

OCD-ARTESIA

ATS-10-497
FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

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-27279 BHL: NM 033775	
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator Mewbourne Oil Company 14744		7. If Unit or CA Agreement, Name and No.	
3a. Address PO Box 5270 Hobbs, NM 88241		8. Lease Name and Well No. Bradley 28 Federal Com #2H (38244)	
3b. Phone No. (include area code) 575-393-5905		9. API Well No. 30-015-78228	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1580' FNL & 65' FWL Unit E At proposed prod. zone 1580' FNL & 330' FEL Unit H		10. Field and Pool, or Exploratory Santo Nino Bone Springs	
14. Distance in miles and direction from nearest town or post office* 7 miles S of Loco Hills, NM		11. Sec., T., R., M., or Blk. and Survey or Area Sec 28 - T18S - R30E	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 65'		12. County or Parish Eddy	
16. No. of Acres in lease 40		13. State NM	
17. Spacing Unit dedicated to this well 160			
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. N/A		20. BLM/BIA Bond No. on file NM1693, Nationwide	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3410' GL		22. Approximate date work will start* ASAP	
		23. Estimated duration 45	

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall 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 shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>Jackie Lathan</i>	Name (Printed/Typed) Jackie Lathan	Date 05/29/10
Title Hobbs Regulatory		
Approved by (Signature) /s/ Linda S. C. Rundell	Name (Printed/Typed) Linda S. C. Rundell	Date SEP 28 2010
Title STATE DIRECTOR NM STATE 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.

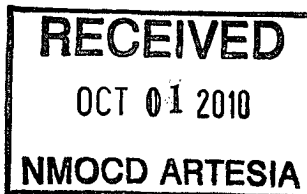
Conditions of approval, if any, are attached.

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.

*(Instructions on reverse)

SEE ATTACHED FOR
CONDITIONS OF APPROVAL



N/L-62.52

KZ 10/15/10

Capitan Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations Attached

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

Form C-102
Revised October 15, 2009

Submit one copy to appropriate
District Office

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

☐ AMENDED REPORT

API Number 30-015-38228	Pool Code 54600	Pool Name Santa Nina Bone Spring
Property Code 38244	Property Name BRADLEY "28" FEDERAL COM	Well Number 2H
OGRIID No. 1A7A4	Operator Name MEWBOURNE OIL COMPANY	Elevation 3410'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	28	18 S	30 E		1580	NORTH	65	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	28	18 S	30 E		1580	NORTH	330	EAST	EDDY

Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No. NSL 6252
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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

		<h3 style="text-align: center;">OPERATOR CERTIFICATION</h3> <p>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.</p> <p>Signature: <u>[Signature]</u> Date: <u>5/31/10</u></p> <p>Printed Name: <u>N. M. Young</u></p>
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <h4>SURFACE LOCATION</h4> <p>Lat - N 32°43'16.51" Long - W 103°59'05.37" NMSPCE - N 626279.243 E 507181.513 (NAD-27)</p> </div> <div style="width: 45%;"> <h4>PROPOSED BOTTOM HOLE LOCATION</h4> <p>Lat - N 32°43'16.42" Long - W 103°58'08.23" NMSPCE - N 626285.974 E 612063.446 (NAD-27)</p> </div> </div>		<h3 style="text-align: center;">SURVEYOR CERTIFICATION</h3> <p>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.</p> <div style="text-align: center;"> </div> <p>Date Surveyed: <u>5/31/10</u></p> <p>Signature & Seal of Professional Surveyor: <u>[Signature]</u></p>
<p>Certificate No. Gary L. Jones 7977</p> <p>BASIN SURVEYS</p>		

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

FORM APPROVED
OMB No. 1004-0135
Expires: January 31, 2004**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**SUBMIT IN TRIPLICATE - Other instructions on reverse side**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Mewbourne Oil Company 14744

3a. Address

PO Box 5270 Hobbs, NM 88240

3b. Phone No. (include area code)

575-393-5905

4. Location of Well (Footage, Sec., T, R., M., or Survey Description)

1580' FNL & 65' FWL, Unit E, Sec 28-T18S-R30E (SL)

**UNORTHODOX
LOCATION**

5. Lease Serial No.

NM-27279

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.

Bradley 28 Federal Com #2H

9. API Well No.

10. Field and Pool, or Exploratory Area

Santo Nino Bone Spring

11. County or Parish, State

Eddy County, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

TYPE OF ACTION

☒ Notice of Intent☐ Subsequent Report☐ Final Abandonment Notice☐ Acidize☐ Alter Casing☐ Casing Repair☐ Change Plans☐ Convert to Injection☐ Deepen☐ Fracture Treat☐ New Construction☐ Plug and Abandon☐ Plug Back☐ Production (Start/Resume)☐ Reclamation☐ Recomplete☐ Temporarily Abandon☐ Water Disposal☐ Water Shut-Off☐ Well Integrity☒ Other Change of Pool

3. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Mewbourne Oil Company sent in an APD for the above captioned well. After further geological review, we would like to place this in the Leo Bone Spring South Pool 37920.

If you have any questions please call Mickey Young @ 575-393-5905.

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

Jackie Lathan

Title Hobbs Regulatory

Signature

Date 06/25/10

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by (Signature) /s/ Linda S. C. Rundell

/s/ Linda S. C. Rundell
(Printed/Typed)

Title STATE DIRECTOR

Conditions of approval, if any, are attached. Approval of this notice 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.

Office

NM STATE OFFICE

Date

SEP 28 2010

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 next page)

SECTION 28, TOWNSHIP 18 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

MEWBOURNE OIL COMPANY
BRADLEY "28" FEDERAL COM #2H
ELEV. - 3410'

Lat - N 32°43'16.51"
Long - W 103°59'05.37"
NMSPCE- N 626279.243
E 507181.513
(NAD-27)

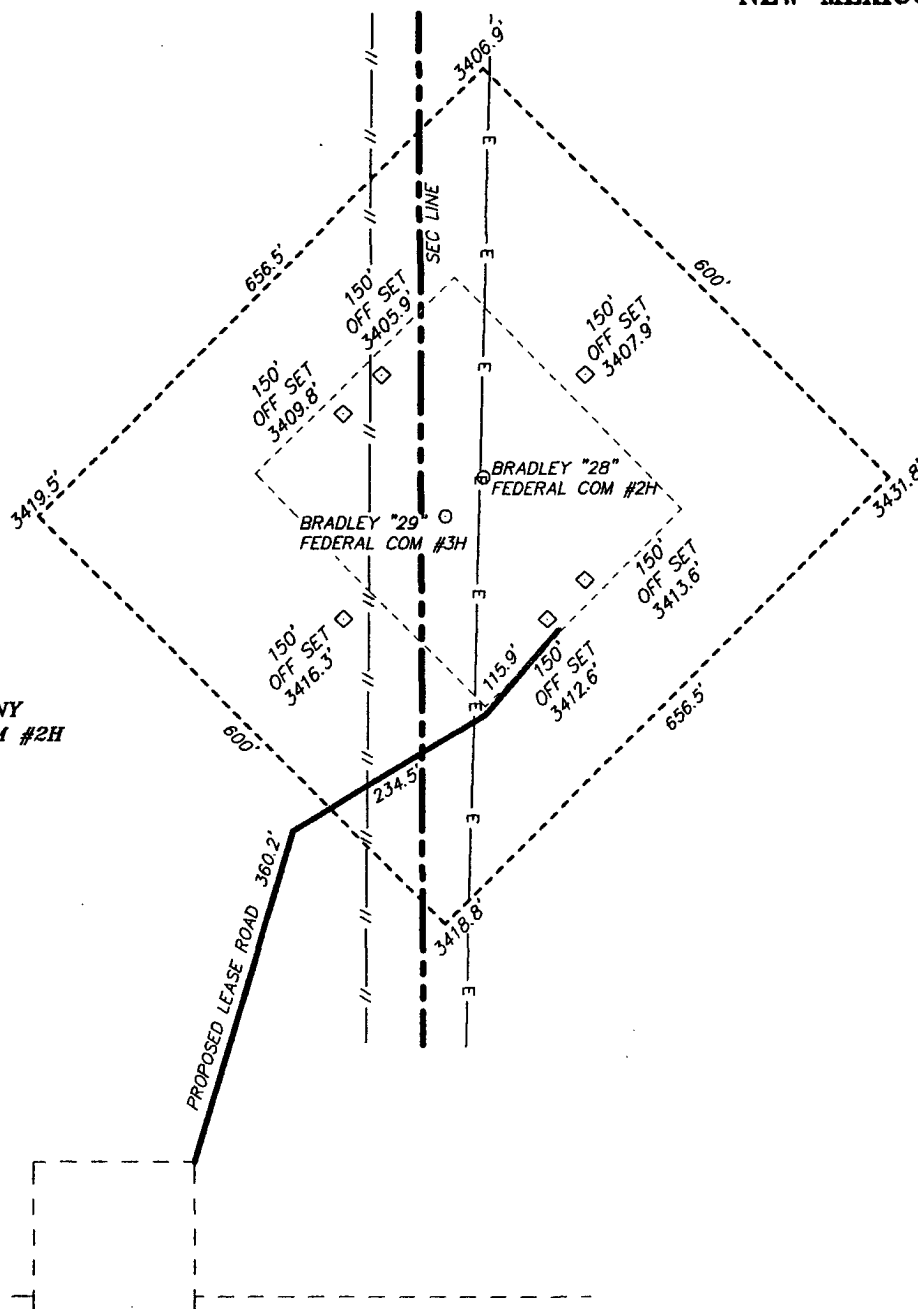


Exhibit 3

200 0 200 400 FEET
SCALE: 1" = 200'

Directions to Location:

FROM THE JUNCTION OF GRUBBS AND DUVAL SHAFT,
GO NORTH ON DUVAL SHAFT FOR 1.1 MILES TO
LEASE ROAD, ON LEASE ROAD GO WEST 1.2 MILES
TO WELL PAD AND PROPOSED LEASE ROAD.

