

DATE IN Y31/2014	SUSPENSE	ENGINEER MAM	LOGGED IN Y31/2014	TYPE NSL	APP NO. PMAM1403149152
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505



NEW MEXICO OIL CONSERVATION DIVISION

NEW MEXICO OIL CONSERVATION DIVISION

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☒ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

NSL-6999
- COG Operating
229137
well
- Noose Federal #10H
30-015 pending
Pool
N. Seven Rivers
Glorieta-yeso
97565

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☒ Does Not Apply

INTEREST ARE THE SAME

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
- [B] ☐ Offset Operators, Leaseholders or Surface Owner
- [C] ☐ Application is One Which Requires Published Legal Notice
- [D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] ☐ Waivers are Attached

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] CERTIFICATION: I hereby certify that the information submitted with this application for administrative approval is **accurate and complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Kelly J. Holly
 Print or Type Name

Signature

Permitting Tech
 Title

1-30-14
 Date

(432) 685-4384
 Phone Number

kholly@concho.com
 E-mail Address

**Noose Federal Com #10H
Eddy County, NM**

COG is requesting to horizontally drill a SW/4 SE/4 to NW/4 NE/4 160 acre spacing
N. Seven Rivers; Glorieta-Yeso oil well
Approximately: TVD 2953', MD 7550'

Non-standard Location:

SHL: 170' FSL & 2550' FEL	Sec 35, T19S, R25E, Unit O
BHL: 330' FNL & 2550' FEL	Sec 35, T19S, R25E, Unit B

This well had to be staked at a non-standard location due to existing wells too close to original location.

We won't know the exact perms until we drill & log it, but it will be very similar to the Grave Digger State Com #1H and is located at:

SHL: 330' FNL & 380' FWL	Section 2, T20S, R25E, Unit 4
BHL: 322' FSL & 384' FWL	Section 2, T20S, R25E, Unit M

Grave Digger State Com #1H has perms from: 2880' – 6880' overall, but broken up into 5 separate intervals, with 5 separate fracs:

1st Perf: 2880-3480',
acidized w/ 4861 gals, 15% NEFE; frac'd w/256764# sand & 516224 gal fluid

2nd Perf: 3730-4330',
acidized w/ 2521 gals, 15% NEFE; frac'd w/249468# sand & 511005 gal fluid

3rd Perf: 4580-5180',
acidized w/ 2427 gals, 15% NEFE; frac'd w/255948# sand & 519074 gal fluid

4th Perf: 5430-6030',
acidized w/ 3985 gals, 15% NEFE; frac'd w/250253# sand & 532321 gal fluid

5th Perf: 6266-6880',
acidized w/ 1506 gals, 15% NEFE; frac'd w/254588# sand & 512961 gal fluid

**Attachment 1
Plat & Map**

**Attachment 2
Map & legend of offset wells.**

Attachment 3
Updated land plat showing that COG Operating LLC owns the 100% of Section 35. The acreage we are encroaching on is Units C, F, K and N of Section 35.

All interests are the same.

COG Operating LLC respectfully requests permission to have this NSL approved.

District I
1625 N French Dr., Hobbs, NM 88240
Phone (575) 393-6161 Fax (575) 393-0770

District II
611 S. Fort St., Artesa, NM 88710
Phone (575) 748-1283 Fax (575) 748-0730

District III
1200 Rio Bravo Road, Artesa, NM 87413
Phone (505) 334-6178 Fax (505) 334-6170

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87501
Phone (505) 476-3458 Fax (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
☐ AMENDED REPORT

