Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMNM02862

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
NMNM71016X

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

8. Well Name and No.
POKER LAKE UNIT 486H

2. Name of Operator
BOPCO LP
Contact: KELLY KARDOS
E-Mail: kelly_kardos@xtoenergy.com

9. API Well No.
30-015-~~43639~~ 45128

3a. Address
6401 HOLIDAY HILL RD BLDG 5 SUITE 200
MIDLAND, TX 79707

3b. Phone No. (include area code)
Ph: 432-620-4374

10. Field and Pool or Exploratory Area
PURPLE SAGE(WOLFCAMP)

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 26 T24S R30E Mer NMP SWSW 150FSL 950FWL

11. County or Parish, State
EDDY COUNTY, NM

Carlsbad Field Office
OCD Artesia

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change to Original A PD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

BOPCO, LP requests permission to skid the rig 30' West to re-drill the wellbore lost on the PLU 486H and change the well number to 486Y. A form 3160-3, drilling plan, directional plan, gas capture plan & C102 for the Poker Lake Unit 486Y is attached....

OLD SHL: 150' FSL & 950' FWL, SWSW Sec. 26, T24S, R30E
NEW SHL: 150' FSL & 920' FWL, SWSW Sec. 26, T24S, R30E

Engineering Good. ZS 7/26/18

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

RECEIVED

14. I hereby certify that the foregoing is true and correct.
Electronic Submission #428859 verified by the BLM Well Information System
For BOPCO LP, sent to the Carlsbad

AUG 07 2018

Name *(Printed/Typed)* KELLY KARDOS — Title REGULATORY COORDINATOR

DISTRICT II-ARTESIA O.C.D.

Signature (Electronic Submission) — Date 07/26/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By Cody R. Layton — Title AFM L&M — Date 07/26/2018

Conditions of approval, if any, are attached. Approval of this notice 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.

Office CFO

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.

(Instructions on page 2)

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

RWP
8-8-18.

Form 3160-3
(August 2007)

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM02862

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.: NMNM71016X

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

8. Lease Name and Well No.: Poker Lake Unit 486Y

2. Name of Operator: BOPCO, L.P.

9. API Well No.: 30-015-

3a. Address: 6401 Holiday Hill Road, Bldg 5
Midand, Texas 79707

3b. Phone No. *(include area code)*: 432-683-2277

10. Field and Pool, or Exploratory: Purple Sage; Wolfcamp

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

At surface: 150'FSL & 920'FWL, M-26-24S-30E, SWSW

At proposed prod. zone: 330'FSL & 330'FWL, M-28-24S-30E, SWSW

11. Sec., T R. M. or Blk. and Survey or Area: M-26-24S-30E

14. Distance in miles and direction from nearest town or post office*: 13 Miles Southeast of Malaga, NM

12. County or Parish: Eddy

13. State: NM

15. Distance from proposed* location to nearest property or lease line. ft. (Also to nearest drig. unit line. if any): 150'

16. No. of acres in lease: 3120

17. Spacing Unit dedicated to this well: 720

18. Distance from proposed location* to nearest well. drilling. completed. applied for. on this lease. ft.: 500'

19. Proposed Depth: 23270'

20. BLM/BIA Bond No. on file: COB000050

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3340'

22. Approximate date work will start*: 07/26/2018

23. Estimated duration: 90 Days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

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 required by the BLM.

25. Signature: Stephanie Rabadue | Name *(Printed/Typed)*: Stephanie Rabadue | Date: 07/25/2018

Title: Regulatory Coordinator

Approved by *(Signature)* | Name *(Printed/Typed)* | Date

Title | Office

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.

(Continued on page 2)

*(Instructions on page 2)

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-015- 45128	98220	Purple Sage; Wolfcamp

[4] Property Code	[5] Property Name	[6] Well Number
306402	POKER LAKE UNIT	486Y

[7] OGRID No.	[8] Operator Name	[9] Elevation
260737	BOPCO, L.P.	3,340'

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	26	24 S	30 E		150	SOUTH	920	WEST	EDDY

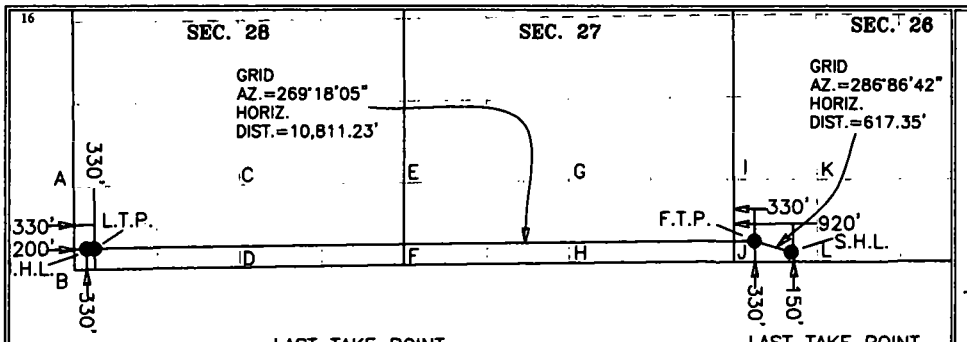
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	28	24 S	30 E		330	SOUTH	200	WEST	EDDY

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
720			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

16



SURFACE LOCATION NAD 27 NME	LAST TAKE POINT NAD 27 NME	SURFACE LOCATION NAD 83 NME	LAST TAKE POINT NAD 83 NME
Y= 430,231.3	Y= 430,279.1	Y= 430,289.9	Y= 430,337.7
X= 647,423.9	X= 636,152.6	X= 688,608.2	X= 677,336.7
LAT.= 32.181925°N	LAT.= 32.182189°N	LAT.= 32.182049°N	LAT.= 32.182312°N
LONG.= 103.856823°W	LONG.= 103.893254°W	LONG.= 103.857308°W	LONG.= 103.893739°W
FIRST TAKE POINT NAD 27 NME	**BOTTOM HOLE LOCATION NAD 27 NME**	**FIRST TAKE POINT NAD 83 NME**	**BOTTOM HOLE LOCATION NAD 83 NME**
Y= 430,409.5	Y= 430,277.7	Y= 430,468.1	Y= 430,336.3
X= 646,832.9	X= 636,022.6	X= 688,017.1	X= 677,206.7
LAT.= 32.182422°N	LAT.= 32.182186°N	LAT.= 32.182546°N	LAT.= 32.182310°N
LONG.= 103.858731°W	LONG.= 103.893674°W	LONG.= 103.859216°W	LONG.= 103.894159°W

