Closure Report

Site Description	
Site Name:	Graham Nash State Com #008H
Company:	COG Operating LLC
Legal Description:	U/L D, Section 28, T26S, R28E
County:	Eddy County, NM
GPS Coordinates:	N 32.02034º W 104.09850º

Release Data	
Date of Release:	12/18/2016
Type of Release:	Oil and produced water
Source of Release:	Ball valve
Volume of Release:	40 bbls oil, 30 bbls produced water
Volume Recovered:	39 bbls oil, 27 bbls produced water

Remediation Specifications		
Remediation Parameters:	Excavate the entire leak area to a depth of 2.5 feet. Obtain confirmation samples. Backfill the site with clean soil.	
Remediation Activities:	10/18/2017 to 10/25/2017	
Plan Sent to OCD:	08/30/2017	Email from Cliff Brunson to Mike Bratcher
OCD Approval of Plan:	09/01/2017	Email from Mike Bratcher to Cliff Brunson
Plan Sent to SLO:	08/30/2017	Email from Cliff Brunson to Amber Groves
SLO Approval of Plan:	09/18/2017	Email from Amber Groves to Cliff Brunson

Supporting Documentation	
Initial C-141	Signed 12/19/2016
Final C-141	Upon completion
Site Diagram	June 2017
Groundwater Plot	<50’
TOPO Maps	June 2017
Lab Summary	01/24/2017 and 10/20/2017
Lab Analysis	01/24/2017 and 10/20/2017
Correspondence	Request and approval of remediation plan via email

Request for Closure

Based on the completion of the remediation plan, BBC requests closure approval from NMOCD.

Cliff Brunson, President of BBC International Inc. 10/26/2017

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

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

NM OIL CONSERVATION
ARTESIA DISTRICT
DEC 19 2016
RECEIVED

Form C-141
Revised August 8, 2011
Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nAB1635756030

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company:	COG Operating LLC 229137	Contact:	Robert McNeill
Address:	600 West Illinois Avenue, Midland TX 79701	Telephone No.	432-683-7443
Facility Name:	GRAHAM NASH STATE COM #008H	Facility Type:	Tank Battery

Surface Owner: State	Mineral Owner:	API No. 30-015-42203

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	28	26S	28E	190'	North	760'	West	Eddy

Latitude 32.019989 **Longitude** 104.0983429

NATURE OF RELEASE

Type of Release: Oil & Produced Water	Volume of Release: 40bbls of Oil & 30bbls of Produced Water	Volume Recovered: 39bbls of Oil & 27bbls of Produced Water
Source of Release: Ball Valve	Date and Hour of Occurrence: 12-18-2016 07:00 am	Date and Hour of Discovery: 12-18-2016 07:00 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Crystal + Mike + Heather ~~Kristen Lynch~~ – NMOCD / Amber Groves - SLO	
By Whom? Robert Grubbs Jr.	Date and Hour: Mon 12/19/2016 2:24 PM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

This release was caused by a corroded ball valve due to age. The ball valve has been replaced with a new one.

Describe Area Affected and Cleanup Action Taken.*

This release was mostly contained within the lined facility a small area of 24 X30 on the pad. Concho will have the spill site sampled to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation work.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Robert Grubbs Jr.	Approved by Environmental Specialist:
Title: Senior HSE Coordinator	Approval Date: 12/23/16 Expiration Date: N/A
E-mail Address: rgrubbs@concho.com	Conditions of Approval: Attached ☒
Date: Phone: 432-683-7443	

* Attach Additional Sheets If Necessary

2RP-4043

Operator/Responsible Party,

The OCD has received the form C-141 you provided on **12/22/16** regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 2RP-4043 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

> *The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC.* [emphasis added]

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District II office in Artesia on or before 2/1/17. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.

- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C_6 thru C_{36}), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.

- Nominal detection limits for field and laboratory analyses must be provided.

- Composite sampling is not generally allowed.

- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

•Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

• If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

• Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.

Jim Griswold
OCD Environmental Bureau Chief
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
505-476-3465
jim.griswold@state.nm.us

Patterson, Heather, EMNRD

From:	Robert Grubbs <RGrubbs@concho.com>
Sent:	Monday, December 19, 2016 1:32 PM
To:	Bratcher, Mike, EMNRD; Patterson, Heather, EMNRD; Weaver, Crystal, EMNRD; 'agroves@slo.state.nm.us'
Subject:	(C-141) Initial GRAHAM NASH STATE COM #008H (TB) 30-015-42203
Attachments:	Graham Nash State Com #008H (TB) Initial.pdf

MR. BRATCHER / MS. GROVES,

ATTACHED IS A C-141 FOR YOUR CONSIDERATION. IF YOU HAVE ANY ADDITIONAL QUESTIONS PLEASE FEEL FREE TO CONTACT ME.

THANK YOU,

ROBERT GRUBBS JR.
SR. HSE COORDINATOR
432.683.7443 (MAIN)
432.818.2369 (DIRECT)
432.661.6601 (CELL)
432.221.0892 (FAX)
RGRUBBS@CONCHO.COM
MAILING ADDRESS:
ONE CONCHO CENTER
600 W. ILLINOIS AVENUE
MIDLAND, TEXAS 79701

Patterson, Heather, EMNRD

From: Robert Grubbs <RGrubbs@concho.com>
Sent: Monday, December 19, 2016 1:24 PM
To: Bratcher, Mike, EMNRD; Patterson, Heather, EMNRD; Weaver, Crystal, EMNRD; 'agroves@slo.state.nm.us'
Subject: (Notification) GRAHAM NASH STATE COM #008H (TB) 30-015-42203

MR. BRATCHER / MS. GROVES,

COG OPERATING LLC IS REPORTING A RELEASE ON THE GRAHAM NASH STATE COM #008H (30-015-42203)
UNIT D SECTION 28 TOWNSHIP 26S RANGE 28E
THE RELEASE OCCURRED AT APPROXIMATELY 07:00 AM ON 12-18-2016
ESTIMATED RELEASED: APPROX. 40BBLS OIL & 30BBLS OF PRODUCED WATER
ESTIMATED RECOVERED: APPROX. 39BBLS OF OIL & 27BBLS OF PRODUCED WATER

THE RELEASE WAS CAUSED BY A CORRODED BALL VALVE DUE TO AGE. THIS RELEASE WAS MOSTLY CONTAINED WITHIN THE LINED FACILITY A SMALL AREA OF 24 X30 ON THE PAD. THIS AREA IS BEING EVALUATED AND A C-141 WILL BE SUBMITTED. IF YOU HAVE ANY ADDITIONAL QUESTIONS

THANK YOU,

ROBERT GRUBBS JR.
SR. HSE COORDINATOR
432.683.7443 (MAIN)
432.818.2369 (DIRECT)
432.661.6601 (CELL)
432.221.0892 (FAX)
RGRUBBS@CONCHO.COM
MAILING ADDRESS:
ONE CONCHO CENTER
600 W. ILLINOIS AVENUE
MIDLAND, TEXAS 79701

CONFIDENTIALITY NOTICE: The information in this email may be confidential and/or privileged. If you are not the intended recipient or an authorized representative of the intended recipient, you are hereby notified that any review, dissemination or copying of this email and its attachments, if any, or the information contained herein, is prohibited. If you have received this email in error, please immediately notify the sender by return email and delete this email from your system. Thank you.