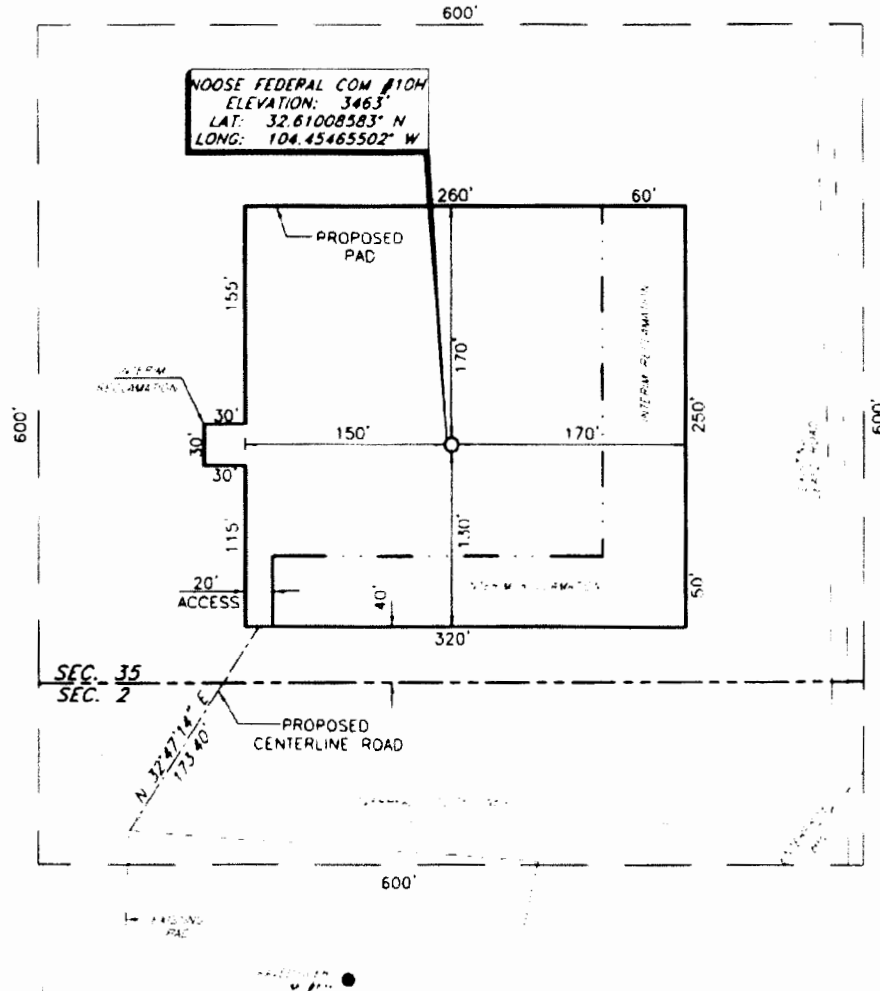
WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-		² Pool Code 97565		³ Pool Name N Seven Rivers; Glorieta Yeso	
⁴ Property Code 308751		⁵ Property Name NOOSE FEDERAL COM			⁶ Well Number 10H
⁷ OGRID No. 229137		⁸ Operator Name COG OPERATING, LLC			⁹ Elevation 3463'
¹⁰ Surface Location					
U/L or lot no. 0	Section 35	Township 19-S	Range 25-E	Lot Idn 170	Feet from the SOUTH
				Feet from the 2550	East-West line EAST
				County EDDY	
¹¹ Bottom Hole Location If Different From Surface					
U/L or lot no. B	Section 35	Township 19-S	Range 25-E	Lot Idn 330	Feet from the NORTH
				Feet from the 2550	East-West line EAST
				County EDDY	
¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.		

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.

CORNER DATA NAD 27 GRID - NM EAST A: FOUND BRASS CAP 1947 N 585504.1 - E 459906.0 B: FOUND 1/2 RBR W/STNS N 590786.8 - E 459921.5 C: FOUND 1/2" REBAR #12641 JWSC N 590802.2 - E 465207.3 D: FOUND BRASS CAP 1947 N 585520.8 - E 465190.9 E: FOUND BRASS CAP 1947 N 585511.7 - E 462548.4 GEODEIC DATA NAD 27 GRID - NM EAST SURFACE LOCATION N 585682.0 - E 462642.1 LAT: 32.61008583° N LONG: 104.45465502° W BOTTOM LOCATION N 590464.8 - E 462656.3		"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 undivided 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 hereinafter entered by the division. <i>[Signature]</i> 1-13-14 Signature Date Kelly J. Holly Printed Name kholly@concho.com E-mail Address
		"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. 11-8-13 Date of Survey <i>[Signature]</i> Signature and Seal of Professional Surveyor 19680 Certificate Number REVISD; 12-17-13 B.H.
		PROSPERITY CONSULTANTS, LLC - Firm No.: TX 10193838 NM 4655451 - Job No.: LS130466 <i>Estimated Completed Interval: 330 FSL + 2550 FEL</i>

COG OPERATING, LLC
Interim Reclamation
NOOSE FEDERAL COM #10H
(170' FSL & 2550' FEL)
Section 35, T-19-S, R-25-E,
N. M. P. M., Eddy Co., New Mexico



