

Submit 1 Copy To: Appropriate District Office

District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
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-103
Revised August 1, 2011

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-015-42644
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐		5. Indicate Type of Lease STATE ☐ FEE ☒
2. Name of Operator COG Operating LLC		6. State Oil & Gas Lease No.
3. Address of Operator One Concho Center - 600 W Illinois Ave Midland, TX 79701		7. Lease Name or Unit Agreement Name Pilum 15 Fee
4. Well Location Unit Letter P : 701 feet from the SOUTH line and 450 feet from the EAST line Section 16 Township 18S Range 26E NMPM County EDDY		8. Well Number 2H
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3356'		9. OGRID Number 229137
		10. Pool name or Wildcat Atoka; Glorieta Yeso 3250

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
OTHER: Change SHL ☒		OTHER: ☐	

13. Describe proposed or completed operations: (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

COG Operating LLC submitted APD for this well at this location:

SHL: 701' FSL & 450' FEL, Unit P, Section 16, T18S, R26E

BHL: 330' FSL & 1648' FEL, Unit O, Section 15, T18S, R26E

COG Operating LLC respectfully requests permission to change the SHL:

SHL: 789' FSL & 450' FEL, Unit P, Section 16, T18S, R26E

BHL: 330' FSL & 1648' FEL, Unit O, Section 15, T18S, R26E

Reason for changing the SHL is the original location is too close to an existing staked well.

A revised C-102 and directional plan are attached for your review.

Spud Date:

Rig Release Date:

NM OIL CONSERVATION
ARTESIA DISTRICT

NOV 25 2014

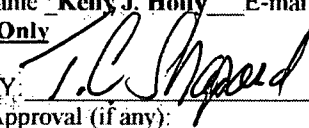
RECEIVED

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE  TITLE **Permitting Tech** DATE **11/25/14**

Type or print name **Kelly J. Holly** E-mail address: **kholly@concho.com** PHONE: **432-685-4384**

For State Use Only

APPROVED BY:  TITLE **"Geologist"** DATE **11/26/2014**

Conditions of Approval (if any):

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) 748-1281 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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

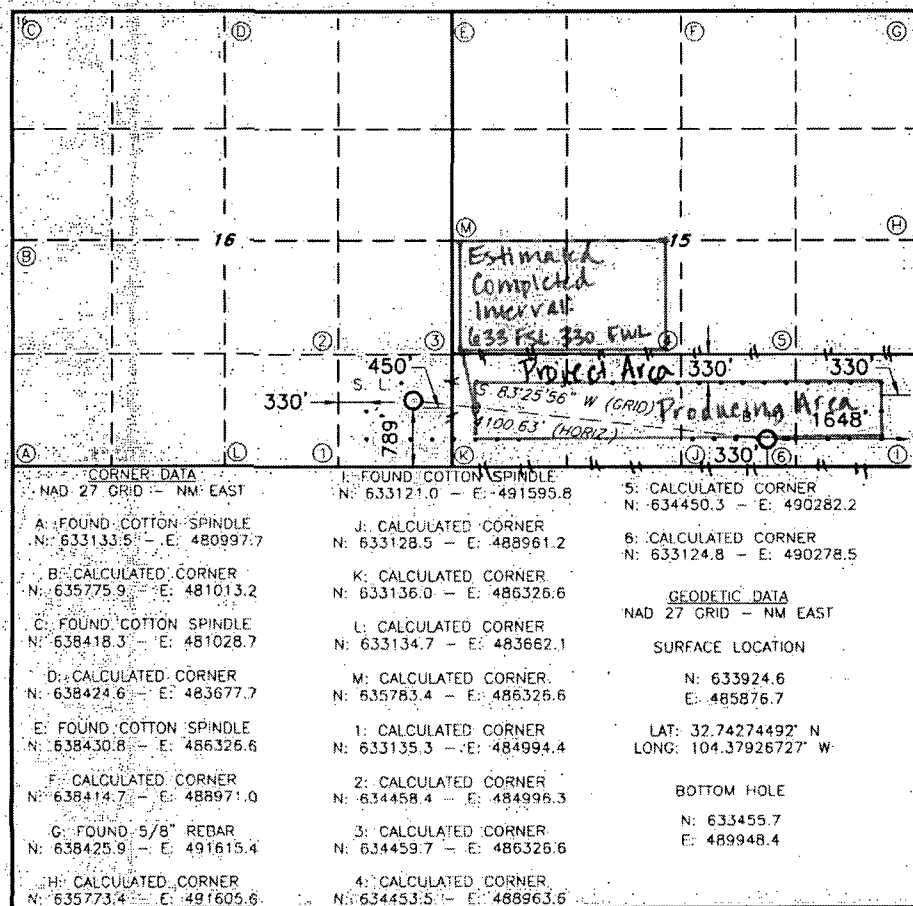
Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT NM OIL CONSERVATION

