District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	1RP-5146
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party COG Operating LLC	OGRID 229137
Contact Name Robert McNeill	Contact Telephone 432-683-7443
Contact email rmcneill@concho.com	Incident # *(assigned by OCD)*
Contact mailing address 600 West Illinois Avenue, Midland, TX 79701	

Location of Release Source

Latitude 32.52454 Longitude -103.49930
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Stratojet 31 State Com #007H	Site Type Wellhead
Date Release Discovered 8/4/2018	API# *(if applicable) 30-025-43792*

Unit Letter	Section	Township	Range	County
N	31	20S	35E	Lea

Surface Owner: ☒ State ☐ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☒ Crude Oil	Volume Released (bbls) 10	Volume Recovered (bbls) 7
☒ Produced Water	Volume Released (bbls) 7	Volume Recovered (bbls) 3
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☒ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release Leak in union off of pump tee		

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	1RP-5146
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☒ No	If YES, for what reason(s) does the responsible party consider this a major release? 19.15.29.7(1): Major Release is any release of a volume of 25 barrels or more This release was less than 25 bbls
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped.

☒ The impacted area has been secured to protect human health and the environment.

☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☒ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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: Jennifer Knowlton Title: HRL Compliance Solutions, Regional Manager

Signature: Jennifer Knowlton Date: _____

email: jknowlton@hrlcomp.com Telephone: 505-238-3588

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	1RP-5146
Facility ID	
Application ID	

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?	>100 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ 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)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ 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?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ 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

Incident ID	
District RP	1RP-5146
Facility ID	
Application ID	

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: Jennifer Knowlton Title: HRL Compliance Solutions, Regional Manager

Signature: Jennifer Knowlton Date: _____

email: jknowlton@hrlcomp.com Telephone: 505-238-3588

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	1RP-5146
Facility ID	
Application ID	

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: Jennifer Knowlton Title: HRL Compliance Solutions, Regional Manager

Signature: Jennifer Knowlton Date: _____

email: jknowlton@hrlcomp.com Telephone: 505-238-3588

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	1RP-5146
Facility ID	
Application ID	

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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

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: _____

REVIEWED
By Olivia Yu at 8:30 am, Nov 06, 2018

HRL COMPLIANCE SOLUTIONS
P.O. Box 1708 • Artesia, NM 88211
www.hrlcomp.com

1RP-5146

SUBJECT: SOIL REMEDIATION PLAN FOR THE INCIDENT AT THE Stratojet 31 State Com 007H, LEA COUNTY, NEW MEXICO

On behalf of COG Operating, LLC, HRL Compliance Solutions, Inc (HRL) has prepared this remediation plan that describes the assessment, characterization, and proposed remediation for a release associated with the Stratojet 31 State Com 007H. The site is in Unit N, SECTION 31, TOWNSHIP 20S, RANGE 35E, NMPM, Lea County, New Mexico, on State land.

Site Assessment/Characterization

An assessment of surrounding water well information identifies over 10 water wells within a 3-mile buffer. Depth to water at this site is estimated to be greater than 100 feet at the location. This information is illustrated in Attachment A.

There are no features of concern identified within proximity of the site. There is no flowing watercourse or significant watercourse within 300 feet of this location. There is no lakebed, sinkhole, or playa lake within 200 feet for this location. This location is not within 300 feet of an occupied permanent residence, school, hospital, institution, or church. This location is not with 500 feet for a spring or domestic freshwater well. This facility is not within incorporated municipal boundaries or within a defined municipal freshwater well field. This is illustrated in Attachment B.

An assessment of wetlands and springs was performed using USGS National Water Information System and re-verified utilizing a 7.5-minute topographical map There are no wetlands with 300 feet of this location. There are no springs within 1000 feet of this location. This map is in Attachment B.

This facility is not within a 100-year floodplain as per FEMA, Flood Hazard Zone D. A portion of the FEMA map is in Attachment B.

This location is not located in an area identified in an unstable karst geology area. An area map generated with data from the USGS showing geologic units and structural features is in Attachment B.

Upon receiving clearance from the underground utility locate (811) on August 27, 2018, HRL field personnel assessed the impacted area. Samples were collected on 8/27/2018 to characterize the extent of impacts and calculate a volume of soil to be excavated for disposal with a backhoe. All samples were collected and analyzed at a National Environmental Laboratory Accreditation Program (NELAP) laboratory and in accordance with NMOCD soil sampling procedures. The samples were submitted to Hall Laboratories for analyses including chlorides by Method 300.0, volatile organics (BTEX) by Method 8021B, and MRO, DRO, and GRO by EPA Method 8015B. Sample locations are depicted in Attachment C. All laboratory results are summarized in Table 1 with raw analytical reports included in Attachment D.

Table 1: Analytical Results Summary

Stratojet 31 State Com 007H								
Sample ID	Date	Chloride mg/Kg	Benzene mg/Kg	BTEX mg/Kg	GRO mg/kg	DRO mg/kg	MRO mg/kg	TPH mg/Kg
S1- Surface	8/28/2018	4,500	ND	ND	52	**5800**	**2300**	**8152**
S1-1'	8/28/2018	5,400	ND	ND	ND	65	ND	65
S1-2'	8/28/2018	1,800	ND	ND	ND	19	ND	19
S1-3'	8/28/2018	910	-	-	-	-	-	-
S2 Surface	8/28/2018	310	ND	28.4	**1100**	**15000**	**4400**	**20500**
S2-1'	8/28/2018	560	ND	0.72	68	1200	440	1708
S2-2'	8/28/2018	520	ND	2.88	180	**4200**	**1500**	**5880**
S3 Surface	8/28/2018	1,800	ND	ND	ND	1300	640	1940
S3-1'	8/28/2018	1,300	ND	ND	ND	ND	ND	ND
S3-2'	8/28/2018	600	ND	ND	ND	14	ND	14
S4 Surface	8/28/2018	290	ND	ND	ND	15	ND	15
S4-1'	8/28/2018	71	ND	ND	ND	ND	ND	ND
S4-2'	8/28/2018	75	ND	ND	ND	ND	ND	ND
S4-3'	8/28/2018	2,600	-	-	-	-	-	-
S5 Surface	8/28/2018	320	2.5	145.5	**2900**	**12000**	**3600**	**18500**
S5-1'	8/28/2018	2,800	ND	14	350	**1100**	**390**	**1840**
S5-2'	8/28/2018	2,100	ND	0.302	120	**1300**	**670**	**2090**
S5-3'	8/28/2018	2,000	-	-	-	-	-	-
EAST	8/28/2018	99	ND	ND	ND	ND	ND	ND
WEST	8/28/2018	900	ND	ND	ND	120	81	201
NORTH	8/28/2018	430	ND	ND	ND	ND	ND	ND
SOUTH	8/28/2018	66	ND	ND	ND	21	100	121

Closure Criteria Assessment

Closure Criteria		
Depth to Ground Water	**Constituent**	**Limit**
>100 feet	Chloride	20,000 mg/kg
	TPH (GRO+DRO+MRO)	2,500 mg/kg
	GRO+DRO	1,000 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

Remediation Plan

The areas around SP1 and SP3 will be excavated to approximately 1-foot depth. The areas around SP2 and SP5 will be excavated to an approximate depth of 2 foot or to refusal. During the delineation, progression wasn't possible beyond 2 feet at either location. The areas and excavated yardages may be adjusted during the excavation depending on field screenings. The total estimated volume of material to be removed is 407. A five-point composite sample will be collected from the bottom of each excavation area and four side wall samples will be collected from the total excavation.

Concho is requesting a deferment of some areas of soil removal. Per 19.15.29.12.C(2), if the contamination is in areas immediately under or around production equipment such as production tanks, wellheads and pipelines were remediation could cause a major facility deconstruction, the remediation may be deferred with approval until the equipment is removed.

The area of contamination is around the wellhead with known electric lines running through the contamination area. Concho will remove what contamination can be safely removed and leave some in place in protect equipment and electric lines.

Remediation is scheduled to begin within 90 days of approval of this remediation plan.

Restoration, Reclamation, and Revegetation

All impacted areas are within an active production pad. The area will be stabilized to prevent erosion.

If there are any questions regarding this report, please contact Jennifer Knowlton at 505-238-3588.

