

HOBBS OCD

ATS-16-80

Form 3160-3  
(March 2012)

SEP 15 2016

FORM APPROVED  
OMB No. 1004-0137  
Expires October 31, 2014UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED


## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		7. If Unit or CA Agreement, Name and No.	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		8. Lease Name and Well No. Oryx 14 B3DM Fed Com #1H (316811)	
2. Name of Operator Mewbourne Oil Company (14794)		9. API Well No. 30-025-43424 (2209)	
3a. Address PO Box 5270 Hobbs, NM 88241	3b. Phone No. (include area code) 575-393-5905	10. Field and Pool, or Exploratory Antelope Ridge West Bone Spring	
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 185' FNL & 660' FWL, Sec 14 T23S R34E At proposed prod. zone 330' FSL & 660' FWL, Sec 14 T23S R34E		11. Sec., T. R. M. or Blk. and Survey or Area Sec 14 T23S R34E	
14. Distance in miles and direction from nearest town or post office* 20 miles SW of Eunice, NM		12. County or Parish Lea	13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 185'	16. No. of acres in lease NMNM24491 - 160 acres NMNM 15035 - 520 acres	17. Spacing Unit dedicated to this well 160	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1320' - Oryx 14 CN #1H	19. Proposed Depth 11,333' - TVD 15,890' - MD	20. BLM/BIA Bond No. on file NM1693 nationwide & NMB-000919	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3373' - GL	22. Approximate date work will start* 11/29/2015	23. Estimated duration 60 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.   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.  | 5. Operator certification   |
| 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). | 6. Such other site specific information and/or plans as may be required by the BLM.             |

25. Signature 	Name (Printed/Typed) Bradley Bishop	Date 09/29/2015
Title		

Approved by (Signature) <b>/s/Cody Layton</b>	Name (Printed/Typed)	Date <b>SEP 14 2016</b>
Title <b>FIELD MANAGER</b>	Office <b>CARLSBAD FIELD OFFICE</b>	

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.

APPROVAL FOR TWO YEARS

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)

Capitan Controlled Water Basin

SEE ATTACHED FOR  
CONDITIONS OF APPROVALApproval Subject to General Requirements  
& Special Stipulations Attached

**Mewbourne Oil Company, Oryx 14 B3DM Fed Com #1H**  
**Sec 14, T23S, R34E**  
**SL: 185' FNL & 660' FWL**  
**BHL: 330' FSL & 660' FWL**

**1. Geologic Formations**

TVD of target	11333'	Pilot hole depth	NA
MD at TD:	15890'	Deepest expected fresh water:	275'

**Basin**

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface		
Rustler	2058		
Top of Salt	2318	Salt	
Base of Salt	4533		
Yates		Oil	
Lamar	4948		
Cherry Canyon	5943		
Manzanita Marker	6038		
Brushy Canyon	7198		
Bone Spring	8488	Oil/Gas	
1 <sup>st</sup> Bone Spring Sand	9628		
2 <sup>nd</sup> Bone Spring Sand	10108		
3 <sup>rd</sup> Bone Spring Sand	10981	Target Zone	
Abo			
Wolfcamp		Will Not Penetrate	
Devonian			
Fusselman			
Ellenburger			
Granite Wash			

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

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**2. Casing Program**

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
	From	To							
17.5"	0'	1265'	13.375"	48	H40	STC	1.13	2.63	3.03
17.5"	1265'	1932'	13.375"	54.5	J55	STC	1.13	2.72	11.25
17.5"	1932'	2085'	13.375"	61	J55	STC	1.42	2.85	63.60
12.25"	0'	3453'	9.625"	36	J55	LTC	1.13	1.96	2.50
12.25"	3453'	4393'	9.625"	40	J55	LTC	1.13	1.73	9.14
12.25"	4393'	4875'	9.625"	40	N80	LTC	1.22	2.27	38.24
8.75"	0'	1380'	5.5"	17	P110	BTC	10.42	10.42	2.02
8.75"	1380'	10852'	5.5"	17	P110	LTC	1.33	1.89	1.80
8.75"	10852'	11602'	5.5"	17	P110	BTC	1.27	1.81	6.38
8.75"	11602'	15890'	5.5"	17	P110	LTC	1.27	1.80	6.09
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
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?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> 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 2 <sup>nd</sup> 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?	