CORNER COORDINATES TABLE NAD 27 NME	CORNER COORDINATES TABLE NAD 83 NME
A – Y= 431,266.0 N, X= 635,811.4 E	A – Y= 431,324.7 N, X= 676,995.5 E
B – Y= 429,945.5 N, X= 635,826.3 E	B – Y= 430,004.1 N, X= 677,010.5 E
C – Y= 431,296.4 N, X= 638,482.1 E	C – Y= 431,355.0 N, X= 679,666.2 E
D – Y= 429,975.4 N, X= 638,495.1 E	D – Y= 430,034.0 N, X= 679,679.3 E
E – Y= 431,326.6 N, X= 641,141.8 E	E – Y= 431,385.2 N, X= 682,326.0 E
F – Y= 430,011.8 N, X= 641,142.8 E	F – Y= 430,070.4 N, X= 682,327.0 E
G – Y= 431,361.9 N, X= 643,817.9 E	G – Y= 431,420.5 N, X= 685,002.1 E
H – Y= 430,045.2 N, X= 643,823.8 E	H – Y= 430,103.8 N, X= 685,008.0 E
I – Y= 431,397.1 N, X= 646,497.1 E	I – Y= 431,455.7 N, X= 687,681.3 E
J – Y= 430,078.5 N, X= 646,504.8 E	J – Y= 430,137.1 N, X= 687,689.1 E
K – Y= 431,401.7 N, X= 647,834.4 E	K – Y= 431,460.3 N, X= 689,018.6 E
L – Y= 430,082.6 N, X= 647,842.0 E	L – Y= 430,141.2 N, X= 689,026.3 E

[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Stephanie Rabadue 07/25/2018
Signature Date

Stephanie Rabadue
Printed Name

stephanie_rabadue@xtoenergy.com
E-mail Address

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

07-25-2018
Date of Survey

Signatue and Seal of Professional Surveyor:

MARK DILLON HARP NEW MEXICO 23786 PROFESSIONAL SURVEYOR

MARK DILLON HARP 23786
Certificate Number

RR/AI 2017050744

RP 8-8-18

Operator Name:	Property Name:	Well Number
BOPCO, L.P.	Poker Lake Unit	486Y

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
M	26	24S	30E		150	South	920	West	Eddy
Latitude					Longitude				NAD
32.182049					-103.857308				83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
M	26	24S	30E		330	South	330	West	Eddy
Latitude					Longitude				NAD
32.182422					-103.858731				83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
M	28	24S	30E		330	South	330	West	Eddy
Latitude					Longitude				NAD
32.182312					-103.893739				83

Is this well the defining well for the Horizontal Spacing Unit? Y

Is this well an infill well?

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:	Property Name:	Well Number

KZ 06/27/2018

DRILLING PLAN: BLM COMPLIANCE
(Supplement to BLM 3160-3)

XTO Energy Inc.
Poker Lake Unit 486Y
Projected TD: 23270' MD / 12096' TVD
SHL: 150' FSL & 920' FWL , Section 26, T24S, R30E
BHL: 330' FSL & 200' FWL , Section 28, T24S, R30E
Eddy County, NM

1. Geologic Name of Surface Formation

A. Quaternary

2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	1333'	Water
Top of Salt	1608'	Water
Base of Salt	3911'	Water
Delaware	3976'	Water
Bone Spring	7707'	Water/Oil/Gas
1st Bone Spring Ss	8656'	Water/Oil/Gas
2nd Bone Spring Ss	9446'	Water/Oil/Gas
3rd Bone Spring Ss	10614'	Water/Oil/Gas
Wolfcamp	11005'	Water/Oil/Gas
Wolfcamp A	11146'	Water/Oil/Gas
Wolfcamp E	12028'	Water/Oil/Gas
Target/Land Curve	12096'	Water/Oil/Gas

*** Hydrocarbons @ Brushy Canyon
*** Groundwater depth 40' (per NM State Engineers Office).

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 18-5/8 inch casing @ 1580' (28' above the salt) and circulating cement back to surface. The salt will be isolated by setting 13-3/8 inch casing at 3930' and circulating cement to surface. 9-5/8 inch intermediate casing will be set at 11420'. An 8-3/4 inch curve and 8-1/2 inch lateral hole will be drilled to TD, where 5-1/2 inch casing will be set and cemented back up to the 9-5/8 inch casing shoe.

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension
24"	0' – 1580'	18-5/8"	87.5	STC	J-55	New	1.84	1.14	5.45
17-1/2"	0' – 3930'	13-3/8"	68	STC	J-55	New	1.08	1.58	2.53
12-1/4"	0' – 11420'	9-5/8"	40	LTC	HCL-80	New	1.11	1.31	1.83
8-3/4" x 8-1/2"	0' – 23270'	5-1/2"	20	BTC	P-110	New	1.33	1.41	1.97

- XTO requests to utilize centralizers only in the curve after the KOP and only a minimum of one every other joint.
- 18-5/8" Collapse analyzed using 75% evacuation. Casing to be filled while running.
- 13-3/8" & 9-5/8" Collapse analyzed using 50% evacuation based on regional experience.
- 5-1/2" tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35

WELLHEAD:

Temporary Wellhead

- 18-5/8" SOW bottom x 21-1/4" 2M top flange.

Permanent Wellhead – GE RSH Multibowl System

A. Starting Head: 13-5/8" 10M top flange x 13-3/8" SOW bottom
B. Tubing Head: 13-5/8" 10M bottom flange x 7" 15M top flange
- Wellhead will be installed by manufacturer's representatives.
- Manufacturer will monitor welding process to ensure appropriate temperature of seal.

- Operator will test the 9-5/8" casing per BLM Onshore Order 2
- Wellhead manufacturer representative will not be present for BOP test plug installation

4. Cement Program

Surface Casing: 18-5/8", 87.5 New J-55, STC casing to be set at +/- 1580'

Lead: 2690 sxs EconoCem-HLTRRC (mixed at 12.9 ppg, 1.87 ft3/sx, 10.13 gal/sx water)
Tail: 300 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
Compressives: 12-hr = 900 psi 24 hr = 1500 psi

1st Intermediate Casing: 13-3/8", 68 New J-55, STC casing to be set at +/- 3930'

Lead: 2690 sxs EconoCem-HLTRRC (mixed at 12.9 ppg, 1.87 ft3/sx, 10.13 gal/sx water)
Tail: 300 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.35 ft3/sx, 6.39 gal/sx water)
Compressives: 12-hr = 900 psi 24 hr = 1500 psi

2nd Intermediate Casing: 9-5/8", 40 New HCL-80, LTC casing to be set at +/- 11420'
ECP/DV Tool to be set at 4030'
1st Stage

Lead: 2290 sxs Halcem-C + 2% CaCl (mixed at 12.9 ppg, 1.88 ft3/sx, 9.61 gal/sx water)

Tail: 230 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.33 ft3/sx, 6.39 gal/sx water)
Compressives: 12-hr = 900 psi 24 hr = 1500 psi

2nd Stage

Lead: 1170 sxs Halcem-C + 2% CaCl (mixed at 12.9 ppg, 1.88 ft3/sx, 9.61 gal/sx water)

Tail: 230 sxs Halcem-C + 2% CaCl (mixed at 14.8 ppg, 1.33 ft3/sx, 6.39 gal/sx water)
Compressives: 12-hr = 900 psi 24 hr = 1500 psi

Production Casing: 5-1/2", 20 New P-110, BTC casing to be set at +/- 23270'

Tail: 2290 sxs VersaCem (mixed at 13.2 ppg, 1.61 ft3/sx, 8.38 gal/sx water)
Compressives: 12-hr = 1375 psi 24 hr = 2285 psi

5. Pressure Control Equipment

The blow out preventer equipment (BOP) on surface casing/temp. wellhead will consist of a 21-1/4" minimum 2M Hydril. MASP should not exceed 1220 psi.

