checkbox"/> EXPLOSIVES <input type="checkbox"/> PECTHLORATE <input type="checkbox"/> CHLORIDE ANIONS <input type="checkbox"/> ALKALINITY <input type="checkbox"/> <u>17300</u>	NORMAL <input checked="" type="checkbox"/> 1 DAY <input type="checkbox"/> 2 DAY <input type="checkbox"/> OTHER <input type="checkbox"/>	LABORATORY USE ONLY: RECEIVING TEMP: <u>55-45</u> THERM: <u>CE+1</u> CUSTODY SEALS - <input type="checkbox"/> BROKEN <input type="checkbox"/> INTACT <input type="checkbox"/> NOT USED CARRIER BILL # <u>                    </u> HAND DELIVERED <input type="checkbox"/>
S-11 (0-0.5')	11	11/5/19	15:35	S	1							<input checked="" type="checkbox"/> BTEX <input type="checkbox"/> MTBE <input type="checkbox"/> TRPH 418.1 <input type="checkbox"/> TPH 1005 <input checked="" type="checkbox"/> TPH 1006 <input type="checkbox"/> GASOLINE MOD 8015 <input checked="" type="checkbox"/> DIESEL - MOD 8015 <input checked="" type="checkbox"/> OIL - MOD 8015 <input checked="" type="checkbox"/> VOC 8260 <input checked="" type="checkbox"/> SVOC 8270 <input checked="" type="checkbox"/> 8081 PESTICIDES <input type="checkbox"/> PAH 8270 <input type="checkbox"/> HOLDPAH <input type="checkbox"/> 8082 PCBS <input type="checkbox"/> 8151 HERBICIDES <input type="checkbox"/> TCLP - METALS (RCRA) <input type="checkbox"/> TCLP VOC <input type="checkbox"/> TCLP - PEST <input type="checkbox"/> HERB <input type="checkbox"/> Semi-VOC <input type="checkbox"/> TOTAL METALS (RCRA) <input type="checkbox"/> OTHER LIST <input type="checkbox"/> LEAD - TOTAL <input type="checkbox"/> D.W. 200.8 <input type="checkbox"/> TCLP <input type="checkbox"/> RCL <input type="checkbox"/> TOX <input type="checkbox"/> FLASHPOINT <input type="checkbox"/> TDS <input type="checkbox"/> TSS <input type="checkbox"/> % MOISTURE <input type="checkbox"/> CYANIDE <input type="checkbox"/> PH <input type="checkbox"/> HEXAVALENT CHROMIUM <input type="checkbox"/> EXPLOSIVES <input type="checkbox"/> PECTHLORATE <input type="checkbox"/> CHLORIDE ANIONS <input type="checkbox"/> ALKALINITY <input type="checkbox"/> <u>17300</u>	NORMAL <input checked="" type="checkbox"/> 1 DAY <input type="checkbox"/> 2 DAY <input type="checkbox"/> OTHER <input type="checkbox"/>	LABORATORY USE ONLY: RECEIVING TEMP: <u>55-45</u> THERM: <u>CE+1</u> CUSTODY SEALS - <input type="checkbox"/> BROKEN <input type="checkbox"/> INTACT <input type="checkbox"/> NOT USED CARRIER BILL # <u>                    </u> HAND DELIVERED <input type="checkbox"/>
S-12 (0-0.5')	12	11/5/19	15:35	S	1							<input checked="" type="checkbox"/> BTEX <input type="checkbox"/> MTBE <input type="checkbox"/> TRPH 418.1 <input type="checkbox"/> TPH 1005 <input checked="" type="checkbox"/> TPH 1006 <input type="checkbox"/> GASOLINE MOD 8015 <input checked="" type="checkbox"/> DIESEL - MOD 8015 <input checked="" type="checkbox"/> OIL - MOD 8015 <input checked="" type="checkbox"/> VOC 8260 <input checked="" type="checkbox"/> SVOC 8270 <input checked="" type="checkbox"/> 8081 PESTICIDES <input type="checkbox"/> PAH 8270 <input type="checkbox"/> HOLDPAH <input type="checkbox"/> 8082 PCBS <input type="checkbox"/> 8151 HERBICIDES <input type="checkbox"/> TCLP - METALS (RCRA) <input type="checkbox"/> TCLP VOC <input type="checkbox"/> TCLP - PEST <input type="checkbox"/> HERB <input type="checkbox"/> Semi-VOC <input type="checkbox"/> TOTAL METALS (RCRA) <input type="checkbox"/> OTHER LIST <input type="checkbox"/> LEAD - TOTAL <input type="checkbox"/> D.W. 200.8 <input type="checkbox"/> TCLP <input type="checkbox"/> RCL <input type="checkbox"/> TOX <input type="checkbox"/> FLASHPOINT <input type="checkbox"/> TDS <input type="checkbox"/> TSS <input type="checkbox"/> % MOISTURE <input type="checkbox"/> CYANIDE <input type="checkbox"/> PH <input type="checkbox"/> HEXAVALENT CHROMIUM <input type="checkbox"/> EXPLOSIVES <input type="checkbox"/> PECTHLORATE <input type="checkbox"/> CHLORIDE ANIONS <input type="checkbox"/> ALKALINITY <input type="checkbox"/> <u>17300</u>	NORMAL <input checked="" type="checkbox"/> 1 DAY <input type="checkbox"/> 2 DAY <input type="checkbox"/> OTHER <input type="checkbox"/>	LABORATORY USE ONLY: RECEIVING TEMP: <u>55-45</u> THERM: <u>CE+1</u> CUSTODY SEALS - <input type="checkbox"/> BROKEN <input type="checkbox"/> INTACT <input type="checkbox"/> NOT USED CARRIER BILL # <u>                    </u> HAND DELIVERED <input type="checkbox"/>
TOTAL	12													

RELINQUISHED BY: (Signature) 11/18/19 9:14 RECEIVED BY: (Signature)                     

TURN AROUND TIME  
NORMAL ☒  
1 DAY ☐  
2 DAY ☐  
OTHER ☐

LABORATORY USE ONLY:  
RECEIVING TEMP: 55-45 THERM: CE+1  
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED  
CARRIER BILL #                       
HAND DELIVERED ☐





# Certificate of Analysis Summary 647299

Larson and Associates, Inc., Midland, TX  
Project Name: Hayhurst SO 1720 FED PAD 1

Project Id: 19-0180-06  
Contact: Mark Larson  
Project Location: NM



Date Received in Lab: Fri Dec-20-19 04:25 pm  
Report Date: 27-DEC-19  
Project Manager: Holly Taylor

<i>Analysis Requested</i>		<i>Lab Id:</i>	<i>Field Id:</i>	<i>Depth:</i>	<i>Matrix:</i>	<i>Sampled:</i>	647299-001	647299-002	647299-003	647299-004	647299-005	647299-006
<b>BTEX by EPA 8021B</b>		<i>Extracted:</i>	<i>Field Id:</i>	<i>Depth:</i>	<i>Matrix:</i>	<i>Sampled:</i>	S-1	S-2	S-3	S-4	S-5	S-6
		<i>Analyzed:</i>	Dec-24-19 14:45	Dec-24-19 14:45	Dec-24-19 14:45	Dec-24-19 14:45	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
		<i>Units/RL:</i>	mg/kg	mg/kg	mg/kg	mg/kg	RL	RL	RL	RL	RL	RL
Benzene			<0.00200	0.00200	0.00200	0.00200	<0.00200	<0.00200	<0.00199	<0.00198	<0.00201	<0.00202
Toluene			<0.00200	0.00200	0.00200	0.00200	<0.00200	<0.00200	<0.00199	<0.00198	<0.00201	<0.00202
Ethylbenzene			<0.00200	0.00200	0.00200	0.00200	<0.00200	<0.00200	<0.00199	<0.00198	<0.00201	<0.00202
m,p-Xylenes			<0.00401	0.00401	0.00399	0.00399	<0.00401	<0.00399	<0.00398	<0.00397	<0.00402	<0.00403
o-Xylene			<0.00200	0.00200	0.00200	0.00200	<0.00200	<0.00200	<0.00199	<0.00198	<0.00201	<0.00202
Total Xylenes			<0.00200	0.00200	0.00200	0.00200	<0.00200	<0.00200	<0.00199	<0.00198	<0.00201	<0.00202
Total BTEX			<0.00200	0.00200	0.00200	0.00200	<0.00200	<0.00200	<0.00199	<0.00198	<0.00201	<0.00202
<b>Chloride by EPA 300</b>		<i>Extracted:</i>	Dec-20-19 19:00	Dec-20-19 19:00	Dec-20-19 19:00	Dec-20-19 19:00	Dec-20-19 19:00	Dec-20-19 19:00	Dec-20-19 19:00	Dec-20-19 19:00	Dec-20-19 19:00	Dec-20-19 19:00
		<i>Analyzed:</i>	Dec-21-19 23:23	Dec-21-19 23:45	Dec-21-19 23:50	Dec-21-19 23:50	Dec-21-19 23:23	Dec-21-19 23:45	Dec-21-19 23:50	Dec-22-19 00:06	Dec-22-19 00:11	Dec-22-19 00:16
		<i>Units/RL:</i>	mg/kg	mg/kg	mg/kg	mg/kg	RL	RL	RL	RL	RL	RL
Chloride			223	50.4	273	49.9	223	49.9	223	262	121	126
<b>TPH By SW8015 Mod</b>		<i>Extracted:</i>	Dec-21-19 11:00	Dec-21-19 11:00	Dec-21-19 11:00	Dec-21-19 11:00	Dec-21-19 11:00	Dec-21-19 11:00	Dec-21-19 11:00	Dec-21-19 11:00	Dec-21-19 11:00	Dec-21-19 11:00
		<i>Analyzed:</i>	Dec-21-19 13:23	Dec-21-19 14:27	Dec-21-19 14:48	Dec-21-19 15:09	Dec-21-19 13:23	Dec-21-19 14:27	Dec-21-19 14:48	Dec-21-19 15:09	Dec-21-19 15:30	Dec-21-19 15:51
		<i>Units/RL:</i>	mg/kg	mg/kg	mg/kg	mg/kg	RL	RL	RL	RL	RL	RL
Gasoline Range Hydrocarbons (GRO)			<49.9	49.9	<49.9	49.9	<49.9	49.9	<50.0	<49.9	<50.0	<49.8
Diesel Range Organics (DRO)			<49.9	49.9	<49.9	49.9	<49.9	49.9	<50.0	<49.9	<50.0	<49.8
Motor Oil Range Hydrocarbons (MIRO)			<49.9	49.9	<49.9	49.9	<49.9	49.9	<50.0	<49.9	<50.0	<49.8

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - Atlanta - New Mexico

*Holly Taylor*

Holly Taylor  
Project Manager



# Certificate of Analysis Summary 647299

Larson and Associates, Inc., Midland, TX  
Project Name: Hayhurst SO 1720 FED PAD 1

Project Id: 19-0180-06  
Contact: Mark Larson  
Project Location: NM



Date Received in Lab: Fri Dec-20-19 04:25 pm  
Report Date: 27-DEC-19  
Project Manager: Holly Taylor

Analysis Requested	Lab Id:	Field Id:	Depth:	Matrix:	Sampled:	647299-007	647299-008	647299-009	647299-010	647299-011	647299-012
	Extracted:	Analyzed:	Units/RL:								
BTEX by EPA 8021B											
Benzene											
Toluene											
Ethylbenzene											
m,p-Xylenes											
o-Xylene											
Total Xylenes											
Total BTEX											
Chloride by EPA 300											
	Extracted:	Analyzed:	Units/RL:								
Chloride											
TPH By SW8015 Mod											
	Extracted:	Analyzed:	Units/RL:								
Gasoline Range Hydrocarbons (GRO)											
Diesel Range Organics (DRO)											
Motor Oil Range Hydrocarbons (MIRO)											

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor

Holly Taylor  
Project Manager



# Certificate of Analysis Summary 647299

Larson and Associates, Inc., Midland, TX  
Project Name: Hayhurst SO 1720 FED PAD 1

Project Id: 19-0180-06  
Contact: Mark Larson  
Project Location: NM



Date Received in Lab: Fri Dec-20-19 04:25 pm  
Report Date: 27-DEC-19  
Project Manager: Holly Taylor

<i>Analysis Requested</i>		<i>Lab Id:</i>	<i>Field Id:</i>	<i>Depth:</i>	<i>Matrix:</i>	<i>Sampled:</i>	647299-013	647299-014	647299-015	647299-016	647299-017	647299-018
<b>BTEX by EPA 8021B</b>		<i>Extracted:</i>	<i>Field Id:</i>	<i>Depth:</i>	<i>Matrix:</i>	<i>Sampled:</i>	647299-013	647299-014	647299-015	647299-016	647299-017	647299-018
		<i>Analyzed:</i>	Dec-24-19 14:45	Dec-24-19 14:45	Dec-24-19 14:45	Dec-24-19 14:45	Dec-24-19 14:45	Dec-24-19 14:45	Dec-24-19 14:45	Dec-24-19 14:45	Dec-24-19 14:45	Dec-24-19 14:45
		<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene			<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
Toluene			<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
Ethylbenzene			<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
m,p-Xylenes			<0.00397 0.00397	<0.00403 0.00403	<0.00403 0.00403	<0.00396 0.00396	<0.00396 0.00396	<0.00403 0.00403	<0.00396 0.00396	<0.00401 0.00401	<0.00398 0.00398	<0.00402 0.00402
o-Xylene			<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
Total Xylenes			<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
Total BTEX			<0.00198 0.00198	<0.00202 0.00202	<0.00202 0.00202	<0.00198 0.00198	<0.00198 0.00198	<0.00202 0.00202	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
<b>Chloride by EPA 300</b>		<i>Extracted:</i>	Dec-22-19 19:00	Dec-22-19 19:00	Dec-22-19 19:00	Dec-22-19 19:00	Dec-22-19 19:00	Dec-22-19 19:00	Dec-22-19 19:00	Dec-22-19 19:00	Dec-22-19 19:00	Dec-22-19 19:00
		<i>Analyzed:</i>	Dec-23-19 08:04	Dec-23-19 08:11	Dec-23-19 08:11	Dec-23-19 08:04	Dec-23-19 08:04	Dec-23-19 08:11	Dec-23-19 08:11	Dec-23-19 08:11	Dec-23-19 08:11	Dec-23-19 08:11
		<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride			5.89 5.03	46.4 4.97	46.4 4.97	5.89 5.03	5.89 5.03	46.4 4.97	103 49.5	52.0 49.5	<4.95 4.95	99.2 50.3
<b>TPH By SW8015 Mod</b>		<i>Extracted:</i>	Dec-21-19 11:00	Dec-21-19 11:00	Dec-21-19 11:00	Dec-21-19 11:00	Dec-21-19 11:00	Dec-21-19 11:00	Dec-21-19 11:00	Dec-21-19 11:00	Dec-21-19 11:00	Dec-21-19 11:00
		<i>Analyzed:</i>	Dec-21-19 18:39	Dec-21-19 19:00	Dec-21-19 19:00	Dec-21-19 18:39	Dec-21-19 18:39	Dec-21-19 19:00	Dec-21-19 19:20	Dec-21-19 19:42	Dec-21-19 20:03	Dec-21-19 20:24
		<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)			<49.9 49.9	<49.9 49.9	<49.9 49.9	<49.9 49.9	<49.9 49.9	<49.9 49.9	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9
Diesel Range Organics (DRO)			<49.9 49.9	<49.9 49.9	<49.9 49.9	<49.9 49.9	<49.9 49.9	<49.9 49.9	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9
Motor Oil Range Hydrocarbons (MIRO)			<49.9 49.9	<49.9 49.9	<49.9 49.9	<49.9 49.9	<49.9 49.9	<49.9 49.9	<49.8 49.8	<50.0 50.0	<49.9 49.9	<49.9 49.9

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*Holly Taylor*

Holly Taylor  
Project Manager





# Certificate of Analysis Summary 647299

Larson and Associates, Inc., Midland, TX  
Project Name: Hayhurst SO 1720 FED PAD 1

Project Id: 19-0180-06  
Contact: Mark Larson  
Project Location: NM

Date Received in Lab: Fri Dec-20-19 04:25 pm  
Report Date: 27-DEC-19  
Project Manager: Holly Taylor



<i>Analysis Requested</i>		<i>Lab Id: Field Id: Depth: Matrix: Sampled:</i>	<i>647299-019 S-14 SOIL Dec-19-19 15:40</i>	<i>647299-020 S-14 SOIL Dec-19-19 15:40</i>		
<b>BTEX by EPA 8021B</b>		<i>Extracted:</i>	Dec-24-19 14:45	Dec-24-19 14:45		
		<i>Analyzed:</i>	Dec-25-19 14:46	Dec-25-19 15:06		
		<i>Units/RL:</i>	mg/kg RL	mg/kg RL		
Benzene			<0.00200 0.00200	<0.00199 0.00199		
Toluene			<0.00200 0.00200	<0.00199 0.00199		
Ethylbenzene			<0.00200 0.00200	<0.00199 0.00199		
m,p-Xylenes			<0.00400 0.00400	<0.00398 0.00398		
o-Xylene			<0.00200 0.00200	<0.00199 0.00199		
Total Xylenes			<0.00200 0.00200	<0.00199 0.00199		
Total BTEX			<0.00200 0.00200	<0.00199 0.00199		
<b>Chloride by EPA 300</b>		<i>Extracted:</i>	Dec-22-19 19:00	Dec-22-19 19:00		
		<i>Analyzed:</i>	Dec-23-19 08:24	Dec-23-19 08:31		
		<i>Units/RL:</i>	mg/kg RL	mg/kg RL		
Chloride			38.0 5.05	32.2 5.02		
<b>TPH By SW8015 Mod</b>		<i>Extracted:</i>	Dec-21-19 11:00	Dec-21-19 11:00		
		<i>Analyzed:</i>	Dec-21-19 20:46	Dec-21-19 21:07		
		<i>Units/RL:</i>	mg/kg RL	mg/kg RL		
Gasoline Range Hydrocarbons (GRO)			<50.0 50.0	<49.9 49.9		
Diesel Range Organics (DRO)			<50.0 50.0	<49.9 49.9		
Motor Oil Range Hydrocarbons (MIRO)			<50.0 50.0	<49.9 49.9		

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

*Holly Taylor*

Holly Taylor  
Project Manager

# Analytical Report 647299

for  
**Larson and Associates, Inc.**

**Project Manager: Mark Larson**

**Hayhurst SO 1720 FED PAD 1**

**19-0180-06**

**27-DEC-19**

Collected By: Client



**1211 W. Florida Ave  
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)  
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



27-DEC-19

Project Manager: **Mark Larson**

**Larson and Associates, Inc.**

P. O. Box 50685

Midland, TX 79710

Reference: XENCO Report No(s): **647299**

**Hayhurst SO 1720 FED PAD 1**

Project Address: NM

**Mark Larson :**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 647299. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 647299 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Holly Taylor'.

---

**Holly Taylor**

Project Manager

***Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.***

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## Sample Cross Reference 647299

Larson and Associates, Inc., Midland, TX

Hayhurst SO 1720 FED PAD 1

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S-1	S	12-19-19 13:20		647299-001
S-2	S	12-19-19 12:30		647299-002
S-3	S	12-19-19 13:15		647299-003
S-4	S	12-19-19 13:50		647299-004
S-5	S	12-19-19 14:40		647299-005
S-6	S	12-19-19 14:20		647299-006
S-7	S	12-19-19 12:50		647299-007
S-7	S	12-19-19 12:50		647299-008
S-8	S	12-19-19 11:22		647299-009
S-8	S	12-19-19 11:30		647299-010
S-9	S	12-19-19 11:05		647299-011
S-10	S	12-19-19 11:40		647299-012
S-10	S	12-19-19 11:50		647299-013
S-11	S	12-19-19 11:59		647299-014
S-12	S	12-19-19 10:43		647299-015
S-12	S	12-19-19 10:47		647299-016
S-13	S	12-19-19 15:30		647299-017
S-13	S	12-19-19 15:30		647299-018
S-14	S	12-19-19 15:40		647299-019
S-14	S	12-19-19 15:40		647299-020

**CASE NARRATIVE****Client Name: Larson and Associates, Inc.****Project Name: Hayhurst SO 1720 FED PAD 1**Project ID: 19-0180-06  
Work Order Number(s): 647299Report Date: 27-DEC-19  
Date Received: 12/20/2019**Sample receipt non conformances and comments:**

None

**Sample receipt non conformances and comments per sample:**

None

**Analytical non conformances and comments:**

Batch: LBA-3111420 TPH By SW8015 Mod

Outlier/s are due to possible matrix interference.

Lab Sample ID 647299-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Diesel Range Organics (DRO), Gasoline Range Hydrocarbons (GRO) Relative Percent Difference (RPD) between matrix spike and duplicate were above quality control limits.

Samples in the analytical batch are: 647299-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, -011, -012, -013, -014, -015, -016, -017, -018, -019, -020

Laboratory Spike recoveries and RPDs within quality control limits; therefore the data was accepted.