DIRECTIONS TO LOCATION

From the intersection of U. S. Hwy No 285 and County Road No 23 (Rock Daisy);

Go West on Co. Rd. 23 approx. 3.0 miles;

Turn Left on lease road and go South approx. 0.8 mile;

Turn left and go Southeast approx 0.3 mile,

Turn right and go South approx 0.2 mile,

Turn left and go East approx. 0.1 mile to the
COG Gravedigger St Corn #6H,

Location is approx 390' Northeast of the existing
pumping unit

SCALE 1" = 100'
0 50 100
BEARINGS ARE
HAD 27.000 - NW EAST
DISTANCES ARE
GROUND

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1	REC. AREA	11/18/13
2	REC. AREA	1/10/14
NO.	REVISION	DATE
JOB NO.	LS130466	
DWG. NO.	130466REC	

PROSPERITY CONSULTANTS, LLC



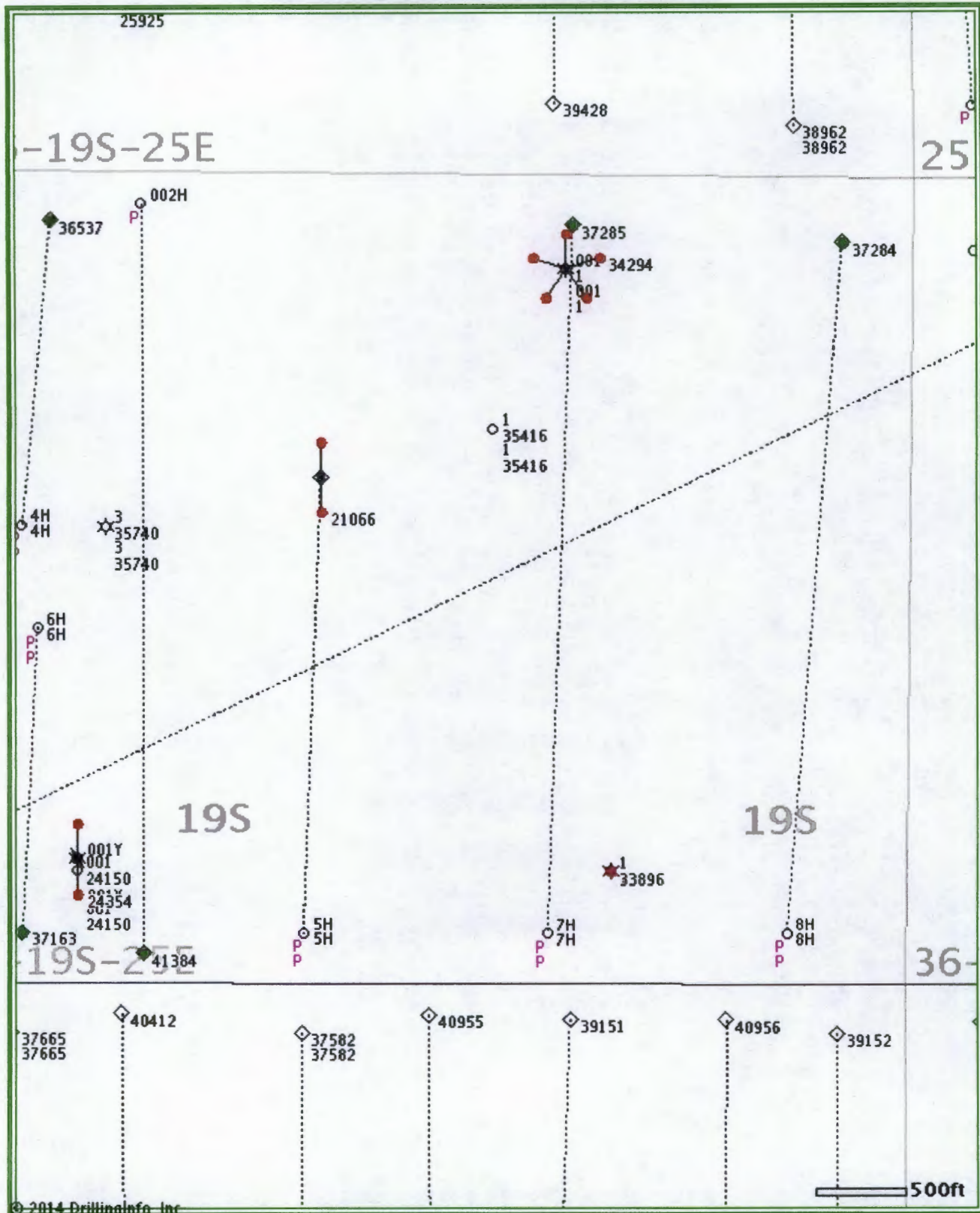
308 W. Broadway St. Hobbs, NM 88240 | Firm No. TX 10193838 NM 465545 | 505-564-8200

