23224 8232 SWD 12/3/02

CALPINE

CALPINE NATURAL GAS COMPANY
TABOR CENTER
1200 17th STREET, SUITE 770
DENVER, COLORADO 80202
720.359.9144
720.359.9140 (FAX)

RECEIVED
NOV 18 2002
OIL CONSERVATION DIVISION

November 12, 2002

State of New Mexico
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

State of New Mexico
Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

Gentlemen:

Enclosed please find an application for authorization to inject water into the Calpine SWD #1. The wellbore was formerly called the McCord #10. Attached to the injection permit is a copy of the APD submitted to re-enter the wellbore. We are requesting that the application be approved administratively. Please feel free to call me if you have any questions.

Sincerely

Hugo Cartaya
Production Manager

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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

FORM C-108
Revised 4-1-98

APPLICATION FOR AUTHORIZATION TO INJECT

I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance **XX** Disposal _____ Storage
Application qualifies for administrative approval? **XX** Yes _____ No

II. OPERATOR: **Calpine Natural Gas**

ADDRESS: **1200 17th Street, Ste. 770, Denver, Colorado 80202**

CONTACT PARTY: **Hugo Cartaya** PHONE: **720-946-1302**

III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? _____ Yes **XX** No
If yes, give the Division order number authorizing the project: _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review, which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

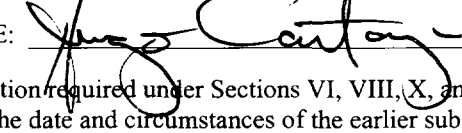
*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: **Hugo Cartaya** TITLE: **Production Manager**

SIGNATURE:  DATE: **11/12/02**

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

(1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

(1) The name, address, phone number, and contact party for the applicant;

(2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;

(3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Calpine Natural Gas
WELL NAME & NUMBER: Calpine SWD (Formerly McCord #10)

WELL LOCATION:	1125' FSL & 790' FEL NESE	B	33	30N	13W
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC ***(See Attached)***

SEE ATTACHED

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12 ¼" Casing Size: 8 5/8" 24#

Cemented with: 200 sx. ***or*** _

Top of Cement: Surface Method Determined: Visual

Intermediate Casing

Hole Size: _____ Casing Size: _____

Cemented with: _____ sx. ***or*** _____ ft^3

Top of Cement: _____ Method Determined: _____

Production Casing

Hole Size: 7 7/8" Casing Size: 4 ½", 10.5#

Cemented with: . ***or*** 1425 Class B ft^3

Top of Cement: Unknown Method Determined: No Log

Total Depth: 6245 KB

Injection Interval

3830 feet to 3845 Perforated

(Perforated or Open Hole; indicate which)

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8" Lining Material: _____

Type of Packer: Arrow 1-X Retrievable Production Packer

Packer Setting Depth: 3780'

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is this a new well drilled for injection? XX Yes _____ No

   If no, for what purpose was the well originally drilled? The well was originally drilled as a Dakota producer. The well has since been plugged and abandoned.

2. Name of the Injection Formation: Point Lookout

3. Name of Field or Pool (if applicable): Basin Dakota

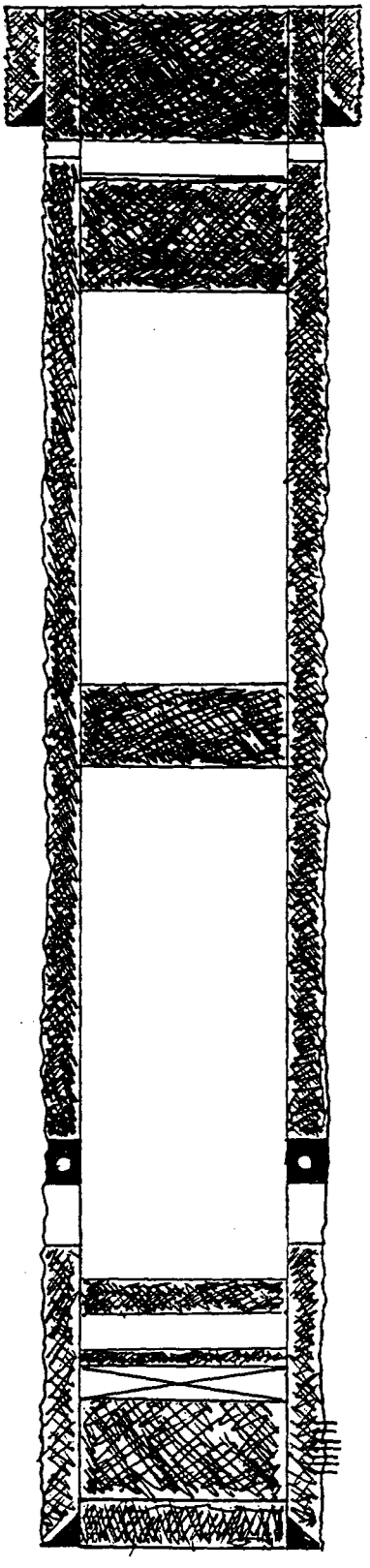
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. Dakota Perfs (5978-6165) Cement retainer was set at 5923' Dakota was squeezed. Cement plugs were set 5037-5169, 2779-2977 and 978-1439.

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: Fruitland Coal Depth 1120. Pictured Cliffs 1380. Beneath injection zone is Dakota @ 5978' KB

1125 FNL & 1580 FEL, Sec 33, T30N R13W
San Juan County, NM

Wellbore - As-Is

(not to scale)



Kirtland @ surface

Fruitland @ 1120'

Pictured Cliffs @ 1380'

Lewis @ 1620'

Cliffhouse @ 2915'

Pt. Lookout @ 3825'

Mancos @ 4185'

Dakota @ 5975'

Plug #4 - surface to 375'

8 5/8" 24 #/ft csg set @ 323'
Circulated 200 sx cement to surface

Plug #3 - 978' to 1439'

Plug #2 - 2779' to 2977'

DV Tool @ 4235'

Plug #1 - 5037' to 5169'

Cement Retainer set @ 5923'

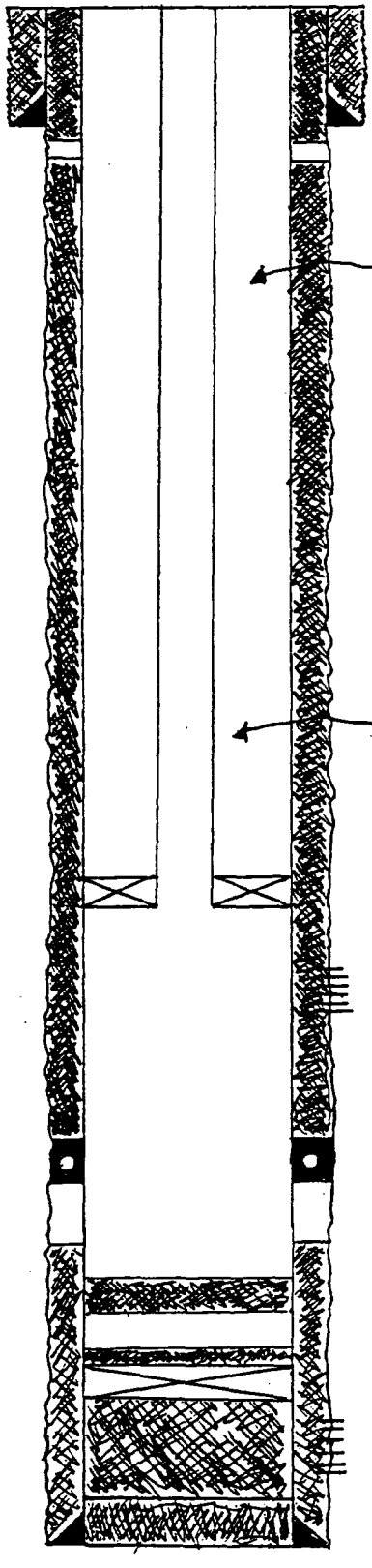
Squeezed Dakota perfs @ 5978' to 6165'

4 1/2" 10.5 #/ft J55 csg set @ 6245'
stage 1 - 425 ft3, TOC @ 4811'
stage 2 - 1000 ft3, TOC @ 943'

1125 FNL & 1580 FEL, Sec 33, T30N R13W
San Juan County, NM

Wellbore - After Workover

(not to scale)



Kirtland @ surface

Fruitland @ 1120'

Pictured Cliffs @ 1380'

Lewis @ 1620'

Cliffhouse @ 2915'

Pt. Lookout @ 3825'

Mancos @ 4185'

Dakota @ 5975'

8 5/8" 24 #/ft csg set @ 323'
Circulated 200 sx cement to surface

Packer fluid in casing - tubing annulus

2 3/8" 4.7 #/ft J55 EUE tested used tubing

Arrowset 1-X retrievable production packer set @ 3780'

Pt. Lookout perfs @ 3830' to 3845', 31 holes

DV Tool @ 4235'

Plug #1 - 5037' to 5169'

Cement Retainer set @ 5923'

