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-101
May 27, 2004

Submit to appropriate District Office

☐ AMENDED REPORT

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 Street, Suite 1800 Denver, CO 80265-1801	22044 [3] API Number 30-045-34273

[5] Property Code	[5] Property Name	[6] Well No.
36455	Cassidy	1R

[9] Proposed Pool 1	[10] Proposed Pool 2
Fulcher Kutz Pictured Cliffs	

[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
H	19	29N	11W		2080	North	660	East	San Juan

[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	5488'
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
No	1772'	Lewis	D & D Services	May 1, 2007

Depth to Groundwater 55 feet | Distance from nearest fresh water well >1000 feet | Distance from nearest surface water 125 feet

Pit: Liner: Synthetic X 12 mils thick Clay ☐ Pit Volume: 2850 bbls

Drilling Method:

Closed-Loop System ☐

Fresh Water X Brine ☐ Diesel/Oil-based ☐ Gas/Air ☐

[21] Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12.250"	8.625"	24	450'	315	Surface
7.875"	5.500"	15.5	1772'	230	Surface

[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 zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Drilling program and BOPE diagram attached.

McElvain has entered into an agreement with the current operator of the spacing unit, Gerry Thames, where McElvain will drill a replacement well for the existing Cassidy No. 1, API # 30-045-07967. Upon completion of the replacement well, McElvain will assume the operating rights to the Pictured Cliffs formation for This spacing unit and will plug and abandon the Cassidy No. 1 before production from the replacement well.

HOLD C104 FOR Change of Status to Cassidy #1

RCVD APR17'07

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

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: April 16, 2007 Phone: 505.320.1435

OIL CONSERVATION DIVISION

Approved by:

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

Approval Date: APR 19 2007 Expiration Date: APR 19 2008

Conditions of Approval Attached ☐ Vulnerable area for pit closure purposes.

4/19/07

6

RCVD APR17'07
OIL CONS. DIV.
DIST. 3

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1625 N. French Dr., Hobbs, N.M. 88240

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1301 W. Grand Avenue, Artesia, N.M. 88210

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1000 Rio Brazos Rd., Aztec, N.M. 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 October 12, 2005

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
30-045-34273	77200	FULCHER KUTZ/PICTURED CLIFFS

[4] Property Code	[5] Property Name	[6] Well Number
36455	CASSIDY	1R

[7] OGRID No.	[8] Operator Name	[9] Elevation
22044	McELVAIN OIL AND GAS PROPERTIES, INC.	5488'

[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
H	19	29N	11W		2080'	NORTH	660'	EAST	SAN JUAN