Submitted by:
HRL Compliance Solutions, Inc

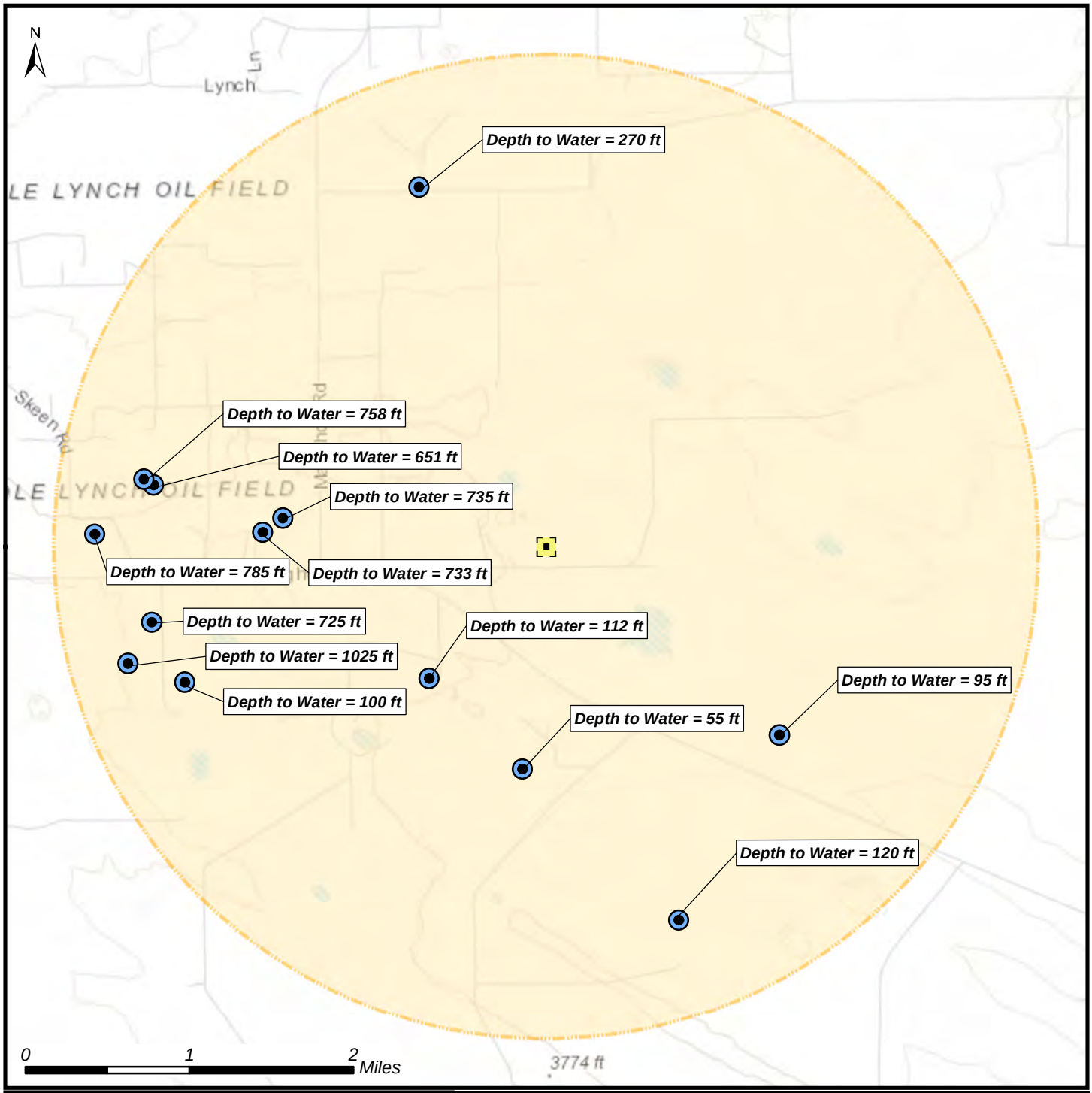
Jennifer Knowlton
Regional Manager - Permian

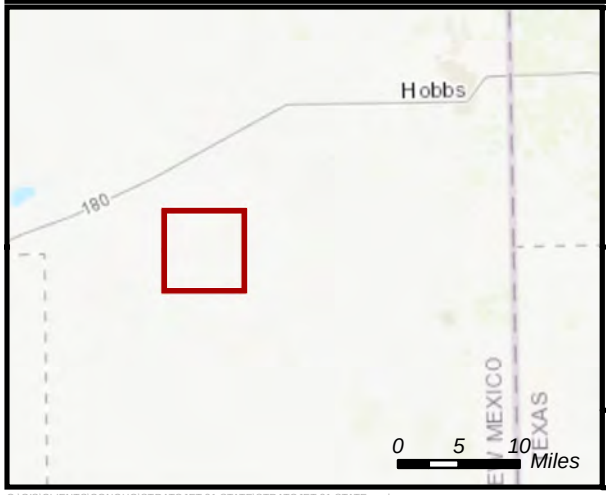
Attachments:

Attachment A: NMOSE Depth to Water Map and Report
Attachment B: Site Location Map
Wetlands Map
Floodplain Map
Karst Area Map
Attachment C: Sample Location Map
Attachment D: Laboratory Analytical Reports

Attachment A:

NMOSE Depth to Water Map and Report





CONCHO

Site Location Map

STRATOJET 31 STATE COM 007H

32.524537 -103.499301

Section 31, Township 20 South, Range 35 East

Legend

- Water Well
- 3 Mile Buffer
- Stratojet 31 State COM 007H

DISCLAIMER: This representation and the Geographic Information System (GIS) used to create it are designed as a source of reference and not intended to replace official records and/or legal surveys. HCSI assumes no responsibility for any risks, dangers, or liabilities that may result from its use and makes no guarantees as to the quality or accuracy of the underlying data.

HRL COMPLIANCE SOLUTIONS

Author: K. Fox
Revision: 0
Date: 9/26/2018

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New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 00611	CP	LE		2	1	06	21S	34E	639838	3598306*	1635	118	112	6
CP 00791	CP	LE	4	2	4	06	21S	34E	640754	3597413*	2107	85	55	30
CP 01334 POD1	CP	LE	1	2	4	35	20S	34E	638402	3599879	2567	1253	733	520
CP 01335 POD1	CP	LE	4	1	4	35	20S	34E	638205	3599736	2746	1307	735	572
CP 00489	CP	LE				04	21S	34E	643274	3597749*	2922	125	95	30
CP 01204 POD1	CP	LE	3	1	1	25	20S	34E	638755	3602250	3505	370		
CP 00579	CP	LE		2	2	02	21S	33E	637438	3598269*	3718	125	100	25
CP 00665	CP	LE		1	4	24	20S	34E	639740	3603128*	3811	698	270	428
CP 00498	CP	LE		2	4	08	21S	34E	642287	3595932*	3823	145	120	25
CP 00803 POD1	CP	LE	3	2	2	02	21S	33E	637337	3598168*	3848	1100		
CP 00804 POD1	CP	LE	3	2	2	02	21S	33E	637337	3598168*	3848	170		
CP 01288 POD1	CP	LE	4	4	2	34	20S	34E	637134	3600204	3871	1255	758	497
CP 01290 POD1	CP	LE		3	1	02	21S	33E	637114	3598855	3885	1250	725	525
CP 00796 POD1	CP	LE	2	2	4	02	21S	33E	637548	3597564*	3913	102		
CP 01316 POD1	CP	LE	3	2	4	02	21S	33E	637432	3597709	3946	1370		
CP 01289 POD1	CP	LE	4	4	2	34	20S	34E	637037	3600261	3977	1222	651	571
CP 00802 POD1	CP	LE	3	3	2	02	21S	33E	637001	3598672	4030	1154		
CP 00797 POD1	CP	LE	1	2	4	02	21S	33E	637348	3597564*	4088	110		
CP 01317 POD1	CP	LE	1	3	2	02	21S	33E	636884	3598450	4195	1250	1025	225
CP 00799 POD1	CP	LE	4	3	4	34	20S	34E	636666	3599364*	4279	100		
CP 01352 POD1	CP	LE	3	1	4	34	20S	34E	636559	3599716	4388	1270	785	485