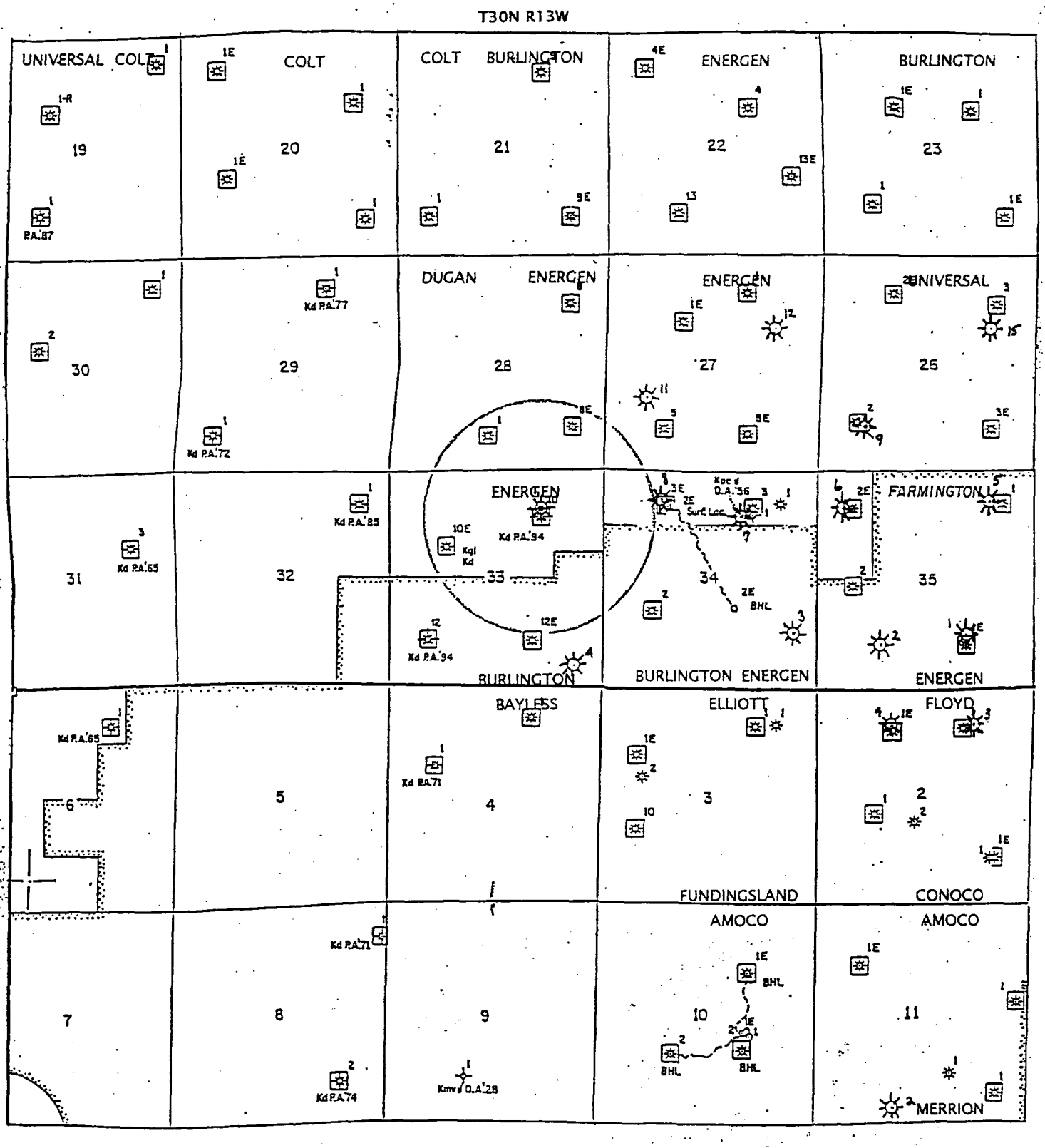
Squeezed Dakota perfs @ 5978' to 6165'

4 1/2" 10.5 #/ft J55 csg set @ 6245'
stage 1 - 425 ft3, TOC @ 4811'
stage 2 - 1000 ft3, TOC @ 943'

Application for Authorization to Inject

PART V - Map of Wells and Leases Within Two Miles of the SWD #4 Injection Well

Circle Identifies SWD #4 Well Area of Review



Application for Authorization to Inject

PART V - Wells and Leases Within Two Miles of the SWD #4 Injection Well

OPERATOR	WELL/LEASE NAME	WELL #	LOCATION T	R	SEC	UNIT	COUNTY	STATE	POOL	STATUS
Area of Review										
DUGAN PRODUCTION CORP	FEDERAL B	1	30N	13W	28	N	SAN JUAN	NM	BASIN DAKOTA	ACT
ENERGEN RESOURCES	MCCORD	8E	30N	13W	28	P	SAN JUAN	NM	BASIN DAKOTA	ACT
ENERGEN RESOURCES	MCCORD	10E	30N	13W	33	F	SAN JUAN	NM	BASIN DAKOTA	ACT
Other Wells										
ROBERT L BAYLESS	GOLDEN BEAR	3	29N	13W	2	B	SAN JUAN	NM	FULCHER KUTZ PC	ACT
FLOYD OPERATING CO	FARMINGTON TOWNSITE	1	29N	13W	2	B	SAN JUAN	NM	BASIN DAKOTA	ACT
ROBERT L BAYLESS	GOLDEN BEAR	4	29N	13W	2	C	SAN JUAN	NM	FULCHER KUTZ PC	ACT
FLOYD OPERATING CO	FARMINGTON TOWNSITE	1E	29N	13W	2	C	SAN JUAN	NM	BASIN DAKOTA	ACT
ROBERT L BAYLESS	GOLDEN BEAR	2	29N	13W	2	K	SAN JUAN	NM	FULCHER KUTZ PC	ACT
CONOCO INC	SCOTT	1	29N	13W	2	K	SAN JUAN	NM	BASIN DAKOTA	ACT
ROBERT L BAYLESS	GOLDEN BEAR	1	29N	13W	2	P	SAN JUAN	NM	FULCHER KUTZ PC	ACT
CONOCO INC	SCOTT	1E	29N	13W	2	P	SAN JUAN	NM	BASIN DAKOTA	ACT
ROBERT L BAYLESS	NORTHRIDGE	1	29N	13W	3	A	SAN JUAN	NM	FULCHER KUTZ PC	ACT
ELLIOTT OIL COMPANY	SOUTHERN UNION	1	29N	13W	3	B	SAN JUAN	NM	BASIN DAKOTA	ACT
ROBERT L BAYLESS	NORTHRIDGE	2	29N	13W	3	E	SAN JUAN	NM	FULCHER KUTZ PC	ACT
ELLIOTT OIL COMPANY	SOUTHERN UNION	1E	29N	13W	3	E	SAN JUAN	NM	BASIN DAKOTA	ACT
FUNDINGSLAND	SUNICAL	10	29N	13W	3	L	SAN JUAN	NM	BASIN DAKOTA	ACT
ROBERT L BAYLESS	FARMINGTON	1	29N	13W	4	B	SAN JUAN	NM	BASIN DAKOTA	ACT
PIONEER PRODUCTION	PRUITT	1	29N	13W	4	E	SAN JUAN	NM	BASIN DAKOTA	P&A
COMPASS EXPLORATION	SOUTHEAST MOUNDS 6	1	29N	13W	6	B	SAN JUAN	NM	BASIN DAKOTA	P&A
PIONEER PRODUCTION	AIRPORT	1	29N	13W	8	A	SAN JUAN	NM	BASIN DAKOTA	P&A
PIONEER PRODUCTION	AIRPORT	2	29N	13W	8	P	SAN JUAN	NM	BASIN DAKOTA	P&A
AMOCO PRODUCTION	CITY OF FARMINGTON	2	29N	13W	10	J	SAN JUAN	NM	BASIN DAKOTA	ACT
AMOCO PRODUCTION	CITY OF FARMINGTON	1E	29N	13W	10	J	SAN JUAN	NM	BASIN DAKOTA	ACT
AMOCO PRODUCTION	CITY OF FARMINGTON	1	29N	13W	10	J	SAN JUAN	NM	BASIN DAKOTA	ACT
AMOCO PRODUCTION	IRVIN COM	1E	29N	13W	11	E	SAN JUAN	NM	BASIN DAKOTA	ACT
AMOCO PRODUCTION	IRVIN COM	1	29N	13W	11	H	SAN JUAN	NM	BASIN DAKOTA	ACT
ROBERT L BAYLESS	RIVERINE	2	29N	13W	11	N	SAN JUAN	NM	FULCHER KUTZ PC	ACT
ROBERT L BAYLESS	RIVERINE	1	29N	13W	11	O	SAN JUAN	NM	FULCHER KUTZ PC	ACT
MERRION OIL AND GAS	FARMINGTON COM	1	29N	13W	11	P	SAN JUAN	NM	BASIN DAKOTA	ACT
COLT RESOURCES	VIERSON	1	30N	13W	19	A	SAN JUAN	NM	BASIN DAKOTA	ACT
UNIVERSAL RESOURCES	BUTTE	1R	30N	13W	19	F	SAN JUAN	NM	BASIN DAKOTA	ACT
LADD PETROLEUM	BUTTE	1	30N	13W	19	N	SAN JUAN	NM	BASIN DAKOTA	P&A
COLT RESOURCES	MILLER GAS COM	1E	30N	13W	20	D	SAN JUAN	NM	BASIN DAKOTA	ACT
COLT RESOURCES	MILLER GAS COM	1	30N	13W	20	H	SAN JUAN	NM	BASIN DAKOTA	ACT
COLT RESOURCES	MILLER GAS COM B	1E	30N	13W	20	L	SAN JUAN	NM	BASIN DAKOTA	ACT
COLT RESOURCES	MILLER GAS COM B	1	30N	13W	20	P	SAN JUAN	NM	BASIN DAKOTA	ACT
BURLINGTON RESOURCES	MCCORD	9	30N	13W	21	B	SAN JUAN	NM	BASIN DAKOTA	ACT
COLT RESOURCES	D MILLER	1	30N	13W	21	M	SAN JUAN	NM	BASIN DAKOTA	ACT
BURLINGTON RESOURCES	MCCORD	9E	30N	13W	21	P	SAN JUAN	NM	BASIN DAKOTA	INA
ENERGEN RESOURCES	MCCORD	4E	30N	13W	22	D	SAN JUAN	NM	BASIN DAKOTA	ACT
ENERGEN RESOURCES	MCCORD	4	30N	13W	22	G	SAN JUAN	NM	BASIN DAKOTA	ACT
ENERGEN RESOURCES	MCCORD	13E	30N	13W	22	I	SAN JUAN	NM	BASIN DAKOTA	ACT
ENERGEN RESOURCES	MCCORD	13	30N	13W	22	N	SAN JUAN	NM	BASIN DAKOTA	ACT
BURLINGTON RESOURCES	MCCORD B	1E	30N	13W	23	F	SAN JUAN	NM	BASIN DAKOTA	ACT
BURLINGTON RESOURCES	MADDOX D FEDERAL CO	1	30N	13W	23	G	SAN JUAN	NM	BASIN DAKOTA	ACT
BURLINGTON RESOURCES	MCCORD B	1	30N	13W	23	M	SAN JUAN	NM	BASIN DAKOTA	ACT
BURLINGTON RESOURCES	MADDOX D FEDERAL CO	1E	30N	13W	23	P	SAN JUAN	NM	BASIN DAKOTA	ACT
UNIVERSAL RESOURCES	FEDERAL A	3	30N	13W	26	A	SAN JUAN	NM	BASIN DAKOTA	ACT
UNIVERSAL RESOURCES	FEDERAL A	2E	30N	13W	26	C	SAN JUAN	NM	BASIN DAKOTA	ACT
ROBERT L BAYLESS	TIGER	15	30N	13W	26	H	SAN JUAN	NM	BASIN FRUITLAND COAL	ACT
UNIVERSAL RESOURCES	FEDERAL A	2	30N	13W	26	M	SAN JUAN	NM	BASIN DAKOTA	ACT
ROBERT L BAYLESS	TIGER	9	30N	13W	26	M	SAN JUAN	NM	FULCHER KUTZ PC	ACT
UNIVERSAL RESOURCES	FEDERAL A	3E	30N	13W	26	P	SAN JUAN	NM	BASIN DAKOTA	ACT
ENERGEN RESOURCES	MCGEE	1	30N	13W	27	B	SAN JUAN	NM	BASIN DAKOTA	ACT
ENERGEN RESOURCES	MCGEE	1E	30N	13W	27	F	SAN JUAN	NM	BASIN DAKOTA	ACT
ROBERT L BAYLESS	TIGER	12	30N	13W	27	H	SAN JUAN	NM	BASIN FRUITLAND COAL	ACT
ROBERT L BAYLESS	TIGER	11	30N	13W	27	L	SAN JUAN	NM	BASIN FRUITLAND COAL	ACT
ENERGEN RESOURCES	MCCORD	5	30N	13W	27	N	SAN JUAN	NM	BASIN DAKOTA	ACT
ENERGEN RESOURCES	MCCORD	5E	30N	13W	27	O	SAN JUAN	NM	BASIN DAKOTA	ACT
ENERGEN RESOURCES	MCCORD	8	30N	13W	28	A	SAN JUAN	NM	BASIN DAKOTA	ACT
B H P PETROLEUM	KING GAS COM	1	30N	13W	29	B	SAN JUAN	NM	BASIN DAKOTA	P&A
EL PASO NATURAL GAS	LA PLATA	1	30N	13W	29	M	SAN JUAN	NM	BASIN DAKOTA	P&A
UNIVERSAL RESOURCES	FEDERAL C	1	30N	13W	30	A	SAN JUAN	NM	BASIN DAKOTA	ACT
UNIVERSAL RESOURCES	FEDERAL C	2	30N	13W	30	F	SAN JUAN	NM	BASIN DAKOTA	ACT
COMPASS EXPLORATION	FEDERAL C	3	30N	13W	31	H	SAN JUAN	NM	BASIN DAKOTA	P&A
LADD PETROLEUM	FARMINGTON COM	1	30N	13W	32	A	SAN JUAN	NM	BASIN DAKOTA	P&A
ROBERT L BAYLESS	ARNIE	1	30N	13W	33	B	SAN JUAN	NM	BASIN FRUITLAND COAL	ACT
BURLINGTON RESOURCES	MCCORD	12	30N	13W	33	M	SAN JUAN	NM	BASIN DAKOTA	INA
BURLINGTON RESOURCES	MCCORD	12E	30N	13W	33	O	SAN JUAN	NM	BASIN DAKOTA	ACT
ROBERT L BAYLESS	TIGER	4	30N	13W	33	P	SAN JUAN	NM	FULCHER KUTZ PC	ACT
ROBERT L BAYLESS	TIGER	7	30N	13W	34	B	SAN JUAN	NM	BASIN FRUITLAND COAL	ACT
ENERGEN RESOURCES	MCCORD	3	30N	13W	34	B	SAN JUAN	NM	BASIN DAKOTA	ACT
BURLINGTON RESOURCES	MCCORD	2E	30N	13W	34	C	SAN JUAN	NM	BASIN DAKOTA	INA
ENERGEN RESOURCES	MCCORD	3E	30N	13W	34	C	SAN JUAN	NM	BASIN DAKOTA	ACT
ROBERT L BAYLESS	TIGER	8	30N	13W	34	C	SAN JUAN	NM	BASIN FRUITLAND COAL	ACT
ROBERT L BAYLESS	TIGER	3	30N	13W	34	I	SAN JUAN	NM	FULCHER KUTZ PC	ACT
ENERGEN RESOURCES	MCCORD	2	30N	13W	34	L	SAN JUAN	NM	BASIN DAKOTA	ACT
ROBERT L BAYLESS	TIGER	5	30N	13W	35	A	SAN JUAN	NM	FULCHER KUTZ PC	ACT
ENERGEN RESOURCES	CITY OF FARMINGTON	1	30N	13W	35	A	SAN JUAN	NM	BASIN DAKOTA	ACT
ROBERT L BAYLESS	TIGER	6	30N	13W	35	D	SAN JUAN	NM	FULCHER KUTZ PC	ACT
ENERGEN RESOURCES	CITY OF FARMINGTON	2E	30N	13W	35	D	SAN JUAN	NM	BASIN DAKOTA	ACT
ROBERT L BAYLESS	TIGER	1	30N	13W	35	J	SAN JUAN	NM	FULCHER KUTZ PC	ACT
ENERGEN RESOURCES	CITY OF FARMINGTON	2	30N	13W	35	L	SAN JUAN	NM	BASIN DAKOTA	ACT
ROBERT L BAYLESS	TIGER	2	30N	13W	35	N	SAN JUAN	NM	FULCHER KUTZ PC	ACT
ENERGEN RESOURCES	CITY OF FARMINGTON	1E	30N	13W	35	O	SAN JUAN	NM	BASIN DAKOTA	ACT