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Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

**3. Cementing Program - See COA**

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H <sub>2</sub> O gal/ sk	500# Comp. Strength (hours)	Slurry Description
Surf.	1245	14.8	1.34	6.3	8	Class C + 0.005pps Static Free + 1% CaCl <sub>2</sub> + 0.25 pps CelloFlake + 0.005 gps FP-6L
	200	14.8	1.34	6.3	8	Tail: Class C + 0.25 lb/sk Cello Flake + 0.005 lb/sk Static Free
<u>Inter.</u>	780	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	1195	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

A copy of cement test will be available on location at time of cement job providing pump times & compressive strengths.

Casing String	TOC	% Excess
Surface	0'	100%
Intermediate	0'	25%
Production	4675'	25%

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**4. Pressure Control Equipment** *See COA*

Variance: None
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BOP installed and tested before drilling which hole?	Size?	System Rated WP	Type	✓	Tested to:
12-1/4"	13-5/8"	<del>3M</del> 2m	Annular	X	1500# <del>2000</del> #
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other*		
8-3/4"	11"	<del>3M</del> 5M	Annular	X	1500# <del>2500</del> #
			Blind Ram	X	
			Pipe Ram	X	
			Double Ram		3000# 5000 #
			Other*		

\*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.

<i>See COA</i>	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.
<i>See COA</i>	N	Are anchors required by manufacturer?

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<b>N</b>	<p>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.</p> <ul style="list-style-type: none"> <li>• Provide description here</li> </ul> <p>See attached schematic.</p>
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### 5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	2085	FW Gel	8.6-8.8	28-34	N/C
2085	4875	Saturated Brine	10.0	28-34	N/C
4875	10852	Cut Brine	8.6-9.5	28-34	N/C
10852	15890	FW w/Polymer	8.6-9.5	30-40	<20cc

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
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### 6. Logging and Testing Procedures

Logging, Coring and Testing.	
<b>X</b>	Will run GR/CNL from KOP (10852') 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
<b>X</b> Gamma Ray	10852'(KOP) to TD
Density	
CBL	
Mud log	
PEX	

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**7. Drilling Conditions**

Condition	Specify what type and where?
BH Pressure at deepest TVD	4908 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. **Lost circulation material/sweeps/mud scavengers in surface hole.**

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
<b>X</b>	H2S Plan attached

**8. Other facets of operation**

Is this a walking operation? If yes, describe.  
 Will be pre-setting casing? If yes, describe.

Attachments

- ☐ Directional Plan  
☐ Other, describe

**Notes Regarding Blowout Preventer**

**Mewbourne Oil Company**

Oryx 14 B3DM Fed Com #1H

185' FNL & 660' FWL (SHL)

