APD ID: 10400019971 **Submission Date:** 08/22/2017

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: GAUCHO 21 FED **Well Number:** 6H

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	---	3428	0	0	OTHER : surface	NONE	No
2	RUSTLER	1788.4	1640	1640	SANDSTONE	NONE	No
3	TOP SALT	1503.4	1925	1925	SALT	NONE	No
4	BASE OF SALT	-271.59999	3700	3700	SALT	NONE	No
5	YATES	-501.59999	3930	3930	SANDSTONE	NONE	No
6	DELAWARE	-1827.6	5256	5256	SANDSTONE	NATURAL GAS,OIL	No
7	CHERRY CANYON	-2587.6	6016	6016	SANDSTONE	NATURAL GAS,OIL	No
8	BRUSHY CANYON LOWER	-4835.6	8264	8264	SANDSTONE	NATURAL GAS,OIL	No
9	BONE SPRING LIME	-5015	8443	8443	LIMESTONE	NATURAL GAS,OIL	No
10	FIRST BONE SPRING SAND	-6069	9497	9497	SANDSTONE	NATURAL GAS,OIL	No
11	BONE SPRING 2ND	-6618	10046	10046	SANDSTONE	NATURAL GAS,OIL	Yes

Section 2 - Blowout Prevention

Pressure Rating (PSI): 3M **Rating Depth:** 10394

Equipment: (SAME AS GAUCHO 1 MDP) BOP/BOPE will be installed per Onshore Oil & Gas Order #2 requirements prior to drilling below 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the wellhead system. BOP/BOPE will be tested by an independent service company per Onshore Oil & Gas Order #2 requirements and MASP (Maximum Anticipated Surface Pressure) calculations. If the system is upgraded, all the components installed will be functional and tested.
Requesting Variance? YES

Variance request: (SAME AS GAUCHO 1 MDP) A variance is requested for the use of a flexible choke line from the BOP stack to the choke manifold. See attached for specs for hydrostatic test chart.
Testing Procedure: (SAME AS GAUCHO 1 MDP) A multibowl wellhead may be 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

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: GAUCHO 21 FED **Well Number:** 6H

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

Describe other minerals:

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

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** GAUCHO 21-21 PAD **Number:** 2

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

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: **Distance to nearest well:** 3200 FT **Distance to lease line:** 175 FT

Reservoir well spacing assigned acres Measurement: 160 Acres

Well plat: Gaucho_21_Fed_6H_C_102__Signed_08-17-2017.pdf

Well work start Date: 12/30/2017 **Duration:** 45 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 5331B

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	175	FSL	185	FEL	22S	34E	21	Lot SESE	32.3704127	-103.4670535	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 43564	3428	0	0
KOP Leg #1	175	FSL	380	FEL	22S	34E	21	Lot SESE	32.3704127	-103.4670535	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 43564	-6333	9767	9761
PPP Leg #1	330	FSL	380	FEL	22S	34E	21	Lot SESE	32.3704127	-103.4670535	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 43564	-6725	10200	10153

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: GAUCHO 21 FED **Well Number:** 6H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
EXIT Leg #1	330	FNL	380	FEL	22S	34E	21	Lot NENE	32.3835399	-103.467643	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 43564	-6966	14819	10394
BHL Leg #1	330	FNL	380	FEL	22S	34E	21	Lot NENE	32.3835399	-103.467643	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 43564	-6966	14819	10394

subject to test pressure is broken the system must be tested.

Choke Diagram Attachment:

Gaucho_21_Fed_6H_3M_BOPE_CK_20171016124540.pdf

BOP Diagram Attachment:

Gaucho_21_Fed_6H_3M_BOPE_CK_20171016124604.pdf

Pressure Rating (PSI): 3M **Rating Depth:** 5100

Equipment: (SAME AS GAUCHO 1 MDP) BOP/BOPE will be installed per Onshore Oil & Gas Order #2 requirements prior to drilling below 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the wellhead system. BOP/BOPE will be tested by an independent service company per Onshore Oil & Gas Order #2 requirements and MASP (Maximum Anticipated Surface Pressure) calculations. If the system is upgraded, all the components installed will be functional and tested.
Requesting Variance? YES

Variance request: (SAME AS GAUCHO 1 MDP) A variance is requested for the use of a flexible choke line from the BOP stack to the choke manifold. See attached for specs for hydrostatic test chart.
Testing Procedure: (SAME AS GAUCHO 1 MDP) A multibowl wellhead may be 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.

