Mewbourne Oil Co, Red Hills West 22 A2AP Fed Com #2H
Sec 22, T26S, R32E
SL: 185' FNL & 330' FEL
BHL: 330' FSL & 330' FEL

1. Geologic Formations

TVD of target	9048'	Pilot hole depth	NA
MD at TD:	13638'	Deepest expected fresh water:	200'

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	558	Water	
Top of Salt			
Base of Salt	4277	Barren	
Delaware (Lamar)	4496	Oil/Gas	
Manzanita Marker	5748		
Bone Spring	8673	Target Zone	
2nd Bone Spring			
Wolfcamp		Will Not Penetrate	
Canyon			
Strawn			
Atoka			
Morrow			
Barnett Shale			
Woodford Shale			
Devonian			
Fusselman			
Ellenburger			
Granite Wash			

*H2S, water flows, loss of circulation, abnormal pressures, etc.

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2. Casing Program

See COA

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17.5"	0'	~~585'~~ 660'	13.375"	48	H40	STC	2.43	5.69	11.47
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	2.78
12.25"	3453'	4385'	9.625"	40	J55	LTC	1.13	1.73	13.37
12.25"	4385'	4425'	9.625"	40	N80	LTC	1.34	2.50	578.72
8.75"	0'	8475'	5.5"	17	P110	LTC	1.70	2.41	1.92
8.75"	8475'	9375'	5.5"	17	P110	BTC	1.59	2.26	6.22
8.75"	9375'	13638'	5.5"	17	P110	LTC	1.59	2.26	6.13
				BLM Minimum Safety Factor			1.125	1	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
Does casing meet API specifications? 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 intermediate 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?	N
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?	N
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?	N
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?	N
If yes, are there three strings cemented to surface?	

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3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H_20 gal/ sk	500# Comp. Strength (hours)	Slurry Description
Surf	260	12.5	2.12	11	10	Lead: Class C + 4.0% Bentonite + 0.6% CD-32 + 5% Sodium Chloride +0.25lb/sk Cello-Flake
	200	14.8	1.34	6.3	8	Class C + 0.005pps Static Free + 1% CaCl2 + 0.25 pps CelloFlake + 0.005 gps FP-6L
Inter. See COA	700	12.5	2.12	11	10	Lead: Class C (35:65:4) + 5% Sodium Chloride +5#/sk LCM +0.25lb/sk Cello-Flake
	200	14.8	1.34	6.3	8	Tail: Class C + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
Prod.	1040	11.2	2.97	18	16	Class C (60:40:0)+4% MPA5+1.2% BA10A+10#/sk BA90+5%A10+0.65%ASA301+1.5%SMS+1.2%R21

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

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	25%
Production	3925'	25%

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4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12-1/4"	13-5/8"	~~3M~~ 2M	Annular	X	1500#
			Blind Ram		must test to 2000 psi
			Pipe Ram		
			Double Ram		
			Other*		
8-3/4"	13-5/8"	3M	Annular	X	1500#
			Blind Ram	X	3000#
			Pipe Ram	X	
			Double Ram		
			Other *		

See COA

*Specify if additional ram is utilized.

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.	
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.	
	N	Are anchors required by manufacturer?
N	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	

See COA

	30 days. If any seal subject to test pressure is broken the system must be tested. • Provide description here See attached schematic.

5. Mud Program

See COA

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	~~585~~ 660'	FW Gel	8.6-8.8	28-34	N/C
660' ~~585~~	4425	Saturated Brine	10.0-10.2	28-34	N/C
4425	8475	Cut Brine	8.5-9.3	28-34	N/C
8475	13683	FW/Polymer	8.5-9.3	28-34	N/C

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?	Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing.	
X	Will run GR/CNL from KOP (8475') to surface. 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
X	Gamma	From KOP(8475') to TD
	Density	
	CBL	
	Mud log	
	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	3918 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
✓	H2S is present
	H2S Plan attached

See COA

8. Other facets of operation

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

Attachments
✓ Directional Plan
___ Other, describe

Notes Regarding Blowout Preventer
Mewbourne Oil Company
Red Hills West 22 A2AP Fed Com #2H
185' FNL & 330' FEL (SHL)
Sec 22-T26S-R32E
Lea County, New Mexico

I. Drilling nipple (bell nipple) to be constructed so that it can be removed without the use of a welder through the opening of the rotary table, with minimum internal diameter equal to blowout preventer bore.

