Form 2460-3 (July 1992)	U.		5073	s on	FORM APPI OMB NO. 10	04-0136
	DEPARTME			 r	Expires Februar	
	BUREAU C		76893		5. LEASE DSIGNATION A LC-03169	-
	CATION FOR I	CT 194 197	18/00		6 IF INDIAN, ALLOTTEE	
Ia TYPE OF WORK		30.	025-3496:	3 —		
DRI	ll 🛛				7 UNIT AGRREEMENT NA	ME
D. TYPE OF WELL OIL GA WELL WE	s 🗖 or ver			urustist 🛄	D M War	····
2. NAME OF OPERATOR	ELL OTHER				8. FARM OR LEASE NAME WEL	
C	onoco Inc.			ŀ	9. API WELL NO	+TT
a. Address and telephone no			····			
	Dr. Ste.649W Midland		0		10. FIELD AND POOL, OF	WILDCAT
4 LOCATION OF WELL At surface	(Report location clearly an	400' FSL & 99	· ·		North Hardy	
<b>A.</b>	_	400 1 3L & <i>)</i>	, I	1.	11. SEC, T., R., M., OR B AND SURVEY OR ARI	EA
At proposed prod. zone	2	400' FSL & 99	0'FWL $\mu_{\mu}$	/ M	Sec. 30, T20S	, K38E
14. DISTANCE IN MILES AN	ND DIRECTION FROM NEAE	ST TOWN OR POST OF	ICE*		12 COUNTY OR PARISH	13. STATE
		·····	<u></u>		Lea	NM
5. DISTANCE FROM PROPOS LOCATION TO NEAREST	SED*	161	NO OF ACRES IN LEASE		ACRES ASSIGNED	
LOCATION TO NEAREST PROPERTY OR LEASE L (Also to nearest drig 8. DISTANCE FROM PROPO	z, unit line, if Any)	10	PROPOSED DEPTH	20 00710	160	
TO NEAREST WELL, DR OR APPLIED FOR, ON THIS	ILLING, COMPLETED,	15.	8170'	20. RUTAR	Rotary	
21. ELEVATIONS (Show whe		, <b>1</b> ,,,	8170		22. APPROX. DATE WO	RK WILL START*
		3506' GR			2/15/0	0
23		PROPOSED CASING A	ND CEMENTING PROG	RAM		
	1					
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH		QUANTITY OF CEMEN	т
SIZE OF HOLE		·	SETTING DEPTH	MINESS	QUANTITY OF CEMEN 554 sxs, circ.	Γ
<u>12-1/4"</u> <u>8-3/4"</u>	GRADE, SIZE OF CASING J-55, 9-5/8'' S/P110, 7''	WEIGHT PER FOOT 36# 23#	SETTING DEPTH 1500' 7870'		554 sxs, circ. 923 sxs, circ.	
12-1/4"         8-3/4"         It is proposed to drill a equipped according to         1. Well Location and         2. Proposed Well Plan         3. Cementing Plan         4. Surface Use Plan         5. Trailer Mounted Ri         6. BOP & Choke Mar         7. H2S Drilling Opera         8. Surface owner comm         This application include         The undersigned acceptor potion thereof, as determined         IN ABOVE SPACE DESCR         deepen directionally, give perting	GRADE, SIZE OF CASING J-55, 9-5/8" S/P110, 7" vertical wellbore as a No the plan submitted in the Acreage Dedication Plan of Outline ig Layout Drawing hifold Specifications ations Plan	WEIGHT PER FOOT 36# 23# North Hardy Strawn he following attachr t (C-102) along with t (C-102) along with pad, electric line, ar conditions, stipulation overed by BLM Bon M: If proposal is to deepen a s and measured and true vertices	SETTING DEPTH 1500' 7870' producer. NOS was nents: AFTING h other associated may h other associa	filed 1/26/00. AN COMPANIES ops and plats. APPROVA GENERAL SPECIAL ATTACHE concerning ope	554 sxs, circ. 923 sxs, circ. The well will be drill COLLED WATER AL SUBJECT TO REQUIREMENT STIPULATIONS D erations conducted on	ed and BASIN S AND the leased land
12-1/4"         8-3/4"         It is proposed to drill a equipped according to         1. Well Location and         2. Proposed Well Plan         3. Cementing Plan         4. Surface Use Plan         5. Trailer Mounted Ri         6. BOP & Choke Mar         7. H2S Drilling Opera         8. Surface owner comm         This application include         The undersigned acceptor potion thereof, as determined         IN ABOVE SPACE DESCR         deepen directionally, give perting	GRADE, SIZE OF CASING J-55, 9-5/8" S/P110, 7" A vertical wellbore as a N to the plan submitted in the Acreage Dedication Plan in Outline ig Layout Drawing hifold Specifications ations Plan munications des ROW's for the well post all applicable terms, escribed above and as con- RIBE PROPOSED PROGRAM	WEIGHT PER FOOT 36# 23# North Hardy Strawn he following attacht t (C-102) along with pad, electric line, ar conditions, stipulation overed by BLM Bon M: If proposal is to deepen a s and measured and true very Jac	SETTING DEPTH 1500' 7870' producer. NOS was nents: AFTING h other associated may h other associa	filed 1/26/00. AN COMPANIES ops and plats. APPROVA GENERAL SPECIAL ATTACHE concerning ope	554 sxs, circ. 923 sxs, circ. The well will be drill COLLED WATER NL SUBJECT TO REQUIREMENT STIPULATIONS TD erations conducted on posed new productive zone. If f any.	ed and BASIN S AND the leased land