BASIN SURVEYS P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 22654 Drawn By: J. SMALL

Date: 05-03-2010 Disk: JMS 22654

MEWBOURNE OIL COMPANY

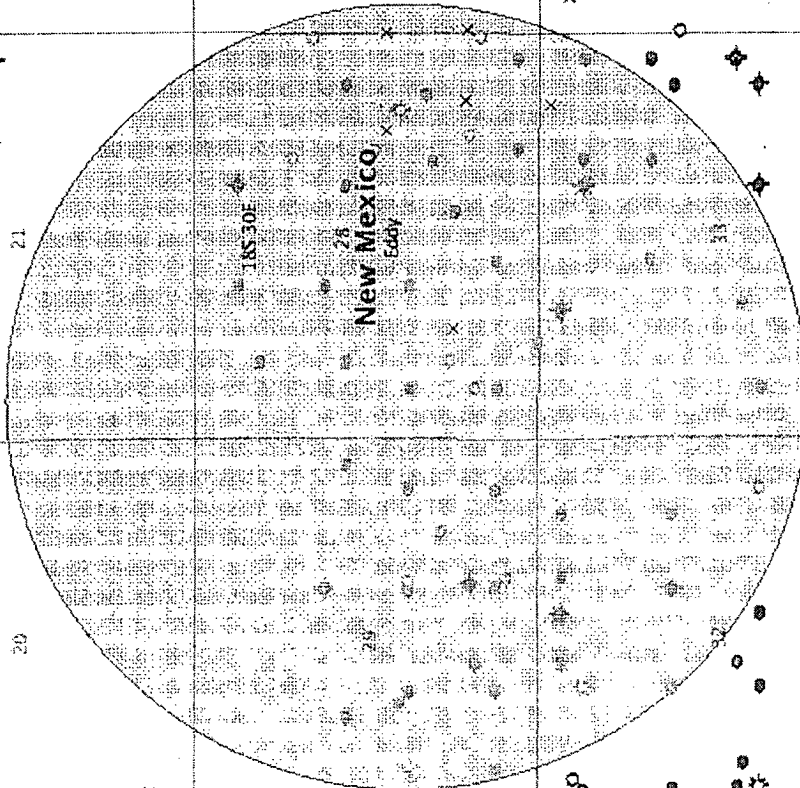
REF: BRADLEY "28" FEDERAL COM #2H / WELL PAD TOPO

THE BRADLEY "28" FEDERAL COM #2H LOCATED 1580'

FROM THE NORTH LINE AND 65' FROM THE WEST LINE OF
SECTION 28, TOWNSHIP 18 SOUTH, RANGE 30 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 04-30-2010 Sheet 1 of 1 Sheets

Wells in 1 mile Radius



Existing Road Route



Drilling Program
Mewbourne Oil Company
Bradley 28 Federal Com #2H
1580' FNL & 65' FWL (SL)
1580' FNL & 330' FEL (BHL)
Sec 28-T18S-R30E
Eddy County, New Mexico

1. The estimated tops of geological markers are as follows:

Ruster	400'
Yates	1500'
*Queen	2650'
Delware	4000'
*Bone Springs	5100'

2. Estimated depths of anticipated fresh water, oil, or gas:

Water	Fresh water will be protected by setting surface casing at 400' and cementing to surface.
Hydrocarbons	Oil and gas are anticipated in the above (*) formations. These zones will be protected by casing as necessary.

3. Pressure control equipment:

A 3000# WP Double Ram BOP and a 3000# WP Annular will be installed after running 9 5/8" surface casing. A 3000# WP Double Ram BOP and a 3000# WP Annular will be installed after running 7" casing. Pressure tests will be conducted prior to drilling out under all casing strings. BOP controls will be installed prior to drilling under surface casing and will remain in use until completion of drilling operations. BOP's will be inspected and operated daily to insure mechanical integrity and the inspection will be recorded on the daily drilling report.

Kelly cock and a sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position when the kelly is not in use.

***4. Proposed casing and cementing program:**

A. Casing Program:

Hole Size	Casing	Wt/Ft.	Grade	Depth	Jt Type
12 1/4"	9 5/8" (new)	36#	J55	0- 400 330	ST&C
8 3/4"	7" (new)	26#	P110	0-8500'	B&L/TC
6 1/8"	4 1/2" Liner (new)	11.6#	P110	8300-12869'	LT&C

Minimum casing design factors: Collapse 1.125, Burst 1.0, Tensile strength 1.8.

*Subject to availability of casing.

Per Operator
8-19-10
DN

See
COA

B. Cementing Program

- i. Surface Casing: 200 sks Class C cement containing 2% CaCl. Yield at 1.34 cuft/sk. Cmt circulated to surface.
- ii. Intermediate Casing: 700 sacks Class H light cement with additives. Yield at 1.98 cuft/sk. 400 sacks Class H cement Containing FLA. Yield at 1.18 cuft/sk. Cmt circulated to surface.
- ii. Production Liner: This will be a Packer/Port completion from TD up inside 7" casing with packer type liner hanger.

5. Mud Program:

Interval	Type System	Weight	Viscosity	Fluid Loss
330' 0'-400'	FW spud mud	8.6-9.4	32-34	NA
400'-8500'	Brine water	10.0-10.2	28-30	NA
8500' TD	FW mud w/ polymer	8.5-8.7	30-32	15

6. Evaluation Program:

See COA

Samples: 10' samples from surface casing to TD
Logging: Gyro & GR only
Coring: As needed for evaluation
Drill Stem Tests: As needed for evaluation

7. Downhole Conditions

Zones of abnormal pressure: None anticipated
Zones of lost circulation: Anticipated in surface hole
Maximum bottom hole temperature: 125 degree F
Maximum bottom hole pressure: 8.34 lbs/gal gradient or less

8. Anticipated Starting Date:

Mewbourne Oil Company intends to drill this well as soon as possible after receiving approval with approximately 45 days involved in drilling operations and an additional 10 days involved in completion operations on the project.



Mewbourne Oil Company

Mewbourne Oil Company

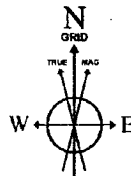
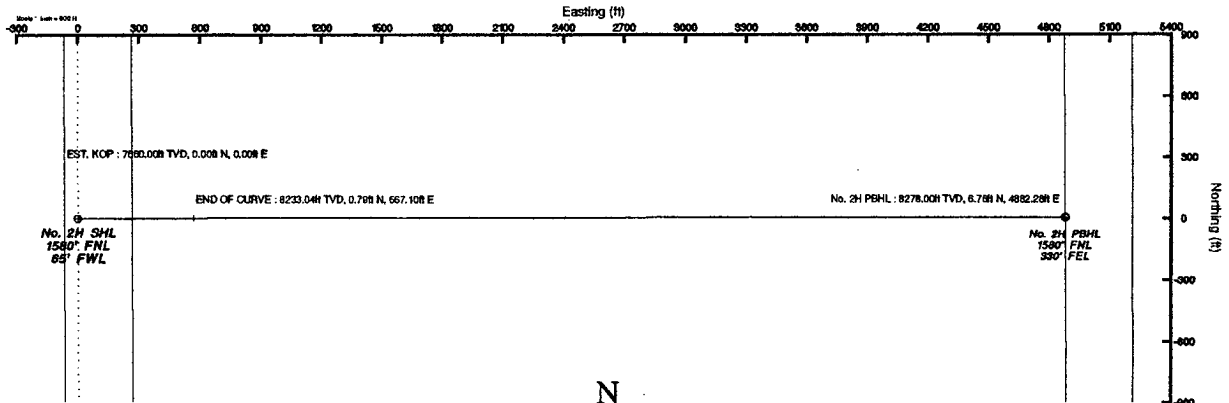
Location: Eddy County, NM
Field: (Bradley) Sec 28, T18S, R30E
Facility: Bradley 28 Fed Com No. 2H

