

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

Form C-103
Revised August 1, 2011

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 30-015-39406
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Arabian 6 Fee
8. Well Number 2H
9. OGRID Number 229137
10. Pool name or Wildcat Penasco Draw; SA-Yeso (Assoc) 50270

11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3374'
--

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.)	
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐	
2. Name of Operator COG Operating LLC	
3. Address of Operator One Concho Center - 600 W Illinois Ave Midland, TX 79701	
4. Well Location Unit Letter N : 150 feet from the SOUTH line and 1615 feet from the WEST line Section 6 Township 19S Range 26E NMPM County EDDY	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3374'	

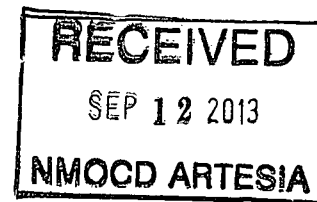
12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

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: 150' FSL 1615' FWL, Unit N
BHL: 330' FNL 1517' FWL, Lot 3

COG Operating LLC respectfully requests permission to change the SHL:
SHL: 183' FSL 1615' FWL, Unit N
BHL: 330' FNL 1517' FWL, Lot 3 ✓



Reason for changing the SHL is due to a gas line too close to original location.

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

Spud Date:

Rig Release Date:

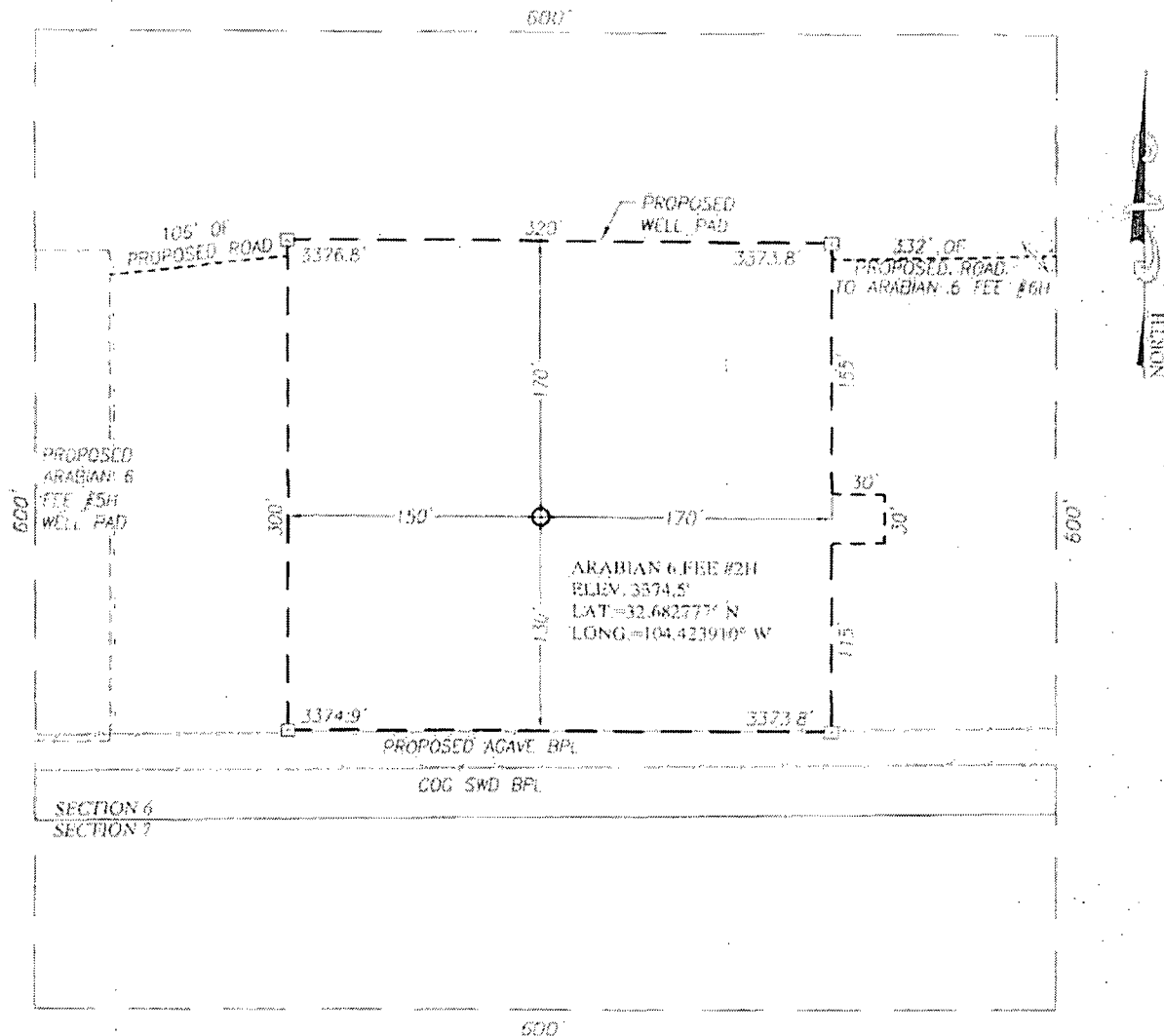
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Kelly J. Holly TITLE Permitting Tech DATE 9-12-13