1 API Number 30-015-42644		2 Pool Code 3250		3 Pool Name Atoka; Glorieta Yeso		ARTESIA DISTRICT	
4 Property Code 313706		5 Property Name PILUM 15 FEE				NOV 25 2014	
6 GRID NO. 229137		7 Operator Name COG OPERATING, LLC				8 Well Name 2H	
		9 Elevation 5356				10 SURVEYED	
11 Surface Location							
UL or lot no. P	Section 16	Township 18S	Range 26E	Lot Idn	Feet from the 789	North/South line SOUTH	Feet from the 450
						East/West line EAST	County EDDY
12 Bottom Hole Location If Different From Surface							
UL or lot no. O	Section 15	Township 18S	Range 26E	Lot Idn	Feet from the 330	North/South line SOUTH	Feet from the 1648
						East/West line EAST	County EDDY
13 Dedicated Acres 160		14 Joint or Infill		15 Consolidation Code		16 Order No.	

No allowable will be assigned to this completion until all interest 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.

Signature: *[Signature]* Date: **11-25-14**

Printed Name: **Kelly J. Holly**

E-mail Address: **kholly@concho.com**

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.

11-18-14

Date of Survey

Signature and Seal of Professional Surveyor: *[Signature]*

19680

Certificate Number

RRC - Firm No.: TX 10193838 NM 4655451 - Job No.: LS140541



Project: Eddy County, NM (NAD27 NME)
Site: Pilum 15 Fee
Well: #2H
Wellbore: WB1
Design: Plan #4 11-25-14
Rig: Silver Oak 3



PHOENIX
TECHNOLOGY SERVICES



Azimuths to Grid North
True North: 0.03°
Magnetic North: 7.60°
Magnetic Field
Strength: 48495.2nT
Dip Angle: 60.44°
Date: 11/25/2014
Model: IGRF2010_14

WELL DETAILS

+N-S	+E-W	Northing	Ground Level	3356.00	Latitude	Longitude
0.00	0.00	633924.60	485876.70	32° 44' 33.86188 N	104° 22' 45.36216 W	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSec	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	2159.66	0.00	0.00	2159.66	0.00	0.00	0.00	0.00	0.00	0.00	KOP, Start 11°/100' Build
3	2982.39	90.50	96.29	2680.51	-57.58	522.25	11.00	96.29	525.42		LP, Hold 90.5° Inc 96.29° Azm
4	6553.48	90.50	96.29	2649.35	-448.90	4071.70	0.00	0.00	4096.37	BHL-Pilum 15 Fee #2H v4	TD at 6553.48' MD

DESIGN TARGET DETAILS

Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Shape
BHL-Pilum 15 Fee #2H v4	2649.35	-448.90	4071.70	633475.70	489948.40	32° 44' 29.45452 N	104° 21' 57.68719 W	Point
PP-Pilum 15 Fee #2H v4	2678.25	-85.99	780.00	633838.61	486656.70	32° 44' 33.03398 N	104° 22' 38.22915 W	Point

- plan hits target center
- plan hits target center

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DipDir
2680.50	2972.29	TL, 2685' TVD @ 0 VZ, 90.5° Inc	-0.50	95.34