SCALE: 1"=100'
DATE 11/8/13
SURVEYED BY: GB/IE
DRAWN BY: JF
APPROVED BY: LWB
SHEET 1 OF 1

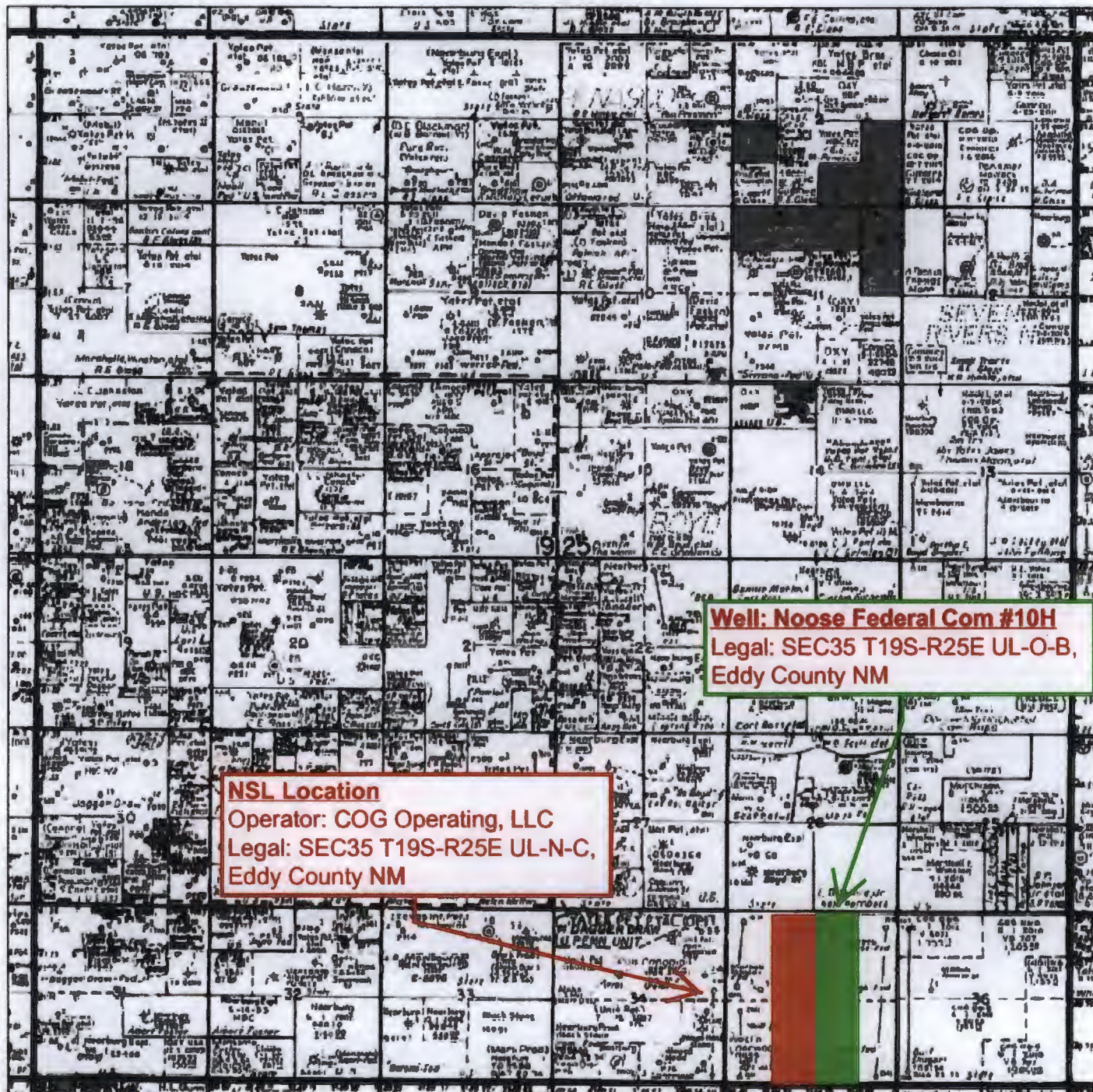
Producing wells in Sec 35, T19S, R25E

API#	Operator	Lease	Well#	County	Legal	Total Depth	Well Type	Well Status	First Prod.	Last Prod.	Prac. IP (MCF/D)
30-015-24354	NEARBURG PRODUCING CO	GULF FEDERAL COM	001Y	EDDY	S:35, T:19S, R:25E		G	Plugged and Abandoned	Dec 1998	Dec 1998	0.00
30-015-37284	COG OPERATING LLC	NOOSE FEDERAL COM	8H	EDDY	S:35, T:19S, R:25E	7,050	W	Active	Nov 2010	Oct 2013	0.42
30-015-34294	COG OPERATING LLC	HANG EM HIGH FEDERAL	1	EDDY	S:35, T:19S, R:25E	9,920	G	Active	Aug 2007	Oct 2013	1.43
30-015-34294	COG OPERATING LLC	HANG EM HIGH FEDERAL	1	EDDY	S:35, T:19S, R:25E	9,920	G	Active	Aug 2007	Oct 2013	5.77
30-015-31066	LRE OPERATING, LLC	MARATHON 26 STATE	004	EDDY	S:35, T:19S, R:25E	3,515	O	Active	Sep 2000	Oct 2013	22.58
30-015-21066	COG OPERATING LLC	NOOSE FEDERAL COM	5H	EDDY	S:35, T:19S, R:25E	9,835	W	Active	Jul 2009	Oct 2013	77.65
30-015-24354	NEARBURG PRODUCING CO	GULF FEDERAL COM	001Y	EDDY	S:35, T:19S, R:25E		G	Plugged and Abandoned	May 1984	Nov 1998	88.10
30-015-36537	COG OPERATING LLC	NOOSE FEDERAL	4H	EDDY	S:35, T:19S, R:25E	4,422	W	Active	Dec 2008	Oct 2013	91.81