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

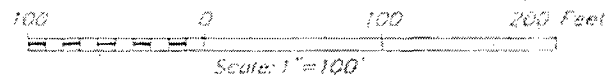
APPROVED BY: [Signature] TITLE "Geologist" DATE 9/12/2013
Conditions of Approval (if any):

Estimated
Completed
Interval:
330 FSL+
1615 FWL



DIRECTIONS TO LOCATION

FROM HIGHWAY 285 AND CO. RD. 38 (KINCAID RANCH), GO WEST APPROX. 2.75 MILES ON CO. RD. 38; TURN LEFT (SOUTH) AND GO APPROX 0.9 MILES; TURN LEFT (EAST) AND GO APPROX 1 MILE; TURN RIGHT (SOUTH) AND GO APPROX 1 MILE TO ARABIAN 6 FEE #1H. FROM SOUTHEAST CORNER PAD FOLLOW PROPOSED ROAD 511 FEET TO THE ARABIAN FEE 5 #5H; THEN FOLLOW PROPOSED ROAD FROM THE NORTHEAST CORNER OF THE ARABIAN 6 FEE #5H PAD NORTHEAST 106 FEET TO THE NORTHWEST PAD CORNER OF THIS LOCATION.



COG OPERATING, LLC

ARABIAN 6 FEE #2H WELL
LOCATED 183 FEET FROM THE SOUTH LINE
AND 161.5 FEET FROM THE WEST LINE OF SECTION 6,
TOWNSHIP 19 SOUTH, RANGE 26 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO

PROVIDING SURVEYING SERVICES
SINCE 1946

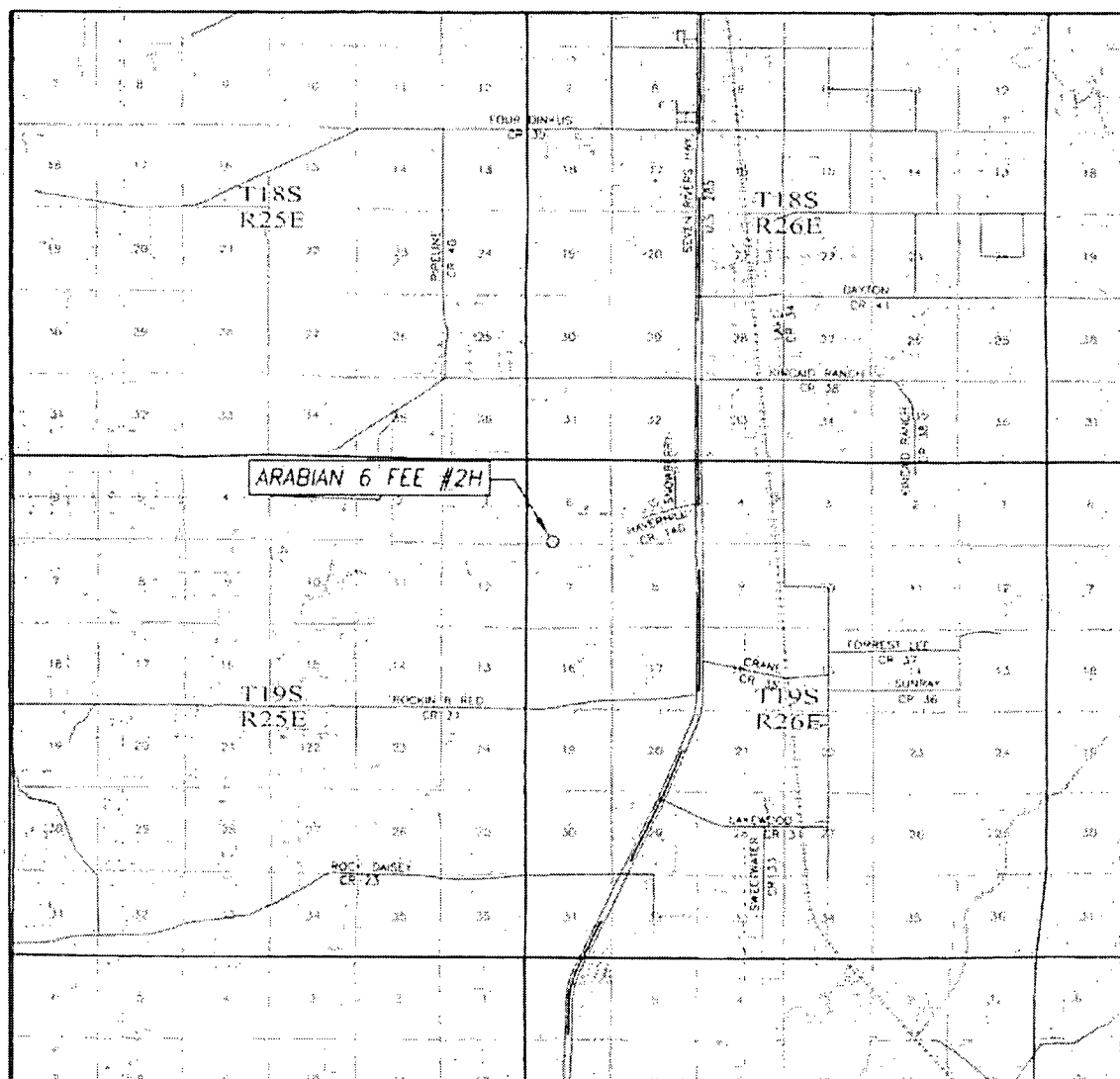
JOHN WEST SURVEYING COMPANY

412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117 www.jwsc.biz

Survey Date: 6/15/13	CAD Date: 6/23/13	Drawn By: ACK
W.O. No.: 13110931	Rev:	Ret. W.O. 12111990

