16-805

HOBBS OCD Hobbs

MAY 09 2016

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Form 3160-3
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMLC-032096A

6. If Indian, Allotee or Tribe Name

(D)

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.
NMNM-120042X ; W. Blinebry Drinkard (37346)

1b. Type of Well: ☐ Oil Well ☐ Gas Well ☑ Other INJECTION / ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
WEST BLINEBRY DRINKARD UNIT 145

2. Name of Operator APACHE CORPORATION (873)

9. API Well No.
30-025- 43229

3a. Address 303 VETERANS AIRPARK LN #1000
MIDLAND, TX 79705

3b. Phone No. *(include area code)*
432-818-1167

10. Field and Pool, or Exploratory
EUNICE;BLI-TU-DR, N <22900>

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 1780' FNL & 940' FEL
At proposed prod. zone 1960' FNL & 765' FEL

11. Sec., T. R. M. or Blk. and Survey or Area
UL: H SEC: 17 T21S R37E

14. Distance in miles and direction from nearest town or post office*
APPROX 5 MILES NORTH OF EUNICE, NM

12. County or Parish
LEA

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 765'

16. No. of acres in lease
120 ACRES

17. Spacing Unit dedicated to this well
40 ACRES

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. ~300'

19. Proposed Depth
~~6900'~~ 6853.9 MD
6850.00 TVD

20. BLM/BIA Bond No. on file
BLM-CO-1463 NATIONWIDE / NMB000736

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
GL: 3477'

22. Approximate date work will start*
As Soon As Approved

23. Estimated duration
~ 8 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.
2. A Drilling Plan.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature Sorina L Flores — Name *(Printed/Typed)* SORINA L. FLORES — Date 3/21/16

Title
SUPV OF DRILLING SERVICES

Approved by *(Signature)* /s/Cody Layton — Name *(Printed/Typed)* — Date APR 2 0 2016

Title FOR FIELD MANAGER — Office BLM-CARLSBAD FIELD OFFICE

Application appr... equitable title to those rights in the subject lease which would entitle the applicant to conduct operatio... Conditions of ap...

APPROVAL FOR TWO YEARS

See attached NMOCD Conditions of Approval

Title 18 U.S.C. S... States any false, ... any person knowingly and willfully to make to any department or agency of the United ...itter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

KR 05/12/16

SEE ATTACHED FOR CONDITIONS OF APPROVAL

Witness Surface Casing

Lea County Controlled Water Basin

MAY 12 2016

PRIVATE SURFACE OWNER AGREEMENT

HOBBS OCD

MAY 09 2016

RECEIVED

OPERATOR: APACHE CORPORATION

WELL NAME: WEST BLINEBRY DRINKARD UNIT #66W

SECTION: 17 TOWNSHIP: 21S RANGE: 37E

LOCATION: SHL: 1780' FNL & 940' FEL COUNTY: LEA STATE: NM

LEASE NUMBER: NMLC-032096A

STATEMENT OF SURFACE USE

The surface to the subject land is owned by CHEVRON
PO BOX 285
HOUSTON, TX 77001
432-687-7104

The surface owner has been contacted regarding the drilling of the subject well, and an agreement for surface use has been negotiated.

CERTIFICATION: I hereby certify that the statements made in this statement are to the best of my knowledge, true and correct.

NAME: JOHN VACEK

SIGNATURE: John Vacek

DATE: 3/15/16

TITLE: DRILLING ENGINEER

To expedite your Application to Drill please fax the completed form to the Bureau of Land Management (575) 234-5927 or (575) 885-9264
Attn: Legal Instruments Examiner
620 E. Green Street
Carlsbad, NM 88220

The original document with signature should be mailed as soon as possible.