***UTM location was derived from PLSS - see Help**

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

Average Depth to Water: **474 feet**

Minimum Depth: **55 feet**

Maximum Depth: **1025 feet**

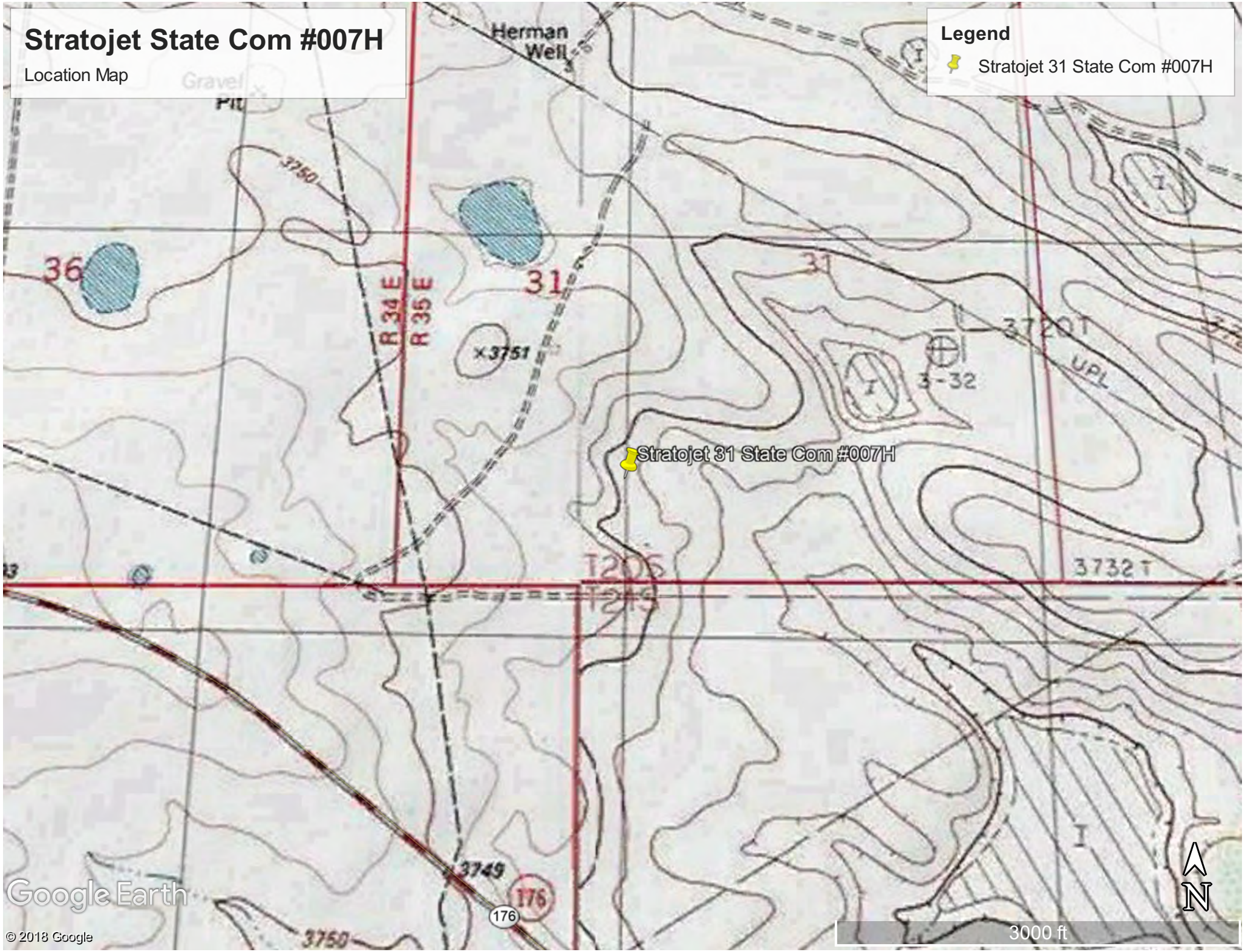
Record Count: 21

UTMNAD83 Radius Search (in meters):

Easting (X): 640942.98 **Northing (Y):** 3599511.63 **Radius:** 4828

Attachment B:

Site Location Map
Wetlands Map
Floodplain Map
Karst Area Map


Stratojet State Com #007H
Location Map
Legend
Stratojet 31 State Com #007H
Herman Well
Gravel Pit
3750
36
31
R 34 E
R 35 E
×3751
3720T
UPL
3-32
Stratojet 31 State Com #007H
T20S
T21S
3732T
3749
176
3750
Google Earth
© 2018 Google
N
3000 ft

U.S. Fish and Wildlife Service
National Wetlands Inventory

Stratojet 31 State Com #007H

September 25, 2018

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

FEMA NFHL

Stratojet 31 State Com #007H

N

REFERENCE LAYERS
NFHL Data Available
FIRM Panel Boundary
LOMR Boundary

SPECIAL FLOOD HAZARD AREAS
1% Annual Chance Flood Hazard
Zone A, AE, A99, AO, AH, AR, V, VE
Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
0.2% Annual Chance Flood Hazard
Zone X
Future Conditions 1% Annual Chance Flood Hazard Zone X
Area with Reduced Flood Risk due to Levee Zone X
NO SCREEN Areas Outside the 0.2% Annual Chance Floodplain Zone X
Areas of Undetermined Flood Hazard Zone D

CROSS SECTIONS & BFES
Cross Sections with 1% Annual Chance Water Surface Elevation
Coastal Transect
Coastal Transect Baseline
Profile Baseline
Base Flood Elevation

SUPPORTING INFORMATION
Limit of Study
Jurisdictional Boundary

© 2018 Google

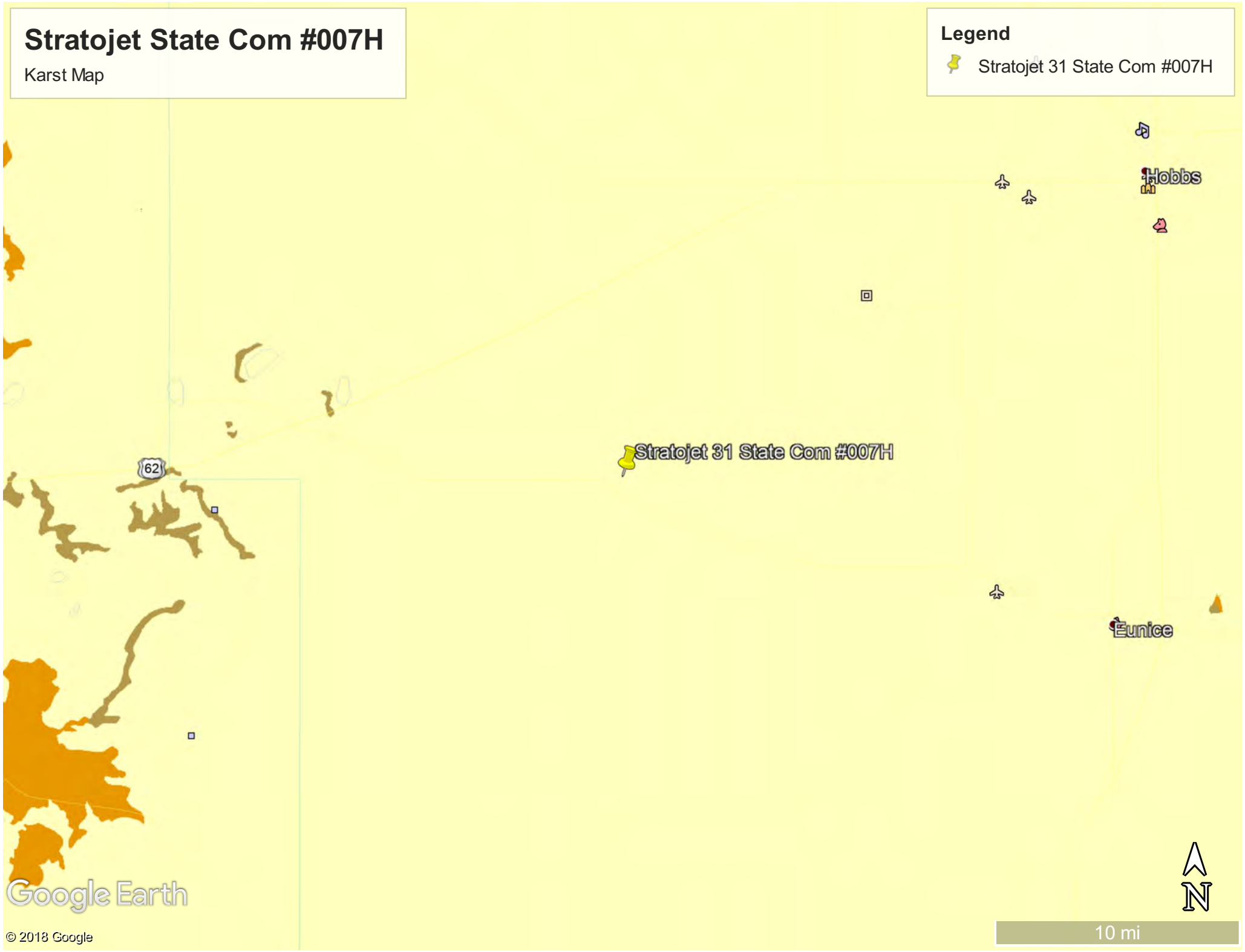
Google Earth

1996

Imagery Date: 11/2/2017 32°31'28.44" N 103°29'57.58" W elev 3730 ft eye alt 7207 ft