Once the permanent WH is installed on the 13-3/8 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 5M Hydril and a 13-5/8" minimum 10M 3-Ram BOP. MASP should not exceed 5201 psi. In any instance where 10M BOP is required by BLM, XTO requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M).

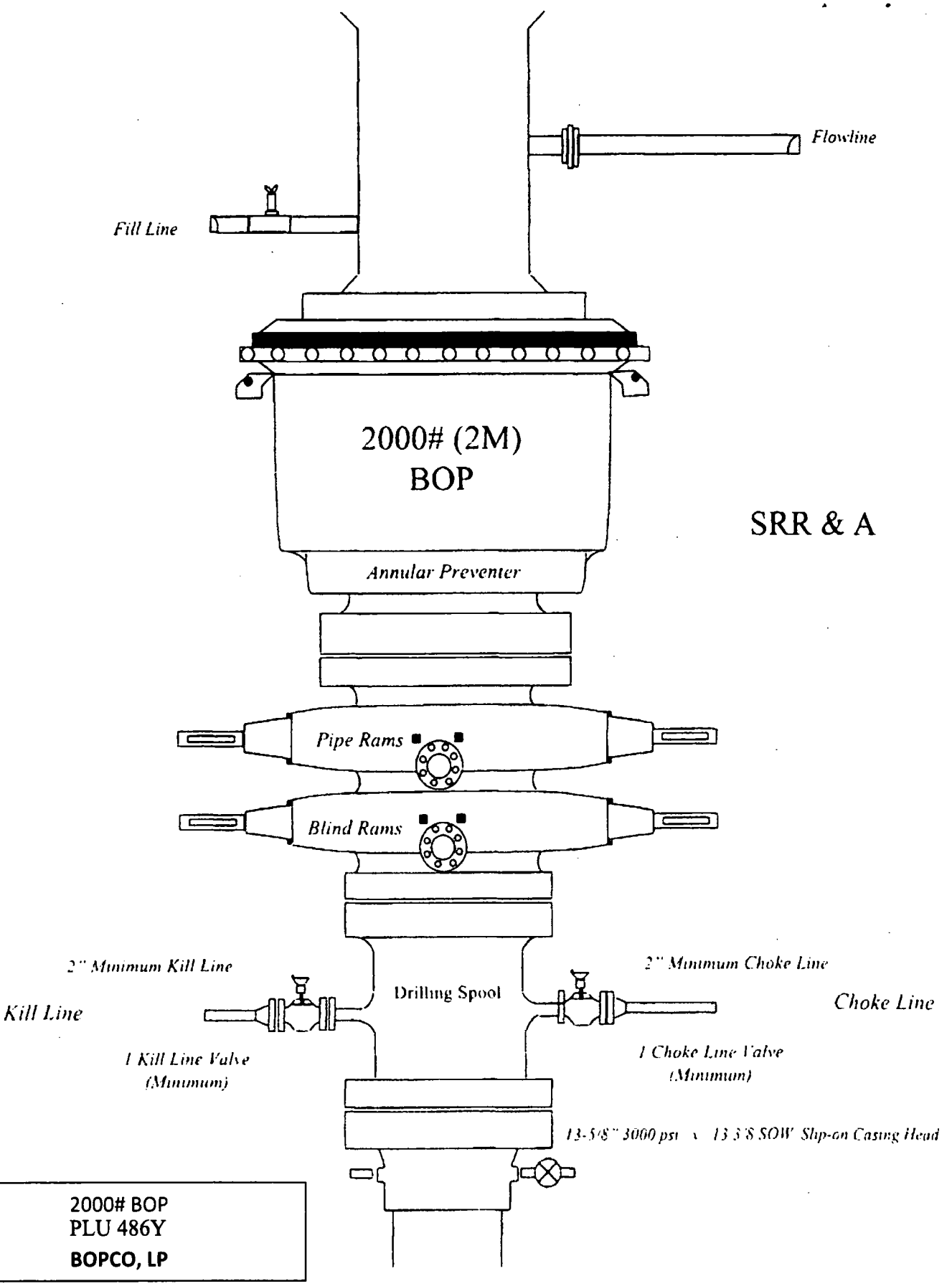
All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 50% of the working pressure. When nippling up on the 13-5/8" 10M bradenhead and flange, the BOP test will be limited to 10M psi. Since a multibowl system will be used, subsequent BOP pressure tests will be performed as necessary based on required testing schedule (i.e., at least every 30 days). All BOP tests will include a low pressure test as per BLM regulations. The 10M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested each day.

A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification and pressure test chart will be kept on the rig. Attached is an example of a certification and pressure test chart. The manufacturer does not require anchors.

