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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 320.000
Serial Number 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
06/02/1934	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 B		
11/01/1961	868	EFFECTIVE DATE	LAST RENEWAL;	
05/01/1967	232	LEASE COMMITTED TO UNIT	NMNM/0988X;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	UNUM 100,962 RX	
01/05/1989	974	AUTOMATED RECORD VERIF	AR/RC	
10/11/1990	974	AUTOMATED RECORD VERIF	GG	
06/22/1992	932	TRF OPER RGTS FILED	CHEVRON/WISER OIL CO	
06/20/1992	933	TRF OPER RGTS APPROVED	EFF 07/01/92;	
06/20/1992	974	AUTOMATED RECORD VERIF	SSF CS	
10/01/1992	621	RLTY RED-STRIPPER WELL	7.13;/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: 04:01 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	530	RLTY RATE-SLIDING-SCH D		
06/08/1934	868	EFFECTIVE DATE		
09/14/1965	570	CASE SEGREGATED BY ASGN	INTO NMNM064149;	
01/06/1953	650	HELD BY PROD - ACTUAL		
01/06/1953	658	MEMO OF 1ST PROD-ACTUAL		
10/26/1979	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	
11/02/1987	974	AUTOMATED RECORD VERIF	JAM/DCE	
07/26/1988	140	ASGN FILED	PTNRSHP PROP/MMP 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

APD ID: 10400008915 **Submission Date:** 02/09/2017

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: PERIDOT 8 FEDERAL **Well Number:** 11H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	RUSTLER	3244	820	820	DOLOMITE,ANHYDRITE	USEABLE WATER	No
2	SALADO	-960	960	960	SALT,ANHYDRITE	NONE	No
3	TANSILL	1204	2040	2040	DOLOMITE,ANHYDRITE	NONE	No
4	YATES	-2180	2180	2180	DOLOMITE,ANHYDRITE	NONE	No
5	SEVEN RIVERS	-2485	2485	2485	SANDSTONE,ANHYDRITE	NATURAL GAS,OIL	No
6	QUEEN	-3110	3110	3110	SANDSTONE,ANHYDRITE	NATURAL GAS,OIL	No
7	GRAYBURG	-3530	3530	3530	SANDSTONE,DOLOMITE	NATURAL GAS,OIL	No
8	SAN ANDRES	-3850	3850	3850	DOLOMITE	NATURAL GAS,OIL	No
9	GLORIETA	-5375	5375	5375	SANDSTONE	NATURAL GAS,OIL	No
10	PADDOCK	-5465	5465	5475	DOLOMITE,ANHYDRITE	NATURAL GAS,OIL	Yes
11	BLINEBRY	-2531	5775	5775	DOLOMITE,ANHYDRITE	NATURAL GAS,OIL	Yes

Section 2 - Blowout Prevention

Pressure Rating (PSI): 3M **Rating Depth:** 13652

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. Testing certificate is attached in "Flexhose Variance data" document. We also request approval to have the option of using a 13" 5M BOP as represented on attached BOP diagram.
Testing Procedure: BOP/BOPE tested by independent company to 250 psi low and the high of 50% working psi, as required by Onshore Order 2. See attached "Drill Plan" document.

Choke Diagram Attachment:

Peridot 8 Fed 11H_3M Choke Manifold_12-20-2016.pdf

Peridot 8 Fed 11H FlexhoseVarianceData_02-06-2017.pdf

BOP Diagram Attachment:

Peridot_8_Fed_11H_BOPDiagrams_08-21-2017.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	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	885	0	885	-1955	-2840	885	J-55	54.5	STC	2.89	6.98	DRY	10.7	DRY	17.7
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	2250	0	2250	-1955	-3955	2250	J-55	40	LTC	2.2	3.38	DRY	5.78	DRY	7
3	PRODUCTION	8.75	7.0	NEW	API	Y	0	5200	0	5200	-1955	-8075	5200	L-80	29	LTC	2.88	3.35	DRY	3.89	DRY	4.48
4	PRODUCTION	8.75	5.5	NEW	API	Y	5200	13652	5200	6000			8452	L-80	17	LTC	2.2	2.7	DRY	2.35	DRY	2.76

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Peridot_8_Fed_11H_Csg_Worksheetv5_08-18-2017.pdf

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: PERIDOT 8 FEDERAL **Well Number:** 11H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Peridot_8_Fed_11H_Csg_Worksheetv5_08-18-2017.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Peridot_8_Fed_11H_Csg_Worksheetv5_08-18-2017.pdf

Casing Design Assumptions and Worksheet(s):

Peridot_8_Fed_11H_Csg_Worksheetv5_08-18-2017.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Peridot_8_Fed_11H_Csg_Worksheetv5_08-18-2017.pdf

Casing Design Assumptions and Worksheet(s):

Peridot_8_Fed_11H_Csg_Worksheetv5_08-18-2017.pdf

Section 4 - Cement

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: PERIDOT 8 FEDERAL **Well Number:** 11H

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	100	Lead: 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	100	Tail: 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	100	Lead: 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	100	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
PRODUCTION	Lead		1500	5200	650	3.2	11.5	2080	30	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
PRODUCTION	Lead		5200	13652	2000	1.37	14	2740	30	Class C	+ 3lb/sk LCM + 1.5% Fluid Loss + 0.1% + 1% Sodium Metasilicate (dry) + 1.5% Fluid Loss Control

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: PERIDOT 8 FEDERAL **Well Number:** 11H

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 additional information.

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, Pason, Visual Observations. See attached "Drill Plan" for additional information.

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	WATER-BASED MUD	8.5	9							Fresh water w/gel=surface mud
0	2250	SALT SATURATED	10	10							
0	13652	OTHER : Cut-Brine	8.6	10							

Section 6 - Test, Logging, Coring

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

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. Production tests will be conducted multiple times per week, through a test separator, during first months following completion. Thereafter, tests will be less frequently. See attached "Drill Plan" for additional information.

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

CNL,GR

Coring operation description for the well:

No coring program is planned, at this time.

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: PERIDOT 8 FEDERAL **Well Number:** 11H

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 2815 **Anticipated Surface Pressure:** 1468.6

Anticipated Bottom Hole Temperature(F): 110

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 11H H2S C Plan_02-06-2017.pdf

Peridot_8_Fed_11H_RigLayoutPlat_08-18-2017.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Peridot_8_Fed_11H_DirectionalPlan_08-18-2017.pdf

Peridot_8_Fed_11H_WellBoreSchematicv5_08-18-2017.pdf

Other proposed operations facets description:

Depending on equipment availability, BOP may be upgraded. BTC casing may be used, depending on availability. Cement volumes will be adjusted based on drilling conditions in given hole section. 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 additional information.

Other proposed operations facets attachment:

Peridot 8 Fed 11H Drill Waste Containment_02-06-2017.pdf

Peridot_8_Fed_11H_Drill_Planv5_08-18-2017.pdf

Peridot_8_Fed_Gas_Capture_Plan_08-21-2017.pdf

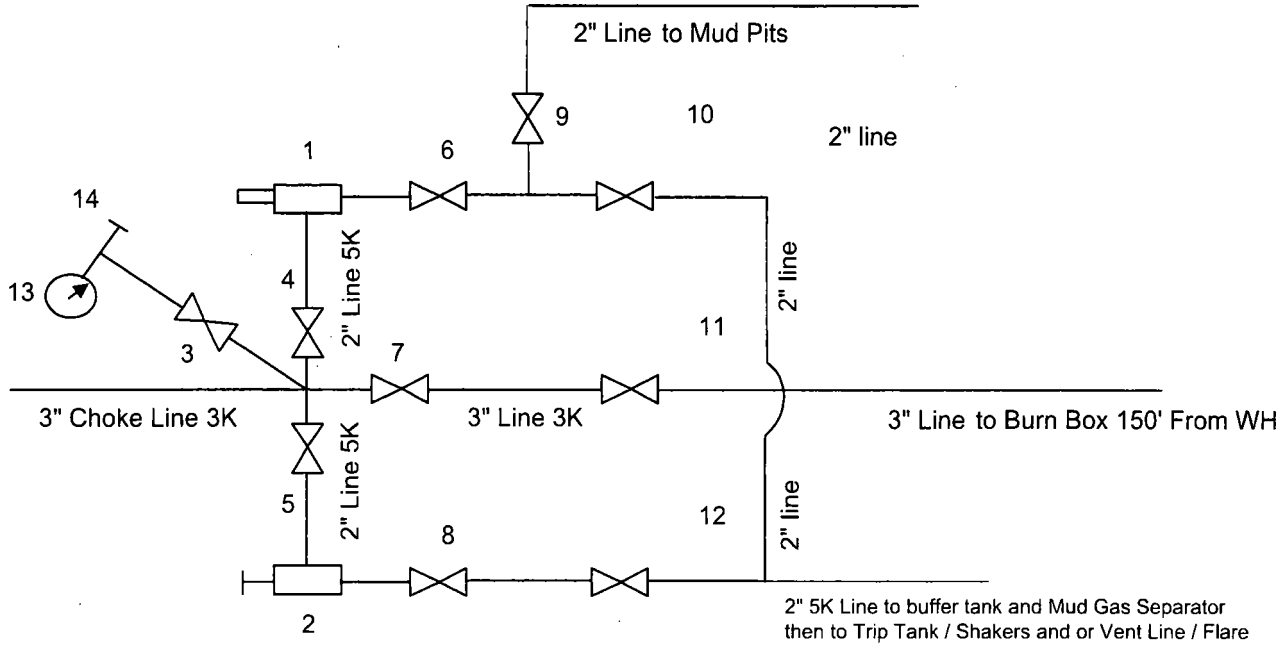
Peridot_8_Fed_11H_OH_Sleeve_Option_20180108113455.pdf

Other Variance attachment:

Peridot_8_Fed_5M_Wellhead_08-18-2017.pdf

CHOKE MANIFOLD ARRANGEMENT - 3M Choke

per Onshore Oil and Gas Order No. 2 utilizing 3M/5M Equipment



All Tees must be Targeted

Item	Description
1	Remote Controlled Hydraulically Operated Adjustable Choke, 2-1/16", 3M
2	Manual Adjustable Choke, 2-1/16", 3M
3	Gate Valve, 2-1/16" 5M
4	Gate Valve, 2-1/16" 5M
5	Gate Valve, 2-1/16" 5M
6	Gate Valve, 2-1/16" 5M
7	Gate Valve, 3-1/8" 3M
8	Gate Valve, 2-1/16" 5M
9	Gate Valve, 2-1/16" 5M
10	Gate Valve, 2-1/16" 5M
11	Gate Valve, 3-1/8" 3M
12	Gate Valve, 2-1/16" 5M
13	Pressure Gauge
14	2" hammer union tie-in point for BOP Tester

The 3M Choke Manifold & Valves will be tested to rated working pressure.