30-015-37285	COG OPERATING LLC	NOOSE FEDERAL COM	7H	EDDY	S:35, T:19S, R:25E	7,100	W	Active	Feb 2010	Oct 2013	93.10
30-015-34294	COG OPERATING LLC	HANG EM HIGH FEDERAL	1	EDDY	S:35, T:19S, R:25E	9,920	G	Active	Aug 2007	Oct 2013	136.23
30-015-41384	COG OPERATING LLC	NOOSE FEDERAL COM	002H	EDDY	S:35, T:19S, R:25E	7,475	G	Active	Jul 2013	Oct 2013	188.35
30-015-21066	NEARBURG PRODUCING CO	HILLIARD GULF FEDERAL COM	5H	EDDY	S:35, T:19S, R:25E	9,835	W	Active	Jan 1977	May 1984	257.89
30-015-34294	MARBOB ENERGY CORP	HANG EM HIGH FEDERAL	1	EDDY	S:35, T:19S, R:25E	9,920	G	Active	Feb 2006	Apr 2007	351.32
30-015-34294	MARBOB ENERGY CORP	HANG EM HIGH FEDERAL	1	EDDY	S:35, T:19S, R:25E	9,920	G	Active	Feb 2006	May 2007	351.32
30-015-37163	COG OPERATING LLC	NOOSE FEDERAL	6H	EDDY	S:35, T:19S, R:25E	4,376	W	Active	Dec 2009	Oct 2013	383.19
30-015-33896	COG OPERATING LLC	TOMBSTONE FEDERAL	1	EDDY	S:35, T:19S, R:25E	10,000	G	Inactive	Jul 2005	Sep 2013	601.42

Producing wells in Sec 35, T19S, R25E



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Well: Noose Federal Com #10H
Legal: SEC35 T19S-R25E UL-O-B,
Eddy County NM

NSL Location
Operator: COG Operating, LLC
Legal: SEC35 T19S-R25E UL-N-C,
Eddy County NM



COG Operating LLC

Eddy County, NM (NAD 27 NME)

