ConocoPhillips

ConocoPhillips Company
PTRRC
Ronald G. Crouch
PTRRC Advisor
4001 Penbrook St., Ste. 345
Odessa TX, 79762
Phone (432) 368-1218
Cell (432) 631-5557

January 13, 2010

Bureau of Land Management
Attn: Natural Resource Specialist
620 East Greene
Carlsbad New Mexico 88220

Re:

Warren Unit 346 Section 27, T20S-R38E Lea County, New Mexico	Warren Unit 347 Section 27, T20S-R38E Lea County, New Mexico	Warren Unit 354 Section 34, T20S-R38E Lea County, New Mexico
Warren Unit 355 Section 27, T20S-R38E Lea County, New Mexico	Warren Unit 356 30-025-39730 Section 27, T20S-R38E Lea County, New Mexico	

Settlement has been reached between the surface owner and ConocoPhillips Company for the above mentioned well location and appurtenances.
The surface owner is:

Robert McCasland
P.O. Box 206
Eunice, NM 88231

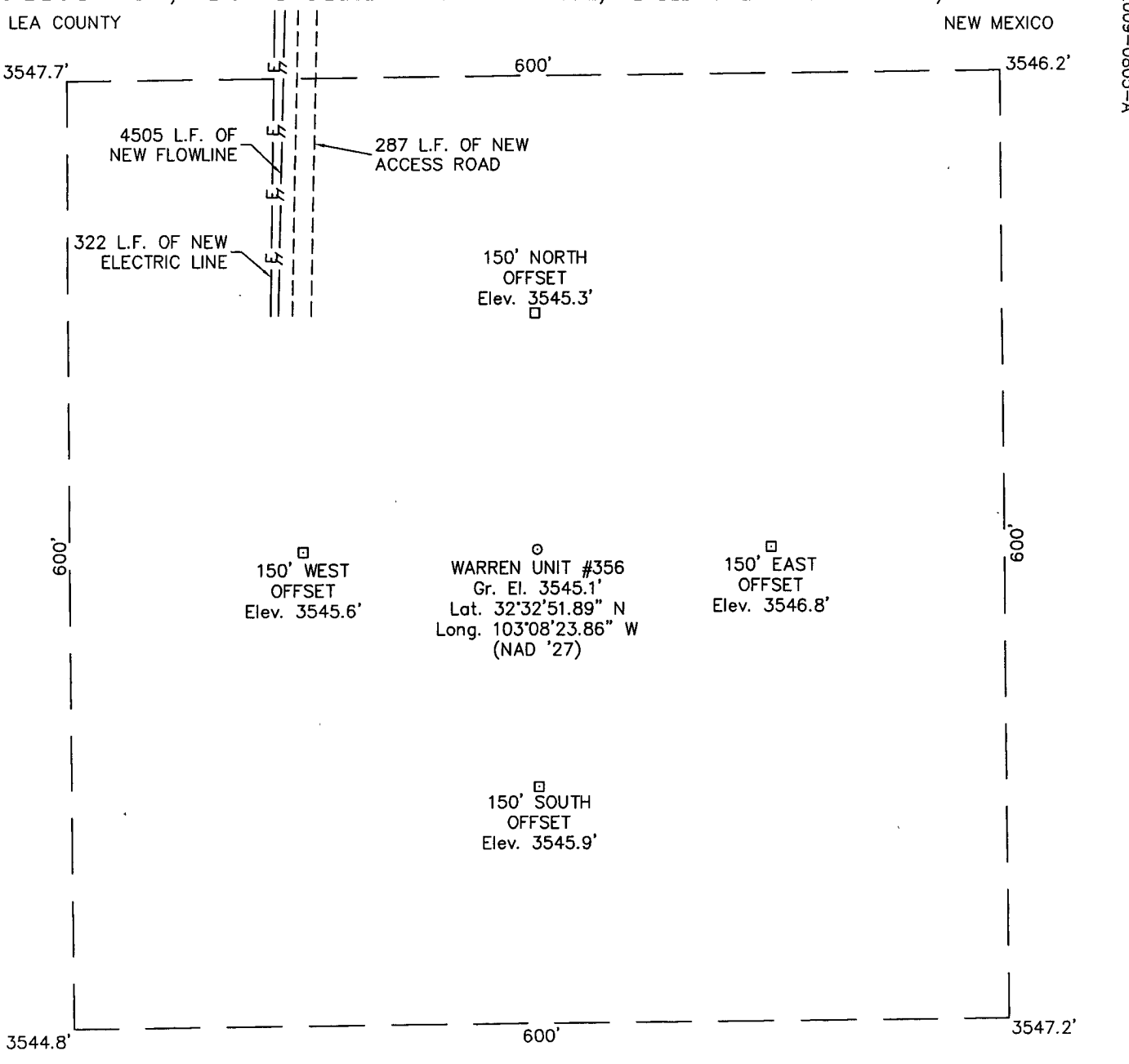
If you have any questions, please contact me.

Sincerely,

Ronald Crouch
PTRRC Advisor
ConocoPhillips Company

SECTION 27, TOWNSHIP 20 SOUTH, RANGE 38 EAST, N.M.P.M.

L-2009-0805-A



100 0 100 200

Graphic Scale in Feet

DRIVING DIRECTIONS

FROM THE INTERSECTION OF STATE HIGHWAY 176 AND STATE HIGHWAY 18 2 MILES EAST OF EUNICE, NEW MEXICO, GO NORTH ON SAID HIGHWAY 18 7.2 MILES TO A LEASE ROAD ON WEST (LEFT) SIDE OF HIGHWAY, THEN GO WEST ON LEASE ROAD 0.9 MILE TO ANOTHER LEASE ROAD ON NORTH (RIGHT) SIDE OF ROAD, THEN GO NORTH 0.5 MILE TO ANOTHER LEASE ROAD ON EAST (RIGHT) SIDE OF ROAD, THEN GO EAST 0.1 MILE TO A POINT WHERE A NEW ACCESS ROAD BEGINS ON SOUTH (RIGHT) SIDE OF ROAD, THEN GO SOUTH 287 FEET TO THE PROPOSED LOCATION.

