



July 21, 2020

Oil Conservation Division, District 1
1625 N. French Dr.
Hobbs, NM 88240

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

Closure Report:

Grey Hawk State #001H
API#: 30-025-41193
Tracking #: NRM2001034798
DOR: October 31, 2019
GPS: 32.4285278 -103.501564
Unit Letter P, Section 31, Township 21 South, Range 34 East
Lea 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 Grey Hawk State #001H. The release was located in Unit Letter P, Section 31, Township 21 South and Range 34 East in Lea County, New Mexico. More specifically the latitude and longitude for the release are 32.4285278 North and -103.501564 West.

BACKGROUND

The release was discovered on October 31, 2019. A C-141 report was submitted to the New Mexico Oil Conservation Division (NMOCD) and the New Mexico State Land Office (NMSLO). The C-141 is presented in Appendix A. A new pipeline tie-in resulted in the release of approximately fifteen (15) barrels (BBLS) of produced water onto the well pad. Approximately ten (10) bbls of produced water were recovered.

GROUNDWATER AND REGULATORY FRAMEWORK

According to the New Mexico Office of the State Engineer (NMOSE) the nearest water well is approximately one-half (1/2) mile from the release site. Well log data indicates that groundwater in the project vicinity is approximately eight-hundred and twenty-four (824) 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, no other receptors (water wells, playas, karst, 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 are summarized in Appendix B. The delineation and closure criteria are listed below:

GENERAL SITE CHARACTERIZATION AND GROUNDWATER:

Site Characterization	Average Groundwater Depth (ft.)
None Located	824 feet

DELINEATION AND CLOSURE CRITERIA:

Table I Closure Criteria	
Chlorides	20,000 mg/kg
TPH (GRO and DRO and MRO)	2,500 mg/kg
TPH (GRO and DRO)	1,000 mg/kg
Benzene	10 mg/kg
Total BTEX	50 mg/kg

Remedial Actions

- The impacted area was excavated to depths ranging from one-half (0.5) to eight (8) feet BGS.
- All of the excavated material was hauled to an NMOCD approved solid waste disposal facility.
- Confirmation soil samples were taken from the bottom and sidewalls of the excavated areas per NMED 19.15.29.13.
- Upon receipt of acceptable analytical results from the confirmation soil sampling activities the excavation was backfilled with clean “like” material.

SITE RECLAMATION AND RESTORATION

All of the fluid remained on the well pad. No reclamation activities will be required at this site.

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 Grey Hawk State #001H incident that occurred on October 31, 2019.

