Form 3160-3 (September 2001)

UNITED STATES

FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

DEPARTMENT OF THE PRINCE OF LAND MAN	INTERIOR SUCULABOUE	N-M.	SF080536				
APPLICATION FOR PERMIT TO		· · · · · · · · · · · · · · · · · · ·	6." If India), Allotee	or Tribe l	vame		
1a. Type of work: DRILL REENTE	ER .	081	প্রিনি Unit or CA Agre	ement, Na	me and	No.	
ib. Type of Well:	Single Zone Multi	ple Zone	8. Lease Name and 1 Ora No. 7	Well No.			
2 Name of Operator McElvain Oil & Gas Properties, Inc.			9. APL Well No.	39-	2	92	
3a. Address 1050 17th Street, Suite 1800 Denver, CO 80265	3b. Phone No. (include area code) (303)893-0933x302				d and Pool, or Exploratory Vest Lindrith Gallup-Dukota		
4. Location of Well (Report location clearly and in accordance with an	· · · · · · · · · · · · · · · · · · ·		11. Sec., T. R. M. or B	lk. and Sur	vey or s	Area	
At surface 395' FSL - 720' FWL, Section 21, T At proposed prod. zone Same	25N, R3W, NMPM		M Sec. 21, T25N,	R3W, N	MPM		
 Distance in miles and direction from nearest town or post office⁶ miles northwest of Lindrith, NM 			12. County or Parish Rio Arriba		13. Sta	ite NM	
15. Distance from proposed* location to nearest property or lease line, ft.	16. No. of acres in lease 17. Space		ing Unit dedicated to this well				
(Also to nearest drig, unit line, if any) 395	10 Umacrad Doub	/4 - 160 acs. /BIA Bond No. on file					
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, it. 580'	roposou Dopat		4138223				
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 7457' GL	22 Approximate date work will sta			n			
1431 GL	24. Attachments		25 days				
he following, completed in accordance with the requirements of Onshor		ttached to the	is form:				
Well plat certified by a registered surveyor. A Drilling Plan.	4. Bond to cover t ltem 20 above).	he operation	ns unless covered by an	existing b	ond on	file (see	
 A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office). 		specific info	ormation and/or plans as	may be re	quired	by the	
25. Signature Pohnt E. Filde	Name (Printed Typed) Robert E. Fielder				Date 04/15/2004		
Title Agent							
Approved by (Signumure) /s/ David R. Sitzler	Name (Printed/Typed)			Date AUG	2 3	2004	
Assistant Field Manager	Office	· · · · · · · · · · · · · · · · · · ·					
Application approval does not warrant or certify that the applicant hold conduct operations thereon. Conditions of approval, if any, are attached.	s legal or equitable title to those righ	ts in the sub	ject lease which would e	ofitte the a	pplicant	tto	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a cr States any false, fictitious or fraudulent statements or representations as t	ime for any person knowingly and vo	villfully to m	ake to any department of	r agency o	f the U	nited	

*(Instructions on page 2)

District III 1000 Rio Brazos Rd., Aztec, NM 87410

PO Box 2088 Santa Fe, NM 87504-2088

Fee Lease - 4 Copie

AMENDED REPORT

District IV PO 80x 2088, Santa Fe. NM 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

WELL LOCATION AND ACREAGE DEDICATION PLAT										
	I Number	T		Code	1					
30039	1-27	2/2	39	189	LINDRITH GALLUP-DAKOTA, WEST					
*Property	Code				Property				*We]	1 Number
29123					OR	Α				7
OGRID A	1				*Operator					evation
2204	4		**************************************	MCELV	ATN OTF 8	GAS PROPERTI	.E.S			7457 '
						Location				
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/Wes	•	County RIO
М	21	25N	3W		395	SOUTH	720	WES	21	ARRIBA
			Bottom	Hole I		f Different	From Surf		т.	
UL or lot no.	Section	Township	Range	Lat Idn	Feet from the	North/South line	Feet from the	East/Wes	st. 1100	County
12 - 1			Ĺ	<u> </u>	33 Joint or Infill		15 Onder No.	<u> </u>		
¹² Dedicated Acres	160	0.0 Acre	s - Sw	1/4	Joseph Co. Tutalli	¹⁴ Consolidation Code	-urgar No.			
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LONG: 107 °09 DATUM: N	9.3735 W			1				POF	ESSIGNAL	
720'	-	} !		h		1	T			
	395'		52				UAS	DN C		WARDS
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McElvain Oil & Gas Properties, Inc.

