

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy Minerals and Natural Resources

Form C-101
Revised July 18, 2013

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

OIL CONS. DIV DIST. # 2
RECOMMENDED REPORT

JUL 01 2014

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address Coleman Oil & Gas, Inc. P. O. Drawer 3337 Farmington NM 87499		OGRID Number 4838
		API Number 30-045-35508
Property Code 313431	Property Name Heizer 15	Well No. 34

7. Surface Location

UL - Lot K	Section 15	Township 32 N	Range 10 W	Lot Idn	Feet from 2197	N/S Line S	Feet From 2518	E/W Line W	County San Juan
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8. Proposed Bottom Hole Location

UL - Lot O	Section 15	Township 32 N	Range 10 W	Lot Idn	Feet from 1250	N/S Line S	Feet From 1980	E/W Line E	County San Juan
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9. Pool Information

Pool Name Blanco - Mesa Verde (Prorated Gas) & Basin Dakota (Prorated Gas)	Pool Code 72319 71599
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Additional Well Information

11. Work Type N	12. Well Type G	13. Cable/Rotary R	14. Lense Type P	15. Ground Level Elevation 5913
16. Multiple N	17. Proposed Depth TVD: 7410 MD: 7679'	18. Formation Burro Canyon	19. Contractor	20. Spud Date Upon Approval
Depth to Ground water 5' (well SJ 02845)		Distance from nearest fresh water well 1,062' (southwest to well SJ 02845)		Distance to nearest surface water 250' (southeast)

☒ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/lb	Setting Depth	Sacks of Cement	Estimated TOC
Surface	12-1/4"	8-5/8"	36	500'	270	GL
Intermed.	8-3/4"	7"	23	3244' MD	461	GL
Product'n	6-1/4"	4-1/2"	11.6	7679' MD	512	3000'

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
	2000	2000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☐ if applicable.
Signature: *Brian Wood*

Printed name: Brian Wood

Title: Consultant

E-mail Address: brian@permitswest.com

Date: 6-27-14

Phone: (505) 466-8120

OIL CONSERVATION DIVISION

Approved By:

Title: SUPERVISOR DISTRICT # 2

Approved Date:

Conditions of Approval Attached

7-3-14

JUL 03 2014

Expiration Date: 7-3-16

AV

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State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, N.M. 87505

OIL CONS. DIV DIST. 3

JUL 01 2014

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-355608	² Pool Code 72319	³ Pool Name BLANCO - MESA VERDE (PRORATED GAS)
⁴ Property Code 313431	⁵ Property Name HEIZER 15	⁶ Well Number 34
⁷ GRID No. 4838	⁸ Operator Name COLEMAN OIL & GAS, INC.	⁹ Elevation 5913

