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 July 18, 2013

WELL API NO. 30-025-42070

5. Indicate Type of Lease STATE ☒ FEE ☐

6. State Oil & Gas Lease No.

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.)

7. Lease Name or Unit Agreement Name
Vacuum Abo Unit

1. Type of Well: Oil Well ☒ Gas Well ☐ Other

HOBBS OCD

8. Well Number 687

2. Name of Operator ConocoPhillips Company

9. OGRID Number 217817

NOV 24 2014

3. Address of Operator 600 N. Dairy Ashford Rd., P10-3096
Houston, Texas 77079-1175

10. Pool name or Wildcat
Vacuum; Abo Reef

RECEIVED

4. Well Location
Unit Letter F : 2216 feet from the north line and 2539 feet from the west line
Section 26 Township 17S Range 35E NMPM Lea County

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
3915'

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	☐						
CLOSED-LOOP SYSTEM	☐						
OTHER:	☐			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.

ConocoPhillips Company (COPC) respectfully requests approval of these proposed changes to our drilling plan for this well. Our surface location has changed due to infrastructure considerations. New location is 2216' N and 2539' W of F-26-17S-35E. Our target remains the same. A revised C-102 and directional plan are attached (Attachment 1).

The changes listed below have been discussed with Mr. Brown by Steven Herrin, ConocoPhillips Drilling Engineer.
1. COPC will pressure test the BOP to our corporate standards of 70% of working pressure.
2. COPC plans on running a cement bond log on the production casing in accordance with NMOCD requirements.
3. COPC plans on having the option of a two stage cement job. The procedure is attached (Attachment 2).

The expected spud date for this well is November 15, 2014. Thank you for your time spent reviewing this request.

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 Susan B. Maunder TITLE Senior Regulatory Specialist DATE 11/6/14

Type or print name Susan B. Maunder E-mail address: Susan.B.Maunder@cop.com PHONE: 281-206-5281

For State Use Only

APPROVED BY: TITLE Petroleum Engineer DATE 11/24/14

Conditions of Approval (if any):

NOV 25 2014

Attachment 1

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) 748-1283 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

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-42070	61780	Vacuum; Abo Reef

[4] Property Code	[5] Property Name	[6] Well Number
31158	VACUUM ABO UNIT	687

[7] OGRID No.	[8] Operator Name	[9] Elevation
217817	ConocoPhillips Company	3915'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	26	17S	35E		2216	NORTH	2539	WEST	LEA

