

OCD Artesia

FORM APPROVED  
OMB No. 1004-0137  
Expires October 31, 2014

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT


APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-94614 NM-82902
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		6. If Indian, Allottee or Tribe Name
2. Name of Operator YATES PETROLEUM CORPORATION		7. If Unit or CA Agreement, Name and No.
3a. Address 105 South 4th Street, Artesia, NM 88210	3b. Phone No. (include area code) 575-748-4372	8. Lease Name and Well No. Checker BIC Federal Com #5H (35567)
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 1880 FSL' & 800' FEL, 8-19S-31E, UL I At proposed prod. zone 1980' FSL & 330' FEL, 9-19S-31E, UL I		9. API Well No. 30-015-43905
14. Distance in miles and direction from nearest town or post office*		10. Field and Pool, or Exploratory Undesignated Bone Spring, N. (97056)
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 330'	16. No. of acres in lease NM-82902 920 acres NM-94614 320 acres	11. Sec., T. R. M. or Blk. and Survey or Area Section 8,9, T-19S, R-31E
17. Spacing Unit dedicated to this well N/2S/2 Sec. 8,9-19S-31E	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. Approx. 500'	12. County or Parish Eddy County
19. Proposed Depth MD 14429' & TVD8627'	20. BLM/BIA Bond No. on file #NMB000434 NMB000920	13. State NM
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3499' GL	22. Approximate date work will start* 06/01/2014	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) Bill McCrory	Date 2-25-14
---	--------------------------------------	-----------------

Title

Land Regulatory Agent

Approved by (Signature) /s/Cody Layton	Name (Printed/Typed)	Date AUG 29 2016
--	----------------------	---------------------

Title

FIELD MANAGER

Office

CARLSBAD FIELD 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.

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

NM OIL CONSERVATION  
ARTESIA DISTRICT

Approval Subject to General Requirements  
& Special Stipulations Attached

SEP 06 2016

RECEIVED

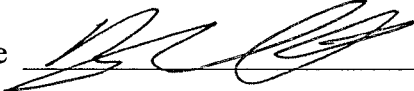
SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

CERTIFICATION  
YATES PETROLEUM CORPORATION  
Checker BIC Federal Com 5H  
1880 FSL & 800' FEL  
Section 8-T19S-R31E  
Eddy County, New Mexico

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 the company I represent, is 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 25 day of FEB, 2014.

Printed Name Bill McCrory

Signature 

Position Title Land Regulatory Agent

Address 105 South Fourth Street, Artesia, NM 88210

Telephone 575-748-4401

E-mail (optional)  
bmccrory@yatespetroleum.com

Field Representative (if not above signatory) Tim Bussell

Address (if different from above) Same

Telephone (if different from above) 575-748-4221

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 (505) 748-1289 Fax: (505) 748-0720

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone (505) 478-3480 Fax: (505) 478-3482

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised August 1, 2011

Submit one copy to appropriate  
District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number <b>30-015-43905</b>	Pool Code 97056 ✓	Pool Name Hackberry; Bone Spring North ✓
Property Code <b>97056 35567</b>	Property Name CHECKER BIC FEDERAL COM	Well Number 5H
OGRID No. 025575	Operator Name YATES PETROLEUM CORPORATION	Elevation 3499

Surface Location

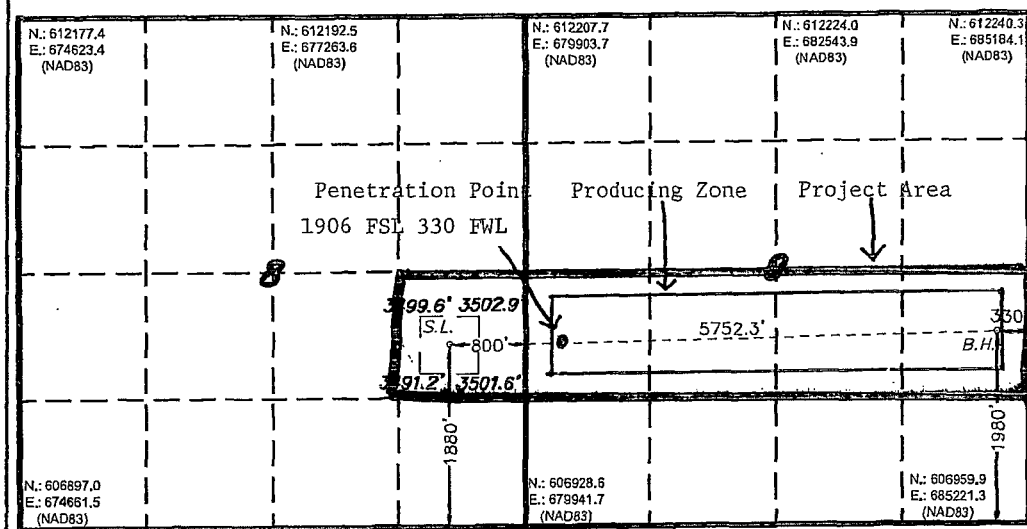
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/EAST line	County
<b>I</b>	8	19 S	31 E		1880	SOUTH	800	EAST	EDDY

Bottom Hole Location If Different From Surface

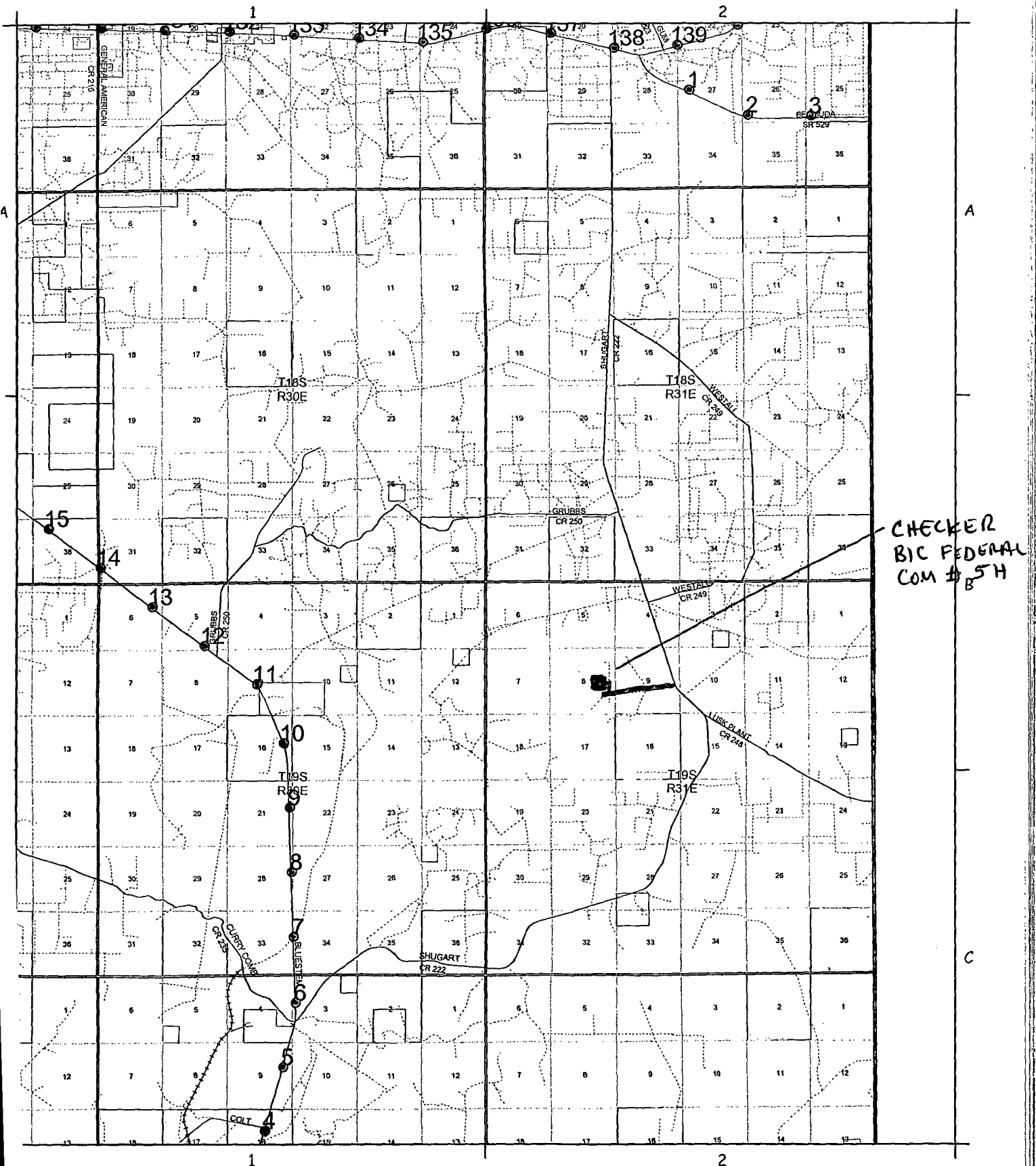
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/EAST line	County
<b>I</b>	9	19 S	31 E		1980	SOUTH	330	EAST	EDDY

Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.
------------------------	-----------------	--------------------	-----------

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

					<b>OPERATOR CERTIFICATION</b> 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.  Signature: <i>Bill McCrory</i> Date: <b>2-25-14</b> Printed Name: <b>Bill McCrory</b> Email Address: <b>bmccrory@yatespetroleum.com</b>	
<b>SURFACE LOCATION</b> Lat - N 32°40'22.24" Long - W 103°53'07.91" NMSPCE- N 608803.1 E 679127.9 (NAD-83)					<b>PROPOSED BOTTOM HOLE LOCATION</b> Lat - N 32°40'23.33" Long - W 103°52'00.64" NMSPCE- N 608937.5 E 684877.3 (NAD-83)	
<b>SURVEYOR CERTIFICATION</b> 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.  Date Surveyed: <b>OCTOBER 28, 2013</b> Signature of Professional Surveyor: <i>[Signature]</i> Certificate No.: <b>7977</b> Scale: <b>1" = 2000'</b> WO Num.: <b>29638</b>						

Continued on Page 12



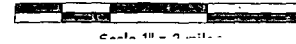
## LEGEND

- |        |                       |     |
|--------|-----------------------|-----|
| ANE    | BLM                   | USA |
| ANE    | BOR                   |     |
| NAL    | DOE                   |     |
| VATE   | Forest Service        |     |
| LROAD  | National Park Service |     |
| AIL    | Private               |     |
| inspin | State                 |     |



