

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 October 10, 2003

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

30-015-02996 Release Notification and Corrective Action

Closure For 3 releases

OPERATOR  Initial Report  Final Report

Name of Company COG OPERATING LLC	Contact Kanicia Carrillo
Address 550 W. Texas, Suite 1300 Midland, TX 79701	Telephone No. 432-685-4332
Facility Name - GJ North Central Bty	Facility Type Tank Battery

Surface Owner	Mineral Owner	Lease No.
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	16	17S	29E	660	South	660	East	Eddy

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

NATURE OF RELEASE

Type of Release Water/Oil	Volume of Release See Below	Volume See Below
Source of Release - See Below	Date and Hour of Occurrence See Below	Date and Hour of Discovery- See Below
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher w/OCD	
By Whom? Kanicia Carillo	Date and Hour - See Below	
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.\*

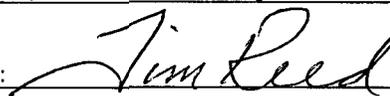
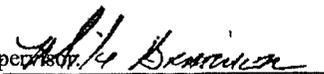
Describe Cause of Problem and Remedial Action Taken.\*

As detailed in Closure Report Dated June 5, 2009, there have been a total of 3 spills at this site as follows:  
1<sup>st</sup> spill: 6/16/08, 400 bbl. produced water from water transfer pump failure (contained inside firewall), recovered 400 bbl. 2<sup>nd</sup> spill: 7/14/08, 20 bbl. produced water from FWKN (mostly contained inside firewall), some overspray, recovered 15 bbl. 3<sup>rd</sup> spill: 10/06/08, 450 bbl water/oil from water tank overflow, (contained inside firewall), recovered 445 bbl.  
Affected areas were assessed and excavated.

Describe Area Affected and Cleanup Action Taken.\*

See attached report. The affected areas were assessed by Tetra Tech and impacted areas were excavated and the material hauled off.

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: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Tim Reed (Agent for COG)	Approved by District Supervisor 	
Title: Senior Project Manager	Approval Date: SEP 30 2009	Expiration Date: N/A
E-mail Address: timothy.reed@tetratech.com	Conditions of Approval: N/A	Attached <input type="checkbox"/>
Date: 6/05/09	Phone: (432)682-4559	

\* Attach Additional Sheets If Necessary

2RP-186  
2RP-199  
2RP-345



**TETRA TECH**

JUN 17 2009

June 5, 2009

Mr. Mike Bratcher  
New Mexico Energy, Minerals, & Natural Resources  
Oil Conservation Division, Environmental Bureau  
1301 W. Grand Ave.  
Artesia, New Mexico 88210

**Re: Assessment and Closure Report – for the COG Operating, LLC, GJ North Central Tank Battery Facility, Located in Unit Letter P, Section 16, Township 17 South, Range 29 East, Eddy County, New Mexico.**

Dear Mr. Bratcher:

Tetra Tech (Formerly Highlander Environmental Corp.) was contacted by COG Operating, LLC to investigate a series of spills (3) that occurred at the GJ North Central Tank Battery. The tank battery is located in Unit Letter P, Section 16, Township 17 South, Range 29 East, Eddy County, New Mexico. The site coordinates are N 32.82837°, W 104.07338°. The Site is shown on Figures 1 and 2.

### **Background**

#### Spill #1

The original spill was discovered on June 16, 2008. According to the C-141 (Initial) included in Appendix A, the spill was caused by a mechanical failure inside the pump motor. Approximately 400 barrels of produced water spilled into the facility berm and 400 barrels were recovered. The spill was fully contained inside the facility berm. The spill location is shown on Figure 3.

#### Spill #2

Remediation of this spill was essentially completed, when a second spill occurred on July 13, 2008. This spill was caused by a micro switch malfunction on a vessel allowing pressure to build in the vessel, which opened the pressure relief valve. Approximately 20 barrels of produced water was released and the liquids were contained within the facility berm. Approximately 15 barrels were recovered with a vacuum truck. Additionally, there was an area of overspray, which measured 80' x 150' (heavier overspray) and 100' x 150' (lighter overspray). The spill location is shown on Figure 4. The C-141 (initial) is included in Appendix A.

Tetra Tech

1910 North Big Spring, Midland, TX 79705

Tel 432 682 4559

Fax 432 682 3946

www.tetrattech.com



### Spill #3

Remediation of this spill was essentially completed, when a third spill occurred on October 6, 2008. This spill was caused when a water transfer pump broke down. Approximately 450 barrels of oil and produced water was released and the liquids were contained within the facility berm. Approximately 445 barrels were recovered with a vacuum truck. The spill location is shown on Figure 5. The C-141 (Initial and Final) are included in Appendix A. All three of these spills had common overlapping areas of impact.

### **Groundwater and Regulatory**

A water well located in Section 22, Township 18 South, Range 29 East, was measured using a steel tape to gauge the depth to water. The water well was not in use at the time and the static depth to water was measured at approximately 82.0' below ground surface (bgs).

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 1,000 mg/kg.

### **Assessment and Corrective Action**

### Spill #1

COG supervised the removal of impacted soil from inside the tank battery berm. Approximately 3 to 4 inches of soil was removed from the impacted area. The excavated material was placed on plastic to be hauled to disposal.

On June 17, 2008 Tetra Tech personnel inspected the facility and collected confirmation samples for TPH, BTEX and chloride. A total of seven (7) auger holes were placed in the impacted area. All the 0-1' grab samples analyzed, exhibited concentrations below the RRAL for TPH and BTEX. However chloride concentrations were elevated in the 0-1' surface sample. The concentrations ranged from 22,400 mg/kg to 7,320 mg/kg in auger holes (AH-1 thru AH-7). Auger holes (AH-1, AH- 2, and AH-3) still showed elevated concentrations in the 1'-1.5' interval ranging from 2,650 mg/kg to 555 mg/kg. Auger holes (AH-4 thru AH-7) exhibited concentrations below 250 mg/kg in the 1'-1.5' interval. At the 2'-2.5' interval, only auger hole AH-1 exceeded the 250 mg/kg with a concentration of 545 mg/kg. Due to auger refusal, deeper samples were not obtained. The sample locations and spill area are shown on Figure 3. The sample analyses are summarized in Table 1. Copies of the laboratory reports and chain of custody documents are included in Appendix B. Based on the results, no additional activities were performed at the facility excavation.

### Spill #2

On July 22, 2008, samples were collected from the spill area. A total of thirteen



(13) auger holes were placed in the impacted area. The sample locations are shown on Figure 4. The soil samples were analyzed for TPH (Modified 8015), BTEX (8021 B), and Chloride (SM 4500-CI B).

Auger holes (AH-1 through AH-7) were placed inside the facility berm. Auger holes (AH-8 through AH-13) were placed in the area affected by the overspray northwest of the facility. Of the thirteen auger holes placed in the affected areas, five auger holes (AH-1, AH-3, AH-5, AH-6, and AH-7) exhibited concentrations that exceeded the RRAL for TPH in the 0-1' interval. The TPH concentrations ranged from 1,405 mg/kg to 8,806 mg/kg. The deeper samples at 1'-1.5' below ground surface exhibited concentrations below the RRAL for TPH.

The total BTEX levels in auger holes (AH-5 and AH-7) at 0-1.0' exceeded the RRAL level with concentrations of 106.76 mg/kg and 244.2 mg/kg, respectively. The benzene concentrations in auger hole (AH-7) also exceeded the RRAL with 11.3 mg/kg in the 0-1.0' interval. Both auger holes, (AH-5 and AH-7), did not exhibit BTEX concentrations above the RRAL levels in the 1'-1.5' interval.

The chloride concentrations at the site were vertically defined at depths of 1' to 2' below surface. Chloride concentrations ranged from less than 100 mg/kg to 6,710 mg/kg in (AH-7, 1'-1.5'). The chloride concentrations in auger holes (AH-8 through AH-13) were below the reporting limit. The highest chloride impact was encountered in auger holes (AH-5, AH-6 and AH-7). The sample analyses are summarized in Table 2. Copies of the laboratory reports and chain of custody documents are included in appendix B.

On July 22, 2008, when Tetra Tech inspected the site, COG had begun cleanup activities with the removal of the oily pea gravel in and around the production equipment. In addition COG also supervised the removal of impacted soil from inside the tank battery berm. Approximately 1.0' of soil was removed from the impacted area. The excavated material was hauled to CRI (Controlled Recovery Inc.) for disposal. On August 14, 2008 Tetra Tech supervised the brush hogging of the vegetation and the tilling of the soils affected by the overspray.

### Spill #3

On October 21, 2008 Tetra Tech personnel inspected the facility and collected samples for TPH, BTEX and chloride. A total of twelve (12) auger holes were placed in the impacted area. TPH concentrations exceeded the RRAL to depths ranging from 1.0' to 2.0' in AH-1, AH-10, AH-11 and AH-12, as well as BTEX in AH-1, AH-11 and AH-12. Chloride concentrations were defined in all auger holes to below 250 mg/kg with the exceptions of AH-3, which exhibited a chloride concentration of 512 mg/kg at 2.0' and AH-4 which declined to 348 mg/kg at 5.0'. The impacted soils were excavated to depths ranging from 1.0'-5.0', as shown on Figure 5. The sample analyses are summarized in Table 3. Copies of the laboratory reports and chain of custody documents are included in appendix B.

### **Conclusions**

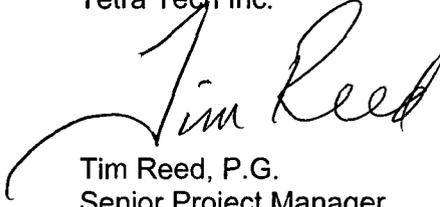
The remedial activities performed at the site, leaves no residual TPH or BTEX concentrations that exceed the RRAL. The minimal chloride residue in the area of auger



**TETRA TECH**

holes AH-3 and AH-4, were left in-situ. However, based on the depth to groundwater, declining chloride concentrations, and the limited area of impact, the residual chloride concentrations do not appear to be an issue. Based upon the results of the assessment work and remediation performed at this site, COG requests closure of the 3 spills at this site. The C-141 (Final) covering all 3 spills are included in Appendix A. If you have any question or comments concerning the assessment or the activities performed at the Site, please call me at (432) 682-4559.