12-1/4"         8-3/4"         It is proposed to drill a equipped according to         1. Well Location and         2. Proposed Well Plan         3. Cementing Plan         4. Surface Use Plan         5. Trailer Mounted Ri         6. BOP & Choke Mar         7. H2S Drilling Opera         8. Surface owner comr         This application include         The undersigned acceptor or potion thereof, as deteepen directionally, give perting         24.         SIGNED	GRADE, SIZE OF CASING J-55, 9-5/8" S/P110, 7" A vertical wellbore as a N to the plan submitted in the Acreage Dedication Plan in Outline ig Layout Drawing hifold Specifications ations Plan munications des ROW's for the well pts all applicable terms, escribed above and as constructed RIBE PROPOSED PROGRAM ment data on subsurface locations Man Management Man Management Man Management Man Management Man Management Man Management Man Management Man Management Man Management Man Man Management Man Man Management Man Man Management Man Man Man Management Man Man Management Man Man Man Man Management Man Man Man Man Man Man Man Man Man Man	WEIGHT PER FOOT 36# 23# North Hardy Strawn he following attacht t (C-102) along with pad, electric line, ar conditions, stipulation overed by BLM Bon M: If proposal is to deepen a s and measured and true very Jac	SETTING DEPTH 1500' 7870' producer. NOS was nents: AFTING h other associated may h other associa	filed 1/26/00. AN COMPANIES ops and plats. APPROVA GENERAL SPECIAL ATTACHE concerning ope	554 sxs, circ. 923 sxs, circ. The well will be drill OLLED WATER NL SUBJECT TO REQUIREMENT STIPULATIONS TD erations conducted on psed new productive zone. If f any.	ed and BASIN SAND the leased land
12-1/4"         8-3/4"         It is proposed to drill a equipped according to         1. Well Location and         2. Proposed Well Plan         3. Cementing Plan         4. Surface Use Plan         5. Trailer Mounted Ri         6. BOP & Choke Mar         7. H2S Drilling Opera         8. Surface owner comr         This application include         The undersigned accept or potion thereof, as deepen directionally, give perting         24.         SIGNED         (This space for Endependirectionally give perting	GRADE, SIZE OF CASING J-55, 9-5/8" S/P110, 7" a vertical wellbore as a N b the plan submitted in the Acreage Dedication Plan in Outline ig Layout Drawing hifold Specifications ations Plan munications des ROW's for the well pts all applicable terms, escribed above and as control RIBE PROPOSED PROGRAM ment data on subsurface locations arai, or State office use)	WEIGHT PER FOOT 36# 23# North Hardy Strawn he following attacht t (C-102) along with pad, electric line, ar conditions, stipulation overed by BLM Bon M: If proposal is to deepen a s and measured and true very Jac	SETTING DEPTH 1500' 7870' producer. NOS was nents: CACTOR h other associated may h other associa	filed 1/26/00. AN COMPANIES ops and plats. APPROVA GENERAL SPECIAL ATTACHE concerning ope	554 sxs, circ.         923 sxs, circ.         The well will be drill         COLLED WATER         NL SUBJECT TO         REQUIREMENT         STIPULATIONS         TD         erations conducted on         psed new productive zone. If f any.	ed and BASIN SAND the leased land