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 #2H, Grid North

Latitude: 32° 44' 33.86168 N
Longitude: 104° 22' 45.36216 W

Grid East: 485876.70
Grid North: 633924.60
Scale Factor: 1.000

Geomagnetic Model: IGRF2010_14

Sample Date: 25-Nov-14

Magnetic Declination: 7.57°

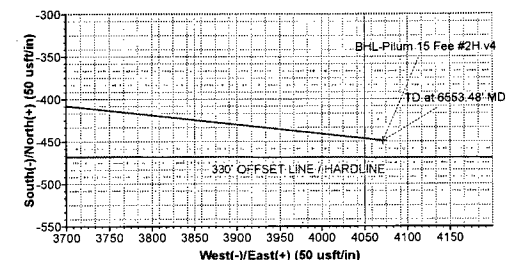
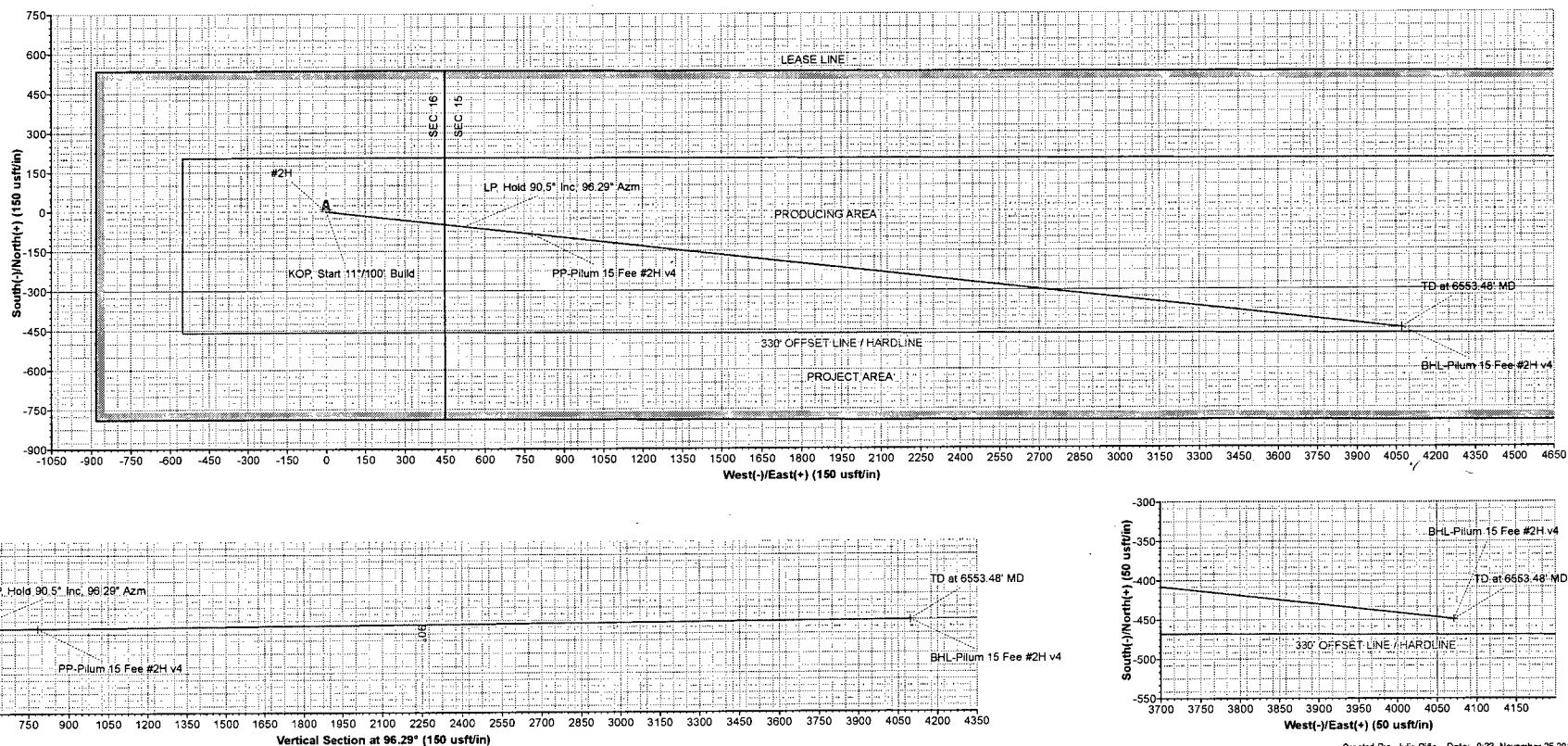
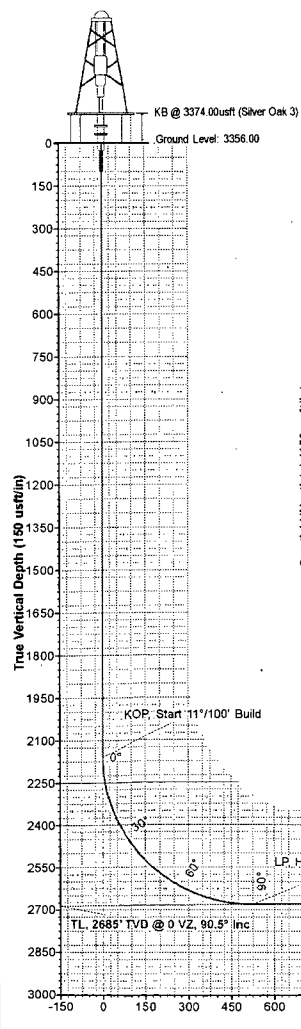
Dip Angle from Horizontal: 60.44°