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

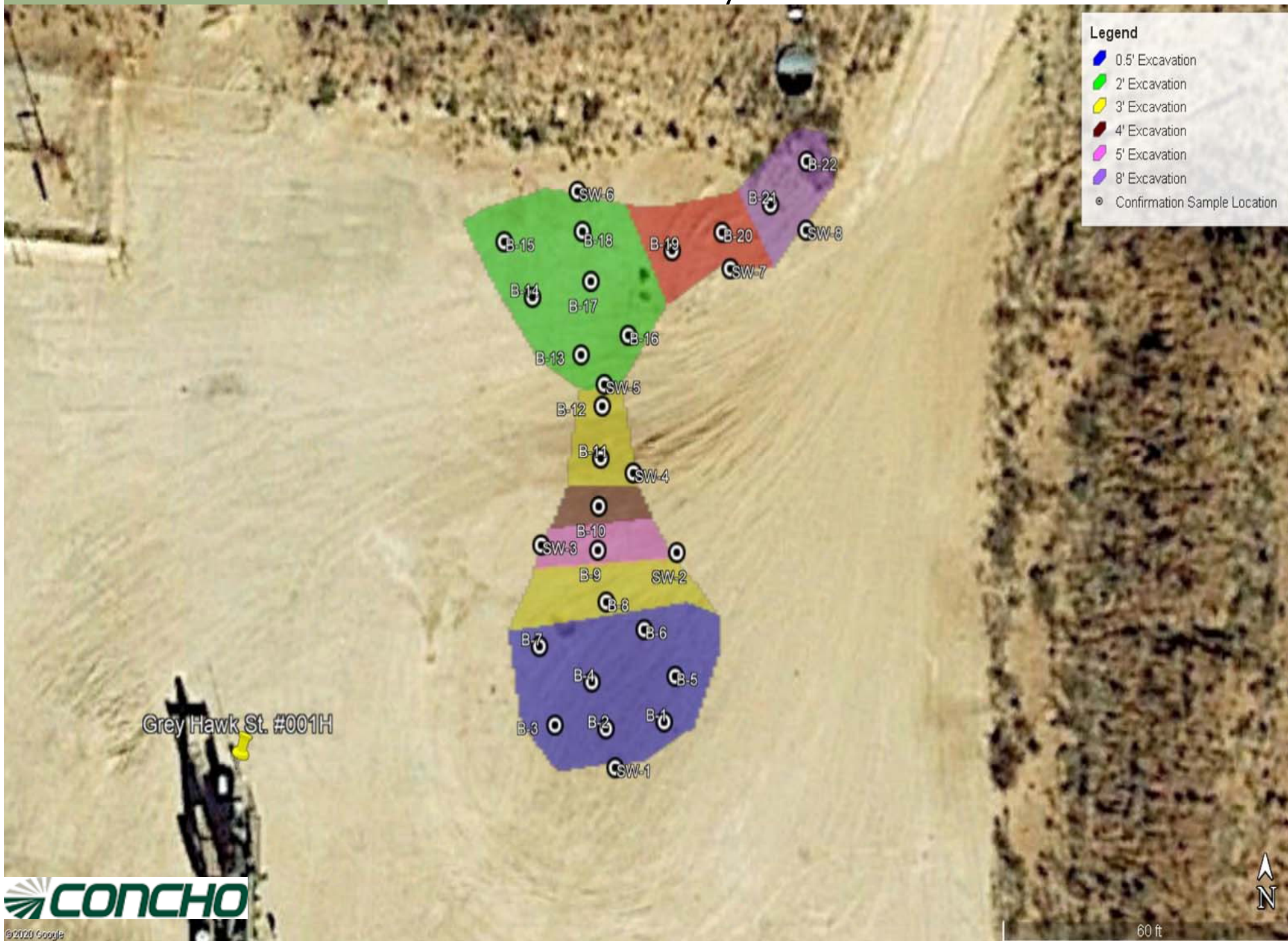
Sincerely,



Sheldon L. Hitchcock
HSE Coordinator
slhitchcock@concho.com

FIGURES

Grey Hawk St. #001H



TABLES

Table 1
COG Operating LLC.
Grey Hawk State #001H
Lea 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)					-	-	-	2,500	-	-	1,000	10	50	20,000
B-1	0.5	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	48.0
B-2	0.5	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	240.0
B-3	0.5	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	128.0
B-4	0.5	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	144.0
B-5	0.5	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	128.0
B-6	0.5	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	64.0
B-7	0.5	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	144.0
B-8	3.0	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	64.0
B-9	3.0	2/24/2020		X	<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	1,920.0
B-10	3.0	2/24/2020		X	<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	1,420.0
B-11	3.0	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	48.0
B-12	3.0	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	32.0
B-13	2.0	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	176.0
B-14	2.0	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	32.0
B-15	2.0	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	16.0
B-16	2.0	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	48.0
B-17	2.0	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	32.0
B-18	2.0	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	32.0
B-19	6.0	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	16.0
B-20	6.0	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	48.0
B-21	8.0	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	16.0
B-22	8.0	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	<16.0
SW-1	N/A	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	64.0
SW-2	N/A	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	288.0
SW-3	N/A	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	208.0
SW-4	N/A	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	16.0
SW-5	N/A	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	32.0
SW-6	N/A	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	32.0
SW-7	N/A	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	192.0
SW-8	N/A	2/24/2020	X		<10.0	<10.0	<10.0	0.0	<10.0	<10.0	0.0	<0.050	<0.050	16.0
B-9	4.0	2/27/2020		X	#	#	#	#	#	#	#	#	#	4,800.0
B-10	4.0	2/27/2020	X		#	#	#	#	#	#	#	#	#	80.0
B-9	5.0	3/2/2020	X		#	#	#	#	#	#	#	#	#	<16.0

(#) 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	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD)
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

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)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release		

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? <input type="checkbox"/> Yes <input type="checkbox"/> 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

<input type="checkbox"/> The source of the release has been stopped.	
<input type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input type="checkbox"/> 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: _____	Title: _____
Signature: <u>Sheldon Nitan</u>	Date: _____
email: _____	Telephone: _____
<u>OCD Only</u>	
Received by: _____	Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	_____ (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Did the release impact areas not on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input type="checkbox"/> No

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

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

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

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

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: _____ Title: _____

Signature: Sheldon Nitan Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

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

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

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

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

Printed Name: _____ Title: _____

Signature: Sheldon Nitan Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

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

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

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

Printed Name: _____ Title: _____

Signature: Sheldon Hittman Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

APPENDIX B

OSE PODs

- Active
- Inactive
- Pending
- Capped
- Changed Location of Well
- Plugged
- Unknown
- others

USA Flood Risk

100 Year Flood Areas

- 1.0% Annual chance
- 1.0% Annual chance within channel
- 1.0% Annual chance - Future conditions
- 1.0% Annual chance - shallow/ponding
- 1.0% Annual chance - shallow/sheeting
- 1.0% Annual chance - Storm waves
- 1.0% Annual chance - Storm-induced velocity wave action
- 0.2 - 1.0% Annual chance
- 0.2 - 1.0% Annual chance - Protected by levee
- 0.2% Annual chance
- Possible, but undetermined chance
- Area not included
- Open water