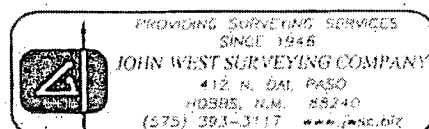
Sheet 1 of 1

VICINITY MAP

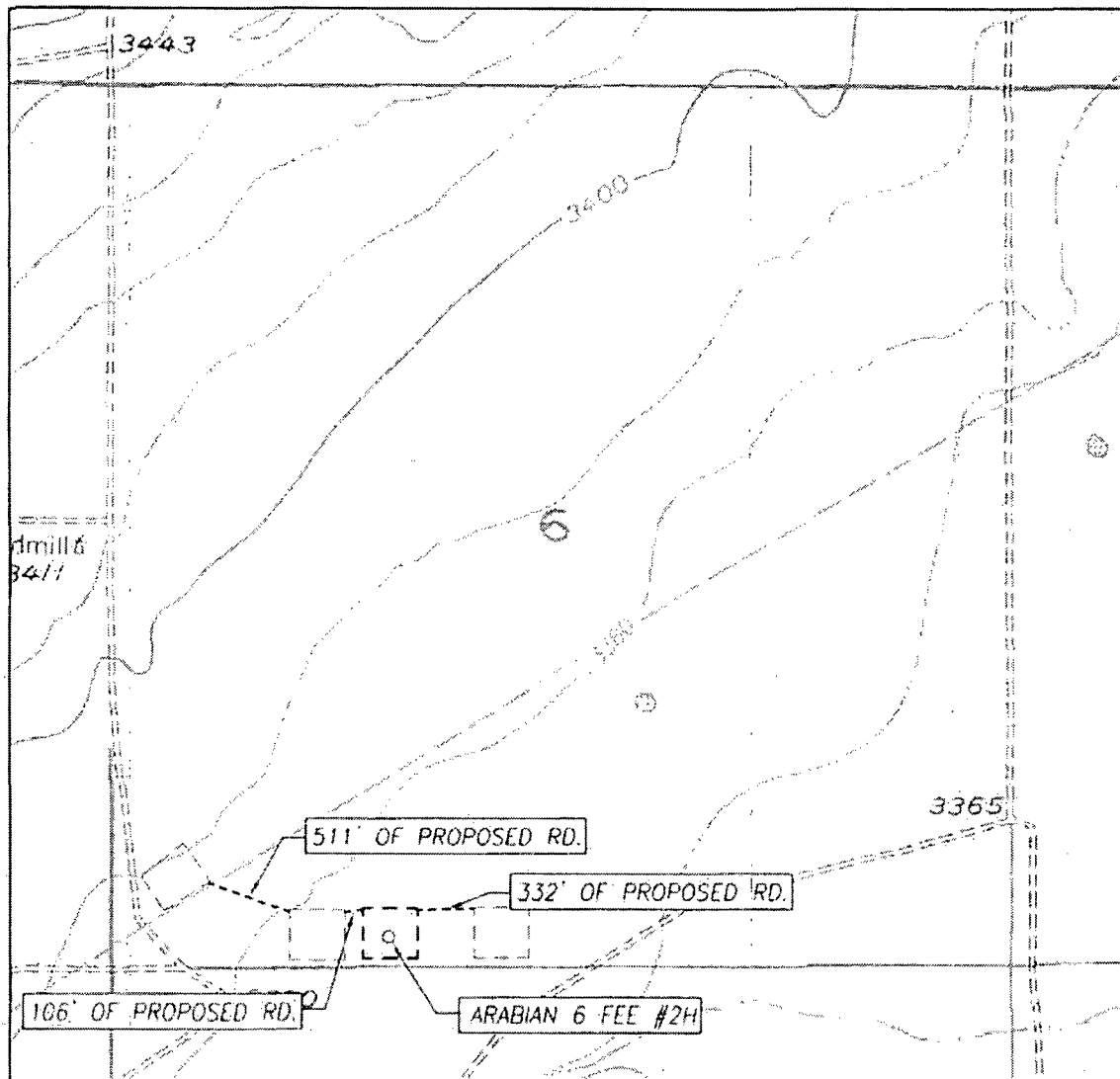


SCALE: 1" = 2 MILES

SEC. 6 TWP. 19-S RGE. 26-E
 SURVEY N.M.P.M.
 COUNTY EDDY STATE NEW MEXICO
 DESCRIPTION 183' FSL & 1615' FWL
 ELEVATION 3374"
 OPERATOR COG OPERATING, LLC
 EDDYSE ARABIAN 6 FEE



LOCATION VERIFICATION MAP



SCALE: 1" = 1000'

CONTOUR INTERVAL:
DAYTON, N.M. - 10'

SEC. 6 TWP. 19-S. RGE. 28-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

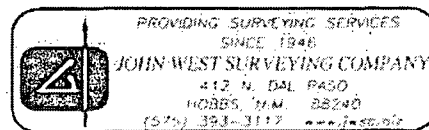
DESCRIPTION 183' E.S. & 1615' F.W.

ELEVATION 3374'

OPERATOR COC OPERATING, LLC

EDDYSE ARABIAN 6 FEE

U.S.G.S. TOPOGRAPHIC MAP
DAYTON, N.M.





COG Operating LLC

Eddy County, New Mexico (NAD 27 NME)

Arabian 6 Fee

#2H

WB1

Plan: Plan #2 09-10-13

Surface: 183' FSL, 1615' FWL, Sec 6, T19S, R26E, Unit N

PP: 330' FSL, 1615' FWL, Sec 6, T19S, R26E, Unit N

BHL: 330' FNL, 1517' FWL, Sec 6, T19S, R26E, Lot #3

Standard Survey Report

10 September, 2013



PHOENIX
TECHNOLOGY SERVICES



Phoenix Technology Services
Survey Report



Company:	COG Operating LLC	Local Co-ordinate Reference:	Well #2H
Project:	Eddy County, New Mexico (NAD 27 NME)	TVD Reference:	GL @ 3374.00usft
Site:	Arabian 6 Fee	MD Reference:	GL @ 3374.00usft
Well:	#2H	North Reference:	Grid
Wellbore:	WB1	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2 09-10-13	Database:	GCR DB

