10 Desta Drive Suite 150E
Midland, TX 79705

432.520.7720 PHONE
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February 1, 2019

"District 1"

Mike Bratcher
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division, District 2
811 S. First Street
Artesia, NM 88210

Ryan Mann
Hobbs Field Office
New Mexico State Land Office
2827 North Dal Paso Street, Suite 117
Hobbs, NM 88240

Re: Site Assessment Summary and Proposed Remediation Plan
Stratojet 31 State Com #007H
API No. 30-025-43792
GPS: Latitude 32.52454 Longitude -103.49931
UL "N", Sec. 31, T20S, R35E
Lea County, NM
NMOCD Ref. No. 1RP-5146, 1RP-5278

TRC Environmental Corporation (TRC), on behalf of COG Operating, LLC (COG), has prepared this *Site Assessment Summary and Deferral Request* for the Release Site known as the Stratojet 31 State Com #007H. Details of the Release are summarized below:

RELEASE DETAILS			
Type of Release:	Crude Oil and Produced Water	**Volume of Release:**	18 bbls, 9 bbls
		Volume Recovered:	10 bbls, 6 bbls
Source of Release:	Wellhead	**Date of Release:**	8/4/2018, 11/5/18
Was Immediate Notice Given?	No	**If, YES, to Whom?**	Not Applicable
Was a Watercourse Reached?	No	**If YES, Volume Impacting the Watercourse:**	N/A
Surface Owner:	Private: S&S Inc.	**Mineral Owner:**	State

Two separate releases occurred on this location. The first release (1RP-5146), was attributed to a leak in the union off of the pump tee and resulted in the release of approximately 10 bbls of crude oil and 7 bbls of produced water. The second release (1RP-5278), was attributed to sand causing the housing on the back pressure valve to be washed out, resulting in the release of approximately 8 bbls of crude oil and 2 bbls of produced water. Both releases were contained within the boundaries of the production pad and impacted approximately 10,000 square feet and 9,400 square feet respectfully. During initial response activities, a vacuum truck was dispatched to remove all freestanding fluids. *The initial C-141 for the release date 11/05/18 (1RP-5278) contained incorrect information which has been updated.*

Topographical and Aerial Maps are provided as Attachments #1 and #2. A Copy of the Initial Release Notification and Corrective Action (NMOCD Form C-141) is provided as Attachment #8.

REGULATORY FRAMEWORK

Surface impacts from unauthorized releases of crude oil, gases, produced water, condensate or other oil field waste which occur during normal oilfield operations are generally regulated by the New Mexico Oil Conservation Division (NMOCD) in accordance with 19.15.29 of the New Mexico Administrative Code (NMAC). 19.15.29 NMAC establishes reporting, site assessment/characterization, remediation, closure, variance and enforcement procedures. Table I of 19.15.29.12 NMAC determines the closure criteria for soils impacted by a release based on the depth to groundwater and the following site characteristics:

Site Characteristics	
Approximate Depth to Groundwater	**50 - 75'**
Within 300 ft. of any continuously flowing or significant watercourse?	☐ Yes ☑ No
Within 200 ft. of any lakebed, sinkhole, or playa lake?	☐ Yes ☑ No
Within 300 ft. of an occupied permanent residence, school, hospital, or institution?	☐ Yes ☑ No
Within 500 ft. of a spring or private, domestic fresh water well?	☐ Yes ☑ No
Within 1,000 ft. of any fresh water well?	☐ Yes ☑ No
Within the incorporated municipal boundaries or within a municipal well field?	☐ Yes ☑ No
Within 300 ft. of a wetland?	☐ Yes ☑ No
Within the area overlying a subsurface mine?	☐ Yes ☑ No
Within an unstable area?	☐ Yes ☑ No
Within a 100-year floodplain?	☐ Yes ☑ No

A search of a groundwater database maintained by The New Mexico Office of the State Engineer (NMOSE) was conducted to determine the average depth to groundwater within a one (1) Mile radius of the Release Site and identify any registered water wells within a 1/2 Mile of the Release Site. If none were identified, the approximate depth to groundwater was extrapolated from a Depth to Groundwater Map utilized by the NMOCD. Depth to groundwater information is provided as Attachment #4.

Based on the approximate depth to groundwater and site characteristics, the NMOCD Closure Criteria are as follows:

Table I
Closure Criteria for Soils Impacted by a Release

Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
51-100 feet	Chloride***	EPA 300.0	10,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	TPH (GRO+DRO)	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

INITIAL SITE ASSESSMENT & REMEDIAL ACTIVITIES BACKGROUND

On August 27, 2018, an initial site assessment was conducted at the Site by a previous COG environmental contractor. During the initial site assessment, five (5) soil investigation trenches (S1, S2, S3, S4, and S5) were advanced in an effort to determine the vertical extent of soil impact. During the advancement of the investigation trenches, eighteen (18) soil samples were collected and submitted to the laboratory for analysis of BTEX, TPH and/or chloride concentrations. Additional, four (4) investigative soil sample locations (East, West, North, and South) were advanced in an effort to determine the horizontal extent of soil impacts. During the advancement of the investigation trenches, four (4) soil samples were collected and submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. Upon completion of the initial site assessment, a Soil Remediation Plan (Deferral), detailing field activities and laboratory analytical results from delineation soil samples was prepared and submitted to the NMOCD and NMSLO; the remediation workplan (deferral) was subsequently denied, as delineation of TPH was not achieved at soil sample locations S2 and S5. For additional information regarding the initial site assessment and associated regulatory correspondence, please reference HRL's REMEDIATION WORK PLAN (Deferral) and NMOCD & NMSLO Correspondence, which are provided as Attachments #9 and #10.

On **December 20, 2018**, a second site investigation was conducted by TRC. During the site investigation, additional soil samples from the previous release were collected from the area represented by S2 and S5 in an effort to achieve vertical delineation. Additionally, two (2) soil sample locations (S6 and S7) were advanced in an effort to determine the extent of soil impacts from the Release which occurred on November 5, 2018 (1RP-5278). The collected soil samples were submitted to the laboratory for analysis of BTEX, TPH and chloride concentrations. A table summarizing laboratory analytical results from soil samples collected during the above stated activities is provided below:

Concentrations of BTEX, TPH and/or Chloride in Soil											
Sample ID	Date	Depth	Soil Status	SW 846 8021B		SW 846 8015M Ext.					E 300
				Benzene (mg/kg)	BTEX (mg/kg)	GRO C_6-C_{10} (mg/kg)	DRO C_{10}-C_{28} (mg/kg)	GRO + DRO C_6-C_{28} (mg/kg)	ORO/MRO C_{28}-C_{35} (mg/kg)	TPH C_6-C_{35} (mg/kg)	Chloride (mg/kg)
S1 - Surface	8/28/18	Surface	In-Situ	ND	1.1	52	5,800	**5,852**	2,300	**8,152**	4,500
S1 - 1'	8/28/18	1'	In-Situ	ND	ND	ND	65	65	ND	65	5,400
S1 - 2'	8/28/18	2'	In-Situ	ND	ND	ND	19	19	ND	19	1,800
S1 - 3'	8/28/18	3'	In-Situ	-	-	-	-	-	-	-	910
S2 Surface	8/28/18	Surface	In-Situ	ND	28.4	1,100	15,000	**16,100**	4,400	**20,500**	310
S2 - 1'	8/28/18	1'	In-Situ	ND	0.72	68	1,200	**1,268**	440	1,708	560
S2 - 2'	8/28/18	2'	In-Situ	ND	2.88	180	4,200	**4,380**	1,500	**5,880**	520
S2-B @ 3'	12/20/18	3'	In-Situ	<0.050	<0.300	<10.0	62.0	62.0	<10.0	62.0	3,520
S2-B @ 4'	12/20/18	4'	In-Situ	<0.050	<0.300	<10.0	18.9	18.9	<10.0	18.9	2,080
S2-B @ 5'	12/20/18	5'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	336
S3 - Surface	8/28/18	Surface	In-Situ	ND	ND	ND	1,300	**1,300**	640	1,940	1,800
S3 - 1'	8/28/18	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	1,300
S3 - 2'	8/28/18	2'	In-Situ	ND	ND	ND	14	14	ND	14	600
S4 - Surface	8/28/18	Surface	In-Situ	ND	ND	ND	15	15	ND	15	290
S4 - 1'	8/28/18	1'	In-Situ	ND	ND	ND	ND	ND	ND	ND	71
S4 - 2'	8/28/18	2'	In-Situ	ND	ND	ND	ND	ND	ND	ND	75
S4 - 3'	8/28/18	3'	In-Situ	-	-	-	-	-	-	-	2,600
S5 - Surface	8/28/18	Surface	In-Situ	2.5	**145.5**	2,900	12,000	**14,900**	3,600	**18,500**	320
S5 - 1'	8/28/18	1'	In-Situ	ND	14	350	1,100	**1,450**	390	1,840	2,800
S5 - 2'	8/28/18	2'	In-Situ	ND	0.302	120	1,300	**1,420**	670	2,090	2,100
S5 - 3'	8/28/18	3'	In-Situ	-	-	-	-	-	-	-	2,000
S5-B @ 3'	12/20/18	3'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	1,360
S5-B @ 4'	12/20/18	4'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	688
S6 @ Surface	12/20/18	Surface	In-Situ	<0.050	4.78	201	11,900	**12,101**	2,070	**14,171**	7,280
S6 @ 1'	12/20/18	1'	In-Situ	<0.050	<0.300	<10.0	156	156	80.0	236	6,700
S6 @ 2'	12/20/18	2'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	2,400
S6 @ 3'	12/20/18	3'	In-Situ	<0.050	<0.300	<10.0	124	124	16.5	140.5	1,470
S7 @ Surface	12/20/18	Surface	In-Situ	<0.050	<0.300	<10.0	29.4	29.4	12.0	41.4	672
S7 @ 1'	12/20/18	1'	In-Situ	<0.050	<0.300	<10.0	<10.0	<10.0	<10.0	<10.0	80.0
East	8/28/18	Surface	In-Situ	ND	ND	ND	ND	ND	ND	ND	99
West	8/28/18	Surface	In-Situ	ND	ND	ND	ND	ND	ND	ND	900
South	8/28/18	Surface	In-Situ	ND	ND	ND	120	120	81	201	67
North	8/28/18	Surface	In-Situ	ND	ND	ND	ND	ND	ND	ND	430
NMOCD Closure Criteria				**10**	**50**	**-**	**-**	**1,000**	**-**	**2,500**	**10,000**

Field Data, if applicable, is provided as Attachment #5. Laboratory analytical reports are provided as Attachment #6. A "Site & Sample Location Map" is provided as Attachment #3.