CONOCOPHILLIPS

WARREN UNIT #356

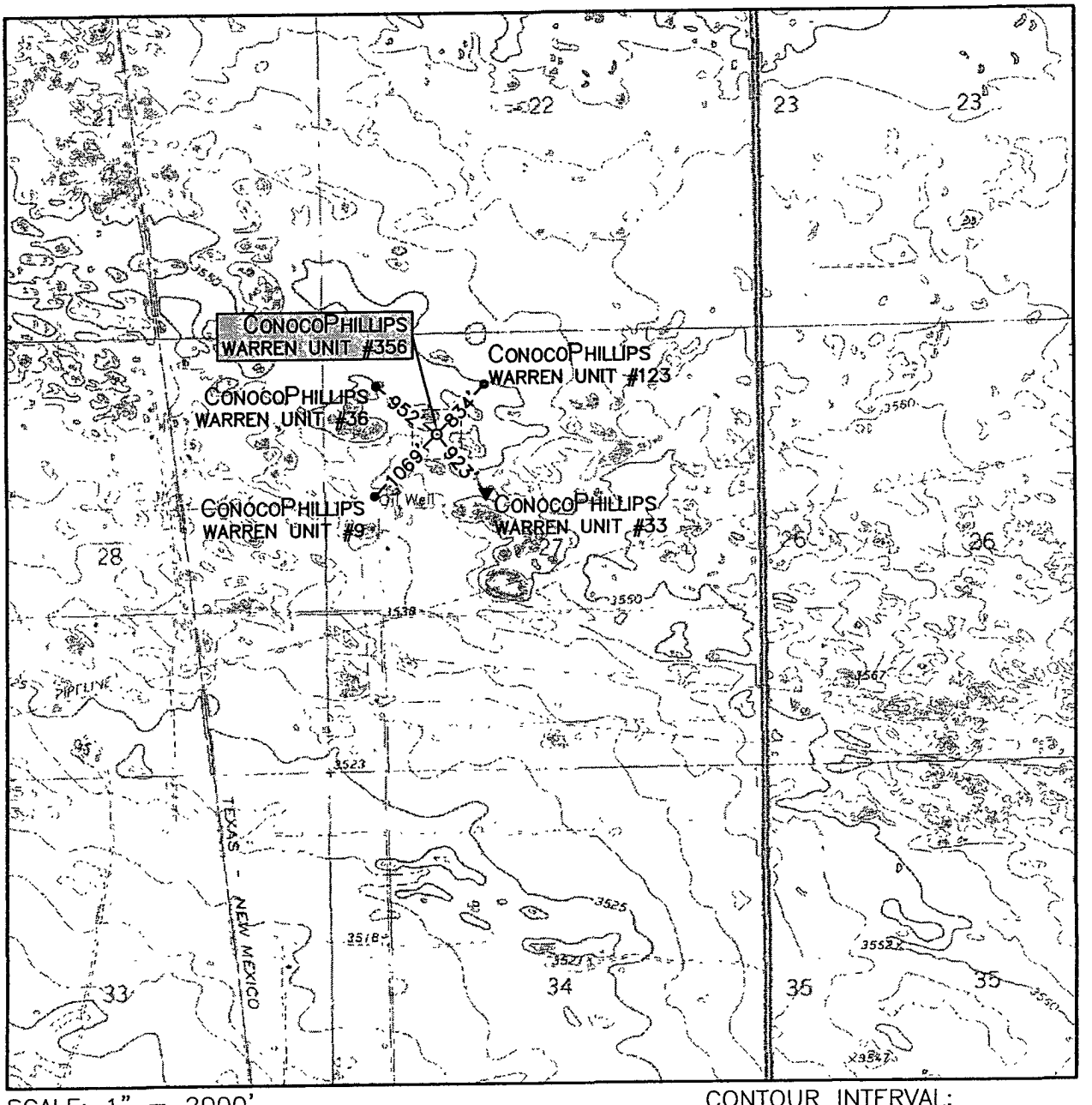
Located 1259' FNL & 1400' FWL, Section 27
Township 20 South, Range 38 East, N.M.P.M.
Lea County, New Mexico

Drawn By: LVA	Date: December 9, 2009
Scale: 1" = 100'	Field Book: 464 / 1-25, 48-51
Revision Date: 3/01/2010	Quadrangle: Hobbs SW
W.O. No: 2010-0142	Dwg. No.: L-2009-0805-A

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. 27 TWP. 20–S RGE. 38–E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1259' FNL & 1400' FWL

ELEVATION 3545'

