Form 3160-3 (November 1983) (formerly 9-331C)

UNITED STATES

(Other instructions on reverse side)

Budget Bureau No. 1004-0136 Expires August 31, 1985

DEPARTMENT OF THE INTERIOR 30-045-2855

S. LEASE DESIGNATION AND SERIAL NO.

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`	NM03358	

	BUREAU OF	LAND MANAGE	MENT	20.00.00	<u> د ۱</u>	NM03358		
APPLICATION	Y FOR PERMIT			OR PLUG BA	₹ÇK ∷	6. IF INDIAN, ALLOTTEE	OR TRIBE NAME	
1a. TYPE OF WORK					i	7. UNIT AGREEMENT NA	TWB .	
	LL 🗵	DEEPEN		RLUGZBAC	A ION OA	Northeast B	lanco	
b. TYPE OF WELL	A8 [7	Water Disposa	SINGLE	MULTIPL	· X	SAFARM OR LEASE NAM	· NEBU	
WELL W	ELL OTHER	water Disposa	T ZONE	ARMING	- X10	Middle Mesa		
2. NAME OF OPERATOR				FAREIGN		9. WELL NO.	1000	
	Nichols Co.,	Ltd.2303				2		
3. ADDRESS OF OPERATOR		_				10. FIELD AND POOL, O	R WILDCAT	
P.O. Box 123	7, Durango,	Colorado 8	<u> 31302-</u>	1237	077	~(1) N	sontEntrada	
4. LOCATION OF WELL (R	seport location clearly and	in accordance with	any State	requirements.")	9616	11. SEC., T., R., M., OR 1		
At surface 555' FSL - 7	OO FWT.				ŕ	AND SURVEY OR AR	IBA	
-						M	אווא זולכו זארכי	
At proposed prod. 201	salle					Section 11, T		
14 DISTANCE IN MILES	AND DIRECTION FROM. NE.	REST TOWN OR POST	OFFICE*		-	12. COUNTY OF PARISH	1	
	N.E. of Bla					San Juan	New Mexico	
10. DISTANCE PROM PROF	OSED*	11007 11011 110	16. NO. OF	ACRES IN LEASE	17. NO. C	OF ACRES ASSIGNED HIS WELL		
LOCATION TO NEARES	T	555'			- SWD Well			
(Also to nearest dri	g. unit line, if any)	-				TART OR CABLE TOOLS		
18. DISTANCE FROM PROPOSED LOCATION*						Rotary		
OR APPLIED FOR, ON TH	EIS LEASE, FT.	175'	920			22. APPROX. DATE WO	DRE WILL STARTS	
21. ELEVATIONS (Show w	bether DF, RT, GR, etc.)					l .		
6505' GL						July 1, 19	771	
23.		PROPOSED CASIN	G AND CI	EMENTING PROGRA	JM			
SIZE OF HOLE	SIZE OF CABING	WEIGHT PER PO	OT	SETTING DEPTH		QUANTITY OF CEME	NT	
	_	133# J-55		300'		575 sacks		
26"	2)"	68#/61# K		3745'		2060 sacks		
17 1/2"	13 3/8"		3	512'-5905'		860 sacks		
12 1/4"	9 5/8"	40# N-80		9165'	Ι	1035 sacks		
8 3/4"	7"	126# N-80,		7103				

