

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 June 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

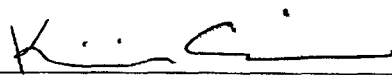
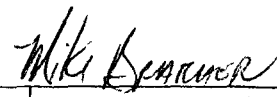
Name of Company: COG Operating LLC	Contact: Diane Kuykendall	
Address: 550 W. Texas Ave., Suite 1300, Midland, Tx 79701	Telephone No. (432) 683-7443	
Facility Name: White Star Federal #5 30015-30356	Facility Type: Gas Well - Tank Battery	
Surface Owner	Mineral Owner	Lease No. NMLC-069033

LOCATION OF RELEASE

Unit Letter G	Section 29	Township 17S	Range 29E	Feet from the 1650'	North/South Line North	Feet from the 2220'	East/West Line East	County Eddy
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Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release Oil and water	Volume of Release 3BO & 7BW	Volume Recovered 0 bbls
Source of Release Flow line	Date and Hour of Occurrence Not known	Date and Hour of Discovery 8-9-07 at 8:00 AM NM Time
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NMOCD	
By Whom? Keith Conner	Date and Hour 8-9-07 at 10:00	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* External Corrosion. Replaced with 3" poly line		
Describe Area Affected and Cleanup Action Taken.* Highlander Environmental personnel collected soil samples from the spill area. A work plan was submitted to the NMOCD. The work plan was approved by Gerry Guye. The affected soils were excavated and hauled to Controlled Recovery Inc. for proper disposal. A Closure Report was prepared and submitted to the NMOCD for review and approval.		
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: Kanicia Carrillo	Approved by District Supervisor: 	
Title: Regulatory Analyst	Approval Date: 7/29/08	Expiration Date: N/A
E-mail Address: KCarrillo@conchoresources.com	Conditions of Approval: N/A	Attached <input type="checkbox"/>
Date: _____ Phone: (432) 685-4332		

* Attach Additional Sheets If Necessary

2RP-13

SITE INFORMATION

Report Type: CLOSURE REPORT

General Site Information:

Site:	White Star Federal #5
Company:	COG Operating LLC
Well Location:	Section 29, T17S, R29E
Unit Letter:	Unit G
Lease Number:	NMLC - 069033
County:	Eddy
Spill GPS:	N 32° 48.296' W 104° 05.624'
Surface Owner:	Unknown
Mineral Owner:	Unknown
Directions:	From Loco Hills, New Mexico, intersection of Hwy 82 and CR217, go 6.6 miles (west) on 82, turn left (South) onto Old Loco road (CR 210), go south 0.5 miles to spill area.

Release Data:

Date Released:	8/9/2007
Type Release:	Oil and water
Source of Contamination:	Flow line leak
Fluid Released:	3 Barrel of Oil and 7 Barrels of Water
Fluids Recovered:	None

Official Communication:

Name:	Kanicia Carrillo	Ike Tavaréz
Company:	COG Operating, LLC	Highlander Environmental Corp.
Address:	550 W. Texas, Ste 1300	1910 N. Big Spring
P.O. Box		
City:	Midland Texas, 79701-7340	Midland, Texas
Phone number:	(432) 683-7443	(432) 682- 4559
Fax:	(432) 683-7441	
Email:	KCarrillo@conchoresources.com	itavarez@hec-enviro.com

Ranking Criteria

Depth to Groundwater:	Ranking Score	Site Data
<50 ft	20	
50-99 ft	10	
>100 ft.	0	
Wellhead Protection:	Ranking Score	Site Data
Water Source <1,000 ft., Private <200 ft.	20	None
Water Source >1,000 ft., Private >200 ft.	0	
Surface Body of Water:	Ranking Score	Site Data
<200 ft.	20	None
200 ft - 1,000 ft.	10	None
>1,000 ft.	0	
Total Ranking Score:		0
Acceptable Soil RRAL (mg/kg)		
Benzene	Total BTEX	TPH
10	50	5,000



Highlander Environmental Corp.

Midland, Texas

FEB 21 2008
OCD-ARTESIA

February 11, 2008

Mr. Mike Bratcher
Environmental Bureau
Oil Conservation Division – District 2
1301 W. Grand Avenue
Artesia, New Mexico 88210

RE: Closure Report for the COG Operating Company LLC, White Star Federal #5, Unit Letter G, Section 29, Township 17 South, Range 29 East, Eddy County, New Mexico.

