Porm 3160-3 (July 1992)		ED STATE	tions on	Expires February 28, 1995					
		LAND MANAG		A*** · · · · · · · · · · · · · · · · · ·	an an Arthur				
APPL	ICATION FOR PI	ERMIT TO	DRIL	L OR DEEPEN		6 IF INDIAN, ALLOTTE			
1a. TYPE OF WORK	ill 🛛	DEEPEN			·	7 UNIT AGRREEMENT I			
b. TYPE OF WELL						SEM			
2 NAME OF OPERATOR	IAS OTHER			INGLE MULTIPI		8. FARM OR LEASE NAME W			
	Conoco Inc.					#13	9		
a. Address and telephone no						9. API WELL NO	250112		
10 Desta	Dr. Ste 430E, Midlan	d, Tx. 79705-4	500		ŀ	10. FIELD AND POOL, O	-35043 OR WILDCAT		
4 LOCATION OF WEL At surface	L (Report location clearly a					North Hard	y Strawn		
		990' FNL	& 330	FEL	ſ	11. SEC, T., R., M., OR AND SURVEYOR A	BLK. REA		
At proposed prod. zor	ne	990' FNL	& 330'	FEL	·	Sec. 25, T20	9S, R37E		
14 DISTANCE IN MILES A	ND DIRECTION FROM NEA	EST TOWN OR PO	ST OFIC	E*		12 COUNTY OR PARISH	I 13. STATE		
						Lea	NM		
5. DISTANCE FROM PROPO LOCATION TO NEARES PROPERTY OR LEASE	DSED* T		16 NO	OF ACRES IN LEASE	17. NO. OF TO TH	ACRES ASSIGNED	······································		
(Also to nearest dr 8. DISTANCE FROM PROP	lg. unit line, if Any)		10 00	OPOSED DEPTH		160	······		
	RILLING, COMPLETED,		19. FK	8150'	20. ROTAR	Y OR CABLE TOOLS			
21 ELEVATIONS (Show Wh	ether DF, RT, GR, etc)		L	0150	L	Rotary 22. APPROX. DATE W	ORK WILL START*		
×		3526' GR				2/15/			
23		PROPOSED CASI	NG ANE	CEMENTING PROGRAM					
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FO	тос	SETTING DEPTH		QUANTITY OF CEME	INT		
12-1/4"	J-55, 9-5/8"	36#			THESS	554 sxs, circ.			
8-3/4"	S/P110, 7"	23#		7850'		920 sxs, circ.	·		
according to the plan	ig Layout Drawing nifold Specifications ations Plan	ng attachments:		ther associated maps ar APPROVAL 3	nd plats. SUBJEC EQUIFIE	T TO MENTS AND	d equipped		
The undersigned acce or potion thereof, as d N ABOVE SPACE DESCE deepen directionally, give pertir 24. SIGNED	des ROW's for the well pts all applicable terms, escribed above and as c RIBE PROPOSED PROGRA nent data on subsurface location: PM Advance eral or State office use) anot warrant or certify that the appli- IF ANY	conditions, stip overed by BLM M: If proposal is to de s and measured and t 2	ulation Bond epen give rue vertic: Jo A Sr. H	s and restrictions conce File No. ES-0085. data on present productive zc al depths. Give blowout prevente nn Johnson Property A APPROVAL E e to those rigt	ne and propos er program, if a NGRID N TY NO 1006 94 TE 5.	ied new productive zone. I any. NO. 5073 134734	f proposal is to drill or /31/00 /34.92 AD		
APPROVED BY	NRRY D. EDAY	TITLE _	As La	sistant Field Man nds And Minerals	àge∕,		4 1853 		
		*See Instru	ctions	On Reverse Side		APPHONED			

Title 18 U.S.C. Section 1001 makes 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 6 any matter within its jurisdiction.