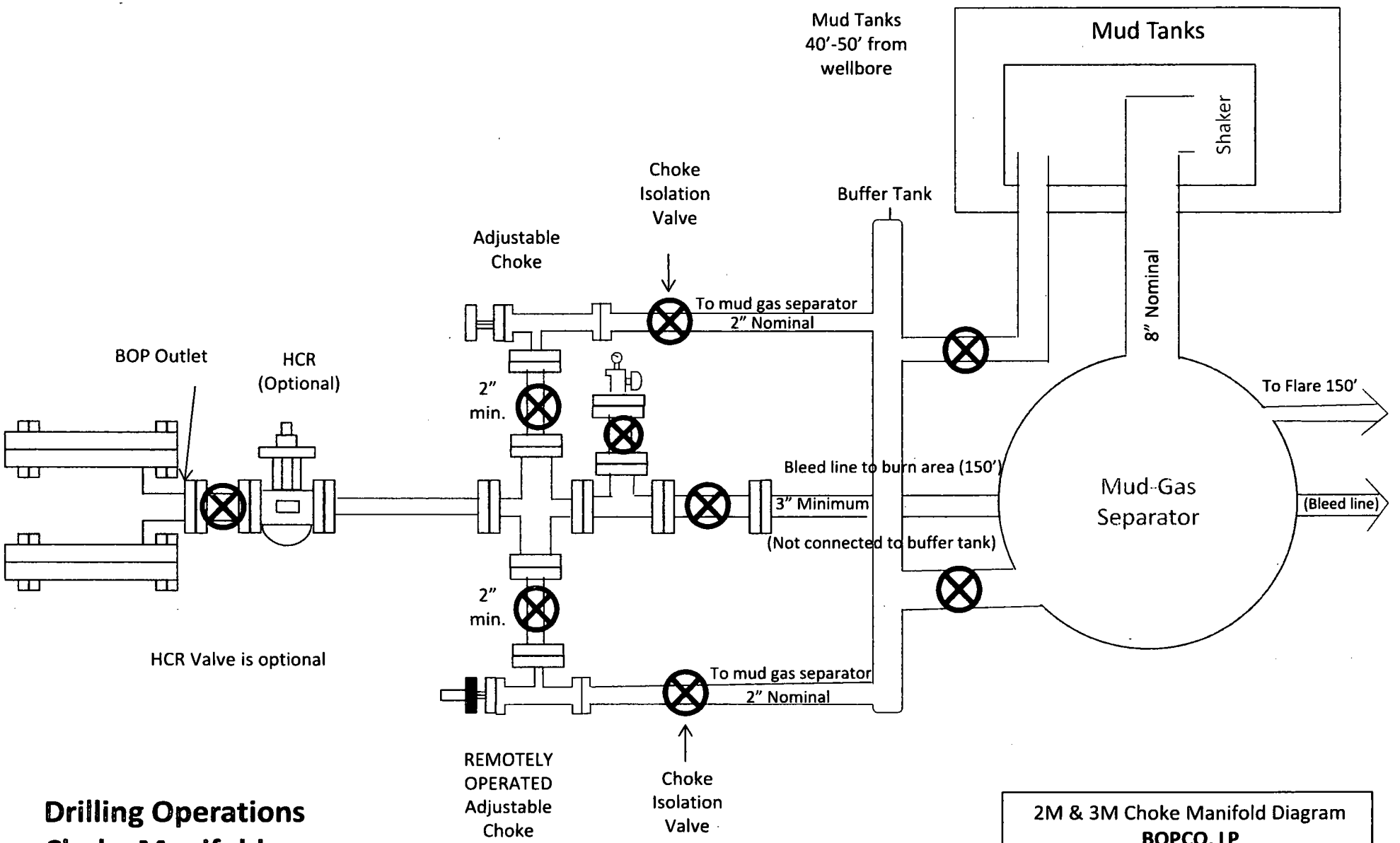
6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 1580'	24"	FW/Native	8.4-8.8	45-60	NC
1580' - 3930'	17-1/2"	Brine	9.8-10.2	30-32	NC
3930' to 11420'	12-1/4"	FW/Cut Brine	8.7-10.0	30-32	NC
11420' to 23270'	8-3/4" x 8-1/2"	FW / Cut Brine / Polymer	12.2 - 12.5	29-32	NC - 20

The necessary mud products for weight addition and fluid loss control will be on location at all times.
Spud with fresh water/native mud. Drill out from under 18-5/8" surface casing with brine solution. A 9.8ppg-10.2ppg brine mud will be used while drilling through the salt formation. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up. A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up. Rig up solids control equipment to operate as a closed loop system.