12-1/4"         8-3/4"         It is proposed to drill a equipped according to         1. Well Location and         2. Proposed Well Plan         3. Cementing Plan         4. Surface Use Plan         5. Trailer Mounted Ri         6. BOP & Choke Mar         7. H2S Drilling Opera         8. Surface owner comm         This application include         The undersigned accept or potion thereof, as defined accept or potion thereof, as defined accept or potion thereof, as defined accept or potion thereof.         IN ABOVE SPACE DESCR         deepen directionally, give pertine         24.         SIGNED         Understand         PERMIT NO	GRADE, SIZE OF CASING J-55, 9-5/8" S/P110, 7" a vertical wellbore as a N b the plan submitted in the Acreage Dedication Plan in Outline ig Layout Drawing hifold Specifications ations Plan munications des ROW's for the well pts all applicable terms, escribed above and as control RIBE PROPOSED PROGRAM ment data on subsurface locations Man Management ations Plan pts all applicable terms, escribed above and as controls Acreage Dedications Acreage Dedications ations Plan munications des ROW's for the well pts all applicable terms, escribed above and as controls Acreage Dedications Acreage	WEIGHT PER FOOT 36# 23# North Hardy Strawn he following attach t (C-102) along with pad, electric line, ar conditions, stipulation overed by BLM Bon M: If proposal is to deepen a s and measured and true w	SETTING DEPTH 1500' 7870' producer. NOS was ments: CAPTTS an other associated may an other associated may and restrictions c an other associated may and associated may and associated may and associated may and associated may and associated may an other asso	filed 1/26/00.	554 sxs, circ.         923 sxs, circ.         The well will be drill         COLLED WATER         NL SUBJECT TO         REQUIREMENT         STIPULATIONS         TD         erations conducted on         pseed new productive zone. If f any.	ed and BASIN S AND the leased land proposal is to drill or 2/2/00
12-1/4"         8-3/4"         It is proposed to drill a equipped according to         1. Well Location and         2. Proposed Well Plan         3. Cementing Plan         4. Surface Use Plan         5. Trailer Mounted Ri         6. BOP & Choke Mar         7. H2S Drilling Opera         8. Surface owner comr         This application include         The undersigned acceptor potion thereof, as de         IN ABOVE SPACE DESCR         deepen directionally, give pertine         24.         SIGNED         (This space for Ender         PERMIT NO         Application approval does r         CONDITIONS OF APPROVAL	GRADE, SIZE OF CASING J-55, 9-5/8" S/P110, 7" A vertical wellbore as a N o the plan submitted in the Acreage Dedication Plan in Outline ig Layout Drawing hifold Specifications ations Plan munications des ROW's for the well post all applicable terms, escribed above and as constructed RIBE PROPOSED PROGRAM ment data on subsurface locations Man Manna arai.or State office use) Station 1 Destruction Acreage Dedication Plan munications Acreage Dedication Plan munications Acreage Dedication Plan ations Plan munications Acreage Dedication Plan ations Plan munications Acreage Dedication Plan munications Acreage Dedication Plan ations Plan munications Acreage Dedications Acreage Dedications Ac	WEIGHT PER FOOT	SETTING DEPTH         1500'         7870'         producer. NOS was         nents:         CAPTO         ad flowline.         ons and restrictions c         ad File No. ES-0085.         give data on present produce         product data on present produce         po Ann Johnson         r. Property Analyst         APPROVAL DATE	filed 1/26/00.	554 sxs, circ.         923 sxs, circ.         The well will be drill         COLLED WATER         NL SUBJECT TO         REQUIREMENT         STIPULATIONS         D)         erations conducted on         osed new productive zone. If f any.	ed and BASIN SAND the leased land proposal is to drill or 2/2/00

