

HOBBS OCD

Form 3160-3
(March 2012)

OCD Hobbs SEP 29 2014

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

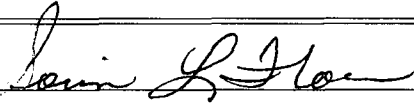

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM-42057 125057
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 APACHE CORPORATION <873>		7. If Unit or CA Agreement, Name and No.
3a. Address 303 VETERANS AIRPARK LN #1000 MIDLAND, TX 79705		8. Lease Name and Well No. <24428> LOCKHART B 12 #14 <24428>
3b. Phone No. (include area code) 432-818-1167		9. API Well No. 30-025- 42152
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 660' FNL & 1905' FEL At proposed prod. zone SAME		10. Field and Pool, or Exploratory Blinebry 049 <6660>, Drinkard <19190> Tubb 049 <60240>, Wante, RBO <62700>
14. Distance in miles and direction from nearest town or post office* APPROX 4 MILES NORTHEAST OF EUNICE, NM		11. Sec., T. R. M. or Blk. and Survey or Area UL: B SEC: 12 T21S R37E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660'	16. No. of acres in lease 1200 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. ~ 135'	19. Proposed Depth 7700'	20. BLM/BIA Bond No. on file BLM-CO-1463 NATIONWIDE / NMB000736
21. Elevations (Show whether DF, KDB, RT, GL, etc.) GL: 3508'	22. Approximate date work will start* As Soon As Approved	23. Estimated duration ~ 10 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) SORINA L. FLORES	Date 12/17/13
Title SUPV OF DRILLING SERVICES		
Approved by (Signature) 	Name (Printed/Typed)	Date SEP 23 2014
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)

Ganitan Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations AttachedSEE ATTACHED FOR
CONDITIONS OF APPROVAL

SEP 30 2014

PRIVATE SURFACE OWNER AGREEMENT

HOBBS OCD

SEP 29 2014

OPERATOR: APACHE CORPORATION

RECEIVED

WELL NAME: LOCKHART B 12 #14

UL: B SECTION: 12 TOWNSHIP: 21S RANGE: 37E

LOCATION: 660' FNL & 1905' FEL COUNTY: LEA STATE: NM

LEASE NUMBER: NMNM - 0557256

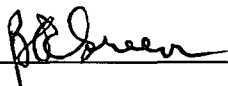
STATEMENT OF SURFACE USE

The surface to the subject land is owned by MC NEILL RANCH ATTN: PAIGE MC NEILL
PO BOX 1092, HOBBS, NM 88241
575-390-2870

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: BARRY GREEN

SIGNATURE: 

DATE: 12/13/2013

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.

**Lockhart B 12 #14, #15, #16**

Flores, Sorina <Sorina.Flores@apachecorp.com>
 To: "jamason@blm.gov" <jamason@blm.gov>

Wed, Jun 18, 2014 at 2:57 PM

Jennifer.. just for paperwork.. per Max Grove, engineer... the csg program should be as follows for the Lockhart B 12 #14, #15, #16.

APACHE CORPORATION (OGRID: 873) LOCHART B 12 #14
 Lease #: NMNM-125057 Projected TD: 7700' GL: 3508'
 660' FNL & 1905' FEL UL: B SEC: 12 T215 R37E LEA COUNTY, NM

1. GEOLOGIC NAME OF SURFACE FORMATION: Quaternary Aeolian Deposits
2. ESTIMATED TOPS OF GEOLOGICAL MARKERS & DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Quaternary Aeolian	Surf	San Andres	4238'
Rustler	1520'	Glorieta	5426'
Top of Salt	1601'	Blaine	5810' (Oil)
Base of Salt/Tansill	2655'	Tubb	6269' (Oil)
Yates	2798'	Drinkard	6721' (Oil)
Queen	3630'	ABO	6599' (Oil)
Grayburg	3975'	TD	7700'
Depth to Ground Water:	65'		

All fresh water & prospectively valuable minerals, as described by BLM, encountered during drilling, will be recorded by depth & adequately protected. All oil & gas shows within zones of correlative rights will be tested to determine commercial potential.