Ora No. 7

395' FSL & 720' FWL

Section 21, T25N, R03W, NMPM Rio Arriba County, New Mexico

TEN POINT DRILLING PROGRAM

1. Surface Formation: San Jose

2. Surface Elevation: 7457'GL.

3. Estimated Formation Tops:

Formation	Top - feet	Expected Production
Nacimiento	1904	
Ojo Alamo	3469	
Fruitland	3669	
Pictured Cliffs	3769	GAS
Lewis	4009	
Huerfanito	4269	
Chacra	4769	
Mesa Verde	5019	
Cliff House	5519	GAS
Menefee	5579	GAS
Pt. Lookout	5894	GAS
Upper Mancos	6119	
Gallup	6954	GAS
Lower Mancos	7539	
Greenhorn	8029	
Graneros	8094	GAS
Dakota	8194	GAS
TOTAL DEPTH	8444	

4. Surface Hole Program:

Bit: Drill a 12 1/4" hole to 500' using a retip mill tooth, IADC Class 115 or 116, bit. WOB: all. RPM: 70 - 100.

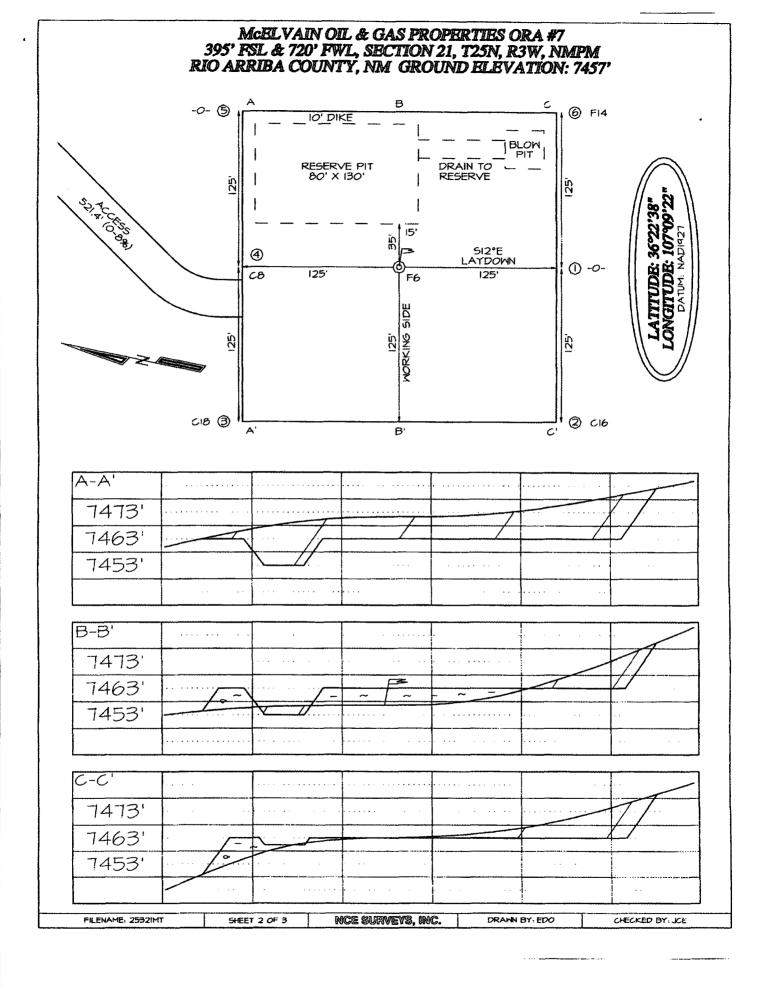
Mud: Use a fresh water base spud mud with the following properties:

Interval (ft) Weight (ppg) Ph Vis(sec/qt) Water Loss

0 - 500 8.6 or less 9.0-9.5 40 - 50 No Control

Casing and Cementing: A string of 9%" 36# J-55 or K-55 ST&C casing will be set and cemented to the surface in a single stage with 265 sacks of Class "B" cement (yield = 1.18 cf/sk) containing 3% CaCl₂ and 1/4 lb/sack celloflake. Slurry volume assumes 100% excess over calculated hole volume. If cement does not circulate to surface, cement will be topped off using 1" pipe down the 12 1/4" by 9 5/8" annulus. Minimum clearance between couplings and hole is 0.8125". Prior to drilling out the shoe, casing and BOPE will be tested to a minimum of 600 psig. Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8 or 100,000 lb overpull, whichever is greater.

WOC 12 HOURS. Nipple up 11" 2000# BOPE. Pressure test surface casing and BOPE to 600 psi for 15 minutes.



Drilling Program
McElvain Oil & Gas Properties, Inc.
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Page Two

4. Surface Hole Program: - continued

Centralizers: Run three (3) 9% X 12 % regular bowspring centralizers. Install first one on stop ring in middle of shoe joint.