II. Blowout preventer and all fittings must be in good condition with a minimum 2000 psi working pressure on 13 3/8" casing and 3000 psi working pressure on 9 5/8" & 7" casing.

III. Safety valve must be available on the rig floor at all times with proper connections to install in the drill string. Valve must be full bore with minimum 3000 psi working pressure.

IV. Equipment through which bit must pass shall be at least as large as internal diameter of the casing.

V. A kelly cock shall be installed on the kelly at all times.

Blowout preventer closing equipment to include and accumulator of at least 40 gallon capacity, two independent sources of pressure on closing unit, and meet all other API specifications.

11" 3M BOPE & Closed Loop Equipment Schematic

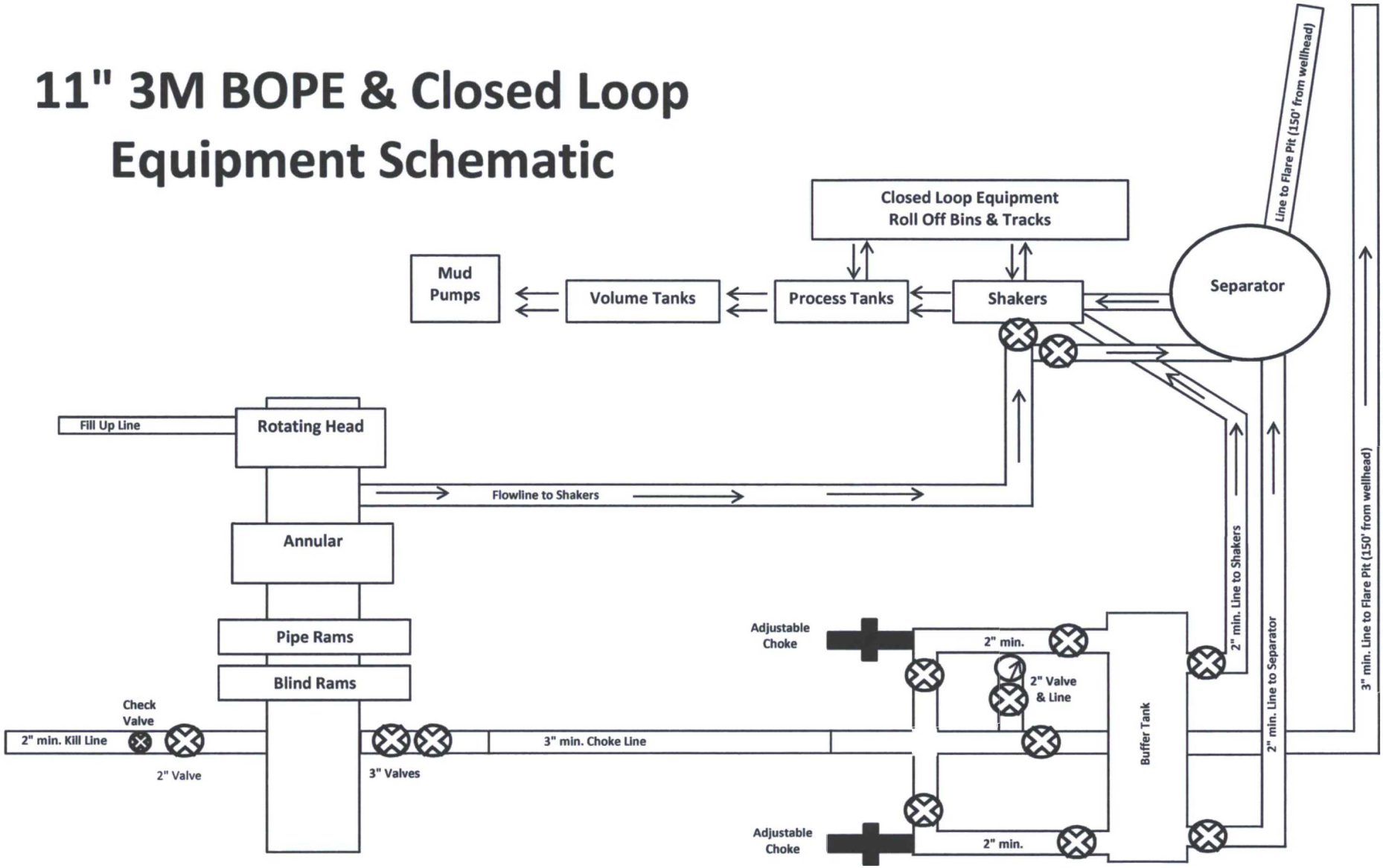

Exhibit 2

Well Name: Red Hills West 22 A2AP Fed Com #2H

Note: All valves & lines on choke manifold are 3" unless otherwise noted. Exact manifold configuration may vary.