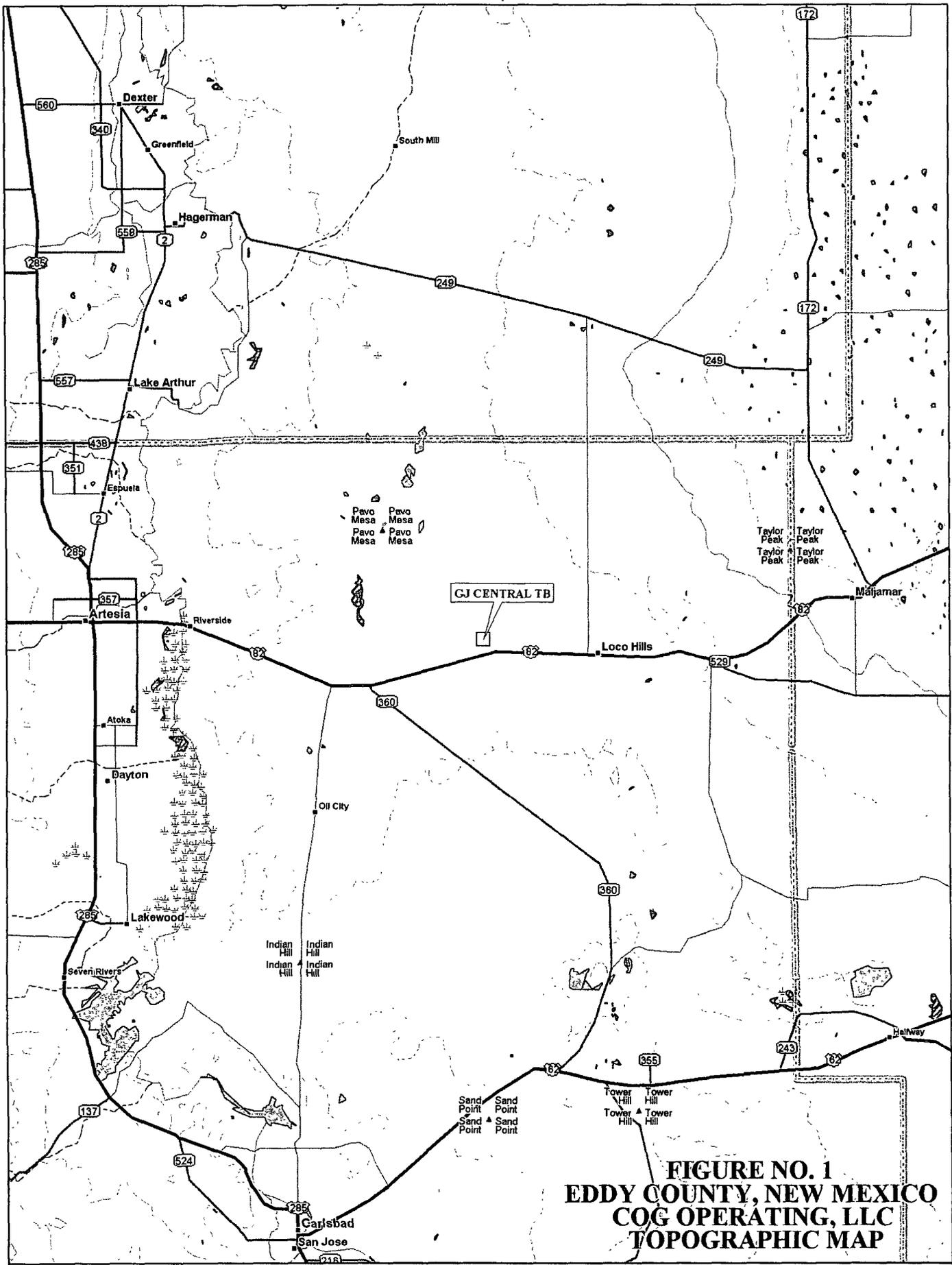
Respectfully submitted,  
Tetra Tech Inc.



Tim Reed, P.G.  
Senior Project Manager

cc: Pat Ellis – COG

**FIGURES**



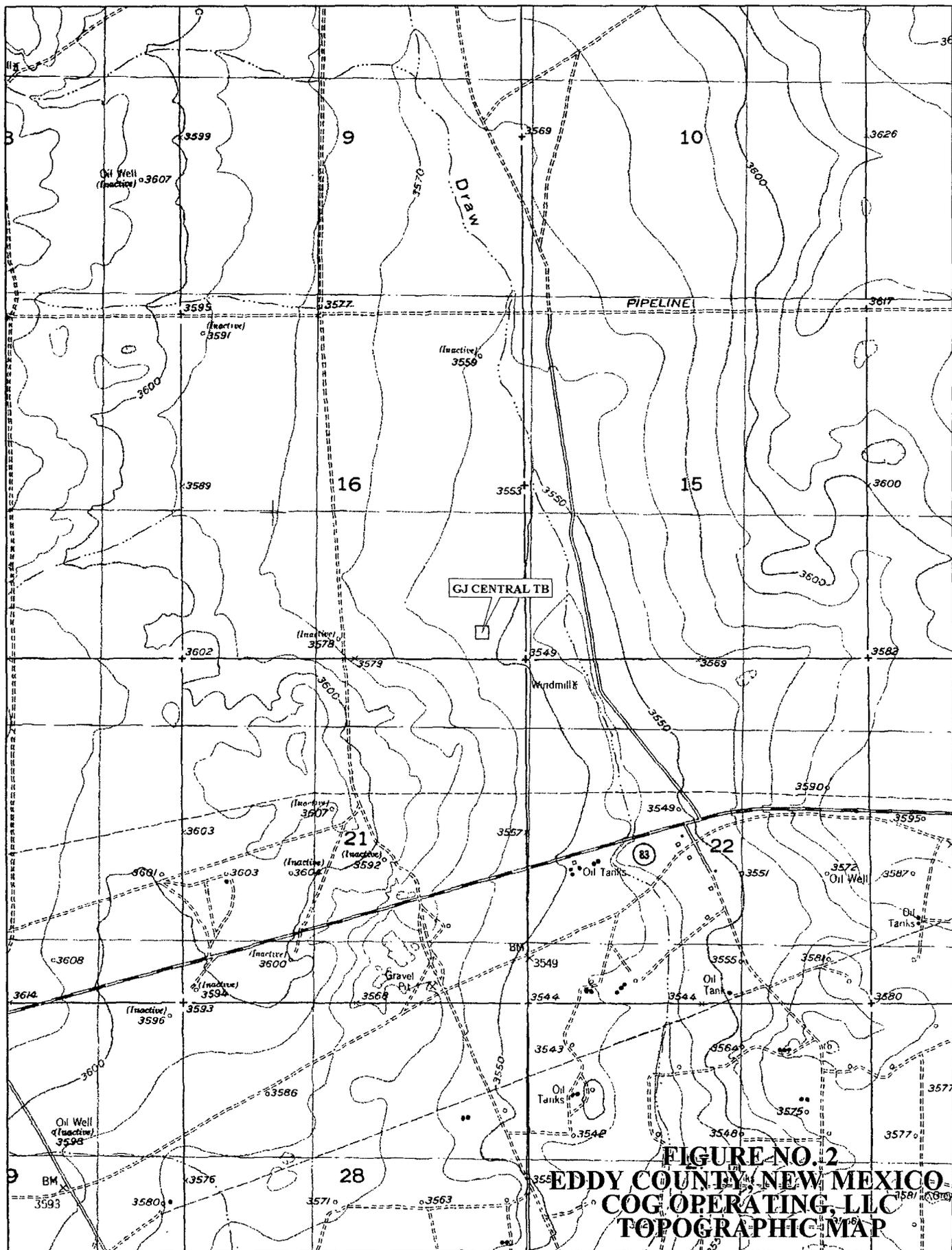
**FIGURE NO. 1  
 EDDY COUNTY, NEW MEXICO  
 COG OPERATING, LLC  
 TOPOGRAPHIC MAP**



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 www.delorme.com

Scale 1 : 400,000  
 1" = 6.31 mi

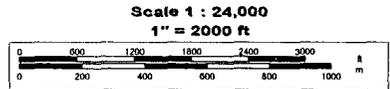


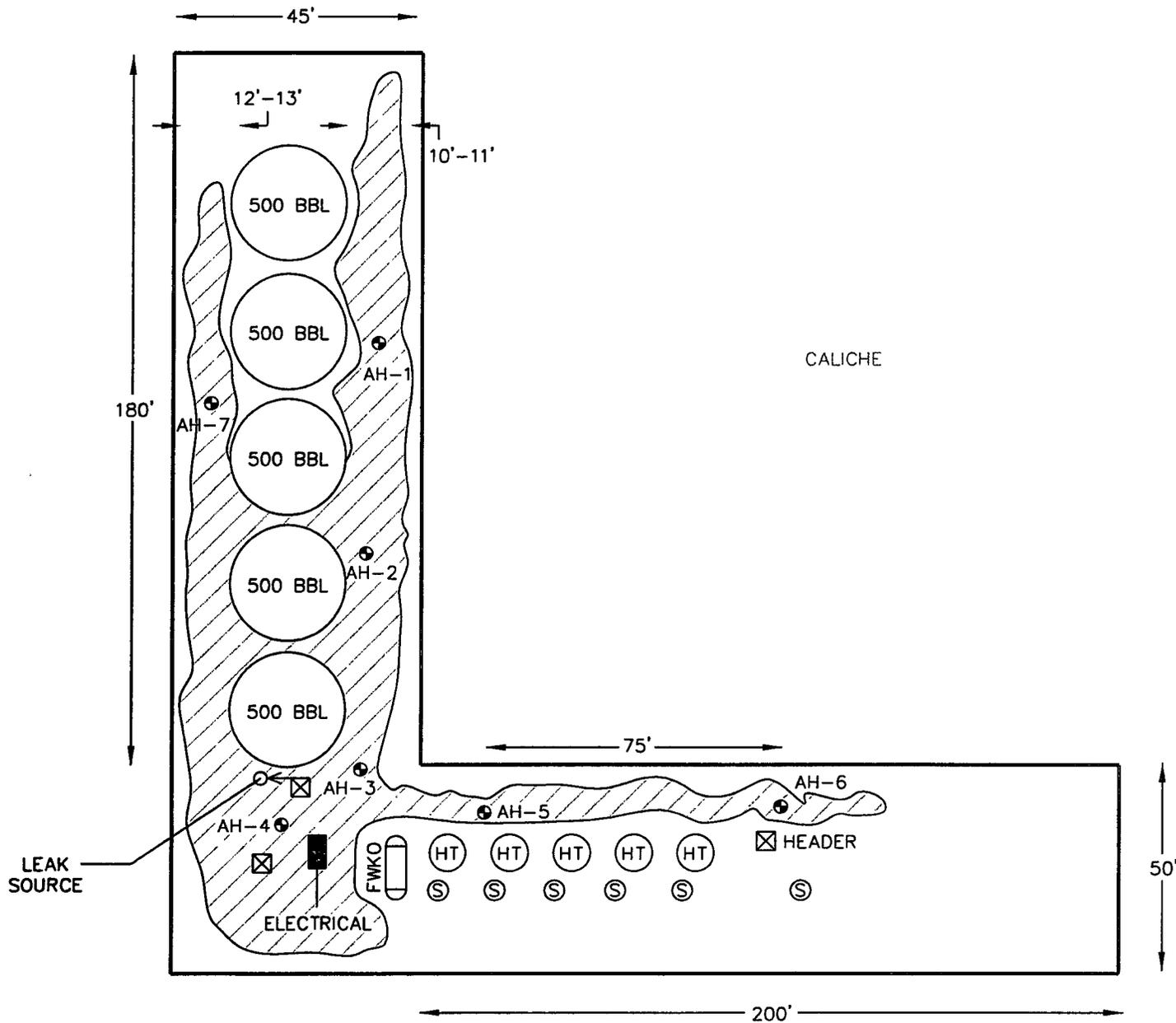


**FIGURE NO. 2**  
**EDDY COUNTY, NEW MEXICO**  
**COG OPERATING, LLC**  
**TOPOGRAPHIC MAP**



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● AUGER HOLE  
 ▨ SPILL AREA

