

DATE IN 9.3.10	SUSPENSE	ENGINEER DB.	LOGGED IN 9.3.10	TYPE NSL	PTC W APP NO. 1024632532
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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



LOG

High Lonesome 26 Fed Com #3

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]**

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[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 _____

[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.

ROBYN M. ODOM
Print or Type Name

Signature

REGULATORY ANALYST
Title

9/1/10
Date

(432) 685-4385
Phone Number

rodod@conchoresources.com
E-mail Address

**High Lonesome 26 Federal Com #3
Eddy County, NM**

COG proposes to drill a Horizontal, South ½, 160 acre spacing
Wildcat; Wolfcamp oil well
TVD of approximately 7600', MD 12,000'

Location:

SHL: 2410' FSL & 430' FEL Sec 26, T16S, R29E, Unit I
BHL: 1980' FSL & 330' FWL Sec 26, T16S, R29E, Unit L

This well had to be drilled at a non-standard location due to a playa lake.

The plan for this well is to complete it in the Wolfcamp formation.

We won't know the exact perms until we drill & log it, but it will be very similar to the Blitzen 35 Federal Com #2 which was recently drilled in April 2010 and is located at:

SHL: 1800' FNL & 330' FEL	Section 35, T16S, R28E, Unit H.
BHL: 1785' FNL & 376' FWL	Section 35, T16S, R28E, Unit E

Blitzen 35 Federal Com #2 has perms from: 6987' – 10669' overall, but broken up into 6 separate intervals, with 6 separate fracs:

1st Perf: 6987',
acidized w/ 5726 gals, frac'd w/ 112,667 gals gel, 111,526# 30/50 sand.

2nd Perf: 8954',
acidized w/ 5726 gals, frac'd w/ 111,526 gals gel, 111,526# 30/50 sand.

3rd Perf: 9610',
acidized w/ 5726 gals, frac'd w/ 112,667 gals gel, 111,526# 30/50 sand.

4th Perf: 9963',
acidized w/ 5726 gals, frac'd w/ 112,667 gals gel, 111,526# 30/50 sand.

5th Perf: 10,316',
acidized w/ 5726 gals, frac'd w/ 112,667 gals gel, 111,526# 30/50 sand.

6th Perf: 10,669',
acidized w/ 5726 gals, frac'd w/ 112,667 gals gel, 111,526# 30/50 sand.

Attachment 1

Plat & Map

Attachment 2

Map & legend of offset wells.

Attachment 3

Updated land plat showing that COG Operating LLC owns the offset acreage.
The acreage we are encroaching on is the SE/4 NE/4 of Section 26.

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

DISTRICT II

1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources DepartmentForm C-102
Revised October 15, 2009Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-	Pool Code	Pool Name WILDCAT; WOLFCAMP
Property Code 36816	Property Name HIGH LONESOME "26" FEDERAL COM	Well Number 3
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3693'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	26	16 S	29 E		2410	SOUTH	430	EAST	EDDY

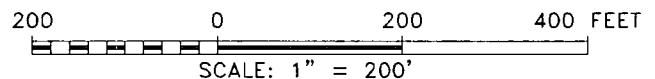
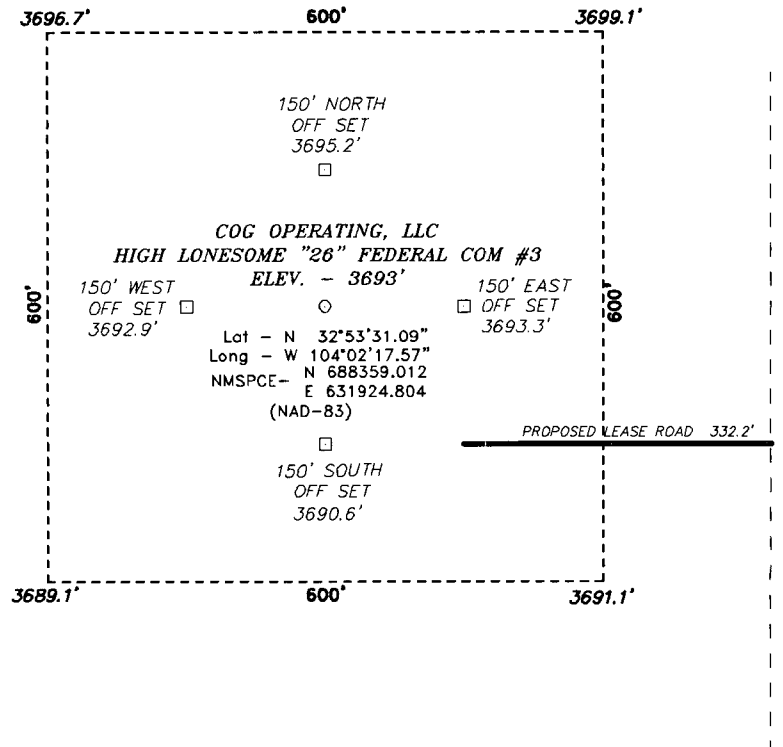
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	26	16 S	29 E		1980	SOUTH	330	WEST	EDDY
Dedicated Acres 160	Joint or Infill	Consolidation Code	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