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.



DISTRICT 1

1636 H. Franch Dr., Bobbs, 324 86344 DISTRICT II

811 South First, Artania, NM 86210

DISTRICT III 1000 Rio Bruzos Rd., Axteo, NM 87410

DISTRICT IV 2040 South Pachece, Santa Fe, NK 87606

3507.1

3504.5

3506.8

3505.9 

LAT - N32\*32'18.2" LONG - W103"11"35.6" State of New Mexico

argy, Minerais and Natural Resources Department

Form C-102 Revised Morch 17, 1999

Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

#### OIL CONSERVATION DIVISION 2040 South Pacheco

Santa Fe, New Mexico 87505

AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT API Number Pool Code Pool Name North 30-025-34963 96893 Strawn ardu Property Code 25 Property Name Well Number D.M. WARREN <del>-137</del> 13 OGRID No. **Operator** Name Elevation 05073 CONOCO INC. 3506' Surface Location UL or lot No. Section Township Range Lot Idn Feet from the North/South line Feet from the East/West line County Μ 30 20 S 38 E 400 SOUTH 990 LEA WEST Bottom Hole Location If Different From Surface UL or lot No. Section Lot Idn Township Range Feet from the North/South line Feet from the Bast/West line County Dedicated Acres Joint or Infill **Consolidation** Code Order No. 160 NSL has been filed 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 contained herein is true and complete to the my knowledge and belief. An Signature Jo Ann Johnson Printed Name Sr. Property Analyst Title February 3, 2000 Date SURVEYOR CERTIFICATION \*\*\*\*\* I hereby certify that the well location shown SEMU # 134 on this plat was plotted from field motes of actual surveys made by me or under my supervison and that the same is true and correct to the best of my belief. **₽**0 Innuary 12 2000

	January 12, 2000
ļ	Date Surveyed
	Signature : Seal of JON
	Professional Surgeyon
1	
	1 A TRAIN
1	Y IN N IN MA
	J 2977 4 -
	24,0. No. 001743
	Certificate Non Gary 1 John 7977
	Certification Gary Loper 7977
	BARIN SURVERS





	1.0. 0.		,								
W.O. Number:	0017	Drawn By:	K. GC	AD	Survey Date:	01-12-2000	Sheet	1	of	1	Sheets



D.M. WARREN #137 Located at 400' FSL and 990' FWL Section 30, Township 20 South, Range 38 East, N.M.P.M., Lea County, New Mexico.

	P.O. Box 1786	W.O. Number: 0017AA - KJG #122	
<b>D</b> Asin	1120 N. West County Rd. Hobbs, New Mexico 88241		CONOCO INC.
Surveys	<b>VEYS</b> (505) 393-7316 - Office (505) 392-3074 - Fax	Scale: 1" = 1000'	
focused on excellence In the olifield	basinsurveys.com	Date: 01132000	





#### PROPOSED \*\*\* FLL PLAN OUTLINE

.

