



August 12, 2020

Mike Bratcher
Oil Conservation Division, District 2
811 S First St.
Artesia, NM 88210

Ryan Mann
New Mexico State Land Office
1001 S. Atkinson
Roswell, NM 88230

Closure Report
Buckshot State Com #003H
API#: 30-015-41094
Tracking#: NRM2002736245
DOR: November 28, 2019
GPS: 32.16668,-104.12998
Unit Letter N, Section 31, Township 24 South, Range 28 East
Eddy County, New Mexico

To Whom It May Concern,

COG Operating, LLC (COG) is pleased to submit the following closure report in response to a release that occurred at the Buckshot State Com #003H.

BACKGROUND

The release was discovered on November 28, 2019 and a C-141 initial report was submitted to the New Mexico Oil Conservation Division (NMOCD) and the New Mexico State Land Office (NMSLO). The release was caused by a third party leaving a load line open. Approximately fifteen (15) barrels (bbls) of produced water were released and four (4) bbls were recovered. The fluid impacted the well pad in front of the facility.

GROUNDWATER AND REGULATORY FRAMEWORK

According to the United States Geological Survey (USGS) groundwater in the project vicinity is approximately forty (40) feet below ground surface (BGS). The water well information is shown in Appendix B.

A risk based evaluation and site determinations were performed in accordance to the New Mexico Oil Conservation Division (NMOCD) Rule (Title 19 Chapter 15 Part 29) for releases on oil and gas development and production in New Mexico (effective August 14, 2018). According to the site characterization evaluation the affected area has a high potential for cave karst, no other receptors (water wells, playas, water course, lake beds or ordinance boundaries) were located within each specific boundaries or distance from the site. The groundwater data and the site characterization evaluation data is summarized in Appendix B. The delineation and closure criteria are listed below:

General Site Characterization and Groundwater:

Site Characterization	Average Groundwater Depth (ft.)
Medium Karst Potential	~40 feet

Delineation and Closure Criteria:

Recommended Remedial Action Levels (RRALs)	
Chlorides	600 mg/kg
TPH (GRO and DRO and MRO)	100 mg/kg
Benzene	10 mg/kg
Total BTEX	50 mg/kg

REMEDIAL ACTIONS

- The impacted area was excavated to depths of one (1) foot BGS. The excavation is outlined in the attached site diagram.
- All of the excavated material was hauled to an NMOCD approved solid waste disposal facility.
- Confirmation soil samples were taken from bottom and sidewalls of the excavation per NMAC 19.15.29.
- The site was backfilled with clean “like” material and contoured to match the surrounding terrain.

CLOSURE REQUEST

COG Operating, LLC respectfully requests that the New Mexico Oil Conservation Division and the New Mexico State Land Office grant closure approval for the Buckshot State Com #3H incident that occurred on November 28, 2019.

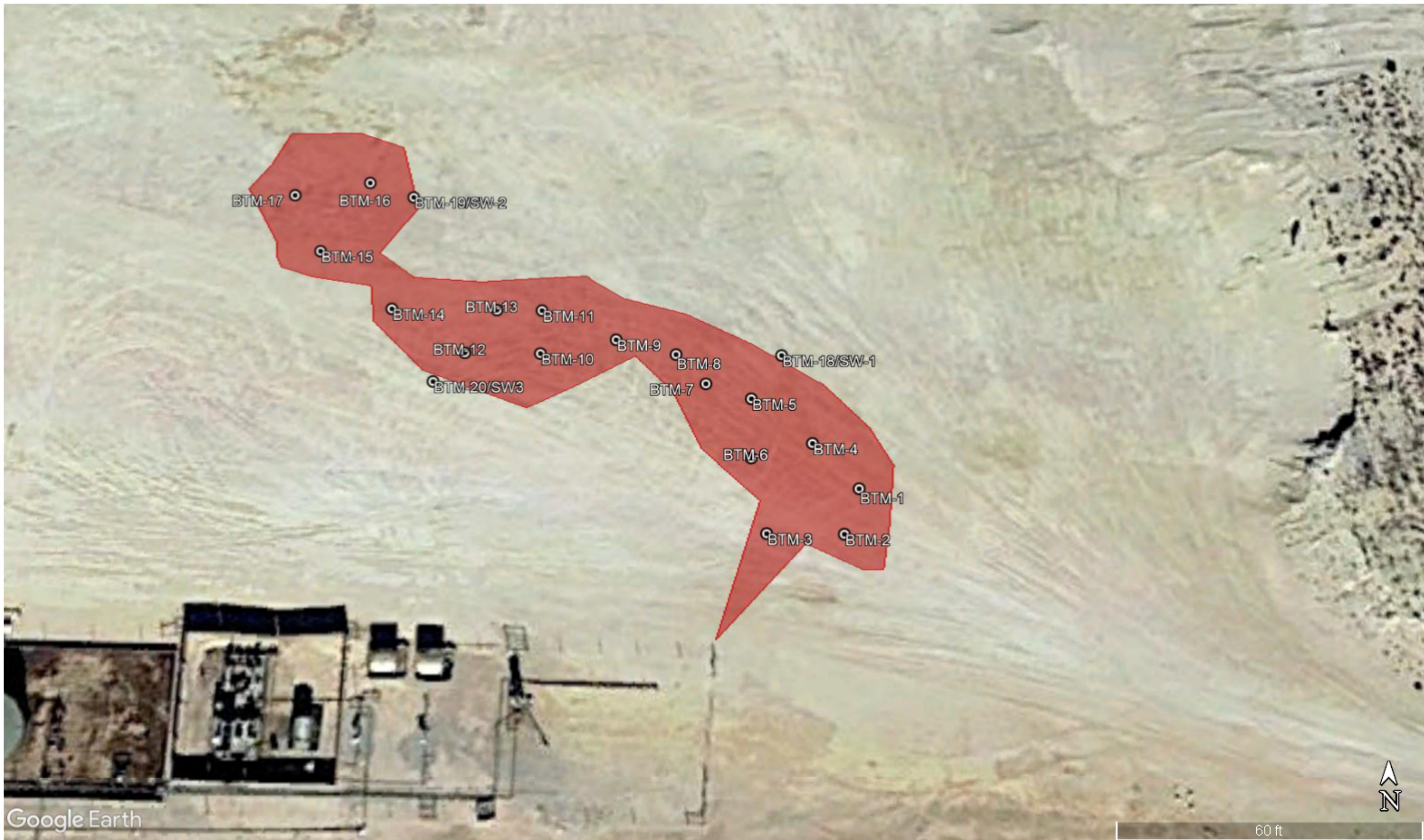
Should you have any questions or concerns please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Dakota Neel".

Dakota Neel
HSE Coordinator
dneel2@concho.com

FIGURES



TABLES

Table 1
COG Operating LLC.
BUCKSHOT STATE #003H
Eddy County, New Mexico

Sample ID	Sample Depth (ft)	Sample Date	Soil Status		TPH (mg/kg)						Benzene (mg/kg)	Total BTEX (mg/kg)	Chloride (mg/kg)	
			In-Situ	Removed	GRO	DRO	MRO	Total	GRO	DRO				Total
NMOCD RRAL Limits (mg/kg)					-	-	-	100	-	-	100	10	50	600
BTTM-1	1	12/30/2019	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	29.3
BTTM-2	1	12/30/2019	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	244.0
BTTM-3	1	12/30/2019	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	266.0
BTTM-4	1	12/30/2019	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	47.2
BTTM-5	1	12/30/2019	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	<10
BTTM-6	1	12/30/2019	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	174.0
BTTM-7	1	12/30/2019	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	76.7
BTTM-8	1	12/30/2019	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	70.4
BTTM-9	1	12/30/2019	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	20.8
BTTM-10	1	12/30/2019	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	34.5
BTTM-11	1	12/30/2019	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	103.0
BTTM-12	1	12/30/2019	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	129.0
BTTM-13	1	12/30/2019	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	<10
BTTM-14	1	12/30/2019	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	66.8
BTTM-15	1	12/30/2019	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	31.3
BTTM-16	1	12/30/2019	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	34.6
BTTM-17	1	12/30/2019	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	48.5
BTTM-18/SW-1	1	12/30/2019	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	149.0
BTTM-19/SW-2	1	12/30/2019	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	89.4
BTTM-20/SW-3	1	12/30/2019	X		<50.0	<50.0	<50.0	0.0	<50.0	<50.0	0.0	<0.002	<0.002	43.3
*BTM-18, BTM-19, AND BTM-20 were labeled incorrectly. These 3 samples were sides wall samples.														

*BTM-18, BTM-19, AND BTM-20 were labeled incorrectly. These 3 samples were sides wall samples.

(#) Not Analyzed

APPENDIX A

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	NRM2002736245
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

UV9C6-191211-C-1410

Responsible Party	COG Operating, LLC	OGRID	229137
Contact Name	Jennifer Knowlton	Contact Telephone	(575) 748-1570
Contact email	JKnowlton@concho.com	Incident # (assigned by OCD)	
Contact mailing address	600 West Illinois Avenue, Midland, Texas 79701		

Location of Release Source

Latitude 32.16668 Longitude -104.12998
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Buckshot State Com #003H	Site Type	Tank Battery
Date Release Discovered	November 28, 2019	API# (if applicable)	30-015-41094

Unit Letter	Section	Township	Range	County
N	31	24S	28E	Eddy

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)	Volume Recovered (bbls)
☒ Produced Water	Volume Released (bbls) 15	Volume Recovered (bbls) 4
	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

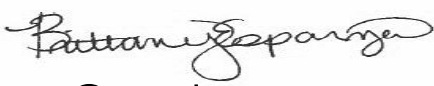
The release was caused by a third party leaving load line open.
The release was on the pad. A vacuum truck was dispatched to remove all freestanding fluids.
Concho will evaluate the site to determine if we may commence remediation immediately or delineate any possible impact from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation activities.