 $$\operatorname{\textsc{CF-95}}$$ Propose to spud in the San Jose formation. Drill a 26" hole to a TD of 300'. Run & cement surface casing with cement returns to surface. WOC 12 hours. Pressure test surface casing & BOPE to 600 psi/30 mins. Drill a 17 1/2" hole to a TD of 3745' using fresh water; low solids mud. Abnormal pressures could be present in the Fruitland formation & the mud system will be weighted up to density adequate to control this pressure prior to drilling the Fruitland formation. Logs will be run at intermediate TD. Run & cement intermediate casing with cement returns to surface. WOC 18 hours. Pressure test intermediate casing & BOPE to 1500 psi/30 mins. Drill a 12 1/4" hole to a TD of 5905' using air. No abnormal pressures are anticipated in this interval. Run logs. Run & cement drilling liner with cement returns to the liner top. WOC 18 hours. Pressure test liner & BOPE to 1500 psi/30 mins. Drill an 8 3/4" hole to a TD of 9165' using air in the interval above the Dakota (7560') & a fresh water mud from Dakota to TD. No abnormal pressures are anticipated in this interval. Run logs. Run production casing & cement with cement returns to top of drilling liner. WOC 12 hours. Release drilling rig, move in completion unit. Morrison, Bluff & Entrada intervals will be selectively perforated & evaluated for water disposal purposes. - No poisonous gases are anticipated in any interval drilled.

24. Operations Engineer SIGNED (This space for l APPROVAL DATE APPROVED BY CONDITIONS OF APPROVAL. OIL CON. DIV. *See Instructions: On Reverse Side

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 to any matter within its jurisdiction.

Form 3160-3 (November 1983) (formerly 9-331C)

UNITED STATES

SUBMIT IN TRIPLICATE. (Other instructions on reverse side)