Dear Mr. Bratcher:

Highlander Environmental Corp. (Highlander) was contacted by COG Operating Company LLC (COG) to assess and to remediate the soil impact from a flow line spill that occurred at the White Star Federal #5 well, located in Unit Letter G, Section 29, Township 17 South, Range 29 East, Eddy County, New Mexico. The site coordinates are N 32° 48.296', W 104° 05.624'. The State of New Mexico C-141 (Initial and Final) are included in Appendix B. The Site is shown on Figures 1 and 2.

Background

On August 9, 2006, the spill was discovered from a leaking flow line. Approximately 3 barrels of oil and 7 barrels of water were spilled and no fluids were recovered. The spill occurred on the access road right-of-way, measuring approximately 10' x 90'. The spill location is shown on Figure 3.

Groundwater and Regulatory

The spill area is located in Section 29, Township 17 South, Range 29 East. Neither the State of New Mexico nor USGS databases show any water wells in Township 17S, Range 29E. Published data, from the Geology and Groundwater Resources of Eddy County, New Mexico, showed one well in Section 29, Township 17 South, Range 29 East

with a reported depth to water of 210'. The groundwater data is included in Appendix A.

A risk-based evaluation was performed for the Site in accordance with the NMOCD Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene and xylene). Based on the regional groundwater data, the proposed RRAL for TPH is 5,000 mg/kg.

Previous Assessment

On September 19, 2007, Highlander personnel sampled the spill area. A total of five (5) auger holes were installed. The spill and sample locations are shown on Figure 3. Soil samples were analyzed for Total Petroleum Hydrocarbon (TPH) by method modified 8015 DRO/GRO and chloride by EPA method 300.0. Selected samples were analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) by EPA method 8021B. All samples were collected and preserved in laboratory prepared sample containers, shipped under proper chain-of-custody control, and analyzed within the standard holding times. The sample results are presented in Table 1.

Referring to Table 1, only the 0-1' sample from auger AH-1 exceeded the RRAL for TPH and BTEX. However, elevated chloride concentrations were noted in all of the auger holes. The concentrations declined with depth to below 500 mg/kg in AH-3, AH-4 and AH-5. While declining, the chloride impact was not defined in AH-1 or AH-2.

On October 9, 2007, a backhoe was utilized to collect deeper samples from trenches T-1 and T-2 at AH-1 and AH-2 respectively. Also, additional BTEX samples were collected at AH-1 (AH-1A) to confirm that BTEX was only above the RRAL in the 0-1' horizon. The deeper sampled from T-1 and T-2 showed chloride concentrations declining to below 100 mg/kg at approximately 7' below ground surface.

Previous Report/Work Plan

Based on the results of the sampling an Assessment and Work Plan dated October 18, 2007 was submitted to the NMOCD and approved. The only area exceeding the TPH and BTEX RRAL was in the vicinity of AH-1. Elevated chloride concentrations were exhibited in the shallow soils in the vicinity of AH-2, AH-3, AH-4 and AH-5. Chloride concentrations in AH-1 declined significantly below 2.5'. Based upon the depth to groundwater it was proposed to scrape the soils in the vicinity of AH-1 to approximately 3.0' tapering to approximately 1.0' in the vicinity of AH-2, AH-3, AH-4 and AH-5.


Remediation

The soil areas designated above were removed and taken to Control Recovery, Inc. (CRI) for disposal. The excavated areas were backfilled with clean fill material.



Based upon the work performed, COG request closure of this site. A copy of the form C-141(Final) is included in Appendix B. If you require any additional information or have any questions or comments, please call.

Highlander Environmental Corp.