Slot: No. 2H SHL
Well: No. 2H
Wellbore: No. 2H PWB



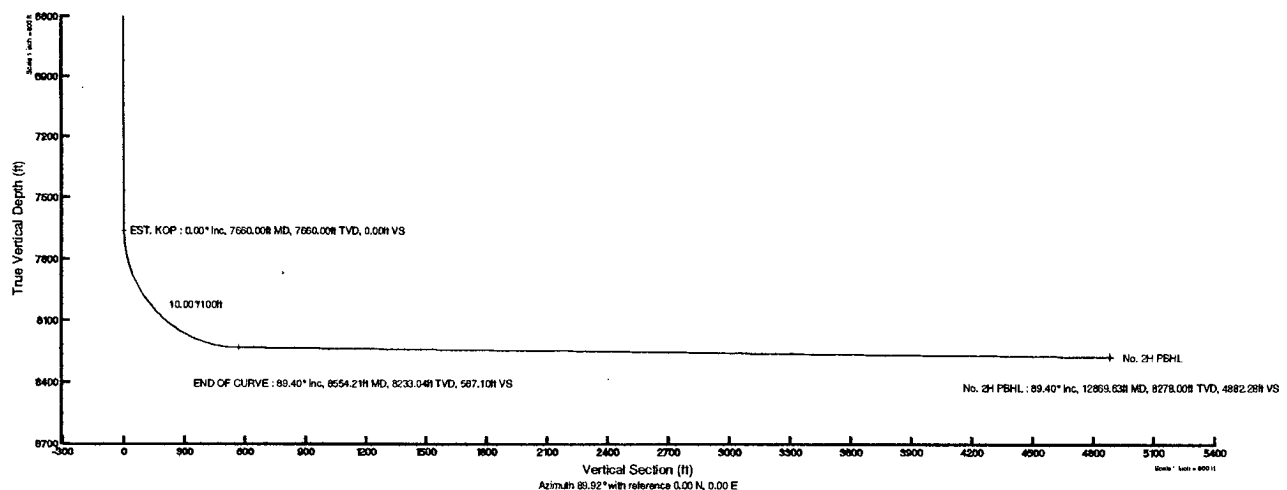
Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	89.921	0.00	0.00	0.00	0.00	0.00
EST. KOP	7660.00	0.000	89.921	7660.00	0.00	0.00	0.00	0.00
END OF CURVE	8554.21	89.403	89.921	8233.04	0.79	567.10	10.00	567.10
No. 2H PBHL	12869.63	89.403	89.921	8278.00	6.78	4882.28	0.00	4882.28



BGGM (1945.0 to 2011.0) Dip: 60.62° Field: 49039.6 nT
Magnetic North is 7.99 degrees East of True North (at 5/24/2010)
Grid North is 0.19 degrees East of True North
To correct azimuth from True to Grid subtract 0.19 degrees
To correct azimuth from Magnetic to Grid add 7.80 degrees
For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.80 = 97.80

Plot reference wellpath is Plan #1	
True vertical depths are referenced to Rig on No. 2H SHL (KB)	Grid System: NAD27 / TM New Mexico State Planes, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No. 2H SHL (KB)	North Reference: Grid north
Rig on No. 2H SHL (KB) to Mean Sea Level: 3428 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: Bradley 28 Fed Com No. 2H): -3410 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: Victor Hernandez on 5/24/2010



Planned Wellpath Report

Plan #1
Page 1 of 4



REFERENCE WELLPATH IDENTIFICATION

Operator	Mewbourne Oil Company	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(Bradley) Sec 28, T18S, R30E	Wellbore	No. 2H PWB
Facility	Bradley 28 Fed Com No. 2H		

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Victor Hernandez
Scale	0.999922	Report Generated	5/24/2010 at 3:27:03 PM
Convergence at slot	0.19° East	Database/Source file	WellArchitectDB/No. 2H_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	607181.51	626279.24	32°43'16.513"N	103°59'05.373"W
Facility Reference Pt			607181.51	626279.24	32°43'16.513"N	103°59'05.373"W
Field Reference Pt			607181.51	626279.24	32°43'16.513"N	103°59'05.373"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 2H SHL (KB) to GL	18.00ft
Horizontal Reference Pt	Slot	Rig on No. 2H SHL (KB) to Mean Sea Level	3428.00ft
Vertical Reference Pt	Rig on No. 2H SHL (KB)	GL to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 2H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	89.92°

Planned Wellpath Report

Plan #1
Page 2 of 4

REFERENCE WELLPATH IDENTIFICATION

Operator	Mewbourne Oil Company	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(Bradley) Sec 28, T18S, R30E	Wellbore	No. 2H PWB
Facility	Bradley 28 Fed Com No. 2H		

WELLPATH DATA (56 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	89.921	0.00	0.00	0.00	0.00	607181.51	626279.24	32°43'16.513"N	103°59'05.373"W	0.00	Tie On
7660.00	0.000	89.921	7660.00	0.00	0.00	0.00	607181.51	626279.24	32°43'16.513"N	103°59'05.373"W	0.00	EST. KOP
7760.00†	9.998	89.921	7759.49	8.70	0.01	8.70	607190.21	626279.25	32°43'16.513"N	103°59'05.271"W	10.00	
7860.00†	19.996	89.921	7855.96	34.55	0.05	34.55	607216.05	626279.29	32°43'16.512"N	103°59'04.969"W	10.00	
7960.00†	29.994	89.921	7946.48	76.75	0.11	76.75	607258.25	626279.35	32°43'16.512"N	103°59'04.475"W	10.00	
8060.00†	39.992	89.921	8028.30	134.02	0.19	134.02	607315.52	626279.43	32°43'16.511"N	103°59'03.805"W	10.00	
8160.00†	49.990	89.921	8098.93	204.63	0.28	204.63	607386.13	626279.52	32°43'16.509"N	103°59'02.978"W	10.00	
8260.00†	59.988	89.921	8156.24	286.43	0.40	286.43	607467.92	626279.64	32°43'16.508"N	103°59'02.021"W	10.00	
8360.00†	69.986	89.921	8198.46	376.94	0.52	376.94	607558.42	626279.76	32°43'16.506"N	103°59'00.961"W	10.00	
8460.00†	79.984	89.921	8224.34	473.40	0.66	473.40	607654.87	626279.90	32°43'16.504"N	103°58'59.832"W	10.00	
8554.21	89.403	89.921	8233.04	567.10	0.79	567.10	607748.57	626280.03	32°43'16.502"N	103°58'58.736"W	10.00	END OF CURVE
8560.00†	89.403	89.921	8233.10	572.89	0.79	572.89	607754.36	626280.03	32°43'16.502"N	103°58'58.668"W	0.00	
8660.00†	89.403	89.921	8234.14	672.89	0.93	672.89	607854.34	626280.17	32°43'16.500"N	103°58'57.497"W	0.00	
8760.00†	89.403	89.921	8235.19	772.88	1.07	772.88	607954.33	626280.31	32°43'16.498"N	103°58'56.327"W	0.00	
8860.00†	89.403	89.921	8236.23	872.88	1.21	872.88	608054.32	626280.45	32°43'16.497"N	103°58'55.157"W	0.00	
8960.00†	89.403	89.921	8237.27	972.87	1.35	972.87	608154.30	626280.59	32°43'16.495"N	103°58'53.986"W	0.00	
9060.00†	89.403	89.921	8238.31	1072.87	1.49	1072.86	608254.29	626280.73	32°43'16.493"N	103°58'52.816"W	0.00	
9160.00†	89.403	89.921	8239.35	1172.86	1.62	1172.86	608354.27	626280.86	32°43'16.491"N	103°58'51.646"W	0.00	
9260.00†	89.403	89.921	8240.39	1272.85	1.76	1272.85	608454.26	626281.00	32°43'16.489"N	103°58'50.475"W	0.00	
9360.00†	89.403	89.921	8241.44	1372.85	1.90	1372.85	608554.25	626281.14	32°43'16.487"N	103°58'49.305"W	0.00	
9460.00†	89.403	89.921	8242.48	1472.84	2.04	1472.84	608654.23	626281.28	32°43'16.485"N	103°58'48.134"W	0.00	
9560.00†	89.403	89.921	8243.52	1572.84	2.18	1572.84	608754.22	626281.42	32°43'16.483"N	103°58'46.964"W	0.00	
9660.00†	89.403	89.921	8244.56	1672.83	2.32	1672.83	608854.21	626281.56	32°43'16.481"N	103°58'45.794"W	0.00	
9760.00†	89.403	89.921	8245.60	1772.83	2.45	1772.83	608954.19	626281.69	32°43'16.479"N	103°58'44.623"W	0.00	
9860.00†	89.403	89.921	8246.65	1872.82	2.59	1872.82	609054.18	626281.83	32°43'16.477"N	103°58'43.453"W	0.00	
9960.00†	89.403	89.921	8247.69	1972.82	2.73	1972.81	609154.17	626281.97	32°43'16.475"N	103°58'42.282"W	0.00	
10060.00†	89.403	89.921	8248.73	2072.81	2.87	2072.81	609254.15	626282.11	32°43'16.473"N	103°58'41.112"W	0.00	
10160.00†	89.403	89.921	8249.77	2172.81	3.01	2172.80	609354.14	626282.25	32°43'16.471"N	103°58'39.942"W	0.00	
10260.00†	89.403	89.921	8250.81	2272.80	3.15	2272.80	609454.13	626282.39	32°43'16.470"N	103°58'38.771"W	0.00	
10360.00†	89.403	89.921	8251.85	2372.79	3.29	2372.79	609554.11	626282.53	32°43'16.468"N	103°58'37.601"W	0.00	