Incident ID	NRM2002736245
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 <u>not</u> 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 Brittany N. Esparza	Title: HSE Administrative Assistant
Signature: 	Date: 12/11/2019
email: besparza@concho.com	Telephone: (432) 221-0398
<u>OCD Only</u>	
Received by: Ramona Marcus	Date: 1/27/2020

Incident ID	NRM2002736245
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?	<u>40</u> (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.

Incident ID	NRM2002736245
District RP	
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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: Dakota Neel Title: HSE Coordinator
Signature:  Date: 8/12/2020
email: dneel2@concho.com Telephone: 432-215-2783

OCD Only

Received by: _____ Date: _____

Incident ID	NRM2002736245
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: Dakota Neel Title: HSE Coordinator

Signature:  Date: 8/12/2020

email: dneel2@concho.com Telephone: 432-215-2783

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

APPENDIX B



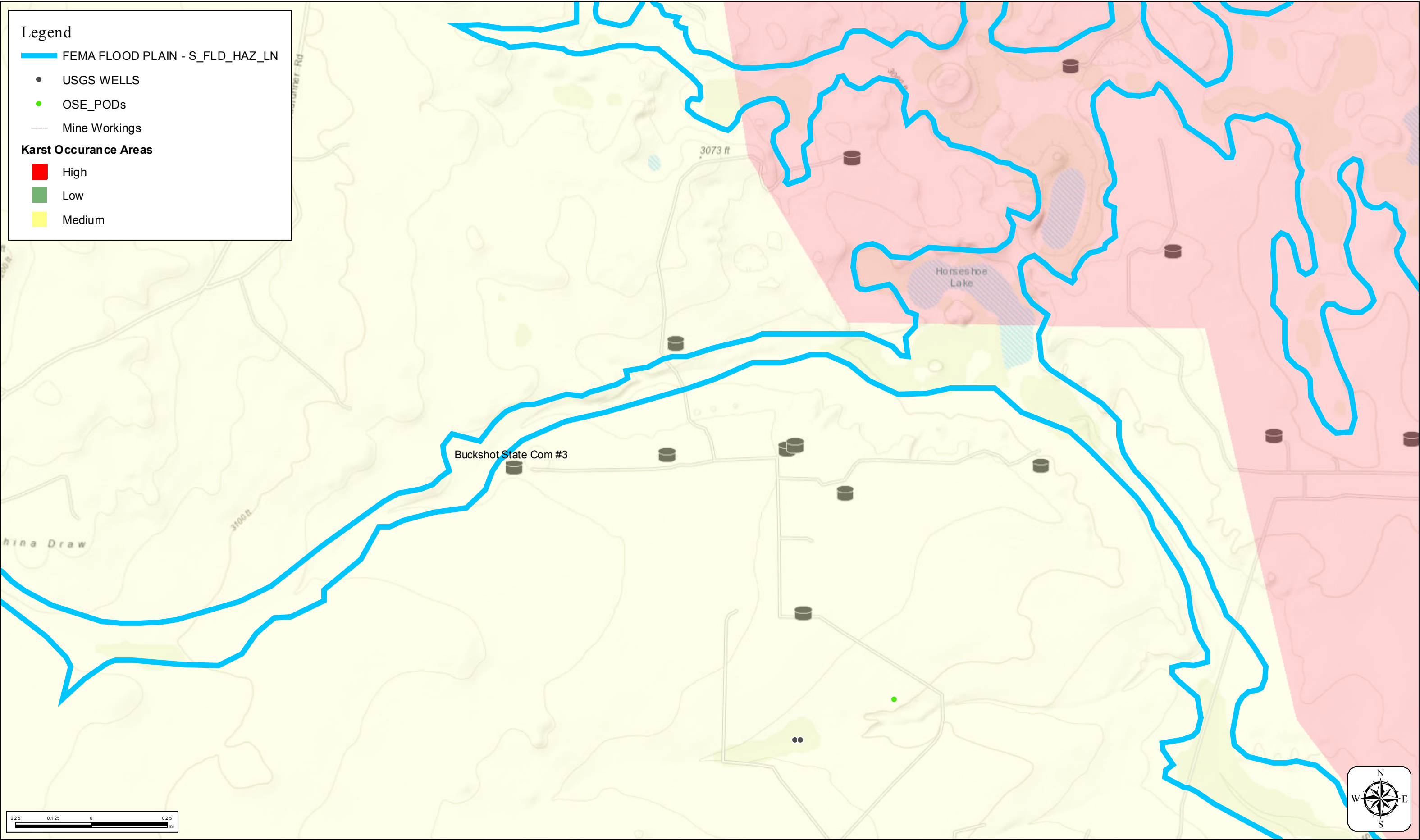
Buckshot State Com #3

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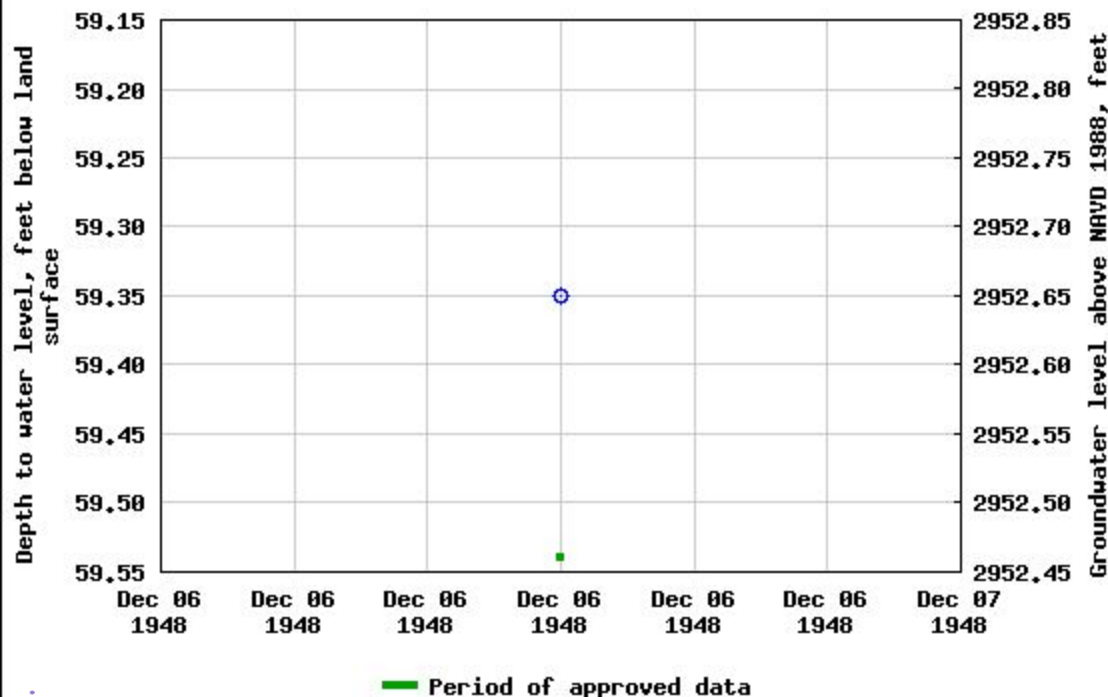
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- USGS WELLS
- OSE_PODs
- Mine Workings