Batch: LBA-3111717 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



## Certificate of Analytical Results 647299

## Larson and Associates, Inc., Midland, TX

Hayhurst SO 1720 FED PAD 1

Sample Id: S-1  
Lab Sample Id: 647299-001

Matrix: Soil  
Date Collected: 12.19.19 13.20

Date Received: 12.20.19 16.25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

% Moisture:

Analyst: SPC

Date Prep: 12.20.19 19.00

Basis: Wet Weight

Seq Number: 3111383

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	223	50.4	mg/kg	12.21.19 23.23		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.21.19 11.00

Basis: Wet Weight

Seq Number: 3111420

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.21.19 13.23	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.21.19 13.23	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.21.19 13.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	89	%	70-135	12.21.19 13.23	
o-Terphenyl	84-15-1	89	%	70-135	12.21.19 13.23	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.24.19 14.45

Basis: Wet Weight

Seq Number: 3111717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.25.19 07.19	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.25.19 07.19	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.25.19 07.19	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.25.19 07.19	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.25.19 07.19	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.25.19 07.19	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.25.19 07.19	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	90	%	70-130	12.25.19 07.19	
1,4-Difluorobenzene	540-36-3	110	%	70-130	12.25.19 07.19	





## Certificate of Analytical Results 647299

## Larson and Associates, Inc., Midland, TX

Hayhurst SO 1720 FED PAD 1

Sample Id: S-2  
Lab Sample Id: 647299-002

Matrix: Soil  
Date Collected: 12.19.19 12.30

Date Received: 12.20.19 16.25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

% Moisture:

Analyst: SPC

Date Prep: 12.20.19 19.00

Basis: Wet Weight

Seq Number: 3111383

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	273	49.9	mg/kg	12.21.19 23.45		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.21.19 11.00

Basis: Wet Weight

Seq Number: 3111420

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.21.19 14.27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.21.19 14.27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.21.19 14.27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	88	%	70-135	12.21.19 14.27	
o-Terphenyl	84-15-1	88	%	70-135	12.21.19 14.27	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.24.19 14.45

Basis: Wet Weight

Seq Number: 3111717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.25.19 07.40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.25.19 07.40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.25.19 07.40	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	12.25.19 07.40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.25.19 07.40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.25.19 07.40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.25.19 07.40	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	112	%	70-130	12.25.19 07.40	
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.25.19 07.40	



## Certificate of Analytical Results 647299

## Larson and Associates, Inc., Midland, TX

Hayhurst SO 1720 FED PAD 1

Sample Id: S-3  
Lab Sample Id: 647299-003

Matrix: Soil  
Date Collected: 12.19.19 13.15

Date Received: 12.20.19 16.25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

% Moisture:

Analyst: SPC

Date Prep: 12.20.19 19.00

Basis: Wet Weight

Seq Number: 3111383

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	223	50.0	mg/kg	12.21.19 23.50		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.21.19 11.00

Basis: Wet Weight

Seq Number: 3111420

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.21.19 14.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.21.19 14.48	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.21.19 14.48	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	12.21.19 14.48	
o-Terphenyl	84-15-1	86	%	70-135	12.21.19 14.48	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.24.19 14.45

Basis: Wet Weight

Seq Number: 3111717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.25.19 08.00	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.25.19 08.00	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.25.19 08.00	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.25.19 08.00	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.25.19 08.00	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.25.19 08.00	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.25.19 08.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111	%	70-130	12.25.19 08.00	
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.25.19 08.00	



# Certificate of Analytical Results 647299

## Larson and Associates, Inc., Midland, TX

Hayhurst SO 1720 FED PAD 1

Sample Id: S-4  
Lab Sample Id: 647299-004

Matrix: Soil  
Date Collected: 12.19.19 13.50

Date Received: 12.20.19 16.25

Analytical Method: Chloride by EPA 300

Tech: SPC

Analyst: SPC

Seq Number: 3111383

Date Prep: 12.20.19 19.00

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	262	49.9	mg/kg	12.22.19 00.06		10

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3111420

Date Prep: 12.21.19 11.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.21.19 15.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.21.19 15.09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.21.19 15.09	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	86	%	70-135	12.21.19 15.09	
o-Terphenyl	84-15-1	86	%	70-135	12.21.19 15.09	

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3111717

Date Prep: 12.24.19 14.45

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.25.19 08.20	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.25.19 08.20	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.25.19 08.20	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.25.19 08.20	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.25.19 08.20	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.25.19 08.20	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.25.19 08.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98	%	70-130	12.25.19 08.20	
1,4-Difluorobenzene	540-36-3	110	%	70-130	12.25.19 08.20	





## Certificate of Analytical Results 647299

## Larson and Associates, Inc., Midland, TX

Hayhurst SO 1720 FED PAD 1

Sample Id: S-5  
Lab Sample Id: 647299-005

Matrix: Soil  
Date Collected: 12.19.19 14.40

Date Received: 12.20.19 16.25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

% Moisture:

Analyst: SPC

Date Prep: 12.20.19 19.00

Basis: Wet Weight

Seq Number: 3111383

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	121	50.0	mg/kg	12.22.19 00.11		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.21.19 11.00

Basis: Wet Weight

Seq Number: 3111420

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.21.19 15.30	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.21.19 15.30	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.21.19 15.30	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	76	%	70-135	12.21.19 15.30	
o-Terphenyl	84-15-1	75	%	70-135	12.21.19 15.30	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.24.19 14.45

Basis: Wet Weight

Seq Number: 3111717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.25.19 08.41	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.25.19 08.41	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.25.19 08.41	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.25.19 08.41	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.25.19 08.41	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.25.19 08.41	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.25.19 08.41	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	99	%	70-130	12.25.19 08.41	
1,4-Difluorobenzene	540-36-3	110	%	70-130	12.25.19 08.41	



## Certificate of Analytical Results 647299

## Larson and Associates, Inc., Midland, TX

Hayhurst SO 1720 FED PAD 1

Sample Id: S-6  
Lab Sample Id: 647299-006

Matrix: Soil  
Date Collected: 12.19.19 14.20

Date Received: 12.20.19 16.25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

% Moisture:

Analyst: SPC

Date Prep: 12.20.19 19.00

Basis: Wet Weight

Seq Number: 3111383

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	126	50.0	mg/kg	12.22.19 00.16		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.21.19 11.00

Basis: Wet Weight

Seq Number: 3111420

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.21.19 15.51	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.21.19 15.51	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.21.19 15.51	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	12.21.19 15.51	
o-Terphenyl	84-15-1	85	%	70-135	12.21.19 15.51	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.24.19 14.45

Basis: Wet Weight

Seq Number: 3111717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.25.19 09.01	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.25.19 09.01	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.25.19 09.01	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.25.19 09.01	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.25.19 09.01	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.25.19 09.01	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.25.19 09.01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.25.19 09.01	
1,4-Difluorobenzene	540-36-3	114	%	70-130	12.25.19 09.01	



## Certificate of Analytical Results 647299

## Larson and Associates, Inc., Midland, TX

Hayhurst SO 1720 FED PAD 1

Sample Id: S-7  
Lab Sample Id: 647299-007

Matrix: Soil  
Date Collected: 12.19.19 12.50

Date Received: 12.20.19 16.25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

% Moisture:

Analyst: SPC

Date Prep: 12.20.19 19.00

Basis: Wet Weight

Seq Number: 3111383

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	15.9	5.03	mg/kg	12.22.19 12.30		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.21.19 11.00

Basis: Wet Weight

Seq Number: 3111420

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.21.19 16.12	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.21.19 16.12	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.21.19 16.12	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	12.21.19 16.12	
o-Terphenyl	84-15-1	82	%	70-135	12.21.19 16.12	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.24.19 14.45

Basis: Wet Weight

Seq Number: 3111717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.25.19 09.22	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.25.19 09.22	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.25.19 09.22	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.25.19 09.22	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.25.19 09.22	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.25.19 09.22	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.25.19 09.22	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	101	%	70-130	12.25.19 09.22	
1,4-Difluorobenzene	540-36-3	111	%	70-130	12.25.19 09.22	





## Certificate of Analytical Results 647299

## Larson and Associates, Inc., Midland, TX

Hayhurst SO 1720 FED PAD 1

Sample Id: S-7  
Lab Sample Id: 647299-008

Matrix: Soil  
Date Collected: 12.19.19 12.50

Date Received: 12.20.19 16.25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

% Moisture:

Analyst: SPC

Date Prep: 12.20.19 19.00

Basis: Wet Weight

Seq Number: 3111383

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	63.9	5.05	mg/kg	12.22.19 12.35		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.21.19 11.00

Basis: Wet Weight

Seq Number: 3111420

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.21.19 16.33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.21.19 16.33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.21.19 16.33	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	12.21.19 16.33	
o-Terphenyl	84-15-1	81	%	70-135	12.21.19 16.33	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.24.19 14.45

Basis: Wet Weight

Seq Number: 3111717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.25.19 09.42	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.25.19 09.42	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.25.19 09.42	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.25.19 09.42	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.25.19 09.42	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.25.19 09.42	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.25.19 09.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	12.25.19 09.42	
4-Bromofluorobenzene	460-00-4	102	%	70-130	12.25.19 09.42	



## Certificate of Analytical Results 647299

## Larson and Associates, Inc., Midland, TX

Hayhurst SO 1720 FED PAD 1

Sample Id: S-8  
Lab Sample Id: 647299-009

Matrix: Soil  
Date Collected: 12.19.19 11.22

Date Received: 12.20.19 16.25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

% Moisture:

Analyst: SPC

Date Prep: 12.20.19 19.00

Basis: Wet Weight

Seq Number: 3111383

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	177	50.0	mg/kg	12.22.19 00.32		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.21.19 11.00

Basis: Wet Weight

Seq Number: 3111420

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.21.19 16.54	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.21.19 16.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.21.19 16.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	12.21.19 16.54	
o-Terphenyl	84-15-1	82	%	70-135	12.21.19 16.54	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.24.19 14.45

Basis: Wet Weight

Seq Number: 3111717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.25.19 10.03	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.25.19 10.03	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.25.19 10.03	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.25.19 10.03	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.25.19 10.03	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.25.19 10.03	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.25.19 10.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111	%	70-130	12.25.19 10.03	
4-Bromofluorobenzene	460-00-4	98	%	70-130	12.25.19 10.03	



## Certificate of Analytical Results 647299

## Larson and Associates, Inc., Midland, TX

Hayhurst SO 1720 FED PAD 1

Sample Id: S-8  
Lab Sample Id: 647299-010

Matrix: Soil  
Date Collected: 12.19.19 11.30

Date Received: 12.20.19 16.25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: SPC

% Moisture:

Analyst: SPC

Date Prep: 12.20.19 19.00

Basis: Wet Weight

Seq Number: 3111383

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	56.4	50.3	mg/kg	12.22.19 00.38		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.21.19 11.00

Basis: Wet Weight

Seq Number: 3111420

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.21.19 17.15	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.21.19 17.15	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.21.19 17.15	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	12.21.19 17.15	
o-Terphenyl	84-15-1	81	%	70-135	12.21.19 17.15	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.24.19 14.45

Basis: Wet Weight

Seq Number: 3111717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.25.19 10.23	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.25.19 10.23	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.25.19 10.23	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.25.19 10.23	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.25.19 10.23	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.25.19 10.23	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.25.19 10.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.25.19 10.23	
1,4-Difluorobenzene	540-36-3	112	%	70-130	12.25.19 10.23	





## Certificate of Analytical Results 647299

## Larson and Associates, Inc., Midland, TX

Hayhurst SO 1720 FED PAD 1

Sample Id: S-9  
Lab Sample Id: 647299-011

Matrix: Soil  
Date Collected: 12.19.19 11.05

Date Received: 12.20.19 16.25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.22.19 19.00

Basis: Wet Weight

Seq Number: 3111388

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	192	49.8	mg/kg	12.22.19 20.08		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.21.19 11.00

Basis: Wet Weight

Seq Number: 3111420

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.21.19 17.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.21.19 17.57	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.21.19 17.57	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	12.21.19 17.57	
o-Terphenyl	84-15-1	80	%	70-135	12.21.19 17.57	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.24.19 14.45

Basis: Wet Weight

Seq Number: 3111717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.25.19 12.02	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.25.19 12.02	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.25.19 12.02	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.25.19 12.02	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.25.19 12.02	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.25.19 12.02	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.25.19 12.02	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111	%	70-130	12.25.19 12.02	
4-Bromofluorobenzene	460-00-4	95	%	70-130	12.25.19 12.02	



## Certificate of Analytical Results 647299

## Larson and Associates, Inc., Midland, TX

Hayhurst SO 1720 FED PAD 1

Sample Id: S-10  
Lab Sample Id: 647299-012

Matrix: Soil  
Date Collected: 12.19.19 11.40

Date Received: 12.20.19 16.25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.22.19 19.00

Basis: Wet Weight

Seq Number: 3111388

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	95.9	50.0	mg/kg	12.22.19 20.15		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.21.19 11.00

Basis: Wet Weight

Seq Number: 3111420

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.21.19 18.18	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.21.19 18.18	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.21.19 18.18	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	12.21.19 18.18	
o-Terphenyl	84-15-1	82	%	70-135	12.21.19 18.18	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.24.19 14.45

Basis: Wet Weight

Seq Number: 3111717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.25.19 12.23	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.25.19 12.23	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.25.19 12.23	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.25.19 12.23	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.25.19 12.23	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.25.19 12.23	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.25.19 12.23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.25.19 12.23	
1,4-Difluorobenzene	540-36-3	110	%	70-130	12.25.19 12.23	



## Certificate of Analytical Results 647299

## Larson and Associates, Inc., Midland, TX

Hayhurst SO 1720 FED PAD 1

Sample Id: **S-10**  
 Lab Sample Id: 647299-013

Matrix: Soil  
 Date Collected: 12.19.19 11.50

Date Received: 12.20.19 16.25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.22.19 19.00

Basis: Wet Weight

Seq Number: 3111388

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5.89	5.03	mg/kg	12.23.19 08.04		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.21.19 11.00

Basis: Wet Weight

Seq Number: 3111420

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.21.19 18.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.21.19 18.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.21.19 18.39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	12.21.19 18.39	
o-Terphenyl	84-15-1	80	%	70-135	12.21.19 18.39	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.24.19 14.45

Basis: Wet Weight

Seq Number: 3111717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.25.19 12.43	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.25.19 12.43	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.25.19 12.43	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.25.19 12.43	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.25.19 12.43	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.25.19 12.43	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.25.19 12.43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	112	%	70-130	12.25.19 12.43	
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.25.19 12.43	





## Certificate of Analytical Results 647299

## Larson and Associates, Inc., Midland, TX

Hayhurst SO 1720 FED PAD 1

Sample Id: S-11  
Lab Sample Id: 647299-014

Matrix: Soil  
Date Collected: 12.19.19 11.59

Date Received: 12.20.19 16.25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.22.19 19.00

Basis: Wet Weight

Seq Number: 3111388

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	46.4	4.97	mg/kg	12.23.19 08.11		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.21.19 11.00

Basis: Wet Weight

Seq Number: 3111420

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.21.19 19.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.21.19 19.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.21.19 19.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-135	12.21.19 19.00	
o-Terphenyl	84-15-1	79	%	70-135	12.21.19 19.00	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.24.19 14.45

Basis: Wet Weight

Seq Number: 3111717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	12.25.19 13.04	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	12.25.19 13.04	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	12.25.19 13.04	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	12.25.19 13.04	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	12.25.19 13.04	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	12.25.19 13.04	U	1
Total BTEX		<0.00202	0.00202	mg/kg	12.25.19 13.04	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.25.19 13.04	
1,4-Difluorobenzene	540-36-3	106	%	70-130	12.25.19 13.04	



## Certificate of Analytical Results 647299

## Larson and Associates, Inc., Midland, TX

Hayhurst SO 1720 FED PAD 1

Sample Id: S-12

Matrix: Soil

Date Received: 12.20.19 16.25

Lab Sample Id: 647299-015

Date Collected: 12.19.19 10.43

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.22.19 19.00

Basis: Wet Weight

Seq Number: 3111388

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	103	49.5	mg/kg	12.22.19 20.48		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.21.19 11.00

Basis: Wet Weight

Seq Number: 3111420

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	12.21.19 19.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	12.21.19 19.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	12.21.19 19.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	12.21.19 19.20	
o-Terphenyl	84-15-1	81	%	70-135	12.21.19 19.20	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.24.19 14.45

Basis: Wet Weight

Seq Number: 3111717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.25.19 13.24	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.25.19 13.24	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.25.19 13.24	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	12.25.19 13.24	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.25.19 13.24	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	12.25.19 13.24	U	1
Total BTEX		<0.00198	0.00198	mg/kg	12.25.19 13.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	110	%	70-130	12.25.19 13.24	
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.25.19 13.24	



## Certificate of Analytical Results 647299

## Larson and Associates, Inc., Midland, TX

Hayhurst SO 1720 FED PAD 1

Sample Id: S-12  
Lab Sample Id: 647299-016

Matrix: Soil  
Date Collected: 12.19.19 10.47

Date Received: 12.20.19 16.25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.22.19 19.00

Basis: Wet Weight

Seq Number: 3111388

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	52.0	49.5	mg/kg	12.22.19 20.54		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.21.19 11.00

Basis: Wet Weight

Seq Number: 3111420

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.21.19 19.42	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.21.19 19.42	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.21.19 19.42	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	12.21.19 19.42	
o-Terphenyl	84-15-1	94	%	70-135	12.21.19 19.42	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.24.19 14.45

Basis: Wet Weight

Seq Number: 3111717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.25.19 13.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.25.19 13.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.25.19 13.44	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	12.25.19 13.44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.25.19 13.44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.25.19 13.44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.25.19 13.44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	113	%	70-130	12.25.19 13.44	
4-Bromofluorobenzene	460-00-4	100	%	70-130	12.25.19 13.44	





# Certificate of Analytical Results 647299

## Larson and Associates, Inc., Midland, TX

Hayhurst SO 1720 FED PAD 1

Sample Id: S-13  
Lab Sample Id: 647299-017

Matrix: Soil  
Date Collected: 12.19.19 15.30

Date Received: 12.20.19 16.25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.22.19 19.00

Basis: Wet Weight

Seq Number: 3111388

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	12.23.19 08.18	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.21.19 11.00

Basis: Wet Weight

Seq Number: 3111420

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.21.19 20.03	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.21.19 20.03	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.21.19 20.03	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	91	%	70-135	12.21.19 20.03	
o-Terphenyl	84-15-1	86	%	70-135	12.21.19 20.03	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.24.19 14.45

Basis: Wet Weight

Seq Number: 3111717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.25.19 14.05	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.25.19 14.05	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.25.19 14.05	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.25.19 14.05	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.25.19 14.05	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.25.19 14.05	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.25.19 14.05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111	%	70-130	12.25.19 14.05	
4-Bromofluorobenzene	460-00-4	103	%	70-130	12.25.19 14.05	



## Certificate of Analytical Results 647299

## Larson and Associates, Inc., Midland, TX

Hayhurst SO 1720 FED PAD 1

Sample Id: S-13  
Lab Sample Id: 647299-018

Matrix: Soil  
Date Collected: 12.19.19 15.30

Date Received: 12.20.19 16.25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.22.19 19.00

Basis: Wet Weight

Seq Number: 3111388

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	99.2	50.3	mg/kg	12.22.19 21.07		10

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.21.19 11.00

Basis: Wet Weight

Seq Number: 3111420

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.21.19 20.24	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.21.19 20.24	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.21.19 20.24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	12.21.19 20.24	
o-Terphenyl	84-15-1	81	%	70-135	12.21.19 20.24	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.24.19 14.45

Basis: Wet Weight

Seq Number: 3111717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	12.25.19 14.25	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	12.25.19 14.25	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	12.25.19 14.25	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	12.25.19 14.25	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	12.25.19 14.25	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	12.25.19 14.25	U	1
Total BTEX		<0.00201	0.00201	mg/kg	12.25.19 14.25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	97	%	70-130	12.25.19 14.25	
1,4-Difluorobenzene	540-36-3	109	%	70-130	12.25.19 14.25	



## Certificate of Analytical Results 647299

## Larson and Associates, Inc., Midland, TX

Hayhurst SO 1720 FED PAD 1

Sample Id: S-14  
Lab Sample Id: 647299-019

Matrix: Soil  
Date Collected: 12.19.19 15.40

Date Received: 12.20.19 16.25

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

% Moisture:

Analyst: CHE

Date Prep: 12.22.19 19.00

Basis: Wet Weight

Seq Number: 3111388

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	38.0	5.05	mg/kg	12.23.19 08.24		1

Analytical Method: TPH By SW8015 Mod

Prep Method: SW8015P

Tech: DVM

% Moisture:

Analyst: ARM

Date Prep: 12.21.19 11.00

Basis: Wet Weight

Seq Number: 3111420

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.21.19 20.46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.21.19 20.46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.21.19 20.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	83	%	70-135	12.21.19 20.46	
o-Terphenyl	84-15-1	81	%	70-135	12.21.19 20.46	

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: KTL

% Moisture:

Analyst: KTL

Date Prep: 12.24.19 14.45

Basis: Wet Weight

Seq Number: 3111717

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.25.19 14.46	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.25.19 14.46	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.25.19 14.46	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.25.19 14.46	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.25.19 14.46	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	12.25.19 14.46	U	1
Total BTEX		<0.00200	0.00200	mg/kg	12.25.19 14.46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	107	%	70-130	12.25.19 14.46	
4-Bromofluorobenzene	460-00-4	95	%	70-130	12.25.19 14.46	





# Certificate of Analytical Results 647299

## Larson and Associates, Inc., Midland, TX

Hayhurst SO 1720 FED PAD 1

Sample Id: **S-14**  
 Lab Sample Id: 647299-020

Matrix: Soil  
 Date Collected: 12.19.19 15.40

Date Received: 12.20.19 16.25

Analytical Method: Chloride by EPA 300

Tech: CHE

Analyst: CHE

Seq Number: 3111388

Prep Method: E300P

% Moisture:

Date Prep: 12.22.19 19.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	32.2	5.02	mg/kg	12.23.19 08.31		1

Analytical Method: TPH By SW8015 Mod

Tech: DVM

Analyst: ARM

Seq Number: 3111420

Prep Method: SW8015P

% Moisture:

Date Prep: 12.21.19 11.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	12.21.19 21.07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	12.21.19 21.07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	12.21.19 21.07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	85	%	70-135	12.21.19 21.07	
o-Terphenyl	84-15-1	83	%	70-135	12.21.19 21.07	

Analytical Method: BTEX by EPA 8021B

Tech: KTL

Analyst: KTL

Seq Number: 3111717

Prep Method: SW5030B

% Moisture:

Date Prep: 12.24.19 14.45

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	12.25.19 15.06	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	12.25.19 15.06	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	12.25.19 15.06	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	12.25.19 15.06	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	12.25.19 15.06	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	12.25.19 15.06	U	1
Total BTEX		<0.00199	0.00199	mg/kg	12.25.19 15.06	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	111	%	70-130	12.25.19 15.06	
4-Bromofluorobenzene	460-00-4	105	%	70-130	12.25.19 15.06	



## Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **MQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

**SMP** Client Sample      **BLK** Method Blank

**BKS/LCS** Blank Spike/Laboratory Control Sample      **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

**MD/SD** Method Duplicate/Sample Duplicate      **MS** Matrix Spike      **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