Choke Diagram Attachment:

Gaucho_21_Fed_6H_3M_BOPE_CK_20171016124521.pdf

BOP Diagram Attachment:

Gaucho_21_Fed_6H_3M_BOPE_CK_20171016124503.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	1602	0	1602	-6966	-8568	1602	H-40	48	STC	1.4	2.8	BUOY	13.5	BUOY	13.5
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5100	0	5100	-6966	-12066	5100	J-55	40	OTHER - BTC	1.15	1.77	BUOY	4.1	BUOY	4.1
3	PRODUCTION	8.75	5.5	NEW	API	N	0	14819	0	10394	-6966	-17360	14819	P-110	17	OTHER - BTC	1.45	2.07	BUOY	2.48	BUOY	2.48

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: GAUCHO 21 FED **Well Number:** 6H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Gaucho_21_Fed_6H_Surf_Csg_Ass_08-17-2017.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Gaucho_21_Fed_6H_Interim_Recl_08-17-2017.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Gaucho_21_Fed_6H_Prod_Csg_Ass_08-17-2017.pdf

Section 4 - Cement

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: GAUCHO 21 FED **Well Number:** 6H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1102	610	1.88	12.9	1148	50	C	0.125 lbs/sack Poly-F-Flake
SURFACE	Tail		1102	1602	391	1.33	14.8	521	50	C	0.125 lbs/sack Poly-F-Flake
INTERMEDIATE	Lead		0	4080	858	1.85	12.9	1587	30	C	(65:35) Class C Cement: Poz (Fly Ash): 6% BWOC Bentonite + 5% BWOW Sodium Chloride + 0.125 lbs/sks Poly-E-Flake
INTERMEDIATE	Tail		4080	5100	312	1.33	14.8	415	30	C	0.125 lbs/sack Poly-F-Flake
PRODUCTION	Lead		4900	9767	470	3.27	9	1535	25	TUNED	TunedLight
PRODUCTION	Tail		9767	14819	1161	1.46	13.2	1695	25	NeoCem	NeoCem

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.

Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

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	1602	WATER-BASED MUD	8.5	9				2			

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: GAUCHO 21 FED **Well Number:** 6H

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
1602	5100	SALT SATURATED	10	11				2			
5100	14819	WATER-BASED MUD	8.5	8.8				12			

Section 6 - Test, Logging, Coring

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

Will run GRMWD from TD to from KOP. Cement bond logs will be run in vertical to determine top of cement. Stated logs run will be in the Completion Report and submitted to the BLM.

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

CALIPER,CBL,DS,GR,MUDLOG

Coring operation description for the well:

N/A

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4749 **Anticipated Surface Pressure:** 2462.32

Anticipated Bottom Hole Temperature(F): 165

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:

Gaucho_21_Fed_6H_H2S_Plan_08-17-2017.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: GAUCHO 21 FED **Well Number:** 6H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Gaucho_21_Fed_6H_Dir_Svy_08-17-2017.pdf

Other proposed operations facets description:

Multi-Bowl Wellhead - See Attached
Multi-Bowl Verbiage - See Attached
Gas Capture Plan - See Attached
Closed Loop Design - See Gaucho 1 MDP

