

**Mewbourne Oil Company, Bilbrey 34/27 B2MD Fed Com #1H**  
**Sec 34, T21S, R32E**  
**SL: 270' FNL & 405' FWL, Sec 34**  
**BHL: 330' FNL & 500' FWL, Sec 27**

**Casing Program**

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
	From	To								
17.5"	0'	835'	13.375"	48	H40	STC	1.77	3.98	8.03	13.50
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	2.56	4.54
12.25"	3453'	4393'	9.625"	40	J55	LTC	1.13	1.73	9.83	16.75
12.25"	4393'	4775'	9.625"	40	N80	LTC	1.24	2.32	48.25	59.97
8.75"	0'	11053'	7"	26	HCP110	LTC	1.46	1.86	2.41	2.89
6.125"	10300'	20550'	4.5"	13.5	P110	LTC	1.31	1.52	2.44	3.05
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

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

R111P KFC

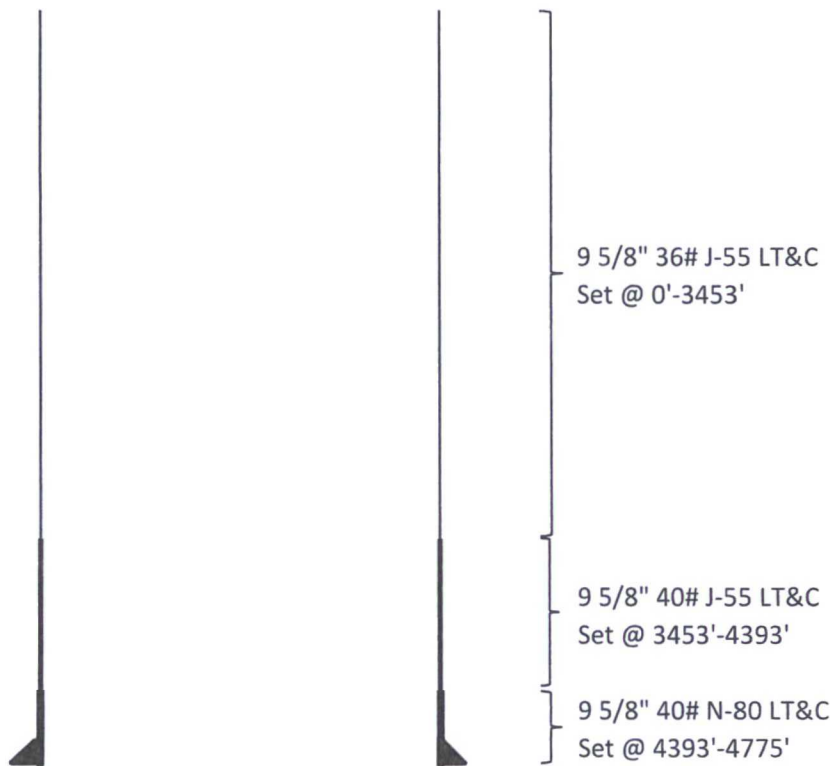
13 3/8	surface csg in a	17 1/2	inch hole.	Design Factors			SURFACE		
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	Weight	
"A"	48.00	H 40	ST&C	7.41	1.86	0.7	905	43,440	
"B"							0	0	
w/8.4#/g mud, 30min Sfc Csg Test psig: 816			Tail Cmt	does not	circ to sfc.	Totals:	905	43,440	
Comparison of Proposed to Minimum Required Cement Volumes									
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd	Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE	Hole-Cplg
17 1/2	0.6946	844	1633	683	139	8.80	1430	2M	1.56
Burst Frac Gradient(s) for Segment(s) A, B = , b All > 0.70, OK.									

9 5/8 Segment	casing inside the #/ft	Grade	13 3/8 Coupling	Joint	Design Factors		INTERMEDIATE		
					Collapse	Burst	Length	Weight	
"A"	36.00	J 55	LT&C	2.56	1.13	0.66	3,453	124,308	
"B"	40.00	J 55	LT&C	9.83	1.13	0.74	940	37,600	
"C"	40.00	N 80	LT&C	48.23	1.25	1.08	382	15,280	
"D"							0	0	
w/8.4#/g mud, 30min Sfc Csg Test psig:						Totals:	4,775	177,188	
The cement volume(s) are intended to achieve a top of					0	ft from surface or a		905	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	995	1953	1572	24	10.00	2948	3M	0.81
Burst Frac Gradient(s) for Segment(s): A, B, C, D = 1.02, 0.9, c, d									All