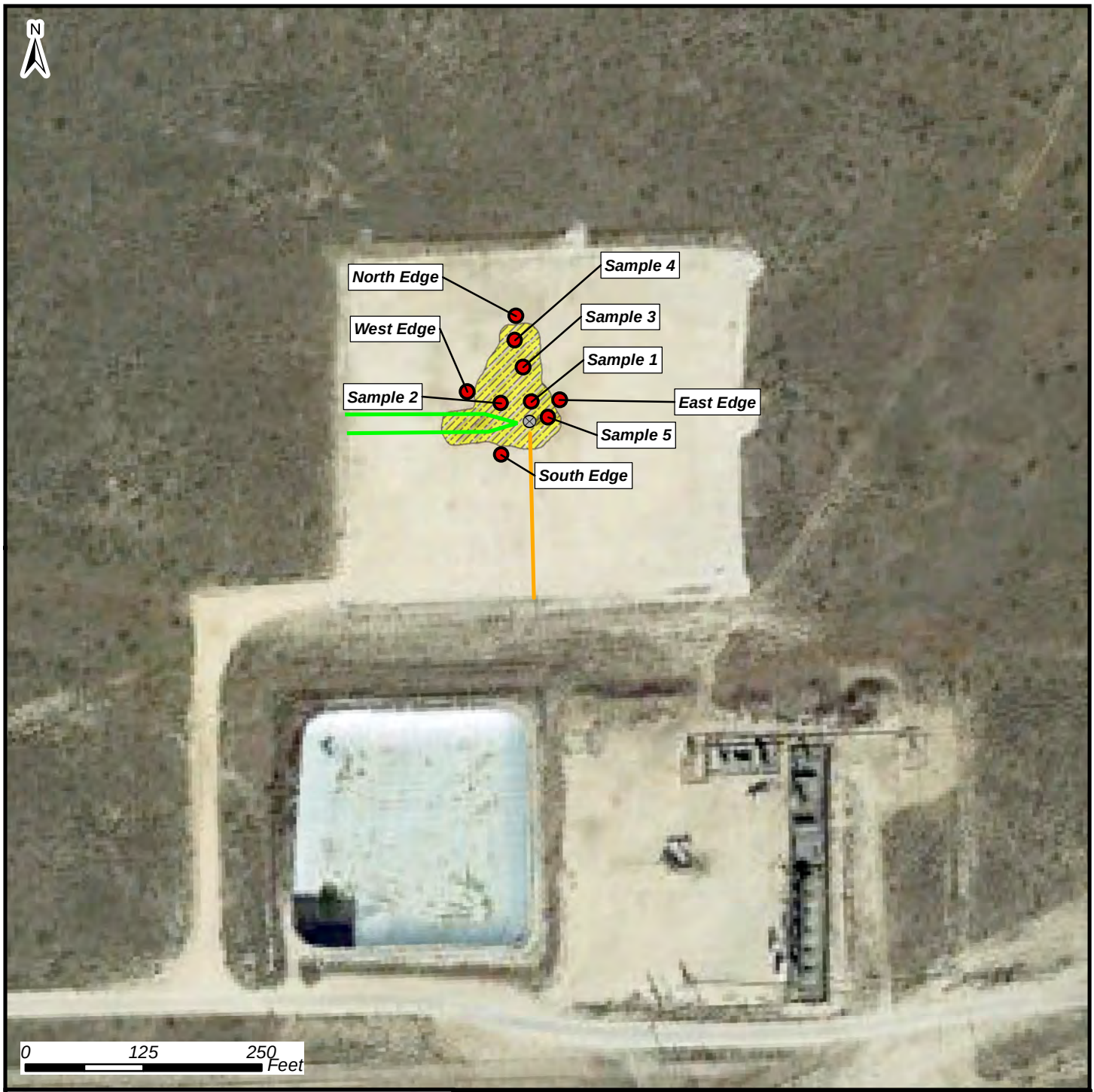
Stratojet State Com #007H

Karst Map



Attachment C:

Sample Location Map



CONCHO

Sample Location Map

Stratojet 31 State Com #007H

32.524537 -103.499301

Section 31, Township 20 South, Range 35 East

Mapped Features

- Sample Locations
- Wellhead
- Electric Lines
- Flowline
- Impacted Area

DISCLAIMER: This representation and the Geographic Information System (GIS) used to create it are designed as a source of reference and not intended to replace official records and/or legal surveys. HRL assumes no responsibility for any risks, dangers, or liabilities that may result from its use and makes no guarantees as to the quality or accuracy of the underlying data.

HRL COMPLIANCE SOLUTIONS

Author: A. Asay

Revision: 0

Date: 9/6/2018

T:\CLIENTS\CONCHO\2018\Stratojet 31 State Com #007H\SRW\Stratojet 31 State Com #007H Sample Location Map 090618.mxd

Attachment D:

Laboratory Analytical Reports

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

September 17, 2018

Jennifer Knowlton

Concho
600 W Illinois Ave
Midland, TX 79701
TEL: (505) 238-3588
FAX

RE: Stratojet 31 State Com 007H OrderNo.: 1808J10

Dear Jennifer Knowlton:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/31/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1808J10**
Date Reported: **9/17/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Concho
Client Sample ID: East
Project: Stratojet 31 State Com 007H
Collection Date: 8/28/2018
Lab ID: 1808J10-001 **Matrix:** SOIL
Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/6/2018 9:41:18 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/6/2018 9:41:18 PM
Surr: DNOP	63.6	50.6-138		%Rec	1	9/6/2018 9:41:18 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	99	30		mg/Kg	20	9/13/2018 1:07:22 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	9/6/2018 5:48:36 AM
Toluene	ND	0.048		mg/Kg	1	9/6/2018 5:48:36 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/6/2018 5:48:36 AM
Xylenes, Total	ND	0.096		mg/Kg	1	9/6/2018 5:48:36 AM
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	9/6/2018 5:48:36 AM
Surr: Toluene-d8	92.9	70-130		%Rec	1	9/6/2018 5:48:36 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/6/2018 2:39:58 PM
Surr: BFB	101	70-130		%Rec	1	9/6/2018 2:39:58 PM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Concho
Client Sample ID: West
Project: Stratojet 31 State Com 007H
Collection Date: 8/28/2018
Lab ID: 1808J10-002 **Matrix:** SOIL
Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	120	9.4		mg/Kg	1	9/6/2018 10:03:13 PM
Motor Oil Range Organics (MRO)	81	47		mg/Kg	1	9/6/2018 10:03:13 PM
Surr: DNOP	82.6	50.6-138		%Rec	1	9/6/2018 10:03:13 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	900	30		mg/Kg	20	9/13/2018 5:02:52 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	9/6/2018 6:11:42 AM
Toluene	ND	0.049		mg/Kg	1	9/6/2018 6:11:42 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/6/2018 6:11:42 AM
Xylenes, Total	ND	0.097		mg/Kg	1	9/6/2018 6:11:42 AM
Surr: 4-Bromofluorobenzene	122	70-130		%Rec	1	9/6/2018 6:11:42 AM
Surr: Toluene-d8	98.8	70-130		%Rec	1	9/6/2018 6:11:42 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/6/2018 6:11:42 AM
Surr: BFB	110	70-130		%Rec	1	9/6/2018 6:11:42 AM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Concho
Client Sample ID: South
Project: Stratojet 31 State Com 007H
Collection Date: 8/28/2018
Lab ID: 1808J10-003 **Matrix:** SOIL
Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	21	9.5		mg/Kg	1	9/6/2018 10:25:14 PM
Motor Oil Range Organics (MRO)	100	48		mg/Kg	1	9/6/2018 10:25:14 PM
Surr: DNOP	85.2	50.6-138		%Rec	1	9/6/2018 10:25:14 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	67	30		mg/Kg	20	9/13/2018 5:40:06 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.023		mg/Kg	1	9/6/2018 6:34:45 AM
Toluene	ND	0.046		mg/Kg	1	9/6/2018 6:34:45 AM
Ethylbenzene	ND	0.046		mg/Kg	1	9/6/2018 6:34:45 AM
Xylenes, Total	ND	0.093		mg/Kg	1	9/6/2018 6:34:45 AM
Surr: 4-Bromofluorobenzene	120	70-130		%Rec	1	9/6/2018 6:34:45 AM
Surr: Toluene-d8	97.3	70-130		%Rec	1	9/6/2018 6:34:45 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/6/2018 6:34:45 AM
Surr: BFB	107	70-130		%Rec	1	9/6/2018 6:34:45 AM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Concho
Client Sample ID: North
Project: Stratojet 31 State Com 007H
Collection Date: 8/28/2018
Lab ID: 1808J10-004 **Matrix:** SOIL
Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/6/2018 10:47:09 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/6/2018 10:47:09 PM
Surr: DNOP	79.5	50.6-138		%Rec	1	9/6/2018 10:47:09 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	430	30		mg/Kg	20	9/13/2018 5:52:31 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	9/6/2018 6:57:50 AM
Toluene	ND	0.048		mg/Kg	1	9/6/2018 6:57:50 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/6/2018 6:57:50 AM
Xylenes, Total	ND	0.095		mg/Kg	1	9/6/2018 6:57:50 AM
Surr: 4-Bromofluorobenzene	125	70-130		%Rec	1	9/6/2018 6:57:50 AM
Surr: Toluene-d8	98.1	70-130		%Rec	1	9/6/2018 6:57:50 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/6/2018 6:57:50 AM
Surr: BFB	111	70-130		%Rec	1	9/6/2018 6:57:50 AM

