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Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMLC0064149

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.
NMNM138364

8. Lease Name and Well No.
PERIDOT 8 FEDERAL
6H (320830)

2. Name of Operator
CONOCOPHILLIPS COMPANY (217817)

9. API Well No.
30-025-46785

3a. Address
PO Box 2197 Houston TX 77252

3b. Phone No. *(include area code)*
(281)293-1748

10. Field and Pool, or Exploratory
MALJAMAR / YESO WEST (44500)

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface SWNE / 1586 FNL / 2635 FEL / LAT 32.852069 / LONG -103.788625

At proposed prod. zone LOT 2 / 1650 FNL / 330 FWL / LAT 32.851925 / LONG -103.813442

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 8 / T17S / R32E / NMP

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State
1.3 miles	LEA	NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
5 feet	320	280.95

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
140 feet	5492 feet / 12991 feet	FED: ES0085

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
4052 feet	06/14/2019	21 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Susan Maunder / Ph: (281)206-5281	04/26/2018

Title
Senior Coordinator, Regulatory MCBU

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	12/13/2019

Title	Office
Assistant Field Manager Lands & Minerals	CARLSBAD

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

GCP Rec 01/21/2020

APPROVED WITH CONDITIONS

KZ 01/21/2020

SL

(Continued on page 2)

(47)

*(Instructions on page 2)

Approval Date: 12/13/2019

Gas Capture Plan
Peridot 8 Federal Wells

Peridot 8 Federal Wells-Located in Sec. 8, T17S, R32E				
Well Name:	6H	8H	16H	18H
Well Location:	1586' FNL 2635' FEL	775' FNL 2543' FWL	1485' FNL 2538' FEL	635' FNL 2542' FWL
Production Facility Name:	Peridot 8 Federal CF1 Tank Battery			
Production Facility Location:	NWNE, Section 8, T17S, R32E			
Anticipated Completion Date:	60-120 days after drilling completed; dependent upon completion crew availability			
Initial Production Volumes:				
Oil (bopd)	570	570	480	480
Gas (mcfd)	620	620	530	530
Water (bwpd)	2300	2300	1900	1900
Date of First Production:	<45 days following completion operations			
Expected Well Life Expectancy:	25 years	25 years	25 years	25 years

APD ID: 10400026506
Submission Date: 04/26/2018
Operator Name: CONOCOPHILLIPS COMPANY
Federal/Indian APD: FED
Well Name: PERIDOT 8 FEDERAL
Well Number: 6H
Well Type: OIL WELL
Well Work Type: Drill

Show Final Text

Application

Section 1 - General

APD ID: 10400026506
Tie to previous NOS? N
Submission Date: 04/26/2018
BLM Office: CARLSBAD
User: Susan Maunder
Title: Senior Coordinator, Regulatory MCBU
Federal/Indian APD: FED
Is the first lease penetrated for production Federal or Indian? FED
Lease number: NMLC0064149
Lease Acres: 320
Surface access agreement in place?
Allotted?
Reservation:
Agreement in place? NO
Federal or Indian agreement:
Agreement number:
Agreement name:
Keep application confidential? NO
Permitting Agent? NO
APD Operator: CONOCOPHILLIPS COMPANY
Operator letter of designation:
Peridot_8_Fed_6H_SerialRegister_20180123152431.pdf
Peridot_8_Fed_6H_JOA_Certif_Ltr_20180425131749.pdf

Operator Info

Operator Organization Name: CONOCOPHILLIPS COMPANY
Operator Address: PO Box 2197
Zip: 77252
Operator PO Box:
Operator City: Houston
State: TX
Operator Phone: (281)293-1748
Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO
Master Development Plan name:
Well in Master SUPO? NO
Master SUPO name:

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: PERIDOT 8 FEDERAL **Well Number:** 6H

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Well Name: PERIDOT 8 FEDERAL **Well Number:** 6H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** MALJAMAR **Pool Name:** YESO WEST

Is the proposed well in an area containing other mineral resources? USEABLE WATER

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** NO **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** PERIDOT 8 FED **Number:** 6H

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 1.3 Miles **Distance to nearest well:** 140 FT **Distance to lease line:** 5 FT

Reservoir well spacing assigned acres Measurement: 280.95 Acres

Well plat: Peridot_8_Fed_6H_C102_20180123142457.pdf

Peridot_8_Fed_6H_Leases_w_wellsMap_20180123144858.pdf

Peridot_8_Fed_6H_Pay_gov_receipt_20180425133557.pdf

[redacted] **Duration:** 21 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: **Reference Datum:**

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	1586	FNL	2635	FEL	17S	32E	8	Aliquot SWNE	32.852069	-103.788625	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0064149	4052	0	0	

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Click here to see on map

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CASE RECORDATION
(MASS) Serial Register Page

Run Time: 04:06 PM
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Run Date: 07/24/2017

01 02-25-1920;041STAT0437;30USC226
Case Type 310781: O&G RENEWAL LEASE - PD
Commodity 459: OIL & GAS
Case Disposition: AUTHORIZED

Total Acres	Serial Number
320.000	NMLC– 0 064149

Serial Number: NMLC– 0 064149

Name & Address			Int Rel	% Intere
CHEVRON USA INC	6301 DEAUVILLE	MIDLAND TX 797062964	OPERATING RIGHTS	0.000000000
CHEVRON USA INC	6301 DEAUVILLE	MIDLAND TX 797062964	LESSEE	100.000000000
COG OPERATING LLC	600 W ILLINOIS AVE	MIDLAND TX 797014882	OPERATING RIGHTS	0.000000000
CONOCOPHILLIPS CO	PO BOX 7500	BARTLESVILLE OK 740057500	OPERATING RIGHTS	0.000000000
LINN ENERGY HOLDINGS LLC	600 TRAVIS ST STE 5100	HOUSTON TX 770023092	OPERATING RIGHTS	0.000000000
MALJAMAR DEV PRTNSHP	8115 PRESTON RD #400	DALLAS TX 75225	OPERATING RIGHTS	0.000000000
SABINE OIL & GAS CORP	707 17TH ST STE 3600	DENVER CO 802023406	OPERATING RIGHTS	0.000000000
SANDRIDGE EXPL & PROD LLC	123 ROBERT S KERR AVE	OKLAHOMA CITY OK 731026406	OPERATING RIGHTS	0.000000000

Serial Number: NMLC– 0 064149

Mer Twp	Rng	Sec	STyp	SNr Suff	Subdivision	District/Field Office	County	Mgmt Agency
23 0170S	0320E	008	ALIQ		E2;	CARLSBAD FIELD OFFICE	LEA	BUREAU OF LAND MGMT

Serial Number: NMLC– 0 064149

Act Date	Code	Action	Action Remar	Pending Offic
06/08/1934	387	CASE ESTABLISHED		
06/08/1934	496	FUND CODE	05;145003	
06/08/1934	868	EFFECTIVE DATE		
09/14/1945	553	CASE CREATED BY ASGN	OUT OF NMLC029406-B;	
11/20/1956	102	NOTICE SENT-PROD STATUS		
11/01/1961	242	LEASE RENEWED	THRU 10/31/71;	
11/01/1961	534	RLTY RATE-SLIDING-SCH D		
11/01/1961	868	EFFECTIVE DATE	LAST RENEWAL;	
05/01/1967	232	LEASE COMMITTED TO UNIT	NMNM70988X;MALJAMAR G	
05/01/1967	651	HELD BY PROD - ALLOCATED	MALJAMAR GRAYBURG UA	
05/01/1967	660	MEMO OF 1ST PROD-ALLOC	MALJAMAR GRAYBURG UA	
04/03/1987	963	CASE MICROFILMED/SCANNED	CNUM 102,962 RW	
01/05/1988	974	AUTOMATED RECORD VERIF	AR/EC	
10/11/1990	974	AUTOMATED RECORD VERIF	GG	
06/22/1992	932	TRF OPER RGTS FILED	CHEVRON/WISER OIL CO	
08/20/1992	933	TRF OPER RGTS APPROVED	EFF 07/01/92;	
08/20/1992	974	AUTOMATED RECORD VERIF	SSP/JS	
10/01/1992	621	RLTY RED-STRIPPER WELL	2.1%;/1/8910088480	
01/15/1993	625	RLTY REDUCTION APPV	/1/	
03/21/1994	974	AUTOMATED RECORD VERIF	ANN	
12/04/1995	932	TRF OPER RGTS FILED	THE WISER/MALJAMAR	
03/28/1996	933	TRF OPER RGTS APPROVED	EFF 01/01/96;	
03/28/1996	974	AUTOMATED RECORD VERIF	MV/MV	
08/01/1996	932	TRF OPER RGTS FILED	CHEVRON/CONOCO	
11/05/1996	933	TRF OPER RGTS APPROVED	EFF 09/01/96;	
11/05/1996	974	AUTOMATED RECORD VERIF	JLV	
05/22/1997	932	TRF OPER RGTS FILED	MALJAMAR/WISER OIL	
06/25/1997	933	TRF OPER RGTS APPROVED	EFF 06/01/97;	
06/25/1997	974	AUTOMATED RECORD VERIF	MV/MV	
01/16/2003	817	MERGER RECOGNIZED	CONOCO/CONOCOPHILLIPS	

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DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CASE RECORDATION
(MASS) Serial Register Page

Run Time: 04:03 PM
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Run Date: 07/24/2017

01 02-25-1920;041STAT0437;30USC226
Case Type 310781: O&G RENEWAL LEASE - PD
Commodity 459: OIL & GAS
Case Disposition: AUTHORIZED

Total Acres	Serial Number
480.000	NMLC– 0 058775

Serial Number: NMLC– 0 058775

Name & Address			Int Rel	% Intere
CONOCOPHILLIPS CO	PO BOX 7500	BARTLESVILLE OK 740057500	LESSEE	100.000000000

Serial Number: NMLC– 0 058775

Mer	Twp	Rng	Sec	STyp	SNr	Suff	Subdivision	District/Field Office	County	Mgmt Agency
23	0170S	0320E	005	ALIQ			N2SW;	CARLSBAD FIELD OFFICE	LEA	BUREAU OF LAND MGMT
23	0170S	0320E	006	ALIQ			N2SE,SWSE;	CARLSBAD FIELD OFFICE	LEA	BUREAU OF LAND MGMT
23	0170S	0320E	007	ALIQ			NWNE,S2NE;	CARLSBAD FIELD OFFICE	LEA	BUREAU OF LAND MGMT
23	0170S	0320E	008	ALIQ			NW;	CARLSBAD FIELD OFFICE	LEA	BUREAU OF LAND MGMT

Serial Number: NMLC– 0 058775

Act Date	Code	Action	Action Remar	Pending Offic
08/05/1929	387	CASE ESTABLISHED		
08/05/1929	496	FUND CODE	05;145003	
08/05/1929	868	EFFECTIVE DATE		
02/19/1941	553	CASE CREATED BY ASGN	OUT OF NMLC029406-A;	
07/09/1943	570	CASE SEGREGATED BY ASGN	INTO NMLC061434;	
03/22/1945	500	GEOGRAPHIC NAME	N MALJAMAR FLD;	
03/22/1945	510	KMA CLASSIFIED		
02/14/1949	314	RENEWAL APLN FILED		
05/06/1949	650	HELD BY PROD - ACTUAL		
05/06/1949	658	MEMO OF 1ST PROD-ACTUAL		
08/01/1949	242	LEASE RENEWED	THRU 07/31/59;	
04/17/1959	314	RENEWAL APLN FILED		
08/01/1959	242	LEASE RENEWED	THRU 07/31/69;	
04/14/1969	314	RENEWAL APLN FILED		
07/16/1969	646	MEMO OF LAST PROD-ACTUAL		
08/01/1969	242	LEASE RENEWED	THRU 07/31/79;	
12/18/1970	058	NOTICE SENT-NONPROD STAT		
03/19/1979	314	RENEWAL APLN FILED		
08/01/1979	242	LEASE RENEWED	THRU 07/31/89;	
10/24/1979	940	NAME CHANGE RECOGNIZED	CONTL OIL/CONOCO INC	
07/06/1984	111	RENTAL RECEIVED	$480.00;1YR/84-85	
07/08/1985	111	RENTAL RECEIVED	$480.00;1YR/85-86	
07/07/1986	111	RENTAL RECEIVED	$480.00;1YR/86-87	
03/13/1987	963	CASE MICROFILMED/SCANNED	CNUM 103,661 RW	
07/06/1987	111	RENTAL RECEIVED	$480.00;1YR/87-88	
12/08/1987	974	AUTOMATED RECORD VERIF	HKG/VL	
07/08/1988	111	RENTAL RECEIVED	$480.00;1YR/88-89	
02/27/1989	314	RENEWAL APLN FILED		
06/05/1989	111	RENTAL RECEIVED	$480.00;1YR/89-90	
06/12/1989	974	AUTOMATED RECORD VERIF	MCS/MT	
08/01/1989	242	LEASE RENEWED	THRU 07/31/99;	
08/01/1989	868	EFFECTIVE DATE		
07/05/1990	111	RENTAL RECEIVED	$480.00;43/1103645	