PROPOSED BOTTOM HOLE LOCATION Lat - N 32°53'26.96" Long - W 104°03'10.74" NMSPCE- N 687929.137 E 627392.030 (NAD-83) SURFACE LOCATION Lat - N 32°53'31.09" Long - W 104°02'17.57" NMSPCE- N 688359.012 E 631924.804 (NAD-83) PROJECT AREA PRODUCING AREA Dimensions: 1980', 2410', 330', 430', 4554.3', 3689.1', 3696.7', 3699.1'	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. Signature: <u>Robyn Odom</u> Date: <u>9/1/2010</u> Printed Name: _____
	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. Date Surveyed: <u>FEBRUARY 2010</u> Signature & Seal of Professional Surveyor: <u>GARY L. JONES</u> Certificate No. <u>7977</u>
	Certificate No. Gary L. Jones 7977
	BASIN SURVEYS

SECTION 26, TOWNSHIP 16 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



Directions to Location:

FROM THE JUNCTION OF HWY 82 AND KEWANEE, GO
NORTH ON KEWANEE TURNING INTO A LEASE ROAD
FOR 4.9 MILES TO PROPOSED LEASE ROAD.

COG OPERATING, LLC

REF: HIGH LONESOME "26" FEDERAL COM #3 / WELL PAD TOPO

THE HIGH LONESOME "26" FEDERAL COM #3 LOCATED 2410'

FROM THE SOUTH LINE AND 430' FROM THE EAST LINE OF

SECTION 26, TOWNSHIP 16 SOUTH, RANGE 29 EAST,

N.M.P.M., EDDY COUNTY, NEW MEXICO.

BASIN SURVEYS P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 22428

Drawn By: J. SMALL

Date: 03-30-2010 Disk: JMS 22428

Survey Date: 03-29-2010

Sheet 1 of 1 Sheets



HIGH LONESOME "26" FEDERAL COM #3

Located 2410' FSL and 430' FEL
Section 26, Township 16 South, Range 29 East,
N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number: JMS 22428

Survey Date: 03-29-2010

Scale: 1" = 2000'

Date: 03-30-2010



COG
OPERATING,
LLC



COG Operating LLC

Eddy County

High Lonesome 26 Fed

#3H

OH

Plan: Plan #1

Pathfinder X & Y Planning Report

19 May, 2010

PATHFINDER



Pathfinder

Pathfinder X & Y Planning Report



Company: COG Operating LLC		Local Co-ordinate Reference: Well #3H	
Project: Eddy County		TVD Reference: WELL @ 3708.00ft (Original Well Elev)	
Site: High Lonesome 26 Fed		MD Reference: WELL @ 3708.00ft (Original Well Elev)	
Well: #3H		North Reference: Grid	
Wellbore: OH		Survey Calculation Method: Minimum Curvature	
Design: Plan #1		Database: Midland Database	

Project	Eddy County	System Datum:	Mean Sea Level
Map System: US State Plane 1983			
Geo Datum: North American Datum 1983			
Map Zone: New Mexico Eastern Zone			

Site	High Lonesome 26 Fed	Latitude: 32° 53' 53.021 N
Site Position:		Longitude: 104° 2' 26.020 W
From:		Grid Convergence: 0.16 °
Position Uncertainty:	Map 0.00 ft	
Northing: 690,573.540 ft		
Easting: 631,197.810 ft		
Slot Radius: "		

Well	#3H	Latitude: 32° 53' 31.088 N
Well Position	+N/-S 0.00 ft	Longitude: 104° 2' 17.566 W
	+E/-W 0.00 ft	Ground Level: 3,693.00 ft
Position Uncertainty	0.00 ft	
Wellbore	OH	

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	05/19/2010	7.97	60.77	49,104

Design	Plan #1		
Audit Notes:			
Version:			
Vertical Section:			
	Phase: PLAN	Tie On Depth: 0.00	
	Depth From (TVD) (ft) 0.00	+E/-W (ft) 0.00	Direction (°) 264.58
		+N/-S (ft) 0.00	

Survey Tool Program	Date	05/19/2010
From (ft)	To (ft)	Survey (Wellbore)
0.00	11,675.19	Plan #1 (OH)