**Larson and Associates, Inc.**  
Hayhurst SO 1720 FED PAD 1

**Analytical Method: Chloride by EPA 300**

Seq Number: 3111383

MB Sample Id: 7693026-1-BLK

Matrix: Solid

LCS Sample Id: 7693026-1-BKS

Prep Method: E300P

Date Prep: 12.20.19

LCSD Sample Id: 7693026-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	272	109	274	110	90-110	1	20	mg/kg	12.21.19 22:04	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3111383

MB Sample Id: 7693046-1-BLK

Matrix: Solid

LCS Sample Id: 7693046-1-BKS

Prep Method: E300P

Date Prep: 12.22.19

LCSD Sample Id: 7693046-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	261	104	262	105	90-110	0	20	mg/kg	12.22.19 19:36	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3111383

Parent Sample Id: 647264-023

Matrix: Soil

MS Sample Id: 647264-023 S

Prep Method: E300P

Date Prep: 12.20.19

MSD Sample Id: 647264-023 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	7.08	249	292	114	294	115	90-110	1	20	mg/kg	12.21.19 22:20	X

**Analytical Method: Chloride by EPA 300**

Seq Number: 3111383

Parent Sample Id: 647264-032

Matrix: Soil

MS Sample Id: 647264-032 S

Prep Method: E300P

Date Prep: 12.20.19

MSD Sample Id: 647264-032 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	15.0	252	293	110	293	110	90-110	0	20	mg/kg	12.21.19 23:34	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3111388

Parent Sample Id: 647206-029

Matrix: Soil

MS Sample Id: 647206-029 S

Prep Method: E300P

Date Prep: 12.22.19

MSD Sample Id: 647206-029 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	321	248	589	108	579	104	90-110	2	20	mg/kg	12.22.19 19:55	

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * |(C - E) / (C + E)|$   
 $[D] = 100 * (C) / [B]$   
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample  
 A = Parent Result  
 C = MS/LCS Result  
 E = MSD/LCSD Result

MS = Matrix Spike  
 B = Spike Added  
 D = MSD/LCSD % Rec





**Larson and Associates, Inc.**  
Hayhurst SO 1720 FED PAD 1

**Analytical Method: Chloride by EPA 300**

Seq Number: 3111388

Parent Sample Id: 647206-032

Matrix: Soil

MS Sample Id: 647206-032 S

Prep Method: E300P

Date Prep: 12.22.19

MSD Sample Id: 647206-032 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	34.9	249	316	113	309	110	90-110	2	20	mg/kg	12.22.19 21:27	X

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3111420

MB Sample Id: 7693061-1-BLK

Matrix: Solid

LCS Sample Id: 7693061-1-BKS

Prep Method: SW8015P

Date Prep: 12.21.19

LCSD Sample Id: 7693061-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	886	89	954	95	70-135	7	20	mg/kg	12.21.19 12:42	
Diesel Range Organics (DRO)	<15.0	1000	860	86	933	93	70-135	8	20	mg/kg	12.21.19 12:42	

**Surrogate**

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	88		106		105		70-135	%	12.21.19 12:42
o-Terphenyl	90		118		102		70-135	%	12.21.19 12:42

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3111420

Matrix: Solid

MB Sample Id: 7693061-1-BLK

Prep Method: SW8015P

Date Prep: 12.21.19

**Parameter**

	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.21.19 12:21	

**Analytical Method: TPH By SW8015 Mod**

Seq Number: 3111420

Matrix: Soil

Parent Sample Id: 647299-001

MS Sample Id: 647299-001 S

Prep Method: SW8015P

Date Prep: 12.21.19

MSD Sample Id: 647299-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	999	860	86	1620	81	70-135	61	20	mg/kg	12.21.19 13:45	F
Diesel Range Organics (DRO)	<15.0	999	830	83	1610	81	70-135	64	20	mg/kg	12.21.19 13:45	F

**Surrogate**

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		101		70-135	%	12.21.19 13:45
o-Terphenyl	87		92		70-135	%	12.21.19 13:45

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * |(C - E) / (C + E)|$   
 $[D] = 100 * (C) / [B]$   
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample  
 A = Parent Result  
 C = MS/LCS Result  
 E = MSD/LCSD Result

MS = Matrix Spike  
 B = Spike Added  
 D = MSD/LCSD % Rec



**Larson and Associates, Inc.**  
Hayhurst SO 1720 FED PAD 1

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3111717

MB Sample Id: 7693249-1-BLK

Matrix: Solid

LCS Sample Id: 7693249-1-BKS

Prep Method: SW5030B

Date Prep: 12.24.19

LCSD Sample Id: 7693249-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.119	119	0.108	108	70-130	10	35	mg/kg	12.25.19 04:49	
Toluene	<0.00200	0.100	0.108	108	0.0987	99	70-130	9	35	mg/kg	12.25.19 04:49	
Ethylbenzene	<0.00200	0.100	0.107	107	0.0981	98	70-130	9	35	mg/kg	12.25.19 04:49	
m,p-Xylenes	<0.00400	0.200	0.215	108	0.200	100	70-130	7	35	mg/kg	12.25.19 04:49	
o-Xylene	<0.00200	0.100	0.109	109	0.102	102	70-130	7	35	mg/kg	12.25.19 04:49	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	111		112		113		70-130	%	12.25.19 04:49
4-Bromofluorobenzene	92		98		105		70-130	%	12.25.19 04:49

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3111717

Parent Sample Id: 647299-001

Matrix: Soil

MS Sample Id: 647299-001 S

Prep Method: SW5030B

Date Prep: 12.24.19

MSD Sample Id: 647299-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0908	91	0.0910	91	70-130	0	35	mg/kg	12.25.19 05:30	
Toluene	<0.00200	0.100	0.0826	83	0.0840	84	70-130	2	35	mg/kg	12.25.19 05:30	
Ethylbenzene	<0.00200	0.100	0.0817	82	0.0837	84	70-130	2	35	mg/kg	12.25.19 05:30	
m,p-Xylenes	<0.00401	0.200	0.164	82	0.170	85	70-130	4	35	mg/kg	12.25.19 05:30	
o-Xylene	<0.00200	0.100	0.0833	83	0.0859	86	70-130	3	35	mg/kg	12.25.19 05:30	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	115		115		70-130	%	12.25.19 05:30
4-Bromofluorobenzene	105		111		70-130	%	12.25.19 05:30

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C-A) / B$   
 $RPD = 200 * |(C-E) / (C+E)|$   
 $[D] = 100 * (C) / [B]$   
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample  
 A = Parent Result  
 C = MS/LCS Result  
 E = MSD/LCSD Result

MS = Matrix Spike  
 B = Spike Added  
 D = MSD/LCSD % Rec



**Lairson & Associates, Inc.**  
Environmental Consultants

507 N. Marientfeld, Ste. 200  
Midland, TX 79701  
432-687-0901

Data Reported to:

DATE: 12/20/2019 PAGE 1 OF 2  
PO#: \_\_\_\_\_ LAB WORK ORDER#: \_\_\_\_\_  
PROJECT LOCATION OR NAME: Hayhurst 10 1720 Feb PAB 1  
LAI PROJECT #: 19-0130-04 COLLECTOR: bsj/c

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION				ANALYSES	FIELD NOTES	
						HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/>	ICE			UNPRESERVED
S-1		12/19/19	1320	S	1					X		
S-2			1230							X		
S-3			1315							X		
S-4			1350							X		
S-5			1440							X		
S-6			1420							X		
S-7			1250							X		
S-7			1250							X		
S-8			1122							X		
S-8			1130							X		
S-9			1105							X		
S-10			1140							X		
S-10			1150							X		
S-11			1159							X		
S-12			1043							X		
TOTAL	15											

RELINQUISHED BY: (Signature) [Signature] DATE/TIME 12/20/19 1025 RECEIVED BY: (Signature) [Signature]

RELINQUISHED BY: (Signature) [Signature] DATE/TIME 12/20/19 1025 RECEIVED BY: (Signature) [Signature]

RELINQUISHED BY: (Signature) [Signature] DATE/TIME 12/20/19 1025 RECEIVED BY: (Signature) [Signature]

LABORATORY: ENCO

TURN AROUND TIME  
NORMAL ☐  
1 DAY ☐  
2 DAY ☐  
OTHER ☒ 4 day

LABORATORY USE ONLY:  
RECEIVING TEMP: 4.2 THERM#: P8  
CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED  
☐ CARRIER BILL # \_\_\_\_\_  
☐ HAND DELIVERED

№ 0895

CHAIN-OF-CUSTODY



**Marson & Associates, Inc.**  
Environmental Consultants

507 N. Marientfield, Ste. 200  
Midland, TX 79701  
432-687-0901

Data Reported to:

TRRP report?  
☐ Yes ☒ No

S=SOIL  
W=WATER  
A=AIR  
P=PAINT  
SL=SLUDGE  
OT=OTHER

TIME ZONE:  
Time zone/State:

Field  
Sample I.D.

Lab #

Date

Time

Matrix

# of Containers

HCl

HNO<sub>3</sub>H<sub>2</sub>SO<sub>4</sub> ☐ NaOH ☐

ICE

UNPRESSERVED

## ANALYSES

BTEX ☒ MTBE ☐  
TRPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐  
GASOLINE MOD 8015 ☒  
DIESEL - MOD 8015 ☒  
OIL - MOD 8015 ☒  
VOC 8260 ☒  
SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐  
8081 PESTICIDES ☐ 8151 HERBICIDES ☐  
8082 PCBs ☐  
TCLP - METALS (RCRA) ☐ TCLP VOC ☐  
TCLP - PEST ☐ HERB ☐ Semi-VOC ☐  
TOTAL METALS (RCRA) ☐ OTHER LIST ☐  
LEAD - TOTAL ☐ D.W. 200.8 ☐ TCLP ☐  
RO ☐ TOX ☐ FLASHPOINT ☐  
TDS ☐ TSS ☐ % MOISTURE ☐ CYANIDE ☐  
pH ☐ HEXAVALENT CHROMIUM ☐  
EXPLOSIVES ☐ PECTHLORATE ☐  
CHLORIDE ANIONS ☐ ALKALINITY ☐  
FIELD NOTES

DATE: 12/20/2019 PAGE 2 OF 2  
PO#: 647299 LAB WORK ORDER#: 13300  
PROJECT LOCATION OR NAME: Highway 80 1720 EEB PAB 1  
LAI PROJECT #: 19-0180-06 COLLECTOR: 5515C

CHAIN-OF-CUSTODY

No 0896

TOTAL

5

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

LABORATORY: XENCO

TURN AROUND TIME

NORMAL ☐1 DAY ☐2 DAY ☐OTHER ☒

4 DAY

LABORATORY USE ONLY:

RECEIVING TEMP: 4.2 THERM#: 88CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED

CARRIER BILL #

☐ HAND DELIVERED



Client: Larson and Associates, Inc.

Date/ Time Received: 12/20/2019 04:25:00 PM

Work Order #: 647299

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

## Sample Receipt Checklist

## Comments

#1 *Temperature of cooler(s)?	4.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	Yes
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:

Connie Hernandez

Date: 12/20/2019

Checklist reviewed by:

Holly Taylor

Date: 12/27/2019

**Project Id:** 19-0180-06  
**Contact:** Mark Larson  
**Project Location:**

**Date Received in Lab:** Thu 11.05.2020 12:34  
**Report Date:** 11.09.2020 12:52  
**Project Manager:** Holly Taylor

**Certificate of Analysis Summary 676996**  
**Larson and Associates, Inc., Midland, TX**  
**Project Name: Chevron- Hayhurst 1720**

<i>Analysis Requested</i>	<i>Lab Id:</i>	<i>Field Id:</i>	<i>Depth:</i>	<i>Matrix:</i>	<i>Sampled:</i>	676996-001	676996-002	676996-003	676996-004	676996-005	676996-006
	<i>Extracted:</i>	<i>Analyzed:</i>	<i>Units/RL:</i>			C-1	C-2	C-3	C-4	C-5	C-6
<b>BTEX by EPA 8021B</b>				SOIL	11.05.2020 10:42	11.05.2020 10:43	11.05.2020 10:44	11.05.2020 10:45	11.05.2020 10:46	11.05.2020 10:47	
				mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
	Benzene			<0.00202	0.00202	<0.00198	0.00198	<0.00199	0.00198	<0.00200	0.00200
	Toluene			<0.00202	0.00202	<0.00198	0.00198	<0.00199	0.00198	<0.00200	0.00200
	Ethylbenzene			<0.00202	0.00202	<0.00198	0.00198	<0.00199	0.00198	<0.00200	0.00200
	m,p-Xylenes			<0.00404	0.00404	<0.00396	0.00396	<0.00398	0.00397	<0.00399	0.00399
<b>Chloride by EPA 300</b>	o-Xylene			<0.00202	0.00202	<0.00198	0.00198	<0.00199	0.00198	<0.00200	0.00200
	Total Xylenes			<0.00202	0.00202	<0.00198	0.00198	<0.00199	0.00198	<0.00200	0.00200
	Total BTEX			<0.00202	0.00202	<0.00198	0.00198	<0.00199	0.00198	<0.00200	0.00200
<b>TPH by SW8015 Mod</b>				SOIL	11.05.2020 10:42	11.05.2020 10:43	11.05.2020 10:44	11.05.2020 10:45	11.05.2020 10:46	11.05.2020 10:47	
				mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
	Chloride			146	49.9	51.8	50.1	120	49.9	154	49.5
<b>TPH by SW8015 Mod</b>				SOIL	11.05.2020 10:42	11.05.2020 10:43	11.05.2020 10:44	11.05.2020 10:45	11.05.2020 10:46	11.05.2020 10:47	
				mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL
	Gasoline Range Hydrocarbons (GRO)			<49.9	49.9	<50.0	50.0	<50.2	50.2	<50.0	50.0
	Diesel Range Organics (DRO)			<49.9	49.9	<50.0	50.0	<50.2	50.2	<50.0	50.0
	Motor Oil Range Hydrocarbons (MRO)			<49.9	49.9	<50.0	50.0	<50.2	50.2	<50.0	50.0
	Total TPH			<49.9	49.9	<50.0	50.0	<50.2	50.2	<50.0	50.0

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor



**Project Id:** 19-0180-06  
**Contact:** Mark Larson  
**Project Location:**

**Date Received in Lab:** Thu 11.05.2020 12:34  
**Report Date:** 11.09.2020 12:52  
**Project Manager:** Holly Taylor

**Certificate of Analysis Summary 676996**  
**Larson and Associates, Inc., Midland, TX**  
**Project Name: Chevron- Hayhurst 1720**

<i>Analysis Requested</i>	<i>Lab Id: Field Id: Depth: Matrix: Sampled:</i>	<i>676996-007 C-7 SOIL 11.05.2020 10:49</i>	<i>676996-008 C-8 SOIL 11.05.2020 10:51</i>	<i>676996-009 C-9 SOIL 11.05.2020 10:53</i>	<i>676996-010 C-10 SOIL 11.05.2020 10:54</i>	<i>676996-011 C-11 SOIL 11.05.2020 10:55</i>	<i>676996-012 C-12 SOIL 11.05.2020 10:56</i>
	<i>Extracted: Analyzed: Units/RL:</i>	<i>11.05.2020 15:56 11.05.2020 20:02 mg/kg RL &lt;0.00201 0.00201</i>	<i>11.05.2020 15:56 11.05.2020 20:25 mg/kg RL &lt;0.00201 0.00201</i>	<i>11.05.2020 15:56 11.05.2020 20:47 mg/kg RL &lt;0.00200 0.00200</i>	<i>11.05.2020 15:56 11.05.2020 21:10 mg/kg RL &lt;0.00198 0.00198</i>	<i>11.05.2020 15:56 11.05.2020 21:32 mg/kg RL &lt;0.00200 0.00200</i>	<i>11.05.2020 15:56 11.05.2020 21:54 mg/kg RL &lt;0.00199 0.00199</i>
BTEX by EPA 8021B							
Benzene							
Toluene							
Ethylbenzene							
m,p-Xylenes							
o-Xylene							
Total Xylenes							
Total BTEX							
Chloride by EPA 300							
Chloride							
TPH by SW8015 Mod							
Gasoline Range Hydrocarbons (GRO)							
Diesel Range Organics (DRO)							
Motor Oil Range Hydrocarbons (MRO)							
Total TPH							

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor

**Project Id:** 19-0180-06  
**Contact:** Mark Larson  
**Project Location:**

**Date Received in Lab:** Thu 11.05.2020 12:34  
**Report Date:** 11.09.2020 12:52  
**Project Manager:** Holly Taylor

**Certificate of Analysis Summary 676996**  
**Larson and Associates, Inc., Midland, TX**  
**Project Name: Chevron- Hayhurst 1720**

<i>Analysis Requested</i>	<i>Lab Id:</i>	676996-013	676996-014	676996-015	676996-016
	<i>Field Id:</i>	C-13	C-14	C-15	C-16
	<i>Depth:</i>				
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	11.05.2020 10:57	11.05.2020 10:58	11.05.2020 10:59	11.05.2020 11:00
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	11.05.2020 15:56	11.05.2020 15:56	11.05.2020 15:56	11.05.2020 15:56
	<i>Analyzed:</i>	11.05.2020 22:17	11.05.2020 22:39	11.05.2020 23:57	11.06.2020 00:19
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Benzene	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
	Toluene	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
Chloride by EPA 300	Ethylbenzene	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
	m,p-Xylenes	<0.00398 0.00398	<0.00395 0.00395	<0.00399 0.00399	<0.00398 0.00398
	o-Xylene	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
	Total Xylenes	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
	Total BTEX	<0.00199 0.00199	<0.00198 0.00198	<0.00200 0.00200	<0.00199 0.00199
<b>TPH by SW8015 Mod</b>	<i>Extracted:</i>	11.05.2020 16:21	11.05.2020 16:21	11.05.2020 16:21	11.05.2020 16:21
	<i>Analyzed:</i>	11.05.2020 20:34	11.05.2020 20:40	11.05.2020 20:45	11.05.2020 21:01
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Chloride	610 49.9	151 50.1	188 50.4	64.5 50.0
Gasoline Range Hydrocarbons (GRO)	<i>Extracted:</i>	11.05.2020 14:07	11.05.2020 14:07	11.05.2020 14:07	11.05.2020 14:07
	<i>Analyzed:</i>	11.05.2020 22:07	11.05.2020 22:27	11.05.2020 22:47	11.05.2020 23:07
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
	Gasoline Range Hydrocarbons (GRO)	<49.8 49.8	<49.0 49.0	<48.5 48.5	<50.0 50.0
	Diesel Range Organics (DRO)	1280 49.8	<49.0 49.0	<48.5 48.5	<50.0 50.0
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<49.0 49.0	<48.5 48.5	<50.0 50.0
	Total TPH	1280 49.8	<49.0 49.0	<48.5 48.5	<50.0 50.0

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor



# Analytical Report 676996

for

**Larson and Associates, Inc.**

**Project Manager: Mark Larson**

**Chevron- Hayhurst 1720**

**19-0180-06**

**11.09.2020**

Collected By: Client

**1089 N Canal Street  
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):  
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)  
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):  
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)  
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)  
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)  
Xenco-Carlsbad (LELAP): Louisiana (05092)  
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)  
Xenco-Tampa: Florida (E87429), North Carolina (483)





11.09.2020

Project Manager: **Mark Larson**

**Larson and Associates, Inc.**

P. O. Box 50685

Midland, TX 79710

Reference: Eurofins Xenco, LLC Report No(s): **676996**

**Chevron- Hayhurst 1720**

Project Address:

**Mark Larson:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 676996. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 676996 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Holly Taylor".