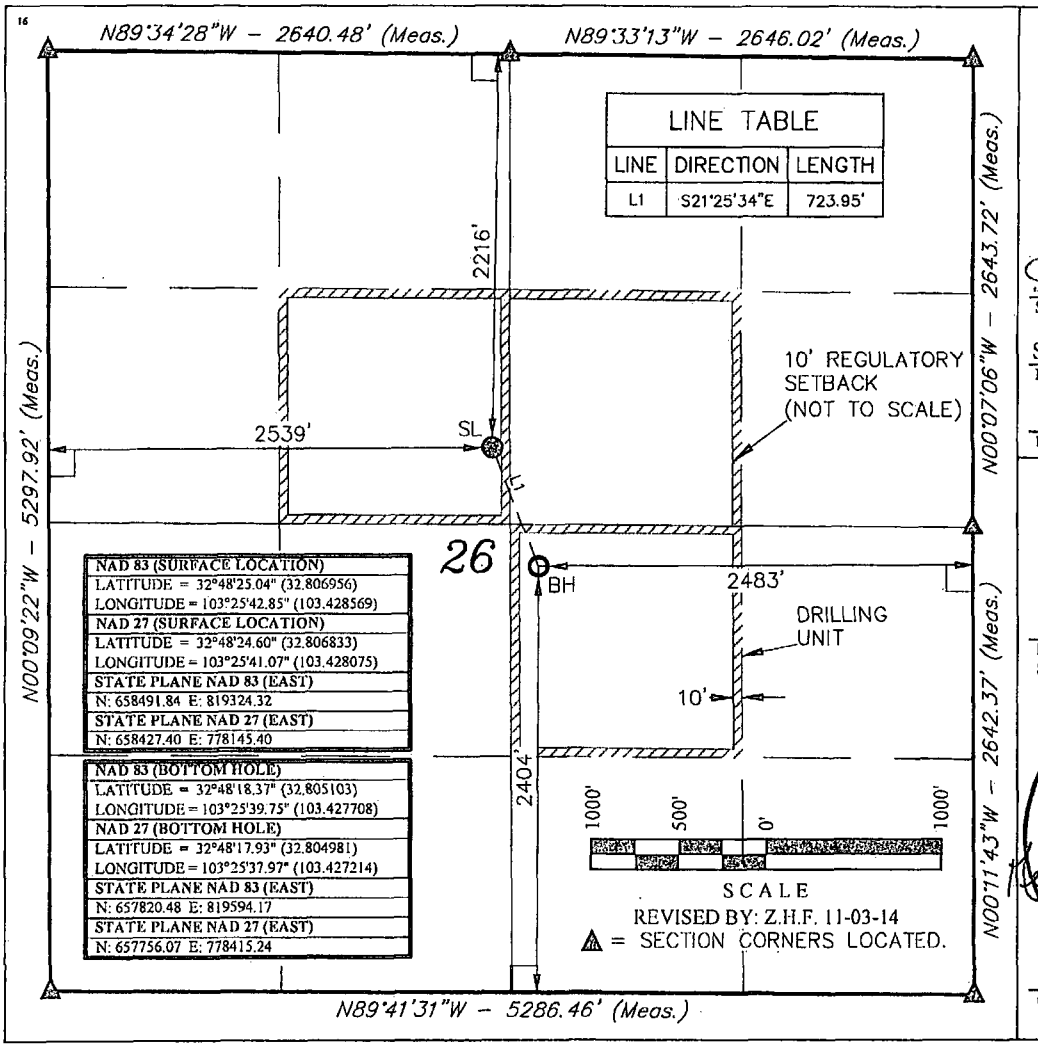
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	26	17S	35E		2404	SOUTH	2483	EAST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
120			

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.

[16]



[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.

Susan B Maunder 11/6/14
Signature Date

Susan B. Maunder
Printed Name

Susan.B.Maunder@cop.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.

November 3, 2014
Date of Survey
Signature and Seal of Professional Surveyor:

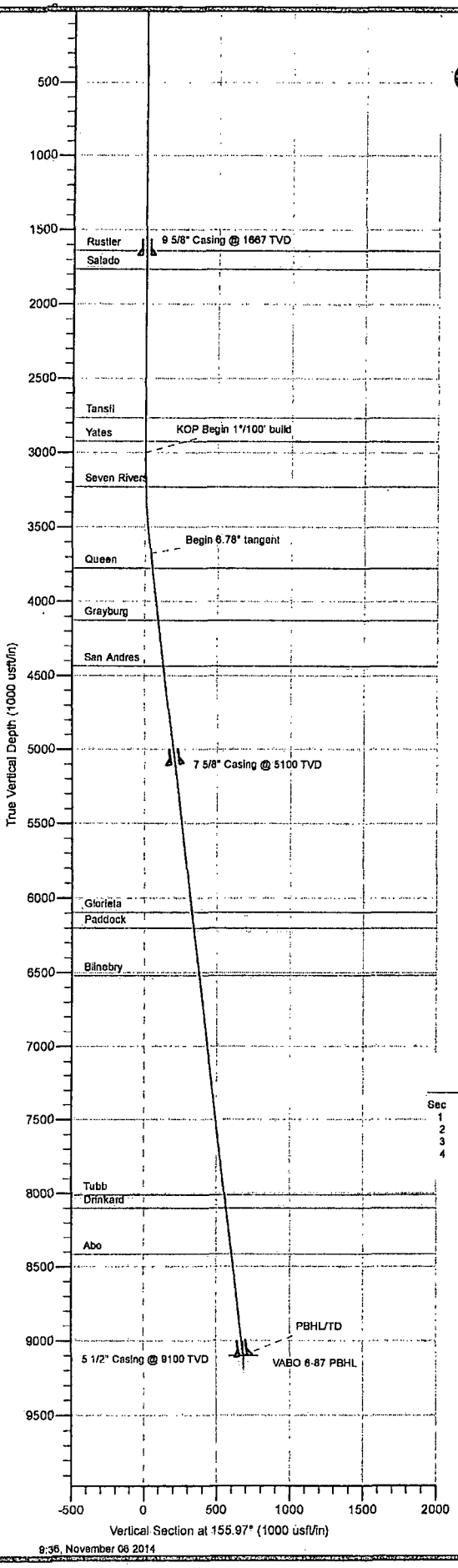
PROFESSIONAL SURVEYOR NEW MEXICO 12446 NELSON J. MARSHALL
11-03-14

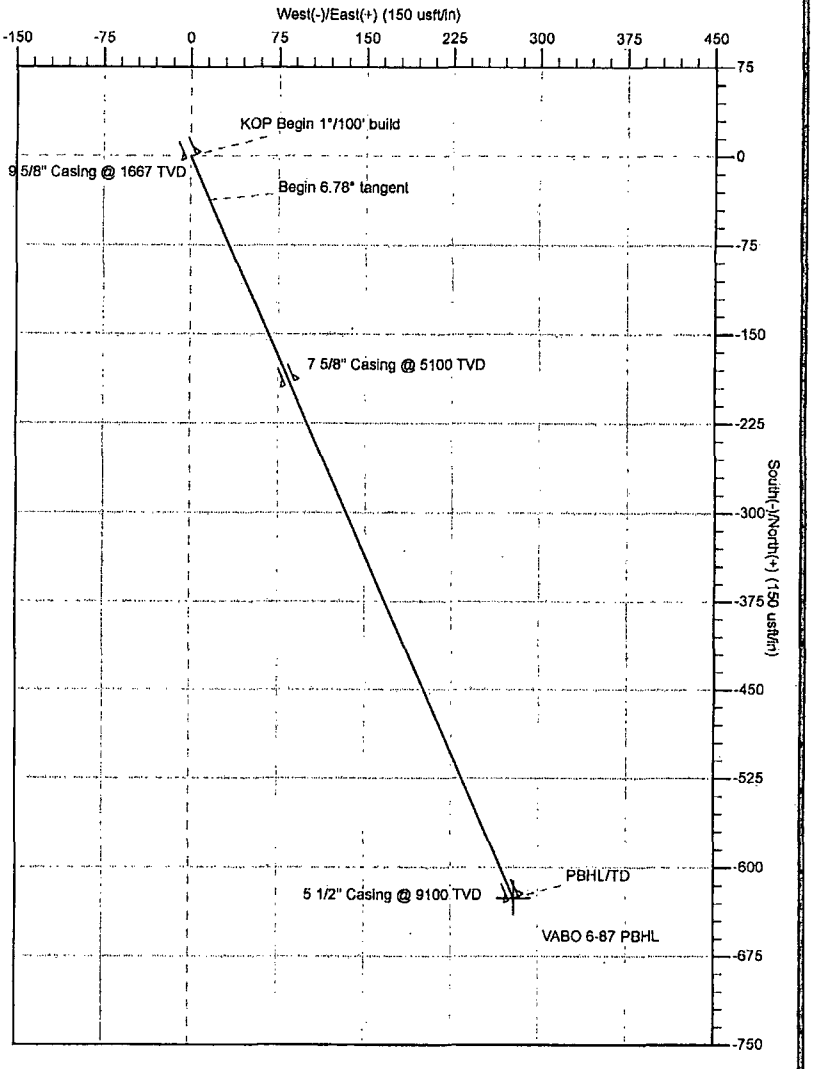
Certificate Number:

Attachment 2

ConocoPhillips

Well: Vacuum ABO Unit Well No. 6-87
Site: Vacuum ABO Unit
Project: Lea County, New Mexico
Design: rev1
Rig: PD 822





Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	0.00	KOP Begin 1°/100' build
3	3676.27	6.78	155.97	3676.69	-36.62	16.33	1.00	155.97	40.10	Begin 6.78° tangent
4	9139.81	6.78	155.97	9100.00	-625.73	279.04	0.00	0.00	685.13	PBHL/TD