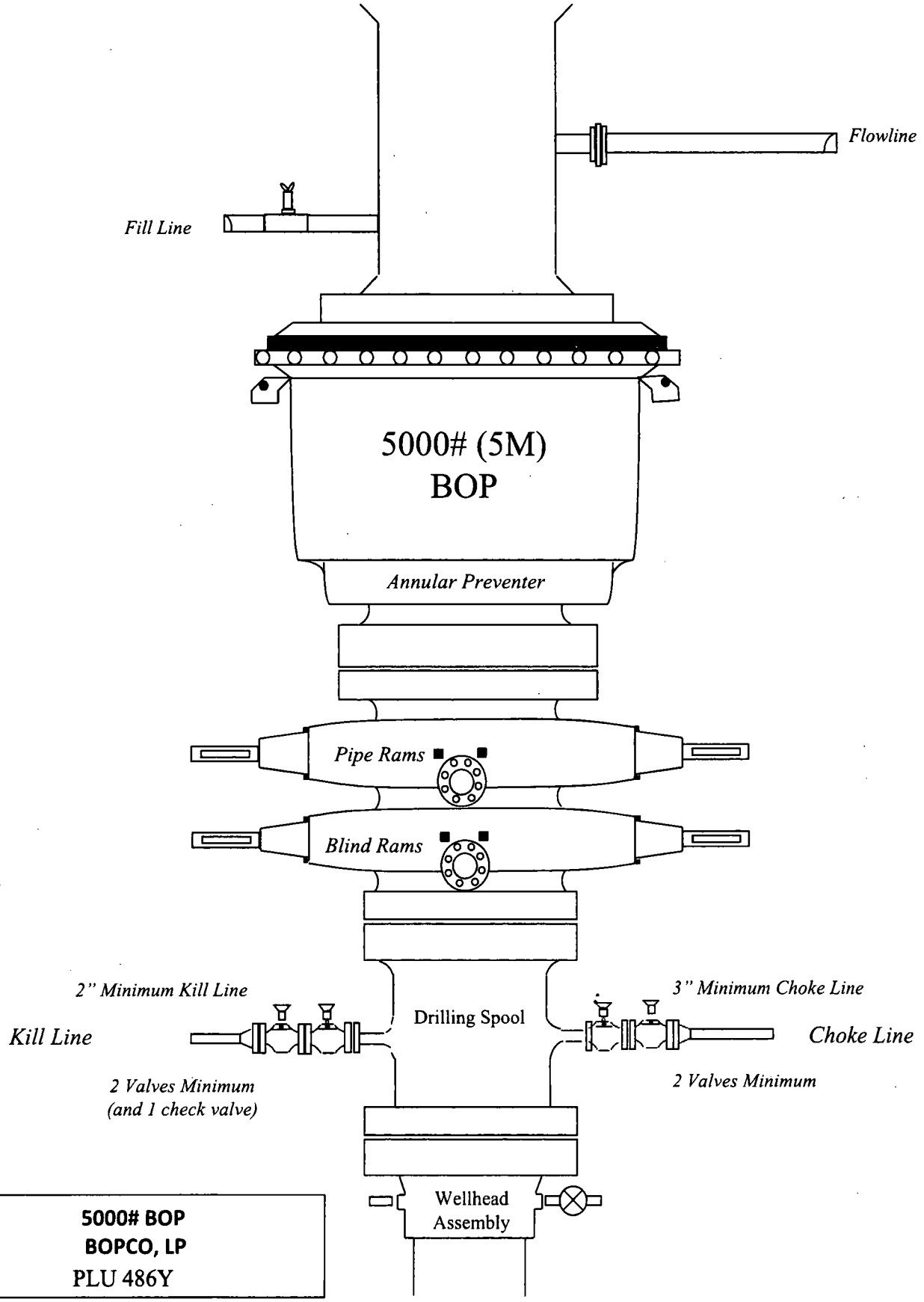


2000# BOP
PLU 486Y
BOPCO, LP

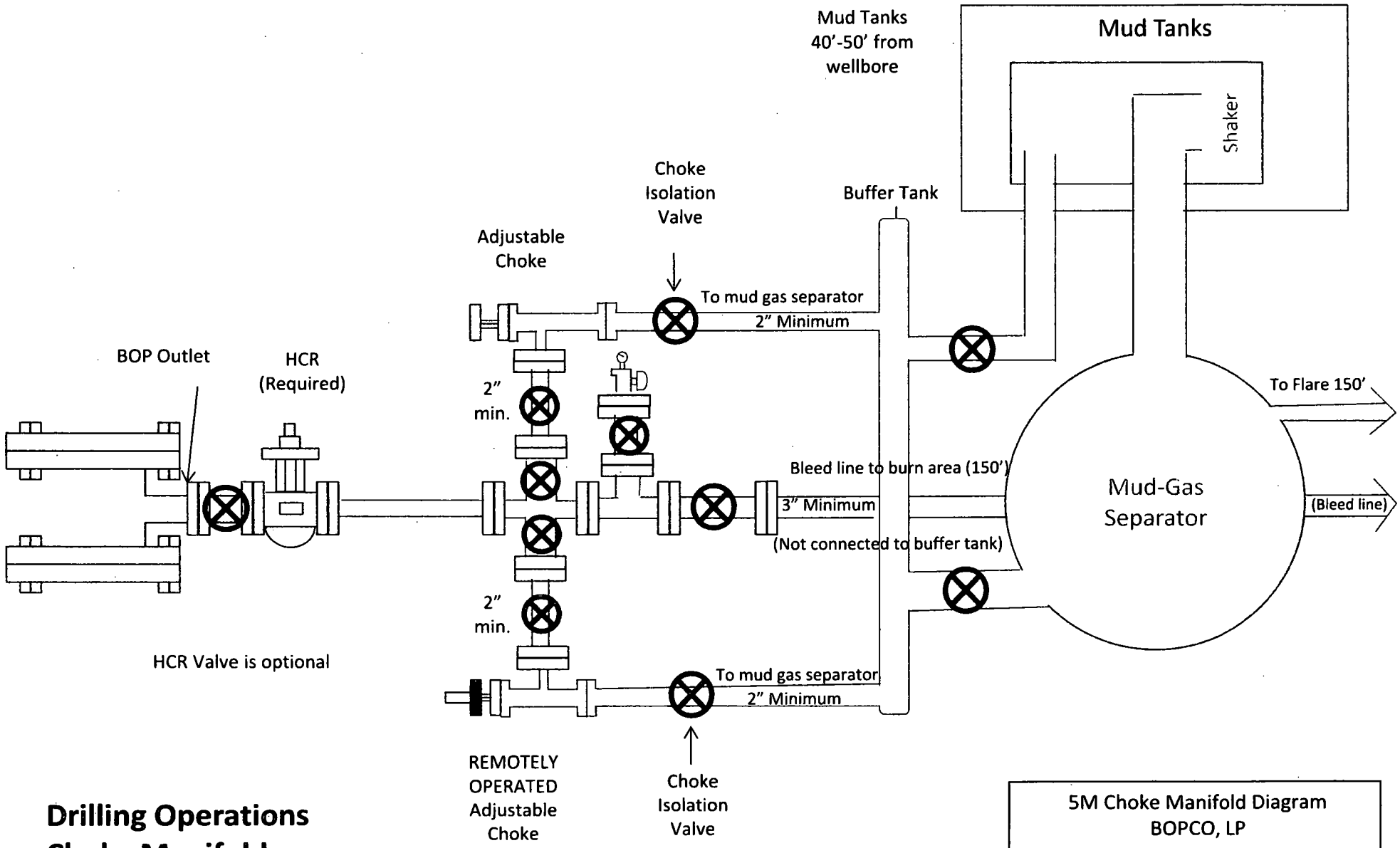


Drilling Operations
Choke Manifold
2M & 3M Service

2M & 3M Choke Manifold Diagram
