Form(3160-3 (dy 1992)	U. C	No ED STATES	W Mexico (Other instr reverse		FORM AF OMB NO.	1004-0136	
	DEPARTMEN	-	Expires February 28, 1995 5. LEASE DSIGNATION AND SERIAL NO				
	BUREAU OF		NM-2				
APPLI	CATION FOR PE	RMIT TO DI	RILL OR DEEPEN		6 IF INDIAN, ALLOTTE		
Ia. TYPE OF WORK				·			
DR: b. type of well	ill 🛛	DEEPEN			7 UNIT AGRREEMENT		
	AS /ELL OTHER		SINGLE MULT		Meyer 8. FARM OR LEASE NAME W		
2. NAME OF OPERATOR			ZONE ZONE		5	222.10	
	Conoco Inc.	····			9. API WELL NO		
a. Address and telephone no	A. 1976 40 M. H. J. 2020	70705 4600					
4 LOCATION OF WELL	uite W649 Midland, TX		h any State requirements *)		10. FIELDAND POOL,	Hardy	
At surface		2310' FSL &	1 8 50' FWL		11. SEC, T., R., M., OR	BLK.	
At proposed prod. zon	e	2310' FSL &	1850'FWL Unit	K	AND SURVEY OR A Sec. 31, T20		
14. DISTANCE IN MILES A	ND DIRECTION FROM NEAD	EST TOWN OR POST	OFICE*		12 COUNTY OR PARIS	H 13. STATE	
					Lea	NM	
5. DISTANCE FROM PROPO LOCATION TO NEARES PROPERTY OR LEASE	Г		16 NO OF ACRES IN LEASE	17. NO. OI TO TI	F ACRES ASSIGNED HIS WELL		
(Also to nearest drl 8. DISTANCE FROM PROP	g. unit line, if Any) OSED LOCATION*		19. PRCPOSED DEPTH	20. ROTAT	40 RY OR CABLE TOOLS		
	RILLING, COMPLETED,		8150'		Rotary		
21. ELEVATIONS (Show Wh	ether DF, RT, GR, etc)			l	22. APPROX. DATE W	ORK WILL START*	
23		3494' GR	····		2/15	/00	
23		PROPOSED CASING	G AND CEMENTING PROGRA	AM			
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOO	T SETTING DEPTH		QUANTITY OF CEM	ENT	
12-1/4"	J-55, 9-5/8"	36#			554 sxs, circ.		
8-3/4"	S/P110, 7"	23#	7850'		920 sxs, circ.		
 Well Location and Proposed Well Pla Cementing Plan Surface Use Plan Trailer Mounted R BOP & Choke Ma H2S Drilling Oper Surface owner corr 	n Outline Lig Layout Drawing nifold Specifications rations Plan	at (C-102) along v	APPROVAI GENERAL SPECIAL S ATTACHEL	L SUBJEC REQUIRI	EMENTS ANI	-	
The undersigned acce or potion thereof, as c	described above and as c	conditions, stipu overed by BLM I	lations and restrictions con Bond File No. ES-0085.		······	0.7.0	
			en give data on present productiv e vertical depths. Give blowout pre-			If proposal is to drill or	
24.			Jo Ann Johnson				
	Inn Johns		Sr. Property Analyst			2/7/00	
(This space for Fed	leral or State office use)					······································	
	his lifelie	•					
CONDITIONS OF APPROVA		Acu	table title to those righs in the subject ${\mathfrak n} {\mathfrak g}$	ct lease which wo	ould entitle the applicant to d	conduct operations thereon.	
$\widehat{X_{i}}(\tau)$			Assistant Field	-	a . 1 1		
APPROVED BY					DATE		
Title 18 U.S.C. Sectio			tions On Reverse Side			5 - y	

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DISTRICT I 1636 N. French Dr., Bobbe, NM 86240 DISTRICT II 811 South First, Artesia, NM 88210