APACHE CORPORATION (OGRID: 873)
WEST BLINEBRY DRINKARD UNIT #66~~WF~~

1. Geologic Formations

TVD of target	6900'	Pilot hole depth	N/A
MD at TD:	6900'	Deepest expected fresh water:	65'

Back Reef

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Aeolian	Surface	Water	
Rustler	1258'	Water	
Top of Salt	1458'	Salt	
Tansil	2487'	Barren	
Yates	2617'	Oil, Gas, Water	
Seven Rivers	2882'	Oil, Gas, Water	
Queen	3421'	Oil, Gas, Water	Loss circ
Grayburg	3698'	Oil, Gas, Water	Loss circ
San Andres	4069'	Oil, Gas, Water	Loss circ
Glorieta	5159'	Oil, Gas, Water	
Paddock	5252'	Oil	
Blinebry	5694'	Oil	Target Zone
Tubb	6172'	Oil	Target Zone
Drinkard	6486'	Oil	Target Zone
ABO	6739'	Oil	
TD	6900'	~~Target Zone~~	

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

2. Casing Program See COA

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
11"	0	~~1300'~~ 1350	8-5/8"	24	J55	STC	3.41	1.95	1.8
7-7/8"	0	~~6900'~~ 6850	5-1/2"	17	L80	LTC	1.74	1.93	1.8
				BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Must have table for contingency casing

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	N/A
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N

If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H_20 gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	250	13.5	1.75	9.13	9	Lead: Cl C + 4% Bentonite + 1% CaCL2 + 0.25# CF *(12hr: 677psi, 24hr: 1093psi)*
	200	14.8	1.34	6.34	5	Tail: Cl C + 2% CaCL2 + 0.25# *CF (12hr: 1121psi, 24hr: 1795psi)*
Prod.	600	12.6	1.95	10.65	9	Lead: Cl C 35/65 + 6% Bentonite + 0.1% R-20 + 0.25# CF + 3% Salt *(12hr-677psi, 24hr-1093psi)*
	DV/ECP Tool : N/A					
	300	14.2	1.28	5.81	5	Tail: Cl C 50:50 + 2% Bentonite + 0.4% Fl-12 + 0.1% R-20 + 0.25# CF + 3% Salt *(12hr-1121psi, 24hr-1795psi)*

***If DVT used: DV tool depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.*

*******PRODUCTION CMT CONTINGENCY IF WATER FLOWS ENCOUNTERED********

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H_20 gal/sk	500# Comp. Strength (hours)	Slurry Description
Prod 1st Stage	200	12.6	1.95	10.65	8.5	Lead: Cl C 35/65 + 6% Bentonite + 0.1% R-20 + 0.25# CF + 3% Salt *(12hr-671psi, 24hr-979psi)*
	300	14.2	1.28	5.81	8.5	Tail: Cl C 50/50 + 2% Bentonite + 0.4% FL-12 + 0.1% R-20 + 0.25# CF + 3% Salt *(12hr-910psi, 24hr-16985psi)*
	DV/ECP Tool : 4300'					
Prod 2nd Stage	415	12.6	1.95	10.65	8.5	Lead: Cl C 35/65 + 6% Bentonite + 0.1% R-20 + 0.25# CF + 3% Salt *(12hr-671psi, 24hr-979psi)*
	100	14.8	1.33	6.32	6.5	Tail: Cl C *(12hr-1281psi, 24hr-1951psi)*

Low Cement See COA

Casing String	TOC	% Excess
Surface	0'	100%
Production	0'	30%

Include Pilot Hole Cementing specs:
Pilot hole depth: N/A
KOP: N/A

Plug top	Plug Bottom	% Excess	No. Sacks	Wt. lb/gal	Yld ft3/sack	Water gal/sk	Slurry Description and Cement Type

4. Pressure Control Equipment

N/A	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
7-7/8"	11"	3M	Annular	x	50% of working pressure
			Blind Ram	x	3M
			Pipe Ram	x	
			Double Ram		
			Other*		

**Specify if additional ram is utilized.*

BOP/BOPE will be tested by an independent service company to 250 psi low & the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional & tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock & floor safety valve (inside BOP) & choke lines and choke manifold. See attached schematics.