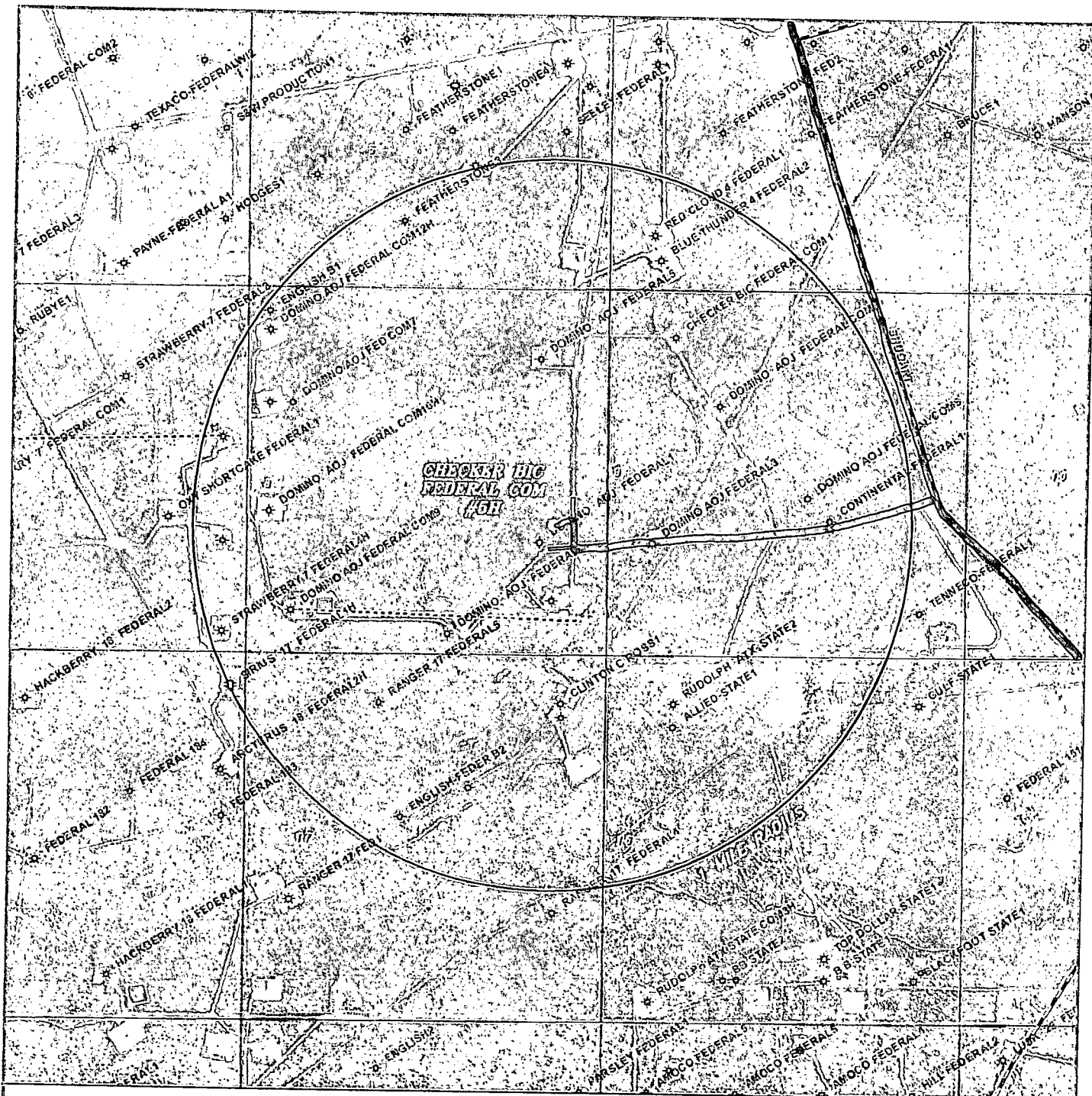
Continued on Page 22

1 0 1 2 Miles



CGIS

ENTRANCE ROAD (NEW ROAD PROPOSED IN RED)



# CHECKER BIC FEDERAL COM #5H

Located 1880' FSL and 800' FEL

Section 8, Township 19 South, Range 31 East,  
N.M.P.M., Eddy County, New Mexico.

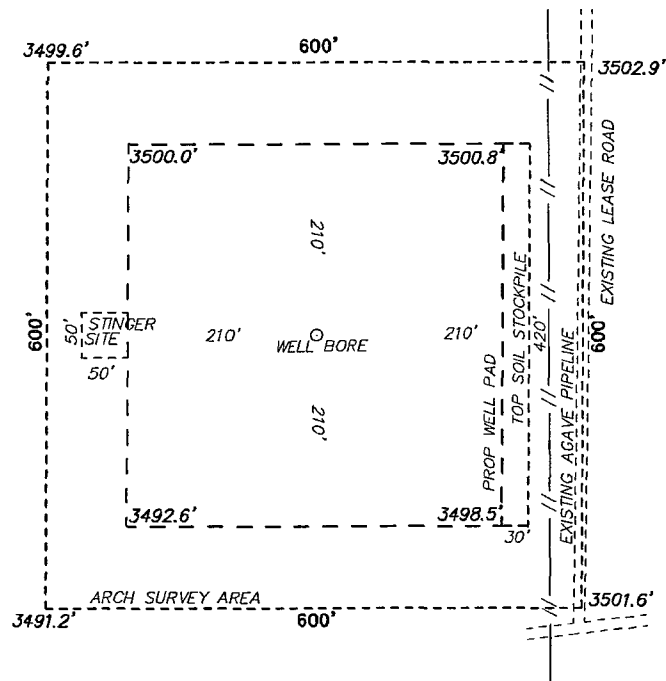
**basin**  
**surveys**  
focused on excellence  
in the oilfield

P.O. Box 1786  
1120 N. West County Rd.  
Hobbs, New Mexico 88241  
(575) 393-7316 -- Office  
(575) 392-2206 -- Fax  
basinsurveys.com

0'	1000'	2000'	3000'	4000'
SCALE: 1" = 2000'				
W.O. Number: KAN 29638				
Survey Date: 10-25-2013				
YELLOW TINT - USA LAND				
BLUE TINT - STATE LAND				
NATURAL COLOR - FEE LAND				



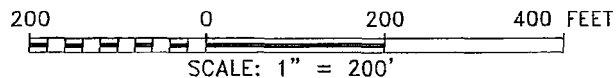
SECTION 8, TOWNSHIP 19 SOUTH, RANGE 31 EAST. N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.



YATES PETROLEUM CORPORATION  
CHECKER BIC FEDERAL COM #5H

ELEV. - 3499'  
Lat - N 32°40'22.24"  
Long - W 103°53'07.91"  
NMSPCE- N 608803.1  
E 679127.9  
(NAD-83)

CARLSBAD, NM IS ±26 MILES TO THE SOUTHWEST OF LOCATION.



Directions to Location:

AT INTERSECTION OF LUSK PLANT ROAD AND  
SHUGART TURN RIGHT, GO NORTH 0.6 MILES TO  
LEASE ROAD, TURN LEFT AND GO 1.0 MILES WEST  
TO PROPOSED LOCATION.



PETROLEUM  
CORPORATION

REF: CHECKER BIC FEDERAL COM #5H / WELL PAD TOPO

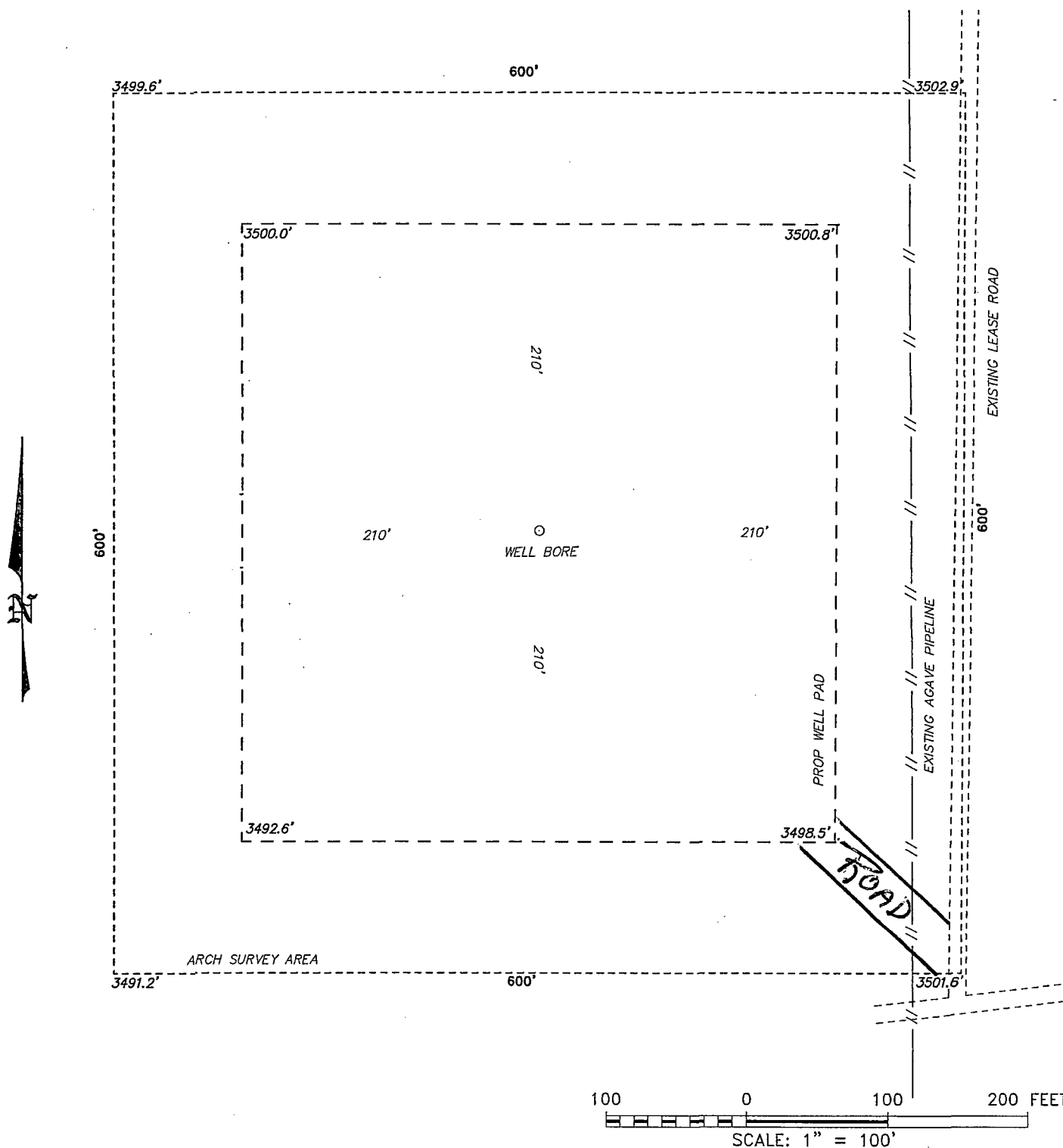
THE CHECKER BIC FEDERAL COM #5H LOCATED 1880' FROM  
THE SOUTH LINE AND 800' FROM THE EAST LINE OF  
SECTION 8, TOWNSHIP 19 SOUTH, RANGE 31 EAST.

N.M.P.M., EDDY COUNTY, NEW MEXICO.

**basin**  
**surveys**  
focused on excellence  
in the oilfield

P.O. Box 1786 (575) 393-7316 - Office  
1120 N. West County Rd. (575) 392-2206 - Fax  
Hobbs, New Mexico 88241 basin-surveys.com

SECTION 8, TOWNSHIP 19 SOUTH, RANGE 31 EAST. N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.



**basin**

focused on excellence  
in the oilfield

P.O. Box 1786 (575) 393-7316 - Office  
1120 N. West County Rd. (575) 392-2206 - Fax  
Hobbs, New Mexico 88241 basinsurveys.com



**YATES** PETROLEUM  
CORPORATION

REF: CHECKER BIC FEDERAL COM #5H / WELL PAD TOPO

THE CHECKER BIC FEDERAL COM #5H LOCATED 1880' FROM  
THE SOUTH LINE AND 800' FROM THE EAST LINE OF  
SECTION 8, TOWNSHIP 19 SOUTH, RANGE 31 EAST.

N.M.P.M., EDDY COUNTY, NEW MEXICO.

