

NM OIL CONSERVATION
ARTESIA DISTRICT

Form C-102

1825 N. French Dr., Hobbs, NM 88240
Phone: (505) 391-6151 Fax: (505) 393-0786
1115 E. 2nd St., Apache, NM 86020
Phone: (505) 334-6178 Fax: (505) 334-6173
1250 R. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 474-3400 Fax: (505) 474-3142

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

Feb 17

Revised August 1, 2011

Submit one copy to appropriate
District Office

RECEIVED

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number 30-015- 42951		2. Pool Code 97565		3. Pool Name N. Seven Rivers; Glorieta Yeso	
4. Property Code 40333		5. Property Name HEARSE 36 STATE COM			6. Well Number 8H
7. OGRID No. 229137		8. Operator Name COG OPERATING, LLC			9. Elevation 3421'

10. Surface Location

TL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	36	19-S	25-E		150'	SOUTH	1650'	WEST	EDDY

11. Bottom Hole Location If Different From Surface

TL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	36	19-S	25-E		330'	NORTH	1650'	WEST	EDDY

12. Dedicated Acres 160	13. Joint or Infill	14. Consolidation Code	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.

CORNER DATA NAD 27 GRID - NM EAST A: FOUND BRASS CAP "1947" N 585520.8 - E 465150.9 B: FOUND 1/2" REBAR W/CAP #12641 N 590802.2 - E 465207.3 C: FOUND 1/2" REBAR & STONES N 586790.7 - E 470475.1 D: FOUND BRASS CAP "1947" N 585537.2 - E 470474.4 E: FOUND BRASS CAP "1947" N 585528.7 - E 467632.9 GEOGRAPHIC DATA NAD 27 GRID - NM EAST SURFACE LOCATION N 585675.6 - E 466641.0 LAT: 32.61008051° N LONG: 104.44101875° W BOTTOM LOCATION N 590468.5 - E 456635.3	17. OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and correct to the best of my knowledge and belief, and that the operator has either owned working interest or obtained mineral interest in the land underlying the proposed bottom hole location or has a right to drill this well on 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. <i>[Signature]</i> 2-17-15 Signature Date Kelly J. Holly Printed Name kholly@concho.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. 1-14-14 Date of Survey Signature and Seal of Professional Surveyor: <i>[Signature]</i> 19680 Certificate Number

Prosperity Consultants, LLC - Firm No.: TX 10193838 NM 4655451 - Job No.: LS140026

Estimated
Completed
Interval:
330 FSL
1650 FNL



Project: Eddy County, NM (NAD27 NME)
Site: Hearse 36 State Com
Well: #8H
Wellbore: WB1
Design: Plan #1 02-12-15
Rig: Silver Oak 3



Azimuths to Grid North
True North: 0.06°
Magnetic North: 7.69°
Magnetic Field
Strength: 48313.65nT
Dip Angle: 60.30°
Date: 2/12/2015
Model: IGRF2015

WELL DETAILS

+N/-S	+E/-W	Northing	Ground Level	Easting	Latitude	Longitude
0.00	0.00	585675.30	3421.00	466841.00	32° 36' 36.28994 N	104° 26' 27.66751 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		KOP, Start 11°/100' Build
2	2593.14	0.00	0.00	2593.14	0.00	0.00	0.00	0.00	0.00		LP, Hold 90.2° Inc
3	3413.14	90.20	0.18	3114.01	522.69	1.67	11.00	0.18	422.48		TD at 7683.50' MD
4	7683.50	90.20	0.18	3099.10	4793.00	15.30	0.00	0.00	3874.13		BHL-Hearse 36 State #8H

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PP-Hearse 36 State #8H	2986.88	180.00	0.57	585855.60	466841.57	32° 36' 36.07118 N	104° 26' 27.66292 W	Point
BHL-Hearse 36 State #8H	3099.10	4793.00	15.30	590458.99	466856.30	32° 37' 23.72038 N	104° 26' 27.54538 W	Point
								- plan hits target center