Surface Location: RKB=3913+13 @ 3926.00usft (PD 822)
US State Plane 1927 (Exact solution)
New Mexico East 3001

Northing	Easting	Latitude	Longitude
658381.60	778136.20	32° 48' 24.147766 N	103° 25' 41.178146 W

Total Correction (M => G) To convert a Magnetic Direction to a Grid Direction, Add 6.69°

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1642.00	1642.00	Rustler
1765.00	1765.00	Salado
2765.00	2765.00	Tansil
2925.00	2925.00	Yates
3230.00	3230.06	Seven Rivers
3775.00	3777.28	Queen
4125.00	4129.74	Grayburg
4435.00	4441.93	San Andres
6095.00	6113.63	Glorieta
6200.00	6219.37	Paddock
6520.00	6541.62	Blinebry
8010.00	8042.12	Tubb
8100.00	8132.76	Drinkard
8415.00	8449.98	Abo

T G M

Azimuths to Grid North
True North: -0.49°
Magnetic North: 6.69°

Magnetic Field
Strength: 48667.6snT
Dip Angle: 60.67°
Date: 7/20/2014
Model: IGRF2010

PRODIRECTIONAL

9:36, November 06 2014

ConocoPhillips

Standard_report

Company:	ConocoPhillips	**Local Co-ordinate Reference:**	Well Vacuum ABO Unit Well No. 6-87
Project:	Lea County, New Mexico	**TVD Reference:**	RKB=3913+13 @ 3926.00usft (PD 822)
Site:	Vacuum ABO Unit	**MD Reference:**	RKB=3913+13 @ 3926.00usft (PD 822)
Well:	Vacuum ABO Unit Well No. 6-87	**North Reference:**	Grid
Wellbore:	Original hole	**Survey Calculation Method:**	Minimum Curvature
Design:	rev1	**Database:**	EDM 5000.1 Ddatabase

Project Lea County, New Mexico

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 Vacuum ABO Unit

Site Position:		**Northing:**	657,758.66 usft	**Latitude:**	32° 48' 17.956684 N
From:	Map	**Easting:**	778,438.28 usft	**Longitude:**	103° 25' 37.701730 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.49 °

Well Vacuum ABO Unit Well No. 6-87,

Well Position	**+N/-S**	0.00 usft	**Northing:**	658,381.80 usft	**Latitude:**	32° 48' 24.147766 N
	+E/-W	0.00 usft	**Easting:**	778,136.20 usft	**Longitude:**	103° 25' 41.178148 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,913.00 usft

Wellbore Original hole

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/20/2014	7.18	60.67	48,668

Design rev1

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	155.97

Survey Tool Program Date 11/6/2014

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	9,139.81	rev1 (Original hole)	MWD	MWD - Standard

Company:	ConocoPhillips	**Local Co-ordinate Reference:**	Well Vacuum ABO Unit Well No. 6-87
Project:	Lea County, New Mexico	**TVD Reference:**	RKB=3913+13 @ 3926.00usft (PD 822)
Site:	Vacuum ABO Unit	**MD Reference:**	RKB=3913+13 @ 3926.00usft (PD 822)
Well:	Vacuum ABO Unit Well No. 6-87	**North Reference:**	Grid
Wellbore:	Original hole	**Survey Calculation Method:**	Minimum Curvature
Design:	rev1	**Database:**	EDM 5000.1 Ddatabase

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	V. Sec (usft)	Northing (usft)	Easting (usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
1,642.00	0.00	0.00	1,642.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
Rustler									
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
1,765.00	0.00	0.00	1,765.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
Salado									
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20

Company:	ConocoPhillips	**Local Co-ordinate Reference:**	Well Vacuum ABO Unit Well No. 6-87
Project:	Lea County, New Mexico	**TVD Reference:**	RKB=3913+13 @ 3926.00usft (PD 822)
Site:	Vacuum ABO Unit	**MD Reference:**	RKB=3913+13 @ 3926.00usft (PD 822)
Well:	Vacuum ABO Unit Well No. 6-87	**North Reference:**	Grid
Wellbore:	Original hole	**Survey Calculation Method:**	Minimum Curvature
Design:	rev1	**Database:**	EDM 5000.1 Ddatabase