Karst Occurance Areas

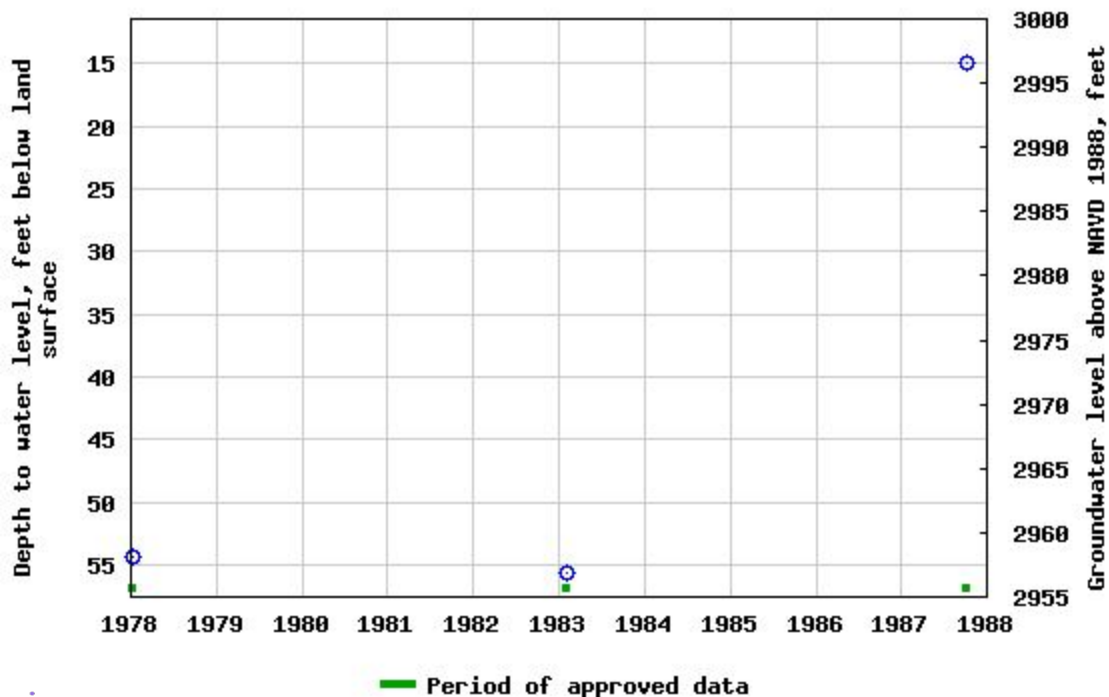
- High
- Low
- Medium



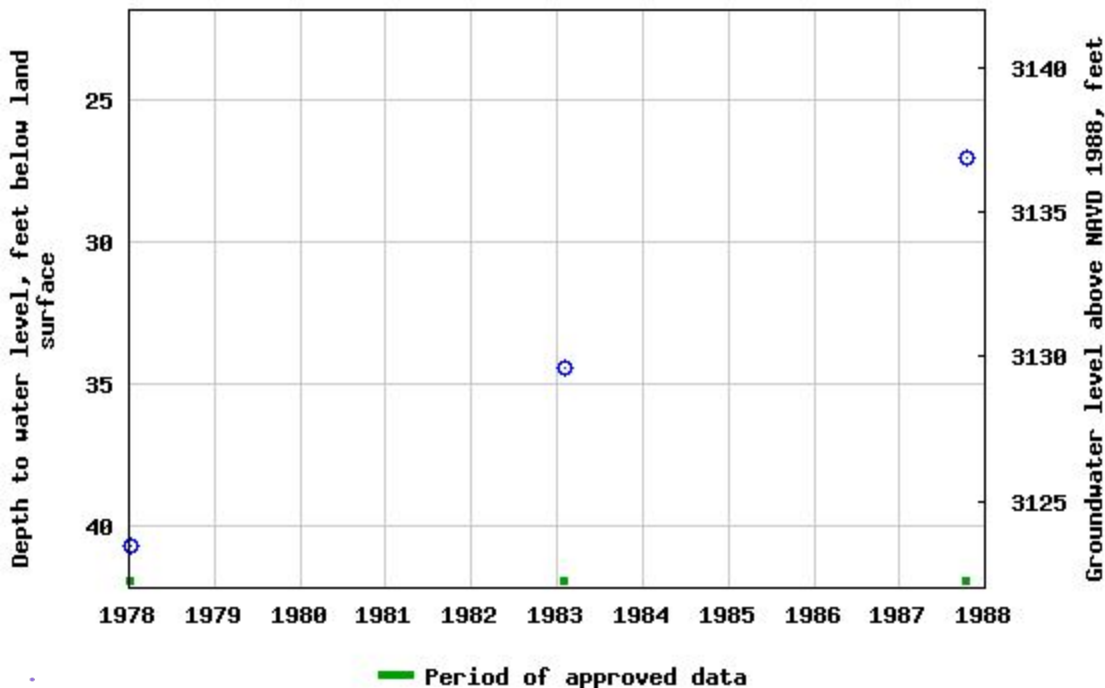
USGS 320920104065701 25S.28E.05.331112



USGS 320920104065801 25S.28E.05.33111



USGS 321000104092501 25S.27E.02.21122





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	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	DepthWell	DepthWater	Water Column
C_03263 POD1		CUB	ED	1	1	1	07	25S	28E	581628	3557501*	1795	133		

Average Depth to Water:

--

Minimum Depth:

--

Maximum Depth:

--

Record Count: 1

UTM NAD83 Radius Search (in meters):

Easting (X): 582048.74

Northing (Y): 3559246.63

Radius: 2000

*UTM location was derived from PLSS - see Help

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

8/12/20 2:03 PM

WATER COLUMN/ AVERAGE DEPTH TO
WATER

APPENDIX C



Certificate of Analysis Summary 647906

Concho Resources Inc., Midland, TX

Project Name: Buckshot State #3 M&R

Project Id: 11/28/2019
 Contact: Sheldon Hitchcock
 Project Location:

Date Received in Lab: Fri Jan-03-20 03:29 pm
 Report Date: 06-JAN-20
 Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	647906-001	647906-002	647906-003	647906-004	647906-005	647906-006
	<i>Field Id:</i>	BTM -1	BTM -2	BTM -3	BTM -4	BTM -5	BTM -6
	<i>Depth:</i>	1- ft	1- ft	1- ft	1- ft	1- ft	1- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-30-19 09:00	Dec-30-19 09:05	Dec-30-19 09:10	Dec-30-19 09:15	Dec-30-19 09:20	Dec-30-19 09:25
BTEX by EPA 8021B	<i>Extracted:</i>	Jan-03-20 16:30	Jan-03-20 16:30	Jan-03-20 16:30	Jan-03-20 16:30	Jan-03-20 16:30	Jan-03-20 16:30
	<i>Analyzed:</i>	Jan-03-20 20:52	Jan-03-20 21:11	Jan-03-20 21:30	Jan-03-20 21:50	Jan-03-20 22:09	Jan-03-20 22:28
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200
Toluene		<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200
Ethylbenzene		<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200
m,p-Xylenes		<0.00397 0.00397	<0.00395 0.00395	<0.00396 0.00396	<0.00396 0.00396	<0.00398 0.00398	<0.00399 0.00399
o-Xylene		<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200
Total Xylenes		<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200
Total BTEX		<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00198 0.00198	<0.00199 0.00199	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	Jan-03-20 16:40	Jan-03-20 16:40	Jan-03-20 16:40	Jan-03-20 16:40	Jan-03-20 16:40	Jan-03-20 16:40
	<i>Analyzed:</i>	Jan-03-20 18:58	Jan-03-20 19:04	Jan-03-20 19:10	Jan-03-20 19:16	Jan-03-20 19:21	Jan-03-20 19:27
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		29.3 9.98	244 9.92	266 9.98	47.2 9.88	<9.98 9.98	174 10.0
TPH By SW8015 Mod	<i>Extracted:</i>	Jan-03-20 16:00	Jan-03-20 16:00	Jan-03-20 16:00	Jan-03-20 16:00	Jan-03-20 16:00	Jan-03-20 16:00
	<i>Analyzed:</i>	Jan-03-20 20:54	Jan-03-20 21:14	Jan-03-20 21:14	Jan-03-20 21:34	Jan-03-20 21:34	Jan-03-20 21:54
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons		<49.9 49.9	<50.0 50.0	<50.2 50.2	<49.9 49.9	<50.2 50.2	<49.8 49.8
Diesel Range Organics		<49.9 49.9	<50.0 50.0	<50.2 50.2	<49.9 49.9	<50.2 50.2	<49.8 49.8
Motor Oil Range Hydrocarbons (MRO)		<49.9 49.9	<50.0 50.0	<50.2 50.2	<49.9 49.9	<50.2 50.2	<49.8 49.8
Total TPH		<49.9 49.9	<50.0 50.0	<50.2 50.2	<49.9 49.9	<50.2 50.2	<49.8 49.8

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager



Certificate of Analysis Summary 647906

Concho Resources Inc., Midland, TX

Project Name: Buckshot State #3 M&R

Project Id: 11/28/2019
 Contact: Sheldon Hitchcock
 Project Location:

Date Received in Lab: Fri Jan-03-20 03:29 pm
 Report Date: 06-JAN-20
 Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	647906-007	647906-008	647906-009	647906-010	647906-011	647906-012
	<i>Field Id:</i>	BTM -7	BTM -8	BTM -9	BTM -10	BTM -11	BTM -12
	<i>Depth:</i>	1- ft	1- ft	1- ft	1- ft	1- ft	1- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-30-19 09:30	Dec-30-19 09:35	Dec-30-19 09:40	Dec-30-19 09:45	Dec-30-19 09:50	Dec-30-19 09:55
BTEX by EPA 8021B	<i>Extracted:</i>	Jan-03-20 16:49	Jan-03-20 16:49	Jan-03-20 16:49	Jan-03-20 16:49	Jan-03-20 16:49	Jan-03-20 16:49
	<i>Analyzed:</i>	Jan-04-20 02:11	Jan-04-20 02:31	Jan-04-20 02:50	Jan-04-20 03:09	Jan-04-20 03:28	Jan-04-20 03:47
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00197 0.00197	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Toluene		<0.00197 0.00197	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Ethylbenzene		<0.00197 0.00197	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
m,p-Xylenes		<0.00394 0.00394	<0.00396 0.00396	<0.00404 0.00404	<0.00398 0.00398	<0.00399 0.00399	<0.00396 0.00396
o-Xylene		<0.00197 0.00197	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Total Xylenes		<0.00197 0.00197	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Total BTEX		<0.00197 0.00197	<0.00198 0.00198	<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198
Chloride by EPA 300	<i>Extracted:</i>	Jan-03-20 16:40	Jan-03-20 16:40	Jan-03-20 16:40	Jan-03-20 16:40	Jan-03-20 16:40	Jan-03-20 16:40
	<i>Analyzed:</i>	Jan-03-20 19:32	Jan-03-20 19:49	Jan-03-20 20:06	Jan-03-20 20:12	Jan-03-20 20:18	Jan-03-20 20:24
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		76.7 10.0	70.4 9.88	20.8 9.98	34.5 9.96	103 9.94	129 10.0
TPH By SW8015 Mod	<i>Extracted:</i>	Jan-03-20 16:00	Jan-03-20 16:00	Jan-03-20 16:00	Jan-03-20 16:00	Jan-03-20 16:00	Jan-03-20 16:00
	<i>Analyzed:</i>	Jan-03-20 22:14	Jan-03-20 22:14	Jan-03-20 22:34	Jan-03-20 22:34	Jan-03-20 22:54	Jan-03-20 22:54
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons		<49.8 49.8	<50.1 50.1	<50.1 50.1	<49.8 49.8	<50.0 50.0	<50.2 50.2
Diesel Range Organics		<49.8 49.8	<50.1 50.1	<50.1 50.1	<49.8 49.8	<50.0 50.0	<50.2 50.2
Motor Oil Range Hydrocarbons (MRO)		<49.8 49.8	<50.1 50.1	<50.1 50.1	<49.8 49.8	<50.0 50.0	<50.2 50.2
Total TPH		<49.8 49.8	<50.1 50.1	<50.1 50.1	<49.8 49.8	<50.0 50.0	<50.2 50.2

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager



Certificate of Analysis Summary 647906

Concho Resources Inc., Midland, TX

Project Name: Buckshot State #3 M&R

Project Id: 11/28/2019
 Contact: Sheldon Hitchcock
 Project Location:

Date Received in Lab: Fri Jan-03-20 03:29 pm
 Report Date: 06-JAN-20
 Project Manager: Jessica Kramer