DISTRICT III 1000 Rio Brazos Ed., Asteo, NM 67410

DISTRICT IV 2040 South Pacheco, Santa Fe, NM 67605 State of New Mexico

Energy, Minerals and Natural Resources Department

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

OIL CONSERVATION DIVISION

2040 South Pacheco Santa Fe, New Mexico 87505

87505

□ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

30-025	Number - 34<	260	Pool Code North Hardy Pool Name -10460 96893 South Cass Strawn								
Property C	5410 MEYER B-31								Well Number 5		
ogrid No 005073	OGRID No.Operator Name005073Conoco Inc., 10 Desta Drive, Ste. 649W, Midland TX 7970							and TX 79705.	Eleva 349		
Surface Location											
UL or lat No.	Section	Township	Range	Lot Idn	Feet fro		North/South line	Feet from the	East/West line	County	
ĸ	31	20 S	38 E	Hole Lo		10 If Diffe	SOUTH	1850 face	WEST	LEA	
UL or lot No.	Section	Township	Range	Lot Idn	Feet fro		North/South line	Feet from the	East/West line	County	
Dedicated Acres	Joint o	r Infill Co	nsolidation	Code O	rder No.			<u></u>		l	
40						-,					
NO ALLO	WABLE W						NTIL ALL INTER APPROVED BY	RESTS HAVE BEI THE DIVISION	EN CONSOLID	ATED	
			·				····	OPERATO	R CERTIFICAT	FION	
	1							I hereby	certify the the in	formation	
						İ		contained herein best of my knowl	is true and compl edge and belief.	ets to the	
	İ					ĺ					
	l							1 Dran	n Dhai	On	
								Signature	n young		
				+		+		Jo Ann	Johnson		
	1					1		Printed Name			
	1					1			operty Anal	_yst	
	1					i		Title 2/7/00			
	i I L	AT - N32*:	31'44.8"					Date			
		ONG - W10)3•11'25.5"			l		SURVEYO	R CERTIFICAT	LION	
	' i	3493.0'	3497.3					I herebu certifu	that the well local	ton shown	
•	- 1850' —	(230)				1		on this plat was	s plotted from field	d notes of	
		L	7406 5'			1			made by me or I that the some is	-	
	Ĩ	3494.1'	3496.5'			1		correct to the	best of my belie	ıf.	
								Janut Date Survey	ary 12, 2000	 	
				.				Signatore det	Stav Of F		
		2310'-				i		Professional	MEXT		
		- 23							1000		
	ļ					1		1 Jera	AT LE		
	1					1		12 WO	No/ 00184		
								Certifiendo No	SIONAL UND	s 7977	
1	.			J					TO MANY BLO		

SECTION 31, TOWILL HIP 20 SOUTH, RANGL 38 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.





BASIN SURVEYS P.O. BO	DX 1786-HOBBS, NEW MEXICO		
W.O. Number: 0016	Drawn By: K. GOAD	Survey Date: 01-12-2000	Sheet 1 of 1 Sheets







PROPOSED *** ELL PLAN OUTLINE

WELL NAI	ME .	Meyer B-31 No.5 1850' FWL & 2310' FSL Sec 31,		Ground Level : Kelly Bushing:	? 11' AGL				
Depth MD	FORMATION TOPS	DRILLING PROBLEMS	TYPE OF FORMATION EVALUATION		CASING PROGRAM	FRAC GRAD	FORM. PRES. GRAD.	Mud Weight & Type	Days
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 Salt @ 2.500'						-		
3000	Yates 2,730' 7 Rivers 2,975'		Mud Loggers F/Yates to TD H2S Monitor on at 2900'						
	Queen 3,545'								
4000	Grayburg 3,805' San Andres 4,035'	Lost Returns in San Andres							7
	-								
	-								
5000	Glorietta 5,305'	Possible differential sticking thru Glorietta & Paddock							
6000	Blinebry Mkr 5,875								
	Tubb 6,325'								
	Drinkard 6,655'								
7000			First Log Run: GR-CAL-DLL-MLL-Sonic FDC-CNL-PE : TD to 2700' Pull GR-CNL-Cal to Surf						
	- - - -	STOP DRILLING WHEN	Second Log Run: 60 rotary sidewall cores		7", 23.0#, S/P110				
800	TD @ 7,850' Devonian 7,890'	WOODFORD SHALE IS CUT Severe losses in Devonian	Third Run: FMI imaging log		LT&C f/0'-7,850' 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