NOT TO SCALE

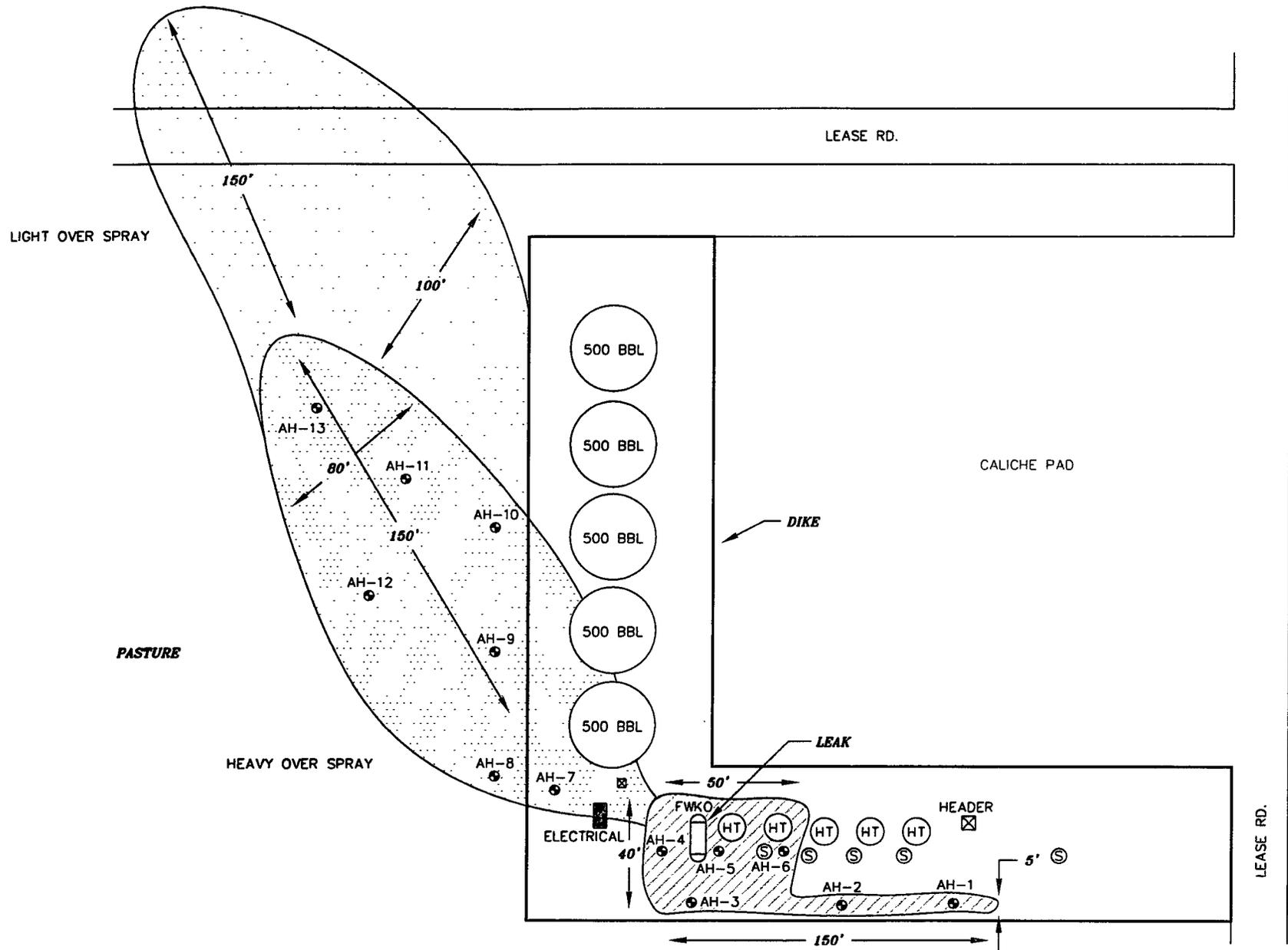
DATE:  
 6/18/08  
 DWN. BY:  
 RC  
 FILE:  
 C:\000\3543  
 GJ CENTRAL.TB

**FIGURE NO. 3**

EDDY COUNTY, NEW MEXICO

COG OPERATING, LLC  
GJ CENTRAL TB

TETRA TECH, INC.  
MIDLAND, TEXAS



- ⊙ AUGER HOLE
- ▨ SPILL AREA
- ▨ HEAVY OVER SPRAY
- ▨ LIGHT OVER SPRAY

FIGURE NO. 4

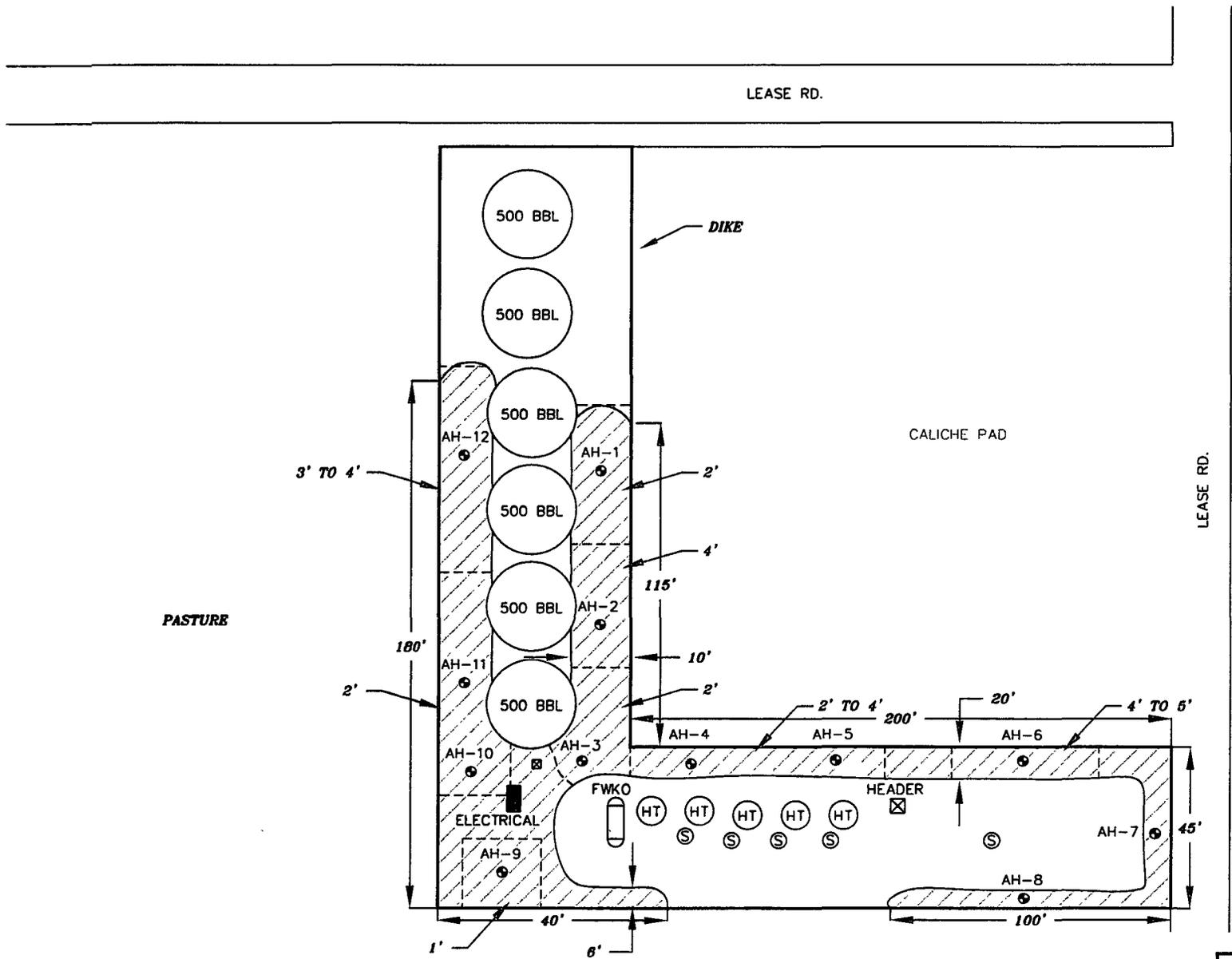
EDDY COUNTY, NEW MEXICO

COG OPERATING, LLC  
GJ CENTRAL TB

TETRA TECH  
MIDLAND, TEXAS

DATE:  
8/26/08  
DWN. BY:  
JJ  
FILE:  
C:\COG\3543  
GJ CENTRAL TB

NOT TO SCALE



-  AUGER HOLE
-  SPILL AREA
-  EXCAVATED AREAS

FIGURE NO. 5

EDDY COUNTY, NEW MEXICO

COG OPERATING, LLC  
GJ CENTRAL TB

TETRA TECH, INC.  
MIDLAND, TEXAS

DATE:  
12/9/08  
DWN. BY:  
JJ  
FILE:  
C:\D007\3817  
GJ CENTRAL TB

NOT TO SCALE

**TABLES**

Table 1  
 COG Operating  
 G.J. Central Tank Battery (Spill #1)  
 Eddy County, New Mexico

Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	DRO	GRO	Total					
AH-1	6/17/2008	0-1	X		<50.0	2.91	2.91	<0.0100	<0.0100	<0.0100	0.0162	22,400
		1-1.5	X		-	-	-	-	-	-	-	2,650
		1.5-2.0	X		-	-	-	-	-	-	-	545
AH-2	6/17/2008	0-1	X		<50.0	3.99	3.99	<0.0100	<0.0100	<0.0100	0.0123	20,100
		1-1.5	X		-	-	-	-	-	-	-	555
		1.5-2.0	X		-	-	-	-	-	-	-	<100
AH-3	6/17/2008	0-1	X		<50.0	<1.00	<50.0	<0.0100	<0.0100	<0.0100	<0.0100	17,000
		1-1.5	X		-	-	-	-	-	-	-	691
		1.5-2.0	X		-	-	-	-	-	-	-	132
AH-4	6/17/2008	0-1	X		<50.0	<1.00	<50.0	<0.0100	<0.0100	<0.0100	<0.0100	14,000
		1-1.5	X		-	-	-	-	-	-	-	<100
		1.5-2.0	X		-	-	-	-	-	-	-	127
AH-5	6/17/2008	0-1	X		<50.0	<1.00	<50.0	<0.0100	<0.0100	<0.0100	<0.0100	9,680
		1-1.5	X		-	-	-	-	-	-	-	<100
		1.5-2.0	X		-	-	-	-	-	-	-	<100
AH-6	6/17/2008	0-1	X		<50.0	<1.00	<50.0	<0.0100	<0.0100	<0.0100	<0.0100	13,500
		1-1.5	X		-	-	-	-	-	-	-	<100
		1.5-2.0	X		-	-	-	-	-	-	-	<100
AH-7	6/17/2008	0-1	X		105	44.1	149.1	<0.0200	<0.0200	0.0713	0.212	7,320
		1-1.5	X		-	-	-	-	-	-	-	225
		1.5-2.0	X		-	-	-	-	-	-	-	<100