Form approved. Budget Bureau No. 1004-0136 Expires August 31, 1985

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK		DEPARTMENT	OF THE INTER	RIUR	5. LEASE DESIGNATION AND SERIAL NO.
APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK TYPE OF WALK DRILL W DEEPEN DE		BURFAU OF	LAND MANAGEMEN	NT RECEIVED	NM03358
DEILL DEEPEN DELTA PLUS BACK DISTRICT AND ALLESS BLACK OF THE WATER DISTRICT SHOWS BLACK DOTTERS WATER DISTRICT SHOWS BLACK DISTRICT SHOWS BLACK DOTTERS WATER DISTRICT SHOWS BLACK DISTRICT SH	APPLICATION			EN, OR PLUG BA	ACK
AND COMPANDED AND COLORS WITH A STANDARD COLORS CO. LTd. SAME OF OFFICE OF THE COLORS CO. LTd. SAME OF THE COLORS CO. LTD. SA	. TYPE OF WORK				
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SALES OF OFFEATORS Blackwood & Nichols Co., Ltd. 2. Note 1237, Durango, Colorado 83102-1237 P.O. Box 1237, Durango, Colorado 83102-1237 Mildoat Morrison/Entrada 111, 2011 Mildoat Morrison Proceedings 111, 2011 Mildoat Morr		. — .,	-t Diemogal	INGLE MULTIPL	
Blackwood & Nichols Co., Ltd. 10	WELL WE	LL OTHER W	ater Disposal z	OKEZONE	Middle Mesa SWD
ADDITIONAL PROPERTY OF VALL (Report location deatly and in accordance with any State requirements.")		37 - 1 - Co	T + A		
P. O. BOX 1237, Durango, Colorado 83102-1237 10. Files and Process of Vincer Wildcat Morrison/Entrada 1.		Nichols Co.	, Etu.		₂
Second Content of Wall. (Report location clearly and in accordance with any state requirements.)	ADDRESS OF OPERATOR	07 D	Colorado 8	3102-1237	
The control of the later of the control of the co	P.O. Box 12	3/, Durango,	in accordance with any	State requirements.*)	Wildcat Morrison/Entrada
A PROPOSED FOR SAME A. DIFFACE IN HILDE AND DIRECTION FROM NEAREST TOWN OR FORT OFFICE* 20 1/2 miles N.E. of Blanco, New Mexico 18. No. OF ACRES IN LAND 18. No. OF ACRES IN LAND 19. CORPET ON PROPOSED* 18. No. OF ACRES IN LAND 19. CORPET OF ACRES AND NEW MEXICO 10. No. OF ACRES IN LAND 11. No. OF ACRES IN LAND 11. No. OF ACRES IN LAND 12. OFFICE ACRES 13. No. OF ACRES IN LAND 14. No. OF ACRES IN LAND 15. No. OF ACRES IN LAND 16. NO. OF ACRES IN LAND 17. No. OF ACRES ARRIVED N/A - SWD Well N/A - SWD Well	At surface	bott location clearly and	IM &CC0144240,		
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20 1/2 miles N.E. of Blanco, New Mexico San Juan San Ju					Section 11, T31N, R7W, NM
20 1/2 miles N.E. of Blanco, New Mexico 10. House Proportion 11. House Acres in Large 12. 11. House Acres in Large 12. 2396.77 12. 396.77 13. House Year Control 15. House Acres in Large 17. September of Large Large 17. September of Large Large 18. House Acres in Large 19. House Weekle Wall 19. House Depth (A. SWD) Wells 20. House Acres in Large 19. House Wells 20. Ho			THE MONEY OF POST OFFI	CR.	
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Surface Row Subsection Su			alico, New Me	NO OF ACRES IN LEASE	
175 175	LOCATION TO NEAREST	•	i		TO THIS WELL
8. DETAIL TORN FRONCESS LOCATIONS TO ALL STATES OF THE STATES OF THE STATES AND ALL STATES OF THE STATES AND ALL STATES AND AL	PROPERTY OR LEASE L' (Also to nearest drig	ws, FT. , unit line, if any)			
APPROVED BY 1996 1997 1991	O DIEST NOT TRONT	DEED LOCATION®	1		
1. EMERITATIONS (Show whether Dr. R.T. dz. det his settlon is subject to technical and 6505' GL procedural review pursuent to 43 CFR 3185.3 SINE OF ROLE SINE OF CASINO WHIGHT PER POOT SETTING PROGRAM SUBJECT TO COMPILATE ANTICHED	OR APPLIED FOR, ON THE	E LEASE, FT.	175'	9200.	