RELIANCE Industrial Products USA, Ltd.

Wellhead / Fire Guarded System

Choke & Kill

Reliance Eliminator Choke & Kill

This hose can be used as a choke hose which connects the BOP stack to the b manifold or a kill hose which connects the mud stand pipe to the BOP kill valve.

The Reliance Eliminator Choke & Kill hose contains a specially bonded compounded cover that replaces rubber covered Asbestos, Fibreglass and other fire retardant materials which are prone to damage. This high cut and gouge resistant cover overcomes costly repairs and downtime associated with older designs.

The Reliance Eliminator Choke & Kill hose has been verified by an independent engineer to meet and exceed EUB Directive °G6 fq705 minutes)

Nom. ID		Nom OD		Weight		Min Bend Radius		Max WP	
in.	mm.	in.	mm	lb/ft	kg/m	in.	mm.	psi	Mpa
3	76.2	5.11	129.79	14.5	21.46	48	1219.2	5000	34.47
3-1/2	88.9	5.79	147.06	20.14	29.80	54	1371.6	5000	34.47

End Connections

Fittings	Flanges	Hammer Unions	Other
RC4X5055	R35 - 3-1/8 5000# API Type 6B	All Union Configurations	LP Threaded (
RC3X5055	R31 - 3-1/8 3000# API Type 6B		Graylock
RC4X5575			Custom Ends

MICK

Peridot 8 Federal 11H

RELIANCE Industrial Products USA, Ltd.

Please remit payment to:
606 - 19 Avenue, Nisku, AB
Canada T9E 7W1

WORK ORDER

Greeley, CO 80631
Ph: 970-346-3751
Fax: 970-353-3168
2030E 8th Street, Suite B

Bossier City, LA 71111
Ph: 318-687-5486
Fax: 318-687-5491
1001 M&O Drive

San Antonio, TX 78217
Ph: 210-650-3636
Fax: 210-650-3133
4327 Contergate Street

Williston, ND 58801
Ph: 701-572-7035
Fax: 701-572-7030
4970 Hwy 85

Midland, TX 79706
Ph: 432-689-0102
Fax: 432-699-4898
2904 SCR 1250

Houston, TX 77388
Ph: 281-288-9720
4115 Kreinhop Rd Suite B

BILL TO	CUSTOMER NO.	SALESMAN NO.	SHIP TO	CUSTOMER NO.	SALESMAN NO.
	003054	HSE		003054	HSE

TRINIDAD DRILLING LP
15015 VICKERY DR
HOUSTON, TX 77032

TRINIDAD DRILLING
RIGH 435
(713)439-1670

PG 1 OF 1

003054013482

ORDER STATUS
OPEN ORDER

BRANCH	SHD	BOX	BAG	COIL	PC	TOTAL	TAX ID #26-0174221	REFERENCE NUMBER
Reliance - Midland								105-013482

MO. DAY YR.	WRITTEN BY	YOUR ORDER NO	TERMS	SHIP VIA	C	PP
11/04/16	RWB	11/04/16 5709 PO22132	NET 30 DAYS	DELIVERY RWB		

QTY ORDERED	QTY SHIPPED	BACK ORDERED	PART NUMBER AND DESCRIPTION	CODE	LIST PRICE	NET PRICE	UNIT	NET AMOUNT
			********** SHIPPING DETAIL **********					
			11/4/16 ..... ORDER TO BE COMPLETED BY					
			DELIVER TO YARD ..... SHIPPING INSTRUCTIONS					
			..... SPECIAL INSTRUCTIONS					
			ATTN: IAN RIGH 435 ..... CUSTOMER CONTACT					
			PARTS[ ] API HOSE[ ] HYD HOSE[ ] IND HOSE[ ] ...ORDER COMPONENTS					
			**********					
1	1		KIT MATERIALS MATERIALS	T		4806.980	EA	4806.90
			<********** Components for above item are listed below **********					
2.00			LAB RKSWAGE GRADE C & D SWAGE				EA	
1.00			LAB T-100 TESTING CHARGES				EA	
1			PTC P930012 ID TAG 2.5X1.5 SS	J 2C			EA	
2			PTC P930022 CABLE TIE SS 20.50L	J 2C			EA	
9			HBD RFG500056 3 1/2"FIREGUARD CHOKE HOSE				EA	
1			RSK 7K-FR35X5KRCD56 FLOATING FLANGE COUPLING	M 1E			EA	
1			RSK 7K-R35X5KRCD56 GRADE C/D R35 FLANGE COUPL	M 1E			EA	
2			API OVERFERRULE96 6" SS OVERFERRULE	M 2F			EA	
15			HDW 3X116 3" X 1/16" FIBERGLASS TAPE	Q 1C			FT	
			1 - 3.5" X 8'6" 5K F/G CHOKE HOSE W/ R35 FIXED X FLOATING FLANGE					
			TESTED TO 10000 PSI FOR 10 MINUTES					
			HYDRO-TEST AND NACE CERTIFICATIONS PROVIDED					
			<**********					
			IF ORDERED TODAY BUY 2PM WE CAN HAVE THIS BUILT TOMORROW					
			IF ORDERED LATER THAN 2PM IT WILL BE MONDAY DELIVERY					

Sign: _____

Print Name: Ethan Wood

Date: 11-22-16

PICKED BY	ASSEMBLED BY	TESTED BY	GOODS RECEIVED BY (PLEASE PRINT)		SUB-TOTAL	4806.98
	IB	IB			TAX	0.00
INSPEC BY	INSPEC BY	INSPEC BY	INITIAL	11:25	TOTAL	4806.98

TERMS: NET 30 DAYS FROM DATE OF INVOICE. Interest of 2% PER MONTH (24% PER ANNUM) charged on overdue accounts. The terms of the contract between Reliance Industrial Products Ltd. ("Reliance") and the customer are on the reverse of this document.

RELIANCE
Industrial Products Ltd.

2904 SCR 1250
MIDLAND, TX
79706

TEST CERTIFICATE

Customer Information

Customer:	TRINIDAD DRILLING
P.O. #:	PO22132
Rig #	RIG# 435
Cust Tracking #	

Material Information

Hose Type	3.1/2" FIREGUARD H
Hose ID	3.1/2"
Assembly Length	8'.6"
Fireguard Yes/No	YES

Test Information

Cert No.:	105-013482/001	H-01
Date: (YYYY-MM-DD)	#2016-11-11#	
Working Pressure :	5000 PSI	
Test Pressure:	10000 PSI	
Duration (mins):	20	

Material Tracking - Coupling #1

Coupling #1:	R35 FIXD FLANGE
MTR# - Stem	
MTR# - Shell	
NACE#	

Traceability

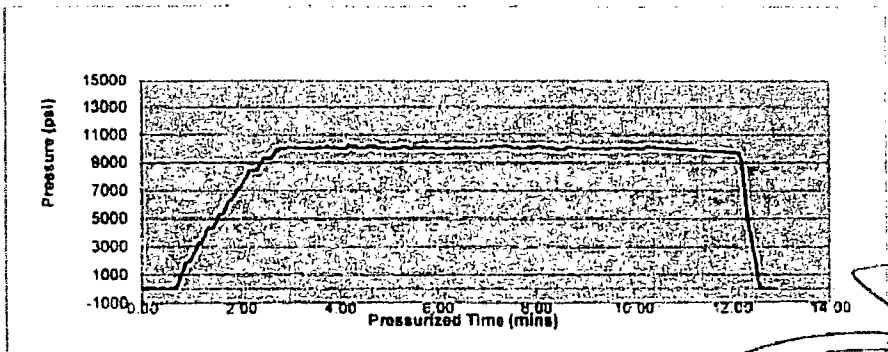
☑ NEW
☐ RECERT 13482 H-01
Previous Reference #