Planned Wellpath Report

Plan #1
Page 3 of 4

REFERENCE WELLPATH IDENTIFICATION			
Operator	Mewbourne Oil Company	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(Bradley) Sec 28, T18S, R30E	Wellbore	No. 2H PWB
Facility	Bradley 28 Fed Com No. 2H		

WELLPATH DATA (56 stations) † = interpolated/extrapolated station												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10460.00†	89.403	89.921	8252.90	2472.79	3.42	2472.79	609654.10	626282.66	32°43'16.466"N	103°58'36.430"W	0.00	
10560.00†	89.403	89.921	8253.94	2572.78	3.56	2572.78	609754.09	626282.80	32°43'16.464"N	103°58'35.260"W	0.00	
10660.00†	89.403	89.921	8254.98	2672.78	3.70	2672.78	609854.07	626282.94	32°43'16.462"N	103°58'34.090"W	0.00	
10760.00†	89.403	89.921	8256.02	2772.77	3.84	2772.77	609954.06	626283.08	32°43'16.460"N	103°58'32.919"W	0.00	
10860.00†	89.403	89.921	8257.06	2872.77	3.98	2872.76	610054.05	626283.22	32°43'16.458"N	103°58'31.749"W	0.00	
10960.00†	89.403	89.921	8258.11	2972.76	4.12	2972.76	610154.03	626283.36	32°43'16.456"N	103°58'30.579"W	0.00	
11060.00†	89.403	89.921	8259.15	3072.76	4.25	3072.75	610254.02	626283.49	32°43'16.454"N	103°58'29.408"W	0.00	
11160.00†	89.403	89.921	8260.19	3172.75	4.39	3172.75	610354.01	626283.63	32°43'16.452"N	103°58'28.238"W	0.00	
11260.00†	89.403	89.921	8261.23	3272.75	4.53	3272.74	610453.99	626283.77	32°43'16.450"N	103°58'27.067"W	0.00	
11360.00†	89.403	89.921	8262.27	3372.74	4.67	3372.74	610553.98	626283.91	32°43'16.448"N	103°58'25.897"W	0.00	
11460.00†	89.403	89.921	8263.31	3472.73	4.81	3472.73	610653.96	626284.05	32°43'16.446"N	103°58'24.727"W	0.00	
11560.00†	89.403	89.921	8264.36	3572.73	4.95	3572.73	610753.95	626284.19	32°43'16.444"N	103°58'23.556"W	0.00	
11660.00†	89.403	89.921	8265.40	3672.72	5.09	3672.72	610853.94	626284.33	32°43'16.442"N	103°58'22.386"W	0.00	
11760.00†	89.403	89.921	8266.44	3772.72	5.22	3772.71	610953.92	626284.46	32°43'16.440"N	103°58'21.215"W	0.00	
11860.00†	89.403	89.921	8267.48	3872.71	5.36	3872.71	611053.91	626284.60	32°43'16.438"N	103°58'20.045"W	0.00	
11960.00†	89.403	89.921	8268.52	3972.71	5.50	3972.70	611153.90	626284.74	32°43'16.436"N	103°58'18.875"W	0.00	
12060.00†	89.403	89.921	8269.57	4072.70	5.64	4072.70	611253.88	626284.88	32°43'16.434"N	103°58'17.704"W	0.00	
12160.00†	89.403	89.921	8270.61	4172.70	5.78	4172.69	611353.87	626285.02	32°43'16.432"N	103°58'16.534"W	0.00	
12260.00†	89.403	89.921	8271.65	4272.69	5.92	4272.69	611453.86	626285.16	32°43'16.430"N	103°58'15.363"W	0.00	
12360.00†	89.403	89.921	8272.69	4372.69	6.05	4372.68	611553.84	626285.29	32°43'16.428"N	103°58'14.193"W	0.00	
12460.00†	89.403	89.921	8273.73	4472.68	6.19	4472.68	611653.83	626285.43	32°43'16.426"N	103°58'13.023"W	0.00	
12560.00†	89.403	89.921	8274.77	4572.68	6.33	4572.67	611753.82	626285.57	32°43'16.424"N	103°58'11.852"W	0.00	
12660.00†	89.403	89.921	8275.82	4672.67	6.47	4672.67	611853.80	626285.71	32°43'16.422"N	103°58'10.682"W	0.00	
12760.00†	89.403	89.921	8276.86	4772.66	6.61	4772.66	611953.79	626285.85	32°43'16.420"N	103°58'09.512"W	0.00	
12860.00†	89.403	89.921	8277.90	4872.66	6.75	4872.65	612053.78	626285.99	32°43'16.418"N	103°58'08.341"W	0.00	
12869.63	89.403	89.921	8278.00 ¹	4882.28	6.76	4882.28	612063.40	626286.00	32°43'16.418"N	103°58'08.228"W	0.00	No. 2H PBHL

Planned Wellpath Report

Plan #1
Page 4 of 4

REFERENCE WELLPATH IDENTIFICATION

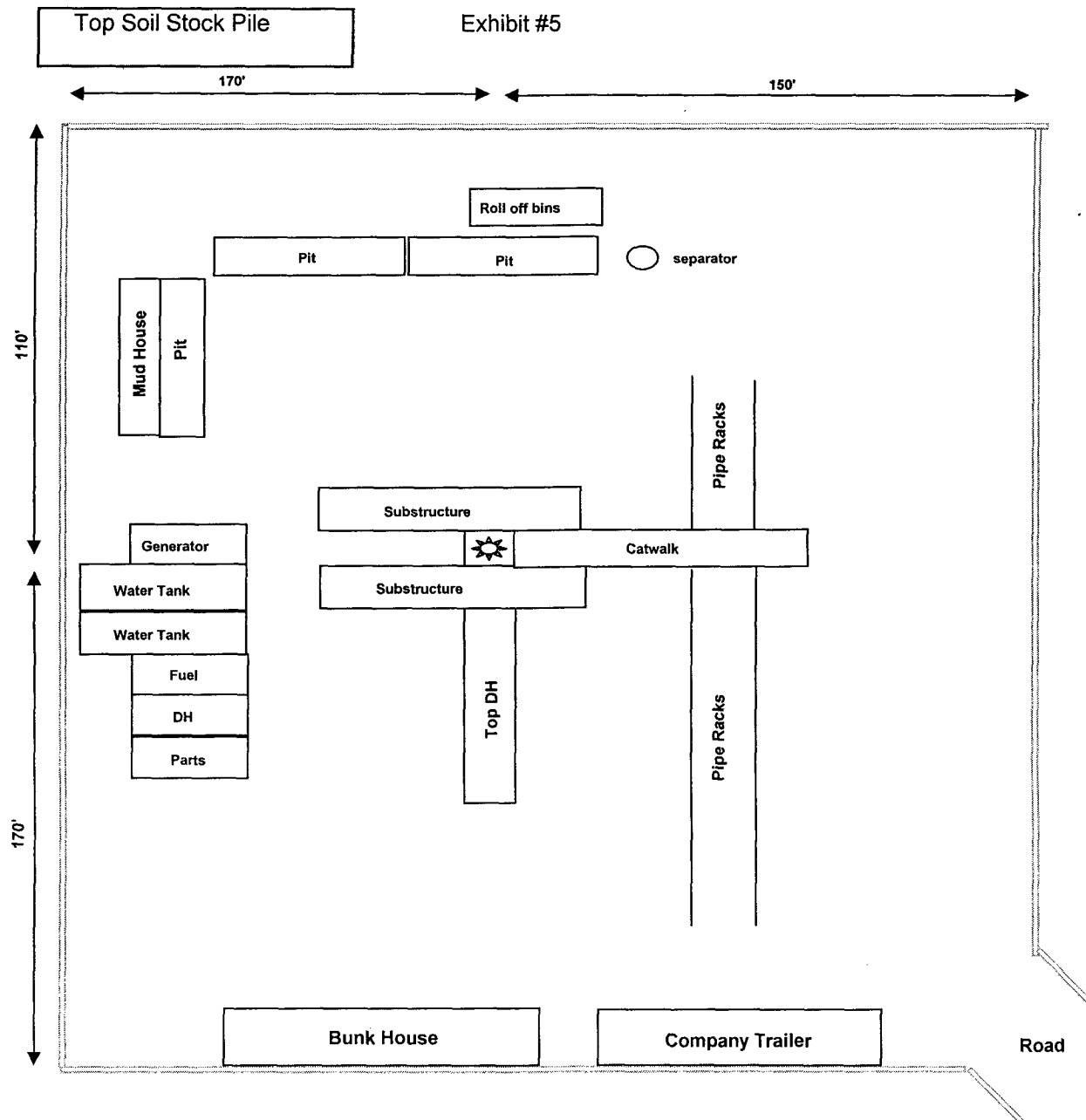
Operator	Mewbourne Oil Company	Slot	No. 2H SHL
Area	Eddy County, NM	Well	No. 2H
Field	(Bradley) Sec 28, T18S, R30E	Wellbore	No. 2H PWB
Facility	Bradley 28 Fed Com No. 2H		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 2H PBHL	12869.63	8278.00	6.76	4882.28	612063.40	626286.00	32°43'16.418"N	103°58'08.228"W	point