<i>Analysis Requested</i>	<i>Lab Id:</i>	647906-013	647906-014	647906-015	647906-016	647906-017	647906-018
	<i>Field Id:</i>	BTM -13	BTM -14	BTM -15	BTM -16	BTM -17	BTM -18
	<i>Depth:</i>	1- ft	1- ft	1- ft	1- ft	1- ft	1- ft
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-30-19 10:00	Dec-30-19 10:05	Dec-30-19 10:10	Dec-30-19 10:15	Dec-30-19 10:20	Dec-30-19 10:25
BTEX by EPA 8021B	<i>Extracted:</i>	Jan-03-20 16:49	Jan-03-20 16:49	Jan-03-20 16:49	Jan-03-20 16:49	Jan-03-20 16:49	Jan-03-20 16:49
	<i>Analyzed:</i>	Jan-04-20 04:06	Jan-04-20 04:25	Jan-04-20 04:44	Jan-04-20 05:48	Jan-04-20 06:08	Jan-04-20 06:27
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200
Toluene		<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200
Ethylbenzene		<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200
m,p-Xylenes		<0.00404 0.00404	<0.00398 0.00398	<0.00399 0.00399	<0.00395 0.00395	<0.00396 0.00396	<0.00399 0.00399
o-Xylene		<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200
Total Xylenes		<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200
Total BTEX		<0.00202 0.00202	<0.00199 0.00199	<0.00200 0.00200	<0.00198 0.00198	<0.00198 0.00198	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	Jan-03-20 16:40	Jan-03-20 16:40	Jan-03-20 16:40	Jan-03-20 16:40	Jan-03-20 16:45	Jan-03-20 16:45
	<i>Analyzed:</i>	Jan-03-20 20:30	Jan-03-20 20:36	Jan-03-20 20:42	Jan-03-20 20:48	Jan-03-20 21:25	Jan-03-20 21:43
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<10.0 10.0	66.8 10.0	31.3 9.98	34.6 9.88	48.5 10.0	149 10.0
TPH By SW8015 Mod	<i>Extracted:</i>	Jan-03-20 16:00	Jan-03-20 16:00	Jan-03-20 16:00	Jan-03-20 16:00	Jan-03-20 17:30	Jan-03-20 17:30
	<i>Analyzed:</i>	Jan-03-20 23:14	Jan-03-20 23:14	Jan-03-20 23:34	Jan-03-20 23:34	Jan-04-20 00:33	Jan-04-20 00:53
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons		<50.3 50.3	<50.1 50.1	<50.1 50.1	<50.3 50.3	<50.1 50.1	<50.3 50.3
Diesel Range Organics		<50.3 50.3	<50.1 50.1	<50.1 50.1	<50.3 50.3	<50.1 50.1	<50.3 50.3
Motor Oil Range Hydrocarbons (MRO)		<50.3 50.3	<50.1 50.1	<50.1 50.1	<50.3 50.3	<50.1 50.1	<50.3 50.3
Total TPH		<50.3 50.3	<50.1 50.1	<50.1 50.1	<50.3 50.3	<50.1 50.1	<50.3 50.3

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Holly Taylor
Project Manager



Certificate of Analysis Summary 647906

Concho Resources Inc., Midland, TX

Project Name: Buckshot State #3 M&R

Project Id: 11/28/2019
 Contact: Sheldon Hitchcock
 Project Location:

Date Received in Lab: Fri Jan-03-20 03:29 pm
 Report Date: 06-JAN-20
 Project Manager: Jessica Kramer

Analysis Requested	Lab Id:	647906-019	647906-020				
	Field Id:	BTM -19	BTM -20				
	Depth:	1- ft	1- ft				
	Matrix:	SOIL	SOIL				
	Sampled:	Dec-30-19 10:30	Dec-30-19 10:35				
BTEX by EPA 8021B	Extracted:	Jan-03-20 16:49	Jan-03-20 16:49				
	Analyzed:	Jan-04-20 06:46	Jan-04-20 01:52				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		<0.00200 0.00200	<0.00200 0.00200				
Toluene		<0.00200 0.00200	<0.00200 0.00200				
Ethylbenzene		<0.00200 0.00200	<0.00200 0.00200				
m,p-Xylenes		<0.00399 0.00399	<0.00399 0.00399				
o-Xylene		<0.00200 0.00200	<0.00200 0.00200				
Total Xylenes		<0.00200 0.00200	<0.00200 0.00200				
Total BTEX		<0.00200 0.00200	<0.00200 0.00200				
Chloride by EPA 300	Extracted:	Jan-03-20 16:45	Jan-03-20 16:45				
	Analyzed:	Jan-03-20 21:49	Jan-03-20 21:55				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		89.4 9.98	43.3 10.1				
TPH By SW8015 Mod	Extracted:	Jan-03-20 17:30	Jan-03-20 17:30				
	Analyzed:	Jan-04-20 01:13	Jan-04-20 01:13				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons		<50.2 50.2	<50.0 50.0				
Diesel Range Organics		<50.2 50.2	<50.0 50.0				
Motor Oil Range Hydrocarbons (MRO)		<50.2 50.2	<50.0 50.0				
Total TPH		<50.2 50.2	<50.0 50.0				

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Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager

Analytical Report 647906

**for
Concho Resources Inc.**

Project Manager: Sheldon Hitchcock

Buckshot State #3 M&R

11/28/2019

06-JAN-20

Collected By: Client



**1089 N Canal Street
Carlsbad, NM 88220**

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-19-30), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2019-058), North Carolina (681), Arkansas (19-037-0)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (TX104704295-19-22), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-19-16)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-19-21)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19)

Xenco-Carlsbad (LELAP): Louisiana (05092)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-19-5)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Tampa: Florida (E87429), North Carolina (483)



06-JAN-20

Project Manager: **Sheldon Hitchcock**

Concho Resources Inc.

1 Concho Center

600 West Illinois Ave

Midland, TX 79701

Reference: XENCO Report No(s): **647906**

Buckshot State #3 M&R

Project Address:

Sheldon Hitchcock:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 647906. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 647906 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Holly Taylor'.

Holly Taylor

Project Manager

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**Sample Cross Reference 647906****Concho Resources Inc., Midland, TX**

Buckshot State #3 M&R

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
BTM -1	S	12-30-19 09:00	1 ft	647906-001
BTM -2	S	12-30-19 09:05	1 ft	647906-002
BTM -3	S	12-30-19 09:10	1 ft	647906-003
BTM -4	S	12-30-19 09:15	1 ft	647906-004
BTM -5	S	12-30-19 09:20	1 ft	647906-005
BTM -6	S	12-30-19 09:25	1 ft	647906-006
BTM -7	S	12-30-19 09:30	1 ft	647906-007
BTM -8	S	12-30-19 09:35	1 ft	647906-008
BTM -9	S	12-30-19 09:40	1 ft	647906-009
BTM -10	S	12-30-19 09:45	1 ft	647906-010
BTM -11	S	12-30-19 09:50	1 ft	647906-011
BTM -12	S	12-30-19 09:55	1 ft	647906-012
BTM -13	S	12-30-19 10:00	1 ft	647906-013
BTM -14	S	12-30-19 10:05	1 ft	647906-014
BTM -15	S	12-30-19 10:10	1 ft	647906-015
BTM -16	S	12-30-19 10:15	1 ft	647906-016
BTM -17	S	12-30-19 10:20	1 ft	647906-017
BTM -18	S	12-30-19 10:25	1 ft	647906-018
BTM -19	S	12-30-19 10:30	1 ft	647906-019
BTM -20	S	12-30-19 10:35	1 ft	647906-020



CASE NARRATIVE

Client Name: Concho Resources Inc.

Project Name: Buckshot State #3 M&R

Project ID: 11/28/2019

Work Order Number(s): 647906

Report Date: 06-JAN-20

Date Received: 01/03/2020

Sample receipt non conformance and comments:

None

Sample receipt non conformance and comments per sample:

None

Analytical non conformance and comments:

Batch: LBA-3112359 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3112363 BTEX by EPA 8021B

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -1**
 Lab Sample Id: 647906-001

Matrix: Soil
 Date Collected: 12.30.19 09.00

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3112367

Date Prep: 01.03.20 16.40

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	29.3	9.98	mg/kg	01.03.20 18.58		1

Analytical Method: TPH By SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3112398

Date Prep: 01.03.20 16.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	01.03.20 20.54	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	01.03.20 20.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.03.20 20.54	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.03.20 20.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	01.03.20 20.54	
o-Terphenyl	84-15-1	113	%	70-135	01.03.20 20.54	



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -1**
 Lab Sample Id: 647906-001

Matrix: Soil
 Date Collected: 12.30.19 09.00

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.03.20 16.30

Basis: Wet Weight

Seq Number: 3112359

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.03.20 20.52	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.03.20 20.52	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.03.20 20.52	U	1
m,p-Xylenes	179601-23-1	<0.00397	0.00397	mg/kg	01.03.20 20.52	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.03.20 20.52	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.03.20 20.52	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.03.20 20.52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	01.03.20 20.52		
1,4-Difluorobenzene	540-36-3	106	%	70-130	01.03.20 20.52		



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -2**
 Lab Sample Id: 647906-002

Matrix: Soil
 Date Collected: 12.30.19 09.05

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3112367

Date Prep: 01.03.20 16.40

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	244	9.92	mg/kg	01.03.20 19.04		1

Analytical Method: TPH By SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3112398

Date Prep: 01.03.20 16.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	01.03.20 21.14	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	01.03.20 21.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.03.20 21.14	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.03.20 21.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	01.03.20 21.14	
o-Terphenyl	84-15-1	121	%	70-135	01.03.20 21.14	



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -2**
 Lab Sample Id: 647906-002

Matrix: Soil
 Date Collected: 12.30.19 09.05

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.03.20 16.30

Basis: Wet Weight

Seq Number: 3112359

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.03.20 21.11	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.03.20 21.11	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.03.20 21.11	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	01.03.20 21.11	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.03.20 21.11	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.03.20 21.11	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.03.20 21.11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	01.03.20 21.11		
1,4-Difluorobenzene	540-36-3	106	%	70-130	01.03.20 21.11		



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -3**
 Lab Sample Id: 647906-003