BOPCO, LP
PLU 486Y



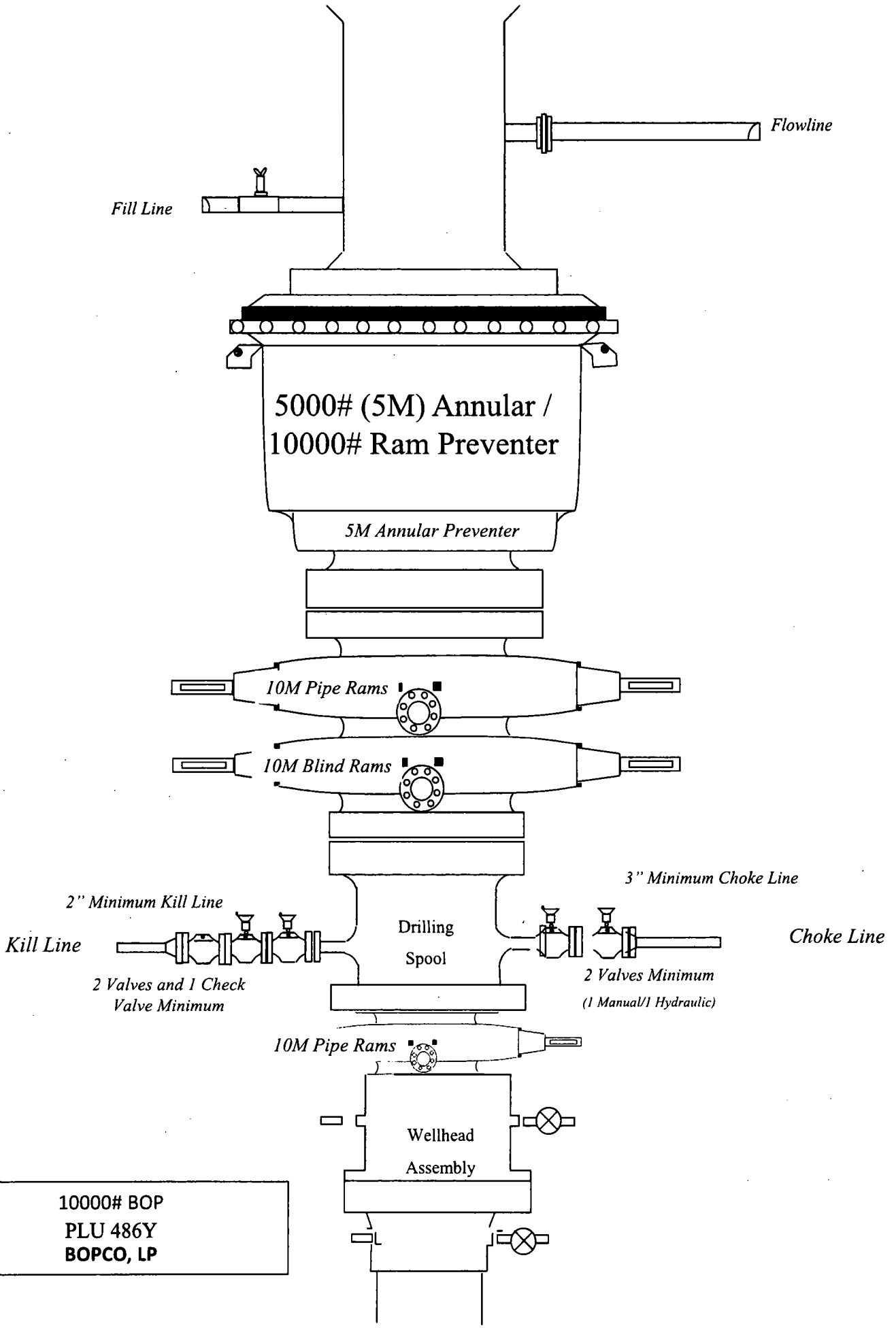
5000# BOP
BOPCO, LP
PLU 486Y



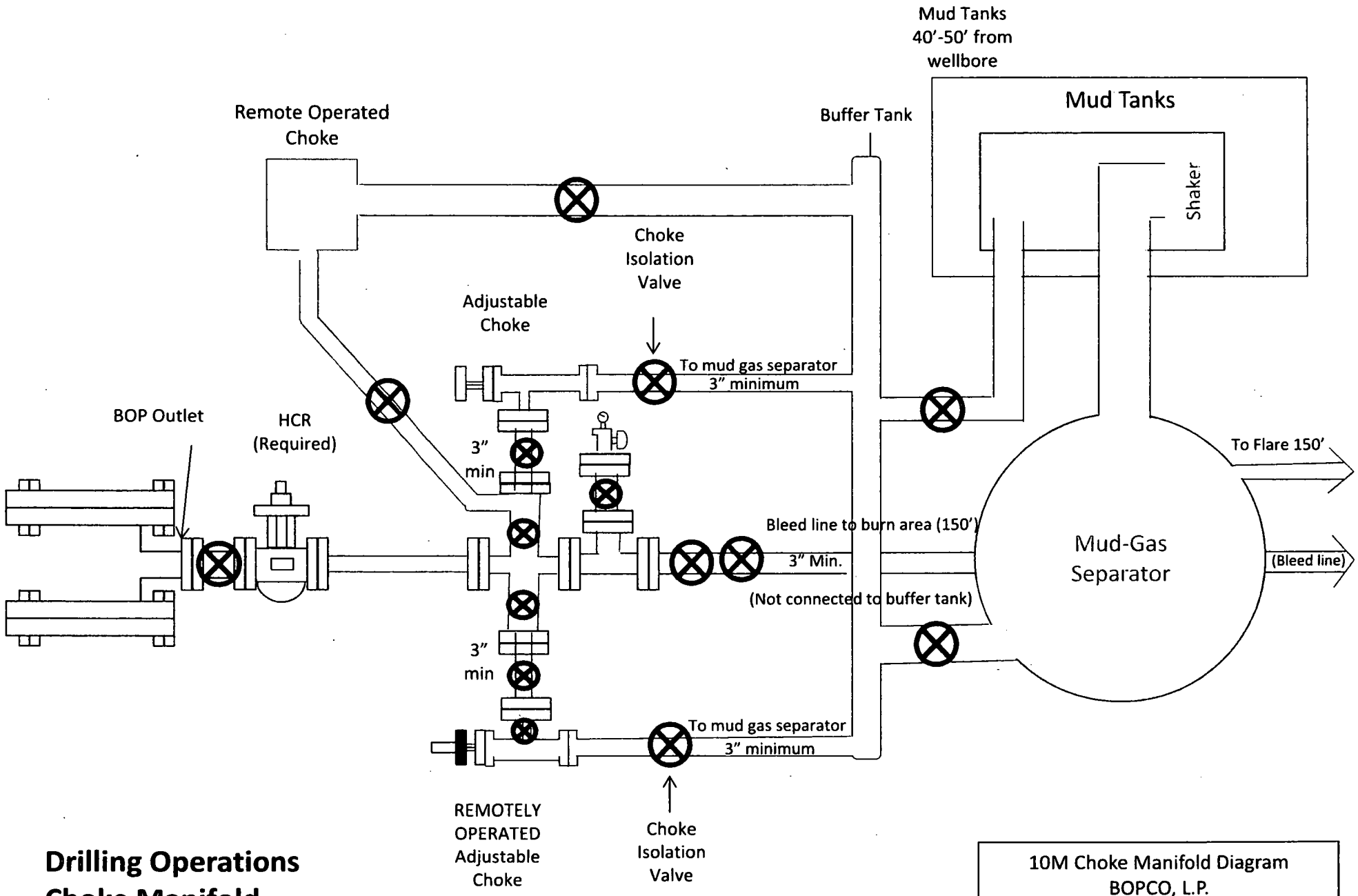
Drilling Operations
Choke Manifold
5M Service