W.O. Number: 29638

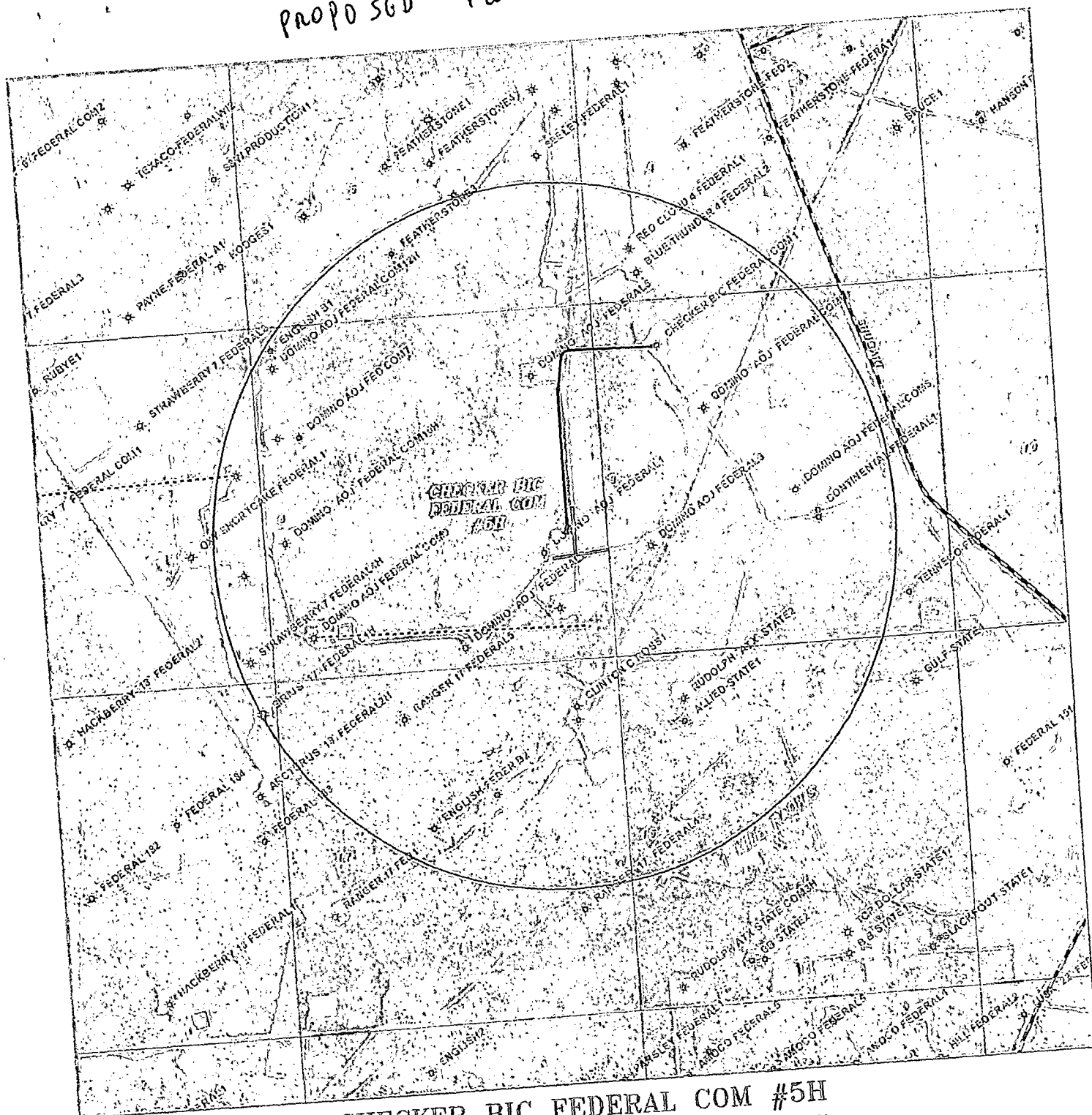
Drawn By: K. NORRIS

Date: 11-01-2013

Survey Date: 10-25-2013

Sheet 1 of 1 Sheets

PROPO SGD FLOW LINE



# CHECKER BIC FEDERAL COM #5H

Located 1880' FSL and 800' FEL  
 Section 8, Township 19 South, Range 31 East,  
 N.M.P.M., Eddy County, New Mexico.



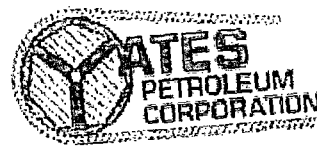
P.O. Box 1783  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (575) 393-7316 - Office  
 (575) 392-2203 - Fax  
 basinsurveys.com

focused on excellence  
 in the oilfield

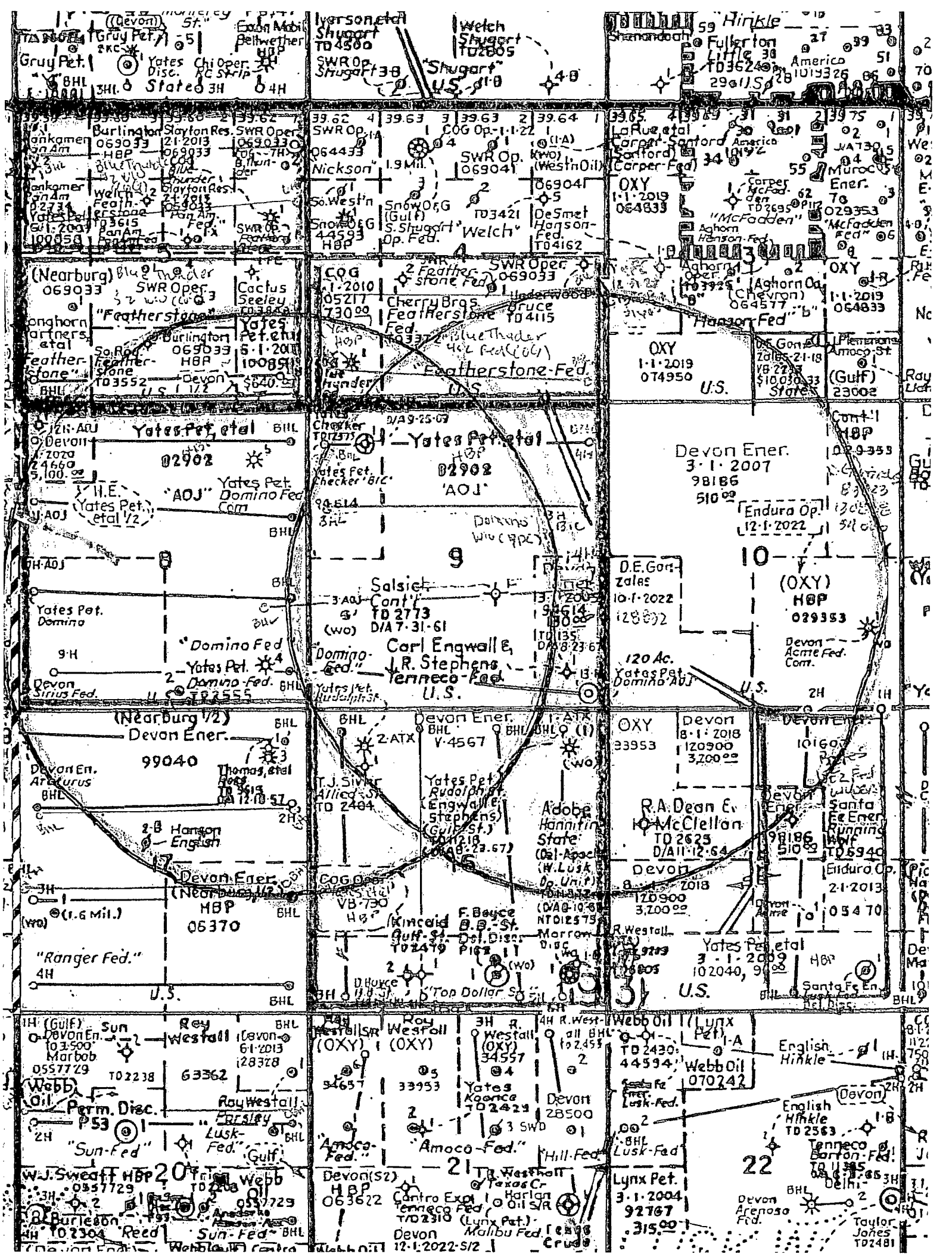
0' 1000' 2000' 3000' 4000'  
 SCALE: 1" = 2000'

W.O. Number: KAN 29638  
 Survey Date: 10-25-2013

YELLOW TINT - USA LAND  
 BLUE TINT - STATE LAND  
 NATURAL COLOR - FEE LAND







# YATES PETROLEUM CORPORATION

Checker BIC Federal Com #5

1880' FSL & 800' FEL, Section 8-T19S-R31E, Surface Hole

1980' FSL & 330' FEL, Section 9-T19S-R31E, Bottom Hole

Eddy, New Mexico

## 1. THE ESTIMATED TOPS OF GEOLOGIC MARKERS ARE AS FOLLOW:

Rustler	497'	Brushy Canyon	4882'--Oil	
Top of Salt	857'	Bone Spring LM	6507'	
Base of Salt	1997'	Avalon Sand	6782'--Oil	
Tansill	2057'	Middle Avalon	7147'--Oil	
Yates	2267'--Oil	Lower Avalon	7427'--Oil	
Seven Rivers	2437'--Water	Bone Spring 1/SD/	7857'--Oil	
Queen	3197'	Bone Spring 2/SD/	8636'-Oil	8627'--TVD
Cherry Canyon	4417'	Target SBSG	9147'	8883'--TVD
		TD	14429'	8972'-TVD

All depths above are measured depths when not labeled TVD(Total vertical Depth)

## 2. THE ESTIMATED DEPTHS AT WHICH ANTICIPATED WATER, OIL OR GAS FORMATIONS ARE EXPECTED TO

Water: Approx 200'

Oil or Gas: See above--All Potential Zones

3. PRESURECONTROL EQUIPMENT: 3000 PSI BOPE with a 13.625" opening will be installed on the 13 3/8" and a 5000# BOP with a minimum opening of 11.0 opening on the 9 5/8" casing. A variance is requested for the use of a flex hose between the well head and manifold if Cactus Rig #124 is used to drill this well. The certification and specs are attached. Test will be conducted by an independent tester, utilizing a test plug in the well head. 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 on each segment of the system tested if test is done with a test plug and 30 minutes without a test plug. Blind rams and pipe rams will be tested to the rated pressure of the BOP. Any leaks will be repaired at the time of the test. Annular preventers will be tested to 50% of rated pressure. Accumulator system will be inspected for correct pre charge pressures, and proper functionality, prior to connection to the BOP system. Tests will be conducted before drilling out from under all casing strings, which are set and cemented in place. Blowout Preventer controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventers will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. See Exhibit.

### A Auxiliary Equipment:

Kelly cock pit level indicators, flow sensor equipment and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when Kelly is not in use.

## 4. THE PROPOSED CASING AND CEMENTING PROGRAM:

A. Casing Program: (All New) See COA

CASING	HOLE SIZE	CASING SIZE	WT./FT.	GRADE	COUPLING	INTERVAL	LENGTH
Surface	17 1/2	13 3/8"	48.00	J-55/H-40Hybrid	ST&C	0'-525' <sup>620'</sup>	525'
Intermediate 1	12 1/4	9 5/8"	36.00	K-55	LT&C	0'-3300'	3300'
Production	8 3/4"	5 1/2"	17.00	P-110	Buttress	0'-14429'	14429'

Minimum Casing Design Factors: Burst 1.0, Tensile 1.8, Collapse 1.125

B. CEMENTING PROGRAM:

Conductor Casing: Cement with Ready Mix to surface.

Surface Casing: Cement with 430 sacks 35:65:6PzC (Wtr. 11.00 Yld 2.00 Wt. 12.50). Tail in with 210 sacks of 50/50 POZC CaCl<sub>2</sub> (Wtr. 6.20 Yld. 1.34 Wt. 14.20). Cement designed with 100% excess. TOC surface.