11" 5M BOPE & Closed Loop Equipment Schematic

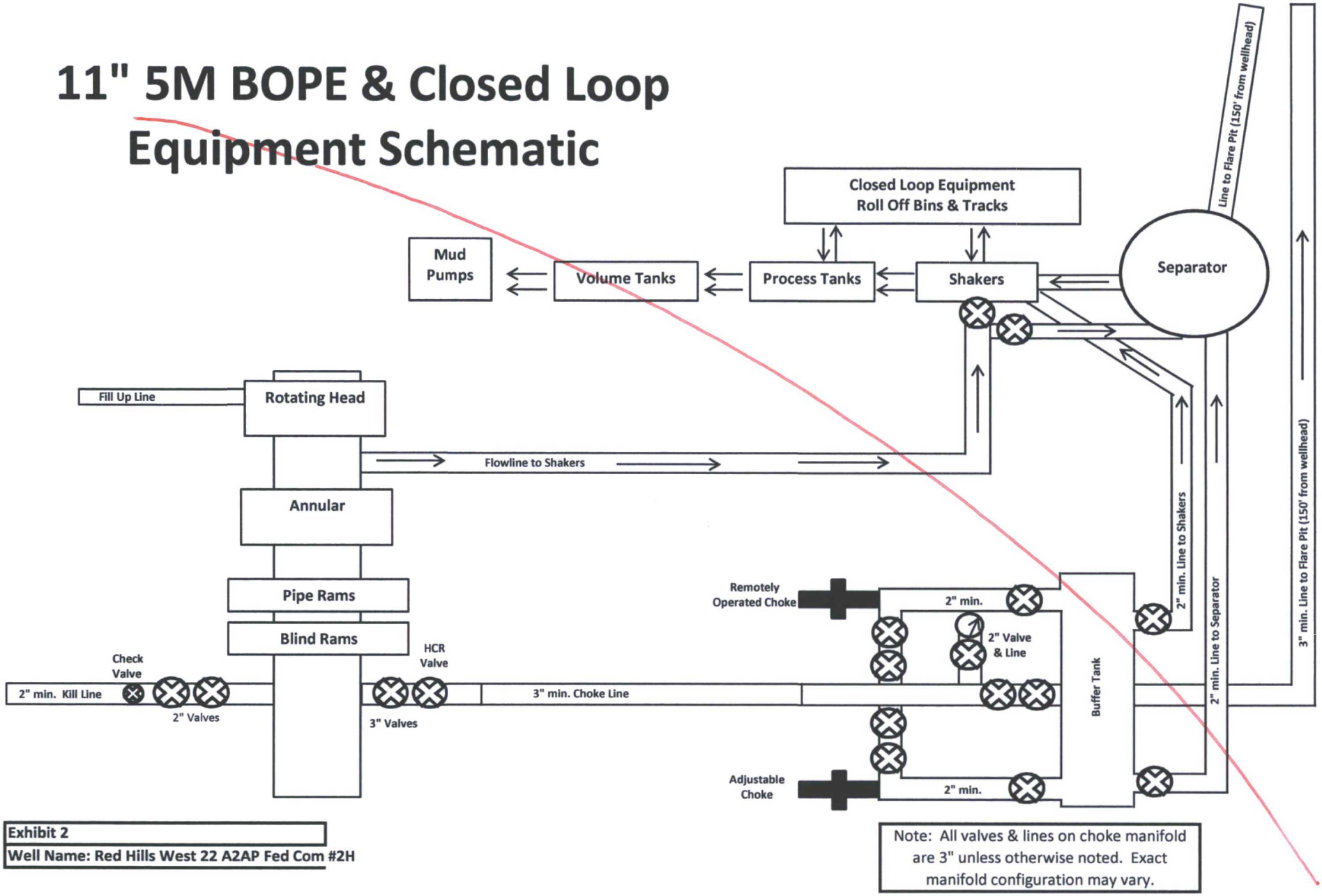

Exhibit 2

Well Name: Red Hills West 22 A2AP Fed Com #2H

Note: All valves & lines on choke manifold are 3" unless otherwise noted. Exact manifold configuration may vary.