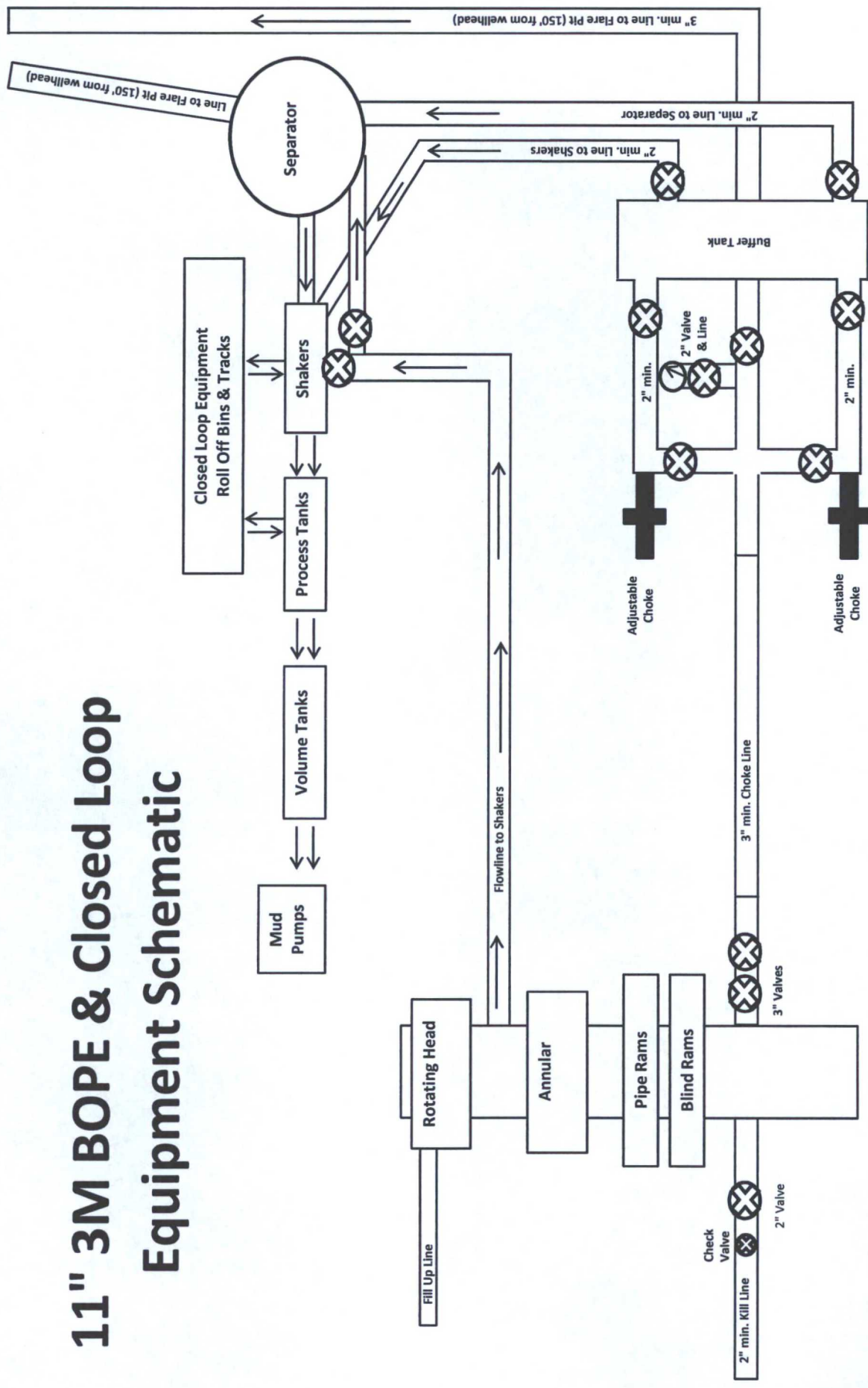
Sec 14-T23S-R34E

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