Matrix: Soil
 Date Collected: 12.30.19 09.10

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3112367

Date Prep: 01.03.20 16.40

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	266	9.98	mg/kg	01.03.20 19.10		1

Analytical Method: TPH By SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3112398

Date Prep: 01.03.20 16.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.2	50.2	mg/kg	01.03.20 21.14	U	1
Diesel Range Organics	C10C28DRO	<50.2	50.2	mg/kg	01.03.20 21.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.03.20 21.14	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.03.20 21.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	01.03.20 21.14	
o-Terphenyl	84-15-1	110	%	70-135	01.03.20 21.14	



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -3**
 Lab Sample Id: 647906-003

Matrix: Soil
 Date Collected: 12.30.19 09.10

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.03.20 16.30

Basis: Wet Weight

Seq Number: 3112359

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.03.20 21.30	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.03.20 21.30	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.03.20 21.30	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	01.03.20 21.30	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.03.20 21.30	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.03.20 21.30	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.03.20 21.30	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	01.03.20 21.30		
4-Bromofluorobenzene	460-00-4	113	%	70-130	01.03.20 21.30		



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -4**
Lab Sample Id: 647906-004

Matrix: Soil
Date Collected: 12.30.19 09.15

Date Received: 01.03.20 15.29
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3112367

Date Prep: 01.03.20 16.40

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	47.2	9.88	mg/kg	01.03.20 19.16		1

Analytical Method: TPH By SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3112398

Date Prep: 01.03.20 16.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.9	49.9	mg/kg	01.03.20 21.34	U	1
Diesel Range Organics	C10C28DRO	<49.9	49.9	mg/kg	01.03.20 21.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.9	49.9	mg/kg	01.03.20 21.34	U	1
Total TPH	PHC635	<49.9	49.9	mg/kg	01.03.20 21.34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	108	%	70-135	01.03.20 21.34		
o-Terphenyl	84-15-1	112	%	70-135	01.03.20 21.34		



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -4**
 Lab Sample Id: 647906-004

Matrix: Soil
 Date Collected: 12.30.19 09.15

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.03.20 16.30

Basis: Wet Weight

Seq Number: 3112359

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.03.20 21.50	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.03.20 21.50	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.03.20 21.50	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	01.03.20 21.50	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.03.20 21.50	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.03.20 21.50	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.03.20 21.50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.03.20 21.50		
4-Bromofluorobenzene	460-00-4	110	%	70-130	01.03.20 21.50		



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Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -5**
 Lab Sample Id: 647906-005

Matrix: Soil
 Date Collected: 12.30.19 09.20

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3112367

Date Prep: 01.03.20 16.40

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<9.98	9.98	mg/kg	01.03.20 19.21	U	1

Analytical Method: TPH By SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3112398

Date Prep: 01.03.20 16.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.2	50.2	mg/kg	01.03.20 21.34	U	1
Diesel Range Organics	C10C28DRO	<50.2	50.2	mg/kg	01.03.20 21.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.03.20 21.34	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.03.20 21.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	01.03.20 21.34	
o-Terphenyl	84-15-1	105	%	70-135	01.03.20 21.34	



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -5**
 Lab Sample Id: 647906-005

Matrix: Soil
 Date Collected: 12.30.19 09.20

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.03.20 16.30

Basis: Wet Weight

Seq Number: 3112359

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.03.20 22.09	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.03.20 22.09	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.03.20 22.09	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.03.20 22.09	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.03.20 22.09	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.03.20 22.09	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.03.20 22.09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	01.03.20 22.09		
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.03.20 22.09		



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Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -6**
 Lab Sample Id: 647906-006

Matrix: Soil
 Date Collected: 12.30.19 09.25

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3112367

Date Prep: 01.03.20 16.40

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	174	10.0	mg/kg	01.03.20 19.27		1

Analytical Method: TPH By SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3112398

Date Prep: 01.03.20 16.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.8	49.8	mg/kg	01.03.20 21.54	U	1
Diesel Range Organics	C10C28DRO	<49.8	49.8	mg/kg	01.03.20 21.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.03.20 21.54	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.03.20 21.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	01.03.20 21.54	
o-Terphenyl	84-15-1	110	%	70-135	01.03.20 21.54	



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Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -6**
 Lab Sample Id: 647906-006

Matrix: Soil
 Date Collected: 12.30.19 09.25

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.03.20 16.30

Basis: Wet Weight

Seq Number: 3112359

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.03.20 22.28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.03.20 22.28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.03.20 22.28	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.03.20 22.28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.03.20 22.28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.03.20 22.28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.03.20 22.28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.03.20 22.28		
4-Bromofluorobenzene	460-00-4	110	%	70-130	01.03.20 22.28		



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Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -7**
 Lab Sample Id: 647906-007

Matrix: Soil
 Date Collected: 12.30.19 09.30

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3112367

Date Prep: 01.03.20 16.40

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	76.7	10.0	mg/kg	01.03.20 19.32		1

Analytical Method: TPH By SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3112398

Date Prep: 01.03.20 16.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.8	49.8	mg/kg	01.03.20 22.14	U	1
Diesel Range Organics	C10C28DRO	<49.8	49.8	mg/kg	01.03.20 22.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.03.20 22.14	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.03.20 22.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	01.03.20 22.14	
o-Terphenyl	84-15-1	113	%	70-135	01.03.20 22.14	



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Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -7**
 Lab Sample Id: 647906-007

Matrix: Soil
 Date Collected: 12.30.19 09.30

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.03.20 16.49

Basis: Wet Weight

Seq Number: 3112363

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00197	0.00197	mg/kg	01.04.20 02.11	U	1
Toluene	108-88-3	<0.00197	0.00197	mg/kg	01.04.20 02.11	U	1
Ethylbenzene	100-41-4	<0.00197	0.00197	mg/kg	01.04.20 02.11	U	1
m,p-Xylenes	179601-23-1	<0.00394	0.00394	mg/kg	01.04.20 02.11	U	1
o-Xylene	95-47-6	<0.00197	0.00197	mg/kg	01.04.20 02.11	U	1
Total Xylenes	1330-20-7	<0.00197	0.00197	mg/kg	01.04.20 02.11	U	1
Total BTEX		<0.00197	0.00197	mg/kg	01.04.20 02.11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	103	%	70-130	01.04.20 02.11		
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.04.20 02.11		



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Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -8**
 Lab Sample Id: 647906-008

Matrix: Soil
 Date Collected: 12.30.19 09.35

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3112367

Date Prep: 01.03.20 16.40

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	70.4	9.88	mg/kg	01.03.20 19.49		1

Analytical Method: TPH By SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3112398

Date Prep: 01.03.20 16.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.1	50.1	mg/kg	01.03.20 22.14	U	1
Diesel Range Organics	C10C28DRO	<50.1	50.1	mg/kg	01.03.20 22.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.03.20 22.14	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.03.20 22.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	01.03.20 22.14	
o-Terphenyl	84-15-1	110	%	70-135	01.03.20 22.14	



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Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -8**
 Lab Sample Id: 647906-008

Matrix: Soil
 Date Collected: 12.30.19 09.35

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.03.20 16.49

Basis: Wet Weight

Seq Number: 3112363

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.04.20 02.31	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.04.20 02.31	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.04.20 02.31	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	01.04.20 02.31	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.04.20 02.31	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.04.20 02.31	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.04.20 02.31	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	112	%	70-130	01.04.20 02.31		
1,4-Difluorobenzene	540-36-3	104	%	70-130	01.04.20 02.31		



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -9**
 Lab Sample Id: 647906-009

Matrix: Soil
 Date Collected: 12.30.19 09.40

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3112367

Date Prep: 01.03.20 16.40

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	20.8	9.98	mg/kg	01.03.20 20.06		1

Analytical Method: TPH By SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3112398

Date Prep: 01.03.20 16.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.1	50.1	mg/kg	01.03.20 22.34	U	1
Diesel Range Organics	C10C28DRO	<50.1	50.1	mg/kg	01.03.20 22.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.03.20 22.34	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.03.20 22.34	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	115	%	70-135	01.03.20 22.34		
o-Terphenyl	84-15-1	112	%	70-135	01.03.20 22.34		



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -9**
 Lab Sample Id: 647906-009

Matrix: Soil
 Date Collected: 12.30.19 09.40

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.03.20 16.49

Basis: Wet Weight

Seq Number: 3112363

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.04.20 02.50	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.04.20 02.50	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.04.20 02.50	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	01.04.20 02.50	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.04.20 02.50	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.04.20 02.50	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.04.20 02.50	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	70-130	01.04.20 02.50		
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.04.20 02.50		



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -10**
 Lab Sample Id: 647906-010

Matrix: Soil
 Date Collected: 12.30.19 09.45

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3112367

Date Prep: 01.03.20 16.40

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	34.5	9.96	mg/kg	01.03.20 20.12		1

Analytical Method: TPH By SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3112398

Date Prep: 01.03.20 16.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<49.8	49.8	mg/kg	01.03.20 22.34	U	1
Diesel Range Organics	C10C28DRO	<49.8	49.8	mg/kg	01.03.20 22.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<49.8	49.8	mg/kg	01.03.20 22.34	U	1
Total TPH	PHC635	<49.8	49.8	mg/kg	01.03.20 22.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	111	%	70-135	01.03.20 22.34	
o-Terphenyl	84-15-1	112	%	70-135	01.03.20 22.34	



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Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -10**
 Lab Sample Id: 647906-010

Matrix: Soil
 Date Collected: 12.30.19 09.45

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.03.20 16.49

Basis: Wet Weight

Seq Number: 3112363

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.04.20 03.09	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.04.20 03.09	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.04.20 03.09	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.04.20 03.09	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.04.20 03.09	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.04.20 03.09	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.04.20 03.09	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	112	%	70-130	01.04.20 03.09		
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.04.20 03.09		



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -11**
 Lab Sample Id: 647906-011

Matrix: Soil
 Date Collected: 12.30.19 09.50

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3112367

Date Prep: 01.03.20 16.40

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	103	9.94	mg/kg	01.03.20 20.18		1