3.	1. ELEVATIONS (Show who	ther DF, RT, GR, etc.	s action is subject to	technical and	1
SIZE OF BOLE SIZE OF CARING WEIGHT PER FOOT SETTING DEPTH "GENERAL REGISTRATION AND AND AND AND AND AND AND AND AND AN		nro	cedural review pursu	ant to 43 CFR 3165.8	and the second s
SIEE OF HOLE SIEE OF CASING WEIGHT PER FOOT SETTING DEPTH "GENCRAL RECORD RECORD 133 # J-55. 300' 575 sacks 17 1/2" 13 3/8" 68#/61# K-55 3745' 2066 sacks 12 1/4" 9 5/8" 40# N-80 3512'-5905' 860 sacks 8 3/4" 7" 26# N-80,L-90 9165' 1035 sacks CF-95		an	ROPOSE BUCASING A	ND CEMENTING PROGRA	
26" 20" 133# J-55 300' 26" 20" 3745' 2060 sacks 3745' 2060 sacks 17 1/2" 13 3/8" 40# N-80 3512'-5905' 860 sacks CF-95 Surface Casing: 575 sx Class B w/2% CaCl2 and 1/4 #/sx flocele @ 15.6 ppg, 1.18 ft 3/sx yield. Intermediate Casing: 1860 sx Class B 65/35 poz w/6% gel, 2% CaCl2 and 1/2 cf perlite per sx @ 12.7, ppg, 1.70 ft 3/sx yield. F/B 200 sx Class B neat w/2% CaCl2 and 1/4 #sx flocele, 15.6 ppg and 1.18 ft 3/sx yield. Liner: 660 sx Class G 65/35 poz w/6% gel, .6% FIA 6 1/4 #/sx gilsonite and 1/4 #/sx flocele, 12.3 ppg and 1.74 ft 3/sx yield. F/B 200 sx Class G neat w/.8% FIA, 15% ppg, 1.18 ft 3/sx yield. Long String: 1st Stage: 285 sx Class G 50/50 poz + 2% gel, 10% salt, .7% FIA, .2% FR, 13.9 ppg, 1.26 ft 3/sx yield. F/B 250 sx Class G + 35% silica, 2% KCL, .8% FIA, .2% FL, .5% FR, 15.8 ppg, 1.20 ft 3/sx yield. 2nd Stage: 375 sx Class G 65/35 poz + .6% gel, 6% FIA, 6.25 #/sx gilsonite, 1/4#/sx flocele, 12.2 ppg, 1.92 ft 3/sx yield. IN ABOVE SPACE DESCRIBE PROFORDS PROGRAM: If proposed is to deepen or ping back, give data on present productive some and proposed new productive preventer program. If any. Operations Engineer DATE AFROVAL DATE AFROVAL DATE AFROVAL DATE AFROVAL DATE AFROVAL DATE AFROVAL DATE AFROVAL DATE DATE AFROVAL DATE					COBSECUTIO COMPLIANTE TRAIL ATTACHED
17 1/2" 13 3/8" 68#/61# K-55 3745' 2060 sacks 12 1/4" 9 5/8" 40# N-80 3512'-5905' 860 sacks 8 3/4" 7" 26# N-80,L-90, 9165' 1035 sacks CF-95 CF-95 CF-95 Surface Casing: 575 sx Class B w/2% CaCl2 and 1/4 #/sx flocele @ 15.6 ppg, 1.18 ft 3/sx yield.					
12 1/4" 9 5/8" 40# N-80 3512'-5905' 860 sacks 83/4" 7" 26# N-80,L-80, 9165' 1035 sacks CF-95 Surface Casing: 575 sx Class B w/2% CaC12 and 1/4 #/sx flocele @ 15.6 ppg, 1.18 ft 3/sx yield. Intermediate Casing: 1860 sx Class B 65/35 poz w/6% gel, 2% CaC12 and 1/2 cf perlite per sx @ 12.7, ppg, 1.70 ft 3/sx yield. F/B 200 sx Class B neat w/2% CaC12 and 1/4 #sx flocele, 15.6 ppg and 1.18 ft 3/sx yield. Liner: 660 sx Class G 65/35 poz w/6% gel, .6% FIA 6 1/4 #/sx gilsonite and 1/4 #/sx flocele, 12.3 ppg and 1.74 ft 3/sx yield. F/B 200 sx Class G neat w/.8% FIA, 15% ppg, 1.18 ft 3/sx yield. Long String: 1st Stage: 285 sx Class G 50/50 poz + 2% gel, 10% salt, .7% FIA, .2% FR, 13.9 ppg, 1.26 ft 3/sx yield. F/B 250 sx Class G + 35% silica, 2% KCL, .8% FIA, .2% FL, .5% FR, 15.8 ppg, 1.20 ft 3/sx yield. 2nd Stage: 375 sx Class G 65/35 poz + .6% gel, 6% FIA, 6.25 #/sx gilsonite, 1/4#/sx flocele, 12.2 ppg, 1.92 ft 3/sx yield. IN ABOVE SPACE DESCRIBE PROFOSED PROGRAM: If proposal is to deepen or ping back, give data on present productive some and proposed new productive preventer program. If any. Operations Engineer Operations Engineer DATE AFROVAL DATE APPROVAL DATE APPROVAL DATE APPROVAL DATE APPROVAL DATE APPROVAL DATE					