5M Choke Manifold Diagram
BOPCO, LP

PLU 486Y



10000# BOP
PLU 486Y
BOPCO, LP



Drilling Operations
Choke Manifold
10M Service

10M Choke Manifold Diagram
BOPCO, L.P.
PLU 486Y

GATES E & S NORTH AMERICA, INC
DU-TEX
134 44TH STREET
CORPUS CHRISTI, TEXAS 78405

PHONE: 361-887-9807
FAX: 361-887-0812
EMAIL: crpe&s@gates.com
WEB: www.gates.com

GRADE D PRESSURE TEST CERTIFICATE

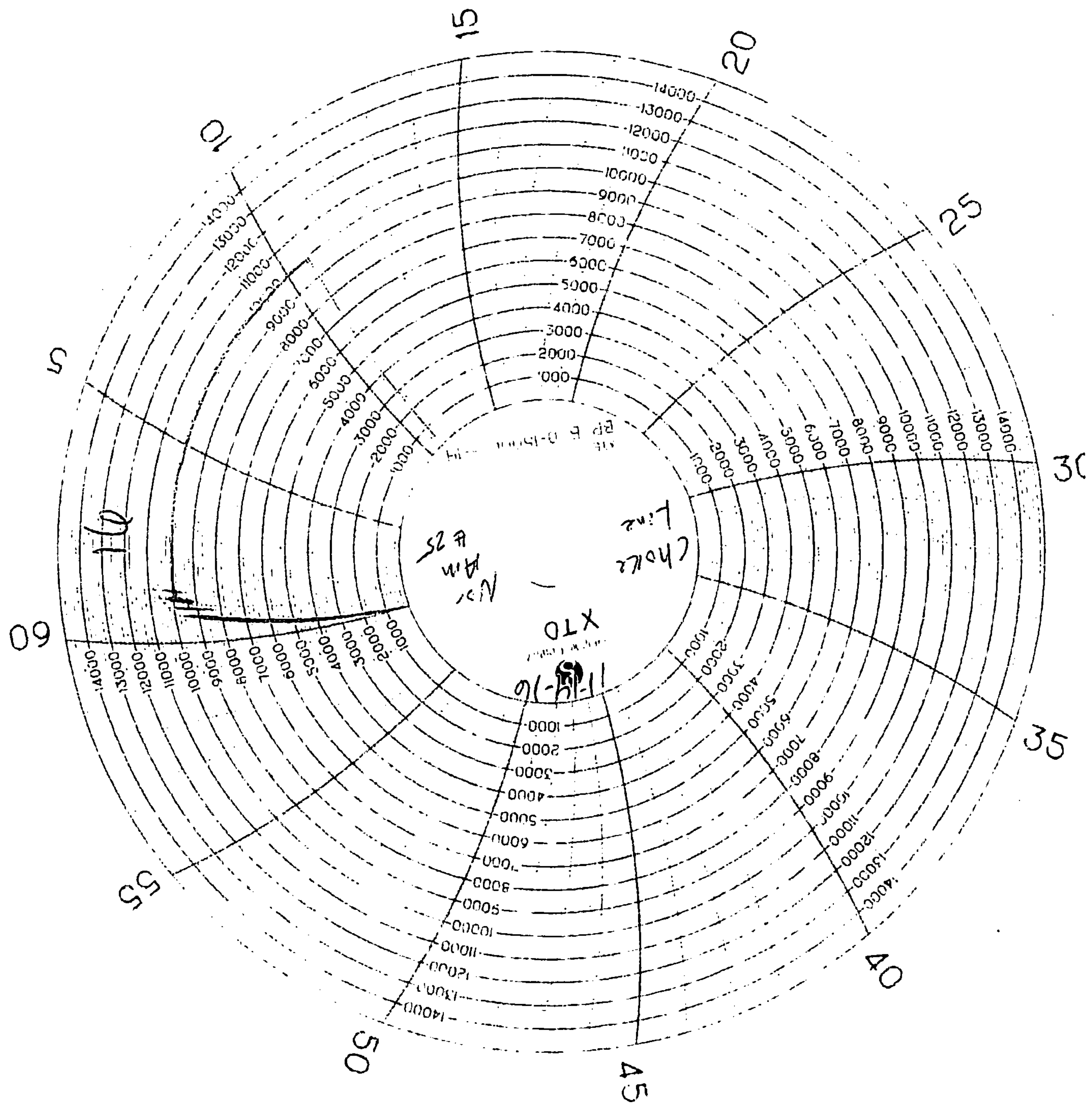
Customer :	AUSTIN DISTRIBUTING	Test Date:	6/8/2014
Customer Ref. :	PENDING	Hose Serial No..	D-060814-1
Invoice No.	201709	Created By.	NORMA

Product Description: FDJ3.0-2.0R4 1/16.5KFLGE/E LE

End Fitting 1 :	4 1/16 in.5K FLG	End Fitting 2 :	4 1/16 in.5K FLG
Gates Part No. :	4774-6001	Assembly Code :	L330900115 13D-060814-1
Working Pressure	5,000 PSI	Test Pressure :	7,500 PSI

Gates E & S North America, Inc. certifies that the following hose assembly has been tested to the Gates Oilfield Roughneck Agreement/Specification requirements and passed the 15 minute hydrostatic test per API Spec 7K/Q1, Fifth Edition, June 2010, Test pressure 9.6.7 and per Table 9 to 7,500 psi in accordance with this product number. Hose burst pressure 9.6.7.2 exceeds the minimum of 2.5 times the working pressure per Table 9.

Quality:	QUALITY	Technical Supervisor :	PRODUCTION
Date. .	6/8/2014	Date :	6/8/2014
Signature .		Signature :	



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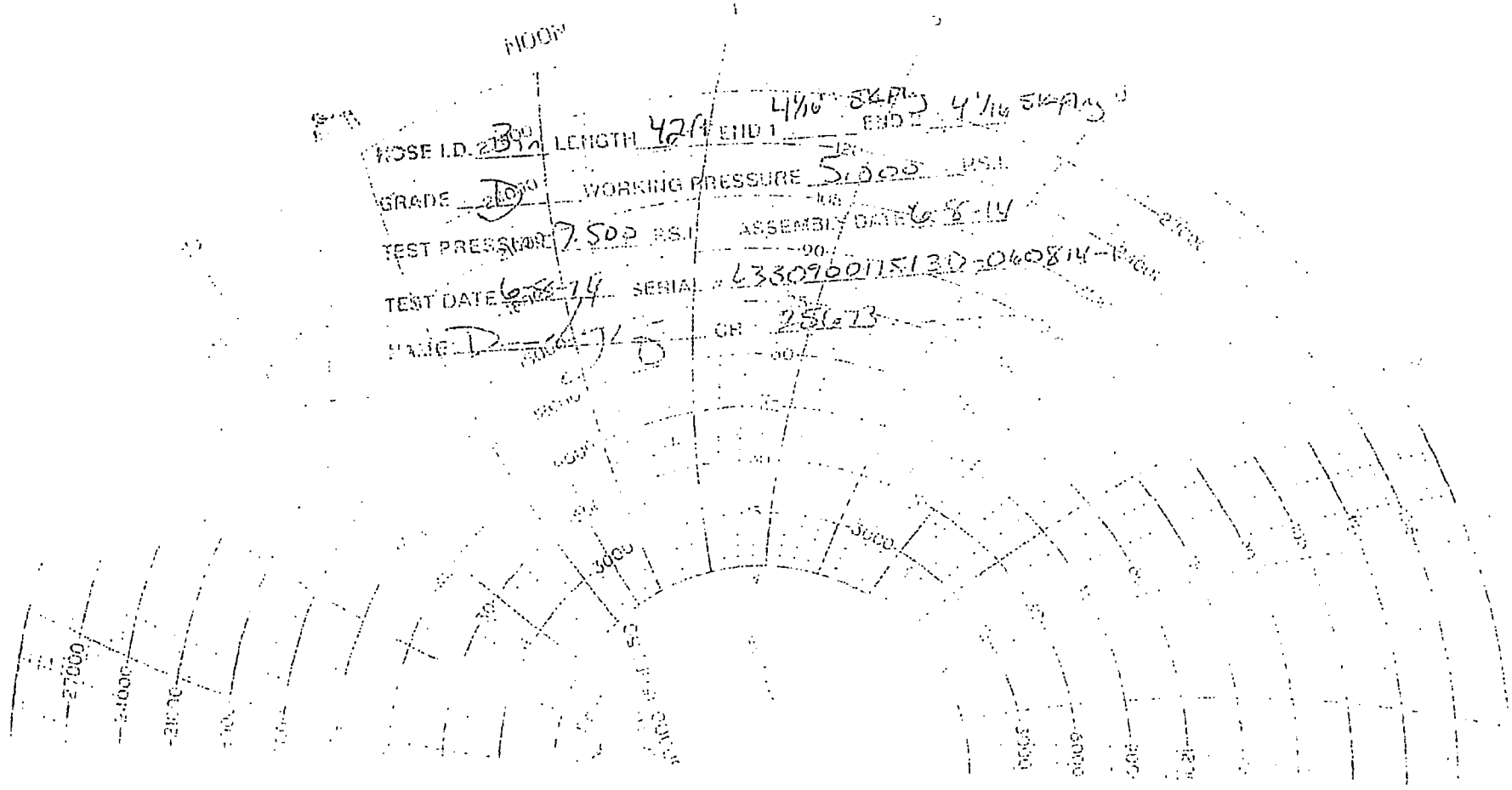
XTD