NO WARRANTY IS MADE BY BLM FOR USE OF THE DATA FOR PURPOSES NOT INTENDED BY BLM

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DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
CASE RECORDATION
(MASS) Serial Register Page

Run Time: 04:01 PM
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Run Date: 07/24/2017

01 02-25-1920;041STAT0437;30USC226
Case Type 310771: O&G EXCHANGE LEASE - PD
Commodity 459: OIL & GAS
Case Disposition: AUTHORIZED

Total Acres	Serial Number
1,606.800	NMLC-- 0 029406B

Serial Number: NMLC-- 0 029406B

Name & Address			Int Rel	% Intere
CHASE FERGUSON GERENE D	PO BOX 693	ARTESIA NM 88211	OPERATING RIGHTS	0.000000000
CHASE OIL CORP	PO BOX 1767	ARTESIA NM 882111767	OPERATING RIGHTS	0.000000000
CHASE OIL CORP	PO BOX 1767	ARTESIA NM 882111767	LESSEE	0.000000000
CHASE RICHARD L	PO BOX 359	ARTESIA NM 882110359	OPERATING RIGHTS	0.000000000
CHASE ROBERT C	PO BOX 297	ARTESIA NM 882111297	OPERATING RIGHTS	0.000000000
COG OPERATING LLC	600 W ILLINOIS AVE	MIDLAND TX 797014882	OPERATING RIGHTS	0.000000000
CONOCOPHILLIPS CO	PO BOX 7500	BARTLESVILLE OK 740057500	OPERATING RIGHTS	0.000000000
CONOCOPHILLIPS CO	PO BOX 7500	BARTLESVILLE OK 740057500	LESSEE	0.000000000

Serial Number: NMLC-- 0 029406B

Mer Twp Rng Sec	STyp	SNr Suff	Subdivision	District/Field Office	County	Mgmt Agency
23 0170S 0320E 005	ALIQ		S2N2,SE;	CARLSBAD FIELD OFFICE	LEA	BUREAU OF LAND MGMT
23 0170S 0320E 005	LOTS		1-4;	CARLSBAD FIELD OFFICE	LEA	BUREAU OF LAND MGMT
23 0170S 0320E 006	ALIQ		S2NE,SENW,E2SW;	CARLSBAD FIELD OFFICE	LEA	BUREAU OF LAND MGMT
23 0170S 0320E 006	LOTS		1-7;	CARLSBAD FIELD OFFICE	LEA	BUREAU OF LAND MGMT
23 0170S 0320E 007	ALIQ		E2W2,SE;	CARLSBAD FIELD OFFICE	LEA	BUREAU OF LAND MGMT
23 0170S 0320E 007	LOTS		1-4;	CARLSBAD FIELD OFFICE	LEA	BUREAU OF LAND MGMT
23 0170S 0320E 008	ALIQ		SW;	CARLSBAD FIELD OFFICE	LEA	BUREAU OF LAND MGMT

Relinquished/Withdrawn Lands **Serial Number: NMLC-- 0 029406B**

23 0170S 0320E 708	FF	E2,ASGN;	CARLSBAD FIELD OFFICE	LEA	BUREAU OF LAND MGMT

Serial Number: NMLC-- 0 029406B

Act Date	Code	Action	Action Remar	Pending Offic
11/25/1933	124	APLN RECD		
06/08/1934	237	LEASE ISSUED		
06/08/1934	496	FUND CODE	05;145003	
06/08/1934	534	RLTY RATE-SLIDING-SCH D		
06/08/1934	868	EFFECTIVE DATE		
09/14/1945	570	CASE SEGREGATED BY ASGN	INTO NMNM064149;	
01/06/1953	650	HELD BY PROD - ACTUAL		
01/06/1953	658	MEMO OF 1ST PROD-ACTUAL		
10/24/1979	940	NAME CHANGE RECOGNIZED	CONTL OIL/CONOCO INC	
01/11/1983	140	ASGN FILED	(1)CONOCO/PETRO LEWIS	
01/11/1983	140	ASGN FILED	(1)CONOCO/PTNRSHP PRO	
01/11/1983	140	ASGN FILED	(2)CONOCO/PETRO LEWIS	
01/11/1983	140	ASGN FILED	(2)CONOCO/PTNRSHP PRO	
02/11/1983	140	ASGN FILED	PETRO/PTNRSHP PROP	
01/25/1985	139	ASGN APPROVED	(1)EFF 02/01/83;	
01/25/1985	139	ASGN APPROVED	(2)EFF 02/01/83;	
01/25/1985	139	ASGN APPROVED	(3)EFF 02/01/83;	
01/25/1985	139	ASGN APPROVED	(4)EFF 02/01/83;	
01/25/1985	139	ASGN APPROVED	EFF 03/01/83;	
02/05/1985	963	CASE MICROFILMED/SCANNED	CNUM 100,429 GLC	
11/03/1987	974	AUTOMATED RECORD VERIF	JAH/DCE	
07/26/1988	140	ASGN FILED	PTNRSHP PROP/FMP OPER	
08/16/1988	139	ASGN APPROVED	EFF 08/01/88;	

NO WARRANTY IS MADE BY BLM FOR USE OF THE DATA FOR PURPOSES NOT INTENDED BY BLM

Susan B. Maunder
Sr. Coordinator, Regulatory
Phone: (281) 206-5281

ConocoPhillips Company
600 N. Dairy Ashford Road, Off EC3-10-W285
Houston, TX 77079-1175

April 24, 2018

Bureau of Land Management
Carlsbad Field Office
620 East Greene Street
Carlsbad, New Mexico 88220-6292

RE: Joint Operating Agreement
Pending APD – Peridot 8 Federal 6H
Section 8, T17S, R32E
Lease Numbers – NMLC 064149

Dear Sir or Madam,

ConocoPhillips Company has negotiated a Joint Operating Agreement with COG Operating LLC which covers approximately 480 acres in Section 8, Township 17 South, Range 32 East. The agreement, along with other terms, provides access to surface, operated by the other party. This mutual access will allow more oil and gas resource recovery by maximizing horizontal wellbore, formation contact.

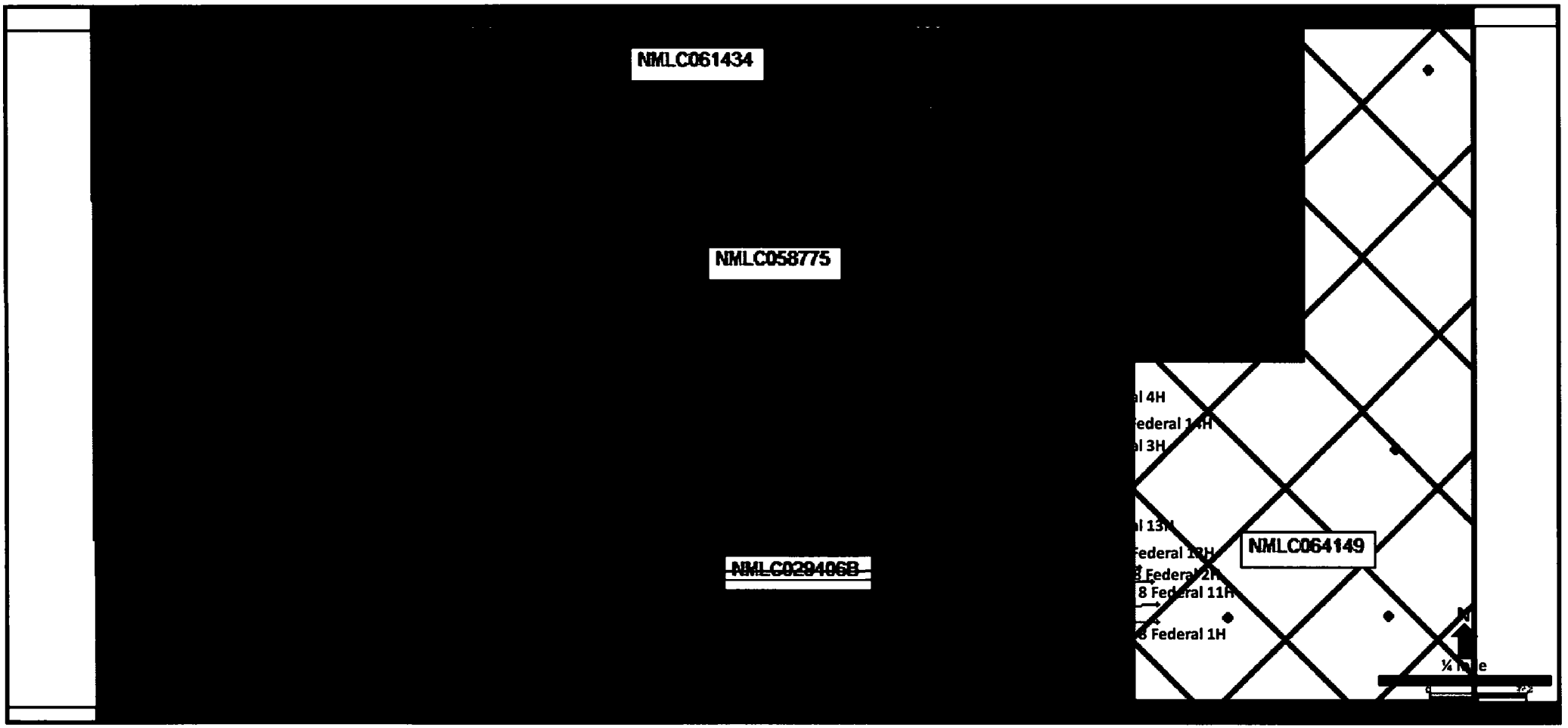
Please accept this letter as our certification our two companies are, in agreement of operating rights within the Peridot 8 Federal area. In regard to Peridot development, COP respectfully requests BLM to process the referenced APD to afford the maintenance of our leases in a timely manner.

If you have questions regarding this certification, I can be reached at 281-206-5281 or via email at Susan.B.Maunder@conocophillips.com.

Sincerely,

Susan B. Maunder
Senior Coordinator, Regulatory
ConocoPhillips Company

Peridot Section 7 and 8 Lease Map



Operator Name: CONOCOPHILLIPS COMPANY

Well Name: PERIDOT 8 FEDERAL **Well Number:** 6H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
KOP Leg #1	1650	FNL	2635	FEL	17S	32E	8	Aliquot SWNE	32.851775	-103.788121	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0064149	-998	5050	5050	
PPP Leg #1-1	1669	FNL	2640	FWL	17S	32E	7	Aliquot SENW	32.851916	-103.805836	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0029406B	-1481	10656	5533	
PPP Leg #1-2	1651	FNL	2435	FWL	17S	32E	8	Aliquot SENW	32.851895	-103.789311	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0058775	-1433	5550	5485	
EXIT Leg #1	1669	FNL	2640	FEL	17S	32E	7	Aliquot SWNE	32.851916	-103.805836	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0058775	-1481	10656	5533	
BHL Leg #1	1650	FNL	330	FWL	17S	32E	7	Lot 2	32.851925	-103.813442	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0029406B	-1440	12991	5492	

Drilling Plan

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
171205	RUSTLER	3214	855	855	ANHYDRITE, DOLOMITE	NONE	N
171206	SALADO	2224	990	990	ANHYDRITE, SALT	NONE	N
171207	TANSILL	1144	2070	2070	ANHYDRITE, DOLOMITE, SALT	NONE	N
171208	YATES	1004	2210	2210	ANHYDRITE, DOLOMITE, SANDSTONE	NONE	N
171209	SEVEN RIVERS	699	2515	2515	ANHYDRITE, DOLOMITE, SANDSTONE	NATURAL GAS, OIL	N
171210	QUEEN	79	3135	3135	ANHYDRITE, DOLOMITE, SANDSTONE	NATURAL GAS, OIL	N
171211	GRAYBURG	-356	3570	3570	DOLOMITE, SANDSTONE	NATURAL GAS, OIL	N
171212	SAN ANDRES	-661	3875	3875	DOLOMITE, SANDSTONE	NATURAL GAS, OIL	N

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: PERIDOT 8 FEDERAL **Well Number:** 6H

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
171213	GLORIETA	-2169	5383	5408	DOLOMITE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL	N
171214	PADDOCK	-2258	5472	5528	ANHYDRITE, DOLOMITE, SILTSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M **Rating Depth:** 5615

Equipment: Rotating Head, Annular Preventer, Pipe/Blind Rams, Kill Lines, Choke Lines, Adapter Spool

Requesting Variance? YES

Variance request: We request variance to use flexible choke line(s) from the BOP to Choke Manifold. We also request approval to have the option of using a 13" 3M BOP depending on equipment availability.
Testing Procedure: BOP/BOPE tested by independent company to 250 psi low; high of 50% working psi, and as required by Onshore Order 2. See also attached "Drill Plan".
Choke Diagram Attachment:

Peridot_8_Fed_6H_3M_Choke_Manifold__1__20180124070204.pdf

Peridot_8_Fed_6H_FlexhoseVarianceData_20180124070243.pdf

BOP Diagram Attachment:

Peridot_8_Fed_6H_13in_5M_BOPE_Diagram_20180124070219.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	
1	SURFACE	17.5	13.375	NEW	API	N	0	885	0	885	4052		885	J-55	54.5	ST&C	2.89	6.98	DRY	10.7	DRY	17
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	2250	0	2250			2250	J-55	40	LT&C	2.2	3.38	DRY	5.78	DRY	7
3	PRODUCTION	8.75	7.0	NEW	API	Y	0	5200	0	5200			5200	L-80	29	LT&C	2.88	3.35	DRY	3.89	DRY	4.
4	PRODUCTION	8.75	5.5	NEW	API	Y	5200	12991	5200	5492			7791	L-80	20	LT&C	3.36	3.5	DRY	3.36	DRY	2.