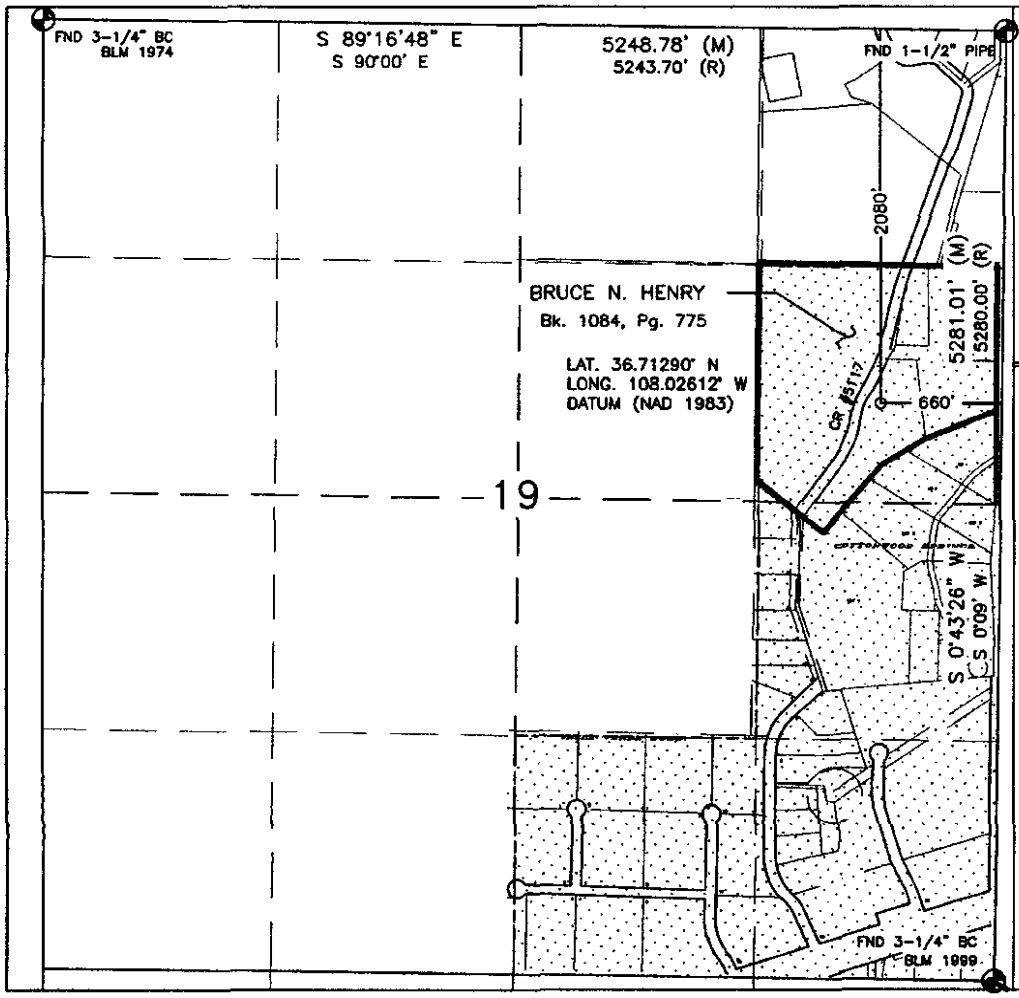
[11] Bottom Hole Location If Different From Surface

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.
SE/NE, NE/SE & S/SE 159.07 ACRES			NWU -39

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

16



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner or a compulsory pooling order heretofore entered by the division.

Robert E. Fielder 4/16/07
Signature Date

Robert E. Fielder
Printed Name

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.

JANUARY 22, 2007
Date of Survey

Signature and Seal of Professional Surveyor:

David R. Russell

DAVID R. RUSSELL
NEW MEXICO
REGISTERED PROFESSIONAL LAND SURVEYOR

DAVID RUSSELL
Certificate Number 10201

McElvain Oil & Gas Properties, Inc.
Cassidy No. 1R
2080' FNL & 660' FEL
Section 19, T29N, R11W, NMPM
San Juan County, New Mexico

TEN POINT DRILLING PROGRAM

1. **Surface Formation:** Nacimiento

2. **Surface Elevation:** 5488'GL.

3. **Estimated Formation Tops:**

Formation	Top - feet	Expected Production
Ojo Alamo	302	
Kirtland	402	
Fruitland	1372	GAS
Pictured Cliffs	1622	GAS
TOTAL DEPTH	1772	

4. **Surface Hole Program:**

Bit: Drill an 12¼" hole to 450' 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 - 450	8.6 or less	9.0-9.5	40 - 50	No Control

Casing and Cementing: A string of 8⅝" 24 ppf J-55 or K-55 ST&C casing will be set and cemented to the surface in a single stage with 315 sacks (371.7 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 8⅝" annulus. Minimum clearance between couplings and hole is 1.3125". 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 surface stack to Full working pressure using test plug. Drill out cement to within 5 feet (±) of shoe. Pressure test surface casing to a minimum of 600 psig for 15 minutes.

Centralizers: Run three (3) 8⅝" X 12¼" regular bowspring centralizers. Install first one on stop ring in middle of shoe joint.

Float Equipment: Cement nose guide shoe and self fill insert float valve. Install float valve between first and second joint run. Thread lock shoe and connection between first and second joint run.

5. Production Hole Program:

Bit: Drill a 7⅞" hole to 1772' using a TCI, IADC Class 447 bit. WOB: 30-35K. RPM: 60 - 75.