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Surface Casing: 575 sx Class B w/2% CaCl2 and 1/4 #/sx flocele @ 15.6 ppg, 1.18 ft 3/sx yield. Intermediate Casing: 1860 sx Class B 65/35 poz w/6% gel, 2% CaCl2 and 1/2 cf perlite per sx @ 12.7, ppg, 1.70 ft 3/sx yield. F/B 200 sx Class B neat w/2% CaCl2 and 1/4 #sx flocele, 15.6 ppg and 1.18 ft 3/sx yield. Liner: 660 sx Class G 65/35 poz w/6% gel, .6% FLA 6 1/4 #/sx gilsonite and 1/4 #/sx flocele, 12.3 ppg and 1.74 ft 3/sx yield. F/B 200 sx Class G neat w/.8% FLA, 15% ppg, 1.18 ft 3/sx yield. Long String: 1st Stage: 285 sx Class G 50/50 poz + 2% gel, 10% salt, .7% FLA, .2% FR, 13.9 ppg, 1.26 ft 3/sx yield. F/B 250 sx Class G + 35% silica, 2% KCL, .8% FLA, .2% FL, .5% FR, 15.8 ppg, 1.20 ft 3/sx yield. 2nd Stage: 375 sx Class G 65/35 poz + .6% gel, 6% FLA, 6.25 #/sx gilsonite, 1/4#/sx flocele, 12.2 ppg, 1.92 ft 3/sx yield. IN ABOVE SPACE DESCRIBE PROFOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive sone and proposed new productive sone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowon preventer program. If any. Operations Engineer DATE ACC 20 91 ATTREE OPERATION. APPROVAL DATE DATE ACC 20 1.18 ft 3.5% ppg, 1.20 ppg 1.18 ppg 1.25 ppg 1		1		1	1
Surface Casing: 575 sx Class B w/2% CaCl2 and 1/4 #/sx flocele @ 15.6 ppg, 1.18 ft 3/sx yield. Intermediate Casing: 1860 sx Class B 65/35 poz w/6% gel, 2% CaCl2 and 1/2 cf perlite per sx @ 12.7, ppg, 1.70 ft 3/sx yield. F/B 200 sx Class B neat w/2% CaCl2 and 1/4 #sx flocele, 15.6 ppg and 1.18 ft 3/sx yield. Liner: 660 sx Class G 65/35 poz w/6% gel, .6% FLA 6 1/4 #/sx gilsonite and 1/4 #/sx flocele, 12.3 ppg and 1.74 ft 3/sx yield. F/B 200 sx Class G neat w/.8% FLA, 15% ppg, 1.18 ft 3/sx yield. Long String: 1st Stage: 285 sx Class G 50/50 poz + 2% gel, 10% salt, .7% FLA, .2% FR, 13.9 ppg, 1.26 ft 3/sx yield. F/B 250 sx Class G + 35% silica, 2% KCL, .8% FLA, .2% FL, .5% FR, 15.8 ppg, 1.20 ft 3/sx yield. 2nd Stage: 375 sx Class G 65/35 poz + .6% gel, 6% FLA, 6.25 #/sx gilsonite, 1/4#/sx flocele, 12.2 ppg, 1.92 ft 3/sx yield. IN ABOYS SPACE DESCRIBE PROFOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive sone and proposed new productive sone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowon preventer program, if any. Operations Engineer DATE ARCHAPTEMENT NO. AT RECTOR APPROVAL DATE JUN 3 1991 TITLE OPERATOR STATE APPROVAL DATE	8 3/4"	7"		.80,	1000 500.15
24. SIGNED AN REGIONAL TITLE Operations Engineer (This space for Practical V) E DATE APPROVED BY APPROVED BY DATE APPROVED BY DATE APPROVED BY DATE APPROVED BY	3/sx yield. Intermediate C per sx @ 12 flocele, 15 Liner: 660 sx flocele, 12 1.18 ft 3/s Long String: FR, 13.9 pp .2% FL, .5% .6% gel, 6% F/B 125 sx	asing: 1860 sx. 7, ppg, 1.70 f .6 ppg and 1.18 Class G 65/35 .3 ppg and 1.74 x yield. 1st Stage: 285 g, 1.26 ft 3/sx FR, 15.8 ppg, FIA, 6.25 #/sx Class G w/.8%	Class B 65/35 t 3/sx yield. If t 3/sx yield poz w/6% gel, If 3/sx yield s sx Class G 50 x yield. F/B 2 1.20 ft 3/sx y x gilsonite, 1/ TL, .2% FR, 15.	poz w/6% gel, 2% F/B 200 sx Class .6% FLA 6 1/4 #/s . F/B 200 sx Class /50 poz + 2% gel, 50 sx Class G + 3 ield. 2nd Stage: 4#/sx flocele, 1: 2 ppg, 1.18 ft 3	CaCl2 and 1/2 cf perlite B neat w/2% CaCl2 and 1/4 #sx Ex gilsonite and 1/4 #/sx Ess G neat w/.8% FLA, 15% ppg, 10% salt, .7% FLA, .2% 35% silica, 2% KCL, .8% FLA, 275 sx Class G 65/35 poz + 2.2 ppg, 1.92 ft 3/sx yield.
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APPROVED BY	(This space for	EGET V'	ED	APPROVAL DATE	
					DATE