¹⁰ Surface Location

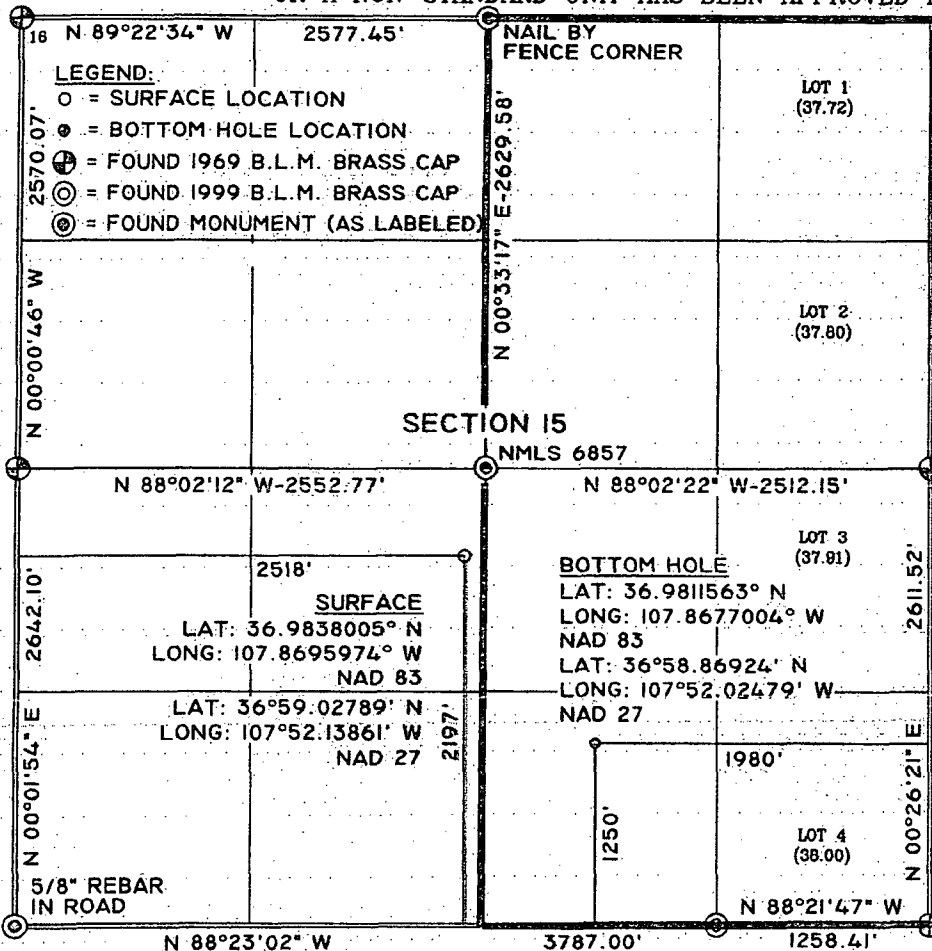
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	15	32 N	10 W		2197	SOUTH	2518	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	15	32 N	10 W		1250	SOUTH	1980	EAST	SAN JUAN

¹² Dedicated Acres 311.43	¹³ Joint or Infill	¹⁴ Consolidation Code C	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



¹⁷ OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Brian Wood
Signature
Date 6-27-14
brian@permitswest.com
E-mail Address

¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

03/24/14
Date of Survey
Signature and Seal of Professional Surveyor
MARSHALL W. LINDEN
NEW MEXICO
17078
17078
Certificate Number

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JUL 01 2014

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WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35508	² Pool Code 71599	³ Pool Name BASIN DAKOTA (PRORATED GAS)
⁴ Property Code 313431	⁶ Property Name HEIZER 15	⁵ Well Number 34
⁷ OGRID No. 4838	⁸ Operator Name COLEMAN OIL & GAS, INC.	⁹ Elevation 5913