Float Equipment: Cement nose guide shoe thread locked. Also thread lock connection between first and second joint run.

5. Production Hole Program:

Bit: Drill an 8 %" hole to 4009' using TCI, IADC Class 447 bit. WOB: 35-45K. RPM: 60 - 75. Reduce RPM to 55 - 65 through Ojo Alamo. Reduce hole size to 7 %". Using TCI, IADC Class 447 bit drill to 6119'. WOB: 35-45K. RPM: 60-75. Reduce RPM and WOB while drilling Cliff House and Pt. Lookout intervals. At 6119' pick up PDC bit and drill to top of Dakota. Watch for fractures in Gallup and Greenhorn. Adjust WOB and RPM to keep PDC from stalling out. At 8194' run TCI, IADC Class 627 to 647 to finish hole.

Mud: Use a fresh water base LSND mud with the following properties:

<u>Interval (ft)</u>	Weight (ppg)	<u>Ph</u>	Vis(sec/qt)	Water Loss
500 - 3469 3469 - 6119	8.6 - 8.8 $8.9 - 9.2$	9.0-9.5 9.0-9.5	28 - 35 35 - 50	10 - 12 8 - 10
6119 - 8444	8.9 - 9.2	9.0-9.5	35 - 50	6 - 10

Fresh water will be used for dilution and building volume. Sufficient materials will be on location at all times to maintain mud properties and to control any lost circulation problem or unforeseen abnormal pressures. The mud volume in the rig pits will be visually monitored and recorded on a routine basis.

Note: Raise **viscosity** to 55 - 60 for logging. Thin to 40 - 45 viscosity to run casing.

pH is to be maintained with lime or caustic soda at the recommended levels to assure drill pipe corrosion protection.

Drispac will be used for control of fluid loss.

Hole will be drilled to top of Fruitland using polymer and drispac additions to water. Mud up before drilling into Fruitland.

<u>Lost Circulation</u> is expected and can occur in the Pictured Cliffs, Mesa Verde and Gallup formations. Mud weights should be controlled as low as possible with solids control equipment then as low as practical with water dilution.

Drilling Program
McElvain Oil & Gas Properties, Inc.
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Page Three

5. Production Hole Program: - continued

Pressure Control: A 2M psi BOP well control system will be utilized. BOP's and choke manifold will be installed and pressure tested to a minimum of 600 psig before drilling out from under surface casing. Mechanical operation of pipe rams will be checked daily and blind rams will be checked on each trip out of hole. 4½" rams will be installed before running production casing.

A full opening internal blowout preventor or drill pipe safety valve will be on the drill floor at all times and will be capable of fitting all connections.

Logging Program: Dual Induction and Compensated Density / Epithermal Neutron logs will be run from TD to surface casing shoe. A one man mud logging unit will be in service from the Pictured Cliffs to TD.

Casing and Cementing Program: Run 4½" 10.5 ppf (0 - 6700') J-55 and 4½" 11.6 ppf (6700 - TD) N-80 production casing and cement in 3 stages with mechanical DV tools installed ± thirty feet below the Upper Mancos top and ± thirty feet below Mesa Verde top. Stage 1 (8444' - 6149') will be cemented with 320 sacks (643.2 cf) of 65/35 Class H Poz containing 5 pps gilsonite and 0.25 pps celloflake mixed at 12.3 ppg to yield 2.01 cf/sk. Tail in with 110 sacks (146.3 cf) Of 50/50 Class H Poz with 2% gel, 5 pps gilsonite, 0.25 pps celloflake, 0.2% FR and 0.4% FLA mixed at 13.7 ppg to yield 1.33 cf/sk. Stage 2 (6149 ' - 5049') will be cemented with 285 sacks (379.1 cf) of 50/50 Class H Poz with 2% gel, 5 pps gilsonite, 0.25 pps celloflake, 0.2% FR and 0.4% FLA mixed at 13.7 PPG to yield 1.33 cf/sk. Stage 3: (5049' - surface) will be cemented with 1010 sacks (2141.2 cf) of 65/35 Class B Poz containing 5 pps gilsonite and 0.25 pps celloflake mixed at 12.1 ppg to yield 2.12 cf/sk. Tail in with 50 sacks (63.0 cf) of Class B with 2% CaCl₂, 5 pps gilsonite and 0.25 pps celloflake mixed at 15.2 ppg to yield 1.26 cf/sk.

Circulate and WOC between stages for four (4) hours.

Slurry volumes assume a 50% excess over gauge hole volume. Minimum clearance between couplings and hole is 1.4375". Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8 or 100,000 lb over pull, whichever is greater.

