

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

ATS-07-248
FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-0557686	
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 checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name	
2. Name of Operator ConocoPhillips Company (#217817)		7. If Unit or CA Agreement, Name and No.	
3a. Address 3300 N. "A" St., Bldg. 6 Midland, TX 79705-5490		8. Lease Name and Well No. SEMU (#31670) 176	
3b. Phone No (include area code) (432)688-6884		9. API Well No. 30-025- 38502	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 685' FSL & 660' FWL At proposed prod. zone 685' FSL & 660' FWL		10. Field and Pool, or Exploratory Weir; Blinebry Monument; Tubbs Weir; <i>Skaggs Rd</i> UL "M", Sec. 23, T-20-S, R-37-E <i>Drin hard</i>	
14. Distance in miles and direction from nearest town or post office* Approx. 14.3 miles NW from Eunice, NM		12. County or Parish Lea	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660' from West Lease Line		13. State NM	
16. No. of acres in lease 4840.92		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. 1297' from #115		20. BLM/BIA Bond No. on file ES0085	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3520' GL		22. Approximate date work will start* 08/04/2007	
		23. Estimated duration 2 Weeks	

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature <i>Celeste G. Dale</i>	Name (Printed/Typed) Celeste G. Dale	Date 05/10/2007
Title Regulatory Specialist		
Approved by (Signature) <i>/s/ James Stovall</i>	Name (Printed/Typed) <i>/s/ James Stovall</i>	Date JUL 03 2007
Title <i>FIELD MANAGER</i>	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.

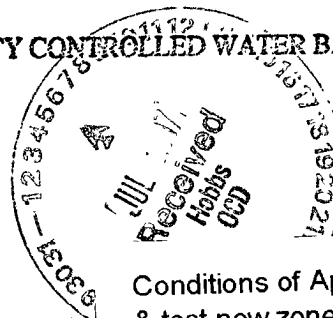
APPROVAL FOR TWO YEARS

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.

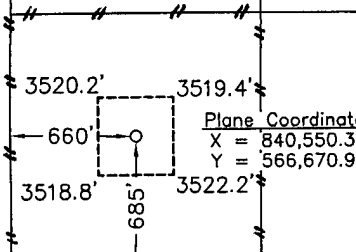
SEE ATTACHED FOR
CONDITIONS OF APPROVAL

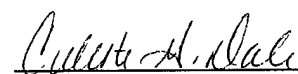
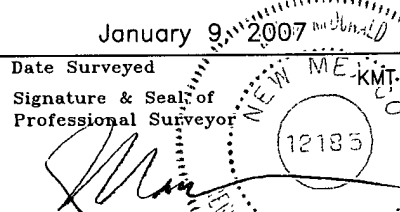
APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

LEA COUNTY CONTROLLED WATER BASIN



Conditions of Approval: Approval to recompleat & test new zone, but cannot produce Downhole commingle until DHC is approved in Hobbs District office according to R-11363.

<p>NOTE:</p> <p>1) Plane Coordinates shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1927. Distances shown hereon are mean horizontal surface values.</p>	
 <p style="text-align: center;">Plane Coordinate X = 840,550.3 Y = 566,670.9</p>	

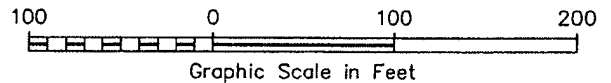
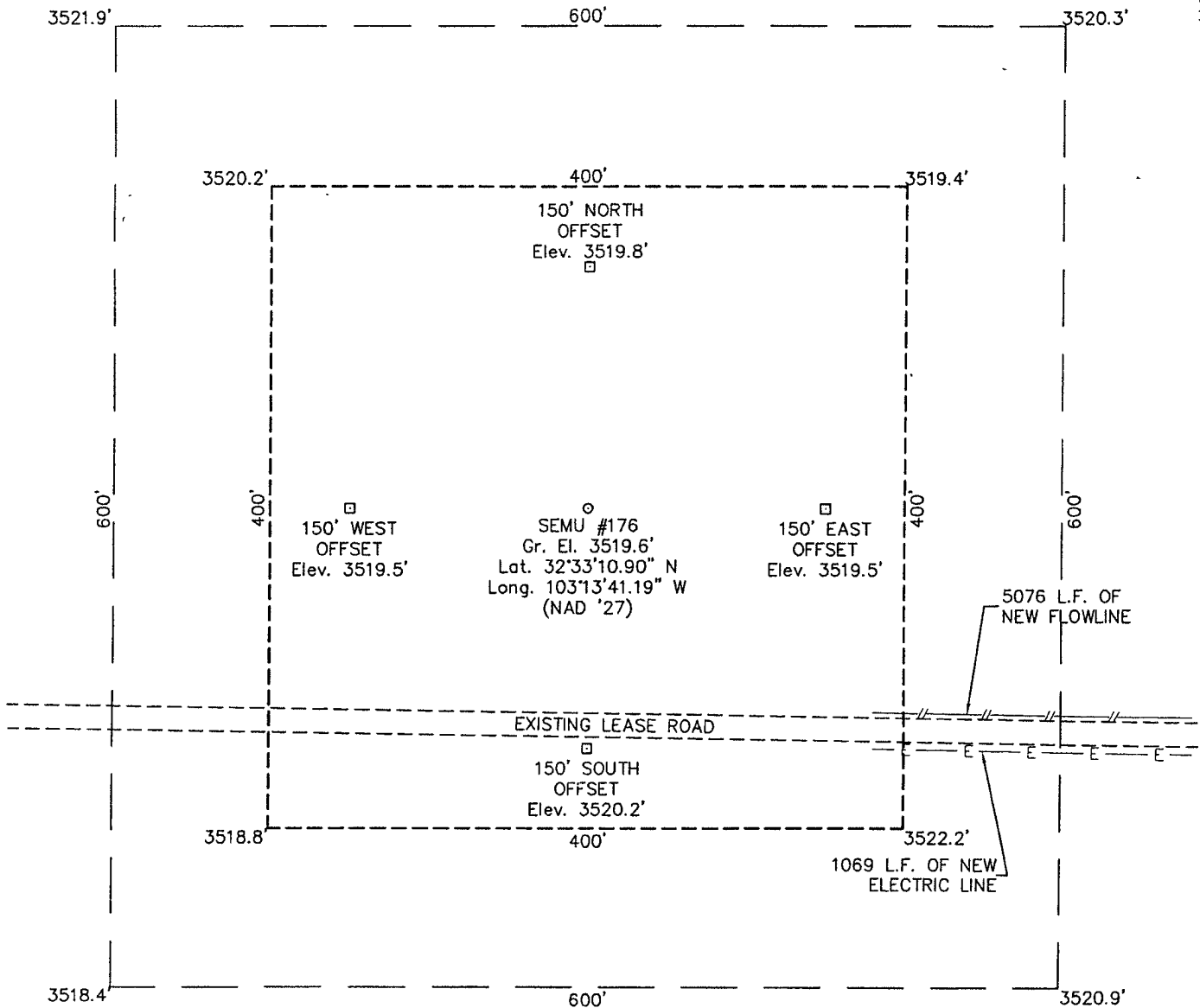
<p align="center">OPERATOR CERTIFICATION</p> <p align="center"><i>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief</i></p> <p align="center">  Signature </p> <p align="center"> Celeste G. Dale Printed Name </p> <p align="center"> Regulatory Specialist Title </p> <p align="center"> 05/10/07 Date </p>	
<p align="center">SURVEYOR CERTIFICATION</p> <p align="center"><i>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</i></p> <p align="center"> January 9, 2007 Date Surveyed </p> <p align="center">  Signature & Seal of Professional Surveyor </p> <p align="center"> W.O. Num. 2007-0017 Certificate No. MACON McDONALD, 12185 </p>	

SECTION 23, TOWNSHIP 20 SOUTH, RANGE 37 EAST, N.M.P.M.