---

**Holly Taylor**  
Project Manager

*A Small Business and Minority Company*

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

**Sample Cross Reference 676996****Larson and Associates, Inc., Midland, TX**

Chevron- Hayhurst 1720

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
C-1	S	11.05.2020 10:42		676996-001
C-2	S	11.05.2020 10:43		676996-002
C-3	S	11.05.2020 10:44		676996-003
C-4	S	11.05.2020 10:45		676996-004
C-5	S	11.05.2020 10:46		676996-005
C-6	S	11.05.2020 10:47		676996-006
C-7	S	11.05.2020 10:49		676996-007
C-8	S	11.05.2020 10:51		676996-008
C-9	S	11.05.2020 10:53		676996-009
C-10	S	11.05.2020 10:54		676996-010
C-11	S	11.05.2020 10:55		676996-011
C-12	S	11.05.2020 10:56		676996-012
C-13	S	11.05.2020 10:57		676996-013
C-14	S	11.05.2020 10:58		676996-014
C-15	S	11.05.2020 10:59		676996-015
C-16	S	11.05.2020 11:00		676996-016



## CASE NARRATIVE

***Client Name: Larson and Associates, Inc.***

***Project Name: Chevron- Hayhurst 1720***

Project ID: 19-0180-06  
Work Order Number(s): 676996

Report Date: 11.09.2020  
Date Received: 11.05.2020

---

**Sample receipt non conformances and comments:**

---

**Sample receipt non conformances and comments per sample:**

None





# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: C-1  
Lab Sample Id: 676996-001

Matrix: Soil  
Date Collected: 11.05.2020 10:42

Date Received: 11.05.2020 12:34

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 16:00

% Moisture:  
Basis: Wet Weight

Seq Number: 3141520

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	146	49.9	mg/kg	11.05.2020 18:39		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 11.05.2020 14:07

% Moisture:  
Basis: Wet Weight

Seq Number: 3141527

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.05.2020 16:33	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.05.2020 16:33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.05.2020 16:33	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.05.2020 16:33	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1-Chlorooctane	111-85-3	117	%	70-135	11.05.2020 16:33		
o-Terphenyl	84-15-1	126	%	70-135	11.05.2020 16:33		



# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: C-1  
Lab Sample Id: 676996-001

Matrix: Soil  
Date Collected: 11.05.2020 10:42

Date Received: 11.05.2020 12:34

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 14:54

% Moisture:  
Basis: Wet Weight

Seq Number: 3141518

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.06.2020 00:27	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.06.2020 00:27	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.06.2020 00:27	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	11.06.2020 00:27	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.06.2020 00:27	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.06.2020 00:27	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.06.2020 00:27	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	119	%	70-130	11.06.2020 00:27		
1,4-Difluorobenzene	540-36-3	112	%	70-130	11.06.2020 00:27		



# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: **C-2**  
Lab Sample Id: 676996-002

Matrix: Soil  
Date Collected: 11.05.2020 10:43

Date Received: 11.05.2020 12:34

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 16:00

% Moisture:  
Basis: Wet Weight

Seq Number: 3141520

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	51.8	50.1	mg/kg	11.05.2020 18:44		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 11.05.2020 14:07

% Moisture:  
Basis: Wet Weight

Seq Number: 3141527

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.05.2020 18:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.05.2020 18:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.05.2020 18:05	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.05.2020 18:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	11.05.2020 18:05	
o-Terphenyl	84-15-1	125	%	70-135	11.05.2020 18:05	





# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: **C-2**  
 Lab Sample Id: 676996-002

Matrix: Soil  
 Date Collected: 11.05.2020 10:43

Date Received: 11.05.2020 12:34

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 14:54

% Moisture:  
 Basis: Wet Weight

Seq Number: 3141518

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.06.2020 00:50	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.06.2020 00:50	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.06.2020 00:50	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	11.06.2020 00:50	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.06.2020 00:50	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.06.2020 00:50	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.06.2020 00:50	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	116	%	70-130	11.06.2020 00:50		
1,4-Difluorobenzene	540-36-3	105	%	70-130	11.06.2020 00:50		



# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: C-3  
Lab Sample Id: 676996-003

Matrix: Soil  
Date Collected: 11.05.2020 10:44

Date Received: 11.05.2020 12:34

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 16:00

% Moisture:  
Basis: Wet Weight

Seq Number: 3141520

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	120	49.9	mg/kg	11.05.2020 18:50		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 11.05.2020 14:07

% Moisture:  
Basis: Wet Weight

Seq Number: 3141527

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.05.2020 18:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.05.2020 18:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.05.2020 18:25	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.05.2020 18:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	11.05.2020 18:25	
o-Terphenyl	84-15-1	124	%	70-135	11.05.2020 18:25	



# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: **C-3**  
 Lab Sample Id: 676996-003

Matrix: Soil  
 Date Collected: 11.05.2020 10:44

Date Received: 11.05.2020 12:34

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 14:54

% Moisture:  
 Basis: Wet Weight

Seq Number: 3141518

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.06.2020 01:12	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.06.2020 01:12	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.06.2020 01:12	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.06.2020 01:12	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.06.2020 01:12	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.06.2020 01:12	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.06.2020 01:12	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	111	%	70-130	11.06.2020 01:12		
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.06.2020 01:12		





# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: **C-4**  
Lab Sample Id: 676996-004

Matrix: Soil  
Date Collected: 11.05.2020 10:45

Date Received: 11.05.2020 12:34

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 16:00

% Moisture:  
Basis: Wet Weight

Seq Number: 3141520

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	107	50.1	mg/kg	11.05.2020 18:55		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 11.05.2020 14:07

% Moisture:  
Basis: Wet Weight

Seq Number: 3141527

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.05.2020 18:45	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.9	49.9	mg/kg	11.05.2020 18:45	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.05.2020 18:45	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	11.05.2020 18:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	129	%	70-135	11.05.2020 18:45	
o-Terphenyl	84-15-1	120	%	70-135	11.05.2020 18:45	



# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: **C-4**  
 Lab Sample Id: 676996-004

Matrix: Soil  
 Date Collected: 11.05.2020 10:45

Date Received: 11.05.2020 12:34

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 14:54

% Moisture:  
 Basis: Wet Weight

Seq Number: 3141518

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.06.2020 01:35	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.06.2020 01:35	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.06.2020 01:35	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.06.2020 01:35	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.06.2020 01:35	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.06.2020 01:35	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.06.2020 01:35	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	107	%	70-130	11.06.2020 01:35		
4-Bromofluorobenzene	460-00-4	119	%	70-130	11.06.2020 01:35		



# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: C-5  
Lab Sample Id: 676996-005

Matrix: Soil  
Date Collected: 11.05.2020 10:46

Date Received: 11.05.2020 12:34

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 16:21

% Moisture:  
Basis: Wet Weight

Seq Number: 3141523

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	154	49.5	mg/kg	11.05.2020 19:28		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 11.05.2020 14:07

% Moisture:  
Basis: Wet Weight

Seq Number: 3141527

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.05.2020 19:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.05.2020 19:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.05.2020 19:05	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.05.2020 19:05	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	11.05.2020 19:05	
o-Terphenyl	84-15-1	121	%	70-135	11.05.2020 19:05	





# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: **C-5**  
 Lab Sample Id: 676996-005

Matrix: Soil  
 Date Collected: 11.05.2020 10:46

Date Received: 11.05.2020 12:34

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 15:56

% Moisture:  
 Basis: Wet Weight

Seq Number: 3141526

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.05.2020 19:18	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.05.2020 19:18	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.05.2020 19:18	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.05.2020 19:18	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.05.2020 19:18	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.05.2020 19:18	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.05.2020 19:18	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	100	%	70-130	11.05.2020 19:18		
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.05.2020 19:18		



# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: C-6  
Lab Sample Id: 676996-006

Matrix: Soil  
Date Collected: 11.05.2020 10:47

Date Received: 11.05.2020 12:34

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 16:21

% Moisture:  
Basis: Wet Weight

Seq Number: 3141523

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	815	99.8	mg/kg	11.05.2020 19:45		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 11.05.2020 14:07

% Moisture:  
Basis: Wet Weight

Seq Number: 3141527

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.05.2020 19:25	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.05.2020 19:25	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.05.2020 19:25	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.05.2020 19:25	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	11.05.2020 19:25	
o-Terphenyl	84-15-1	127	%	70-135	11.05.2020 19:25	



# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: **C-6**  
 Lab Sample Id: 676996-006

Matrix: Soil  
 Date Collected: 11.05.2020 10:47

Date Received: 11.05.2020 12:34

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 15:56

% Moisture:  
 Basis: Wet Weight

Seq Number: 3141526

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.05.2020 19:40	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.05.2020 19:40	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.05.2020 19:40	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.05.2020 19:40	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.05.2020 19:40	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.05.2020 19:40	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.05.2020 19:40	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	103	%	70-130	11.05.2020 19:40		
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.05.2020 19:40		





# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: C-7  
Lab Sample Id: 676996-007

Matrix: Soil  
Date Collected: 11.05.2020 10:49

Date Received: 11.05.2020 12:34

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 16:21

% Moisture:  
Basis: Wet Weight

Seq Number: 3141523

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	659	49.8	mg/kg	11.05.2020 19:50		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 11.05.2020 14:07

% Moisture:  
Basis: Wet Weight

Seq Number: 3141527

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.05.2020 19:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.05.2020 19:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.05.2020 19:46	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.05.2020 19:46	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1-Chlorooctane	111-85-3	115	%	70-135	11.05.2020 19:46		
o-Terphenyl	84-15-1	124	%	70-135	11.05.2020 19:46		



# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: C-7  
Lab Sample Id: 676996-007

Matrix: Soil  
Date Collected: 11.05.2020 10:49

Date Received: 11.05.2020 12:34

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 15:56

% Moisture:  
Basis: Wet Weight

Seq Number: 3141526

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.05.2020 20:02	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.05.2020 20:02	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.05.2020 20:02	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.05.2020 20:02	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.05.2020 20:02	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.05.2020 20:02	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.05.2020 20:02	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.05.2020 20:02		
4-Bromofluorobenzene	460-00-4	106	%	70-130	11.05.2020 20:02		



# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: **C-8**  
 Lab Sample Id: 676996-008

Matrix: Soil  
 Date Collected: 11.05.2020 10:51

Date Received: 11.05.2020 12:34

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 16:21

% Moisture:  
 Basis: Wet Weight

Seq Number: 3141523

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	134	49.6	mg/kg	11.05.2020 19:56		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 11.05.2020 14:07

% Moisture:  
 Basis: Wet Weight

Seq Number: 3141527

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.05.2020 20:06	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.05.2020 20:06	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.05.2020 20:06	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.05.2020 20:06	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1-Chlorooctane	111-85-3	117	%	70-135	11.05.2020 20:06		
o-Terphenyl	84-15-1	125	%	70-135	11.05.2020 20:06		





# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: **C-8**  
 Lab Sample Id: 676996-008

Matrix: Soil  
 Date Collected: 11.05.2020 10:51

Date Received: 11.05.2020 12:34

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 15:56

% Moisture:  
 Basis: Wet Weight

Seq Number: 3141526

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.05.2020 20:25	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.05.2020 20:25	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.05.2020 20:25	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.05.2020 20:25	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.05.2020 20:25	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.05.2020 20:25	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.05.2020 20:25	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	108	%	70-130	11.05.2020 20:25		
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.05.2020 20:25		



# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: C-9  
Lab Sample Id: 676996-009

Matrix: Soil  
Date Collected: 11.05.2020 10:53

Date Received: 11.05.2020 12:34

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 16:21

% Moisture:  
Basis: Wet Weight

Seq Number: 3141523

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	128	49.9	mg/kg	11.05.2020 20:01		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 11.05.2020 14:07

% Moisture:  
Basis: Wet Weight

Seq Number: 3141527

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.05.2020 20:26	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.05.2020 20:26	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.05.2020 20:26	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.05.2020 20:26	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1-Chlorooctane	111-85-3	116	%	70-135	11.05.2020 20:26		
o-Terphenyl	84-15-1	125	%	70-135	11.05.2020 20:26		



# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: **C-9**  
 Lab Sample Id: 676996-009

Matrix: Soil  
 Date Collected: 11.05.2020 10:53

Date Received: 11.05.2020 12:34

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 15:56

% Moisture:  
 Basis: Wet Weight

Seq Number: 3141526

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.05.2020 20:47	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.05.2020 20:47	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.05.2020 20:47	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.05.2020 20:47	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.05.2020 20:47	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.05.2020 20:47	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.05.2020 20:47	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	109	%	70-130	11.05.2020 20:47		
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.05.2020 20:47		





# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: **C-10**  
Lab Sample Id: 676996-010

Matrix: Soil  
Date Collected: 11.05.2020 10:54

Date Received: 11.05.2020 12:34

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 16:21

% Moisture:  
Basis: Wet Weight

Seq Number: 3141523

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	119	49.8	mg/kg	11.05.2020 20:07		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 11.05.2020 14:07

% Moisture:  
Basis: Wet Weight

Seq Number: 3141527

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.05.2020 20:46	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.05.2020 20:46	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.05.2020 20:46	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.05.2020 20:46	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1-Chlorooctane	111-85-3	119	%	70-135	11.05.2020 20:46		
o-Terphenyl	84-15-1	126	%	70-135	11.05.2020 20:46		



# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: **C-10**  
 Lab Sample Id: 676996-010

Matrix: Soil  
 Date Collected: 11.05.2020 10:54

Date Received: 11.05.2020 12:34

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 15:56

% Moisture:  
 Basis: Wet Weight

Seq Number: 3141526

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.05.2020 21:10	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.05.2020 21:10	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.05.2020 21:10	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	11.05.2020 21:10	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.05.2020 21:10	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.05.2020 21:10	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.05.2020 21:10	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.05.2020 21:10		
4-Bromofluorobenzene	460-00-4	109	%	70-130	11.05.2020 21:10		



# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: **C-11**  
 Lab Sample Id: 676996-011

Matrix: Soil  
 Date Collected: 11.05.2020 10:55

Date Received: 11.05.2020 12:34

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 16:21

% Moisture:  
 Basis: Wet Weight

Seq Number: 3141523

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	209	49.7	mg/kg	11.05.2020 20:23		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 11.05.2020 14:07

% Moisture:  
 Basis: Wet Weight

Seq Number: 3141527

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.05.2020 21:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	11.05.2020 21:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.05.2020 21:27	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	11.05.2020 21:27	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1-Chlorooctane	111-85-3	120	%	70-135	11.05.2020 21:27		
o-Terphenyl	84-15-1	124	%	70-135	11.05.2020 21:27		





# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: **C-11**  
 Lab Sample Id: 676996-011

Matrix: Soil  
 Date Collected: 11.05.2020 10:55

Date Received: 11.05.2020 12:34

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 15:56

% Moisture:  
 Basis: Wet Weight

Seq Number: 3141526

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.05.2020 21:32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.05.2020 21:32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.05.2020 21:32	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.05.2020 21:32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.05.2020 21:32	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.05.2020 21:32	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.05.2020 21:32	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.05.2020 21:32		
4-Bromofluorobenzene	460-00-4	104	%	70-130	11.05.2020 21:32		



# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: **C-12**  
Lab Sample Id: 676996-012

Matrix: Soil  
Date Collected: 11.05.2020 10:56

Date Received: 11.05.2020 12:34

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 16:21

% Moisture:  
Basis: Wet Weight

Seq Number: 3141523

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	145	49.6	mg/kg	11.05.2020 20:29		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 11.05.2020 14:07

% Moisture:  
Basis: Wet Weight

Seq Number: 3141527

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	11.05.2020 21:47	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>52.8</b>	50.2	mg/kg	11.05.2020 21:47		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	11.05.2020 21:47	U	1
<b>Total TPH</b>	PHC635	<b>52.8</b>	50.2	mg/kg	11.05.2020 21:47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	117	%	70-135	11.05.2020 21:47	
o-Terphenyl	84-15-1	122	%	70-135	11.05.2020 21:47	



# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: **C-12**  
 Lab Sample Id: 676996-012

Matrix: Soil  
 Date Collected: 11.05.2020 10:56

Date Received: 11.05.2020 12:34

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 15:56

% Moisture:  
 Basis: Wet Weight

Seq Number: 3141526

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.05.2020 21:54	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.05.2020 21:54	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.05.2020 21:54	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.05.2020 21:54	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.05.2020 21:54	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.05.2020 21:54	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.05.2020 21:54	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.05.2020 21:54		
4-Bromofluorobenzene	460-00-4	105	%	70-130	11.05.2020 21:54		





# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: **C-13**  
 Lab Sample Id: 676996-013

Matrix: Soil  
 Date Collected: 11.05.2020 10:57

Date Received: 11.05.2020 12:34

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 16:21

% Moisture:  
 Basis: Wet Weight

Seq Number: 3141523

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<b>610</b>	49.9	mg/kg	11.05.2020 20:34		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 11.05.2020 14:07

% Moisture:  
 Basis: Wet Weight

Seq Number: 3141527

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.05.2020 22:07	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>1280</b>	49.8	mg/kg	11.05.2020 22:07		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.05.2020 22:07	U	1
<b>Total TPH</b>	PHC635	<b>1280</b>	49.8	mg/kg	11.05.2020 22:07		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	11.05.2020 22:07	
o-Terphenyl	84-15-1	132	%	70-135	11.05.2020 22:07	



# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: C-13

Matrix: Soil

Date Received: 11.05.2020 12:34

Lab Sample Id: 676996-013

Date Collected: 11.05.2020 10:57

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 15:56

% Moisture:

Seq Number: 3141526

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.05.2020 22:17	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.05.2020 22:17	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.05.2020 22:17	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.05.2020 22:17	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.05.2020 22:17	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.05.2020 22:17	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.05.2020 22:17	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	94	%	70-130	11.05.2020 22:17		
4-Bromofluorobenzene	460-00-4	98	%	70-130	11.05.2020 22:17		



# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: **C-14**  
 Lab Sample Id: 676996-014

Matrix: Soil  
 Date Collected: 11.05.2020 10:58

Date Received: 11.05.2020 12:34

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 16:21

% Moisture:  
 Basis: Wet Weight

Seq Number: 3141523

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	151	50.1	mg/kg	11.05.2020 20:40		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 11.05.2020 14:07

% Moisture:  
 Basis: Wet Weight

Seq Number: 3141527

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.0	49.0	mg/kg	11.05.2020 22:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.0	49.0	mg/kg	11.05.2020 22:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.0	49.0	mg/kg	11.05.2020 22:27	U	1
Total TPH	PHC635	<49.0	49.0	mg/kg	11.05.2020 22:27	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	11.05.2020 22:27	
o-Terphenyl	84-15-1	123	%	70-135	11.05.2020 22:27	



# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: **C-14**  
 Lab Sample Id: 676996-014

Matrix: Soil  
 Date Collected: 11.05.2020 10:58

Date Received: 11.05.2020 12:34

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 15:56

% Moisture:  
 Basis: Wet Weight

Seq Number: 3141526

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	11.05.2020 22:39	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	11.05.2020 22:39	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	11.05.2020 22:39	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	11.05.2020 22:39	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	11.05.2020 22:39	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	11.05.2020 22:39	U	1
Total BTEX		<0.00198	0.00198	mg/kg	11.05.2020 22:39	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	109	%	70-130	11.05.2020 22:39		
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.05.2020 22:39		





# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: **C-15**  
Lab Sample Id: 676996-015

Matrix: Soil  
Date Collected: 11.05.2020 10:59

Date Received: 11.05.2020 12:34

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 16:21

% Moisture:  
Basis: Wet Weight

Seq Number: 3141523

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	188	50.4	mg/kg	11.05.2020 20:45		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 11.05.2020 14:07

% Moisture:  
Basis: Wet Weight

Seq Number: 3141527

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<48.5	48.5	mg/kg	11.05.2020 22:47	U	1
Diesel Range Organics (DRO)	C10C28DRO	<48.5	48.5	mg/kg	11.05.2020 22:47	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<48.5	48.5	mg/kg	11.05.2020 22:47	U	1
Total TPH	PHC635	<48.5	48.5	mg/kg	11.05.2020 22:47	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1-Chlorooctane	111-85-3	115	%	70-135	11.05.2020 22:47		
o-Terphenyl	84-15-1	122	%	70-135	11.05.2020 22:47		



# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: **C-15**  
 Lab Sample Id: 676996-015

Matrix: Soil  
 Date Collected: 11.05.2020 10:59

Date Received: 11.05.2020 12:34

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 15:56

% Moisture:  
 Basis: Wet Weight

Seq Number: 3141526

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.05.2020 23:57	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.05.2020 23:57	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.05.2020 23:57	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.05.2020 23:57	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.05.2020 23:57	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.05.2020 23:57	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.05.2020 23:57	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	100	%	70-130	11.05.2020 23:57		
1,4-Difluorobenzene	540-36-3	101	%	70-130	11.05.2020 23:57		



# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: **C-16**  
Lab Sample Id: 676996-016

Matrix: Soil  
Date Collected: 11.05.2020 11:00

Date Received: 11.05.2020 12:34

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 16:21

% Moisture:  
Basis: Wet Weight

Seq Number: 3141523

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	64.5	50.0	mg/kg	11.05.2020 21:01		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 11.05.2020 14:07

% Moisture:  
Basis: Wet Weight

Seq Number: 3141527

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.05.2020 23:07	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.05.2020 23:07	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.05.2020 23:07	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.05.2020 23:07	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	11.05.2020 23:07	
o-Terphenyl	84-15-1	104	%	70-135	11.05.2020 23:07	



# Certificate of Analytical Results 676996

## Larson and Associates, Inc., Midland, TX

Chevron- Hayhurst 1720

Sample Id: C-16

Matrix: Soil

Date Received: 11.05.2020 12:34

Lab Sample Id: 676996-016

Date Collected: 11.05.2020 11:00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.05.2020 15:56

% Moisture:

Seq Number: 3141526

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.06.2020 00:19	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.06.2020 00:19	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.06.2020 00:19	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.06.2020 00:19	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.06.2020 00:19	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.06.2020 00:19	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.06.2020 00:19	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.06.2020 00:19		
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.06.2020 00:19		



## Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.      **ND** Not Detected.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **MQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

**SMP** Client Sample      **BLK** Method Blank

**BKS/LCS** Blank Spike/Laboratory Control Sample      **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

**MD/SD** Method Duplicate/Sample Duplicate      **MS** Matrix Spike      **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



**Larson and Associates, Inc.**  
Chevron- Hayhurst 1720

**Analytical Method: Chloride by EPA 300**

Seq Number: 3141520

MB Sample Id: 7714604-1-BLK

Matrix: Solid

LCS Sample Id: 7714604-1-BKS

Prep Method: E300P

Date Prep: 11.05.2020

LCSD Sample Id: 7714604-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	258	103	250	100	90-110	3	20	mg/kg	11.05.2020 16:17	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3141523

MB Sample Id: 7714636-1-BLK

Matrix: Solid

LCS Sample Id: 7714636-1-BKS

Prep Method: E300P

Date Prep: 11.05.2020

LCSD Sample Id: 7714636-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	253	101	247	99	90-110	2	20	mg/kg	11.05.2020 19:17	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3141520

Parent Sample Id: 676974-001

Matrix: Soil

MS Sample Id: 676974-001 S

Prep Method: E300P

Date Prep: 11.05.2020

MSD Sample Id: 676974-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	129	200	333	102	329	100	90-110	1	20	mg/kg	11.05.2020 16:33	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3141520

Parent Sample Id: 676974-011

Matrix: Soil

MS Sample Id: 676974-011 S

Prep Method: E300P

Date Prep: 11.05.2020

MSD Sample Id: 676974-011 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	664	199	855	96	845	90	90-110	1	20	mg/kg	11.05.2020 17:50	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3141523

Parent Sample Id: 676996-005

Matrix: Soil

MS Sample Id: 676996-005 S

Prep Method: E300P

Date Prep: 11.05.2020

MSD Sample Id: 676996-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	154	198	348	98	346	96	90-110	1	20	mg/kg	11.05.2020 19:34	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3141523

Parent Sample Id: 676996-015

Matrix: Soil

MS Sample Id: 676996-015 S

Prep Method: E300P

Date Prep: 11.05.2020

MSD Sample Id: 676996-015 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	188	200	398	105	396	104	90-110	1	20	mg/kg	11.05.2020 20:50	

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * |(C - E) / (C + E)|$   
 $[D] = 100 * (C) / [B]$   
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample  
 A = Parent Result  
 C = MS/LCS Result  
 E = MSD/LCSD Result

MS = Matrix Spike  
 B = Spike Added  
 D = MSD/LCSD % Rec



**Larson and Associates, Inc.**  
Chevron- Hayhurst 1720

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3141527

MB Sample Id: 7714606-1-BLK

Matrix: Solid

LCS Sample Id: 7714606-1-BKS

Prep Method: SW8015P

Date Prep: 11.05.2020

LCSD Sample Id: 7714606-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1110	111	1190	119	70-135	7	35	mg/kg	11.05.2020 15:53	
Diesel Range Organics (DRO)	<50.0	1000	1280	128	1180	118	70-135	8	35	mg/kg	11.05.2020 15:53	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		131		125		70-135	%	11.05.2020 15:53
o-Terphenyl	125		108		100		70-135	%	11.05.2020 15:53