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Peridot_8_Fed_6H_Csg_Worksheet_20180124075915.pdf

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Peridot_8_Fed_6H_Csg_Worksheet_20180124075935.pdf

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Peridot_8_Fed_6H_Csg_Worksheet_20180124075948.pdf

Casing Design Assumptions and Worksheet(s):

Peridot_8_Fed_6H_Csg_Worksheet_20180124080005.pdf

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: PERIDOT 8 FEDERAL **Well Number:** 6H

Casing Attachments

Casing ID: 4 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Peridot_8_Fed_6H_Csg_Worksheet_20180124080024.pdf

Casing Design Assumptions and Worksheet(s):

Peridot_8_Fed_6H_Csg_Worksheet_20180124080035.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	585	500	1.68	13.5	840	50	Class C	4.0% Bentonite + 0.2% Anti-Foam + 2.0% CaCl2 +0.125lb/sk LCM + 0.1% Dispersant
SURFACE	Tail		585	885	400	1.35	14.8	540	50	Class C	0.2% Anti-Foam + 0.1% Lost Circ Control + 2 lbs/bbl CemNET (losses Control)
INTERMEDIATE	Lead		0	1750	450	2.29	11.5	1031	50	Class C	10.0% Bentonite + 0.2% Anti-Foam + 2.0% Expanding + 0.15% Viscosifier + 1.3% Retarder
INTERMEDIATE	Tail		1750	2250	300	1.29	13.5	387	50	Class C	1% Extender + 3 lb/sk Extender + 0.2% Anti-Foam + 0.1% Dispersant + 13 lb/sk LCM + 0.5% Fluid Loss + 0.7% Retarder
PRODUCTION	Lead		1700	5200	650	3.2	11	2080	15	Class C	6% Extender + 10% Gas Migration Control + 2% Sodium Metasilicate (dry) + 1% Cement Bonding Agent + 3% Aluminum Silicate +

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: PERIDOT 8 FEDERAL **Well Number:** 6H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
											0.125 lb/sx Cello Flake + 3 lb/sx LCM-1
PRODUCTION	Lead		5200	12991	1900	1.37	14	2603	15	Class C	Class C + 3lb/sk LCM + 1.5% Fluid Loss + 0.1% + 1% Sodium Metasilicate (dry) + 1.5% Fluid Loss Control

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. See attached "Drill Plan" for discussion.

Describe the mud monitoring system utilized: Closed-loop mud system using steel mud containers will be on location. Mud monitoring of any changes in levels (gains or losses) will use Pressure Volume Temperature instrumentation, Pason, Visual Observations. See attached "Drill Plan" for discussion.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	885	OTHER : Freshwater Gel	8.5	9							
885	2250	SALT SATURATED	10	10							
2250	5615	OTHER : Cut Brine	8.6	10							

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Production tests will be conducted multiple times per week, through a test separator, during first month(s) following completion. Thereafter, tests will be less frequently.

List of open and cased hole logs run in the well:

CNL,GR,MUDLOG

Coring operation description for the well:

No coring operation is planned at this time.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 2815 **Anticipated Surface Pressure:** 1597.74

Anticipated Bottom Hole Temperature(F): 100

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Peridot_8_Fed_6H_TypicalRigLayout_20180124083218.pdf

Peridot_8_Fed_6H_H2S_CPlan_20180426072014.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Peridot_8_Fed_6H_DirectionalPlan_20180124083556.pdf

Peridot_8_Fed_6H_WellboreSchematic_20180425142203.pdf

Other proposed operations facets description:

Option to upgrade casing connection to BTC is requested, in addition to the ability to upgrade our BOP equipment, depending on availability. We request approval of option to run open hole sliding sleeve in lateral section (option attachment included). We request variance to use multi-bowl wellhead. See attached "Drill Plan" for discussion.

Other proposed operations facets attachment:

Peridot_8_Fed_6H_Drill_Waste_Containment_20180124083631.pdf

Peridot_8_Fed_6H_GasCapturePlan_20180423144456.pdf

Peridot_8_Fed_6H_WellboreSchematicOH_20180425142259.pdf

Peridot_8_Fed_6H_Drill_Plan_20180425142441.pdf

ConocoPhillips

Company: ConocoPhillips
Site: Peridot 8 Federal
Well: 6H
Project: Lea County, New Mexico (NAD 27)
Rig: Trinidad 417

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T G M

Azimuths to Grid North
True North: -0.30°
Magnetic North: 6.83°

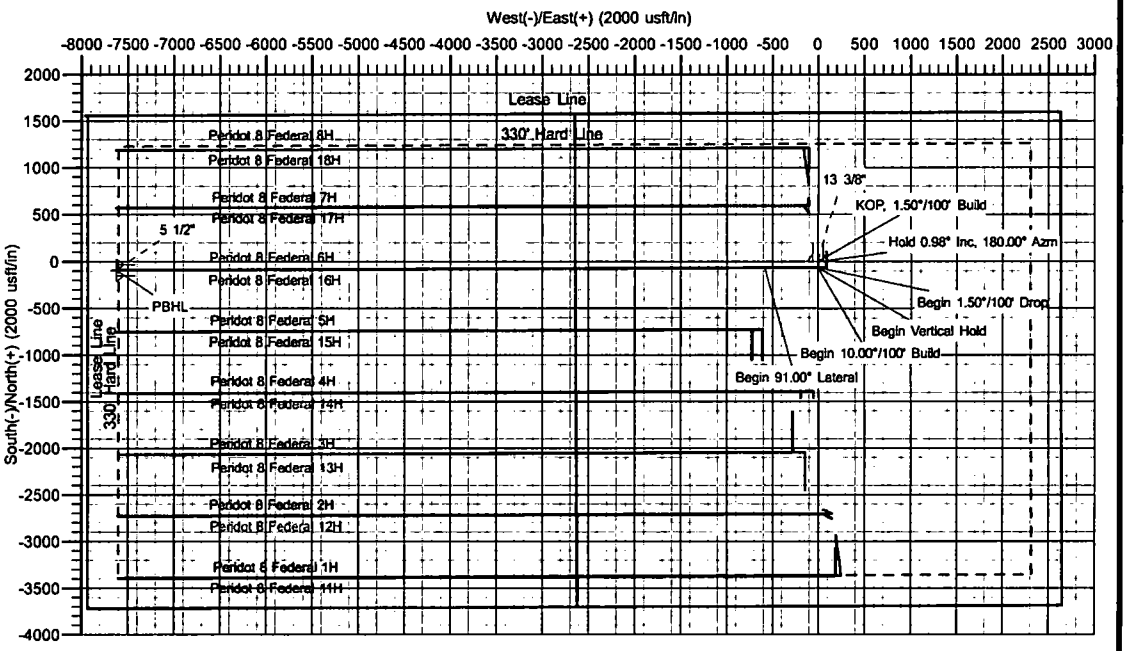
Magnetic Field
Strength: 48341.0snT
Dip Angle: 60.62°
Date: 8/1/2017
Model: BGGM2017

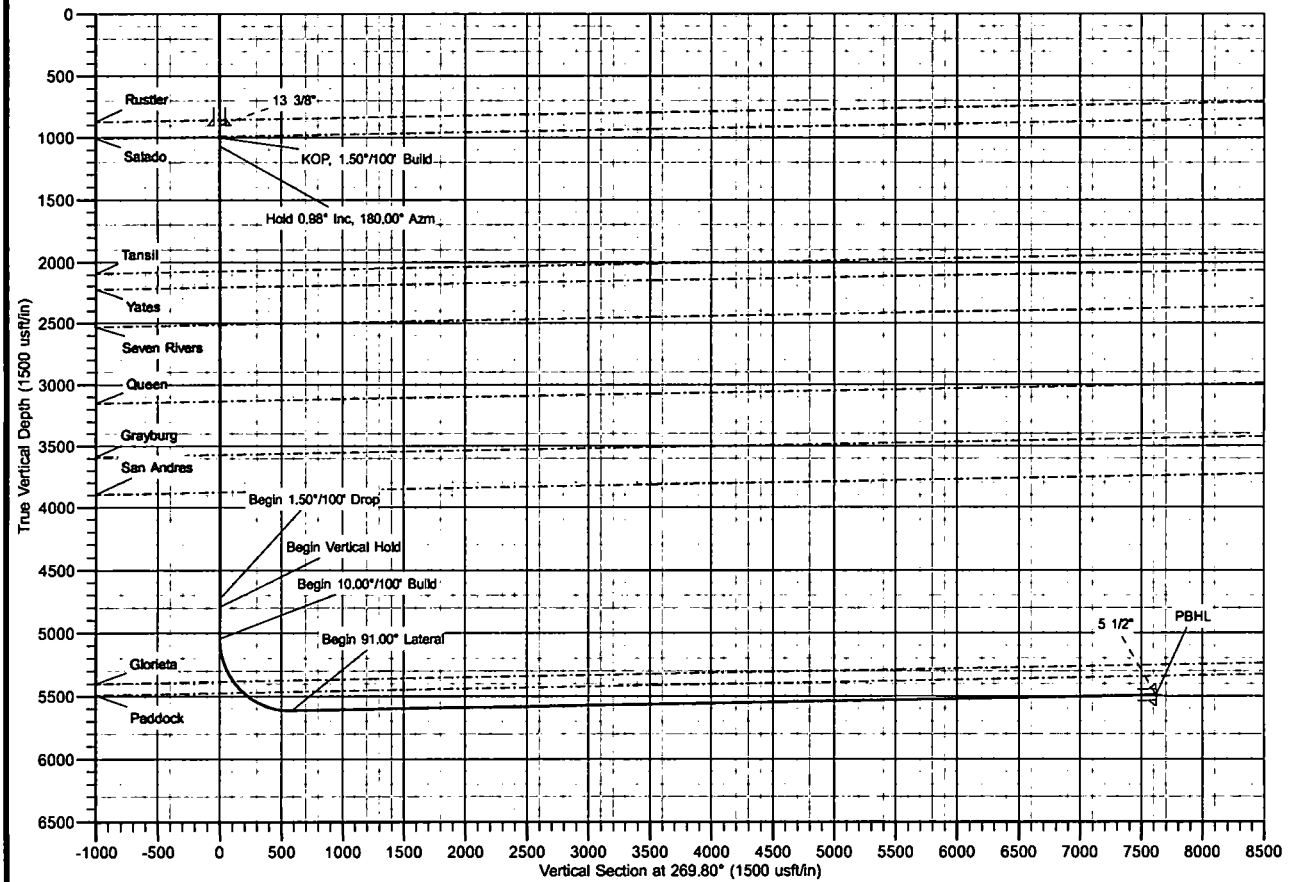
US State Plane 1927 (Exact solution)
New Mexico East 3001

Created By: MEB
Date: 10:26, August 18 2017
Plan: Design #1

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	KOP, 1.50°/100' Build
1065.59	0.98	180.00	1065.59	-0.56	0.00	0.00	0.56	Hold 0.98° Inc, 180.00° Azm
4727.08	0.98	180.00	4726.54	-63.44	0.00	0.22	63.44	Begin 1.50°/100' Drop
4792.68	0.00	0.00	4792.13	-64.00	0.00	0.22	64.00	Begin Vertical Hold
5042.68	0.00	0.00	5042.13	-64.00	0.00	0.22	64.00	Begin 10.00°/100' Build
5952.68	91.00	269.80	5615.00	-66.05	-582.95	583.18	646.96	Begin 91.00° Lateral
12991.37	91.00	269.80	5492.16	-90.79	-7620.53	7620.80	7684.58	PBHL





ConocoPhillips

Company: ConocoPhillips
Site: Peridot 8 Federal
Well: 6H
Project: Lea County, New Mexico (NAD 27)
Rig: Trinidad 417