Application for Authorization to Inject

PART VI - Well Data Tabulation in Area of Review

Operator:	Dugan Production Corporation
Well Name and Number:	Federal B #1
Location:	T30N R13W Sec 28
Footages:	890 FSL & 2340 FWL
Well Type:	Basin Dakota Gas Well
Spud Date:	November 18, 1961
Completion Date:	December 11, 1961
Total Depth:	6315
Surface Casing:	8 5/8" 24 #/ft J55 set at 310' in 12 1/4" hole - cemented with 200 sx (236 ft3) class B cement with 2% CaCl, circulated to surface.
Longstring Casing:	5 1/2" 15.5 #/ft J55 set at 6311' in 7 7/8" hole - cemented with 100 sx (192 ft3) Incor 8% gel and 50 sx (59 ft3) Incor neat cement - calculated cement top at 5225'. Point Lookout top at 3830'. Holes in casing from 3276' to 4000' squeezed in 3/86 with 275 sx (325 ft3) of class B cement. Point Lookout formation is now covered with cement.
Perforations:	6142' - 6164'; 6233' - 6266' Dakota Formation
Initial Potential:	3766 MCFD

Operator:	Energen Resources
Well Name and Number:	McCord #8E
Location:	T30N R13W Sec 28
Footages:	1016 FSL & 834 FEL
Well Type:	Basin Dakota Gas Well
Spud Date:	December 3, 1984
Completion Date:	January 4, 1985
Total Depth:	6370
Surface Casing:	8 5/8" 24 #/ft J55 set at 230' in 12 1/4" hole - cemented with 160 sx (188 ft3) class B cement with 2% CaCl, circulated to surface.
Longstring Casing:	4 1/2" 10.5 #/ft J55 set at 6370' in 7 7/8" hole - stage tool at 2008' - cemented first stage with 1300 sx (1638 ft3) of 50-50 Poz with 2% gel, 0.6% FLA, 1/4 #/sx flocele and 10 #/sx salt, circulated cement to 2000'. Cemented second stage with 280 sx (734 ft3) of 65-35 Poz with 12% gel, 12 1/4 #/sx gilsonite and 1/4 #/sx flocele, tailed by 100 sx (118 ft3) class B cement, circulated to surface. Point Lookout top at 3865'.
Perforations:	6040' - 6160' Dakota Formation
Initial Potential:	4098 MCFD

Operator:	Energen Resources
Well Name and Number:	McCord #10E
Location:	T30N R13W Sec 33
Footages:	1864 FNL & 1447 FWL
Well Type:	Basin Dakota Gas Well
Spud Date:	February 3, 1984
Completion Date:	February 26, 1984
Total Depth:	6470
Surface Casing:	10 3/4" 32.75 #/ft J55 set at 322' in 13 3/4" hole - cemented with 275 sx (324 ft3) class B cement with 3% CaCl, circulated to surface.
Longstring Casing:	7" 26 #/ft J55 set at 6470' in 9 7/8" hole - stage tool at 2770' - cemented first stage with 980 sx (1550 ft3) of 50-50 Poz with 4% gel, 6 1/4 #/sx gilsonite, 0.6% FLA, 1/4 #/sx flocele, tailed by 100 sx (118 ft3) class B cement with 2% CaCl, circulated cement to stage tool. Cemented second stage with 565 sx (1400 ft3) of 65-35 Poz with 12% gel, 12 1/4 #/sx gilsonite and 1/4 #/sx flocele, 0.6% FLA, tailed by 100 sx (118 ft3) class B cement with 2% CaCl, circulated to surface. Point Lookout top at 3980'.
Perforations:	6151' - 6336' Dakota Formation
Initial Potential:	4450 MCFD

Supplement to State of New Mexico C-108

VII. Operating Data

a) Proposed Average Injection Rate: 300 BWPD
b) Maximum Injection Rate: 500 BWPD
c) Closed System with injection water placed into a series of 400 Bbl. tanks and then filtered into a suction tank and then pumped into the well.
d) Proposed Average Injection Pressure: < 600 psig
e) Maximum Injection Pressure: +/- 1000 psig
f) Water Source will be Fruitland Coal and Pictured Cliffs production and is compatible with receiving formation. A typical water analysis fro both the Pictured Cliffs and the Fruitland Coals formation is attached. Pictured Cliffs and Fruitland Coal waters are disposed on into other Mesa Verde disposal wells in the area with no apparent compatibility problems.
g) Will swab in and obtain water sample during the completion and analyze water at that time.

VIII. Geologic Data of Injection Zone

a) Formation Name: Point Lookout
b) Description: Sandstone interspersed with shales Porosity is approximately 17% with 100% water saturation. The permeability is estimated to be 2 millidarcies.
c) Thickness: 360' from 3825- 4185' KB (Pt. Lookout).
d) Point Lookout will be perforated 3830-3845'.
e) Aquifers with water above Cliff House will be Fruitland Coal and Pictured Cliffs
f) No sources of drinking water are known to exist below the Point Lookout. The main fresh water in this area is the alluvium of the Glade Arroyo, which can be approximately 75' deep. The Ojo Alamo sandstone, a good source of fresh water, is not present in this wellbore due to surface erosion. The well was spud in alluvium sediment below the base of the Ojo Alamo formation. The surface casing of this well is set in the Kirtland shale formation, which covers the alluvium and is cemented to surface.