REMEDIATION PLAN

Based on laboratory analytical results, site characteristics, and field observations made during the Site assessments, COG proposes the following alternative remediation activities designed to advance the Release Site toward an NMOCD and BLM approved closure:

•Utilizing mechanical equipment, excavate impacted soil affected above the NMOCD Closure Criteria in the areas characterized by soil samples S1, S3, and S6 to a depth of 6" or until laboratory analytical results from confirmation soil samples indicate that TPH concentrations are below NMOCD Closure Criteria.
•Excavate impacted soil affected above the NMOCD Closure Criteria in the areas characterized by soil samples S2 and S5 to a depth of 2.5' - 3' or until laboratory analytical results from confirmation soil samples indicate that TPH concentrations are below NMOCD Closure Criteria.
•The sidewalls of the excavation will be advanced until laboratory analytical results from confirmation soil samples indicate that TPH concentrations are below NMOCD Closure Criteria.
•Excavated soil will be temporarily stockpiled on-site, atop a poly liner, pending transportation under manifest to a NMOCD-approved facility.
•Upon receiving favorable laboratory analytical results from confirmation soil samples (below the NMOCD Closure Criteria) excavated areas will be backfilled with locally sourced, non-impacted "like" material, at or near original relative positions. The affected area will be contoured and/or compacted to achieve erosion control,

ALTERNATIVE SAMPLING PLAN

Upon completion of excavation activities, excavation confirmation soil samples will be collected from the excavation sidewalls in each cardinal direction, representing no more than 200 linear feet. Representative five-point composite excavation soil samples will be collected from the base of the excavated areas representing no more than 625 SqFt. Additional "discrete" confirmation soil samples will be collected from wet or visibly stained areas inferred to have been affected by the Release, as necessary.

TIMELINE AND ESTIMATED VOLUME OF SOIL TO BE REMEDIATED

Remediation activities are expected to be completed within 90 days of receiving necessary approval(s) of this Site Assessment Summary and Proposed Remediation Plan. Based on laboratory analytical results, site characteristics, and field observations made during the initial site investigation, it is estimated approximately 1,200 cubic yards of soil has been affected above the NMOCD Closure Criteria.

RESTORATION, RECLAMATION AND RE-VEGETATION

Areas affected by the Release and associated remediation activities will be substantially restored to the condition which existed prior to the release to the maximum extent practicable. Excavated areas will be backfilled with locally sourced, non-impacted "like" material placed at or near original relative positions. The affected area will be contoured and/or compacted to achieve erosion control, stability and preservation of surface water flow to the extent practicable. Final restoration, reclamation and re-vegetation will be conducted in accordance with applicable regulatory agencies.

If you have any questions, or if additional information is required, please feel free to contact Becky Haskell or either of the undersigned by phone or email.

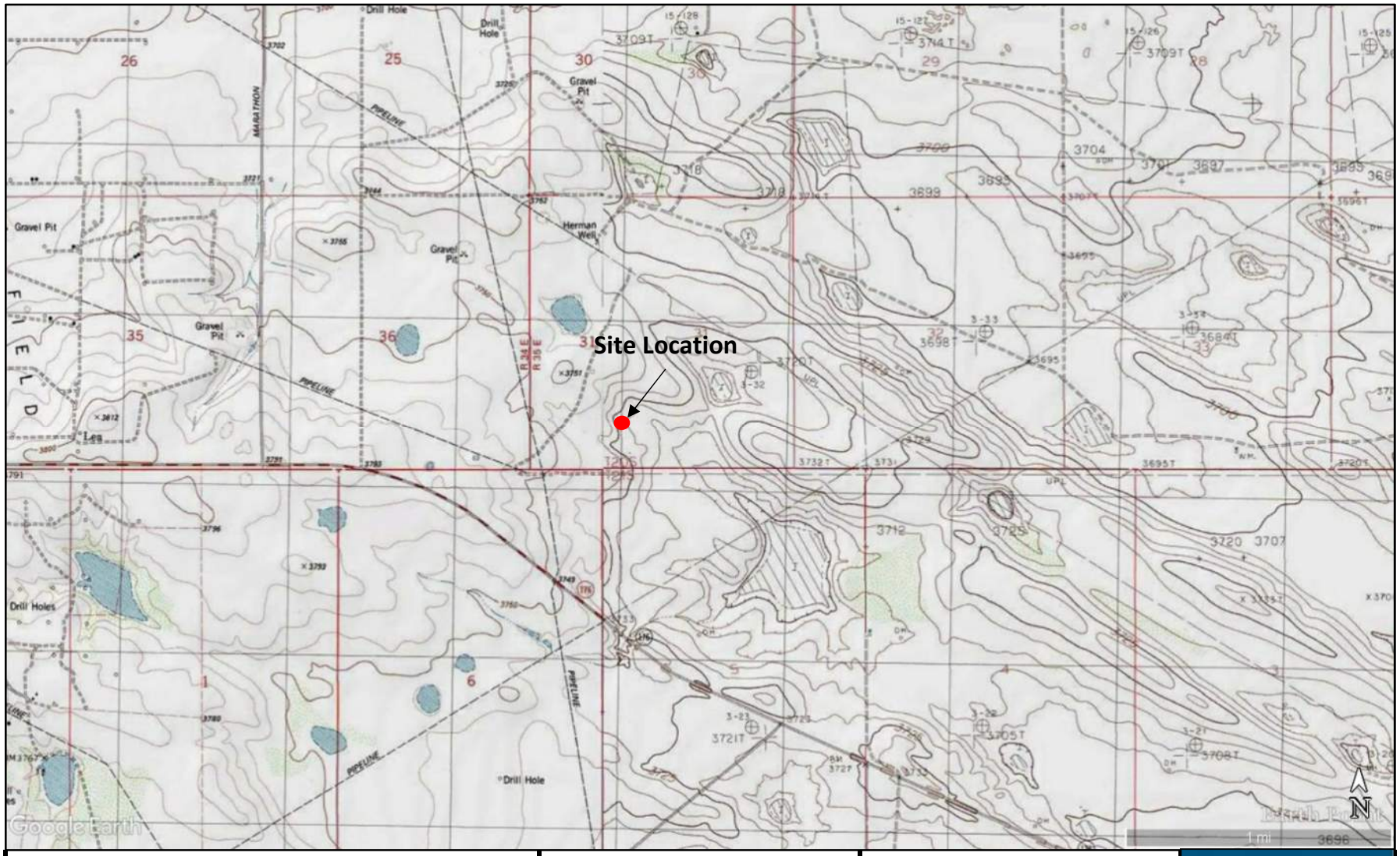
Respectfully,

Brian Cooper
TRC Environmental Corp.

Curt Stanley
TRC Environmental Corp.

Attachments:

Attachment #1-	Figure 1 - Topographical Map
Attachment #2-	Figure 2 - Aerial Map
Attachment #3-	Figure 3 - Site & Sample Location Map
Attachment #4-	Depth to Groundwater Information
Attachment #5	Field Data
Attachment #6-	Laboratory Analytical Reports
Attachment #7-	Soil Profile
Attachment #8-	Release Notification and Corrective Action (FORM C-141)
Attachment #9-	ASI's *REMEDIATION WORK PLAN*
Attachment #10-	NMOCD & BLM Correspondence



LEGEND:

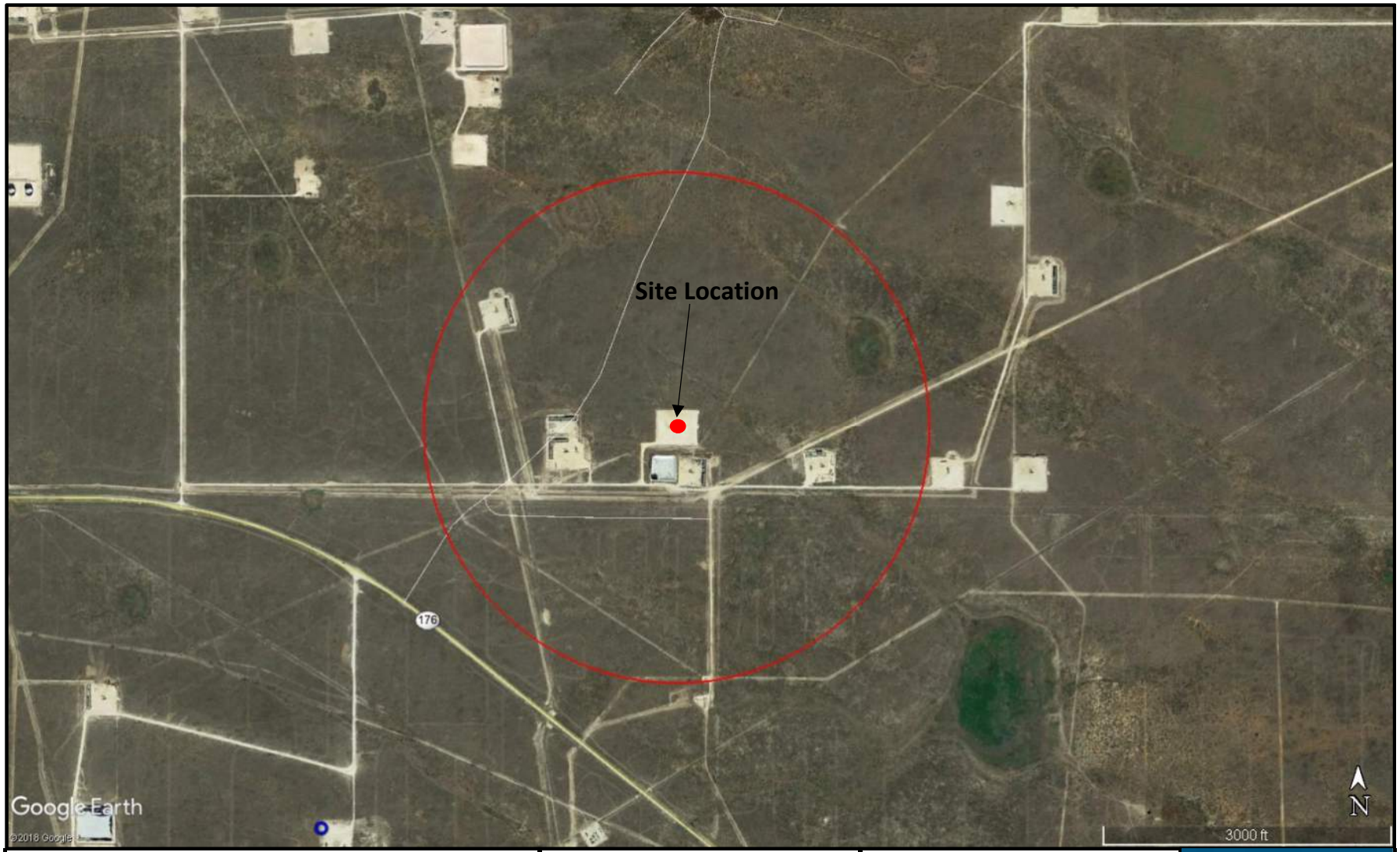
- Site Location

Figure 1

Topographical Map
COG Operating, LLC
Stratojet 31 State Com #007H
Lea County, NM

Drafted by: BC | Checked by: CS	
Draft: January 31, 2019	
GPS:	32.52454 -103.49931
UL "N", Sec. 31, T20S, R35E	
TRC Proj. No:	323229

TRC
Results you can rely on



LEGEND:

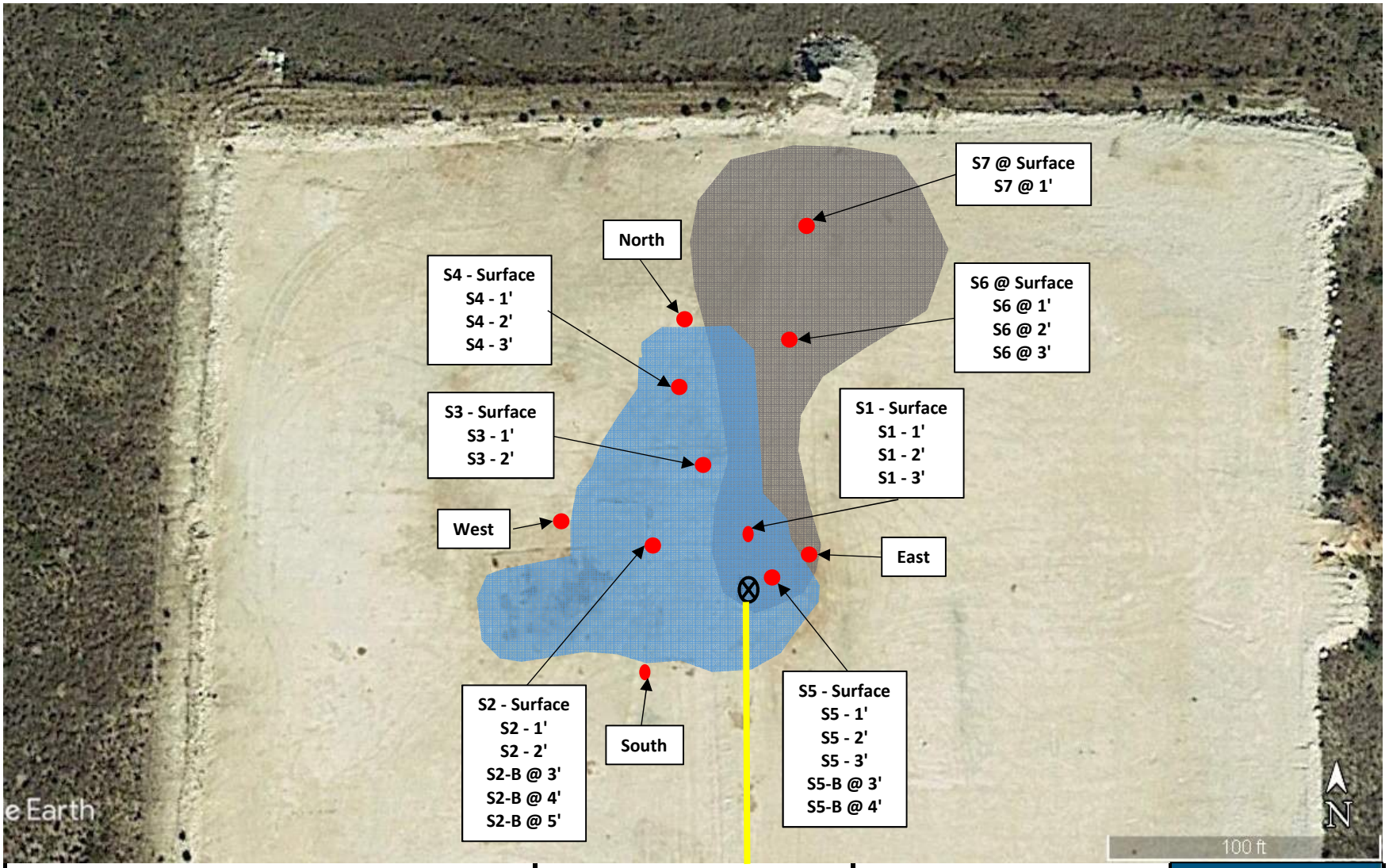
- Site Location
- Fresh Water Well
- 100-Year Floodplain
- High/Critical Karst
- Non-Industrial Building
- Municipal Well Field
- Subsurface Mine
- 1/2 Mile Radius

Figure 2

Aerial Map
COG Operating, LLC
Stratojet 31 State Com #007H
Lea County, NM

Drafted by: BC | Checked by: CS	
Draft: January 31, 2019	
GPS:	32.52454 -103.49931
UL "N", Sec. 31, T20S, R35E	
TRC Proj. No:	323229

TRC
Results you can rely on



LEGEND:

- Inferred Release Margins (8/04/18)
- Inferred Release Margins (11/05/18)
- Sample Point Location
- Wellhead
- Underground Pipeline

Figure 3

Site & Sample Location Map
COG Operating, LLC
Stratojet 31 State Com #007H
Lea County, NM

Drafted by: BC | Checked by: CS	
Draft: January 31, 2019	
GPS:	32.52454 -103.49931
UL "N", Sec. 31, T20S, R35E	
TRC Proj. No:	323229

TRC
Results you can rely on

New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters)

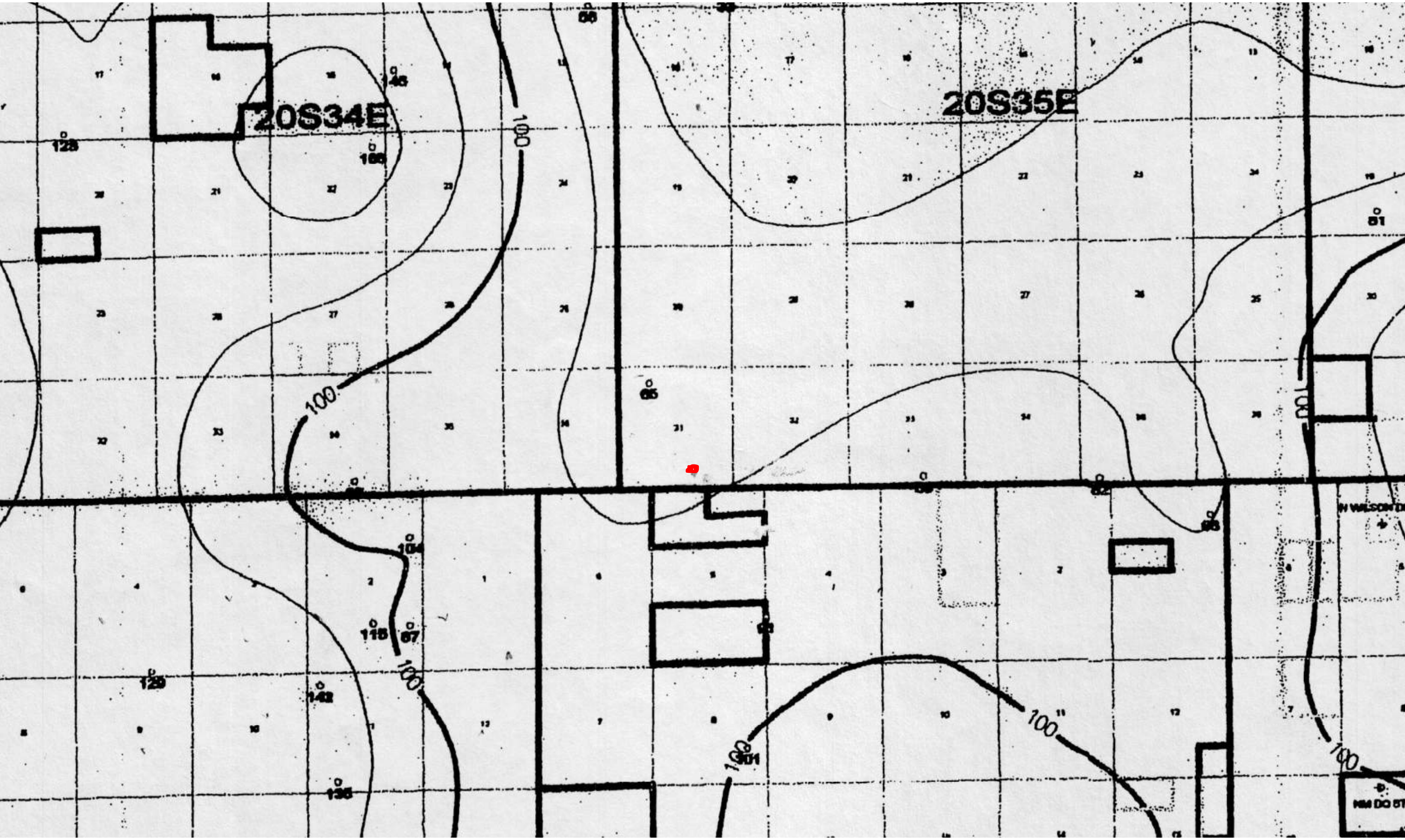
No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 640943 **Northing (Y):** 3599572 **Radius:** 1610