OPERATOR CONOCOPHILLIPS

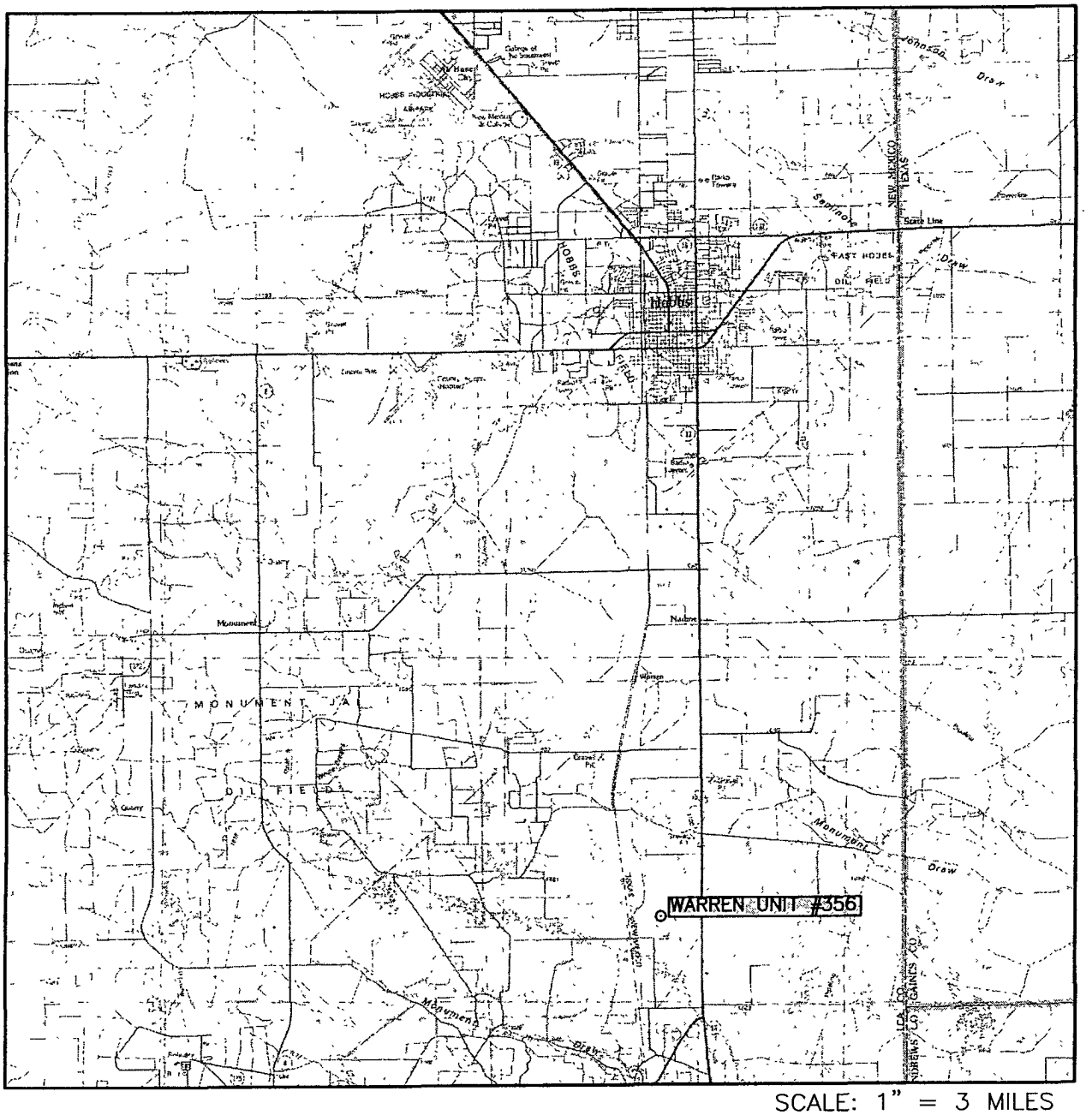
LEASE WARREN UNIT

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

NORTH

WEST COMPANY of Midland, Inc.
110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687–0865 – (432) 687–0868 FAX

VICINITY MAP



SCALE: 1" = 3 MILES

SEC. 27 TWP. 20-S RGE. 38-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1259' FNL & 1400' FWL

ELEVATION 3545'

OPERATOR CONOCOPHILLIPS

LEASE WARREN UNIT

NORTH

WEST COMPANY of Midland, Inc.

110 W. LOUISIANA, STE. 110
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Warren 356

Formation Tops and Planned Total Depth	
Formation Call Points	Top (ft MD)
Rustler	1480
Salado	1572
Yates	2786
Blinebry	5748
Tubb	6420
Abo	7001
Total Depth (minimum)	7156
Total Depth (maximum)	7101

Casing Depths		
String	Minimum Depth	Maximum Depth
Surface Casing	1505	1550
Production Casing	7146	7091

Note: The Surface Casing and the Production Casing programs reflect an uncertainty of 45' in the setting depth for the shoe because that is the approximate length of a full joint of Range 3 casing. This range for the setting depth will allow us to drill the hole to fit the casing string based on how the tally comes out and will provide for the cementing head to be positioned at the rig floor for safety and efficiency in cementing operations. The casing will be set approximately 10 ft off bottom.

PRODUCTION CASING

Size	TVD	Feet	Wt			ID	Drift	Max OD	Burst	Coll.	Joint	MU Torq (ft-lbs)		
(in)	(ft)	(ft)	(ppf)	Grade	Conn	(in)	(in)	(in)	(psi)	(psi)	(klbs)	Min	Opt	Max
5-1/2"	1,000'	1,000'	17	L-80	LT&C	4.892	4.767	6.050	7740	6290	338	2560	3410	4260
5-1/2"	7,150'	7,150'	17	J-55	LT&C	4.892	4.767	6.050	5320	4910	247	1850	2470	3090

Note: If stuck call Drilling Superintendent. Max pull allowed is 71% of weakest component.

Casing connection failure point 247K ALLOWED PULL IS 247(.71) = **175K**

Shoe Track:

- Float Shoe
- 1 joint casing
- Float Collar

Centralizers:

1 on joint between float shoe and float collar over Stop Collar
1 on joint above float collar on casing collar
1 every 3rd joint above casing collar to surface

Marker Joints:

Place one 20'x20' double marker joint positioned with the top of the joint at approximately 5,400' MD RKB
Place one 20'x20' double marker joint positioned with the top of the joint at approximately 6,200' MD RKB

Master Drilling Plan
ConocoPhillips Company
SEMU and Warren Unit
July 17, 2008

Lea County, New Mexico
Pool: Blinebry, Tubb, Drinkard

UNIT AREA: Leases in the following Sections, Townships and Ranges that ConocoPhillips Company operates. Lease numbers as follows, but not limited to:

Southeast Monument Unit

Lease	Suffix	Lessor	Township	Range	Section	QQ
155692	000	NM 557686	20	37	13	S2SW
155692	000	NM 557686	20	37	13	SE
265155	000	NMNM 90161	20	37	13	NWSW
265155	000	NMNM 90161	20	37	13	SWNE
155692	000	NM 557686	20	37	14	NWNE
155692	000	NM 557686	20	37	14	S2NE
155692	000	NM 557686	20	37	14	SE
155692	000	NM 557686	20	37	14	W2
017994	000	LC 031621B	20	37	15	E2E2
155692	000	NM 557686	20	37	22	E2NE
271248	000	NM 557686	20	37	22	E2SE
155692	000	NM 557686	20	37	23	All
155692	000	NM 557686	20	37	24	N2N2
020643	000	LC 031620A	20	37	24	S2
020643	000	LC 031620A	20	37	24	S2N2
018625	000	LC 031696A	20	37	25	N2S2
018625	000	LC 031696A	20	37	25	S2NE
018625	000	LC 031696A	20	37	25	S2NW
020643	000	LC 031620A	20	37	25	N2N2
018625	000	LC 031696A	20	37	26	NE
018625	000	LC 031696A	20	37	26	N2SE
018625	000	LC 031696A	20	37	26	SESE
155818	000	NMNM 002511	20	37	26	SWSE
155818	000	NMNM 002511	20	37	26	W2
155818	000	NMNM 002511	20	37	27	E2E2

Warren Unit

Lease	Suffix		Township	Range	Section	QQ
018642	000	LC 031670B	20	38	20	SE
018642	000	LC 031670B	20	38	21	SW
018642	000	LC 031670B	20	38	21	W2SE

032310	000	LC 061983	20	38	21	E2SE
018642	000	LC 031670B	20	38	22	S2S2
006710	000	LC 063458	20	38	25	W2
006710	000	LC 063458	20	38	26	ALL
018642	000	LC 031670B	20	38	27	N2N2
019406	000	LC 031695B	20	38	27	S2
019406	000	LC 031695B	20	38	27	S2N2
018642	000	LC 031670B	20	38	28	N2N2
019406	000	LC 031695B	20	38	28	S2
019406	000	LC 031695B	20	38	28	S2N2
018642	000	LC 031670B	20	38	29	N2NE
019405	000	LC 031695A	20	38	29	W2SW
019406	000	LC 031695B	20	38	29	E2SW
019406	000	LC 031695B	20	38	29	S2NE
019406	000	LC 031695B	20	38	29	SE
019406	000	LC 031695B	20	38	33	ALL
006710	000	LC 063458	20	38	34	ALL
006710	000	LC 063458	20	38	35	ALL

If drilling is proposed on additional leases, the BLM will be advised when they are proposed.