(-) Not Analyzed

Table 2  
COG Operating  
G.J. Central Tank Battery (Spill #2)  
Eddy County, New Mexico

Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	DRO	GRO	Total					
AH-1	7/22/2008	0-1		X	3,350	604	3,954	<0.0500	0.241	3.84	6.83	<100
		1-1.5	X		<50.0	14.1	14.1	-	-	-	-	170
AH-2	7/22/2008	0-1		X	689	79.2	768.2	<0.0200	<0.0200	<0.0200	0.0388	340
		1-1.5	X		-	-	-	-	-	-	-	<100
AH-3	7/22/2008	0-1		X	7,860	946	8,806	<0.0500	0.738	3.18	4.63	705
		1-1.5	X		<50.0	37.8	37.8	-	-	-	-	<100
AH-4	7/22/2008	0-1		X	250	31.6	281.6	-	-	-	-	196
		1-1.5	X		-	-	-	-	-	-	-	<100
AH-5	7/22/2008	0-1		X	4,240	2,050	6,290	0.366	21.5	27.5	57.4	1,570
		1-1.5	X		<50.0	44.3	44.3	<0.0100	<0.0100	0.0390	0.0911	1,580
		2-2.5'	X		-	-	-	-	-	-	-	<25.0
AH-6	7/22/2008	0-1		X	1,170	235	1,405	<0.0100	<0.0100	0.0424	0.0913	3,120
		1-1.5	X		<50.0	81.7	81.7	-	-	-	-	326
AH-7	7/22/2008	0-1		X	3,400	3,420	6,820	11.3	97.6	67.5	67.8	1,180
		1-1.5		X	<50.0	47.0	47.0	0.0111	0.0362	0.0666	0.0954	6,710
		2-2.5	X		-	-	-	-	-	-	-	<100
AH-8	7/22/2008	0-1	X		534	9.04	543.04	-	-	-	-	<100
		1-1.5	X		-	-	-	-	-	-	-	<100
AH-9	7/22/2008	0-1	X		555	6.39	561.39	-	-	-	-	<100
		1-1.5	X		-	-	-	-	-	-	-	<100
AH-10	7/22/2008	0-1	X		<50.0	3.66	3.66	-	-	-	-	<100
		1-1.5	X		-	-	-	-	-	-	-	<100
AH-11	7/22/2008	0-1	X		<50.0	2.39	2.39	-	-	-	-	<100
		1-1.5	X		-	-	-	-	-	-	-	<100
AH-12	7/22/2008	0-1	X		<50.0	4.72	4.72	-	-	-	-	<100
		1-1.5	X		-	-	-	-	-	-	-	<100
AH-13	7/22/2008	0-1	X		<50.0	1.99	1.99	-	-	-	-	<100
		1-1.5	X		-	-	-	-	-	-	-	<100

(-) Not Analyzed

**Table 3  
COG  
GJ Central Tank Battery (Spill #3)  
Eddy County, NM**

Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	DRO	GRO	Total					
AH-1	10/21/08	0-1		X	9,170	4,170	13,340	44.2	205	83.6	144	3,580
		1-1.5		X	<50.0	46.1	46.1	-	-	-	-	4,550
		2-2.5	X		<50.0	6.01	6.01	-	-	-	-	<100
AH-2	10/21/08	0-1		X	<50.0	18.0	18.0	-	-	-	-	2,430
		1-1.5		X	-	-	-	-	-	-	-	782
		2-2.5		X	-	-	-	-	-	-	-	1,130
		3-3.5		X	-	-	-	-	-	-	-	5,810
		4-4.5	X		-	-	-	-	-	-	-	<100
AH-3	10/21/08	0-1		X	<50.0	5.67	5.67	-	-	-	-	6,350
		1-1.5		X	-	-	-	-	-	-	-	1,820
		2-2.5	X		-	-	-	-	-	-	-	512
AH-4	10/21/08	0-1		X	143	74.0	217	0.0136	0.250	0.560	1.21	8,850
		1-1.5		X	-	-	-	-	-	-	-	8,220
		2-2.5		X	-	-	-	-	-	-	-	1,930
		3-3.5		X	-	-	-	-	-	-	-	2,320
		4-4.5		X	-	-	-	-	-	-	-	1,460
		5-5.5	X		-	-	-	-	-	-	-	348
AH-5	10/21/08	0-1		X	<50.0	24.6	24.6	-	-	-	-	8,720
		1-1.5		X	-	-	-	-	-	-	-	5,500
		2-2.5		X	-	-	-	-	-	-	-	1,260
		3-3.5	X		-	-	-	-	-	-	-	<100

(-) Not Analyzed

**Table 3**  
**COG**  
**GJ Central Tank Battery (Spill #3)**  
**Eddy County, NM**

Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	DRO	GRO	Total					
AH-6	10/21/08	0-1		X	<50.0	4.87	4.87	-	-	-	-	2,290
		1-1.5		X	-	-	-	-	-	-	-	3,880
		2-2.5		X	-	-	-	-	-	-	-	5,450
		3-3.5		X	-	-	-	-	-	-	-	5,160
		4-4.5		X	-	-	-	-	-	-	-	938
		4.5-5	X		-	-	-	-	-	-	-	104
AH-7	10/21/08	0-1	X		<50.0	<1.00	<50.0	-	-	-	-	135
		1-1.5	X		-	-	-	-	-	-	-	166
AH-8	10/21/08	0-1	X		<50.0	<1.00	<50.0	-	-	-	-	203
		1-1.5	X		-	-	-	-	-	-	-	<100
AH-9	10/21/08	0-1		X	<50.0	7.58	7.58	-	-	-	-	1,840
		1-1.5	X		-	-	-	-	-	-	-	<100
AH-10	10/21/08	0-1		X	3,220	274	<b>3,494</b>	1.50	8.61	0.708	12.7	1,360
		1-1.5		X	<50.0	1.58	1.58	-	-	-	-	4,170
		2-2.5	X		-	-	-	-	-	-	-	<100
AH-11	10/21/08	0-1		X	3,850	2,440	<b>6,290</b>	<b>38.3</b>	<b>146</b>	<b>82.3</b>	<b>114</b>	519
		1-1.5		X	711	1,770	<b>2,481</b>	-	-	-	-	1,230
		2-2.5		X	<50.0	19.2	19.2	-	-	-	-	409
		3-3.5	X		-	-	-	-	-	-	-	<100
AH-12	10/21/08	0-1		X	1,980	494	<b>2,474</b>	<b>2.50</b>	<b>25.3</b>	<b>17.4</b>	<b>37.9</b>	2,590
		1-1.5		X	<50.0	6.62	6.62	-	-	-	-	1,810
		2-2.5		X	-	-	-	-	-	-	-	3,460
		3-3.5		X	-	-	-	-	-	-	-	1,580
		4-4.5	X		-	-	-	-	-	-	-	176

(-) Not Analyzed

**APPENDIX A**  
**NMOCD FORM C-141**

#1

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 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 Kanicia Carrillo
Address 550 W. Texas, Suite 1300 Midland, TX 79701	Telephone No. 432-685-4332
Facility Name GJ North Central Battery	Facility Type Oil Well - Tank Battery

Surface Owner	Mineral Owner	Lease No.
---------------	---------------	-----------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	16	17S	29E	660	South	660	East	Eddy

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 400 bbls	Volume Recovered 400 bbls
Source of Release water transfer pump	Date and Hour of Occurrence 06/16/08 Approx 3:00am	Date and Hour of Discovery 06/16/08 7:00am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Left message w/ Mike Bratcher	
By Whom? Kanicia Carrillo	Date and Hour 06/16/08 3:00pm	
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.\*  
Mechanical failure of the water transfer pump. We replaced a coupling in the pumps motor.

Describe Area Affected and Cleanup Action Taken.\*  
All fluid was contained within the firewall at the battery. We are currently removing all fluid from the ground and will excavate and remove contaminated soil. Highlander Environmental will send report and soil samples.

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: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Kanicia Carrillo	Approved by District Supervisor:	
Title: Regulatory Analyst	Approval Date:	Expiration Date:
E-mail Address: kcarrillo@conchoresources.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 06/16/08 Phone: 432-685-4332		

\* Attach Additional Sheets If Necessary

Release #1

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 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	Kanicia Carrillo
Address	550 W. Texas, Suite 1300 Midland, TX 79701	Telephone No.	432-685-4332
Facility Name	-GJ West Coop Unit #52	Facility Type	- Oil/GJ North Central Battery
Surface Owner-State	Mineral Owner	Lease No. API# 30-015-02996	

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	16	17S	29E	660	South	660	East	Eddy

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

**NATURE OF RELEASE**

Type of Release	Produced Water	Volume of Release	20bbls est	Volume Recovered	15bbls
Source of Release	Free Water Knock-out	Date and Hour of Occurrence	7/13/08 Unknown	Date and Hour of Discovery	7/13/08 9:00am MST
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	V/M Mike Bratcher		
By Whom?	Kanicia Carrillo	Date and Hour	7/14/08 3:30pm		
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.\*  
Micro switch malfunction on vessel, pressure on vessel increased to maximum level and opened pressure relief valve. The liquid on the surface was picked up.

Describe Area Affected and Cleanup Action Taken.\*  
All liquid was contained inside the firewall. A 100'x100' sq ft area was sprayed in the adjoining pasture. All contaminated soil and gravel will be dug up and removed. Highlander Environmental will submit chlorides and final report.