Timothy M. Reed, P.G.
Vice President

cc: COG – Pat Ellis



TABLES

Table 1

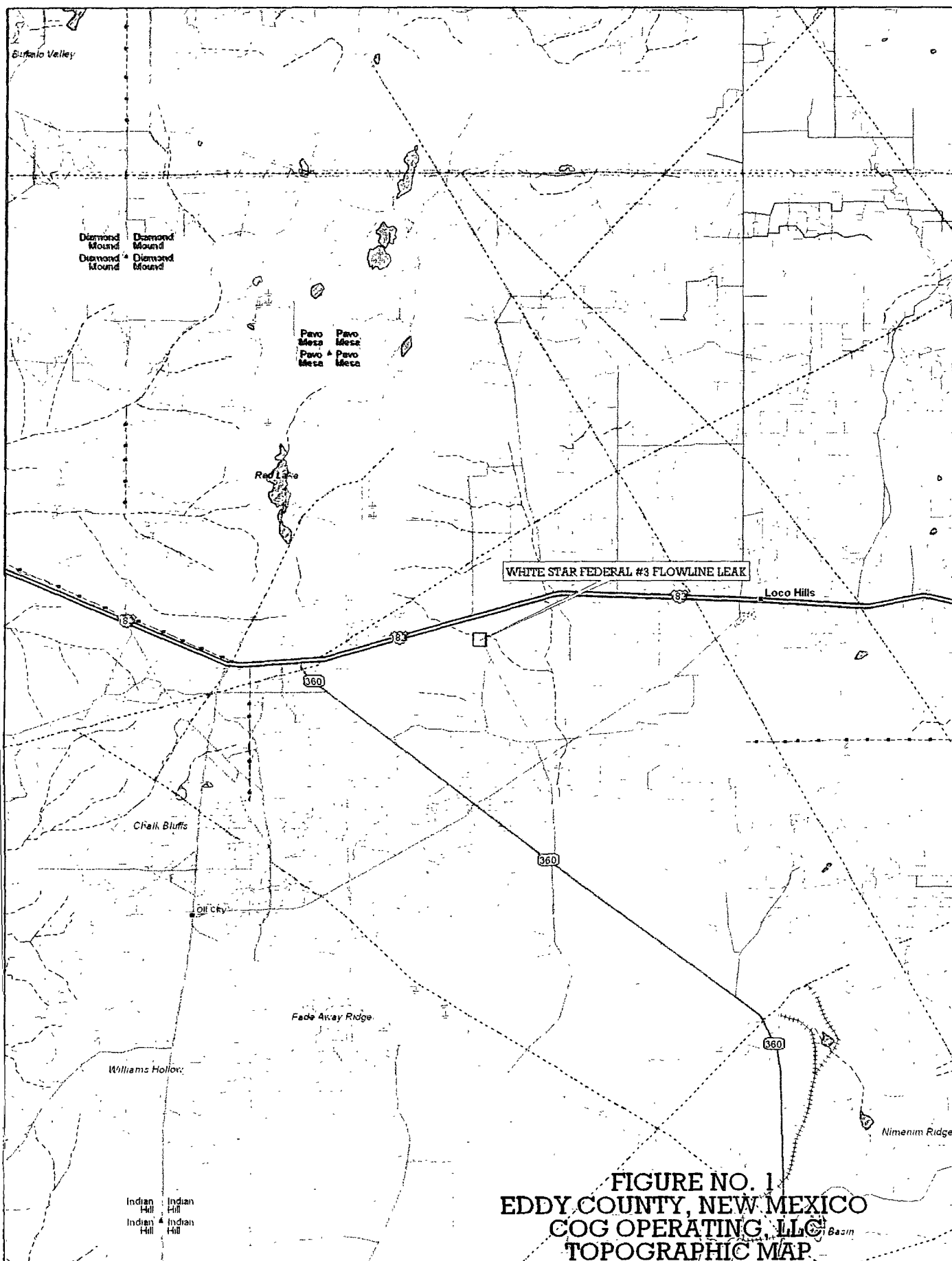
COG Operating
White Star Federal #5 Flowline Leak
Eddy County, New Mexico