Noose Federal Com

#10H

Wellbore #1

Plan: Plan #1 01-08-14

Surface: 170' FSL, 2550' FEL, Sec 35, T19S, R25E, Unit O

PP: 330' FSL, 2550' FEL, Sec 35, T19S, R25E, Unit O

BHL: 330' FNL, 2550' FEL, Sec 35, T19S, R25E, Unit B

Standard Planning Report

08 January, 2014





Phoenix Technology Services
Planning Report



Database: GCR DB
Company: COG Operating LLC
Project: Eddy County, NM (NAD 27 NME)
Site: Noose Federal Com
Well: #10H
Wellbore: Wellbore #1
Design: Plan #1 01-08-14

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well #10H
WELL @ 3481.00usft (Original Well Elev)
WELL @ 3481.00usft (Original Well Elev)
Grid
Minimum Curvature

Project	Eddy County, NM (NAD 27 NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Noose Federal Com		
Site Position:	From:	Map	
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
Northing:	585,657.00 usft	Latitude:	32° 36' 36.04153 N
Easting:	460,945.50 usft	Longitude:	104° 27' 36.59241 W
Grid Convergence:	-0.07 °		

Well	#10H		
Well Position	+N/-S	25.00 usft	Northing:
	+E/-W	1,696.60 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	Ground Level:
Latitude:	32° 36' 36.30852 N	Longitude:	104° 27' 16.75756 W
Ground Level:	3,463.00 usft		

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010_14	01/08/14	7.71
			Dip Angle
			60.33
			Field Strength
			48,494

Design	Plan #1 01-08-14		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			0.17

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,469.80	0.00	0.00	2,469.80	0.00	0.00	0.00	0.00	0.00	0.00	
3,292.56	90.50	0.17	2,990.65	525.44	1.56	11.00	11.00	0.02	0.17	
7,550.10	90.50	0.17	2,953.26	4,782.80	14.20	0.00	0.00	0.00	0.00	BHL Noose Federal C



Phoenix Technology Services
Planning Report



Database: GCR DB
Company: COG Operating LLC
Project: Eddy County, NM (NAD 27 NME)
Site: Noose Federal Com
Well: #10H
Wellbore: Wellbore #1
Design: Plan #1 01-08-14