1/7/19 10:41 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER


20S34E
20S35E
100
100
100
100
100
100
128
146
166
65
51
104
118
67
129
142
136
NM DO ST

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

January 04, 2019

ZACH CONDER

TRC

10 DESTA DR. SUITE 150 E

MIDLAND, TX 79705

RE: STRATOJET 31 STATE COM #007H

Enclosed are the results of analyses for samples received by the laboratory on 12/21/18 12:30.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-18-11. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Mike Snyder For Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TRC
ZACH CONDER
10 DESTA DR. SUITE 150 E
MIDLAND TX, 79705
Fax To:

Received:	12/21/2018	Sampling Date:	12/20/2018
Reported:	01/04/2019	Sampling Type:	Soil
Project Name:	STRATOJET 31 STATE COM #007H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO-LEA COUNTY, NM		

Sample ID: S 2 - B @ 3' (H803765-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/29/2018	ND	1.98	99.1	2.00	2.97	
Toluene*	<0.050	0.050	12/29/2018	ND	2.05	103	2.00	2.55	
Ethylbenzene*	<0.050	0.050	12/29/2018	ND	2.05	103	2.00	2.34	
Total Xylenes*	<0.150	0.150	12/29/2018	ND	6.01	100	6.00	2.35	
Total BTEX	<0.300	0.300	12/29/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.2 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**3520**	16.0	12/31/2018	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/28/2018	ND	185	92.4	200	1.69	
DRO >C10-C28*	**62.0**	10.0	12/28/2018	ND	223	112	200	5.94	
EXT DRO >C28-C36	<10.0	10.0	12/28/2018	ND					

Surrogate: 1-Chlorooctane *80.0 %* *41-142*

Surrogate: 1-Chlorooctadecane *82.6 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TRC
ZACH CONDER
10 DESTA DR. SUITE 150 E
MIDLAND TX, 79705
Fax To:

Received:	12/21/2018	Sampling Date:	12/20/2018
Reported:	01/04/2019	Sampling Type:	Soil
Project Name:	STRATOJET 31 STATE COM #007H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO-LEA COUNTY, NM		

Sample ID: S 2 - B @ 3' (H803765-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/29/2018	ND	1.98	99.1	2.00	2.97	
Toluene*	<0.050	0.050	12/29/2018	ND	2.05	103	2.00	2.55	
Ethylbenzene*	<0.050	0.050	12/29/2018	ND	2.05	103	2.00	2.34	
Total Xylenes*	<0.150	0.150	12/29/2018	ND	6.01	100	6.00	2.35	
Total BTEX	<0.300	0.300	12/29/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *96.9 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2080**	16.0	12/31/2018	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/28/2018	ND	185	92.4	200	1.69	
DRO >C10-C28*	**18.9**	10.0	12/28/2018	ND	223	112	200	5.94	
EXT DRO >C28-C36	<10.0	10.0	12/28/2018	ND					

Surrogate: 1-Chlorooctane *85.3 %* *41-142*

Surrogate: 1-Chlorooctadecane *85.3 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TRC
ZACH CONDER
10 DESTA DR. SUITE 150 E
MIDLAND TX, 79705
Fax To:

Received:	12/21/2018	Sampling Date:	12/20/2018
Reported:	01/04/2019	Sampling Type:	Soil
Project Name:	STRATOJET 31 STATE COM #007H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO-LEA COUNTY, NM		

Sample ID: S 2 - B @ 5' (H803765-03)

BTEX 8021B mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/29/2018	ND	1.98	99.1	2.00	2.97	
Toluene*	<0.050	0.050	12/29/2018	ND	2.05	103	2.00	2.55	
Ethylbenzene*	<0.050	0.050	12/29/2018	ND	2.05	103	2.00	2.34	
Total Xylenes*	<0.150	0.150	12/29/2018	ND	6.01	100	6.00	2.35	
Total BTEX	<0.300	0.300	12/29/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.0 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**336**	16.0	12/31/2018	ND	432	108	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/28/2018	ND	185	92.4	200	1.69	
DRO >C10-C28*	<10.0	10.0	12/28/2018	ND	223	112	200	5.94	
EXT DRO >C28-C36	<10.0	10.0	12/28/2018	ND					

Surrogate: 1-Chlorooctane *81.5 %* *41-142*

Surrogate: 1-Chlorooctadecane *80.3 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TRC
ZACH CONDER
10 DESTA DR. SUITE 150 E
MIDLAND TX, 79705
Fax To:

Received:	12/21/2018	Sampling Date:	12/21/2018
Reported:	01/04/2019	Sampling Type:	Soil
Project Name:	STRATOJET 31 STATE COM #007H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO-LEA COUNTY, NM		

Sample ID: S 5 - B @ 3' (H803765-05)

BTEX 8021B mg/kg **Analyzed By: ms**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/31/2018	ND	2.08	104	2.00	2.09	
Toluene*	<0.050	0.050	12/31/2018	ND	2.07	104	2.00	1.73	
Ethylbenzene*	<0.050	0.050	12/31/2018	ND	2.05	102	2.00	1.93	
Total Xylenes*	<0.150	0.150	12/31/2018	ND	6.41	107	6.00	2.26	
Total BTEX	<0.300	0.300	12/31/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1360**	16.0	12/31/2018	ND	432	108	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/31/2018	ND	178	89.2	200	8.53	
DRO >C10-C28*	<10.0	10.0	12/31/2018	ND	190	95.2	200	9.54	
EXT DRO >C28-C36	<10.0	10.0	12/31/2018	ND					

Surrogate: 1-Chlorooctane *83.4 %* *41-142*

Surrogate: 1-Chlorooctadecane *86.2 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TRC
ZACH CONDER
10 DESTA DR. SUITE 150 E
MIDLAND TX, 79705
Fax To:

Received:	12/21/2018	Sampling Date:	12/21/2018
Reported:	01/04/2019	Sampling Type:	Soil
Project Name:	STRATOJET 31 STATE COM #007H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO-LEA COUNTY, NM		

Sample ID: S 5 - B @ 4' (H803765-06)

BTEX 8021B mg/kg **Analyzed By: ms**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/31/2018	ND	2.08	104	2.00	2.09	
Toluene*	<0.050	0.050	12/31/2018	ND	2.07	104	2.00	1.73	
Ethylbenzene*	<0.050	0.050	12/31/2018	ND	2.05	102	2.00	1.93	
Total Xylenes*	<0.150	0.150	12/31/2018	ND	6.41	107	6.00	2.26	
Total BTEX	<0.300	0.300	12/31/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**688**	16.0	12/31/2018	ND	432	108	400	0.00	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/31/2018	ND	178	89.2	200	8.53	
DRO >C10-C28*	<10.0	10.0	12/31/2018	ND	190	95.2	200	9.54	
EXT DRO >C28-C36	<10.0	10.0	12/31/2018	ND					

Surrogate: 1-Chlorooctane *83.2 %* *41-142*

Surrogate: 1-Chlorooctadecane *85.8 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TRC
ZACH CONDER
10 DESTA DR. SUITE 150 E
MIDLAND TX, 79705
Fax To:

Received:	12/21/2018	Sampling Date:	12/21/2018
Reported:	01/04/2019	Sampling Type:	Soil
Project Name:	STRATOJET 31 STATE COM #007H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO-LEA COUNTY, NM		

Sample ID: S 6 @ SURFACE (H803765-07)

BTEX 8021B mg/kg Analyzed By: ms S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/31/2018	ND	2.08	104	2.00	2.09	
Toluene*	**0.084**	0.050	12/31/2018	ND	2.07	104	2.00	1.73	
Ethylbenzene*	**0.674**	0.050	12/31/2018	ND	2.05	102	2.00	1.93	
Total Xylenes*	**4.02**	0.150	12/31/2018	ND	6.41	107	6.00	2.26	
Total BTEX	**4.78**	0.300	12/31/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *145 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**7280**	16.0	12/31/2018	ND	432	108	400	0.00	

TPH 8015M mg/kg Analyzed By: MS S-04

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	**201**	10.0	12/31/2018	ND	178	89.2	200	8.53	
DRO >C10-C28*	**11900**	10.0	12/31/2018	ND	190	95.2	200	9.54	
EXT DRO >C28-C36	**2070**	10.0	12/31/2018	ND					

Surrogate: 1-Chlorooctane *122 %* *41-142*

Surrogate: 1-Chlorooctadecane *448 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TRC
ZACH CONDER
10 DESTA DR. SUITE 150 E
MIDLAND TX, 79705
Fax To:

Received:	12/21/2018	Sampling Date:	12/21/2018
Reported:	01/04/2019	Sampling Type:	Soil
Project Name:	STRATOJET 31 STATE COM #007H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO-LEA COUNTY, NM		

Sample ID: S 6 @ 1' (H803765-08)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/31/2018	ND	2.08	104	2.00	2.09	
Toluene*	<0.050	0.050	12/31/2018	ND	2.07	104	2.00	1.73	
Ethylbenzene*	<0.050	0.050	12/31/2018	ND	2.05	102	2.00	1.93	
Total Xylenes*	<0.150	0.150	12/31/2018	ND	6.41	107	6.00	2.26	
Total BTEX	<0.300	0.300	12/31/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *106 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**6700**	16.0	12/31/2018	ND	400	100	400	7.69	QM-07

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/31/2018	ND	178	89.2	200	8.53	
DRO >C10-C28*	**156**	10.0	12/31/2018	ND	190	95.2	200	9.54	
EXT DRO >C28-C36	**80.0**	10.0	12/31/2018	ND					

Surrogate: 1-Chlorooctane *90.0 %* *41-142*

Surrogate: 1-Chlorooctadecane *98.5 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TRC
ZACH CONDER
10 DESTA DR. SUITE 150 E
MIDLAND TX, 79705
Fax To:

Received:	12/21/2018	Sampling Date:	12/21/2018
Reported:	01/04/2019	Sampling Type:	Soil
Project Name:	STRATOJET 31 STATE COM #007H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO-LEA COUNTY, NM		

Sample ID: S 6 @ 2' (H803765-09)