WELL NAM		DM Warren No.137	S, R38E (Prior to Staking) Ground Level : 7 Kelly Bushing: 11' AC						
LOCATION	· · · · · · · · · · · · · · · · · · ·	990' FWL & 400' FSL Sec 30, T	Kelly Bushing:						
Depth MD	FORMATION TOPS		TYPE OF FORMATION EVALUATION	HOLE	CASING PROGRAM	FRAC GRAD	FORM. PRES. GRAD.	Mud Weight & Type	Daγs
0		Possible Hole Enlargement & Sloughing		12-1/4"			Less than 8.3	8.4 - 9.5 Fresh	
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	
2000							Less than 8.4		
	Base Sait @ 2.500'								
	Yates 2,670' 7 Rivers 2,915'		Mud Loggers F/ Yates to TD H2S Monitor on at 2900'						
3000									
	Queen 3,490'								
4000	Grayburg 3,750' San Andres 3,985'	Lost Returns in San Andres							
									7
5000	Glorietta 5,255'						:		
		Possible differential sticking thru Glorietta & Paddock							
	Blinebry Mkr 5,815								
6000	Tubb 6,305'								
	Drinkard 6,670°								
7000	Abo 6,950'		First Log Pure						
	Strawn 7,560'		First Log Run: GR-CAL-DLL-MLL-Sonic FDC-CNL-PE : TD to 2650' Pull GR-CNL-Cal to Surf						
	· ·	STOP DRILLING WHEN	Second Log Run: 60 rotary sidewall cores		7", 23.0#, S/P110				
8000	TD @ 7,870' Devonian 7,900'	WOODFORD SHALE IS CUT Severe losses in Devonian	Third Run: FMI imaging log		LT&C f/0'-7,870' Circulate Cement			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

01-Feb-00

Joe Huck, Geophysical Advisor

Yong Cho, Drilling Engineer



Conoco D.M. Warren #137

Sec. 30-T20S-R38E 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: 180252799B

# JOB AT A GLANCE

۲

.

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	1,500 gals
Density	8.4 ppg
Lead Slurry	
LEAD SLURRY	401 sacks
Density	12.7 ppg
Yield	1.88 cf/sack
Tail Slurry	
TAIL SLURRY	153 sacks
Density	14.8 ppg
Yield	1.34 cf/sack
Displacement	
Water	113 bbls
Density	8.4 ppg

# WELL DATA

# ANNULAR GEOMETRY

ANNULAR I.D.	DEPTH(ft)				
(in)	MEASURED	TRUE VERTICAL			
8.921 CASING	1,500	1,500			
8.750 HOLE	7,870	7,870			

### SUSPENDED PIPES

DIAMET	ER (in)	WEIGHT	DEPTH(ft)				
0.D.	I.D.	(lbs/ft)	MEASURED	TRUE VERTICAL			
7.000	6.366	23	7,870	7,870			

Float Collar set @	7,830 ft
Mud Density	8.40 ppg
Est. Static Temp.	127 ° F
Est. Circ. Temp.	121 ° F

# **VOLUME CALCULATIONS**

1,500 ft	х	0.1668 cf/ft	with	0 % excess	=	250.2 cf
4,100 ft	х	0.1503 cf/ft	with	35 % excess	=	832.1 cf
2,270 ft	x	0.1503 cf/ft	with	30 % excess	=	444.2 cf
40 ft	x	0.2210 cf/ft	with	0 % excess	=	8.8 cf (inside pipe)
			TOTAL	SLURRY VOLUME	=	1535.3 cf
					=	274 bbls

# **FLUID SPECIFICATIONS**

Ţ

\$

•

•

Pre-flush					1,500.0 gals Mud Clean I @ 8.4 ppg
FLUID	VOLUME CU-FT	•	VOLUM FACTO	_	AMOUNT AND TYPE OF CEMENT
Lead Slurry	752	1	1.88	( 	401 sacks (35:65) Poz (Fly Ash):Class C Cement + 0.25% bwoc Cello Flake + 0.005 gps FP-6L + 6% bwoc Bentonite + 2% bwoc Calcium Chloride + 96.5% Fresh Water
Tail Slurry	205	1	1.34	(	153 sacks Class C Cement + 2% bwoc Calcium Chloride + 0.005 gps FP-6L + 56.3% Fresh Water
Displacement	S				112.9 bbls Water + 56.3% Fresh Water @ 8.4 opg
·	-			SLURF	RY SLURRY
				NO. 1	
Slurry Weight (ppg)				12.70	) 14.80
Slurry Yield (cf/sack)				1.88	1.34
Amount of Mix Water (gr	•			10.07	6.35
Amount of Mix Fluid (gps	•			10.08	6.35
Estimated Pumping Time	e - 70 BC (H	łH:	MM)	5:00	2:20