Sample ID	Soils Status		Date Sampled	Sample Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
	Insitu	Removed			DRO	GRO	Total					
AH-1		X	9/17/2007	0-1'	4,210	1,070	5,280	0.0534	42.6	36.9	51.3	5,770
AH-1		X	9/17/2007	1'-1.5'	1,710	1,160	2,870	-	-	-	-	9,550
AH-1		X	9/17/2007	2'-2.5'	-	-	-	-	-	-	-	10,600
AH-1	X		9/17/2007	4'-4.5'	-	-	-	-	-	-	-	2,950
AH-1A		X	10/9/2007	1'-1.5'	-	-	-	0.924	21.8	19.3	22.6	-
AH-1A		X	10/9/2007	2'-2.5'	-	-	-	<0.0100	0.0224	0.0641	0.111	-
T-1 (AH-1)	X		10/9/2007	6.0'	-	-	-	-	-	-	-	822
T-1 (AH-1)	X		10/9/2007	8.0'	-	-	-	-	-	-	-	<100
AH-2		X	9/17/2007	0-1'	504	50.3	554.3	-	-	-	-	2,090
AH-2	X		9/17/2007	1'-1.5'	<50.0	3.32	3.32	-	-	-	-	736
AH-2	X		9/17/2007	2'-2.5'	-	-	-	-	-	-	-	2,840
AH-2	X		9/17/2007	4'-4.5'	-	-	-	-	-	-	-	1,480
AH-2	X		9/17/2007	5.5'-6'	-	-	-	-	-	-	-	633
T-2 (AH-2)	X		10/9/2007	7.0'	-	-	-	-	-	-	-	<100
T-2 (AH-2)	X		10/9/2007	9.0'	-	-	-	-	-	-	-	<100
AH-3		X	9/17/2007	0-1'	3,310	363	3,673	<0.0200	1.62	4.61	8.70	2,030
AH-3	X		9/17/2007	1'-1.5'	159	50.6	209.6	-	-	-	-	1,760
AH-3	X		9/17/2007	2'-2.5'	-	-	-	-	-	-	-	2,750
AH-3	X		9/17/2007	4'-4.5'	-	-	-	-	-	-	-	<100
AH-4		X	9/17/2007	0-1'	<50.0	5.50	5.50	-	-	-	-	5,710
AH-4	X		9/17/2007	1'-1.5'	<50.0	2.43	2.43	-	-	-	-	1,070
AH-4	X		9/17/2007	2'-2.5'	-	-	-	-	-	-	-	1,380
AH-4	X		9/17/2007	3'-3.5'	-	-	-	-	-	-	-	<100
AH-4	X		9/17/2007	4'-4.5'	-	-	-	-	-	-	-	118
AH-5		X	9/17/2007	0-1'	441	342	783	<0.0200	0.616	3.02	5.91	3,520
AH-5	X		9/17/2007	1'-1.5'	<50.0	9.51	9.51	-	-	-	-	360
AH-5	X		9/17/2007	2'-2.5'	-	-	-	-	-	-	-	1,710
AH-5	X		9/17/2007	4'-4.5'	-	-	-	-	-	-	-	483

(-) Not Analyzed

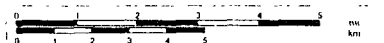


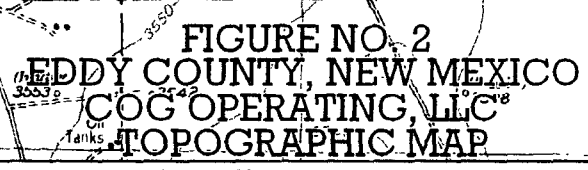
FIGURES



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Scale 1 : 200,000
1" = 3.16 mi





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www.delorme.com



FLOWLINE

NORTH

LEAK
T-1

AH-1

25'

T-2

AH-2

25'

AH-3

25'

AH-4

25'

AH-5

30'

12'

LEASE ROAD CR 210

150'

BACKHOE TEST TRENCH (10-9-07)

AUGER HOLE

3' EXCAVATED AREA

1' EXCAVATED AREA

FIGURE NO. 3

EDDY COUNTY, NEW MEXICO

COG OPERATING, LLC
WHITE STAR FEDERAL #3
FLOWLINE LEAK

HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS

DATE:
2/4/08

DWN. BY:
RC

FILE:
C:\COG\3127
WHITE STAR

NOT TO SCALE

APPENDIX A

TABLE 1. RECORDS OF WELLS IN EDDY COUNTY, NEW MEXICO. (Continued)