IX. Stimulation Program

a) If stimulation is required, it is anticipated that 500 gal of 15% HCL acid will be used followed by a fracture stimulation treatment consisting of 50,000# of 20-40 sand and 1200 bbls. of water.

X. Logs submitted in at time of completion in 1963 by Southern Union Production company.

XI. Not applicable. There are no water wells permitted with the City of Farmington within a 1-mile radius of the proposed SWD well.

XII. Calpine Natural Gas Company, L.P. has examined available engineering and geologic data and has found no evidence of open faults or hydrologic connections between the proposed disposal zones and any underground sources of drinking water.

XIV. Attached is a copy of the letters, which were sent certified the owners of the surface and to each leasehold operator within one half mile of the well location. Attached is a copy of the proof of publication.

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: *25-May-99*

Client:	Robert L. Bayless Oil	**Client Sample Info:**	Robert R. Bayless
Work Order:	9905075	**Client Sample ID:**	Garrett Water Well
Lab ID:	9905075-03A **Matrix:** AQUEOUS	**Collection Date:**	5/21/99 NW NW Sec 9
Project:	Water Wells	**COC Record:**	10169 T29N R13W

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
CALCIUM, DISSOLVED		**E215.1**				Analyst: **DM**
Calcium	180	12		mg/L	50	5/24/99
IRON, DISSOLVED		**E236.1**				Analyst: **DM**
Iron	ND	0.1		mg/L	1	5/25/99
POTASSIUM, DISSOLVED		**E258.1**				Analyst: **DM**
Potassium	1.7	0.25		mg/L	1	5/24/99
MAGNESIUM, DISSOLVED		**E242.1**				Analyst: **DM**
Magnesium	17	1		mg/L	4	5/24/99
SODIUM, DISSOLVED		**E273.1**				Analyst: **DM**
Sodium	88	12		mg/L	50	5/20/99
ALKALINITY, TOTAL		**M2320 B**				Analyst: **HR**
Alkalinity, Bicarbonate (As CaCO3)	190	5		mg/L CaCO3	1	5/21/99
Alkalinity, Carbonate (As CaCO3)	ND	5		mg/L CaCO3	1	5/21/99
Alkalinity, Hydroxide	ND	5		mg/L CaCO3	1	5/21/99
Alkalinity, Total (As CaCO3)	190	5		mg/L CaCO3	1	5/21/99
CHLORIDE		**E325.3**				Analyst: **HR**
Chloride	23	1		mg/L	1	5/24/99
HARDNESS, TOTAL		**M2340 B**				Analyst: **HR**
Hardness (As CaCO3)	530	1		mg/L	1	5/25/99
PH		**E150.1**				Analyst: **HR**
pH	7.71	2		pH units	1	5/21/99
RESISTIVITY (@ 25 DEG. C)		**M2510 C**				Analyst: **HR**
Resistivity	7.8003	0.001		ohm-m	1	5/21/99
SPECIFIC GRAVITY		**M2710 F**				Analyst: **DM**
Specific Gravity	1.0068	1			1	5/25/99
SULFATE		**M4500-SO4 D**				Analyst: **DM**
Sulfate	510	8		mg/L	1	5/24/99
TOTAL DISSOLVED SOLIDS		**E160.1**				Analyst: **DM**
Total Dissolved Solids (Residue, Filterable)	990	40		mg/L	1	5/25/99
TOTAL DISSOLVED SOLIDS		**CALC**				Analyst: **HR**
Total Dissolved Solids (Calculated)	1000	40		mg/L	1	5/25/99

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: *25-May-99*

Client:	Robert L. Bayless Oil		**Client Sample Info:**	Robert R. Bayless	
Work Order:	9905075		**Client Sample ID:**	Paul Wilson Water Well	
Lab ID:	9905075-01A	**Matrix:** AQUEOUS	**Collection Date:**	5/21/99	SENW Sec 9 T29N R13W
Project:	Water Wells		**COC Record:**	10169	

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
CALCIUM, DISSOLVED		**E215.1**				Analyst: **DM**
Calcium	140	12		mg/L	50	5/24/99
IRON, DISSOLVED		**E236.1**				Analyst: **DM**
Iron	ND	0.1		mg/L	1	5/25/99
POTASSIUM, DISSOLVED		**E258.1**				Analyst: **DM**
Potassium	1.6	0.25		mg/L	1	5/24/99
MAGNESIUM, DISSOLVED		**E242.1**				Analyst: **DM**
Magnesium	14	1		mg/L	4	5/24/99
SODIUM, DISSOLVED		**E273.1**				Analyst: **DM**
Sodium	62	12		mg/L	50	5/20/99
ALKALINITY, TOTAL		**M2320 B**				Analyst: **HR**
Alkalinity, Bicarbonate (As CaCO3)	220	5		mg/L CaCO3	1	5/21/99
Alkalinity, Carbonate (As CaCO3)	ND	5		mg/L CaCO3	1	5/21/99
Alkalinity, Hydroxide	ND	5		mg/L CaCO3	1	5/21/99
Alkalinity, Total (As CaCO3)	220	5		mg/L CaCO3	1	5/21/99
CHLORIDE		**E325.3**				Analyst: **HR**
Chloride	20	1		mg/L	1	5/24/99
HARDNESS, TOTAL		**M2340 B**				Analyst: **HR**
Hardness (As CaCO3)	420	1		mg/L	1	5/25/99
PH		**E150.1**				Analyst: **HR**
pH	7.37	2		pH units	1	5/21/99
RESISTIVITY (@ 25 DEG. C)		**M2510 C**				Analyst: **HR**
Resistivity	9.8425	0.001		ohm-m	1	5/21/99
SPECIFIC GRAVITY		**M2710 F**				Analyst: **DM**
Specific Gravity	1.0064	1			1	5/25/99
SULFATE		**M4500-SO4 D**				Analyst: **DM**
Sulfate	320	8		mg/L	1	5/24/99
TOTAL DISSOLVED SOLIDS		**E160.1**				Analyst: **DM**
Total Dissolved Solids (Residue, Filterable)	770	40		mg/L	1	5/25/99
TOTAL DISSOLVED SOLIDS		**CALC**				Analyst: **HR**
Total Dissolved Solids (Calculated)	780	40		mg/L	1	5/25/99

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: *25-May-99*

Client:	Robert L. Bayless Oil	**Client Sample Info:**	Robert R. Bayless
Work Order:	9905075	**Client Sample ID:**	Hopkins Water Well
Lab ID:	9905075-02A **Matrix:** AQUEOUS	**Collection Date:**	5/21/99 SENW Sec 9
Project:	Water Wells	**COC Record:**	10169 T29N R13W

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
CALCIUM, DISSOLVED		E215.1				Analyst: DM
Calcium	140	12		mg/L	50	5/24/99
IRON, DISSOLVED		E236.1				Analyst: DM
Iron	ND	0.1		mg/L	1	5/25/99
POTASSIUM, DISSOLVED		E258.1				Analyst: DM
Potassium	2	0.25		mg/L	1	5/24/99
MAGNESIUM, DISSOLVED		E242.1				Analyst: DM
Magnesium	16	1		mg/L	4	5/24/99
SODIUM, DISSOLVED		E273.1				Analyst: DM
Sodium	72	12		mg/L	50	5/20/99
ALKALINITY, TOTAL		M2320 B				Analyst: HR
Alkalinity, Bicarbonate (As CaCO3)	260	5		mg/L CaCO3	1	5/21/99
Alkalinity, Carbonate (As CaCO3)	ND	5		mg/L CaCO3	1	5/21/99
Alkalinity, Hydroxide	ND	5		mg/L CaCO3	1	5/21/99
Alkalinity, Total (As CaCO3)	260	5		mg/L CaCO3	1	5/21/99
CHLORIDE		E325.3				Analyst: HR
Chloride	25	1		mg/L	1	5/24/99
HARDNESS, TOTAL		M2340 B				Analyst: HR
Hardness (As CaCO3)	410	1		mg/L	1	5/25/99
PH		E150.1				Analyst: HR
pH	7.38	2		pH units	1	5/21/99
RESISTIVITY (@ 25 DEG. C)		M2510 C				Analyst: HR
Resistivity	9.8328	0.001		ohm-m	1	5/21/99
SPECIFIC GRAVITY		M2710 F				Analyst: DM
Specific Gravity	1.0069	1			1	5/25/99
SULFATE		M4500-SO4 D				Analyst: DM
Sulfate	270	8		mg/L	1	5/24/99
TOTAL DISSOLVED SOLIDS		E160.1				Analyst: DM
Total Dissolved Solids (Residue, Filterable)	720	40		mg/L	1	5/25/99
TOTAL DISSOLVED SOLIDS		CALC				Analyst: HR
Total Dissolved Solids (Calculated)	790	40		mg/L	1	5/25/99

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

Sample Water Analysis - Fruitland Coal Formation

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Date: *17-Feb-99*

Client:	Robert L. Bayless Oil	**Client Sample Info:**	Robert L. Bayless
Work Order:	9902026	**Client Sample ID:**	Tiger #7
Lab ID:	9902026-05A **Matrix:** AQUEOUS	**Collection Date:**	1/26/99
Project:	Arnie and Tiger API Waters	**COC Record:**	B1198