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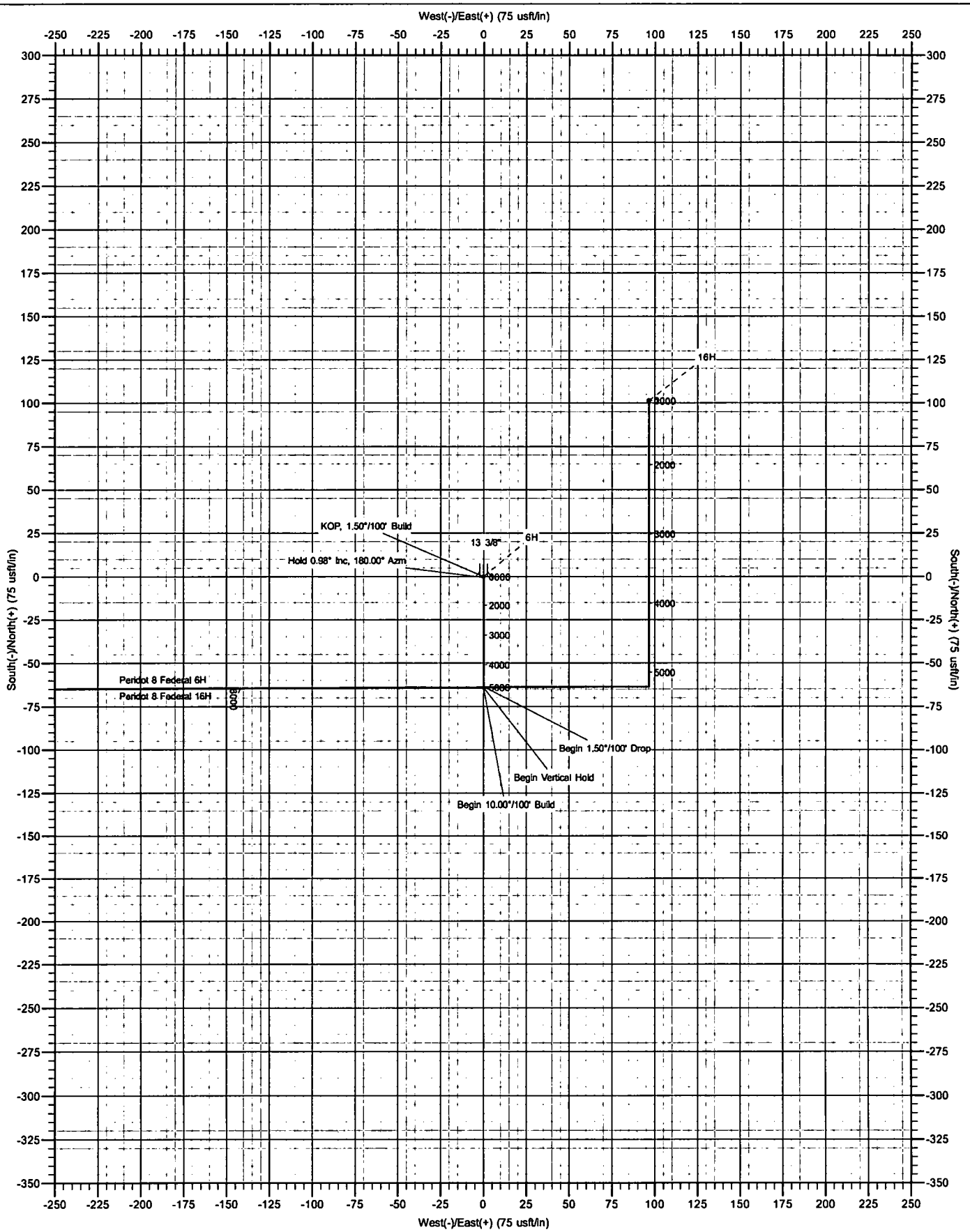

ConocoPhillips

ConocoPhillips

Lea County, New Mexico (NAD 27)
Peridot 8 Federal
6H

Wellbore #1

Plan: Design #1

Standard Planning Report

18 August, 2017

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Database:	EDM 5000.14 Conroe DB	**Local Co-ordinate Reference:**	Well 6H
Company:	ConocoPhillips	**TVD Reference:**	Well @ 4069.70usft (Trinidad 417)
Project:	Lea County, New Mexico (NAD 27)	**MD Reference:**	Well @ 4069.70usft (Trinidad 417)
Site:	Peridot 8 Federal	**North Reference:**	Grid
Well:	6H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Lea County, New Mexico (NAD 27)		
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		

Well	6H					
Well Position	**+N/-S**	674,083.08 usft	**Northing:**	674,083.08 usft	**Latitude:**	32° 51' 7.023 N
	+E/-W	667,433.13 usft	**Easting:**	667,433.13 usft	**Longitude:**	103° 47' 17.230 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**		**Ground Level:**	4,052.20 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2017	8/1/2017	7.13	60.62	48,341

Design Design #1

Audit Notes:

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

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	269.80

Plan Survey Tool Program **Date** 8/17/2017

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	12,991.37	Design #1 (Wellbore #1)	MWD - OWSG R1	
				MWD - OWSG R1	

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	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,065.59	0.98	180.00	1,065.59	-0.56	0.00	1.50	1.50	0.00	180.00	
4,727.08	0.98	180.00	4,726.54	-63.44	0.00	0.00	0.00	0.00	0.00	
4,792.68	0.00	0.00	4,792.13	-64.00	0.00	1.50	-1.50	0.00	180.00	
5,042.68	0.00	0.00	5,042.13	-64.00	0.00	0.00	0.00	0.00	0.00	
5,952.68	91.00	269.80	5,615.00	-66.05	-582.95	10.00	10.00	0.00	269.80	
12,991.37	91.00	269.80	5,492.16	-90.79	-7,620.53	0.00	0.00	0.00	0.00	PBHL - Peridot 8 Fe

Database:	EDM 5000.14 Conroe DB	**Local Co-ordinate Reference:**	Well 6H
Company:	ConocoPhillips	**TVD Reference:**	Well @ 4069.70usft (Trinidad 417)
Project:	Lea County, New Mexico (NAD 27)	**MD Reference:**	Well @ 4069.70usft (Trinidad 417)
Site:	Peridot 8 Federal	**North Reference:**	Grid
Well:	6H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
855.00	0.00	0.00	855.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
13 3/8"									
990.00	0.00	0.00	990.00	0.00	0.00	0.00	0.00	0.00	0.00
Salado									
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP, 1.50°/100' Build									
1,065.59	0.98	180.00	1,065.59	-0.56	0.00	0.00	1.50	1.50	0.00
Hold 0.98° Inc, 180.00° Azm									
1,100.00	0.98	180.00	1,099.99	-1.15	0.00	0.00	0.00	0.00	0.00
1,200.00	0.98	180.00	1,199.98	-2.87	0.00	0.01	0.00	0.00	0.00
1,300.00	0.98	180.00	1,299.96	-4.59	0.00	0.02	0.00	0.00	0.00
1,400.00	0.98	180.00	1,399.95	-6.31	0.00	0.02	0.00	0.00	0.00
1,500.00	0.98	180.00	1,499.93	-8.02	0.00	0.03	0.00	0.00	0.00
1,600.00	0.98	180.00	1,599.92	-9.74	0.00	0.03	0.00	0.00	0.00
1,700.00	0.98	180.00	1,699.90	-11.46	0.00	0.04	0.00	0.00	0.00
1,800.00	0.98	180.00	1,799.89	-13.17	0.00	0.05	0.00	0.00	0.00
1,900.00	0.98	180.00	1,899.87	-14.89	0.00	0.05	0.00	0.00	0.00
2,000.00	0.98	180.00	1,999.86	-16.61	0.00	0.06	0.00	0.00	0.00
2,070.15	0.98	180.00	2,070.00	-17.81	0.00	0.06	0.00	0.00	0.00
Tansil									
2,100.00	0.98	180.00	2,099.84	-18.33	0.00	0.06	0.00	0.00	0.00
2,200.00	0.98	180.00	2,199.83	-20.04	0.00	0.07	0.00	0.00	0.00
2,210.17	0.98	180.00	2,210.00	-20.22	0.00	0.07	0.00	0.00	0.00
Yates									
2,300.00	0.98	180.00	2,299.81	-21.76	0.00	0.08	0.00	0.00	0.00
2,400.00	0.98	180.00	2,399.80	-23.48	0.00	0.08	0.00	0.00	0.00
2,500.00	0.98	180.00	2,499.79	-25.19	0.00	0.09	0.00	0.00	0.00
2,515.22	0.98	180.00	2,515.00	-25.46	0.00	0.09	0.00	0.00	0.00
Seven Rivers									
2,600.00	0.98	180.00	2,599.77	-26.91	0.00	0.09	0.00	0.00	0.00
2,700.00	0.98	180.00	2,699.76	-28.63	0.00	0.10	0.00	0.00	0.00
2,800.00	0.98	180.00	2,799.74	-30.35	0.00	0.11	0.00	0.00	0.00
2,900.00	0.98	180.00	2,899.73	-32.06	0.00	0.11	0.00	0.00	0.00
3,000.00	0.98	180.00	2,999.71	-33.78	0.00	0.12	0.00	0.00	0.00
3,100.00	0.98	180.00	3,099.70	-35.50	0.00	0.12	0.00	0.00	0.00
3,135.31	0.98	180.00	3,135.00	-36.10	0.00	0.13	0.00	0.00	0.00
Queen									
3,200.00	0.98	180.00	3,199.68	-37.21	0.00	0.13	0.00	0.00	0.00
3,300.00	0.98	180.00	3,299.67	-38.93	0.00	0.14	0.00	0.00	0.00
3,400.00	0.98	180.00	3,399.65	-40.65	0.00	0.14	0.00	0.00	0.00
3,500.00	0.98	180.00	3,499.64	-42.37	0.00	0.15	0.00	0.00	0.00
3,570.37	0.98	180.00	3,570.00	-43.57	0.00	0.15	0.00	0.00	0.00

Database:	EDM 5000.14 Conroe DB	**Local Co-ordinate Reference:**	Well 6H
Company:	ConocoPhillips	**TVD Reference:**	Well @ 4069.70usft (Trinidad 417)
Project:	Lea County, New Mexico (NAD 27)	**MD Reference:**	Well @ 4069.70usft (Trinidad 417)
Site:	Peridot 8 Federal	**North Reference:**	Grid
Well:	6H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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)
Grayburg									
3,600.00	0.98	180.00	3,599.62	-44.08	0.00	0.15	0.00	0.00	0.00
3,700.00	0.98	180.00	3,699.61	-45.80	0.00	0.16	0.00	0.00	0.00
3,800.00	0.98	180.00	3,799.59	-47.52	0.00	0.17	0.00	0.00	0.00
3,875.41	0.98	180.00	3,875.00	-48.81	0.00	0.17	0.00	0.00	0.00
San Andres									
3,900.00	0.98	180.00	3,899.58	-49.23	0.00	0.17	0.00	0.00	0.00
4,000.00	0.98	180.00	3,999.56	-50.95	0.00	0.18	0.00	0.00	0.00
4,100.00	0.98	180.00	4,099.55	-52.67	0.00	0.18	0.00	0.00	0.00
4,200.00	0.98	180.00	4,199.53	-54.39	0.00	0.19	0.00	0.00	0.00
4,300.00	0.98	180.00	4,299.52	-56.10	0.00	0.20	0.00	0.00	0.00
4,400.00	0.98	180.00	4,399.51	-57.82	0.00	0.20	0.00	0.00	0.00
4,500.00	0.98	180.00	4,499.49	-59.54	0.00	0.21	0.00	0.00	0.00
4,600.00	0.98	180.00	4,599.48	-61.25	0.00	0.21	0.00	0.00	0.00
4,700.00	0.98	180.00	4,699.46	-62.97	0.00	0.22	0.00	0.00	0.00
4,727.08	0.98	180.00	4,726.54	-63.44	0.00	0.22	0.00	0.00	0.00
Begin 1.50°/100' Drop									
4,792.68	0.00	0.00	4,792.13	-64.00	0.00	0.22	1.50	-1.50	0.00
Begin Vertical Hold									
4,800.00	0.00	0.00	4,799.45	-64.00	0.00	0.22	0.00	0.00	0.00
4,900.00	0.00	0.00	4,899.45	-64.00	0.00	0.22	0.00	0.00	0.00
5,000.00	0.00	0.00	4,999.45	-64.00	0.00	0.22	0.00	0.00	0.00
5,042.68	0.00	0.00	5,042.13	-64.00	0.00	0.22	0.00	0.00	0.00
Begin 10.00°/100' Build									
5,050.00	0.73	269.80	5,049.45	-64.00	-0.05	0.27	10.00	10.00	0.00
5,100.00	5.73	269.80	5,099.36	-64.01	-2.87	3.09	10.00	10.00	0.00
5,150.00	10.73	269.80	5,148.83	-64.04	-10.02	10.25	10.00	10.00	0.00
5,200.00	15.73	269.80	5,197.48	-64.08	-21.46	21.69	10.00	10.00	0.00
5,250.00	20.73	269.80	5,244.96	-64.13	-37.10	37.33	10.00	10.00	0.00
5,300.00	25.73	269.80	5,290.89	-64.20	-56.82	57.04	10.00	10.00	0.00
5,350.00	30.73	269.80	5,334.93	-64.28	-80.46	80.69	10.00	10.00	0.00
5,400.00	35.73	269.80	5,376.74	-64.38	-107.86	108.08	10.00	10.00	0.00
5,407.79	36.51	269.80	5,383.03	-64.40	-112.45	112.67	10.00	10.00	0.00
Glorieta									
5,450.00	40.73	269.80	5,416.00	-64.49	-138.79	139.01	10.00	10.00	0.00
5,500.00	45.73	269.80	5,452.42	-64.61	-173.02	173.25	10.00	10.00	0.00
5,528.23	48.55	269.80	5,471.61	-64.68	-193.71	193.94	10.00	10.00	0.00
Paddock									
5,550.00	50.73	269.80	5,485.71	-64.74	-210.31	210.53	10.00	10.00	0.00
5,600.00	55.73	269.80	5,515.63	-64.88	-250.35	250.57	10.00	10.00	0.00
5,650.00	60.73	269.80	5,541.95	-65.03	-292.84	293.07	10.00	10.00	0.00
5,700.00	65.73	269.80	5,564.46	-65.19	-337.47	337.69	10.00	10.00	0.00
5,750.00	70.73	269.80	5,583.00	-65.35	-383.89	384.11	10.00	10.00	0.00
5,800.00	75.73	269.80	5,597.42	-65.52	-431.75	431.97	10.00	10.00	0.00
5,850.00	80.73	269.80	5,607.61	-65.69	-480.68	480.91	10.00	10.00	0.00
5,900.00	85.73	269.80	5,613.50	-65.86	-530.32	530.54	10.00	10.00	0.00
5,952.68	91.00	269.80	5,615.00	-66.05	-582.95	583.18	10.00	10.00	0.00
Begin 91.00° Lateral									
6,000.00	91.00	269.80	5,614.18	-66.22	-630.27	630.50	0.00	0.00	0.00
6,100.00	91.00	269.80	5,612.43	-66.57	-730.25	730.48	0.00	0.00	0.00
6,200.00	91.00	269.80	5,610.69	-66.92	-830.24	830.47	0.00	0.00	0.00
6,300.00	91.00	269.80	5,608.94	-67.27	-930.22	930.45	0.00	0.00	0.00
6,400.00	91.00	269.80	5,607.20	-67.62	-1,030.20	1,030.43	0.00	0.00	0.00