Intermediate Casing 1: Lead with 895 sacks of 35:65:6PzC (Yld 2.00 Wt 12.50 WTR 11.00). Tail in with 210 sacks of 50/50 POZC CaCl<sub>2</sub> (Yld. 1.34 Wt. 14.20 WTR 6.20). Cement designed with 100% excess. TOC surface.

Production Cement will be done in 2 stages with DV tool at 6000 & 2800.

Production Casing Stage 1: Lead with 340 sacks 35:65:6PzC (YLD 2.00 WT 12.50 WTR 11.00) 30% CaCO<sub>3</sub>, 3.2% Expansion additive, 2% Antifoam, 0.8% Retarder, 15 Fluid Loss. Tail in with 1110 sacks of PecosVILt ( Wtr 9.30 Wt. 13.00 Yld. 1.82). TOC 6000'.

Production Casing Stage 2: Lead with 410 sacks 35:65:6PzC (Yld 2.00 Wt. 12.50 WTR 11.00). Tail in with 205 sacks 50/50 PozC CaCl<sub>2</sub> (Yld 1.34 Wt. 14.20 WTR 6.20). Cement designed with 35% excess. TOC 2800'.

Well will be drilled vertically to 8406'. Well will then be kicked off at approximately 8406' and directionally drilled at 12 degrees per 100' with a 8 3/4" hole to 9147' MD (8883' TVD). Hole size will then be reduced to 8 1/2" and drilled to 14429' MD (8972' TVD) where 5 1/2" casing will be set and cemented in 2 stages with a DV/packer stage tool at approximately 6000'(cement volumes will be adjusted per tool placement). Packers and ports will be utilized in the lateral. Penetration point of producing zone will be encountered at 1906' FSL and 330' FWL, 9-19S-31E. Deepest TVD in the well is 8972' in lateral.

6. MUD PROGRAM AND AUXILIARY EQUIPMENT: *See COA*

INTERVAL	TYPE	WEIGHT	VISCOSITY	FLUID LOSS
0-525' <del>620</del>	Fresh Water/Paper	8.60-9.20	28-34	N/C
525'-3300'	Brine Water	10.00-10.20	28-29	N/C
3300'-14429'	Cut Brine	8.80-9.20	32-34	<10cc

Sufficient mud material(s) to maintain mud properties, control lost circulation and to contain a blowout will be available at the well site during drilling operations. Rig personnel will check mud hourly.

Mud level monitoring:

After surface casing is set an electronic PVT system will be installed as our primary mud level monitoring system. A secondary system will also be implemented as to insure the PVT system is functioning properly. The secondary system will be comprised of the derrick hand checking the fluid level in the pits periodically using a nut on the end of a rope hanging just above the fluid level in the pit.

7. EVALUATION PROGRAM:

Samples: 30' samples to 3000'. 10' Samples from 3000' to TD.

Logging:

No open hole logs(close to existing wells)GR on directional tools.

Checker BIC Federal Com #5H  
Page Three

8. ABNORMAL CONDITIONS, BOTTOM HOLE PRESSURE, AND POTENTIAL HAZARDS:

ANTICIPATED BOTTOM HOLE PRESSURES	
0' to 525'	215 PSI
525' to 3300'	1750 PSI
3300' to 8972'	4292 PSI

Abnormal Pressures Anticipated: None  
Lost Circulation Zones Anticipated: None  
H2S Zones Anticipated: None Anticipated  
Maximum Bottom Hole Temperature: 135 F

9. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 60 days to drill the well with completion taking another 20 days.

RECEIVED

APR 20 2011

APR 20 2011



Midwest Hose  
& Specialty, Inc.

### Internal Hydrostatic Test Certificate

General Information		Hose Specifications	
Customer	CACTUS	Hose Assembly Type	Choke & Kill
MWH Sales Representative	EVAN SPARKMAN	Certification	API 7K
Date Assembled	12/11/2013	Hose Grade	MUD
Location Assembled	OKC	Hose Working Pressure	10000
Sales Order #	191672	Hose Lot # and Date Code	11060 10/13
Customer Purchase Order #	RIG#137 M12653	Hose I.D. (Inches)	4"
Assembly Serial # (Pick Ticket #)	229391	Hose O.D. (Inches)	6.60"
Hose Assembly Length	35 FEET	Aarmor (yes/no)	YES
Fittings			
End A		End B	
Stem (Part and Revision #)	R4.0X64WB	Stem (Part and Revision #)	R4.0X64WB
Stem (Heat #)	1311405220	Stem (Heat #)	1311405220
Ferrule (Part and Revision #)	RF4.0	Ferrule (Part and Revision #)	RF4.0
Ferrule (Heat #)	120368	Ferrule (Heat #)	120368
Connection (Part #)	4 1/16" 10K	Connection (Part #)	4 1/16" 10K
Connection (Heat #)		Connection (Heat #)	
Dies Used	6.62"	Dies Used	6.62"
Hydrostatic Test Requirements			
Test Pressure (psi)	15,000	Hose assembly was tested with ambient water temperature.	
Test Pressure Hold Time (minutes)	16 1/2		
Date Tested		Tested By	
12/11/2013		Tokeef	
		Approved By	
		Phillips M. [Signature]	

M12653

# Internal Hydrostatic Test Graph

December 11, 2013



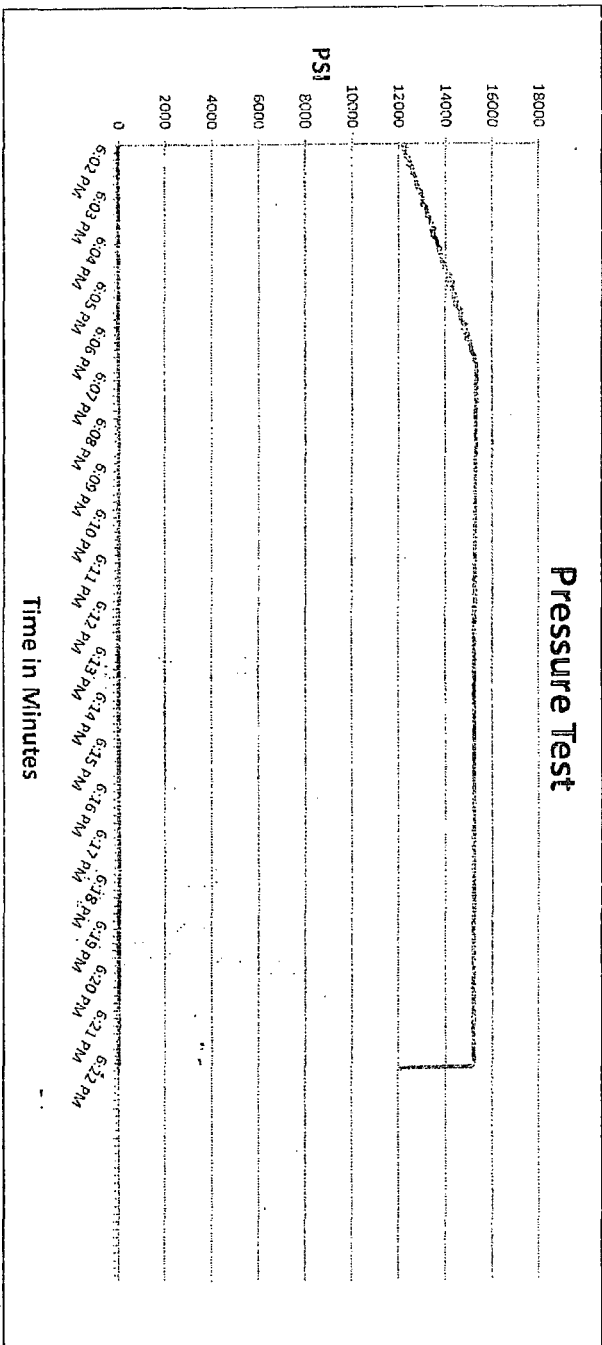
Midwest Hose  
& Specialty, Inc.

Customer: Cactus

Pick Ticket #: 229391

Hose Specifications		Verification	
Hose Type	Mud	Length	35'
I.D.	4"	Type of Fitting	4 1/16 10K
Working Pressure	10000 PSI	Die Size	6.62"
		Hose Serial #	11060
		Burst Pressure	Standard Safety Multiplier Applies
		Coupling Method	Swage
		Final O.D.	6.66"
		Hose Assembly Serial #	229391

## Pressure Test



Test Pressure 15000 PSI      Time Held at Test Pressure 16 2/4 Minutes      Actual Burst Pressure      Peak Pressure 15483 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.      Tested By: Tony Kellington      Approved By: Phil Morubby

*Tony Kellington*

*Phil Morubby*



Midwest Hose  
& Specialty, Inc.

### Certificate of Conformity

Customer: **CACTUS**

Customer P.O.# **RIG#137 M12653**

Sales Order # **191672**

Date Assembled: **12/11/2013**

### Specifications

Hose Assembly Type: **Choke & Kill**

Assembly Serial # **229391**

Hose Lot # and Date Code **11060 10/13**

Hose Working Pressure (psi) **10000**

Test Pressure (psi) **15000**

We hereby certify that the above material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards.

Supplier:

**Midwest Hose & Specialty, Inc.**

**3312 S I-35 Service Rd**

**Oklahoma City, OK 73129**

Comments:

Approved By

*Phillip W. Hightower*

Date

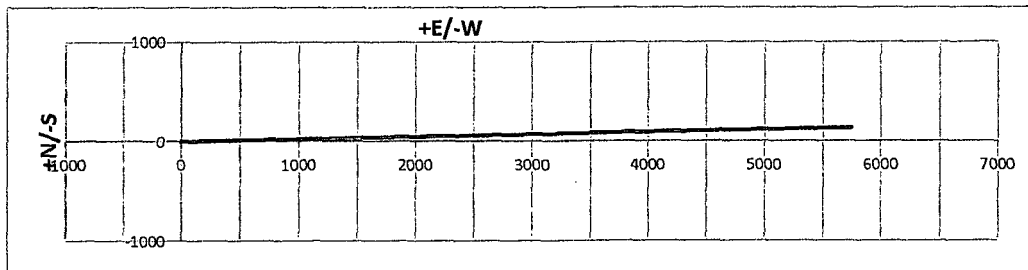
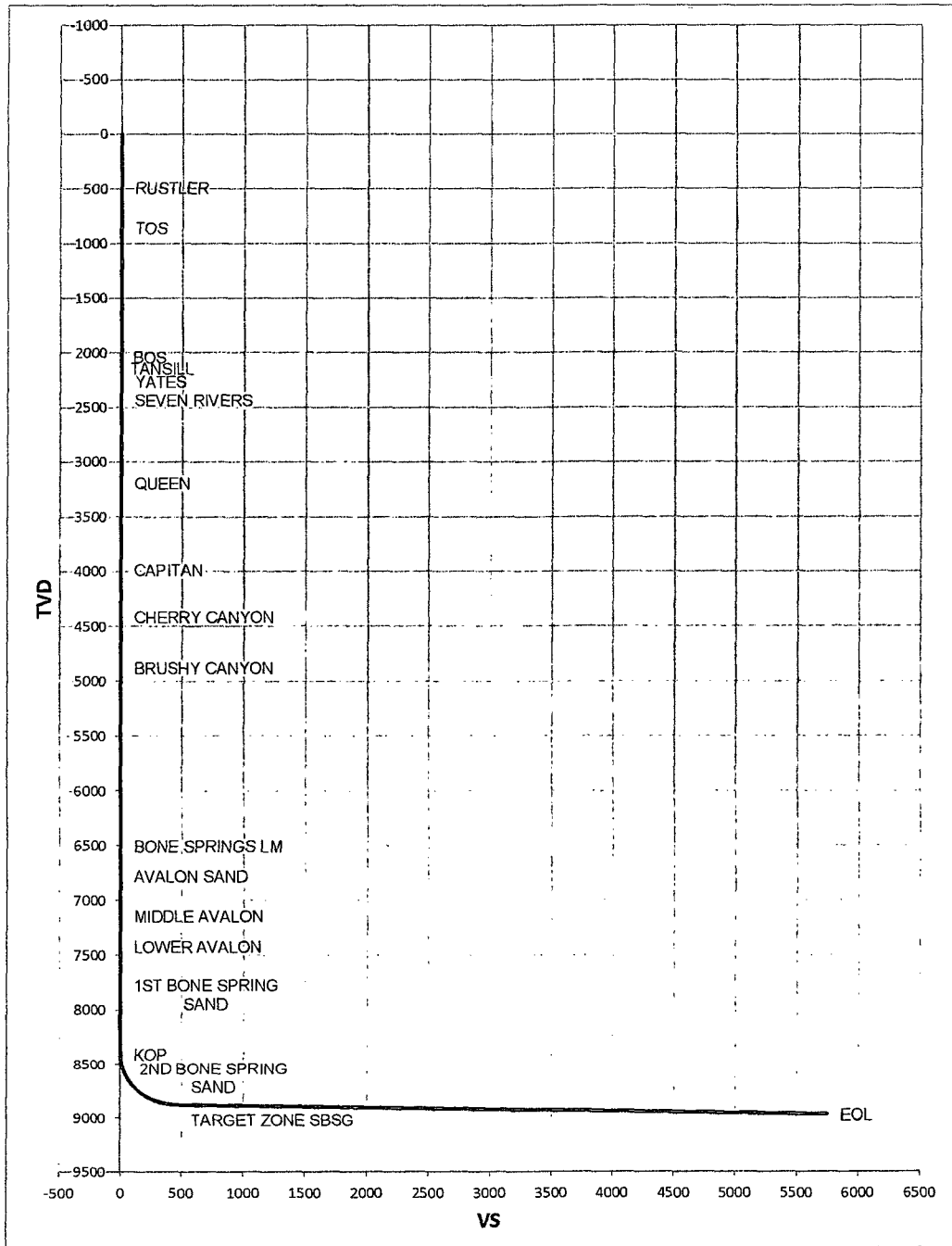
**12/11/2013**