Local Co-ordinate Reference:
TVD Reference: WELL @ 3481.00usft (Original Well Elev)
MD Reference: WELL @ 3481.00usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,469.80	0.00	0.00	2,469.80	0.00	0.00	0.00	0.00	0.00	0.00
KOP: Start Build 11.00°/100'									
2,500.00	3.32	0.17	2,499.98	0.88	0.00	0.88	11.00	11.00	0.00
2,600.00	14.32	0.17	2,598.65	16.19	0.05	16.19	11.00	11.00	0.00
2,700.00	25.32	0.17	2,692.58	50.05	0.15	50.05	11.00	11.00	0.00
2,800.00	36.32	0.17	2,778.32	101.20	0.30	101.20	11.00	11.00	0.00
2,889.36	46.15	0.17	2,845.44	160.04	0.48	160.04	11.00	11.00	0.00
PP Noose Federal Com #10H									
2,900.00	47.32	0.17	2,852.73	167.78	0.50	167.78	11.00	11.00	0.00
3,000.00	58.32	0.17	2,913.07	247.34	0.73	247.34	11.00	11.00	0.00
3,100.00	69.32	0.17	2,957.12	336.94	1.00	336.94	11.00	11.00	0.00
3,200.00	80.32	0.17	2,983.26	433.30	1.29	433.31	11.00	11.00	0.00
3,276.84	88.77	0.17	2,990.55	509.73	1.51	509.73	11.00	11.00	0.00
TL: 2996' TVD @ 0° VS w/90.5° Inc									
3,292.56	90.50	0.17	2,990.65	525.44	1.56	525.45	11.00	11.00	0.00
LP: 90.5° Inc at 0.17° Azi									
3,300.00	90.50	0.17	2,990.59	532.89	1.58	532.89	0.00	0.00	0.00
3,400.00	90.50	0.17	2,989.71	632.88	1.88	632.88	0.00	0.00	0.00
3,500.00	90.50	0.17	2,988.83	732.88	2.18	732.88	0.00	0.00	0.00
3,600.00	90.50	0.17	2,987.95	832.87	2.47	832.88	0.00	0.00	0.00
3,700.00	90.50	0.17	2,987.07	932.87	2.77	932.87	0.00	0.00	0.00
3,800.00	90.50	0.17	2,986.19	1,032.86	3.07	1,032.87	0.00	0.00	0.00
3,900.00	90.50	0.17	2,985.32	1,132.86	3.36	1,132.87	0.00	0.00	0.00
4,000.00	90.50	0.17	2,984.44	1,232.86	3.66	1,232.86	0.00	0.00	0.00
4,100.00	90.50	0.17	2,983.56	1,332.85	3.96	1,332.86	0.00	0.00	0.00
4,200.00	90.50	0.17	2,982.68	1,432.85	4.25	1,432.85	0.00	0.00	0.00
4,300.00	90.50	0.17	2,981.80	1,532.84	4.55	1,532.85	0.00	0.00	0.00
4,400.00	90.50	0.17	2,980.92	1,632.84	4.85	1,632.85	0.00	0.00	0.00
4,500.00	90.50	0.17	2,980.05	1,732.83	5.14	1,732.84	0.00	0.00	0.00
4,600.00	90.50	0.17	2,979.17	1,832.83	5.44	1,832.84	0.00	0.00	0.00
4,700.00	90.50	0.17	2,978.29	1,932.83	5.74	1,932.83	0.00	0.00	0.00
4,800.00	90.50	0.17	2,977.41	2,032.82	6.04	2,032.83	0.00	0.00	0.00
4,900.00	90.50	0.17	2,976.53	2,132.82	6.33	2,132.83	0.00	0.00	0.00
5,000.00	90.50	0.17	2,975.66	2,232.81	6.63	2,232.82	0.00	0.00	0.00
5,100.00	90.50	0.17	2,974.78	2,332.81	6.93	2,332.82	0.00	0.00	0.00
5,200.00	90.50	0.17	2,973.90	2,432.80	7.22	2,432.82	0.00	0.00	0.00
5,300.00	90.50	0.17	2,973.02	2,532.80	7.52	2,532.81	0.00	0.00	0.00
5,400.00	90.50	0.17	2,972.14	2,632.80	7.82	2,632.81	0.00	0.00	0.00
5,500.00	90.50	0.17	2,971.26	2,732.79	8.11	2,732.80	0.00	0.00	0.00
5,600.00	90.50	0.17	2,970.39	2,832.79	8.41	2,832.80	0.00	0.00	0.00
5,700.00	90.50	0.17	2,969.51	2,932.78	8.71	2,932.80	0.00	0.00	0.00
5,800.00	90.50	0.17	2,968.63	3,032.78	9.00	3,032.79	0.00	0.00	0.00
5,900.00	90.50	0.17	2,967.75	3,132.77	9.30	3,132.79	0.00	0.00	0.00
6,000.00	90.50	0.17	2,966.87	3,232.77	9.60	3,232.78	0.00	0.00	0.00
6,100.00	90.50	0.17	2,966.00	3,332.77	9.89	3,332.78	0.00	0.00	0.00
6,200.00	90.50	0.17	2,965.12	3,432.76	10.19	3,432.78	0.00	0.00	0.00
6,300.00	90.50	0.17	2,964.24	3,532.76	10.49	3,532.77	0.00	0.00	0.00
6,400.00	90.50	0.17	2,963.36	3,632.75	10.79	3,632.77	0.00	0.00	0.00
6,500.00	90.50	0.17	2,962.48	3,732.75	11.08	3,732.77	0.00	0.00	0.00
6,600.00	90.50	0.17	2,961.60	3,832.74	11.38	3,832.76	0.00	0.00	0.00
6,700.00	90.50	0.17	2,960.73	3,932.74	11.68	3,932.76	0.00	0.00	0.00
6,800.00	90.50	0.17	2,959.85	4,032.74	11.97	4,032.75	0.00	0.00	0.00
6,900.00	90.50	0.17	2,958.97	4,132.73	12.27	4,132.75	0.00	0.00	0.00



Phoenix Technology Services
Planning Report



Database: GCR DB
Company: COG Operating LLC
Project: Eddy County, NM (NAD 27 NME)
Site: Noose Federal Com
Well: #10H
Wellbore: Wellbore #1
Design: Plan #1 01-08-14