BTEX 8021B mg/kg Analyzed By: ms

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/31/2018	ND	2.08	104	2.00	2.09	
Toluene*	<0.050	0.050	12/31/2018	ND	2.07	104	2.00	1.73	
Ethylbenzene*	<0.050	0.050	12/31/2018	ND	2.05	102	2.00	1.93	
Total Xylenes*	<0.150	0.150	12/31/2018	ND	6.41	107	6.00	2.26	
Total BTEX	<0.300	0.300	12/31/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *114 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg Analyzed By: AC

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**2400**	16.0	12/31/2018	ND	400	100	400	7.69	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/31/2018	ND	178	89.2	200	8.53	
DRO >C10-C28*	<10.0	10.0	12/31/2018	ND	190	95.2	200	9.54	
EXT DRO >C28-C36	<10.0	10.0	12/31/2018	ND					

Surrogate: 1-Chlorooctane *86.2 %* *41-142*

Surrogate: 1-Chlorooctadecane *90.7 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TRC
ZACH CONDER
10 DESTA DR. SUITE 150 E
MIDLAND TX, 79705
Fax To:

Received:	12/21/2018	Sampling Date:	12/21/2018
Reported:	01/04/2019	Sampling Type:	Soil
Project Name:	STRATOJET 31 STATE COM #007H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO-LEA COUNTY, NM		

Sample ID: S 6 @ 3' (H803765-10)

BTEX 8021B mg/kg **Analyzed By: ms**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/31/2018	ND	2.08	104	2.00	2.09	
Toluene*	<0.050	0.050	12/31/2018	ND	2.07	104	2.00	1.73	
Ethylbenzene*	<0.050	0.050	12/31/2018	ND	2.05	102	2.00	1.93	
Total Xylenes*	<0.150	0.150	12/31/2018	ND	6.41	107	6.00	2.26	
Total BTEX	<0.300	0.300	12/31/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *105 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1470**	16.0	12/31/2018	ND	400	100	400	7.69	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/31/2018	ND	178	89.2	200	8.53	
DRO >C10-C28*	**124**	10.0	12/31/2018	ND	190	95.2	200	9.54	
EXT DRO >C28-C36	**16.5**	10.0	12/31/2018	ND					

Surrogate: 1-Chlorooctane *87.0 %* *41-142*

Surrogate: 1-Chlorooctadecane *94.6 %* *37.6-147*

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Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TRC
ZACH CONDER
10 DESTA DR. SUITE 150 E
MIDLAND TX, 79705
Fax To:

Received:	12/21/2018	Sampling Date:	12/21/2018
Reported:	01/04/2019	Sampling Type:	Soil
Project Name:	STRATOJET 31 STATE COM #007H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO-LEA COUNTY, NM		

Sample ID: S 7 @ SURFACE (H803765-13)

BTEX 8021B mg/kg **Analyzed By: ms**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/31/2018	ND	2.08	104	2.00	2.09	
Toluene*	<0.050	0.050	12/31/2018	ND	2.07	104	2.00	1.73	
Ethylbenzene*	<0.050	0.050	12/31/2018	ND	2.05	102	2.00	1.93	
Total Xylenes*	<0.150	0.150	12/31/2018	ND	6.41	107	6.00	2.26	
Total BTEX	<0.300	0.300	12/31/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**672**	16.0	12/31/2018	ND	400	100	400	7.69	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/31/2018	ND	178	89.2	200	8.53	
DRO >C10-C28*	**29.4**	10.0	12/31/2018	ND	190	95.2	200	9.54	
EXT DRO >C28-C36	**12.0**	10.0	12/31/2018	ND					

Surrogate: 1-Chlorooctane *73.2 %* *41-142*

Surrogate: 1-Chlorooctadecane *77.1 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

TRC
ZACH CONDER
10 DESTA DR. SUITE 150 E
MIDLAND TX, 79705
Fax To:

Received:	12/21/2018	Sampling Date:	12/21/2018
Reported:	01/04/2019	Sampling Type:	Soil
Project Name:	STRATOJET 31 STATE COM #007H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	CONCHO-LEA COUNTY, NM		

Sample ID: S 7 @ 1' (H803765-14)

BTEX 8021B mg/kg **Analyzed By: ms**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/31/2018	ND	2.08	104	2.00	2.09	
Toluene*	<0.050	0.050	12/31/2018	ND	2.07	104	2.00	1.73	
Ethylbenzene*	<0.050	0.050	12/31/2018	ND	2.05	102	2.00	1.93	
Total Xylenes*	<0.150	0.150	12/31/2018	ND	6.41	107	6.00	2.26	
Total BTEX	<0.300	0.300	12/31/2018	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *73.3-129*

Chloride, SM4500Cl-B mg/kg **Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**80.0**	16.0	12/31/2018	ND	400	100	400	7.69	

TPH 8015M mg/kg **Analyzed By: MS**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	12/31/2018	ND	178	89.2	200	8.53	
DRO >C10-C28*	<10.0	10.0	12/31/2018	ND	190	95.2	200	9.54	
EXT DRO >C28-C36	<10.0	10.0	12/31/2018	ND					

Surrogate: 1-Chlorooctane *91.0 %* *41-142*

Surrogate: 1-Chlorooctadecane *95.1 %* *37.6-147*

Cardinal Laboratories *=Accredited Analyte

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Mike Snyder For Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

1 OF 2

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	TRC Solutions	BILL TO	ANALYSIS REQUEST
Project Manager:	~~Joel Lowry~~ ZACH CONDER	P.O. #:	
Address:	10 Desta Drive Suite 150E	Company:	CONCHO
City:	Midland State: TX Zip: 79705	Attn:	Becky Haskell
Phone #:	~~432-466-4150~~ 432-234-5084 Fax #:	Address:	
Project #:	Project Owner: CONCHO	City:	
Project Name:	STRATOJET 31 ST COM #007H	State: Zip:	
Project Location:	LEA CO, NM	Phone #:	
Sampler Name:	BECKY GRIFFIN	Fax #:	

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	TPH 8015M EXT	CHLORIDE E 300 4500	BTEX 8021B	HOLD
H803765																		
1	S2-B@3'	G	1			X							12-20-18	1:00	X	X	X	
2	S2-B@4'	G	1			X								1:10	X	X	X	
3	S2-B@5'	G	1			X								1:20	X	X	X	
4	S2-B@6'	G	1			X								1:30				X
5	S5-B@3'	G	1			X							12-21-18	8:00	X	X	X	
6	S5-B@4'	G	1			X								8:10	X	X	X	
7	S6@SURFACE	G	1			X								9:00	X	X	X	
8	S6@1'	G	1			X								9:10	X	X	X	
9	S6@2'	G	1			X								9:20	X	X	X	
10	S6@3'	G	1			X								9:30	X	X	X	

Relinquished By:	Date: 12-21-18	Received By: Tamara Oldaker	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Time: 12:30	Received By:	Fax Result: ☐ Yes ☐ No Add'l Fax #:
	Date:		REMARKS: ZCONDER@TRCSOLUTIONS.COM BCOOPER@TRCSOLUTIONS.COM BRGRIFFIN@TRCSOLUTIONS.COM RHASKELL@CONCHO.COM
	Time:		

Delivered By: (Circle One)	Sample Condition	CHECKED BY:
Sampler - UPS - Bus - Other: 4.0°C #97	Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	(Initials) T.O.

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

CARDINAL Laboratories

2 OF 2

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: TRC Solutions	BILL TO
Project Manager: ~~Joel Lowry~~ ZACH CONDER	P.O. #:
Address: 10 Desta Drive Suite 150E	Company: CONCHO
City: Midland State: TX Zip: 79705	Attn: BECKY HASKELL
Phone #: ~~432-466-4450~~ 432-234-5084 Fax #:	Address:
Project #: Project Owner:	City:
Project Name: STRATOJET 31 ST COM #007H	State: Zip:
Project Location: LEA CO, NM	Phone #:
Sampler Name: BECKY GRIFFIN	Fax #:

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	ANALYSIS REQUEST: TPH 8015 M Ext	CHLORIDES E 300 4500	BTEX 8021 B	HOLD
H803765																		
11	S6 @ 4'	G	1			X							12-21-18	9:40				X
12	S6 @ 5'		1			X								9:50				X
13	S7 @ SURFACE		1			X								10:00	X	X	X	
14	S7 @ 1'		1			X								10:10	X	X	X	
15	S7 @ 2'		1			X								10:20				X
16	S7 @ 3'		1			X								10:30				X
	[redacted]		[redacted]															

Relinquished By: Becky Griffin	Date: 12-21-18 Time: 12:30	Received By: Tamara Oldaker	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Date: Time:	Received By:	Fax Result: ☐ Yes ☐ No Add'l Fax #:
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 4.0° #97	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials) TO.	REMARKS: ZCONDER@TRCSOLUTIONS.COM BCOOPER@TRCSOLUTIONS.COM BGRIFFIN@TRCSOLUTIONS.COM RHASKELL@CONCHO.COM

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

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

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

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**

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	1910		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