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1808J10**

17-Sep-18

Client: Concho

Project: Stratojet 31 State Com 007H

Sample ID	**MB-40318**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**40318**	RunNo:	**54103**				
Prep Date:	**9/12/2018**	Analysis Date:	**9/12/2018**	SeqNo:	**1788940**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-40318**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**40318**	RunNo:	**54103**				
Prep Date:	**9/12/2018**	Analysis Date:	**9/12/2018**	SeqNo:	**1788941**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.5	90	110			

Sample ID	**MB-40339**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**PBS**	Batch ID:	**40339**	RunNo:	**54128**				
Prep Date:	**9/13/2018**	Analysis Date:	**9/13/2018**	SeqNo:	**1791588**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-40339**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**				
Client ID:	**LCSS**	Batch ID:	**40339**	RunNo:	**54128**				
Prep Date:	**9/13/2018**	Analysis Date:	**9/13/2018**	SeqNo:	**1791589**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.7	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1808J10**

17-Sep-18

Client: Concho

Project: Stratojet 31 State Com 007H

Sample ID	**MB-40152**	SampType:	**MBLK**	TestCode:	**EPA Method 8015M/D: Diesel Range Organics**
Client ID:	**PBS**	Batch ID:	**40152**	RunNo:	**53970**
Prep Date:	**9/5/2018**	Analysis Date:	**9/6/2018**	SeqNo:	**1782303** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	11		10.00		108	50.6	138			

Sample ID	**LCS-40152**	SampType:	**LCS**	TestCode:	**EPA Method 8015M/D: Diesel Range Organics**
Client ID:	**LCSS**	Batch ID:	**40152**	RunNo:	**53970**
Prep Date:	**9/5/2018**	Analysis Date:	**9/6/2018**	SeqNo:	**1782317** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.6	70	130			
Surr: DNOP	4.9		5.000		98.6	50.6	138			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1808J10**

17-Sep-18

Client: Concho

Project: Stratojet 31 State Com 007H

Sample ID	**lcs-40132**	SampType:	**LCS4**	TestCode:	**EPA Method 8260B: Volatiles Short List**
Client ID:	**BatchQC**	Batch ID:	**40132**	RunNo:	**53926**
Prep Date:	**9/4/2018**	Analysis Date:	**9/5/2018**	SeqNo:	**1781359** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.3	80	120			
Toluene	0.98	0.050	1.000	0	98.2	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	0.55		0.5000		111	70	130			
Surr: Toluene-d8	0.47		0.5000		94.4	70	130			

Sample ID	**mb-40132**	SampType:	**MBLK**	TestCode:	**EPA Method 8260B: Volatiles Short List**
Client ID:	**PBS**	Batch ID:	**40132**	RunNo:	**53926**
Prep Date:	**9/4/2018**	Analysis Date:	**9/5/2018**	SeqNo:	**1781360** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.60		0.5000		120	70	130			
Surr: Toluene-d8	0.48		0.5000		96.9	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1808J10**

17-Sep-18

Client: Concho

Project: Stratojet 31 State Com 007H

Sample ID	**lcs-40132**	SampType:	**LCS**		TestCode:	**EPA Method 8015D Mod: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**40132**		RunNo:	**53926**				
Prep Date:	**9/4/2018**	Analysis Date:	**9/5/2018**		SeqNo:	**1781407**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.0	70	130			
Surr: BFB	510		500.0		103	70	130			

Sample ID	**mb-40132**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D Mod: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**40132**		RunNo:	**53926**				
Prep Date:	**9/4/2018**	Analysis Date:	**9/5/2018**		SeqNo:	**1781408**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	530		500.0		107	70	130			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: CONCHO MIDLAND Work Order Number: 1808J10 RcptNo: 1

Received By: Erin Melendrez 8/31/2018 8:45:00 AM

Completed By: Michelle Garcia 8/31/2018 1:39:09 PM

Reviewed By: JAB 08/31/18

LB: JV 8-31-18

Chain of Custody

1. Is Chain of Custody complete? Yes ☑ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. VOA vials have zero headspace? Yes ☐ No ☐ No VOA Vials ☑
10. Were any sample containers received broken? Yes ☐ No ☑

11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? JV 8-31-18
Checked by: _____

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____
By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding: _____
Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.7	Good	Yes			
2	1.9	Good	Yes			

Chain-of-Custody Record

Client: COG

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☑ Standard ☐ Rush

Project Name:
Stratojet 31 State Com #007H

Project #:

Project Manager:
HRL

Sampler: Kevin Smith

On Ice: ☑ Yes ☐ No

Sample Temperature:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1808J10	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	BTEX 8021B	Chlorides			Air Bubbles (Y or N)
8/28/18		Soil	East	Jar		001			X									X	X			
"		"	West	"		002			X									X	X			
"		"	South	"		003			X									X	X			
"		"	North	"		004			X									X	X			

Date:	Time:	Relinquished by:	Received by:	Date	Time
8/30/18	0830	Jennifer Hurmelton		8/30/18	0830
8/30/18	1900		Courier ENH 8/31/18	8/31/18	0845

Remarks:
Cooler 1: 2-7 jlnowlton@hrlcomp.com
lcarrasco@hrlcomp.com
Cooler 2: 1.9 lcsmith@hrlcomp.com
ENH 8/31/18 dneel@concho.com

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

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

September 17, 2018

Jennifer Knowlton

Concho
600 W Illinois Ave
Midland, TX 79701
TEL: (505) 238-3588
FAX

RE: Stratojet 31 State Com 007H OrderNo.: 1808J09

Dear Jennifer Knowlton:

Hall Environmental Analysis Laboratory received 19 sample(s) on 8/31/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