LEGEND

— Plan #1 02-12-15

Map System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS1)
Ellipsoid: Clarke 1866
Zone Name: New Mexico East 3001

Local Origin: Well #8H, Grid North

Latitude: 32° 36' 36.28994 N
Longitude: 104° 26' 27.66751 W

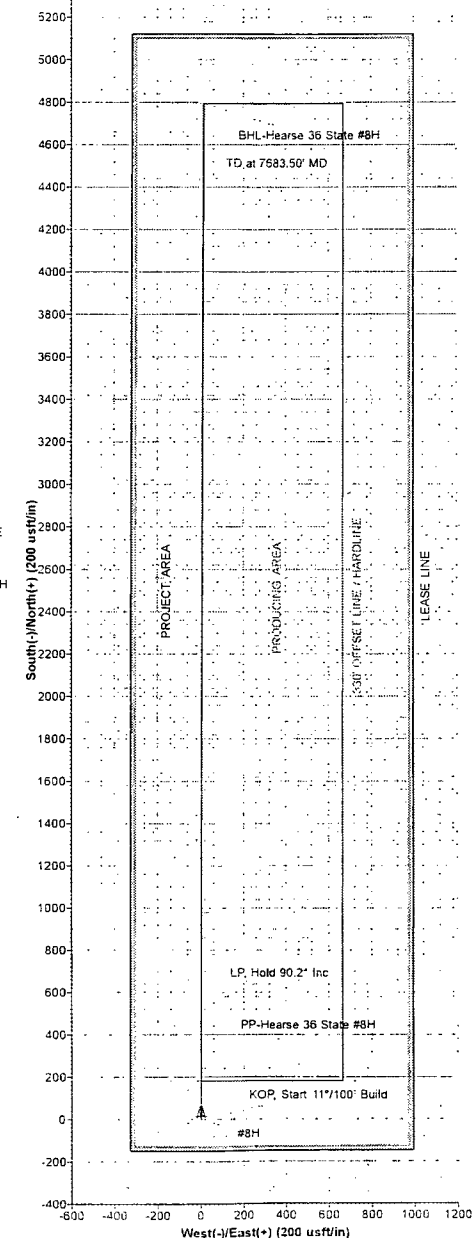
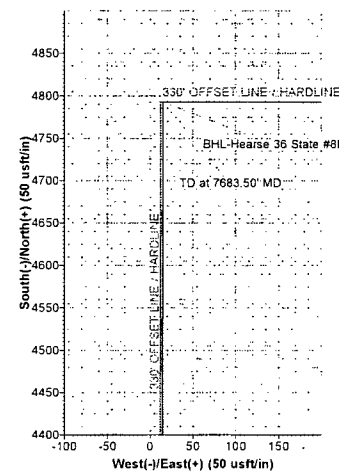
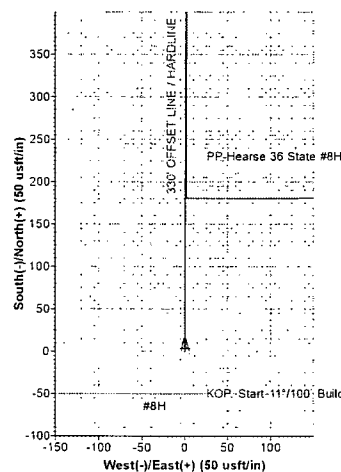
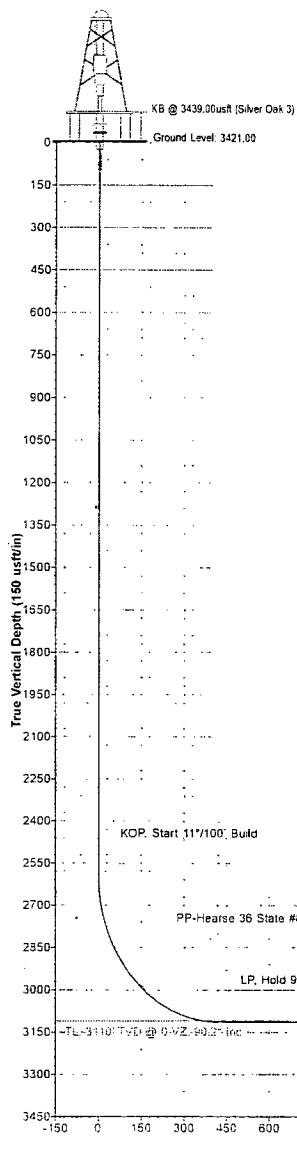
Grid East: 466841.00
Grid North: 585675.60
Scale Factor: 1.000