1. **Geologic Name of Surface Formation:**
   - Quaternary

2. **Estimated tops of geological markers and estimated depths to water, oil, or gas formations:**

In SEMU and Warren Unit, the estimated tops of the geological markers and proposed Total Depth (TD) vary within a range of as much as 590'. The range of minimum to maximum depth for these markers and proposed TD range is presented in the table below. The datum for these depths is RKB (which is 10' - 12' above Ground Level).

Formation Call	Formation Top FT MD		Thickness		Contents
	Minimum	Maximum	Min	Max	
Above top of Rustler					Fresh Water
Rustler	1210	1620	84	140	
Salado	1295	1740	1115	1350	
Artesia Group	2530	2745	1400	1500	Gas and Oil
Yeso Group	5275	5690	1300	1700	Oil and Salt Water
Proposed TD	6910	7500			

Note: For each individual well we will include with the APD package our correlation pick depths for the formation tops and proposed TD for that individual well.

Protection of fresh water will be accomplished by setting the surface casing 25' - 70' into the Rustler Anhydrite formation and **cementing** the surface casing from the casing shoe **to the surface of ground** in accordance with the provisions of Onshore Oil and Gas Order No. 2 and New Mexico Oil Conservation Division Title 19.

3. **Proposed casing program:**

Type	Hole Size	Interval MD RKB (ft)		OD	Wt	Gr	Conn	Condition	Safety Factors Calculated per BLM Load Formulas		
	(in)	From	To	(inches)	(lb/ft)				Burst	Collapse	Tension Dry/Buoyant
Cond	17-1/2"	0	40' – 85' (30' – 75' BGL)	13-3/8"	48#	H-40	STC	New	NA	NA	NA
Surf	12-1/4"	0	1235'– 1690'	8-5/8"	24#	J-55	STC	New	4.03	1.83	6.02 / 6.91
Prod	7-7/8"	0	1000'	5-1/2"	17#	L-80	LTC	New	1.98	1.61	2.65 / 3.13
	7-7/8"	1000'	TD	5-1/2"	17#	J-55	LTC	New			

We propose to set the surface and production casing approximately 10' off bottom and to drill the hole to fit the casing string so that the cementing head is positioned at the floor for the cement job.

Casing Design (Safety) Factors – BLM Criteria:

Joint Strength Design (Safety) Factor: SFt
SFt = Fj / Wt;
Where

- Fj is the rated pipe Joint Strength in pounds (lbs)
- Wt is the weight of the casing string in pounds (lbs)

The Minimum Acceptable Joint Strength Design (Safety) Factor SFT = 1.6 dry or 1.8 bouyant

Collapse Design (Safety) Factor: SFc
SFc = Pc / (MW x .052 x Ls)
Where

- Pc is the rated pipe Collapse Pressure in pounds per square inch (psi)
- MW is mud weight in pounds per gallon (ppg)
- Ls is the length of the string in feet (ft)

The Minimum Acceptable Collapse Design (Safety) Factor SFc = 1.125

Burst Design (Safety) Factor: SFb
SFb = Pi / BHP
Where

- Pi is the rated pipe Burst (Minimum Internal Yield) Pressure in pounds per square inch (psi)
- BHP is bottom hole pressure in pounds per square inch (psi)

The Minimum Acceptable Burst Design (Safety) Factor SFb = 1.0

Joint Strength Design (Safety) Factors – BLM Criteria

Surface Casing:

- SFj Dry = 244,000 lbs / (1690 ft x 24 lb/ft) = 244,000 lbs / 40,560 lbs = 6.02 Dry
- SFj Bouyant = 244,000 lbs / (1690 ft x 24 lb/ft) [1-(8.5/65.5)= 244,000 lbs / 35,296 lbs = 6.91 Bouyant

Production Casing:

- SFj Dry = 338,000 lbs / (7500 ft x 17 lb/ft) = 338,000 lbs / 127,500 lbs = 2.65 Dry
- SFj Bouyant = 338,000 lbs / (7500 ft x 17 lb/ft) [1-(10.0/65.5)= 338,000 lbs / 108,034 lbs = 3.13 Bouyant

Collapse Design (Safety) Factors – BLM Criteria

Surface Casing:
SFc = 1370 psi / (8.5 ppg x .052 x 1690 ft) = 1370 psi / 747 psi = 1.83
Production Casing:
SFc = 6290 psi / (10 ppg x .052 x 7500 ft) = 6290 psi / 3900 psi = 1.61

Burst Design (Safety) Factors – BLM Criteria

Surface Casing:
SFb = 2950 psi / (8.33 ppg x .052 x 1690 ft) = 2950 psi / 732 psi = 4.03
Production Casing:
SFb = 7740 psi / (5.13 ppg x .052 x 7500 ft) = 7740 psi / 2400 psi = 3.23 based on reservoir pressure data
SFb = 7740 psi / (10 ppg x .052 x 7500 ft) = 7740 psi / 3900 psi = 1.98 based on brine density used to drill to TD

Casing Design (Safety) Factors – Additional ConocoPhillips Criteria:

ConocoPhillips casing design policy establishes Corporate Minimum Design Factors (see table below) and requires that service life load cases be considered and provided for in the casing design.

ConocoPhillips Corporate Criteria for Minimum Design Factors

	Burst	Collapse	Axial
Casing Design Factors	1.15	1.05	1.4

Surface Casing:

The maximum internal (burst) load on the Surface Casing occurs when the surface casing is tested to 1500 psi. We will pressure up to 1600 psi and let the pressure settle for 1 minute after shutting down the pump. Then we will begin the 30 minute test period. Therefore the maximum pressure that the surface casing will be exposed to will be 1600 psi.

Surface Casing Burst Design Factor
DF Burst = Burst Rating / Maximum Pressure During Casing Pressure Test = 2950 psi / 1600 psi = 1.84

The maximum collapse load on the Surface Casing occurs when we release the pressure after bumping the plug on the surface casing cement job.

Surface Casing Collapse Design Factor
DF Collapse = Collapse Rating / (Cement Column Hydrostatic Pressure – Displacement Fluid Hydrostatic Pressure)
DF Collapse = 1370 psi / {[(300 ft x .052 x 14.8 ppg) + (1390 ft x .052 x 13.5 ppg)] – (1690 ft x .052 x 8.33 ppg)}
DF Collapse = 1370 psi / 475 psi
DF Collapse = 2.88

The maximum axial load on the Surface Casing would be the buoyant weight of the full string of casing plus an allowance for potential overpull in the amount of 100,000 lbs.