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: 	<b>OIL CONSERVATION DIVISION</b>		
Printed Name: Kanicia Carrillo	Approved by District Supervisor:		
Title: Regulatory Analyst	Approval Date:	Expiration Date:	
E-mail Address: kcarrillo@conchoresources.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 7/15/08	Phone: 432-685-4332		

\* Attach Additional Sheets If Necessary

Release #2

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

Form C-141  
Revised October 10, 2003

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

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

30-015-02996

Release Notification and Corrective Action

ANLB 09273 53379

OPERATOR

Initial Report  Final Report

Name of Company COG OPERATING LLC 229137	Contact Kanicia Carrillo
Address 550 W. Texas, Suite 1300 Midland, TX 79701	Telephone No. 432-685-4332
Facility Name - GJ WEST COOP Unit 52	Facility Type- Battery

Surface Owner	Mineral Owner	Lease No. API# 30-015-02996
---------------	---------------	-----------------------------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	16	17S	29E	660	South	660	East	Eddy

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

NATURE OF RELEASE

Type of Release- Water/oil	Volume of Release- 450bbbs	Volume Recovered- 445bbbs
Source of Release- water tank	Date and Hour of Occurrence- 10/6/08- 9:00am	Date and Hour of Discovery 10/6/08-2:00 pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher	
By Whom? Kanicia Carrillo	Date and Hour 10/06/08 5:10 pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	

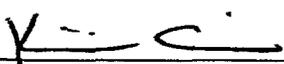
If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*  
Water transfer pump broke down. Pump was repaired.

Describe Area Affected and Cleanup Action Taken.\*  
Leak was contained to inside the Bty firewall. All water was removed from inside the firewall. Tetra Tech will send soil samples and final report.

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:	Expiration Date:
Title: Regulatory Analyst	Conditions of Approval:	
E-mail Address: kcarrillo@conchoresources.com	Attached <input type="checkbox"/>	
Date: 10/07/08 Phone: 432-685-4332	Accepted for record	

\* Attach Additional Sheets If Necessary

NMOCD  
@ Time of closure SEP 30 2009  
MJB

Release # 3 of 3

ANLB 09273 54661

JRP-345

**APPENDIX B**  
**SUMMARY REPORT**  
June 24, 2008

## Summary Report

Ike Tavarez  
Highlander Environmental Services  
1910 N. Big Spring Street  
Midland, TX, 79705

Report Date: June 24, 2008

Work Order: 8061825



Project Location: Eddy County, NM  
Project Name: COG/G.J. Central TB  
Project Number: 3543

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
163875	SB-1 0-1.0'	soil	2008-06-17	00:00	2008-06-18
163876	SB-1 1.0-1.5'	soil	2008-06-17	00:00	2008-06-18
163877	SB-1 1.5-2.0'	soil	2008-06-17	00:00	2008-06-18
163878	SB-2 0-1.0'	soil	2008-06-17	00:00	2008-06-18
163879	SB-2 1.0-1.5'	soil	2008-06-17	00:00	2008-06-18
163880	SB-2 1.5-2.0'	soil	2008-06-17	00:00	2008-06-18
163881	SB-3 0-1.0'	soil	2008-06-17	00:00	2008-06-18
163882	SB-3 1.0-1.5'	soil	2008-06-17	00:00	2008-06-18
163883	SB-3 1.5-2.0'	soil	2008-06-17	00:00	2008-06-18
163884	SB-4 0-1.0'	soil	2008-06-17	00:00	2008-06-18
163885	SB-4 1.0-1.5'	soil	2008-06-17	00:00	2008-06-18
163886	SB-4 1.5-2.0'	soil	2008-06-17	00:00	2008-06-18
163887	SB-5 0-1.0'	soil	2008-06-17	00:00	2008-06-18
163888	SB-5 1.0-1.5'	soil	2008-06-17	00:00	2008-06-18
163889	SB-5 1.5-2.0'	soil	2008-06-17	00:00	2008-06-18
163890	SB-6 0-1.0'	soil	2008-06-17	00:00	2008-06-18
163891	SB-6 1.0-1.5'	soil	2008-06-17	00:00	2008-06-18
163892	SB-6 1.5-2.0'	soil	2008-06-17	00:00	2008-06-18
163893	SB-7 0-1.0'	soil	2008-06-17	00:00	2008-06-18
163894	SB-7 1.0-1.5'	soil	2008-06-17	00:00	2008-06-18
163895	SB-7 1.5-2.0'	soil	2008-06-17	00:00	2008-06-18

Sample - Field Code	BTEX				TPH DRO	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
163875 - SB-1 0-1.0'	<0.0100	<0.0100	<0.0100	0.0162	<50.0	2.91
163878 - SB-2 0-1.0'	<0.0100	<0.0100	<0.0100	0.0123	<50.0	3.99
163881 - SB-3 0-1.0'	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
163884 - SB-4 0-1.0'	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00

*continued ...*

... continued

Sample - Field Code	BTEX				TPH DRO	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
163887 - SB-5 0-1.0'	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
163890 - SB-6 0-1.0'	<0.0100	<0.0100	<0.0100	<0.0100	<50.0	<1.00
163893 - SB-7 0-1.0'	<0.0200	<0.0200	0.0713	0.212	105	44.1

Sample: 163875 - SB-1 0-1.0'

Param	Flag	Result	Units	RL
Chloride		22400	mg/Kg	2.00

Sample: 163876 - SB-1 1.0-1.5'

Param	Flag	Result	Units	RL
Chloride		2650	mg/Kg	2.00

Sample: 163877 - SB-1 1.5-2.0'

Param	Flag	Result	Units	RL
Chloride		545	mg/Kg	2.00

Sample: 163878 - SB-2 0-1.0'

Param	Flag	Result	Units	RL
Chloride		20100	mg/Kg	2.00

Sample: 163879 - SB-2 1.0-1.5'

Param	Flag	Result	Units	RL
Chloride		555	mg/Kg	2.00

Sample: 163880 - SB-2 1.5-2.0'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 163881 - SB-3 0-1.0'

---

Param	Flag	Result	Units	RL
Chloride		17000	mg/Kg	2.00

---

Sample: 163882 - SB-3 1.0-1.5'

---

Param	Flag	Result	Units	RL
Chloride		691	mg/Kg	2.00

---

Sample: 163883 - SB-3 1.5-2.0'

---

Param	Flag	Result	Units	RL
Chloride		132	mg/Kg	2.00

---

Sample: 163884 - SB-4 0-1.0'

---

Param	Flag	Result	Units	RL
Chloride		14000	mg/Kg	2.00

---

Sample: 163885 - SB-4 1.0-1.5'

---

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

---

Sample: 163886 - SB-4 1.5-2.0'

---

Param	Flag	Result	Units	RL
Chloride		127	mg/Kg	2.00

---

Sample: 163887 - SB-5 0-1.0'

---

Param	Flag	Result	Units	RL
Chloride		9680	mg/Kg	2.00

---

Sample: 163888 - SB-5 1.0-1.5'

---

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

---

Sample: 163889 - SB-5 1.5-2.0'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 163890 - SB-6 0-1.0'

Param	Flag	Result	Units	RL
Chloride		13500	mg/Kg	2.00

Sample: 163891 - SB-6 1.0-1.5'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 163892 - SB-6 1.5-2.0'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 163893 - SB-7 0-1.0'

Param	Flag	Result	Units	RL
Chloride		7320	mg/Kg	2.00

Sample: 163894 - SB-7 1.0-1.5'

Param	Flag	Result	Units	RL
Chloride		225	mg/Kg	2.00

Sample: 163895 - SB-7 1.5-2.0'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

**SUMMARY REPORT**  
**November 4, 2008**

## Summary Report

Ike Tavarez  
Tetra Tech  
1910 N. Big Spring Street  
Midland, TX 79705

Report Date: November 4, 2008

Work Order: 8102420



Project Location: Eddy Co., NM  
Project Name: COG/GS West Co-op Unit 52 CTB  
Project Number: 115-6403617

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
177271	AH-1 0-1'	soil	2008-10-21	00:00	2008-10-24
177272	AH-1 1'-1.5'	soil	2008-10-21	00:00	2008-10-24
177273	AH-1 2'-2.5'	soil	2008-10-21	00:00	2008-10-24
177274	AH-2 0-1'	soil	2008-10-21	00:00	2008-10-24
177275	AH-2 1'-1.5'	soil	2008-10-21	00:00	2008-10-24
177276	AH-2 2'-2.5'	soil	2008-10-21	00:00	2008-10-24
177277	AH-2 3'-3.5'	soil	2008-10-21	00:00	2008-10-24
177278	AH-2 4'-4.5'	soil	2008-10-21	00:00	2008-10-24
177279	AH-3 0-1'	soil	2008-10-21	00:00	2008-10-24
177280	AH-3 1'-1.5'	soil	2008-10-21	00:00	2008-10-24
177281	AH-3 2'-2.5'	soil	2008-10-21	00:00	2008-10-24
177282	AH-4 0-1'	soil	2008-10-21	00:00	2008-10-24
177283	AH-4 1'-1.5'	soil	2008-10-21	00:00	2008-10-24
177284	AH-4 2'-2.5'	soil	2008-10-21	00:00	2008-10-24
177285	AH-4 3'-3.5'	soil	2008-10-21	00:00	2008-10-24
177286	AH-4 4'-4.5'	soil	2008-10-21	00:00	2008-10-24
177287	AH-4 5'-5.5'	soil	2008-10-21	00:00	2008-10-24
177288	AH-5 0-1'	soil	2008-10-21	00:00	2008-10-24
177289	AH-5 1'-1.5'	soil	2008-10-21	00:00	2008-10-24
177290	AH-5 2'-2.5'	soil	2008-10-21	00:00	2008-10-24
177291	AH-5 3'-3.5'	soil	2008-10-21	00:00	2008-10-24
177292	AH-6 0-1'	soil	2008-10-21	00:00	2008-10-24
177293	AH-6 1'-1.5'	soil	2008-10-21	00:00	2008-10-24
177294	AH-6 2'-2.5'	soil	2008-10-21	00:00	2008-10-24
177295	AH-6 3'-3.5'	soil	2008-10-21	00:00	2008-10-24
177296	AH-6 4'-4.5'	soil	2008-10-21	00:00	2008-10-24
177297	AH-6 4.5'-5'	soil	2008-10-21	00:00	2008-10-24
177298	AH-7 0-1'	soil	2008-10-21	00:00	2008-10-24
177299	AH-7 1'-1.5'	soil	2008-10-21	00:00	2008-10-24
177300	AH-8 0-1'	soil	2008-10-21	00:00	2008-10-24

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
177301	AH-8 1'-1.5'	soil	2008-10-21	00:00	2008-10-24
177302	AH-9 0-1'	soil	2008-10-21	00:00	2008-10-24
177303	AH-9 1'-1.5'	soil	2008-10-21	00:00	2008-10-24
177304	AH-10 0-1'	soil	2008-10-21	00:00	2008-10-24
177305	AH-10 1'-1.5'	soil	2008-10-21	00:00	2008-10-24
177306	AH-10 2'-2.5'	soil	2008-10-21	00:00	2008-10-24
177307	AH-11 0-1'	soil	2008-10-21	00:00	2008-10-24
177308	AH-11 1'-1.5'	soil	2008-10-21	00:00	2008-10-24
177309	AH-11 2'-2.5'	soil	2008-10-21	00:00	2008-10-24
177310	AH-11 3'-3.5'	soil	2008-10-21	00:00	2008-10-24
177311	AH-12 0-1'	soil	2008-10-21	00:00	2008-10-24
177312	AH-12 1'-1.5'	soil	2008-10-21	00:00	2008-10-24
177313	AH-12 2'-2.5'	soil	2008-10-21	00:00	2008-10-24
177314	AH-12 3'-3.5'	soil	2008-10-21	00:00	2008-10-24
177315	AH-12 4'-4.5'	soil	2008-10-21	00:00	2008-10-24