COOMM

DIST. 3

School to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico Energy, Minerais and Natural Resources Department

Form C-102 Revised 1-1-2

OIL CONSERVATION DIVISION

P.O. Box 2088

Sama Fe, New Mexico 87504-2088 9 177 23 FM C: \$7

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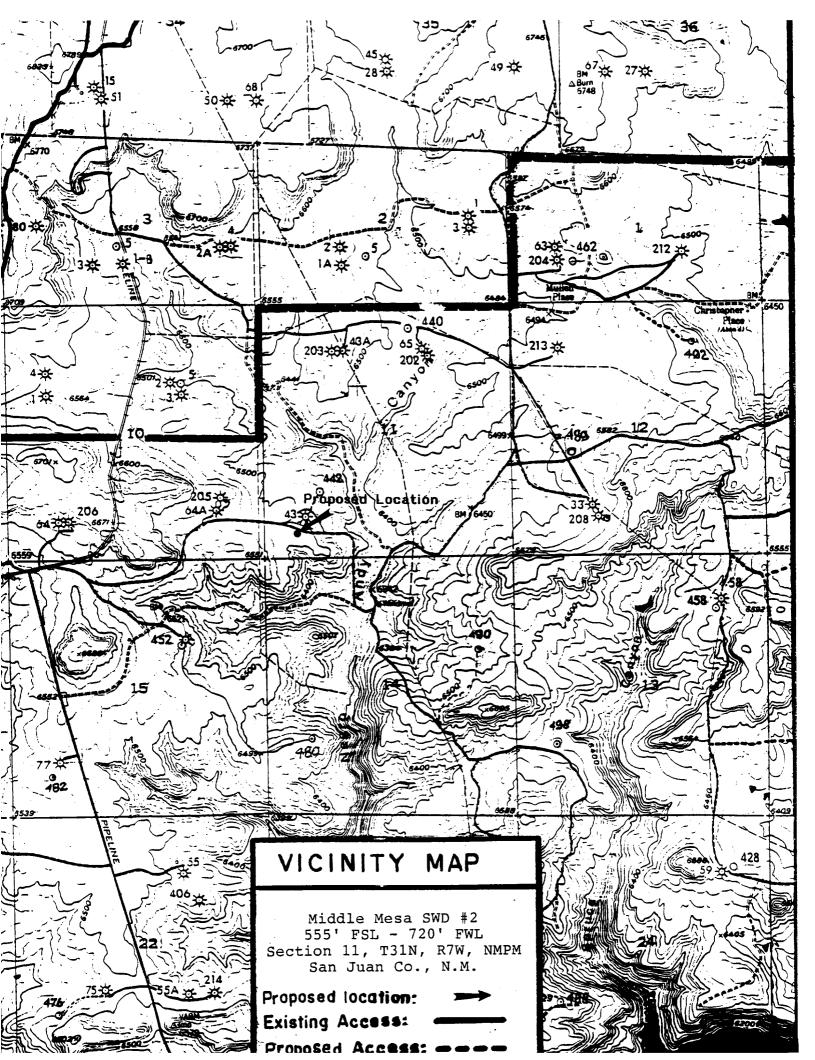
DISTRICT II
P.O. Deswer DD. Assessa, NM 18210