Database:	EDM 5000.14 Conroe DB	**Local Co-ordinate Reference:**	Well 6H
Company:	ConocoPhillips	**TVD Reference:**	Well @ 4069.70usft (Trinidad 417)
Project:	Lea County, New Mexico (NAD 27)	**MD Reference:**	Well @ 4069.70usft (Trinidad 417)
Site:	Peridot 8 Federal	**North Reference:**	Grid
Well:	6H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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)
6,500.00	91.00	269.80	5,605.45	-67.97	-1,130.19	1,130.42	0.00	0.00	0.00
6,600.00	91.00	269.80	5,603.70	-68.32	-1,230.17	1,230.40	0.00	0.00	0.00
6,700.00	91.00	269.80	5,601.96	-68.68	-1,330.16	1,330.39	0.00	0.00	0.00
6,800.00	91.00	269.80	5,600.21	-69.03	-1,430.14	1,430.37	0.00	0.00	0.00
6,900.00	91.00	269.80	5,598.47	-69.38	-1,530.13	1,530.36	0.00	0.00	0.00
7,000.00	91.00	269.80	5,596.72	-69.73	-1,630.11	1,630.34	0.00	0.00	0.00
7,100.00	91.00	269.80	5,594.98	-70.08	-1,730.09	1,730.33	0.00	0.00	0.00
7,200.00	91.00	269.80	5,593.23	-70.43	-1,830.08	1,830.31	0.00	0.00	0.00
7,300.00	91.00	269.80	5,591.49	-70.79	-1,930.06	1,930.30	0.00	0.00	0.00
7,400.00	91.00	269.80	5,589.74	-71.14	-2,030.05	2,030.28	0.00	0.00	0.00
7,500.00	91.00	269.80	5,588.00	-71.49	-2,130.03	2,130.27	0.00	0.00	0.00
7,600.00	91.00	269.80	5,586.25	-71.84	-2,230.01	2,230.25	0.00	0.00	0.00
7,700.00	91.00	269.80	5,584.51	-72.19	-2,330.00	2,330.24	0.00	0.00	0.00
7,800.00	91.00	269.80	5,582.76	-72.54	-2,429.98	2,430.22	0.00	0.00	0.00
7,900.00	91.00	269.80	5,581.02	-72.89	-2,529.97	2,530.21	0.00	0.00	0.00
8,000.00	91.00	269.80	5,579.27	-73.25	-2,629.95	2,630.19	0.00	0.00	0.00
8,100.00	91.00	269.80	5,577.53	-73.60	-2,729.94	2,730.18	0.00	0.00	0.00
8,200.00	91.00	269.80	5,575.78	-73.95	-2,829.92	2,830.16	0.00	0.00	0.00
8,300.00	91.00	269.80	5,574.04	-74.30	-2,929.90	2,930.15	0.00	0.00	0.00
8,400.00	91.00	269.80	5,572.29	-74.65	-3,029.89	3,030.13	0.00	0.00	0.00
8,500.00	91.00	269.80	5,570.55	-75.00	-3,129.87	3,130.11	0.00	0.00	0.00
8,600.00	91.00	269.80	5,568.80	-75.35	-3,229.86	3,230.10	0.00	0.00	0.00
8,700.00	91.00	269.80	5,567.05	-75.71	-3,329.84	3,330.08	0.00	0.00	0.00
8,800.00	91.00	269.80	5,565.31	-76.06	-3,429.82	3,430.07	0.00	0.00	0.00
8,900.00	91.00	269.80	5,563.56	-76.41	-3,529.81	3,530.05	0.00	0.00	0.00
9,000.00	91.00	269.80	5,561.82	-76.76	-3,629.79	3,630.04	0.00	0.00	0.00
9,100.00	91.00	269.80	5,560.07	-77.11	-3,729.78	3,730.02	0.00	0.00	0.00
9,200.00	91.00	269.80	5,558.33	-77.46	-3,829.76	3,830.01	0.00	0.00	0.00
9,300.00	91.00	269.80	5,556.58	-77.82	-3,929.75	3,929.99	0.00	0.00	0.00
9,400.00	91.00	269.80	5,554.84	-78.17	-4,029.73	4,029.98	0.00	0.00	0.00
9,500.00	91.00	269.80	5,553.09	-78.52	-4,129.71	4,129.96	0.00	0.00	0.00
9,600.00	91.00	269.80	5,551.35	-78.87	-4,229.70	4,229.95	0.00	0.00	0.00
9,700.00	91.00	269.80	5,549.60	-79.22	-4,329.68	4,329.93	0.00	0.00	0.00
9,800.00	91.00	269.80	5,547.86	-79.57	-4,429.67	4,429.92	0.00	0.00	0.00
9,900.00	91.00	269.80	5,546.11	-79.92	-4,529.65	4,529.90	0.00	0.00	0.00
10,000.00	91.00	269.80	5,544.37	-80.28	-4,629.63	4,629.89	0.00	0.00	0.00
10,100.00	91.00	269.80	5,542.62	-80.63	-4,729.62	4,729.87	0.00	0.00	0.00
10,200.00	91.00	269.80	5,540.88	-80.98	-4,829.60	4,829.86	0.00	0.00	0.00
10,300.00	91.00	269.80	5,539.13	-81.33	-4,929.59	4,929.84	0.00	0.00	0.00
10,400.00	91.00	269.80	5,537.39	-81.68	-5,029.57	5,029.83	0.00	0.00	0.00
10,500.00	91.00	269.80	5,535.64	-82.03	-5,129.56	5,129.81	0.00	0.00	0.00
10,600.00	91.00	269.80	5,533.90	-82.38	-5,229.54	5,229.80	0.00	0.00	0.00
10,700.00	91.00	269.80	5,532.15	-82.74	-5,329.52	5,329.78	0.00	0.00	0.00
10,800.00	91.00	269.80	5,530.40	-83.09	-5,429.51	5,429.76	0.00	0.00	0.00
10,900.00	91.00	269.80	5,528.66	-83.44	-5,529.49	5,529.75	0.00	0.00	0.00
11,000.00	91.00	269.80	5,526.91	-83.79	-5,629.48	5,629.73	0.00	0.00	0.00
11,100.00	91.00	269.80	5,525.17	-84.14	-5,729.46	5,729.72	0.00	0.00	0.00
11,200.00	91.00	269.80	5,523.42	-84.49	-5,829.44	5,829.70	0.00	0.00	0.00
11,300.00	91.00	269.80	5,521.68	-84.84	-5,929.43	5,929.69	0.00	0.00	0.00
11,400.00	91.00	269.80	5,519.93	-85.20	-6,029.41	6,029.67	0.00	0.00	0.00
11,500.00	91.00	269.80	5,518.19	-85.55	-6,129.40	6,129.66	0.00	0.00	0.00
11,600.00	91.00	269.80	5,516.44	-85.90	-6,229.38	6,229.64	0.00	0.00	0.00
11,700.00	91.00	269.80	5,514.70	-86.25	-6,329.37	6,329.63	0.00	0.00	0.00
11,800.00	91.00	269.80	5,512.95	-86.60	-6,429.35	6,429.61	0.00	0.00	0.00

Database:	EDM 5000.14 Conroe DB	**Local Co-ordinate Reference:**	Well 6H
Company:	ConocoPhillips	**TVD Reference:**	Well @ 4069.70usft (Trinidad 417)
Project:	Lea County, New Mexico (NAD 27)	**MD Reference:**	Well @ 4069.70usft (Trinidad 417)
Site:	Peridot 8 Federal	**North Reference:**	Grid
Well:	6H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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)
11,900.00	91.00	269.80	5,511.21	-86.95	-6,529.33	6,529.60	0.00	0.00	0.00
12,000.00	91.00	269.80	5,509.46	-87.31	-6,629.32	6,629.58	0.00	0.00	0.00
12,100.00	91.00	269.80	5,507.72	-87.66	-6,729.30	6,729.57	0.00	0.00	0.00
12,200.00	91.00	269.80	5,505.97	-88.01	-6,829.29	6,829.55	0.00	0.00	0.00
12,300.00	91.00	269.80	5,504.23	-88.36	-6,929.27	6,929.54	0.00	0.00	0.00
12,400.00	91.00	269.80	5,502.48	-88.71	-7,029.25	7,029.52	0.00	0.00	0.00
12,500.00	91.00	269.80	5,500.74	-89.06	-7,129.24	7,129.51	0.00	0.00	0.00
12,600.00	91.00	269.80	5,498.99	-89.41	-7,229.22	7,229.49	0.00	0.00	0.00
12,700.00	91.00	269.80	5,497.25	-89.77	-7,329.21	7,329.48	0.00	0.00	0.00
12,800.00	91.00	269.80	5,495.50	-90.12	-7,429.19	7,429.46	0.00	0.00	0.00
12,900.00	91.00	269.80	5,493.75	-90.47	-7,529.17	7,529.44	0.00	0.00	0.00
12,991.37	91.00	269.80	5,492.16	-90.79	-7,620.53	7,620.80	0.00	0.00	0.00
PBHL									

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
PBHL - Peridot 8 Fed - plan hits target center - Point	0.00	0.00	5,492.16	-90.79	-7,620.53	673,992.29	659,812.60	32° 51' 6.505 N	103° 48' 46.565 W

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
900.00	900.00	13 3/8"	13-3/8	17-1/2
12,991.37	5,492.16	5 1/2"	5-1/2	6

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
855.00	855.00	Rustler		-1.00	269.80
990.00	990.00	Salado		-1.00	269.80
2,070.15	2,070.00	Tansil		-1.00	269.80
2,210.17	2,210.00	Yates		-1.00	269.80
2,515.22	2,515.00	Seven Rivers		-1.00	269.80
3,135.31	3,135.00	Queen		-1.00	269.80
3,570.37	3,570.00	Grayburg		-1.00	269.80
3,875.41	3,875.00	San Andres		-1.00	269.80
5,407.79	5,383.03	Glorieta		-1.00	269.80
5,528.23	5,471.61	Paddock		-1.00	269.80

Database:	EDM 5000.14 Conroe DB	**Local Co-ordinate Reference:**	Well 6H
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Project:	Lea County, New Mexico (NAD 27)	**MD Reference:**	Well @ 4069.70usft (Trinidad 417)
Site:	Peridot 8 Federal	**North Reference:**	Grid
Well:	6H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
1,000.00	1,000.00	0.00	0.00	KOP, 1.50°/100' Build
1,065.59	1,065.59	-0.56	0.00	Hold 0.98° Inc, 180.00° Azm
4,727.08	4,726.54	-63.44	0.00	Begin 1.50°/100' Drop
4,792.68	4,792.13	-64.00	0.00	Begin Vertical Hold
5,042.68	5,042.13	-64.00	0.00	Begin 10.00°/100' Build
5,952.68	5,615.00	-66.05	-582.95	Begin 91.00° Lateral
12,991.37	5,492.16	-90.79	-7,620.53	PBHL