Sample - Field Code	BTEX				TPH DRO	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
177271 - AH-1 0-1'	44.2	205	83.6	144	9170	4170
177272 - AH-1 1'-1.5'					<50.0	46.1
177273 - AH-1 2'-2.5'					<50.0	6.01
177274 - AH-2 0-1'					<50.0	18.0
177279 - AH-3 0-1'					<50.0	5.67
177282 - AH-4 0-1'	0.0136	0.250	0.560	1.21	143	74.0
177288 - AH-5 0-1'					<50.0	24.6
177292 - AH-6 0-1'					<50.0	4.87
177298 - AH-7 0-1'					<50.0	<1.00
177300 - AH-8 0-1'					<50.0	<1.00
177302 - AH-9 0-1'					<50.0	7.58
177304 - AH-10 0-1'	1.50	8.61	0.708	12.7	3220	274
177305 - AH-10 1'-1.5'					<50.0	1.58
177307 - AH-11 0-1'	38.3	146	82.3	114	3850	2440
177308 - AH-11 1'-1.5'					711	1770
177309 - AH-11 2'-2.5'					<50.0	19.2
177311 - AH-12 0-1'	2.50	25.3	17.4	37.9	1980	494
177312 - AH-12 1'-1.5'					<50.0	6.62

Sample: 177271 - AH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		3580	mg/Kg	2.00

Sample: 177272 - AH-1 1'-1.5'

Param	Flag	Result	Units	RL
Chloride		4550	mg/Kg	2.00

Sample: 177273 - AH-1 2'-2.5'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 177274 - AH-2 0-1'

Param	Flag	Result	Units	RL
Chloride		2430	mg/Kg	2.00

Sample: 177275 - AH-2 1'-1.5'

Param	Flag	Result	Units	RL
Chloride		782	mg/Kg	2.00

Sample: 177276 - AH-2 2'-2.5'

Param	Flag	Result	Units	RL
Chloride		1130	mg/Kg	2.00

Sample: 177277 - AH-2 3'-3.5'

Param	Flag	Result	Units	RL
Chloride		5810	mg/Kg	2.00

Sample: 177278 - AH-2 4'-4.5'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 177279 - AH-3 0-1'

Param	Flag	Result	Units	RL
Chloride		6350	mg/Kg	2.00

Sample: 177280 - AH-3 1'-1.5'

Param	Flag	Result	Units	RL
Chloride		1820	mg/Kg	2.00

Sample: 177281 - AH-3 2'-2.5'

Param	Flag	Result	Units	RL
Chloride		512	mg/Kg	2.00

Sample: 177282 - AH-4 0-1'

Param	Flag	Result	Units	RL
Chloride		8850	mg/Kg	2.00

Sample: 177283 - AH-4 1'-1.5'

Param	Flag	Result	Units	RL
Chloride		8220	mg/Kg	2.00

Sample: 177284 - AH-4 2'-2.5'

Param	Flag	Result	Units	RL
Chloride		1930	mg/Kg	2.00

Sample: 177285 - AH-4 3'-3.5'

Param	Flag	Result	Units	RL
Chloride		2320	mg/Kg	2.00

Sample: 177286 - AH-4 4'-4.5'

Param	Flag	Result	Units	RL
Chloride		1460	mg/Kg	2.00

Sample: 177287 - AH-4 5'-5.5'

Param	Flag	Result	Units	RL
Chloride		348	mg/Kg	2.00

Sample: 177288 - AH-5 0-1'

Param	Flag	Result	Units	RL
Chloride		8720	mg/Kg	2.00

**Sample: 177289 - AH-5 1'-1.5'**

Param	Flag	Result	Units	RL
Chloride		5500	mg/Kg	2.00

**Sample: 177290 - AH-5 2'-2.5'**

Param	Flag	Result	Units	RL
Chloride		1260	mg/Kg	2.00

**Sample: 177291 - AH-5 3'-3.5'**

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

**Sample: 177292 - AH-6 0-1'**

Param	Flag	Result	Units	RL
Chloride		2290	mg/Kg	2.00

**Sample: 177293 - AH-6 1'-1.5'**

Param	Flag	Result	Units	RL
Chloride		3880	mg/Kg	2.00

**Sample: 177294 - AH-6 2'-2.5'**

Param	Flag	Result	Units	RL
Chloride		5450	mg/Kg	2.00

**Sample: 177295 - AH-6 3'-3.5'**

Param	Flag	Result	Units	RL
Chloride		5160	mg/Kg	2.00

**Sample: 177296 - AH-6 4'-4.5'**

Param	Flag	Result	Units	RL
Chloride		938	mg/Kg	2.00

Sample: 177297 - AH-6 4.5'-5'

Param	Flag	Result	Units	RL
Chloride		104	mg/Kg	2.00

Sample: 177298 - AH-7 0-1'

Param	Flag	Result	Units	RL
Chloride		135	mg/Kg	2.00

Sample: 177299 - AH-7 1'-1.5'

Param	Flag	Result	Units	RL
Chloride		166	mg/Kg	2.00

Sample: 177300 - AH-8 0-1'

Param	Flag	Result	Units	RL
Chloride		203	mg/Kg	2.00

Sample: 177301 - AH-8 1'-1.5'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 177302 - AH-9 0-1'

Param	Flag	Result	Units	RL
Chloride		1840	mg/Kg	2.00

Sample: 177303 - AH-9 1'-1.5'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 177304 - AH-10 0-1'

Param	Flag	Result	Units	RL
Chloride		1360	mg/Kg	2.00

Sample: 177305 - AH-10 1'-1.5'

Param	Flag	Result	Units	RL
Chloride		4170	mg/Kg	2.00

Sample: 177306 - AH-10 2'-2.5'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 177307 - AH-11 0-1'

Param	Flag	Result	Units	RL
Chloride		519	mg/Kg	2.00

Sample: 177308 - AH-11 1'-1.5'

Param	Flag	Result	Units	RL
Chloride		1230	mg/Kg	2.00

Sample: 177309 - AH-11 2'-2.5'

Param	Flag	Result	Units	RL
Chloride		409	mg/Kg	2.00

Sample: 177310 - AH-11 3'-3.5'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 177311 - AH-12 0-1'

Param	Flag	Result	Units	RL
Chloride		2590	mg/Kg	2.00

Sample: 177312 - AH-12 1'-1.5'

Param	Flag	Result	Units	RL
Chloride		1810	mg/Kg	2.00

Report Date: November 4, 2008  
115-6403617

Work Order: 8102420  
COG/GS West Co-op Unit 52 CTB

Page Number: 8 of 8  
Eddy Co., NM

Sample: 177313 - AH-12 2'-2.5'

Param	Flag	Result	Units	RL
Chloride		3460	mg/Kg	2.00

Sample: 177314 - AH-12 3'-3.5'

Param	Flag	Result	Units	RL
Chloride		1580	mg/Kg	2.00

Sample: 177315 - AH-12 4'-4.5'

Param	Flag	Result	Units	RL
Chloride		176	mg/Kg	2.00

**SUMMARY REPORT**  
**November 19, 2008**

## Summary Report

Ray Taylor  
Tetra Tech  
1910 N. Big Spring Street  
Midland, TX 79705

Report Date: November 19, 2008

Work Order: 8072330



Project Location: Eddy Co, NM  
Project Name: COG/G.J. Central TB (Spill #2)  
Project Number: 3563

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
168019	AH-1 (0-1')	soil	2008-07-22	00:00	2008-07-23
168020	AH-1 1-1.5'	soil	2008-07-22	00:00	2008-07-23
168021	AH-2 0-1'	soil	2008-07-22	00:00	2008-07-23
168022	AH-2 1-1.5'	soil	2008-07-22	00:00	2008-07-23
168023	AH-3 0-1'	soil	2008-07-22	00:00	2008-07-23
168024	AH-3 1-1.5'	soil	2008-07-22	00:00	2008-07-23
168026	AH-4 0-1'	soil	2008-07-22	00:00	2008-07-23
168027	AH-4 1-1.5'	soil	2008-07-22	00:00	2008-07-23
168028	AH-5 0-1'	soil	2008-07-22	00:00	2008-07-23
168029	AH-5 1-1.5'	soil	2008-07-22	00:00	2008-07-23
168030	AH-5 2-2.5'	soil	2008-07-22	00:00	2008-07-23
168031	AH-6 0-1'	soil	2008-07-22	00:00	2008-07-23
168032	AH-6 1-1.5'	soil	2008-07-22	00:00	2008-07-23
168033	AH-7 0-1'	soil	2008-07-22	00:00	2008-07-23
168034	AH-7 1-1.5'	soil	2008-07-22	00:00	2008-07-23
168035	AH-7 2-2.5'	soil	2008-07-22	00:00	2008-07-23
168036	AH-8 0-1'	soil	2008-07-22	00:00	2008-07-23
168037	AH-8 1-1.5'	soil	2008-07-22	00:00	2008-07-23
168038	AH-9 0-1'	soil	2008-07-22	00:00	2008-07-23
168039	AH-9 1-1.5'	soil	2008-07-22	00:00	2008-07-23
168040	AH-10 0-1'	soil	2008-07-22	00:00	2008-07-23
168041	AH-10 1-1.5'	soil	2008-07-22	00:00	2008-07-23
168042	AH-11 0-1'	soil	2008-07-22	00:00	2008-07-23
168043	AH-11 1-1.5'	soil	2008-07-22	00:00	2008-07-23
168044	AH-12 0-1'	soil	2008-07-22	00:00	2008-07-23
168045	AH-12 1-1.5'	soil	2008-07-22	00:00	2008-07-23
168046	AH-13 0-1'	soil	2008-07-22	00:00	2008-07-23
168047	AH-13 1-1.5'	soil	2008-07-22	00:00	2008-07-23