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DISTRICT I 1935 N. Franch Br., Lobin, Md 88840 DISTRICT II 811 South First, Artonia, NM 88210

DISTRICT III

1000 Rio Braxos Ed., Axter, NM 57410 DISTRICT IV

2040 South Pachaco, Santa Fe, NM 87500

State of New Mexico

Energy, Minerais and Natural Resources Department

Form C-102 deviced Morch 17, 1999

Submit to Apply oprings District Office State Lease - 4 Copies 700 Lease - 3 Copies

OIL CONSERVATION DIVISION

2040 South Pacheco

Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

C AMENDED REPORT

API Number Pool Code Pool Name 25 96893 Hardu 3 043 Strawn, 5 North Property Code **Property** Name Well Number 14 6 SEMU 139 OGRID No. **Operator** Name Elevation 05079 CONOCO INC. 3526 Surface Location UL or lot No. Township Section Range Lot Idn Yest from the North/South line Feet from the East/Vest line County Α 25 20 S 37 E 990 NORTH 330 EAST LEA Bottom Hole Location If Different From Surface UL or lot No. Section Township Range Lot Idn Feet from the North/South line Feet from the East/West line County Dedicated Acres Joint or Infill Consolidation Code Order No. NSL has been biled. 110 NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION OPERATOR CERTIFICATION I hereby certify the the information 990 ed herein is true and complete to the my knowledge and belief. 3524.6' 3523. LAT - N32*32'56.8" LONG - W103*11'51.2" 330 nson 3524.6 3522.8 Signetture Jo Ann Johnson Printed Name Sr. Property Analyst Title February 1, 2000 Date SURVEYOR CERTIFICATION I hereby certify that this well location shown on this plat was platted from field notes of actual surveys made by me or under my supervison and them the same is true and correct to the bons of my belief. January 2, 2000 Date Surveyed Signature 2 Seal Ster Pro essional surv or 1.0 Vious 7977 POFESSIONAL DAGE ORVEY S

SECTION 25, TOWN_HIP 20 SOUTH, RANGE 37 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.





							The second division of the local division of	_	_	
1	W.O.	Number:	0018	Drawn By:		Sheet	1	of	1	Sheets



SEMU #139 Located at 990' FNL and 330' FEL Section 25, Township 20 South, Range 37 East, N.M.P.M., Lea County, New Mexico.

Scale: 1'' = 1000'

Date: 01-13-2000



P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(505) 393-7316 - Office
(505) 392-3074 - Fax
basinsurveys.com

W.O. Number: 0018AA - KJG #122 Survey Date: 01-01-2000

CONOCO INC.





PROPOSED WELL PLAN OUTLINE

WELL NAM		SEMU #139 330' FEL & 990' FNL Sec 25, T	205, R37E (Prior to Staking)		······································	-	Ground Level : Kelly Bushing:	7 11' AGL	
Depth MD	FORMATION TOPS	DRILLING PROBLEMS	TYPE OF FORMATION EVALUATION	HOLE	CASING PROGRAM	FRAC	FORM. PRES. GRAD.	Mud Weight & Type	Days
0		Possible Hole Enlargement & Sloughing		12-1/4"			Less than 8.3	8.4 - 9.5 Fresti	
1000									
	Top Salt @ 1,430'				9-5/8", 36#, J-55 ST&C @ 1,500'				3
		Washouts in Salt Section		8-3/4"	Circulate Cement			10 Brine	1-3-
2000							Less than 8.4		
	Base Salt @ 2.500'								
	Yates 2,645'		Mud Loggers F/ Yates to TD						
3000	7 Rivers 2,895'		H2S Monitor on at 2900'						
	Queen 3,470'								
	Grayburg 3,730' San Andres 3,960'	Lost Returns in San Andres							
									7
5000	Glorietta 5,230'								
		Possible differential sticking thru Glorietta & Padgock							
	Blinchen Mike E 9201								
6000	Blinebry Mkr 5,830								
	Tubb 6,250'								
	Drinkard 6,590'								
7000	Abo 6,870'								
	Strawn 7,520'		First Log Run: GR-CAL-DLL-MLL-Sonic FDC-CNL-PE : TD to 2600' Pull GR-CNL-Cal to Surf						
			Second Log Run: 60 rotary sidewall cores						
8000	TD @ 7,850	STOP DRILLING WHEN WOODFORD SHALE IS CUT Severe losses in Devonian	Third Run:		7", 23.0#, S/P110 LT&C f/0'-7,850' <u>Circulate Cement</u>			10 ppg Starch Gel	20

Note: The Devonian formation is associated with severe lost circulation problems. This well will be TD'd very close to the top of the Devonian. The mud loggers will pick the Woodford shale which is 40' thick and sits on top of the Devonian. Stop drilling once the Woodford is entered.