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

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Concho
Client Sample ID: S1-Surface
Project: Stratojet 31 State Com 007H
Collection Date: 8/28/2018
Lab ID: 1808J09-001 **Matrix:** SOIL
Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	5800	96		mg/Kg	10	9/7/2018 4:25:31 PM
Motor Oil Range Organics (MRO)	2300	480		mg/Kg	10	9/7/2018 4:25:31 PM
Surr: DNOP	0	50.6-138	S	%Rec	10	9/7/2018 4:25:31 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	52	25		mg/Kg	5	9/7/2018 1:23:14 AM
Surr: BFB	170	15-316		%Rec	5	9/7/2018 1:23:14 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.12		mg/Kg	5	9/7/2018 1:23:14 AM
Toluene	ND	0.25		mg/Kg	5	9/7/2018 1:23:14 AM
Ethylbenzene	ND	0.25		mg/Kg	5	9/7/2018 1:23:14 AM
Xylenes, Total	1.1	0.50		mg/Kg	5	9/7/2018 1:23:14 AM
Surr: 4-Bromofluorobenzene	95.8	80-120		%Rec	5	9/7/2018 1:23:14 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	4500	300		mg/Kg	200	9/13/2018 1:56:40 PM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Concho
Client Sample ID: S1-1'
Project: Stratojet 31 State Com 007H
Collection Date: 8/28/2018
Lab ID: 1808J09-002 **Matrix:** SOIL **Received Date:** 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	65	9.6		mg/Kg	1	9/7/2018 5:36:57 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/7/2018 5:36:57 AM
Surr: DNOP	94.8	50.6-138		%Rec	1	9/7/2018 5:36:57 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/7/2018 1:46:35 AM
Surr: BFB	97.0	15-316		%Rec	1	9/7/2018 1:46:35 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	9/7/2018 1:46:35 AM
Toluene	ND	0.047		mg/Kg	1	9/7/2018 1:46:35 AM
Ethylbenzene	ND	0.047		mg/Kg	1	9/7/2018 1:46:35 AM
Xylenes, Total	ND	0.094		mg/Kg	1	9/7/2018 1:46:35 AM
Surr: 4-Bromofluorobenzene	90.2	80-120		%Rec	1	9/7/2018 1:46:35 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	5400	300		mg/Kg	200	9/13/2018 2:33:54 PM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Concho
Client Sample ID: S1-2'
Project: Stratojet 31 State Com 007H
Collection Date: 8/28/2018
Lab ID: 1808J09-003 **Matrix:** SOIL **Received Date:** 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	19	9.8		mg/Kg	1	9/7/2018 6:01:18 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/7/2018 6:01:18 AM
Surr: DNOP	96.0	50.6-138		%Rec	1	9/7/2018 6:01:18 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	1800	75		mg/Kg	50	9/13/2018 4:00:48 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	9/5/2018 10:53:58 PM
Toluene	ND	0.047		mg/Kg	1	9/5/2018 10:53:58 PM
Ethylbenzene	ND	0.047		mg/Kg	1	9/5/2018 10:53:58 PM
Xylenes, Total	ND	0.094		mg/Kg	1	9/5/2018 10:53:58 PM
Surr: 4-Bromofluorobenzene	126	70-130		%Rec	1	9/5/2018 10:53:58 PM
Surr: Toluene-d8	97.7	70-130		%Rec	1	9/5/2018 10:53:58 PM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/5/2018 10:53:58 PM
Surr: BFB	113	70-130		%Rec	1	9/5/2018 10:53:58 PM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Concho
Client Sample ID: S1-3'
Project: Stratojet 31 State Com 007H
Collection Date: 8/28/2018
Lab ID: 1808J09-004 **Matrix:** SOIL **Received Date:** 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	910	30		mg/Kg	20	9/12/2018 8:46:47 PM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Concho
Client Sample ID: S2-Surface'
Project: Stratojet 31 State Com 007H
Collection Date: 8/28/2018
Lab ID: 1808J09-006 **Matrix:** SOIL
Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**
Diesel Range Organics (DRO)	15000	460		mg/Kg	50	9/11/2018 1:21:52 PM
Motor Oil Range Organics (MRO)	4400	2300		mg/Kg	50	9/11/2018 1:21:52 PM
Surr: DNOP	0	50.6-138	S	%Rec	50	9/11/2018 1:21:52 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	310	30		mg/Kg	20	9/12/2018 8:59:11 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.48		mg/Kg	20	9/6/2018 12:03:10 AM
Toluene	2.2	0.96		mg/Kg	20	9/6/2018 12:03:10 AM
Ethylbenzene	5.2	0.96		mg/Kg	20	9/6/2018 12:03:10 AM
Xylenes, Total	21	1.9		mg/Kg	20	9/6/2018 12:03:10 AM
Surr: 4-Bromofluorobenzene	124	70-130		%Rec	20	9/6/2018 12:03:10 AM
Surr: Toluene-d8	104	70-130		%Rec	20	9/6/2018 12:03:10 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	1100	96		mg/Kg	20	9/6/2018 12:03:10 AM
Surr: BFB	111	70-130		%Rec	20	9/6/2018 12:03:10 AM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Concho
Client Sample ID: S2-1'
Project: Stratojet 31 State Com 007H
Collection Date: 8/28/2018
Lab ID: 1808J09-007 **Matrix:** SOIL **Received Date:** 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**
Diesel Range Organics (DRO)	1200	48		mg/Kg	5	9/11/2018 1:46:23 PM
Motor Oil Range Organics (MRO)	440	240		mg/Kg	5	9/11/2018 1:46:23 PM
Surr: DNOP	110	50.6-138		%Rec	5	9/11/2018 1:46:23 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	560	30		mg/Kg	20	9/12/2018 10:01:14 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.023		mg/Kg	1	9/6/2018 1:12:08 AM
Toluene	ND	0.047		mg/Kg	1	9/6/2018 1:12:08 AM
Ethylbenzene	0.13	0.047		mg/Kg	1	9/6/2018 1:12:08 AM
Xylenes, Total	0.59	0.093		mg/Kg	1	9/6/2018 1:12:08 AM
Surr: 4-Bromofluorobenzene	136	70-130	S	%Rec	1	9/6/2018 1:12:08 AM
Surr: Toluene-d8	95.3	70-130		%Rec	1	9/6/2018 1:12:08 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	68	4.7		mg/Kg	1	9/6/2018 1:12:08 AM
Surr: BFB	122	70-130		%Rec	1	9/6/2018 1:12:08 AM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Concho
Client Sample ID: S2-2'
Project: Stratojet 31 State Com 007H
Collection Date: 8/28/2018
Lab ID: 1808J09-008 **Matrix:** SOIL
Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	4200	95		mg/Kg	10	9/7/2018 5:39:10 PM
Motor Oil Range Organics (MRO)	1500	480		mg/Kg	10	9/7/2018 5:39:10 PM
Surr: DNOP	0	50.6-138	S	%Rec	10	9/7/2018 5:39:10 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	520	30		mg/Kg	20	9/12/2018 10:13:39 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.12		mg/Kg	5	9/6/2018 1:35:10 AM
Toluene	ND	0.23		mg/Kg	5	9/6/2018 1:35:10 AM
Ethylbenzene	0.58	0.23		mg/Kg	5	9/6/2018 1:35:10 AM
Xylenes, Total	2.3	0.46		mg/Kg	5	9/6/2018 1:35:10 AM
Surr: 4-Bromofluorobenzene	111	70-130		%Rec	5	9/6/2018 1:35:10 AM
Surr: Toluene-d8	93.7	70-130		%Rec	5	9/6/2018 1:35:10 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	180	23		mg/Kg	5	9/6/2018 1:35:10 AM
Surr: BFB	97.6	70-130		%Rec	5	9/6/2018 1:35:10 AM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Concho
Client Sample ID: S3-Surface
Project: Stratojet 31 State Com 007H
Collection Date: 8/28/2018
Lab ID: 1808J09-009 **Matrix:** SOIL
Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	1300	96		mg/Kg	10	9/7/2018 6:03:45 PM
Motor Oil Range Organics (MRO)	640	480		mg/Kg	10	9/7/2018 6:03:45 PM
Surr: DNOP	0	50.6-138	S	%Rec	10	9/7/2018 6:03:45 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	1800	75		mg/Kg	50	9/13/2018 2:46:19 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	9/6/2018 1:58:10 AM
Toluene	ND	0.048		mg/Kg	1	9/6/2018 1:58:10 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/6/2018 1:58:10 AM
Xylenes, Total	ND	0.096		mg/Kg	1	9/6/2018 1:58:10 AM
Surr: 4-Bromofluorobenzene	119	70-130		%Rec	1	9/6/2018 1:58:10 AM
Surr: Toluene-d8	98.0	70-130		%Rec	1	9/6/2018 1:58:10 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/6/2018 1:58:10 AM
Surr: BFB	106	70-130		%Rec	1	9/6/2018 1:58:10 AM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Concho
Client Sample ID: S3-1'
Project: Stratojet 31 State Com 007H
Collection Date: 8/28/2018
Lab ID: 1808J09-010 **Matrix:** SOIL **Received Date:** 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/7/2018 11:43:48 AM
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	9/7/2018 11:43:48 AM
Surr: DNOP	93.7	50.6-138		%Rec	1	9/7/2018 11:43:48 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	1300	75		mg/Kg	50	9/13/2018 2:58:44 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	9/6/2018 2:21:13 AM
Toluene	ND	0.048		mg/Kg	1	9/6/2018 2:21:13 AM
Ethylbenzene	ND	0.048		mg/Kg	1	9/6/2018 2:21:13 AM
Xylenes, Total	ND	0.095		mg/Kg	1	9/6/2018 2:21:13 AM
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	9/6/2018 2:21:13 AM
Surr: Toluene-d8	90.8	70-130		%Rec	1	9/6/2018 2:21:13 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/6/2018 2:21:13 AM
Surr: BFB	97.3	70-130		%Rec	1	9/6/2018 2:21:13 AM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Concho
Client Sample ID: S3-2'
Project: Stratojet 31 State Com 007H
Collection Date: 8/28/2018
Lab ID: 1808J09-011 **Matrix:** SOIL **Received Date:** 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	14	9.9		mg/Kg	1	9/7/2018 12:08:21 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/7/2018 12:08:21 PM
Surr: DNOP	96.2	50.6-138		%Rec	1	9/7/2018 12:08:21 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	600	30		mg/Kg	20	9/12/2018 10:50:53 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	9/6/2018 2:44:15 AM
Toluene	ND	0.049		mg/Kg	1	9/6/2018 2:44:15 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/6/2018 2:44:15 AM
Xylenes, Total	ND	0.097		mg/Kg	1	9/6/2018 2:44:15 AM
Surr: 4-Bromofluorobenzene	123	70-130		%Rec	1	9/6/2018 2:44:15 AM
Surr: Toluene-d8	97.0	70-130		%Rec	1	9/6/2018 2:44:15 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/6/2018 2:44:15 AM
Surr: BFB	110	70-130		%Rec	1	9/6/2018 2:44:15 AM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Concho
Client Sample ID: S4-Surface
Project: Stratojet 31 State Com 007H
Collection Date: 8/28/2018
Lab ID: 1808J09-012 **Matrix:** SOIL
Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	15	9.2		mg/Kg	1	9/7/2018 12:32:48 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/7/2018 12:32:48 PM
Surr: DNOP	94.3	50.6-138		%Rec	1	9/7/2018 12:32:48 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	290	30		mg/Kg	20	9/12/2018 11:03:17 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	9/6/2018 3:07:18 AM
Toluene	ND	0.047		mg/Kg	1	9/6/2018 3:07:18 AM
Ethylbenzene	ND	0.047		mg/Kg	1	9/6/2018 3:07:18 AM
Xylenes, Total	ND	0.095		mg/Kg	1	9/6/2018 3:07:18 AM
Surr: 4-Bromofluorobenzene	120	70-130		%Rec	1	9/6/2018 3:07:18 AM
Surr: Toluene-d8	93.2	70-130		%Rec	1	9/6/2018 3:07:18 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/6/2018 3:07:18 AM
Surr: BFB	107	70-130		%Rec	1	9/6/2018 3:07:18 AM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Concho
Client Sample ID: S4-1'
Project: Stratojet 31 State Com 007H
Collection Date: 8/28/2018
Lab ID: 1808J09-013 **Matrix:** SOIL **Received Date:** 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/7/2018 12:57:22 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/7/2018 12:57:22 PM
Surr: DNOP	95.8	50.6-138		%Rec	1	9/7/2018 12:57:22 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	71	30		mg/Kg	20	9/12/2018 11:15:41 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	9/6/2018 3:30:20 AM
Toluene	ND	0.049		mg/Kg	1	9/6/2018 3:30:20 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/6/2018 3:30:20 AM
Xylenes, Total	ND	0.097		mg/Kg	1	9/6/2018 3:30:20 AM
Surr: 4-Bromofluorobenzene	116	70-130		%Rec	1	9/6/2018 3:30:20 AM
Surr: Toluene-d8	94.2	70-130		%Rec	1	9/6/2018 3:30:20 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/6/2018 3:30:20 AM
Surr: BFB	103	70-130		%Rec	1	9/6/2018 3:30:20 AM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Concho
Client Sample ID: S4-2'
Project: Stratojet 31 State Com 007H
Collection Date: 8/28/2018
Lab ID: 1808J09-014 **Matrix:** SOIL **Received Date:** 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/7/2018 1:21:49 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/7/2018 1:21:49 PM
Surr: DNOP	96.3	50.6-138		%Rec	1	9/7/2018 1:21:49 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	75	30		mg/Kg	20	9/12/2018 11:28:06 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	9/6/2018 3:53:20 AM
Toluene	ND	0.049		mg/Kg	1	9/6/2018 3:53:20 AM
Ethylbenzene	ND	0.049		mg/Kg	1	9/6/2018 3:53:20 AM
Xylenes, Total	ND	0.097		mg/Kg	1	9/6/2018 3:53:20 AM
Surr: 4-Bromofluorobenzene	117	70-130		%Rec	1	9/6/2018 3:53:20 AM
Surr: Toluene-d8	94.6	70-130		%Rec	1	9/6/2018 3:53:20 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/6/2018 3:53:20 AM
Surr: BFB	104	70-130		%Rec	1	9/6/2018 3:53:20 AM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Concho
Client Sample ID: S4-3'
Project: Stratojet 31 State Com 007H
Collection Date: 8/28/2018
Lab ID: 1808J09-015 **Matrix:** SOIL **Received Date:** 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	2600	150		mg/Kg	100	9/13/2018 3:11:09 PM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Concho
Client Sample ID: S5-Surface
Project: Stratojet 31 State Com 007H
Collection Date: 8/28/2018
Lab ID: 1808J09-016 **Matrix:** SOIL
Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**
Diesel Range Organics (DRO)	12000	490		mg/Kg	50	9/11/2018 2:11:01 PM
Motor Oil Range Organics (MRO)	3600	2400		mg/Kg	50	9/11/2018 2:11:01 PM
Surr: DNOP	0	50.6-138	S	%Rec	50	9/11/2018 2:11:01 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	320	30		mg/Kg	20	9/13/2018 12:17:44 AM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	2.5	0.50		mg/Kg	20	9/6/2018 4:16:29 AM
Toluene	39	1.0		mg/Kg	20	9/6/2018 4:16:29 AM
Ethylbenzene	25	1.0		mg/Kg	20	9/6/2018 4:16:29 AM
Xylenes, Total	79	2.0		mg/Kg	20	9/6/2018 4:16:29 AM
Surr: 4-Bromofluorobenzene	125	70-130		%Rec	20	9/6/2018 4:16:29 AM
Surr: Toluene-d8	108	70-130		%Rec	20	9/6/2018 4:16:29 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	2900	100		mg/Kg	20	9/6/2018 4:16:29 AM
Surr: BFB	112	70-130		%Rec	20	9/6/2018 4:16:29 AM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Concho
Client Sample ID: S5-1'
Project: Stratojet 31 State Com 007H
Collection Date: 8/28/2018
Lab ID: 1808J09-017 **Matrix:** SOIL **Received Date:** 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**
Diesel Range Organics (DRO)	1100	47		mg/Kg	5	9/11/2018 2:35:31 PM
Motor Oil Range Organics (MRO)	390	240		mg/Kg	5	9/11/2018 2:35:31 PM
Surr: DNOP	108	50.6-138		%Rec	5	9/11/2018 2:35:31 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	2800	150		mg/Kg	100	9/13/2018 3:23:33 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	9/6/2018 4:39:25 AM
Toluene	2.4	0.048		mg/Kg	1	9/6/2018 4:39:25 AM
Ethylbenzene	2.7	0.048		mg/Kg	1	9/6/2018 4:39:25 AM
Xylenes, Total	8.9	0.095		mg/Kg	1	9/6/2018 4:39:25 AM
Surr: 4-Bromofluorobenzene	141	70-130	S	%Rec	1	9/6/2018 4:39:25 AM
Surr: Toluene-d8	102	70-130		%Rec	1	9/6/2018 4:39:25 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	350	4.8		mg/Kg	1	9/6/2018 4:39:25 AM
Surr: BFB	128	70-130		%Rec	1	9/6/2018 4:39:25 AM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Concho
Client Sample ID: S5-2'
Project: Stratojet 31 State Com 007H
Collection Date: 8/28/2018
Lab ID: 1808J09-018 **Matrix:** SOIL
Received Date: 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **lrm**
Diesel Range Organics (DRO)	1300	97		mg/Kg	10	9/7/2018 2:47:14 PM
Motor Oil Range Organics (MRO)	670	480		mg/Kg	10	9/7/2018 2:47:14 PM
Surr: DNOP	0	50.6-138	S	%Rec	10	9/7/2018 2:47:14 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	2100	75		mg/Kg	50	9/13/2018 3:35:58 PM
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **RAA**
Benzene	ND	0.023		mg/Kg	1	9/6/2018 5:02:31 AM
Toluene	ND	0.046		mg/Kg	1	9/6/2018 5:02:31 AM
Ethylbenzene	0.052	0.046		mg/Kg	1	9/6/2018 5:02:31 AM
Xylenes, Total	0.25	0.092		mg/Kg	1	9/6/2018 5:02:31 AM
Surr: 4-Bromofluorobenzene	128	70-130		%Rec	1	9/6/2018 5:02:31 AM
Surr: Toluene-d8	96.3	70-130		%Rec	1	9/6/2018 5:02:31 AM
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**
Gasoline Range Organics (GRO)	120	9.2		mg/Kg	2	9/6/2018 3:03:00 PM
Surr: BFB	119	70-130		%Rec	2	9/6/2018 3:03:00 PM