	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil & Gas Order #2 III.B.1.i.
NO	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs & hydrostatic test chart.
	Y /N Are anchors required by manufacturer? **NO**
NO	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. • *Provide description here* See attached schematic.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. shoe	FW	8.7 – 9.1	32-34	N/C
Surf shoe	TD	Brine	9.8 – 10.2	32-34	N/C

Sufficient mud materials to maintain mud properties & meet minimum lost circulation & weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing.	
X	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No Logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain
	Coring? If yes, explain

Additional logs planned		Interval
X	Resistivity	Surf. shoe to TD
X	Density	Surf. shoe to TD
X	CBL	Production casing
	Mud log	
	PEX	

See COA

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	3036 psi
Abnormal Temperature	NO

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

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

8. Other facets of operation

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

Attachments
Y Directional Plan
N/A Other

Project: Lea County, NM (NAD27 NME)
Site: West Blinebry Drinkard Unit
Well: #66W
Wellbore: OH
Design: Plan 1 03-11-16
TBD

PHOENIX TECHNOLOGY SERVICES

Azimuths to Grid North
True North: -0.62°
Magnetic North: 6.40°

Magnetic Field
Strength: 48473.1snT
Dip Angle: 60.57°
Date: 3/11/2016
Model: HDGM

WELL DETAILS

Ground Level: 3477.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	540688.00	855919.70	32° 28' 52.21189 N	103° 10' 44.94293 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	1450.00	0.00	0.00	1450.00	0.00	0.00	0.00	0.00	0.00		KOP, Begin 2.00°/100' Build
3	1584.95	2.70	135.21	1584.90	-2.26	2.24	2.00	135.21	3.18		Hold 2.70° Inc, 135.21° Azm
4	6855.90	2.70	135.21	6850.00	-178.40	177.10	0.00	0.00	251.38	BHL - West Blinebry Drinkard Unit #66W	TD at 6855.90

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
BHL - West Blinebry Drinkard Unit #66W - plan hits target center	6850.00	-178.40	177.10	540509.60	856096.80	32° 28' 50.42784 N	103° 10' 42.89839 W	Point

CASING DETAILS

No casing data is available

LEGEND

Plan 1 03-11-16

Map System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone Name: New Mexico East 3001

Local Origin: Well #66W, Grid North

Latitude: 32° 28' 52.21189 N
Longitude: 103° 10' 44.94293 W

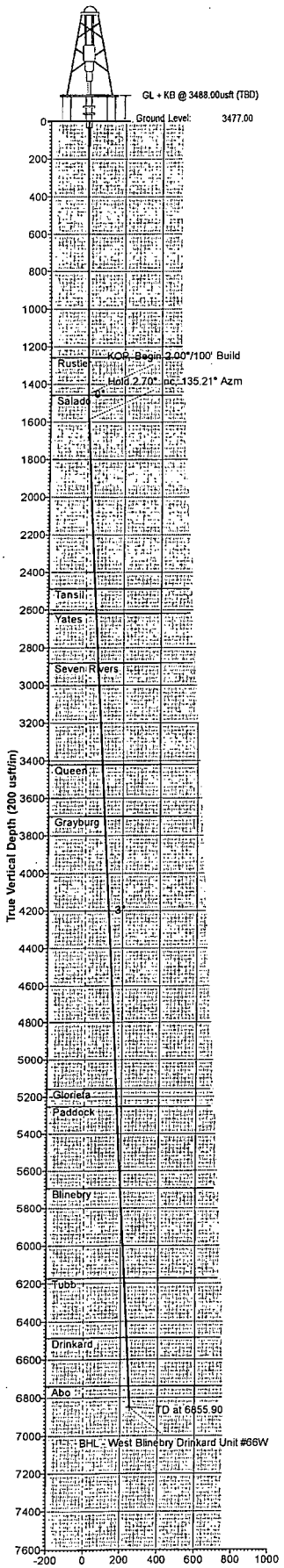
Grid East: 855919.70
Grid North: 540688.00
Scale Factor: 1.000