LEA COUNTY

NEW MEXICO

L-2007-0017



DRIVING DIRECTIONS

FROM THE INTERSECTION OF U.S. HIGHWAY 18 AND U.S. HIGHWAY 176 IN EUNICE, NEW MEXICO GO NORTH ON SAID U.S. HIGHWAY 18 7.3 MILES TO A CATTLE GUARD ON WEST (LEFT) SIDE OF SAID U.S. HIGHWAY 18, THEN GO WEST THROUGH SAID CATTLE GUARD ON LEASE ROAD 3.3 MILES, THEN GO NORTHWEST (RIGHT) FOR 1.5 MILES, THEN GO WEST (LEFT) 1.4 MILES TO A LEASE ROAD ON SOUTH (LEFT) SIDE OF SAID ROAD, THEN GO SOUTH 0.5 MILES TO ANOTHER ROAD ON WEST (RIGHT) SIDE OF SAID LEASE ROAD, THEN GO WEST 0.3 MILE TO A POINT BEING APPROXIMATELY 150 FEET SOUTH OF PROPOSED LOCATION.

CONOCO PHILLIPS

SEMU #176

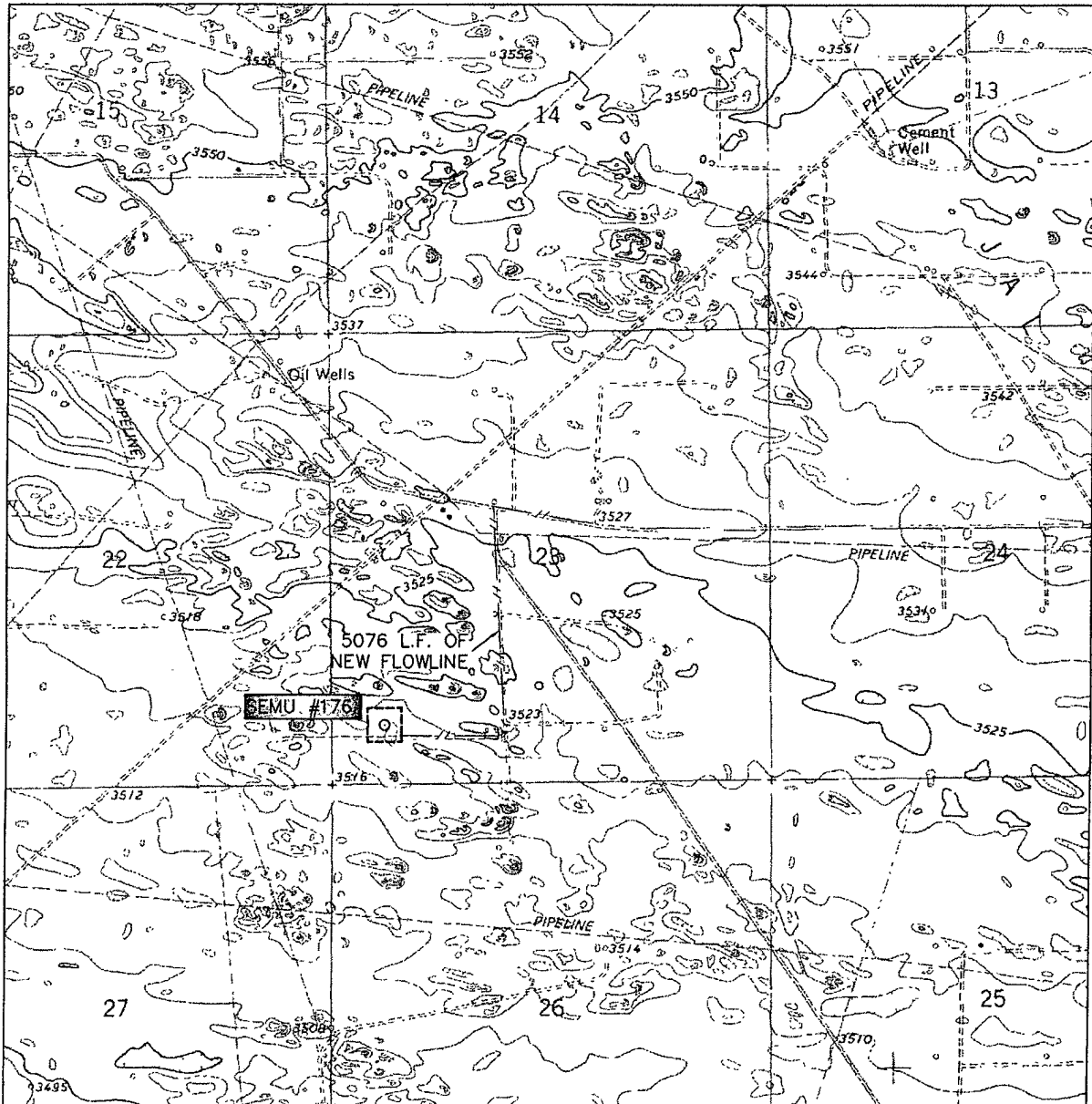
Located 685' FSL & 660' FWL, Section 23
Township 20 South, Range 37 East, N.M.P.M.
Lea County, New Mexico



110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

Drawn By: KMT	Date: January 18, 2006
Scale: 1"=100'	Field Book: 331 / 58-61
Revision Date:	Quadrangle: Hobbs SW
W.O. No: 2007-0017	Dwg. No.: L-2007-0017

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
HOBBS SW - 5'

SEC. 23 TWP. 20-S RGE. 37-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 685' FSL & 660' FWL

ELEVATION 3520'