Magnetic Field Strength: 48495

To convert a Magnetic Direction to a Grid Direction, Add 7.60°
To convert a Magnetic Direction to a True Direction, Add 7.57° East
To convert a True Direction to a Grid Direction, Add 0.02°

LEGEND

— Plan #4 11-25-14





COG Operating LLC

Eddy County, NM (NAD27 NME)

Pilum 15 Fee

#2H

WB1

Plan: Plan #4 11-25-14

Surface: 789' FSL, 450' FEL, Sec 16, T18S, R26E, Unit P

PP: 633' FSL, 330' FWL, Sec 15, T18S, R26E, Unit M

BHL: 350' FSL, 1648' FEL, Sec 15, T18S, R26E, Unit O

Standard Planning Report

25 November, 2014





Planning Report



Database:	Compass 5000 GCR	Local Co-ordinate Reference:	Well #2H
Company:	COG Operating LLC	TVD Reference:	KB @ 3374.00usft (Silver Oak 3)
Project:	Eddy County, NM (NAD27 NME)	MD Reference:	KB @ 3374.00usft (Silver Oak 3)
Site:	Pilum 15 Fee	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB1		
Design:	Plan #4 11-25-14		

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	Pilum 15 Fee		
Site Position:		Northing:	632,879.50 usft
From:	Map	Easting:	487,958.90 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 44' 23.54811 N
		Longitude:	104° 22' 20.97828 W
		Grid Convergence:	-0.02 °

Well	#2H		
Well Position	+N/-S	1,045.10 usft	Northing:
	+E/-W	-2,082.20 usft	Easting:
Position Uncertainty	0.00 usft		Wellhead Elevation:
			Ground Level:

Wellbore	WB1		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010_14	11/25/2014	7.57
			Dip Angle
			60.44
			Field Strength
			48,495

Design	Plan #4 11-25-14		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			96.29

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	
2,159.66	0.00	0.00	2,159.66	0.00	0.00	0.00	0.00	0.00	0.00	
2,982.39	90.50	96.29	2,680.51	-57.58	522.25	11.00	11.00	0.00	96.29	
6,553.48	90.50	96.29	2,649.35	-448.90	4,071.70	0.00	0.00	0.00	0.00	BHL-Pilum 15 Fee #2



Planning Report



Database:	Compass 5000 GCR	Local Co-ordinate Reference:	Well #2H
Company:	COG Operating, LLC	TVD Reference:	KB @ 3374.00usft (Silver Oak 3)
Project:	Eddy County, NM (NAD27 NME)	MD Reference:	KB @ 3374.00usft (Silver Oak 3)
Site:	Pilum 15 Fee	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB1		
Design:	Plan #4 11-25-14		