Centralizers: 4 - 4½" X 8¾" rigid centralizers, 15 - 4½" X 7½" rigid centralizers will be run spaced throughout casing string and 5 - 4½" X 8¾" turbolizers will be spaced such that one (1)is just below the Basal Fruitland Coal, two (2)across base of Ojo Alamo, and two (2) across base of Nacimiento.

Float Equipment: Cement nose float shoe, 1 joint 4½" N-80 casing, float collar, and 2 - mechanical DV tools with 2 cement baskets below each DV.

Drilling Program
McElvain Oil & Gas Properties, Inc.
Elk Com No. 1B
Page Four

6. Production Hole Program: - continued

Pressure Control: A 2M psi BOP well control system will be utilized. BOP's and choke manifold will be installed and pressure tested to a minimum of 1500 psig before drilling out from under intermediate casing. Mechanical operation of pipe rams will be checked daily and blind rams will be checked on each trip out of hole. 4 1/2" rams will be installed before running production casing.

A full opening internal blowout preventor or drill pipe safety valve will be on the drill floor at all times and will be capable of fitting all connections.

Logging Program: Induction / Gamma Ray and compensated density/Epithermal neutron logs from TD to intermediate casing shoe.

Casing and Cementing Program: Run 4 ½" 10.5# J-55 production liner casing from TD to a minimum of 120 feet of overlap into Intermediate casing. Cement in a single stage with 135 sacks (271.35 cf) of 65/35 Class H Poz containing 5 pps gilsonite and 2 pps celloflake mixed at 12.3 PPG to yield 2.01 cf/sk. Follow with 110 sacks (146.3 cf) of 50/50 Class H POZ with 2 % gel, 5 pps Gilsonite, 0.25 pps celloflake, 0.4% fluid loss additive and 0.2% friction reducer mixed at 13.7 PPG to yield 1.33 cf/sk.

Slurry volumes assume a 70% excess over gauge hole volume to bring cement back into the intermediate casing. Cement volume is subject to change after review of open hole caliper log to caliper volume + 30%. Minimum clearance between couplings and hole is 0.625". Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8 or 100,000 lb over pull, whichever is greater.

Centralizers: $9-4\ 1/2"$ X 6 1/8" rigid centralizers will be run across prospective pays of the Mesa Verde.

Float Equipment: Float shoe, 1 joint 4 1/2" 10.5 # casing, and plug landing collar. TIW 7" X 4 $\frac{1}{2}$ " liner hanger.

7. Auxiliary Equipment:

An upper kelly cock will be utilized. The handle will be available on rig floor at all times

Drilling Program
McElvain Oil & Gas Properties, Inc.
Ora No. 7

Page Four

7. Auxiliary Equipment:

An upper kelly cock will be utilized. The handle will be available on rig floor at all times

8. Logging Program:

Dual Induction and Epithermal Neutron / Formation Density will be run from TD to surface casing shoe. Bulk density will be presented on a 5 "scale through the coals in the Menefee and Fruitland. Deep induction curve will be merged onto the porosity log.

A one man mud logging unit will be in service from the Pictured Cliffs to TD.

Coring and Testing Program:

No cores or drill stem tests are planned.

9. Abnormal Pressure:

Although not expected, abnormal pressures are possible in the Fruitland formation.

Estimated Bottom Hole Pressure:

2500 - 3000 psiq.

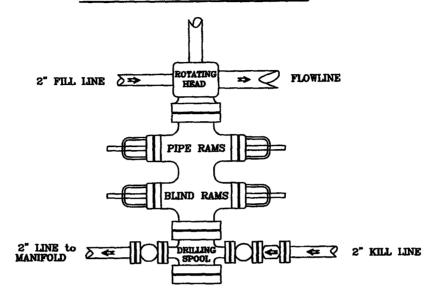
10. Anticipated Starting Date:

May 1, 2004.

Duration of Operations: It is estimated a total of 15 days will be required for drilling operations and 10 days for the completion operation.

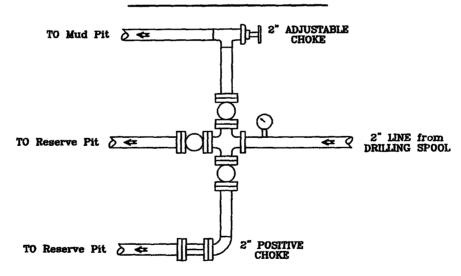
PRESSURE CONTROL

Wellhead Assembly



Preventer and Spools are to have a 6" Bore or larger and a 2000 PSI or higher Pressure Rating

Choke Manifold



McElvain Oil & Gas Properties, Inc.

Ora No. 7
395" FSL - 720' FWL
Section 21, T25N, R3W, NMPM
Rio Arriba County, New Mexico