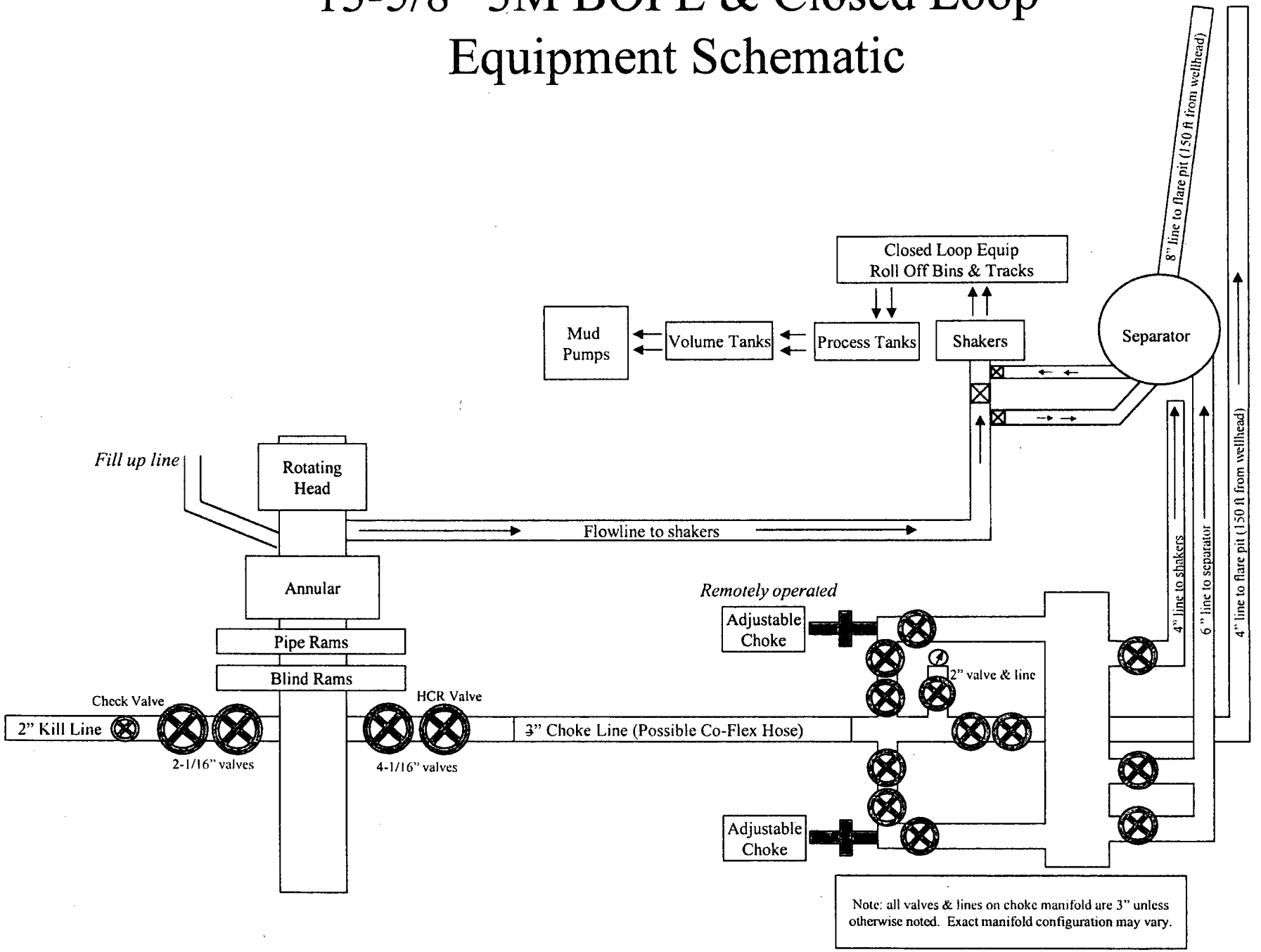
Other proposed operations facets attachment:

Gaucho_21_Fed_6H_GCP_08-17-2017.pdf
Gaucho_21_Fed_6H_MB_Verb_08-17-2017.pdf
Gaucho_21_Fed_6H_MB_Wellhd_08-17-2017.pdf