Pathfinder

Pathfinder X & Y Planning Report



Company: COG Operating LLC
Project: Eddy County
Site: High Lonesome 26 Fed
Well: #3H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #3H
TVD Reference: WELL @ 3708.00ft (Original Well Elev)
MD Reference: WELL @ 3708.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	D Leg (°/100ft)	Northing (ft)	Easting (ft)
0.00	0.00	0.00	0.00	-3,708.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
100.00	0.00	0.00	100.00	-3,608.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
200.00	0.00	0.00	200.00	-3,508.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
300.00	0.00	0.00	300.00	-3,408.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
400.00	0.00	0.00	400.00	-3,308.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
500.00	0.00	0.00	500.00	-3,208.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
600.00	0.00	0.00	600.00	-3,108.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
700.00	0.00	0.00	700.00	-3,008.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
800.00	0.00	0.00	800.00	-2,908.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
900.00	0.00	0.00	900.00	-2,808.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
1,000.00	0.00	0.00	1,000.00	-2,708.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
1,100.00	0.00	0.00	1,100.00	-2,608.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
1,200.00	0.00	0.00	1,200.00	-2,508.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
1,300.00	0.00	0.00	1,300.00	-2,408.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
1,400.00	0.00	0.00	1,400.00	-2,308.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
1,500.00	0.00	0.00	1,500.00	-2,208.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
1,600.00	0.00	0.00	1,600.00	-2,108.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
1,700.00	0.00	0.00	1,700.00	-2,008.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
1,800.00	0.00	0.00	1,800.00	-1,908.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
1,900.00	0.00	0.00	1,900.00	-1,808.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
2,000.00	0.00	0.00	2,000.00	-1,708.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
2,100.00	0.00	0.00	2,100.00	-1,608.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
2,200.00	0.00	0.00	2,200.00	-1,508.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
2,300.00	0.00	0.00	2,300.00	-1,408.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
2,400.00	0.00	0.00	2,400.00	-1,308.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
2,500.00	0.00	0.00	2,500.00	-1,208.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
2,600.00	0.00	0.00	2,600.00	-1,108.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80



Pathfinder

Pathfinder X & Y Planning Report



Company: COG Operating LLC
Project: Eddy County
Site: High Lonesome 26 Fed
Well: #3H
Wellbore: OH
Design: Plan #1

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

Well #3H
WELL @ 3708.00ft (Original Well Elev)
WELL @ 3708.00ft (Original Well Elev)
Grid
Minimum Curvature
Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
2,700.00	0.00	0.00	2,700.00	-1,008.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
2,800.00	0.00	0.00	2,800.00	-908.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
2,900.00	0.00	0.00	2,900.00	-808.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
3,000.00	0.00	0.00	3,000.00	-708.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
3,100.00	0.00	0.00	3,100.00	-608.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
3,200.00	0.00	0.00	3,200.00	-508.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
3,300.00	0.00	0.00	3,300.00	-408.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
3,400.00	0.00	0.00	3,400.00	-308.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
3,500.00	0.00	0.00	3,500.00	-208.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
3,600.00	0.00	0.00	3,600.00	-108.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
3,700.00	0.00	0.00	3,700.00	-8.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
3,800.00	0.00	0.00	3,800.00	92.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
3,900.00	0.00	0.00	3,900.00	192.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
4,000.00	0.00	0.00	4,000.00	292.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
4,100.00	0.00	0.00	4,100.00	392.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
4,200.00	0.00	0.00	4,200.00	492.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
4,300.00	0.00	0.00	4,300.00	592.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
4,400.00	0.00	0.00	4,400.00	692.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
4,500.00	0.00	0.00	4,500.00	792.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
4,600.00	0.00	0.00	4,600.00	892.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
4,700.00	0.00	0.00	4,700.00	992.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
4,800.00	0.00	0.00	4,800.00	1,092.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
4,900.00	0.00	0.00	4,900.00	1,192.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
5,000.00	0.00	0.00	5,000.00	1,292.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
5,100.00	0.00	0.00	5,100.00	1,392.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
5,200.00	0.00	0.00	5,200.00	1,492.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
5,300.00	0.00	0.00	5,300.00	1,592.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80



Pathfinder
Pathfinder X & Y Planning Report



Company: COG Operating LLC
Project: Eddy County
Site: High Lonesome 26 Fed
Well: #3H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #3H
TVD Reference: WELL @ 3708.00ft (Original Well Elev)
MD Reference: WELL @ 3708.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
5,400.00	0.00	0.00	5,400.00	1,692.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
5,500.00	0.00	0.00	5,500.00	1,792.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
5,600.00	0.00	0.00	5,600.00	1,892.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
5,700.00	0.00	0.00	5,700.00	1,992.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
5,800.00	0.00	0.00	5,800.00	2,092.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
5,900.00	0.00	0.00	5,900.00	2,192.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
6,000.00	0.00	0.00	6,000.00	2,292.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
6,100.00	0.00	0.00	6,100.00	2,392.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
6,200.00	0.00	0.00	6,200.00	2,492.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
6,300.00	0.00	0.00	6,300.00	2,592.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
6,400.00	0.00	0.00	6,400.00	2,692.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
6,500.00	0.00	0.00	6,500.00	2,792.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
6,600.00	0.00	0.00	6,600.00	2,892.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
6,700.00	0.00	0.00	6,700.00	2,992.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
6,800.00	0.00	0.00	6,800.00	3,092.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
6,848.00	0.00	0.00	6,848.00	3,140.00	0.00	0.00	0.00	0.00	688,359.01	631,924.80
6,850.00	0.24	264.58	6,850.00	3,142.00	0.00	0.00	0.00	12.01	688,359.01	631,924.80
6,875.00	3.24	264.58	6,874.99	3,166.99	-0.07	-0.76	0.76	12.01	688,358.94	631,924.04
6,900.00	6.24	264.58	6,899.90	3,191.90	-0.27	-2.82	2.83	12.01	688,358.74	631,921.99
6,925.00	9.24	264.58	6,924.67	3,216.67	-0.59	-6.17	6.20	12.01	688,358.43	631,918.63
6,950.00	12.25	264.58	6,949.23	3,241.23	-1.03	-10.81	10.86	12.01	688,357.99	631,913.99
6,975.00	15.25	264.58	6,973.51	3,265.51	-1.59	-16.72	16.80	12.01	688,357.43	631,908.08
7,000.00	18.25	264.58	6,997.44	3,289.44	-2.27	-23.90	24.00	12.01	688,356.74	631,900.91
7,025.00	21.25	264.58	7,020.97	3,312.97	-3.07	-32.30	32.45	12.01	688,355.95	631,892.50
7,050.00	24.25	264.58	7,044.02	3,336.02	-3.98	-41.93	42.12	12.01	688,355.03	631,882.88
7,075.00	27.25	264.58	7,066.54	3,358.54	-5.00	-52.74	52.98	12.01	688,354.01	631,872.06
7,100.00	30.26	264.58	7,088.45	3,380.45	-6.14	-64.71	65.00	12.01	688,352.87	631,860.09