SURVEY PROGRAM Ref Wellbore: No. 2H PWB Ref Wellpath: Plan #1

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
18.00	12869.63	NaviTrak (Standard)		No. 2H PWB



Bradley 28 Fed Com #2H
Planned Drilling Location
with Closed Loop Design

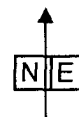
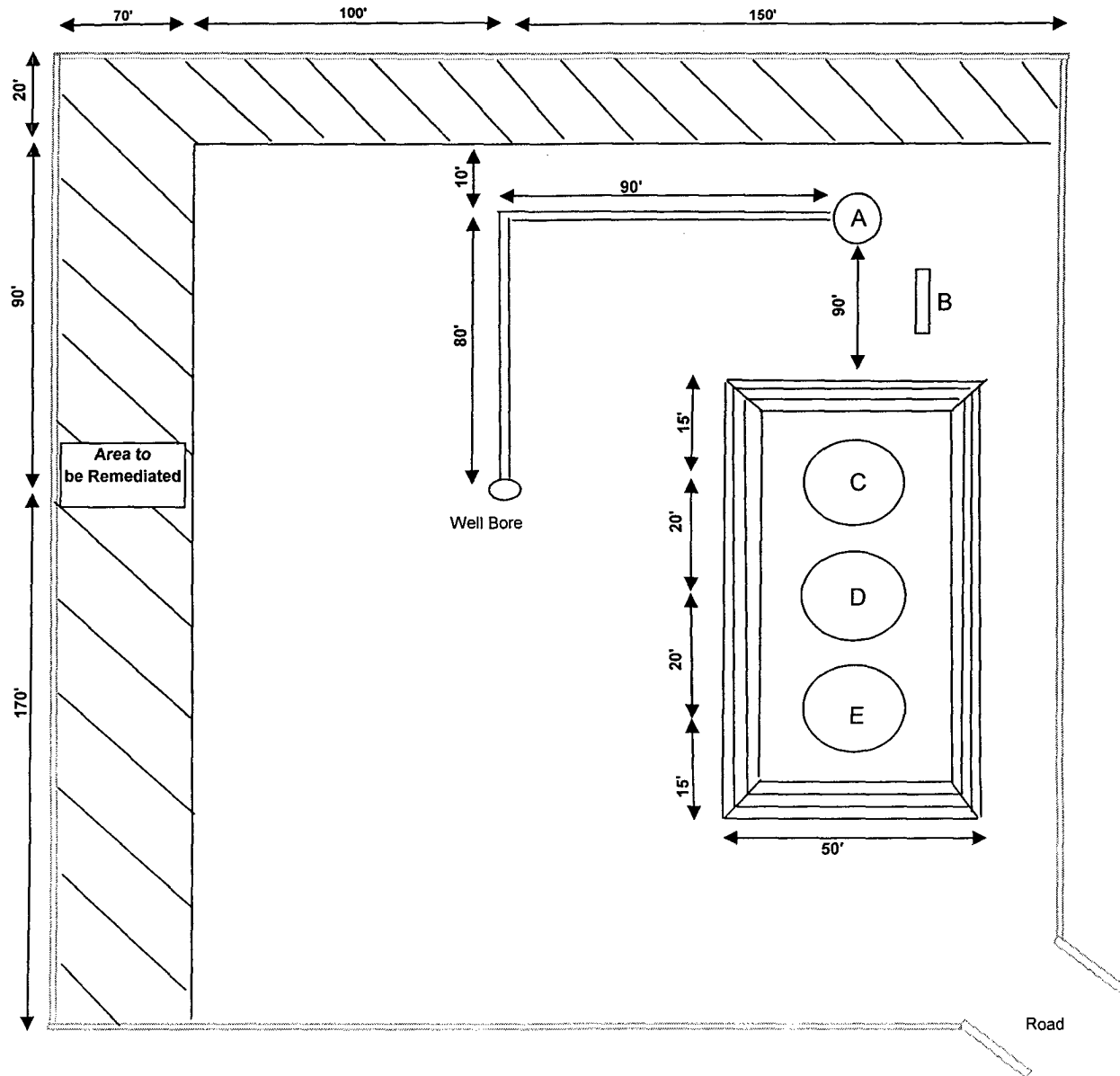
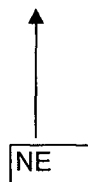


Exhibit # 6



Bradley 28 FedCom #2H	
Planned Completion Location After Remediation	
Mark	Description
A	Stack Pack
B	3" Meter Run
D	500 bbl fiberglass water Tank
C	500 bbl steel Oil Tank
E	500 bbl steel Oil Tank



Notes Regarding Blowout Preventer

Mewbourne Oil Company

Bradley 28 Federal Com #2H

1580' FNL & 65' FWL (SL)

Sec 28-T18S-R30E

Eddy 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 3000 psi working pressure on 9 5/8" casing and 3000 psi working pressure on 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.

Mewbourne Oil Company
BOP Schematic for
8 3/4" or 7 7/8" Hole

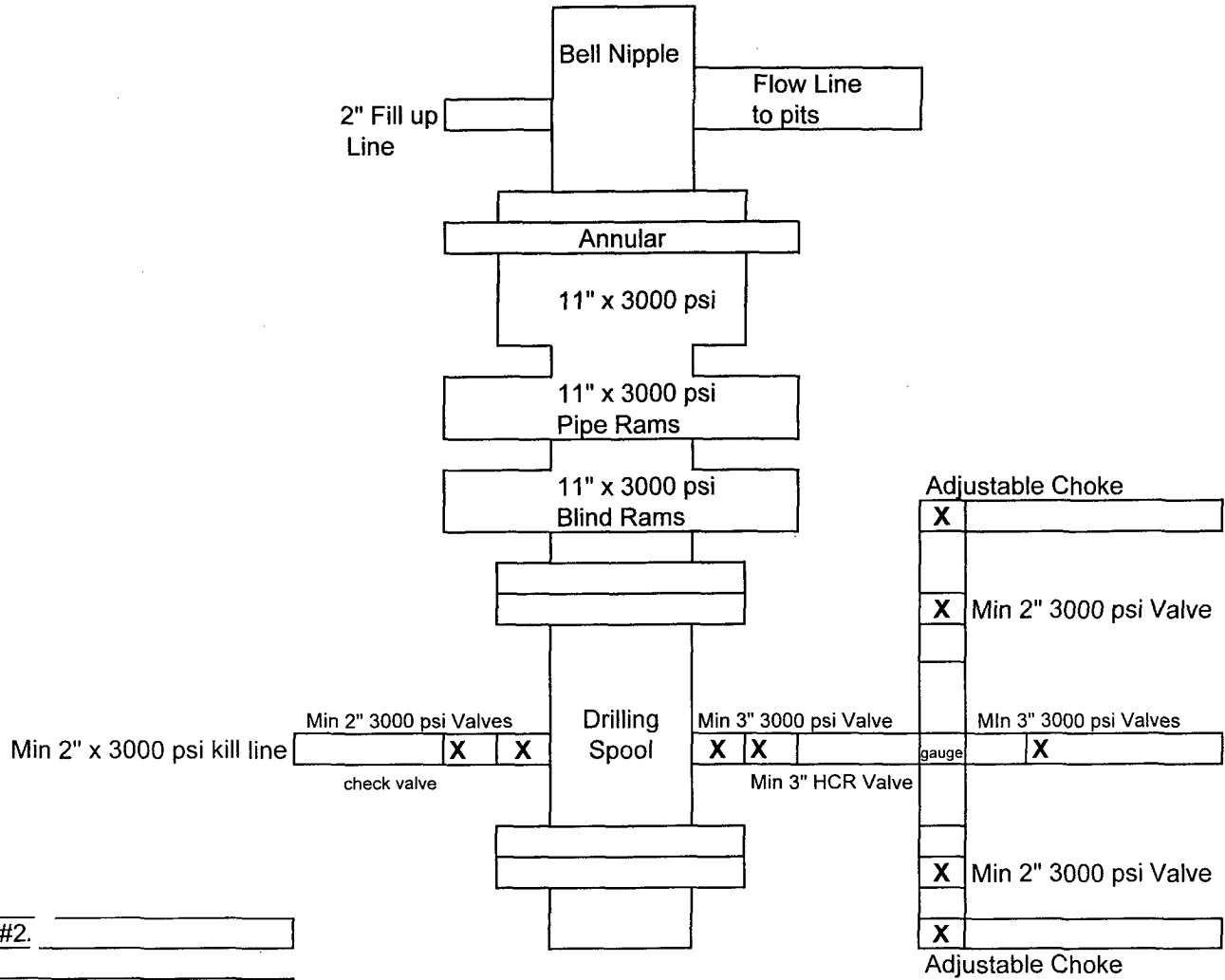


Exhibit #2. _____

Bradley 28 Federal Com #2H
1580' FNL & 65' FWL
Sec 28-T18S-R30E
Eddy, County
New Mexico