3. CASING PROGRAM: All casing is new & API approved

HOLE SIZE	DEPTH	OD CSG	WEIGHT	COLLAR	GRADE	COLLAPSE	BURST	TENSION
11"	0' - 1550'	8-5/8"	24#	STC	J-55	1.125	1.0	1.8
7-7/8"	0' - 7700'	5-1/2"	17#	LTC	L-80	1.125	1.0	1.8
7-7/8"	1000' - 7700'	5-1/2"	17#	LTC	J-55	1.125	1.0	1.8

SORINA L. FLORES

SUPV OF DRILLING SERVICES

Permian Drilling

direct 432-818-1167 | fax 432-818-1981 | office 4116A

sorina.flores@apachecorp.com

APACHE CORPORATION

303 Veterans Airport Ln. Suite 1000

Midland, Texas 79705
USA

ApacheCorp.com | LinkedIn | Facebook | Twitter | StockTwits | YouTube

Things may come to those who wait, but only what's left behind by those that hustle -Abraham Lincoln

HOBBS OCD

DRILLING PLAN: BLM COMPLIANCE
(Supplement to BLM 3160-3)

SEP 29 2014

APACHE CORPORATION (OGRID: 873) LOCHART B 12 #14

Lease #: NMLC-032096B Projected TD: 7700' GL: 3508'
660' FNL & 1905' FEL UL: B SEC: 12 T21S R37E LEA COUNTY, NM

RECEIVED

1. **GEOLOGIC NAME OF SURFACE FORMATION:** Quaternary Aeolian Deposits
2. **ESTIMATED TOPS OF GEOLOGICAL MARKERS & DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:**

Quaternary Aeolian	Surf	San Andres	4238'
Rustler	1520'	Glorieta	5426'
Salt Top	1601'	Blinebry	5810' (Oil)
<u>Salt Bottom</u>	2655'	Tubb	6269' (Oil)
Yates	2798'	Drinkard	6721' (Oil)
Queen	3630'	ABO	6599' (Oil)
Grayburg	3975'	TD	7700'

Depth to Ground Water: 65'

All fresh water & prospectively valuable minerals, as described by BLM, encountered during drilling, will be recorded by depth & adequately protected. All oil & gas shows within zones of correlative rights will be tested to determine commercial potential.

3. **CASING PROGRAM:** All casing is new & API approved

Sup COA

HOLE SIZE	DEPTH	OD CSG	WEIGHT	COLLAR	GRADE	COLLAPSE	BURST	TENSION
11"	0' - 1580'	8-5/8"	24#	STC	J-55	1.125	1.0	1.8
7-7/8"	0' - 1000'	5-1/2"	17#	LTC	L-80	1.125	1.0	1.8
7-7/8"	1000' - 7700'	5-1/2"	17#	LTC	J-55	1.125	1.0	1.8

4. **CEMENT PROGRAM:**

A. 8-5/8" Surface, cmt with (100% excess cmt; Cmt to Surf):

Lead: 340 sx Class C w/ 2% CaCl₂, 4% Bentonite (13.5 ppg, 1.75 yld)

Comp Strengths: 12 hr - 755 psi 24 hr - 1347 psi

Tail: 180 sx Class C w/ 1% CaCl₂, 0.13 # CF, 0.005 gps FP-6L (14.8 ppg, 1.34 yld)

Comp Strengths: 12 hr - 500 psi 24 hr - 782 psi

B. 5-1/2" Production, cmt with (50% excess cmt; cmt to surf):

Lead: 660 sx (50:50) Poz C w/ 5% Sodium Chloride, 6% Bentonite

(12.5ppg, 2.04 yld)

Comp Strengths: 12 hr - 344 psi 24 hr - 835 psi

Tail: 450 sx (50:50) Poz C w/ 5% Sodium Chloride, 2% Bentonite (14.2 ppg, 1.31 yld)

Comp Strengths: 12 hr - 869 psi 24 hr - 1768 psi

**** The above cmt volumes could be revised pending caliper measurement from open hole logs. TOC is designed to reach surface on Surface and Production. For Surface csg: If cmt does not circ to surface, the appropriate BLM office shall be notified, TOC shall be determined by a method approved by BLM, operator will propose a remediation method & request BLM approval. All slurries will be tested prior to loading to confirm thickening times & a lab report furnished to Apache. Fluid loss will be tested & reported on slurries with fluid loss additives. Lab test report will be furnished prior to pumping cement.**