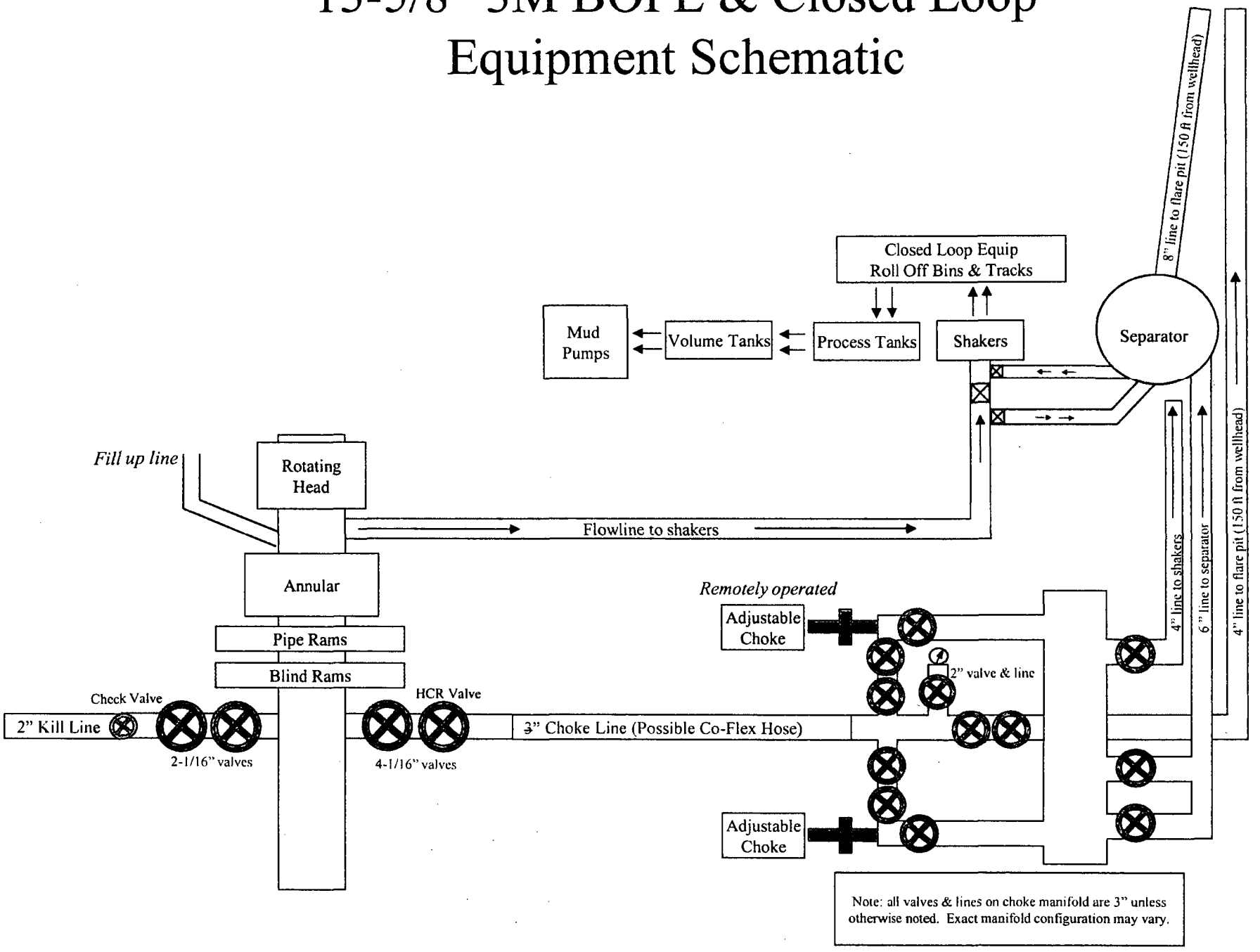
Other Variance attachment:

Gaucho_21_Fed_6H_Co_flex_08-17-2017.pdf

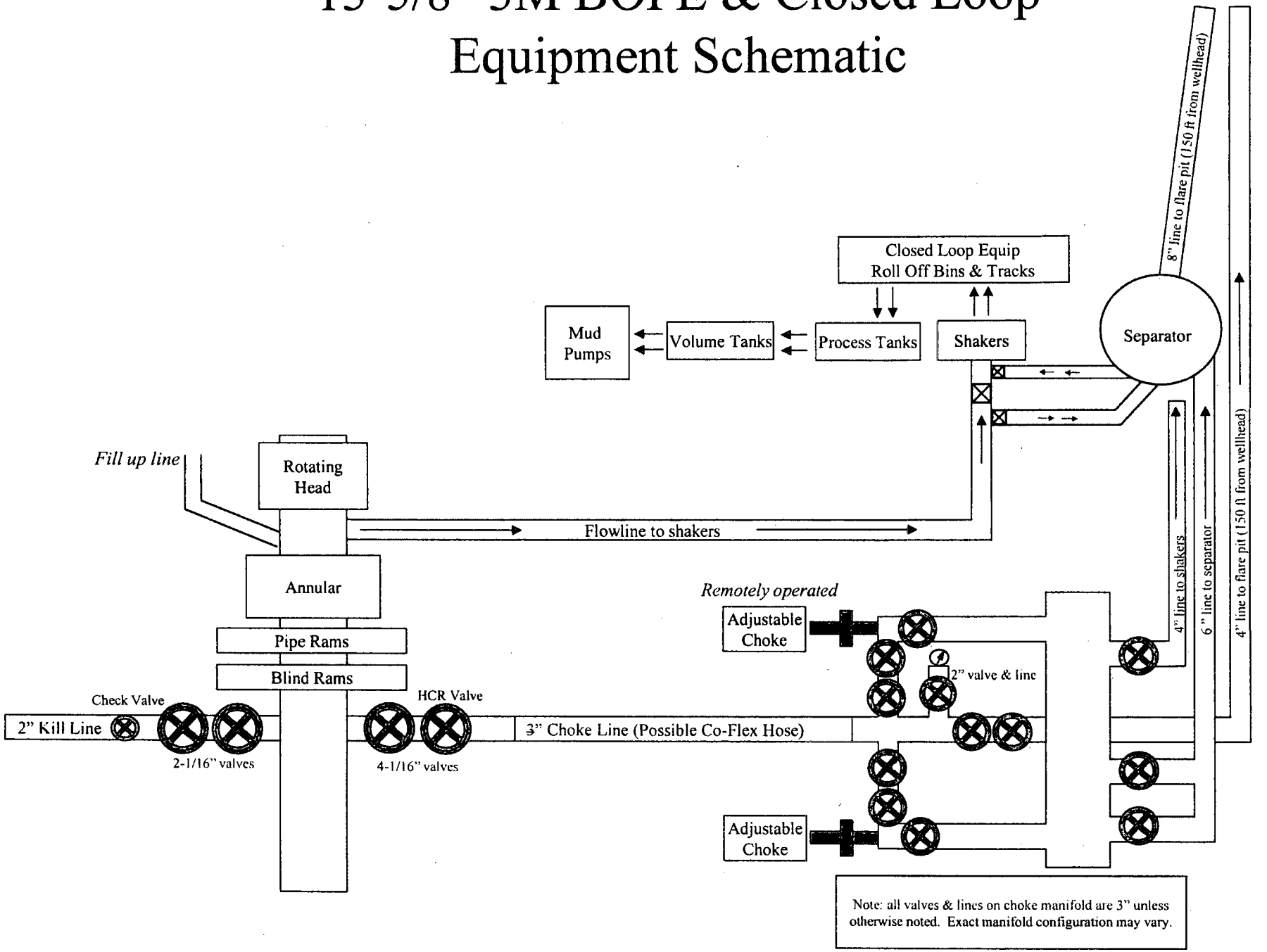
13-5/8" 3M BOPE & Closed Loop Equipment Schematic