¹⁰ Surface Location

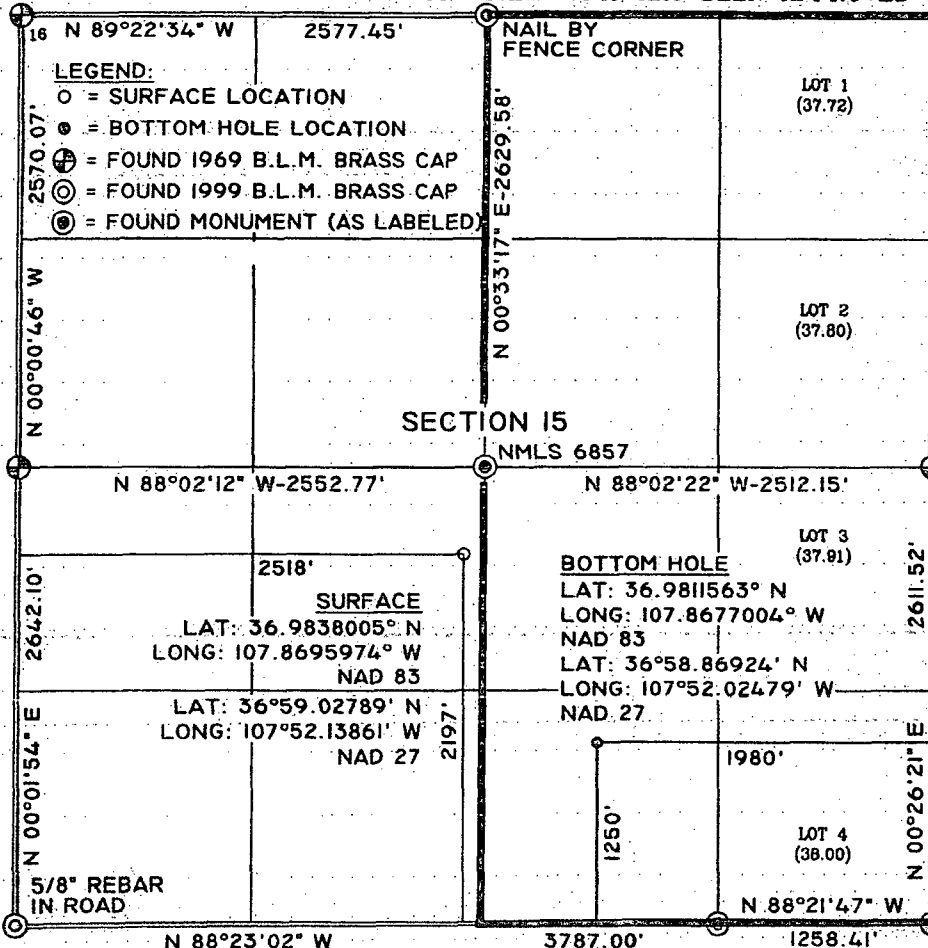
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	15	32 N	10 W		2197	SOUTH	2518	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	15	32 N	10 W		1250	SOUTH	1980	EAST	SAN JUAN

¹² Dedicated Acres 311.43	¹³ Joint or Infill	¹⁴ Consolidation Code C	¹⁵ Order No.
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OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

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Brian Wood

6-27-14

Signature BRIAN WOOD

Date

brian@permitswest.com

E-mail Address

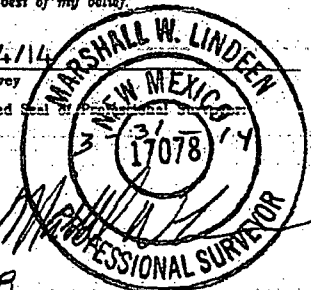
¹⁸ SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