See COA

*per Sonia Flores
6/18/14*

5. PROPOSED CONTROL EQUIPMENT *must test to 3,000 psi*

See COA "EXHIBIT 3" shows a 11" 3M psi WP BOP consisting of an annular bag type preventer, middle pipe rams, bottom blind rams. The BOP will be nipped up on the 8-5/8" csg and utilized continuously until TD is reached. The BOP will be tested at ~~2000~~ *3,000* psi, maximum surface pressure is not expected to exceed 2M psi, BHP is calculated to be approximately 3388 psi. *All BOP's and associated equipment will be tested as per BLM *Drilling Operations Order #2*. The BOP will be operated and checked each 24 hr period & the blind rams will be operated & checked when the drill pipe is out of the hole. Function tests will be documented on the daily driller's log. "EXHIBIT 3" also shows a 3M psi choke manifold with a 3" blow down line. Full opening stabbing valve & Kelly cock will be on derrick floor in case of need. No abnormal pressures or temperatures are expected in this well. No nearby wells have encountered any well control problems.

6. AUXILIARY WELL CONTROL EQUIPMENT / MONITORING EQUIPMENT:

4-1/2" x 3000 psi Kelly valve
11" x 3000 psi mud cross - H2S detector on production hole
Gate-type safety valve - 3" choke line from BOP to manifold
2" adjustable chokes - 4" blow down line
Fill up line as per Onshore Order #2

7. PROPOSED MUD CIRCULATION SYSTEM: (Closed Loop System)

See COA

INTERVAL	MW (ppg)	VISC (sec/qt)	FLUID LOSS (cc)	MUD TYPE
0' - 1550' <i>1580'</i>	8.4	28 - 32	NC	Fresh Water
1580' - 7100'	9.8 - 10.0	28 - 32	NC	Brine
7100' - 7700'	9.0 - 10.0	28 - 32	10 - 12	Cut Brine

**** Visual mud monitoring equipment shall be in place to detect volume changes. A mud test shall be performed every 24 hrs after mudding up to determine, as applicable: density, visc, gel strength, filtration, and pH. The necessary mud products for weight addition & fluid loss control will be on location at all times. In order to run open hole logs & casing, the above mud properties may be altered to meet these needs.**

8. LOGGING, CORING & TESTING PROGRAM:

- See COA*
- A. OH logs: Dual Laterolog, MSFL, CNL, Litho-Density, Spectral Gamma Ray, Caliper & Sonic from TD back to 8-5/8" csg shoe.
 - B. Run CNL, Gamma Ray from 8-5/8" csg shoe back to surface.
 - C. No cores or DST's are planned at this time. Mud log will be included on this well.
 - D. Additional testing will be initiated subsequent to setting the 5-1/2" production casing. Specific intervals will be targeted based on log evaluation & geological sample shows.

9. POTENTIAL HAZARDS:

See COA No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered, however, the proposed mud program will be modified to increase the mud-weight. There is known presence of H₂S in this area. If H₂S is encountered the operator will comply with the provisions of *Onshore Oil & Gas Order No. 6*. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP: 3388 psi and estimated BHT: 115°.

10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

Road and location construction will begin after BLM has approved APD. Anticipated spud date will be as soon after BLM approval and as soon as rig will be available. Move in operations and drilling is expected to take ~10 days. If production casing is run then an additional 90 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

11. OTHER FACETS OF OPERATION:

After running csg, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Blinberry, Tubb, Drinkard & Wantz; ABO formations will be perforated and stimulated in order to establish production. The well will be swab tested & potentialized as an oil well.

LOCKHART B 12 #14 3m

EXHIBIT #3

EXHIBIT #3
 All valves & lines on choke manifold are 2" unless noted
 Exact manifold configuration may vary

Diagram labels and components:

- PIT 1
- SHAKER
- Fluid discharge from separator
- Mud Gas Separator
- Gas vent line from separator
- OPEN TOP FLARE PIT
- Gas Buster
- PIT IS 150 FEET FROM CENTER OF HOLE
- MINIMUM 3" LINE TO OPEN TOP FLARE PIT
- 2" FULL OPENING VALVE
- 2" ADJUSTABLE CHOKE (Remote Adj Choke if needed)
- 3" HCR VALVE
- 2" GATE VALVE
- 2" ADJUSTABLE CHOKE
- 3" GATE VALVE
- 2" GATE VALVE
- 3" GATE VALVE
- 2" GATE VALVE
- 2" GATE VALVE KILL LINE
- MUD CROSS
- ANNULAR
- PIPE RAMS
- BLIND RAMS
- FILL UP LINE
- ROTATING HEAD
- FLOW LINE
- PUMP PSI GAUGE W/ 2" GATE VALVE
- BUFFER TANK
- BUFFER TANK