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
CALCIUM, DISSOLVED		E215.1				Analyst: DM
Calcium	140	25		mg/L	100	2/12/99
IRON, DISSOLVED		E236.1				Analyst: DM
Iron	1	0.5		mg/L	5	2/16/99
POTASSIUM, DISSOLVED		E258.1				Analyst: DM
Potassium	180	25		mg/L	100	2/10/99
MAGNESIUM, DISSOLVED		E242.1				Analyst: DM
Magnesium	88	6.2		mg/L	25	2/11/99
SODIUM, DISSOLVED		E273.1				Analyst: DM
Sodium	12500	1200		mg/L	5000	2/16/99
ALKALINITY, TOTAL		M2320 B				Analyst: DM
Alkalinity, Bicarbonate (As CaCO3)	890	5		mg/L CaCO3	1	2/5/99
Alkalinity, Carbonate (As CaCO3)	ND	5		mg/L CaCO3	1	2/5/99
Alkalinity, Hydroxide	ND	5		mg/L CaCO3	1	2/5/99
Alkalinity, Total (As CaCO3)	890	5		mg/L CaCO3	1	2/5/99
CHLORIDE		E325.3				Analyst: DM
Chloride	22000	10		mg/L	1	2/8/99
HARDNESS, TOTAL		M2340 B				Analyst: DM
Hardness (As CaCO3)	703	1		mg/L	1	2/12/99
PH		E150.1				Analyst: DM
pH	7.36	2		pH units	1	2/5/99
RESISTIVITY		M2510 C				Analyst: DM
Resistivity	0.171	0.01		ohm-m	1	2/5/99
SPECIFIC GRAVITY		M2710 F				Analyst: DM
Specific Gravity	1.026	1			1	2/16/99
SULFATE		M4500-SO4 D				Analyst: DM
Sulfate	ND	5		mg/L	1	2/8/99
TOTAL DISSOLVED SOLIDS		E160.1				Analyst: DM
Total Dissolved Solids (Residue, Filterable)	36050	40		mg/L	1	2/12/99

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

P.O. BOX 2606 - FARMINGTON, NM

CALPINE

CALPINE NATURAL GAS COMPANY
TABOR CENTER
1200 17th STREET, SUITE 770
DENVER, COLORADO 80202
720.359.9144
720.359.9140 (FAX)

November 12, 2002

Burlington Resources Oil and Gas Company
P.O. Box 4289
Farmington, NM 87499

Re: Application for Authorization to Inject
Calpine Natural Gas, L.P.
SWD #1
1125' FNL, 1580' FEL (NWNE)
Section 33, T30N – R13W
San Juan County, New Mexico

Gentlemen:

You have been identified as either a surface owner of the referenced location or a leasehold owner within one-half mile of the referenced location. Calpine Natural Gas, L.P. intends to reenter the former Meridian Oil Company McCord #10 well, drill out cement plugs, and then complete the well for produced water disposal in the Point Lookout formation. The well will be renamed the Calpine SWD #1. A copy of our application to the New Mexico Oil Conservation Division is attached.

If you have any questions regarding the application, please contact me at the letterhead address above. Objections or requests for hearing must be filed within 15 days with the New Mexico Oil Conservation Division, P.O. Box 2088, Santa Fe, NM 87504-2088.

Very truly yours,

CALPINE NATURAL GAS, L.P.

Hugo Cartaya
Production Manager

Enclosure

CALPINE

CALPINE NATURAL GAS COMPANY
TABOR CENTER
1200 17th STREET, SUITE 770
DENVER, COLORADO 80202
720.359.9144
720.359.9140 (FAX)

November 12, 2002

Dugan Production Corporation
P.O. Box 420
Farmington, NM 87499

Re: Application for Authorization to Inject
Calpine Natural Gas, L.P.
SWD #1
1125' FNL, 1580' FEL (NWNE)
Section 33, T30N – R13W
San Juan County, New Mexico

Gentlemen:

You have been identified as either a surface owner of the referenced location or a leasehold owner within one-half mile of the referenced location. Calpine Natural Gas, L.P. intends to reenter the former Meridian Oil Company McCord #10 well, drill out cement plugs, and then complete the well for produced water disposal in the Point Lookout formation. The well will be renamed the Calpine SWD #1. A copy of our application to the New Mexico Oil Conservation Division is attached.

If you have any questions regarding the application, please contact me at the letterhead address above. Objections or requests for hearing must be filed within 15 days with the New Mexico Oil Conservation Division, P.O. Box 2088, Santa Fe, NM 87504-2088.

Very truly yours,

CALPINE NATURAL GAS, L.P.

Hugo Cartaya
Production Manager

Enclosure

CALPINE

CALPINE NATURAL GAS COMPANY
TABOR CENTER
1200 17th STREET, SUITE 770
DENVER, COLORADO 80202
720.359.9144
720.359.9140 (FAX)

November 12, 2002

Energen Resources
2198 Bloomfield Highway
Farmington, NM 87401

Re: Application for Authorization to Inject
Calpine Natural Gas, L.P.
SWD #1
1125' FNL, 1580' FEL (NWNE)
Section 33, T30N – R13W
San Juan County, New Mexico

Gentlemen:

You have been identified as either a surface owner of the referenced location or a leasehold owner within one-half mile of the referenced location. Calpine Natural Gas, L.P. intends to reenter the former Meridian Oil Company McCord #10 well, drill out cement plugs, and then complete the well for produced water disposal in the Point Lookout formation. The well will be renamed the Calpine SWD #1. A copy of our application to the New Mexico Oil Conservation Division is attached.

If you have any questions regarding the application, please contact me at the letterhead address above. Objections or requests for hearing must be filed within 15 days with the New Mexico Oil Conservation Division, P.O. Box 2088, Santa Fe, NM 87504-2088.

Very truly yours,

CALPINE NATURAL GAS, L.P.

Hugo Cartaya
Production Manager

Enclosure

CALPINE

CALPINE NATURAL GAS COMPANY
TABOR CENTER
1200 17th STREET, SUITE 770
DENVER, COLORADO 80202
720.359.9144
720.359.9140 (FAX)

November 12, 2002

State of New Mexico
Oil Conservation Division
1000 Rio Brazos Road
Aztec, NM 87410

Re: Application for Authorization to Inject
Calpine Natural Gas, L.P.
SWD #1
1125' FNL, 1580' FEL (NWNE)
Section 33, T30N – R13W
San Juan County, New Mexico

Gentlemen:

You have been identified as either a surface owner of the referenced location or a leasehold owner within one-half mile of the referenced location. Calpine Natural Gas, L.P. intends to reenter the former Meridian Oil Company McCord #10 well, drill out cement plugs, and then complete the well for produced water disposal in the Point Lookout formation. The well will be renamed the Calpine SWD #1. A copy of our application to the New Mexico Oil Conservation Division is attached.

If you have any questions regarding the application, please contact me at the letterhead address above. Objections or requests for hearing must be filed within 15 days with the New Mexico Oil Conservation Division, P.O. Box 2088, Santa Fe, NM 87504-2088.

Very truly yours,

CALPINE NATURAL GAS, L.P.

Hugo Cartaya
Production Manager

Enclosure

AFFIDAVIT OF PUBLICATION

Ad No. 46985

STATE OF NEW MEXICO
County of San Juan:

CONNIE PRUITT, being duly sworn says: That she is the Advertising Manager of THE DAILY TIMES, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the hereto attached Legal Notice was published in a regular and entire issue of the said DAILY TIMES, a daily newspaper duly qualified for the purpose within the meeting of Chapter 167 of the 1937 Session Laws of the State of New Mexico for publication on the following day(s): Thursday, October 31, 2002.

And the cost of the publication is $46.93.

Connie Pruitt

ON 11-4-02 CONNIE PRUITT appeared before me, whom I know personally to be the person who signed the above document.

Ginny Beck

My Commission Expires April 2, 2004.

COPY OF PUBLICATION

[redacted]918 Legals

LEGAL NOTICE

Notification of Intent to convert well to water disposal.

Contact party:
Calpine Natural Gas
1200 17th Street
Suite 770
Denver, Colorado 80202
Attention: Hugo Cartaya
(720) 946-1302

Well Name and Legal Description:
Calpine SWD #1
1125' FNL & 1580' FEL
Section 33, Township 30N,
Range 13W
San Juan County,
New Mexico

The intended purpose is to drill out the plugs in the well previously named the McCord #10 at the legal description and convert the well to a water disposal facility to dispose of water from nearby Calpine Natural Gas wells therefore reducing the operating expenses of water disposal and reduce the traffic associated with trucking water.

Formation Name and Depth:
Point Lookout 3830-3845

Maximum injection rate is proposed to be 1400 BWPD.

Maximum injection pressure is proposed to be 900 psig.

Interested parties must file their objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Drive, New Mexico 87505 within 15 days.

Legal No. 46985, published in The Daily Times, Farmington, New Mexico, Thursday, October 31, 2002.

Form 3160-3
(August 1999)

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: **SF 078214**

6. If Indian, Allottee or Tribe Name:

1a. Type of Work: [X] DRILL [ ] REENTER

7. If Unit or CA Agreement, Name and No.:

b. Type of Well: [ ] Oil Well [X] Gas Well [ ] Other [X] Single Zone [ ] Multiple Zone

8. Lease Name and Well No.: **Calpine SWD (formerly McCord #10)**

2. Name of Operator: **Calpine Natural Gas Company**

9. API Well No.:

3A. Address: **c/o Walsh Engineering, 7415 E. Main, Farmington, NM 87402**

3b. Phone No. *(include area code)*: **505.327.4892**

10. Field and Pool, or Exploratory: **Blanco Mesa Verde**

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: **1125' FNL and 1580' FEL**

At proposed prod. Zone:

11. Sec., T., R., M., or Blk, and Survey or Area: **Section 33, T30N, R13W**

14. Distance in miles and direction from nearest town or post office*: **0.5 mile west of Farmington, NM**

12. County or Parish: **San Juan**

13. State: **NM**

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of Acres in lease	17. Spacing Unit dedicated to this well
1580'	**320+**	**N/2 320 acres**
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file
2600'	**6245'**	
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
5509' GL	**December 2002**	**2 weeks**

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, th SUPO shall be filed with the appropriate Forest Service Office.
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized office.

25. Signature	Name *(Printed/Typed)*	Date
Paul C. Thompson	**Paul C. Thompson, P.E.**	**11/5/02**

Title: **Agent**

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
Title	Office	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001and Title 43 U.S.C. Section 1212, make 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.

**(Instructions on reverse)*

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 August 15, 2000
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
30-045-09068	72319	Blanco Mesa Verde

[4] Property Code	[5] Property Name	[6] Well Number
	Calpine SWD (formerly McCord #10)	1

[7] OGRID No.	[8] Operator Name	[9] Elevation
194807	Calpine Natural Gas	5509' GL

[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
B	33	30N	13W		1125	North	1580	East	San Juan

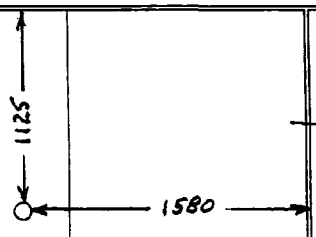
[11] Bottom Hole Location If Different From Surface

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.
320 N/2	Y		

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.