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	V. Sec (usft)	Northing (usft)	Easting (usft)
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
2,765.00	0.00	0.00	2,765.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
Tansil									
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
2,925.00	0.00	0.00	2,925.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
Yates									
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	658,381.80	778,136.20
KOP Begin 1°/100' build									
3,021.82	0.22	155.97	3,021.82	-0.04	0.02	1.00	0.04	658,381.76	778,136.22
Begin 0.22° lateral									
3,100.00	1.00	155.97	3,099.99	-0.80	0.36	1.00	0.87	658,381.00	778,136.56
3,200.00	2.00	155.97	3,199.96	-3.19	1.42	1.00	3.49	658,378.61	778,137.62
3,230.06	2.30	155.97	3,230.00	-4.22	1.88	1.00	4.62	658,377.58	778,138.08
Seven Rivers									
3,300.00	3.00	155.97	3,299.86	-7.17	3.20	1.00	7.85	658,374.63	778,139.40
3,400.00	4.00	155.97	3,399.68	-12.75	5.68	1.00	13.96	658,369.05	778,141.88
3,500.00	5.00	155.97	3,499.37	-19.91	8.88	1.00	21.80	658,361.89	778,145.08
3,600.00	6.00	155.97	3,598.90	-28.67	12.78	1.00	31.39	658,353.13	778,148.98
3,678.27	6.78	155.97	3,676.69	-36.62	16.33	1.00	40.10	658,345.18	778,152.53
3,700.00	6.78	155.97	3,698.26	-38.97	17.38	0.00	42.67	658,342.83	778,153.58
3,777.28	6.78	155.97	3,775.00	-47.30	21.09	0.00	51.79	658,334.50	778,157.29
Queen									
3,800.00	6.78	155.97	3,797.56	-49.75	22.19	0.00	54.48	658,332.05	778,158.39

Company:	ConocoPhillips	**Local Co-ordinate Reference:**	Well Vacuum ABO Unit Well No. 6-87
Project:	Lea County, New Mexico	**TVD Reference:**	RKB=3913+13 @ 3926.00usft (PD 822)
Site:	Vacuum ABO Unit	**MD Reference:**	RKB=3913+13 @ 3926.00usft (PD 822)
Well:	Vacuum ABO Unit Well No. 6-87	**North Reference:**	Grid
Wellbore:	Original hole	**Survey Calculation Method:**	Minimum Curvature
Design:	rev1	**Database:**	EDM 5000.1 Ddatabase