OPERATOR CONOCOPHILLIPS

LEASE SEM U

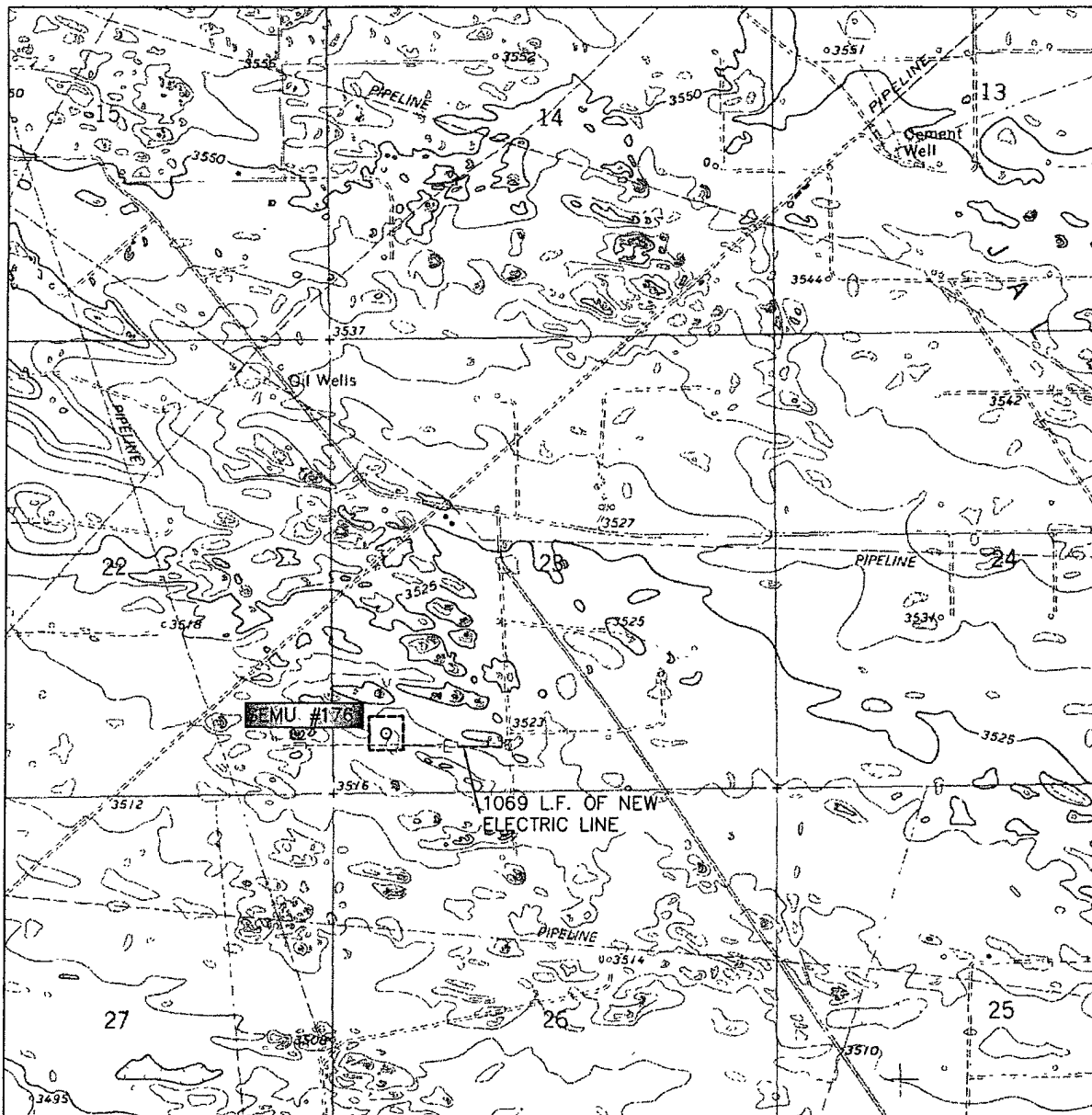
U.S.G.S. TOPOGRAPHIC MAP
HOBBS SW



**WEST
COMPANY**
of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
HOBBS SW - 5'

SEC. 23 TWP. 20-S RGE. 37-E

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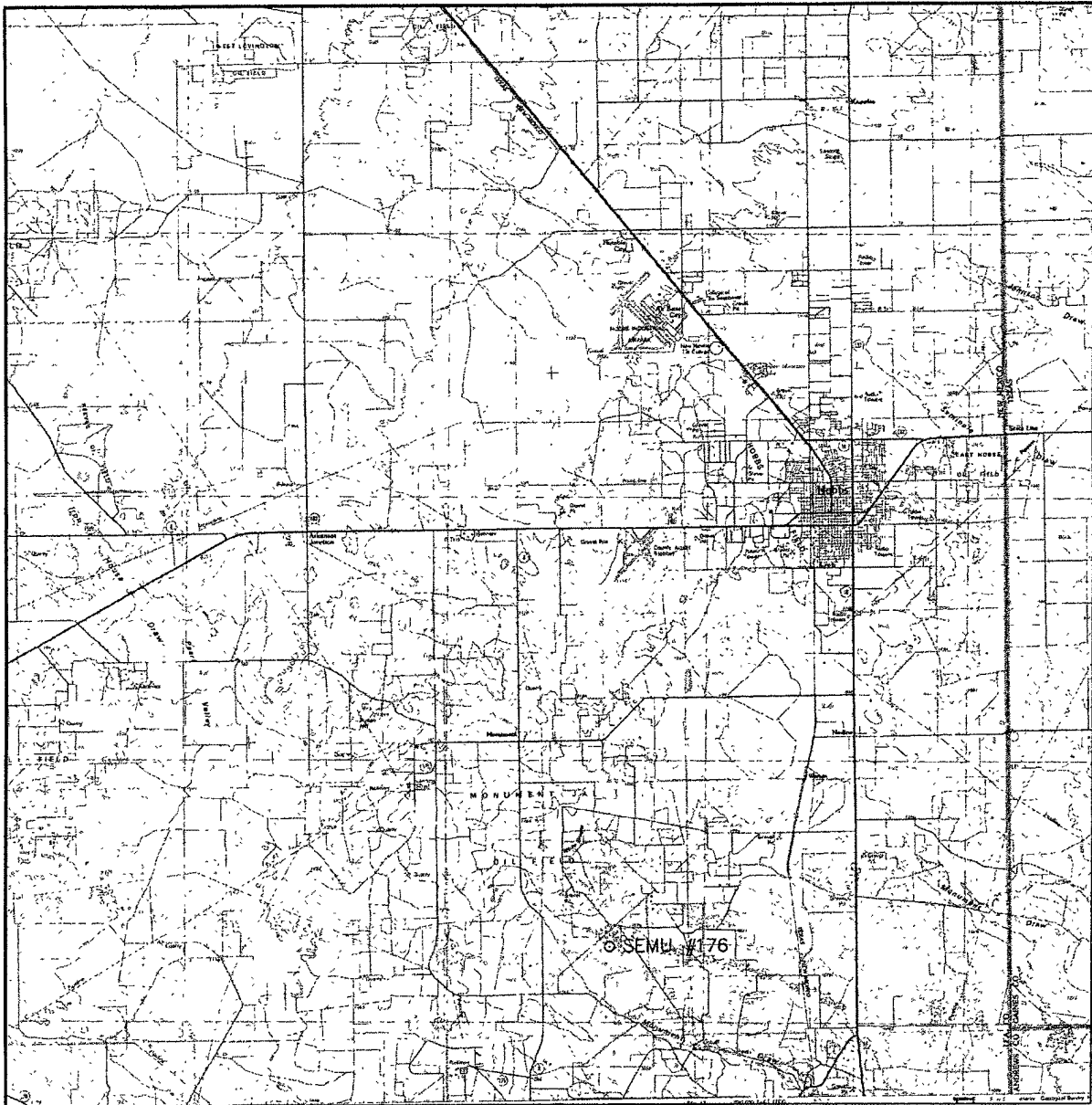
U.S.G.S. TOPOGRAPHIC MAP

HOBBS SW



110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

VICINITY MAP



SCALE: 1" = 4 MILES

SEC. 23 TWP. 20-S RGE. 37-E

SURVEY N.M.P.M

COUNTY LEA

DESCRIPTION 685' FSL & 660' FWL

ELEVATION 3520'

OPERATOR CONOCOPHILLIPS

LEASE SEMU



110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

REVISED - DRILLING PROGRAM

ConocoPhillips Company SEMU # 176

Section 23, T20S - R37E, 685' FSL & 660' FWL
Lea County, New Mexico
Field: Blinebry
Objective: Drinkard, Blinebry / Tubb

The following items supplement Form 3160-3 in accordance with instructions contained in Onshore Oil and Gas Orders # 1 and # 2, and all other applicable federal and state regulations.

1. Estimated tops of geological markers: (Datum is RKB 12' above Ground Level)

Rustler	1235'
Salado (Top salt)	1350'
Tansill	2545'
Yates	2675'
Seven Rivers	2905'
Queen	3430'
Penrose	3555'
Grayburg	3690'
San Andres	3935'
Glorieta	5185'
Blinebry Top	5580'
Tubb	6320'
Drinkard	6625'
Abo	6965'
TD	7215'

2. Estimated depths to water, oil, or gas formations:

Fresh Water: Above 1235' (above top of Rustler formation)
Oil, gas, or salt water: 2545' to TD

Protection of fresh water will be accomplished by setting the surface casing into the Rustler formation and cementing the surface casing in accordance with the provisions of Onshore Oil and Gas Order No. 2 and New Mexico Oil Conservation Division Title 19.