Project	Eddy County, New Mexico (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	Arabian 6 Fee		
Site Position:		Northing:	612,084.20 usft
From:	Map	Easting:	472,131.70 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 40' 57.67030 N
		Longitude:	104° 25' 26.07641 W
		Grid Convergence:	-0.05 °

Well	#2H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 40' 57.99586 N
		Longitude:	104° 25' 26.07440 W
		Ground Level:	3,374.00 usft

Wellbore	WB1		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010_14	09/10/13	7.74
			Dip Angle
			60.41
			Field Strength
			48,574

Design	Plan #2 09-10-13		
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
			(°)
			359.24

Survey Tool Program	Date 09/10/13		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
0.00	7,471.79	Plan #2 09-10-13 (WB1)	MWD
			Description
			MWD - Standard

Planned Survey									
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(usft)	(°)	(°)	(usft)	(usft)	(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
2,409.57	0.00	0.00	2,409.57	0.00	0.00	0.00	0.00	0.00	0.00
KOP Start Build 11.00									
2,500.00	9.95	359.24	2,499.55	7.83	-0.10	7.83	11.00	11.00	0.00
2,600.00	20.95	359.24	2,595.79	34.42	-0.46	34.43	11.00	11.00	0.00
2,700.00	31.95	359.24	2,685.18	78.89	-1.05	78.89	11.00	11.00	0.00
2,800.00	42.95	359.24	2,764.45	139.59	-1.85	139.61	11.00	11.00	0.00
2,810.73	44.13	359.24	2,772.23	146.98	-1.95	147.00	11.00	11.00	0.00
PP-Arabian 6 #2H									
2,900.00	53.95	359.24	2,830.68	214.31	-2.84	214.33	11.00	11.00	0.00



Phoenix Technology Services
Survey Report



Company: COG Operating LLC
Project: Eddy County, New Mexico (NAD 27 NME)
Site: Arabian 6 Fee
Well: #2H
Wellbore: WB1
Design: Plan #2 09-10-13

Local Co-ordinate Reference: Well #2H
TVD Reference: GL @ 3374.00usft
MD Reference: GL @ 3374.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: GCR DB