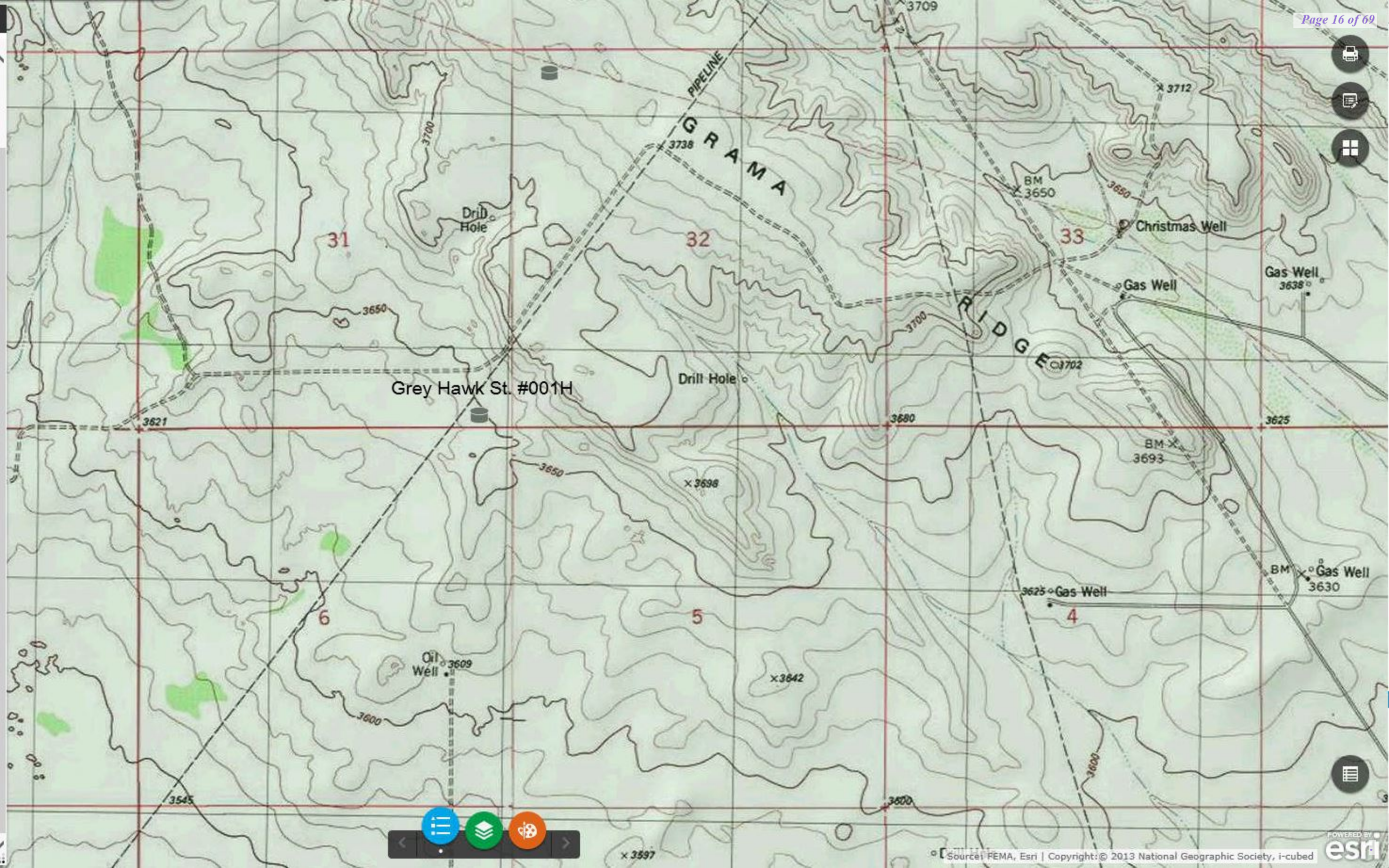
COG - Environmental

Environmental

Mine Workings

Karst Occurance Areas

- High
- Low
- Medium





New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
CP 00600 POD1	CP	LE		2	4	25	21S	33E		639152	3591054*	2568	65		
CP 00597 POD1	CP	LE		2	2	08	22S	34E		642410	3587074*	2575	35		
CP 01720 POD1	CP	LE		1	3	2	08	22S	34E	642003	3586723	2644	1190	824	366
CP 00588 POD1	CP	LE		3	2	33	21S	34E		643583	3589918*	2930	89		
CP 00589 POD1	CP	LE		3	2	33	21S	34E		643583	3589918*	2930	84		

Average Depth to Water: **824 feet**

Minimum Depth: **824 feet**

Maximum Depth: **824 feet**

Record Count: 5

Basin/County Search:

County: Lea

UTM NAD83 Radius Search (in meters):

Easting (X): 640779

Northing (Y): 3589067

Radius: 3000

*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.



New Mexico Office of the State Engineer

Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
NA	CP 01720 POD1	1	3	2	08	22S	34E	642003	3586723 

Driller License: 421	Driller Company: GLENN'S WATER WELL SERVICE
Driller Name: CORKY GLENN	
Drill Start Date: 05/02/2019	Drill Finish Date: 05/07/2019
Log File Date: 06/05/2019	PCW Rcv Date:
Pump Type:	Source: Artesian
Casing Size: 8.13	Estimated Yield: 100 GPM
	Pipe Discharge Size:
	Depth Well: 1190 feet
	Depth Water: 824 feet

Water Bearing Stratifications:	Top	Bottom	Description
	824	1109	Sandstone/Gravel/Conglomerate
	1109	1140	Sandstone/Gravel/Conglomerate
	1140	1171	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	728	1190

APPENDIX C



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

February 26, 2020

SHELDON HITCHCOCK

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: GREY HAWK ST. #1

Enclosed are the results of analyses for samples received by the laboratory on 02/25/20 9:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B - 1 0.5' (H000581-01)

BTX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2020	ND	1.95	97.4	2.00	3.42	
Toluene*	<0.050	0.050	02/25/2020	ND	1.94	97.2	2.00	3.33	
Ethylbenzene*	<0.050	0.050	02/25/2020	ND	1.96	98.0	2.00	2.35	
Total Xylenes*	<0.150	0.150	02/25/2020	ND	5.79	96.4	6.00	2.32	
Total BTX	<0.300	0.300	02/25/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	02/25/2020	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	200	99.9	200	2.76	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	197	98.6	200	4.73	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 97.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 101 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B - 2 0.5' (H000581-02)