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

Qualifiers:

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

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Concho
Client Sample ID: S5-3'
Project: Stratojet 31 State Com 007H
Collection Date: 8/28/2018
Lab ID: 1808J09-019 **Matrix:** SOIL **Received Date:** 8/31/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	2000	75		mg/Kg	50	9/13/2018 3:48:23 PM

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1808J09**

17-Sep-18

Client: Concho

Project: Stratojet 31 State Com 007H

Sample ID	**MB-40298**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**40298**	RunNo:	**54103**					
Prep Date:	**9/12/2018**	Analysis Date:	**9/12/2018**	SeqNo:	**1788910**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-40298**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**40298**	RunNo:	**54103**					
Prep Date:	**9/12/2018**	Analysis Date:	**9/12/2018**	SeqNo:	**1788911**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.1	90	110			

Sample ID	**MB-40318**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**40318**	RunNo:	**54103**					
Prep Date:	**9/12/2018**	Analysis Date:	**9/12/2018**	SeqNo:	**1788940**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-40318**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**40318**	RunNo:	**54103**					
Prep Date:	**9/12/2018**	Analysis Date:	**9/12/2018**	SeqNo:	**1788941**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.5	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1808J09**

17-Sep-18

Client: Concho

Project: Stratojet 31 State Com 007H

Sample ID	**LCS-40160**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**40160**		RunNo:	**53951**				
Prep Date:	**9/5/2018**	Analysis Date:	**9/7/2018**		SeqNo:	**1782754**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.1	70	130			
Surr: DNOP	4.2		5.000		84.6	50.6	138			

Sample ID	**MB-40160**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**40160**		RunNo:	**53951**				
Prep Date:	**9/5/2018**	Analysis Date:	**9/7/2018**		SeqNo:	**1782755**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.7		10.00		87.4	50.6	138			

Sample ID	**LCS-40214**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**40214**		RunNo:	**54034**				
Prep Date:	**9/7/2018**	Analysis Date:	**9/11/2018**		SeqNo:	**1785556**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.2		5.000		84.3	50.6	138			

Sample ID	**MB-40214**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**40214**		RunNo:	**54034**				
Prep Date:	**9/7/2018**	Analysis Date:	**9/11/2018**		SeqNo:	**1785557**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.9		10.00		88.8	50.6	138			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1808J09**