Surface Casing Axial (Tension) Design Factor
DF Tension = Joint Strength Rating / (Bouyant Weight + Overpull Margin)
Bouyancy Factor for fresh water (8.34 ppg fluid) = 1 – (8.34 / 65.5) = .873
Overpull Margin is selected to be 100,000 lbs
DF Tension = 244,000 lbs / [(1690 ft x 24 lb/ft x .873) + 100,0000 lbs]
DF Tension = 244,000 lbs / 135,408 lbs
DF Tension = 1.80

Production Casing:

The maximum internal (burst) load would occur either during during fracture initiation or screen out. Fracture initiation occurs with 2% KCL water in the hole and a maximum of 5000 psi surface pressure. Screen out might occur with up to 12 ppg frac fluid in the hole.

For the fracture initiation load case, the design factor calculated at surface is:
DF Burst @ Surface for Fracture Initiation = Burst Rating / Maximum Applied Surface Pressure
DF Burst @ Surface for Fracture Initiation = 7740 psi / 5000 psi
DF Burst @ Surface for Fracture Initiation = 1.54

For the fracture initiation load case, the design factor calculated at TD is:
DF Burst @ TD for Fracture Initiation = Burst Rating / (Internal Pressure – Pore Pressure)
Internal Pressure at TD = Surface Pressure + Hydrostatic Pressure at TD of 2% KCL Water Column
Hydrostatic Pressure at TD of 2% KCL Water Column = 7500 ft x .052 x 8.6 ppg = 3354 psi
Surface Pressure at the time of Fracture Initiation = 5000 psi maximum
Internal Pressure at TD = 5000 psi + 3354 psi = 8354 psi
Pore Pressure in the Reservoir = 2000 psi approximately
DF Burst @ TD for Fracture Initiation = 7740 psi / (8354 psi - 2000 psi)
DF Burst @ TD for Fracture Initiation = 7740 psi / 6354 psi
DF Burst @ TD for Fracture Initiation = 1.22

For the screen out load case, the maximum burst loading occurs at TD and is calculated as follows:
DF Burst @ TD for Screen Out = Burst Rating / (Internal Pressure – Pore Pressure)
Internal Pressure at TD = Surface Pressure + Hydrostatic Pressure at TD of 12 ppg frac fluid
Hydrostatic Pressure at TD of 12 ppg frac fluid = 7500 ft x .052 x 12.0 ppg = 4680 psi
Maximum Allowable Surface Pressure at the time of Screen Out = 4050 psi maximum
Internal Pressure at TD at time of Screen Out = 4050 psi + 4680 psi = 8730 psi
Pore Pressure in the Reservoir = 2400 psi approximately
DF Burst @ TD for Fracture Initiation = 7740 psi / (8730 psi - 2400 psi)
DF Burst @ TD for Fracture Initiation = 7740 psi / 6730 psi
DF Burst @ TD for Fracture Initiation = 1.15

The maximum collapse load on the production casing occurs with the well pumped off on production. The maximum potential pore pressure in the well would be equal to or less 10 ppg which is the density of the brine drilling fluid used in drilling production hole interval from the Surface Casing Shoe to TD.

DF Collapse = Collapse Rating / Maximum Possible Pore Pressure
DF Collapse = 6290 / (10 ppg x .052 x 7500 ft) = 6290 psi / 3900 psi = 1.61

Production Casing Axial (Tension) Design Factor
DF Tension = Joint Strength Rating / (Bouyant Weight + Overpull Margin)
Bouyancy Factor for 10 ppg brine = 1 – (10.0 / 65.5) = .847
Overpull Margin is selected to be 100,000 lbs
DF Tension = 338,000 lbs / [(7500 ft x 17 lb/ft x .847) + 100,0000 lbs]
DF Tension = 338,000 lbs / (107,993 lbs + 100,000 lbs)
DF Tension = 338,000 lbs / 207,993 lbs
DF Tension = 1.63

4. **Proposed cementing program:**

13-3/8" Conductor:

Cement to surface with rat hole mix, ready mix or Class C Neat cement.

(Note: The gravel used in the cement is not to exceed 3/8" dia)

TOC at surface.

8-5/8" Surface Casing:

The intention for the cementing program for the Surface Casing is to:

- Place the Tail Slurry from the casing shoe to 300' above the casing shoe,
- Bring the Lead Slurry to surface.

Spacer: 20 bbls Fresh Water

Lead Slurry								
Volume (sx) & Recipe & Excess %	Top (ft MD)	Bottom (ft MD)	Length (ft)	Density (ppg)	Yield (cuft/sx)	Mix Wtr gal/sx	Compressive Strengths @ 95 deg F by UCA Method	
433 sx - 644 sx Class C + 4% bentonite + 2% CaCl2 + 0.125% Polyflake Excess = 120%	Surface	935' to 1390'	935' to 1390'	13.5	1.96	10.69	Time 6 hrs 12 hrs 24 hrs 48 hrs	Strength 320 psi 514 psi 589 psi 601 psi

Tail Slurry								
Volume (sx) & Recipe & Excess %	Top (ft MD)	Bottom (ft MD)	Length (ft)	Density (ppg)	Yield (cuft/sx)	Mix Wtr gal/sx	Compressive Strengths @ 91 deg F by UCA Method	
200 sx Class C + 2% CaCl2 + 0.125% Polyflake Excess = 100%	935' to 1390'	1235' to 1690'	300' 350'	14.8	1.35	6.36	Time 3 hrs 9 hrs 12 hrs 24 hrs 48 hrs	Strength 50 psi 500 psi 793 psi 1266 psi 2183 psi

Displacement: Fresh Water

Note: In accordance with the Pecos District Conditions of Approval, we will Wait on Cement (WOC) for a period of not less than 18 hrs after placement or until at least 500 psi compressive strength has been reached in both the Lead Slurry and Tail Slurry cements on the Surface Casing, whichever is greater.

5-1/2" Production Casing Cementing Program:

The intention for the cementing program for the Production Casing is to:

- Place the Tail Slurry from the casing shoe to a point approximately 200' above the top of the Yeso group,
- Bring the Lead Slurry to surface.

Spacer: 20 bbls Fresh Water.