Paul C. Thompson
Signature

PAUL C. THOMPSON
Printed Name

AGENT
Title

11/5/02
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.

ORIGINAL ON FILE
Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number

CALPINE NATURAL GAS CORP.
OPERATIONS PLAN
Calpine SWD #1
(formerly McCord #10)

I. Location: 1125' FNL & 1580' FEL Date: November 5, 2002
Sec 33 T30N R13W
San Juan County, NM

Field: Blanco Mesa Verde SWD Elev: GL 5509'
Surface: Bureau of Land Management
Minerals: Federal SF 078214

II. Geology: Surface formation _ Kirtland

A.

Formation Tops	Depths
Fruitland	1120'
Pictured Cliffs	1380'
Lewis	1620'
Cliff House	2915'
Point Lookout	3825'
Mancos	4185'
Dakota	5975'
Total Depth	6245'

Plan to drill surface plug and cement plugs at 978' and 2779'. Clean out drilling mud to plug at 5169'. Pressure test casing to 2000 psi. Perforate the Point Lookout at 3830' to 3845' and sand water frac.

B. Logging Program: CBL and GR/CCL.

C. No over pressured zones are expected in this well. No H_2S zones will be penetrated in this well. Max. BHP = 600 psig.

III. Drilling

A. Contractor:

B. Mud Program:

Drill surface plug and plugs at 978' and 2779' with fresh water polymer mud. The weighting material will be drill solids.

C. Minimum Blowout Control Specifications:

Double ram type or annular type 2000 psi working pressure BOP with a rotating head. See the attached exhibits (#1 and #2) for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1000 psi.

C. Cont.

The blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

IV. Materials

A. Casing Program:

Hole Size	Depth	Casing Size	Wt. & Grade
12-1/4"	323'	8-5/8"	24# J-55
7-7/8"	6245'	4-1/2"	10.5# J-55

B. Float Equipment:

a) Surface Casing: None

b) Production Casing: 4-1/2" DV tools at 4235'.

V. Cementing:

Surface casing: 8-5/8" - Cemented with 200 sx and circulated to surface.

Production Casing: 4-1/2" - 1st stage cemented with 425 cu.ft. TOC at 4811'. 2nd stage cemented with 1000 cu.ft. TOC at 943'.

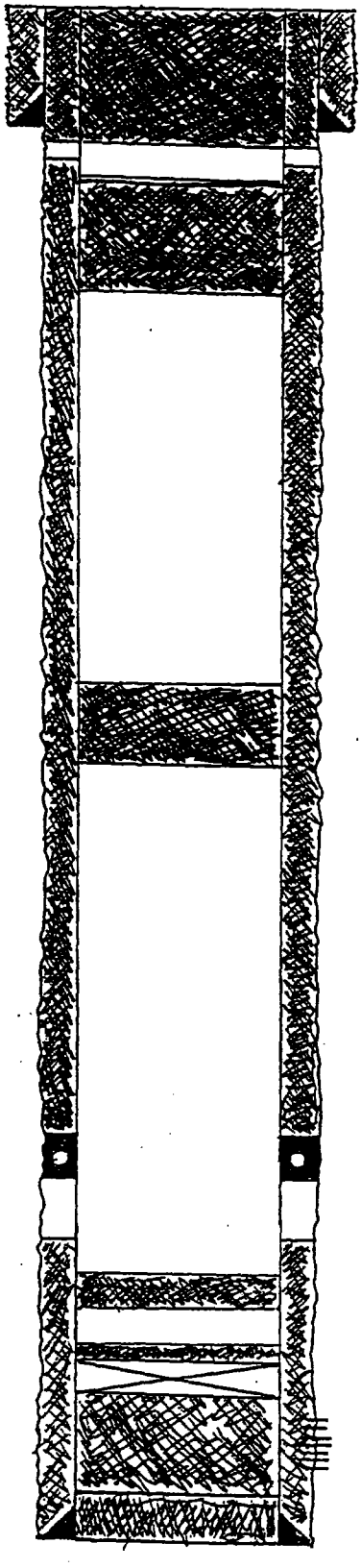
Paul C. Thompson

Paul C. Thompson, P.E.

CALPINE SWD #1
(FORMERLY McCORD #10)

Wellbore - As-Is

(not to scale)



'tland @ surface

'uitland @ 1120'

ictured Cliffs @ 1380'

ewis @ 1620'

Cliffhouse @ 2915'

Pt. Lookout @ 3825'

Mancos @ 4185'

Dakota @ 5975'

Plug #4 - surface to 375'

8 5/8" 24 #/ft csg set @ 323'
Circulated 200 sx cement to surface

Plug #3 - 978' to 1439'

Plug #2 - 2779' to 2977'

DV Tool @ 4235'

Plug #1 - 5037' to 5169'

Cement Retainer set @ 5923'

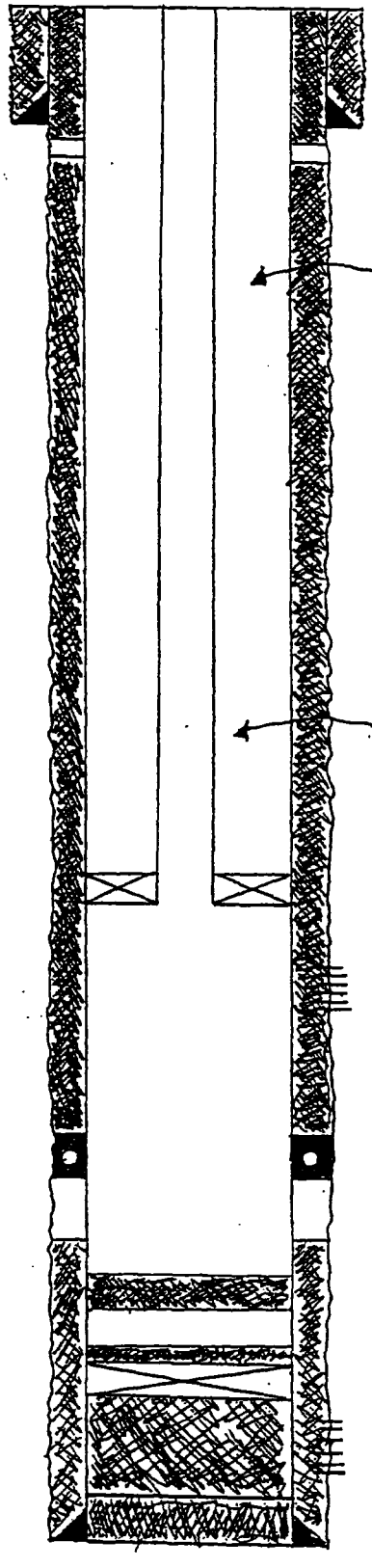
Squeezed Dakota perfs @ 5978' to 6165'

4 1/2" 10.5 #/ft J55 csg set @ 6245'
stage 1 - 425 ft3, TOC @ 4811'
stage 2 - 1000 ft3, TOC @ 943'

KALPINE SWD #1
(FORMERLY Mc GRD #10)

Wellbore - After Workover

(not to scale)



Irtland @ surface

8 5/8" 24 #/ft csg set @ 323'
Circulated 200 sx cement to surface

Fruitland @ 1120'

Pictured Cliffs @ 1380'

Packer fluid in casing - tubing annulus

Lewis @ 1620'

Cliffhouse @ 2915'

2 3/8" 4.7 #/ft J55 EUE tested used tubing

Arrowset 1-X retrievable production packer set @ 3780'

Pt. Lookout @ 3825'

Pt. Lookout perfs @ 3830' to 3845', 31 holes

Mancos @ 4185'

DV Tool @ 4235'

Plug #1 - 5037' to 5169'

Cement Retainer set @ 5923'

Dakota @ 5975'

Squeezed Dakota perfs @ 5978' to 6165'

4 1/2" 10.5 #/ft J55 csg set @ 6245'
stage 1 - 425 ft3, TOC @ 4811'
stage 2 - 1000 ft3, TOC @ 943'