BTEx 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2020	ND	1.95	97.4	2.00	3.42	
Toluene*	<0.050	0.050	02/25/2020	ND	1.94	97.2	2.00	3.33	
Ethylbenzene*	<0.050	0.050	02/25/2020	ND	1.96	98.0	2.00	2.35	
Total Xylenes*	<0.150	0.150	02/25/2020	ND	5.79	96.4	6.00	2.32	
Total BTEx	<0.300	0.300	02/25/2020	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	240	16.0	02/25/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	200	99.9	200	2.76	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	197	98.6	200	4.73	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 104 % 44.3-144

Surrogate: 1-Chlorooctadecane 107 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B - 3 0.5' (H000581-03)

BTEx 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2020	ND	1.95	97.4	2.00	3.42	
Toluene*	<0.050	0.050	02/25/2020	ND	1.94	97.2	2.00	3.33	
Ethylbenzene*	<0.050	0.050	02/25/2020	ND	1.96	98.0	2.00	2.35	
Total Xylenes*	<0.150	0.150	02/25/2020	ND	5.79	96.4	6.00	2.32	
Total BTEx	<0.300	0.300	02/25/2020	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	02/25/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	200	99.9	200	2.76	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	197	98.6	200	4.73	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 95.9 % 44.3-144

Surrogate: 1-Chlorooctadecane 99.5 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B - 4 0.5' (H000581-04)

BTEx 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2020	ND	1.95	97.4	2.00	3.42	
Toluene*	<0.050	0.050	02/25/2020	ND	1.94	97.2	2.00	3.33	
Ethylbenzene*	<0.050	0.050	02/25/2020	ND	1.96	98.0	2.00	2.35	
Total Xylenes*	<0.150	0.150	02/25/2020	ND	5.79	96.4	6.00	2.32	
Total BTEx	<0.300	0.300	02/25/2020	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	02/25/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	200	99.9	200	2.76	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	197	98.6	200	4.73	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 104 % 44.3-144

Surrogate: 1-Chlorooctadecane 109 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B - 5 0.5' (H000581-05)

BTEx 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/25/2020	ND	1.95	97.4	2.00	3.42	
Toluene*	<0.050	0.050	02/25/2020	ND	1.94	97.2	2.00	3.33	
Ethylbenzene*	<0.050	0.050	02/25/2020	ND	1.96	98.0	2.00	2.35	
Total Xylenes*	<0.150	0.150	02/25/2020	ND	5.79	96.4	6.00	2.32	
Total BTEx	<0.300	0.300	02/25/2020	ND					

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	02/25/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	200	99.9	200	2.76	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	197	98.6	200	4.73	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 100 % 44.3-144

Surrogate: 1-Chlorooctadecane 104 % 42.2-156

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Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B - 6 0.5' (H000581-06)

BTEx 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/25/2020	ND	1.95	97.4	2.00	3.42		
Toluene*	<0.050	0.050	02/25/2020	ND	1.94	97.2	2.00	3.33		
Ethylbenzene*	<0.050	0.050	02/25/2020	ND	1.96	98.0	2.00	2.35		
Total Xylenes*	<0.150	0.150	02/25/2020	ND	5.79	96.4	6.00	2.32		
Total BTEx	<0.300	0.300	02/25/2020	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	02/26/2020	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	200	99.9	200	2.76	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	197	98.6	200	4.73	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 101 % 44.3-144

Surrogate: 1-Chlorooctadecane 108 % 42.2-156

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Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B - 7 0.5' (H000581-07)

BTEx 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/25/2020	ND	1.95	97.4	2.00	3.42		
Toluene*	<0.050	0.050	02/25/2020	ND	1.94	97.2	2.00	3.33		
Ethylbenzene*	<0.050	0.050	02/25/2020	ND	1.96	98.0	2.00	2.35		
Total Xylenes*	<0.150	0.150	02/25/2020	ND	5.79	96.4	6.00	2.32		
Total BTEx	<0.300	0.300	02/25/2020	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	144	16.0	02/26/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	200	99.9	200	2.76	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	197	98.6	200	4.73	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 104 % 44.3-144

Surrogate: 1-Chlorooctadecane 109 % 42.2-156

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Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B - 8 3' (H000581-08)

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/25/2020	ND	1.95	97.4	2.00	3.42		
Toluene*	<0.050	0.050	02/25/2020	ND	1.94	97.2	2.00	3.33		
Ethylbenzene*	<0.050	0.050	02/25/2020	ND	1.96	98.0	2.00	2.35		
Total Xylenes*	<0.150	0.150	02/25/2020	ND	5.79	96.4	6.00	2.32		
Total BTX	<0.300	0.300	02/25/2020	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	02/26/2020	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	200	99.9	200	2.76	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	197	98.6	200	4.73	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 103 % 44.3-144

Surrogate: 1-Chlorooctadecane 109 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B - 9 3' (H000581-09)