Geomagnetic Model: IGRF2015
Sample Date: 12-Feb-15
Magnetic Declination: 7.63°
Dip Angle from Horizontal: 60.30°
Magnetic Field Strength: 48314

To convert a Magnetic Direction to a Grid Direction, Add 7.69°
To convert a Magnetic Direction to a True Direction, Add 7.63° East
To convert a True Direction to a Grid Direction, Add 0.06°

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DeAngle	DpDir
3168.45	3335.13	TL 3110' TVD @ 0 VZ, 90.2° Inc	-0.29	0.18





COG Operating LLC

Eddy County, NM (NAD27 NME)

Hearse 36 State Com

#8H

WB1

Plan: Plan #1 02-12-15

Surface: 150' FSL, 1650' FWL, Sec 36, T19S, R25E, Unit N

PP: 330' FSL, 1650' FWL, Sec 36, T19S, R25E, Unit N

BHL: 330' FNL, 1650' FWL, Sec 36, T19S, R25E, Unit C

Standard Planning Report

12 February, 2015



Database:	Compass 5000 GCR	Local Co-ordinate Reference:	Well #8H
Company:	COG Operating LLC	TVD Reference:	KB @ 3439.00usft (Silver Oak 3)
Project:	Eddy County NM (NAD27 NME)	MD Reference:	KB @ 3439.00usft (Silver Oak 3)
Site:	Hearse 36 State Com	North Reference:	Grid
Well:	#8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB1		
Design:	Plan #1 02-12-15		

Project	Eddy County NM (NAD27 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	Hearse 36 State Com		
Site Position:		Northing:	585,673.60 usft
From:	Map	Easting:	466,182.10 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"
		Latitude:	32° 36' 36.26340 N
		Longitude:	104° 26' 35.37078 W
		Grid Convergence:	-0.06 °

Well	#8H		
Well Position	+N/-S	2.01 usft	Northing: 585,675.60 usft
	+E/-W	658.90 usft	Easting: 466,841.00 usft
Position Uncertainty	0.00 usft		Latitude: 32° 36' 36.28994 N
		Wellhead Elevation:	Longitude: 104° 26' 27.66751 W
			Ground Level: 3,421.00 usft

Wellbore	WB1		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2/12/2015	7.63	60.30	48,314

Design	Plan #1 02-12-15		
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Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	36.25

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,593.14	0.00	0.00	2,593.14	0.00	0.00	0.00	0.00	0.00	0.00	
3,413.14	90.20	0.18	3,114.01	522.69	1.67	11.00	11.00	0.00	0.18	
7,683.50	90.20	0.18	3,099.10	4,793.00	15.30	0.00	0.00	0.00	0.00	BHL-Hearse 36 State



Planning Report



Database:	Compass 5000 GCR	Local Co-ordinate Reference:	Well #8H
Company:	COG Operating LLC	TVD Reference:	KB @ 3439.00usft (Silver Oak 3)
Project:	Eddy County, NM (NAD27 NME)	MD Reference:	KB @ 3439.00usft (Silver Oak 3)
Site:	Hearse 36 State Com	North Reference:	Grid
Well:	#8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB1		
Design:	Plan #1 02-12-15		

