District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-
May 27, 2

Submit to appropriate District Of

☐ AMENDED REPC

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

[1] Operator Name and Address	[2] OGRID Number
McElvain Oil & Gas Properties, Inc. 1050 17th St., Suite 1800 Denver, CO 80265-1801	22044
	[3] API Number 30 - 039 - 30122

[3] Property Code	[5] Property Name	[6] Well No.
36165	Badger Com 14	2A

[9] Proposed Pool 1	[10] Proposed Pool 2
Blanco Mesa Verde	

[7] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	14	25N	2W		663	South	965	East	Rio Arriba

[8] Proposed 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

Additional Well Information

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
N	G	R	P	7318'
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
N	5867'	Mancos	D&J Drilling	January 1, 2007

Depth to Groundwater	Distance from nearest fresh water well	Distance from nearest surface water
90 ft	> 1000 ft	>1000 ft

Pit: Liner: Synthetic X _12_ mils thick Clay ☐ Pit Volume: _11000 bbls
Closed-Loop System ☐

Drilling Method: Mud/air
Fresh Water X Brine ☐ Diesel/Oil-based ☐ Gas/Air X

[21] Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12.250"	9.625"	36	500	265	Surface
8.750"	7.000"	20	3782	280	1552'
			DV@1552	185	Surface
6.250"	4.500"	10.5	3662-5867	225	3662

[22] Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zo
Describe the blowout prevention program, if any. Use additional sheets if necessary.
Drilling plan and blowout prevention diagram attached

RCVD NOV30'0(
OIL CONS. DIV.
DIST. 3

[23] I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify that the drilling pit will be constructed according to NMOCD guidelines X, a general permit ☐, or an (attached) alternative OCD-approved plan ☐**

Signature: Robert E. Fielder

Printed name: Robert E. Fielder

Title: Agent

E-mail Address: pmci@advantas.net

Date: November 29, 2006 | Phone: 505.320.1435

OIL CONSERVATION DIVISION

Approved by:

Title: DEPUTY OIL & GAS INSPECTOR, DIST. #3

Approval Date: DEC 05 2006 | Expiration Date: DEC 05 2007

Conditions of Approval Attached ☐

12/5/06

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised June 10, 2003
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-039-30122	72319	Blanco Mesa Verde

4 Property Code	5 Property Name	6 Well Number
36165	BADGER COM 14	2A

7 OGRID No.	8 Operator Name	9 Elevation
22044	McELVAIN OIL & GAS PROPERTIES	7318

10 Surface Location

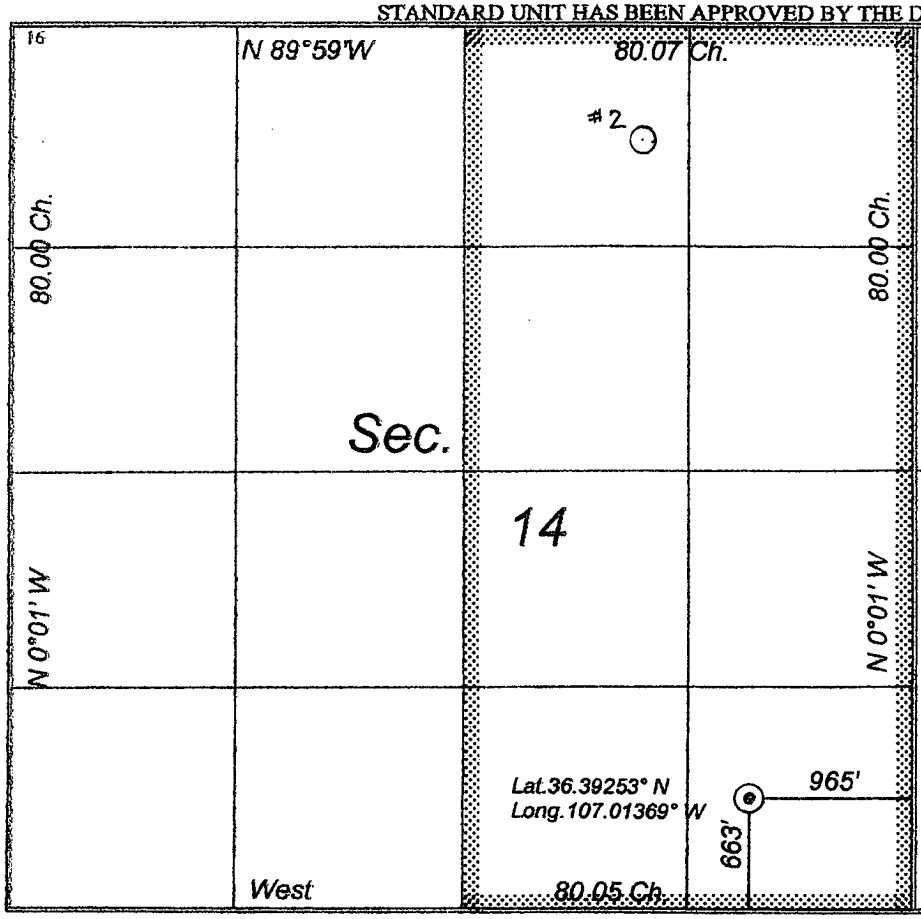
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	14	25N	2W		663	South	965	East	Rio Arriba