LOCATION NUMBER	OWNER OR NAME	DATE COM- PLETED	TOPOGRAPHIC SITUATION	ALTITUDE ABOVE SEA LEVEL (feet)	DEPTH OF WELL (feet)	DIAMETER OF WELL (inches)	PRINCIPAL WATER-BEARING BED	
							CHARACTER OF MATERIAL	GEOLOGIC UNIT
17.28.2.240	Hal Bogle	-	Flat between mesas	-	-	6 (?)	Redbeds (?)	Dockum (?)
14.220	do.	-	Rolling	-	-	7	do.	do.
19.200	do.	-	do.	-	-	8	Redbeds, gypsum (?)	Chalk Bluff or Rustler
22.230	-	-	Flat between mesas	-	-	6	Redbeds (?)	Rustler or Dockum (?)
17.29.22.110	-	-	Bear Grass draw	3,550	-	6	do.	Dockum (?)
29.400	Bishop (?)	-	Flat	-	-	7	do.	do.
17.31.34.000	-	-	Rolling	-	-	6 (?)	Redbeds	Dockum
18.21.13.310	Andy Teel	1915	-	4,100	520	8	Limestone	San Andres
27.440	do.	1947	Broad valley	4,200	667	10	do.	do.
32.430	George Teel	1946	Rolling	4,300	815	6	do.	do.
18.23.6.140	Couhape Bros.	1941	S. of Rio Penasco	4,060	500	10	do.	do.
18.25.23.111	G. M. Phelps	-	Blackdom Terrace	-	-	-	Alluvium (?)	Quaternary (?)

See explanation at beginning of table.

LOCATION NUMBER	WATER LEVEL		YIELD (g.p.m.)	METHOD OF LIFT	USE OF WATER	REMARKS
	BELOW LAND SURFACE (feet)	DATE OF MEASUREMENT				
17.28.2.240	27.6	Dec. 1, 1948	3	W	S	Depth to water measured while pump- ing.
14.220	80	-	61	W	S & D	Driller: Cy Hinshaw. See analysis, Table 3.
19.200	224.3	Dec. 2, 1948	1.2	W	S	Depth to water measured while pump- ing.
22.230	45.5	Dec. 1, 1948	-	N	N	Abandoned stock well.
17.29.22.110	79.7	Nov. 29, 1948	3 E.	W	S	Depth to water measured while pump- ing.
29.400	210	Dec. 3, 1948	1.1	W	S	do.
17.31.34.000	271+	Dec. 6, 1948	3.5	W	S	See analysis, Table 3.
18.21.13.310	505	-	10 R.	W	S & D	Formerly C.C.C. well. Cased to 30 ft.
27.440	530	-	-	W	S	Cased to 120 ft.
32.430	800 (?)	-	12 R.	W	S & D	Lowered cylinder 5 ft. in 1948 because water level declined. Cased to 380 ft.
18.23.6.140	440	Jan. 12, 1950	-	W	S & D	
18.25.23.111	117.8	Jan. 1950	-	W	S	

See explanation at beginning of table.
Measured Dec. 3, 1948.

APPENDIX B

District I
1625 N. French Dr., Hobbs, NM 88240
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1301 W. Grand Avenue, Artesia, NM 88210
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State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
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Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	COG OPERATING LLC	Contact	Diane Kuykendall
Address	550 W. Texas, Suite 1300 Midland, TX 79701	Telephone No.	432-683-7443
Facility Name	White Star Federal #5	Facility Type	Gas Well - Tank Battery
Surface Owner	Mineral Owner	Lease No. NMLC-069033	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	29	17S	29E	1650	North	2220	East	Eddy

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release	Oil and Water	Volume of Release	3bbs Oil/ 7bbs water	Volume Recovered	None
Source of Release	Flow line	Date and Hour of Occurrence	Date and Hour of Discovery		
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	Not Known			08/09/07 At 8:00 am NM time
By Whom?	Keith Conner	If YES, To Whom?			NM OCD
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Date and Hour			08/09/07 At 10:00
		If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

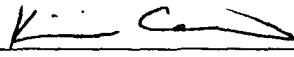
External Corrosion. Replaced with 3" poly line.

Describe Area Affected and Cleanup Action Taken.*

Area covered 10' X 90'. Ran down the road right of way. Called Roustabout, waiting for Highlander Environmental to test and sample. Highlander will send second and final report on clean up.

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.

OIL CONSERVATION DIVISION

Signature: 	Approved by District Supervisor:		
Printed Name: Kanicia Carrillo	Approval Date:		
Title: Regulatory Analyst	Expiration Date:		Attached <input type="checkbox"/>
E-mail Address: kcarrillo@conchoresources.com	Conditions of Approval:		
Date: 08/09/07	Phone: 432-685-4332		

* Attach Additional Sheets If Necessary