DATE

07-Jan-00

Joe Huck, Geophysical Advisor

APPROVED

Yong Cho, Drilling Engineer

Joe Miller, Reservoir Engineer



Conoco SEMU #139

Sec. 25-T20S-R37E Lea County, New Mexico December 20, 1999

Well Recommendation

Prepared for: Mr. Yong Cho Drilling Engineer

 Prepared by:

 Rocky Chambers

 Region Engineer

 Bus Phone:
 915/683-2781

 Mobile:
 915/557-1239

 Pager:
 915/498-1605



PowerVision*

Service Point:

.

Hobbs Bus Phone: (505) 392-5556 Fax: (505) 392-7307

Service Representatives:

Wayne Davis Account Manager Bus Phone: (915) 683-2781

Proposal No: 180252808A

JOB AT A GLANCE

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Depth (TVD)	1,500 ft
Depth (MD)	1,500 ft
Hole Size	12.25 in
Casing Size/Weight :	9 5/8 in, 36 lbs/ft
Pump Via	Casing 9 5/8" O.D. (8.921" .I.D) 36 #
Total Mix Water Required	5,010 gals
Pre-flush Mud Clean I Density	1,500 gals 8.4 ppg
Lead Slurry LEAD SLURRY Density Yield	401 sacks 12.7 ppg 1.88 cf/sack
Tail Slurry TAIL SLURRY Density Yield	153 sacks 14.8 ppg 1.34 cf/sack
Displacement Water Density	113 bbls 8.4 ppg

Report Printed on: December 20, 1999 5:27 PM

WELL DATA

ANNULAR GEOMETRY

ANNULAR I.D.	DEPTH(ft)			
(in)	MEASURED	TRUE VERTICAL		
12.250 HOLE	1,500	1,500		

SUSPENDED PIPES

DIAMET	ER (in)	WEIGHT	DEPTH(ft)		
0.D.	I.D.	(lbs/ft)	MEASURED	TRUE VERTICAL	
9.625	8.921	36	1,500	1,500	

Float Collar set @	1,460 ft
Mud Density	8.40 ppg
Est. Static Temp.	89 ° F
Est. Circ. Temp.	85 ° F

VOLUME CALCULATIONS

1,200 ft 300 ft 40 ft	x x x	0.3132 cf/ft 0.3132 cf/ft 0.4341 cf/ft	with with with TOTAL	100 % excess 100 % excess 0 % excess SLURRY VOLUME	= = = = = =	751.6 cf 188.1 cf 17.4 cf (inside pipe) 957.1 cf 171 bbls
					=	171 bbls

FLUID SPECIFICATIONS

Pre-flush	
-----------	--

Lead Slurry

Tail Slurry

Displacement

CEMENT PROPERTIES

FLUID

1,500.0 gais Mud Clean I @ 8.4 ppg

AMOUNT AND TYPE OF CEMENT

= 401 sacks (35:65) Poz (Fly Ash):Class C
Cement + 2% bwoc Calcium Chloride + 0.25%
bwoc Cello Flake + 0.005 gps FP-6L + 6% bwoc
Bentonite + 96.5% Fresh Water

= 153 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.005 gps FP-6L + 56.3% Fresh Water

112.9 bbls Water + 56.3% Fresh Water @ 8.4 ppg

	SLURRY NO. 1	SLURRY NO. 2
Slurry Weight (ppg)	12.70	14.80
Slurry Yield (cf/sack)	1.88	1.34
Amount of Mix Water (gps)	10.07	6.35
Amount of Mix Fluid (gps)	10.08	6.35
Estimated Pumping Time - 70 BC (HH:MM)	5:00	2:20

VOLUME

CU-FT

752

205

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VOLUME

FACTOR

1.88

1.34

Proposal No: 180252808A

JOB AT A GLANCE

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Depth (TVD)	7,850 ft
Depth (MD)	7,850 ft
Hole Size	8.75 in
Casing Size/Weight :	7 in, 23 lbs/ft
Pump Via	Casing 7" O.D. (6.366" .I.D) 23 #
Total Mix Water Required	7,948 gals
Pre-flush Mud Clean I Density	1,500 gals 8.4 ppg
Lead Slurry LEAD SLURRY Density Yield	586 sacks 12.7 ppg 1.85 cf/sack
Tail Slurry TAIL SLURRY Density Yield	334 sacks 14.8 ppg 1.34 cf/sack
Displacement Water Density	307 bbls 8.4 ppg