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

Exhibit 2  
Well Name: Oryx 14 B3DM Fed Com #1H

# 13 5/8" 2M BOPE & Closed Loop Equipment Schematic

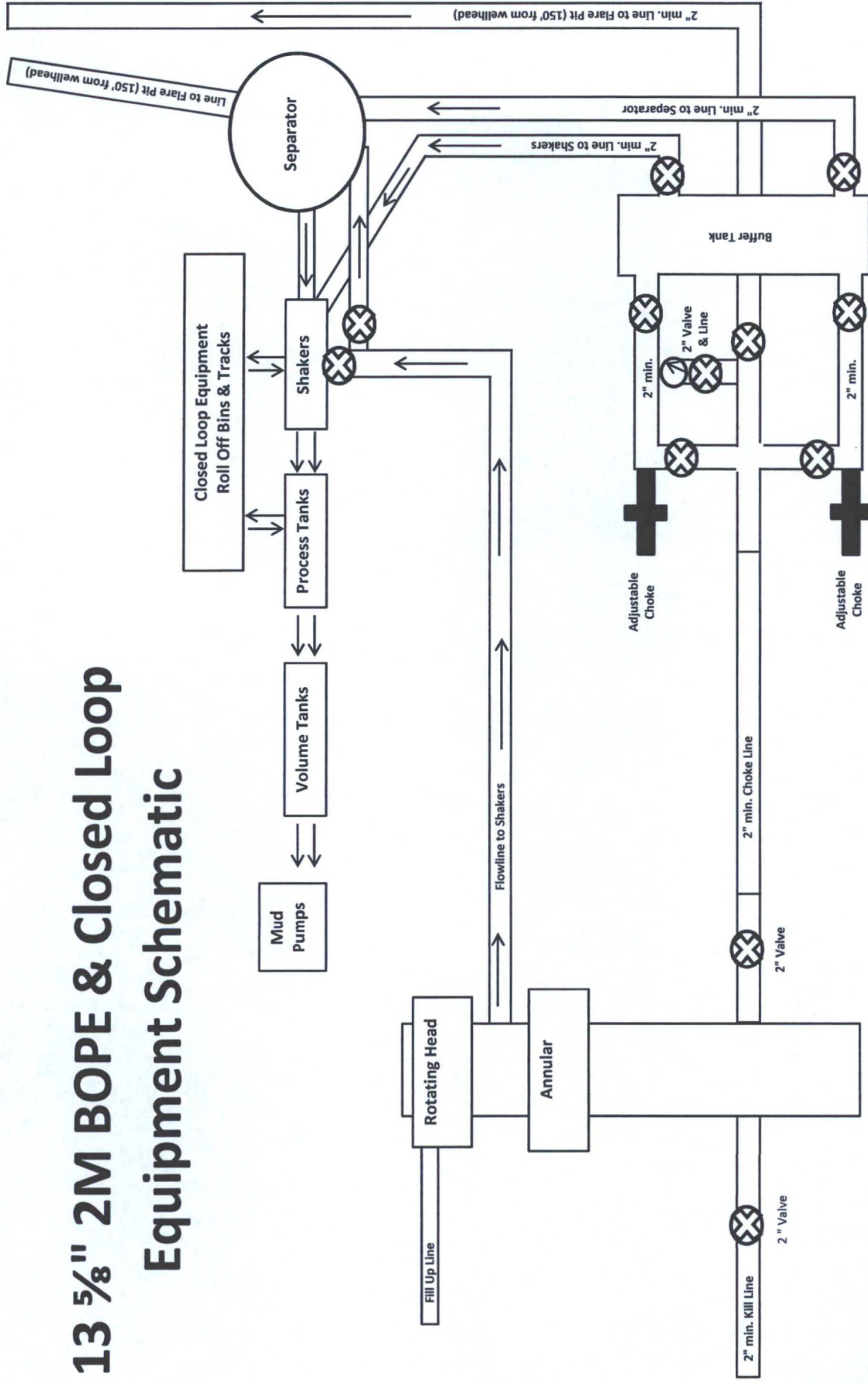
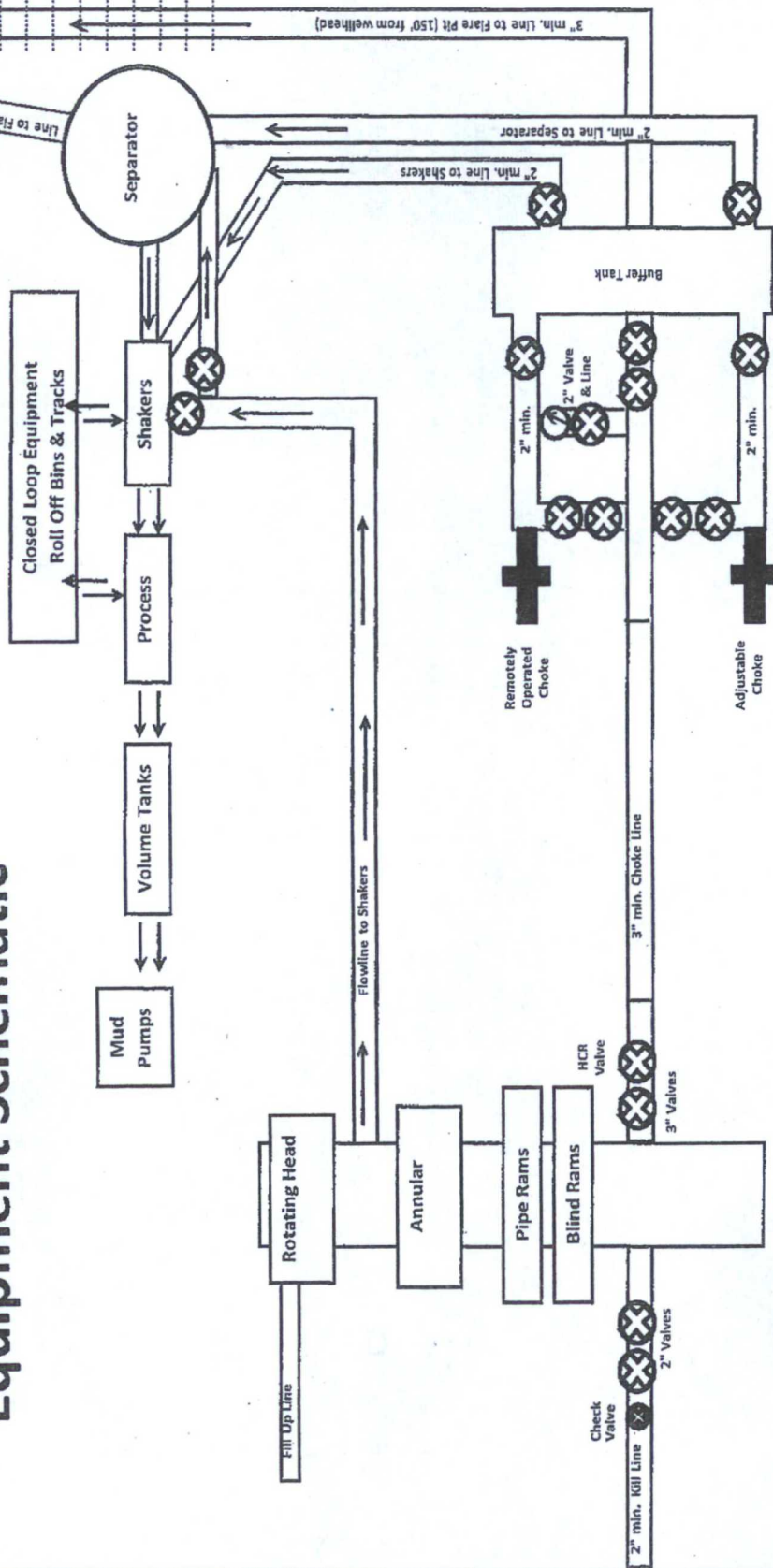