3. Pressure Control Equipment: The blowout preventer equipment (BOP) will be installed after running and cementing the surface casing and will consist of a 5000 psi double ram and 5000 psi annular type preventer for drilling the production hole. A diagram of the BOPs and choke manifold is attached.

A variance to the provisions of Onshore Order No. 2 is proposed to allow us to test our BOPs as follows:

- We propose to test the ram type BOP's and choke and kill lines and valves to 250 psi (low pressure test) and to 3000 psi (high pressure test) instead of to the rated working pressure of the equipment.
- We propose to test the annular type BOP to 250 psi (low pressure test) and to 2000 psi (high pressure test) instead of to 50% of the rated working pressure of the equipment.

The Pressure Control Equipment tests will be performed with an independent BOP tester.

A variance to the provisions of Onshore Order No. 2 is proposed to allow us to test the surface casing to 1000 psi instead of to 1500 psi. Per Onshore Order # 2 the test would be performed for a minimum of 30 minutes with less than 10% pressure decline in the 30 minute test period. We propose to perform this test with the rig pump (not with an independent BOP tester).

4. Proposed casing program:

Type	Hole Size	Interval	Casing Size	Weight	Grade	Joint
Conductor	17-1/2"	0-40' to 80'	13-3/8" or 14"	48# or 36.75#	H-40 or X-42	ST&C or Plain End
Surface Casing	12-1/4"	0 - 1260' to 1310'	8-5/8" WITNESS	33#	J-55	ST&C
Production Casing	7-7/8"	0 - 7125' to 7215'	5-1/2"	17#	J-55 or L-80	LT&C

We propose an **alternative option to run a stage tool** at 3600' to 5380' in the 5-1/2" production casing based on hole conditions if losses are observed to occur while drilling the 7-7/8" production hole.

Proposed wellhead program:

Casing Head: 8-5/8" Slip on and Weld x 11" 5M Casing Head installed on 8-5/8" surface casing
 Tubing Head: 11" 5M x 7-1/6" 5M Tubing Head installed after setting 5-1/2" production casing

5. Proposed cementing program:

13-3/8" or 14" Conductor: Cemented with ready mix or Class C Neat Cement to Surface

8-5/8" Surface Casing:

Lead Slurry: 500 sx
 65% Class C
 35% Poz
 + 6% bentonite
 + 2% calcium chloride
 + 0.125 lb/sx Poly-E-Flake
 Mix Weight = 12.8 ppg,
 Yield = 1.85 cuft/sx yield,
 Mix Water = 9.92 gal/sx
 Top of Lead Slurry at Surface

Tail Slurry: 200 sx
 Class C Cement
 + 2% calcium chloride
 + 0.125 lb/sx Poly-E-Flake
 Mix Weight = 14.8 ppg,
 Yield = 1.35 cuft/sx yield,
 Mix Water = 6.35 gal/sx
 Length of Tail Slurry: 300'
 Top of Tail Slurry at 960' - 1010' MD RKB

Proposed cementing program (continued)

5-1/2" Production Casing: Single Stage Cementing Option

Lead Slurry: 710 sx
50% Class C
50% Poz
+ 10% bentonite
+ 8 lb/sx salt
+ 0.4% Fluid Loss Additive if needed
+ 0.2% Dispersant if needed
+ 0.125 pps Poly-E-Flake
+ 1% Well Life Loss Circulation Material if needed
Mix Weight = 11.8 ppg,
Yield = 2.52 cuft/sx yield,
Mix Water = 14.62 gal/sx
Top of Lead Slurry at Surface

Tail Slurry: 400 sx
50% Class H
50% Poz
+ 2% bentonite
+ 5% salt (bwow)
+ 0.4% Fluid Loss Additive
+ 0.2% dispersant
+ 1% Well Life Loss Circulation Material if needed
Mix Weight = 14.2 ppg,
Yield = 1.32 cuft/sx yield,
Mix Water = 6.13 gal/sx
Top of Tail Slurry at ~ 5380'

Note: The volumes presented here are estimates and we propose to adjust the cement volumes based on caliper data if logs are available.

Proposed cementing program (continued)

5-1/2" Production Casing: Two-Stage Cementing Option

It is proposed to use Two-Stage Cementing if needed based on wellbore conditions and observations of any loss of circulations events or heavy seepage losses while drilling the 7-7/8" hole. In the event of the implementation of this option, the cementing program would be as follows:

- Stage 1 Cement: Will place cement from the 5-1/2" production casing shoe to the Stage Tool.
- Stage 2 Cement: Will place cement from the stage tool in the 5-1/2" production casing to Surface.

Stage 1:

Lead Slurry: 0 to 170 sx (This slurry is proposed as an option to be used if needed depending on the depth at which the Stage Tool is set if the Two-Stage Option is used).

50% Class C

50% Poz

+ 10% bentonite

+ 8 lb/sx salt

+ 0.4% Fluid Loss Additive if needed

+ 0.2% Dispersant if needed

+ 0.125 pps Poly-E-Flake

+ 1% Well Life Loss Circulation Material if needed

Mix Weight = 11.8 ppg,

Yield = 2.52 cuft/sx yield,

Mix Water = 14.62 gal/sx

Top of Lead Slurry (if needed / used) would be at the Stage Tool.

Tail Slurry: 400 sx

50% Class H

50% Poz

+ 2% bentonite

+ 5% salt (bwow)

+ 0.4% Fluid Loss Additive

+ 0.2% dispersant

+ 1% Well Life Loss Circulation Material if needed

Mix Weight = 14.2 ppg,

Yield = 1.32 cuft/sx yield,

Mix Water = 6.13 gal/sx

Top of Tail Slurry ~ 5380' MD RKB or at the Stage Tool.

Note: The volumes presented here are estimates and we propose to adjust the cement volumes based on caliper data if logs are available.

Proposed cementing program (continued)

5-1/2" Production Casing: Two-Stage Cementing Option (continued)

Stage 2:

Lead Slurry: 540 to 710 sx depending on where the stage tool may be set.

50% Class C

50% Poz

+ 10% bentonite

+ 8 lb/sx salt

+ 0.4% Fluid Loss Additive if needed

+ 0.2% Dispersant if needed

+ 0.125 pps Poly-E-Flake

+ 1% Well Life Loss Circulation Material if needed

Mix Weight = 11.8 ppg,

Yield = 2.52 cuft/sx yield,

Mix Water = 14.62 gal/sx

Top of Lead Slurry at Surface

Tail Slurry: 100 sx

Class C Neat

Mix Weight = 14.8 ppg,

Yield = 1.35 cuft/sx yield,

Mix Water = 6.35 gal/sx

Top of Stage 2 Tail Slurry at ~ 4980' - 5180' MD RKB

Note: The volumes presented here are estimates and we propose to adjust the cement volumes based on caliper data if logs are available.

6. Proposed Mud System

12-1/4" hole from surface to 1270 – 1320' MD RKB: The circulating media will be either a spud mud or fresh water with high viscosity sweeps. The mud components will be:

- Fresh Water
- Bentonite
- Lime
- Soda Ash
- Starch if needed
- Drilling Paper
- Other loss of circulation material if needed (nut plug or fibrous material)
- Soap sticks

7-7/8" hole from ~ 1310' to ~ 7215' (TD): The circulating media will be 10 ppg brine and will be converted to a mud with starch, attapulgate, and lime upon reaching Total Depth (TD).