7	casing inside the			9 5/8	Design Factors			PRODUCTION	
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	Weight
"A"	26.00	P 110		LT&C	2.47	1.22	1.87	10,300	267,787
"B"	26.00	P 110		LT&C	4.62	1.59	1.87	754	19,591
w/8.4#/g mud, 30min Sfc Csg Test psig: 2,266							Totals:	11,053	287,378
B	would be:				55.82	1.17	if it were a vertical wellbore.		
No Pilot Hole Planned			MTD	Max VTD	Csg VD	Curve KOP	Dogleg°	Severity°	MEOC
			11053	10777	10777	10300	90	12	11053
The cement volume(s) are intended to achieve a top of					4275	ft from surface or a		500	overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd	Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE	Hole-Cplg
8 3/4	0.1503	785	1288	1035	24	9.50	2948	3M	0.55
Must be 1/3 to cover collapse on B									

4 1/2 Segment	Liner w/top @		10300	Design Factors						LINER	
	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	Weight		
"A"	13.50	P 110		LT&C	1.87	1.78	2.33	753	10,166		
"B"	13.50	P 110		LT&C	2.50	2.01	2.33	9,497	128,210		
w/8.4#/g mud, 30min Sfc Csg Test psig: 2,371								Totals:	10,250	138,375	
A Segment Design Factors would be:					2.44	2.01	if it were a vertical wellbore.				
No Pilot Hole Planned			MTD	Max VTD	Csg VD	Curve KOP	Dogleg°	Severity°	MEOC		
			20550	10777	10777	10300	90	12	11053		
The cement volume(s) are intended to achieve a top of					10300	ft from surface or a		753	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		
6 1/8	0.0942	415	1233	977	26	9.50			0.56		
Capitan Reef est top XXXX.											

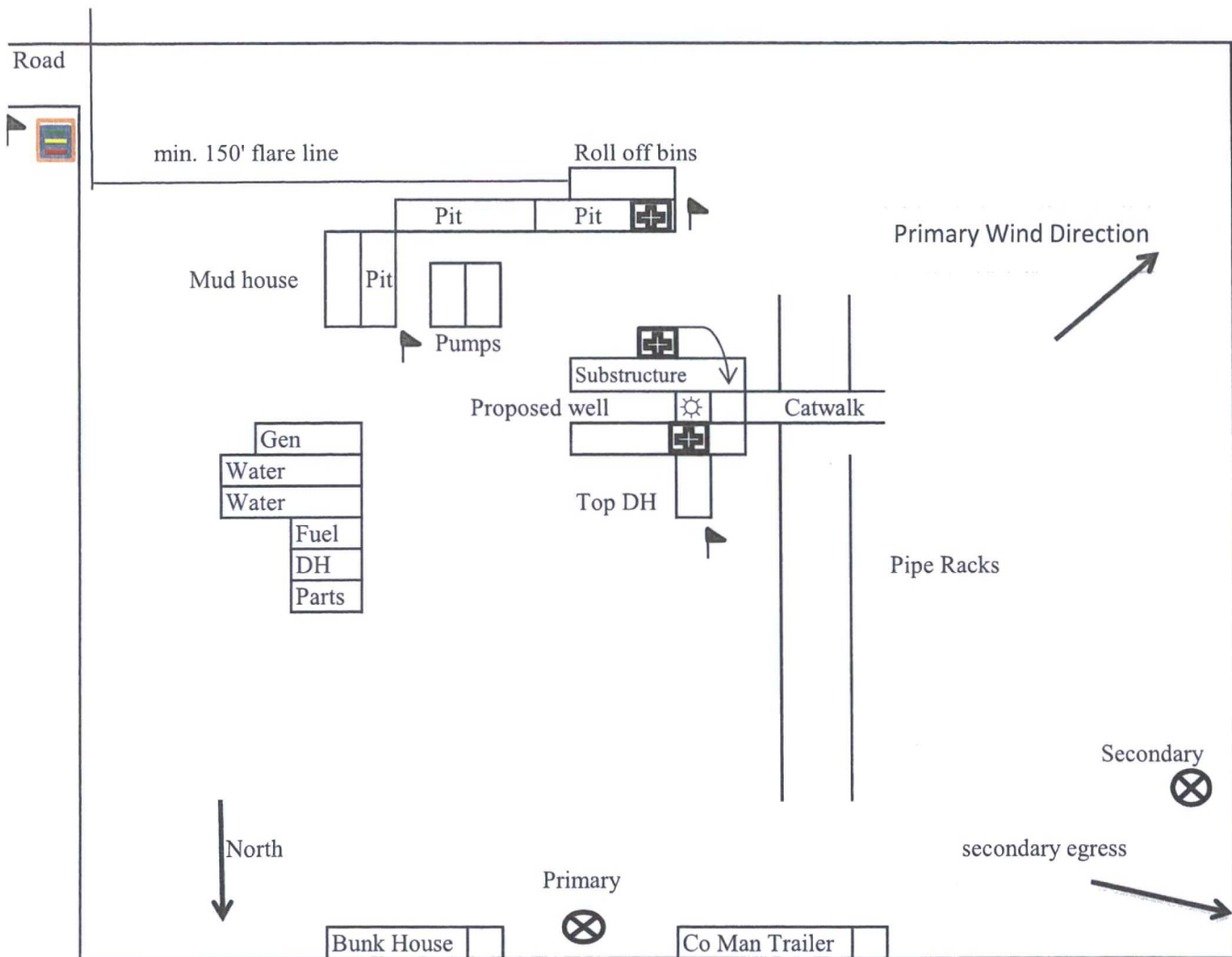
Bilbrey 34/27 B2MD Fed Com #1H  
Intermediate Casing