Lead Slurry								
Volume (sx) & Recipe & Excess %	Top (ft MD)	Bottom (ft MD)	Length (ft)	Density (ppg)	Yield (cuft/sx)	Mix Wtr gal/sx	Compressive Strengths @ 113 deg F by Crush Method	
683 – 1065 sx 50% Class C 50% POZ + 10% bentonite + 8 lb/sx Salt + 0.4% Fluid Loss Additive + 0.125%LCM if needed	Surface	5075' to 5490'	5075' to 5490'	11.8	2.51	14.64	Time 12 hrs 24 hrs 48 hrs 72 hrs 116 hrs	Strength 93psi 234 psi 382 psi 468 psi 584 psi
Excess = 86% - 166% (based on caliper if available) (estimated average hole size = 9.40" – 10.75")								

Tail Slurry								
Volume (sx) & Recipe & Excess %	Top (ft MD)	Bottom (ft MD)	Length (ft)	Density (ppg)	Yield (cuft/sx)	Mix Wtr gal/sx	Compressive Strengths @ 113 deg F by Crush Method	
304 – 520 sx 50% Class C 50% POZ + 2% Bentonite + 5% Salt + 0.4% Fluid Loss Additive + 0.4% Dispersant + LCM if needed	5075' to 5490'	6910' to 7500'	1835' to 2010'	14.2	1.32	6.20	Time 12 hrs 24 hrs 48 hrs 72 hrs	Strength 800 psi 1100 psi 1410 psi 1720 psi
Excess = 27% - 108% (based on caliper if available) (estimated average hole size = 8" – 9.26")								

Displacement: 2% KCL water with approximately 250 ppm gluteraldehyde biocide.

Proposal for Option to Adjust Production Casing Cement Volumes:

The production casing cement volumes presented above are estimates based on data from previous wells. We propose an option to adjust these volumes based on the caliper log data for each well if available. Also, if no caliper log is available for any particular well, we would propose an option to possibly increase the production casing cement volumes to account for any uncertainty in regard to the hole volume.

5. Pressure Control Equipment:

The blowout preventer equipment (BOP) will consist of 11", 2M equipment to conform to the requirements for a 2M System as described in Onshore Oil and Gas Order No. 2, III.A.2.a.ii. The blowout preventer equipment will be installed after running and cementing the surface casing and installing the wellhead and will be tested by a third party using a test plug. Ram type preventers and associated equipment will be tested to approved stack working pressure of 2000 psi. Annular type preventers, if used, will be tested to 50 percent of rated working pressure, and therefore will be tested to 1000 psi. The above tests will be performed:

- When initially installed
- Whenever any seal subject to test pressure is broken
- Following related repairs, and
- At 30 day intervals

Annular preventers, if used, will be functionally operated at least weekly.

Pipe and Blind rams shall be activated each trip, but not more than once per day.

All of the above described tests will be recorded in the drilling log.

A diagram of the proposed BOPs and choke manifold is attached.

6. <u>Proposed Wellhead Program:</u>

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

7. Proposed Mud System

The mud systems that are proposed for use are as follows:

DEPTH	TYPE	WEIGHT	VISCOSITY	WATERLOSS
0 – Surface Casing Point	Fresh Water Native Mud	8.5 – 9.0 ppg	28 – 40 sec	N.C.
Surface Casing Point to TD	Brine	10 ppg	29 sec	N.C.
Conversion to Mud at TD	Brine Based Mud	10 ppg	34 – 45 sec	5 – 10 cc/30 min

12-1/4" hole from surface of ground to surface casing point: The circulating media will be either a native mud or fresh water with high viscosity sweeps. The mud components will be:

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

7-7/8" hole from the surface casing shoe to TD: The circulating media will be 10 ppg brine and will be converted to a mud with starch, attapulgite, and lime upon reaching Total Depth (TD). The mud components will be:

- Brine (approximately 10 lb/gal density)
- Attapulgite
- Lime
- Starch
- Drilling Paper
- Other loss of circulation material if needed (nut plug, fiberous material, gilsonite, or asphalt)
- Soap Sticks if needed
- Lease crude oil as a spotting fluid if needed in the event of differential sticking

See COA

8. Logging, Coring, and Testing Program:

a. No drill stem tests will be done
b. No mud logging is planned, but might possibly be done if it is determined that this data is needed;
c. No whole cores are planned
d. The open hole electrical logging program is planned to be as follows:
   - Total Depth to 2500': Resistivity, Density, and Gamma Ray.
   - Total Depth to Surface Casing Shoe: Caliper
   - Total Depth to 200' MD, Gamma Ray and Neutron
   - Formation pressure data (XPT) on electric line if needed (optional)
   - Rotary Sidewall Cores on electric line if needed (optional)
   - BHC Sonic if needed (optional)
   - Spectral Gamma Ray if needed (optional)

9. Abnormal Pressures and Temperatures:

- No abnormal pressures or temperatures are expected to be encountered.
  - Note: We do not anticipate water flows or CO_2 flows.
- The expected bottom hole temperature is 113 degrees F.
- The expected bottom hole pressure is 2400 psi. Maximum anticipated surface pressure (MASP) is:

  MASP= BHP-(.22 X TVD) so MASP = 2403 – (.22 X 6467') = 980 psi

- The estimated H_2S concentrations in the Warren Unit and SEMU are presented in the table below for the various producing horizons in this area:

FORMATION / ZONE	H2S (PPM)	Gas Rate (MCFD)	ROE 100 PPM	ROE 500 PPM
Artesia Group	28000	20	70	32
Yeso Group	1559	210	50	22

ConocoPhillips will comply with the provisions of Oil and Gas Order # 6, Hydrogen Sulfide Operations and will provide H_2S monitoring equipment which will be rigged up, tested, and operational prior to drilling out from surface casing. All persons arriving on location will have H_2S certification & training that occurred within the last year. Each occurrence of H_2S gas at surface is to be noted on the daily reports and any occurrence of H_2S in excess of 100 ppm will be reported to the authorized officer as soon as possible but no later than the next business day per the provisions of Oil and Gas Order # 6, Hydrogen Sulfide Operations. Also, ConocoPhillips will provide an H_2S Contingency Plan (please see copy attached) and will keep this plan updated and posted at the wellsite during drilling operations.

10. Anticipated starting date and duration of operations:

Road and location construction will begin after the BLM and NMOCD have approved the APD and will take into account any closure stipulations that may be attached or specified in order to avoid operations in any closure period. Also, rig availability may impact our schedule. With consideration of these limiting factors, we would intend / plan to drill the wells in our proposed program SEMU and Warren Unit within two years after receiving approval of the APD.