٠

**, .** . . . .



# JOB AT A GLANCE

ļ

ł

ł

÷

•

Depth (TVD)	7,870 ft
Depth (MD)	7,870 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	7,966 gals
Pre-flush	
Mud Clean I	1,500 gals
Density	8.4 ppg
Lead Slurry	
LEAD SLURRY	EQC applie
	586 sacks
Density Yield	12.7 ppg
neid	1.85 cf/sack
Tail Slurry	
TAIL SLURRY	337 sacks
Density	14.8 ppg
Yield	1.34 cf/sack
Displacement	
Water	308 bbls
Density	8.4 ppg

# WELL DATA

#### **ANNULAR GEOMETRY**

ANNULAR I.D.	DEPTH(ft)		
(in)	MEASURED	TRUE VERTICAL	
8.921 CASING	1,500	1,500	
8.750 HOLE	7,870	7,870	

## SUSPENDED PIPES

DIAMETER (in)		WEIGHT	WEIGHT DEPTH(ft)		
0.D.	I.D.	(lbs/ft)	MEASURED	TRUE VERTICAL	
7.000	6.366	23	7,870	7,870	

Float Collar set @	7,830 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
2,270 ft	x	0.1503 cf/ft	with	30 % excess	=	444.2 cf
40 ft	х	0.2210 cf/ft	with	0 % excess	=	8.8 cf (inside pipe)
·			TOTAL	SLURRY VOLUME	=	1535.3 cf
					=	274 bbls

# **FLUID SPECIFICATIONS**

1

Pre-flush	_			1,500.0 gals Mud Clean I @ 8.4 ppg	
FLUID	VOLUMI CU-FT	E 	VOLUME FACTOR	AMOUNT AND TYPE OF CEMENT	
Lead Slurry	1082	1	1.85	<ul> <li>586 sacks (35:65) Poz (Fly Ash):Class C</li> <li>Cement + 0.25% bwoc Cello Flake + 0.005 gps</li> <li>FP-6L + 6% bwoc Bentonite + 95.7% Fresh</li> <li>Water</li> </ul>	
Tail Slurry	453	1	1.34	<ul> <li>337 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</li> </ul>	
Displacement			$L \to 0$	308.3 bbls Water + 55.7% Fresh Water @ 8.4 ppg	
CEMENT PROPERTIE	S				
				URRY SLURRY IO.1 NO.2	
Slurry Weight (ppg)			1	2.70 14.80	
Slurry Yield (cf/sack)				1.85 1.34	
Amount of Mix Water (gr	•		9	9.98 6.28	
Amount of Mix Fluid (gps	•			<b>6.29</b>	
Estimated Pumping Time			MM)	2:49 1:49	
Free Water (mls) @ ° F	@ 90 ° ar	igle		0.9	
RHEOLOGIES					
FLUID		EMP		<u>300 200 100 6 3</u>	
Lead Slurry		°F	153	141 136 130 50 38	
Tail Slurry	@ 80	)°F	150	102 85 68 43 35	

### SURFACE USE PLAN Conoco Inc.

#### D.M. Warren #137

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 400' FSL & 990' FWL, Sec. 30, T20S, R38E, 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. 981' +/- 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. Topographic Map and Well Location

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. <u>Plans for Restoration of Surface</u>

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 Dallas McCasland.

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. Manken go

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

2-2-00

Date



# **BUP SPECIFICATIONS**



# **TRAILER - MOUNTED RIG LAYOUT**



EXHIBIT D



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 system. 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:

- 1. Two rams with one blind and one pipe ram.
- 2. Kill line (2 inch maximum).
- 3. One kill line valve.
- 4. One choke line valve.
- 5. Two chokes (reference diagram No. 1).
- 6. Upper kelly cock valve with handle.
- 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. JRAM



Hydraulic

#### H2S DRILLING OPERATIONS PLAN

3

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

新華

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.

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.



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 2, 2000

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

Attn: Mr. Barry Hunt

Re: Settlement Letter for Well Location and Appurtenances D. M. Warren #137 Section 30, T20S, R38E 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,

Mike L. Mankin

Cc: File