03/24/14

Date of Survey

Signature and Seal of Professional Surveyor



17078

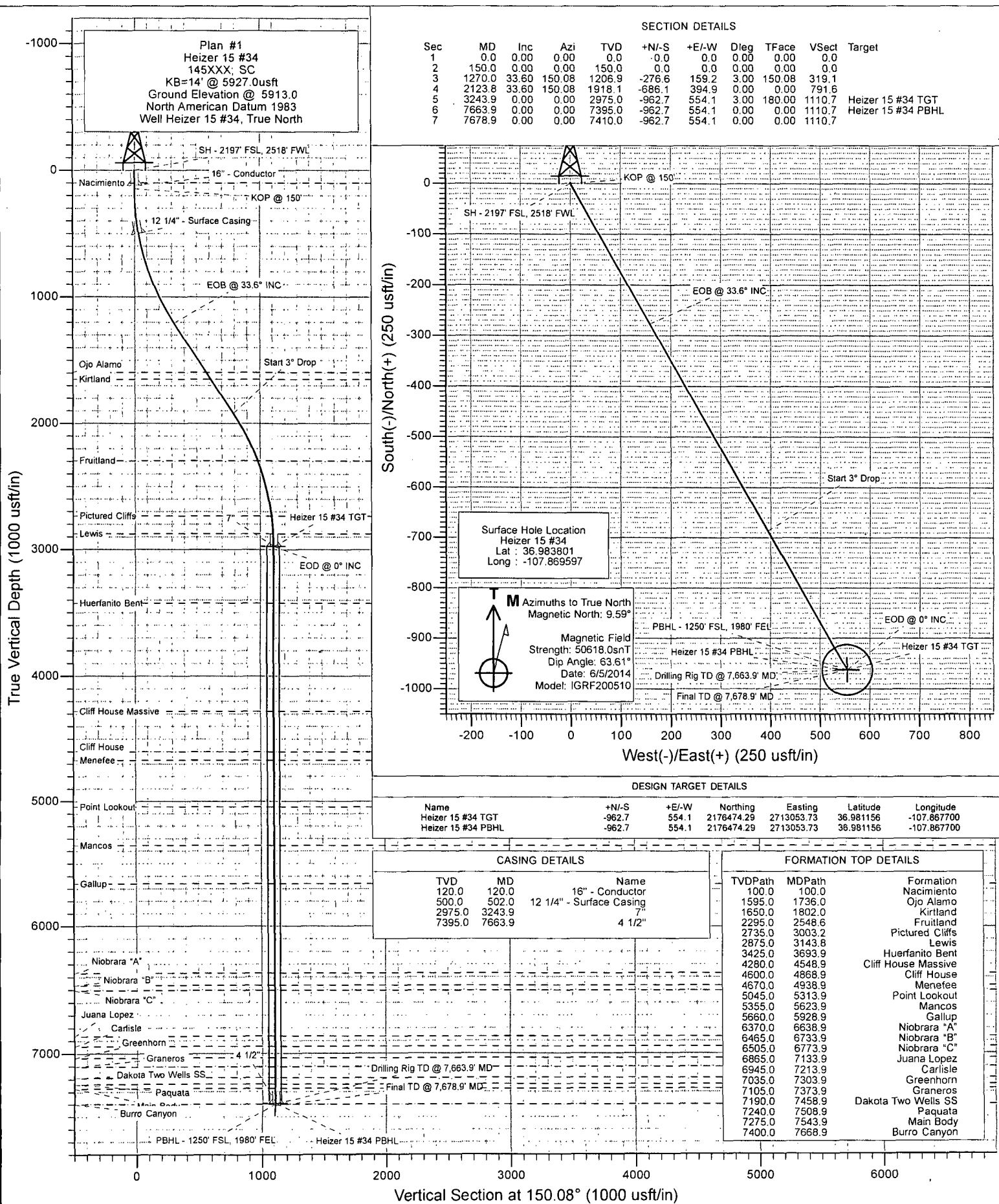
Certificate Number



Project: San Juan County, NM
Site: S15-T32N-R10W
Well: Heizer 15 #34
Wellbore: DD
Design: Plan #1



CATHEDRAL



Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Heizer 15 #34
Company:	Coleman Oil & Gas, Inc.	TVD Reference:	KB=14' @ 5927.0usft
Project:	San Juan County, NM	MD Reference:	KB=14' @ 5927.0usft
Site:	S15-T32N-R10W	North Reference:	True
Well:	Heizer 15 #34	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Project	San Juan County, NM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	S15-T32N-R10W		
Site Position:		Northing:	2,177,437.16 usft
From:	Lat/Long	Easting:	2,712,500.02 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"
		Latitude:	36.983801
		Longitude:	-107.869597
		Grid Convergence:	-0.02 °

Well	Heizer 15 #34		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft
		Latitude:	36.983801
		Longitude:	-107.869597
		Ground Level:	5,913.0 usft

Wellbore	DD		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF200510	6/5/2014	9.59
			Dip Angle
			(°)
			Field Strength
			(nT)
			50,618