BTEx 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/25/2020	ND	1.91	95.7	2.00	1.86		
Toluene*	<0.050	0.050	02/25/2020	ND	1.92	96.0	2.00	2.00		
Ethylbenzene*	<0.050	0.050	02/25/2020	ND	1.92	96.1	2.00	1.82		
Total Xylenes*	<0.150	0.150	02/25/2020	ND	5.68	94.6	6.00	1.75		
Total BTEx	<0.300	0.300	02/25/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1920	16.0	02/26/2020	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2020	ND	187	93.6	200	2.27	
DRO >C10-C28*	<10.0	10.0	02/25/2020	ND	203	101	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	02/25/2020	ND					

Surrogate: 1-Chlorooctane 101 % 44.3-144

Surrogate: 1-Chlorooctadecane 105 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B - 10 3' (H000581-10)

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/25/2020	ND	1.91	95.7	2.00	1.86		
Toluene*	<0.050	0.050	02/25/2020	ND	1.92	96.0	2.00	2.00		
Ethylbenzene*	<0.050	0.050	02/25/2020	ND	1.92	96.1	2.00	1.82		
Total Xylenes*	<0.150	0.150	02/25/2020	ND	5.68	94.6	6.00	1.75		
Total BTX	<0.300	0.300	02/25/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1420	16.0	02/26/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2020	ND	187	93.6	200	2.27	
DRO >C10-C28*	<10.0	10.0	02/25/2020	ND	203	101	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	02/25/2020	ND					

Surrogate: 1-Chlorooctane 102 % 44.3-144

Surrogate: 1-Chlorooctadecane 106 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B - 11 3' (H000581-11)

BTEx 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/25/2020	ND	1.91	95.7	2.00	1.86		
Toluene*	<0.050	0.050	02/25/2020	ND	1.92	96.0	2.00	2.00		
Ethylbenzene*	<0.050	0.050	02/25/2020	ND	1.92	96.1	2.00	1.82		
Total Xylenes*	<0.150	0.150	02/25/2020	ND	5.68	94.6	6.00	1.75		
Total BTEx	<0.300	0.300	02/25/2020	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/26/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2020	ND	187	93.6	200	2.27	
DRO >C10-C28*	<10.0	10.0	02/25/2020	ND	203	101	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	02/25/2020	ND					

Surrogate: 1-Chlorooctane 99.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 105 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B - 12 3' (H000581-12)

BTEx 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/25/2020	ND	1.91	95.7	2.00	1.86		
Toluene*	<0.050	0.050	02/25/2020	ND	1.92	96.0	2.00	2.00		
Ethylbenzene*	<0.050	0.050	02/25/2020	ND	1.92	96.1	2.00	1.82		
Total Xylenes*	<0.150	0.150	02/25/2020	ND	5.68	94.6	6.00	1.75		
Total BTEx	<0.300	0.300	02/25/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/26/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2020	ND	187	93.6	200	2.27	
DRO >C10-C28*	<10.0	10.0	02/25/2020	ND	203	101	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	02/25/2020	ND					

Surrogate: 1-Chlorooctane 97.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 102 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B - 13 2' (H000581-13)

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/25/2020	ND	1.91	95.7	2.00	1.86		
Toluene*	<0.050	0.050	02/25/2020	ND	1.92	96.0	2.00	2.00		
Ethylbenzene*	<0.050	0.050	02/25/2020	ND	1.92	96.1	2.00	1.82		
Total Xylenes*	<0.150	0.150	02/25/2020	ND	5.68	94.6	6.00	1.75		
Total BTX	<0.300	0.300	02/25/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	176	16.0	02/26/2020	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2020	ND	187	93.6	200	2.27	
DRO >C10-C28*	<10.0	10.0	02/25/2020	ND	203	101	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	02/25/2020	ND					

Surrogate: 1-Chlorooctane 103 % 44.3-144

Surrogate: 1-Chlorooctadecane 109 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B - 14 2' (H000581-14)

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/25/2020	ND	1.91	95.7	2.00	1.86		
Toluene*	<0.050	0.050	02/25/2020	ND	1.92	96.0	2.00	2.00		
Ethylbenzene*	<0.050	0.050	02/25/2020	ND	1.92	96.1	2.00	1.82		
Total Xylenes*	<0.150	0.150	02/25/2020	ND	5.68	94.6	6.00	1.75		
Total BTX	<0.300	0.300	02/25/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/26/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/25/2020	ND	187	93.6	200	2.27	
DRO >C10-C28*	<10.0	10.0	02/25/2020	ND	203	101	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	02/25/2020	ND					

Surrogate: 1-Chlorooctane 100 % 44.3-144

Surrogate: 1-Chlorooctadecane 107 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B - 15 2' (H000581-15)

BTEx 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/25/2020	ND	1.91	95.7	2.00	1.86		
Toluene*	<0.050	0.050	02/25/2020	ND	1.92	96.0	2.00	2.00		
Ethylbenzene*	<0.050	0.050	02/25/2020	ND	1.92	96.1	2.00	1.82		
Total Xylenes*	<0.150	0.150	02/25/2020	ND	5.68	94.6	6.00	1.75		
Total BTEx	<0.300	0.300	02/25/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/26/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	187	93.6	200	2.27	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	203	101	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 102 % 44.3-144

Surrogate: 1-Chlorooctadecane 108 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B - 16 2' (H000581-16)

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/25/2020	ND	1.91	95.7	2.00	1.86		
Toluene*	<0.050	0.050	02/25/2020	ND	1.92	96.0	2.00	2.00		
Ethylbenzene*	<0.050	0.050	02/25/2020	ND	1.92	96.1	2.00	1.82		
Total Xylenes*	<0.150	0.150	02/25/2020	ND	5.68	94.6	6.00	1.75		
Total BTX	<0.300	0.300	02/25/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	48.0	16.0	02/26/2020	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	187	93.6	200	2.27	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	203	101	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 103 % 44.3-144