Exhibit 2A  
Well Name: Oryx 14 B3DM Fed Com #1H

# 11" 5M BOPE & Closed Loop Equipment Schematic



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

Exhibit 2  
Well Name: Oxy 14 BSDM Fed Com 1H



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](mailto:Tim.Cantu@gates.com)  
WEB: [www.gates.com](http://www.gates.com)

## 10K CEMENTING ASSEMBLY PRESSURE TEST CERTIFICATE

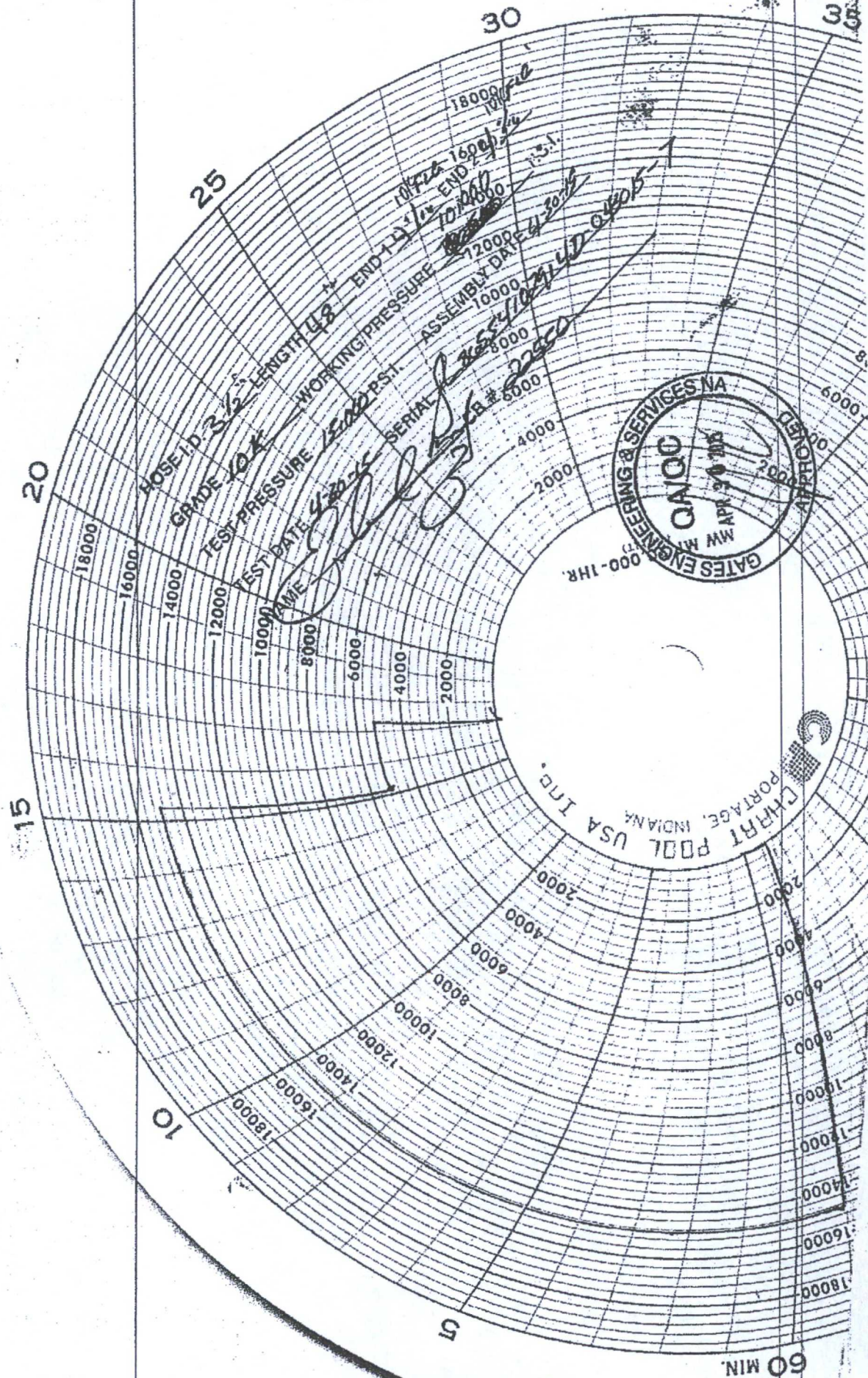
Customer :	AUSTIN DISTRIBUTING	Test Date:	4/30/2015
Customer Ref. :	4060578	Hose Serial No.:	D-043015-7
Invoice No. :	500506	Created By:	JUSTIN CROPPER
Product Description:	10K3.548.0CK4.1/1610KFLGE/E LE		
End Fitting 1 :	4 1/16 10K FLG	End Fitting 2 :	4 1/16 10K FLG
Gates Part No. :	4773-6290	Assembly 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.