The mud components will be:

- Brine (approximately 10 lb/gal density)
- Attapulgate
- Lime
- Starch
- Drilling Paper
- Other loss of circulation material if needed (nut plug, fibrous material, gilsonite, or asphalt)
- Soap Sticks if needed

7. Testing, Logging, and Coring

- Mud logging (samples) 2000' to TD
- Open hole electric line logs: (Gamma Ray, Neutron, Density, Resistivity, Spectral Gamma Ray, Sonic, Caliper)
- Formation pressure data (XPT) on electric line
- No whole cores are planned
- No sidewall cores are planned
- No drill stem tests will be done

8. Abnormal Pressures and Temperatures:

- No abnormal pressure is anticipated. All pressures in the surface hole are expected to be 8.33 ppg equivalent mud weight or less. All pressures in the production hole are anticipated to be 9 ppg equivalent mud weight or less. The maximum bottom hole pressure should not exceed 3376 psi.
- The expected bottom hole temperature is 113 degrees F
- The estimated H₂S concentrations in offset wells to SEMU 176 are in the range of 4000 ppm at a gas rate of 62 MCFD in the Yates / Seven Rivers / Queen formation to 1559 ppm H₂S at a gas rate of 210 mcf/d in the Blinberry formation. The calculated 100 ppm H₂S ROE is 42 to 50 feet. The 500 ppm ROE is 19 to 23 feet. ConocoPhillips will provide H₂S monitoring and an H₂S contingency plan. Monitoring equipment will be rigged up and tested prior to drilling out from surface casing. The Hydrogen Sulfide Contingency Plan will be posted at the wellsite.

9. Anticipated starting date and duration of operations:

- It is estimated that drilling will commence about January 30, 2008.
- Drilling operations should be finished within 15 to 18 days and followed by completion operations.

Program prepared by:

Steven O. Moore, Drilling Engineer, ConocoPhillips Company

Phone 832 486 2459

Cell Phone 281 467 7596

Date: June 7, 2007

Datum: RKB (12' above ground level)

Conductor

13-3/8" conductor set at 40' - 80' BGL with rat hole machine

Surface Casing

Size 8 5/8 in
 Wt. 24 ppf
 Grade: J-55 ppf
 Conn: STC ppf

Hole Size 12 1/4 in
 Excess Cmt 100 %
 T.O.C. SURFACE

Surface Casing Shoe set at 1260' - 1310' MD RKB
 TD of 12-1/4" hole at 1270' - 1320' MD RKB

Production Casing:

Size 5 1/2 in
 Wt. 17 ppf
 Grade: J-55 or L-80 ppf
 Conn: LTC ppf

Hole Size 7 7/8 in

T.O.C. SURFACE

Alternative Program: Stage Tool Placed at some depth between 3600' and 5380' depending on where losses may be observed.

Cement Volumes are estimates and will be adjusted based on the caliper log if available.

Top of Float Collar at 7070' - 7160' MD RKB

Production Casing Shoe 7115 - 7205' MD RKB
 TD of 7-7/8" hole at 7125' - 7215' MD RKB

Schematic prepared by:
 Steven O. Moore, Drilling Engineer
 07-June-2007

11" 5M x 7 1/16" 5M Tubing Head
 8-5/8" SOW x 11" 5M Casing Head

☒ New
☐ Used

☒ New
☐ Used

Surface Cement

Spacer: 20 bbls fresh water

Lead Slurry:
 500 sx
 Mix Weight = 12.8 ppg
 Yield = 1.85 cuft/sx

Top of Lead Slurry at Surface

Tail Slurry:
 200 sx
 Mix Weight = 14.8 ppg
 Yield = 1.35 cuft/sx

Length of Tail Slurry: 300'
 Top of Tail Slurry: 960 - 1010' MD RKB

Displacement: Fresh Water

Production Cement**Stage 2**

Lead Slurry: 540 to 710 sx depending on depth at which stage tool is placed
 Mix Weight = 11.8 ppg,
 Yield = 2.52 cuft/sx yield
 Top of cement at Surface

Stage 2

Tail Slurry: 100 sx Class C Neat
 Mix Weight = 14.8 ppg
 Yield = 1.35 cuft/sx

Stage 1

Lead Slurry: 0 to 170 sx if needed depending on depth at which the Stage Tool is placed in order to bring top of cement to the Stage Tool if the Stage Tool is placed above 5380' MD.

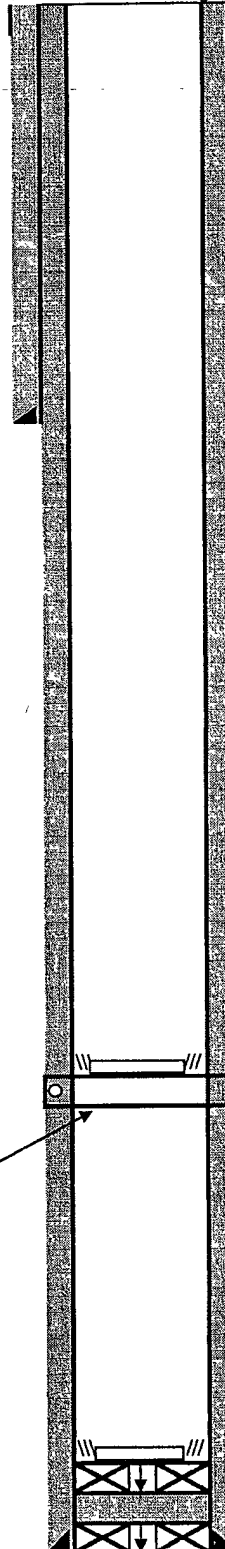
Mix Weight = 11.8 ppg,
 Yield = 2.52 cuft/sx yield,

Stage 1

Tail Slurry: 400 sx
 Mix Weight = 14.2 ppg
 Yield = 1.32 cuft/sx

Top of Tail Slurry @ ~ 5380' MD RKB. This would bring top of cement to the stage tool if the Stage Tool is placed at 5380'.

Displacement: Mud or Fresh Water



Proposed Drilling Wellbore Schematic
SEMU # 176

Datum: RKB (12' above ground level)

Conductor

13-3/8" conductor set at 40' - 80' BGL with rat hole machine

Surface Casing

Size 8 5/8 in
Wt. 24 ppf
Grade: J-55 ppf
Conn: STC ppf

Hole Size 12 1/4 in
Excess Cmt 100 %
T.O.C. SURFACE

Surface Casing Shoe set at 1260' - 1310' MD RKB
TD of 12-1/4" hole at 1270' - 1320' MD RKB

Production Casing:

Size 5 1/2 in
Wt. 17 ppf
Grade: J-55 or L-80 ppf
Conn: LTC ppf

Hole Size 7 7/8 in

T.O.C. SURFACE

Cement volumes are estimates and will be adjusted based on the caliper log if available.