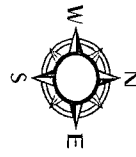
***** If H2S is encountered in quantities greater than 100ppm, Apache will shut in well & install a remote operated choke *****



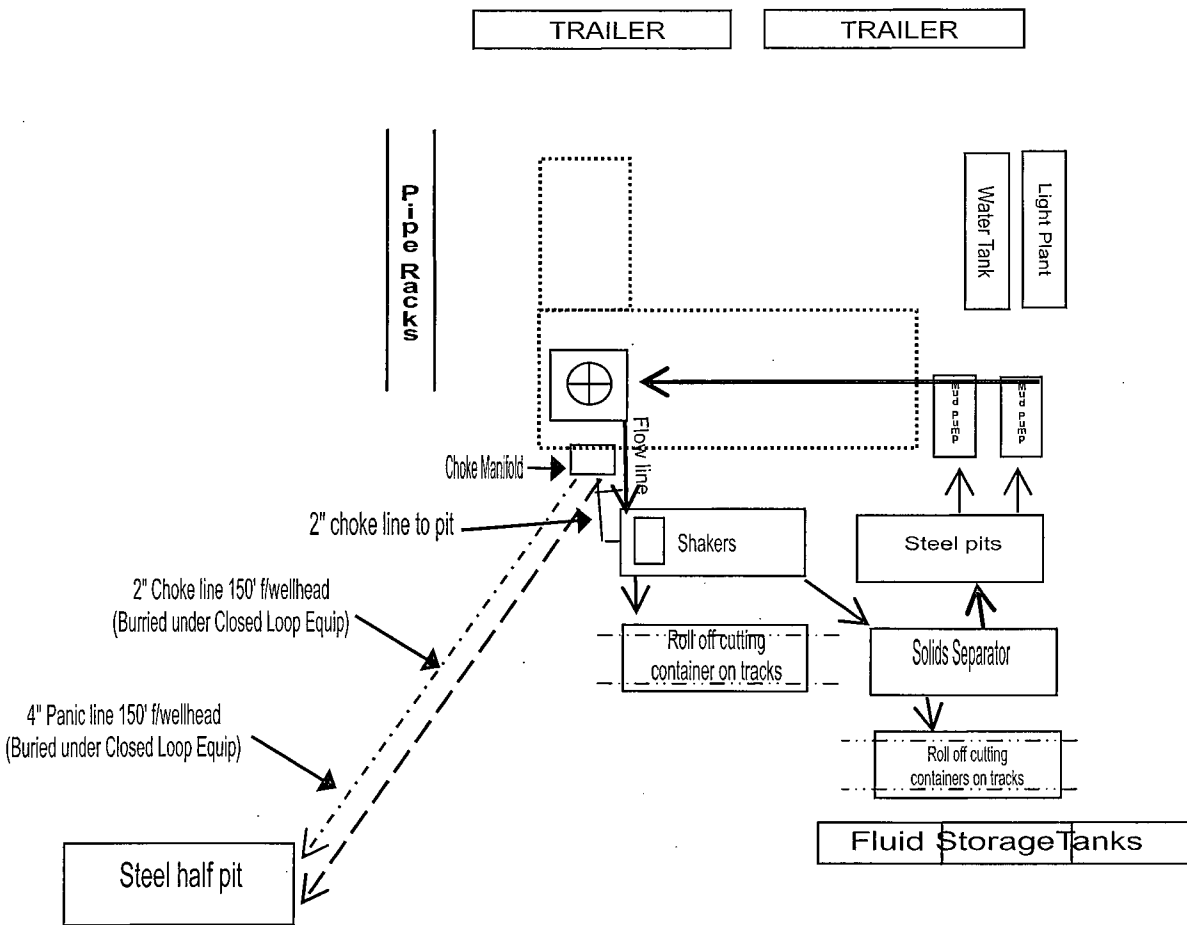
Closed Loop Equipment Diagram

Exhibit 4

Lockhart B 12 #14



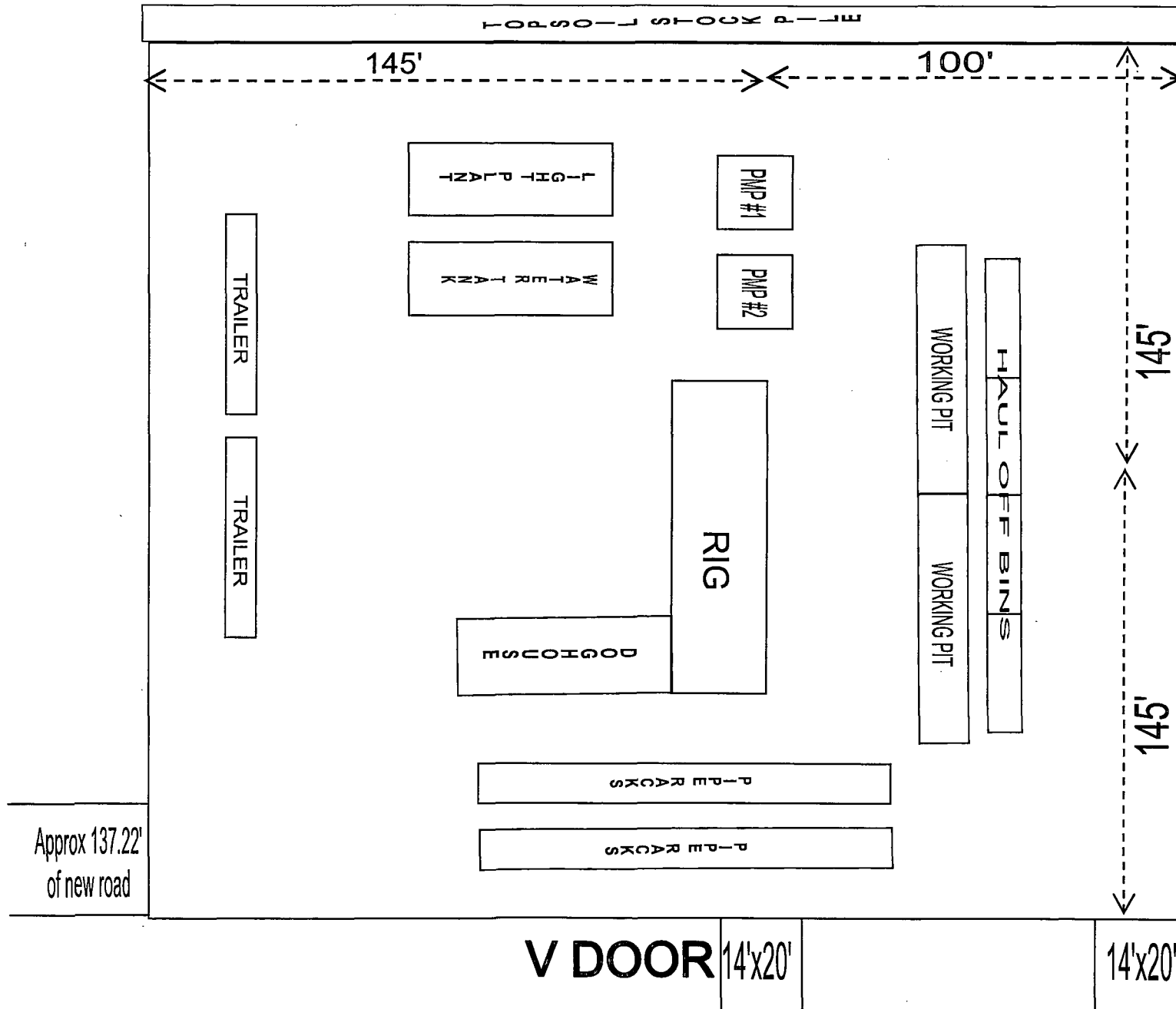
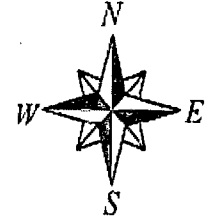
Approx 137.22'
new road



RIG ORIENTATION & LAYOUT

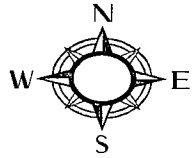
LOCKHART B 12 #14

EXHIBIT 5

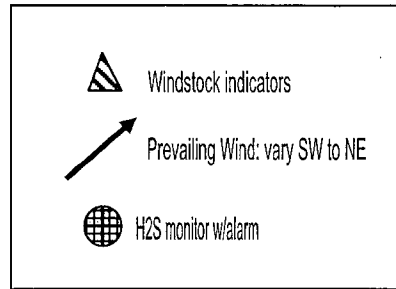




Drilling Location
H2S Safety Equipment Diagram
Exhibit 3A



Lockhart B 12 #14



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

Approx 137.22'
new road

Secondary
Egress