ConocoPhillips

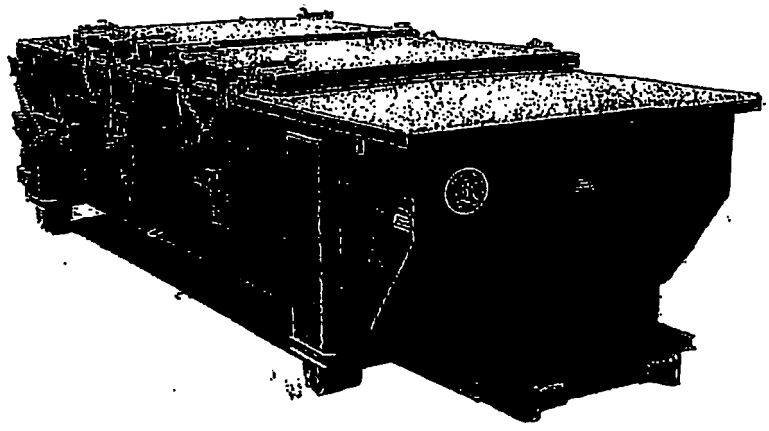
WELLBORE CASING & CEMENTING SCHEMATIC

Wellbore Section	Mud Properties		Wellbore Design		
	Type	PPG	Hole Size	Casing Profile	Casing / Cement / Directional Plan Details
COND					**20" Conductor** Set @ 85' MD / TVD
SURFACE	Native	8.6 PPG	17-1/2"		**13-3/8" Surface Casing** 13-3/8" 54.5# J-55 STC Set @ 885' MD / TVD **Surface Cement** 13.5 ppg Lead 14.8 ppg Tail
INTERM	Brine	10.0 PPG	12-1/4"		**9-5/8" Intermediate Casing** 9-5/8" 40# J-55 LTC Set @ 2,250' MD / TVD **Intermediate Cement** 11.5 ppg Lead 13.5 ppg Tail
PRODUCTION	Cut Brine	8.6 PPG - 9.0 PPG	8-3/4"		**7" Production Casing** 7" 29# L-80 LTC Set @ 5,200' MD / TVD **~ KOP @** 5042 ft MD/TVD **XO** 7" x 5-1/2" @ 5,200' MD **5-1/2" Production Casing** 5-1/2" 20# L-80 LTC Set @ 12991 ft MD 5615 ft TVD **Production Cement** 11.0 ppg Lead 14.0 ppg Tail

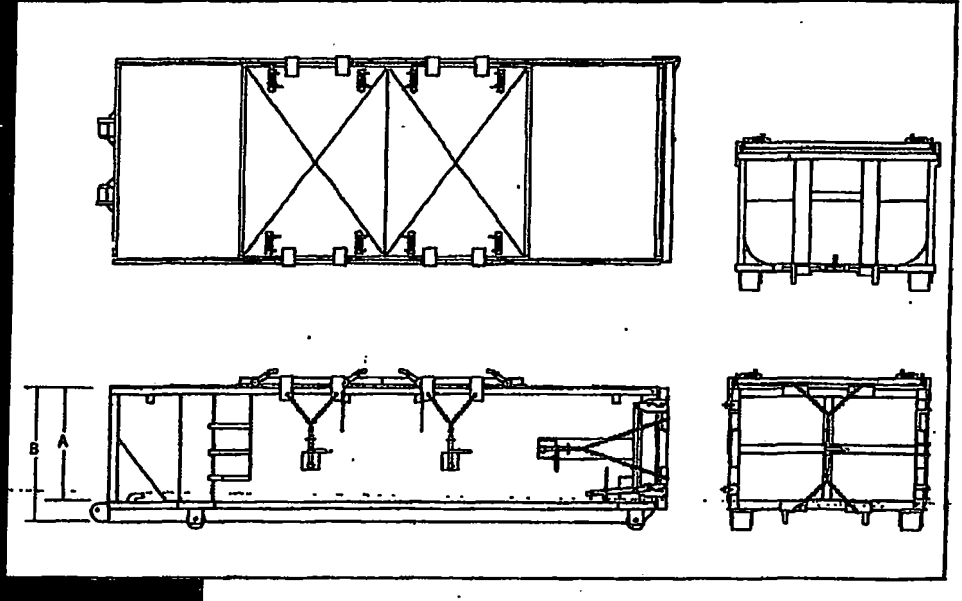
SPECIFICATIONS

FLOOR: 3/16" PL one piece
CROSS MEMBER: 3 x 4.1 channel 16" on center
WALLS: 3/16" PL solid welded with tubing top, inside liner hooks
DOOR: 3/16" PL with tubing frame
FRONT: 3/16" PL slant formed
PICK UP: Standard cable with 2" x 6" x 1/4" rails, gusset at each crossmember
WHEELS: 10 DIA x 9 long with rease fittings
DOOR LATCH: 3 independent ratchet binders with chains, vertical second latch
GASKETS: Extruded rubber seal with metal retainers
WELDS: All welds continuous except sub-structure crossmembers
FINISH: Coated inside and out with direct to metal, rust inhibiting acrylic enamel color coat
HYDROTESTING: Full capacity static test
DIMENSIONS: 22'-11" long (21'-8" inside), 99" wide (88" inside), see drawing for height
OPTIONS: Steel grit blast and special paint, Ampliroll, Heil and Dino pickup
ROOF: 3/16" PL roof panels with tubing and channel support frame
LIDS: (2) 68" x 90" metal rolling lids spring loaded, self raising
ROLLERS: 4" V-groove rollers with delrin bearings and grease fittings
OPENING: (2) 60" x 82" openings with 8" divider centered on container
LATCH:(2) independent ratchet binders with chains per lid
GASKETS: Extruded rubber seal with metal retainers

Heavy Duty Split Metal Rolling Lid



CONT.	A	B
20 YD	41	53
25 YD	53	65
30 YD	65	77



ConocoPhillips

H_2S Contingency Plan

April 2018

H_2S Contingency Plan Holders:

Attached is an H_2S Contingency Plan for COPC Permian Drilling working in the West Texas and Southeastern New Mexico areas operated by ConocoPhillips Company.

If you have any question regarding this plan, please call Matt Oster (830) 583-1297, or Ryan Vacarella (985) 217-7594.

Table of Contents

ConocoPhillips

HYDROGEN SULFIDE (H_2S) OPERATIONS

Contingency Plan
For
Permian Drilling Operations

ConocoPhillips Company
Mid-Continent Business Unit
Permian Asset Area

I. PURPOSE

The purpose of this Contingency Plan is to provide an organized plan of action for alerting and protecting the public following the release of a potentially hazardous volume of hydrogen sulfide. This plan prescribes mandatory safety procedures to be followed in the event of a release of H_2S into the atmosphere from exploration and production operations included in the scope of this plan. The extent of action taken will be determined by the supervisor and will depend on the severity and extent of H_2S release. Release of H_2S must be reported to the Drilling Superintendent and documented on the IADC and in Wellview.

II. SCOPE

This Contingency plan shall cover the West Texas and Southeastern New Mexico areas, which contain H2S gas and could result in a release where the R.O.E. is greater than 100 ppm at 50' and less than 3000' and does not include a public area and 500 ppm R.O.E. does not include a public road. Radius of exposure is defined as the maximum distance from the source of release that a specified calculated average concentration of H_2S could exist under specific weather conditions.

III. PROCEDURES

First Employee on Scene

____ Assess the incident and ensure your own safety.

Note the following:

____ Location of the incident.
____ Nature of the incident.
____ Wind direction and weather conditions.
____ Other assistance that may be needed.

____ Call local supervisory personnel (refer to Section V: Emergency Call List) until personal contact is made with a person on the list.

____ Perform emergency assessment and response as needed. The response may include rescue and/or evacuation of personnel, shutting in a system and/or notification of nearby residents/public (refer to Section VII: Public Notification/Evacuation).

____ Secure the site.

____ Follow the direction of the On-scene Incident Commander (first ConocoPhillips supervisor arriving on-scene).

First Supervisor on Scene (ConocoPhillips On-scene Incident Commander)

____ Becomes ConocoPhillips' On-scene Incident Commander upon arrival to location.

____ Follow the principles of the **D.E.C.I.D.E.** process below to assess the incident. (Note wind direction and weather conditions and ensure everyone's safety).

DETECT the problem
ESTIMATE likely harm without intervention
CHOOSE response objectives
IDENTIFY action options
DO the best option
EVALUATE the progress

____ Complete the Preliminary Emergency Information Sheet (refer to Section VIII: Forms/Reports).

____ Call your supervisor (refer to Section V: Emergency Call List).

____ Perform emergency response as necessary. (This may include notification & evacuation of all personnel and/or nearby residents/public (refer to Section VII: Public Notification/Evacuation), requesting assistance from ConocoPhillips personnel or outside agencies (refer to Section V: Emergency Call List) and obtaining any safety equipment that may be required (refer to Section IV: Emergency Equipment and Maintenance).

____ Notify appropriate local emergency response agencies of the incident as needed. Also notify the appropriate regulatory agencies. (refer to Section V: Emergency Call List).

____ Ensure site security.

— Set barricades and /or warning signs at or beyond the calculated 100 ppm H_2S radius of exposure (ROE). All manned barricades must be equipped with an H_2S monitor and a 2-way radio.

— Set roadblocks and staging area as determined.

____ Establish the Incident Command Structure by designating appropriate on-scene response personnel as follows:

Recording Secretary _____
Public Information Officer _____
Safety/Medical Officer _____
Decontamination Officer _____

____ Have the "Recording Secretary" begin documenting the incident on the "Incident Log" (refer to Section VIII: Forms/Reports).

____ If needed, request radio silence on all channels that use your radio tower stating that, until further notice, the channels should be used for emergency communications only.

____ Perform a Site Characterization and designate the following:

Hot Zone -- Hazardous Area
Warm Zone -- Preparation & Decontamination Area
Cold Zone -- Safe Area

AND

On-Scene Incident Command Post	(Cold Zone)
Public Relations Briefing Area	(Cold Zone)
Staging Area	(Cold Zone)
Triage Area	(Cold Zone)
Decontamination Area	(Warm Zone)

____ Refer all media personnel to ConocoPhillips' On-Scene Public Information Officer (refer to Section VI: Public Media Relations).

____ Coordinate the attempt to stop the release of H_2S. You should consider closing upstream and downstream valves to shut-off gas supply sources, and/or plugging or clamping leaks. Igniting escaping gas to reduce the toxicity hazard should be used **ONLY AS A LAST RESORT**. (It must first be determined if the gas can be safely ignited, taking into consideration if there is a possibility of a widespread flammable atmosphere.)

____ Once the emergency is over, return the situation to normal by:

Confirming the absence of H_2S and combustible gas throughout the area,

Discontinuing the radio silence on all channels, stating that the emergency incident is over,

Removing all barricades and warning signs,

Allowing evacuees to return to the area, and

Advising all parties previously notified that the emergency has ended.

____ Ensure the proper regulatory authorities/agencies are notified of the incident (refer to Section V: Emergency Call List).

____ Clean up the site. (Be sure all contractor crews have had appropriate HAZWOPER training.)

____ Report completion of the cleanup to the Asset Environmentalist. (Environmentalist will report this to the proper State and/or Federal agencies.)

____ Fill out all required incident reports and send originals to the Safety Department. (Keep a copy for your records.)

- Company employee receiving occupational injury or illnesses.

- Company employee involved in a vehicle accident while driving a company vehicle.

- Company property that is damaged or lost.

- Accident involving the public or a contractor; includes personal injuries, vehicle accidents, and property damage. Also includes any situation, which could result in a claim against the Company.

- Hazardous Material Spill/Release Report Form

- Emergency Drill Report

____ Assist the Safety Department in the investigation of the incident. Review the factors that caused or allowed the incident to occur, and modify operating, maintenance, and/or surveillance procedures as needed. Make appropriate repairs and train or retrain employees in the use and operation of the system.

____ If this incident was simulated for practice in emergency response, complete the Emergency Drill Report found in Section VIII: Forms/Reports and submit a copy to the Drilling Manager. (Keep one copy in area files to document exercising of the plan.)

Emergency Procedures
Responsibility

In the event of a release of potentially hazardous amounts of H2S, all personnel will immediately proceed upwind/ crosswind to the nearest designated briefing area. The COPC Drilling Rep. will immediately, upon assessing the situation, set this into action by taking the proper procedures to contain the gas and notify appropriate people and agencies.

1. In an emergency situation, the Drilling Rep. on duty will have complete responsibility and will take whatever action is deemed necessary in an emergency situation to insure the personnel's safety, to protect the well and to prevent property damage.