Material Tracking - Coupling #2

Coupling #2:	R35 FLOATING FLAN
MTR# - Stem	
MTR# - Shell	
NACE#	

Comments

TESTED AND CERTIFIED @ 10000 PSI FOR 10 MINUTES CERT TAG SN# 13482-H01



☑ Acceptable
☐ Not Acceptable

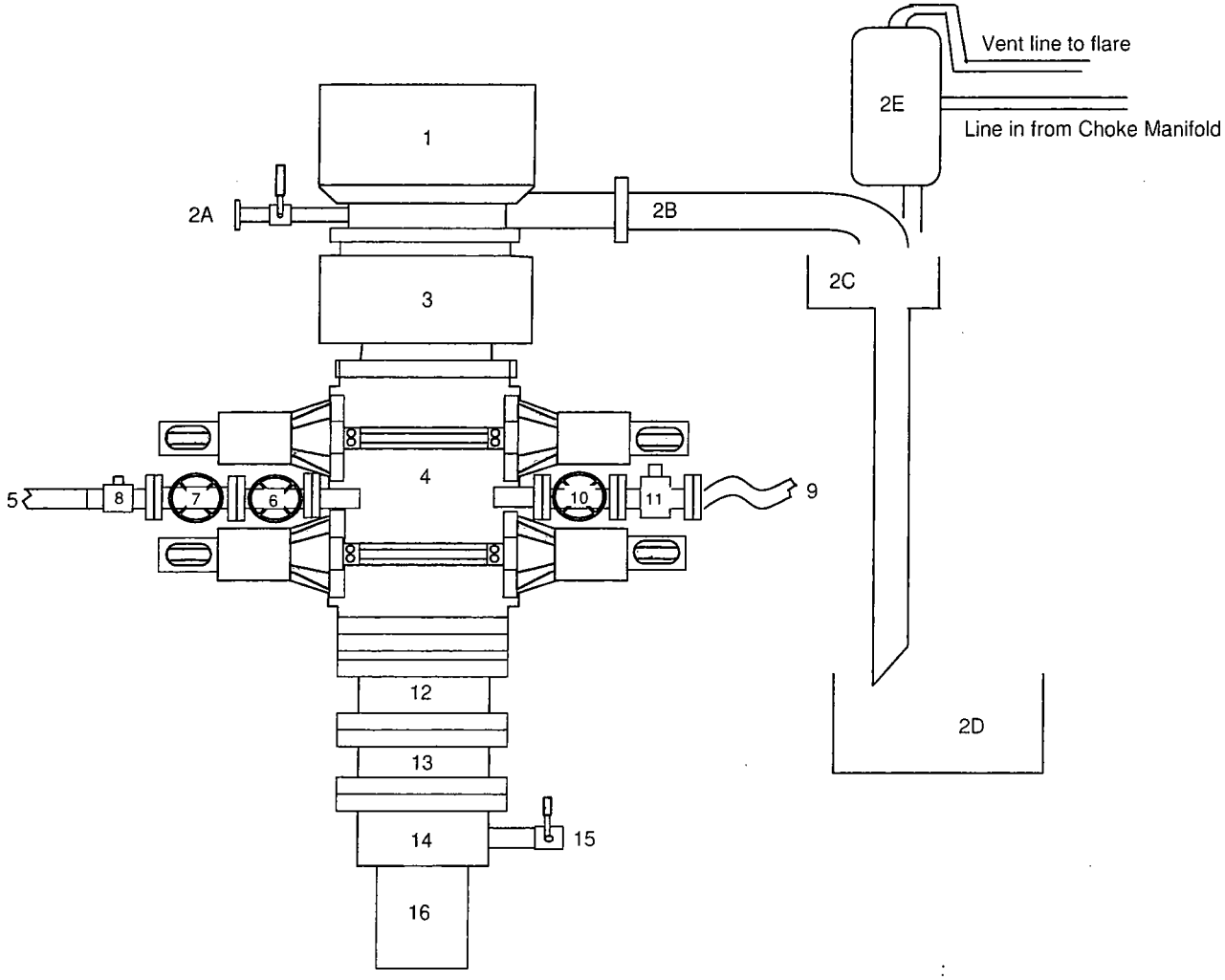
ISIDRO SANCHEZ
Test Technician (Print Name)

Test Technician Signature

Supervisor Signature

RIP-HAFM 006
VER II

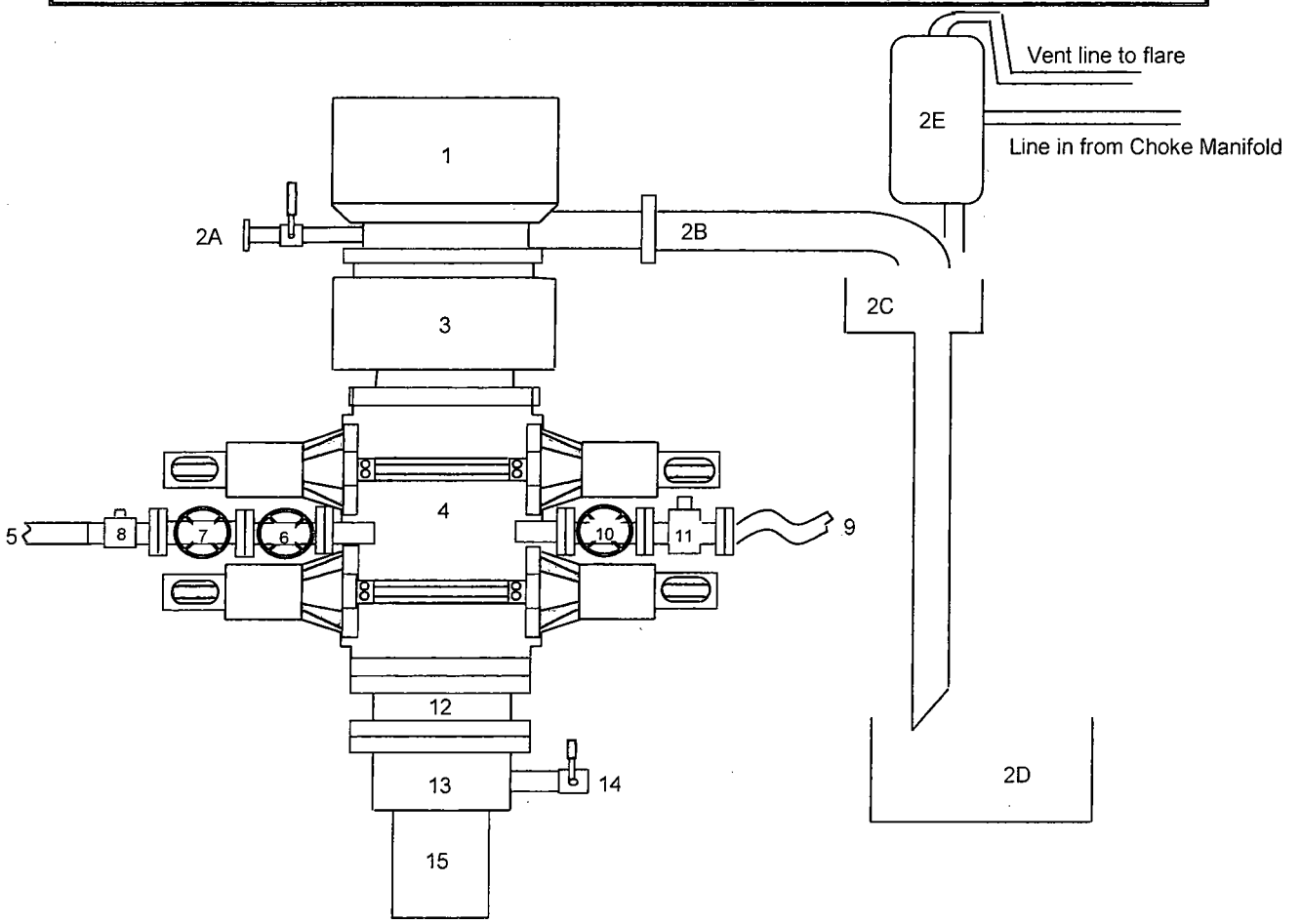
BLOWOUT PREVENTER ARRANGEMENT - 11" 3M BOPE
per Onshore Oil and Gas Order No. 2 utilizing 3M Rated Equipment



Item	Description
1	Rotating Head, 11"
2A	Fill up Line and Valve
2B	Flow Line (10")
2C	Shale Shakers and Solids Settling Tank
2D	Cuttings Bins for Zero Discharge
2E	Rental Mud Gas Separator with vent line to flare and return line to mud system
3	Annular BOP (11", 3M)
4	Double Ram (11", 3M, Blind Ram top x Pipe Ram bottom)
5	Kill Line (2" flexible hose, 3M)
6	Kill Line Valve, Inner (2-1/16", 3M)
7	Kill Line Valve, Outer (2-1/16", 3M)
8	Kill Line Check Valve (2-1/16", 3M)
9	Choke Line (3-1/8" 3M Coflex Line)
10	Choke Line Valve, Inner (3-1/8", 3M)
11	Choke Line Valve, Outer, (3-1/8", Hydraulically operated, 3M)
12	Adapter Flange (11" 5M to 11" 3M)
13	Spacer Spool (11", 5M)
14	Casing Head (11" 5M)
15	Ball Valve and Threaded Nipple on Casing Head Outlet, 2" 5M
16	Surface Casing

A variance is requested to permit the use of flexible hose. The testing certificate for the specific hose will be available on the rig prior to commencing drilling operations.

BLOWOUT PREVENTER ARRANGEMENT - 13-5/8" 3M BOPE
per Onshore Oil and Gas Order No. 2 utilizing 5M Rated Equipment



Item	Description
1	Rotating Head, 13-5/8"
2A	Fill up Line and Valve
2B	Flow Line (10")
2C	Shale Shakers and Solids Settling Tank
2D	Cuttings Bins for Zero Discharge
2E	Rental Mud Gas Separator with vent line to flare and return line to mud system
3	Annular BOP (13-5/8", 5M)
4	Double Ram (13-5/8", 5M, Blind Ram top x Pipe Ram bottom)
5	Kill Line (2" flexible hose, 3M)
6	Kill Line Valve, Inner (2-1/16", 5M)
7	Kill Line Valve, Outer (2-1/16", 5M)
8	Kill Line Check Valve (2-1/16", 5M)
9	Choke Line (3-1/8", 3M Coflex Line)
10	Choke Line Valve, Inner (3-1/8", 5M)
11	Choke Line Valve, Outer (3-1/8", Hydraulically operated, 5M)
12	Spacer Spool (13-5/8", 5M)
13	Casing Head (13-5/8" 5M)
14	Ball Valve and Threaded Nipple on Casing Head Outlet, 2" 5M
15	Surface Casing

A variance is requested to permit the use of flexible hose. The testing certificate for the specific hose will be available on the rig prior to commencing drilling operations.