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
2,593.14	0.00	0.00	2,593.14	0.00	0.00	0.00	0.00	0.00	0.00
KOP, Start 11°/100' Build									
2,600.00	0.75	0.18	2,600.00	0.05	0.00	0.04	11.00	11.00	0.00
2,700.00	11.75	0.18	2,699.25	10.92	0.03	8.83	11.00	11.00	0.00
2,800.00	22.75	0.18	2,794.60	40.54	0.13	32.77	11.00	11.00	0.00
2,900.00	33.75	0.18	2,882.55	87.81	0.28	70.97	11.00	11.00	0.00
3,000.00	44.75	0.18	2,959.87	150.99	0.48	122.04	11.00	11.00	0.00
3,039.71	49.12	0.18	2,986.97	179.99	0.57	145.48	11.00	11.00	0.00
PP-Hearse 36 State #8H									
3,100.00	55.75	0.18	3,023.71	227.76	0.73	184.09	11.00	11.00	0.00
3,200.00	66.75	0.18	3,071.73	315.30	1.01	254.85	11.00	11.00	0.00
3,300.00	77.75	0.18	3,102.16	410.39	1.31	331.72	11.00	11.00	0.00
3,335.13	81.62	0.18	3,108.45	444.95	1.42	359.65	11.00	11.00	0.00
TL, 3110' TVD @ 0 VZ, 90.2° Inc									
3,400.00	88.75	0.18	3,113.89	509.55	1.63	411.86	11.00	11.00	0.00
3,413.14	90.20	0.18	3,114.01	522.69	1.67	422.48	11.00	11.00	0.00
LP, Hold 90.2° Inc									
3,500.00	90.20	0.18	3,113.70	609.55	1.95	492.69	0.00	0.00	0.00
3,600.00	90.20	0.18	3,113.35	709.55	2.26	573.52	0.00	0.00	0.00
3,700.00	90.20	0.18	3,113.01	809.54	2.58	654.35	0.00	0.00	0.00
3,800.00	90.20	0.18	3,112.66	909.54	2.90	735.17	0.00	0.00	0.00
3,900.00	90.20	0.18	3,112.31	1,009.54	3.22	816.00	0.00	0.00	0.00
4,000.00	90.20	0.18	3,111.96	1,109.54	3.54	896.83	0.00	0.00	0.00
4,100.00	90.20	0.18	3,111.61	1,209.54	3.86	977.66	0.00	0.00	0.00
4,200.00	90.20	0.18	3,111.26	1,309.54	4.18	1,058.49	0.00	0.00	0.00
4,300.00	90.20	0.18	3,110.91	1,409.54	4.50	1,139.31	0.00	0.00	0.00
4,400.00	90.20	0.18	3,110.56	1,509.54	4.82	1,220.14	0.00	0.00	0.00
4,500.00	90.20	0.18	3,110.21	1,609.54	5.14	1,300.97	0.00	0.00	0.00
4,600.00	90.20	0.18	3,109.86	1,709.53	5.46	1,381.80	0.00	0.00	0.00
4,700.00	90.20	0.18	3,109.51	1,809.53	5.78	1,462.63	0.00	0.00	0.00
4,800.00	90.20	0.18	3,109.17	1,909.53	6.10	1,543.45	0.00	0.00	0.00
4,900.00	90.20	0.18	3,108.82	2,009.53	6.41	1,624.28	0.00	0.00	0.00
5,000.00	90.20	0.18	3,108.47	2,109.53	6.73	1,705.11	0.00	0.00	0.00
5,100.00	90.20	0.18	3,108.12	2,209.53	7.05	1,785.94	0.00	0.00	0.00
5,200.00	90.20	0.18	3,107.77	2,309.53	7.37	1,866.77	0.00	0.00	0.00
5,300.00	90.20	0.18	3,107.42	2,409.53	7.69	1,947.59	0.00	0.00	0.00
5,400.00	90.20	0.18	3,107.07	2,509.53	8.01	2,028.42	0.00	0.00	0.00
5,500.00	90.20	0.18	3,106.72	2,609.52	8.33	2,109.25	0.00	0.00	0.00
5,600.00	90.20	0.18	3,106.37	2,709.52	8.65	2,190.08	0.00	0.00	0.00
5,700.00	90.20	0.18	3,106.02	2,809.52	8.97	2,270.91	0.00	0.00	0.00
5,800.00	90.20	0.18	3,105.67	2,909.52	9.29	2,351.73	0.00	0.00	0.00
5,900.00	90.20	0.18	3,105.33	3,009.52	9.61	2,432.56	0.00	0.00	0.00
6,000.00	90.20	0.18	3,104.98	3,109.52	9.93	2,513.39	0.00	0.00	0.00
6,100.00	90.20	0.18	3,104.63	3,209.52	10.25	2,594.22	0.00	0.00	0.00
6,200.00	90.20	0.18	3,104.28	3,309.52	10.56	2,675.05	0.00	0.00	0.00
6,300.00	90.20	0.18	3,103.93	3,409.52	10.88	2,755.87	0.00	0.00	0.00
6,400.00	90.20	0.18	3,103.58	3,509.51	11.20	2,836.70	0.00	0.00	0.00
6,500.00	90.20	0.18	3,103.23	3,609.51	11.52	2,917.53	0.00	0.00	0.00
6,600.00	90.20	0.18	3,102.88	3,709.51	11.84	2,998.36	0.00	0.00	0.00
6,700.00	90.20	0.18	3,102.53	3,809.51	12.16	3,079.19	0.00	0.00	0.00
6,800.00	90.20	0.18	3,102.18	3,909.51	12.48	3,160.01	0.00	0.00	0.00
6,900.00	90.20	0.18	3,101.83	4,009.51	12.80	3,240.84	0.00	0.00	0.00
7,000.00	90.20	0.18	3,101.49	4,109.51	13.12	3,321.67	0.00	0.00	0.00