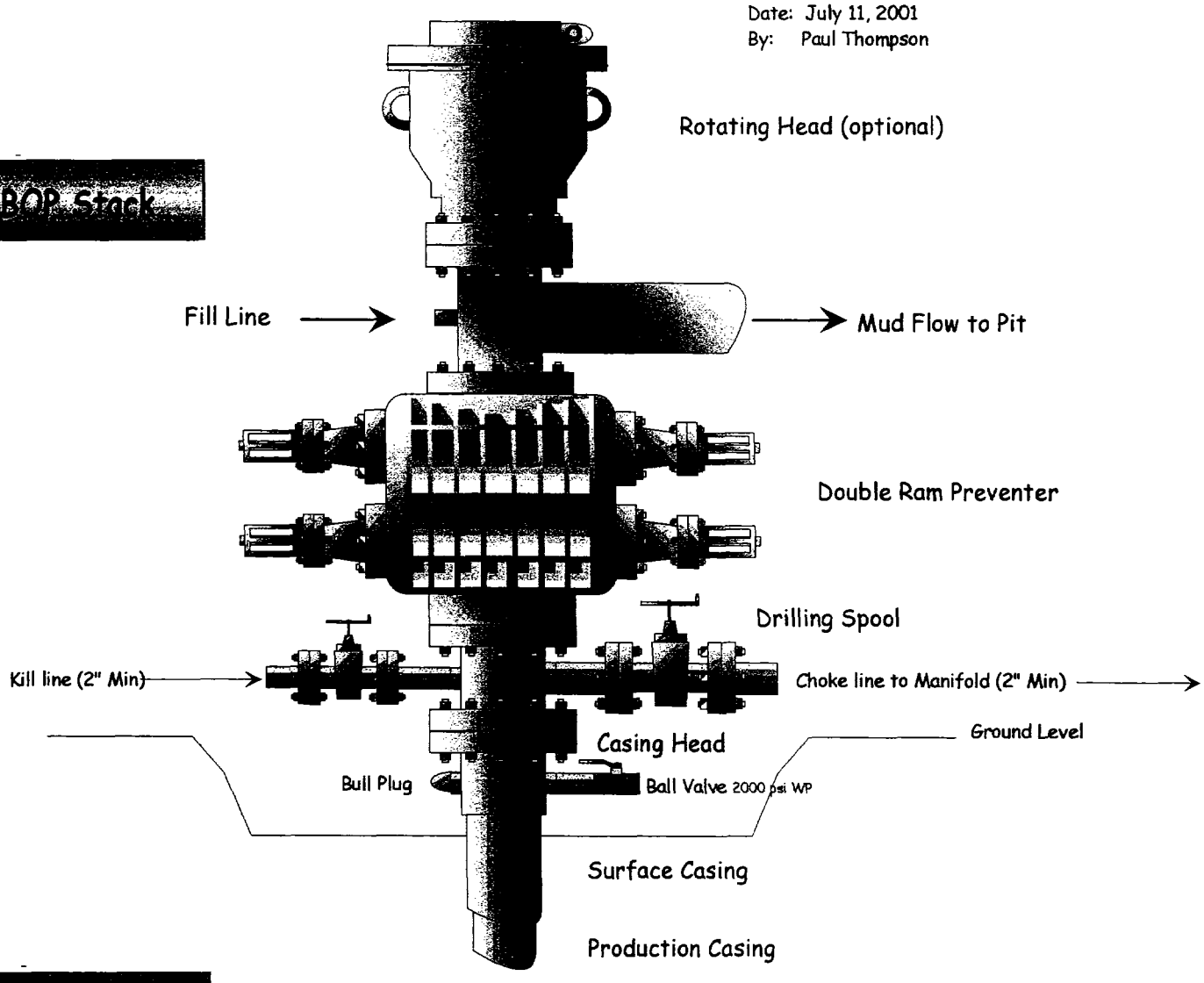
Calpine Natural Gas Company

Well Control Equipment Schematic for 2M Service

EXHIBIT 1

Date: July 11, 2001
By: Paul Thompson

BOP Stack



Choke or Kill Manifold

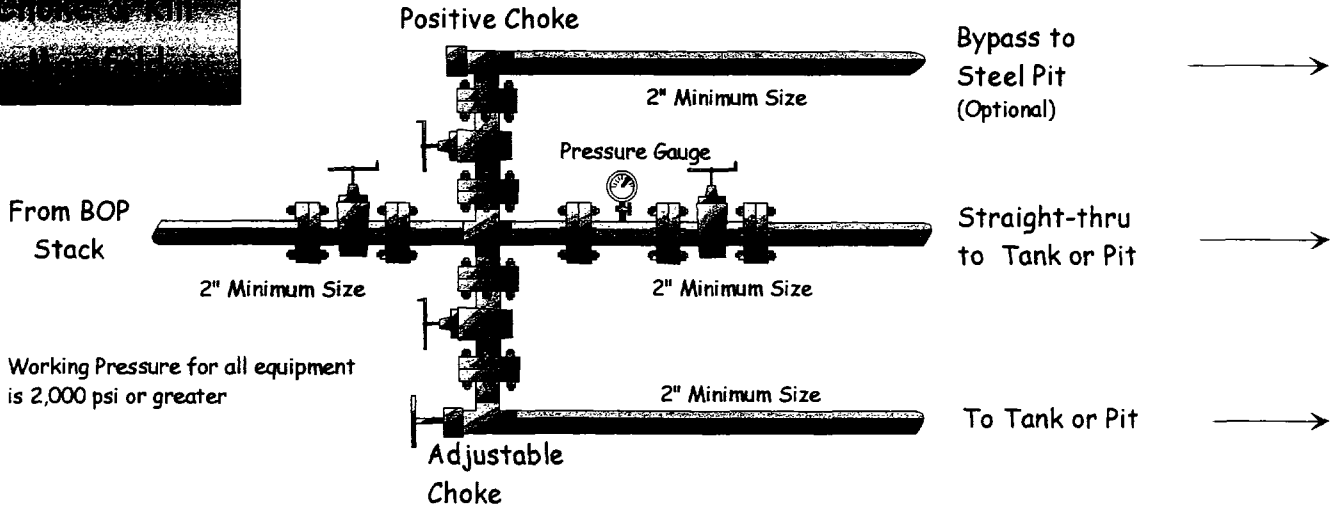
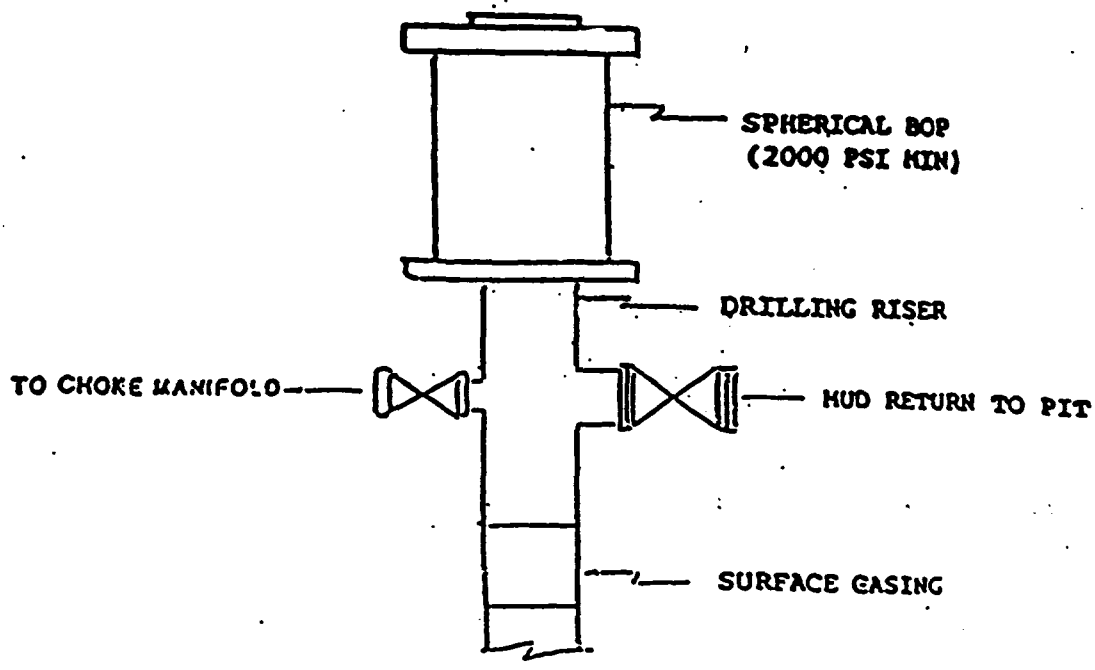


EXHIBIT #2


SPHERICAL BOP
(2000 PSI MIN)
DRILLING RISER
TO CHOKE MANIFOLD
MUD RETURN TO PIT
SURFACE CASING

MULTI-POINT SURFACE USE PLAN
Calpine SWD #1
(formerly McCord #10)

1. Existing Roads:

All existing roads used to access the proposed location are shown on the attached Plat #1 and shall be maintained in the same or better condition than presently found.

2. Planned Access Roads:

No new access road will be built for this well. The existing access road will be maintained in at least the current condition and will be upgraded where necessary to provide uninterrupted access to the proposed well.

3. Location of Existing Wells:

Attached map (Plat #1) shows existing wells within a one mile radius of the proposed wells.

4. Location of Production Facilities:

This well is being re-entered and will be completed in the Point Lookout member of the Mesa Verde formation as a salt water disposal well. Storage tanks and an injection pump will be located on the drill pad. After completion, the entire location will be enclosed with a 6' chain-link fence.

To protect livestock and wildlife, the reserve pit will be fenced. Any tanks will be enclosed by a dike.

Upon completion of drilling, the location and surrounding area will be cleared of all debris.

5. Water Supply:

Water for drilling and completion operations will be produced water and hauled by truck from surrounding wells or fresh water from the City of Farmington

6. Source of Construction Materials:

No additional construction materials will be required to build the proposed location.

7. Methods for Handling Waste Disposal:

a. The drill cuttings, fluids and completion fluids will be placed in the reserve pit. The reserve pit will be lined and fenced prior to drilling. 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.

b. All garbage and trash will be placed in a metal trash basket. It will be hauled off and dumped in an approved land fill upon completion of operations.

c. Portable toilets will be provided and maintained during drilling operations. See Plat 3 for location.

8. Ancillary Facilities:

Storage tanks and an injection pump will be located on the pad. Any water pipelines to this facility will be requested through the right-of-way process.

9. Well Site Layout:

A cross section of the drill pad with approximate cuts, fills, and pad orientation is attached as Plat #2. Location of drilling equipment, rig orientation, and access road approach is also attached as Plat #3.

10. Plans for Restoration of Surface:

When the well is abandoned, the location and access road will be cleaned and restored to the original topographical contours as much as possible. The area will be reseeded with the appropriate seed mixture.

Areas not used for the disposal facilities will be contoured and seeded with the stipulated seed mixture. Production equipment will be painted the color designated by the surface managing agency.

11. Surface Ownership:

a. The surface ownership is Bureau of Land Management.

12. Other Information:

Refer to the archaeological report for the McCord #10 for a description of the
soil characteristics.