2. The Toolpusher will assume all responsibilities of the Drilling Rep. in an emergency situation in the event the Drilling Rep. becomes incapacitated.

3. Advise each contractor, service company, and all others entering the site that H2S may be encountered and the potential hazards that may exist.

4. Authorize the evacuation of local residents if H2S threatens their safety.

5. Keep the number of persons on location to a minimum during hazardous operations.

6. Direct corrective actions to control the flow of gas.

7. Has full responsibility for igniting escaping gas to reduce the toxicity hazard.

   This should be used **ONLY AS A LAST RESORT**.

IV. EMERGENCY EQUIPMENT and MAINTENANCE

Emergency Equipment Suppliers

United Safety 432.400.2889
Safety Equipment

Gryphon Oilfield Services 432.550.0600
Safety Equipment

DXP/ Safety International – Odessa, Tx. 432.580.3770
H_2S monitors
Breathing air includes cascade systems
First aid and medical supplies
Safety equipment
H2S Specialist

Total Safety US Odessa, Tx/ Hobs, NM 432.561.5049 Odessa
575.392.2973 Hobbs
H_2S monitors
Breathing air includes cascade systems
First aid and medical supplies
Safety equipment

DXP/ Indian Fire & Safety – Hobbs, NM 575.393.3093
H_2S monitors
Breathing air including cascade systems trailer mounted
30 minute air packs
Safety Equipment

TC Safety – Odessa, Tx. 432.413.8240
H_2S monitors
Cascade systems trailer mounted
30 minute air packs
Safety Equipment
H2S Specialist

Secorp Industries – Odessa, Tx. 432.614.2565
H2S Monitor Systems
Cascade Systems
H2S Specialist
H2S, CPR, First Aid Training

Emergency Equipment and Maintenance (continued)

General Information

Materials used for repair should be suitable for use where H_2S concentrations exceed 100 ppm. In general, carbon steels having low-yield strengths and a hardness below RC-22 are suitable. The engineering staff should be consulted if any doubt exists on material specifications.

Appropriate signs should be maintained in good condition at location entrance and other locations as specified in Texas Rule 36 and NMOCD Rule 118.

All notification lists should be kept current with changes in names, telephone numbers, etc.

All shutdown devices, alarms, monitors, breathing air systems, etc., should be maintained in accordance with applicable regulations.

All personnel working in H_2S areas shall have received training on the hazards, characteristics, and properties of H_2S, and on procedures and safety equipment applicable for use in H_2S areas.

H2S Safety Equipment and Monitoring Systems

An H2S emergency response package will be maintained at locations requiring H2S monitoring. The package will contain at a minimum the following:

3 – Fixed H2S sensors located as follows:
- 1 – on the rig floor
- 1 – at the Bell Nipple
- 1 – at the Shale Shaker or Flowline

1 – Entrance Warning Sign located at the main entrance to the location, with warning signs and colored flags to determine the current status for entry into the location.

2 – Windsocks that are clearly visible.

1 – Audible warning system located on rig floor

2 – Visual warning systems (Beacon Lights)
- 1 – Located at the rig floor
- 1 – Located in the mud mixing room

Note: All alarms (audible and visual) should be set to alarm at 10 ppm.

2 - Briefing areas clearly marked
- 2 - SCBA's at each briefing area
- 1- SCBA located at the Drilling Reps office

Note:
1. **All SCBA's must be positive pressure type only!!!**
2. **All SCBA's must either be Scott or Drager brand.**
3. **All SCBA's face pieces should be size large, unless otherwise specified by the Drilling Supervisor.**

5 – Emergency Escape Paks located at Top Doghouse.
Note: Ensure provisions are included for any personnel working above rig floor in derrick.

1 – Tri or Quad gas monitor located at the Drilling Reps office. This will be used to determine if the work area if safe to re-enter prior to returning to work following any alarm.

V. EMERGENCY CALL LIST:

The following is a priority list of personnel to contact in an emergency situation.

Supervisory Personnel	Office No.	Cellphone
Drilling Supt. (Unconventional) **Scott Nicholson**	432.688.9065	432.230.8010
Field Supervisors: **Clint Case** **Patrick Wellman**	432.688.6878 432.688.9183	940.231.2839 432.215.7079
Safety Support: **Matt Oster** **Ryan Vaccarella**	830.583.1245 985.217.7594	601.540.6988 NA
Operations Support: **Dale Rowell**	NA	830.400.2006
Supt Operations-SENM **Mike Neuschafer**-Delaware Basin **Sean Robinson**-SENM	432.688.6834 575.391.3147	713.419.9919 575.390.8873
MCBU HSE Permian Supervisor **Chris Boggs**	432.688.6806	907.903.5815
Manger GCBU/MCBU D & C **Seth Crissman**	832.486.6191	832.513.9308

EMERGENCY CALL LIST: State Officials

Regulatory Agencies

Texas Railroad Commission (District 8) Office: 432.684.5581
Midland, Texas

New Mexico Oil Conservation Commission Office:575.393.6161
P. O. Box 1980
Hobbs, New Mexico 88240-1980

Bureau of Land Mngt.
Carlsbad Field Office Office: 575.234.5972
620 E. Greene St. Fax: 575.885.9264
Carlsbad, NM 88220

EMERGENCY CALL LIST: Local Officials

[redacted]

Note: The LIS should include any area residents (i.e. rancher's house, etc)

VI. Public Media Relations

The **Public Information Officer** becomes the ConocoPhillips on-scene contact (once designated by the Phillips On-Scene Incident Commander).

Confers with Houston Office's Human Relations Representative, who is responsible for assisting in the coordination of local public relations duties.

Answer media questions honestly and **only with facts,** do not speculate about the cause, amount of damage, or the potential impact of the incident of the community, company, employees, or environment. (This information will be formally determined in the incident investigation.)

If you are comfortable answering a question or if you are unsure of the answer, use terms such as the following:

- "I do not know. I will try to find out."
- I am not qualified to answer that question, but I will try to find someone who can."
- "It is under investigation."

Note:
Do Not Say "No Comment." (This implies a cover-up.)

Do Not Disclose Names of Injured or Dead! Confer with the Houston Office's Human Relations Representative, who is responsible for providing that information.

VII. Public Notification/Evacuation

Alert and/or Evacuate People within the Exposure Area

1. Public Notification – If the escape of gas could result in a hazard to area residents, the general public, or employees, the person **first** observing the leak should take **immediate** steps to cause notification of any nearby residents. The avoidance of injury or loss of life should be of prime consideration and given top priority in all cases. If the incident is of such magnitude, or at such location as to create a hazardous situation, local authorities will be requested to assist in the evacuation and roadblocks of the designated area until the situation can be returned to normal.

   Note: Bilingual employees may be needed to assist in notification of residents.

2. Evacuation Procedures – Evacuation will proceed upwind from the source of the release of H_2S. Extreme caution should be exercised in order to avoid any depressions or low-lying areas in the terrain. The public area within the radius of exposure should be evacuated in a southwesterly and southeasterly direction so as to avoid the prevailing southern wind direction.

   Roadblocks and the staging area should be established as necessary for current wind conditions.

Note: In all situations, consideration should be given to wind direction and weather conditions. H_2S is heavier than air and can settle in low spots. Shifts in wind direction can also change the location of possible hazardous areas.

VIII. FORMS & REPORTS

I. Incident Log

II. Preliminary Emergency Information Sheet

III. Emergency Drill Report

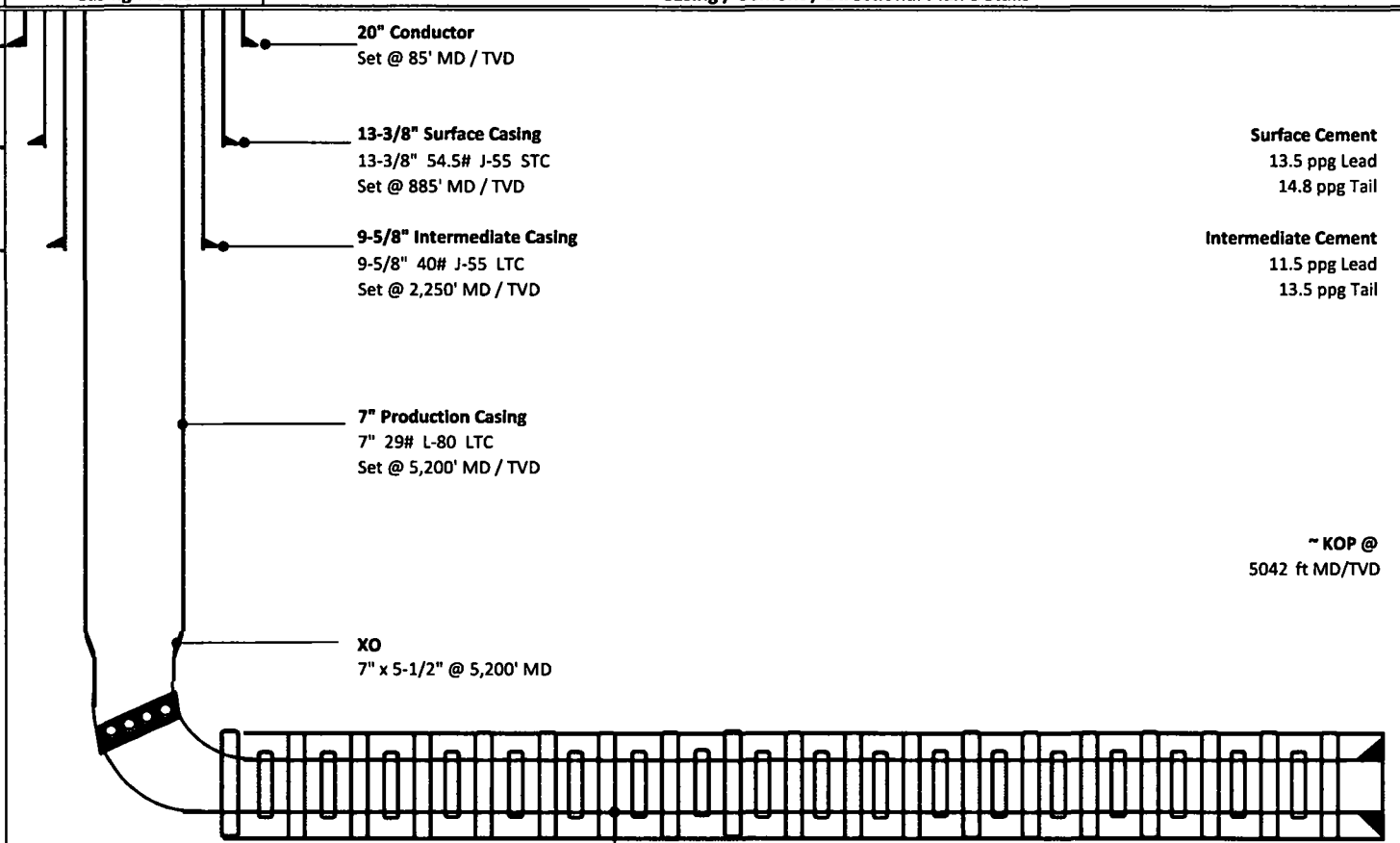
IV. Onshore Hazardous Material Spill/Release Report Form

V. Immediate Report of Occupational Injury or Illness
Report of Accident-Public Contractor
Report of Loss or Damage to Company Property
Report of Automotive Incident

ConocoPhillips

OPEN HOLE SLIDING SLEEVE WELLBORE CASING & CEMENTING SCHEMATIC

Wellbore Section	Mud Properties		Wellbore Design	
	Type	PPG	Hole Size	Casing Profile
COND				
SURFACE	Native	8.6 PPG	17-1/2"	
INTERM	Brine	10.0 PPG	12-1/4"	
PRODUCTION	Cut Brine	8.6 PPG - 9.0 PPG	8-3/4"	



20" Conductor
Set @ 85' MD / TVD

13-3/8" Surface Casing
13-3/8" 54.5# J-55 STC
Set @ 885' MD / TVD

Surface Cement
13.5 ppg Lead
14.8 ppg Tail

9-5/8" Intermediate Casing
9-5/8" 40# J-55 LTC
Set @ 2,250' MD / TVD

Intermediate Cement
11.5 ppg Lead
13.5 ppg Tail

7" Production Casing
7" 29# L-80 LTC
Set @ 5,200' MD / TVD

~ KOP @
5042 ft MD/TVD

XO
7" x 5-1/2" @ 5,200' MD

5-1/2" Production Casing
5-1/2" 20# L-80 LTC
Set @ 12991 ft MD
5615 ft TVD

Production Cement
11.0 ppg Lead
14.0 ppg Tail

ConocoPhillips, Peridot 8 Federal 6H Drill Plan

1. Geologic Formations

KB TVD of target	5615'	Pilot hole depth	NA
KB MD at TD:	12991'	Deepest expected fresh water:	855'

Permian Basin

Formation	KB TVD (ft)	Elevation KB (ft)	Water/Mineral Bearing/Target Zone	Hazards*
Rustler	855	3214	Fresh Water	
Salado	990	3079	Brackish Water	
Tansill	2070	1999	Salt	
Yates	2210	1859	Salt Water	
Seven Rivers	2515	1554	Oil/Gas	
Queen	3135	934	Oil/Gas	
Grayburg	3570	499	Oil/Gas	
San Andres	3875	194	Oil/Gas	
Glorieta	5385	-1316	Oil/Gas	
Paddock	5475	-1406	Target	
Land Pt / TD	5615	-1546	Target	

2. Casing Program

3 strings casing design										
Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Pipe Tensile	SF Joint Tensile
17.5"	0	885	13.375"	54.5	J55	STC/BTC	2.89	6.98	17.7	10.7
12.25"	0	2250	9.625"	40	J55	LTC/BTC	2.20	3.38	7.00	5.78
8.75"	0	5200	7"	29	L80	LTC/BTC	2.88	3.35	4.48	3.89
8.75"	5200	12991	5.5"	20	L80	LTC/BTC	3.36	3.50	2.99	3.36
				BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

- Bring cement from 5-1-2" casing shoe to lap inside 9-5/8" casing shoe.
- Notify BLM if additional unplanned stages of Cement or Remediate with Bradenhead Squeeze becomes necessary.