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	V. Sec (usft)	Northing (usft)	Easting (usft)
3,900.00	6.78	155.97	3,896.87	-60.54	27.00	0.00	66.29	658,321.26	778,163.20
4,000.00	6.78	155.97	3,996.17	-71.33	31.81	0.00	78.10	658,310.47	778,168.01
4,100.00	6.78	155.97	4,095.47	-82.11	36.62	0.00	89.91	658,299.69	778,172.82
4,129.74	6.78	155.97	4,125.00	-85.32	38.05	0.00	93.42	658,296.48	778,174.25
Grayburg									
4,200.00	6.78	155.97	4,194.77	-92.90	41.43	0.00	101.72	658,288.90	778,177.63
4,300.00	6.78	155.97	4,294.07	-103.69	46.24	0.00	113.53	658,278.11	778,182.44
4,400.00	6.78	155.97	4,393.37	-114.47	51.05	0.00	125.34	658,267.33	778,187.25
4,441.93	6.78	155.97	4,435.00	-119.00	53.07	0.00	130.29	658,262.80	778,189.27
San Andres									
4,500.00	6.78	155.97	4,492.67	-125.26	55.86	0.00	137.15	658,256.54	778,192.06
4,600.00	6.78	155.97	4,591.97	-136.05	60.67	0.00	148.96	658,245.75	778,196.87
4,700.00	6.78	155.97	4,691.27	-146.83	65.48	0.00	160.77	658,234.97	778,201.68
4,800.00	6.78	155.97	4,790.57	-157.62	70.29	0.00	172.58	658,224.18	778,206.49
4,900.00	6.78	155.97	4,889.87	-168.40	75.10	0.00	184.39	658,213.40	778,211.30
5,000.00	6.78	155.97	4,989.17	-179.19	79.91	0.00	196.20	658,202.61	778,216.11
5,100.00	6.78	155.97	5,088.47	-189.98	84.72	0.00	208.01	658,191.82	778,220.92
5,200.00	6.78	155.97	5,187.77	-200.76	89.53	0.00	219.82	658,181.04	778,225.73
5,300.00	6.78	155.97	5,287.07	-211.55	94.34	0.00	231.63	658,170.25	778,230.54
5,400.00	6.78	155.97	5,386.37	-222.34	99.15	0.00	243.44	658,159.46	778,235.35
5,500.00	6.78	155.97	5,485.67	-233.12	103.96	0.00	255.25	658,148.68	778,240.16
5,600.00	6.78	155.97	5,584.97	-243.91	108.77	0.00	267.06	658,137.89	778,244.97
5,700.00	6.78	155.97	5,684.27	-254.70	113.58	0.00	278.87	658,127.10	778,249.78
5,800.00	6.78	155.97	5,783.57	-265.48	118.39	0.00	290.68	658,116.32	778,254.59
5,900.00	6.78	155.97	5,882.87	-276.27	123.20	0.00	302.49	658,105.53	778,259.40
6,000.00	6.78	155.97	5,982.17	-287.06	128.01	0.00	314.31	658,094.74	778,264.21
6,100.00	6.78	155.97	6,081.47	-297.84	132.82	0.00	326.12	658,083.96	778,269.02

Company:	ConocoPhillips	**Local Co-ordinate Reference:**	Well Vacuum ABO Unit Well No. 6-87
Project:	Lea County, New Mexico	**TVD Reference:**	RKB=3913+13 @ 3926.00usft (PD 822)
Site:	Vacuum ABO Unit	**MD Reference:**	RKB=3913+13 @ 3926.00usft (PD 822)
Well:	Vacuum ABO Unit Well No. 6-87	**North Reference:**	Grid
Wellbore:	Original hole	**Survey Calculation Method:**	Minimum Curvature
Design:	rev1	**Database:**	EDM 5000.1 Ddatabase

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	V. Sec (usft)	Northing (usft)	Easting (usft)
6,113.63	6.78	155.97	6,095.00	-299.31	133.48	0.00	327.73	658,082.49	778,269.68
Glorieta									
6,200.00	6.78	155.97	6,180.77	-308.63	137.63	0.00	337.93	658,073.17	778,273.83
6,219.37	6.78	155.97	6,200.00	-310.72	138.56	0.00	340.21	658,071.08	778,274.76
Paddock									
6,300.00	6.78	155.97	6,280.07	-319.42	142.44	0.00	349.74	658,062.38	778,278.64
6,400.00	6.78	155.97	6,379.37	-330.20	147.25	0.00	361.55	658,051.60	778,283.45
6,500.00	6.78	155.97	6,478.67	-340.99	152.06	0.00	373.36	658,040.81	778,288.26
6,541.62	6.78	155.97	6,520.00	-345.48	154.06	0.00	378.27	658,036.32	778,290.26
Blinebry									
6,600.00	6.78	155.97	6,577.97	-351.77	156.87	0.00	385.17	658,030.03	778,293.07
6,700.00	6.78	155.97	6,677.27	-362.56	161.68	0.00	396.98	658,019.24	778,297.88
6,800.00	6.78	155.97	6,776.57	-373.35	166.49	0.00	408.79	658,008.45	778,302.69
6,900.00	6.78	155.97	6,875.87	-384.13	171.30	0.00	420.60	657,997.67	778,307.50
7,000.00	6.78	155.97	6,975.17	-394.92	176.11	0.00	432.41	657,986.88	778,312.31
7,100.00	6.78	155.97	7,074.47	-405.71	180.92	0.00	444.22	657,976.09	778,317.12
7,200.00	6.78	155.97	7,173.77	-416.49	185.73	0.00	456.03	657,965.31	778,321.93
7,300.00	6.78	155.97	7,273.07	-427.28	190.54	0.00	467.84	657,954.52	778,326.74
7,400.00	6.78	155.97	7,372.37	-438.07	195.35	0.00	479.65	657,943.73	778,331.55
7,500.00	6.78	155.97	7,471.67	-448.85	200.16	0.00	491.46	657,932.95	778,336.36
7,600.00	6.78	155.97	7,570.97	-459.64	204.97	0.00	503.27	657,922.16	778,341.17
7,700.00	6.78	155.97	7,670.27	-470.43	209.78	0.00	515.08	657,911.37	778,345.98
7,800.00	6.78	155.97	7,769.57	-481.21	214.59	0.00	526.89	657,900.59	778,350.79
7,900.00	6.78	155.97	7,868.87	-492.00	219.40	0.00	538.70	657,889.80	778,355.60
8,000.00	6.78	155.97	7,968.17	-502.79	224.21	0.00	550.51	657,879.01	778,360.41
8,042.12	6.78	155.97	8,010.00	-507.33	226.24	0.00	555.49	657,874.47	778,362.44
Tubb									