Pathfinder
Pathfinder X & Y Planning Report



Company: COG Operating LLC
Project: Eddy County
Site: High Lonesome 26 Fed
Well: #3H
Wellbore: OH
Design: Plan #1

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

Well #3H
WELL @ 3708.00ft (Original Well Elev)
WELL @ 3708.00ft (Original Well Elev)
Grid
Minimum Curvature
Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLeg (°/100ft)	Northing (ft)	Easting (ft)
7,125.00	33.26	264.58	7,109.71	3,401.71	-7.38	-77.81	78.16	12.01	688,351.63	631,846.99
7,150.00	36.26	264.58	7,130.24	3,422.24	-8.73	-92.00	92.41	12.01	688,350.28	631,832.81
7,175.00	39.26	264.58	7,150.01	3,442.01	-10.17	-107.24	107.72	12.01	688,348.84	631,817.57
7,200.00	42.26	264.58	7,168.94	3,460.94	-11.72	-123.48	124.04	12.01	688,347.30	631,801.32
7,225.00	45.26	264.58	7,186.99	3,478.99	-13.35	-140.70	141.33	12.01	688,345.66	631,784.11
7,250.00	48.26	264.58	7,204.12	3,496.12	-15.07	-158.82	159.54	12.01	688,343.94	631,765.98
7,275.00	51.27	264.58	7,220.26	3,512.26	-16.87	-177.82	178.62	12.01	688,342.14	631,746.98
7,300.00	54.27	264.58	7,235.39	3,527.39	-18.75	-197.64	198.52	12.01	688,340.26	631,727.17
7,325.00	57.27	264.58	7,249.45	3,541.45	-20.70	-218.21	219.19	12.01	688,338.31	631,706.59
7,350.00	60.27	264.58	7,262.41	3,554.41	-22.72	-239.49	240.56	12.01	688,336.29	631,685.31
7,375.00	63.27	264.58	7,274.23	3,566.23	-24.80	-261.41	262.59	12.01	688,334.21	631,663.39
7,400.00	66.27	264.58	7,284.89	3,576.89	-26.94	-283.93	285.20	12.01	688,332.07	631,640.88
7,425.00	69.27	264.58	7,294.34	3,586.34	-29.12	-306.96	308.34	12.01	688,329.89	631,617.84
7,450.00	72.28	264.58	7,302.57	3,594.57	-31.35	-330.46	331.94	12.01	688,327.66	631,594.34
7,475.00	75.28	264.58	7,309.56	3,601.56	-33.62	-354.36	355.95	12.01	688,325.39	631,570.45
7,500.00	78.28	264.58	7,315.27	3,607.27	-35.92	-378.58	380.28	12.01	688,323.09	631,546.22
7,525.00	81.28	264.58	7,319.71	3,611.71	-38.24	-403.07	404.88	12.01	688,320.77	631,521.73
7,550.00	84.28	264.58	7,322.85	3,614.85	-40.59	-427.76	429.68	12.01	688,318.43	631,497.04
7,575.00	87.28	264.58	7,324.69	3,616.69	-42.94	-452.58	454.61	12.01	688,316.07	631,472.23
7,600.00	90.29	264.58	7,325.22	3,617.22	-45.30	-477.46	479.60	12.01	688,313.71	631,447.35
7,612.28	91.76	264.58	7,325.00	3,617.00	-46.46	-489.68	491.88	12.01	688,312.55	631,435.12
7,700.00	91.76	264.58	7,322.31	3,614.31	-54.74	-576.97	579.56	0.00	688,304.27	631,347.84
7,800.00	91.76	264.58	7,319.23	3,611.23	-64.18	-676.47	679.51	0.00	688,294.83	631,248.33
7,900.00	91.76	264.58	7,316.16	3,608.16	-73.62	-775.98	779.46	0.00	688,285.39	631,148.83
8,000.00	91.76	264.58	7,313.09	3,605.09	-83.07	-875.48	879.42	0.00	688,275.95	631,049.32
8,100.00	91.76	264.58	7,310.02	3,602.02	-92.51	-974.99	979.37	0.00	688,266.50	630,949.81
8,200.00	91.76	264.58	7,306.95	3,598.95	-101.95	-1,074.50	1,079.32	0.00	688,257.06	630,850.31