Design	Plan #1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			150.08

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
150.0	0.00	0.00	150.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,270.0	33.60	150.08	1,206.9	-276.6	159.2	3.00	3.00	0.00	150.08	
2,123.8	33.60	150.08	1,918.1	-686.1	394.9	0.00	0.00	0.00	0.00	
3,243.9	0.00	0.00	2,975.0	-962.7	554.1	3.00	-3.00	0.00	180.00	Heizer 15 #34 TGT
7,663.9	0.00	0.00	7,395.0	-962.7	554.1	0.00	0.00	0.00	0.00	Heizer 15 #34 PBHL
7,678.9	0.00	0.00	7,410.0	-962.7	554.1	0.00	0.00	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Heizer 15 #34
Company:	Coleman Oil & Gas, Inc.	TVD Reference:	KB=14' @ 5927.0usft
Project:	San Juan County, NM	MD Reference:	KB=14' @ 5927.0usft
Site:	S15-T32N-R10W	North Reference:	True
Well:	Heizer 15 #34	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	
0.5	0.00	0.00	0.5	0.0	0.0	0.0	0.00	0.00	SH - 2197' FSL, 2518' FWL
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	Nacimiento
120.0	0.00	0.00	120.0	0.0	0.0	0.0	0.00	0.00	16" - Conductor
150.0	0.00	0.00	150.0	0.0	0.0	0.0	0.00	0.00	KOP @ 150'
200.0	1.50	150.08	200.0	-0.6	0.3	0.7	3.00	3.00	
300.0	4.50	150.08	299.8	-5.1	2.9	5.9	3.00	3.00	
400.0	7.50	150.08	399.3	-14.2	8.2	16.3	3.00	3.00	
500.0	10.50	150.08	498.0	-27.7	16.0	32.0	3.00	3.00	
502.0	10.56	150.08	500.0	-28.0	16.1	32.3	3.00	3.00	12 1/4" - Surface Casing
600.0	13.50	150.08	595.8	-45.7	26.3	52.8	3.00	3.00	
700.0	16.50	150.08	692.4	-68.2	39.2	78.6	3.00	3.00	
800.0	19.50	150.08	787.5	-94.9	54.6	109.5	3.00	3.00	
900.0	22.50	150.08	880.9	-126.0	72.5	145.4	3.00	3.00	
1,000.0	25.50	150.08	972.2	-161.2	92.8	186.0	3.00	3.00	
1,100.0	28.50	150.08	1,061.3	-200.6	115.5	231.4	3.00	3.00	
1,200.0	31.50	150.08	1,147.9	-243.9	140.4	281.4	3.00	3.00	
1,270.0	33.60	150.08	1,206.9	-276.6	159.2	319.1	3.00	3.00	EOB @ 33.6° INC
1,300.0	33.60	150.08	1,231.9	-290.9	167.5	335.7	0.00	0.00	
1,400.0	33.60	150.08	1,315.2	-338.9	195.1	391.0	0.00	0.00	