Company:	ConocoPhillips	**Local Co-ordinate Reference:**	Well Vacuum ABO Unit Well No. 6-87
Project:	Lea County, New Mexico	**TVD Reference:**	RKB=3913+13 @ 3926.00usft (PD 822)
Site:	Vacuum ABO Unit	**MD Reference:**	RKB=3913+13 @ 3926.00usft (PD 822)
Well:	Vacuum ABO Unit Well No. 6-87	**North Reference:**	Grid
Wellbore:	Original hole	**Survey Calculation Method:**	Minimum Curvature
Design:	rev1	**Database:**	EDM 5000.1 Ddatabase

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	DLeg (°/100usft)	V. Sec (usft)	Northing (usft)	Easting (usft)
8,100.00	6.78	155.97	8,067.47	-513.57	229.02	0.00	562.32	657,868.23	778,365.22
8,132.76	6.78	155.97	8,100.00	-517.11	230.60	0.00	566.19	657,864.69	778,366.80
Drinkard									
8,200.00	6.78	155.97	8,166.77	-524.36	233.83	0.00	574.13	657,857.44	778,370.03
8,300.00	6.78	155.97	8,266.07	-535.14	238.64	0.00	585.94	657,846.66	778,374.84
8,400.00	6.78	155.97	8,365.37	-545.93	243.45	0.00	597.75	657,835.87	778,379.65
8,449.98	6.78	155.97	8,415.00	-551.32	245.86	0.00	603.66	657,830.48	778,382.06
Abo									
8,500.00	6.78	155.97	8,464.67	-556.72	248.26	0.00	609.57	657,825.08	778,384.46
8,600.00	6.78	155.97	8,563.97	-567.50	253.07	0.00	621.38	657,814.30	778,389.27
8,700.00	6.78	155.97	8,663.27	-578.29	257.88	0.00	633.19	657,803.51	778,394.08
8,800.00	6.78	155.97	8,762.57	-589.08	262.69	0.00	645.00	657,792.72	778,398.89
8,900.00	6.78	155.97	8,861.87	-599.86	267.50	0.00	656.81	657,781.94	778,403.70
9,000.00	6.78	155.97	8,961.17	-610.65	272.32	0.00	668.62	657,771.15	778,408.52
9,100.00	6.78	155.97	9,060.47	-621.44	277.13	0.00	680.43	657,760.36	778,413.33
9,100.04	6.78	155.97	9,060.52	-621.44	277.13	0.00	680.43	657,760.36	778,413.33
PBHL/TD									
9,139.81	6.78	155.97	9,100.00	-625.73	279.04	0.00	685.13	657,756.07	778,415.24

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,667.00	1,667.00	9 5/8" Casing @ 1667 TVD	9-5/8	12-1/4
5,111.61	5,100.00	7 5/8" Casing @ 5100 TVD	7-5/8	8-3/4
9,139.81	9,100.00	5 1/2" Casing @ 9100 TVD	5-1/2	6-3/4