Pathfinder

Pathfinder X & Y Planning Report



Company: COG Operating LLC
Project: Eddy County
Site: High Lonesome 26 Fed
Well: #3H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #3H
TVD Reference: WELL @ 3708.00ft (Original Well Elev)
MD Reference: WELL @ 3708.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	D Leg (°/100ft)	Northing (ft)	Easting (ft)
8,300.00	91.76	264.58	7,303.88	3,595.88	-111.39	-1,174.00	1,179.27	0.00	688,247.62	630,750.80
8,400.00	91.76	264.58	7,300.81	3,592.81	-120.83	-1,273.51	1,279.23	0.00	688,238.18	630,651.30
8,500.00	91.76	264.58	7,297.74	3,589.74	-130.27	-1,373.01	1,379.18	0.00	688,228.74	630,551.79
8,600.00	91.76	264.58	7,294.66	3,586.66	-139.71	-1,472.52	1,479.13	0.00	688,219.30	630,452.28
8,700.00	91.76	264.58	7,291.59	3,583.59	-149.15	-1,572.03	1,579.09	0.00	688,209.86	630,352.78
8,800.00	91.76	264.58	7,288.52	3,580.52	-158.60	-1,671.53	1,679.04	0.00	688,200.42	630,253.27
8,900.00	91.76	264.58	7,285.45	3,577.45	-168.04	-1,771.04	1,778.99	0.00	688,190.98	630,153.77
9,000.00	91.76	264.58	7,282.38	3,574.38	-177.48	-1,870.54	1,878.94	0.00	688,181.53	630,054.26
9,100.00	91.76	264.58	7,279.31	3,571.31	-186.92	-1,970.05	1,978.90	0.00	688,172.09	629,954.75
9,200.00	91.76	264.58	7,276.24	3,568.24	-196.36	-2,069.56	2,078.85	0.00	688,162.65	629,855.25
9,300.00	91.76	264.58	7,273.17	3,565.17	-205.80	-2,169.06	2,178.80	0.00	688,153.21	629,755.74
9,400.00	91.76	264.58	7,270.09	3,562.09	-215.24	-2,268.57	2,278.76	0.00	688,143.77	629,656.24
9,500.00	91.76	264.58	7,267.02	3,559.02	-224.68	-2,368.07	2,378.71	0.00	688,134.33	629,556.73
9,600.00	91.76	264.58	7,263.95	3,555.95	-234.12	-2,467.58	2,478.66	0.00	688,124.89	629,457.22
9,700.00	91.76	264.58	7,260.88	3,552.88	-243.57	-2,567.09	2,578.61	0.00	688,115.45	629,357.72
9,800.00	91.76	264.58	7,257.81	3,549.81	-253.01	-2,666.59	2,678.57	0.00	688,106.01	629,258.21
9,900.00	91.76	264.58	7,254.74	3,546.74	-262.45	-2,766.10	2,778.52	0.00	688,096.56	629,158.71
10,000.00	91.76	264.58	7,251.67	3,543.67	-271.89	-2,865.60	2,878.47	0.00	688,087.12	629,059.20
10,100.00	91.76	264.58	7,248.59	3,540.59	-281.33	-2,965.11	2,978.43	0.00	688,077.68	628,959.69
10,200.00	91.76	264.58	7,245.52	3,537.52	-290.77	-3,064.62	3,078.38	0.00	688,068.24	628,860.19
10,300.00	91.76	264.58	7,242.45	3,534.45	-300.21	-3,164.12	3,178.33	0.00	688,058.80	628,760.68
10,400.00	91.76	264.58	7,239.38	3,531.38	-309.65	-3,263.63	3,278.28	0.00	688,049.36	628,661.18
10,500.00	91.76	264.58	7,236.31	3,528.31	-319.09	-3,363.13	3,378.24	0.00	688,039.92	628,561.67
10,600.00	91.76	264.58	7,233.24	3,525.24	-328.54	-3,462.64	3,478.19	0.00	688,030.48	628,462.16
10,700.00	91.76	264.58	7,230.17	3,522.17	-337.98	-3,562.15	3,578.14	0.00	688,021.04	628,362.66
10,800.00	91.76	264.58	7,227.10	3,519.10	-347.42	-3,661.65	3,678.10	0.00	688,011.59	628,263.15
10,900.00	91.76	264.58	7,224.02	3,516.02	-356.86	-3,761.16	3,778.05	0.00	688,002.15	628,163.65



Pathfinder

Pathfinder X & Y Planning Report



Company: COG Operating LLC
Project: Eddy County
Site: High Lonesome 26 Fed
Well: #3H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #3H
TVD Reference: WELL @ 3708.00ft (Original Well Elev)
MD Reference: WELL @ 3708.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Midland Database