Weaver, Crystal, EMNRD

From: Robert Grubbs <RGrubbs@concho.com>
Sent: Monday, December 19, 2016 1:24 PM
To: Bratcher, Mike, EMNRD; Patterson, Heather, EMNRD; Weaver, Crystal, EMNRD; 'agroves@slo.state.nm.us'
Subject: (Notification) GRAHAM NASH STATE COM #008H (TB) 30-015-42203

MR. BRATCHER / MS. GROVES,

COG OPERATING LLC IS REPORTING A RELEASE ON THE GRAHAM NASH STATE COM #008H (30-015-42203)
UNIT D SECTION 28 TOWNSHIP 26S RANGE 28E
THE RELEASE OCCURRED AT APPROXIMATELY 07:00 AM ON 12-18-2016
ESTIMATED RELEASED: APPROX. 40BBLS OIL & 30BBLS OF PRODUCED WATER
ESTIMATED RECOVERED: APPROX. 39BBLS OF OIL & 27BBLS OF PRODUCED WATER

THE RELEASE WAS CAUSED BY A CORRODED BALL VALVE DUE TO AGE. THIS RELEASE WAS MOSTLY CONTAINED WITHIN THE LINED FACILITY A SMALL AREA OF 24 X30 ON THE PAD. THIS AREA IS BEING EVALUATED AND A C-141 WILL BE SUBMITTED. IF YOU HAVE ANY ADDITIONAL QUESTIONS

THANK YOU,

ROBERT GRUBBS JR.
SR. HSE COORDINATOR
432.683.7443 (MAIN)
432.818.2369 (DIRECT)
432.661.6601 (CELL)
432.221.0892 (FAX)
RGRUBBS@CONCHO.COM
MAILING ADDRESS:
ONE CONCHO CENTER
600 W. ILLINOIS AVENUE
MIDLAND, TEXAS 79701

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

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company: COG Operating LLC	Contact: Robert McNeill
Address: 600 West Illinois Avenue, Midland, TX 79701	Telephone No. 432-683-7443
Facility Name: Graham Nash State Com #008H	Facility Type: Tank Battery

Surface Owner: State	Mineral Owner:	API No. 30-015-42203

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	28	26S	28E	190	North	760	West	Eddy County, NM

Latitude N 32.02034° **Longitude** W 104.09850°

NATURE OF RELEASE

Type of Release: Oil & produced water	Volume of Release: 40 bbls oil, 30 bbls produced water	Volume Recovered: 39 bbls oil, 27 bbls produced water
Source of Release: Ball valve	Date and Hour of Occurrence 12/18/2016 @ 7:00 am	Date and Hour of Discovery 12/18/2016 @ 7:00 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Crystal Weaver, Mike Bratcher, and Heather Patterson- NMOCD; Amber Groves- NMSLO	
By Whom? Robert Grubbs Jr.	Date and Hour: 12/19/2016 @ 2:24 pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

This release was caused by a corroded ball valve due to age. The ball valve has been replaced with a new one.

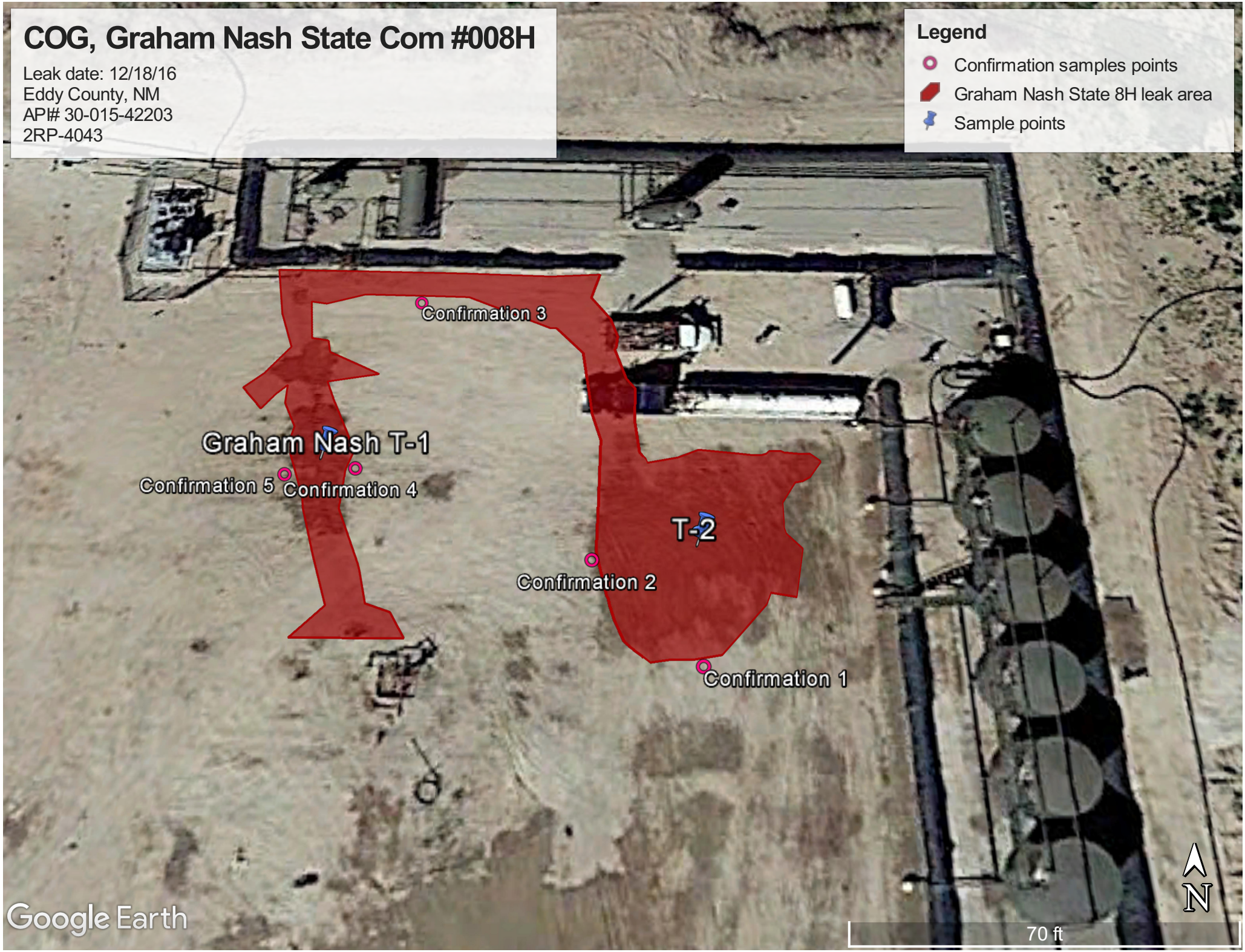
Describe Area Affected and Cleanup Action Taken.*

The release was mostly contained within the lined facility and a small area 24' x 30' on the pad. A vacuum truck was dispatched to remove all freestanding fluids.. The site was delineated according to OCD standards and a remediation plan was created. Remediation was completed in accordance with the remediation plan approved by Mike Bratcher of NMOCD via email on 09/01/2017 and approved by Amber Groves of the SLO via email on 09/18/2017.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature: Rebecca Haskell	OIL CONSERVATION DIVISION	
Printed Name: Rebecca Haskell	Approved by Environmental Specialist:	
Title: Senior HSE Coordinator	Approval Date:	Expiration Date:
E-mail Address: rhaskell@concho.com	Conditions of Approval:	Attached ☐
Date: October 24, 2017 Phone: (432) 683-7443		