Sample - Field Code	BTEX				TPH DRO DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)		
168019 - AH-1 (0-1')	<0.0500	0.241	3.84	6.83	3350	604
168020 - AH-1 1-1.5'					<50.0	14.1
168021 - AH-2 0-1'	<0.0200	<0.0200	<0.0200	0.0388	689	79.2
168023 - AH-3 0-1'	<0.0500	0.738	3.18	4.63	7860	946
168024 - AH-3 1-1.5'					<50.0	37.8
168026 - AH-4 0-1'					250	31.6
168028 - AH-5 0-1'	0.366	21.5	27.5	57.4	4240	2050
168029 - AH-5 1-1.5'	<0.0100	<0.0100	0.0390	0.0911	<50.0	44.3
168031 - AH-6 0-1'	<0.0100	<0.0100	0.0424	0.0913	1170	235
168032 - AH-6 1-1.5'					<50.0	81.7
168033 - AH-7 0-1'	11.3	97.6	67.5	67.8	3400	3420
168034 - AH-7 1-1.5'	0.0111	0.0362	0.0666	0.0954	<50.0	47.0
168036 - AH-8 0-1'					534	9.04
168038 - AH-9 0-1'					555	6.39
168040 - AH-10 0-1'					<50.0	3.66
168042 - AH-11 0-1'					<50.0	2.39
168044 - AH-12 0-1'					<50.0	4.72
168046 - AH-13 0-1'					<50.0	1.99

Sample: 168019 - AH-1 (0-1')

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 168020 - AH-1 1-1.5'

Param	Flag	Result	Units	RL
Chloride		170	mg/Kg	2.00

Sample: 168021 - AH-2 0-1'

Param	Flag	Result	Units	RL
Chloride		340	mg/Kg	2.00

Sample: 168022 - AH-2 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 168023 - AH-3 0-1'

Param	Flag	Result	Units	RL
Chloride		705	mg/Kg	2.00

Sample: 168024 - AH-3 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 168026 - AH-4 0-1'

Param	Flag	Result	Units	RL
Chloride		196	mg/Kg	2.00

Sample: 168027 - AH-4 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 168028 - AH-5 0-1'

Param	Flag	Result	Units	RL
Chloride		1570	mg/Kg	2.00

Sample: 168029 - AH-5 1-1.5'

Param	Flag	Result	Units	RL
Chloride		1580	mg/Kg	2.00

Sample: 168030 - AH-5 2-2.5'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 168031 - AH-6 0-1'

Param	Flag	Result	Units	RL
Chloride		3120	mg/Kg	2.00

Sample: 168032 - AH-6 1-1.5'

Param	Flag	Result	Units	RL
Chloride		326	mg/Kg	2.00

Sample: 168033 - AH-7 0-1'

Param	Flag	Result	Units	RL
Chloride		1180	mg/Kg	2.00

Sample: 168034 - AH-7 1-1.5'

Param	Flag	Result	Units	RL
Chloride		6710	mg/Kg	2.00

Sample: 168035 - AH-7 2-2.5'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 168036 - AH-8 0-1'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 168037 - AH-8 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 168038 - AH-9 0-1'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 168039 - AH-9 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 168040 - AH-10 0-1'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 168041 - AH-10 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 168042 - AH-11 0-1'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 168043 - AH-11 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 168044 - AH-12 0-1'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 168045 - AH-12 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 168046 - AH-13 0-1'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

Sample: 168047 - AH-13 1-1.5'

Param	Flag	Result	Units	RL
Chloride		<100	mg/Kg	2.00

**APPENDIX C  
GROUNDWATER DATA**

**Water Well Data**  
**Average Depth to Groundwater (ft)**  
**COG - GJ Tank Battery, Eddy County, New Mexico**

**16 South      28 East**

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

**16 South      29 East**

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

**16 South      30 East**

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

**17 South      28 East**

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

**17 South      29 East**

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

**17 South      30 East**

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

**18 South      28 East**

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

**18 South      29 East**

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

**18 South      30 East**

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

- 88 New Mexico State Engineers Well Reports
- 105 USGS Well Reports
- 90 Geology and Groundwater Conditions in Southern Lea, County, NM (Report 6)
- Geology and Groundwater Resources of Eddy County, NM (Report 3)
- 34 Static Level - Water well measure by Tetra Tech (6/17/08)



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### National Water Information System: Web Interface

USGS Water Resources

Data Category:

Ground Water



Geographic Area:

New Mexico



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# Ground-water levels for New Mexico

## Search Results -- 1 sites found

Search Criteria

<p><b>site_no list =</b>    • 324855104093101</p> <p><b>Minimum number of levels = 1</b></p>
----------------------------------------------------------------------------------------------

[Save file of selected sites to local disk for future upload](#)

## USGS 324855104093101 17S.28E.22.34242

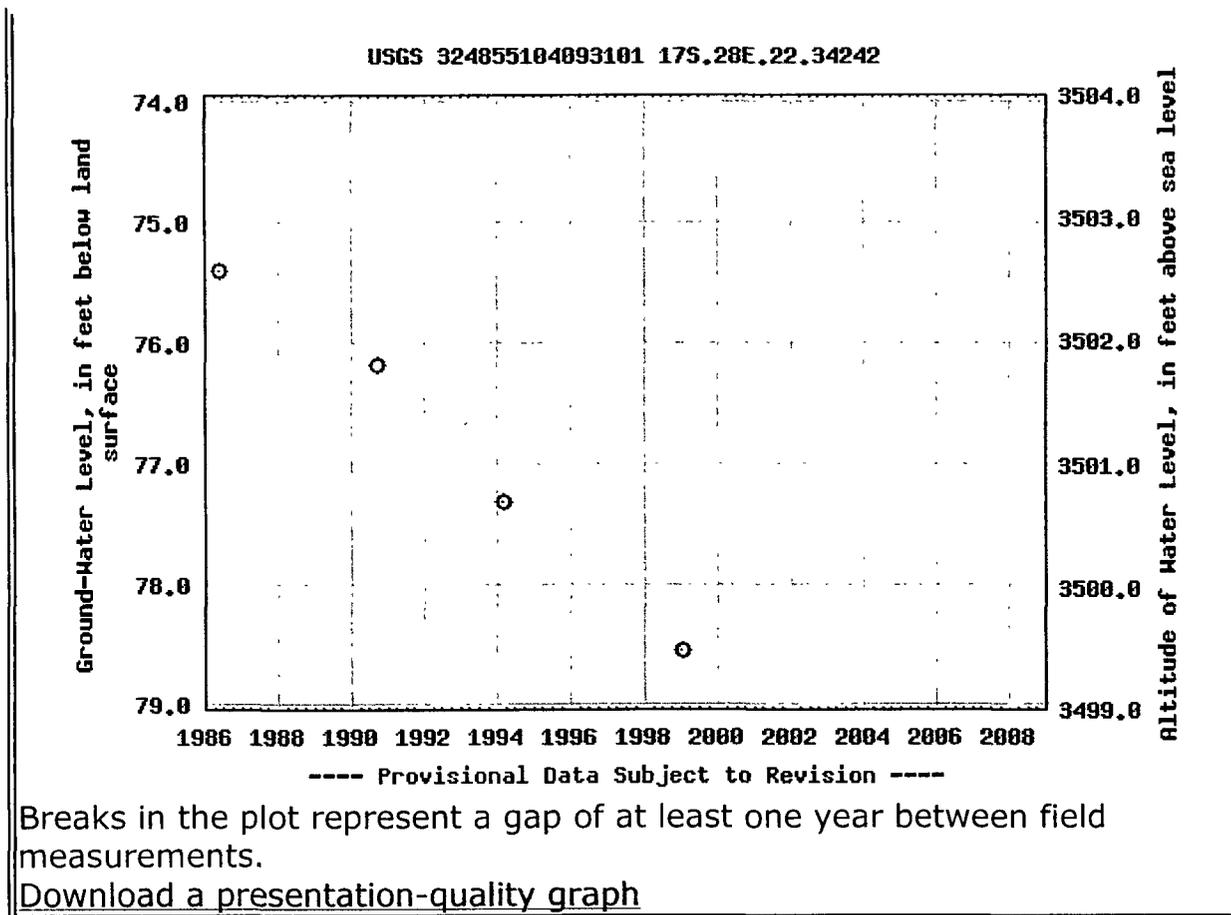
Available data for this site

Ground-water: Field measurements



GO

<p>Eddy County, New Mexico  Hydrologic Unit Code 13060011  Latitude 32°48'55", Longitude 104°09'31" NAD27  Land-surface elevation 3,578 feet above sea level  NGVD29  The depth of the well is 95.00 feet below land surface.  This well is completed in the ALLUVIUM,BOLSON  DEPOSITS AND OTHER SURFACE DEPOSITS (110AVMB)  local aquifer.</p>	<p><b>Output formats</b></p> <p><a href="#">Table of data</a></p> <p><a href="#">Tab-separated data</a></p> <p><a href="#">Graph of data</a></p> <p><a href="#">Reselect period</a></p>
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U.S. Department of the Interior | U.S. Geological Survey  
**Title: Ground water for New Mexico: Water Levels**  
**URL: <http://waterdata.usgs.gov/nm/nwis/gwlevels?>**



Page Contact Information: [New Mexico NWISWeb Maintainer](#)  
 Page Last Modified: 2008-10-17 15:01:37 EDT  
 1.93 1.83 nadww01

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	do. 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.

1 Measured Dec. 3, 1948.

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

LOCATION NUMBER	OWNER OR NAME	DATE COMPLETED	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 (?)

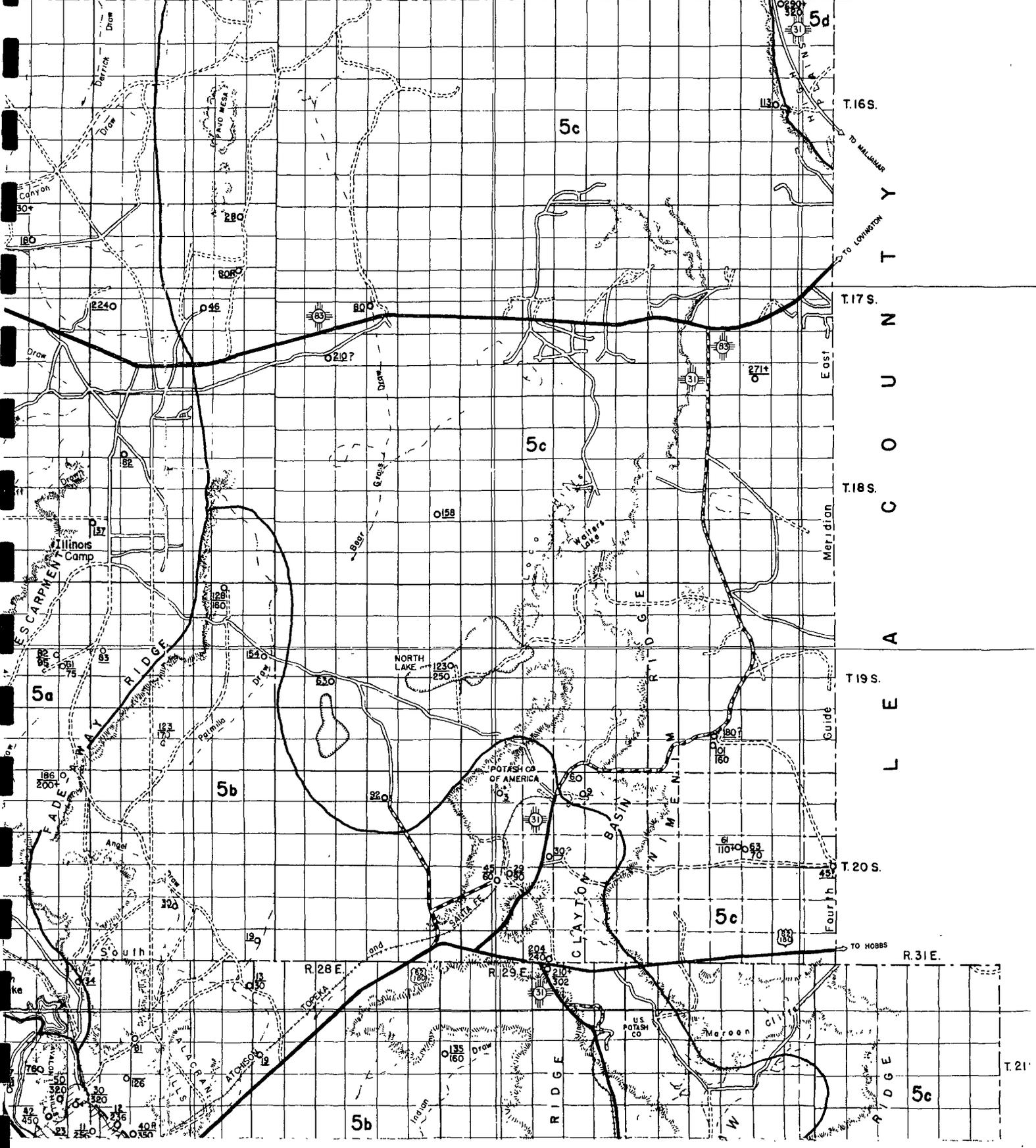
See explanation at beginning of table.