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
2,159.66	0.00	0.00	2,159.66	0.00	0.00	0.00	0.00	0.00	0.00
KOP, Start 11°/100' Build									
2,200.00	4.44	96.29	2,199.96	-0.17	1.55	1.56	11.00	11.00	0.00
2,300.00	15.44	96.29	2,298.31	-2.06	18.68	18.79	11.00	11.00	0.00
2,400.00	26.44	96.29	2,391.56	-5.97	54.14	54.47	11.00	11.00	0.00
2,500.00	37.44	96.29	2,476.29	-11.76	106.64	107.29	11.00	11.00	0.00
2,600.00	48.44	96.29	2,549.39	-19.21	174.25	175.30	11.00	11.00	0.00
2,700.00	59.44	96.29	2,608.17	-28.06	254.47	256.02	11.00	11.00	0.00
2,800.00	70.44	96.29	2,650.47	-37.97	344.38	346.46	11.00	11.00	0.00
2,900.00	81.44	96.29	2,674.73	-48.58	440.65	443.32	11.00	11.00	0.00
2,972.29	89.39	96.29	2,680.50	-56.47	512.22	515.32	11.00	11.00	0.00
TL, 2685' TVD @ 0.0° VZ, 90.5° Inc									
2,982.39	90.50	96.29	2,680.51	-57.58	522.25	525.42	11.00	11.00	0.00
LP, Hold 90.5° Inc, 96.29° Azm									
3,000.00	90.50	96.29	2,680.36	-59.51	539.76	543.03	0.00	0.00	0.00
3,100.00	90.50	96.29	2,679.49	-70.47	639.15	643.02	0.00	0.00	0.00
3,200.00	90.50	96.29	2,678.61	-81.42	738.54	743.02	0.00	0.00	0.00
3,300.00	90.50	96.29	2,677.74	-92.38	837.94	843.01	0.00	0.00	0.00
3,400.00	90.50	96.29	2,676.87	-103.34	937.33	943.01	0.00	0.00	0.00
3,500.00	90.50	96.29	2,676.00	-114.30	1,036.73	1,043.01	0.00	0.00	0.00
3,600.00	90.50	96.29	2,675.12	-125.26	1,136.12	1,143.00	0.00	0.00	0.00
3,700.00	90.50	96.29	2,674.25	-136.21	1,235.51	1,243.00	0.00	0.00	0.00
3,800.00	90.50	96.29	2,673.38	-147.17	1,334.91	1,343.00	0.00	0.00	0.00
3,900.00	90.50	96.29	2,672.51	-158.13	1,434.30	1,442.99	0.00	0.00	0.00
4,000.00	90.50	96.29	2,671.63	-169.09	1,533.70	1,542.99	0.00	0.00	0.00
4,100.00	90.50	96.29	2,670.76	-180.05	1,633.09	1,642.98	0.00	0.00	0.00
4,200.00	90.50	96.29	2,669.89	-191.00	1,732.48	1,742.98	0.00	0.00	0.00
4,300.00	90.50	96.29	2,669.02	-201.96	1,831.88	1,842.98	0.00	0.00	0.00
4,400.00	90.50	96.29	2,668.14	-212.92	1,931.27	1,942.97	0.00	0.00	0.00
4,500.00	90.50	96.29	2,667.27	-223.88	2,030.66	2,042.97	0.00	0.00	0.00
4,600.00	90.50	96.29	2,666.40	-234.84	2,130.06	2,142.96	0.00	0.00	0.00
4,700.00	90.50	96.29	2,665.52	-245.79	2,229.45	2,242.96	0.00	0.00	0.00
4,800.00	90.50	96.29	2,664.65	-256.75	2,328.85	2,342.96	0.00	0.00	0.00
4,900.00	90.50	96.29	2,663.78	-267.71	2,428.24	2,442.95	0.00	0.00	0.00
5,000.00	90.50	96.29	2,662.91	-278.67	2,527.63	2,542.95	0.00	0.00	0.00
5,100.00	90.50	96.29	2,662.03	-289.63	2,627.03	2,642.95	0.00	0.00	0.00
5,200.00	90.50	96.29	2,661.16	-300.58	2,726.42	2,742.94	0.00	0.00	0.00
5,300.00	90.50	96.29	2,660.29	-311.54	2,825.82	2,842.94	0.00	0.00	0.00
5,400.00	90.50	96.29	2,659.42	-322.50	2,925.21	2,942.93	0.00	0.00	0.00
5,500.00	90.50	96.29	2,658.54	-333.46	3,024.60	3,042.93	0.00	0.00	0.00
5,600.00	90.50	96.29	2,657.67	-344.42	3,124.00	3,142.93	0.00	0.00	0.00
5,700.00	90.50	96.29	2,656.80	-355.38	3,223.39	3,242.92	0.00	0.00	0.00
5,800.00	90.50	96.29	2,655.93	-366.33	3,322.79	3,342.92	0.00	0.00	0.00
5,900.00	90.50	96.29	2,655.05	-377.29	3,422.18	3,442.92	0.00	0.00	0.00
6,000.00	90.50	96.29	2,654.18	-388.25	3,521.57	3,542.91	0.00	0.00	0.00
6,100.00	90.50	96.29	2,653.31	-399.21	3,620.97	3,642.91	0.00	0.00	0.00
6,200.00	90.50	96.29	2,652.43	-410.17	3,720.36	3,742.90	0.00	0.00	0.00
6,300.00	90.50	96.29	2,651.56	-421.12	3,819.76	3,842.90	0.00	0.00	0.00
6,400.00	90.50	96.29	2,650.69	-432.08	3,919.15	3,942.90	0.00	0.00	0.00
6,500.00	90.50	96.29	2,649.82	-443.04	4,018.54	4,042.89	0.00	0.00	0.00
6,553.48	90.50	96.29	2,649.35	-448.90	4,071.70	4,096.37	0.00	0.00	0.00
TD at 6553.48' MD									