Mud: Use a fresh water base polymer and water system to drill this section. If hole conditions dictate, mud up with a fresh water base LSND mud with the following properties:

Interval (ft)	Weight (ppg)	Ph	Vis(sec/qt)	Water Loss
450 - 1772	8.6 - 8.8	9.0-9.5	28 - 35	10 - 12

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 surface pit will be visually monitored and recorded on a routine basis.

Note: If mud up is required, 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.

Lost Circulation 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.

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 and to a minimum of 600 psig prior to drilling the surface casing shoe. Mechanical operation of pipe rams will be checked daily and blind rams will be checked on each trip out of hole. 5½" 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 Epithermal Neutron/Formation Density logs will be run from TD to the surface casing shoe.

Casing and Cementing Program: Run 5½" 10.5 ppf J-55 production casing from surface to TD and cement in a single stage with 140 sacks (357.0 cf) of Class B containing 3% sodium metasilicate extender, 5 pps Gilsonite and 1/4 pps celloflake. Lead slurry mixed at 11.8 PPG to yield 2.55 cf/sk. Tail in with 90 sacks (107.1 cf) of Class B with 0.25 pps celloflake, 0.3% FLA and 5 pps gilsonite mixed at 15.6 PPG to yield 1.19 cf/sk.

5. Production Hole Program: -continued

Slurry volumes assume a 50% excess over gauge hole volume to circulate to surface. Minimum clearance between couplings and hole is 1.8250". Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8.

Centralizers: 5 - 5½" X 7⅞" bowspring centralizers will be run across all prospective pays and 1 - 5½" X 7⅞" turbolizers will be spaced such that one (1)is just below the base of the Fruitland coal.

Float Equipment: Cement nose guide shoe, 1 joint 5½" casing, and float collar.

6. Auxiliary Equipment:

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

7. 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. Deep induction curve will be merged onto the porosity log.

Coring and Testing Program:

No cores or drill stem tests are planned.

8. Abnormal Pressure:

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

Estimated Bottom Hole Pressure:

200 - 300 psig.

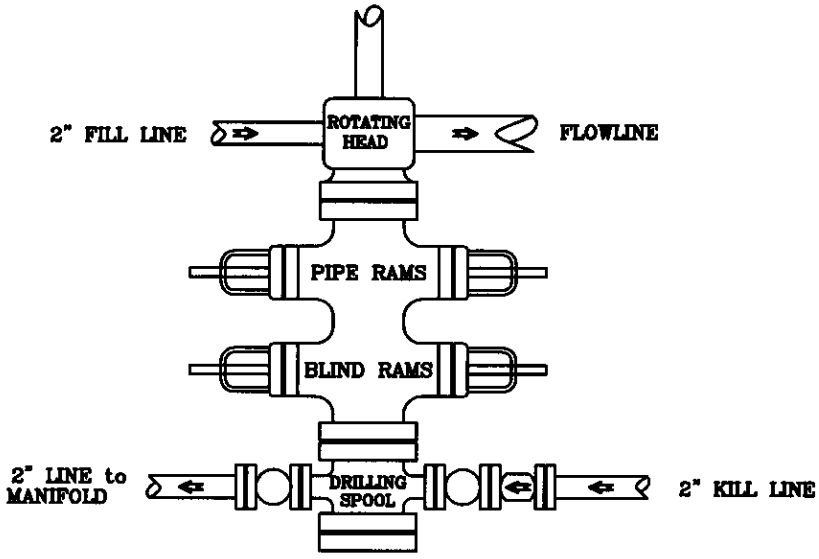
9. Anticipated Starting Date:

May 1, 2007

Duration of Operations: It is estimated a total of 6 days will be required for drilling operations and 5 days for the completion operation.