Top of Float Collar at 7070' - 7160' MD RKB

Production Casing Shoe 7115 - 7205' MD RKB
TD of 7-7/8" hole at 7125' - 7215' MD RKB

Schematic prepared by:
Steven O. Moore, Drilling Engineer
07-June-2007

11" 5M x 7 1/16" 5M Tubing Head
8-5/8" SOW x 11" 5M Casing Head

☒ New
☐ Used

Surface Cement

Spacer: 20 bbls fresh water

Lead Slurry:
500 sx
Mix Weight = 12.8 ppg
Yield = 1.85 cuft/sx

Top of Lead Slurry at Surface

Tail Slurry:
200 sx
Mix Weight = 14.8 ppg
Yield = 1.35 cuft/sx

Length of Tail Slurry: 300'
Top of Tail Slurry: 960' - 1010' MD RKB

Displacement: Fresh Water

Production Cement

Spacer: 20 bbls fresh water

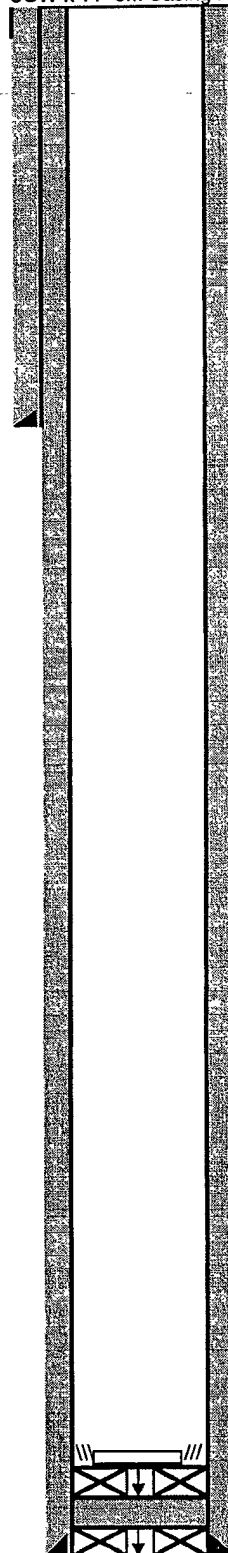
Lead Slurry: 710 sx
Mix Weight = 11.8 ppg,
Yield = 2.52 cuft/sx yield,

Top of Lead Slurry at Surface

Tail Slurry: 400 sx
Mix Weight = 14.2 ppg
Yield = 1.32 cuft/sx

Top of Tail Slurry @ ~ 5380' MD RKB

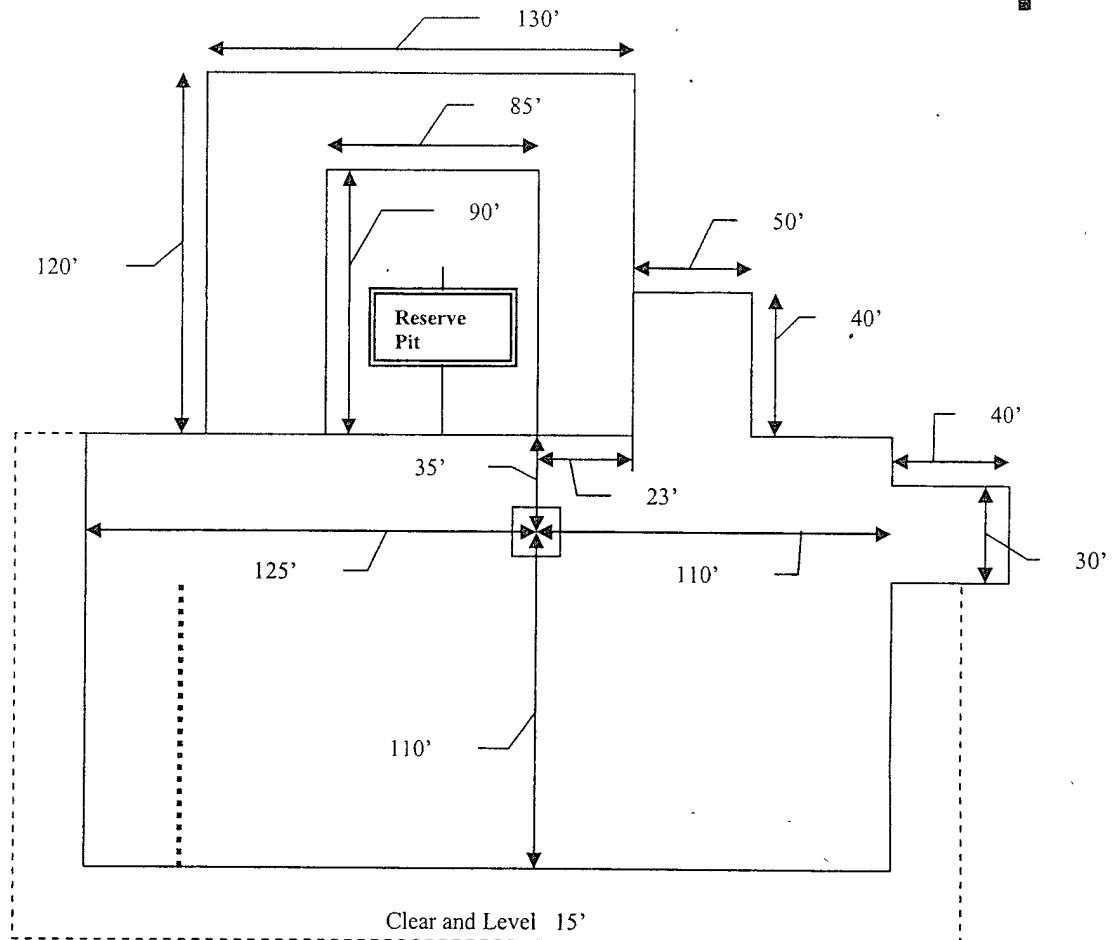
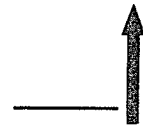
Displacement: 2% KCL water



ConocoPhillips

Sledge Drilling

Well: _____



*Pits North
V-Door East*

PVC Conduit

- 100' Left of center line of cellar
- 50' Back of berm wall or 15' back of center line of cellar
- ----- Conduit

Sledge Drilling Rig # 5 & Rig # 10

Location dimensions

Revised 4-4-07

**ConocoPhillips' General Plan for
Pit Construction & Closure in Southeast New Mexico
October 2005**

In accordance with Rule 19.15.2.50(B)(2), the following information describes the construction and closure of drilling pits on COPC Southeast New Mexico (SENM) locations. This will become COPC's standard procedure on all SENM locations. If pits are constructed or closed out of the norm, a separate permit application will be submitted.

Drill Pit Construction:

General:

- Depth to Ground Water, Wellhead Protection Area & Distance to Nearest Surface Water Body ranking criteria will be site specific and information will be provided on APD or Sundry form C-103.
 - In the case where groundwater is encountered during the construction of a drilling pit, the NMOCD will be contacted and COPC will either try to find an alternative well location or use a closed steel tank system.
- The pit size and design is specific to well depth and location conditions.
- Topsoil will be stockpiled in the construction zone for later use in restoration.
- Pits will not to be located in natural drainages.
- Diversion ditches will be constructed and maintained so that runoff water from outside the location is not allowed to enter the pit.
- Under no circumstance will pits be cut and drained during the drilling operations.
- A well sign will be on location identifying ConocoPhillips as the operator.
- Waste material at construction sites shall be disposed of promptly at an appropriate waste disposal site. No trash shall be disposed of in the drilling pit.
- Immediately after cessation of drilling and completion pits shall have any visible or measurable layer of oil removed from the surface.
- Prior to any pit construction the OCD will be notified at least 48 hours in advance.

Reserve Pit

- Pits will be constructed so as not to leak, break or allow discharge of liquids or produced solids during the drilling operations.
- Pits will be lined with impervious material at least 12 mils thick, which meets long-term standards as referenced in the guidelines. Padding (hay or pad dirt) is used underneath the synthetic liner in rocky areas.
- The pit will have adequate capacity to maintain 2 feet of free board.
- The reserve pit will be fenced on three sides away from the pad during drilling and the fourth side fenced as soon as the rig moves out.