Analytical Method: TPH By SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3112398

Date Prep: 01.03.20 16.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	01.03.20 22.54	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	01.03.20 22.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.03.20 22.54	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.03.20 22.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	113	%	70-135	01.03.20 22.54	
o-Terphenyl	84-15-1	112	%	70-135	01.03.20 22.54	



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -11**
 Lab Sample Id: 647906-011

Matrix: Soil
 Date Collected: 12.30.19 09.50

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.03.20 16.49

Basis: Wet Weight

Seq Number: 3112363

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.04.20 03.28	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.04.20 03.28	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.04.20 03.28	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.04.20 03.28	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.04.20 03.28	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.04.20 03.28	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.04.20 03.28	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.04.20 03.28		
4-Bromofluorobenzene	460-00-4	114	%	70-130	01.04.20 03.28		



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Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -12**
 Lab Sample Id: 647906-012

Matrix: Soil
 Date Collected: 12.30.19 09.55

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3112367

Date Prep: 01.03.20 16.40

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	129	10.0	mg/kg	01.03.20 20.24		1

Analytical Method: TPH By SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3112398

Date Prep: 01.03.20 16.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.2	50.2	mg/kg	01.03.20 22.54	U	1
Diesel Range Organics	C10C28DRO	<50.2	50.2	mg/kg	01.03.20 22.54	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.03.20 22.54	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.03.20 22.54	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	102	%	70-135	01.03.20 22.54	
o-Terphenyl	84-15-1	105	%	70-135	01.03.20 22.54	



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -12**
 Lab Sample Id: 647906-012

Matrix: Soil
 Date Collected: 12.30.19 09.55

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.03.20 16.49

Basis: Wet Weight

Seq Number: 3112363

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.04.20 03.47	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.04.20 03.47	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.04.20 03.47	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	01.04.20 03.47	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.04.20 03.47	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.04.20 03.47	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.04.20 03.47	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	112	%	70-130	01.04.20 03.47		
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.04.20 03.47		



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Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -13**
 Lab Sample Id: 647906-013

Matrix: Soil
 Date Collected: 12.30.19 10.00

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3112367

Date Prep: 01.03.20 16.40

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<10.0	10.0	mg/kg	01.03.20 20.30	U	1

Analytical Method: TPH By SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3112398

Date Prep: 01.03.20 16.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.3	50.3	mg/kg	01.03.20 23.14	U	1
Diesel Range Organics	C10C28DRO	<50.3	50.3	mg/kg	01.03.20 23.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.03.20 23.14	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.03.20 23.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	114	%	70-135	01.03.20 23.14	
o-Terphenyl	84-15-1	113	%	70-135	01.03.20 23.14	



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Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -13**
 Lab Sample Id: 647906-013

Matrix: Soil
 Date Collected: 12.30.19 10.00

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.03.20 16.49

Basis: Wet Weight

Seq Number: 3112363

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	01.04.20 04.06	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	01.04.20 04.06	U	1
Ethylbenzene	100-41-4	<0.00202	0.00202	mg/kg	01.04.20 04.06	U	1
m,p-Xylenes	179601-23-1	<0.00404	0.00404	mg/kg	01.04.20 04.06	U	1
o-Xylene	95-47-6	<0.00202	0.00202	mg/kg	01.04.20 04.06	U	1
Total Xylenes	1330-20-7	<0.00202	0.00202	mg/kg	01.04.20 04.06	U	1
Total BTEX		<0.00202	0.00202	mg/kg	01.04.20 04.06	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	110	%	70-130	01.04.20 04.06		
1,4-Difluorobenzene	540-36-3	104	%	70-130	01.04.20 04.06		



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Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -14**
 Lab Sample Id: 647906-014

Matrix: Soil
 Date Collected: 12.30.19 10.05

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3112367

Date Prep: 01.03.20 16.40

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	66.8	10.0	mg/kg	01.03.20 20.36		1

Analytical Method: TPH By SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3112398

Date Prep: 01.03.20 16.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.1	50.1	mg/kg	01.03.20 23.14	U	1
Diesel Range Organics	C10C28DRO	<50.1	50.1	mg/kg	01.03.20 23.14	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.03.20 23.14	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.03.20 23.14	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	106	%	70-135	01.03.20 23.14	
o-Terphenyl	84-15-1	109	%	70-135	01.03.20 23.14	



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -14**
 Lab Sample Id: 647906-014

Matrix: Soil
 Date Collected: 12.30.19 10.05

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Tech: MAB

Analyst: MAB

Seq Number: 3112363

Date Prep: 01.03.20 16.49

Prep Method: SW5030B

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.04.20 04.25	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.04.20 04.25	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.04.20 04.25	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.04.20 04.25	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.04.20 04.25	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.04.20 04.25	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.04.20 04.25	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.04.20 04.25		
4-Bromofluorobenzene	460-00-4	112	%	70-130	01.04.20 04.25		



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Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -15**
 Lab Sample Id: 647906-015

Matrix: Soil
 Date Collected: 12.30.19 10.10

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3112367

Date Prep: 01.03.20 16.40

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	31.3	9.98	mg/kg	01.03.20 20.42		1

Analytical Method: TPH By SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3112398

Date Prep: 01.03.20 16.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.1	50.1	mg/kg	01.03.20 23.34	U	1
Diesel Range Organics	C10C28DRO	<50.1	50.1	mg/kg	01.03.20 23.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.03.20 23.34	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.03.20 23.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	110	%	70-135	01.03.20 23.34	
o-Terphenyl	84-15-1	112	%	70-135	01.03.20 23.34	



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -15**
 Lab Sample Id: 647906-015

Matrix: Soil
 Date Collected: 12.30.19 10.10

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.03.20 16.49

Basis: Wet Weight

Seq Number: 3112363

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.04.20 04.44	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.04.20 04.44	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.04.20 04.44	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.04.20 04.44	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.04.20 04.44	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.04.20 04.44	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.04.20 04.44	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	01.04.20 04.44		
4-Bromofluorobenzene	460-00-4	112	%	70-130	01.04.20 04.44		



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -16**
 Lab Sample Id: 647906-016

Matrix: Soil
 Date Collected: 12.30.19 10.15

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3112367

Date Prep: 01.03.20 16.40

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	34.6	9.88	mg/kg	01.03.20 20.48		1

Analytical Method: TPH By SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3112398

Date Prep: 01.03.20 16.00

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.3	50.3	mg/kg	01.03.20 23.34	U	1
Diesel Range Organics	C10C28DRO	<50.3	50.3	mg/kg	01.03.20 23.34	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.03.20 23.34	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.03.20 23.34	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	01.03.20 23.34	
o-Terphenyl	84-15-1	117	%	70-135	01.03.20 23.34	



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -16**
 Lab Sample Id: 647906-016

Matrix: Soil
 Date Collected: 12.30.19 10.15

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.03.20 16.49

Basis: Wet Weight

Seq Number: 3112363

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.04.20 05.48	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.04.20 05.48	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.04.20 05.48	U	1
m,p-Xylenes	179601-23-1	<0.00395	0.00395	mg/kg	01.04.20 05.48	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.04.20 05.48	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.04.20 05.48	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.04.20 05.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	102	%	70-130	01.04.20 05.48		
4-Bromofluorobenzene	460-00-4	105	%	70-130	01.04.20 05.48		



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -17**
 Lab Sample Id: 647906-017

Matrix: Soil
 Date Collected: 12.30.19 10.20

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3112369

Date Prep: 01.03.20 16.45

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	48.5	10.0	mg/kg	01.03.20 21.25		1

Analytical Method: TPH By SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3112404

Date Prep: 01.03.20 17.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.1	50.1	mg/kg	01.04.20 00.33	U	1
Diesel Range Organics	C10C28DRO	<50.1	50.1	mg/kg	01.04.20 00.33	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.1	50.1	mg/kg	01.04.20 00.33	U	1
Total TPH	PHC635	<50.1	50.1	mg/kg	01.04.20 00.33	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	116	%	70-135	01.04.20 00.33		
o-Terphenyl	84-15-1	120	%	70-135	01.04.20 00.33		



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -17**
 Lab Sample Id: 647906-017

Matrix: Soil
 Date Collected: 12.30.19 10.20

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.03.20 16.49

Basis: Wet Weight

Seq Number: 3112363

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	01.04.20 06.08	U	1
Toluene	108-88-3	<0.00198	0.00198	mg/kg	01.04.20 06.08	U	1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	01.04.20 06.08	U	1
m,p-Xylenes	179601-23-1	<0.00396	0.00396	mg/kg	01.04.20 06.08	U	1
o-Xylene	95-47-6	<0.00198	0.00198	mg/kg	01.04.20 06.08	U	1
Total Xylenes	1330-20-7	<0.00198	0.00198	mg/kg	01.04.20 06.08	U	1
Total BTEX		<0.00198	0.00198	mg/kg	01.04.20 06.08	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	01.04.20 06.08		
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.04.20 06.08		



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -18**
 Lab Sample Id: 647906-018

Matrix: Soil
 Date Collected: 12.30.19 10.25

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3112369

Date Prep: 01.03.20 16.45

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	149	10.0	mg/kg	01.03.20 21.43		1

Analytical Method: TPH By SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3112404

Date Prep: 01.03.20 17.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.3	50.3	mg/kg	01.04.20 00.53	U	1
Diesel Range Organics	C10C28DRO	<50.3	50.3	mg/kg	01.04.20 00.53	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.3	50.3	mg/kg	01.04.20 00.53	U	1
Total TPH	PHC635	<50.3	50.3	mg/kg	01.04.20 00.53	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	108	%	70-135	01.04.20 00.53		
o-Terphenyl	84-15-1	112	%	70-135	01.04.20 00.53		



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -18**
 Lab Sample Id: 647906-018

Matrix: Soil
 Date Collected: 12.30.19 10.25

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.03.20 16.49

Basis: Wet Weight

Seq Number: 3112363

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.04.20 06.27	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.04.20 06.27	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.04.20 06.27	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.04.20 06.27	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.04.20 06.27	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.04.20 06.27	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.04.20 06.27	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	70-130	01.04.20 06.27		
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.04.20 06.27		