String Section	Depth MD	Depth TVD	Csg length ft	Wt	MIY	Col	Pipe Str	Jt Str	Drill Fluid
Surface Casing	885	885	885	54.5	2730	1130	853000	514000	8.5
Intermediate 1 Casing	2250	2250	2250	40	3950	2570	630000	520000	10
Production 1 Casing	5200	5200	5200	29	8160	7020	676000	587000	9
Production 2 Casing	13652	6115	8452	17	7740	6290	397000	338000	9

Collapse Design (Safety) Factors – BLM Criteria

Collapse Design (Safety) Factor: SFc

SFc = Pc / (MW x .052 x Ls)

Where

- Pc is the rated pipe Collapse Pressure in pounds per square inch (psi)
- MW is mud weight in pounds per gallon (ppg)
- Ls is the length of the string in feet (ft)

The Minimum Acceptable Collapse Design (Safety) Factor SFc = 1.125

Surface Casing
SFc = 1130 / 391 = **2.89**

Intermediate 1 Casing
SFc = 2570 / 1170 = **2.20**

Production 1 Casing
SFc = 7020 / 2434 = **2.88**

Production 2 Casing
SFc = 6290 / 2862 = **2.20**

Burst Design (Safety) Factors – BLM Criteria

Burst Design (Safety) Factor: SFb

SFb = Pi / BHP

Where

- Pi is the rated pipe Burst (Minimum Internal Yield) Pressure in pounds per square inch (ps
- BHP is bottom hole pressure in pounds per square inch (psi)

The Minimum Acceptable Burst Design (Safety) Factor SFb = 1.0

Surface Casing
SFb = 2730 / 391 = **6.98**

Intermediate 1 Casing
SFb = 3950 / 1170 = **3.38**

Production 1 Casing
SFb = 8160 / 2434 = **3.35**

Production 2 Casing
SFb = 7740 / 2862 = **2.70**

Pipe Strength Design (Safety) Factors – BLM Criteria

Pipe Strength Design (Safety) Factor: SFtp

SFtp = Fp / Wt;

Where

- Fp is the rated pipe Body Strength in pounds (lbs)
- Wt is the weight of the casing string in pounds (lbs)

The Minimum Acceptable Pipe Strength Design (Safety) Factor SFTp = 1.6 dry or 1.8 buoyant

Surface Casing
SFi Dry = 853000 / 48232.5 = **17.7**
SFi Bouyant = 853000 / (48232.5 x 0.870) = **20.3**

Intermediate 1 Casing
SFi Dry = 630000 / 90000 = **7.00**
SFi Bouyant = 630000 / (90000 x 0.847) = **8.26**

Production 1 Casing
SFi Dry = 676000 / 150800 = **4.48**
SFi Bouyant = 676000 / (150800 x 0.863) = **5.20**

Production 2 Casing
SFi Dry = 397000 / 143684 = **2.76**
SFi Bouyant = 397000 / (143684 x 0.863) = **3.20**

Joint Strength Design (Safety) Factors – BLM Criteria

Joint Strength Design (Safety) Factor: SFtj

SFtj = Fj / Wt;

Where

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Surface Casing
SFi Dry = 514000 / 48232.5 = **10.7**
SFi Bouyant = 514000 / (48232.5 x 0.870) = **12.2**

Intermediate 1 Casing
SFi Dry = 520000 / 90000 = **5.78**
SFi Bouyant = 520000 / (90000 x 0.847) = **6.82**

Production 1 Casing
SFi Dry = 587000 / 150800 = **3.89**
SFi Bouyant = 587000 / (150800 x 0.863) = **4.51**

Production 2 Casing
SFi Dry = 338000 / 143684 = **2.35**
SFi Bouyant = 338000 / (143684 x 0.863) = **2.73**

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Production 1 Casing
SFi Dry = 676000 / 150800 = **4.48**
SFi Bouyant = 676000 / (150800 x 0.863) = **5.20**

Production 2 Casing
SFi Dry = 397000 / 143684 = **2.76**
SFi Bouyant = 397000 / (143684 x 0.863) = **3.20**

Joint Strength Design (Safety) Factors – BLM Criteria

Joint Strength Design (Safety) Factor: SFtj

SFtj = Fj / Wt;

Where

- Fj is the rated pipe Joint Strength in pounds (lbs)
- Wt is the weight of the casing string in pounds (lbs)

The Minimum Acceptable Joint Strength Design (Safety) Factor SFTj = 1.6 dry or 1.8 buoyant

Surface Casing
SFi Dry = 514000 / 48232.5 = **10.7**
SFi Bouyant = 514000 / (48232.5 x 0.870) = **12.2**

Intermediate 1 Casing
SFi Dry = 520000 / 90000 = **5.78**
SFi Bouyant = 520000 / (90000 x 0.847) = **6.82**

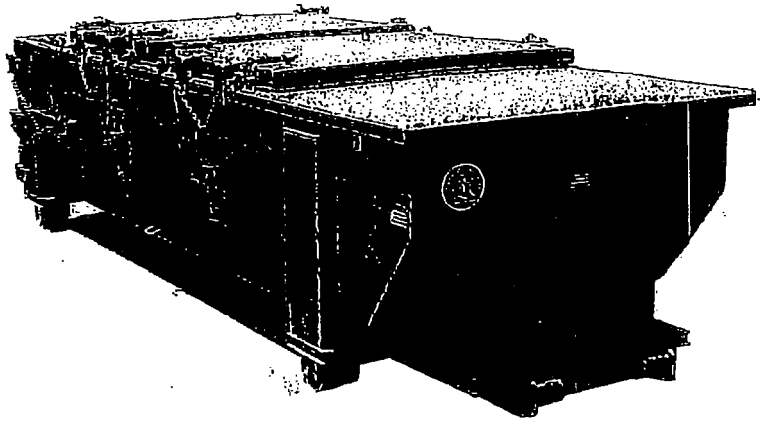
Production 1 Casing
SFi Dry = 587000 / 150800 = **3.89**
SFi Bouyant = 587000 / (150800 x 0.863) = **4.51**

Production 2 Casing
SFi Dry = 338000 / 143684 = **2.35**
SFi Bouyant = 338000 / (143684 x 0.863) = **2.73**

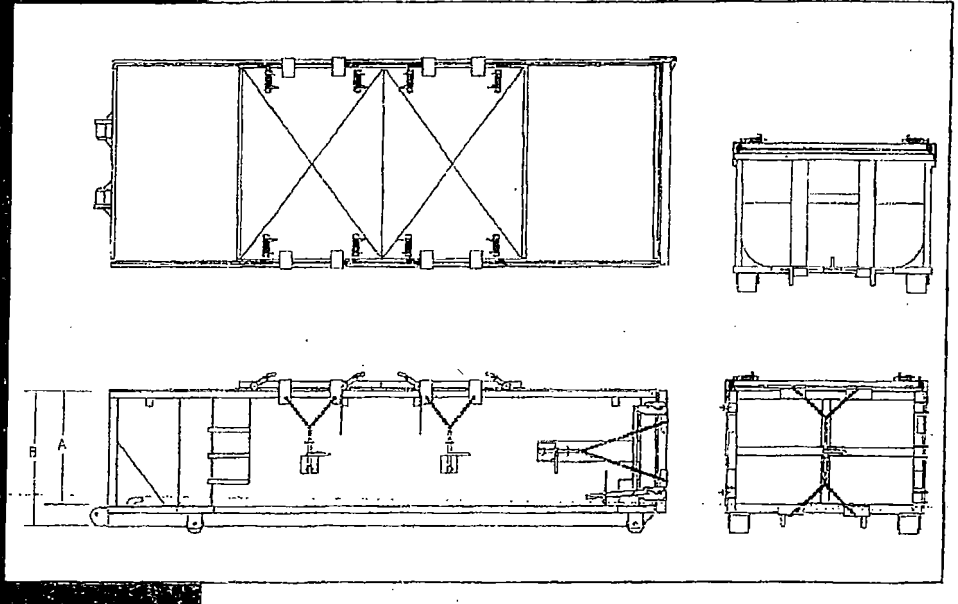
SPECIFICATIONS

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, Peridot 8 Federal 11H, Drill Plan

1. Geologic Formations

KB TVD of target	6115'	Pilot hole depth	NA
KB MD at TD:	13652'	Deepest expected fresh water:	820'

Basin

Formation	KB TVD (ft)	Elevation KB (ft)	Water/Mineral Bearing/Target Zone	Hazards*
Rustler	820	3244	Fresh Water	
Salado	960	3104	Brackish Water	
Tansill	2040	2024	Salt	
Yates	2180	1884	Salt Water	
Seven Rivers	2485	1579	Oil/Gas	
Queen	3110	954	Oil/Gas	
Grayburg	3530	534	Oil/Gas	
San Andres	3850	214	Oil/Gas	
Glorieta	5375	-1312	Oil/Gas	
Paddock	5465	-1402	Oil/Gas	
Blinebry	5775	-1712	Target	
Land Pt / TD	6115	-2052		

2. Casing Program

3 strings casing design										
Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Pipe Tensile	SF Joint Tensile
	From	To								
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	13652	5.5"	17	L80	LTC/BTC	2.20	2.70	2.76	2.35
				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.
- XO from 7" to 5-1/2" in 8-3/4" OH for minimum of 0.422in clearance per Onshore Oil and Gas Order #2 III.B.
- Notify BLM if an Annulus Casing Packer and Stage Tool with 2-Stage Cement or Remediate with Bradenhead Squeeze will be necessary.

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.	YES
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?	

3. 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
	2000	14.0	1.37	6.48	2740	7	Tail: Class C + 3lb/sk LCM + 1.5% Fluid Loss + 0.1% + 1% Sodium Metasilicate (dry) + 1.5% Fluid Loss Control

DV tool depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV 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	1500'	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	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 – 110°

- 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

ConocoPhillips, Peridot 8 Federal 11H

2. Casing Program – Openhole Sliding Sleeves Completion Option

3 strings casing design										
Hole Size	Casing Interval From	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"-8.5"	5200	13652	5.5"	20	L80	LTC/BTC	3.09	3.21	2.76	3.10
				BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

- 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 become necessary.

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

	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?	