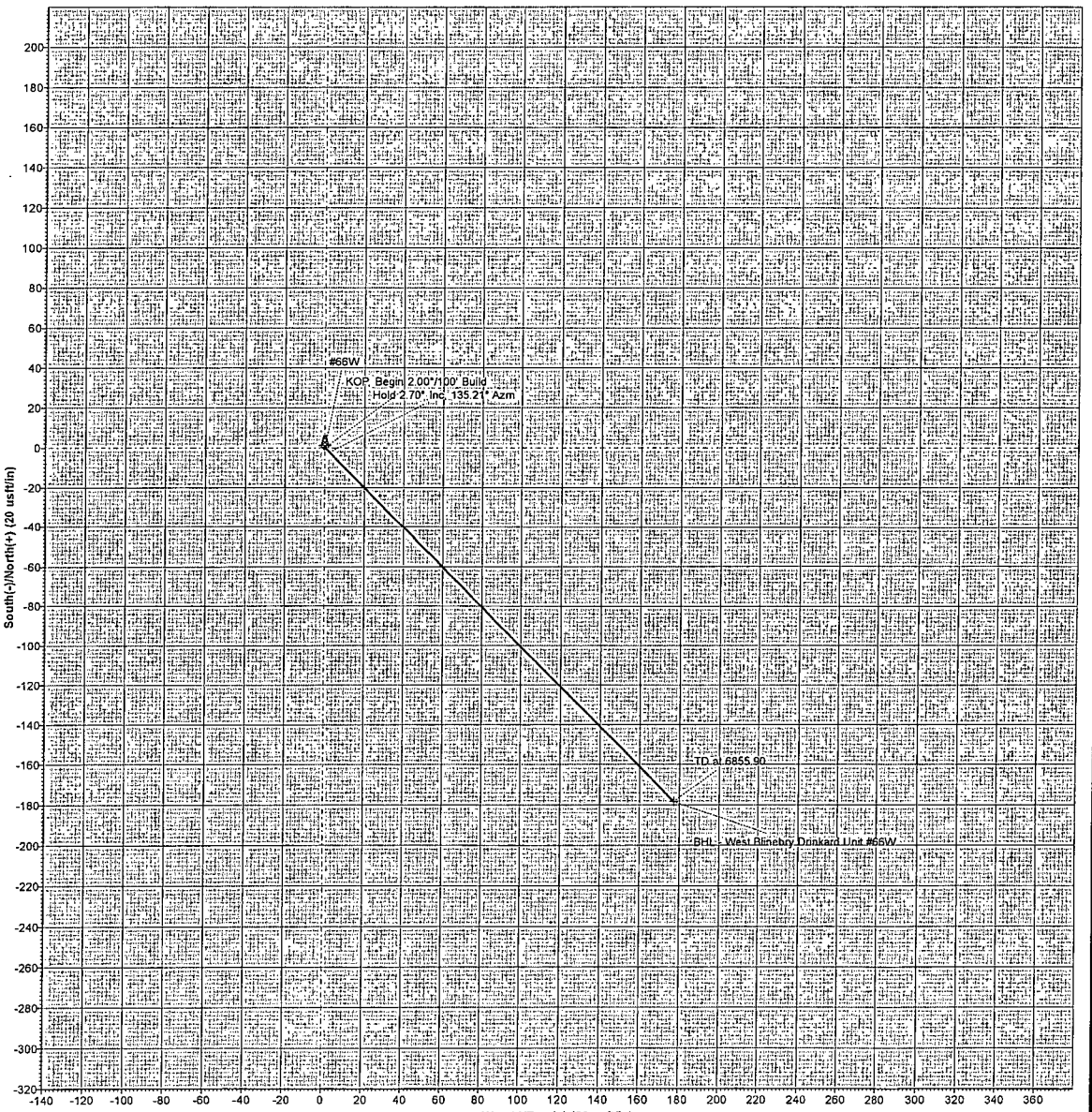
Geomagnetic Model: HDGM
Sample Date: 11-Mar-16
Magnetic Declination: 7.02°
Dip Angle from Horizontal: 60.57°
Magnetic Field Strength: 48473

To convert a Magnetic Direction to a Grid Direction, Add 6.40°
To convert a Magnetic Direction to a True Direction, Add 7.02° East
To convert a True Direction to a Grid Direction, Subtract 0.62°

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DipDir
1258.00	1258.00	Rustler	0.00	
1458.00	1458.00	Salado	0.00	
2487.00	2488.05	Tansil	0.00	
2617.00	2618.20	Yates	0.00	
2882.00	2883.49	Seven Rivers	0.00	
3421.00	3423.09	Queen	0.00	
3698.00	3700.40	Grayburg	0.00	
5159.00	5163.02	Glorieta	0.00	
5252.00	5256.12	Paddock	0.00	
5694.00	5698.61	Blinebry	0.00	
6172.00	6177.14	Tubb	0.00	
6486.00	6491.49	Drinkard	0.00	
6739.00	6744.77	Abo	0.00	