17-Sep-18

Client: Concho

Project: Stratojet 31 State Com 007H

Sample ID	**MB-40116**	SampType:	**MBLK**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**PBS**	Batch ID:	**40116**		RunNo:	**53977**				
Prep Date:	**9/4/2018**	Analysis Date:	**9/6/2018**		SeqNo:	**1781951**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	960		1000		95.6	15	316			

Sample ID	**LCS-40116**	SampType:	**LCS**		TestCode:	**EPA Method 8015D: Gasoline Range**				
Client ID:	**LCSS**	Batch ID:	**40116**		RunNo:	**53977**				
Prep Date:	**9/4/2018**	Analysis Date:	**9/6/2018**		SeqNo:	**1781952**	Units:	**mg/Kg**		

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	75.9	131			
Surr: BFB	1100		1000		106	15	316			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1808J09**

17-Sep-18

Client: Concho

Project: Stratojet 31 State Com 007H

Sample ID **MB-40116**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **40116**	RunNo: **53977**
Prep Date: **9/4/2018**	Analysis Date: **9/6/2018**	SeqNo: **1781996** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.92		1.000		91.6	80	120			

Sample ID **LCS-40116**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **40116**	RunNo: **53977**
Prep Date: **9/4/2018**	Analysis Date: **9/6/2018**	SeqNo: **1781997** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	89.8	77.3	128			
Toluene	0.94	0.050	1.000	0	94.1	79.2	125			
Ethylbenzene	0.93	0.050	1.000	0	92.9	80.7	127			
Xylenes, Total	2.8	0.10	3.000	0	94.6	81.6	129			
Surr: 4-Bromofluorobenzene	0.93		1.000		92.6	80	120			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1808J09**

17-Sep-18

Client: Concho

Project: Stratojet 31 State Com 007H

Sample ID **1808j09-006ams**	SampType: **MS4**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **S2-Surface'**	Batch ID: **40132**	RunNo: **53926**
Prep Date: **9/4/2018**	Analysis Date: **9/6/2018**	SeqNo: **1781319** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.50	1.000	0	89.2	80	120			
Toluene	3.2	1.0	1.000	2.163	100	80	120			
Ethylbenzene	6.6	1.0	1.000	5.230	135	82	121			S
Xylenes, Total	25	2.0	3.000	21.36	126	80.2	120			S
Surr: 4-Bromofluorobenzene	11		10.00		115	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID **1808j09-006amsd**	SampType: **MSD4**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **S2-Surface'**	Batch ID: **40132**	RunNo: **53926**
Prep Date: **9/4/2018**	Analysis Date: **9/6/2018**	SeqNo: **1781320** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.75	0.47	0.9337	0	80.3	80	120	17.3	20	
Toluene	2.7	0.93	0.9337	2.163	57.5	80	120	15.9	20	S
Ethylbenzene	5.7	0.93	0.9337	5.230	47.3	82	121	14.8	20	S
Xylenes, Total	22	1.9	2.801	21.36	5.67	80.2	120	15.5	20	S
Surr: 4-Bromofluorobenzene	11		9.337		115	70	130	0	0	
Surr: Toluene-d8	9.5		9.337		102	70	130	0	0	

Sample ID **lcs-40132**	SampType: **LCS4**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **BatchQC**	Batch ID: **40132**	RunNo: **53926**
Prep Date: **9/4/2018**	Analysis Date: **9/5/2018**	SeqNo: **1781359** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	91.3	80	120			
Toluene	0.98	0.050	1.000	0	98.2	80	120			
Ethylbenzene	1.0	0.050	1.000	0	104	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	0.55		0.5000		111	70	130			
Surr: Toluene-d8	0.47		0.5000		94.4	70	130			

Sample ID **mb-40132**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **40132**	RunNo: **53926**
Prep Date: **9/4/2018**	Analysis Date: **9/5/2018**	SeqNo: **1781360** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1808J09**

17-Sep-18

Client: Concho

Project: Stratojet 31 State Com 007H

Sample ID **mb-40132**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **40132**	RunNo: **53926**
Prep Date: **9/4/2018**	Analysis Date: **9/5/2018**	SeqNo: **1781360** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.60		0.5000		120	70	130			
Surr: Toluene-d8	0.48		0.5000		96.9	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1808J09**

17-Sep-18

Client: Concho

Project: Stratojet 31 State Com 007H

Sample ID **1808j09-003ams**	SampType: **MS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **S1-2'**	Batch ID: **40132**	RunNo: **53926**
Prep Date: **9/4/2018**	Analysis Date: **9/5/2018**	SeqNo: **1781366** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	4.8	23.92	1.623	108	64.7	142			
Surr: BFB	510		478.5		106	70	130			

Sample ID **1808j09-003amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **S1-2'**	Batch ID: **40132**	RunNo: **53926**
Prep Date: **9/4/2018**	Analysis Date: **9/5/2018**	SeqNo: **1781367** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	31	4.9	24.63	1.623	120	64.7	142	12.4	20	
Surr: BFB	510		492.6		104	70	130	0	0	

Sample ID **lcs-40132**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **40132**	RunNo: **53926**
Prep Date: **9/4/2018**	Analysis Date: **9/5/2018**	SeqNo: **1781407** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.0	70	130			
Surr: BFB	510		500.0		103	70	130			

Sample ID **mb-40132**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **40132**	RunNo: **53926**
Prep Date: **9/4/2018**	Analysis Date: **9/5/2018**	SeqNo: **1781408** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	530		500.0		107	70	130			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **CONCHO MIDLAND** Work Order Number: **1808J09** RcptNo: **1**

Received By: **Erin Melendrez** **8/31/2018 8:45:00 AM**

Completed By: **Michelle Garcia** **8/31/2018 1:11:41 PM** Michelle Garcia

Reviewed By:

LB: JV 8/31/18

Chain of Custody

1. Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2. How was the sample delivered?	Courier		

Log In

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

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

Adjusted? _____

Checked by: JV 8/31/18

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☑

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.7	Good	Yes			
2	1.9	Good	Yes			

Chain-of-Custody Record

Client: COG

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other

☐ EDD (Type)

Turn-Around Time:
☒ Standard ☐ Rush

Project Name: Stratojet 31 State Com #007H

Project #:

Project Manager: HRL

Sampler: Kevin Smith

On Ice: ☒ Yes ☐ No

Sample Temperature:

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1808509	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	BTEX 8021B	Chlorides			Air Bubbles (Y or N)
8/28/18		Soil	S_1 - Surface	Jar		001			X									X	X			
			S_1 - 1'			002			X									X	X			
			S_1 - 2'			003			X									X	X			
			S_1 - 3'			004													X			
			S_1 - 4' * sample not at Hall Env.			005													X			
			S_2 - Surface		8.31.18	006			X									X	X			
			S_2 - 1'			007			X									X	X			
			S_2 - 2'			008			X									X	X			
			S_3 - surface			009			X									X	X			
			S_3 - 1'			010			X									X	X			
			S_3 - 2'			011			X									X	X			
						~~012~~																

Date	Time	Relinquished by:	Received by:	Date	Time
08/30/18	0830	Jennifer Hurmelin		8/30/18	0830
8/30/18	1900		Courier ENH 8/31/18	8/31/18	0845

Remarks:
Cooler 1: 2.7 | lknowlton@hrlcomp.com
Cooler 2: 1.9 | lcarrasco@hrlcomp.com
lcsmith@hrlcomp.com
ENH 8/31/18 dneel2@hrlcomp.com

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

Chain-of-Custody Record

Client: COG

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name: Stratojet 31 State Com #007H

Project #:

Project Manager: HRL

Sampler: Kevin Smith

On Ice: ☒ Yes ☐ No

Sample Temperature:

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1808J09	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F,Cl,NO_3,NO_2,PO_4,SO_4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	BTEX 8021B	Chlorides			Air Bubbles (Y or N)
8/28/18		Soil	S4 - Surface	Jar		~~013~~ 012			X									X	X			
			S4 - 1'			~~014~~ 013			X									X	X			
			S4 - 2'			~~015~~ 014			X									X	X			
			S4 - 3'			~~016~~ 015													X			
			S5 - Surface			~~017~~ 016			X									X	X			
			S5 - 1'			~~018~~ 017			X									X	X			
			S5 - 2'			~~019~~ 018			X									X	X			
			S5 - 3'			~~020~~ 019													X			

Date	Time	Relinquished by:	Received by:	Date	Time
8/30/18	0830	Jennifer Knowlton		8/30/18	0830
8/30/18	1900		Courier ENH 8/31/18	8/31/18	0845

Remarks:
Cooler 1: 2.7
Cooler 2: 1.9
ENH 8/31/18

jknowlton@hrlcomp.com
lcarrasco@hrlcomp.com
lcsmith@hrlcomp.com
dneel2@concho.com

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