3. Cementing Program – Openhole Sliding Sleeves Completion Option

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

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'	N/A	>30%

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

Attachments:

Attachment#1: Wellbore Casing & Cementing Schematic

Peridot 8 Federal 11H

String Section	Depth MD	Depth TVD	Csg length ft	Wt	MIY	Col	Pipe Str	Jt Str	Drill Fluid
Surface Casing	885	885	885	54.5	2730	1130	853000	514000	8.5
Intermediate 1 Casing	2250	2250	2250	40	3950	2570	630000	520000	10
Production 1 Casing	5200	5200	5200	29	8160	7020	676000	587000	9
Production 2 Casing	13652	6115	8452	20	9190	8830	466000	524000	9

Collapse Design (Safety) Factors – BLM Criteria

Collapse Design (Safety) Factor: SFc

SFc = Pc / (MW x .052 x Ls)

Where

- Pc is the rated pipe Collapse Pressure in pounds per square inch (psi)
- MW is mud weight in pounds per gallon (ppg)
- Ls is the length of the string in feet (ft)

The Minimum Acceptable Collapse Design (Safety) Factor SFc = 1.125

Surface Casing
SFc = 1130 / 391 = **2.89**

Intermediate 1 Casing
SFc = 2570 / 1170 = **2.20**

Production 1 Casing
SFc = 7020 / 2434 = **2.88**

Production 2 Casing
SFc = 8830 / 2862 = **3.09**

Burst Design (Safety) Factors – BLM Criteria

Burst Design (Safety) Factor: SFb

SFb = Pi / BHP

Where

- Pi is the rated pipe Burst (Minimum Internal Yield) Pressure in pounds per square inch (ps
- BHP is bottom hole pressure in pounds per square inch (psi)

The Minimum Acceptable Burst Design (Safety) Factor SFb = 1.0

Surface Casing
SFb = 2730 / 391 = **6.98**

Intermediate 1 Casing
SFb = 3950 / 1170 = **3.38**

Production 1 Casing
SFb = 8160 / 2434 = **3.35**

Production 2 Casing
SFb = 9190 / 2862 = **3.21**

Pipe Strength Design (Safety) Factors – BLM Criteria

Pipe Strength Design (Safety) Factor: SFtp

SFtp = Fp / Wt;

Where

- Fp is the rated pipe Body Strength in pounds (lbs)
- Wt is the weight of the casing string in pounds (lbs)

The Minimum Acceptable Pipe Strength Design (Safety) Factor SFTp = 1.6 dry or 1.8 buoyant

Surface Casing
SFi Dry = 853000 / 48232.5 = **17.7**
SFi Bouyant = 853000 / (48232.5 x 0.870) = **20.3**

Intermediate 1 Casing
SFi Dry = 630000 / 90000 = **7.00**
SFi Bouyant = 630000 / (90000 x 0.847) = **8.26**

Production 1 Casing
SFi Dry = 676000 / 150800 = **4.48**
SFi Bouyant = 676000 / (150800 x 0.863) = **5.20**

Production 2 Casing
SFi Dry = 466000 / 169040 = **2.76**
SFi Bouyant = 466000 / (169040 x 0.863) = **3.20**

Joint Strength Design (Safety) Factors – BLM Criteria

Joint Strength Design (Safety) Factor: SFtj

SFtj = Fj / Wt;

Where

- Fj is the rated pipe Joint Strength in pounds (lbs)
- Wt is the weight of the casing string in pounds (lbs)

The Minimum Acceptable Joint Strength Design (Safety) Factor SFTj = 1.6 dry or 1.8 buoyant

Surface Casing
SFi Dry = 514000 / 48232.5 = **10.7**
SFi Bouyant = 514000 / (48232.5 x 0.870) = **12.2**

Intermediate 1 Casing
SFi Dry = 520000 / 90000 = **5.78**
SFi Bouyant = 520000 / (90000 x 0.847) = **6.82**

Production 1 Casing
SFi Dry = 587000 / 150800 = **3.89**
SFi Bouyant = 587000 / (150800 x 0.863) = **4.51**

Production 2 Casing
SFi Dry = 524000 / 169040 = **3.10**
SFi Bouyant = 524000 / (169040 x 0.863) = **3.59**

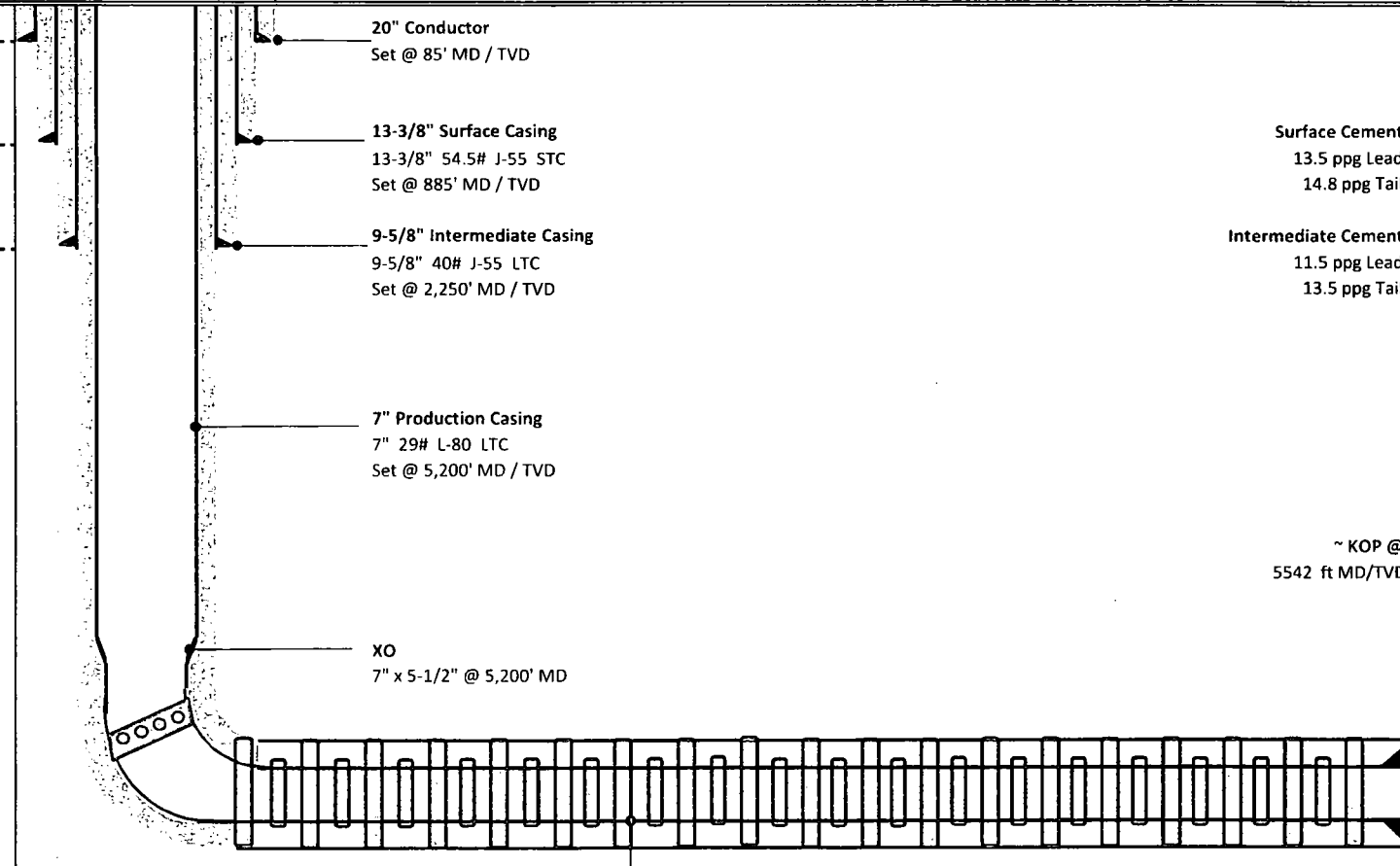
ConocoPhillips

OPEN HOLE-SLIDING SLEEVE OPTION WELLBORE CASING & CEMENTING SCHEMATIC

Wellbore Section	Mud Properties Type	Mud Properties PPG	Hole Size
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"
			8-3/4" or 8-1/2"