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)
3,000.00	64.95	359.24	2,881.44	300.28	-3.98	300.31	11.00	11.00	0.00
3,100.00	75.95	359.24	2,914.85	394.36	-5.23	394.40	11.00	11.00	0.00
3,200.00	86.95	359.24	2,929.70	493.09	-6.54	493.13	11.00	11.00	0.00
3,230.33	90.28	359.24	2,930.43	523.41	-6.94	523.46	11.00	11.00	0.00
Target Center Line									
3,232.29	90.50	359.24	2,930.42	525.37	-6.97	525.42	11.00	11.00	0.00
LP Start 4239.76 hold at 3232.29 MD									
3,300.00	90.50	359.24	2,929.83	593.07	-7.87	593.12	0.00	0.00	0.00
3,400.00	90.50	359.24	2,928.96	693.05	-9.19	693.11	0.00	0.00	0.00
3,500.00	90.50	359.24	2,928.08	793.04	-10.52	793.11	0.00	0.00	0.00
3,600.00	90.50	359.24	2,927.21	893.03	-11.85	893.11	0.00	0.00	0.00
3,700.00	90.50	359.24	2,926.34	993.02	-13.17	993.10	0.00	0.00	0.00
3,800.00	90.50	359.24	2,925.46	1,093.00	-14.50	1,093.10	0.00	0.00	0.00
3,900.00	90.50	359.24	2,924.59	1,192.99	-15.82	1,193.10	0.00	0.00	0.00
4,000.00	90.50	359.24	2,923.72	1,292.98	-17.15	1,293.09	0.00	0.00	0.00
4,100.00	90.50	359.24	2,922.85	1,392.97	-18.48	1,393.09	0.00	0.00	0.00
4,200.00	90.50	359.24	2,921.97	1,492.95	-19.80	1,493.08	0.00	0.00	0.00
4,300.00	90.50	359.24	2,921.10	1,592.94	-21.13	1,593.08	0.00	0.00	0.00
4,400.00	90.50	359.24	2,920.23	1,692.93	-22.46	1,693.08	0.00	0.00	0.00
4,500.00	90.50	359.24	2,919.36	1,792.92	-23.78	1,793.07	0.00	0.00	0.00
4,600.00	90.50	359.24	2,918.48	1,892.90	-25.11	1,893.07	0.00	0.00	0.00
4,700.00	90.50	359.24	2,917.61	1,992.89	-26.43	1,993.07	0.00	0.00	0.00
4,800.00	90.50	359.24	2,916.74	2,092.88	-27.76	2,093.06	0.00	0.00	0.00
4,900.00	90.50	359.24	2,915.87	2,192.86	-29.09	2,193.06	0.00	0.00	0.00
5,000.00	90.50	359.24	2,914.99	2,292.85	-30.41	2,293.05	0.00	0.00	0.00
5,100.00	90.50	359.24	2,914.12	2,392.84	-31.74	2,393.05	0.00	0.00	0.00
5,200.00	90.50	359.24	2,913.25	2,492.83	-33.07	2,493.05	0.00	0.00	0.00
5,300.00	90.50	359.24	2,912.37	2,592.81	-34.39	2,593.04	0.00	0.00	0.00
5,400.00	90.50	359.24	2,911.50	2,692.80	-35.72	2,693.04	0.00	0.00	0.00
5,500.00	90.50	359.24	2,910.63	2,792.79	-37.04	2,793.03	0.00	0.00	0.00
5,600.00	90.50	359.24	2,909.76	2,892.78	-38.37	2,893.03	0.00	0.00	0.00
5,700.00	90.50	359.24	2,908.88	2,992.76	-39.70	2,993.03	0.00	0.00	0.00
5,800.00	90.50	359.24	2,908.01	3,092.75	-41.02	3,093.02	0.00	0.00	0.00
5,900.00	90.50	359.24	2,907.14	3,192.74	-42.35	3,193.02	0.00	0.00	0.00
6,000.00	90.50	359.24	2,906.27	3,292.73	-43.68	3,293.02	0.00	0.00	0.00
6,100.00	90.50	359.24	2,905.39	3,392.71	-45.00	3,393.01	0.00	0.00	0.00
6,200.00	90.50	359.24	2,904.52	3,492.70	-46.33	3,493.01	0.00	0.00	0.00
6,300.00	90.50	359.24	2,903.65	3,592.69	-47.66	3,593.00	0.00	0.00	0.00
6,400.00	90.50	359.24	2,902.78	3,692.68	-48.98	3,693.00	0.00	0.00	0.00
6,500.00	90.50	359.24	2,901.90	3,792.66	-50.31	3,793.00	0.00	0.00	0.00
6,600.00	90.50	359.24	2,901.03	3,892.65	-51.63	3,892.99	0.00	0.00	0.00
6,700.00	90.50	359.24	2,900.16	3,992.64	-52.96	3,992.99	0.00	0.00	0.00
6,800.00	90.50	359.24	2,899.28	4,092.63	-54.29	4,092.99	0.00	0.00	0.00
6,900.00	90.50	359.24	2,898.41	4,192.61	-55.61	4,192.98	0.00	0.00	0.00



Phoenix Technology Services
Survey Report



Company: COG Operating LLC
Project: Eddy County, New Mexico (NAD 27 NME)
Site: Arabian 6 Fee
Well: #2H
Wellbore: WB1
Design: Plan #2 09-10-13

Local Co-ordinate Reference: Well #2H
TVD Reference: GL @ 3374.00usft
MD Reference: GL @ 3374.00usft
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: GCR DB

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	359.24	2,897.54	4,292.60	-56.94	4,292.98	0.00	0.00	0.00
7,100.00	90.50	359.24	2,896.67	4,392.59	-58.27	4,392.97	0.00	0.00	0.00
7,200.00	90.50	359.24	2,895.79	4,492.58	-59.59	4,492.97	0.00	0.00	0.00
7,300.00	90.50	359.24	2,894.92	4,592.56	-60.92	4,592.97	0.00	0.00	0.00
7,400.00	90.50	359.24	2,894.05	4,692.55	-62.24	4,692.96	0.00	0.00	0.00
7,472.06	90.50	359.24	2,893.42	4,764.60	-63.20	4,765.02	0.00	0.00	0.00
TD at 7472.06 - PBHL-Arabian 6 #2H									