Local Co-ordinate Reference:
TVD Reference: Well #10H
MD Reference: WELL @ 3481.00usft (Original Well Elev)
North Reference: WELL @ 3481.00usft (Original Well Elev)
Survey Calculation Method: Grid
Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,000.00	90.50	0.17	2,958.09	4,232.73	12.57	4,232.75	0.00	0.00	0.00
7,100.00	90.50	0.17	2,957.21	4,332.72	12.86	4,332.74	0.00	0.00	0.00
7,200.00	90.50	0.17	2,956.33	4,432.72	13.16	4,432.74	0.00	0.00	0.00
7,300.00	90.50	0.17	2,955.46	4,532.71	13.46	4,532.73	0.00	0.00	0.00
7,400.00	90.50	0.17	2,954.58	4,632.71	13.75	4,632.73	0.00	0.00	0.00
7,500.00	90.50	0.17	2,953.70	4,732.71	14.05	4,732.73	0.00	0.00	0.00
7,550.10	90.50	0.17	2,953.26	4,782.80	14.20	4,782.82	0.00	0.00	0.00

TD at 7550.10 - BHL Noose Federal Com #10H

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N-S (usft)	+E-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PP Noose Federal Com	0.00	0.00	2,845.42	160.03	0.48	585,842.03	462,642.58	32° 36' 37.89210 N	104° 27' 16.75403 W
- plan misses target center by 0.01usft at 2889.34usft MD (2845.42 TVD, 160.02 N, 0.48 E)									
- Point									
BHL Noose Federal Con	0.00	360.00	2,953.26	4,782.80	14.20	590,464.80	462,656.30	32° 37' 23.63801 N	104° 27' 16.65535 W
- plan hits target center									
- Point									

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,276.84	2,992.55	TL: 2995' TVD @ 0° VS w/90.5° Inc		-0.50	0.17

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Comment
2,469.80	2,469.80	0.00	0.00	KOP: Start Build 11.00°/100'
3,292.56	2,990.65	525.44	1.56	LP: 90.5° Inc at 0.17° Azi
7,550.10	2,953.26	4,782.80	14.20	TD at 7550.10



Project: Eddy County, NM (NAD 27 NME)
 Site: Moose Federal Com
 Well: #10H
 Wellbore: Wellbore #1
 Design: Plan #1 01-08-14
 Rig: Original Well Elev



G T M
 Azimuths to Grid North
 True North: 0.07°
 Magnetic North: 7.77°
 Magnetic Field
 Strength: 48493.7 nT
 Dip Angle: 60.33°
 Date: 01/08/2014
 Model: IGRF2010_14

WELL DETAILS									
				Ground Level	3483.00				
+N-S	+E-W	Northing	Eastings	Latitude	Longitude				
0.00	0.00	585882.00	462642.10	32° 36' 36.30852 N	104° 27' 16.75756 W				

SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Diag	TFace	VSec
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2469.80	0.00	0.00	2469.80	0.00	0.00	0.00	0.00	0.00
3	3292.58	90.50	0.17	2990.85	525.44	1.56	11.00	0.17	525.45
4	7550.10	90.50	0.17	2953.28	4782.80	14.20	0.00	0.00	4782.82

DESIGN TARGET DETAILS									
Name	TVD	+N-S	+E-W	Northing	Eastings	Latitude	Longitude	Shape	
PP Moose Federal Com #10H	2845.42	180.93	0.48	585842.03	462642.58	32° 36' 37.89210 N	104° 27' 16.75403 W	Point	
- plan misses target center by 0.01 unit at 2888.34 unit MD (2845.43 TVD, 180.02 N, 0.48 E)									
BHL Moose Federal Com #10H	2953.28	4782.80	14.20	589484.80	462658.30	32° 37' 23.63201 N	104° 27' 16.85535 W	Point	
- plan hits target center									

Map System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone Name: New Mexico East 3001
 Local Origin: Well #10H, Grid North
 Latitude: 32° 36' 36.30852 N
 Longitude: 104° 27' 16.75756 W
 Grid East: 462642.10
 Grid North: 585882.00
 Scale Factor: 1.000
 Geomagnetic Model: IGRF2010_14
 Sample Date: 08-Jan-14
 Magnetic Declination: 7.71°
 Dip Angle from Horizontal: 60.33°
 Magnetic Field Strength: 48494
 To convert a Magnetic Direction to a Grid Direction, Add 7.77°
 To convert a Magnetic Direction to a True Direction, Add 7.71° East
 To convert a True Direction to a Grid Direction, Add 0.07°

FORMATION TOP DETAILS				
TVDPath	MDPath	Formation	DipAngle	DipDir
2998.65	3278.84	TL: 2999 TVD @ 9° VS w/80.5° Inc	-0.50	0.17

LEGEND
 — Plan #1 01-08-14