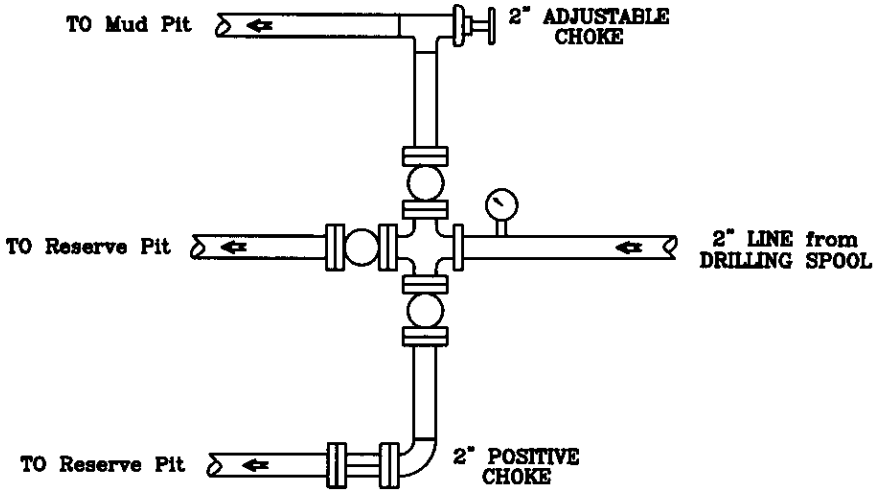
PRESSURE CONTROL

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.