* Attach Additional Sheets If Necessary


COG, Graham Nash State Com #008H
Leak date: 12/18/16
Eddy County, NM
API# 30-015-42203
2RP-4043
Legend
Confirmation samples points
Graham Nash State 8H leak area
Sample points
Confirmation 3
Graham Nash T-1
Confirmation 5
Confirmation 4
T-2
Confirmation 2
Confirmation 1
Google Earth
N
70 ft

COG, Graham Nash State Com #008H

Sample points, hand auger

T1, N 32.02029 W-104.09864

T2, N 32.02024 W-104.09838

Confirmation samples

#1, N 32.02016 W-104.09838

#2, N 32.02022 W-104.09845

#3, N 32.02040 W-104.09858

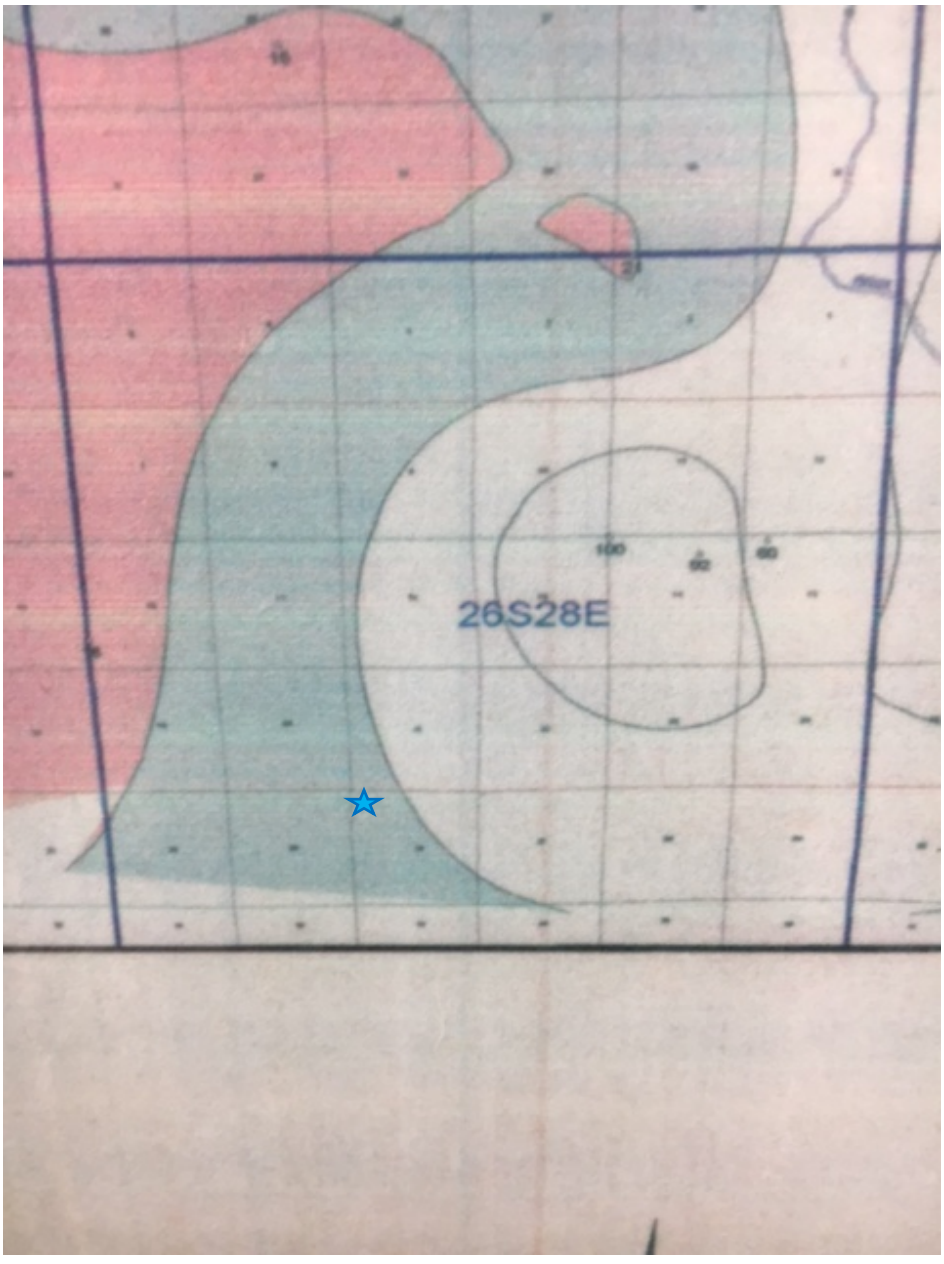
#4, N 32.02028 W-104.09861

#5, N 32.02028 W-104.09866

COG, Graham Nash State Com #008H

U/L D, Section 28, T26S, R28E

Groundwater: <50’



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

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

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 585157 **Northing (Y):** 3542855 **Radius:** 1700

Public Land Survey System (PLSS)

Q64: Q16: NW Q4: NW Sec: 28 Tws: 26S Rng: 28E

State Plane Coordinate System - NAD27

X: 0 ft Y: 0 ft Zone:

State Plane Coordinate System - NAD83

X: 0 ft Y: 0 ft Zone:

Degrees/Minutes/Seconds

Longitude (X): Degrees: 0 ° Minutes: 0 ' Seconds: 0 "

Latitude (Y): Degrees: 0 ° Minutes: 0 ' Seconds: 0 "

UTM - NAD27

Easting (X): 0 mtrs Northing (Y): 0 mtrs Zone:

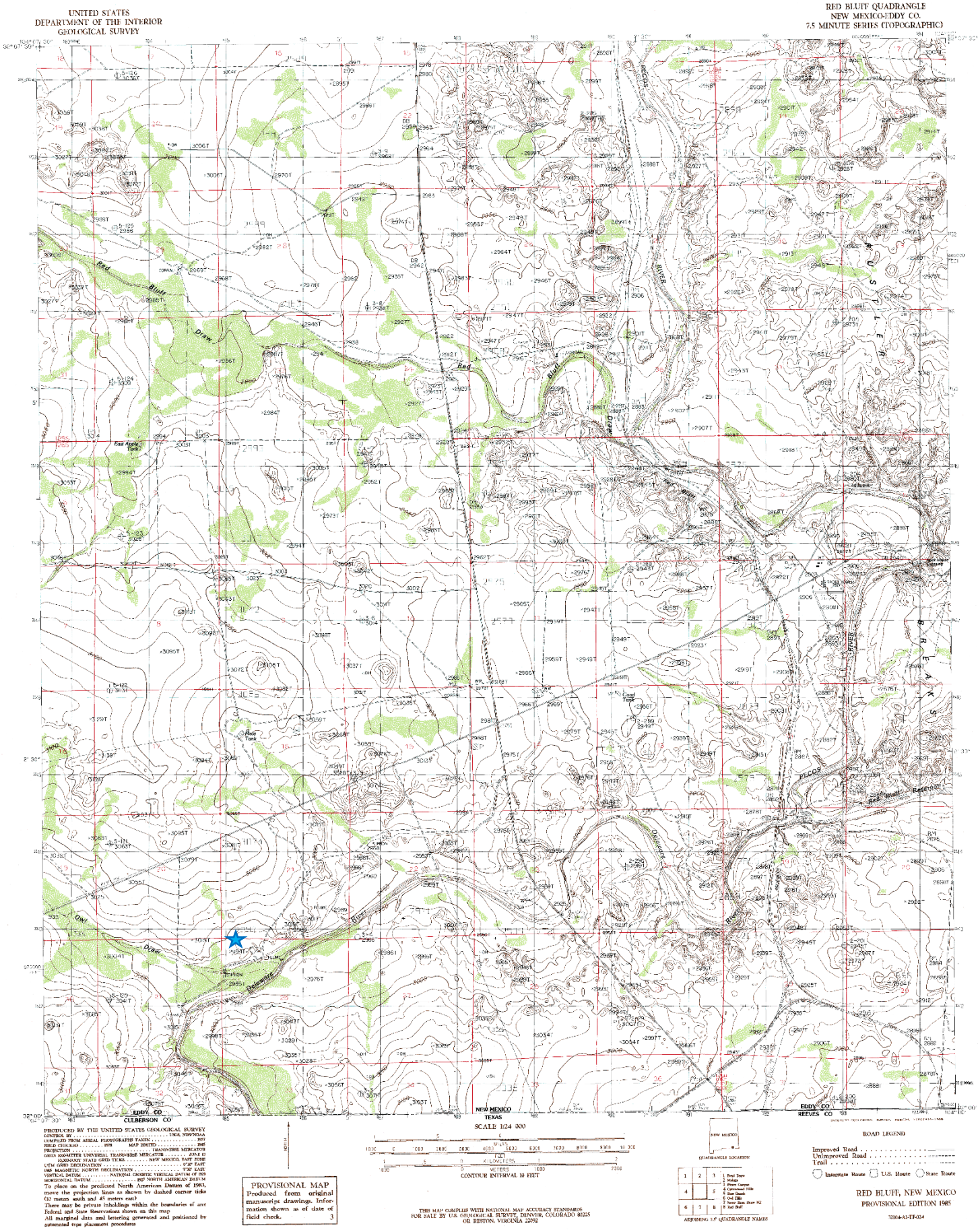
SUBMIT

All Conversion Results are displayed as NAD 1983 UTM Zone 13

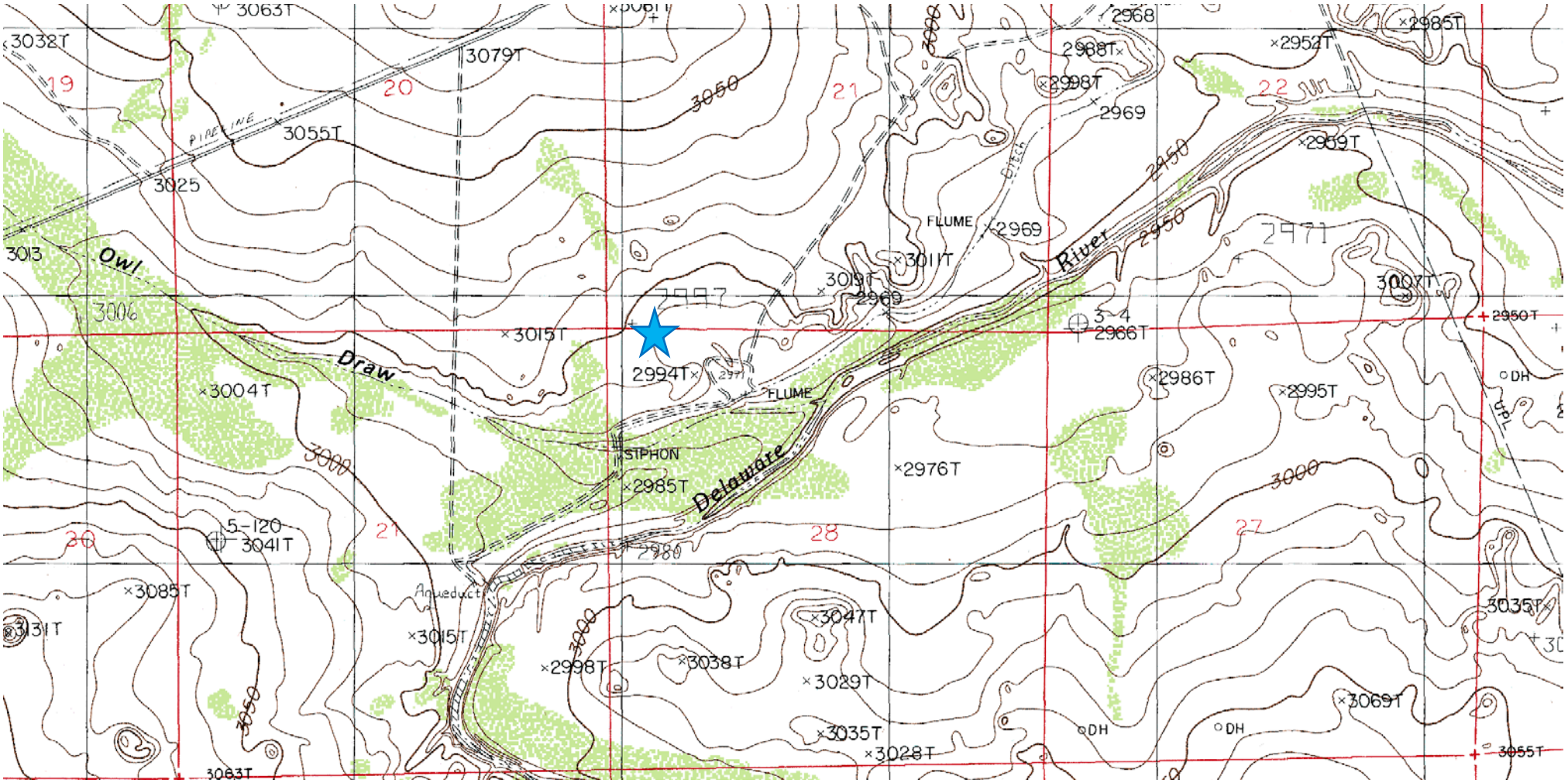
Easting (X): 585157.0 mtrs Northing (Y): 3542855.0 mtrs

~~ Please keep screen open to copy UTM values for Reports. ~~

COG, Graham Nash State Com #008H



COG, Graham Nash State Com #008H



Laboratory Analytical Results Summary
Graham Nash State Com #008H

		Sample	T1 @ 1'	T1 @ 2'	T1 @ 3'	T1 @ 4'	T1 @ 5'	T1 @ 6'	T1 @ 8'	T1 @ 10'	T1 @ 12'
Analyte	Method	Date	1/24/17	1/24/17	1/24/17	1/24/17	1/24/17	1/24/17	1/24/17	1/24/17	1/24/17
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150	<0.150	n/a	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300	<0.300	n/a	n/a	n/a	n/a
Chloride	SM4500Cl-B		**560**	**912**	**400**	**320**	**304**	**224**	**128**	**64**	**304**
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0	n/a	n/a	n/a	n/a
DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0	n/a	n/a	n/a	n/a