Attachments:

- Attachment # 1..... Proposed Casing and Cementing Program
- Attachment # 2..... Diagram of Choke Manifold Equipment (Excerpted 54 FR 39528, Sept 27, 1989)
- Attachment # 3..... BOP and Choke Manifold Schematic – 2M System (Figure 3-1, Appendix G, from BLM)
- Attachment # 4..... BOP and Choke Manifold Schematic – 2M System (Figure 3-1A, Appendix G, from BLM)

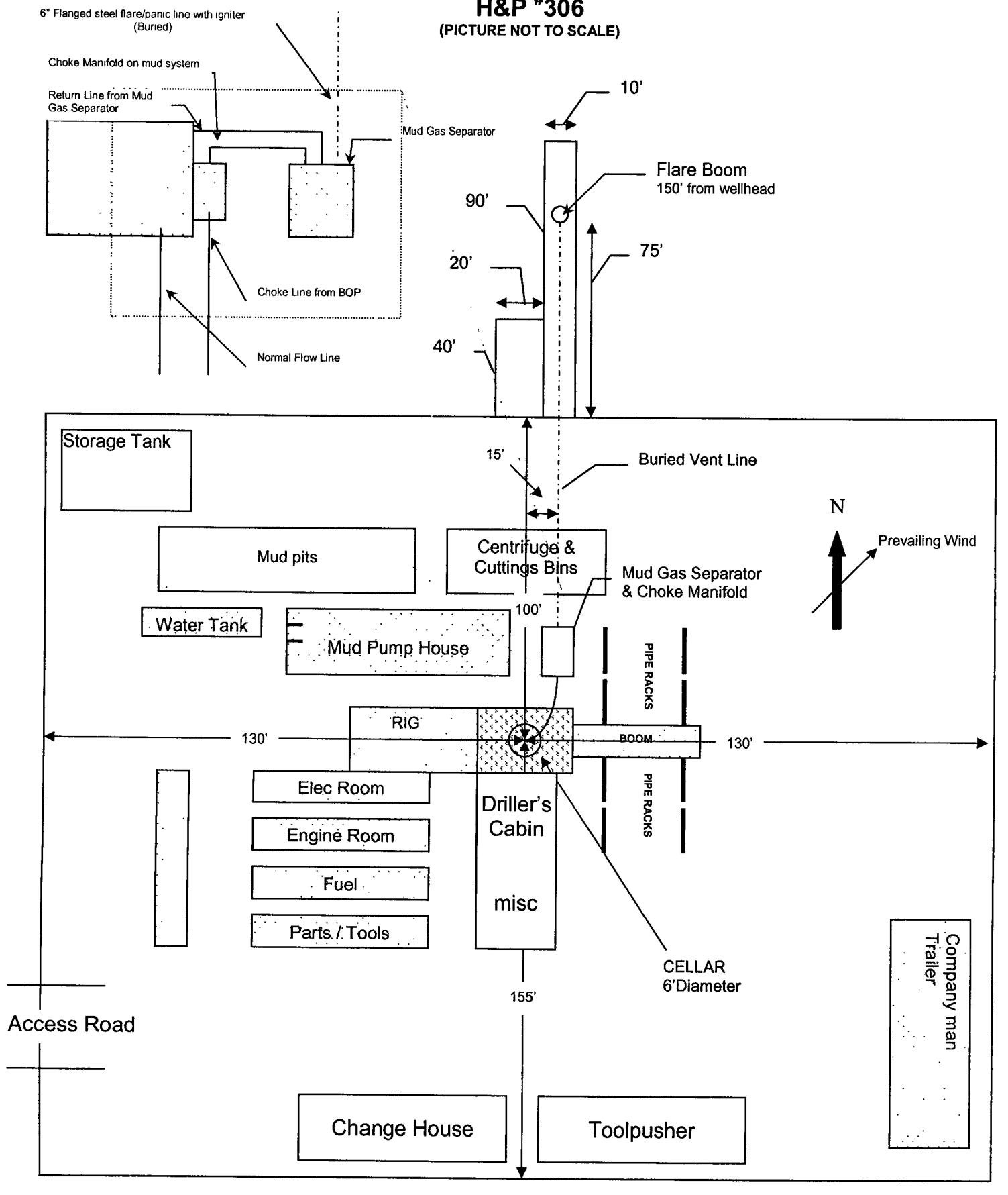
Contact Information:

Program prepared by:
Jason Tilley, Drilling Engineer, ConocoPhillips Company
Phone (832) 486-2919
Cell (281) 684-4720
Date: July 17, 2008

ConocoPhillips

Location Schematic and Rig Layout for Closed Loop System H&P #306

(PICTURE NOT TO SCALE)



ConocoPhillips

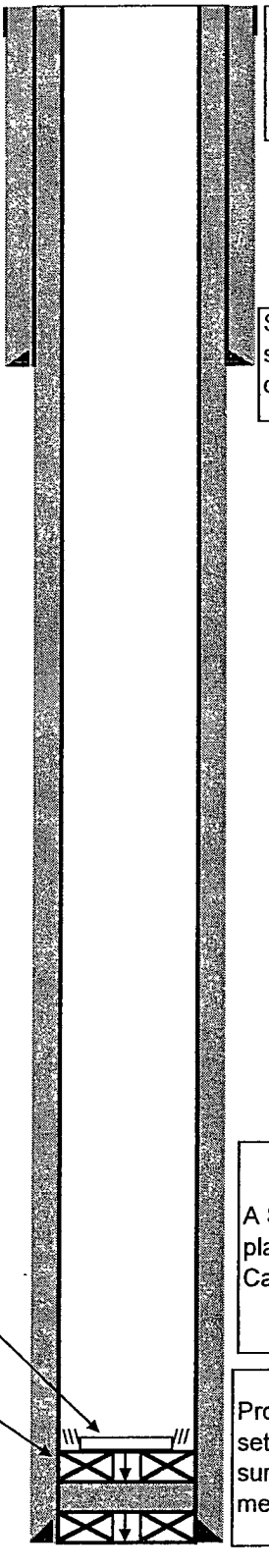
Attachment # 1

SEMU and Warren Unit
Proposed Casing & Cementing Program

Datum: RKB (12' above ground level)

Conductor: 13-3/8" 48# H-40 ST&C set at 30' to 75' below ground level (42' to 87' MD RKB) and cemented to surface.

Surface Casing: 8-5/8" 24# J-55 ST&C set in the Rustler formation and cemented to surface.



A Single-Stage cement job is pumped placing cement from the Production Casing shoe to surface.