Planning Report



Database:	Compass 5000 GCR	Local Co-ordinate Reference:	Well #2H
Company:	COG Operating LLC	TVD Reference:	KB @ 3374.00usft (Silver Oak 3)
Project:	Eddy County NM (NAD27 NME)	MD Reference:	KB @ 3374.00usft (Silver Oak 3)
Site:	Pilum 15 Fee	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB1		
Design:	Plan #4 11:25-14		

Design Targets

Target Name

hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
BHL-Pilum 15 Fee #2H \	0.00	360.00	2,649.35	-448.90	4,071.70	633,475.70	489,948.40	32° 44' 29.45452 N	104° 21' 57.68719 W
- plan hits target center									
- Point									
PP-Pilum 15 Fee #2H v	0.00	0.00	2,678.25	-85.99	780.00	633,838.61	486,656.70	32° 44' 33.03398 N	104° 22' 36.22915 W
- plan hits target center									
- Point									

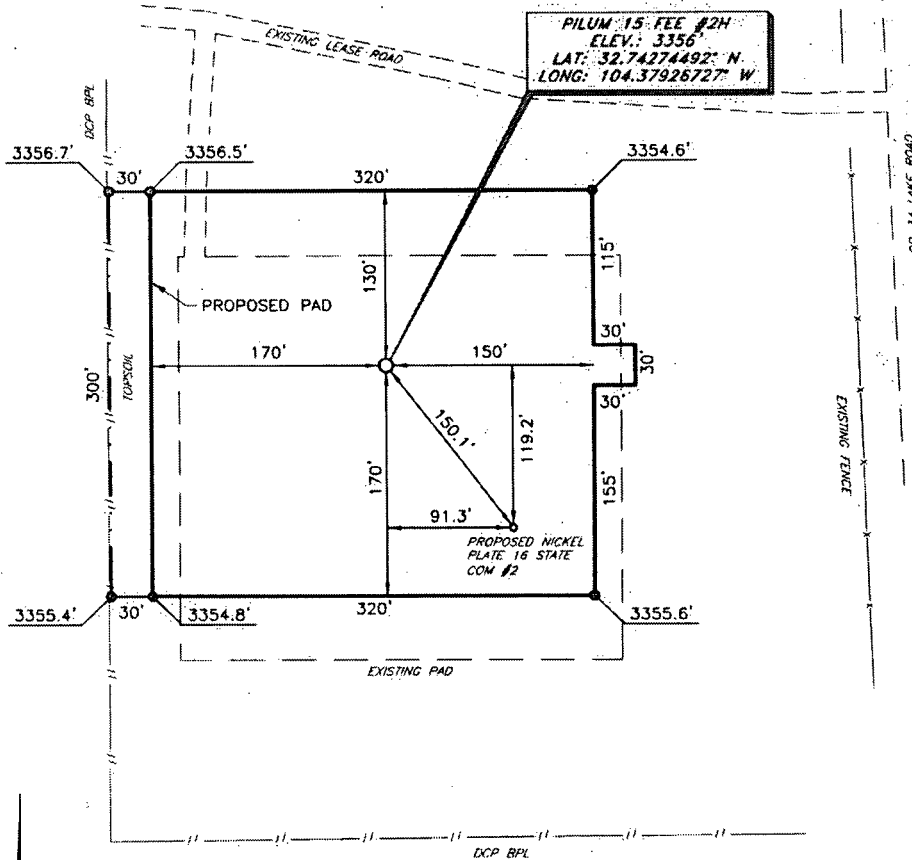
Formations

Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(usft)	(usft)			(°)	(°)
2,972.29	2,680.50	TL, 2685' TVD @ 0 VZ, 90.5° Inc		-0.50	95.34

Plan Annotations

Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S	+E/-W	
(usft)	(usft)	(usft)	(usft)	
2,159.66	2,159.66	0.00	0.00	KOP, Start 11°/100' Build
2,982.39	2,680.51	-57.58	522.25	LP, Hold 90.5° Inc, 96.29° Azm
6,553.48	2,649.35	-448.90	4,071.70	TD at 6553.48' MD

COG OPERATING, LLC
PILUM 15 FEE #2H
(789' FSL & 450' FEL)
SECTION 16, T18S, R26E,
N. M. P. M., EDDY CO., NEW MEXICO



DIRECTIONS TO LOCATION

From intersection of CR-39 (Four Dinkus) and CR-34 (Lake Road);
 Go Southwest on CR-34 (Lake Road) approx. 0.9 miles;
 Location is approx. 372 feet West of CR-34 (Lake Road).