Surrogate: 1-Chlorooctadecane 108 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B - 17 2' (H000581-17)

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2020	ND	1.91	95.7	2.00	1.86		
Toluene*	<0.050	0.050	02/26/2020	ND	1.92	96.0	2.00	2.00		
Ethylbenzene*	<0.050	0.050	02/26/2020	ND	1.92	96.1	2.00	1.82		
Total Xylenes*	<0.150	0.150	02/26/2020	ND	5.68	94.6	6.00	1.75		
Total BTX	<0.300	0.300	02/26/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.9 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/26/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	187	93.6	200	2.27	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	203	101	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 96.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 103 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B - 18 2' (H000581-18)

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2020	ND	1.91	95.7	2.00	1.86		
Toluene*	<0.050	0.050	02/26/2020	ND	1.92	96.0	2.00	2.00		
Ethylbenzene*	<0.050	0.050	02/26/2020	ND	1.92	96.1	2.00	1.82		
Total Xylenes*	<0.150	0.150	02/26/2020	ND	5.68	94.6	6.00	1.75		
Total BTX	<0.300	0.300	02/26/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	02/26/2020	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	187	93.6	200	2.27	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	203	101	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 104 % 44.3-144

Surrogate: 1-Chlorooctadecane 109 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B - 19 6' (H000581-19)

BTEx 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2020	ND	1.91	95.7	2.00	1.86		
Toluene*	<0.050	0.050	02/26/2020	ND	1.92	96.0	2.00	2.00		
Ethylbenzene*	<0.050	0.050	02/26/2020	ND	1.92	96.1	2.00	1.82		
Total Xylenes*	<0.150	0.150	02/26/2020	ND	5.68	94.6	6.00	1.75		
Total BTEx	<0.300	0.300	02/26/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/26/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	187	93.6	200	2.27	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	203	101	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 94.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 99.4 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B - 20 6' (H000581-20)

BTEx 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2020	ND	1.91	95.7	2.00	1.86	
Toluene*	<0.050	0.050	02/26/2020	ND	1.92	96.0	2.00	2.00	
Ethylbenzene*	<0.050	0.050	02/26/2020	ND	1.92	96.1	2.00	1.82	
Total Xylenes*	<0.150	0.150	02/26/2020	ND	5.68	94.6	6.00	1.75	
Total BTEx	<0.300	0.300	02/26/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	02/26/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	187	93.6	200	2.27	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	203	101	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 98.4 % 44.3-144

Surrogate: 1-Chlorooctadecane 102 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B - 21 8' (H000581-21)

BTEx 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2020	ND	1.91	95.7	2.00	1.86		
Toluene*	<0.050	0.050	02/26/2020	ND	1.92	96.0	2.00	2.00		
Ethylbenzene*	<0.050	0.050	02/26/2020	ND	1.92	96.1	2.00	1.82		
Total Xylenes*	<0.150	0.150	02/26/2020	ND	5.68	94.6	6.00	1.75		
Total BTEx	<0.300	0.300	02/26/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.5 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	16.0	16.0	02/26/2020	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	187	93.6	200	2.27	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	203	101	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 93.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 99.6 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: B - 22 8' (H000581-22)

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2020	ND	1.91	95.7	2.00	1.86		
Toluene*	<0.050	0.050	02/26/2020	ND	1.92	96.0	2.00	2.00		
Ethylbenzene*	<0.050	0.050	02/26/2020	ND	1.92	96.1	2.00	1.82		
Total Xylenes*	<0.150	0.150	02/26/2020	ND	5.68	94.6	6.00	1.75		
Total BTX	<0.300	0.300	02/26/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	02/26/2020	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	187	93.6	200	2.27	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	203	101	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 98.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 105 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

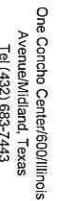
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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



Client Name:	COG-Artesia	Site Manager:	Sheldon Hitchcock
--------------	-------------	---------------	-------------------

Project Name:

Project Location: (county, /	Project #:

Invoice to:

Receiving Laboratory:	Sampler Name:
-----------------------	---------------

Comments:	Carroll
-----------	---------

14000581 LAB # (LAB USE ONLY)		SAMPLE IDENTIFICATION	
SAMPLING YEAR: 2014		MATRIX METH	
WATER SOIL		HCL HNO ₃ CE	
DATE	TIME		

SAMPLE IDENTIFICATION

DATE	YEAR: 2014	SAMPLING	MATERIAL	METHOD
		WATER		
		SOIL		
		CL		
		NO ₃		
CE				
CONTAINERS				
Composite(s)/Gross				

Hold

Reinquished by:	Date:	Time:	Received by:	Date:	Time:
-----------------	-------	-------	--------------	-------	-------

Relinquished by:	Date:	Time:	Received by:	Date:	Time:

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
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ANALYSIS REQUEST

(Circle or Specify Method No.)