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3141527

Matrix: Solid

MB Sample Id: 7714606-1-BLK

Prep Method: SW8015P

Date Prep: 11.05.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.05.2020 15:33	

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3141527

Matrix: Soil

Parent Sample Id: 676996-001

MS Sample Id: 676996-001 S

Prep Method: SW8015P

Date Prep: 11.05.2020

MSD Sample Id: 676996-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	996	1050	105	1020	102	70-135	3	35	mg/kg	11.05.2020 17:25	
Diesel Range Organics (DRO)	<49.8	996	1230	123	1230	123	70-135	0	35	mg/kg	11.05.2020 17:25	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		120		70-135	%	11.05.2020 17:25
o-Terphenyl	108		117		70-135	%	11.05.2020 17:25

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3141518

Matrix: Solid

MB Sample Id: 7714602-1-BLK

LCS Sample Id: 7714602-1-BKS

Prep Method: SW5035A

Date Prep: 11.05.2020

LCSD Sample Id: 7714602-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0954	95	0.0948	95	70-130	1	35	mg/kg	11.05.2020 15:27	
Toluene	<0.00200	0.100	0.0902	90	0.0899	90	70-130	0	35	mg/kg	11.05.2020 15:27	
Ethylbenzene	<0.00200	0.100	0.0947	95	0.0943	94	71-129	0	35	mg/kg	11.05.2020 15:27	
m,p-Xylenes	<0.00400	0.200	0.196	98	0.189	95	70-135	4	35	mg/kg	11.05.2020 15:27	
o-Xylene	<0.00200	0.100	0.0940	94	0.0953	95	71-133	1	35	mg/kg	11.05.2020 15:27	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	98		100		99		70-130	%	11.05.2020 15:27
4-Bromofluorobenzene	105		106		107		70-130	%	11.05.2020 15:27

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C-A) / B$   
 $RPD = 200 * |(C-E) / (C+E)|$   
 $[D] = 100 * (C) / [B]$   
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample  
 A = Parent Result  
 C = MS/LCS Result  
 E = MSD/LCSD Result

MS = Matrix Spike  
 B = Spike Added  
 D = MSD/LCSD % Rec



**Larson and Associates, Inc.**  
Chevron- Hayhurst 1720

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3141526

Matrix: Solid

Prep Method: SW5035A

Date Prep: 11.05.2020

MB Sample Id: 7714603-1-BLK

LCS Sample Id: 7714603-1-BKS

LCSD Sample Id: 7714603-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0941	94	0.0959	96	70-130	2	35	mg/kg	11.05.2020 17:15	
Toluene	<0.00200	0.100	0.0738	74	0.0753	75	70-130	2	35	mg/kg	11.05.2020 17:15	
Ethylbenzene	<0.00200	0.100	0.0923	92	0.0941	94	71-129	2	35	mg/kg	11.05.2020 17:15	
m,p-Xylenes	<0.00400	0.200	0.187	94	0.191	96	70-135	2	35	mg/kg	11.05.2020 17:15	
o-Xylene	<0.00200	0.100	0.0923	92	0.0950	95	71-133	3	35	mg/kg	11.05.2020 17:15	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		99		99		70-130	%	11.05.2020 17:15
4-Bromofluorobenzene	100		98		101		70-130	%	11.05.2020 17:15

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3141518

Matrix: Soil

Prep Method: SW5035A

Date Prep: 11.05.2020

Parent Sample Id: 676974-001

MS Sample Id: 676974-001 S

MSD Sample Id: 676974-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.102	102	0.101	101	70-130	1	35	mg/kg	11.05.2020 16:12	
Toluene	<0.00201	0.100	0.0948	95	0.0926	93	70-130	2	35	mg/kg	11.05.2020 16:12	
Ethylbenzene	<0.00201	0.100	0.0958	96	0.0935	94	71-129	2	35	mg/kg	11.05.2020 16:12	
m,p-Xylenes	<0.00402	0.201	0.195	97	0.193	97	70-135	1	35	mg/kg	11.05.2020 16:12	
o-Xylene	<0.00201	0.100	0.0970	97	0.0943	94	71-133	3	35	mg/kg	11.05.2020 16:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		103		70-130	%	11.05.2020 16:12
4-Bromofluorobenzene	111		108		70-130	%	11.05.2020 16:12

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3141526

Matrix: Soil

Prep Method: SW5035A

Date Prep: 11.05.2020

Parent Sample Id: 676996-005

MS Sample Id: 676996-005 S

MSD Sample Id: 676996-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00198	0.0992	0.0978	99	0.0865	87	70-130	12	35	mg/kg	11.05.2020 18:00	
Toluene	<0.00198	0.0992	0.0770	78	0.0698	70	70-130	10	35	mg/kg	11.05.2020 18:00	
Ethylbenzene	<0.00198	0.0992	0.0953	96	0.0859	86	71-129	10	35	mg/kg	11.05.2020 18:00	
m,p-Xylenes	<0.00397	0.198	0.192	97	0.173	87	70-135	10	35	mg/kg	11.05.2020 18:00	
o-Xylene	<0.00198	0.0992	0.0960	97	0.0855	86	71-133	12	35	mg/kg	11.05.2020 18:00	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		96		70-130	%	11.05.2020 18:00
4-Bromofluorobenzene	100		100		70-130	%	11.05.2020 18:00

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C-A) / B$   
 $RPD = 200 * |(C-E) / (C+E)|$   
 $[D] = 100 * (C) / [B]$   
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample  
 A = Parent Result  
 C = MS/LCS Result  
 E = MSD/LCSD Result

MS = Matrix Spike  
 B = Spike Added  
 D = MSD/LCSD % Rec





507 N. Marienfeld, Ste. 200  
Midland, TX 79701  
432-687-0901

Data Reported to:

DATE: 10/5/2020 PAGE 1 OF 2  
PO#: \_\_\_\_\_ LAB WORK ORDER#: \_\_\_\_\_  
PROJECT LOCATION OR NAME: Chevron - Hejlskov 1720  
LAI PROJECT #: 19-0150-06 COLLECTOR: AL

CHAIN-OF-CUSTODY

6716996 No 1388

Field Sample I.D.	Lab #	Date	Time	Matrix	# of Containers	PRESERVATION				ANALYSES	FIELD NOTES	
						HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/>	ICE			UNPRESERVED
C-1		11/5/20	10:42	S	1					X		
C-2			10:43							X		
C-3			10:44							X		
C-4			10:45							X		
C-5			10:46							X		
C-6			10:47							X		
C-7			10:49							X		
C-8			10:51							X		
C-9			10:53							X		
C-10			10:54							X		
C-11			10:55							X		
C-12			10:56							X		
C-13			10:57							X		
C-14			10:58							X		
C-15			10:59							X		
TOTAL					15							

TRRP report? ☐ Yes ☒ No

TIME ZONE: MST  
Time zone/State:

S=SOIL  
W=WATER  
A=AIR

P=PAINT  
SL=SLUDGE  
OT=OTHER

ELINQUISHED BY: (Signature) [Signature] DATE/TIME 11/5/20 14:31

ELINQUISHED BY: (Signature) [Signature] DATE/TIME 11/5/20 12:40

ELINQUISHED BY: (Signature) [Signature] DATE/TIME 11/5/20 12:34

LABORATORY: Xeno

RECEIVED BY: (Signature) [Signature] DATE/TIME 11/5/20 14:31

RECEIVED BY: (Signature) [Signature] DATE/TIME 11/5/20 12:40

RECEIVED BY: (Signature) [Signature] DATE/TIME 11/5/20 12:34

TURN AROUND TIME

NORMAL ☒ 1 DAY ☐

2 DAY ☐

OTHER ☐

LABORATORY USE ONLY:

RECEIVING TEMP: 20/26 THERM#: 28 / 26

CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☒ NOT USED

☒ HAND DELIVERED



**Varson & Associates, Inc.**  
Environmental Consultants

**Associates, Inc.**  
Environmental Consultants

507 N. Marientfeld, Ste. 200  
Midland, TX 79701  
432-687-0901

Data Reported to:

DATE: 11/15/2020 PAGE 2 OF 2  
PO#: \_\_\_\_\_ LAB WORK ORDER#: \_\_\_\_\_  
PROJECT LOCATION OR NAME: Chevron - Hayward 1720  
LAI PROJECT #: 19-0180-06 COLLECTOR: RV

TRRP report? ☐ Yes ☒ No

S=SOL  
W=WATER  
A=AIR  
P=PAINT  
SL=SLUDGE  
OT=OTHER

TIME ZONE:  
Time zone/State:

Field  
Sample I.D.

Lab #

Date \_\_\_\_\_

Time

### Matrix

# of Containers

HCl

 $\text{HNO}_3$ 

$\text{H}_2\text{SO}_4$  ☐  $\text{NaOH}$  ☐

ICE

UNPRESSERVED

**ANALYSES**

<b>ANALYSES</b>	
BTEX- <del>4</del> MTBE	<input type="checkbox"/>
TRPH 418.1	<input type="checkbox"/> TPH 1005 <input type="checkbox"/> TPH 1006 <input type="checkbox"/>
GASOLINE MOD 8015	<input checked="" type="checkbox"/>
DIESEL - MOD 8015	<input checked="" type="checkbox"/>
OIL - MOD 8015	<input checked="" type="checkbox"/>
VOC 8260	<input type="checkbox"/>
SVOC 8270	<input type="checkbox"/> PAH 8270 <input type="checkbox"/> HOLDPAH <input type="checkbox"/>
8081 PESTICIDES	<input type="checkbox"/> 8151 HERBICIDES <input type="checkbox"/>
8082 PCBs	<input type="checkbox"/>
TBLP - METALS (RCRA)	<input type="checkbox"/> TCLP VOC <input type="checkbox"/>
TCLP - PEST	<input type="checkbox"/> HERB <input type="checkbox"/> Semi-VOC <input type="checkbox"/>
TOTAL METALS (RCRA)	<input type="checkbox"/> OTHER LIST <input type="checkbox"/>
LEAD - TOTAL	<input type="checkbox"/> D.W 200.8 <input type="checkbox"/> TCLP <input type="checkbox"/>
RCI	<input type="checkbox"/> FLASHPOINT <input type="checkbox"/>
TDS	<input type="checkbox"/> TOX <input type="checkbox"/> % MOISTURE <input type="checkbox"/> CYANIDE <input type="checkbox"/>
pH	<input type="checkbox"/> HEXVALENT CHROMIUM <input type="checkbox"/>
EXPLOSIVES	<input type="checkbox"/> PECHLORATE <input type="checkbox"/>
CHLORIDE	<input checked="" type="checkbox"/> ANIONS <input type="checkbox"/> ALKALINITY <input type="checkbox"/>
FIELD NO.	

FIELD NOTES

TOTAL

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

LABORATORY: Xenco

## TURN AROUND TIME

LABORATORY USE ONLY;

RECEIVING TEMP: 22 THERM# 2

CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☒ NOT USED

CARRIER BILL #

☒ HAND DELIVERED

## Eurofins Xenco, LLC

## Prelogin/Nonconformance Report- Sample Log-In

Client: Larson and Associates, Inc.

Date/ Time Received: 11.05.2020 12.34.00 PM

Work Order #: 676996

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T\_NM\_007

## Sample Receipt Checklist

## Comments

#1 *Temperature of cooler(s)?	2.6	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	Yes	
#6 *Custody Seals Signed and dated?	Yes	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	Samples received in bulk containers.
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	No	
#18 Water VOC samples have zero headspace?	N/A	

\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 11.05.2020

Checklist reviewed by:



Holly Taylor

Date: 11.06.2020

# Certificate of Analysis Summary 677296

## Larson and Associates, Inc., Midland, TX

Project Name: Chevron Hayhurst

**Project Id:** 19-0180-06  
**Contact:** Mark Larson  
**Project Location:**

**Date Received in Lab:** Mon 11.09.2020 16:15  
**Report Date:** 11.18.2020 12:26  
**Project Manager:** Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id: Field Id: Depth: Matrix: Sampled:</i>	<i>677296-001 C-13 SOIL 11.09.2020 10:20</i>	<i>677296-002 C-6 SOIL 11.09.2020 10:25</i>	<i>677296-003 C-7 SOIL 11.09.2020 10:28</i>	
	<i>Extracted: Analyzed: Units/RL:</i>	<i>11.17.2020 16:00 11.18.2020 01:07 mg/kg RL &lt;0.00199 0.00199</i>	<i>11.17.2020 16:00 11.18.2020 01:29 mg/kg RL &lt;0.00201 0.00201</i>	<i>11.17.2020 16:00 11.18.2020 01:52 mg/kg RL &lt;0.00200 0.00200</i>	
BTEX by EPA 8021B					
Benzene					
Toluene					
Ethylbenzene					
m,p-Xylenes					
o-Xylene					
Total Xylenes					
Total BTEX					
Chloride by EPA 300					
	<i>Extracted: Analyzed: Units/RL:</i>	<i>11.10.2020 15:30 11.10.2020 20:03 mg/kg RL 102 50.5</i>	<i>11.10.2020 15:30 11.10.2020 20:19 mg/kg RL 118 50.0</i>	<i>11.10.2020 15:30 11.10.2020 20:25 mg/kg RL 91.9 49.7</i>	
Chloride					
TPH by SW8015 Mod					
	<i>Extracted: Analyzed: Units/RL:</i>	<i>11.10.2020 13:00 11.10.2020 18:44 mg/kg RL &lt;50.1 50.1</i>	<i>11.10.2020 13:00 11.10.2020 19:05 mg/kg RL &lt;49.8 49.8</i>	<i>11.10.2020 13:00 11.10.2020 19:27 mg/kg RL &lt;49.8 49.8</i>	
Gasoline Range Hydrocarbons (GRO)					
Diesel Range Organics (DRO)					
Motor Oil Range Hydrocarbons (MRO)					
Total TPH					

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico







# Analytical Report 677296

for

**Larson and Associates, Inc.**

**Project Manager: Mark Larson**

**Chevron Hayhurst**

**19-0180-06**

**11.18.2020**

Collected By: Client

**1089 N Canal Street  
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):  
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)  
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):  
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)  
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)  
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)  
Xenco-Carlsbad (LELAP): Louisiana (05092)  
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)  
Xenco-Tampa: Florida (E87429), North Carolina (483)



11.18.2020

Project Manager: **Mark Larson**  
**Larson and Associates, Inc.**  
P. O. Box 50685  
Midland, TX 79710

Reference: Eurofins Xenco, LLC Report No(s): **677296**  
**Chevron Hayhurst**  
Project Address:

**Mark Larson :**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 677296. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 677296 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Holly Taylor".

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**Holly Taylor**  
Project Manager

*A Small Business and Minority Company*

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



## Sample Cross Reference 677296

**Larson and Associates, Inc., Midland, TX**

Chevron Hayhurst

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
C-13	S	11.09.2020 10:20		677296-001
C-6	S	11.09.2020 10:25		677296-002
C-7	S	11.09.2020 10:28		677296-003



## CASE NARRATIVE

***Client Name: Larson and Associates, Inc.***

***Project Name: Chevron Hayhurst***

Project ID: 19-0180-06  
Work Order Number(s): 677296

Report Date: 11.18.2020  
Date Received: 11.09.2020

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**Sample receipt non conformances and comments:**

11/17/2020 1.001 Revised to report BTEX on all samples and TPH on samples 002 and 003 per Robert Nelson (phone). HT

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**Sample receipt non conformances and comments per sample:**

None





# Certificate of Analytical Results 677296

## Larson and Associates, Inc., Midland, TX

Chevron Hayhurst

Sample Id: **C-13**  
 Lab Sample Id: 677296-001

Matrix: Soil  
 Date Collected: 11.09.2020 10:20

Date Received: 11.09.2020 16:15

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 11.10.2020 15:30

% Moisture:  
 Basis: Wet Weight

Seq Number: 3141922

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	102	50.5	mg/kg	11.10.2020 20:03		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 11.10.2020 13:00

% Moisture:  
 Basis: Wet Weight

Seq Number: 3141919

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.1	50.1	mg/kg	11.10.2020 18:44	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.1	50.1	mg/kg	11.10.2020 18:44	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	11.10.2020 18:44	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	11.10.2020 18:44	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	11.10.2020 18:44	
o-Terphenyl	84-15-1	106	%	70-135	11.10.2020 18:44	



# Certificate of Analytical Results 677296

## Larson and Associates, Inc., Midland, TX Chevron Hayhurst

Sample Id: **C-13**  
Lab Sample Id: 677296-001

Matrix: Soil  
Date Collected: 11.09.2020 10:20

Date Received: 11.09.2020 16:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.17.2020 16:00

% Moisture:  
Basis: Wet Weight

Seq Number: 3142570

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.18.2020 01:07	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.18.2020 01:07	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.18.2020 01:07	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.18.2020 01:07	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.18.2020 01:07	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.18.2020 01:07	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.18.2020 01:07	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	91	%	70-130	11.18.2020 01:07		
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.18.2020 01:07		



# Certificate of Analytical Results 677296

## Larson and Associates, Inc., Midland, TX

Chevron Hayhurst

Sample Id: C-6  
Lab Sample Id: 677296-002

Matrix: Soil  
Date Collected: 11.09.2020 10:25

Date Received: 11.09.2020 16:15

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 11.10.2020 15:30

% Moisture:  
Basis: Wet Weight

Seq Number: 3141922

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	118	50.0	mg/kg	11.10.2020 20:19		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 11.10.2020 13:00

% Moisture:  
Basis: Wet Weight

Seq Number: 3141919

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.10.2020 19:05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.10.2020 19:05	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.10.2020 19:05	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.10.2020 19:05	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1-Chlorooctane	111-85-3	104	%	70-135	11.10.2020 19:05		
o-Terphenyl	84-15-1	116	%	70-135	11.10.2020 19:05		



# Certificate of Analytical Results 677296

## Larson and Associates, Inc., Midland, TX

Chevron Hayhurst

Sample Id: **C-6**  
 Lab Sample Id: 677296-002

Matrix: Soil  
 Date Collected: 11.09.2020 10:25

Date Received: 11.09.2020 16:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.17.2020 16:00

% Moisture:  
 Basis: Wet Weight

Seq Number: 3142570

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.18.2020 01:29	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.18.2020 01:29	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.18.2020 01:29	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.18.2020 01:29	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.18.2020 01:29	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.18.2020 01:29	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.18.2020 01:29	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.18.2020 01:29		
4-Bromofluorobenzene	460-00-4	91	%	70-130	11.18.2020 01:29		





# Certificate of Analytical Results 677296

## Larson and Associates, Inc., Midland, TX

Chevron Hayhurst

Sample Id: C-7  
Lab Sample Id: 677296-003

Matrix: Soil  
Date Collected: 11.09.2020 10:28

Date Received: 11.09.2020 16:15

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 11.10.2020 15:30

% Moisture:  
Basis: Wet Weight

Seq Number: 3141922

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	91.9	49.7	mg/kg	11.10.2020 20:25		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 11.10.2020 13:00

% Moisture:  
Basis: Wet Weight

Seq Number: 3141919

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.10.2020 19:27	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.10.2020 19:27	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.10.2020 19:27	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	11.10.2020 19:27	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1-Chlorooctane	111-85-3	104	%	70-135	11.10.2020 19:27		
o-Terphenyl	84-15-1	98	%	70-135	11.10.2020 19:27		



# Certificate of Analytical Results 677296

## Larson and Associates, Inc., Midland, TX

Chevron Hayhurst

Sample Id: C-7  
Lab Sample Id: 677296-003

Matrix: Soil  
Date Collected: 11.09.2020 10:28

Date Received: 11.09.2020 16:15

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.17.2020 16:00

% Moisture:  
Basis: Wet Weight

Seq Number: 3142570

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.18.2020 01:52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.18.2020 01:52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.18.2020 01:52	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.18.2020 01:52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.18.2020 01:52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.18.2020 01:52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.18.2020 01:52	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	91	%	70-130	11.18.2020 01:52		
1,4-Difluorobenzene	540-36-3	103	%	70-130	11.18.2020 01:52		

## Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.      **ND** Not Detected.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **MQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

**SMP** Client Sample      **BLK** Method Blank

**BKS/LCS** Blank Spike/Laboratory Control Sample      **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

**MD/SD** Method Duplicate/Sample Duplicate      **MS** Matrix Spike      **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



**Larson and Associates, Inc.**  
Chevron Hayhurst

**Analytical Method: Chloride by EPA 300**

Seq Number: 3141922

MB Sample Id: 7714926-1-BLK

Matrix: Solid

LCS Sample Id: 7714926-1-BKS

Prep Method: E300P

Date Prep: 11.10.2020

LCSD Sample Id: 7714926-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	257	103	249	100	90-110	3	20	mg/kg	11.10.2020 19:14	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3141922

Parent Sample Id: 677264-014

Matrix: Soil

MS Sample Id: 677264-014 S

Prep Method: E300P

Date Prep: 11.10.2020

MSD Sample Id: 677264-014 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	150	200	351	101	350	100	90-110	0	20	mg/kg	11.11.2020 10:15	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3141922

Parent Sample Id: 677374-007

Matrix: Soil

MS Sample Id: 677374-007 S

Prep Method: E300P

Date Prep: 11.10.2020

MSD Sample Id: 677374-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	674	199	863	95	868	97	90-110	1	20	mg/kg	11.10.2020 19:30	

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3141919

MB Sample Id: 7714921-1-BLK

Matrix: Solid

LCS Sample Id: 7714921-1-BKS

Prep Method: SW8015P

Date Prep: 11.10.2020

LCSD Sample Id: 7714921-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1110	111	1160	116	70-135	4	35	mg/kg	11.10.2020 15:36	
Diesel Range Organics (DRO)	<50.0	1000	1230	123	1330	133	70-135	8	35	mg/kg	11.10.2020 15:36	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	117		130		129		70-135	%	11.10.2020 15:36
o-Terphenyl	120		119		130		70-135	%	11.10.2020 15:36

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3141919

Matrix: Solid

MB Sample Id: 7714921-1-BLK

Prep Method: SW8015P

Date Prep: 11.10.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.10.2020 15:14	

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * |(C - E) / (C + E)|$   
 $[D] = 100 * (C) / [B]$   
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample  
 A = Parent Result  
 C = MS/LCS Result  
 E = MSD/LCSD Result