Casing	SF Collapse	SF Burst	SF Jt Tension	SF Body Tension
36# J-55	1.13	1.96	2.56	4.54
40# J-55	1.13	1.73	9.83	16.75
40# N-80	1.24	2.32	48.25	59.97



# H2S Diagram



 = Safety Stations

 = H2S Monitors

 = Wind Markers


 = Warning Signs

Exhibit 5

Mewbourne Oil Company  
 Bilbrey 34/27 B2MD Fed Com #1H  
 270' FSL & 450' FWL  
 Saec 34 T21S R32E  
 Lea Co NM

# 3M BOPE & Closed Loop Equipment Schematic

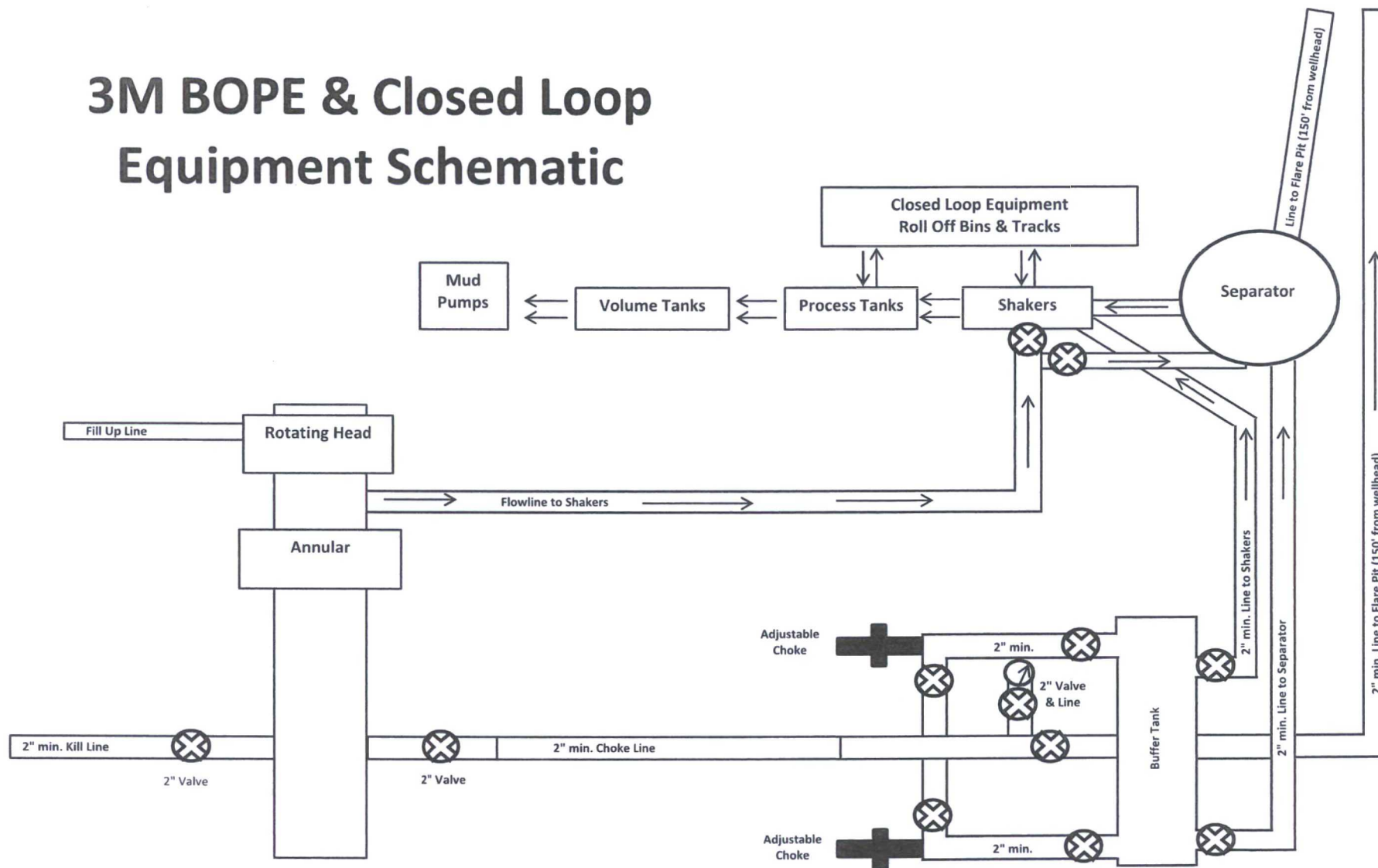


Exhibit "2"