REMARKS:

☒ **RUSH:** Same Day 24 hr 48 hr 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

Sample Temperature

3.7c

#113

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

ORIGINAL COPY

22 jo 92 ege d

Analysis Request of Chain of Custody Record



One Concho Center 600/11101
Avenue Midland, Texas
Tel (432) 583-7443

Client Name: COG-Artesia

Site Manager:

Sheldon Hitchcock

Project Name:

Grey Hawk St #1

Project Location: (county, state)

Lea, NM

Invoice to:

Sheldon Hitchcock

Receiving Laboratory:

Sampler Name:

Sheldon Hitchcock

Comments:

Unaltered

LAB #

LAB USE ONLY

SAMPLE IDENTIFICATION

SAMPLING

YEAR: 2019

DATE TIME

MATRIX

WATER SOIL

PRESERVATIVE METHOD

HCL HNO₃ ICE

CONTAINERS

(C)omposite/(G)rab

TPH 8015M (GRO - DRO - MRO)

BTEX 8021B

Chloride

Hold

ANALYSIS REQUEST

(Circle or Specify Method No.)

Relinquished by:

Date: Time:

Received by:

Date: Time:

Sheldon Hitchcock

Date: Time:

Sheldon Hitchcock 2-25-20

Date: Time:

Relinquished by:

Date: Time:

Received by:

Date: Time:

LAB USE ONLY

REMARKS:

☒ RUSH: Same Day (24 hr) 48 hr 72 hr

☐ Rush Charges Authorized

☐ Special Report Limits or TRRP Report

3.72

#113

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(Circle) HAND DELIVERED FEDEX UPS Tracking #:



CONCHO

One Concho Center/600/llinois
Avenue/Midland, Texas
Tel (432) 683-7443

[illegible]

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

February 26, 2020

SHELDON HITCHCOCK

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: GREY HAWK ST. #1

Enclosed are the results of analyses for samples received by the laboratory on 02/25/20 9:50.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SW - 1 (H000582-01)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	02/26/2020	ND	1.91	95.7	2.00	1.86	
Toluene*	<0.050	0.050	02/26/2020	ND	1.92	96.0	2.00	2.00	
Ethylbenzene*	<0.050	0.050	02/26/2020	ND	1.92	96.1	2.00	1.82	
Total Xylenes*	<0.150	0.150	02/26/2020	ND	5.68	94.6	6.00	1.75	
Total BTEX	<0.300	0.300	02/26/2020	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	64.0	16.0	02/26/2020	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	187	93.6	200	2.27	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	203	101	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 94.6 % 44.3-144

Surrogate: 1-Chlorooctadecane 102 % 42.2-156

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager



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Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SW - 2 (H000582-02)

BTEx 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2020	ND	1.91	95.7	2.00	1.86		
Toluene*	<0.050	0.050	02/26/2020	ND	1.92	96.0	2.00	2.00		
Ethylbenzene*	<0.050	0.050	02/26/2020	ND	1.92	96.1	2.00	1.82		
Total Xylenes*	<0.150	0.150	02/26/2020	ND	5.68	94.6	6.00	1.75		
Total BTEx	<0.300	0.300	02/26/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	288	16.0	02/26/2020	ND	416	104	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	187	93.6	200	2.27	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	203	101	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 102 % 44.3-144

Surrogate: 1-Chlorooctadecane 106 % 42.2-156

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SW - 3 (H000582-03)

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2020	ND	1.91	95.7	2.00	1.86		
Toluene*	<0.050	0.050	02/26/2020	ND	1.92	96.0	2.00	2.00		
Ethylbenzene*	<0.050	0.050	02/26/2020	ND	1.92	96.1	2.00	1.82		
Total Xylenes*	<0.150	0.150	02/26/2020	ND	5.68	94.6	6.00	1.75		
Total BTX	<0.300	0.300	02/26/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	208	16.0	02/26/2020	ND	416	104	400	0.00		

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	187	93.6	200	2.27	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	203	101	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 99.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 107 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SW - 4 (H000582-04)

BTEx 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2020	ND	1.91	95.7	2.00	1.86		
Toluene*	<0.050	0.050	02/26/2020	ND	1.92	96.0	2.00	2.00		
Ethylbenzene*	<0.050	0.050	02/26/2020	ND	1.92	96.1	2.00	1.82		
Total Xylenes*	<0.150	0.150	02/26/2020	ND	5.68	94.6	6.00	1.75		
Total BTEx	<0.300	0.300	02/26/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/26/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	187	93.6	200	2.27	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	203	101	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 96.3 % 44.3-144

Surrogate: 1-Chlorooctadecane 104 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SW - 5 (H000582-05)

BTEx 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2020	ND	1.91	95.7	2.00	1.86		
Toluene*	<0.050	0.050	02/26/2020	ND	1.92	96.0	2.00	2.00		
Ethylbenzene*	<0.050	0.050	02/26/2020	ND	1.92	96.1	2.00	1.82		
Total Xylenes*	<0.150	0.150	02/26/2020	ND	5.68	94.6	6.00	1.75		
Total BTEx	<0.300	0.300	02/26/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.4 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/26/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	187	93.6	200	2.27	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	203	101	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 98.0 % 44.3-144

Surrogate: 1-Chlorooctadecane 106 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SW - 6 (H000582-06)

BTEx 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/26/2020	ND	1.91	95.7	2.00	1.86		
Toluene*	<0.050	0.050	02/26/2020	ND	1.92	96.0	2.00	2.00		
Ethylbenzene*	<0.050	0.050	02/26/2020	ND	1.92	96.1	2.00	1.82		
Total Xylenes*	<0.150	0.150	02/26/2020	ND	5.68	94.6	6.00	1.75		
Total BTEx	<0.300	0.300	02/26/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.3-129