11 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

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
320			

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



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature

Robert E. Fielder
Printed Name

Agent pmci@advantas.net
Title and E-mail Address

November 29, 2006
Date

18 SURVEYOR CERTIFICATION

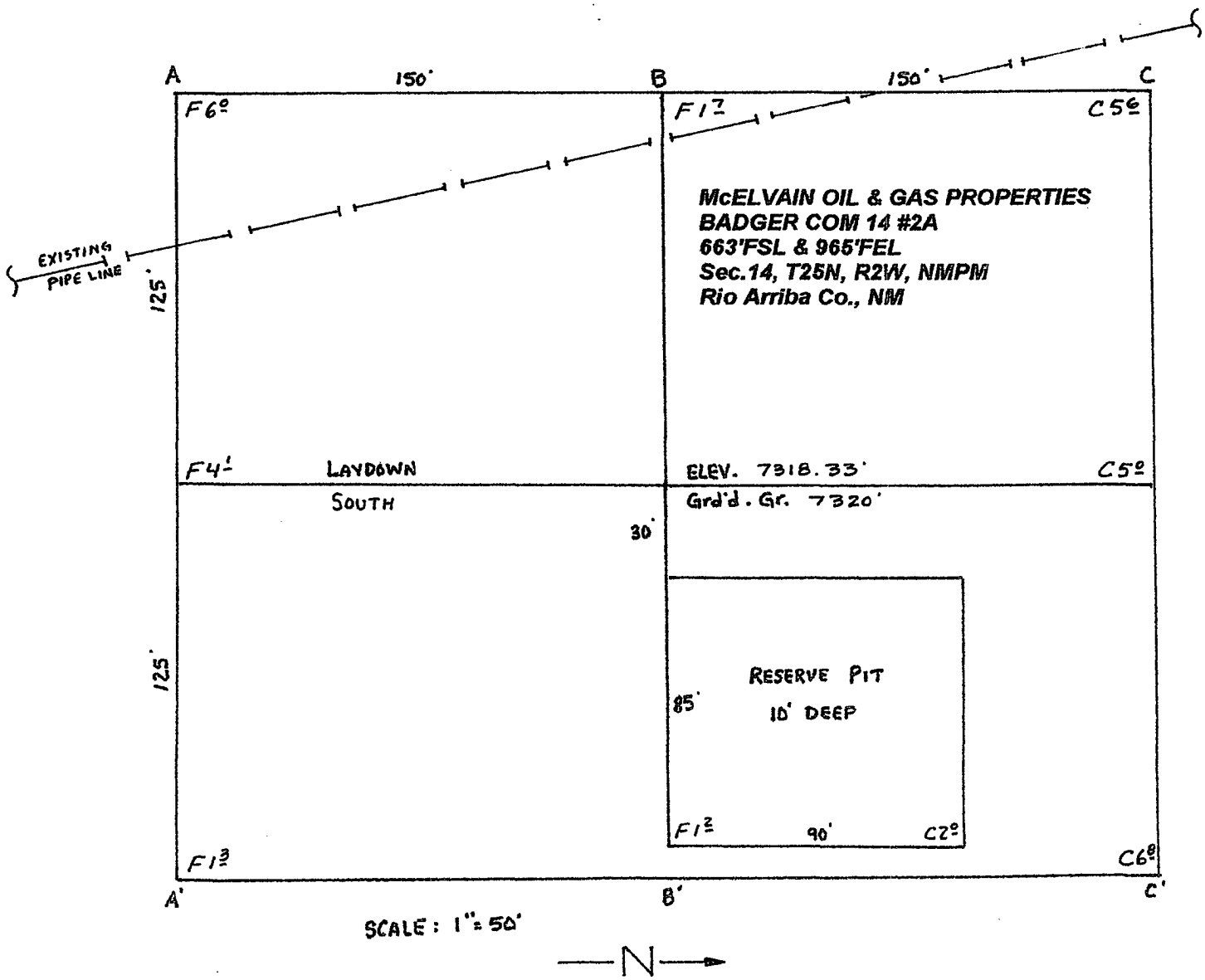
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