07-Jan-00

Joe Huck, Geophysical Advisor

APPROVED

Yong Cho, Drilling Engineer



Conoco Myer 'B' 31 #5

Sec. 31-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:

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

Service Representatives:

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



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

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)		
O.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	×	0.3132 cf/ft	with	100 % excess	=	751.6 cf
300 ft	×	0.3132 cf/ft	with	100 % excess	=	188.1 cf
40 ft	×	0.4341 cf/ft	with	0 % excess	=	17.4 cf (inside pipe)
			TOTAL	SLURRY VOLUME	=	957.1 cf
					=	171 bbls

FLUID SPECIFICATIONS

Pre-flush				1,	,500.0 gals Mud Clean I @ 8.4 ppg
FLUID	VOLUME CU-FT		VOLUMI FACTOR		
Lead Slurry	752	1	1.88	C b	01 sacks (35:65) Poz (Fly Ash):Class C Cement + 2% bwoc Calcium Chloride + 0.25% woc Cello Flake + 0.005 gps FP-6L + 6% bwoc Centonite + 96.5% Fresh Water
Tail Slurry	205	1	1.34	С	53 sacks Class C Cement + 2% bwoc Calcium hloride + 0.005 gps FP-6L + 56.3% Fresh Vater
Displacement					12.9 bbls Water + 56.3% Fresh Water @ 8.4 pg
CEMENT PROPERTIE	S				
			ę	SLURR' NO. 1	Y SLURRY NO. 2
Slurry Weight (ppg)				12.70	14.80
Slurry Yield (cf/sack)				1.88	1.34
Amount of Mix Water (g				10.07	6.35
Amount of Mix Fluid (gps	•			1 0. 0 8	6.35
Estimated Pumping Time	e - 70 BC (H	H:	:MM)	5:00	2:20



JOB AT A GLANCE

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	1,500 gals
Density	8.4 ppg
Lead Slurry	
LEAD SLURRY	596 apply
Density	586 sacks 12.7 ppg
Yield	1.85 cf/sack
	334 sacks
Density Yield	14.8 ppg
field	1.34 cf/sack
Displacement	
Water	307 bbls
Density	8.4 ppg
	· ·



WELL DATA

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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

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

FLUID SPECIFICATIONS

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Pre-flush	_					1,50	0.0 gais Mu	ıd Clean I	@ 8.4 pr	pg
FLUID		UME -FT		VOLUME FACTOR						
Lead Slurry	10	82	I	1.85	E	Cen	6L + 6% bw	% bwoc Co	ello Flake	e + 0.005 aps
Tail Slurry	44	9	1	1.34	 = 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 					
Displacement										
CEMENT PROPERTIES	s					110				
					UR O.		SLURRY NO. 2			
Slurry Weight (ppg)				1	2.7	0	14.80			
Slurry Yield (cf/sack)				1	1.85	5	1.34			
Amount of Mix Water (gp				ç	9.98	3	6.28			
Amount of Mix Fluid (gps)					9.99)	6.29			
Estimated Pumping Time	Estimated Pumping Time - 70 BC (HH:MM) 2:49 1:49									
Free Water (mis) @ ° F @ 90 ° angle 0.9										
RHEOLOGIES										
FLUID		TEN	P	600		300	200	100	6	3
Lead Slurry	@	°F		153		141	136	130	50	38
Tail Slurry	0	80 °	F	150		102	85	68	43	35

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SURFACE USE PLAN Conoco Inc.

Meyer B-31 No. 5

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. <u>Existing Roads</u>

- A. The proposed well site is 2310' FSL & 1850' FWL, Sec. 31, 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. No 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. <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. Surface Ownership

The surface ownership is Bob McCasland.

12. <u>Archeological Clearance</u>

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 Right-of-Way Agent

2-1-00

Date



TRAILER - MOUNTED RIG LAYOUT



EXHIBIT D

BOP SPECIFICATIONS





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:

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

CHOKE MANIFOLD DIAGRAM



Hydraulic

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.

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

January 31, 2000

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

Attn: Mr. Barry Hunt

Re: Settlement Letter for Well Location and Appurtenances MEYER B-31, Well #5 Section 31, 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, 1 Mach Mi

Mike L. Mankin

Cc: File