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	02/26/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	187	93.6	200	2.27	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	203	101	200	19.8	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 96.8 % 44.3-144

Surrogate: 1-Chlorooctadecane 106 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SW - 7 (H000582-07)

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/25/2020	ND	1.86	93.0	2.00	4.46		
Toluene*	<0.050	0.050	02/25/2020	ND	1.88	94.1	2.00	4.78		
Ethylbenzene*	<0.050	0.050	02/25/2020	ND	1.89	94.4	2.00	4.79		
Total Xylenes*	<0.150	0.150	02/25/2020	ND	5.47	91.2	6.00	4.76		
Total BTX	<0.300	0.300	02/25/2020	ND						

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

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	192	16.0	02/26/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	195	97.6	200	1.88	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	214	107	200	3.72	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 94.2 % 44.3-144

Surrogate: 1-Chlorooctadecane 106 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager



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

Analytical Results For:

COG OPERATING
SHELDON HITCHCOCK
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received: 02/25/2020
Reported: 02/26/2020
Project Name: GREY HAWK ST. #1
Project Number: NONE GIVEN
Project Location: COG - LEA CO NM

Sampling Date: 02/24/2020
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Tamara Oldaker

Sample ID: SW - 8 (H000582-08)

BTX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	02/25/2020	ND	1.86	93.0	2.00	4.46		
Toluene*	<0.050	0.050	02/25/2020	ND	1.88	94.1	2.00	4.78		
Ethylbenzene*	<0.050	0.050	02/25/2020	ND	1.89	94.4	2.00	4.79		
Total Xylenes*	<0.150	0.150	02/25/2020	ND	5.47	91.2	6.00	4.76		
Total BTX	<0.300	0.300	02/25/2020	ND						

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 73.3-129

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	16.0	16.0	02/26/2020	ND	432	108	400	0.00	

TPH 8015M		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10*	<10.0	10.0	02/26/2020	ND	195	97.6	200	1.88	
DRO >C10-C28*	<10.0	10.0	02/26/2020	ND	214	107	200	3.72	
EXT DRO >C28-C36	<10.0	10.0	02/26/2020	ND					

Surrogate: 1-Chlorooctane 97.1 % 44.3-144

Surrogate: 1-Chlorooctadecane 103 % 42.2-156

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Celey D. Keene, Lab Director/Quality Manager

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

Notes and Definitions

QR-02	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

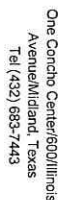
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A handwritten signature in cursive script, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager



ANALYSIS REQUEST
(Circle or Specify Method No.)

ORIGINAL COPY



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

February 27, 2020

SHELDON HITCHCOCK

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: GREY HAWK ST. #1

Enclosed are the results of analyses for samples received by the laboratory on 02/27/20 12:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

COG OPERATING
 SHELDON HITCHCOCK
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received: 02/27/2020
 Reported: 02/27/2020
 Project Name: GREY HAWK ST. #1
 Project Number: NONE GIVEN
 Project Location: COG - LEA CO NM

Sampling Date: 02/27/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B - 9 4' (H000635-01)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	4800	16.0	02/27/2020	ND	400	100	400	3.92	

Sample ID: B - 10 4' (H000635-02)

Chloride, SM4500Cl-B		mg/kg		Analyzed By: GM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	80.0	16.0	02/27/2020	ND	400	100	400	3.92	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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A handwritten signature in black ink, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager

Analysis Request of Chain of Custody Record



One Concho Center/600/Illinois
Avenue/Midland, Texas
Tel (432) 683-7443

Page 1 of 1

[illegible]



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

March 03, 2020

SHELDON HITCHCOCK

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: GREY HAWK ST. #1

Enclosed are the results of analyses for samples received by the laboratory on 03/02/20 14:10.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-19-12. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

Celey D. Keene

Lab Director/Quality Manager



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

Analytical Results For:

COG OPERATING
 SHELDON HITCHCOCK
 P. O. BOX 1630
 ARTESIA NM, 88210
 Fax To: NONE

Received: 03/02/2020
 Reported: 03/03/2020
 Project Name: GREY HAWK ST. #1
 Project Number: NONE GIVEN
 Project Location: COG - LEA CO NM

Sampling Date: 03/02/2020
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Tamara Oldaker

Sample ID: B - 9 (H000668-01)**Chloride, SM4500Cl-B****mg/kg****Analyzed By: AC**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	03/03/2020	ND	400	100	400	3.92	

Cardinal Laboratories

*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celey D. Keene, Lab Director/Quality Manager



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Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

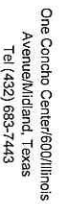
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A handwritten signature in cursive script, appearing to read "Celey D. Keene".

Celey D. Keene, Lab Director/Quality Manager

ANALYSIS REQUEST
(Circle or Specify Method No.)ORIGINAL COPY

APPENDIX D

E

90

SE

120

150

S

180

210

☀ 152°SE (T) ☉ 32°29'45"N, 104°4'18"W ±71545ft ▲ 3119ft

COG OPERATING LLC

GREY HAWK STATE #1H

UL P SEC.31-T21S-R34E

190' FSL & 330' FEL

LEA COUNTY, NM

API #30-025-41193

10 Feb 2020, 10:15:42