Mewbourne Oil Company  
BOP Schematic for

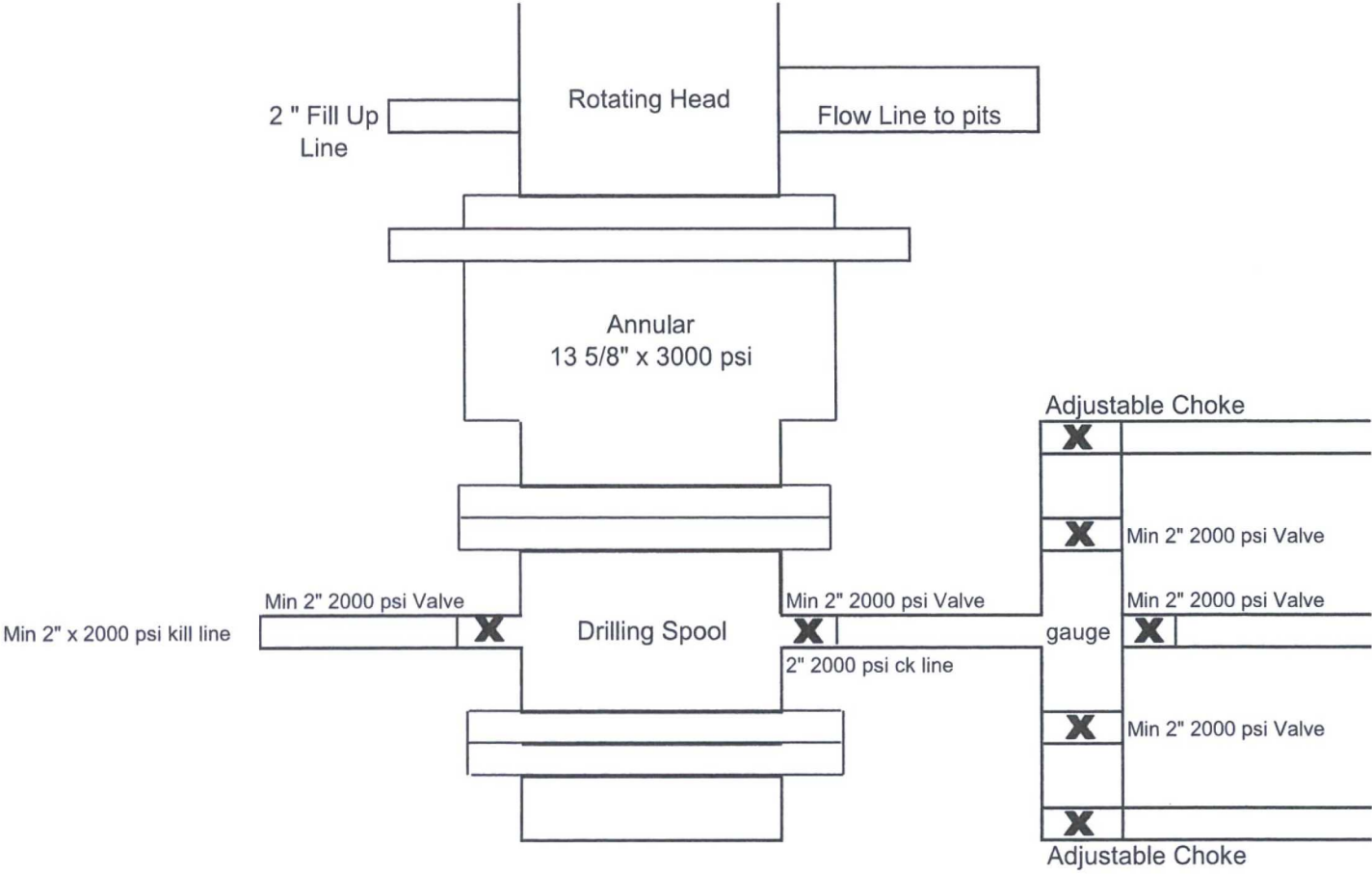


Exhibit #2

# 5M BOPE & Closed Loop Equipment