13 ⅝" 2M BOPE & Closed Loop Equipment Schematic

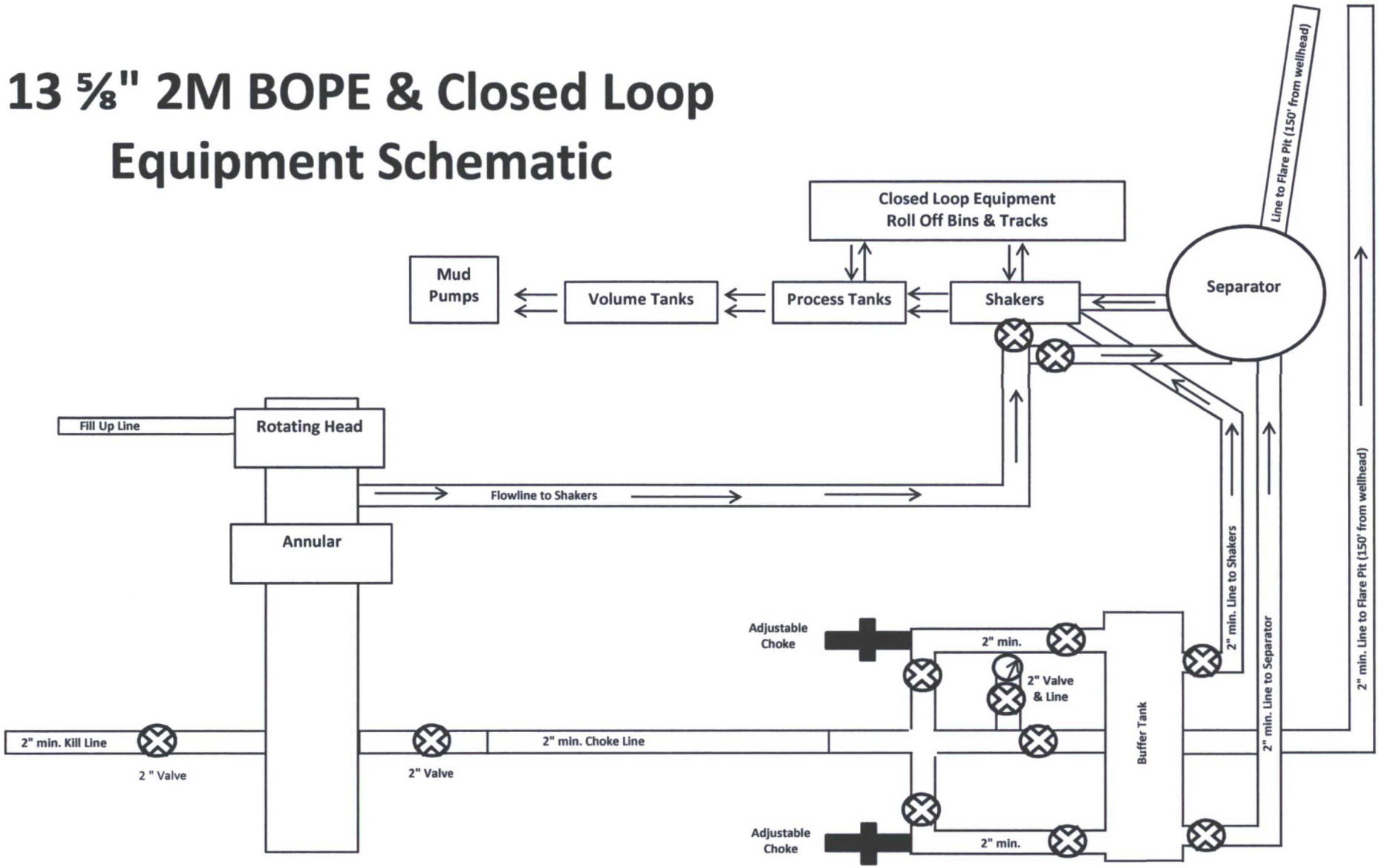

Exhibit 2A

Well Name: Red Hills West 22 A2AP Fed Com #2H

ENGINEERING & SERVICES

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

PHONE: 361-887-9807
FAX: 361-887-0812
EMAIL: *Tim.Cantu@gates.com*
WEB: www.gates.com

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	Produciton:	PRODUCTION
Date :	4/30/2015	Date :	4/30/2015
Signature :	Justin Cropper	Signature :	