DISTRICT!
P.O. Box 1980, Hobbs, NM 88240

DISTRICT III
1000 Rio Brazos Rd., Azzac, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

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	n s boo	ichols	Co LTI	D. Mid	dle Mesa	SWD		2
	Section 4 IV	Towns	501, 31.	Reser	are nesa		County	
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Blackwood & Nichols Co., Ltd.
Middle Mesa SWD No. 2
555' FSL - 720' FWL
Section 11, T31N, R7W
San Juan Co., New Mexico

Field: Wildcat Morrison/Entrada <u>Elevation</u>: 6505'GL

Geology:

Formation Tops: San Jose - Surface Pt. Lookout - 5642'
Animas - 1354' Mancos - 6062'
Ojo Alamo - 2337' Dakota - 7560'
Kirtland - 2442' Burro Canyon - 7982'
Fruitland - 3102' Morrison - 8084'
Pictured Cliffs - 3392' Bluff - 8627'
Lewis - 3527' Todilto - 8857'
Cliff House - 5002' Entrada - 8899'
Menefee - 5392' Total Depth - 9165'

Logging Program:

Intermediate TD - 3745':Induction electric survey, compensated formation density/neutron, sonic and microlog.

Liner TD - 5905':Gamma ray, induction and compensated formation density/neutron.

Total Depth - 9165':Induction electric survey, compensated formation density/neutron, sonic and microlog.

Coring: None anticipated.

Drill Stem Tests: Gauge at every connection above each possible producing interval while air drilling. Drill stem test all oil/or gas shows from Dakota to total depth.

Drilling:

Contractor: Not assigned. Toolpusher: Not assigned.

Operator's Representative: Not assigned.

Mud Program: 0 - 300': Spud mud of gel and lime.

- 300'- 3000': Water and PHPA polymer with 1 qt. polymer sweeps every 93' or less if hole conditions dictate.
- 3000'- 3745':Fresh water, low solids PHPA polymer mud. Mud wt.-10.0 to 10.5 ppg, as necessary to control well. 40-50 sec./qt. viscosity w/gel. 6-8 cc water loss w/drispac.

Start mud up 100' above Fruitland.

Increase mud weight to 10.8 ppg prior to 3100'.

- 3745'- 5905': Air drill. Switch to air/2% kcl
 water mist/stift foam if hole quits
 dusting. Call company representative
 immediatey. Make 10 stand wiper
 trip every hour until adequate
 returns are established.
- 5905'- 9165': Air or air/foam drill as above.

 Before drilling into Dakota (7560'+),
 pull into casing and mud up with
 10-12 ppg gel and XCD polymer to
 40-42 vis., and drispac to <8 cc
 water loss. Stage into hole. Make
 10 stand wiper trips every hour until
 mud returns are established.

Materials:

Casing Program:

Hole Size	Depth Set	Casing Size	<u>Wt. & Grade</u>
26"	300′		133#,J-55
17 1/2"	3745′	13 3/8"	61# & 68#,K-55
12 1/4"	3512'-5905'	9 5/8"	40#,N-80
8 3/4"	9165'	7 "	26#,N-80,L-80,CF-95

Materials: Cont'd

Float Equipment:

- 20" surface casing
- TD at 300'. Super seal float shoe with inner string adaptor. Threadlock and tac weld float shoe and 1st 2 joints of casing. 7 centralizers: one 10' up on 1st joint, one on top of 1st joint and one on top of each joint, thereafter.
- 13 3/8" intermediate casing-Setting depth @ 3745'. Cement nose guide shoe. Differential fill float collar one joint up. 12 centralizers. One on top of each joint above shoe. 5 turbolizers across 0jo Alamo.
- Setting depth 3512'-5905'. Cement 9 5/8" liner nose guide shoe on bottom and flapper float collar one joint up. 3 centralizers: one on top of first 3 joints below liner hanger.
- 7" casing long string Setting depth 9165'. Cement nose guide shoe on bottom and differential fill float collar one joint up. 15 centralizers: evenly spaced below DV tool.