GROUND WATER REPORT 3 PLATE 4

10' 104°00' 103°50'

C O U N T Y

R.28 E. Parallel R.29 E. R.30 E. South R.31 E.



T.16 S.  
T.17 S.  
T.18 S.  
T.19 S.  
T.20 S.  
T.21 S.

R.28 E. R.29 E. R.30 E. R.31 E.

T.21 S.

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 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

SEB0819251557

nSEB0819251395

#### OPERATOR

Initial Report  Final Report

Name of Company	COG OPERATING LLC 229137	Contact	Kanicia Carrillo
Address	550 W. Texas, Suite 1300 Midland, TX 79701	Telephone No.	432-685-4332
Facility Name	GJ North Central Battery	Facility Type	Oil Well - Tank Battery

Surface Owner	Mineral Owner	Lease No.
---------------	---------------	-----------

30-015-02996

#### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	16	17S	29E	660	South	660	East	Rddy

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

#### NATURE OF RELEASE

Type of Release	Produced Water	Volume of Release	400 bbls	Volume Recovered	400 bbls
Source of Release	water transfer pump	Date and Hour of Occurrence	06/16/08 Approx 3:00am	Date and Hour of Discovery	06/16/08 7:00am
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Left message w/ Mike Bratcher		
By Whom?	Kanicia Carrillo	Date and Hour	06/16/08 3:00pm		
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.\*

SPILL # 103 COPY FROM WELL FILE

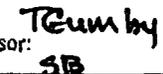
Describe Cause of Problem and Remedial Action Taken.\*

Mechanical failure of the water transfer pump. We replaced a coupling in the pumps motor.

Describe Area Affected and Cleanup Action Taken.\*

All fluid was contained within the firewall at the battery. We are currently removing all fluid from the ground and will excavate and remove contaminated soil. Highlander Environmental will send report and soil samples.

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: 	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Kanicia Carrillo	Approved by District Supervisor: 	Remediation Actions to be completed and Final C-141 submitted with confirmation analyses/documentation on or before the Expiration Date
Title: Regulatory Analyst	Approval Date: 7-10-08	Expiration Date: 9-12-08
E-mail Address: kcarrillo@conchoresources.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 06/16/08 Phone: 432-685-4332	Within 30 days, on or before 8-12-08, completion of a remediation work plan based on delineation should be finalized and submitted for approval to the Division summarizing all actions taken and/or to be taken to mitigate environmental damage	2 RP-186

\* Attach Additional Sheets If Necessary

The plan must include general site characteristics, site ranking score, soil remediation action levels, soil remediation methods, and planned analytical testing for TPH, B-TEX, Chlorides or any other COCs as applicable. Please use the "Guidelines for Remediation of Leaks, Spills, & Releases" as your guide. This document may be found at the following link:  
[http://www.enmrd.state.nm.us/ocd/documents/7C\\_spill1.pdf](http://www.enmrd.state.nm.us/ocd/documents/7C_spill1.pdf)

Notify OCD 48 hours prior to obtaining samples where analyses are to be presented to OCD

1625 N French Dr., Hobbs, NM 88240  
District I  
1301 W. Grand Avenue, Artesia, NM 88210  
District II  
1000 Rio Brazos Road, Aztec, NM 87410  
District III  
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 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

ISEB0819834712  
NSEB0819834473

OPERATOR

Initial Report  Final Report

Name of Company	COG OPERATING LLC <i>229137</i>	Contact	Kanicia Carrillo
Address	550 W. Texas, Suite 1300 Midland, TX 79701	Telephone No.	432-685-4332
Facility Name	-GJ West Coop Unit #52 <i>30-015-02996</i>	Facility Type	- Oil/GJ North Central Battery
Surface Owner-State	Mineral Owner	Lease No. API# 30-015-02996	

LOCATION OF RELEASE

Unit	Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P		16	17S	29E	660	South	660	East	Eddy

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

NATURE OF RELEASE

Type of Release	Produced Water	Volume of Release	20bbls est	Volume Recovered	15bbls
Source of Release	Free Water Knock-out	Date and Hour of Occurrence	7/13/08 Unknown	Date and Hour of Discovery	7/13/08 9:00am MST
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	V/M Mike Bratcher		
By Whom?	Kanicia Carrillo	Date and Hour	7/14/08 3:30pm		
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.\*  
*Spill # 283*

COPY FROM WELL FILE

Describe Cause of Problem and Remedial Action Taken.\*

Micro switch malfunction on vessel, pressure on vessel increased to maximum level and opened pressure relief valve. The liquid on the surface was picked up.

Describe Area Affected and Cleanup Action Taken.\*

All liquid was contained inside the firewall. A 100'x100' sq ft area was sprayed in the adjoining pasture. All contaminated soil and gravel will be dug up and removed. Highlander Environmental will submit chlorides and final report.

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: *Kanicia Carrillo*

Printed Name: Kanicia Carrillo

Title: Regulatory Analyst

E-mail Address: kcarrillo@conchoresources.com

Date: 7/15/08 Phone: 432-685-4332

Approved by District Supervisor: *T. Gumby SA*

Approval Date: *7-16-08* Expiration Date:

Conditions of Approval:

SEE ATTACHED STIPULATIONS

Attached  *2RP-199*

Attach Additional Sheets If Necessary

SEB 0819834779

# New Mexico Energy, Minerals and Natural Resources Department

**Bill Richardson**  
Governor

Joanna Prukop  
Cabinet Secretary  
Reese Fullerton  
Deputy Cabinet Secretary

Mark Fesmire  
Division Director  
Oil Conservation Division



*CERTIFIED MAIL—Return Receipt Requested*  
7007 2680 0001 6451 2681

July 16, 2008

COG Operating LLC  
ATTN: Kanicia Carrillo  
550 W Texas, suite 1300  
Midland, TX 79701

**COPY FROM WELL FILE**

RE: GJ West COOP Unit 052 30-015-02996  
P-16-17S-29E Eddy County, New Mexico

Dear Operator:

This office is in receipt of your C-141 on the produced water release, at this facility.

NMOCD Rule 19.15.3.116 states in part "...The responsible person must complete **division approved corrective action** for releases which endanger public health or the environment. Releases will be addressed in accordance with a **remediation plan** submitted to and approved by the division or with an abatement plan submitted in accordance with Section 19 of 19.15.1 NMAC."

Information and tools for proper corrective action may be found in the Environmental Handbook on our web site at the following link:

[http://www.emnrd.state.nm.us/ocd/documents/7C\\_spill1.pdf](http://www.emnrd.state.nm.us/ocd/documents/7C_spill1.pdf)

The following actions are **required** to be addressed in the **remediation plan**:

- Determine the horizontal and vertical delineation of the spill by sampling.
- Prepare a sketch of the site indicating where and at what depths the samples were taken.
- Submit laboratory results of sampling as well as the proposed remediation with the plan.

Remediation requirements may be subject to other federal, state and local laws or regulations.

Within 30 days, **on or before August 19, 2008**, completion of a remediation work plan should be finalized and submitted to the Division, summarizing all actions taken or to be taken to mitigate environmental damage related to the leak, spill or release, for approval.

Please be advised that NMOCD acceptance and/or approval of documents or work plans 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 and/or approval of documents or work plans do not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

If I may be of further assistance with this matter or should you have any questions, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "Sherry Bonham".

Sherry Bonham  
NMOCD District II, Artesia  
(505) 748-1283 ext 109  
E-mail: [sherry.bonham@state.nm.us](mailto:sherry.bonham@state.nm.us)



#3

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 October 10, 2003

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

30-015-02996

Release Notification and Corrective Action

ANLBA 0927353379

OPERATOR  Initial Report  Final Report

Name of Company	COG OPERATING LLC 229137	Contact	Kanicia Carrillo
Address	550 W. Texas, Suite 1300 Midland, TX 79701	Telephone No.	432-685-4332
Facility Name	GJ WEST COOP Unit 52	Facility Type	Battery

Surface Owner	Mineral Owner	Lease No. API#	30-015-02996
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	16	17S	29E	660	South	660	East	Eddy

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

NATURE OF RELEASE

Type of Release-	Water/oil	Volume of Release-	450bbls	Volume Recovered-	445bbls
Source of Release-	water tank	Date and Hour of Occurrence-	10/6/08- 9:00am	Date and Hour of Discovery	10/6/08-2:00 pm
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Mike Bratcher		
By Whom?	Kanicia Carrillo	Date and Hour	10/06/08 5:10 pm		
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.\*  
Water transfer pump broke down. Pump was repaired.

Describe Area Affected and Cleanup Action Taken.\*  
Leak was contained to inside the Bty firewall. All water was removed from inside the firewall. Tetra Tech will send soil samples and final report.

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:	<b>OIL CONSERVATION DIVISION</b>		
Printed Name: Kanicia Carrillo	Approved by District Supervisor:		
Title: Regulatory Analyst	Approval Date:	Expiration Date:	
E-mail Address: kcarrillo@conchoresources.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 10/07/08 Phone: 432-685-4332	Accepted for record		

\* Attach Additional Sheets If Necessary

Release # 3 of 3  
ANLBA 0927354661

NMOCD  
@ Time of closure  
SEP 30 2009  
JRP-345