Form-PTC - 01 Rev.0 2

Gates

CHART POOL USA Inc.
PORTAGE, INDIANA
GATES ENGINEERING & SERVICES NA
APPROVED
OA/OC
000-1HR.
60 MIN.
35
30
25
20
15
10
5
2000
4000
6000
8000
10000
12000
14000
16000
18000
HOSE I.D. 2½" LENGTH 42'
GRADE 40
WORKING PRESSURE 1500 P.S.I.
TEST PRESSURE 3000 P.S.I.
TEST DATE
SERIAL
NAME
ASSEMBLY DATE
END 1
END 2

MEWBOURNE OIL COMPANY
P O BOX 7698
TYLER TX 75711 7698

(903)561-2900

No. 230241

INVOICE DATE	INVOICE NUMBER	DESCRIPTION	VOUCHER	AMOUNT
06/09/15	BLM.MOA-6/9/15.E	BLM MOA FOR: RED HILLS WEST 22 A2AP FED COM #2H,185'FNL & 330'FEL,SECTION 22-T26S-R32E,LEA CO.,NM ROAD & LOCATION	1506230241	1599.00
	BUREAU OF LAND MANAGEMENT		TOTAL	1,599.00

THIS CHECK IS VOID WITHOUT A BLUE AND GREEN BACKGROUND AND AN ARTIFICIAL WATERMARK ON THE BACK - HOLD AT AN ANGLE TO VIEW

Frost National Bank
San Antonio, Texas

MEWBOURNE OIL COMPANY
P O BOX 7698
TYLER TX 75711 7698

No. 230241

30-9/1140

DATE	PAY THIS AMOUNT
6/09/15	******1,599.00

********1,599*DOLLARS AND*****0*CENTS

PAY TO THE
ORDER OF BUREAU OF LAND MANAGEMENT
620 EAST GREENE STREET
CARLSBAD, NM 88220

J Joe Buckley

BORDER CONTAINS MICROPRINTING

⑈230241⑈ ⑆114000093⑆ 010511722⑈

MEWBOURNE OIL COMPANY
P O BOX 7698
TYLER TX 75711 7698

(903)561-2900

No. 230254

INVOICE DATE	INVOICE NUMBER	DESCRIPTION	VOUCHER	AMOUNT
06/09/15	APD.FILING.FEE-6/15M	APD FILING FEE FOR: RED HILLS WEST 22 A2AP FED COM #2H,185'FNL & 330'FEL,SECTION 22-T26S-R32E,LEA CO.,NM	1506230254	6500.00
	BUREAU OF LAND MANAGEMENT		TOTAL	6,500.00

THIS CHECK IS VOID WITHOUT A BLUE AND GREEN BACKGROUND AND AN ARTIFICIAL WATERMARK ON THE BACK - HOLD AT AN ANGLE TO VIEW

Frost National Bank
San Antonio, Texas

MEWBOURNE OIL COMPANY
P O BOX 7698
TYLER TX 75711 7698

No. 230254

30-9/1140

DATE	PAY THIS AMOUNT
6/09/15	******6,500.00

********6,500*DOLLARS AND*****0*CENTS

PAY TO THE
ORDER OF BUREAU OF LAND MANAGEMENT
620 EAST GREENE STREET
CARLSBAD, NM 88220

J Joe Buckley

BORDER CONTAINS MICROPRINTING

⑈230254⑈ ⑆114000093⑆ 010511722⑈

United States Department of the Interior
Bureau of Land Management
Roswell Field Office
2909 West Second Street
Roswell, New Mexico 88201-1287

Statement Accepting Responsibility for Operations

Operator Name: Mewbourne Oil Company
Street or Box: P.O. Box 5270
City, State: Hobbs, New Mexico
Zip Code: 88241

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted of the leased land or portion thereof, as described below.

Lease Number: NMNM 027507 & NMNM 105562

Legal Description of Land: Section 22, T-26S, R-32E, Lea County, New Mexico.
Location @ 185' FNL & 330' FEL.

Formation (if applicable): Bone Spring

Bond Coverage: $150,000

BLM Bond File: NM1693 Nationwide, NMB 000919

Authorized Signature: B. Terrell FOR RT
Name: Robin Terrell
Title: District Manager
Date: 9·9·15

Mewbourne Oil Company
PO Box 5270
Hobbs, NM 88241
(575) 393-5905

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 9 day of Sept., 2015.

Name: Robin Terrell

Signature: [signature]

Position Title: Hobbs District Manager

Address: PO Box 5270, Hobbs NM 88241

Telephone: 575-393-5905

E-mail: rterrell@mewbourne.com