Database:	Compass 5000 GCR	Local Co-ordinate Reference:	Well #8H
Company:	COG Operating LLC	TVD Reference:	KB @ 3439.00usft (Silver Oak 3)
Project:	Eddy County, NM (NAD27 NME)	MD Reference:	KB @ 3439.00usft (Silver Oak 3)
Site:	Hearse 36 State Com	North Reference:	Grid
Well:	#8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB1		
Design:	Plan #1 02-12-15		

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)
7,100.00	90.20	0.18	3,101.14	4,209.51	13.44	3,402.50	0.00	0.00	0.00
7,200.00	90.20	0.18	3,100.79	4,309.51	13.76	3,483.33	0.00	0.00	0.00
7,300.00	90.20	0.18	3,100.44	4,409.50	14.08	3,564.15	0.00	0.00	0.00
7,400.00	90.20	0.18	3,100.09	4,509.50	14.40	3,644.98	0.00	0.00	0.00
7,500.00	90.20	0.18	3,099.74	4,609.50	14.71	3,725.81	0.00	0.00	0.00
7,600.00	90.20	0.18	3,099.39	4,709.50	15.03	3,806.64	0.00	0.00	0.00
7,683.50	90.20	0.18	3,099.10	4,793.00	15.30	3,874.13	0.00	0.00	0.00

TD at 7683.50' MD - BHL-Hearse 36 State #8H

Design Targets

Target Name	hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PP-Hearse 36 State #8H	- plan hits target center - Point	0.00	0.00	2,986.98	180.00	0.57	585,855.60	466,841.58	32° 36' 38.07118 N	104° 26' 27.66292 W
BHL-Hearse 36 State #8	- plan hits target center - Point	0.00	360.00	3,099.10	4,793.00	15.30	590,468.60	466,856.30	32° 37' 23.72038 N	104° 26' 27.54538 W

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,335.13	3,108.45	TL, 3110' TVD @ 0 VZ, 90.2° Inc		-0.20	0.18

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
2,593.14	2,593.14	0.00	0.00	KOP, Start 11°/100' Build
3,413.14	3,114.01	522.69	1.67	LP, Hold 90.2° Inc
7,683.50	3,099.10	4,793.00	15.30	TD at 7683.50' MD