1,500.0	33.60	150.08	1,398.5	-386.9	222.7	446.4	0.00	0.00	
1,600.0	33.60	150.08	1,481.8	-434.8	250.3	501.7	0.00	0.00	
1,700.0	33.60	150.08	1,565.1	-482.8	277.9	557.1	0.00	0.00	
1,736.0	33.60	150.08	1,595.0	-500.0	287.8	577.0	0.00	0.00	Ojo Alamo
1,800.0	33.60	150.08	1,648.3	-530.8	305.5	612.4	0.00	0.00	
1,802.0	33.60	150.08	1,650.0	-531.7	306.0	613.5	0.00	0.00	Kirtland
1,900.0	33.60	150.08	1,731.6	-578.7	333.1	667.7	0.00	0.00	
2,000.0	33.60	150.08	1,814.9	-626.7	360.7	723.1	0.00	0.00	
2,100.0	33.60	150.08	1,898.2	-674.7	388.3	778.4	0.00	0.00	
2,123.8	33.60	150.08	1,918.0	-686.1	394.9	791.6	0.00	0.00	Start 3° Drop
2,200.0	31.32	150.08	1,982.3	-721.5	415.3	832.5	3.00	-3.00	
2,300.0	28.32	150.08	2,069.1	-764.6	440.1	882.2	3.00	-3.00	
2,400.0	25.32	150.08	2,158.3	-803.7	462.6	927.3	3.00	-3.00	
2,500.0	22.32	150.08	2,249.8	-838.7	482.7	967.7	3.00	-3.00	
2,548.6	20.86	150.08	2,295.0	-854.2	491.6	985.6	3.00	-3.00	Fruitland
2,600.0	19.32	150.08	2,343.3	-869.5	500.4	1,003.2	3.00	-3.00	
2,700.0	16.32	150.08	2,438.5	-896.0	515.7	1,033.8	3.00	-3.00	
2,800.0	13.32	150.08	2,535.1	-918.2	528.5	1,059.4	3.00	-3.00	
2,900.0	10.32	150.08	2,633.0	-935.9	538.7	1,079.9	3.00	-3.00	
3,000.0	7.32	150.08	2,731.8	-949.2	546.3	1,095.2	3.00	-3.00	
3,003.2	7.22	150.08	2,735.0	-949.5	546.5	1,095.6	3.00	-3.00	Pictured Cliffs
3,100.0	4.32	150.08	2,831.3	-958.0	551.4	1,105.3	3.00	-3.00	
3,143.8	3.00	150.08	2,875.0	-960.4	552.8	1,108.1	3.00	-3.00	Lewis
3,200.0	1.32	150.08	2,931.1	-962.2	553.8	1,110.2	3.00	-3.00	
3,243.9	0.00	0.00	2,975.0	-962.7	554.1	1,110.7	3.00	-3.00	EOD @ 0° INC - 7"
3,300.0	0.00	0.00	3,031.1	-962.7	554.1	1,110.7	0.00	0.00	
3,400.0	0.00	0.00	3,131.1	-962.7	554.1	1,110.7	0.00	0.00	
3,500.0	0.00	0.00	3,231.1	-962.7	554.1	1,110.7	0.00	0.00	
3,600.0	0.00	0.00	3,331.1	-962.7	554.1	1,110.7	0.00	0.00	
3,693.9	0.00	0.00	3,425.0	-962.7	554.1	1,110.7	0.00	0.00	Huerfano Bent
3,700.0	0.00	0.00	3,431.1	-962.7	554.1	1,110.7	0.00	0.00	
3,800.0	0.00	0.00	3,531.1	-962.7	554.1	1,110.7	0.00	0.00	