		Sample	T2 @ 1'	T2 @ 2'	T2 @ 3'	T2 @ 4'	T2 @ 5'	T2 @ 6'	T2 @ 8'	T2 @ 9'
Analyte	Method	Date	1/24/17	1/24/17	1/24/17	1/24/17	1/24/17	1/24/17	1/24/17	1/24/17
			mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150	<0.150	n/a	n/a	n/a
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300	<0.300	n/a	n/a	n/a
Chloride	SM4500Cl-B		**832**	**1550**	**64**	**64**	**128**	**48**	**64**	**224**
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0	n/a	n/a	n/a
DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0	n/a	n/a	n/a

Laboratory Analytical Results Summary

Graham Nash State Com #008H

		Sample ID	Conf 1 @ 6"	Conf 2 @ 6"	Conf 3 @ 6"	Conf 4 @ 6"	Conf 5 @ 6"
Analyte	**Method**	**Date**	10/20/17	10/20/17	10/20/17	10/20/17	10/20/17
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Benzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050
Ethylbenzene	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050
Total Xylenes	BTEX 8021B		<0.150	<0.150	<0.150	<0.150	<0.150
Total BTEX	BTEX 8021B		<0.300	<0.300	<0.300	<0.300	<0.300
Chloride	SM4500Cl-B		**176**	**208**	**192**	**192**	**208**
GRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0
DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0
EXT DRO	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0

CARDINAL Laboratories

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

January 31, 2017

AARON LIEB

COG OPERATING

P. O. BOX 1630

ARTESIA, NM 88210

RE: GRAHAM NASH STATE #8H

Enclosed are the results of analyses for samples received by the laboratory on 01/25/17 12:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COG OPERATING
AARON LIEB
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	01/25/2017	Sampling Date:	01/24/2017
Reported:	01/31/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH STATE #8H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

Sample ID: T1 - 1' (H700186-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/30/2017	ND	1.91	95.6	2.00	0.678	
Toluene*	<0.050	0.050	01/30/2017	ND	1.92	95.9	2.00	0.381	
Ethylbenzene*	<0.050	0.050	01/30/2017	ND	1.96	98.2	2.00	0.486	
Total Xylenes*	<0.150	0.150	01/30/2017	ND	5.55	92.6	6.00	0.146	
Total BTEX	<0.300	0.300	01/30/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *73.6-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**560**	16.0	01/28/2017	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2017	ND	199	99.7	200	1.81	
DRO >C10-C28	<10.0	10.0	01/27/2017	ND	209	104	200	1.15	

Surrogate: 1-Chlorooctane *78.6 %* *35-147*

Surrogate: 1-Chlorooctadecane *92.4 %* *28-171*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COG OPERATING
AARON LIEB
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	01/25/2017	Sampling Date:	01/24/2017
Reported:	01/31/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH STATE #8H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

Sample ID: T1 - 2' (H700186-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/30/2017	ND	1.91	95.6	2.00	0.678	
Toluene*	<0.050	0.050	01/30/2017	ND	1.92	95.9	2.00	0.381	
Ethylbenzene*	<0.050	0.050	01/30/2017	ND	1.96	98.2	2.00	0.486	
Total Xylenes*	<0.150	0.150	01/30/2017	ND	5.55	92.6	6.00	0.146	
Total BTEX	<0.300	0.300	01/30/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *73.6-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**912**	16.0	01/28/2017	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2017	ND	199	99.7	200	1.81	
DRO >C10-C28	<10.0	10.0	01/27/2017	ND	209	104	200	1.15	

Surrogate: 1-Chlorooctane *75.3 %* *35-147*

Surrogate: 1-Chlorooctadecane *91.5 %* *28-171*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COG OPERATING
AARON LIEB
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	01/25/2017	Sampling Date:	01/24/2017
Reported:	01/31/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH STATE #8H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

Sample ID: T1 - 3' (H700186-03)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/30/2017	ND	1.93	96.7	2.00	0.0680	
Toluene*	<0.050	0.050	01/30/2017	ND	1.95	97.5	2.00	0.0817	
Ethylbenzene*	<0.050	0.050	01/30/2017	ND	2.01	100	2.00	0.340	
Total Xylenes*	<0.150	0.150	01/30/2017	ND	5.70	95.1	6.00	0.184	
Total BTEX	<0.300	0.300	01/30/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *73.6-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**400**	16.0	01/28/2017	ND	432	108	400	3.77	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2017	ND	199	99.7	200	1.81	
DRO >C10-C28	<10.0	10.0	01/27/2017	ND	209	104	200	1.15	

Surrogate: 1-Chlorooctane *77.7 %* *35-147*

Surrogate: 1-Chlorooctadecane *92.1 %* *28-171*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COG OPERATING
AARON LIEB
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	01/25/2017	Sampling Date:	01/24/2017
Reported:	01/31/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH STATE #8H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

Sample ID: T1 - 4' (H700186-04)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/30/2017	ND	1.93	96.7	2.00	0.0680	
Toluene*	<0.050	0.050	01/30/2017	ND	1.95	97.5	2.00	0.0817	
Ethylbenzene*	<0.050	0.050	01/30/2017	ND	2.01	100	2.00	0.340	
Total Xylenes*	<0.150	0.150	01/30/2017	ND	5.70	95.1	6.00	0.184	
Total BTEX	<0.300	0.300	01/30/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *73.6-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**320**	16.0	01/28/2017	ND	448	112	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2017	ND	199	99.7	200	1.81	
DRO >C10-C28	<10.0	10.0	01/27/2017	ND	209	104	200	1.15	

Surrogate: 1-Chlorooctane *72.4 %* *35-147*

Surrogate: 1-Chlorooctadecane *83.1 %* *28-171*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COG OPERATING
AARON LIEB
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	01/25/2017	Sampling Date:	01/24/2017
Reported:	01/31/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH STATE #8H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

Sample ID: T1 - 5' (H700186-05)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/30/2017	ND	1.93	96.7	2.00	0.0680	
Toluene*	<0.050	0.050	01/30/2017	ND	1.95	97.5	2.00	0.0817	
Ethylbenzene*	<0.050	0.050	01/30/2017	ND	2.01	100	2.00	0.340	
Total Xylenes*	<0.150	0.150	01/30/2017	ND	5.70	95.1	6.00	0.184	
Total BTEX	<0.300	0.300	01/30/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *73.6-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**304**	16.0	01/28/2017	ND	448	112	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2017	ND	199	99.7	200	1.81	
DRO >C10-C28	<10.0	10.0	01/27/2017	ND	209	104	200	1.15	

Surrogate: 1-Chlorooctane *87.3 %* *35-147*

Surrogate: 1-Chlorooctadecane *83.7 %* *28-171*

Sample ID: T1 - 6' (H700186-06)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**224**	16.0	01/28/2017	ND	448	112	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COG OPERATING
AARON LIEB
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	01/25/2017	Sampling Date:	01/24/2017
Reported:	01/31/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH STATE #8H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

Sample ID: T1 - 8' (H700186-07)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	01/28/2017	ND	448	112	400	0.00	

Sample ID: T1 - 10' (H700186-08)

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	01/28/2017	ND	448	112	400	0.00	

Sample ID: T1 - 12' (H700186-09)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**304**	16.0	01/28/2017	ND	448	112	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COG OPERATING
AARON LIEB
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	01/25/2017	Sampling Date:	01/24/2017
Reported:	01/31/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH STATE #8H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