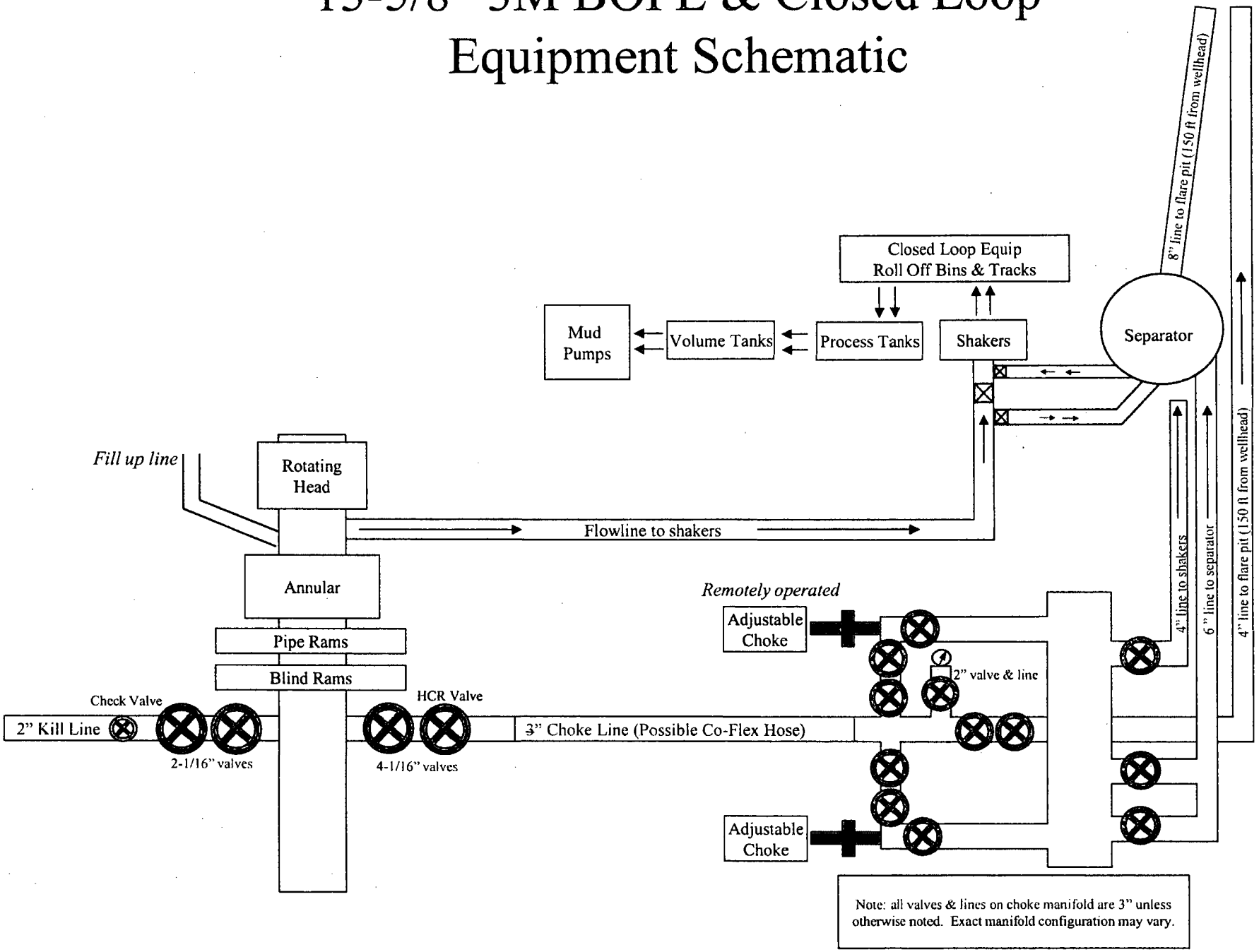
13-5/8" 3M BOPE & Closed Loop Equipment Schematic