Openhole Sliding Sleeves Completion Option

- Option to run Openhole Sliding Sleeves, cement 7" production string thru a stage tool below the XO joint and leave 5-1/2" casing string below the Glorieta formation uncemented with packers & sleeves from landing point to TD.

- Notify BLM if additional unplanned stages of Cement or Remediate with Bradenhead Squeeze becomes necessary.

ConocoPhillips, Peridot 8 Federal 6H Drill Plan

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h
Must have table for contingency casing

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	YES
Does casing meet API specifications? If no, attach casing specification sheet.	YES
Is premium or uncommon casing planned? If yes attach casing specification sheet.	NO
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	YES
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	N/A
Is well located within Capitan Reef?	NO
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	NO
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	NO
If yes, are the first three strings cemented to surface?	
Is 2nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	NO
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	NO
If yes, are there three strings cemented to surface?	

2. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H_20 gal/sk	Vol ft3	500# Comp. Strength (hours)	Slurry Description
Surf.	500	13.5	1.68	8.94	840	7	Lead: Class C + 4.0% Bentonite + 0.2% Anti-Foam + 2.0% CaCl2 +0.125lb/sk LCM + 0.1% Dispersant
	400	14.8	1.35	6.38	540	7	Tail: Class C + 0.2% Anti-Foam + 0.1% Lost Circ Control + 2 lbs/bbl CemNET (losses Control)
Inter.	450	11.5	2.29	10.72	1031	17	Lead: Class C + 10.0% Bentonite + 0.2% Anti-Foam + 2.0% Expanding + 0.15% Viscosifier + 1.3% Retarder.
	300	13.5	1.29	4.81	387	7	Tail: Class C + 1% Extender + 3 lb/sk Extender + 0.2% Anti-Foam + 0.1% Dispersant + 13 lb/sk LCM + 0.5% Fluid Loss + 0.7% Retarder
Prod.	650	11.0	3.2	19.25	2080	17	Lead: Class C + 6% Extender + 10% Gas Migration Control + 2% Sodium Metasilicate (dry) + 1% Cement Bonding Agent + 3% Aluminum Silicate + 0.125 lb/sx Cello Flake + 3 lb/sx LCM-1
Prod – Cased Hole Option	1900	14.0	1.37	6.48	2603	7	Tail: Class C + 3lb/sk LCM + 1.5% Fluid Loss + 0.1% + 1% Sodium Metasilicate (dry) + 1.5% Fluid Loss Control

If additional unplanned stages of cementing are necessary, the contingency stage tool will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. Stage tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.

Lab reports with recipe and the 500 psi compressive strength time for the cement will be onsite for review.

3 strings casing cement design			
Casing String	TOC Lead	TOC Tail	% Excess
Surface	0'	585'	>100%
Intermediate	0'	1750'	>100%
Production	<1700'	5200'	>30%

Cement excess will be adjusted based on actual hole condition like losses or fluid caliper data if have.

4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	**Size?**	**Min. Required WP**	**Type**	**✓**	**Tested to:**
8-3/4"	13-5/8"	3M/5M	Annular	x	50% of working pressure
			Blind Ram		3,000 psi
			Pipe Ram		
			Double Ram	x	
			Other*		

*Specify if additional ram is utilized.
Note: A 13-5/8" BOPE will be utilize in the 8-3/4" hole section depending on availability and Rig Substructure Clearance.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

X	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.	
X	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. If yes, specs and hydrostatic test certification will be available in the company man's trailer and on the rig floor.	
	N	Are anchors required by manufacturer?
X	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. See attached schematic.	

5. Mud Program

3 strings casing mud program						
Depth		Type	Weight (ppg)	Viscosity	Water Loss	PH
From	To					
0	Surf. shoe	FW Gel	8.5-9.0	28-40	N/C	N.C.
Surf. Shoe	Inter. shoe	Saturated Brine	10.0	28-32	N/C	9-10.5
Inter. shoe	TD	Cut-Brine	8.6-10.0	28-40	N/C	9-10.5

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing.	
X	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No Logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain
	Coring? If yes, explain

Additional logs planned		Interval
	Resistivity	
	Density, GR, BHC	
	CBL	
X	Mud log	
	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	2815 psi
Abnormal Temperature	No – 100°

- Mitigation measure for abnormal conditions - Loss of circulation is a possibility in the horizons below the Top of Grayburg. We expect that normal Loss of Circulation Material will be successful in healing any such loss of circulation events.

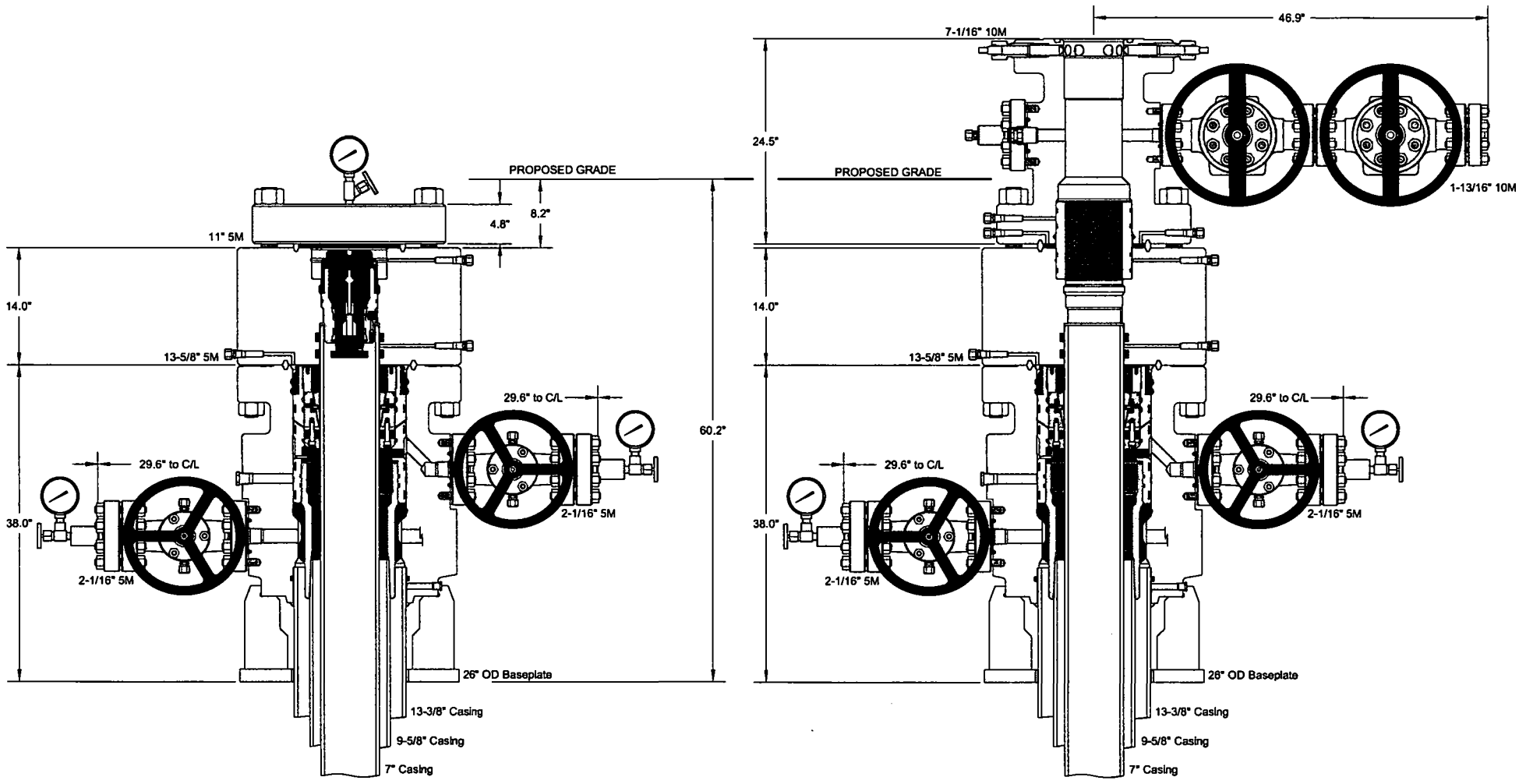
Gas detection equipment and pit level flow monitoring equipment will be on location. A flow paddle will be installed in the flow line to monitor relative amount of mud flowing in the non-pressurized return line. Mud probes will be installed in the individual tanks to monitor pit volumes of the drilling fluid with a pit volume totalizer. Gas detecting equipment and H2S monitor alarm will be installed in the mud return system and will be monitored. A mud gas separator will be installed and operable before drilling out from the Surface Casing. The gases shall be piped into the flare system. Drilling mud containing H2S shall be degassed in accordance with API RP-49, item 5.14. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
X	H2S is present
X	H2S Plan attached

8. Other facets of operation

Is this a walking operation? If yes, describe. NO.
Will be pre-setting casing? If yes, describe. NO.

Attachments:

Attachment#1: Directional Plan
Attachment#2: Wellbore Casing & Cementing Schematic
Attachment#3: Wellhead Schematic
Attachment #4: BOP Schematics
Attachment #5: Choke Schematic
Attachment #6: Rig Layout
Attachment #7: H2S Contingency Plan



Peridot 8 Federal 6H

CACTUS WELLHEAD LLC	Permian Basin		
13-3/8" x 9-5/8" x 7" 5M MBU-2LR Wellhead Assembly With 13-5/8" 5M x 11" 5M DBLHPS DSPA With 6-3/4" Type LR BPV Profile and11" 5M x 7-1/16" 10M CTH-HPS-F Tubing Head	DRAWN	THH	26JUL15
	APPRV		
	DRAWING NO.	ODE0000716	

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	CONOCOPHILLIPS
LEASE NO.:	NMLC064149
WELL NAME & NO.:	6H- PERIDOT 8 FEDERAL
SURFACE HOLE FOOTAGE:	1586'/N & 2635'/E
BOTTOM HOLE FOOTAGE	1650'/N & 330'/W
LOCATION:	Section.8.,T17S., R.32E., NMP
COUNTY:	LEA County, New Mexico

COA

H2S	(•) Yes	( ) No	
Potash	(•) None	( ) Secretary	( ) R-111-P
Cave/Karst Potential	(•) Low	( ) Medium	( ) High
Variance	( ) None	(•) Flex Hose	( ) Other
Wellhead	( ) Conventional	(•) Multibowl	( ) Both
Other	[ ] 4 String Area	[ ] Capitan Reef	[ ] WIPP

A. Hydrogen Sulfide

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated **500** feet prior to drilling into the **Grayburg** formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **925** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

   - Cement to surface. If cement does not circulate see B.1.a, c-d above.

3. The minimum required fill of cement behind the **7 X 5 1/2** inch production casing is:

   - Cement should tie-back at least **200** feet into previous casing string. Operator shall provide method of verification.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2.

Option 1:

Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.

Option 2:

Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3,000 (3M) psi.

a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
c. Manufacturer representative shall install the test plug for the initial BOP test.
d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT(S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

Well Name:

Operator shall submit a sundry to add 'Com' to the well name.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ Chaves and Roosevelt Counties
Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.
During office hours call (575) 627-0272.
After office hours call (575)

☒ Eddy County
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log (one log per well pad is acceptable) run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
    e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

    b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

    c. The tests shall be done by an independent service company utilizing a test plug. The results of the test shall be reported to the appropriate BLM office.

    d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

    e. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

    f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes. This test shall be performed prior to the test at full stack pressure.

    g. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

Waste Minimization Plan (WMP)

In the interest of resource development, submission of additional well gas capture development plan information is deferred but may be required by the BLM Authorized Officer at a later date.

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