Schematic

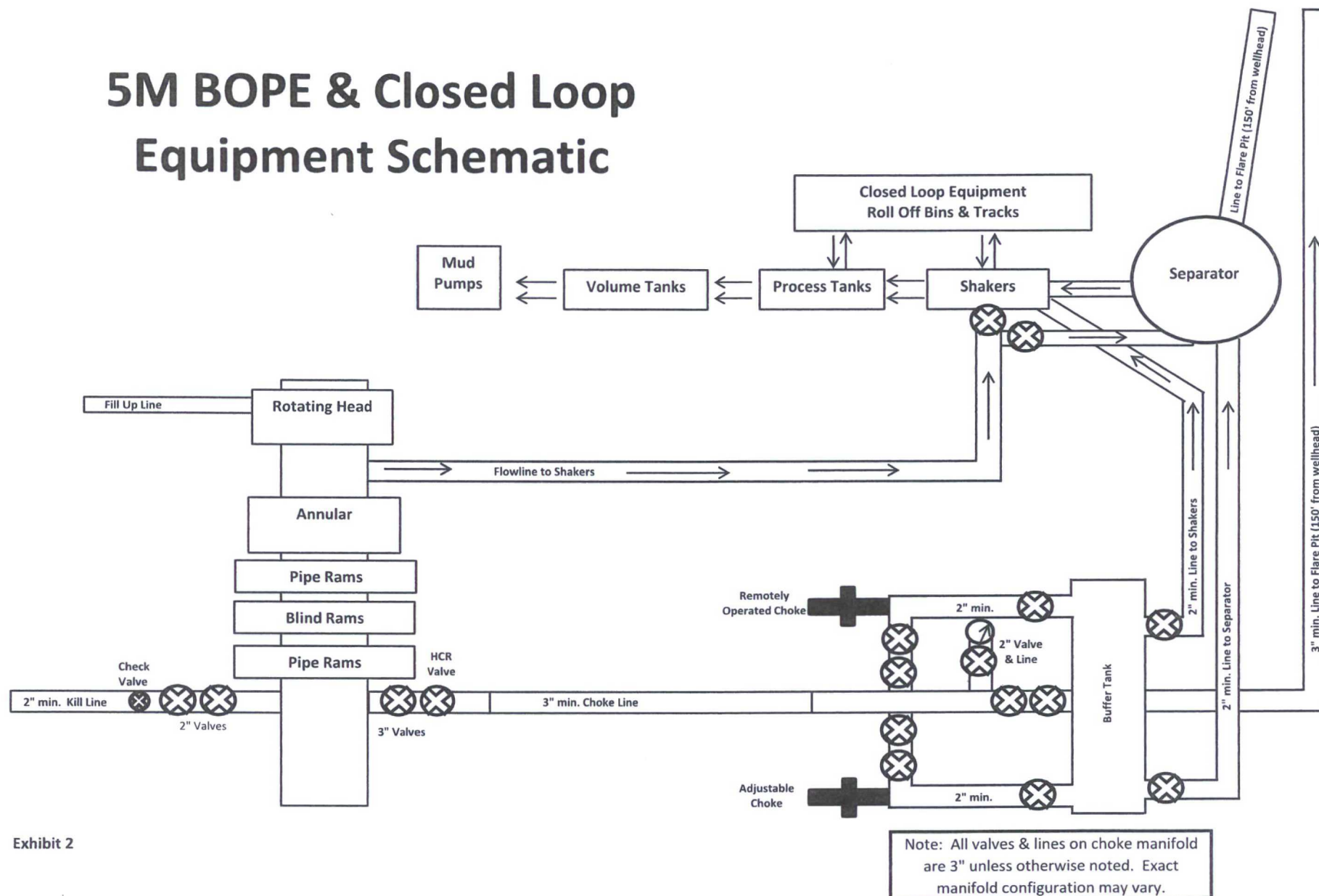
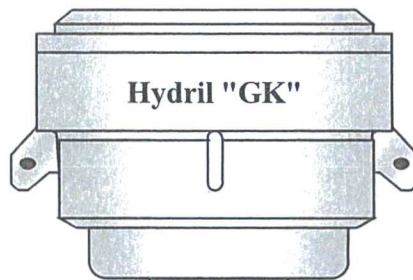
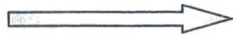