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	TVDSS (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	D Leg (°/100ft)	Northing (ft)	Easting (ft)
11,000.00	91.76	264.58	7,220.95	3,512.95	-366.30	-3,860.66	3,878.00	0.00	687,992.71	628,064.14
11,100.00	91.76	264.58	7,217.88	3,509.88	-375.74	-3,960.17	3,977.95	0.00	687,983.27	627,964.64
11,200.00	91.76	264.58	7,214.81	3,506.81	-385.18	-4,059.67	4,077.91	0.00	687,973.83	627,865.13
11,300.00	91.76	264.58	7,211.74	3,503.74	-394.62	-4,159.18	4,177.86	0.00	687,964.39	627,765.62
11,400.00	91.76	264.58	7,208.67	3,500.67	-404.06	-4,258.69	4,277.81	0.00	687,954.95	627,666.12
11,500.00	91.76	264.58	7,205.60	3,497.60	-413.51	-4,358.19	4,377.77	0.00	687,945.51	627,566.61
11,600.00	91.76	264.58	7,202.53	3,494.53	-422.95	-4,457.70	4,477.72	0.00	687,936.07	627,467.11
11,675.43	91.76	264.58	7,200.21	3,492.21	-430.07	-4,532.76	4,553.11	0.00	687,928.94	627,392.05

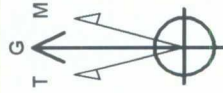
Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL(26#3)	0.00	0.00	7,200.00	-429.87	-4,532.77	687,929.137	627,392.030	32° 53' 26.957 N	104° 3' 10.741 W
- plan hits target center									
- Point									

Checked By: _____

Approved By: _____

Date: _____



Azimuths to Grid North
True North: -0.16°
Magnetic North: 7.81°
Strength: 49103.95nT
Dip Angle: 60.77°
Date: 05/19/2010
Model: IGRF200510

Project: Eddy County
Site: High Lonesome 26 Fed
Well: #3H
Wellbore: OH
Plan: Plan #1 (#3H/OH)

PATHFINDER

PROJECT DETAILS: Eddy County
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level
Local North: Grid

WELL DETAILS: #3H

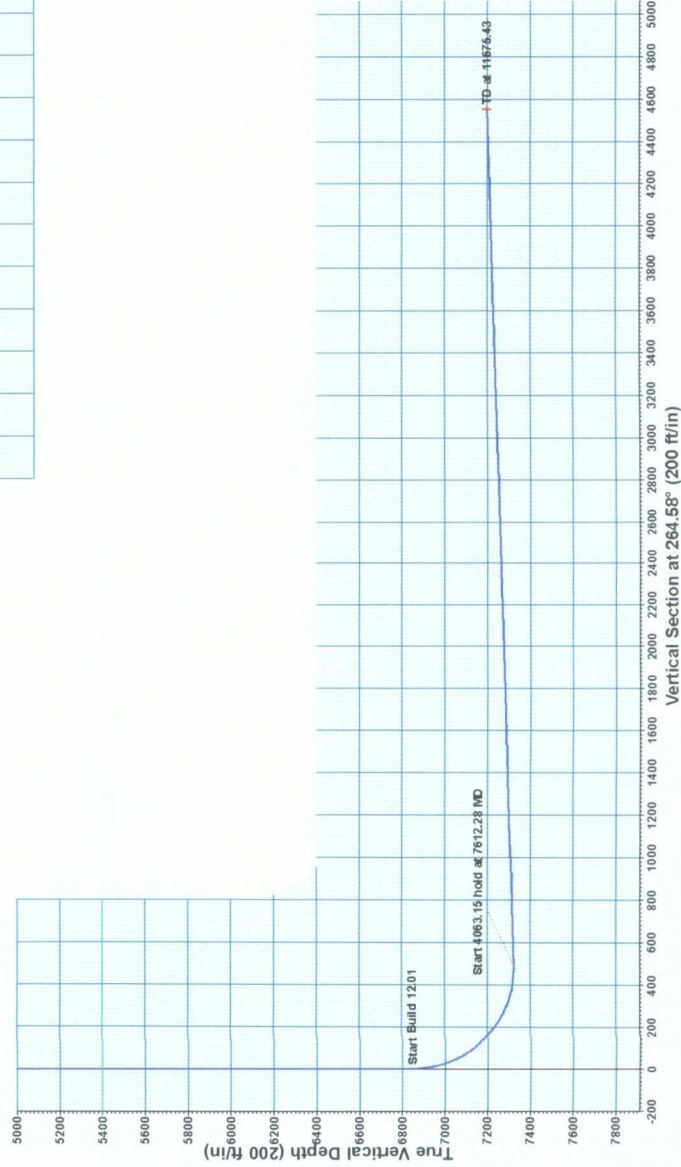
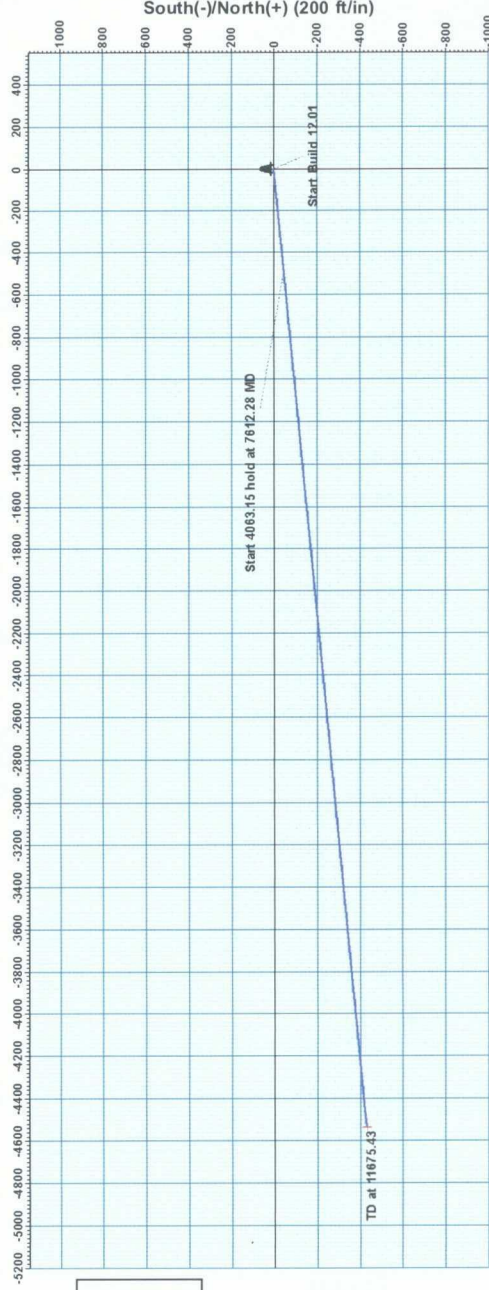
Ground Elevation: 3693.00
RKB Elevation: WELL @ 3708.00ft (Original Well Elev)
Rig Name: Original Well Elev