Design 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
PP-Arabian 6 #2H			0.00	0.00	2,772.25	147.00	-1.95	612,264.10	472,129.95	32° 40' 59.45051 N	104° 25' 26.09868 W
- plan hits target center											
- Point											
PBHL-Arabian 6 #2H			0.00	0.00	2,893.42	4,764.60	-63.20	616,881.70	472,068.70	32° 41' 45.14405 N	104° 25' 26.86159 W
- plan hits target center											
- Point											

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,230.33	2,930.43	Target Center Line		-0.50	359.24

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates	Comment
2410	2410	+N/-S (usft) 0	KOP Start Build 11.00
3232	2930	+E/-W (usft) -7	LP Start 4239.76 hold at 3232.29 MD
7472	2893	+E/-W (usft) -63	TD at 7472.06

Checked By: _____ Approved By: _____ Date: _____



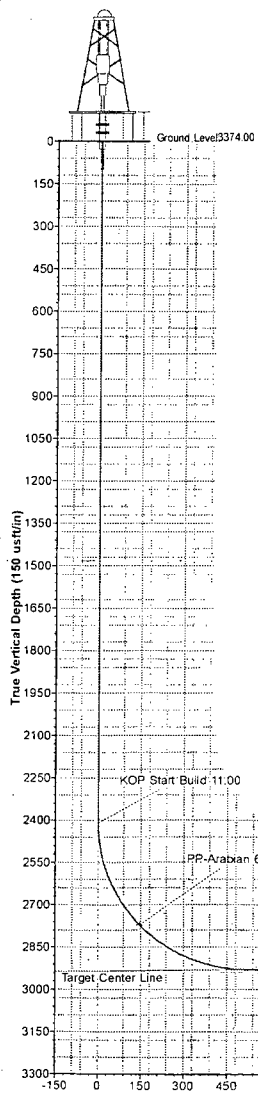
Project: Eddy County, New Mexico (NAD 27 NME)
Site: Arabian 6 Fee
Well: #2H
Wellbore: WB1
Design: Plan #2 09-10-13



PHOENIX
TECHNOLOGY SERVICES



Azimuths to Grid North
True North: 0.05°
Magnetic North: 7.79°
Magnetic Field
Strength: 48574.2 nT
Dip Angle: 60.41°
Date: 09/10/2013
Model: IGRF2010_14



WELL DETAILS									
	+N-S	-E-W	North	Ground Level	Easting	Latitude	Longitude		
	0.00	0.00	512117.10	3374.00	472131.90	32° 40' 57.99586 N	104° 25' 26.07440 W		

SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	V-Sect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2409.57	0.00	0.00	2409.57	0.00	0.00	0.00	0.00	0.00
3	3232.29	90.50	359.24	2930.42	525.37	-6.97	11.00	359.24	525.42
4	7472.06	90.50	359.24	2893.42	4764.60	-63.20	0.00	0.00	4765.02

Annotation: KOP Start Build 11.00, LP Start 4239.76 hold at 3232.29 MD, TD at 7472.06

DESIGN TARGET DETAILS									
Name	TVD	+N-S	+E-W	North	Easting	Latitude	Longitude	Shape	
PP-Arabian 6 #2H	2772.25	147.00	-1.95	612264.10	472129.95	32° 40' 59.45050 N	104° 25' 26.09868 W	Point	
PBHL-Arabian 6 #2H				2893.42	4764.60				
				-plan hts target center					

PROJECT DETAILS: Eddy County, New Mexico (NAD 27 NME)
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

SITE DETAILS: Arabian 6 Fee
Site Centre Northing: 512084.20
Easting: 472131.70
Positional Uncertainty: 0.00
Convergence: -0.05
Local North: Grid

LEGEND
— #6H, OH, Plan #1 01-30-13 V0
— Plan #2 09-10-13

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° 40' 57.99586 N
Longitude: 104° 25' 26.07440 W
Grid East: 472131.90
Grid North: 512117.10
Scale Factor: 1.000
Geomagnetic Model: IGRF2010_14
Sample Date: 10-Sep-13
Magnetic Declination: 7.74°
Dip Angle from Horizontal: 60.41°
Magnetic Field Strength: 48574
To convert a Magnetic Direction to a Grid Direction, Add 7.79°
To convert a Magnetic Direction to a True Direction, Add 7.74° East
To convert a True Direction to a Grid Direction, Add 0.05°

FORMATION TOP DETAILS				
TVDPath	MDPath	Formation	DipAngle	DipDir
2930.43	3230.33	Target Center Line	-0.50	359.24