Mewbourne Oil Company
BOP Schematic for
6 1/8" Hole

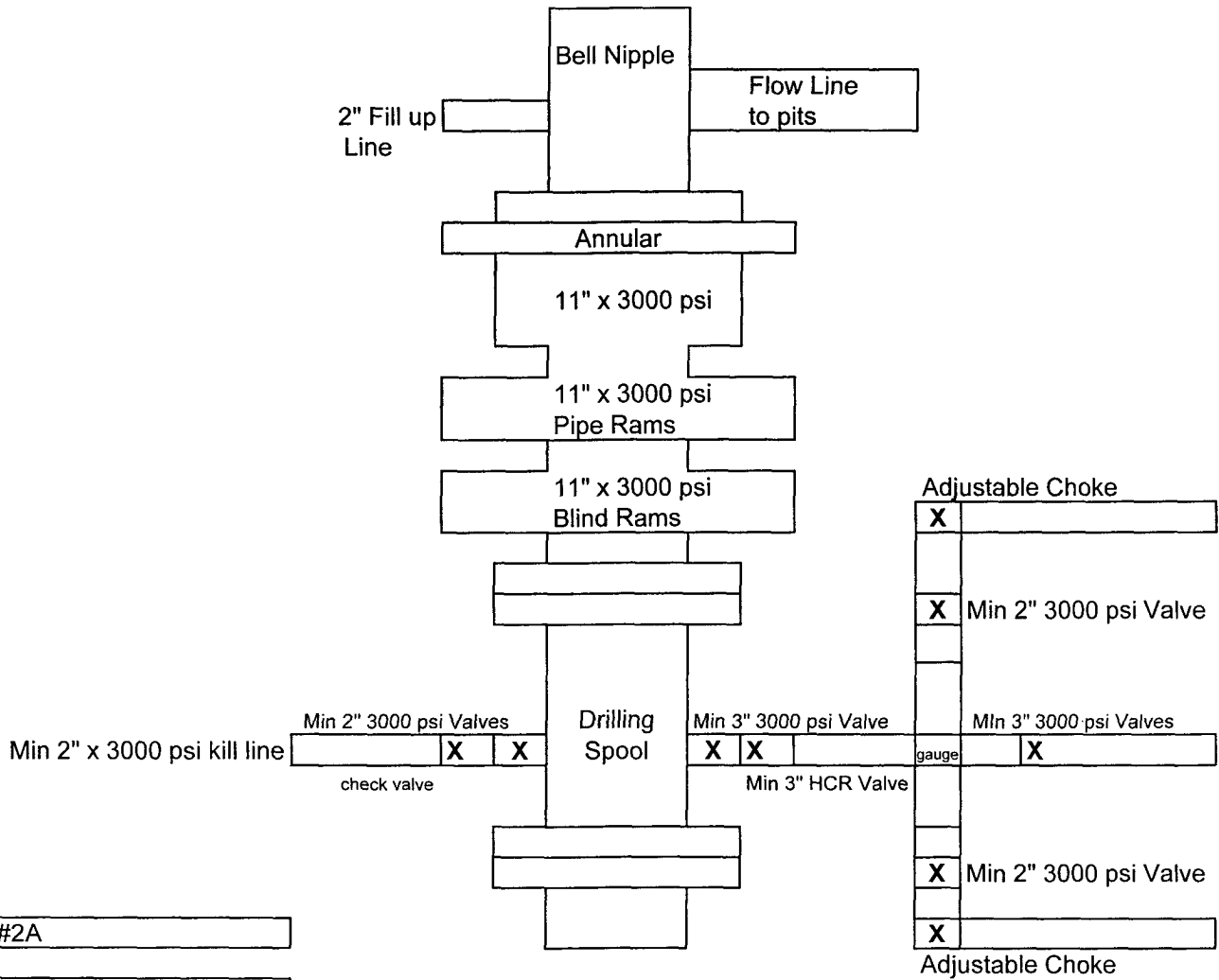
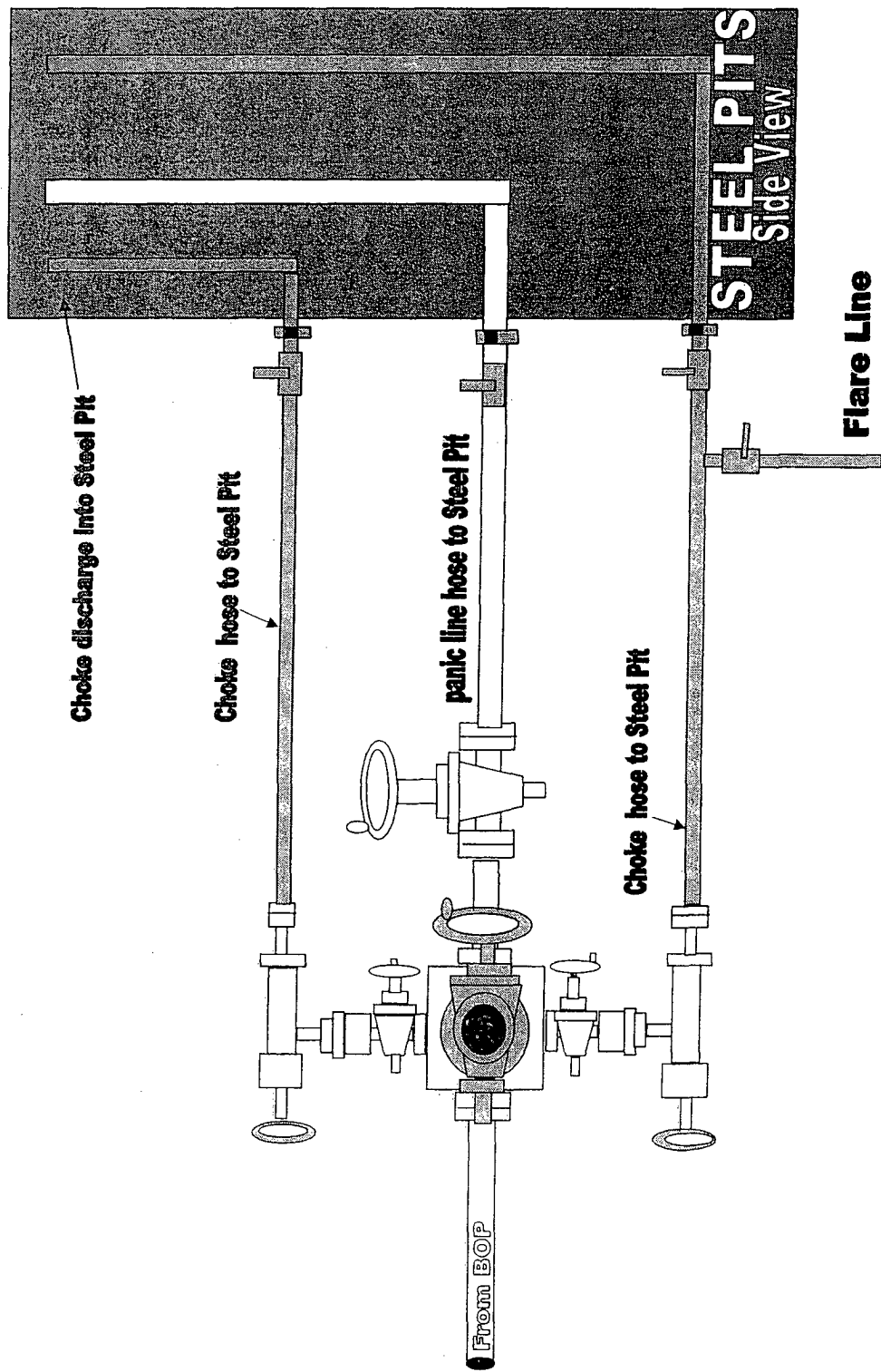


Exhibit #2A

Bradley 28 Federal Com #2H
1580' FNL & 65' FWL
Sec 28-T18S-R30E
Eddy, County
New Mexico



2000#/3000#BOP manifold system

For Exhibit 2 + 2A

Exhibit #4
Status of Wells in Immediate Vicinity
Mewbourne Oil Company
Bradley 28 Federal Com #2H
1580' FNL & 65' FWL
Sec 28-T18S-R30E
Eddy County, New Mexico

Section 28-T18S-R30E

Operator: Arena Resources, Inc
Well Name: North Benson Queen Unit #9
Unit letter: F
Status: Producing
Field: North Benson Queen

Operator: Arena Resources, Inc
Well Name: North Benson Queen Unit #1
Unit letter: C
Status: Producing
Field: North Benson Queen

Operator: Arena Resources, Inc
Well Name: North Benson Queen Unit #7
Unit letter: H
Status: Producing
Field: North Benson Queen

Hydrogen Sulfide Drilling Operations Plan

Mewbourne Oil Company
Bradley 28 Federal Com #2H
1580' FNL & 65' FWL
Sec 28-T18S-R30E
Eddy County, New Mexico

1. General Requirements

Rule 118 does not apply to this well because MOC has researched this area and no high concentrations of H₂S were found. MOC will have on location and working all H₂S safety equipment before the Yates formation for purposes of safety and insurance requirements.

2. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will have received training from a qualified instructor in the following areas prior to entering the drilling pad area of the well:

1. The hazards and characteristics of hydrogen sulfide gas.
2. The proper use of personal protective equipment and life support systems.
3. The proper use of hydrogen sulfide detectors, alarms, warning systems, briefing areas, evacuation procedures.
4. The proper techniques for first aid and rescue operations.

Additionally, supervisory personnel will be trained in the following areas:

- 1 The effects of hydrogen sulfide on metal components. If high tensile tubular systems are utilized, supervisory personnel will be trained in their special maintenance requirements.
- 2 Corrective action and shut in procedures, blowout prevention, and well control procedures while drilling a well.
- 3 The contents of the Hydrogen Sulfide Drilling Operations Plan.

There will be an initial training session prior to encountering a known hydrogen sulfide source. The initial training session shall include a review of the site specific Hydrogen Sulfide Drilling Operations Plan.

3. Hydrogen Sulfide Safety Equipment and Systems

All hydrogen sulfide safety equipment and systems will be installed, tested, and operational prior to drilling below the intermediate casing.

1. Well Control Equipment
 - A. Flare line with automatic igniter or continuous ignition source.
 - B. Choke manifold with minimum of one adjustable choke.
 - C. Blowout preventers equipped with blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
 - D. Auxiliary equipment including a 1/2 annular type blowout preventer.
2. Protective Equipment for Essential Personnel

Thirty minute self contained work unit located at briefing area as indicated on wellsite diagram.

3. Hydrogen Sulfide Protection and Monitoring Equipment

Two portable hydrogen sulfide monitors positioned on location for optimum coverage and detection. The units shall have audible sirens to notify personnel when hydrogen sulfide levels exceed 20 PPM.

4. Visual Warning Systems

A. Wind direction indicators as indicated on the wellsite diagram.

B. Caution signs shall be posted on roads providing access to location. Signs shall be painted a high visibility color with lettering of sufficient size to be readable at reasonable distances from potentially contaminated areas.

4. **Mud Program**

The mud program has been designed to minimize the amount of hydrogen sulfide entrained in the mud system. Proper mud weight, safe drilling practices, and the use of hydrogen sulfide scavengers will minimize hazards while drilling the well.

5. **Metallurgy**

All tubular systems, wellheads, blowout preventers, drilling spools, kill lines, choke manifolds, and valves shall be suitable for service in a hydrogen sulfide environment when chemically treated.

6. **Communications**

State & County Officials phone numbers are posted on rig floor and supervisors trailer. Communications in company vehicles and toolpushers are either two way radios or cellular phones.

7. **Well Testing**

Drill stem testing is not an anticipated requirement for evaluation of this well. A drill stem test is required, it will be conducted with a minimum number of personnel in the immediate vicinity. The test will be conducted during daylight hours only.

8. **Emergency Phone Numbers**

Eddy County Sheriff's Office	911 or 575-887-7551
Ambulance Service	911 or 575-885-2111
Carlsbad Fire Dept	911 or 575-885-2111
Loco Hills Volunteer Fire Dept.	911 or 575-677-3266
Closest Medical Facility - Columbia Medical Center of Carlsbad	575-492-5000

Mewbourne Oil Company	Hobbs District Office	575-393-5905
	Fax	575-397-6252
	2 nd Fax	575-393-7259

District Manager	Micky Young	575-390-0999
Drilling Superintendent	Frosty Lathan	575-390-4103
Drilling Foreman	Wesley Noseff	575-441-0729

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

MEWBOURNE OIL COMPANY

Bradley 28 Federal Com #2H

1580' FNL & 65' FWL

Sec 28-T18S-R30E

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 restoring the surface so that a complete appraisal can be made of the environmental impact associated with the proposed operations.

1. Existing Roads:

- A. Exhibit #3 is a road map showing the location of the proposed well. Existing roads are highlighted in black and proposed road is highlighted in blue. Exhibit #3A is a topographic map showing the location of the proposed well and access road. Existing and proposed roads are highlighted in black.
- B. Directions to location from Carlsbad, NM: Go NE on Hwy 62/180 for 15 miles to Hwy 360. Turn North and go 13 miles to Grubbs Rd (CR 250). Turn right and go 1 mile. Turn left (West) on lease Road 0.2 mile. Turn right (North) and go 1.6 miles. Turn right (East) and go .3 mile. Turn left (North) 400' to location.

2. Proposed Access Road:

- A. 400' of new road will be needed.
- B. The maximum width of the driving surface will be 14 feet. The road will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1 foot deep with 3:1 slopes. The road will be surfaced with rolled and compacted caliche.
- C. Mewbourne Oil Co. will cooperate with other operators in the maintenance of lease roads.

3. Location of Existing Wells:

There are producing wells within the immediate vicinity of the well site. Exhibit #4 shows the proposed well and existing wells within a one mile radius.

4. Location of Existing and/or Proposed Facilities:

- A. There are no production facilities on this lease at the present time.
- B. In the event that the well is productive, production facilities will be located on the well pad.
- C. All production vessels left on location will be painted to conform with BLM painting stipulations within 180 days of installation.

5. Location and Type of Water Supply

The well will be drilled with a combination of fresh water and brine water based mud systems. The water will be obtained from commercial suppliers in the area and/or hauled to the location by transport trucks over existing and proposed roads as indicated in Exhibit #3.

6. Source of Construction Materials

All material required for construction of the drill pad and access roads will be obtained from private, state, or federal pits. The construction contractor will be solely responsible for securing construction materials required for this operation and paying any royalties that may be required on those materials.

7. Methods of Handling Waste Disposal:

- A. Drill cuttings not retained for evaluation purposed will be hauled to CRI permit# NM-010006.
- B. Water produced during operations will be hauled to Loco Hills Water Disposal permit# R-3221, or another permitted SWD in the area.
- C. If any liquid hydrocarbons are produced during operations, those liquids will be stored in suitable tanks until sold.
- D. Portable toilets will be on location during drilling operations. Waste will be disposed at an approved off-site facility.
- E. All trash, junk, and other waste materials will be stored in proper containers to prevent dispersal and will be removed to an appropriate facility within one week of cessation of drilling and completion activities.

8. Ancillary Facilities

There are no ancillary facilities within the immediate vicinity of the proposed well site.

9. Well Site Layout

- A. A diagram of the drill pad is shown in Exhibit #5. Dimensions of the pad and location of major rig components are shown.
- B. The pad dimension of 280' x 320' has been staked and flagged.
- C. An archaeological survey is in the process of being conducted on the proposed location pad.

10. Plans for Restoration of Surface

- A. Upon cessation of the proposed operations, if the well is abandoned, the location and road surfacing material will be removed and used to patch area lease roads. The entire location will be restored to the original contour as much as reasonable possible using stockpiled top soil. All trash and garbage will be hauled to appropriate disposal to assure the location is aesthetically pleasing as reasonable possible. All restoration work will be completed within 180 days of cessation of activities.
- B. The disturbed area will be restored by re-seeding during the proper growing season.
- C. Any additional caliche required for production facilities will be obtained from the area shown in exhibit #6 as interim reclamation.
- D. Within 90 days of cessation of drilling and completion operations, all equipment not necessary for production operations will be removed. The location will be cleaned of all trash and junk to assure the well site is left as aesthetically pleasing as reasonably possible.

11. Surface Ownership:

The surface is owned by BLM.

12. Other Information:

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

13. Operator's Representative:

- A. Through APD approval, drilling, completion and production operations:

N.M. Young, District Manager
Mewbourne Oil Company
PO Box 5270
Hobbs, NM 88241
575-393-5905

**United States Department of the Interior
Bureau of Land Management
Carlsbad Field Office
620 E Greene Street
Carlsbad, New Mexico 88201-1287**

Statement Accepting Responsibility for Operations

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

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

Lease Number: Lease Number #NM-27279

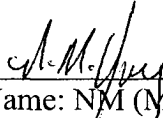
Legal Description of Land: Section 28, T-18S, R-30E Eddy County, New Mexico.
Location @ 1580' FNL & 65' FWL.