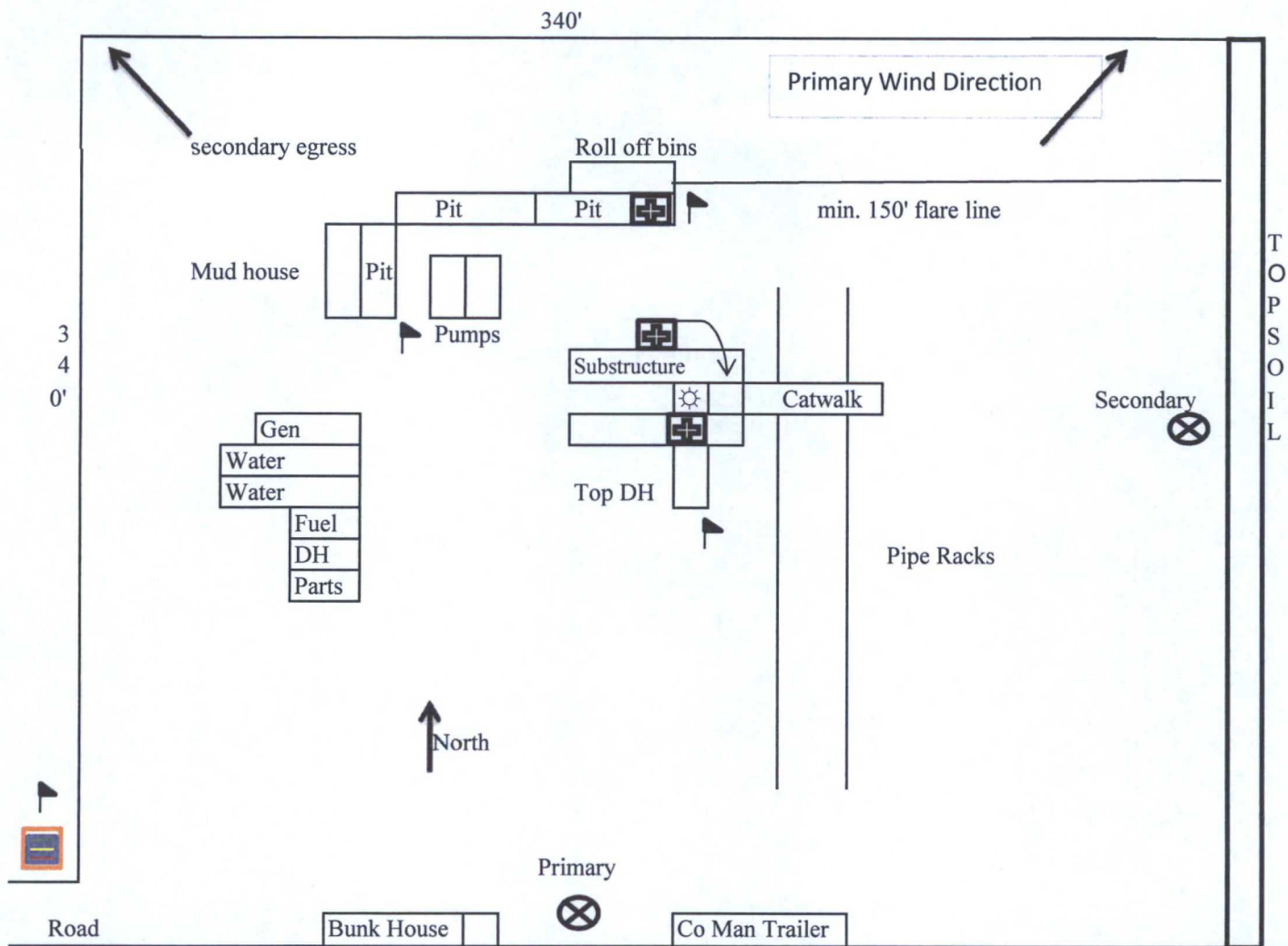
Quality Manager :	QUALITY	Production:	PRODUCTION
Date :	4/30/2015	Date :	4/30/2015
Signature :		Signature :	

Form-PTC - 01 Rev.02





H2S Diagram  
Closed Loop Pad Dimensions 340' x 340'



= Warning Signs



= Wind Markers



= H2S Monitors



= Safety Stations

Mewbourne Oil Company  
Oryx 14 B3DM Fed Com #1H  
185' FNL & 660' FWL  
Sec. 14 T23S R34E  
Lea County, NM