SCALE: 1" = 100'
 0 50 100
 BEARINGS ARE
 NAD 83 GRID - N/A EAST
 DISTANCES ARE
 GROUND.

Firm No.: TX 10193838 NM 4655451

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NO.	REVISION	DATE
JOB NO.	LS140541	
DWG. NO.	140541PAD	

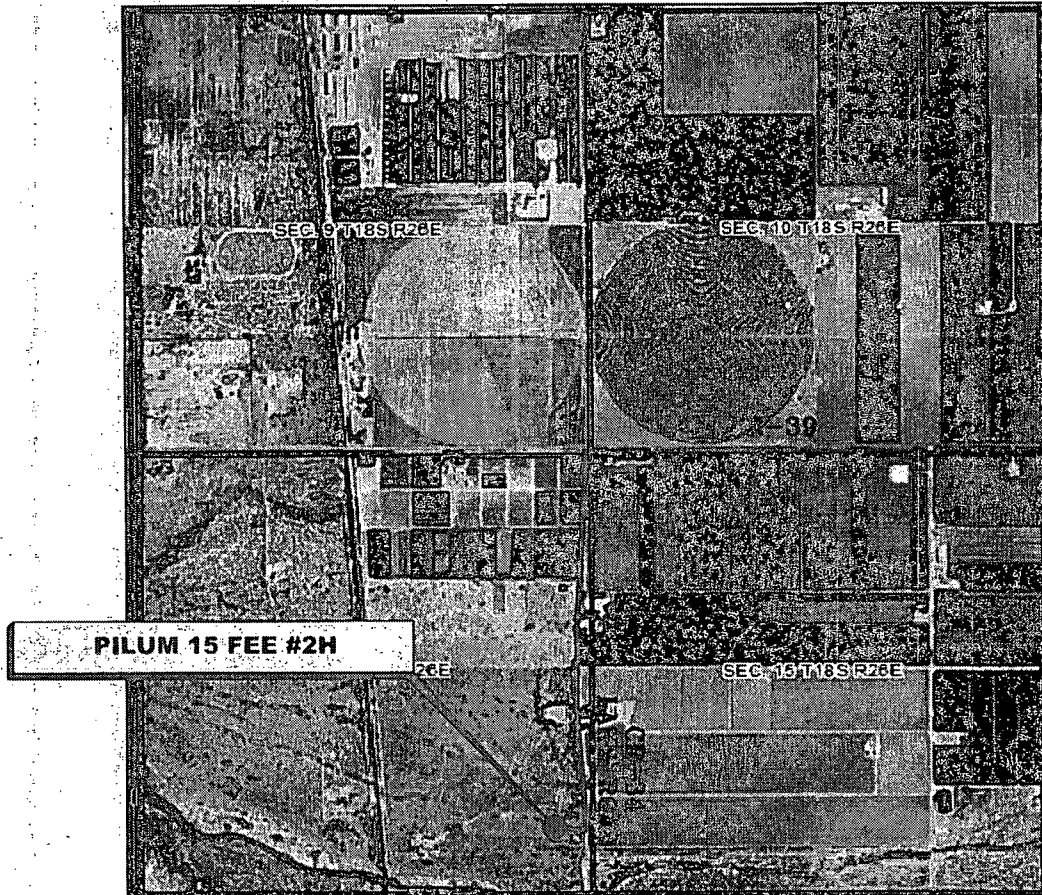
RRC

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 100'
DATE: 11-18-14
SURVEYED BY: GB/IE
DRAWN BY: ARJ
APPROVED BY: RMH
SHEET: 1 OF 1

VICINITY MAP

NOT TO SCALE



**SECTION 16, TWP. 18 SOUTH, RGE. 26 EAST,
N. M. P. M., EDDY COUNTY, NEW MEXICO**

OPERATOR: COG Operating, LLC
 LEASE: Pilum 15 Fee
 WELL NO.: 2H

LOCATION: 789' FSL & 450' FEL
 ELEVATION: 3356'