MS = Matrix Spike  
 B = Spike Added  
 D = MSD/LCSD % Rec



**Larson and Associates, Inc.**  
Chevron Hayhurst
**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3141919

Parent Sample Id: 677299-002

Matrix: Soil

MS Sample Id: 677299-002 S

Prep Method: SW8015P

Date Prep: 11.10.2020

MSD Sample Id: 677299-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.1	1000	992	99	895	90	70-135	10	35	mg/kg	11.10.2020 16:39	
Diesel Range Organics (DRO)	<50.1	1000	1130	113	1040	105	70-135	8	35	mg/kg	11.10.2020 16:39	

**Surrogate**

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	107		104		70-135	%	11.10.2020 16:39
o-Terphenyl	90		108		70-135	%	11.10.2020 16:39

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3142570

MB Sample Id: 7715389-1-BLK

Matrix: Solid

LCS Sample Id: 7715389-1-BKS

Prep Method: SW5035A

Date Prep: 11.17.2020

LCSD Sample Id: 7715389-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.103	103	0.107	107	70-130	4	35	mg/kg	11.17.2020 16:11	
Toluene	<0.00200	0.100	0.0997	100	0.103	103	70-130	3	35	mg/kg	11.17.2020 16:11	
Ethylbenzene	<0.00200	0.100	0.0931	93	0.0963	96	71-129	3	35	mg/kg	11.17.2020 16:11	
m,p-Xylenes	<0.00400	0.200	0.189	95	0.195	98	70-135	3	35	mg/kg	11.17.2020 16:11	
o-Xylene	<0.00200	0.100	0.0935	94	0.0965	97	71-133	3	35	mg/kg	11.17.2020 16:11	

**Surrogate**

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		99		99		70-130	%	11.17.2020 16:11
4-Bromofluorobenzene	91		86		84		70-130	%	11.17.2020 16:11

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3142570

Parent Sample Id: 678092-001

Matrix: Soil

MS Sample Id: 678092-001 S

Prep Method: SW5035A

Date Prep: 11.17.2020

MSD Sample Id: 678092-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0901	90	0.0968	97	70-130	7	35	mg/kg	11.17.2020 16:56	
Toluene	<0.00200	0.100	0.0876	88	0.0937	94	70-130	7	35	mg/kg	11.17.2020 16:56	
Ethylbenzene	<0.00200	0.100	0.0817	82	0.0880	88	71-129	7	35	mg/kg	11.17.2020 16:56	
m,p-Xylenes	<0.00401	0.200	0.166	83	0.178	89	70-135	7	35	mg/kg	11.17.2020 16:56	
o-Xylene	<0.00200	0.100	0.0812	81	0.0876	88	71-133	8	35	mg/kg	11.17.2020 16:56	

**Surrogate**

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	100		99		70-130	%	11.17.2020 16:56
4-Bromofluorobenzene	90		86		70-130	%	11.17.2020 16:56

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * |(C - E) / (C + E)|$   
 $[D] = 100 * (C) / [B]$   
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample  
 A = Parent Result  
 C = MS/LCS Result  
 E = MSD/LCSD Result

MS = Matrix Spike  
 B = Spike Added  
 D = MSD/LCSD % Rec

**Marson & Associates, Inc.**  
Environmental Consultants

507 N. Marientfield, Ste. 200  
Midland, TX 79701  
432-687-0901

Data Reported to:

DATE: 11/1/20 PAGE 1 OF 1  
PO#: \_\_\_\_\_ LAB WORK ORDER#: \_\_\_\_\_  
PROJECT LOCATION OR NAME: Chevron Highway  
LAI PROJECT #: 19-0180-06 COLLECTOR: TS

CHAIN-OF-CUSTODY

677296 No 1422

Received by OCD: 1/4/2021 11:37:55 AM

TRRP report?		S=SOIL W=WATER A=AIR		P=PAINT SL=SLUDGE OT=OTHER		PRESERVATION		ANALYSES		FIELD NOTES	
Yes	No					HCl	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub> <input type="checkbox"/> NaOH <input type="checkbox"/>	ICE	UNPRESERVED	
TIME ZONE: Time zone/State:		Lab #	Date	Time	Matrix	# of Containers					
MS+											
C-13			11/9/20	1020	S	1			X		
C-6				1025	L						
C-7				1028	L						
TOTAL 3											
RELINQUISHED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)		TURN AROUND TIME	
RELINQUISHED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)		LABORATORY USE ONLY:	
RELINQUISHED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)		RECEIVING TEMP: <u>48/4.6</u> THERM# <u>INM007</u>	
RELINQUISHED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)		CUSTODY SEALS - <input type="checkbox"/> BROKEN <input type="checkbox"/> INTACT <input checked="" type="checkbox"/> NOT USED	
LABORATORY: <u>KENCO</u>		DATE/TIME		RECEIVED BY: (Signature)		DATE/TIME		RECEIVED BY: (Signature)		CARRIER BILL # _____	
										<input checked="" type="checkbox"/> HAND DELIVERED	

Released to Imaging: 3/4/2021 9:16:17 AM

## Eurofins Xenco, LLC

## Prelogin/Nonconformance Report- Sample Log-In

Client: Larson and Associates, Inc.

Date/ Time Received: 11.09.2020 04.15.00 PM

Work Order #: 677296

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T\_NM\_007

## Sample Receipt Checklist

## Comments

#1 *Temperature of cooler(s)?	4.6	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	Yes	
#6 *Custody Seals Signed and dated?	Yes	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	Samples received in bulk containers.
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	No	
#18 Water VOC samples have zero headspace?	N/A	

\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 11.09.2020

Checklist reviewed by:



Holly Taylor

Date: 11.11.2020



# Certificate of Analysis Summary 677843

## Larson and Associates, Inc., Midland, TX

**Project Id:** 19-0180-06  
**Contact:** Mark Larson  
**Project Location:**

**Date Received in Lab:** Fri 11.13.2020 12:05  
**Report Date:** 11.20.2020 09:40  
**Project Manager:** Holly Taylor

**Project Name:** Hayhurst Backfill

<i>Analysis Requested</i>	<i>Lab Id:</i>	<i>Field Id:</i>	<i>Depth:</i>	<i>Matrix:</i>	<i>Sampled:</i>	677843-001	677843-002	677843-003	677843-004
	<i>Extracted:</i>	<i>Analyzed:</i>	<i>Units/RL:</i>			S-1	S-2	S-3	S-4
<b>BTEX by EPA 8021B</b>						SOIL	SOIL	SOIL	SOIL
						11.13.2020 10:40	11.13.2020 10:44	11.13.2020 10:47	11.13.2020 10:50
						mg/kg	mg/kg	mg/kg	mg/kg
						RL	RL	RL	RL
						<0.00201	<0.00202	<0.00199	<0.00200
						0.00201	0.00202	0.00199	0.00200
						<0.00201	<0.00202	<0.00199	<0.00200
						0.00201	0.00202	0.00199	0.00200
						<0.00402	<0.00403	<0.00398	<0.00399
						0.00402	0.00403	0.00398	0.00399
						<0.00201	<0.00202	<0.00199	<0.00200
						0.00201	0.00202	0.00199	0.00200
						<0.00201	<0.00202	<0.00199	<0.00200
						0.00201	0.00202	0.00199	0.00200
						<0.00201	<0.00202	<0.00199	<0.00200
						0.00201	0.00202	0.00199	0.00200
<b>Chloride by EPA 300</b>									
						11.13.2020 17:59	11.13.2020 17:02	11.13.2020 17:02	11.13.2020 17:02
						mg/kg	mg/kg	mg/kg	mg/kg
						RL	RL	RL	RL
						103	262	247	305
						101	9.90	50.1	100
<b>TPH by SW8015 Mod</b>									
						11.13.2020 17:00	11.13.2020 17:00	11.13.2020 17:00	11.13.2020 17:00
						mg/kg	mg/kg	mg/kg	mg/kg
						RL	RL	RL	RL
						<50.3	<50.0	<50.0	<50.0
						50.3	50.0	50.0	50.0
						<50.3	<50.0	<50.0	<50.0
						50.3	50.0	50.0	50.0
						<50.3	<50.0	<50.0	<50.0
						50.3	50.0	50.0	50.0
						<50.3	<50.0	<50.0	<50.0
						50.3	50.0	50.0	50.0

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico







# Analytical Report 677843

for

**Larson and Associates, Inc.**

**Project Manager: Mark Larson**

**Hayhurst Backfill**

**19-0180-06**

**11.20.2020**

Collected By: Client

**1089 N Canal Street  
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):  
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)  
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):  
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)  
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)  
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)  
Xenco-Carlsbad (LELAP): Louisiana (05092)  
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)  
Xenco-Tampa: Florida (E87429), North Carolina (483)



11.20.2020

Project Manager: **Mark Larson**  
**Larson and Associates, Inc.**  
P. O. Box 50685  
Midland, TX 79710

Reference: Eurofins Xenco, LLC Report No(s): **677843**  
**Hayhurst Backfill**  
Project Address:

**Mark Larson :**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 677843. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 677843 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Holly Taylor".

---

**Holly Taylor**  
Project Manager

*A Small Business and Minority Company*

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

**Sample Cross Reference 677843****Larson and Associates, Inc., Midland, TX**

Hayhurst Backfill

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
S-1	S	11.13.2020 10:40		677843-001
S-2	S	11.13.2020 10:44		677843-002
S-3	S	11.13.2020 10:47		677843-003
S-4	S	11.13.2020 10:50		677843-004



## CASE NARRATIVE

***Client Name: Larson and Associates, Inc.***

***Project Name: Hayhurst Backfill***

Project ID: 19-0180-06  
Work Order Number(s): 677843

Report Date: 11.20.2020  
Date Received: 11.13.2020

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**Sample receipt non conformances and comments:**

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**Sample receipt non conformances and comments per sample:**

None





# Certificate of Analytical Results 677843

## Larson and Associates, Inc., Midland, TX

### Hayhurst Backfill

Sample Id: **S-1** Matrix: Soil Date Received: 11.13.2020 12:05  
 Lab Sample Id: 677843-001 Date Collected: 11.13.2020 10:40  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB  
 Analyst: MAB Date Prep: 11.13.2020 17:59 % Moisture:  
 Seq Number: 3142337 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	103	101	mg/kg	11.13.2020 22:42		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: MAB  
 Analyst: CAC Date Prep: 11.13.2020 17:00 % Moisture:  
 Seq Number: 3142313 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.3	50.3	mg/kg	11.14.2020 01:39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.3	50.3	mg/kg	11.14.2020 01:39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	11.14.2020 01:39	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	11.14.2020 01:39	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1-Chlorooctane	111-85-3	129	%	70-135	11.14.2020 01:39		
o-Terphenyl	84-15-1	112	%	70-135	11.14.2020 01:39		



# Certificate of Analytical Results 677843

## Larson and Associates, Inc., Midland, TX

Hayhurst Backfill

Sample Id: **S-1**  
Lab Sample Id: 677843-001

Matrix: Soil  
Date Collected: 11.13.2020 10:40

Date Received: 11.13.2020 12:05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.13.2020 16:40

% Moisture:  
Basis: Wet Weight

Seq Number: 3142323

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	11.14.2020 04:39	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	11.14.2020 04:39	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	11.14.2020 04:39	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	11.14.2020 04:39	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	11.14.2020 04:39	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	11.14.2020 04:39	U	1
Total BTEX		<0.00201	0.00201	mg/kg	11.14.2020 04:39	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	106	%	70-130	11.14.2020 04:39	
4-Bromofluorobenzene	460-00-4	129	%	70-130	11.14.2020 04:39	



# Certificate of Analytical Results 677843

## Larson and Associates, Inc., Midland, TX

### Hayhurst Backfill

Sample Id: **S-2** Matrix: Soil Date Received: 11.13.2020 12:05  
 Lab Sample Id: 677843-002 Date Collected: 11.13.2020 10:44  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB  
 Analyst: MAB Date Prep: 11.13.2020 17:02 % Moisture:  
 Seq Number: 3142338 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	262	9.90	mg/kg	11.13.2020 23:15		1

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: MAB  
 Analyst: CAC Date Prep: 11.13.2020 17:00 % Moisture:  
 Seq Number: 3142313 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.14.2020 02:00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.14.2020 02:00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.14.2020 02:00	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.14.2020 02:00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	119	%	70-135	11.14.2020 02:00	
o-Terphenyl	84-15-1	116	%	70-135	11.14.2020 02:00	



# Certificate of Analytical Results 677843

## Larson and Associates, Inc., Midland, TX

Hayhurst Backfill

Sample Id: **S-2**  
Lab Sample Id: 677843-002

Matrix: Soil  
Date Collected: 11.13.2020 10:44

Date Received: 11.13.2020 12:05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.13.2020 16:40

% Moisture:  
Basis: Wet Weight

Seq Number: 3142323

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.14.2020 05:01	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.14.2020 05:01	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.14.2020 05:01	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.14.2020 05:01	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.14.2020 05:01	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	11.14.2020 05:01	U	1
Total BTEX		<0.00202	0.00202	mg/kg	11.14.2020 05:01	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	104	%	70-130	11.14.2020 05:01	
4-Bromofluorobenzene	460-00-4	117	%	70-130	11.14.2020 05:01	





# Certificate of Analytical Results 677843

## Larson and Associates, Inc., Midland, TX

### Hayhurst Backfill

Sample Id: **S-3** Matrix: Soil Date Received: 11.13.2020 12:05  
 Lab Sample Id: 677843-003 Date Collected: 11.13.2020 10:47  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB  
 Analyst: MAB Date Prep: 11.13.2020 17:02 % Moisture:  
 Seq Number: 3142338 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	247	50.1	mg/kg	11.13.2020 23:32		5

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: MAB  
 Analyst: CAC Date Prep: 11.13.2020 17:00 % Moisture:  
 Seq Number: 3142313 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.14.2020 02:20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.14.2020 02:20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.14.2020 02:20	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.14.2020 02:20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	11.14.2020 02:20	
o-Terphenyl	84-15-1	96	%	70-135	11.14.2020 02:20	



# Certificate of Analytical Results 677843

## Larson and Associates, Inc., Midland, TX

Hayhurst Backfill

Sample Id: **S-3**  
Lab Sample Id: 677843-003

Matrix: Soil  
Date Collected: 11.13.2020 10:47

Date Received: 11.13.2020 12:05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.13.2020 16:40

% Moisture:  
Basis: Wet Weight

Seq Number: 3142323

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.14.2020 05:23	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.14.2020 05:23	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.14.2020 05:23	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.14.2020 05:23	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.14.2020 05:23	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	11.14.2020 05:23	U	1
Total BTEX		<0.00199	0.00199	mg/kg	11.14.2020 05:23	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	118	%	70-130	11.14.2020 05:23	
1,4-Difluorobenzene	540-36-3	107	%	70-130	11.14.2020 05:23	



# Certificate of Analytical Results 677843

## Larson and Associates, Inc., Midland, TX

### Hayhurst Backfill

Sample Id: **S-4** Matrix: Soil Date Received: 11.13.2020 12:05  
 Lab Sample Id: 677843-004 Date Collected: 11.13.2020 10:50  
 Analytical Method: Chloride by EPA 300 Prep Method: E300P  
 Tech: MAB  
 Analyst: MAB Date Prep: 11.13.2020 17:02 % Moisture:  
 Seq Number: 3142338 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	305	100	mg/kg	11.13.2020 23:37		10

Analytical Method: TPH by SW8015 Mod Prep Method: SW8015P  
 Tech: MAB  
 Analyst: CAC Date Prep: 11.13.2020 17:00 % Moisture:  
 Seq Number: 3142313 Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.14.2020 02:40	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.14.2020 02:40	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.14.2020 02:40	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	11.14.2020 02:40	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1-Chlorooctane	111-85-3	117	%	70-135	11.14.2020 02:40		
o-Terphenyl	84-15-1	106	%	70-135	11.14.2020 02:40		



# Certificate of Analytical Results 677843

## Larson and Associates, Inc., Midland, TX

Hayhurst Backfill

Sample Id: S-4  
Lab Sample Id: 677843-004

Matrix: Soil  
Date Collected: 11.13.2020 10:50

Date Received: 11.13.2020 12:05

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 11.13.2020 16:40

% Moisture:  
Basis: Wet Weight

Seq Number: 3142323

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.14.2020 05:46	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.14.2020 05:46	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.14.2020 05:46	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.14.2020 05:46	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.14.2020 05:46	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	11.14.2020 05:46	U	1
Total BTEX		<0.00200	0.00200	mg/kg	11.14.2020 05:46	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	119	%	70-130	11.14.2020 05:46	
1,4-Difluorobenzene	540-36-3	102	%	70-130	11.14.2020 05:46	



## Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.      **ND** Not Detected.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **MQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

**SMP** Client Sample      **BLK** Method Blank

**BKS/LCS** Blank Spike/Laboratory Control Sample      **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

**MD/SD** Method Duplicate/Sample Duplicate      **MS** Matrix Spike      **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



**Larson and Associates, Inc.**  
Hayhurst Backfill

**Analytical Method: Chloride by EPA 300**

Seq Number: 3142338

MB Sample Id: 7715204-1-BLK

Matrix: Solid

LCS Sample Id: 7715204-1-BKS

Prep Method: E300P

Date Prep: 11.13.2020

LCSD Sample Id: 7715204-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	251	100	246	98	90-110	2	20	mg/kg	11.13.2020 23:04	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3142337

MB Sample Id: 7715203-1-BLK

Matrix: Solid

LCS Sample Id: 7715203-1-BKS

Prep Method: E300P

Date Prep: 11.13.2020

LCSD Sample Id: 7715203-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	249	100	244	98	90-110	2	20	mg/kg	11.13.2020 20:09	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3142338

Parent Sample Id: 677843-002

Matrix: Soil

MS Sample Id: 677843-002 S

Prep Method: E300P

Date Prep: 11.13.2020

MSD Sample Id: 677843-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	262	199	460	99	460	99	90-110	0	20	mg/kg	11.13.2020 23:21	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3142338

Parent Sample Id: 677883-006

Matrix: Soil

MS Sample Id: 677883-006 S

Prep Method: E300P

Date Prep: 11.13.2020

MSD Sample Id: 677883-006 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1460	202	1650	94	1650	94	90-110	0	20	mg/kg	11.14.2020 00:37	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3142337

Parent Sample Id: 677806-005

Matrix: Soil

MS Sample Id: 677806-005 S

Prep Method: E300P

Date Prep: 11.13.2020

MSD Sample Id: 677806-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	344	200	543	100	540	98	90-110	1	20	mg/kg	11.13.2020 20:25	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3142337

Parent Sample Id: 677810-003

Matrix: Soil

MS Sample Id: 677810-003 S

Prep Method: E300P

Date Prep: 11.13.2020

MSD Sample Id: 677810-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	20.0	199	217	99	217	99	90-110	0	20	mg/kg	11.13.2020 21:42	

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * |(C - E) / (C + E)|$   
 $[D] = 100 * (C) / [B]$   
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample  
 A = Parent Result  
 C = MS/LCS Result  
 E = MSD/LCSD Result

MS = Matrix Spike  
 B = Spike Added  
 D = MSD/LCSD % Rec



**Larson and Associates, Inc.**  
Hayhurst Backfill

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3142313

MB Sample Id: 7715202-1-BLK

Matrix: Solid

LCS Sample Id: 7715202-1-BKS

Prep Method: SW8015P

Date Prep: 11.13.2020

LCSD Sample Id: 7715202-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1070	107	957	96	70-135	11	35	mg/kg	11.13.2020 22:37	
Diesel Range Organics (DRO)	<50.0	1000	1200	120	1120	112	70-135	7	35	mg/kg	11.13.2020 22:37	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	98		130		134		70-135	%	11.13.2020 22:37
o-Terphenyl	96		114		112		70-135	%	11.13.2020 22:37

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3142313

Matrix: Solid

MB Sample Id: 7715202-1-BLK

Prep Method: SW8015P

Date Prep: 11.13.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.13.2020 22:17	

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3142313

Matrix: Soil

Parent Sample Id: 677810-001

MS Sample Id: 677810-001 S

Prep Method: SW8015P

Date Prep: 11.13.2020

MSD Sample Id: 677810-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	996	1120	112	1020	102	70-135	9	35	mg/kg	11.13.2020 23:38	
Diesel Range Organics (DRO)	<49.8	996	994	100	1120	112	70-135	12	35	mg/kg	11.13.2020 23:38	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	121		115		70-135	%	11.13.2020 23:38
o-Terphenyl	112		98		70-135	%	11.13.2020 23:38

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3142323

Matrix: Solid

MB Sample Id: 7715197-1-BLK

LCS Sample Id: 7715197-1-BKS

Prep Method: SW5035A

Date Prep: 11.13.2020

LCSD Sample Id: 7715197-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0925	93	0.0926	93	70-130	0	35	mg/kg	11.14.2020 01:27	
Toluene	<0.00200	0.100	0.0871	87	0.0868	87	70-130	0	35	mg/kg	11.14.2020 01:27	
Ethylbenzene	<0.00200	0.100	0.0900	90	0.0894	89	71-129	1	35	mg/kg	11.14.2020 01:27	
m,p-Xylenes	<0.00400	0.200	0.181	91	0.181	91	70-135	0	35	mg/kg	11.14.2020 01:27	
o-Xylene	<0.00200	0.100	0.0923	92	0.0917	92	71-133	1	35	mg/kg	11.14.2020 01:27	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		97		97		70-130	%	11.14.2020 01:27
4-Bromofluorobenzene	115		106		106		70-130	%	11.14.2020 01:27

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

[D] = 100\*(C-A) / B  
RPD = 200\* | (C-E) / (C+E) |  
[D] = 100 \* (C) / [B]  
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample  
A = Parent Result  
C = MS/LCS Result  
E = MSD/LCSD Result

MS = Matrix Spike  
B = Spike Added  
D = MSD/LCSD % Rec



**Larson and Associates, Inc.**  
Hayhurst Backfill

**Analytical Method:** BTEX by EPA 8021B

Seq Number: 3142323

Parent Sample Id: 677813-003

Matrix: Soil

MS Sample Id: 677813-003 S

Prep Method: SW5035A

Date Prep: 11.13.2020

MSD Sample Id: 677813-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00199	0.0996	0.0948	95	0.0941	94	70-130	1	35	mg/kg	11.14.2020 02:12	
Toluene	<0.00199	0.0996	0.0908	91	0.0876	88	70-130	4	35	mg/kg	11.14.2020 02:12	
Ethylbenzene	<0.00199	0.0996	0.0934	94	0.0909	91	71-129	3	35	mg/kg	11.14.2020 02:12	
m,p-Xylenes	<0.00398	0.199	0.190	95	0.185	93	70-135	3	35	mg/kg	11.14.2020 02:12	
o-Xylene	<0.00199	0.0996	0.0942	95	0.0941	94	71-133	0	35	mg/kg	11.14.2020 02:12	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		100		70-130	%	11.14.2020 02:12
4-Bromofluorobenzene	114		110		70-130	%	11.14.2020 02:12

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * |(C - E) / (C + E)|$   
 $[D] = 100 * (C) / [B]$   
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample  
 A = Parent Result  
 C = MS/LCS Result  
 E = MSD/LCSD Result

MS = Matrix Spike  
 B = Spike Added  
 D = MSD/LCSD % Rec





## Eurofins Xenco, LLC

## Prelogin/Nonconformance Report- Sample Log-In

Client: Larson and Associates, Inc.