Formation (if applicable):

Bond Coverage: \$150,000

BLM Bond File: NM1693, Nationwide

Authorized Signature: _____


Name: NM (Micky) Young
Title: District Manager
Date: May 25, 2010

Mewbourne Oil Company

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

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

Executed this 25 day of May, 2010.

Name: NM Young

Signature: 

Position Title: Hobbs District Manager

Address: PO Box 5270, Hobbs NM 88241

Telephone: 575-393-5905

E-mail: myoung@mewbourne.com

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	MEWBOURNE OIL COMPANY
LEASE NO.:	NM033775
WELL NAME & NO.:	BRADLEY 28 FEDERAL COM # 2H
SURFACE HOLE FOOTAGE:	1580' FNL & 0065' FWL (Lease # NM27279)
BOTTOM HOLE FOOTAGE:	1580' FNL & 0330' FEL
LOCATION:	Section 28, T. 18 S., R 30 E., 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**
 - Lesser Prairie-Chicken Timing Stipulations
 - Ground-level Abandoned Well Marker
 - Construction Restriction
 - Communitization Agreement
- ☒ **Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
 - H₂S – Onshore Order 6
 - Casing/Cement
 - Logging Requirements
 - Waste Material and Fluids
- ☐ **Production (Post Drilling)**
 - Well Structures & Facilities
- ☐ **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)

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken:

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

Construction Restriction: All disturbing activity shall be confined to the approved well site dimensions. No disturbance shall occur outside the well site dimensions.

Communitization Agreement: A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.

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) 234-5972 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 stockpile the topsoil in a low profile manner in order to prevent wind/water erosion of the topsoil. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be used 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. 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 thirty (30) 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

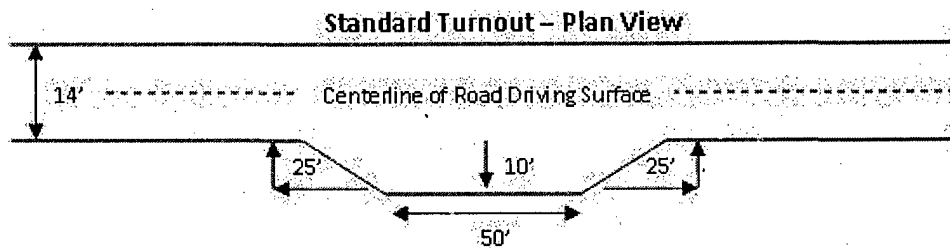
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

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 be constructed on all blind curves. Turnouts shall conform to the following diagram:

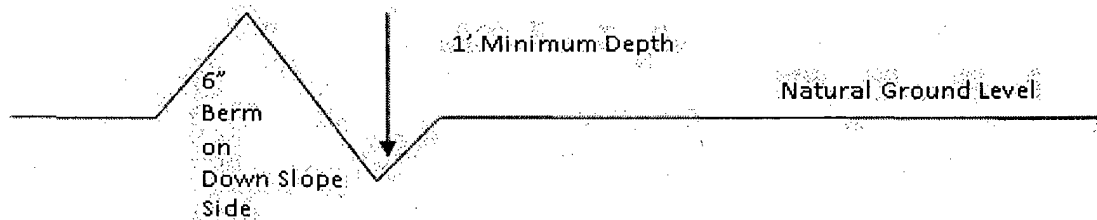


Drainage

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:

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

Culvert Installations

Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road 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 cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

Fence Requirement

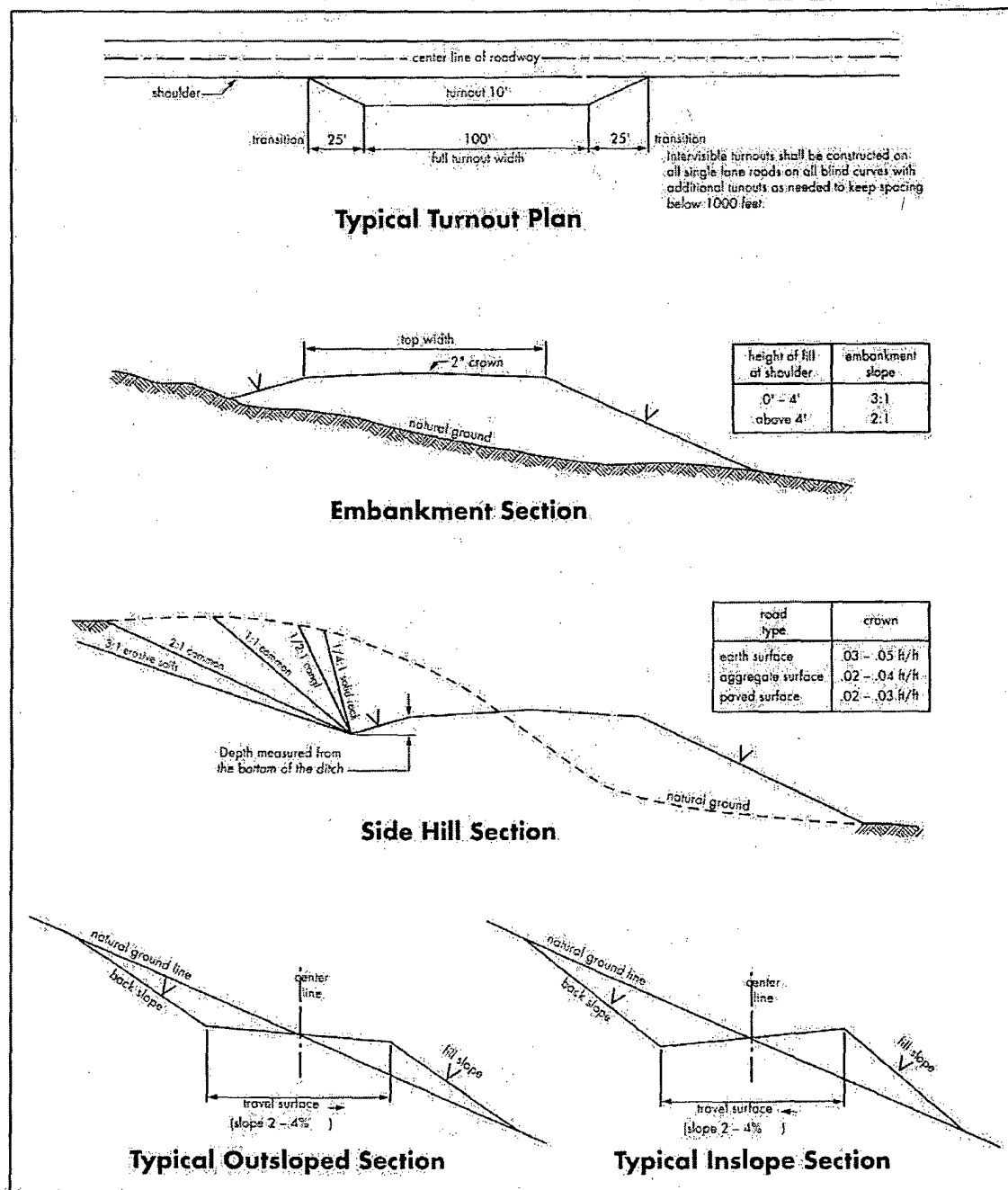
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access

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

Figure 1 – Cross Sections and Plans For Typical Road Sections



VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

☒ **Eddy County**

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

1. A Hydrogen Sulfide (H₂S) Drilling Plan should be activated 500 feet prior to drilling into the **Queen** formation. **As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values 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 are 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) will 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 and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

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

Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. 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. See individual casing strings for details regarding lead cement slurry requirements.

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

Possible water and brine flows in the Salado and Artesia groups.

Possible lost circulation in the Artesia group.

1. The 9-5/8 inch surface casing shall be set at **approximately 330 feet (a minimum of 25 feet into the Rustler Anhydrite and 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.
2. The minimum required fill of cement behind the 7 inch production casing is:
 - ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash.**
3. The minimum required fill of cement behind the 5-1/2 inch production liner is:
 - ☒ Cement not required – Packer system to be used. Minimum tie-back of 200 feet.

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 RP 53 Sec. 17.
2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.
 - a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.
3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 7 intermediate casing shoe shall be **3000 (3M)** psi.
4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In potash areas, 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. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.
 - 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 (18 hours) or potash (24 hours) prior to initiating the test.
 - c. The results of the test shall be reported to the appropriate BLM office.
 - d. 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.**

- e. 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.

D. DRILL STEM TEST

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

E. WELL COMPLETION

A NOI sundry with the procedure to complete this well shall be submitted and approved prior to commencing completion work. The procedure will be reviewed to verify that the completion will allow the operator to restrict the injection fluid to the approved formation.

F. 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.

DHW 081910

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.

Containment Structures

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

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, Munsell Soil Color Chart # 5Y 4/2

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).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Seed Mixture for LPC Sand/Shinnery 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>
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

**Four-winged Saltbush 5lbs/A

* This can be used around well pads and other areas where caliche cannot be removed.

*Pounds of pure live seed:

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