13-5/8" 3M BOPE & Closed Loop Equipment Schematic



13-5/8" 3M BOPE & Closed Loop Equipment Schematic



Casing Assumptions and Load Cases

Surface

All casing design assumptions were ran in Stress Check to determine safety factor which meet or exceed both Devon Energy and BLM minimum requirements. All casing strings will be filled while running in hole in order to not exceed collapse rating of the pipe.

Surface Casing Burst Design		
Load Case	**External Pressure**	**Internal Pressure**
Pressure Test	Formation Pore Pressure	Max mud weight of next hole-section plus Test psi
Drill Ahead	Formation Pore Pressure	Max mud weight of next hole section
Displace to Gas	Formation Pore Pressure	Dry gas from next casing point

Surface Casing Collapse Design		
Load Case	**External Pressure**	**Internal Pressure**
Full Evacuation	Water gradient in cement, mud above TOC	None
Cementing	Wet cement weight	Water (8.33ppg)

Surface Casing Tension Design	
Load Case	**Assumptions**
Overpull	100kips
Runing in hole	3 ft/s
Service Loads	N/A

Casing Assumptions and Load Cases

Production

All casing design assumptions were ran in Stress Check to determine safety factor which meet or exceed both Devon Energy and BLM minimum requirements. All casing strings will be filled while running in hole in order to not exceed collapse rating of the pipe.

Production Casing Burst Design		
Load Case	**External Pressure**	**Internal Pressure**
Pressure Test	Formation Pore Pressure	Fluid in hole (water or produced water) + test psi
Tubing Leak	Formation Pore Pressure	Packer @ KOP, leak below surface 8.6 ppg packer fluid
Stimulation	Formation Pore Pressure	Max frac pressure with heaviest frac fluid

Production Casing Collapse Design		
Load Case	**External Pressure**	**Internal Pressure**
Full Evacuation	Water gradient in cement, mud above TOC.	None
Cementing	Wet cement weight	Water (8.33ppg)

Production Casing Tension Design	
Load Case	**Assumptions**
Overpull	100kips
Runing in hole	2 ft/s
Service Loads	N/A

Continental CONTITECH

Fluid Technology

ContiTech Beattie Corp.
Website: www.contitechbeattie.com

Monday, June 14, 2010

RE: Drilling & Production Hoses
Lifting & Safety Equipment

To Helmerich & Payne,

A Continental ContiTech hose assembly can perform as intended and suitable for the application regardless of whether the hose is secured or unsecured in its configuration. As a manufacturer of High Pressure Hose Assemblies for use in Drilling & Production, we do offer the corresponding lifting and safety equipment, this has the added benefit of easing the lifting and handling of each hose assembly whilst affording hose longevity by ensuring correct handling methods and procedures as well as securing the hose in the unlikely event of a failure; but in no way does the lifting and safety equipment affect the performance of the hoses providing the hoses have been handled and installed correctly It is good practice to use lifting & safety equipment but not mandatory

Should you have any questions or require any additional information/clarifications then please do not hesitate to contact us.

ContiTech Beattie is part of the Continental AG Corporation and can offer the full support resources associated with a global organization.

Best regards,

Robin Hodgson
Sales Manager
ContiTech Beattie Corp

ContiTech Beattie Corp,
11535 Brittmoore Park Drive,
Houston, TX 77041
Phone: +1 (832) 327-0141
Fax: +1 (832) 327-0148
www.contitechbeattie.com

RIG 212

PHOENIX

QUALITY DOCUMENT

PHOENIX RUBBER INDUSTRIAL LTD.