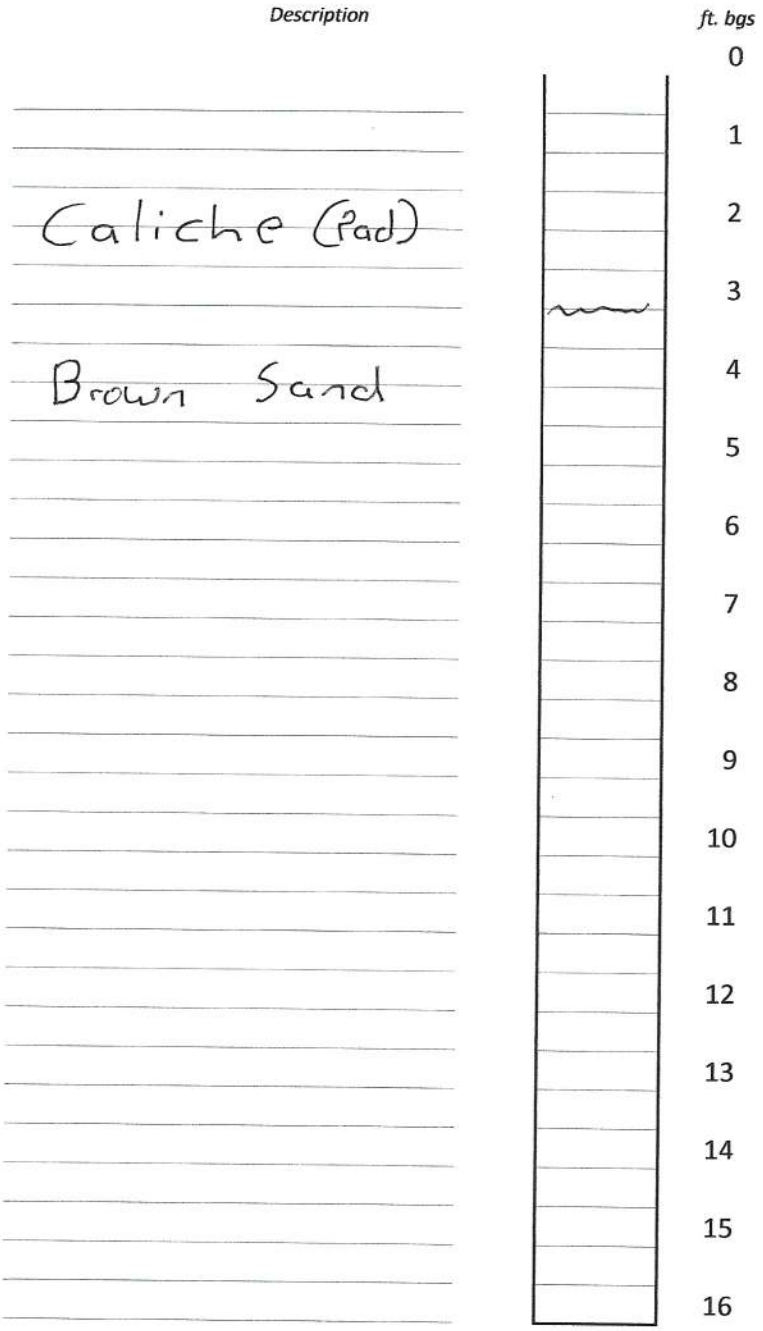
Remarks:
COOler 1: 2.7
COOler 2: 1.9
ENH 8/31/18

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.

Site Name: **Stratojet 31 State Com #007H** **Date:** **12/20/2018**

Soil Profile



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	
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, Texas 79701		

Location of Release Source

Latitude 32.52456 Longitude -103.49931

(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Stratojet 31 State Com #007H	Site Type	Wellhead
Date Release Discovered	November 5, 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:* S & S Inc.)

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) 8	Volume Recovered (bbls) 5
■ Produced Water	Volume Released (bbls) 2	Volume Recovered (bbls) 1
	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

The release was caused by sand washing out the housing on the back pressure valve. The back pressure valve is being replaced. The release was in the pasture. A vacuum truck was dispatched to remove all freestanding fluids. Concho will evaluate the site to determine if we may commence remediation immediately or delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
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?
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: DeAnn Grant Title: HSE Administrative Assistant

Signature: DeAnn Grant Date: 11/05/2018

email: agrant@concho.com Telephone: (432) 253-4513

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
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?	_____ (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	
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: _____ Title: _____

Signature:_____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date**:** _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

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	
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: _____

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

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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: _____

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

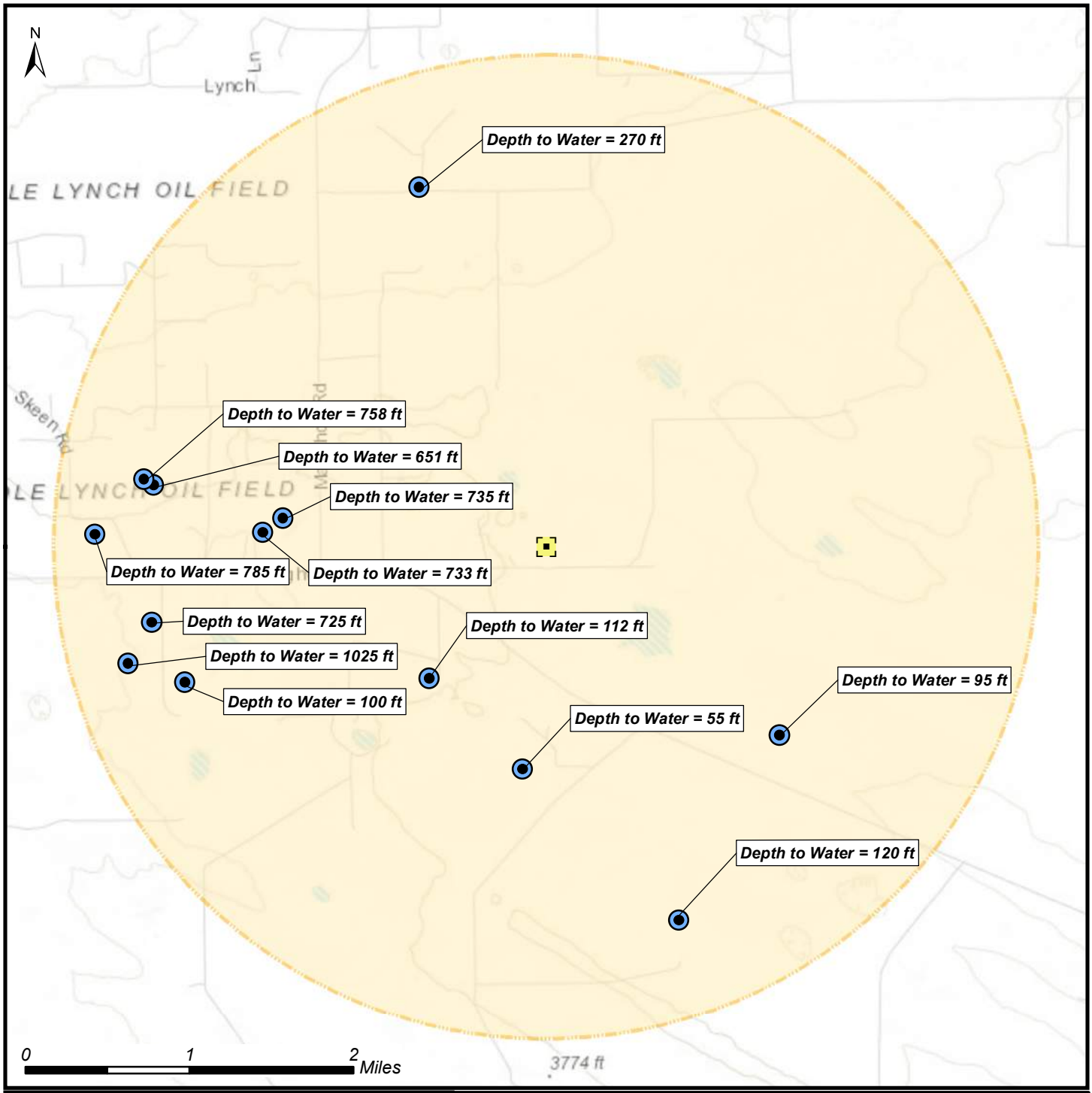
Jennifer Knowlton
Regional Manager - Permian

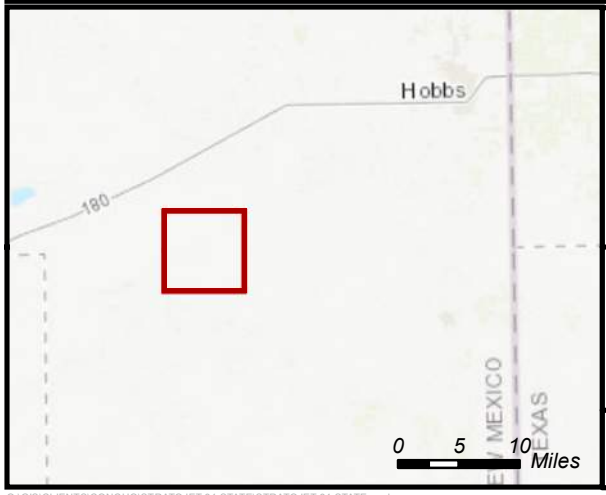
Attachments:

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

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**

Average Depth to Water: **474 feet**

Minimum Depth: **55 feet**

Maximum Depth: **1025 feet**

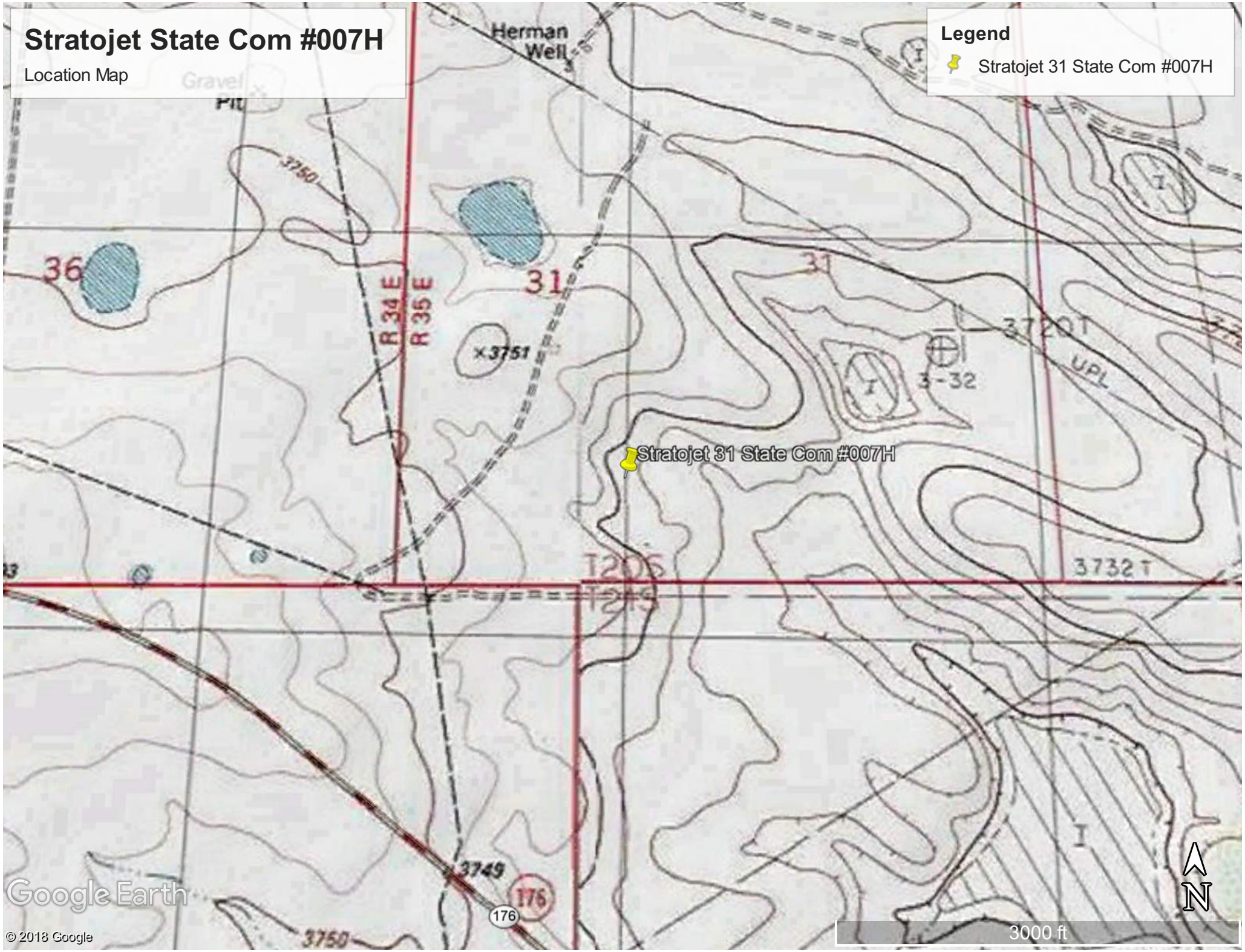
Record Count: 21

UTMNAD83 Radius Search (in meters):

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

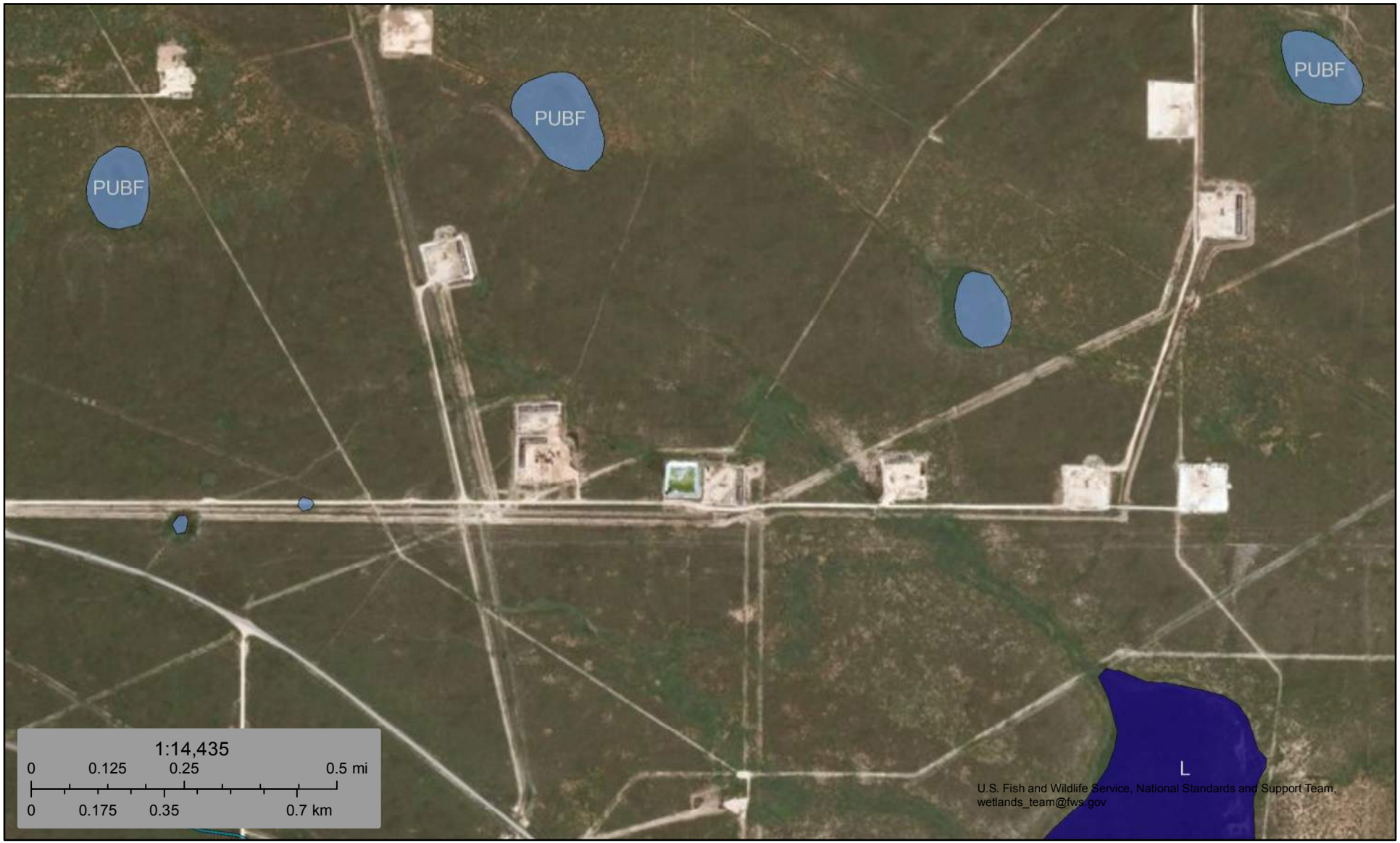
Attachment B:

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
3-32
3720T
UPL
3732T
T20S
T21S
Stratojet 31 State Com #007H
3749
176
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