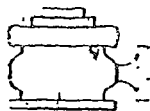
Well Name:	Domino AOJ Federal Com #14H	Tgt N-S:	134.40	EOC TVD/MD:	8882.92 / 9147.47
Surface Location:	Section 8 , Township 19S Range 31E	Tgt E-W:	5749.40	VS:	5750.97
Bottom Hole Location:	Section 9 , Township 19S Range 31E	VS Az:	88.66	EOL TVD/MD:	8972.00 / 14429.03

MD	Inc.	Azi.	TVD	+N/-S	+E/-W	VS	DLS	Comments
0	0	0	0	0	0	0	0	
497.00	0.00	0.00	497.00	0.00	0.00	0.00	0.00	RUSTLER
857.00	0.00	0.00	857.00	0.00	0.00	0.00	0.00	TOS
1997.00	0.00	0.00	1997.00	0.00	0.00	0.00	0.00	BOS
2057.00	0.00	0.00	2057.00	0.00	0.00	0.00	0.00	TANSILL
2267.00	0.00	0.00	2267.00	0.00	0.00	0.00	0.00	YATES
2437.00	0.00	0.00	2437.00	0.00	0.00	0.00	0.00	SEVEN RIVERS
3197.00	0.00	0.00	3197.00	0.00	0.00	0.00	0.00	QUEEN
3992.00	0.00	0.00	3992.00	0.00	0.00	0.00	0.00	CAPITAN
4417.00	0.00	0.00	4417.00	0.00	0.00	0.00	0.00	CHERRY CANYON
4882.00	0.00	0.00	4882.00	0.00	0.00	0.00	0.00	BRUSHY CANYON
6507.00	0.00	0.00	6507.00	0.00	0.00	0.00	0.00	BONE SPRINGS LM
6782.00	0.00	0.00	6782.00	0.00	0.00	0.00	0.00	AVALON SAND
7147.00	0.00	0.00	7147.00	0.00	0.00	0.00	0.00	MIDDLE AVALON
7427.00	0.00	0.00	7427.00	0.00	0.00	0.00	0.00	LOWER AVALON
7857.00	0.00	0.00	7857.00	0.00	0.00	0.00	0.00	1ST BONE SPRING SAND
8405.52	0.00	0.00	8405.52	0.00	0.00	0.00	0.00	KOP
8425.00	2.34	88.66	8424.99	0.01	0.40	0.40	12.00	
8450.00	5.34	88.66	8449.94	0.05	2.07	2.07	12.00	
8475.00	8.34	88.66	8474.76	0.12	5.04	5.05	12.00	
8500.00	11.34	88.66	8499.38	0.22	9.31	9.32	12.00	
8525.00	14.34	88.66	8523.76	0.35	14.87	14.87	12.00	
8550.00	17.34	88.66	8547.81	0.51	21.69	21.69	12.00	
8575.00	20.34	88.66	8571.46	0.70	29.76	29.76	12.00	
8600.00	23.34	88.66	8594.67	0.91	39.05	39.06	12.00	
8625.00	26.34	88.66	8617.35	1.16	49.55	49.56	12.00	
8635.83	27.63	88.66	8627.00	1.27	54.46	54.47	12.00	2ND BONE SPRING SAND
8650.00	29.34	88.66	8639.46	1.43	61.22	61.24	12.00	
8675.00	32.34	88.66	8660.92	1.73	74.03	74.05	12.00	
8700.00	35.34	88.66	8681.68	2.06	87.94	87.97	12.00	
8725.00	38.34	88.66	8701.69	2.41	102.93	102.96	12.00	
8750.00	41.34	88.66	8720.88	2.78	118.94	118.97	12.00	
8775.00	44.34	88.66	8739.21	3.18	135.93	135.97	12.00	
8800.00	47.34	88.66	8756.63	3.60	153.86	153.90	12.00	
8825.00	50.34	88.66	8773.08	4.04	172.67	172.72	12.00	
8850.00	53.34	88.66	8788.53	4.50	192.32	192.37	12.00	
8875.00	56.34	88.66	8802.92	4.97	212.75	212.81	12.00	
8900.00	59.34	88.66	8816.23	5.47	233.90	233.97	12.00	
8925.00	62.34	88.66	8828.41	5.98	255.73	255.80	12.00	
8950.00	65.34	88.66	8839.43	6.50	278.16	278.23	12.00	
8975.00	68.34	88.66	8849.26	7.04	301.13	301.21	12.00	
9000.00	71.34	88.66	8857.88	7.59	324.59	324.68	12.00	
9025.00	74.34	88.66	8865.26	8.15	348.47	348.56	12.00	
9050.00	77.34	88.66	8871.37	8.71	372.70	372.80	12.00	
9075.00	80.34	88.66	8876.21	9.29	397.22	397.33	12.00	
9100.00	83.34	88.66	8879.76	9.86	421.95	422.07	12.00	
9125.00	86.34	88.66	8882.01	10.45	446.84	446.97	12.00	
9147.47	89.03	88.66	8882.92	10.97	469.28	469.41	12.00	TARGET ZONE SBSG
14429.03	89.03	88.66	8972.00	134.40	5749.40	5750.97	0.00	EOL



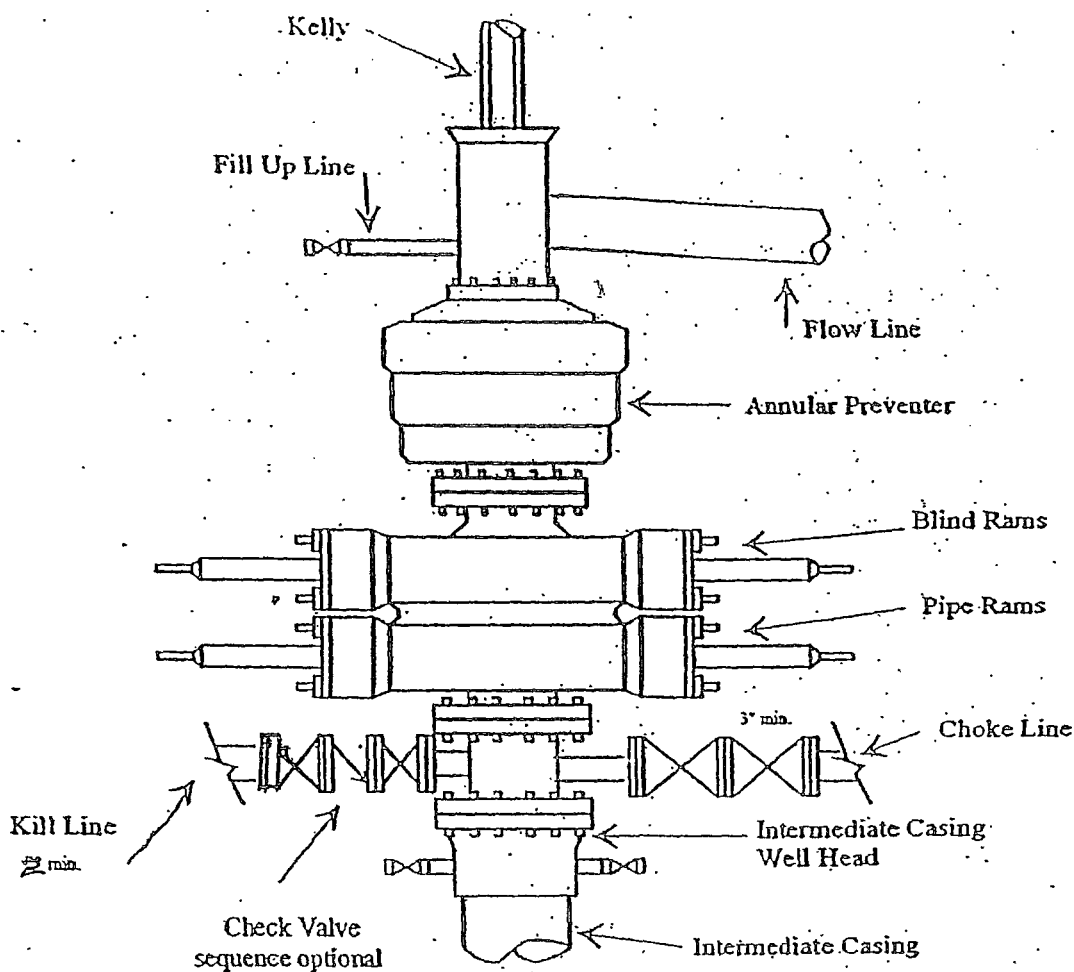
# Domino AOJ Federal Com #14H



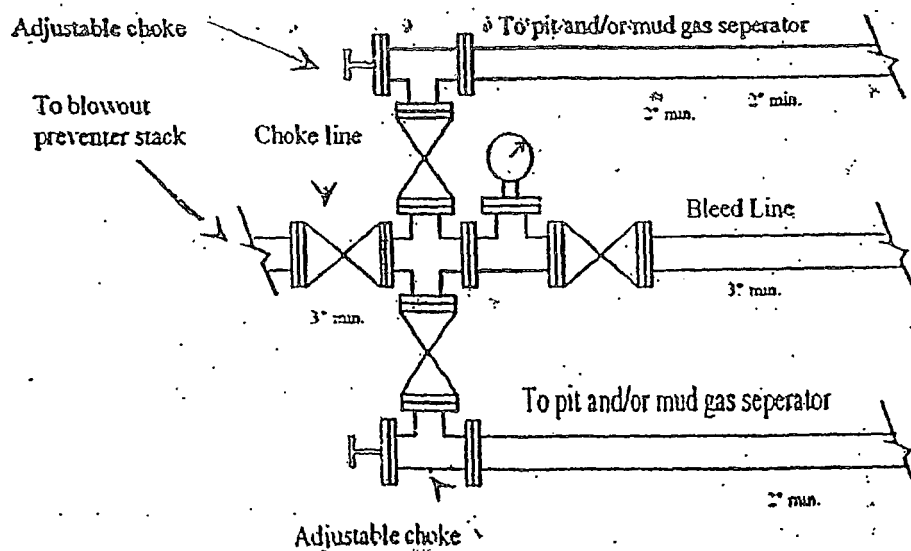


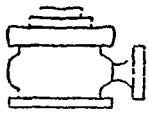
Yates Petroleum Corporation  
 Typical 3,000 psi Pressure System  
 Schematic  
 Annular with Double Ram Preventer Stack