Date/ Time Received: 11.13.2020 12.05.00 PM

Work Order #: 677843

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T\_NM\_007

## Sample Receipt Checklist

## Comments

#1 *Temperature of cooler(s)?	5	
#2 *Shipping container in good condition?	Yes	
#3 *Samples received on ice?	Yes	
#4 *Custody Seals intact on shipping container/ cooler?	Yes	
#5 Custody Seals intact on sample bottles?	Yes	
#6 *Custody Seals Signed and dated?	Yes	
#7 *Chain of Custody present?	Yes	
#8 Any missing/extra samples?	No	
#9 Chain of Custody signed when relinquished/ received?	Yes	
#10 Chain of Custody agrees with sample labels/matrix?	Yes	
#11 Container label(s) legible and intact?	Yes	
#12 Samples in proper container/ bottle?	Yes	Samples received in bulk containers.
#13 Samples properly preserved?	Yes	
#14 Sample container(s) intact?	Yes	
#15 Sufficient sample amount for indicated test(s)?	Yes	
#16 All samples received within hold time?	Yes	
#17 Subcontract of sample(s)?	No	
#18 Water VOC samples have zero headspace?	N/A	

\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 11.13.2020

Checklist reviewed by:



Holly Taylor

Date: 11.15.2020

Certificate of Analysis Summary 678539  
Larson and Associates, Inc., Midland, TX

Project Id: Mark Larson  
Contact: 19-0180-06  
Project Location: Project Name: Hayhurst 1720  
Date Received in Lab: Fri 11.20.2020 09:06  
Report Date: 11.23.2020 18:00  
Project Manager: Holly Taylor

Analysis Requested	Lab Id: Field Id: Depth: Matrix: Sampled:	678539-001 C1-14 SOIL 11.19.2020 10:30	678539-002 C1-6 SOIL 11.19.2020 10:40	678539-003 N-SW SOIL 11.19.2020 10:48	678539-004 C1-3 SOIL 11.19.2020 11:53	678539-005 C1-20 SOIL 11.19.2020 13:19	678539-006 S-SW SOIL 11.19.2020 13:55
	Extracted: Analyzed: Units/RL:	11.20.2020 13:30 11.20.2020 19:02 mg/kg RL <0.00200 0.00200	11.20.2020 13:30 11.20.2020 19:22 mg/kg RL <0.00199 0.00199	11.20.2020 13:30 11.20.2020 19:43 mg/kg RL <0.00200 0.00200	11.20.2020 13:30 11.20.2020 20:03 mg/kg RL <0.00200 0.00200	11.20.2020 13:30 11.20.2020 20:24 mg/kg RL <0.00202 0.00202	11.20.2020 13:30 11.20.2020 20:45 mg/kg RL <0.00200 0.00200
BTEX by EPA 8021B							
Benzene							
Toluene							
Ethylbenzene							
m,p-Xylenes							
o-Xylene							
Total Xylenes							
Total BTEX							
Chloride by EPA 300							
Extracted:		11.20.2020 13:15	11.20.2020 13:15	11.20.2020 13:15	11.20.2020 13:15	11.20.2020 13:15	11.20.2020 13:15
Analyzed:		11.20.2020 15:57	11.20.2020 16:19	11.20.2020 16:26	11.20.2020 16:34	11.20.2020 16:41	11.20.2020 16:49
Units/RL:		mg/kg RL 183 50.0	mg/kg RL 275 49.9	mg/kg RL 230 50.4	mg/kg RL 304 49.6	mg/kg RL 297 50.0	mg/kg RL 450 49.9
Chloride							
TPH by SW8015 Mod							
Extracted:		11.20.2020 11:00	11.20.2020 11:00	11.20.2020 11:00	11.20.2020 11:00	11.20.2020 11:00	11.20.2020 11:00
Analyzed:		11.20.2020 13:55	11.20.2020 14:54	11.20.2020 15:14	11.20.2020 15:33	11.20.2020 15:53	11.20.2020 16:13
Units/RL:		mg/kg RL <50.0 50.0	mg/kg RL <49.9 49.9	mg/kg RL <49.9 49.9	mg/kg RL <50.0 50.0	mg/kg RL <49.8 49.8	mg/kg RL <50.0 50.0
Gasoline Range Hydrocarbons (GRO)							
Diesel Range Organics (DRO)							
Motor Oil Range Hydrocarbons (MRO)							
Total TPH							

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor



# Analytical Report 678539

for

**Larson and Associates, Inc.**

**Project Manager: Mark Larson**

**Hayhurst 1720**

**11.23.2020**

Collected By: Client



**1211 W. Florida Ave  
Midland TX 79701**

Xenco-Houston (EPA Lab Code: TX00122):  
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)  
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):  
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)  
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)  
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)  
Xenco-Carlsbad (LELAP): Louisiana (05092)  
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8)  
Xenco-Tampa: Florida (E87429), North Carolina (483)





11.23.2020

Project Manager: **Mark Larson**

**Larson and Associates, Inc.**

P. O. Box 50685

Midland, TX 79710

Reference: Eurofins Xenco, LLC Report No(s): **678539**

**Hayhurst 1720**

Project Address: 19-0180-06

**Mark Larson:**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 678539. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 678539 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Holly Taylor".

---

**Holly Taylor**  
Project Manager

*A Small Business and Minority Company*

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

**Sample Cross Reference 678539****Larson and Associates, Inc., Midland, TX**

Hayhurst 1720

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
C1-14	S	11.19.2020 10:30		678539-001
C1-6	S	11.19.2020 10:40		678539-002
N-SW	S	11.19.2020 10:48		678539-003
C1-3	S	11.19.2020 11:53		678539-004
C1-20	S	11.19.2020 13:19		678539-005
S-SW	S	11.19.2020 13:55		678539-006



## CASE NARRATIVE

**Client Name:** *Larson and Associates, Inc.*

**Project Name:** *Hayhurst 1720*

Project ID:

Work Order Number(s): 678539

Report Date: 11.23.2020

Date Received: 11.20.2020

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### **Sample receipt non conformances and comments:**

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### **Sample receipt non conformances and comments per sample:**

None

### **Analytical non conformances and comments:**

Batch: LBA-3142956 TPH by SW8015 Mod

Surrogate 1-Chlorooctane recovered below QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 678539-002.



# Certificate of Analytical Results 678539

## Larson and Associates, Inc., Midland, TX

Hayhurst 1720

Sample Id: **C1-14**  
Lab Sample Id: 678539-001

Matrix: Soil  
Date Collected: 11.19.2020 10:30

Date Received: 11.20.2020 09:06

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 11.20.2020 13:15

% Moisture:  
Basis: Wet Weight

Seq Number: 3143016

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	183	50.0	mg/kg	11.20.2020 15:57		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 11.20.2020 11:00

% Moisture:  
Basis: Wet Weight

Seq Number: 3142956

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.20.2020 13:55	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.20.2020 13:55	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.20.2020 13:55	U	1
Total TPH	PHC635	<50.00	50.00	mg/kg	11.20.2020 13:55	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	82	%	70-130	11.20.2020 13:55	
o-Terphenyl	84-15-1	100	%	70-130	11.20.2020 13:55	





# Certificate of Analytical Results 678539

## Larson and Associates, Inc., Midland, TX

Hayhurst 1720

Sample Id: **C1-14**  
Lab Sample Id: 678539-001

Matrix: Soil  
Date Collected: 11.19.2020 10:30

Date Received: 11.20.2020 09:06

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.20.2020 13:30

% Moisture:  
Basis: Wet Weight

Seq Number: 3142926

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.20.2020 19:02	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.20.2020 19:02	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.20.2020 19:02	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.20.2020 19:02	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.20.2020 19:02	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.20.2020 19:02	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.20.2020 19:02	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	95	%	70-130	11.20.2020 19:02		
4-Bromofluorobenzene	460-00-4	98	%	70-130	11.20.2020 19:02		



# Certificate of Analytical Results 678539

## Larson and Associates, Inc., Midland, TX

Hayhurst 1720

Sample Id: **C1-6**  
Lab Sample Id: 678539-002

Matrix: Soil  
Date Collected: 11.19.2020 10:40

Date Received: 11.20.2020 09:06

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 11.20.2020 13:15

% Moisture:  
Basis: Wet Weight

Seq Number: 3143016

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	275	49.9	mg/kg	11.20.2020 16:19		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 11.20.2020 11:00

% Moisture:  
Basis: Wet Weight

Seq Number: 3142956

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.20.2020 14:54	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>144</b>	49.9	mg/kg	11.20.2020 14:54		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.20.2020 14:54	U	1
<b>Total TPH</b>	PHC635	<b>144.0</b>	49.90	mg/kg	11.20.2020 14:54		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	65	%	70-130	11.20.2020 14:54	**
o-Terphenyl	84-15-1	81	%	70-130	11.20.2020 14:54	



# Certificate of Analytical Results 678539

## Larson and Associates, Inc., Midland, TX

Hayhurst 1720

Sample Id: **C1-6**  
Lab Sample Id: 678539-002

Matrix: Soil  
Date Collected: 11.19.2020 10:40

Date Received: 11.20.2020 09:06

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.20.2020 13:30

% Moisture:  
Basis: Wet Weight

Seq Number: 3142926

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	11.20.2020 19:22	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	11.20.2020 19:22	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	11.20.2020 19:22	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	11.20.2020 19:22	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	11.20.2020 19:22	U	1
Total Xylenes	1330-20-7	<0.001990	0.001990	mg/kg	11.20.2020 19:22	U	1
Total BTEX		<0.001990	0.001990	mg/kg	11.20.2020 19:22	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.20.2020 19:22		
4-Bromofluorobenzene	460-00-4	109	%	70-130	11.20.2020 19:22		



# Certificate of Analytical Results 678539

## Larson and Associates, Inc., Midland, TX

Hayhurst 1720

Sample Id: N-SW  
Lab Sample Id: 678539-003

Matrix: Soil  
Date Collected: 11.19.2020 10:48

Date Received: 11.20.2020 09:06

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 11.20.2020 13:15

% Moisture:  
Basis: Wet Weight

Seq Number: 3143016

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	230	50.4	mg/kg	11.20.2020 16:26		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 11.20.2020 11:00

% Moisture:  
Basis: Wet Weight

Seq Number: 3142956

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.9	49.9	mg/kg	11.20.2020 15:14	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>358</b>	49.9	mg/kg	11.20.2020 15:14		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	11.20.2020 15:14	U	1
<b>Total TPH</b>	PHC635	<b>358.0</b>	49.90	mg/kg	11.20.2020 15:14		1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1-Chlorooctane	111-85-3	72	%	70-130	11.20.2020 15:14		
o-Terphenyl	84-15-1	93	%	70-130	11.20.2020 15:14		





# Certificate of Analytical Results 678539

## Larson and Associates, Inc., Midland, TX

Hayhurst 1720

Sample Id: N-SW  
Lab Sample Id: 678539-003

Matrix: Soil  
Date Collected: 11.19.2020 10:48

Date Received: 11.20.2020 09:06

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.20.2020 13:30

% Moisture:  
Basis: Wet Weight

Seq Number: 3142926

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.20.2020 19:43	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.20.2020 19:43	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.20.2020 19:43	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	11.20.2020 19:43	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.20.2020 19:43	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.20.2020 19:43	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.20.2020 19:43	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.20.2020 19:43	
4-Bromofluorobenzene	460-00-4	113	%	70-130	11.20.2020 19:43	



# Certificate of Analytical Results 678539

## Larson and Associates, Inc., Midland, TX

Hayhurst 1720

Sample Id: **C1-3**  
Lab Sample Id: 678539-004

Matrix: Soil  
Date Collected: 11.19.2020 11:53

Date Received: 11.20.2020 09:06

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 11.20.2020 13:15

% Moisture:  
Basis: Wet Weight

Seq Number: 3143016

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	304	49.6	mg/kg	11.20.2020 16:34		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 11.20.2020 11:00

% Moisture:  
Basis: Wet Weight

Seq Number: 3142956

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.20.2020 15:33	U	1
<b>Diesel Range Organics (DRO)</b>	C10C28DRO	<b>53.5</b>	50.0	mg/kg	11.20.2020 15:33		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.20.2020 15:33	U	1
<b>Total TPH</b>	PHC635	<b>53.50</b>	50.00	mg/kg	11.20.2020 15:33		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	84	%	70-130	11.20.2020 15:33	
o-Terphenyl	84-15-1	101	%	70-130	11.20.2020 15:33	



# Certificate of Analytical Results 678539

## Larson and Associates, Inc., Midland, TX

Hayhurst 1720

Sample Id: **C1-3**  
Lab Sample Id: 678539-004

Matrix: Soil  
Date Collected: 11.19.2020 11:53

Date Received: 11.20.2020 09:06

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.20.2020 13:30

% Moisture:  
Basis: Wet Weight

Seq Number: 3142926

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.20.2020 20:03	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.20.2020 20:03	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.20.2020 20:03	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	11.20.2020 20:03	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.20.2020 20:03	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.20.2020 20:03	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.20.2020 20:03	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
4-Bromofluorobenzene	460-00-4	112	%	70-130	11.20.2020 20:03		
1,4-Difluorobenzene	540-36-3	100	%	70-130	11.20.2020 20:03		



# Certificate of Analytical Results 678539

## Larson and Associates, Inc., Midland, TX

Hayhurst 1720

Sample Id: **C1-20**  
Lab Sample Id: 678539-005

Matrix: Soil  
Date Collected: 11.19.2020 13:19

Date Received: 11.20.2020 09:06

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 11.20.2020 13:15

% Moisture:  
Basis: Wet Weight

Seq Number: 3143016

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	297	50.0	mg/kg	11.20.2020 16:41		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 11.20.2020 11:00

% Moisture:  
Basis: Wet Weight

Seq Number: 3142956

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<49.8	49.8	mg/kg	11.20.2020 15:53	U	1
Diesel Range Organics (DRO)	C10C28DRO	<49.8	49.8	mg/kg	11.20.2020 15:53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	11.20.2020 15:53	U	1
Total TPH	PHC635	<49.80	49.80	mg/kg	11.20.2020 15:53	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1-Chlorooctane	111-85-3	84	%	70-130	11.20.2020 15:53		
o-Terphenyl	84-15-1	104	%	70-130	11.20.2020 15:53		





# Certificate of Analytical Results 678539

## Larson and Associates, Inc., Midland, TX

Hayhurst 1720

Sample Id: **C1-20**  
Lab Sample Id: 678539-005

Matrix: Soil  
Date Collected: 11.19.2020 13:19

Date Received: 11.20.2020 09:06

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.20.2020 13:30

% Moisture:  
Basis: Wet Weight

Seq Number: 3142926

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	11.20.2020 20:24	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	11.20.2020 20:24	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	11.20.2020 20:24	U	1
m,p-Xylenes	179601-23-1	<0.00403	0.00403	mg/kg	11.20.2020 20:24	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	11.20.2020 20:24	U	1
Total Xylenes	1330-20-7	<0.002020	0.002020	mg/kg	11.20.2020 20:24	U	1
Total BTEX		<0.002020	0.002020	mg/kg	11.20.2020 20:24	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	106	%	70-130	11.20.2020 20:24	
1,4-Difluorobenzene	540-36-3	95	%	70-130	11.20.2020 20:24	



# Certificate of Analytical Results 678539

## Larson and Associates, Inc., Midland, TX

Hayhurst 1720

Sample Id: **S-SW**  
Lab Sample Id: 678539-006

Matrix: Soil  
Date Collected: 11.19.2020 13:55

Date Received: 11.20.2020 09:06

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: CHE

Analyst: CHE

Date Prep: 11.20.2020 13:15

% Moisture:  
Basis: Wet Weight

Seq Number: 3143016

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	450	49.9	mg/kg	11.20.2020 16:49		10

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: DVM

Analyst: ARM

Date Prep: 11.20.2020 11:00

% Moisture:  
Basis: Wet Weight

Seq Number: 3142956

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	11.20.2020 16:13	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	11.20.2020 16:13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	11.20.2020 16:13	U	1
Total TPH	PHC635	<50.00	50.00	mg/kg	11.20.2020 16:13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	73	%	70-130	11.20.2020 16:13	
o-Terphenyl	84-15-1	85	%	70-130	11.20.2020 16:13	



# Certificate of Analytical Results 678539

## Larson and Associates, Inc., Midland, TX

Hayhurst 1720

Sample Id: **S-SW**  
Lab Sample Id: 678539-006

Matrix: Soil  
Date Collected: 11.19.2020 13:55

Date Received: 11.20.2020 09:06

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: KTL

Analyst: KTL

Date Prep: 11.20.2020 13:30

% Moisture:  
Basis: Wet Weight

Seq Number: 3142926

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	11.20.2020 20:45	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	11.20.2020 20:45	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	11.20.2020 20:45	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	11.20.2020 20:45	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	11.20.2020 20:45	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	11.20.2020 20:45	U	1
Total BTEX		<0.002000	0.002000	mg/kg	11.20.2020 20:45	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	107	%	70-130	11.20.2020 20:45	
1,4-Difluorobenzene	540-36-3	98	%	70-130	11.20.2020 20:45	

## Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.      **ND** Not Detected.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **MQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

**SMP** Client Sample      **BLK** Method Blank

**BKS/LCS** Blank Spike/Laboratory Control Sample      **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

**MD/SD** Method Duplicate/Sample Duplicate      **MS** Matrix Spike      **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation





**Larson and Associates, Inc.**  
Hayhurst 1720

**Analytical Method: Chloride by EPA 300**

Seq Number: 3143016

MB Sample Id: 7715636-1-BLK

Matrix: Solid

LCS Sample Id: 7715636-1-BKS

Prep Method: E300P

Date Prep: 11.20.2020

LCSD Sample Id: 7715636-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	266	106	265	106	90-110	0	20	mg/kg	11.20.2020 13:30	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3143016

Parent Sample Id: 678206-001

Matrix: Soil

MS Sample Id: 678206-001 S

Prep Method: E300P

Date Prep: 11.20.2020

MSD Sample Id: 678206-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	6.28	249	281	110	281	110	90-110	0	20	mg/kg	11.20.2020 15:35	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3143016

Parent Sample Id: 678537-001

Matrix: Soil

MS Sample Id: 678537-001 S

Prep Method: E300P

Date Prep: 11.20.2020

MSD Sample Id: 678537-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	613	251	849	94	850	94	90-110	0	20	mg/kg	11.20.2020 13:52	

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3142956

MB Sample Id: 7715688-1-BLK

Matrix: Solid

LCS Sample Id: 7715688-1-BKS

Prep Method: SW8015P

Date Prep: 11.20.2020

LCSD Sample Id: 7715688-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	853	85	810	81	70-130	5	20	mg/kg	11.20.2020 13:16	
Diesel Range Organics (DRO)	<50.0	1000	848	85	836	84	70-130	1	20	mg/kg	11.20.2020 13:16	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	72		86		90		70-130	%	11.20.2020 13:16
o-Terphenyl	88		92		95		70-130	%	11.20.2020 13:16

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3142956

Matrix: Solid

MB Sample Id: 7715688-1-BLK

Prep Method: SW8015P

Date Prep: 11.20.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	11.20.2020 12:56	

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * |(C - E) / (C + E)|$   
 $[D] = 100 * (C) / [B]$   
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample  
 A = Parent Result  
 C = MS/LCS Result  
 E = MSD/LCSD Result

MS = Matrix Spike  
 B = Spike Added  
 D = MSD/LCSD % Rec



**Larson and Associates, Inc.**  
Hayhurst 1720

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3142956

Parent Sample Id: 678539-001

Matrix: Soil

MS Sample Id: 678539-001 S

Prep Method: SW8015P

Date Prep: 11.20.2020

MSD Sample Id: 678539-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.8	996	933	94	893	89	70-130	4	20	mg/kg	11.20.2020 14:15	
Diesel Range Organics (DRO)	<49.8	996	1020	102	913	91	70-130	11	20	mg/kg	11.20.2020 14:15	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		88		70-130	%	11.20.2020 14:15
o-Terphenyl	108		94		70-130	%	11.20.2020 14:15

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3142926

MB Sample Id: 7715667-1-BLK

Matrix: Solid

LCS Sample Id: 7715667-1-BKS

Prep Method: SW5035A

Date Prep: 11.20.2020

LCSD Sample Id: 7715667-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0989	99	0.0984	98	70-130	1	35	mg/kg	11.20.2020 16:40	
Toluene	<0.00200	0.100	0.100	100	0.0972	97	70-130	3	35	mg/kg	11.20.2020 16:40	
Ethylbenzene	<0.00200	0.100	0.0976	98	0.0966	97	70-130	1	35	mg/kg	11.20.2020 16:40	
m,p-Xylenes	<0.00400	0.200	0.203	102	0.201	101	70-130	1	35	mg/kg	11.20.2020 16:40	
o-Xylene	<0.00200	0.100	0.0998	100	0.0994	99	70-130	0	35	mg/kg	11.20.2020 16:40	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	87		99		99		70-130	%	11.20.2020 16:40
4-Bromofluorobenzene	97		104		104		70-130	%	11.20.2020 16:40

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3142926

Parent Sample Id: 678539-001

Matrix: Soil

MS Sample Id: 678539-001 S

Prep Method: SW5035A

Date Prep: 11.20.2020

MSD Sample Id: 678539-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.0998	0.0933	93	0.0881	87	70-130	6	35	mg/kg	11.20.2020 17:21	
Toluene	<0.00200	0.0998	0.0889	89	0.0858	85	70-130	4	35	mg/kg	11.20.2020 17:21	
Ethylbenzene	<0.00200	0.0998	0.0831	83	0.0797	79	70-130	4	35	mg/kg	11.20.2020 17:21	
m,p-Xylenes	<0.00399	0.200	0.170	85	0.165	82	70-130	3	35	mg/kg	11.20.2020 17:21	
o-Xylene	<0.00200	0.0998	0.0845	85	0.0810	80	70-130	4	35	mg/kg	11.20.2020 17:21	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		101		70-130	%	11.20.2020 17:21
4-Bromofluorobenzene	105		100		70-130	%	11.20.2020 17:21

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * |(C - E) / (C + E)|$   
 $[D] = 100 * (C) / [B]$   
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample  
 A = Parent Result  
 C = MS/LCS Result  
 E = MSD/LCSD Result

MS = Matrix Spike  
 B = Spike Added  
 D = MSD/LCSD % Rec

**Marson & Associates, Inc.**  
Environmental Consultants

507 N. Marientfeld, Ste. 200  
Midland, TX 79701  
432-687-0901

Data Reported to:

DATE: 11/19/18 PAGE 1 OF 1  
PO#: \_\_\_\_\_ LAB WORK ORDER#: \_\_\_\_\_  
PROJECT LOCATION OR NAME: Hwy 1720  
LAI PROJECT #: 18-016-00 COLLECTOR: DS

TRRP report?  
☐ Yes ☒ No

S=SOIL  
W=WATER  
A=AIR  
P=PAINT  
SL=SLUDGE  
OT=OTHER

TIME ZONE:  
Time zone/State:

MT

Field  
Sample I.D.