6728 Szeged, Budapesti út 10. Hungary • H-6701 Szeged, P. O. Box 152
Phone: (3662) 566-737 • Fax: (3662) 566-738

SALES & MARKETING: H-1092 Budapest, Ráday u. 42-44. Hungary • H-1440 Budapest, P. O. Box 26
Phone: (361) 456-4200 · Fax: (361) 217-2972, 456-4273 · www.taurusemerge.hu

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 552
PURCHASER: Phoenix Beattie Co.				P.O. N°: 1519FA-871
PHOENIX RUBBER order N°: 170466		HOSE TYPE: 3" ID		Choke and Kill Hose
HOSE SERIAL N°: 34128		NOMINAL / ACTUAL LENGTH:		11,43 m
W.P. 68,96 MPa	10000 psi	T.P. 103,4 MPa	15000 psi	Duration: 60 min.

Pressure test with water at ambient temperature

See attachment. (1 page)

↑ 10 mm = 10 Min.

→ 10 mm = 25 MPa

COUPLINGS

Type	Serial N°	Quality	Heat N°
3" coupling with	720 719	AISI 4130	C7626
4 1/16" Flange end		AISI 4130	47357

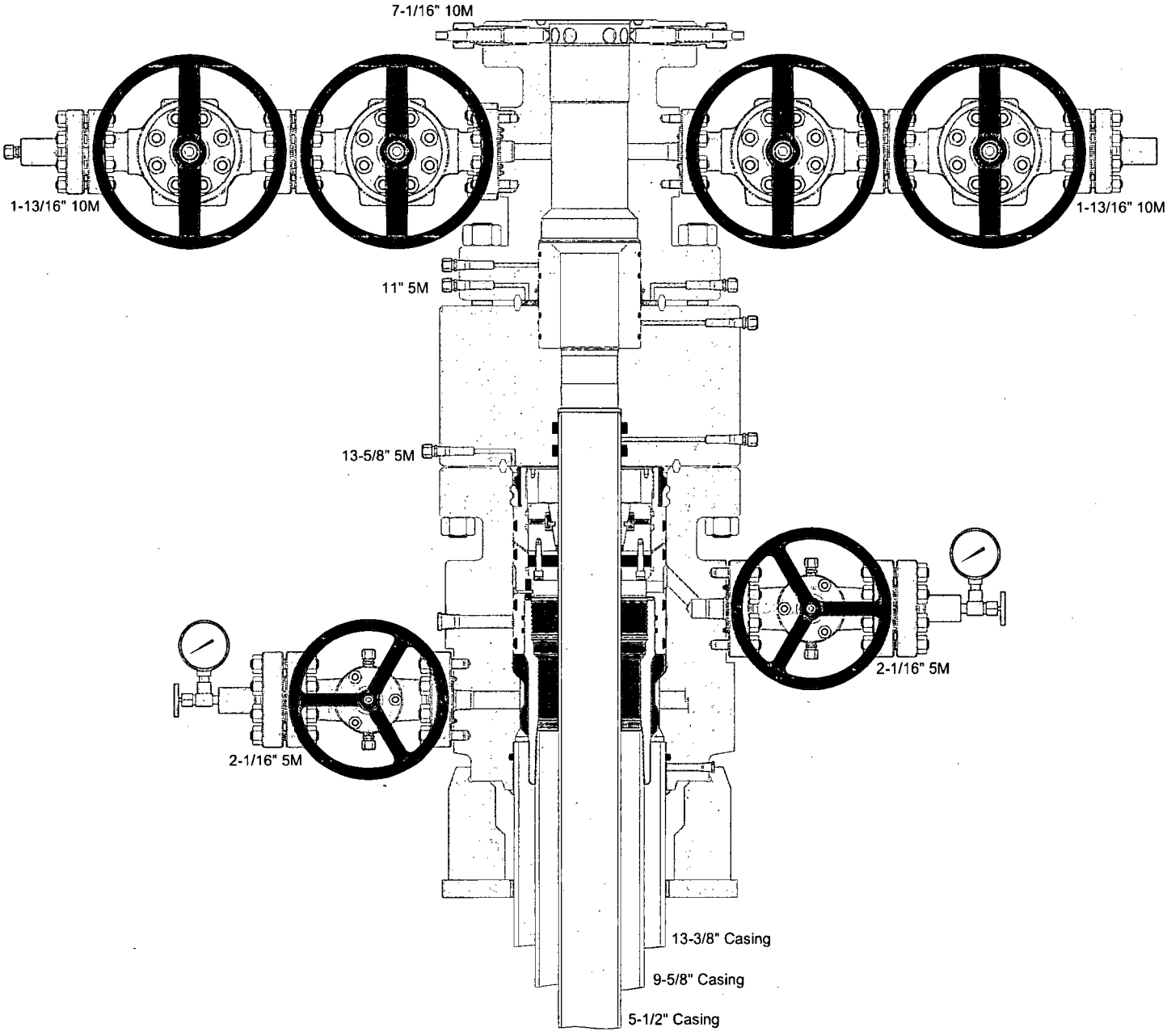
API Spec 16 C
Temperature rate:"B"

All metal parts are flawless

WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.