Sample ID: T2 - 1' (H700186-10)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/30/2017	ND	1.93	96.7	2.00	0.0680	
Toluene*	<0.050	0.050	01/30/2017	ND	1.95	97.5	2.00	0.0817	
Ethylbenzene*	<0.050	0.050	01/30/2017	ND	2.01	100	2.00	0.340	
Total Xylenes*	<0.150	0.150	01/30/2017	ND	5.70	95.1	6.00	0.184	
Total BTEX	<0.300	0.300	01/30/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *73.6-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**832**	16.0	01/28/2017	ND	448	112	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2017	ND	199	99.7	200	1.81	
DRO >C10-C28	<10.0	10.0	01/27/2017	ND	209	104	200	1.15	

Surrogate: 1-Chlorooctane *86.3 %* *35-147*

Surrogate: 1-Chlorooctadecane *94.4 %* *28-171*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COG OPERATING
AARON LIEB
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	01/25/2017	Sampling Date:	01/24/2017
Reported:	01/31/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH STATE #8H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

Sample ID: T2 - 2' (H700186-11)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/30/2017	ND	1.93	96.7	2.00	0.0680	
Toluene*	<0.050	0.050	01/30/2017	ND	1.95	97.5	2.00	0.0817	
Ethylbenzene*	<0.050	0.050	01/30/2017	ND	2.01	100	2.00	0.340	
Total Xylenes*	<0.150	0.150	01/30/2017	ND	5.70	95.1	6.00	0.184	
Total BTEX	<0.300	0.300	01/30/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *73.6-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1550**	16.0	01/28/2017	ND	448	112	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2017	ND	199	99.7	200	1.81	
DRO >C10-C28	<10.0	10.0	01/27/2017	ND	209	104	200	1.15	

Surrogate: 1-Chlorooctane *72.1 %* *35-147*

Surrogate: 1-Chlorooctadecane *84.3 %* *28-171*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COG OPERATING
AARON LIEB
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	01/25/2017	Sampling Date:	01/24/2017
Reported:	01/31/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH STATE #8H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

Sample ID: T2 - 3' (H700186-12)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/30/2017	ND	1.93	96.7	2.00	0.0680	
Toluene*	<0.050	0.050	01/30/2017	ND	1.95	97.5	2.00	0.0817	
Ethylbenzene*	<0.050	0.050	01/30/2017	ND	2.01	100	2.00	0.340	
Total Xylenes*	<0.150	0.150	01/30/2017	ND	5.70	95.1	6.00	0.184	
Total BTEX	<0.300	0.300	01/30/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *73.6-140*

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	01/28/2017	ND	448	112	400	0.00	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2017	ND	199	99.7	200	1.81	
DRO >C10-C28	<10.0	10.0	01/27/2017	ND	209	104	200	1.15	

Surrogate: 1-Chlorooctane *63.5 %* *35-147*

Surrogate: 1-Chlorooctadecane *75.4 %* *28-171*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COG OPERATING
AARON LIEB
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	01/25/2017	Sampling Date:	01/24/2017
Reported:	01/31/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH STATE #8H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

Sample ID: T2 - 4' (H700186-13)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/30/2017	ND	1.93	96.7	2.00	0.0680	
Toluene*	<0.050	0.050	01/30/2017	ND	1.95	97.5	2.00	0.0817	
Ethylbenzene*	<0.050	0.050	01/30/2017	ND	2.01	100	2.00	0.340	
Total Xylenes*	<0.150	0.150	01/30/2017	ND	5.70	95.1	6.00	0.184	
Total BTEX	<0.300	0.300	01/30/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *73.6-140*

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	01/28/2017	ND	448	112	400	0.00	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2017	ND	199	99.7	200	1.81	
DRO >C10-C28	<10.0	10.0	01/27/2017	ND	209	104	200	1.15	

Surrogate: 1-Chlorooctane *89.3 %* *35-147*

Surrogate: 1-Chlorooctadecane *81.7 %* *28-171*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COG OPERATING
AARON LIEB
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	01/25/2017	Sampling Date:	01/24/2017
Reported:	01/31/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH STATE #8H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

Sample ID: T2 - 5' (H700186-14)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/30/2017	ND	1.93	96.7	2.00	0.0680	
Toluene*	<0.050	0.050	01/30/2017	ND	1.95	97.5	2.00	0.0817	
Ethylbenzene*	<0.050	0.050	01/30/2017	ND	2.01	100	2.00	0.340	
Total Xylenes*	<0.150	0.150	01/30/2017	ND	5.70	95.1	6.00	0.184	
Total BTEX	<0.300	0.300	01/30/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *73.6-140*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**128**	16.0	01/28/2017	ND	448	112	400	0.00	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2017	ND	199	99.7	200	1.81	
DRO >C10-C28	<10.0	10.0	01/27/2017	ND	209	104	200	1.15	

Surrogate: 1-Chlorooctane *81.3 %* *35-147*

Surrogate: 1-Chlorooctadecane *94.1 %* *28-171*

Sample ID: T2 - 6' (H700186-15)

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	01/28/2017	ND	448	112	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

COG OPERATING
AARON LIEB
P. O. BOX 1630
ARTESIA NM, 88210
Fax To: NONE

Received:	01/25/2017	Sampling Date:	01/24/2017
Reported:	01/31/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH STATE #8H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

Sample ID: T2 - 8' (H700186-16)

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	01/28/2017	ND	448	112	400	0.00	

Sample ID: T2 - 9' (H700186-17)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**224**	16.0	01/28/2017	ND	448	112	400	0.00	

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

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

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	COG Operating LLC
Project Manager:	Aaron Lieb
Address:	2407 Pecos Avenue
City:	Artesia
State:	NM
Zip	88210
Phone #:	575-748-1553
Fax #:	
Project #:	
Project Owner:	
Project Name:	Graham Nash State #8H
Project Location:	
Sampler Name:	Aaron Lieb

BILL TO

P.O. #:	
Company:	COG Operating LLC
Attn:	Robert McNeill
Address:	600 W Illinois
City:	Midland
State:	TX
Zip:	79701
Phone #:	(432) 221-0388
Fax #:	

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	BTEX	TPH	Chloride
H700186-																	
01	T1-1'					x					x		1/24/17	11:00AM	X	X	X
02	T1-2'					x					x		1/24/17	11:00AM	X	X	X
03	T1-3'					x					x		1/24/17	11:00AM	X	X	X
04	T1-4'					x					x		1/24/17	11:00AM	X	X	X
05	T1-5'					x					x		1/24/17	11:00AM	X	X	X
06	T1-6'					x					x		1/24/17	11:00AM	X	X	X
07	T1-8'					x					x		1/24/17	11:00AM			X
08	T1-10'					x					x		1/24/17	11:00AM			X
09	T1-12'					x					x		1/24/17	11:00AM			X
																	X

ANALYSIS REQUEST

Relinquished By:	Date: 1-25-17	Received By:	
Relinquished By:	Time: 12:15	Received By: Angela Cabrera	
	Date:		
	Time:		

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: 4.6°C

Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No

CHECKED BY: (Initials) ash #75

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:

REMARKS:
dneel2@concho.com
alieb@concho.com
rgrubbs@concho.com
rhaskell@concho.com

Note: Run Deeper Horizons for BTEX + TPH if Benzene > 10 ppm, BTEX > 50 ppm + TPH > 5000 ppm.