Firm No.: TX 10193836 NM 4655451

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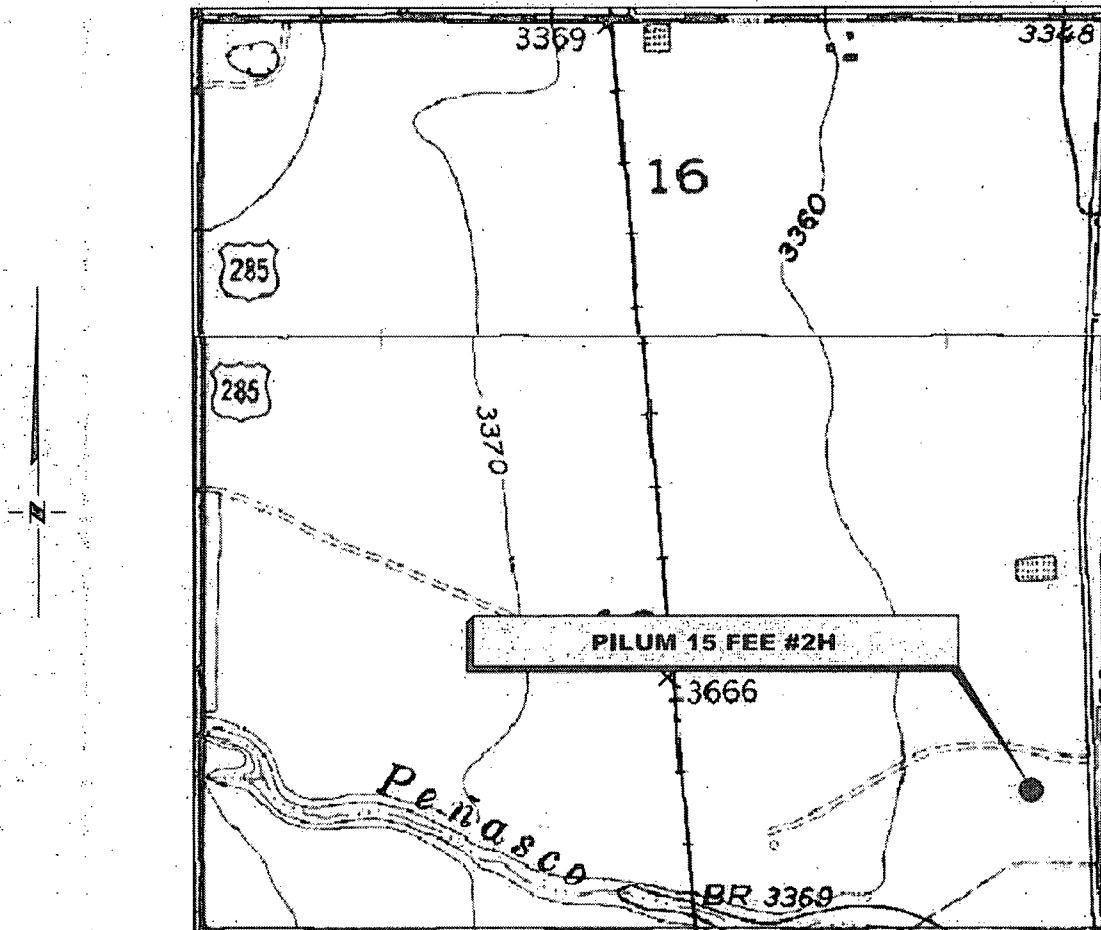
NO.	REVISION	DATE
JOB NO.: LS140541		
DWG. NO.: 140541VM		

RRC

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: N.T.S.
DATE: 11-18-14
SURVEYED BY: GB/IE
DRAWN BY: ARJ
APPROVED BY: RMH
SHEET : 1 OF 1

LOCATION VERIFICATION MAP



SECTION 16, TWP. 18 SOUTH, RGE. 26 EAST,
N. M. P. M., EDDY COUNTY, NEW MEXICO

OPERATOR: COG Operating, LLC
LEASE: Pilum 15 Fee
WELL NO.: 2H
ELEVATION: 3356'

LOCATION: 789' FSL & 450' FEL
CONTOUR INTERVAL: 10'
USGS TOPO. SOURCE MAP:
Dayton, N. M. (1955)

Firm No.: TX 10193838 - NM 4655451

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NO.	REVISION	DATE

RRC

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1000'
DATE: 11-18-14
SURVEYED BY: GB/IE
DRAWN BY: ARJ
APPROVED BY: RMH
SHEET: 1 OF 1