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -19**
 Lab Sample Id: 647906-019

Matrix: Soil
 Date Collected: 12.30.19 10.30

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3112369

Date Prep: 01.03.20 16.45

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	89.4	9.98	mg/kg	01.03.20 21.49		1

Analytical Method: TPH By SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3112404

Date Prep: 01.03.20 17.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.2	50.2	mg/kg	01.04.20 01.13	U	1
Diesel Range Organics	C10C28DRO	<50.2	50.2	mg/kg	01.04.20 01.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.2	50.2	mg/kg	01.04.20 01.13	U	1
Total TPH	PHC635	<50.2	50.2	mg/kg	01.04.20 01.13	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	115	%	70-135	01.04.20 01.13	
o-Terphenyl	84-15-1	117	%	70-135	01.04.20 01.13	



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -19**
 Lab Sample Id: 647906-019

Matrix: Soil
 Date Collected: 12.30.19 10.30

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.03.20 16.49

Basis: Wet Weight

Seq Number: 3112363

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.04.20 06.46	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.04.20 06.46	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.04.20 06.46	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.04.20 06.46	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.04.20 06.46	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.04.20 06.46	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.04.20 06.46	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	101	%	70-130	01.04.20 06.46		
4-Bromofluorobenzene	460-00-4	105	%	70-130	01.04.20 06.46		



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -20**
Lab Sample Id: 647906-020

Matrix: Soil
Date Collected: 12.30.19 10.35

Date Received: 01.03.20 15.29
Sample Depth: 1 ft

Analytical Method: Chloride by EPA 300

Tech: MAB

Analyst: MAB

Seq Number: 3112369

Date Prep: 01.03.20 16.45

Prep Method: E300P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	43.3	10.1	mg/kg	01.03.20 21.55		1

Analytical Method: TPH By SW8015 Mod

Tech: DTH

Analyst: DTH

Seq Number: 3112404

Date Prep: 01.03.20 17.30

Prep Method: SW8015P

% Moisture:

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons	PHC610	<50.0	50.0	mg/kg	01.04.20 01.13	U	1
Diesel Range Organics	C10C28DRO	<50.0	50.0	mg/kg	01.04.20 01.13	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<50.0	50.0	mg/kg	01.04.20 01.13	U	1
Total TPH	PHC635	<50.0	50.0	mg/kg	01.04.20 01.13	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	109	%	70-135	01.04.20 01.13		
o-Terphenyl	84-15-1	112	%	70-135	01.04.20 01.13		



Certificate of Analytical Results 647906

Concho Resources Inc., Midland, TX

Buckshot State #3 M&R

Sample Id: **BTM -20**
 Lab Sample Id: 647906-020

Matrix: Soil
 Date Collected: 12.30.19 10.35

Date Received: 01.03.20 15.29
 Sample Depth: 1 ft

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: MAB

% Moisture:

Analyst: MAB

Date Prep: 01.03.20 16.49

Basis: Wet Weight

Seq Number: 3112363

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.04.20 01.52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.04.20 01.52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.04.20 01.52	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.04.20 01.52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.04.20 01.52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.04.20 01.52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.04.20 01.52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	103	%	70-130	01.04.20 01.52		
4-Bromofluorobenzene	460-00-4	104	%	70-130	01.04.20 01.52		



Flagging Criteria

- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

****** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

***** (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



Concho Resources Inc.

Buckshot State #3 M&R

Analytical Method: Chloride by EPA 300

Seq Number: 3112367

MB Sample Id: 7693686-1-BLK

Matrix: Solid

LCS Sample Id: 7693686-1-BKS

Prep Method: E300P

Date Prep: 01.03.20

LCSD Sample Id: 7693686-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	257	103	257	103	90-110	0	20	mg/kg	01.03.20 17:42	

Analytical Method: Chloride by EPA 300

Seq Number: 3112369

MB Sample Id: 7693706-1-BLK

Matrix: Solid

LCS Sample Id: 7693706-1-BKS

Prep Method: E300P

Date Prep: 01.03.20

LCSD Sample Id: 7693706-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<10.0	250	258	103	258	103	90-110	0	20	mg/kg	01.03.20 21:13	

Analytical Method: Chloride by EPA 300

Seq Number: 3112367

Parent Sample Id: 647862-007

Matrix: Soil

MS Sample Id: 647862-007 S

Prep Method: E300P

Date Prep: 01.03.20

MSD Sample Id: 647862-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	252	200	465	107	469	109	90-110	1	20	mg/kg	01.03.20 18:05	

Analytical Method: Chloride by EPA 300

Seq Number: 3112367

Parent Sample Id: 647906-007

Matrix: Soil

MS Sample Id: 647906-007 S

Prep Method: E300P

Date Prep: 01.03.20

MSD Sample Id: 647906-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	76.7	200	292	108	296	110	90-110	1	20	mg/kg	01.03.20 19:38	

Analytical Method: Chloride by EPA 300

Seq Number: 3112369

Parent Sample Id: 647906-017

Matrix: Soil

MS Sample Id: 647906-017 S

Prep Method: E300P

Date Prep: 01.03.20

MSD Sample Id: 647906-017 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	48.5	200	263	107	262	107	90-110	0	20	mg/kg	01.03.20 21:31	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Concho Resources Inc.

Buckshot State #3 M&R

Analytical Method: Chloride by EPA 300

Seq Number: 3112369

Parent Sample Id: 647913-002

Matrix: Soil

MS Sample Id: 647913-002 S

Prep Method: E300P

Date Prep: 01.03.20

MSD Sample Id: 647913-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	14.5	202	223	103	238	111	90-110	7	20	mg/kg	01.03.20 22:56	X

Analytical Method: TPH By SW8015 Mod

Seq Number: 3112398

MB Sample Id: 7693705-1-BLK

Matrix: Solid

LCS Sample Id: 7693705-1-BKS

Prep Method: SW8015P

Date Prep: 01.03.20

LCSD Sample Id: 7693705-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<50.0	1000	1100	110	1120	112	70-135	2	35	mg/kg	01.03.20 19:34	
Diesel Range Organics	<50.0	1000	1210	121	1220	122	70-135	1	35	mg/kg	01.03.20 19:34	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	119		125		130		70-135	%	01.03.20 19:34
o-Terphenyl	114		118		120		70-135	%	01.03.20 19:34

Analytical Method: TPH By SW8015 Mod

Seq Number: 3112404

MB Sample Id: 7693709-1-BLK

Matrix: Solid

LCS Sample Id: 7693709-1-BKS

Prep Method: SW8015P

Date Prep: 01.03.20

LCSD Sample Id: 7693709-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<50.0	1000	1080	108	1140	114	70-135	5	35	mg/kg	01.03.20 23:53	
Diesel Range Organics	<50.0	1000	1210	121	1260	126	70-135	4	35	mg/kg	01.03.20 23:53	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	112		121		129		70-135	%	01.03.20 23:53
o-Terphenyl	116		121		122		70-135	%	01.03.20 23:53

Analytical Method: TPH By SW8015 Mod

Seq Number: 3112398

Matrix: Solid

MB Sample Id: 7693705-1-BLK

Prep Method: SW8015P

Date Prep: 01.03.20

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.03.20 19:34	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 $\text{Log Diff.} = \text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



Concho Resources Inc.

Buckshot State #3 M&R

Analytical Method: TPH By SW8015 Mod

Seq Number: 3112404

Matrix: Solid

Prep Method: SW8015P

Date Prep: 01.03.20

MB Sample Id: 7693709-1-BLK

Parameter	MB Result	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	<50.0	mg/kg	01.04.20 00:13	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3112398

Matrix: Soil

Prep Method: SW8015P

Date Prep: 01.03.20

Parent Sample Id: 647862-007

MS Sample Id: 647862-007 S

MSD Sample Id: 647862-007 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<49.9	997	1160	116	1060	106	70-135	9	35	mg/kg	01.03.20 20:14	
Diesel Range Organics	<49.9	997	1250	125	1160	116	70-135	7	35	mg/kg	01.03.20 20:14	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	128		119		70-135	%	01.03.20 20:14
o-Terphenyl	125		116		70-135	%	01.03.20 20:14

Analytical Method: TPH By SW8015 Mod

Seq Number: 3112404

Matrix: Soil

Prep Method: SW8015P

Date Prep: 01.03.20

Parent Sample Id: 647906-017

MS Sample Id: 647906-017 S

MSD Sample Id: 647906-017 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons	<49.9	997	1100	110	1110	110	70-135	1	35	mg/kg	01.04.20 00:33	
Diesel Range Organics	<49.9	997	1260	126	1230	122	70-135	2	35	mg/kg	01.04.20 00:33	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	126		128		70-135	%	01.04.20 00:33
o-Terphenyl	130		127		70-135	%	01.04.20 00:33

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = $\text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Concho Resources Inc.
Buckshot State #3 M&R

Analytical Method: BTEX by EPA 8021B

Seq Number: 3112359

MB Sample Id: 7693687-1-BLK

Matrix: Solid

LCS Sample Id: 7693687-1-BKS

Prep Method: SW5030B

Date Prep: 01.03.20

LCSD Sample Id: 7693687-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.110	110	0.111	111	70-130	1	35	mg/kg	01.03.20 13:57	
Toluene	<0.00200	0.100	0.107	107	0.109	109	70-130	2	35	mg/kg	01.03.20 13:57	
Ethylbenzene	<0.00200	0.100	0.107	107	0.110	110	71-129	3	35	mg/kg	01.03.20 13:57	
m,p-Xylenes	<0.00400	0.200	0.215	108	0.221	111	70-135	3	35	mg/kg	01.03.20 13:57	
o-Xylene	<0.00200	0.100	0.108	108	0.112	112	71-133	4	35	mg/kg	01.03.20 13:57	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		105		103		70-130	%	01.03.20 13:57
4-Bromofluorobenzene	101		107		107		70-130	%	01.03.20 13:57