BOP-3



Typical 3,000 psi choke manifold assembly with at least these minimum features

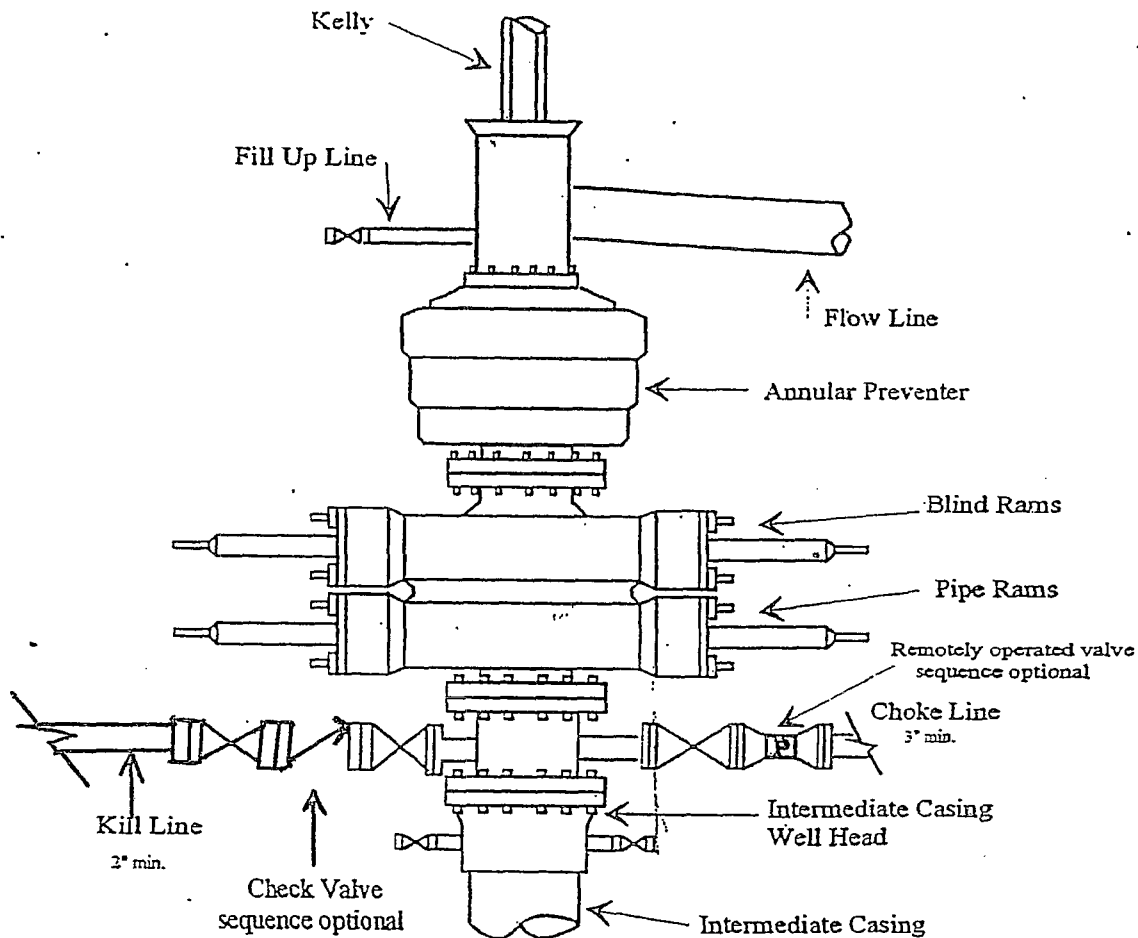




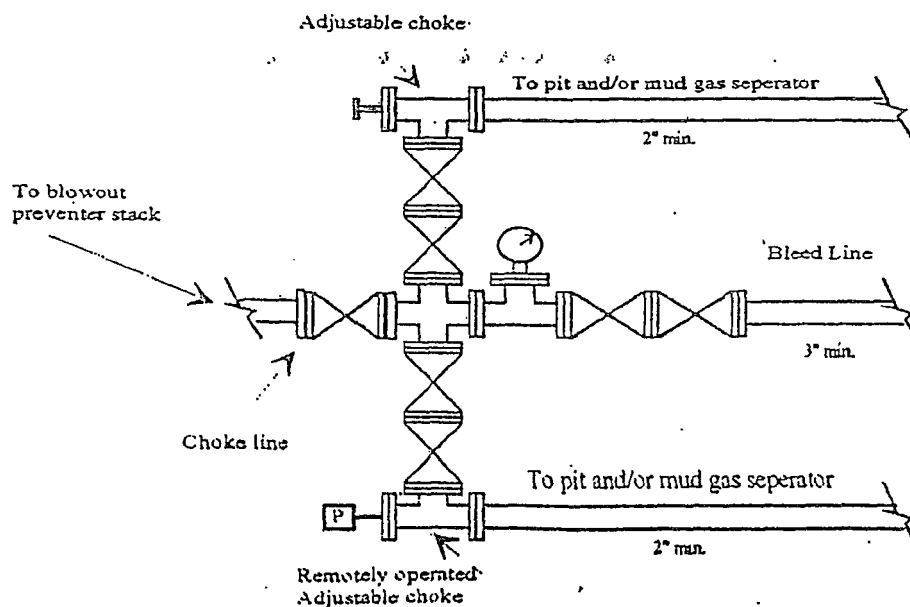
# Yates Petroleum Corporation

BOP-4

## Typical 5,000 psi Pressure System Schematic Annular with Double Ram Preventer Stack

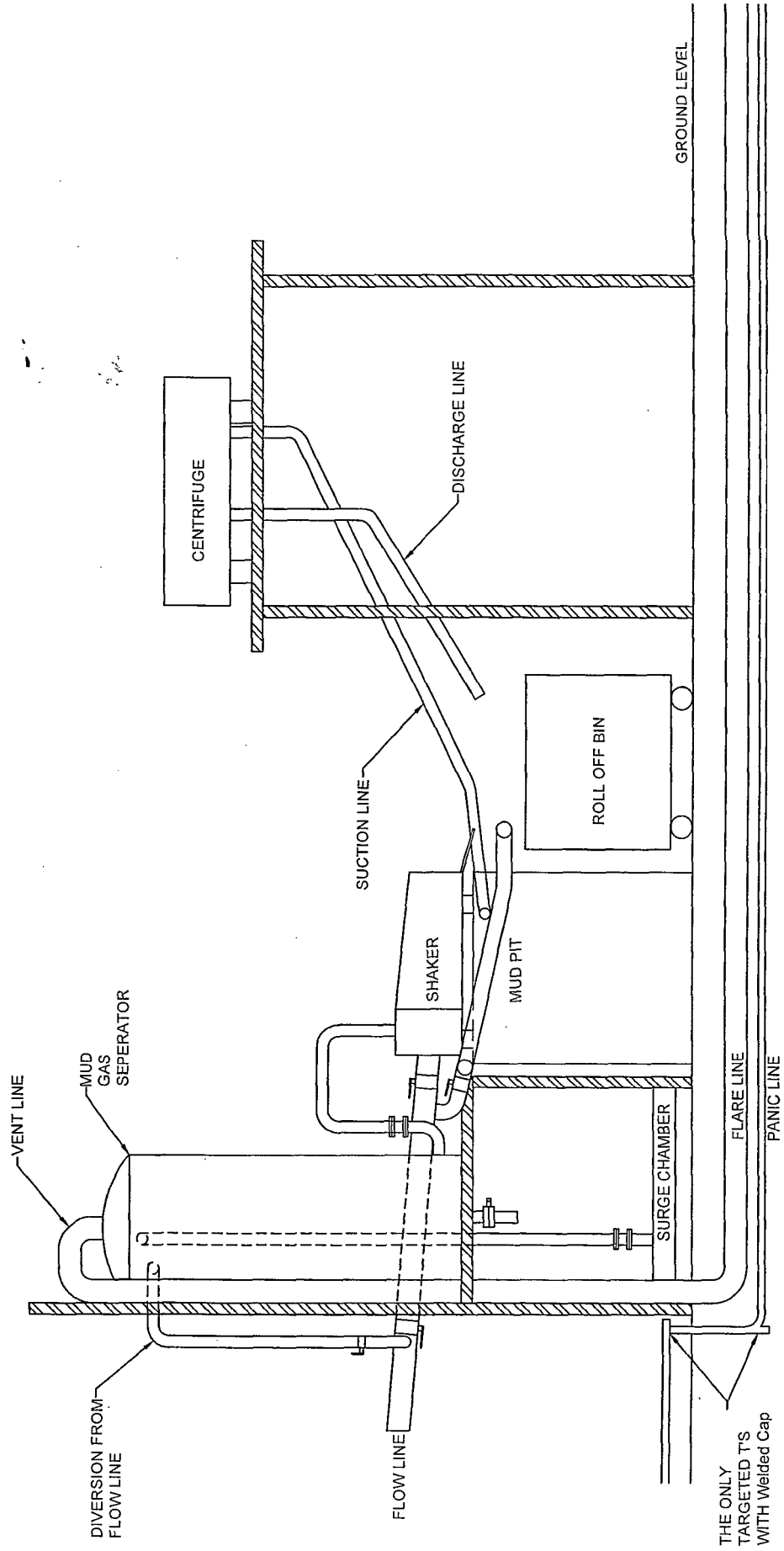


Typical 5,000 psi choke manifold assembly with at least these minimum features



# YATES PETROLEUM CORPORATION

Piping from Choke Manifold  
to the Closed Loop Drilling Mud System



The flare discharge must be 100' from wellhead for non H2S wells and 150' from wellhead for wells expected to encounter H2S.

## Yates Petroleum Corporation Closed Loop System

### Equipment Design Plan

Closed Loop System will consist of:

1 – double panel shale shaker

1 – (minimum ) Centrifuge, certain wells and flow rates may require 2 centrifuges

On certain wells, the Centrifuge will be replaced by a Clackco Settling Tank System

1 – minimum centrifugal pump to transfer fluids

2- 500 bbl. FW Tanks

1 – 500 bbl. BW Tank

1 – half round frac tank – 250 bbl. capacity as necessary to catch cement / excess mud returns generated during a cement job.

1 Set of rail cars / catch bins

Certain wells will use an ASC Auger Tank

### Operation Plan

All equipment will be inspected at least hourly by rig personnel and daily by contractors' personnel.

Any spills / leaks will be reported to YPC, NMOCD, and cleaned up without delay.

### Closure Plan

Drilling with Closed Loop System, haul off bins will be taken to Gandy Marley, Lea Land Farm, CRI or Sundance Services Inc.