FORM-006 R 2.0

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

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name:	COG Operating LLC
Project Manager:	Aaron Lieb
Address:	2407 Pecos Avenue
City:	Artesia
State:	NM
Zip	88210
Phone #:	575-748-1553
Fax #:	
Project #:	
Project Owner:	
Project Name:	Graham Nash State #8H
Project Location:	
Sampler Name:	Aaron Lieb

BILL TO

P.O. #:	
Company:	COG Operating LLC
Attn:	Robert McNeill
Address:	600 W Illinois
City:	Midland
State:	TX
Zip:	79701
Phone #:	(432) 221-0388
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV.: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING: DATE	TIME	BTEX	TPH	Chloride
H700187-10	T2-1'					x					x		1/24/17	11:30AM	X	X	X
11	T2-2'					x					x		1/24/17	11:30AM	X	X	X
12	T2-3'					x					x		1/24/17	11:30AM	X	X	X
13	T2-4'					x					x		1/24/17	11:30AM	X	X	X
14	T2-5'					x					x		1/24/17	11:30AM	X	X	X
15	T2-6'					x					x		1/24/17	11:30AM	X	X	X
16	T2-8'					x					x		1/24/17	11:30AM			X
17	T2-9'					x					x		1/24/17	11:30AM			X
																	X

Relinquished By:	Date: 1-25-17	Received By:	
	Time: 12:15		
Relinquished By:	Date:	Received By:	
	Time:		

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:

Sample Condition		CHECKED BY: (Initials)
Cool	Intact	
☐ Yes ☐ No	☐ Yes ☐ No	

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:

REMARKS:
dneel2@concho.com
alieb@concho.com
rgrubbs@concho.com
rhaskell@concho.com

Note! Run Deeper Horizons for BTEX & TPH if Benzene > 10 ppm, BTEX > 50 ppm & TPH > 5000 ppm

FORM-006 R 2.0

CARDINAL Laboratories

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

October 24, 2017

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: GRAHAM NASH ST COM #0084

Enclosed are the results of analyses for samples received by the laboratory on 10/23/17 9:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	10/23/2017	Sampling Date:	10/20/2017
Reported:	10/24/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH ST COM #0084	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG		

Sample ID: COMFIRMATION 1 @ 6" (H702889-01)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/23/2017	ND	1.83	91.4	2.00	0.101	
Toluene*	<0.050	0.050	10/23/2017	ND	1.81	90.5	2.00	0.00944	
Ethylbenzene*	<0.050	0.050	10/23/2017	ND	1.79	89.3	2.00	0.250	
Total Xylenes*	<0.150	0.150	10/23/2017	ND	5.34	89.1	6.00	0.858	
Total BTEX	<0.300	0.300	10/23/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.2 %* *72-148*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**176**	16.0	10/23/2017	ND	448	112	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/23/2017	ND	190	95.0	200	1.54	
DRO >C10-C28	<10.0	10.0	10/23/2017	ND	206	103	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	10/23/2017	ND					

Surrogate: 1-Chlorooctane *74.6 %* *28.3-164*

Surrogate: 1-Chlorooctadecane *85.7 %* *34.7-157*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	10/23/2017	Sampling Date:	10/20/2017
Reported:	10/24/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH ST COM #0084	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG		

Sample ID: COMFIRMATION 2 @ 6" (H702889-02)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/23/2017	ND	1.83	91.4	2.00	0.101	
Toluene*	<0.050	0.050	10/23/2017	ND	1.81	90.5	2.00	0.00944	
Ethylbenzene*	<0.050	0.050	10/23/2017	ND	1.79	89.3	2.00	0.250	
Total Xylenes*	<0.150	0.150	10/23/2017	ND	5.34	89.1	6.00	0.858	
Total BTEX	<0.300	0.300	10/23/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID *98.0 %* *72-148*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**208**	16.0	10/23/2017	ND	448	112	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/23/2017	ND	190	95.0	200	1.54	
DRO >C10-C28	<10.0	10.0	10/23/2017	ND	206	103	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	10/23/2017	ND					

Surrogate: 1-Chlorooctane *78.3 %* *28.3-164*

Surrogate: 1-Chlorooctadecane *90.6 %* *34.7-157*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	10/23/2017	Sampling Date:	10/20/2017
Reported:	10/24/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH ST COM #0084	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG		

Sample ID: COMFIRMATION 3 @ 6" (H702889-03)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/23/2017	ND	1.83	91.4	2.00	0.101	
Toluene*	<0.050	0.050	10/23/2017	ND	1.81	90.5	2.00	0.00944	
Ethylbenzene*	<0.050	0.050	10/23/2017	ND	1.79	89.3	2.00	0.250	
Total Xylenes*	<0.150	0.150	10/23/2017	ND	5.34	89.1	6.00	0.858	
Total BTEX	<0.300	0.300	10/23/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID *100 %* *72-148*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	10/23/2017	ND	448	112	400	0.00	

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/23/2017	ND	190	95.0	200	1.54	
DRO >C10-C28	<10.0	10.0	10/23/2017	ND	206	103	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	10/23/2017	ND					

Surrogate: 1-Chlorooctane *83.1 %* *28.3-164*

Surrogate: 1-Chlorooctadecane *91.8 %* *34.7-157*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	10/23/2017	Sampling Date:	10/20/2017
Reported:	10/24/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH ST COM #0084	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG		

Sample ID: COMFIRMATION 4 @ 6" (H702889-04)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/23/2017	ND	1.83	91.4	2.00	0.101	
Toluene*	<0.050	0.050	10/23/2017	ND	1.81	90.5	2.00	0.00944	
Ethylbenzene*	<0.050	0.050	10/23/2017	ND	1.79	89.3	2.00	0.250	
Total Xylenes*	<0.150	0.150	10/23/2017	ND	5.34	89.1	6.00	0.858	
Total BTEX	<0.300	0.300	10/23/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID *99.7 %* *72-148*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	10/23/2017	ND	448	112	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/23/2017	ND	190	95.0	200	1.54	
DRO >C10-C28	<10.0	10.0	10/23/2017	ND	206	103	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	10/23/2017	ND					

Surrogate: 1-Chlorooctane *78.7 %* *28.3-164*

Surrogate: 1-Chlorooctadecane *86.1 %* *34.7-157*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

BBC International, Inc.
Cliff Brunson
P.O. Box 805
Hobbs NM, 88241
Fax To: (575) 397-0397

Received:	10/23/2017	Sampling Date:	10/20/2017
Reported:	10/24/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH ST COM #0084	Sampling Condition:	Cool & Intact
Project Number:	NOT GIVEN	Sample Received By:	Tamara Oldaker
Project Location:	COG		

Sample ID: COMFIRMATION 5 @ 6" (H702889-05)

BTEX 8021B mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	10/23/2017	ND	1.83	91.4	2.00	0.101	
Toluene*	<0.050	0.050	10/23/2017	ND	1.81	90.5	2.00	0.00944	
Ethylbenzene*	<0.050	0.050	10/23/2017	ND	1.79	89.3	2.00	0.250	
Total Xylenes*	<0.150	0.150	10/23/2017	ND	5.34	89.1	6.00	0.858	
Total BTEX	<0.300	0.300	10/23/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID *97.1 %* *72-148*

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**208**	16.0	10/23/2017	ND	448	112	400	0.00	