Analytical Method: BTEX by EPA 8021B

Seq Number: 3112363

MB Sample Id: 7693708-1-BLK

Matrix: Solid

LCS Sample Id: 7693708-1-BKS

Prep Method: SW5030B

Date Prep: 01.03.20

LCSD Sample Id: 7693708-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.105	105	0.108	108	70-130	3	35	mg/kg	01.04.20 00:10	
Toluene	<0.00200	0.100	0.101	101	0.108	108	70-130	7	35	mg/kg	01.04.20 00:10	
Ethylbenzene	<0.00200	0.100	0.102	102	0.109	109	71-129	7	35	mg/kg	01.04.20 00:10	
m,p-Xylenes	<0.00400	0.200	0.204	102	0.221	111	70-135	8	35	mg/kg	01.04.20 00:10	
o-Xylene	<0.00200	0.100	0.101	101	0.111	111	71-133	9	35	mg/kg	01.04.20 00:10	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	102		102		102		70-130	%	01.04.20 00:10
4-Bromofluorobenzene	101		100		108		70-130	%	01.04.20 00:10

Analytical Method: BTEX by EPA 8021B

Seq Number: 3112359

Parent Sample Id: 647856-001

Matrix: Soil

MS Sample Id: 647856-001 S

Prep Method: SW5030B

Date Prep: 01.03.20

MSD Sample Id: 647856-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.0990	99	0.116	116	70-130	16	35	mg/kg	01.03.20 14:36	
Toluene	<0.00200	0.100	0.0974	97	0.112	112	70-130	14	35	mg/kg	01.03.20 14:36	
Ethylbenzene	<0.00200	0.100	0.0971	97	0.110	110	71-129	12	35	mg/kg	01.03.20 14:36	
m,p-Xylenes	<0.00401	0.200	0.195	98	0.218	109	70-135	11	35	mg/kg	01.03.20 14:36	
o-Xylene	<0.00200	0.100	0.0974	97	0.111	111	71-133	13	35	mg/kg	01.03.20 14:36	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	105		101		70-130	%	01.03.20 14:36
4-Bromofluorobenzene	111		110		70-130	%	01.03.20 14:36

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Concho Resources Inc.

Buckshot State #3 M&R

Analytical Method: BTEX by EPA 8021B

Seq Number: 3112363

Parent Sample Id: 647906-020

Matrix: Soil

MS Sample Id: 647906-020 S

Prep Method: SW5030B

Date Prep: 01.03.20

MSD Sample Id: 647906-020 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.0967	96	0.0926	93	70-130	4	35	mg/kg	01.04.20 00:48	
Toluene	<0.00201	0.101	0.0908	90	0.0916	92	70-130	1	35	mg/kg	01.04.20 00:48	
Ethylbenzene	<0.00201	0.101	0.0878	87	0.0924	92	71-129	5	35	mg/kg	01.04.20 00:48	
m,p-Xylenes	<0.00402	0.201	0.173	86	0.184	92	70-135	6	35	mg/kg	01.04.20 00:48	
o-Xylene	<0.00201	0.101	0.0889	88	0.0919	92	71-133	3	35	mg/kg	01.04.20 00:48	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	103		104		70-130	%	01.04.20 00:48
4-Bromofluorobenzene	108		113		70-130	%	01.04.20 00:48

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec

Client / Reporting Information						Project Information						Analytical Information						Matrix Codes																	
Company Name / Branch:			COG Operating LLC			Project Name/Number:			Buckshot State #3 M&R 1/128/2019																										
Company Address:						Project Location:																													
Email: dnee12@concho.com slithccoc@concho.com			Phone No: 575-746-2010			Invoice To:			COG Operating LLC Attn: Dakota Neel 2208 W Main Street Artesia, NM 88210																										
Project Contact:			Dakota Neel			PO Number:																													
Sampler's Name:			Dakota Neel																																
No.	Field ID / Point of Collection					Collection				Number of preserved bottles		TPH Extended		BTEx		CHLORIDES																			
1	BTM-1	Sample Depth	1'	Date	12/30/19	Time	9:00	Matrix	S	# of bottles	1	HCl	NaOH/Zn Acetate	HNO3	H2SO4	NaOH	NaHSO4	MeOH	NONE	X	X	X													
2	BTM-2	1'	12/30/19	9:05	S	1														X	X	X													
3	BTM-3	1'	12/30/19	9:10	S	1														X	X	X													
4	BTM-4	1'	12/30/19	9:15	S	1														X	X	X													
5	BTM-5	1'	12/30/19	9:20	S	1														X	X	X													
6	BTM-6	1'	12/30/19	9:25	S	1														X	X	X													
7	BTM-7	1'	12/30/19	9:30	S	1														X	X	X													
8	BTM-8	1'	12/30/19	9:35	S	1														X	X	X													
9	BTM-9	1'	12/30/19	9:40	S	1														X	X	X													
10	BTM-10	1'	12/30/19	9:45	S	1														X	X	X													
Turnaround Time (Business days)						Data Deliverable information						Notes:																							
☐ Same Day TAT						☐ Level II Std QC						☐ Level IV (Full Data Pkg /raw data)																							
☒ Next Day EMERGENCY						☐ 7 Day TAT						☐ Level III Std QC+ Forms						☐ TRRP Level IV																	
☐ 2 Day EMERGENCY						☐ Contract TAT						☐ Level 3 (CLP Forms)						☐ UST / RG -411																	
☐ 3 Day EMERGENCY						☐ TRRP Checklist																													
TAT Starts Day received by Lab, if received by 5:00 pm																																			
SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																																			
Relinquished by Sampler:						Date Time:						Received By:						FED-EX / UPS: Tracking #																	
1 Dakota Neel						12/30/19						Dakota Neel																							
Relinquished by:						Date Time:						Received By:																							
3						12/30/19						Dakota Neel																							
Relinquished by:						Date Time:						Received By:																							
5						12/30/19						Dakota Neel																							
Preserved where applicable						On Ice						Cooler Temp.						Thermo Corr. Factor																	



Setting the Standard since 1990
 Stafford, Texas (281-240-4200)
 Dallas Texas (214-902-0300)

CHAIN OF CUSTODY

Page 2 Of 2

San Antonio, Texas (210-509-3334)
 Midland, Texas (432-704-5251)

Phoenix, Arizona (480-355-0900)

www.xenco.com

Xenco Quote #

Xenco Job #

647904

Matrix Codes

W = Water
 S = Soil/Sed/Solid
 GW = Ground Water
 DW = Drinking Water
 P = Product
 SW = Surface water
 SL = Sludge
 OW = Ocean/Sea Water
 O = Oil
 WW = Waste Water
 A = Air

Field Comments

Analytical Information

TPH Extended

BTEX

CHLORIDES

Notes:

Client / Reporting Information				Project Information				Data Deliverable Information				Number of preserved bottles				Data Deliverable Information				Notes:			
Company Name / Branch:				Project Name/Number:				Buckshot State #3 M&R 11/28/2019				Level II Std QC				Level IV (Full Data Pkg / raw data)							
Company Address:				Project Location:																			
Email: dweel2@concho.com				Phone No:				575-746-2010															
Project Contact:				Invoice To:				COG Operating LLC				Attn: Dakota Neel				2208 W Main Street							
Samplers Name: Dakota Neel				PO Number:				Artesia, NM 88210															
No.				Field ID / Point of Collection				Collection				Sample Depth				Date				Time			
1				BTM-11				1'				12/30/19				9:50				S			
2				BTM-12				1'				12/30/19				9:55				S			
3				BTM-13				1'				12/30/19				10:00				S			
4				BTM-14				1'				12/30/19				10:05				S			
5				BTM-15				1'				12/30/19				10:10				S			
6				BTM-16				1'				12/30/19				10:15				S			
7				BTM-17				1'				12/30/19				10:20				S			
8				BTM-18				1'				12/30/19				10:25				S			
9				BTM-19				1'				12/30/19				10:30				S			
10				BTM-20				1'				12/30/19				10:35				S			
Turnaround Time (Business days)																							
Same Day TAT				☐ 5 Day TAT				☐ Level II Std QC				☐ Level IV (Full Data Pkg / raw data)											
Next Day EMERGENCY				☒ 7 Day TAT				☐ Level III Std QC+ Forms				☐ TRRP Level IV											
2 Day EMERGENCY				☐ Contract TAT				☐ Level 3 (CLP Forms)				☐ UST / RG -411											
3 Day EMERGENCY				☐ TRRP Checklist																			
TAT Starts Day received by Lab, if received by 5:00 pm																							
Relinquished by Sampler:				SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY																			
1 Dakota Neel				Date Time: 15:12/01/20				Received By: [Signature]				Date Time: 2				Relinquished By: [Signature]				Date Time: 2			
3				Date Time: 3				Received By: [Signature]				Date Time: 4				Relinquished By: [Signature]				Date Time: 4			
5				Date Time: 5				Received By: [Signature]				Date Time: 4				Relinquished By: [Signature]				Date Time: 4			

Preserved when applicable

On Ice

Cooler Temp.

Thermo. Corr. Factor

2.8 -0.2

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the Client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75 will be applied to each project. Xenco's liability will be limited to the cost of samples. Any samples received by Xenco but not analyzed will be invoiced at \$5 per sample. These terms will be enforced unless previously negotiated under a fully executed client contract.



Prelogin/Nonconformance Report- Sample Log-In

Client: Concho Resources Inc.

Date/ Time Received: 01/03/2020 03:29:00 PM

Work Order #: 647906

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : T-NM-007

Sample Receipt Checklist

Comments

#1 *Temperature of cooler(s)?	2.8
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	Yes
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	No
#18 Water VOC samples have zero headspace?	N/A

* Must be completed for after-hours delivery of samples prior to placing in the refrigerator

Analyst:

PH Device/Lot#:

Checklist completed by:

Elizabeth McClellan

Date: 01/03/2020

Checklist reviewed by:

Holly Taylor

Date: 01/06/2020

APPENDIX D