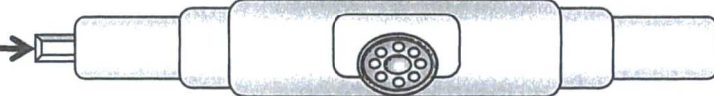
Exhibit 2

Hydril "GK"  
13 5/8" 5M



Hydril "GK"

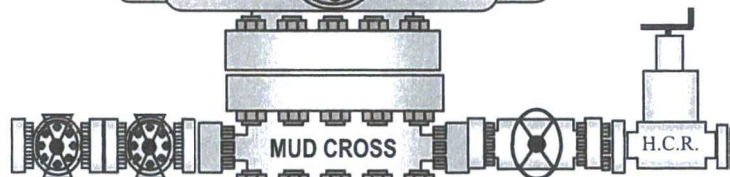
Cameron Type U  
13 5/8" 5M



4 1/2" x 5 7/8" VBR

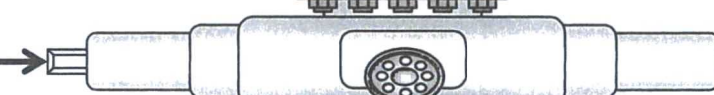


BLIND RAMS



MUD CROSS

H.C.R.



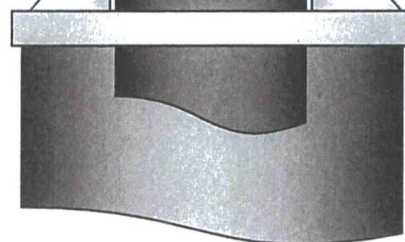
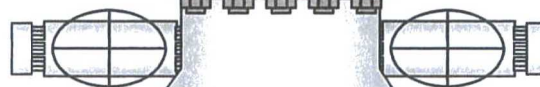
4 1/2" x 5 7/8" VBR



13 5/8" 5M

13 5/8" 5M

13 5/8" 5M







**GATES E & S NORTH AMERICA, INC.**  
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### 10K CEMENTING ASSEMBLY PRESSURE TEST CERTIFICATE

Customer :	AUSTIN DISTRIBUTING	Test Date:	4/30/2015
Customer Ref. :	4060578	Hose Serial No.:	D-043015-7
Invoice No. :	500506	Created By:	JUSTIN CROPPER
Product Description:	10K3.548.0CK4.1/1610KFLGE/E LE		
End Fitting 1 :	4 1/16 10K FLG	End Fitting 2 :	4 1/16 10K FLG
Gates Part No. :	4773-6290	Assembly Code :	L36554102914D-043015-7
Working Pressure :	10,000 PSI	Test Pressure :	15,000 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 15,000 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 Manager :	QUALITY	Production:	PRODUCTION
Date :	4/30/2015	Date :	4/30/2015
Signature :		Signature :	

Form PTC - 01 Rev.02





60 MIN.