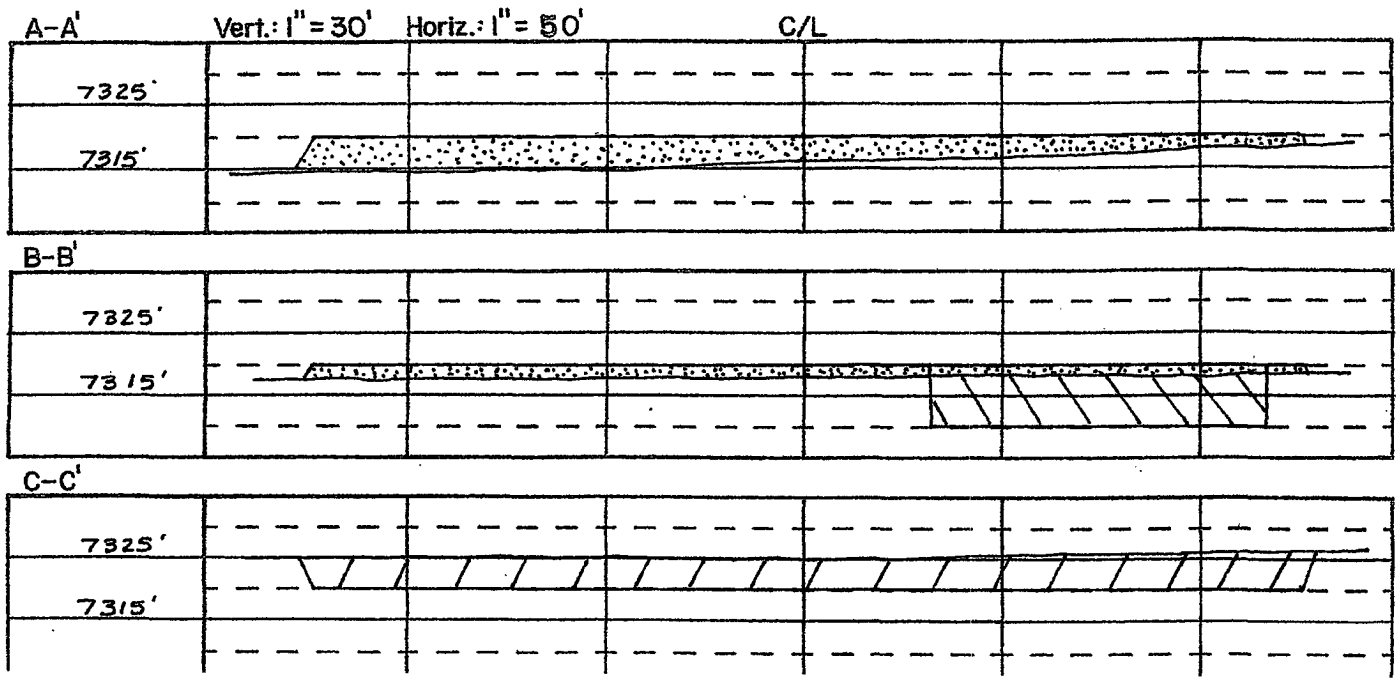
14 Sep 2006
Date of Survey

Signature and Seal of Professional Surveyor:

William E. Mahnke II
Certificate Number 8466

RCVD NOV30'06
OIL CONS. DIV.
DIST. 3


A
150'
B
150'
C
F6°
F1°
C5°
EXISTING PIPE LINE
125'
McELVAIN OIL & GAS PROPERTIES
BADGER COM 14 #2A
663'FSL & 965'FEL
Sec.14, T25N, R2W, NMPM
Rio Arriba Co., NM
F4°
LAYDOWN
SOUTH
ELEV. 7318.33'
Grd'd. Gr. 7320'
C5°
30'
125'
RESERVE PIT
10' DEEP
85'
F1°
90'
C2°
F1°
C6°
A'
B'
C'
SCALE: 1" = 50'
N


A-A'
Vert.: 1" = 30'
Horiz.: 1" = 50'
C/L
7325'
7315'
B-B'
7325'
7315'
C-C'
7325'
7315'

McElvain Oil & Gas Properties, Inc.
Badger Com 14 No. 2A
663' FSL & 965' FEL
Section 14, T25N, R2W, NMPM
Rio Arriba County, New Mexico

TEN POINT DRILLING PROGRAM

1. **Surface Formation:** San Jose

2. **Surface Elevation:** 7318'GL.