Report Printed on: December 20, 1999 5:27 PM



WELL DATA

ANNULAR GEOMETRY

ANNULAR I.D.	DEPTH(ft)			
(in)	MEASURED	TRUE VERTICAL		
8.921 CASING	1,500	1.500		
8.750 HOLE	7,850	7,850		

SUSPENDED PIPES

DIAMET	ER (in)	WEIGHT	T DEPTH(ft)	
<u> </u>	I.D.	(lbs/ft)	MEASURED	TRUE VERTICAL
7.000	6.366	23	7,850	7,850

Float Collar set @	7,810 ft
Mud Density	8.40 ppg
Est. Static Temp.	127 ° F
Est. Circ. Temp.	121 ° F

VOLUME CALCULATIONS

1,500 ft	x	0.1668 cf/ft	with	0 % excess	=	250.2 cf
4,100 ft	x	0.1503 cf/ft	with	35 % excess	=	832.1 cf
2,250 ft	x	0.1503 cf/ft	with	30 % excess	=	440.3 cf
40 ft	x	0.2210 cf/ft	with	0 % excess	Ξ	8.8 cf (inside pipe)
			TOTAL	SLURRY VOLUME	=	1531.4 cf
					=	273 bbls

.

FLUID SPECIFICATIONS

Lead Slurry

Tail Slurry

FLUID

1,500.0 gals Mud Clean I @ 8.4 ppg

AMOUNT AND TYPE OF CEMENT

= 586 sacks (35:65) Poz (Fly Ash):Class C Cement + 0.25% bwoc Cello Flake + 0.005 gps FP-6L + 6% bwoc Bentonite + 95.7% Fresh Water

 = 334 sacks Class C Cement + 1% bwoc BA-58 + 0.9% bwoc FL-50 + 0.5% bwoc CD-32 + 0.005 gps FP-6L + 0.2% bwoc Sodium Metasilicate + 55.7% Fresh Water

307.5 bbls Water + 55.7% Fresh Water @ 8.4

Displacement

CEMENT PROPERTIES

	SLURRY NO. 1	SLURRY NO. 2
Slurry Weight (ppg)	12.70	14.80
Slurry Yield (cf/sack)	1.85	1.34
Amount of Mix Water (gps)	9.98	6.28
Amount of Mix Fluid (gps)	9.99	6.29
Estimated Pumping Time - 70 BC (HH:MM)	2:49	1:49
Free Water (mls) @ ° F @ 90 ° angle	0.9	

VOLUME

CU-FT

1082

449

1

1

VOLUME

FACTOR

1.85

1.34

RHEOLOGIES

FLUID		TEMP	_600	<u> 300 </u>	200	100	6	3
Lead Slurry	0	۴F	153	141	136		50	38
Tail Slurry	@	80 ° F	150	102	85	68	43	35

ppg

SURFACE USE PLAN Conoco Inc.

SEMU #139

The following is required information concerning the possible affect 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 of this plan.

1. Existing Roads

- A. The proposed well site is 990' FNL & 330' FEL, Sec. 25, T20S, R37E, Lea County, New Mexico.
- B. Directions to the location are listed on the well pad plat attached.
- C. No improvement or maintenance is anticipated for the existing roads.

2. <u>Planned Access Roads</u>

- A. 125' +/- new access road will be required.
- B. Turnouts as required by Surface Management Agency.
- C. Culverts as required by Surface Management Agency.
- D. Gates, cattleguards, or fences as required by Surface Management Agency.

3. <u>Topographic Map and Well Location</u>

A 7.5" quadrangle topo map was filed with the NOS.

4. Additional Rights-of-Way

Electric line and flowline as shown on attached plats.

5. <u>Water Supply</u>

Fresh water will be obtained from commercial sources and trucked to location by the described directions to the location.

6. <u>Source of Construction Materials</u>

Construction materials will be obtained from commercial sources.