Cement Program:

- 20" surface casing
- 575 sacks (679 cuft) Class B w/ 2% CaCl2 and 1/4# flocele per sack. 15.6 ppg. 1.18 cuft/sack yield. 50% excess to circulate to surface. WOC 12 hours. Pressure test surface pipe, BOPs and manifold to 600 psi prior to drilling surface shoe.
- 13 3/8" intermediate 1860 sacks (3162 cuft) Class B 65/35 poz w/ 6% gel, 2% CaCl2 and 1/2 cuft perlite per sack. 12.7 ppg. 1.70 cuft/sack yield. Followed by 200 sacks (236 cuft) Class B neat W/2% CaCl2 and 1/4# flocele per sack. 15.6 ppg. 1.18 cuft/sack yield. Precede cement with 40 Bbls of mud flush & 60 Bbls of 11.0 ppg poz scavenger. Adjust cement volume to caliper plus 10% excess. WOC 18 hours. Pressure test casing, BOPs and manifold to 1500 psi prior to drilling shoe.

9 5/8" drilling liner - 660 sacks (1148 cuft) Class G 65/35
poz w/6% gel, .6% FLA, 6 1/4#
gilsonite per sack and 1/4# flocele
per sack. 12.3 ppg. 1.74 cuft/sack
yield. Followed by 200 sacks (236
cuft) Class G neat w/.8% FLA. 15.8
ppg. 1.18 cuft/sack yield. Precede
cement with 40 Bbls of 5 lbs/bbl
gelled water. Adjust cement volume to
caliper plus 25% excess. WOC 18
hours. Pressure test liner, BOPs and
manifold to 1500 psi prior to drilling
shoe.

7" long string

- DV tool @ 7470'.

Stage 1: 285 sacks (345 cuft) Class G 50/50 poz w/2% gel, 10% salt, .7% FLA, .2% FR. 13.9 ppg. 1.21 cuft/sack yield. Followed by 250 sacks (380 cuft) with 35% silica, 2% KCL, .8% FLA, .2% FL, .5% FR. 15.8 ppg. 1.52 yeild. Cement volume is calculated at 185% excess based on gauge hole. Adjust volue to caliper plus 25% excess.

Stage 2: 375 sacks (720 cuft) Class G 65/35 poz w/6% gel, .6% FLA, 6.25#/sack gilsonite, 1/4#/sack flocele. 12.2 ppg. 1.92 cuft/sack yield. Followed by 125 sacks (148 cuft) Class G w/.8% FLA, .29 FR, 15.2 ppg. 1.18 cuft/sack yield. Adust open hole cement volume to caliper plus 25% excess. Precede longstring with 30 Bbls of CW-100 with fluid loss additive.

Miscellaneous:

- Operate pipe rams daily and record in tour reports.
- Operate Blind rams on each trip and record in tour reports.
- Casing rams are to be installed prior to running casing.
- Upper kelly cock valve with handle will be used. Safety valve and subs to fit all drill string connections in use will be kept available on rig floor.
- Due to the limited local availablity of rigs with load bearing subs tall enough to accommodate annular preventers in conjuction with double ram preventers, a variance to Federal Register/Vol. 53, No. 233/ Section III A Well Control Requirements/Page 46 806/Subsection iii. 3 M System/Item 1 Annular preventers is requested.