Lab #

Date

Time

Matrix

# of Containers

HCl

HNO<sub>3</sub>

H<sub>2</sub>SO<sub>4</sub> ☐ NaOH ☐

ICE

UNPRESSERVED

### ANALYSES

BTEX ☒ MTBE ☒  
TRPH 418.1 ☒ TPH 1005 ☒ TPH 1006 ☒  
GASOLINE MOD 8015 ☒  
DIESEL - MOD 8015 ☒  
OIL - MOD 8015 ☒  
VOC 8260 ☒  
SVOC 8270 ☒ PAH 8270 ☒ HOLDPAH ☒  
8081 PESTICIDES ☒ 8151 HERBICIDES ☒  
TBLP - METALS (RCRA) ☒ TCLP VOC ☒  
TCLP - PEST ☒ HERB ☒ Semi-VOC ☒  
TOTAL METALS (RCRA) ☒ OTHER LIST ☒  
LEAD - TOTAL ☒ D.W. 200.8 ☒ TCLP ☒  
RO ☒ TOX ☒ FLASHPOINT ☒  
TDS ☒ TSS ☒ % MOISTURE ☒ CYANIDE ☒  
pH ☒ HEXAVALENT CHROMIUM ☒  
EXPLOSIVES ☒ PECTHLOATE ☒  
CHLORIDE ☒ ANIONS ☒ ALKALINITY ☒

FIELD NOTES

TOTAL

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

LABORATORY: Xeno

TURN AROUND TIME

NORMAL ☐

1 DAY ☐

2 DAY ☐

OTHER ☒

LABORATORY USE ONLY:

RECEIVING TEMP: 30/35 THERM#: 128

CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED

CARRIER BILL # \_\_\_\_\_

HAND DELIVERED ☐

678539

CHAIN-OF-CUSTODY

# Eurofins Xenco, LLC

## Prelogin/Nonconformance Report- Sample Log-In

Client: Larson and Associates, Inc.

Date/ Time Received: 11.20.2020 09.06.00 AM

Work Order #: 678539

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : IR8

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	3.5
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	N/A
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	N/A
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	N/A
#18 Water VOC samples have zero headspace?	N/A

\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:



Brianna Teel

Date: 11.20.2020

Checklist reviewed by:



Holly Taylor

Date: 11.20.2020



# Certificate of Analysis Summary 679252

## Larson and Associates, Inc., Midland, TX

### Project Name: Hayhurst 1720

**Project Id:** 19-0180-06  
**Contact:** Mark Larson  
**Project Location:**  
**Date Received in Lab:** Mon 11.30.2020 15:18  
**Report Date:** 12.02.2020 13:19  
**Project Manager:** Holly Taylor

<i>Analysis Requested</i>		Lab Id: Field Id: Depth: Matrix: Sampled:	679252-001 C'-6 SOIL 11.30.2020 13:32	679252-002 N-SW SOIL 11.30.2020 13:30		
<b>BTEX by EPA 8021B</b>	<i>Extracted:</i>	12.01.2020 11:17	12.01.2020 11:17	12.01.2020 11:17		
	<i>Analyzed:</i>	12.01.2020 17:27	12.01.2020 17:50	12.01.2020 17:50		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL		
	Benzene	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200		
	Toluene	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200		
	Ethylbenzene	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200		
<b>Chloride by EPA 300</b>	m,p-Xylenes	<0.00397 0.00397	<0.00397 0.00397	<0.00400 0.00400		
	o-Xylene	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200		
	Total Xylenes	<0.001980 0.001980	<0.001980 0.001980	<0.002000 0.002000		
	Total BTEX	<0.001980 0.001980	<0.001980 0.001980	<0.002000 0.002000		
	<i>Extracted:</i>	12.01.2020 12:40	12.01.2020 12:40	12.01.2020 12:40		
	<i>Analyzed:</i>	12.01.2020 17:23	12.01.2020 17:28	12.01.2020 17:28		
<b>TPH by SW8015 Mod</b>	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL		
	Chloride	87.6 50.0	389 50.4	389 50.4		
	<i>Extracted:</i>	11.30.2020 17:00	11.30.2020 17:00	11.30.2020 17:00		
	<i>Analyzed:</i>	12.01.2020 04:49	12.01.2020 05:09	12.01.2020 05:09		
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL		
	Gasoline Range Hydrocarbons (GRO)	<50.2 50.2	<50.2 50.2	<50.0 50.0		
<b>Total TPH</b>	Diesel Range Organics (DRO)	<50.2 50.2	<50.2 50.2	<50.0 50.0		
	Motor Oil Range Hydrocarbons (MRO)	<50.2 50.2	<50.2 50.2	<50.0 50.0		
	Total TPH	<50.20 50.20	<50.20 50.20	<50.00 50.00		

Holly Taylor

BRL - Below Reporting Limit

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



# Analytical Report 679252

for

**Larson and Associates, Inc.**

**Project Manager: Mark Larson**

**Hayhurst 1720**

**19-0180-06**

**12.02.2020**

Collected By: Client

**1089 N Canal Street  
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):  
Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054)  
Oklahoma (2020-014), North Carolina (681), Arkansas (20-035-0)

Xenco-Dallas (EPA Lab Code: TX01468):  
Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18)  
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23)  
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21)  
Xenco-Carlsbad (LELAP): Louisiana (05092)  
Xenco-San Antonio (EPA Lab Code: TN102385): Texas (T104704534-20-8)  
Xenco-Tampa: Florida (E87429), North Carolina (483)



12.02.2020

Project Manager: **Mark Larson**  
**Larson and Associates, Inc.**  
P. O. Box 50685  
Midland, TX 79710

Reference: Eurofins Xenco, LLC Report No(s): **679252**  
**Hayhurst 1720**  
Project Address:

**Mark Larson :**

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 679252. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 679252 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Eurofins Xenco, LLC to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads "Holly Taylor".

---

**Holly Taylor**  
Project Manager

*A Small Business and Minority Company*

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico



## Sample Cross Reference 679252

**Larson and Associates, Inc., Midland, TX**

Hayhurst 1720

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
C'-6	S	11.30.2020 13:32		679252-001
N-SW	S	11.30.2020 13:30		679252-002





## CASE NARRATIVE

***Client Name: Larson and Associates, Inc.***

***Project Name: Hayhurst 1720***

Project ID: 19-0180-06  
Work Order Number(s): 679252

Report Date: 12.02.2020  
Date Received: 11.30.2020

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**Sample receipt non conformances and comments:**

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**Sample receipt non conformances and comments per sample:**

None



# Certificate of Analytical Results 679252

## Larson and Associates, Inc., Midland, TX

Hayhurst 1720

Sample Id: C'-6  
Lab Sample Id: 679252-001

Matrix: Soil  
Date Collected: 11.30.2020 13:32

Date Received: 11.30.2020 15:18

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.01.2020 12:40

% Moisture:  
Basis: Wet Weight

Seq Number: 3143660

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	87.6	50.0	mg/kg	12.01.2020 17:23		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 11.30.2020 17:00

% Moisture:  
Basis: Wet Weight

Seq Number: 3143563

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.2	50.2	mg/kg	12.01.2020 04:49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.2	50.2	mg/kg	12.01.2020 04:49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	12.01.2020 04:49	U	1
Total TPH	PHC635	<50.20	50.20	mg/kg	12.01.2020 04:49	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1-Chlorooctane	111-85-3	114	%	70-135	12.01.2020 04:49		
o-Terphenyl	84-15-1	116	%	70-135	12.01.2020 04:49		



# Certificate of Analytical Results 679252

## Larson and Associates, Inc., Midland, TX

Hayhurst 1720

Sample Id: C'-6  
Lab Sample Id: 679252-001

Matrix: Soil  
Date Collected: 11.30.2020 13:32

Date Received: 11.30.2020 15:18

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.01.2020 11:17

% Moisture:  
Basis: Wet Weight

Seq Number: 3143649

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	12.01.2020 17:27	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	12.01.2020 17:27	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	12.01.2020 17:27	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	12.01.2020 17:27	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	12.01.2020 17:27	U	1
Total Xylenes	1330-20-7	<0.001980	0.001980	mg/kg	12.01.2020 17:27	U	1
Total BTEX		<0.001980	0.001980	mg/kg	12.01.2020 17:27	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.01.2020 17:27		
4-Bromofluorobenzene	460-00-4	113	%	70-130	12.01.2020 17:27		



# Certificate of Analytical Results 679252

## Larson and Associates, Inc., Midland, TX

Hayhurst 1720

Sample Id: N-SW  
Lab Sample Id: 679252-002

Matrix: Soil  
Date Collected: 11.30.2020 13:30

Date Received: 11.30.2020 15:18

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: MAB

Analyst: MAB

Date Prep: 12.01.2020 12:40

% Moisture:  
Basis: Wet Weight

Seq Number: 3143660

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	389	50.4	mg/kg	12.01.2020 17:28		5

Analytical Method: TPH by SW8015 Mod

Prep Method: SW8015P

Tech: MAB

Analyst: CAC

Date Prep: 11.30.2020 17:00

% Moisture:  
Basis: Wet Weight

Seq Number: 3143563

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<50.0	50.0	mg/kg	12.01.2020 05:09	U	1
Diesel Range Organics (DRO)	C10C28DRO	<50.0	50.0	mg/kg	12.01.2020 05:09	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	12.01.2020 05:09	U	1
Total TPH	PHC635	<50.00	50.00	mg/kg	12.01.2020 05:09	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1-Chlorooctane	111-85-3	103	%	70-135	12.01.2020 05:09		
o-Terphenyl	84-15-1	110	%	70-135	12.01.2020 05:09		





# Certificate of Analytical Results 679252

## Larson and Associates, Inc., Midland, TX

Hayhurst 1720

Sample Id: N-SW  
Lab Sample Id: 679252-002

Matrix: Soil  
Date Collected: 11.30.2020 13:30

Date Received: 11.30.2020 15:18

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5035A

Tech: MAB

Analyst: MAB

Date Prep: 12.01.2020 11:17

% Moisture:  
Basis: Wet Weight

Seq Number: 3143649

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	12.01.2020 17:50	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	12.01.2020 17:50	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	12.01.2020 17:50	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	12.01.2020 17:50	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	12.01.2020 17:50	U	1
Total Xylenes	1330-20-7	<0.002000	0.002000	mg/kg	12.01.2020 17:50	U	1
Total BTEX		<0.002000	0.002000	mg/kg	12.01.2020 17:50	U	1
<b>Surrogate</b>	<b>Cas Number</b>	<b>% Recovery</b>	<b>Units</b>	<b>Limits</b>	<b>Analysis Date</b>	<b>Flag</b>	
1,4-Difluorobenzene	540-36-3	102	%	70-130	12.01.2020 17:50		
4-Bromofluorobenzene	460-00-4	113	%	70-130	12.01.2020 17:50		

## Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

\*\* Surrogate recovered outside laboratory control limit.

**BRL** Below Reporting Limit.      **ND** Not Detected.

**RL** Reporting Limit

**MDL** Method Detection Limit      **SDL** Sample Detection Limit      **LOD** Limit of Detection

**PQL** Practical Quantitation Limit      **MQL** Method Quantitation Limit      **LOQ** Limit of Quantitation

**DL** Method Detection Limit

**NC** Non-Calculable

**SMP** Client Sample      **BLK** Method Blank

**BKS/LCS** Blank Spike/Laboratory Control Sample      **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

**MD/SD** Method Duplicate/Sample Duplicate      **MS** Matrix Spike      **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

\* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



**Larson and Associates, Inc.**  
Hayhurst 1720

**Analytical Method: Chloride by EPA 300**

Seq Number: 3143660

MB Sample Id: 7716174-1-BLK

Matrix: Solid

LCS Sample Id: 7716174-1-BKS

Prep Method: E300P

Date Prep: 12.01.2020

LCSD Sample Id: 7716174-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	241	96	239	96	90-110	1	20	mg/kg	12.01.2020 16:14	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3143660

Parent Sample Id: 679158-041

Matrix: Soil

MS Sample Id: 679158-041 S

Prep Method: E300P

Date Prep: 12.01.2020

MSD Sample Id: 679158-041 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	306	200	493	94	485	90	90-110	2	20	mg/kg	12.01.2020 16:31	

**Analytical Method: Chloride by EPA 300**

Seq Number: 3143660

Parent Sample Id: 679266-002

Matrix: Soil

MS Sample Id: 679266-002 S

Prep Method: E300P

Date Prep: 12.01.2020

MSD Sample Id: 679266-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	58.9	200	255	98	248	94	90-110	3	20	mg/kg	12.01.2020 17:44	

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3143563

MB Sample Id: 7716127-1-BLK

Matrix: Solid

LCS Sample Id: 7716127-1-BKS

Prep Method: SW8015P

Date Prep: 11.30.2020

LCSD Sample Id: 7716127-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<50.0	1000	1050	105	1010	101	70-135	4	35	mg/kg	12.01.2020 02:28	
Diesel Range Organics (DRO)	<50.0	1000	1150	115	1200	120	70-135	4	35	mg/kg	12.01.2020 02:28	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	108		113		128		70-135	%	12.01.2020 02:28
o-Terphenyl	110		122		120		70-135	%	12.01.2020 02:28

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3143563

Matrix: Solid

MB Sample Id: 7716127-1-BLK

Prep Method: SW8015P

Date Prep: 11.30.2020

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	12.01.2020 02:08	

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * |(C - E) / (C + E)|$   
 $[D] = 100 * (C) / [B]$   
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample  
 A = Parent Result  
 C = MS/LCS Result  
 E = MSD/LCSD Result

MS = Matrix Spike  
 B = Spike Added  
 D = MSD/LCSD % Rec



**Larson and Associates, Inc.**  
Hayhurst 1720

**Analytical Method: TPH by SW8015 Mod**

Seq Number: 3143563

Parent Sample Id: 679040-003

Matrix: Soil

MS Sample Id: 679040-003 S

Prep Method: SW8015P

Date Prep: 11.30.2020

MSD Sample Id: 679040-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<49.9	997	1110	111	1070	106	70-135	4	35	mg/kg	12.01.2020 03:29	
Diesel Range Organics (DRO)	<49.9	997	1080	108	991	98	70-135	9	35	mg/kg	12.01.2020 03:29	

**Surrogate**

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	111		103		70-135	%	12.01.2020 03:29
o-Terphenyl	100		108		70-135	%	12.01.2020 03:29

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3143649

MB Sample Id: 7716203-1-BLK

Matrix: Solid

LCS Sample Id: 7716203-1-BKS

Prep Method: SW5035A

Date Prep: 12.01.2020

LCSD Sample Id: 7716203-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0953	95	0.0933	93	70-130	2	35	mg/kg	12.01.2020 12:46	
Toluene	<0.00200	0.100	0.0921	92	0.0885	89	70-130	4	35	mg/kg	12.01.2020 12:46	
Ethylbenzene	<0.00200	0.100	0.0950	95	0.0910	91	71-129	4	35	mg/kg	12.01.2020 12:46	
m,p-Xylenes	<0.00400	0.200	0.197	99	0.189	95	70-135	4	35	mg/kg	12.01.2020 12:46	
o-Xylene	<0.00200	0.100	0.0984	98	0.0939	94	71-133	5	35	mg/kg	12.01.2020 12:46	

**Surrogate**

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		97		100		70-130	%	12.01.2020 12:46
4-Bromofluorobenzene	115		109		107		70-130	%	12.01.2020 12:46

**Analytical Method: BTEX by EPA 8021B**

Seq Number: 3143649

Parent Sample Id: 679158-041

Matrix: Soil

MS Sample Id: 679158-041 S

Prep Method: SW5035A

Date Prep: 12.01.2020

MSD Sample Id: 679158-041 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.106	106	0.101	101	70-130	5	35	mg/kg	12.01.2020 13:31	
Toluene	<0.00200	0.100	0.0999	100	0.0935	94	70-130	7	35	mg/kg	12.01.2020 13:31	
Ethylbenzene	<0.00200	0.100	0.102	102	0.0992	99	71-129	3	35	mg/kg	12.01.2020 13:31	
m,p-Xylenes	<0.00401	0.200	0.211	106	0.201	100	70-135	5	35	mg/kg	12.01.2020 13:31	
o-Xylene	<0.00200	0.100	0.104	104	0.0974	97	71-133	7	35	mg/kg	12.01.2020 13:31	

**Surrogate**

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	101		97		70-130	%	12.01.2020 13:31
4-Bromofluorobenzene	116		110		70-130	%	12.01.2020 13:31

MS/MSD Percent Recovery  
Relative Percent Difference  
LCS/LCSD Recovery  
Log Difference

$[D] = 100 * (C - A) / B$   
 $RPD = 200 * |(C - E) / (C + E)|$   
 $[D] = 100 * (C) / [B]$   
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample  
 A = Parent Result  
 C = MS/LCS Result  
 E = MSD/LCSD Result

MS = Matrix Spike  
 B = Spike Added  
 D = MSD/LCSD % Rec



**Marson & Associates, Inc.**  
Environmental Consultants

507 N. Marienfeld, Ste. 200  
Midland, TX 79701  
432-687-0901

CHAIN-OF-CUSTODY

DATE: 11/30/20

PAGE 1 OF 1

PO#:

LAB WORK ORDER#:

PROJECT LOCATION OR NAME: Highway 1720

LAI PROJECT #: 19-0180-06

COLLECTOR: JT

Data Reported to:

TRRP report?  
☐ Yes ☒ No

S=SOIL  
W=WATER  
A=AIR  
P=PAINT  
SL=SLUDGE  
OT=OTHER

TIME ZONE:  
Time zone/State:

MST

Field  
Sample I.D.

Lab #

Date

Time

Matrix

# of Containers

HCl

HNO<sub>3</sub>

H<sub>2</sub>SO<sub>4</sub> ☐ NaOH ☐

ICE

UNPRESSERVED

**ANALYSES**

BTEX ☒ MTBE ☐  
TPH 418.1 ☐ TPH 1005 ☐ TPH 1006 ☐  
GASOLINE MOD 8015 ☒  
DIESEL - MOD 8015 ☒  
OIL - MOD 8015 ☒  
VOC 8260 ☐  
SVOC 8270 ☐ PAH 8270 ☐ HOLDPAH ☐  
8081 PESTICIDES ☐ 8151 HERBICIDES ☐  
TBLP - METALS (RCRA) ☐ TCLP VOC ☐  
TCLP - PEST ☐ HERB ☐ Semi-VOC ☐  
TOTAL METALS (RCRA) ☐ D.W. 200.8 ☐ TCLP ☐  
LEAD - TOTAL ☐ FLASHPOINT ☐  
RCL ☐ TOX ☐ % MOISTURE ☐ CYANIDE ☐  
TDS ☐ TSS ☐ HEXAVALENT CHROMIUM ☐  
PH ☐ EXPLOSIVES ☐ PECHLORATE ☐  
CHLORIDE ☒ ANIONS ☐ ALKALINITY ☐

FIELD NOTES

C-6

11/30/20

1332

5

1

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

X

TOTAL 2

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

DATE/TIME

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

DATE/TIME

RELINQUISHED BY: (Signature)

DATE/TIME

RECEIVED BY: (Signature)

DATE/TIME

LABORATORY: Xeno

TURN AROUND TIME

NORMAL ☒

1 DAY ☐

2 DAY ☐

OTHER ☐

LABORATORY USE ONLY:

RECEIVING TEMP: 1.4/1.2 THERM#: TMM-007

CUSTODY SEALS - ☐ BROKEN ☐ INTACT ☐ NOT USED

CARRIER BILL #

☐ HAND DELIVERED

679252

No 1428

# Eurofins Xenco, LLC

## Prelogin/Nonconformance Report- Sample Log-In

Client: Larson and Associates, Inc.

Date/ Time Received: 11.30.2020 03.18.00 PM

Work Order #: 679252

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T\_NM\_007

Sample Receipt Checklist	Comments
#1 *Temperature of cooler(s)?	1.2
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

Samples received in bulk containers.

\* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:



Cloe Clifton

Date: 11.30.2020

Checklist reviewed by:



Holly Taylor

Date: 12.01.2020

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS  
  
Action 13577

CONDITIONS OF APPROVAL

Operator:	CHEVRON U S A INC	6301 Deauville Blvd	Midland, TX79706	OGRID:	4323	Action Number:	13577	Action Type:	C-141
OCD Reviewer									Condition
ceads									None