13. Lessee's or Operator's Representative:

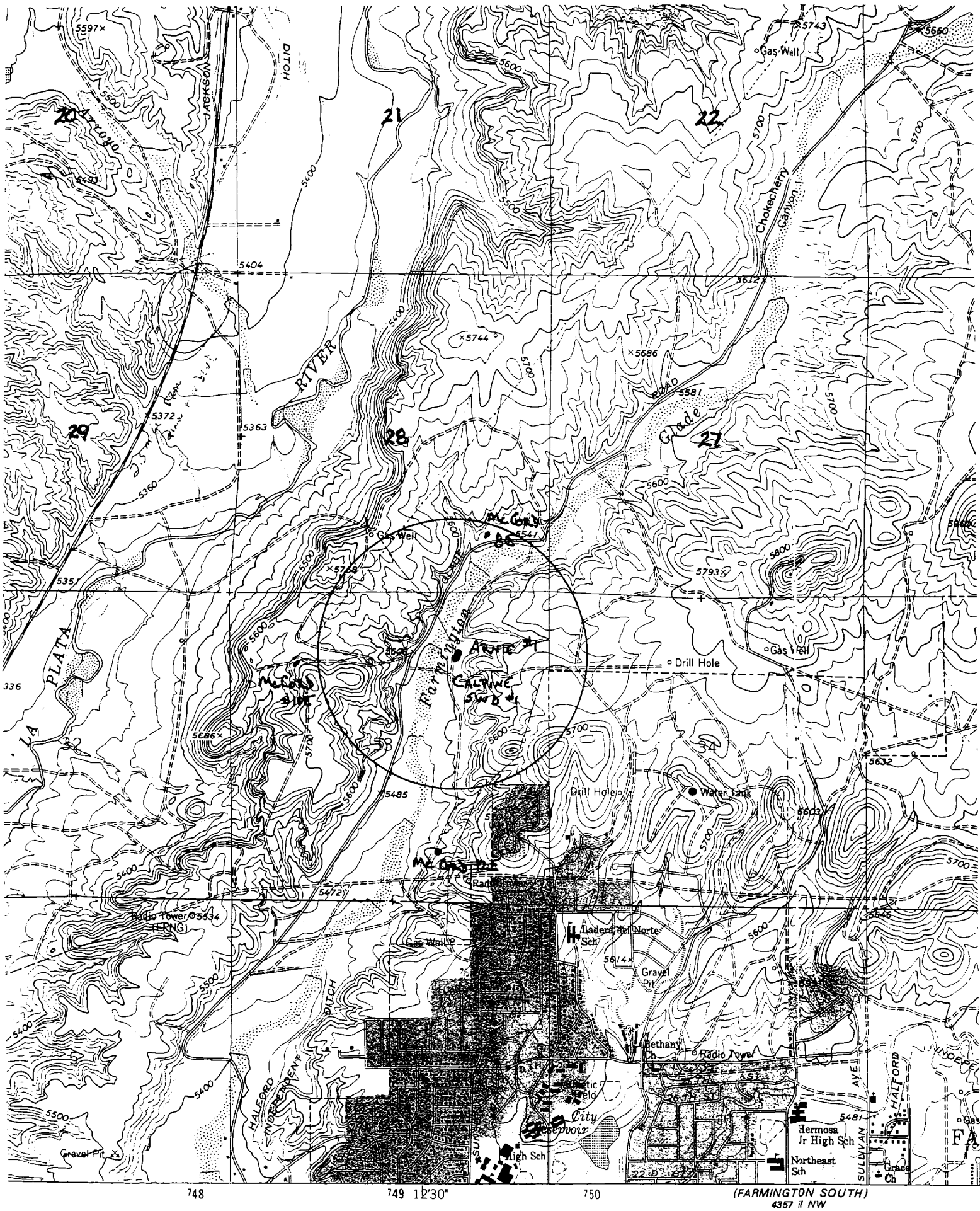
Paul C. Thompson, P.E.
Walsh Engineering & Production Corporation
7415 East Main
Farmington, New Mexico 87402
Phone: (505) 327-4892

14. Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Calpine Natural Gas Company, 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 18 U.S. Code 001 for the filing of a false statement.

November 5, 2002

Paul C. Thompson, P.E.

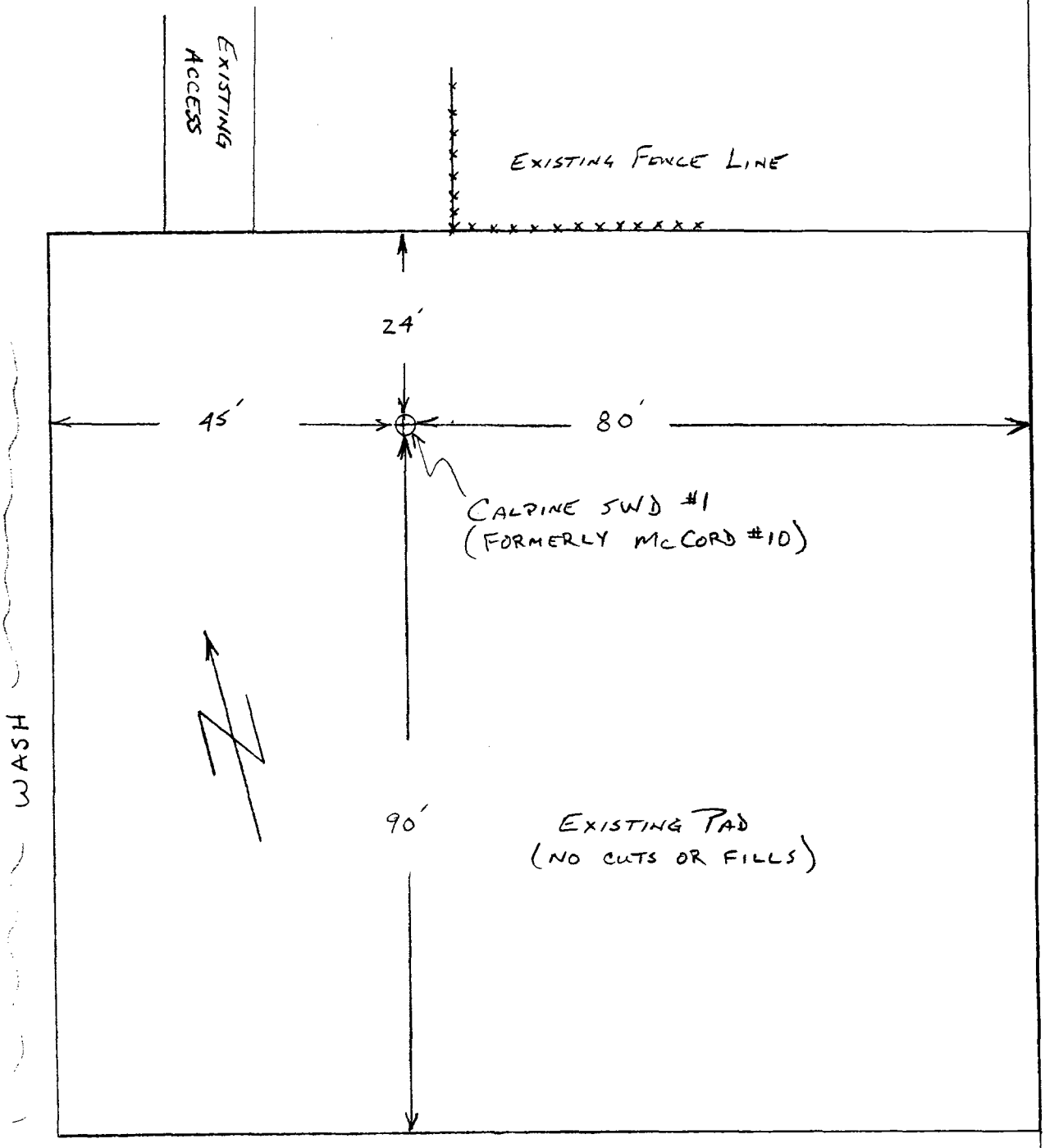


ogical Survey

eclamation

CALPINE NATURAL GAS

CALPINE SWD #1
1125 FNL & 1580 FEL
SECTION 33, T30N, R13W



0 BLM 1 File

Form 3160-5
(November 1983)
(Formerly 9-331)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE* (Other instructions on reverse side)

Budget Bureau No. 1004-0135
Expires August 31, 1985

5. LEASE DESIGNATION AND SERIAL NO.: SF-078214

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

RECEIVED
MAR 21 1986
BUREAU OF LAND MANAGEMENT
FARMINGTON RESOURCE AREA

1. OIL WELL ☐ GAS WELL ☒ OTHER

7. UNIT AGREEMENT NAME:

2. NAME OF OPERATOR: DUGAN PRODUCTION CORP.

8. FARM OR LEASE NAME: Federal "B"

3. ADDRESS OF OPERATOR: P O Box 208, Farmington, NM 87499

9. WELL NO.: 1

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface: 890' FSL - 2340' FWL

10. FIELD AND POOL, OR WILDCAT: Basin Dakota

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 28, T30N, R13W, NMPM

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.): 5672' GL; 5683' RKB

12. COUNTY OR PARISH: San Juan

13. STATE: New Mexico

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
TEST WATER SHUT-OFF	☐	PULL OR ALTER CASING	☐	WATER SHUT-OFF	☐	REPAIRING WELL	☐
FRACTURE TREAT	☐	MULTIPLE COMPLETE	☐	FRACTURE TREATMENT	☐	ALTERING CASING	☐
SHOOT OR ACIDIZE	☐	ABANDON*	☐	SHOOTING OR ACIDIZING	☐	ABANDONMENT*	☐
REPAIR WELL	☐	CHANGE PLANS	☐	(Other) Repaired Casing Leak			☒
(Other)				(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)			

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)*

Repaired casing leak as follows:

1. Moved in pulling unit and pulled 2-3/8" tubing.
2. Set C.I.B.P. @ 5014'.
3. Located holes in casing 3276-4000'.
4. Squeezed casing three times with total of 325 cf cement.
5. Drilled out cement and bridge plug.
6. Cleaned out to P.B.T.D. 6275'.
7. Reran 2-3/8" tubing.

Will place well back on production.

RECEIVED
APR 10 1986
OIL CON. DIV.
DIST. 3

18. I hereby certify that the foregoing is true and correct

SIGNED Jim L. Jacobs TITLE Geologist DATE 3-20-86

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

ACCEPTED FOR RECORD
APR 07 1986
FARMINGTON RESOURCE AREA
BY

*See Instructions on Reverse Side

NMOCC

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.

Catanach, David

From: Catanach, David
Sent: Tuesday, November 26, 2002 8:06 AM
To: Hayden, Steven
Subject: Calpine SWD

Steve, Calpine has submitted another application for SWD in the Point Lookout formation from a depth of 3830-3845 in the old McCord # 10 located 1125' FSL & 1580' FEL, Section 33, T-30N, R-13W. Have you had a chance to look at this application? Let me know what your thoughts are. Thanks.

DRC

Catanach, David

From: Hayden, Steven
Sent: Tuesday, November 26, 2002 8:14 AM
To: Catanach, David
Subject: RE: Calpine SWD

Dave,
I haven't seen this one yet. It is far outside the Blanco Mesaverde pool which is good. If they stick to the marine sands and stay out of the Menefee Formation, I have no objection.

-----Original Message-----
From: Catanach, David
Sent: Tuesday, November 26, 2002 8:06 AM
To: Hayden, Steven
Subject: Calpine SWD

Steve, Calpine has submitted another application for SWD in the Point Lookout formation from a depth of 3830-3845 in the old McCord # 10 located 1125' FSL & 1580' FEL, Section 33, T-30N, R-13W. Have you had a chance to look at this application? Let me know what your thoughts are. Thanks.

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