Blow Pit

- Pits will be constructed to allow gravity flow to discharge into lined drill pit.
- The lower half of the pit, which is toward the drain line to the fully lined reserve pit, will be lined.
- Design of pit has been changed to reduce potential for trapped fluid at tail end of pit
- Pit will be fenced on three sides away from the pad during drilling and the fourth side fenced as soon as the rig moves off.
- Corrective actions will be taken to ensure the pit does not contain fluid.
 - This includes pumping out trapped fluid or fluid in low spots.
 - Filling in low spots in the blow pit that are below the elevation of the drain pipe to the lined pit.
 - Removing any high spots in blow pit that could trap rain water.

Pit Monitoring and Maintenance

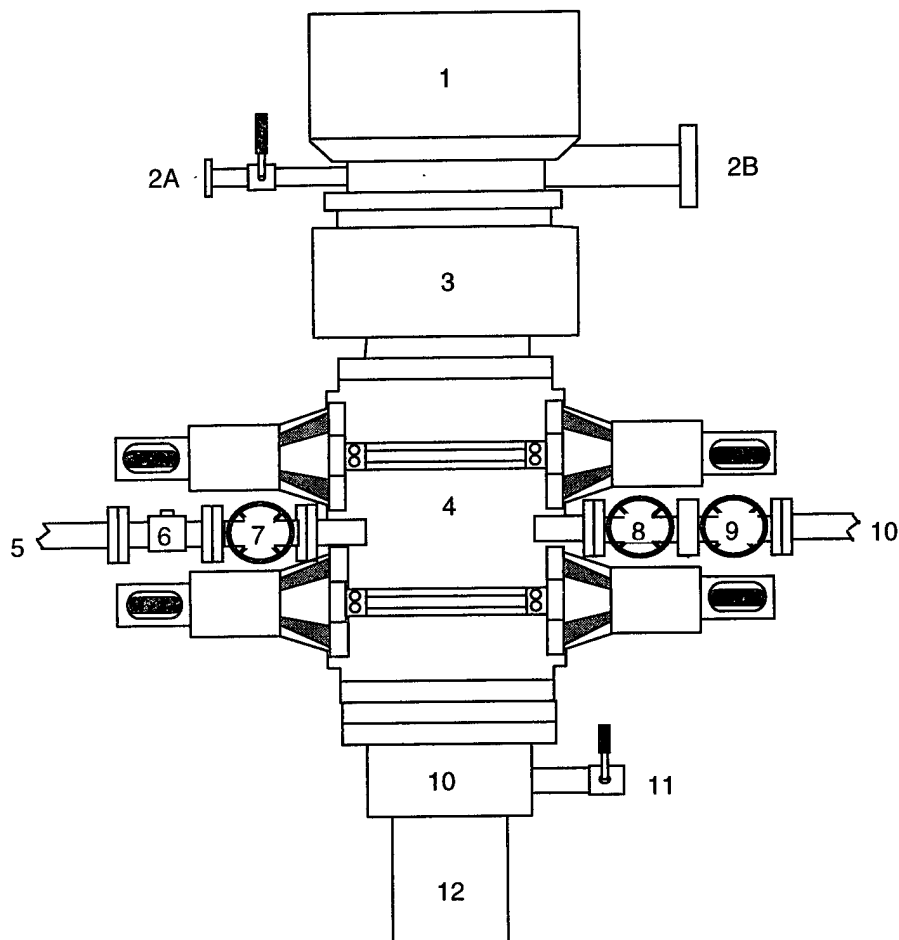
- COPC will perform an inspection of the location including pit compliance within 72 hours of rig moving off.
- COPC will review the OCD pit requirements and the requirements included in this document with all COPC and contract personnel responsible for construction and closure of pits.

Drill Pit Closure:

- Good faith effort is made to close pits within required timeframe on Federal wells (90 days) and State/Fee wells (6 months). If pits will remain open past due dates, an extension will be requested by sundry notice to allow pits to remain open.
- The BLM is notified 24 hours prior to fluid hauling on Federal wells.
- The NMOCD will be notified 48 hours prior to closing of any pit.
- Aeration of pit fluids will be confined within pit area.
- Wells which have not penetrated a salt section and where less than 9.5# brine was used during drilling will be encapsulated below-grade.
 - Encapsulation will be accomplished by mixing earthen materials with the pit contents to stiffen the pit contents, as necessary, folding the edges of the liner over the stiffened mud and cuttings and covering the encapsulated wastes and liner with a minimum of 3 feet of clean soil or like material that is capable of supporting native plant growth.
- Wells which have penetrated a salt section or 9.5# brine or greater was used during drilling may be capped and encapsulated insitu or deep trench buried and capped below-grade.
 - Capping and encapsulation insitu will be accomplished by mixing earthen materials with the pit contents, as necessary to stiffen the pit contents sufficiently to provide physical stability and support for the pit cover, folding the edges of the liner over the stiffened mud and cuttings; capping the pit with either a 1-foot thick clay cap compacted to ASTM standards, or a 20 mil minimum liner and covering the cap with a minimum of 3 feet of clean soil or like material that is capable of supporting native plant growth.
 - Deep trench burial and capping will be accomplished by digging a trench adjacent to the drilling pit; lining the trench with a 12 mil liner; mixing earthen materials with the pit contents, as necessary to stiffen the pit contents sufficiently to provide physical stability and support for the trench cap; capping the trench with either a 1-foot clay cap compacted to ASTM standards, or a 20 mil minimum liner and covering the cap with a minimum of 3 feet of clean soil or like material that is capable of supporting native plant growth.
 - When constructing the cap, the liner or clay cap will overlap the underlying pit or trench area by at least 3 feet in all directions.
- If the depth to groundwater is less than 50 feet or if the well is located less than 200 feet from a domestic fresh water well or spring or less than 1000 feet from any other fresh water well or if the distance to surface water body is less than 200 feet; the well is considered to be in sensitive area. (Keep in mind that these are not the only scenarios of sensitive area.)
 - A special encapsulation or solidification process prior to covering the pit contents will be accomplished by mixing the pit contents with cement or some other solidifying product at approximately a 3 to 1 ratio with samples taken and approved by the OCD prior to closure and then contents buried as described above.
 - OCD must give written approval on any special closure or encapsulation prior to any work being done.
- The reserve pit will then be backfilled, leveled and contoured so as to prevent run-off to surface water.
- The area will be reseeded with the appropriate seed mixture.
- The final grade of reserve pit (after reclamation) will be returned to natural contour of the land such that no pooling will occur.
- A closure report will be submitted on Form C-144 on all drilling pits.
- **Note: On Federal wells, a BLM inspector may witness pit closures and may mandate specific modifications to that which is mentioned above. If this happens, OCD will be contacted for concurrence and modifications will be noted in the closure report.**

BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Drilling Production Hole and Setting 5.5 inch Casing



1. Rotating Head
- 2A. Fill-up Line & valve
- 2B. Flow Line
3. Annular BOP (11", 5000 psi)
4. Double Ram BOP (11", 5000 psi)
(Blind Rams - Upper Set)
(Pipe Rams - Lower Set)
5. Kill Line
6. Kill Line Check Valve
7. Kill Line Valve
8. Inner Choke Line Valve (3")
9. Outer Choke Line Valve (3")
10. Csg Head "A" Section (11", 5M)
11. Csg Head Valve (2", 3M)
12. 8 5/8" Casing

We propose a VARIANCE to Onshore Order No. 2 to allow us to test our BOPs as follows:

Test Pipe Rams and Blind Rams to 3000 psi instead of 5000 psi

Test Annular BOP to 2000 psi instead of 2500 psi

The reason for this request is that we feel that this is an adequate test and reduces wear and tear on the equipment.