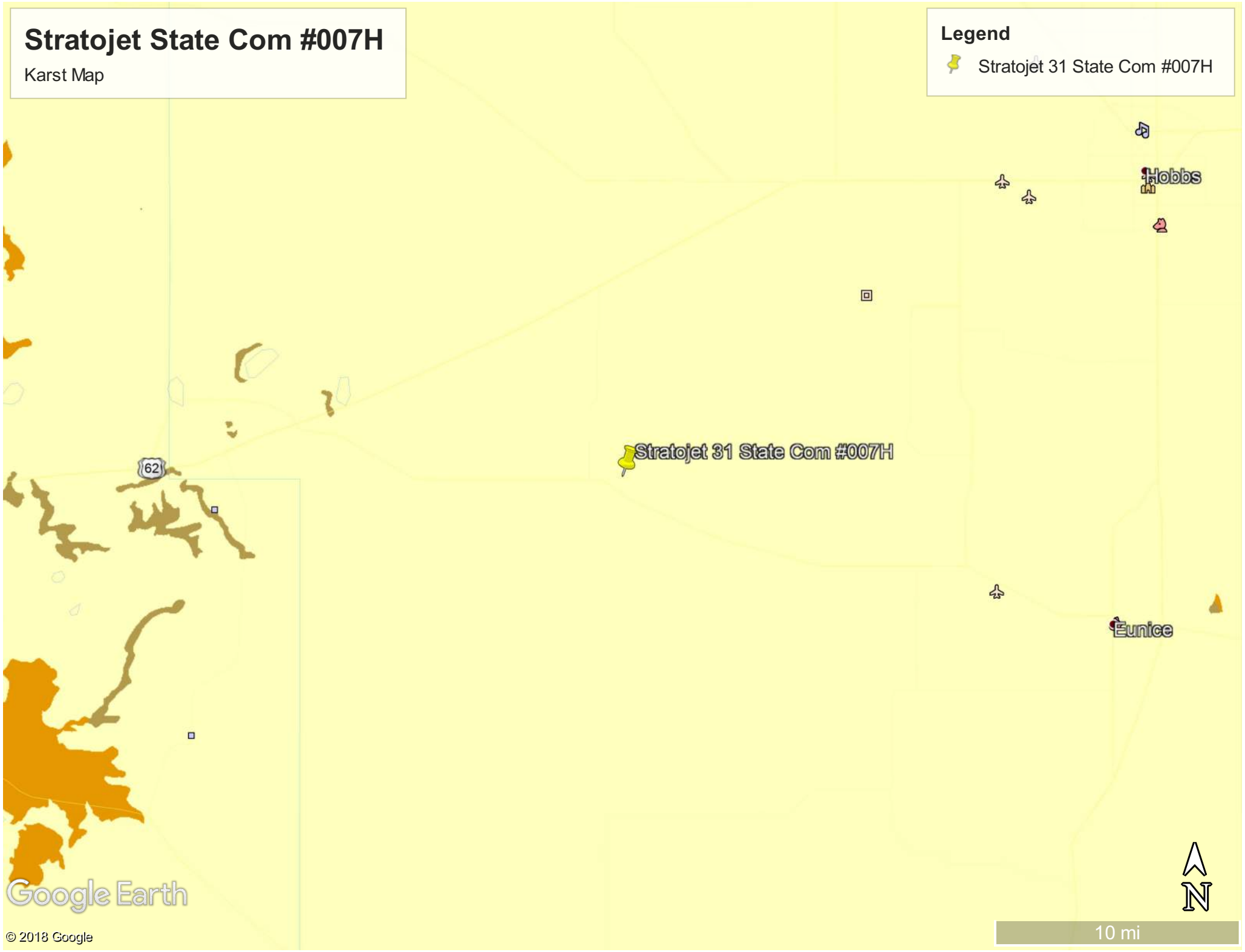
Google Earth

1996

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

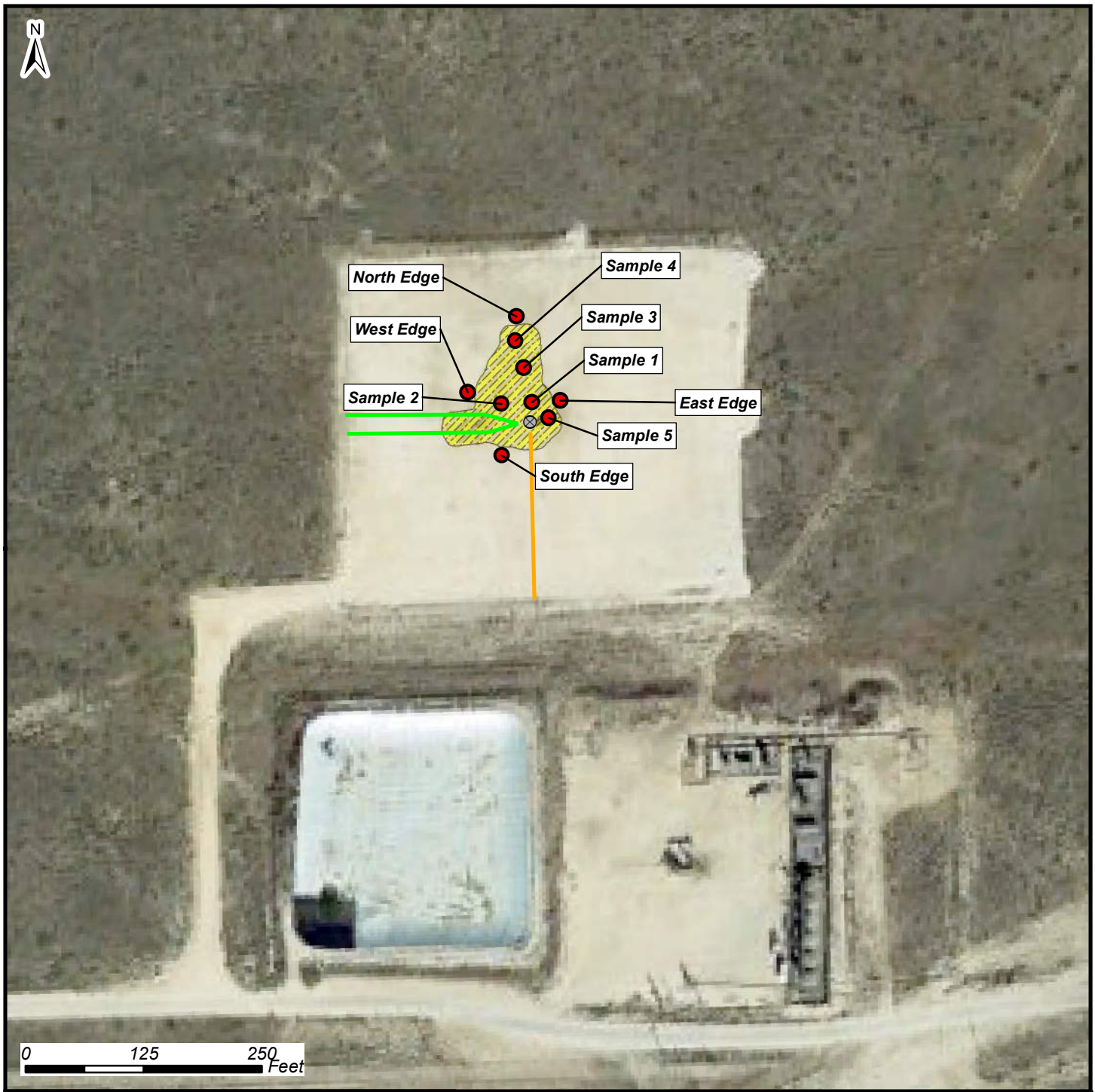
Stratojet State Com #007H

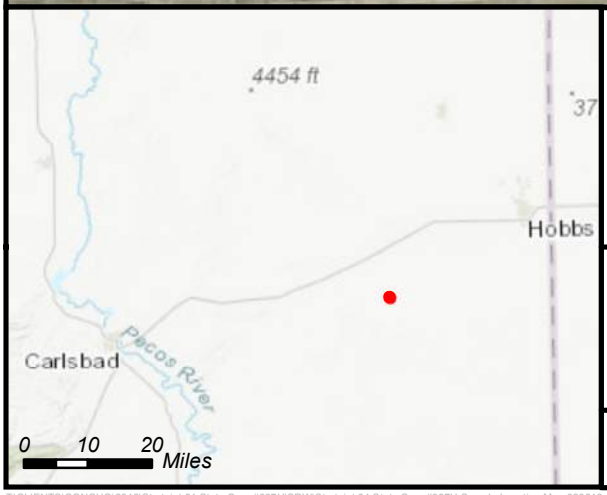
Karst Map



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

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

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

Cooper, Brian

From: Rebecca Haskell <RHaskell@concho.com>
Sent: Tuesday, January 29, 2019 2:14 PM
To: Cooper, Brian
Subject: FW: Stratojet 31State Com 007H DOR 8/4/2018 1RP-5146
Attachments: USGS_1mile.pdf

Becky Haskell
Senior HSE Coordinator
COG Operating LLC
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rhaskell@concho.com

From: Yu, Olivia, EMNRD [mailto:Olivia.Yu@state.nm.us]
Sent: Tuesday, November 06, 2018 10:00 AM
To: Jennifer Knowlton <jknowlton@hrlcomp.com>; Mann, Ryan <rmann@slo.state.nm.us>; Hernandez, Christina, EMNRD <Christina.Hernandez@state.nm.us>
Cc: Ike Tavarez <itavarez@concho.com>; Rebecca Haskell <RHaskell@concho.com>; Dakota Neel <DNeel2@concho.com>; Sheldon Hitchcock <SLHitchcock@concho.com>; DeAnn Grant <agrant@concho.com>
Subject: [External] RE: Stratojet 31State Com 007H DOR 8/4/2018 1RP-5146

**** External email. Use caution. ****
Good morning Ms. Knowlton/Haskell:

Please be advised that while the Responsible Operator may have met NMOCD requirements as per 19.15.29 NMAC, NMOCD is not a land agency. NMSLO's conditions of approval are concurrent with NMOCD's. One agency's regulations do not dominate another. In fact, per 19.15.29.13E, NMSLO's restoration, reclamation, and revegetation requirements supersede NMOCD. NMOCD requirements pertain to remediation.

Also, please note that

1. The Responsible Operator must sign the C-141 form, not an agent.
2. There are two USGS wells within a 1 mile radius, indicating depth to groundwater between 51 and 100 ft. bgs. Release characterization for TPH extended and GRO & MRO fraction is not complete.
3. According to the Sample Location Map, Sample location 2 seems to be approximately 50 ft. NW from the wellhead, which may not be considered "immediately around production equipment…"
4. NMOCD is in concurrence with NMSLO with additional delineation necessary at Sample locations 2 & 5 for 1RP-5146.

Olivia

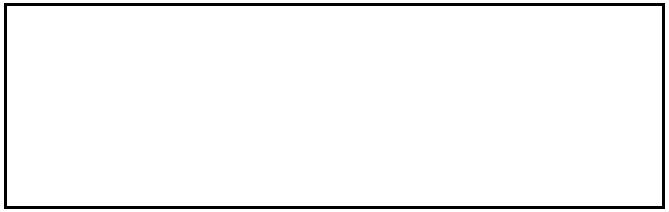
From: Jennifer Knowlton <jknowlton@hrlcomp.com>
Sent: Monday, November 5, 2018 1:20 PM
To: Mann, Ryan <rmann@slo.state.nm.us>; Yu, Olivia, EMNRD <Olivia.Yu@state.nm.us>; Hernandez, Christina, EMNRD <Christina.Hernandez@state.nm.us>
Cc: itavarez@concho.com; rhaskell@concho.com; Dakota Neel <DNeel2@concho.com>; Sheldon Hitchcock <SLHitchcock@concho.com>; DeAnn Grant <agrant@concho.com>
Subject: [EXT] RE: Stratojet 31State Com 007H DOR 8/4/2018 1RP-5146

Mr. Mann,

The remediation activities occurred on pad as the spill did not impact any off pad. Delineation to NMAC 19.15.29 Table 1 standards is required in NMAC 19.15.29.A(5)(b). Electric lines and equipment proximity prevented further depths being safely reached.

As stated in the remediation plan, 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. This includes the areas around SP2 (proximity to electric lines) and SP5 (proximity to wellhead equipment).

Jennifer Knowlton, PE | Regional Manager-Permian
HRL Compliance Solutions, Inc.
112 S. 6th Street | Artesia, NM 88210
main 575.616.7398 Ex. 414 | mobile 505-238-3588
Web | vCard | Map | ☐ | ☐



From: Mann, Ryan <rmann@slo.state.nm.us>
Sent: Monday, November 05, 2018 10:21 AM
To: Jennifer Knowlton <jknowlton@hrlcomp.com>; 'Yu, Olivia, EMNRD' <Olivia.Yu@state.nm.us>; 'Hernandez, Christina, EMNRD' <Christina.Hernandez@state.nm.us>
Cc: itavarez@concho.com; rhaskell@concho.com; Dakota Neel <DNeel2@concho.com>; Sheldon Hitchcock <SLHitchcock@concho.com>; DeAnn Grant <agrant@concho.com>
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Ms. Knowlton,

Delineation isn't completed at the site, therefore deferral is denied. Is the refusal the reason for incomplete delineation? The remediation plan is also denied, the area around SP-2 and SP-5 will require additional investigation to characterize. What is the area that is proposed for deferred? NMOCD may have additional questions or concerns. Let me know if you have any questions.

Ryan Mann
Remediation Specialist
Field Operation Division
(575) 392-3697
(505) 699-1989
New Mexico State Land Office
2827 N. Dal Paso Suite 117
Hobbs, NM 88240

From: Jennifer Knowlton [mailto:jknowlton@hrlcomp.com]
Sent: Friday, October 26, 2018 2:04 PM
To: 'Yu, Olivia, EMNRD' <Olivia.Yu@state.nm.us>; Mann, Ryan <rmann@slo.state.nm.us>; 'Hernandez, Christina, EMNRD' <Christina.Hernandez@state.nm.us>
Cc: itavarez@concho.com; rhaskell@concho.com; Dakota Neel <DNeel2@concho.com>; Sheldon Hitchcock <SLHitchcock@concho.com>; DeAnn Grant <agrant@concho.com>
Subject: Stratojet 31State Com 007H DOR 8/4/2018 1RP-5146

Ms. Yu/Mr. Mann,

On behalf of COG Operating, I am submitting a remediation plan for the Stratojet 31 State Com 007H. If you have any questions, please feel free to contact me.

Thanks,

Jennifer Knowlton, PE | Regional Manager-Permian
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