Cassidy No. 1R

2080' FNL – 660' FEL

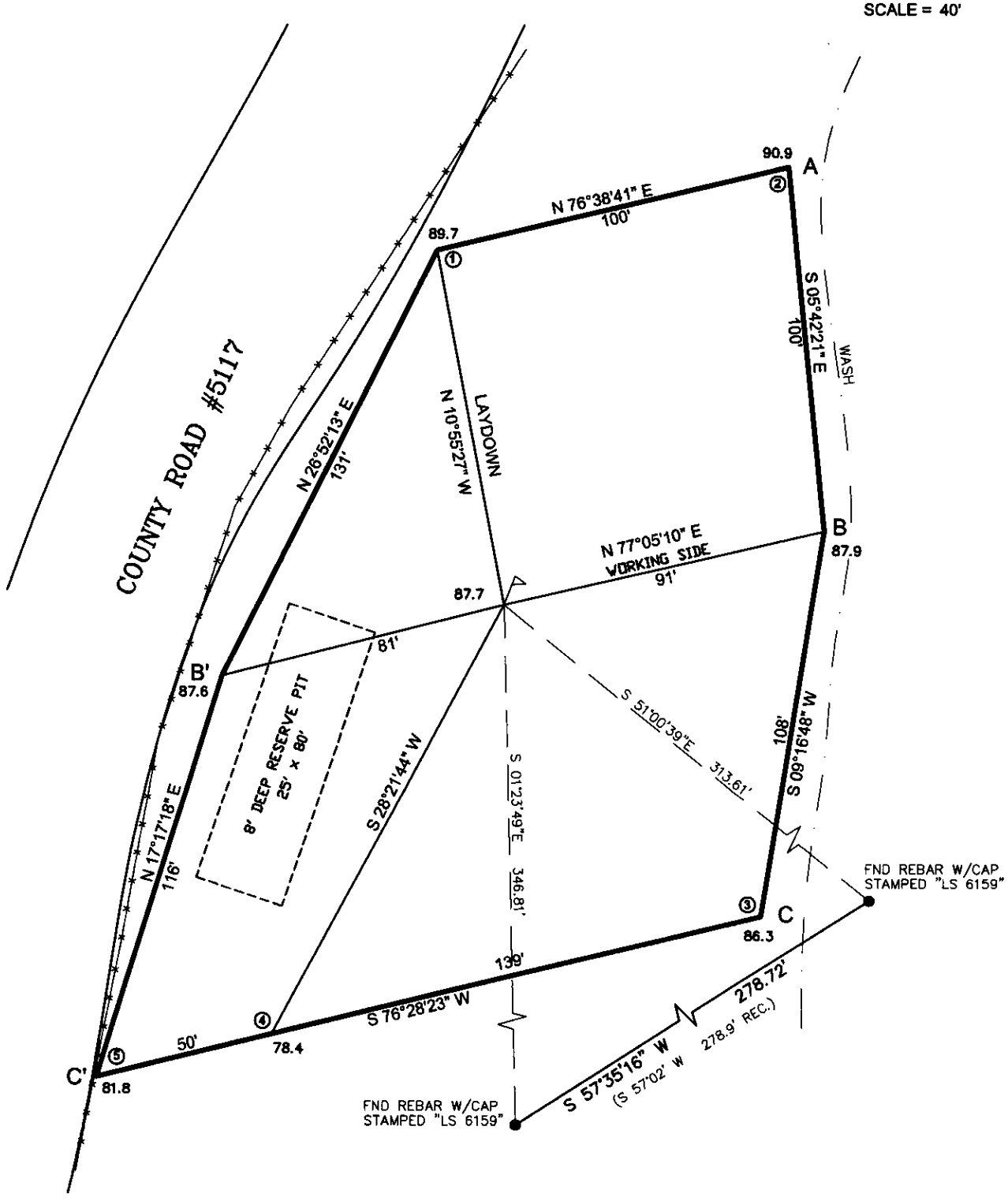
Section 19, T29N, R11W, NMPM

San Juan County, New Mexico

LATITUDE: 36.71290°N
LONGITUDE: 108.02612°W
DATUM: NAD 83

McELVAIN OIL AND GAS PROPERTIES, INC.

CASSIDY #1R
2080' FNL & 660' FEL
LOCATED IN THE SE/4 NE/4 OF
SECTION 19, T29N, R11W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO
GROUND ELEVATION: 5488', NAVD 88