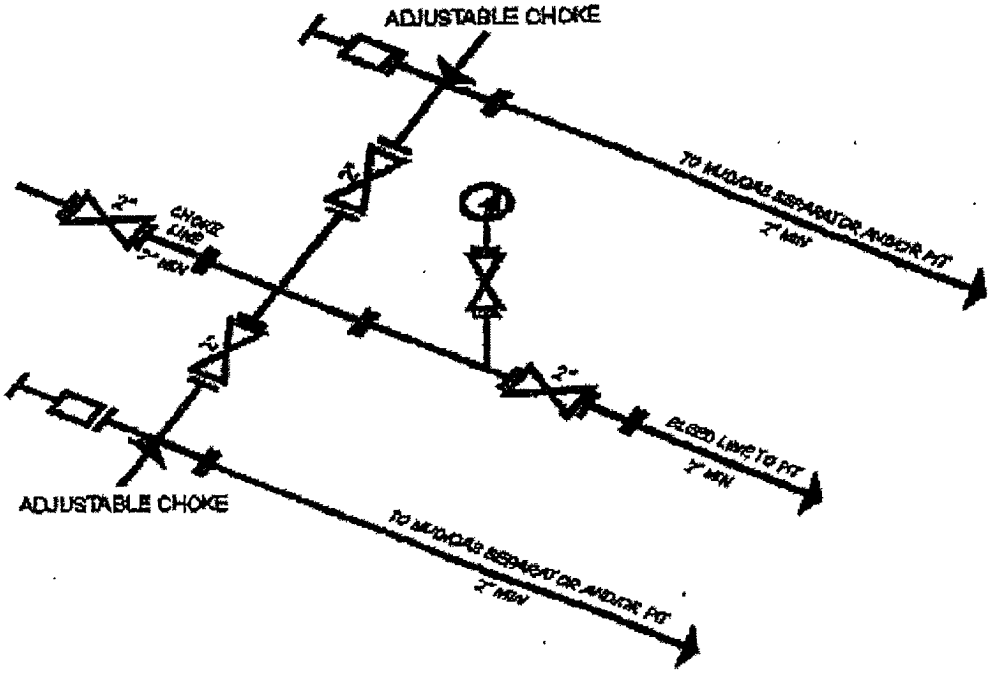
Cement Wiper Plug

Float Shoe, one joint of casing, and Float Collar

Production casing: 5-1/2" 17# L-80 LT&C set 10' above TD and cemented to surface with single-stage cementing method.

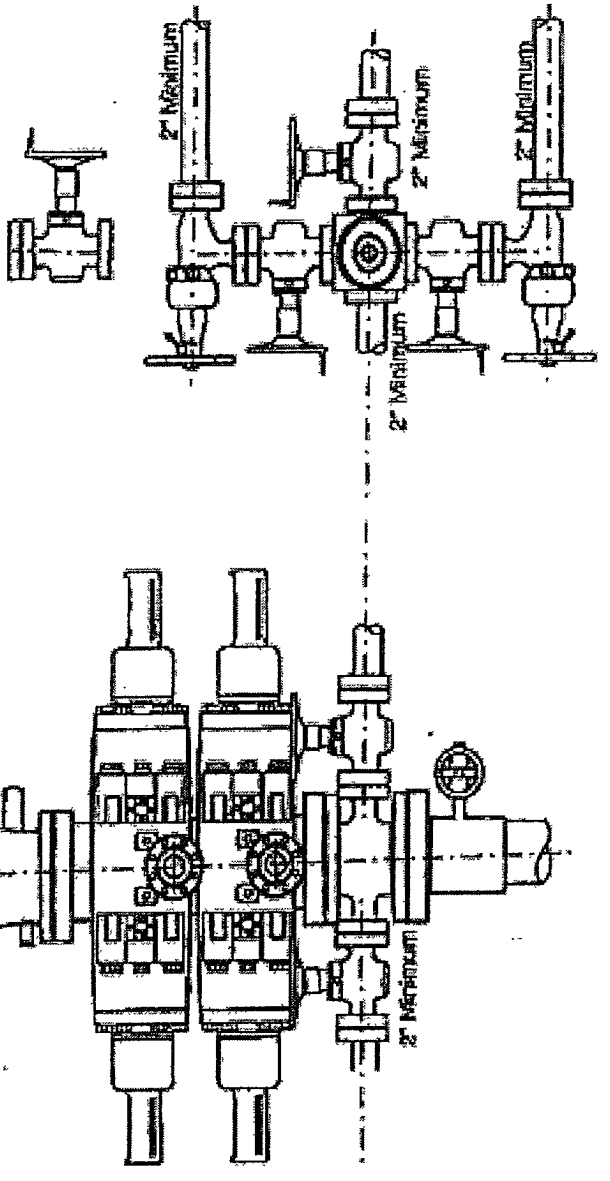
Schematic prepared by:
Steven O. Moore, Drilling Engineer
26 - March- 2008

Attachment I. Diagrams of Choke Manifold Equipment



2M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY

Attachment # 3



2000 psi System

Figure 3-1

Appendix G

2000 psi System

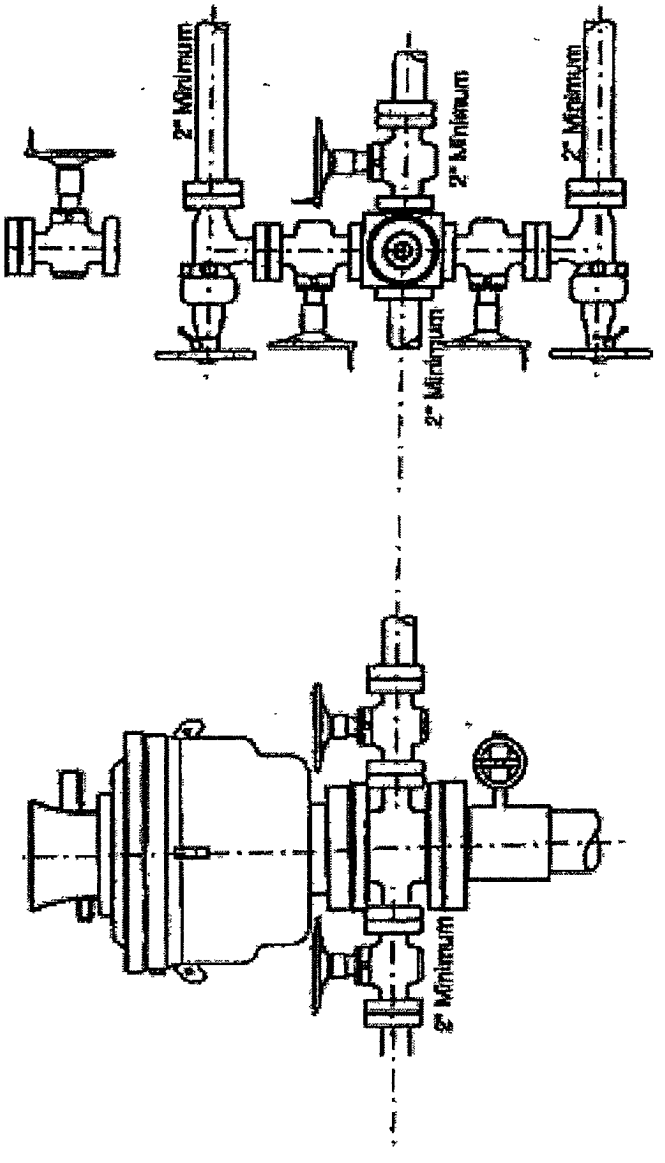


Figure 3-1A

Appendix G