3. **Estimated Formation Tops:**

Formation	Top - feet	Expected Production
Nacimiento	1552	
Ojo Alamo	3052	
Fruitland	3252	
Pictured Cliffs	3352	GAS
Lewis	3582	
Intermediate TD	3782	
Huerfanito	3842	
Chacra	4342	
Cliff House	5077	GAS
Menefee	5227	GAS
Pt. Lookout	5542	GAS
Upper Mancos	5717	
TOTAL DEPTH	5867	

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 9⅝" 36# J-55 or K-55 ST&C casing will be set and cemented to the surface in a single stage with 265 sacks (312.7 cf) of Class "B" cement (yield = 1.18 cf/sk) containing 2% $CaCl_2$ and 0.25 pps 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 12¼" by 9⅝" 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.

WOC 12 HOURS. Nipple up 11" 2000# BOPE. Pressure test BOPE and wellhead to full working pressure. Drill out cement to within 20 feet of shoe. Test BOPE and surface casing to a minimum of 600 psig for 15 minutes.

4. **Surface Hole Program:** - continued

Centralizers: Run three (3) 9⅝" X 12 ¼" regular bowspring centralizers. Install first one on stop ring in middle of shoe joint.

Float Equipment: Cement nose guide shoe run on bottom of first joint. Self fill insert float valve run in top of first joint. Thread lock shoe and connection between first and second joint run.

5. **Intermediate Hole Program:**

Bit: Drill an 8 ¾" hole to 3782' using TCI, IADC Class 447 bits. WOB: 35-45K. RPM: 60 - 75. Reduce RPM to 55 - 65 through Ojo Alamo.

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

Interval (ft)	Weight (ppg)	Ph	Vis(sec/qt)	Water Loss
500 - 3200	8.6 - 8.8	9.0-9.5	28 - 35	10 - 12
3200 - 3782	8.9 - 9.2	9.0-9.5	35 - 50	8 - 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.

Lost Circulation is expected and can occur in the Fruitland Coal and Pictured Cliffs formation. Mud weights should be controlled as low as possible with solids control equipment then as low as practical with water dilution.

5. **Intermediate 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 full working pressure. BOPE and surface casing will be 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. 7" rams will be installed before running intermediate 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: Run Dual Induction and Formation Density/Epithermal Neutron logs from Intermediate TD to surface casing shoe. Merge deep induction curve onto porosity log.

Casing and Cementing Program: Run 7" 20# J-55 production casing from surface to Intermediate TD and cement in 2 stages with a mechanical DV tool installed ± 1552'. **Stage 1** (3782' - 1552') will be cemented with 180 sacks (381.6 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 100 sacks (126.0 cf) of Class B with 2% $CaCl_2$, 5 pps gilsonite and 0.25 pps celloflake mixed at 15.2 ppg to yield 1.26 cf/sk. **Stage 2** (1552' - surface) will be cemented with 135 sacks (286.2 cf) of 65/35 Class B Poz with 5 pps gilsonite and 0.25 pps celloflake mixed at 12.1 PPG to yield 2.12 cf/sk. Follow with 50 sacks (63.0 cf) of Class B with 2% $CaCl_2$, 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 0.5470". Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8.

WOC 12 HOURS from plug down on first stage. Pressure test intermediate casing and BOPE to 1500 psi for 15 minutes.

Centralizers: 10 - 7" X 8¾" bowspring centralizers will be run across all prospective pays and 5 - 7" 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 7" casing, float collar, and 1 - mechanical DV tool with 2 cement baskets below the DV.

6. Production Hole Program:

Bits: Drill a 6 1/4" hole to 5867' feet using air hammer. WOB: 5 - 25K. RPM: to be determined by drilling conditions. If hole gets wet use TCI, IADC class 637 to finish hole.

Mud: Air from Intermediate casing shoe to TD. If hole gets wet use a fresh water based low solids non dispersed system with the following properties: **Note:** Pull into intermediate casing to mud up.