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slat
0.00	0.00	688259.012	631924.804	32° 53' 31.988 N	104° 2' 17.566 W	

SECTION DETAILS

Sec	MD	Inc	API	TVD	+N/-S	+E/-W	DLSS	TFSS	VSoc	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	6848.00	0.00	0.00	6848.00	0.00	0.00	0.00	0.00	0.00	0.00
3	7612.28	91.76	264.58	7325.00	-46.46	-489.68	12.01	264.58	491.88	
4	11675.43	91.76	264.58	7200.21	-430.07	-4532.76	0.00	0.00	4553.11	PBHL(26#2)

West(-)/East(+) (200 ft/in)



WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
PBHL(26#2)	7200.00	-428.87	-4532.77	627392.030	627392.030	Point

Plan: Plan #1 (#3H/OH)

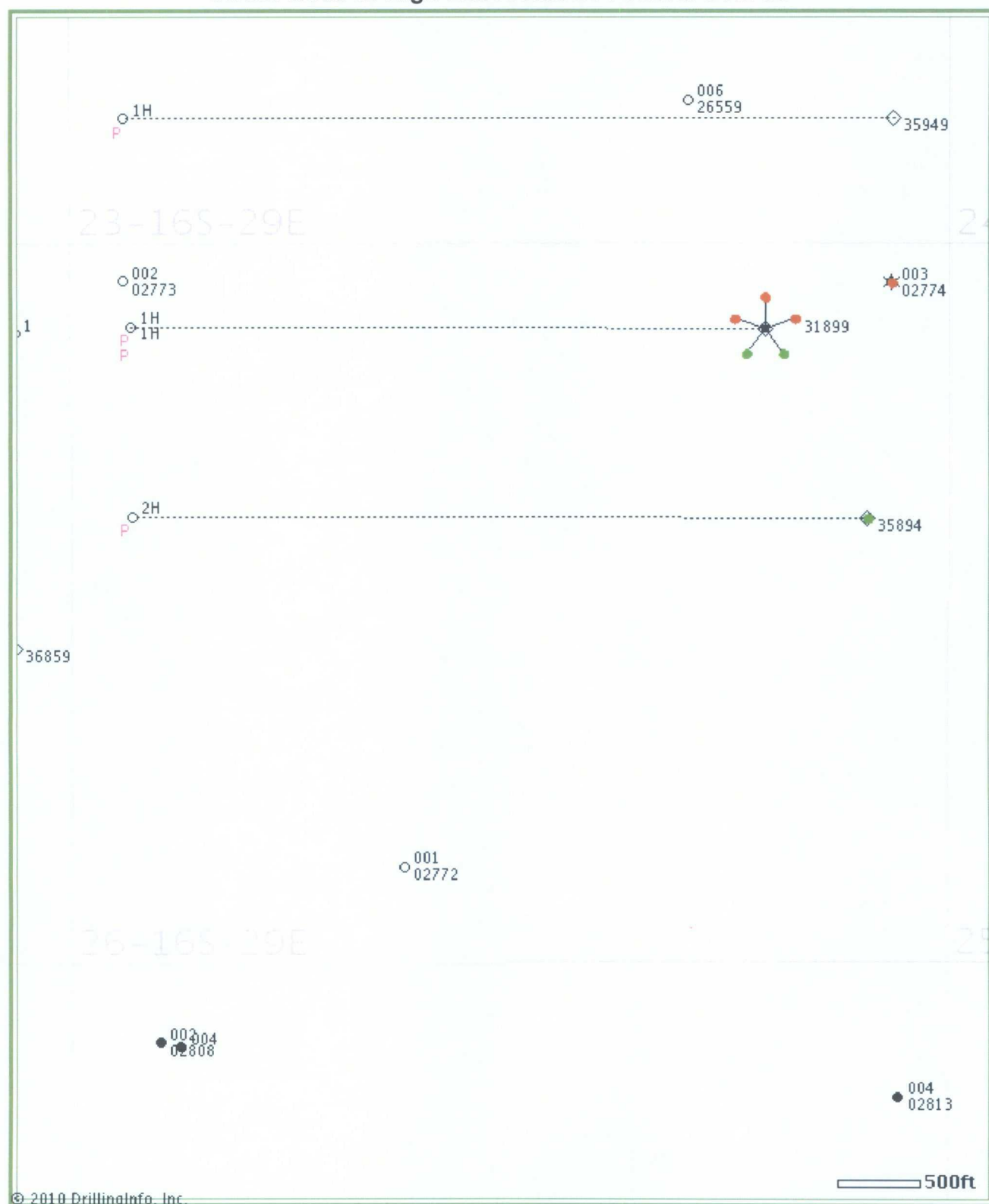
Created By: Nate Bingham Date: 15:32, May 19 2010