Company:	ConocoPhillips	**Local Co-ordinate Reference:**	Well Vacuum ABO Unit Well No. 6-87
Project:	Lea County, New Mexico	**TVD Reference:**	RKB=3913+13 @ 3926.00usft (PD 822)
Site:	Vacuum ABO Unit	**MD Reference:**	RKB=3913+13 @ 3926.00usft (PD 822)
Well:	Vacuum ABO Unit Well No. 6-87	**North Reference:**	Grid
Wellbore:	Original hole	**Survey Calculation Method:**	Minimum Curvature
Design:	rev1	**Database:**	EDM 5000.1 Ddatabase

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,642.00	1,642.00	Rustler		0.00	
1,765.00	1,765.00	Salado		0.00	
2,765.00	2,765.00	Tansil		0.00	
2,925.00	2,925.00	Yates		0.00	
3,230.06	3,230.00	Seven Rivers		0.00	
3,777.28	3,775.00	Queen		0.00	
4,129.74	4,125.00	Grayburg		0.00	
4,441.93	4,435.00	San Andres		0.00	
6,113.63	6,095.00	Glorieta		0.00	
6,219.37	6,200.00	Paddock		0.00	
6,541.62	6,520.00	Blinebry		0.00	
8,042.12	8,010.00	Tubb		0.00	
8,132.76	8,100.00	Drinkard		0.00	
8,449.98	8,415.00	Abo		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
3,000.00	3,000.00	0.00	0.00	KOP Begin 1°/100' build
3,021.82	3,021.82	-0.04	0.02	Begin 0.22° lateral
9,100.04	9,060.52	-621.44	277.13	PBHL/TD

ATTACHMENT 3

7-5/8" Intermediate Casing Cementing Program – Two-Stage Cementing Option (Yates Gas Flow and CO2 & Waterflood in Grayburg/San Andres):

ConocoPhillips Company respectfully requests approval of this additional option for our cementing program for the **Vacuum Abo Unit wells; 687, 706, and 707.** The goal for this Intermediate Casing – Two-Stage Cementing Option is to:

- Provide a contingency plan for using a Stage Tool and Annulus Casing Packer(s) to isolate shallow gas flow in Yates and/or gas/water flow in Grayburg/ San Andres if either of these events occurs while drilling the well.
- Place the Stage 1 Cement from the casing shoe to surface.
- Proceed with Stage 2 Cement only if cement returns are contaminated or flow was observed after pumping 1st stage.
- Annulus Casing Packer and DV tool planned to be set inside 9-5/8" casing.

Spacer: 15 bbls Fresh Water

Stage 1 - Slurry		Intervals Ft MD		Weight ppg	Sx	Vol Cuft	Additives	Yield ft³/sx
Lead	C Gas Blk Slurry	Surface	3000'	11.5	255	479	Class C 40 lb/sx 6% Extender 2.5% BWOB 2.5% CaCl2 1.34 gal/skGas Migration Control 0.061 gal/sk Anti foam 0.366 gal/sk Dispersant	1.88
Tail	TXI+Gas Blk Slurry	3000'	5100' – 5200'	13.2	337	465	Cement 75 lb/sk 2.0 gal/sk 1.0% Expanding Agent 0.2% Anti foam 5.0% Extender 0.2% Dispersant	1.38

1st stage displacement: FW followed by Weighted Spacer

Spacer: Remaining Weighted Spacer in cementing lines from the 1st stage displacement

Stage 2 - Slurry		Intervals Ft MD		Weight ppg	Sx	Vol Cuft	Additives	Yield ft³/sx
Tail	Class C	Surface	Stage Tool ~1600'	11.5	200	376	1% CaCl2 Excess = 100% based on gauge hole volume	1.88

2nd stage displacement: Fresh Water

Proposal for Option to Adjust Intermediate Casing Cement Volumes:

The Intermediate casing cement volumes for the proposed single stage and two-stage option presented above are estimates based on gauge hole. We will adjust these volumes based on the caliper log data for each well and our trends for amount of cement returns to surface. Also, if no caliper log is available for any particular well, we would propose an option to possibly increase the production casing cement volume to account for any uncertainty in regard to the hole volume.