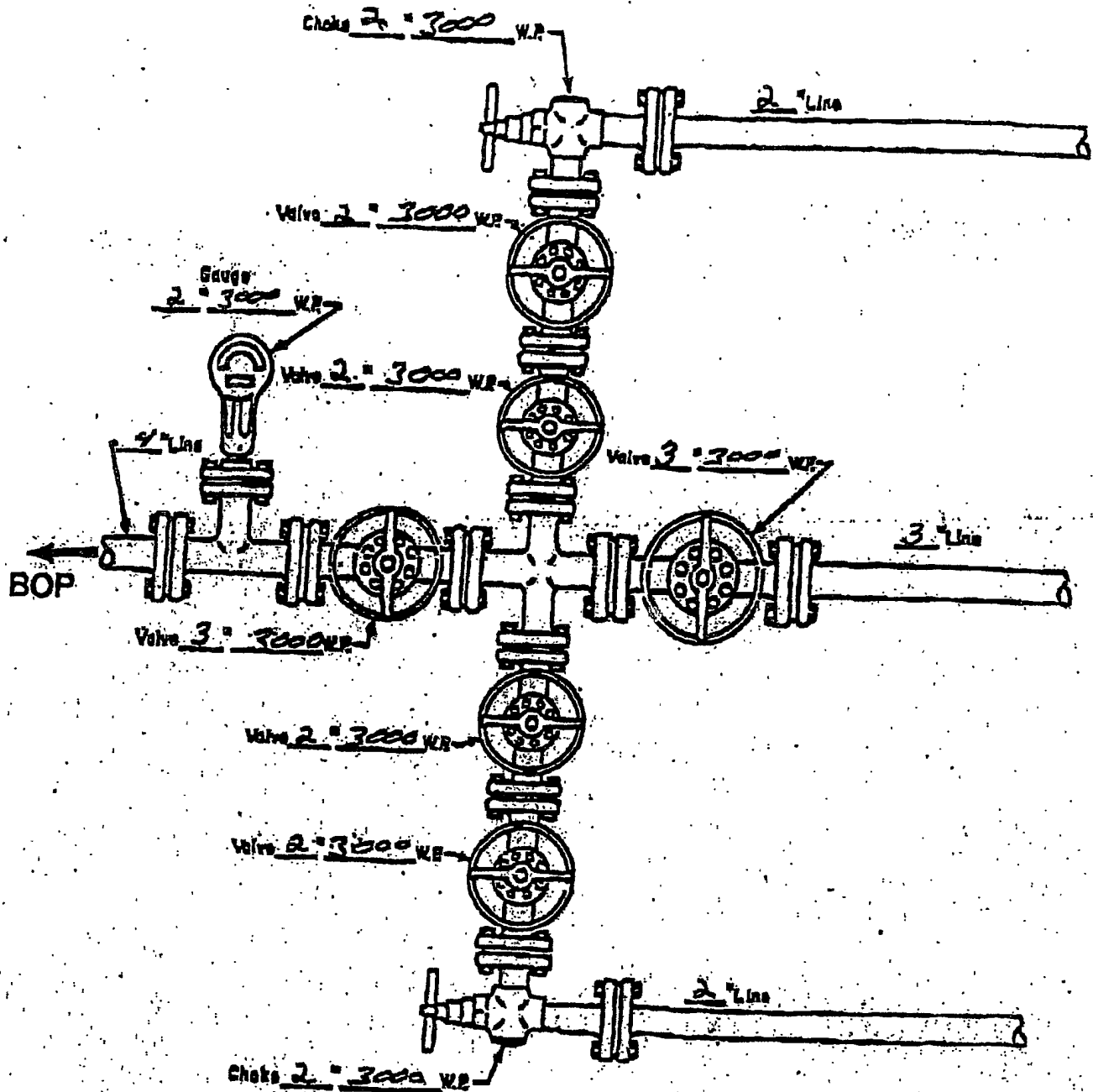
We propose a VARIANCE to Order # 2 to allow us to pressure test the Surface Casing to 1000 psi instead of to 1500 psi.

Per Onshore Order # 2 the test would be performed for a minimum of 30 minutes with less than 10% pressure decline in the 30 minute test period. The reason for this is that we feel this is an adequate test pressure and will allow us to use the rig pump for the test instead of a testing unit pump and will reduce wear and tear on the equipment.

Drawn by: Steven O. Moore, Drilling Engineer, 20-Feb-2007

Revision Date: February 20, 2007

CHOKE MANIFOLD DIAGRAM



MANIFOLD
3000 W.P.

- ☒ Manual
- ☐ Hydraulic

H2S DRILLING OPERATIONS PLAN

ConocoPhillips, Inc. will comply with Onshore Order No. 2 and No. 6 for working in an H2S environment or a potential H2S environment.

I. Hydrogen Sulfide Training

All contractors and subcontractors employed by ConocoPhillips will receive or have received training from a qualified instructor within the last twelve months in the following areas prior to commencing drilling operations on this well.

1. The hazards and characteristics of hydrogen sulfide (H2S)
2. Safety precautions.
3. Operations of safety equipment and life support systems.

In addition, contractor supervisory personnel will be trained or prepared in the following areas:

1. The effect of H2S on metal components in the system, especially where high tensile strength tubulars are to be used.
2. Corrective action and shutdown procedures when drilling or reworking a well, blowout prevention and well control procedures, if the nature of work performed involves these items.
3. The contents and requirements of the contingency plan when such plan is required.

II. H2S EQUIPMENT AND SYSTEMS

1. Safety Equipment

The following minimum safety equipment will be on location:

- A. Wind direction indicators placed near rig floor/mud return lines and at points along the perimeter of the location to allow visibility of at least one indicator from any point on location.
- B. Automatic H2S detection alarm equipment (both audio and visual)
- C. Clearly visible warning signs. Signs will use the words "POISON GAS" and "CAUTION" with a strong color contrast.
- D. Protective breathing equipment will be located in the doghouse and at briefing areas on location.

2. Well Control Systems

A. Blowout Prevention Equipment

Equipment includes but is not limited to:

1. Pipe rams to accommodate all pipe sizes
2. Blind rams
3. Choke manifold
4. Closing Unit
5. Flare line and means of ignition

B. Communication

The rig contractor will be required to have two-way communication capability. ConocoPhillips will have either land-line, satellite phone, microwave phone, or mobile (cellular) telephone capabilities.

C. Mud Program

The mud program has been designed to minimize the volume of H₂S circulated to surface. Proper mud weight, safe drilling practices and the use of H₂S scavengers when appropriate will minimize hazards when penetrating H₂S bearing zones.

D. Drill Stem Tests

Any planned drill stem test will be cancelled if H₂S is detected prior to such test. In the event that H₂S is detected during testing, the test will be terminated immediately.

SURFACE USE PLAN

ConocoPhillips Company SEMU #176

The following is required information concerning the possible which the drilling of this well may have on the environment, existing road sites, and surrounding acreage. A copy will be posted on the derrick floor so all contractors and sub-contractors will be aware of all items on this plan.

1. Existing Roads

- A. The proposed well site 685' FSL & 660' FWL, Section 23, T20S, R37E, Lea County, New Mexico
- B. Directions to the location are provided as an attachment
See attached well pad topo
- C. No improvement or maintenance is anticipated for the existing roads.

2. Planned Access Road

- A. No new access road will be required.
- B. Turnouts as required by surface managing agency.
- C. Culverts as required by surface managing agency
- D. Gates, Cattleguards, or fences as required by surface managing agency.

3. Topographic Map and Well Location.

A 7.5' quadrangle map was filed with the notice of staking.

4. Additional Rights-of-Way

Electric line, access road and flowline as shown on attached plats.

5. Water Supply

Fresh and brine water will be obtained from commercial sources and will be trucked to location by the same directions for reaching the drill site.

6. Source of construction materials.

Construction materials will be obtained commercial sources.