Wellbore Design

Casing Profile



Casing / Cement / Directional Plan Details

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

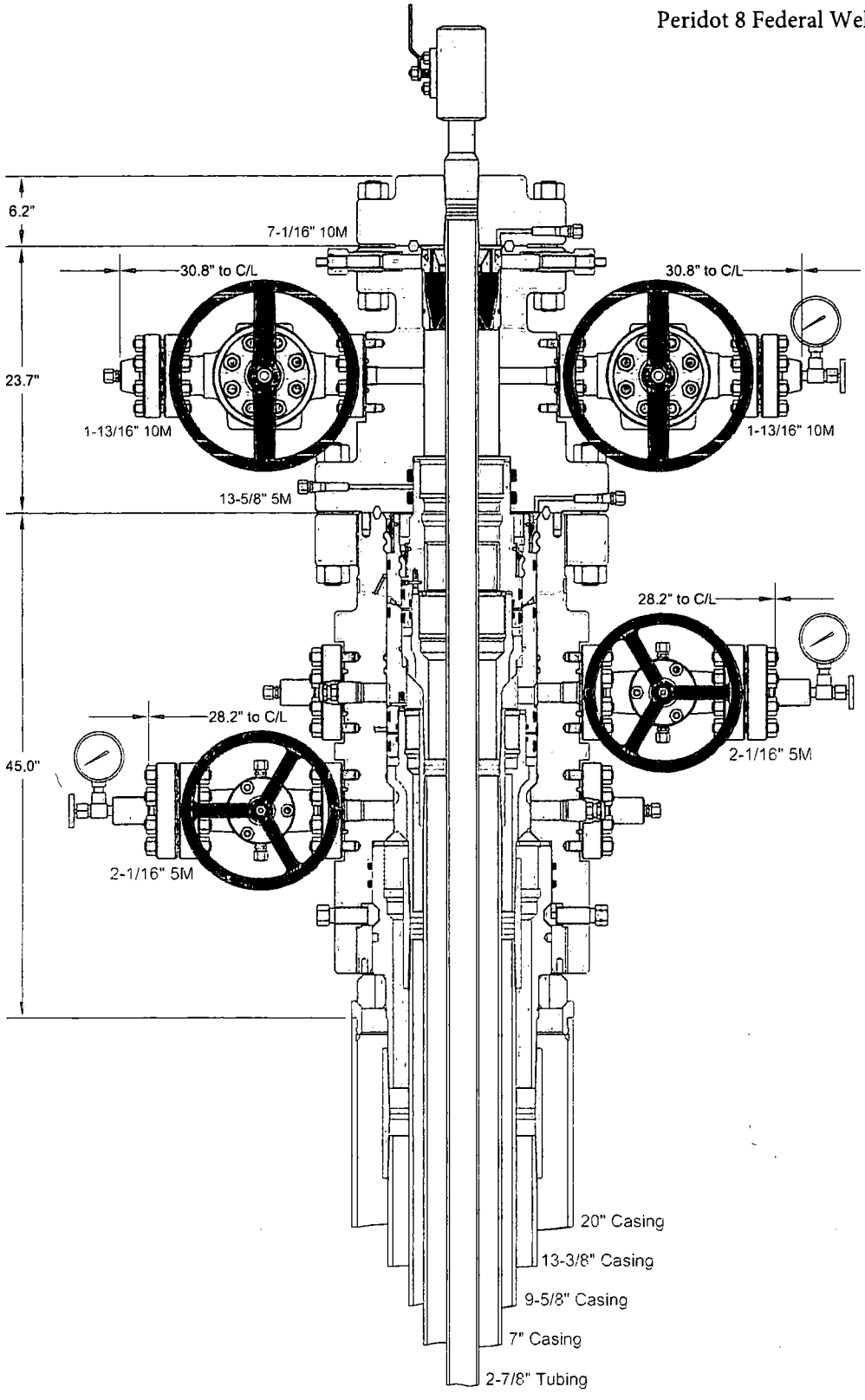
~ KOP @
5542 ft MD/TVD

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

5-1/2" Production Casing
5-1/2" 17# L-80 LTC
Set @ 13652 ft MD
6115 ft TVD

Production Cement
11.0 ppg Lead
14.0 ppg Tail

Peridot 8 Federal Wells - Multi-bowl Wellhead



CACTUS WELLHEAD LLC	CONOCO PHILLIPS WEST TEXAS		
20" x 13-3/8" x 9-5/8" x 7" x 2-7/8" MBU-3T-CFL Wellhead Assembly With 13-5/8" 5M x 7-1/16" 10M CMT-DLBHPS Tubing Head & 7-1/16" 10M x 2-7/8" B5 Tubing Head Adapter	DRAWN	DLE	12JAN17
	APPRV		
	DRAWING NO.	ODE0001428	

APD ID: 10400008915 **Submission Date:** 02/09/2017

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: PERIDOT 8 FEDERAL **Well Number:** 11H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Peridot_8_Fed_11H_Access_Road_TopoA_08-18-2017.pdf

Existing Road Purpose: ACCESS **Row(s) Exist?** NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Peridot_8_Fed_11H_AccessRoadTopoB_08-18-2017.pdf

Peridot_8_Fed_11H_AccessRoadv2_20180108113804.pdf

New road type: RESOURCE

Length: 5236 Feet **Width (ft.):** 30

Max slope (%): 2 **Max grade (%):** 4

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 17

New road access erosion control: The inside slope of the side ditches shall be 3:1. Any topsoil removed from the access road will be conserved as appropriate and with low profile. This access road is on fairly level ground. No additional erosion control is planned.

New road access plan or profile prepared? NO

New road access plan attachment:

Access road engineering design? NO

Access road engineering design attachment:

Access surfacing type: OTHER

Access topsoil source: OFFSITE

Access surfacing type description: Clean caliche will be used for lease access roads.

Access onsite topsoil source depth:

Offsite topsoil source description: Caliche will be from a BLM approved source or third-party commercial location. Material meets BLM requirements and standards. 1) Maljamar, New Mexico; Section 9, T17S, R32E; off Maljamar Road, 2) Hwy 529, New Mexico; Section 25, T17S, R31E, 3) Olane Caswell Ranch; Section 3, T17S, R32E
Onsite topsoil removal process:

Access other construction information: Wider travel surface may be needed to accommodate larger rig wheelbase. Caliche sources specified within this application are current options for mineral purchase. However, additional source(s) in the vicinity may be used depending on availability at the time of location construction. We intend to use different source(s) if necessary.
Access miscellaneous information: Current plans are to drill 11H after 1H, and no new access road would be needed. If plans change the new access road depicted in plats will be constructed,includes 15' road for facility access and 382' road for frac pond access. Access road to be shared with other Peridot wells (about 5056'). Road is needed to reach Peridot facility near NM Highway 82. Cattle guard to be installed between facility access road and NM Highway 82. Any needed culverts would be installed in accordance with BLM guidance. Turnouts will be installed using dimensions recommended by BLM, standard for this area. Right of ways will be obtained for highway access and lease road access to include future Peridot wells.
Number of access turnouts: 1 **Access turnout map:**

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: The proposed road to the location is surveyed and staked with stations set along the centerline at specific intervals. The road will be centerline crowned with a 2% crown for appropriate drainage. The inside slope of the side ditches shall be 3:1. Any topsoil removed from the access road will be conserved as appropriate. This access road is on fairly level ground.
Road Drainage Control Structures (DCS) description: No additional road drainage is needed other than standard BLM requirements for this area and those discussed in the BLM "Gold Book". This access road is on level ground.
Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Additional Attachment(s):

Peridot 8 Fed 11H AccessRdsROW_02-08-2017.pdf

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Peridot_8_Fed_11H_OffsetWellMap_08-18-2017.pdf

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: PERIDOT 8 FEDERAL **Well Number:** 11H

Existing Wells description:

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: Peridot 8 Federal CF1 Tank Battery location NWNE, Section 8, T17S, R32E was sited during 6/26/16 onsite. Location is south of NM Highway 82. Dimensions are planned 400'x 250' to allow for expansion as wells are drilled. 15' access road is depicted on plats. Preliminary Plot Plan is attached.
Production Facilities map:

PERIDOT 8 FEDERAL CF1 TANK BATTERY - FINAL_02-08-2017.pdf

Peridot 8 Fed 11H_Preliminary Plot Plan_02-08-2017.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: CAMP USE, INTERMEDIATE/PRODUCTION **Water source type:** GW WELL CASING, STIMULATION, SURFACE CASING
Describe type:

Source latitude: **Source longitude:**

Source datum:

Water source permit type: PRIVATE CONTRACT

Source land ownership: COMMERCIAL

Water source transport method: PIPELINE,TRUCKING

Source transportation land ownership: FEDERAL

Water source volume (barrels): 165000 **Source volume (acre-feet):** 21.26736

Source volume (gal): 6930000

Water source and transportation map:

Peridot_8_Fed_11H_Access_Road_TopoA_08-18-2017.pdf

Peridot_8_Fed_11H_WaterSourceMap_08-18-2017.pdf

Water source comments: -Two water sources are currently planned; 1) Morewest Corporation, New Mexico; Section 16 & 26, T16S, R32E; 2) Rockhouse Ranch; Section 13, T17S, R33E. Water sources specified within this application are current options for purchase. However, additional source(s) in the vicinity may be used depending on availability at the time of location construction. We intend to use different source(s) if necessary.
New water well? NO

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Casing length (ft.): **Casing top depth (ft.):**

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Construction Materials description: Clean caliche will be used to construct well pad, road, and facility pad. Caliche will be from a BLM approved source or third-party commercial location, such as: 1) Maljamar, New Mexico; Section 9, T17S, R32E; off Maljamar Road 2) Hwy 529, New Mexico; Section 25, T17S, R31E 3) Olane Caswell Ranch; Section 3, T17S, R32E. Material to meet BLM requirements and standards. Trucking of source material will utilize authorized roads as per Access Road Topo A attached. Caliche sources specified within this application are current options for mineral purchase. However, additional source(s) in the vicinity may be used depending on availability at the time of location construction. We intend to use different source(s) if necessary.
Construction Materials source location attachment:

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drilling fluid, drill cuttings, and rig water

Amount of waste: 8000 barrels

Waste disposal frequency : Daily

Safe containment description: Drilling fluid and cuttings will be held in closed-loop system and trucked to an approved disposal facility.
Safe containmant attachment:

Peridot_8_Fed_11H_Drill_Waste_Containment_08-21-2017.pdf

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL
Disposal type description:

Disposal location description: Permitted disposal facility off Hwy 62.

Reserve Pit

- **Reserve Pit being used?** NO

Temporary disposal of produced water into reserve pit?

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? YES

Description of cuttings location Cuttings will be held in closed-loop system and trucked to approved disposal facility.

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: YES

Ancillary Facilities attachment:

Peridot_8_Fed_11H_FracPondPlat_08-18-2017.pdf

Comments: ConocoPhillips Company anticipates needing a 600'x 600' frac pond for completion activities for horizontal wells drilled in this area. It is to be located in the NENW of Sec. 8, 17S, 32E. Access to be provided by a 382' road. Surface use for freshwater frac pond and road is 8.52 acres. Area will be reclaimed according to BLM guidelines after completion of unit development.

Section 9 - Well Site Layout

Well Site Layout Diagram:

Peridot_8_Fed_11H_Site_Plan_08-18-2017.pdf
Peridot_8_Fed_11H__ArchBoundary_08-18-2017.pdf
Peridot_8_Fed_11H_LocationLayout_08-18-2017.pdf

Comments: Onsite meetings finalized this location as acceptable. Archaeological Survey has been completed.

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: PERIDOT 8 FEDERAL **Well Number:** 11H

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:** PERIDOT 8 FEDERAL

Multiple Well Pad Number: 1H

Recontouring attachment:

Drainage/Erosion control construction: Topsoil will be stripped and set along designated side of the wellsite. The next layer of dirt (stockpile) is done with the cut and fill method whereby the highest portion of the wellsite is pushed to lower portion(s) to balance the pad. The access road is done in a similar manner. To the greatest extent practicable, the location is placed so that the least amount of dirt is to be cut and disturbed, and so a good balance can be maintained during project. Topsoil stockpile will have lowest practicable profile to reduce wind erosion. For more detail please see attached Surface Use Plan of Operations.