7. <u>Methods of Handling Waste Disposal</u>

- A. The drill cuttings, fluids and completion fluids will be placed in the reserve pit. 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. The reserve pit will be allowed to dry, and materials remaining in the reserve pit buried. The reserve pit will be backfilled, leveled and contoured so as to prevent any materials being carried into the watershed. Upon completion, the pad will be leveled, contoured, and reseeded with the appropriate seed mixture as specified by the surface managing agency.
- B. All garbage and trash will be hauled away to designated landfill by Conoco.
- C. Chemical toilets will be provided and maintained during drilling operations.

8. <u>Ancillary Facilities</u>

No ancillary facilities are planned.

9. <u>Wellsite Layout</u>

See attached Wellsite Layout. The V-door faces East. The reserve pit will be lined with plastic and the pad and pits are staked. All unguarded pits containing liquids will be fenced and any unguarded pit containing liquids will be fenced.

10. Plans for Restoration of Surface

Reserve pits will be rehabilitated once drilling fluids have been allowed to evaporate to the point the pits are dry enough for backfilling and leveling. In the event drilling fluids will not evaporate in a reasonable time period, the fluids will be removed and transported by tank truck to a state approved disposal facility. Backfilling and leveling of the location will be completed within a time period of one year upon cessation of drilling operations.

11. <u>Surface Ownership</u>

The surface ownership is Millard Deck Estate.

12. Archeological Clearance

The archeological survey has been requested and will be furnished upon completion.

13. Operator's Representative and Certification

The person who can be contacted concerning compliance of this Surface Use Plan is:

Mike L. Mankin 10 Desta Drive, Suite 649W Midland, Texas 79705 (915) 686-5794 I hereby certify that I, or persons under my direct supervision, have inspected the proposed drilling site; that I am familiar with the conditions which currently exist; that the statements made in this plan, are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by Conoco Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Mike L. Mankin

Mike L. Mankin Sr. Right-of-Way Agent

2-1-00

Date



IQM

TRAILER - MOUNTED RIG LAYOUT



EXHIBIT D

BUP SPECIFICATIONS



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BLOWOUT PREVENTER HOOKUP

Drilling contractors used in the San Juan Basing supply 3000 psi equipment, but cannot provide annular preventors because of substructure limitations. Maximum anticipated surface pressures for this well will not exceed the working pressure of the proposed BOP Please see the attached BOP diagram details 2000 psi equipment according to Onshore Order No. 2 even though the equipment will test to 3000 psi. The 2000 psi system allows deletion of the annular preventor and fulfills your requirements (note diagram No. 1). In addition, the following equipment will comprise the 2000 psi system:

- Two rams with one blind and one pipe ram. 1. 2.
- Kill line (2 inch maximum).
- One kill line valve. 3.
- One choke line valve. 4.
- Two chokes (reference diagram No. 1). 5.
- Upper kelly cock valve with handle. 6. 7.
- Safety valve and subs to fit all drill strings in use. 8.
- Two-inch minimum choke line. 9.
- Pressure gauge on choke manifold. 10.
- Fill-up line above the upper most preventor.
- 11. Rotating head.

CHOKE MANIFOLD DIA GRAM



H2S DRILLING OPERATIONS PLAN

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

I. Hydrogen Sulfide Training

All contractors and subcontractors employed by Conoco 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.

All personnel will be required to carry documentation of the above training on their person.

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. Conoco will have either land-line, satellite phone, microwave phone, or mobile (cellular) telephone capabilities.

10

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.

 $\lambda_{\rm ex}$

Mike L. Mankin Sr. Right of Way Agent Right of Way and Claims Conoco Inc. 10 Desta Drive, Suite 649W Midland, Texas 79705-4500 (915) 686-5794

February 1, 2000

Bureau of Land Management 620 E. Greene Carlsbad, New Mexico 88220

Attn: Mr. Barry Hunt

Re: Settlement Letter for Well Location and Appurtenances SEMU #139 Section 25, T20S, R37E Lea County, New Mexico

Dear Mr. Hunt,

Conoco Inc. has made settlement with the surface owner for the construction of the above referenced location and appurtenances.

If you have any questions or concerns, please contact me at 915-686-5794.

Sincerely, ~ 1. Ma Mit

Mike L. Mankin

Cc: File