HOSE I.D. 2 1/2
LENGTH 42'
END 1 4 1/16 SKRU
END 2 4 1/16 SKRU
GRADE D
WORKING PRESSURE 5,000 PSI
TEST PRESSURE 7,500 P.S.I.
ASSEMBLY DATE 6-5-14
TEST DATE 6-5-14
SERIAL # 6330960175130-060814-1000
MADE IN USA
OR 25673

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Original to Appropriate District Office

GAS CAPTURE PLAN

Date: 07/26/2018

☐ Original Operator & OGRID No.: BOPCO, LP [260737]
☒ Amended - Reason for Amendment: Rig Skid – Surface hole location moved 30'

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility: Poker Lake Unit 428 Battery

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Poker Lake Unit 486Y		M-26-24S-30E	150'FSL & 920'FWL	3.75	Flared/Sold	Battery Connected

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to ETC and will be connected to ETC low/high pressure gathering system located in Eddy County, New Mexico. It will require 0' of pipeline to connect the facility to low/high pressure gathering system. BOPCO provides (periodically) to ETC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, BOPCO and ETC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at ETC Processing Plant located in Sec.33, Twn. T24S, Rng.37E, Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on ETC system at that time. Based on current information, it is BOPCO's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**BOPCO LP**
LEASE NO.:	**NMNM71016X**
WELL NAME & NO.:	**POKER LAKE UNIT 486Y**
SURFACE HOLE FOOTAGE:	**150' FSL & 920' FWL**
BOTTOM HOLE FOOTAGE	**330' FSL & 200' FWL**
LOCATION:	**Section 26, T. 24 S., R 30 E., NMPM**
COUNTY:	**Eddy County, New Mexico**

COA

All previous COAs still apply expect the following:

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

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

Operator shall filled 75% of casing with fluid while running 1st intermediate casing to maintain collapse safety factor.

1. The **18 5/8** inch surface casing shall be set at approximately 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.

Operator shall filled 50% of casing with fluid while running 1st intermediate casing to maintain collapse safety factor.

2. The minimum required fill of cement behind the **13-3/8** inch 1st intermediate casing is:
   - Cement to surface. If cement does not circulate see B.1.a, c-d above.

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

Operator shall filled 50% of casing with fluid while running 2nd intermediate casing to maintain collapse safety factor

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

   Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

   a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

   b. Second stage above DV tool:Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:
   - Cement should tie-back 200' into the previous casing. Operator shall provide method of verification.**Additional cement maybe required. Excess calculates to 21%.**

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. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **13-3/8** intermediate casing shoe shall be **5000 (5M)** psi.

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.

ZS 072618

Medium Cave Karst: two casing strings, both to circulate cement to surface.

18 5/8	surface csg in a		24	inch hole.		Design Factors		SURFACE	
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	Weight
"A"	87.50	J 55		ST&C	5.45	0.87	1.08	1,580	138,250
"B"								0	0
w/8.4#/g mud, 30min Sfc Csg Test psig: 886				Tail Cmt	does not	circ to sfc.	Totals:	1,580	138,250

Comparison of Proposed to Minimum Required Cement Volumes

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
24	1.2496	2990	5435	2130	155	8.80	1218	2M	12.00

ALT. COLLAPSE SF: 0.95*1.5=1.43

13 3/8	casing inside the		18 5/8			Design Factors		INTERMEDIATE	
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	Weight
"A"	68.00	J 55		ST&C	2.53	0.94	0.58	3,930	267,240
"B"								0	0
w/8.4#/g mud, 30min Sfc Csg Test psig:							Totals:	3,930	267,240
The cement volume(s) are intended to achieve a top of					0	ft from surface or a		1580	overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
17 1/2	0.6946	2990	5435	2844	91	10.20	3428	5M	1.56

COLLAPSE SF: 0.94*1.5= 1.41; ALT. BRUST SF IS GOOD

Burst Frac Gradient(s) for Segment(s): A, B, C, D = 0.88, b, c, d All > 0.70, OK.

9 5/8	casing inside the		13 3/8			Design Factors		INTERMEDIATE	
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	Weight
"A"	40.00	HCL 80		LT&C	1.84	0.71	0.77	11,420	456,800
"B"								0	0
w/8.4#/g mud, 30min Sfc Csg Test psig: -958							Totals:	11,420	456,800
A would be:					1.83	0.71	if it were a vertical wellbore.		

No Pilot Hole Planned	MTD	Max VTD	Csg VD	Curve KOP	Dogleg°	Severity°	MEOC
	11420	11445	11445	9860	5	0	0

The cement volume(s) are intended to achieve a top of					3730	ft from surface or a		200	overlap.
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
12 1/4	0.3132	look ↘	0	2432		10.00	4941	5M	0.81
Setting Depths for D V Tool(s):		4030					sum of sx	Σ CuFt	Σ%excess
% excess cmt by stage:	230	2446					3920	7117	193

Class 'H' tail cmt yld > 1.20 MASP is within 10% of 5000psig, need exrta equip?

Burst Frac Gradient(s) for Segment(s): A, B, C, D = 0.5, b, c, d <0.70 a Problem!! ALT. COLLAPSE SF: 071*2= 1.42; ALT. BRUST SF IS GOOD. CURVE COLLAPSE SF IS TOO CONSERVATIVE

Tail cmt

5 1/2	casing inside the		9 5/8			Design Factors		PRODUCTION	
Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	Weight
"A"	20.00	P 110		BUTT	2.79	1.73	1.69	9,860	197,200
"B"	20.00	P 110		BUTT	11.11	1.44	1.69	13,374	267,480
w/8.4#/g mud, 30min Sfc Csg Test psig: 2,169							Totals:	23,234	464,680
B egment Design Factors would be:					19.55	1.48	if it were a vertical wellbore.		

01647	MTD	Max VTD	Csg VD	Curve KOP	Dogleg°	Severity°	MEOC
	23234	11507	11500	9860	93	4	12455

The cement volume(s) are intended to achieve a top of					11220	ft from surface or a		200	overlap.
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
8 3/4	0.2526	2290	3687	3042	21	12.50			1.35

Class 'H' tail cmt yld > 1.20 MASP is within 10% of 5000psig, need exrta equip?