Drainage/Erosion control reclamation: Upon project completion, if this well is a producer, excess caliche is removed from the interim reclamation portion of pad. Topsoil stockpile is balanced back onto the unused portion of the well pad and re-contoured as appropriate. Any drainage ditches will not be blocked with topsoil and/or organic material. Lowering the profile of the topsoil stockpile will reduce wind erosion. Erosion controls will be maintained per BLM guidelines and conditions. For more detail please see attached Surface Use Plan of Operations. Reclamation activities are planned to be accomplished within six months of project completion, contingent upon weather. A site specific "Reclamation Diagram" interim plan is attached. At such time as well is permanently abandoned, ConocoPhillips Company will contact the BLM for development of final rehabilitation plan. Upon abandonment, a dry hole marker will be installed as directed by Authorized BLM Officer at the time, in accordance with 43 CFR 3162.6. An above ground dry hole marker sealing the casing will have a weep hole which will allow pressure to dissipate and make detection of any fluid seepage easier. If below ground "well marker" is directed, ConocoPhillips Company will follow BLM requirements and standards for that method of abandonment. During final reclamation erosion is to be minimized through lower profile of any soil piles. Please see attached Surface Use Plan of Operations for more information.

Wellpad long term disturbance (acres): 1.59

Wellpad short term disturbance (acres): 1.84

Access road long term disturbance (acres): 3.61

Access road short term disturbance (acres): 3.33

Pipeline long term disturbance (acres): 1.1932966

Pipeline short term disturbance (acres): 0

Other long term disturbance (acres): 35.97

Other short term disturbance (acres): 1.72

Total long term disturbance: 42.363297

Total short term disturbance: 6.89

Reconstruction method: If this well is a producer site rehabilitation will be completed within six months, weather permitting. Excess caliche will be removed, as appropriate and either disposed of in a permitted facility or, if clean, stored for future use. Topsoil from the stockpile will be spread along areas to be interim reclaimed. Any drainage ditches will not be blocked with topsoil. Under normal weather conditions, the timetable for rehabilitation will allow two to three months to complete any re-contouring and top-soiling necessary. At such time as well is permanently abandoned, ConocoPhillips Company will contact BLM for development of final rehabilitation plan. Upon abandonment, a dry hole marker will be installed as directed by Authorized BLM Officer at the time, in accordance with 43 CFR 3162.6. An above ground dry hole marker sealing the casing will have a weep hole which will allow pressure to dissipate and make detection of any fluid seepage easier. If below ground "well marker" is directed, ConocoPhillips Company will follow BLM requirements and standards for that method of abandonment. Excess caliche will be removed, as appropriate and either disposed of in a permitted facility. Location soil may be "flipped" with BLM concurrence, clean topsoil spread and re-contoured to blend with surrounding area. This method will be accomplished in accordance to BLM standards set forth by the Authorized Officer.

Topsoil redistribution: Areas planned for interim reclamation will be recontoured to the extent feasible. Topsoil will be evenly re-spread and revegetated over the disturbed area not needed for continuing production operations. At such time as well is abandoned, disturbed areas will be re-contoured to a contour that blends with surrounding landscape. Topsoil will be redistributed evenly over the entire disturbed site to depth of 4-6 inches.

Soil treatment: The topsoil will be stripped and set along the designated perimeter of the wellsite. The next layer of dirt is moved with the cut and fill method whereby the highest point of the wellsite is cut into and then pushed to a lower side in

order to balance the well pad. Upon well completion, the soil will be balanced back onto portions of the pad not needed for long-term operations. Erosion will be minimized by maintaining a lower stockpile profile. For additional information, please see attached Surface Use Plan of Operation.

Existing Vegetation at the well pad: The project area is located in a region of southeast New Mexico know as the Mescalero Plain. No named tributaries, streams or wetlands are in the near vicinity. Elevation is around 4045'. It is a broad, low relief area characterized by Mescalero sand (eolian) soil. Maljamar and Palomas fine sands occur throughout the area. Soil is well drained and has low water storage potential. This determines vegetation present on location. Vegetation in the project area can be classified as transitional between the Plains-Mesa Sand Scrub and Chihuahuan Desert Scrub plant communities. The area surrounding the location is grazing grassland, which supports grasses and forbs. Frequently observed species include: honey mesquite, shinnery oak, perennial three-awn, sand bluestem, sand dropseed, giant dropseed, prince's plume, threadleaf groundsel, spectacle pod, sunflower, and plains flax. See attached Location Photos for visual example of vegetation existing onsite.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road:

Existing Vegetation Community at the road attachment:

Peridot 8 Fed 11H_LocationPhotos_02-08-2017.pdf

Existing Vegetation Community at the pipeline:

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances:

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: PERIDOT 8 FEDERAL **Well Number:** 11H

Seed type: **Seed source:**

Seed name:

Source name: **Source address:**

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre: **Proposed seeding season:**

Seed Summary

Seed Type	Pounds/Acre

Total pounds/Acre:

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: **Last Name:**

Phone: **Email:**

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: Two Class B noxious weed species, African rue and Malta starthistle are of concern. ConocoPhillips Company will consult with BLM for acceptable weed control methods, if the need arises. Any weed control would follow USEPA and BLM requirements and standards.
Weed treatment plan attachment:

Monitoring plan description: Weeds will be controlled on disturbed areas within the exterior limits of the well pad. Monitoring will be in accordance with Best Management Practices and guidelines established by BLM.
Monitoring plan attachment:

Success standards: Success standards will utilize BLM approved methods, such as those described in the BLM "Gold Book" and those established by the Authorized Officer.
Pit closure description: No pits will be used, a closed-loop system will be in place.

Pit closure attachment:

Section 11 - Surface Ownership

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: PERIDOT 8 FEDERAL **Well Number:** 11H

Disturbance type: OTHER

Describe: Well Pad, Access Road, Electric Line, Pipeline

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Section 12 - Other Information

Right of Way needed? YES **Use APD as ROW?** YES

ROW Type(s): 281001 ROW - ROADS,288100 ROW – O&G Pipeline,288101 ROW – O&G Facility Sites,288103 ROW – Salt Water Disposal Pipeline/Facility,289001 ROW- O&G Well Pad,FLPMA (Powerline)

ROW Applications

SUPO Additional Information: For multi-well pad we request deferral of interim reclamation requirements until all wells noted on location have been drilled. Gas Sales Line ROW may be used by third-party gas processor, depending on agreements reached. Three key mitigation strategies are to be used for Peridot development; horizontal wells, interim reclamation and participation in conservation agreement. Development of these minerals could have been via vertical wells; approximately 12 wells. After re-evaluation of options, two key actions are planned horizontal wells and multi-well pads where possible. This minimizes surface use, while improving project economics and results in significant surface use reduction. Interim reclamation is a component of our surface use mitigation. COPC intends to maximize interim reclamation to the greatest extent feasible for each location drilled. Current interim reclamation plans are included in survey plat packages for individual wells. COPC is a participant in the Candidate Conservation Agreement. Among mitigation measures are observing timing stipulations for Lesser-Prairie Chickens, as indicated by BLM, at the beginning of each breeding season. Also, well locations have been moved, in consultation with BLM biologists to avoid habitat of interest.
Use a previously conducted onsite? YES

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: PERIDOT 8 FEDERAL **Well Number:** 11H

Previous Onsite information: Onsites conducted 6/28/16, 10/18/16, and 6/20/17. Onsite for this well pad was completed 10/18/16. Surface Use Plan of Operation was finalized during onsites with the following attendees: Mr. Ballard, Mr. Wolf, Ms. Brooks, and Ms. Cepero Rios, and Mr. Wasson, and Ms. Maunder, along with survey crew. Archaeological survey requirements have been met by block survey 2151, well pad survey 2262, and gas line and SWD line survey 2276. Well location is off-lease, so subsurface plat is also included. Please review this application with Peridot 8 Federal 11H, 3H, 13H, 5H, 15H, 7H and 17H well applications.

Other SUPO Attachment

Peridot_8_Fed_11H_OilFlowLine_08-18-2017.pdf

Peridot_8_Fed_1H_DevelopmentImage_08-18-2017.pdf

Peridot_8_Fed_11H_Power_Line_Plat_08-18-2017.pdf

Peridot_8_Fed_Gas_Sales_Line_08-18-2017.pdf

Peridot_8_Fed_11H_FracPondPlat_08-21-2017.pdf

Peridot_8_Fed_11H_Reclamation_Plat_20180108115424.pdf

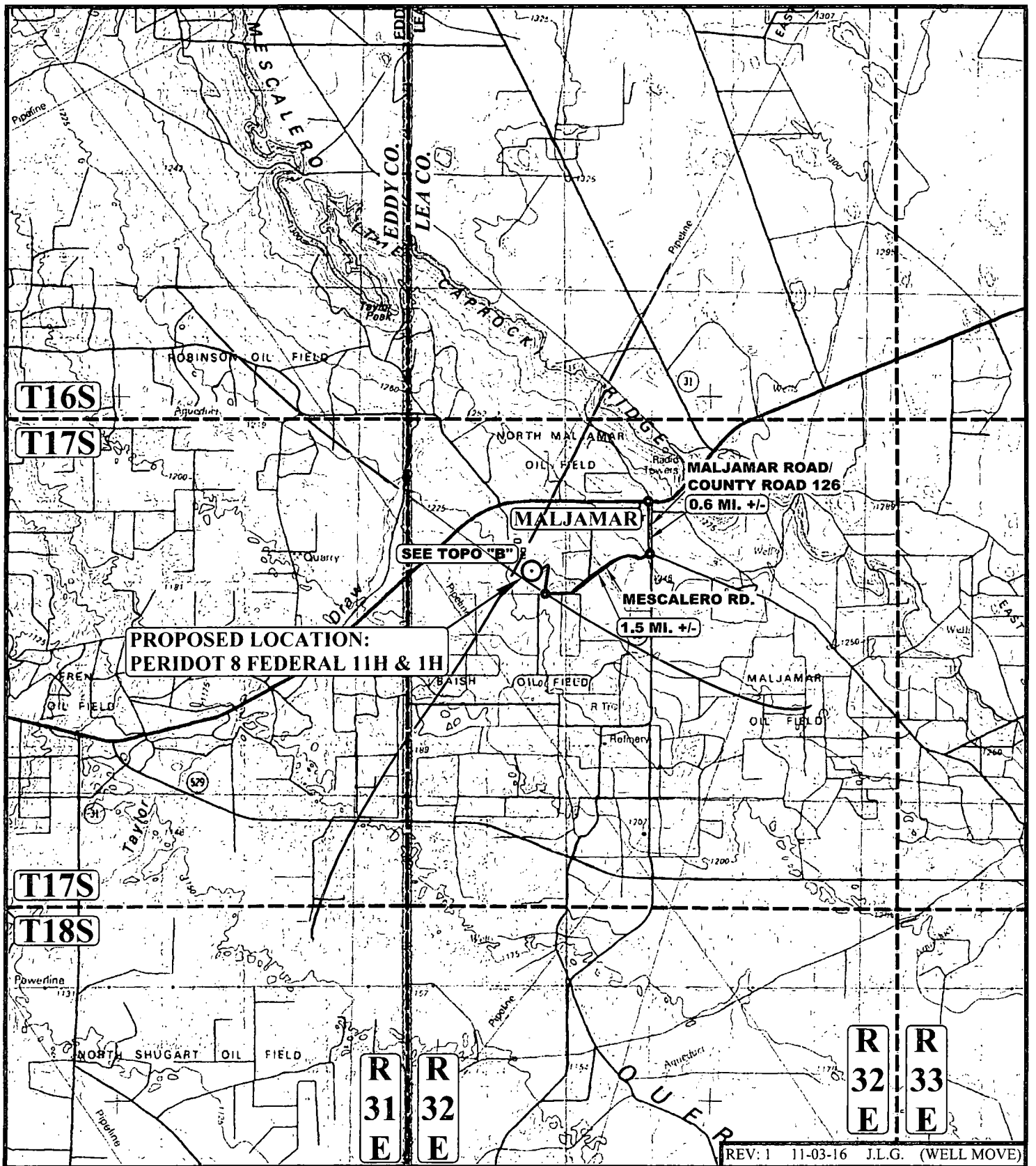
Peridot_8_Fed_11H_SWD_FlowLineToElvis_20180108115715.pdf