Created By: Bianca LeCombe Date: 10:59, March 11 2016

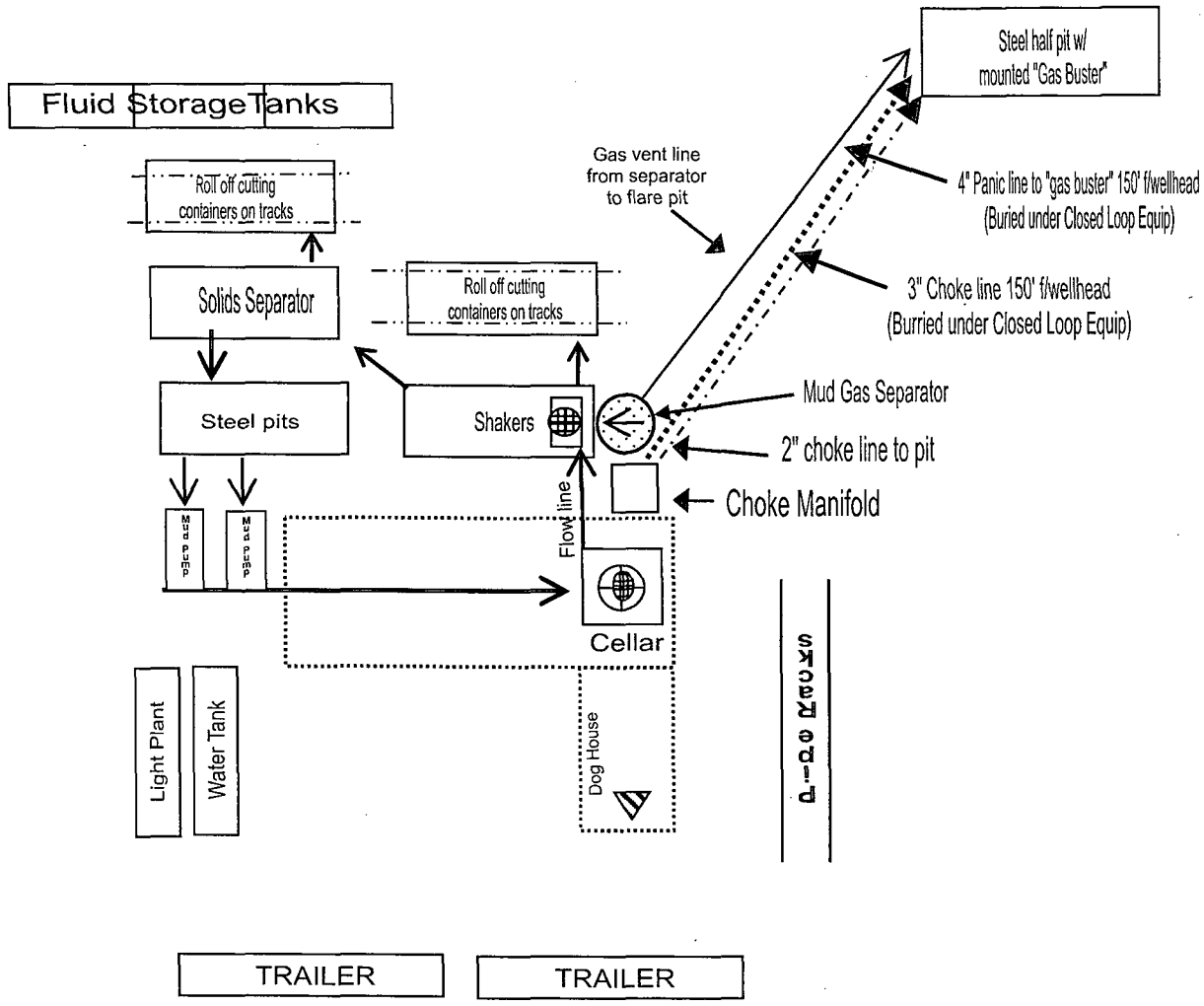
Apache

Closed Loop Equipment Diagram

Exhibit 4

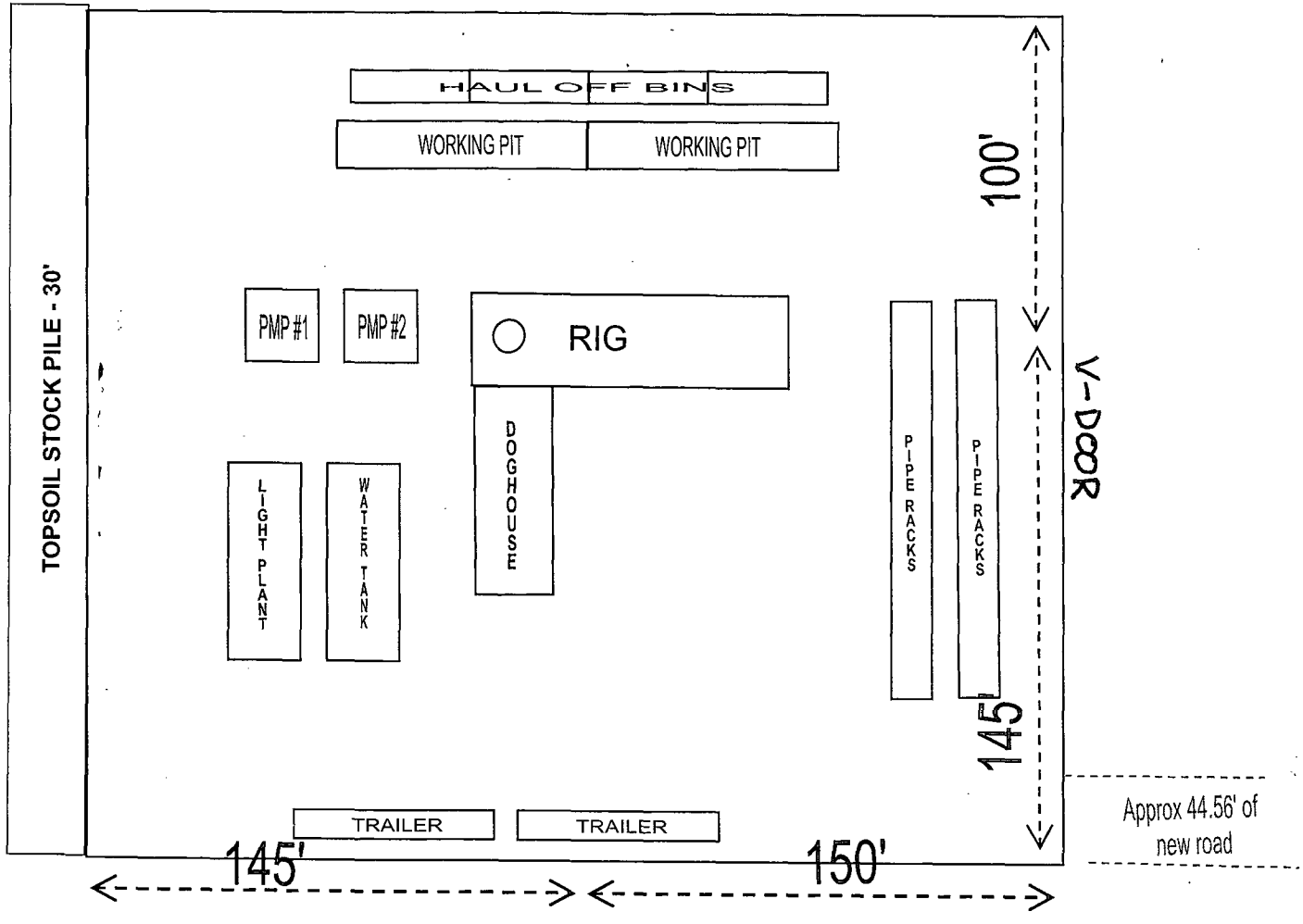
N
W E
S