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Heizer 15 #34
Company:	Coleman Oil & Gas, Inc.	TVD Reference:	KB=14' @ 5927.0usft
Project:	San Juan County, NM	MD Reference:	KB=14' @ 5927.0usft
Site:	S15-T32N-R10W	North Reference:	True
Well:	Heizer 15 #34	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
3,900.0	0.00	0.00	3,631.1	-962.7	554.1	1,110.7	0.00	0.00	
4,000.0	0.00	0.00	3,731.1	-962.7	554.1	1,110.7	0.00	0.00	
4,100.0	0.00	0.00	3,831.1	-962.7	554.1	1,110.7	0.00	0.00	
4,200.0	0.00	0.00	3,931.1	-962.7	554.1	1,110.7	0.00	0.00	
4,300.0	0.00	0.00	4,031.1	-962.7	554.1	1,110.7	0.00	0.00	
4,400.0	0.00	0.00	4,131.1	-962.7	554.1	1,110.7	0.00	0.00	
4,500.0	0.00	0.00	4,231.1	-962.7	554.1	1,110.7	0.00	0.00	
4,548.9	0.00	0.00	4,280.0	-962.7	554.1	1,110.7	0.00	0.00	Cliff House Massive
4,600.0	0.00	0.00	4,331.1	-962.7	554.1	1,110.7	0.00	0.00	
4,700.0	0.00	0.00	4,431.1	-962.7	554.1	1,110.7	0.00	0.00	
4,800.0	0.00	0.00	4,531.1	-962.7	554.1	1,110.7	0.00	0.00	
4,868.9	0.00	0.00	4,600.0	-962.7	554.1	1,110.7	0.00	0.00	Cliff House
4,900.0	0.00	0.00	4,631.1	-962.7	554.1	1,110.7	0.00	0.00	
4,938.9	0.00	0.00	4,670.0	-962.7	554.1	1,110.7	0.00	0.00	Menefee
5,000.0	0.00	0.00	4,731.1	-962.7	554.1	1,110.7	0.00	0.00	
5,100.0	0.00	0.00	4,831.1	-962.7	554.1	1,110.7	0.00	0.00	
5,200.0	0.00	0.00	4,931.1	-962.7	554.1	1,110.7	0.00	0.00	
5,300.0	0.00	0.00	5,031.1	-962.7	554.1	1,110.7	0.00	0.00	
5,313.9	0.00	0.00	5,045.0	-962.7	554.1	1,110.7	0.00	0.00	Point Lookout
5,400.0	0.00	0.00	5,131.1	-962.7	554.1	1,110.7	0.00	0.00	
5,500.0	0.00	0.00	5,231.1	-962.7	554.1	1,110.7	0.00	0.00	
5,600.0	0.00	0.00	5,331.1	-962.7	554.1	1,110.7	0.00	0.00	
5,623.9	0.00	0.00	5,355.0	-962.7	554.1	1,110.7	0.00	0.00	Mancos
5,700.0	0.00	0.00	5,431.1	-962.7	554.1	1,110.7	0.00	0.00	
5,800.0	0.00	0.00	5,531.1	-962.7	554.1	1,110.7	0.00	0.00	
5,900.0	0.00	0.00	5,631.1	-962.7	554.1	1,110.7	0.00	0.00	
5,928.9	0.00	0.00	5,660.0	-962.7	554.1	1,110.7	0.00	0.00	Gallup
6,000.0	0.00	0.00	5,731.1	-962.7	554.1	1,110.7	0.00	0.00	
6,100.0	0.00	0.00	5,831.1	-962.7	554.1	1,110.7	0.00	0.00	
6,200.0	0.00	0.00	5,931.1	-962.7	554.1	1,110.7	0.00	0.00	
6,300.0	0.00	0.00	6,031.1	-962.7	554.1	1,110.7	0.00	0.00	
6,400.0	0.00	0.00	6,131.1	-962.7	554.1	1,110.7	0.00	0.00	
6,500.0	0.00	0.00	6,231.1	-962.7	554.1	1,110.7	0.00	0.00	
6,600.0	0.00	0.00	6,331.1	-962.7	554.1	1,110.7	0.00	0.00	
6,638.9	0.00	0.00	6,370.0	-962.7	554.1	1,110.7	0.00	0.00	Niobrara "A"
6,700.0	0.00	0.00	6,431.1	-962.7	554.1	1,110.7	0.00	0.00	
6,733.9	0.00	0.00	6,465.0	-962.7	554.1	1,110.7	0.00	0.00	Niobrara "B"
6,773.9	0.00	0.00	6,505.0	-962.7	554.1	1,110.7	0.00	0.00	Niobrara "C"
6,800.0	0.00	0.00	6,531.1	-962.7	554.1	1,110.7	0.00	0.00	
6,900.0	0.00	0.00	6,631.1	-962.7	554.1	1,110.7	0.00	0.00	
7,000.0	0.00	0.00	6,731.1	-962.7	554.1	1,110.7	0.00	0.00	
7,100.0	0.00	0.00	6,831.1	-962.7	554.1	1,110.7	0.00	0.00	
7,133.9	0.00	0.00	6,865.0	-962.7	554.1	1,110.7	0.00	0.00	Juana Lopez
7,200.0	0.00	0.00	6,931.1	-962.7	554.1	1,110.7	0.00	0.00	
7,213.9	0.00	0.00	6,945.0	-962.7	554.1	1,110.7	0.00	0.00	Carlisle
7,300.0	0.00	0.00	7,031.1	-962.7	554.1	1,110.7	0.00	0.00	
7,303.9	0.00	0.00	7,035.0	-962.7	554.1	1,110.7	0.00	0.00	Greenhorn
7,373.9	0.00	0.00	7,105.0	-962.7	554.1	1,110.7	0.00	0.00	Graneros
7,400.0	0.00	0.00	7,131.1	-962.7	554.1	1,110.7	0.00	0.00	
7,458.9	0.00	0.00	7,190.0	-962.7	554.1	1,110.7	0.00	0.00	Dakota Two Wells SS
7,500.0	0.00	0.00	7,231.1	-962.7	554.1	1,110.7	0.00	0.00	
7,508.9	0.00	0.00	7,240.0	-962.7	554.1	1,110.7	0.00	0.00	Paquata