Interval (ft)	Weight (ppg)	pH	Vis(sec/qt)	Water Loss
? - TD	8.6 - 9.0	9.0-9.5	28 - 40	8 - 10 cc

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: Gamma Ray Induction and Compensated Density/Epithermal neutron logs from TD to intermediate casing shoe. Merge deep induction curve onto porosity logs.

Casing and Cementing Program: Run 4 ½" 10.5# J-55 production liner from TD to 120 feet into intermediate casing. Cement in a single stage with 125 sacks (251.25 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. Followed with 100 sacks (133.0 cf) of 50/50 Class H POZ with 2% gel, 5 pps gilsonite, 0.25 pps celloflake, .2% FR and .4% FLA 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.

Centralizers: 7 - 4½" X 6⅛" rigid centralizers will be run across prospective pays of the Mesa Verde.

Float Equipment: Cement nose float shoe, 1 joint 4 1/2" 10.5 # casing, and plug landing collar. TIW 4½" X 7" liner hanger.

7. Auxiliary Equipment:

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

8. Logging Program:

Gamma Ray 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. Deep induction curve will be merged onto the porosity log.

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:

1500 - 2000 psig.

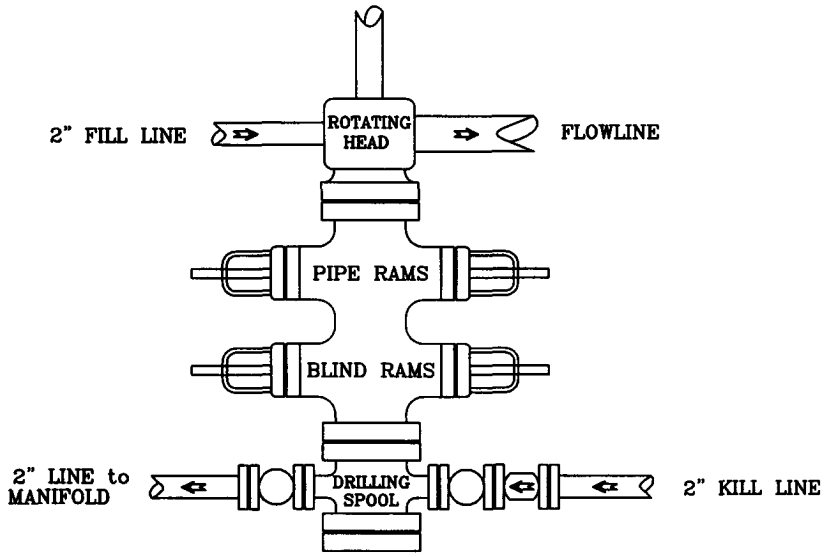
10. Anticipated Starting Date:

January 1, 2007

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

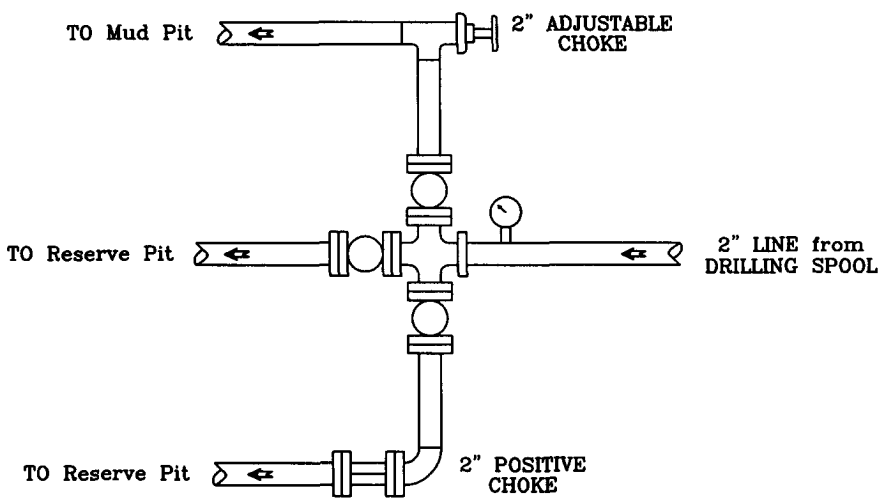
PRESSURE CONTROL

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.

Badger Com 14 No. 2A

663' FSL – 965' FEL

Section 14, T25N, R2W, NMPM

Rio Arriba County, New Mexico