West Blinebry Drinkard Unit #66W



Approx 44.56' of new road

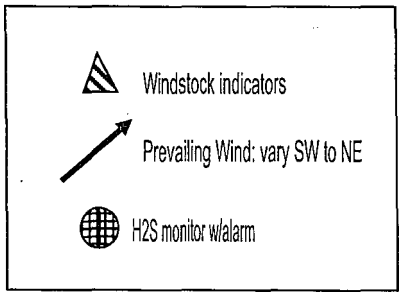
RIG ORIENTATION & LAYOUT
WEST BLINEBRY DRINKARD UNIT 66W
EXHIBIT 5

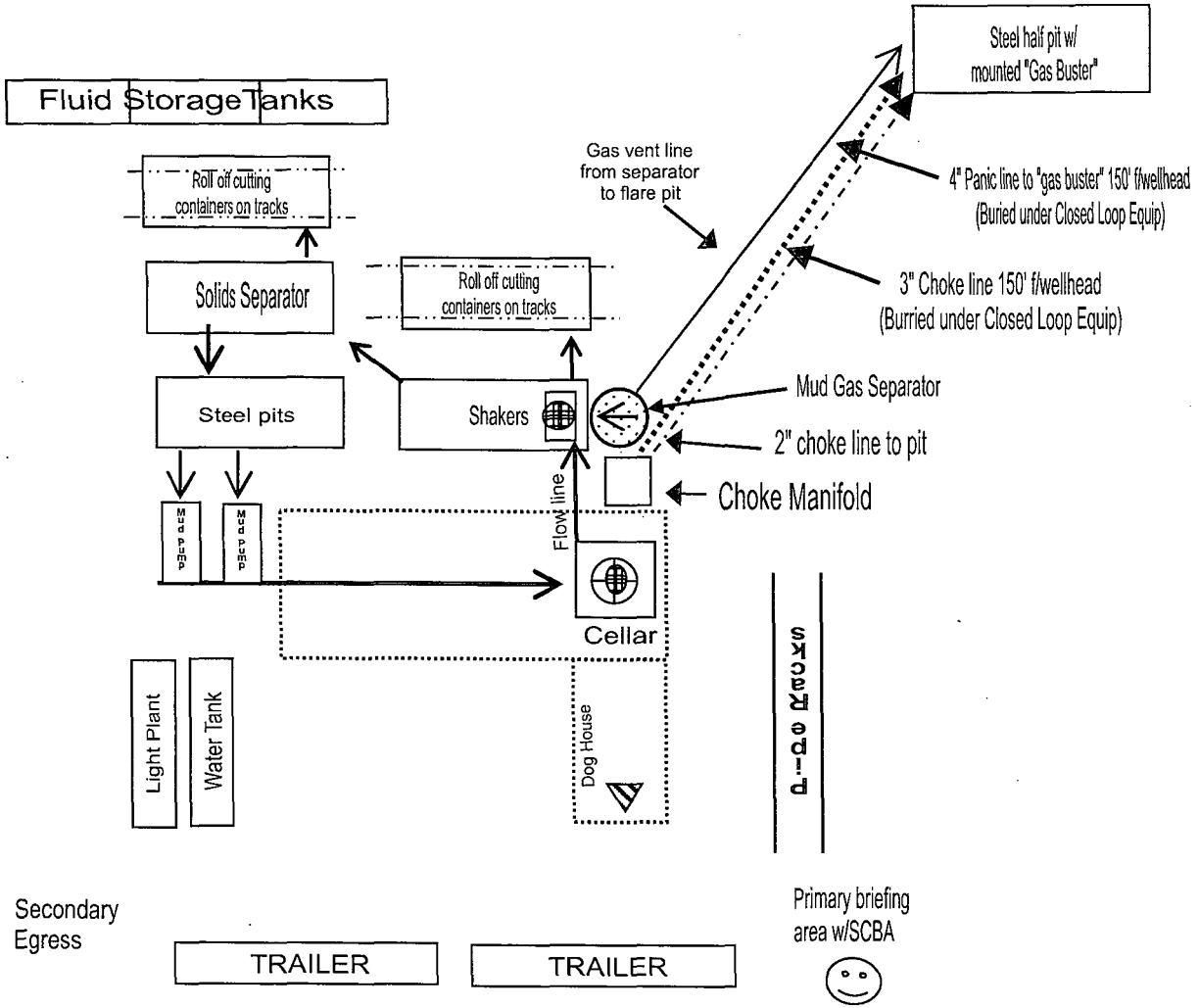


Apache

Drilling Location
H2S Safety Equipment Diagram
Exhibit 3A

West Blinebry Drinkard Unit 66W





H2S Warning Sign ~ 200' but no more than 500' from well location

Approx 44.56' of new road