Peridot_8_Fed_SWD_BuriedPipeline_20180108150453.pdf

Peridot_8_Fed_11H_BuriedGasLinetoDCP_20180108150657.pdf

Peridot_8_Fed_11H_Surf_SummaryComments_20180108150719.pdf

Peridot_8_Fed_11H_SUPOviaAccessv3_20180108150738.pdf



REV: 1 11-03-16 J.L.G. (WELL MOVE)

LEGEND:

⊙ PROPOSED LOCATION

N

ConocoPhillips Company

PERIDOT 8 FEDERAL 11H & 1H
SW 1/4 SE 1/4, SECTION 8, T17S, R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	A.H., J.J.	08-26-16	SCALE
DRAWN BY	T.I.	09-08-16	1 : 100,000
ACCESS ROAD MAP			TOPO A

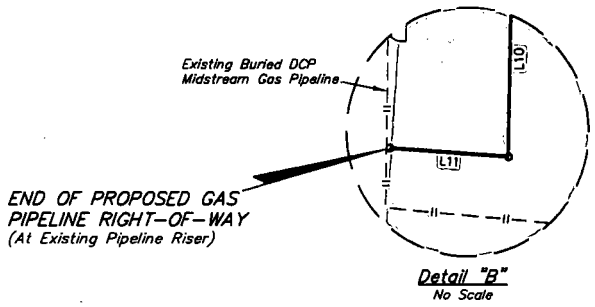
UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

GAS PIPELINE RIGHT-OF-WAY DESCRIPTION ON BLM LANDS IN SEC. 9

A 30' WIDE PERMANENT RIGHT-OF-WAY 15' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE WITH A 10' WIDE TEMPORARY RIGHT-OF-WAY ON THE RIGHT SIDE OF SAID PERMANENT RIGHT-OF-WAY FOR A TOTAL WIDTH OF 40' DURING CONSTRUCTION.

BEGINNING AT A POINT ON THE WEST LINE OF THE NW 1/4 SW 1/4 OF SECTION 9, T17S, R32E, N.M.P.M., WHICH BEARS S00°08'37"E 17.99' FROM THE WEST 1/4 CORNER OF SAID SECTION 9, THENCE N84°13'50"E 29.38'; THENCE S89°56'13"E 301.54'; THENCE S01°44'41"E 788.81'; THENCE S89°30'59"E 162.10'; THENCE S01°09'10"W 178.94'; THENCE N85°57'24"W 17.06' TO A POINT IN THE NW 1/4 SW 1/4 OF SAID SECTION 9, WHICH BEARS S26°47'32"E 1101.08' FROM THE WEST 1/4 CORNER OF SAID SECTION 9. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A TRANSVERSE MERCATOR PROJECTION WITH A CENTRAL MERIDIAN OF W103°53'00". PERMANENT RIGHT-OF-WAY CONTAINS 1.018 ACRES MORE OR LESS. TEMPORARY RIGHT-OF-WAY CONTAINS 0.339 ACRES MORE OR LESS.



Detail "B"
No Scale

CERTIFICATE
THIS IS TO CERTIFY THAT THIS EASEMENT PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

STATE OF NEW MEXICO
23782
PROFESSIONAL SURVEYOR
01-04-18

Sheet 2 of 2

FILE: 62464-B2 | REV: 2 01-04-18 L.K. (PIPELINE RE-ROUTE)

NOTES:
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00"

ConocoPhillips Company

PERIDOT GAS PIPELINE
SECTION 9, T17S, R32E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	J.A.V., R.D.	02-02-17	SCALE
DRAWN BY	B.D.H.	02-07-17	N/A

GAS PIPELINE R-O-W

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

Surface Disturbance Summary and Comments

Summary Table of Surface Disturbance

Disturbance Description	Disturbance (Feet)	Permanent Disturbance (Acres)	Temporary Disturbance (Acres)	Total Acres
Well Site Disturbance	NA	1.54	1.84 acres	3.38
30' wide new access road ROW*	5236'	3.61	none	3.61
10' wide flow line ROW	5198'	1.19	none	1.19
Power Line ROW*	5766'	1.32	none	1.32
Peridot 8 CF1 Tank Battery	400'x250'	2.52	none	2.52
Gas Sales Line ROW to Frontier*	1397'	0.96	0.32	1.28
Gas Sales Line ROW to DCP*	6138'	4.23	1.4	5.63
Saltwater Disposal Lines (surface)*	16695'	7.67	none	7.67
Saltwater Disposal Line (buried)*	15,676'	10.75	none	10.75
Freshwater Frac Pond*	600'x600'	8.52	none	8.52

*Note: majority of new access road, power line, tank battery, gas sales line, and salt water disposal line are shared with other Peridot wells. Total amount of road to be built is about 5236' and includes 15' road for facility access and 382' road to frac pond for access.

Disturbance Comments:

Please review this APD with other Peridot 8 Federal wells; 1H, 2H, 3H, 4H, 5H, 7H, 11H, 12H, 13H, 14H, 15H, and 17H. Peridot 8 Federal CF1 Tank Battery will be constructed concurrent with the first well(s) drilled for this development. Long term disturbance for the facility pad will use 2.52 acres. 5766' of electric line to be installed adjacent to access road and utilize 1.32 acres. 1397' of buried gas sales line to be installed to Frontier connection will utilize 0.321 temporary acres and 0.962 permanent acres. If a gas sales line connection to DCP is installed, it will be about 6138', utilize 4.23 permanent acres and 1.4 temporary acres. Gas Sales Line ROW may be used by third-party gas processor, depending on agreements reached. Up to four side by side produced water surface lines will be installed from Peridot 8 Federal CF1 Tank Battery to Elvis SWD well (16695'). These lines will be installed in 2 side by side ROWs requiring 7.67 (3.833 acres each). These lines will remain in place until a buried 8" pipeline is approved and installed. The buried SWD line will be 15676' and utilize about 10.8 permanent acres. Please see attached Summary of Surface Use and Surface Use Plan of Operations.

ConocoPhillips anticipates needing a freshwater frac pond to aid in completion operations. We plan on reclaiming the frac pond surface upon completion of the full Peridot Unit development. Reclamation activities will be conducted in accordance to BLM standards at the time of reclamation.

Additional wording; Mitigation:

Three key mitigation strategies are to be used for Peridot development; horizontal wells, interim reclamation and participation in conservation agreement. Development of these minerals could have been via vertical wells; approximately 12 wells. After re-evaluation of options, two key actions are planned horizontal wells and multi-well pads where possible. This minimizes surface use, while improving project economics and results in significant surface use reduction.

Interim reclamation is a component of our surface use mitigation. COPC intends to maximize interim reclamation to the greatest extent feasible for each location drilled. Current interim reclamation plans are included in survey plat packages for individual wells.

COPC is a participant in the Candidate Conservation Agreement. Among mitigation measures re observing timing stipulations for Lesser-Prairie Chickens, as indicated by BLM, at the beginning of each breeding season. Also, well locations have been moved, in consultation with BLM biologists to avoid habitat of interest.

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Bond Info Data Report

02/26/2018

Bond Information

Federal/Indian APD: FED

BLM Bond number: ES0085

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

Gas Capture Plan
Peridot 8 Federal Wells

	Peridot 8 Federal Wells-Located in Sec. 8, T17S, R32E															
Well Name:	1H	2H	3H	4H	5H	6H	7H	8H	11H	12H	13H	14H	15H	16H	17H	18H
Well Location:	615' FSL	936' FSL	2080' FSL	2237' FSL	2634' FNL	1586' FNL	1065' FNL	775' FNL	755' FSL	1035' FSL	1240' FSL	2237' FSL	2634' FNL	1485' FNL	915' FNL	635' FNL
	2460' FEL	2501' FEL	2350 FWL	2440' FWL	1907' FWL	2635' FEL	2540' FWL	2543' FWL	2460' FEL	2600' FEL	2480' FWL	2580' FWL	2022' FWL	2538' FEL	2540' FWL	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	570	570	570	570	570	570	480	480	480	480	480	480	480	480
Gas (mcfd)	620	620	620	620	620	620	620	620	530	530	530	530	530	530	530	530
Water (bwpd)	2300	2300	2300	2300	2300	2300	2300	2300	1900	1900	1900	1900	1900	1900	1900	1900
Date of First Production:	<45 days following completion operations															
Expected Well Life Expectancy:	25 years	25 years	25 years	25 years	25 years	25 years	25 years	25 years	25 years	25 years	25 years	25 years	25 years	25 years	25 years	25 years