Checked: _____ Date: _____

Offset Wells to High Lonesome 26 Federal Com #3

API#	Operator	Lease	Well#	County	Legal	Field Name	Reservoir Name	Total Depth	Well Type	Well Status	First Prod.	Last Prod.	Avg. (BO/D)
30-015-31899	COG OPERATING LLC	HIGH LONESOME 26 FEDERAL COM	1H	EDDY	S:26, T:16S, R:29E	WILDCAT ABO (OIL)		10,860	PG	Active	Nov 2008	May 2010	28.90
30-015-02774	EOG RESOURCES INC	SIMMONS FEDERAL	003	EDDY	S:26, T:16S, R:29E	HIGH LONESOME	QUEEN	2,510	G	Temporarily Abandoned			
30-015-31899	EOG RESOURCES INC	HIGH LONESOME 26 FEDERAL COM	1H	EDDY	S:26, T:16S, R:29E	WILDCAT GRANITE		10,860	PG	Active			
30-015-35893	COG OPERATING LLC	HIGH LONESOME 26 FEDERAL COM	1H	EDDY	S:26, T:16S, R:29E	WILDCAT ATOKA (DELETE)		7,283	PO	Active Permit			
30-015-35894	COG OPERATING LLC	HIGH LONESOME 26 FEDERAL COM	2H	EDDY	S:26, T:16S, R:29E	WILDCAT ATOKA (DELETE)		7,323	PO	Active Permit			
30-015-31899	COG OPERATING LLC	HIGH LONESOME 26 FEDERAL COM	1H	EDDY	S:26, T:16S, R:29E	WILDCAT	ABO	10,860	PG	Active			
30-015-31899	COG OPERATING LLC	HIGH LONESOME 26 FEDERAL COM	1H	EDDY	S:26, T:16S, R:29E	WILDCAT	ESCAVADA-PICTURED CLIFFS	10,860	PG	Active			

Offset Wells to High Lonesome 26 Federal Com #3



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35.02 4 35.78 3
Rodney Webb Oil
3' 03 3
3' 38 4
3' 52 3
3' 57 3

Brooks, David K., EMNRD

From: Brooks, David K., EMNRD
Sent: Tuesday, September 21, 2010 4:28 PM
To: 'Robyn Odom'
Subject: High Lonsome 26 Fed Com #3; NSL Application

Dear Ms. Odom

For this NSL application for a horizontal well we need to know the footage location of the "penetration point," i.e. the point where the wellbore will intersect the top of the Wolfcamp formation. From the depths involved, it seems likely that the penetration point will be the surface location, and the kickoff point will be below that, but I cannot tell that for sure from anything in the application.

Thanks

David K. Brooks

Brooks, David K., EMNRD

From: Robyn Odom [rodom@conchoresources.com]
Sent: Monday, September 27, 2010 12:27 PM
To: Brooks, David K., EMNRD
Subject: RE: High Lonsome 26 Fed Com #3; NSL Application

Dear Mr. Brooks,

The penetration point for this well is @ 7475' and the location would be: 2376' FSL & 784' FEL.

Please let me know if you need any more information in the approval of this application.

Have a great day!

Thank you,

Robyn Odom
(432) 685-4385

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From: Brooks, David K., EMNRD [mailto:david.brooks@state.nm.us]
Sent: Tuesday, September 21, 2010 5:28 PM
To: Robyn Odom
Subject: High Lonsome 26 Fed Com #3; NSL Application

Dear Ms. Odom

For this NSL application for a horizontal well we need to know the footage location of the "penetration point," i.e. the point where the wellbore will intersect the top of the Wolfcamp formation. From the depths involved, it seems likely that the penetration point will be the surface location, and the kickoff point will be below that, but I cannot tell that for sure from anything in the application.

Thanks

David K. Brooks

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