Date:	Inspector	Quality Control
29. April. 2002.		PHOENIX RUBBER Industrial Ltd. Hose Inspection and Verification Dept.

VERIFIED TRUE COPY
PHOENIX RUBBER Q.C.


7-1/16" 10M
1-13/16" 10M
1-13/16" 10M
11" 5M
13-5/8" 5M
2-1/16" 5M
2-1/16" 5M
13-3/8" Casing
9-5/8" Casing
5-1/2" Casing

A multibowl wellhead may be 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.

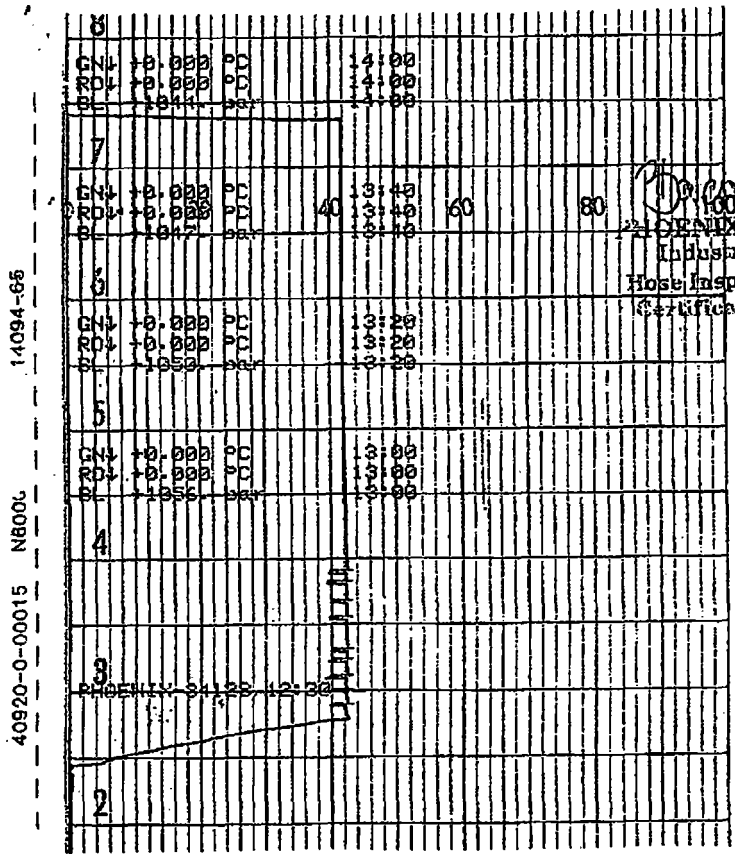
Devon proposes using a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi.

- Wellhead will be installed by wellhead representatives.
- If the welding is performed by a third party, the wellhead representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- Wellhead representative will install the test plug for the initial BOP test.
- Wellhead company will install a solid steel body pack-off to completely isolate the lower head after cementing intermediate casing. After installation of the pack-off, the pack-off and the lower flange will be tested to 3M, as shown on the attached schematic. Everything above the pack-off will not have been altered whatsoever from the initial nipple up. Therefore the BOP components will not be retested at that time.
- If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted.
- Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating.
- Devon will test the casing to 0.22 psi/ft or 1500 psi, whichever is greater, as per Onshore Order #2.

After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the wellhead system and will undergo a 250 psi low pressure test followed by a 3,000 psi high pressure test. The 3,000 psi high and 250 psi low test will cover testing requirements a maximum of 30 days, as per Onshore Order #2. If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per Onshore Order #2.
After running the 9-5/8' intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 3M will already be installed on the wellhead.

The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.

Devon's proposed wellhead manufactures will be FMC Technologies, Cactus Wellhead, or Cameron.



PHOENIX RUBBER
Industrial Ltd.
Hose Inspection and
Certification Dept.

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PHOENIX RUBBER Q.C.