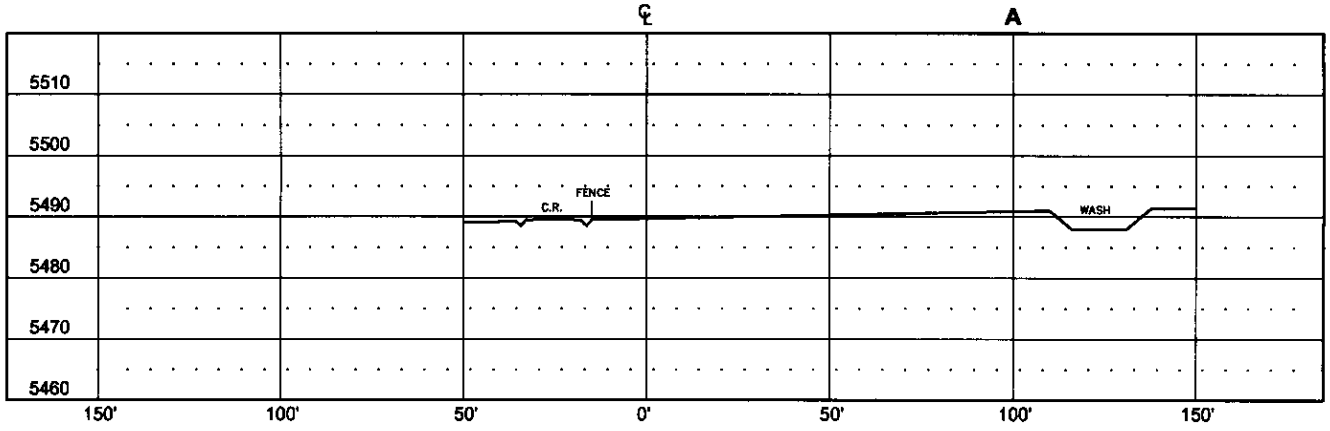


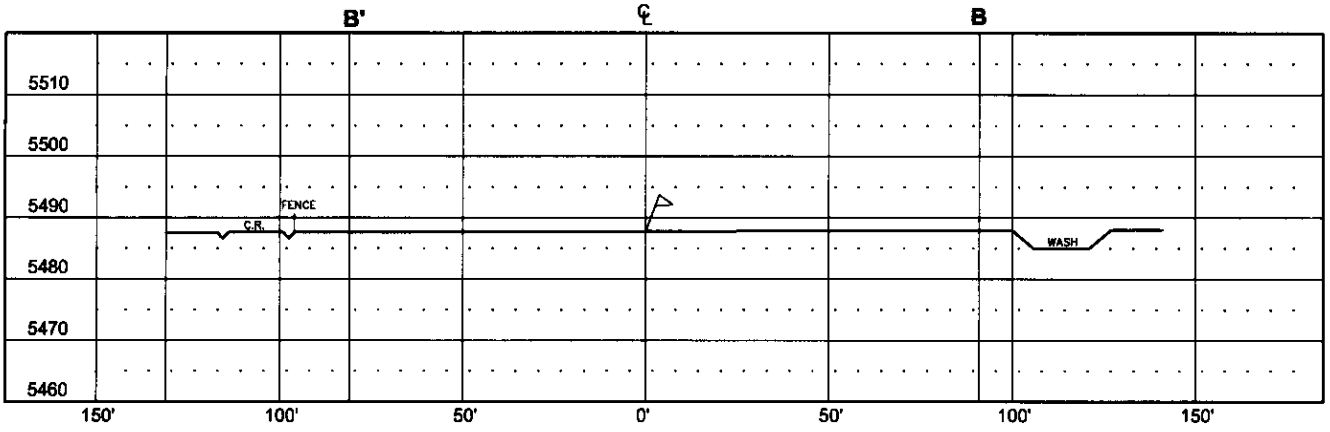
SCALE: 1" = 40'
JOB No.: MCLV003
DATE: 02/01/07

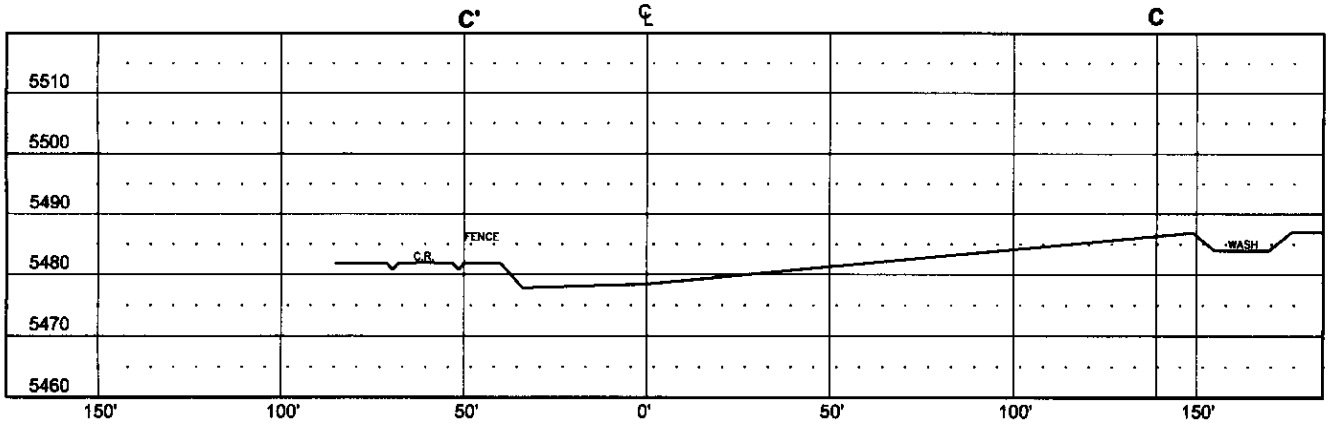
Russell Surveying
1409 W. Aztec Blvd. #5
Aztec, New Mexico 87410
(505) 334-8637

McELVAIN OIL AND GAS PROPERTIES, INC.

CASSIDY #1R
2080' FNL & 660' FEL
LOCATED IN THE SE/4 NE/4 OF
SECTION 19, T29N, R11W, N.M.P.M.,
SAN JUAN COUNTY, NEW MEXICO
GROUND ELEVATION: 5488', NAVD 88







VERT. SCALE: 1" = 30'
HORZ. SCALE: 1" = 50'
JOB No.: MCLV003
DATE: 02/01/07

CUT
FILL

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