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Heizer 15 #34
Company:	Coleman Oil & Gas, Inc.	TVD Reference:	KB=14' @ 5927.0usft
Project:	San Juan County, NM	MD Reference:	KB=14' @ 5927.0usft
Site:	S15-T32N-R10W	North Reference:	True
Well:	Heizer 15 #34	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
7,543.9	0.00	0.00	7,275.0	-962.7	554.1	1,110.7	0.00	0.00	Main Body
7,600.0	0.00	0.00	7,331.1	-962.7	554.1	1,110.7	0.00	0.00	
7,663.9	0.00	0.00	7,395.0	-962.7	554.1	1,110.7	0.00	0.00	Drilling Rig TD @ 7,663.9' MD - PBHL - 1250' F
7,668.9	0.00	0.00	7,400.0	-962.7	554.1	1,110.7	0.00	0.00	Burro Canyon
7,678.9	0.00	0.00	7,410.0	-962.7	554.1	1,110.7	0.00	0.00	Final TD @ 7,678.9' MD

Targets

Target Name	- hit/miss target	- Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Heizer 15 #34 PBHL	- plan hits target center	- Circle (radius 50.0)	0.00	0.00	7,395.0	-962.7	554.1	2,176,474.29	2,713,053.73	36.981156	-107.867700
Heizer 15 #34 TGT	- plan hits target center	- Point	0.00	0.00	2,975.0	-962.7	554.1	2,176,474.29	2,713,053.73	36.981156	-107.867700

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
120.0	120.0	16" - Conductor	16	20
502.0	500.0	12 1/4" - Surface Casing	9-5/8	12-1/4
3,243.9	2,975.0	7"	7	8-3/4
7,663.9	7,395.0	4 1/2"	4-1/2	6-1/4

Cathedral Energy Services

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Heizer 15 #34
Company:	Coleman Oil & Gas, Inc.	TVD Reference:	KB=14' @ 5927.0usft
Project:	San Juan County, NM	MD Reference:	KB=14' @ 5927.0usft
Site:	S15-T32N-R10W	North Reference:	True
Well:	Heizer 15 #34	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #1		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
100.0	100.0	Nacimiento			
1,736.0	1,595.0	Ojo Alamo			
1,802.0	1,650.0	Kirtland			
2,548.6	2,295.0	Fruitland			
3,003.2	2,735.0	Pictured Cliffs			
3,143.8	2,875.0	Lewis			
3,693.9	3,425.0	Huerfano Bent			
4,548.9	4,280.0	Cliff House Massive			
4,868.9	4,600.0	Cliff House			
4,938.9	4,670.0	Menefee			
5,313.9	5,045.0	Point Lookout			
5,623.9	5,355.0	Mancos			
5,928.9	5,660.0	Gallup			
6,638.9	6,370.0	Niobrara "A"			
6,733.9	6,465.0	Niobrara "B"			
6,773.9	6,505.0	Niobrara "C"			
7,133.9	6,865.0	Juana Lopez			
7,213.9	6,945.0	Carlisle			
7,303.9	7,035.0	Greenhorn			
7,373.9	7,105.0	Graneros			
7,458.9	7,190.0	Dakota Two Wells SS			
7,508.9	7,240.0	Paquata			
7,543.9	7,275.0	Main Body			
7,668.9	7,400.0	Burro Canyon			

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
0.5	0.5	0.0	0.0	SH - 2197' FSL, 2518' FWL	
150.0	150.0	0.0	0.0	KOP @ 150'	
1,270.0	1,206.9	-276.6	159.2	EOB @ 33.6° INC	
2,123.8	1,918.0	-686.1	394.9	Start 3° Drop	
3,243.9	2,975.0	-962.7	554.1	EOD @ 0° INC	
7,663.9	7,395.0	-962.7	554.1	Drilling Rig TD @ 7,663.9' MD	
7,663.9	7,395.0	-962.7	554.1	PBHL - 1250' FSL, 1980' FEL	
7,678.9	7,410.0	-962.7	554.1	Final TD @ 7,678.9' MD	