416

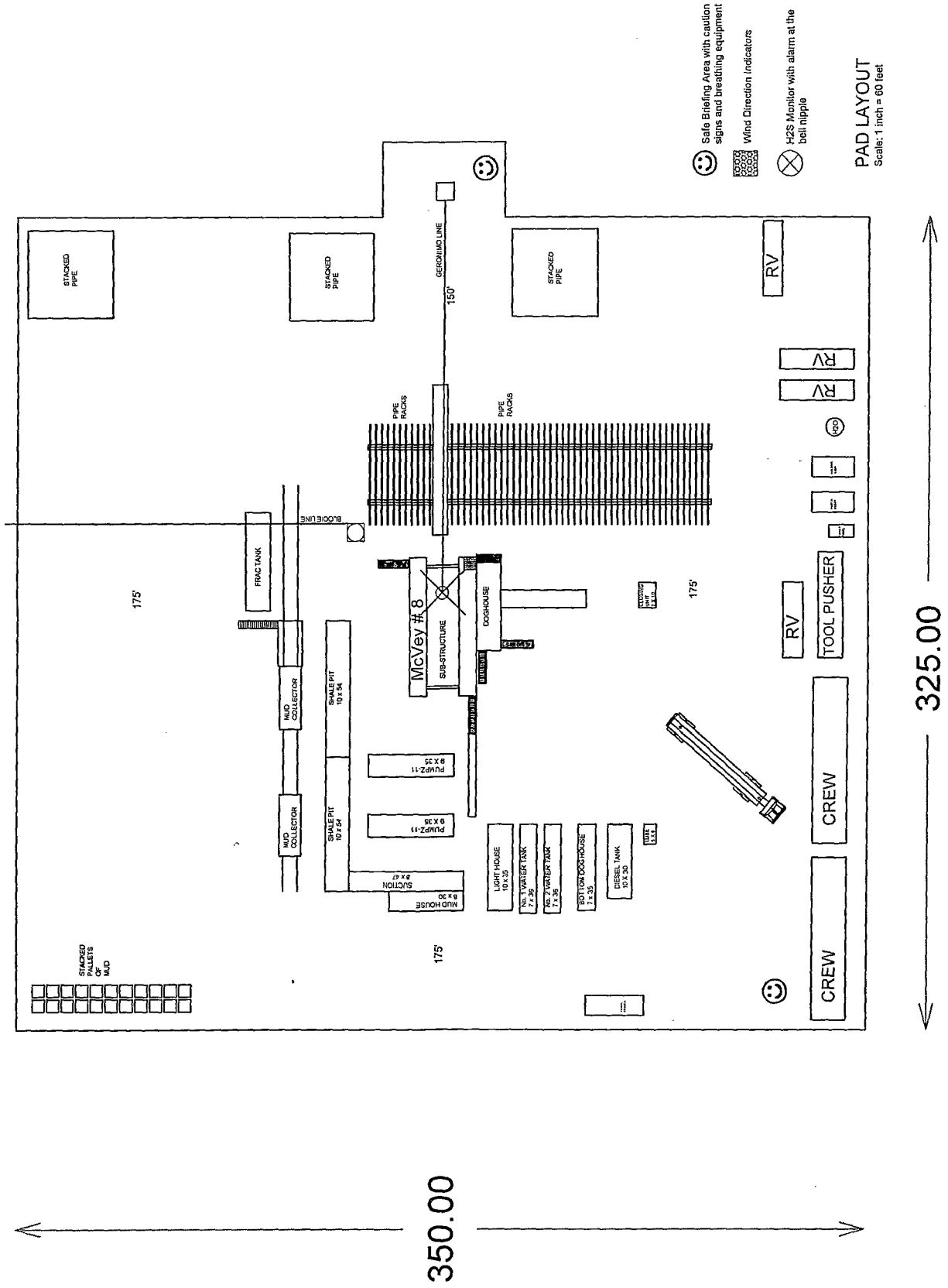
425.00



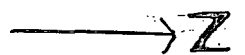
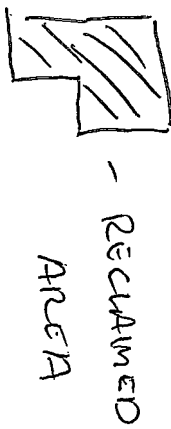
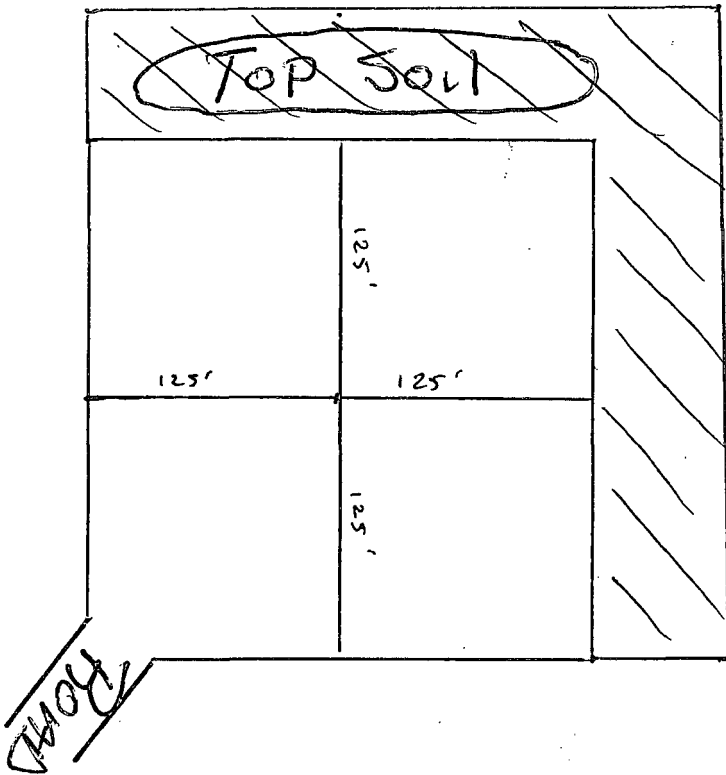
# YATES PETROLEUM CORPORATION

McVey # 8

10-09-13



CHECKER BIC FED COM SH  
RECLAMATION PLAT





## **MULTI-POINT SURFACE USE AND OPERATIONS PLAN**

### **Yates Petroleum Corporation**

Checker BIC Federal Com. #5H

1880' FSL and 800' FEL Surface Hole Location

1980' FSL and 330' FEL Bottom Hole Location

Section 8, T19S-R231

Eddy County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

#### **1. EXISTING ROADS:**

Exhibit A is a portion of the BLM map showing the well and roads in the vicinity of the proposed location. The proposed well site is located approximately 28 miles southeast of Artesia, New Mexico and the access route to the location is indicated in red and green on Exhibit A. Operator will maintain existing roads in condition the same or better than before operations begin. Operator will repair pot holes, clear ditches, repair the crown, etc. All existing structures along the entire access route such as cattle guards, other range improvement projects, culverts, etc. will be properly repaired or replaced if they are damaged or have deteriorated beyond practical use. Operator will reasonably prevent and abate fugitive dust as needed when created by vehicular traffic and equipment caused by the operator. The BLM's written approval will be acquired before application of surfactants, binding agents, or other dust suppression chemicals on roadways.

#### **DIRECTIONS:**

(See Exhibits) Go east of Artesia on Highway 82 for approximately 31 miles. Turn south on County Road 222 (Shugart Road) and go approximately 10 miles to a cattleguard on the right side of the road. Turn west here and to approximately 1.2 miles. The new access road will start here going left for approximately .1 of a mile to the southeast corner of the proposed well location.

#### **2. PLANNED ACCESS ROAD.**

- A. (See Exhibits) the proposed new access road will go for approximately 500' from the point of origin to the southeast corner of the well location. The road will lie in a southeast to northwest direction. The road will be crowned and ditched to a 2% slope from the tip of the crown to the edge of the driving surface.
- B. The new road will be 14 feet in width (driving surface) and will be adequately drained to control runoff and soil erosion. Ditches will be 3' wide with a 3:1 slopes. A traffic turnout may be built.
- C. The route of the road is visible.
- D. Existing roads will be maintained in the same or better condition.

#### **3. LOCATION OF EXISTING WELL**

- A. There is drilling activity within a one-mile radius of the well site.
- B. Exhibit D shows existing wells within a one-mile radius of the proposed well site.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

- A. There are production facilities on this lease at the present time.
- B. Production will be transported via flowline to the production facilities located on the Checker BIC Fed Com 1H well pad. No power will be required if the well is productive of gas.
- C. One (1) 2 7/8" L-80 steel surface oil production flowline. The flowline will have a working pressure of 100# psi and a volume of 1000 barrels per day. The proposed flowline will follow existing access road disturbance to the production facilities to be located on the Checker #1 well location. Please note attached plats showing the route of the flowline.

5. LOCATION AND TYPE OF WATER SUPPLY:

- A. It is planned to drill the proposed well with a fresh water system. The water will be obtained from commercial sources and will be hauled to the location by truck over the existing and proposed roads shown in Exhibit.

6. SOURCE OF CONSTRUCTION MATERIALS:

Dirt contractor will locate closest pit and obtain any permits and materials needed for construction of the well location.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. This well will be drilled with a closed loop system
- B. The closed loop system will be constructed, maintained, and closed in compliance with the State of New Mexico, Energy and Natural Resources Department, Oil Conservation Division – the "Pit Rule" 19.15.17 NMAC.
- C. Drilling fluids will be removed after drilling and completions are completed.
- D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted.
- E. Oil produced during operations will be stored in tanks until sold.
- F. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- G. All trash, junk, and other waste materials will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not approved.

8. ANCILLARY FACILITIES: None.

9. WELLSITE LAYOUT:

- A. Yates has staked a 420' x 420' "Pad Clearance Area." This area can contain the regularly used rigs Yates utilizes in Southeastern New Mexico. The actual pad size to be constructed would be smaller than the "Pad Clearance Area." This area was staked at this size with aid from the BLM, since the actual pad size/drilling rig is unknown at this time. Yates will submit a Sundry Notice with a rig layout depicting the actual size of the pad to be constructed with the dimensions from the well bore to all four sides of the pad with the same orientation as the "Pad Clearance Area." Yates will not construct the well pad until the rig layout is approved through the Sundry Notice.

- B. Please note exhibits Rig Size #1 and Rig Size #2 show the relative location and dimensions of the well pad, location of the drilling equipment, pulling unit orientation and access road approach. The closed loop system will be constructed, maintained, and closed in compliance with the State of New Mexico, Energy and Natural Resources Department, Oil Conservation Division – the “Pit Rule” 19.15.17 NMAC.
- C. A 600’ x 600’ area has been staked and flagged.

10. PLANS FOR RESTORATION:

- A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleaned of all trash and junk to leave the well site in as aesthetically pleasing a condition as possible. The location will be reduced to a 250’ x 250’ after completion operations have been conducted. At this point the surfacing material will be removed, location will be re-contoured to match the topography as closely as possible, soil will be redistributed and the area will be reseeded. Please note attached Reclamation Plat.
- B. If the proposed well is plugged and abandoned, all equipment and other material will be removed. The location will be cleaned of all trash and junk to leave the well site in as aesthetically pleasing a condition as possible. At this point the surfacing material will be removed, topsoil will be redistributed and the area will be reseeded. These actions will be completed and accomplished as expeditiously as possible.
- C. The reclamation of the pad will be done in sixty days if possible after the well is put in production.

11. SURFACE OWNERSHIP:

Surface Estate Bureau of Land Management  
620 East Greene Street, Carlsbad, NM 88220.

Mineral Estate: Federal Lease NM-94614  
Bureau of Land Management  
620 East Greene Street, Carlsbad, NM 88220

12. OTHER INFORMATION:

- A. Topography: Refer to the existing archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.
- B. The primary surface use is for grazing.

## PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Yates Petroleum Corporation
LEASE NO.:	NM94614
WELL NAME & NO.:	Checker BIC Federal Com 5H
SURFACE HOLE FOOTAGE:	1880' FSL & 800' FEL
BOTTOM HOLE FOOTAGE:	1980' FSL & 330' FEL
LOCATION:	Section 8, T.19S., R31E., NMPM
COUNTY:	Eddy County, New Mexico

### TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
  - Communitization Agreement
  - Pad Construction Requirement
- ☐ **Construction**
  - Notification
  - Topsoil
  - Closed Loop System
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
  - Cement Requirements
  - Logging Requirements
  - Waste Material and Fluids
- ☒ **Production (Post Drilling)**
  - Well Structures & Facilities
  - Pipelines
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment & Reclamation**

## **I. GENERAL PROVISIONS**

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

## **II. PERMIT EXPIRATION**

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

## **III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES**

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

## **IV. NOXIOUS WEEDS**

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

## **V. SPECIAL REQUIREMENT(S)**

### **Communitization Agreement:**

1. The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
2. If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
3. In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

### **Pad Construction Requirement**

- As outlined in the surface use plan of the APD, Yates has staked a 400 x 410 foot "Pad Clearance Area." This area can contain the regularly used rigs Yates utilizes in southeast New Mexico. The actual pad size to be constructed will be smaller than this "Pad Clearance Area." This area was staked at this size with aid from the BLM, since the actual pad size/drilling rig is unknown at the time of the APD submittal.
- Yates must submit a sundry notice with a rig layout depicting the actual size of pad to be constructed with dimensions from the well bore to all four sides with the same orientation as the "Pad Clearance Area", v-door facing southeast. Yates cannot construct the well pad until the rig layout is approved through the sundry notice.

## **VI. CONSTRUCTION**

### **A. NOTIFICATION**

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

### **B. TOPSOIL**

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

### **C. CLOSED LOOP SYSTEM**

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

### **D. FEDERAL MINERAL MATERIALS PIT**

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

### **E. WELL PAD SURFACING**

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

### **F. EXCLOSURE FENCING (CELLARS & PITS)**

**Exclosure Fencing**

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

**G. ON LEASE ACCESS ROADS****Road Width**

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

**Surfacing**

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

**Crowning**

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

**Ditching**

Ditching shall be required on both sides of the road.

**Turnouts**

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

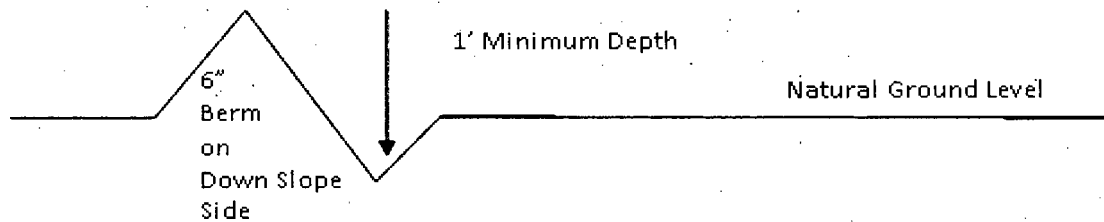
**Drainage**



Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outslowing and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

#### **Cross Section of a Typical Lead-off Ditch**



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

#### **Formula for Spacing Interval of Lead-off Ditches**

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

#### **Cattleguards**

An appropriately sized cattleguard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattleguards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguards that are in place and are utilized during lease operations.

#### **Fence Requirement**

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

#### **Public Access**

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

## Construction Steps

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes

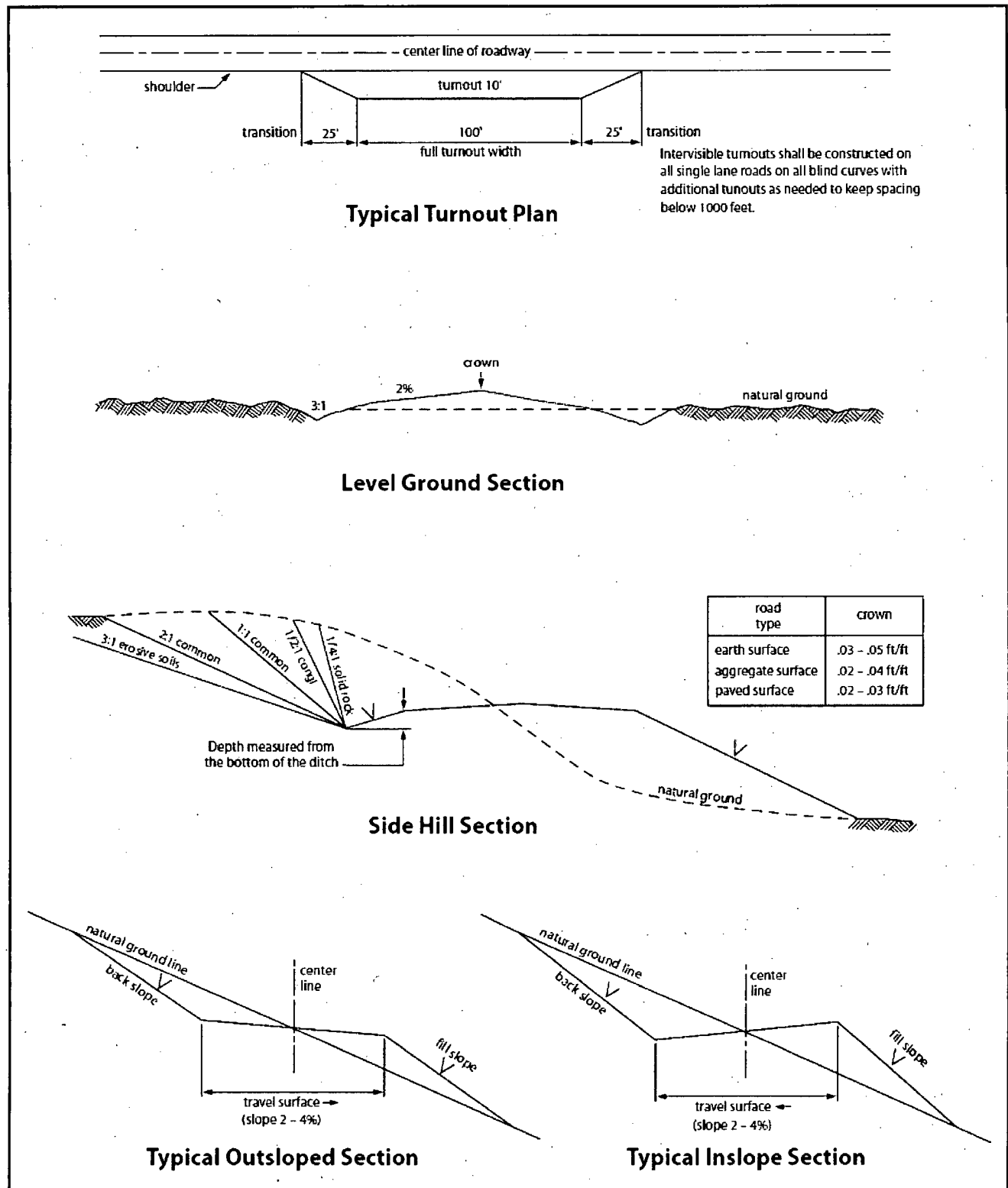


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

## VII. DRILLING

### A. DRILLING OPERATIONS 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)

☒ **Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,  
(575) 361-2822

1. **Although Hydrogen Sulfide has not been reported in the area, it is always a potential hazard. It is recommended that monitoring equipment be onsite for potential Hydrogen Sulfide. If H<sub>2</sub>S 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, report measured amounts and formations to the BLM.**
2. 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. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a “Major” violation.**
3. 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 is located, this does not include the dog house or stairway area.
4. **The record of the drilling rate along with the GR/N well log 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.**

### B. CASING

**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.**

**Centralizers required on surface casing per Onshore Order 2.III.B.1.f.**

**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. **DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE.****

**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.**

**No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.**

**Risks:**

Possibility of Water Flows in the Salado and Artesia Group.

Possibility of Lost Circulation in the Rustler, Capitan Reef, Red Beds, Delaware, and Artesia Group.

1. The 13 3/8 inch surface casing shall be set at approximately 620 feet **(in a competent bed below the Magenta Dolomite, which is a Member of the Rustler, and if salt is encountered, set casing at least 25 feet 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 is to include the lead cement slurry.**
  - 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.

**Special Capitan Reef requirements:**

**If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:**

- a. Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
  - b. Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.
2. The minimum required fill of cement behind the 9 5/8 inch intermediate casing is:  
☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.

**Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office**

3. The minimum required fill of cement behind the 5 1/2 inch production casing is:

**Operator has proposed DV tool at depth of 6000', but will adjust cement proportionately if moved. DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.**

- a. First stage to DV tool:  
☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation or approved top of cement on the next stage.
  - b. Second stage above DV tool:  
☒ Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification.
4. 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.

### C. 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 53.
2. Variance approved to use flex line from BOP to choke manifold. 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.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).
3. 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**.
4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9 5/8 inch intermediate casing shoe** shall be **5000 (5M) psi**.

**5M/10M 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.**

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. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength,

whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

- c. 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.
- d. The results of the test shall be reported to the appropriate BLM office.
- 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 if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

#### **D. DRILL STEM TEST**

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

#### **E. 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.

**MHH 08252016**

### **VIII. PRODUCTION (POST DRILLING)**

#### **A. WELL STRUCTURES & FACILITIES**

##### **Placement of Production Facilities**

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

##### **Exclosure Netting (Open-top Tanks)**

Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could

be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

#### **Chemical and Fuel Secondary Containment and Exclosure Screening**

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

#### **Open-Vent Exhaust Stack Exclosures**

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

#### **Containment Structures**

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

#### **Painting Requirement**

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

### **B. PIPELINES**

#### **STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES**

**A copy of the application (Grant, Sundry Notice, APD) and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.**

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:



1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. The holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. The holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

- a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.
- b. Activities of other parties including, but not limited to:
  - (1) Land clearing.
  - (2) Earth-disturbing and earth-moving work.
  - (3) Blasting.
  - (4) Vandalism and sabotage.
- c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars (\$1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any responsibility as provided herein.

6. All construction and maintenance activity will be confined to the authorized right-of-way width of 20 feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline must be installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline must be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity will be confined to existing roads or right-of-ways.

7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.

8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky or dune areas, the pipeline will be "snaked" around hummocks and dunes rather than suspended across these features.

9. The pipeline shall be buried with a minimum of 24 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil

conditions being encountered and which are in accordance with sound resource management practices.

12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.

14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

16. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, powerline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

17. Surface pipelines must be less than or equal to 4 inches and a working pressure below 125 psi.

18. Special Stipulations:

None.

**C. ELECTRIC LINES (Not applied for in APD)**

**IX. INTERIM RECLAMATION**

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

## **X. FINAL ABANDONMENT & RECLAMATION**

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

## Seed Mixture 2, for Sandy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)\* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law (s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed\* per acre:

<u>Species</u>	<u>lb/acre</u>
Sand dropseed ( <i>Sporobolus cryptandrus</i> )	1.0
Sand love grass ( <i>Eragrostis trichodes</i> )	1.0
Plains bristlegrass ( <i>Setaria macrostachya</i> )	2.0

\*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed

## NMOCD CONDITION OF APPROVAL

The *New!* Gas Capture Plan (GCP) notice is posted on the NMOCD website under Announcements. The Plan became effective May 1, 2016. A copy of the GCP form is included with the NOTICE and is also in our FORMS section under Unnumbered Forms. Please review filing dates for all applicable activities currently approved or pending and submit accordingly. Failure to file a GCP may jeopardize the operator's ability to obtain C-129 approval to flare gas after the initial 60-day completion period.