TPH 8015M mg/kg Analyzed By: MS

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/23/2017	ND	190	95.0	200	1.54	
DRO >C10-C28	<10.0	10.0	10/23/2017	ND	206	103	200	2.01	
EXT DRO >C28-C36	<10.0	10.0	10/23/2017	ND					

Surrogate: 1-Chlorooctane *76.2 %* *28.3-164*

Surrogate: 1-Chlorooctadecane *85.7 %* *34.7-157*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Notes and Definitions

QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
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

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 1

CARDINAL LABORATORIES
101 East Marland, Hobbs, NM 88240
(505) 393-2326 FAX (505) 393-2476

Company Name:	BBC International, Inc.
Project Manager:	Cliff Brunson
Address:	P.O. Box 805
City:	Hobbs
State:	NM
Zip:	88241
Phone #:	575-397-6388
Fax #:	575-397-0397
Project #:	
Project Owner:	C.O.G
Project Name:	Graham Nash St com # 0004
Project Location:	
Sampler Name:	Roger Hernandez

BILL TO

P.O. #:	
Company:	
Attn:	
Address:	
City:	
State:	Zip:
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE:	ICE / COOL	OTHER:	SAMPLING: DATE	TIME	TPH Extended	BTEX	Cl-
H702889																	
1	Conformation 1@6"	G	1			✓					✓		10-2017	100	X	X	X
2	Conformation 2@6"	G	1			✓					✓		10-2017	120	X	X	X
3	Conformation 3@6"	G	1			✓					✓		10-2017	130	X	X	X
4	Conformation 4@6"	G	1			✓					✓		10-2017	140	X	X	X
5	Conformation 5@6"	G	1			✓					✓		10-2017	200	X	X	X

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 the client for the 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 30 days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequental 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:	Date: 10-2017 Time: 500pm	Received By:	
Relinquished By:	Date: 10-23-17 Time: 9:00	Received By:	
Delivered By: (Circle One)	1.4°C	Sample Condition: Cool Yes / Intact Yes	CHECKED BY: (Initials) TD
Sampler - UPS - Bus - Other:	Corrected 1.6°C	Cool No / Intact No	

Phone Result: ☐ Yes ☐ No Add'l Phone #:
Fax Result: ☐ Yes ☐ No Add'l Fax #:
REMARKS:

RUSH

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

From: Bratcher, Mike, EMNRD
To: Cliff Brunson; Amber Groves
Cc: Becky Haskell; Ken Swinney; Jennifer Gilkey; Kathy Purvis
Subject: RE: COG-Graham Nash State Com #008H (2RP-4043) - Delineation Workplan
Date: Friday, September 1, 2017 5:27:14 PM

RE: COG * Graham Nash St Com 8H * **2RP-4043** * DOR: 12/18/2016

Cliff,

Your proposal for remediation of the above referenced release is approved. OCD requests additional samples be obtained in a manner that will insure lateral definition/remediation has been achieved.

Mike Bratcher
NMOCD District 2
811 South First Street
Artesia, NM 88210
575-748-1283 Ext 108

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: Cliff Brunson [mailto:cbrunson@bbcinternational.com]
Sent: Wednesday, August 30, 2017 7:34 PM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Amber Groves <agroves@slo.state.nm.us>
Cc: Becky Haskell <rhaskell@concho.com>; Ken Swinney <kswinney@bbcinternational.com>; Jennifer Gilkey <jgilkey@bbcinternational.com>; Kathy Purvis <kathy@bbcinternational.com>
Subject: COG-Graham Nash State Com #008H (2RP-4043) - Delineation Workplan

Mike and Amber,

Please find the attached Delineation Workplan and remediation proposal for the COG Graham Nash State Com #008H (2RP-4043). COG is requesting that you review this plan and is looking forward to both the OCD's and SLO's approval.

If you have any questions, please let me know.

Thanks, Cliff

Cliff P. Brunson, CEI, CRS
President
BBC International, Inc.

World-Wide Environmental Specialists
Mailing Address:
P. O. Box 805
Hobbs, NM 88241-0805 USA
Shipping Address:
1324 W. Marland St.
Hobbs, NM 88240 USA
Phone: (575) 397-6388
Fax: (575) 397-0397
E-Mail: cbrunson@bbcinternational.com

****

****

From:	Groves, Amber
To:	Bratcher, Mike, EMNRD; Cliff Brunson
Cc:	Becky Haskell; Ken Swinney; Jennifer Gilkey; Kathy Purvis
Subject:	RE: COG-Graham Nash State Com #008H (2RP-4043) - Delineation Workplan
Date:	Monday, September 18, 2017 12:06:19 PM
Attachments:	image002.png image001.png

Cliff,

NMSLO agrees with NMOCD on approval and additional sampling.

Thank you,

Amber Groves
Remediation Specialist
Field Operations Division
(575)392-3697
(575)263-3209 cell
New Mexico State Land Office
2827 N. Dal Paso Suite 117
Hobbs, NM 88240

From: Bratcher, Mike, EMNRD [mailto:mike.bratcher@state.nm.us]
Sent: Friday, September 01, 2017 5:07 PM
To: Cliff Brunson <cbrunson@bbcinternational.com>; Groves, Amber <agroves@slo.state.nm.us>
Cc: Becky Haskell <rhaskell@concho.com>; Ken Swinney <kswinney@bbcinternational.com>; Jennifer Gilkey <jgilkey@bbcinternational.com>; Kathy Purvis <kathy@bbcinternational.com>
Subject: RE: COG-Graham Nash State Com #008H (2RP-4043) - Delineation Workplan

RE: COG * Graham Nash St Com 8H * **2RP-4043** * DOR: 12/18/2016

Cliff,

Your proposal for remediation of the above referenced release is approved. OCD requests additional samples be obtained in a manner that will insure lateral definition/remediation has been achieved.

Mike Bratcher
NMOCD District 2
811 South First Street
Artesia, NM 88210
575-748-1283 Ext 108

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

From: Cliff Brunson [mailto:cbrunson@bbcinternational.com]
Sent: Wednesday, August 30, 2017 7:34 PM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Amber Groves <agroves@slo.state.nm.us>
Cc: Becky Haskell <rhaskell@concho.com>; Ken Swinney <kswinney@bbcinternational.com>; Jennifer Gilkey <jgilkey@bbcinternational.com>; Kathy Purvis <kathy@bbcinternational.com>
Subject: COG-Graham Nash State Com #008H (2RP-4043) - Delineation Workplan

Mike and Amber,

Please find the attached Delineation Workplan and remediation proposal for the COG Graham Nash State Com #008H (2RP-4043). COG is requesting that you review this plan and is looking forward to both the OCD's and SLO's approval.

If you have any questions, please let me know.

Thanks, Cliff

Cliff P. Brunson, CEI, CRS
President
BBC International, Inc.
World-Wide Environmental Specialists
Mailing Address:
P. O. Box 805
Hobbs, NM 88241-0805 USA
Shipping Address:
1324 W. Marland St.
Hobbs, NM 88240 USA
Phone: (575) 397-6388
Fax: (575) 397-0397
E-Mail: cbrunson@bbcinternational.com


06/15/2017


06/15/2017


06/15/2017


06/15/2017


10/23/2017


10/23/2017


10/23/2017


10/23/2017


10/23/2017


10/23/2017


10/23/2017


10/23/2017


10/23/2017


10/23/2017