

SWD 6/17/99
750

ROBERT L. BAYLESS, PRODUCER LLC
OIL & GAS PRODUCER

P. O. Box 168
FARMINGTON, NM 87499

FAX NO.
(505) 326-6911

Ben Stone
OFFICE NO.
(505) 626-2659

May 26, 1999

JUN - 2 1999

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

RECEIVED
MAY 27 1999

RE: Application for Authorization to Inject
Robert L. Bayless, Producer LLC
SWD #4
1125' FNL and 1580' FEL (NWNE)
Section 33, T30N R13W
San Juan County, New Mexico

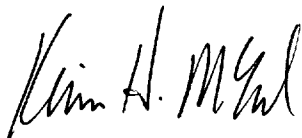
OIL CON. DIV.
DIST. 3

Gentlemen:

Attached with this letter is an original and 2 copies of an Application for Authorization to Inject produced water into the above referenced well. Robert L. Bayless, Producer LLC 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 SWD #4. The produced water to be injected will be from the Pictured Cliffs and/or the Fruitland Coal formations, from wells on this and offsetting leases operated by Bayless.

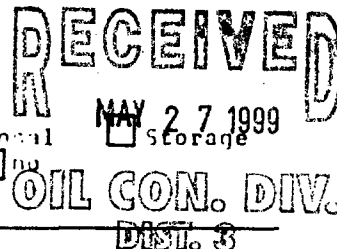
If you have any questions regarding this application, please contact me at the address given on the letterhead above..

Sincerely,



Kevin H. McCord
Petroleum Engineer

Encl.



APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☐ no
- II. Operator: Robert L. Bayless, Producer LLC
Address: PO Box 168 Farmington, NM 87499
Contact party: Kevin McCord Phone: (505) 326-2659
- 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 ☒ 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 geological data on the injection zone including appropriate lithologic detail, geological 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 source 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 source 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: Kevin McCord Title: Petroleum Engineer

Signature: *Kevin A. McCord* Date: 5/26/99

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

Robert L. Bayless, Producer LLC
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Application for Authorization to Inject

Part III – Well Data

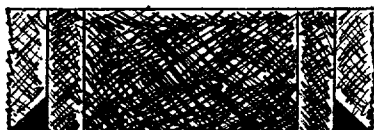
- A.1. Robert L. Bayless, Producer LLC SWD #4; formerly Meridian Oil Company McCord #10 well
1125 FNL & 1580 FEL, Sec 33, T30N R13W, San Juan County, New Mexico
- A.2. 8 5/8" 24 #/ft surface casing set at 323 ft, cemented with 236 ft3 Class B cement, circulated to surface. Hole size was 12 1/4.
4 1/2" 10.5 #/ft production casing set at 6245 ft, with DV tool stage collar set at 4235 ft. Hole size was 7 7/8". Stage 1 was cemented with 350
ft3 50/50 pozmix cement w/4% gel, tailed by 75 ft3 of Class B cement. Total stage 1 cement of 425 ft3 resulted in cement top of 4811 ft. Stage 2
was cemented with 1000 ft3 Class C cement w/40% Diagel, resulting in a cement top of 943 ft. Cement tops were determined by calculation, using
75% efficiency. During plugging operations of this wellbore, the casing was perforated and cement was circulated from 375 ft to surface.
- A.3. 2 3/8" 4/7 #/ft yellow band tested tubing will be used, setting in packer at 3780 ft. The tubing will not be lined.
- A.4. Arrowset packer set at 3780 ft.
- B.1. The injection formation will be the Point Lookout, Blanco Mesaverde Pool.
- B.2. The injection formation will be perforated from 3830 ft. to 3845 ft.
- B.3. The subject well was drilled and completed in 1963 as a Dakota formation producer. It was plugged and abandoned in July of 1994. Bayless plans
to drill out 3 cement plugs in the wellbore and complete it as a water disposal well.
- B.4. The subject well had Dakota perforations from 5978 ft to 6165 ft. These perforations were cemented off as part of the plugging operation of this
well. There is a cement retainer set at 5923 ft (55 ft above top Dakota perforation) which had 31 sx (37 ft3) of Class B cement pumped below it
into the Dakota perforations. This retainer has 14 sx (17 ft3) of Class B cement above it which equates to 188 ft of cement on top of retainer to
5735 ft. Further above the cement retainer is a 10 sx (12 ft3) Class B cement plug from 5037 ft to 5169 ft, which further isolates the wellbore from
the old Dakota perforations.
- B.5. The next deeper productive zone below the Point Lookout formation in this injection well is the Mancos (Gallup) formation which is found at 4185
ft, 360 ft below the top of the Point Lookout formation. The next shallower productive zone above the Point Lookout formation in this area is the
Pictured Cliffs formation, which is found at 1380 ft, 2445 ft above the top of the Point Lookout formation in this well.

Robert L. Bayless
SWD #4 (formerly McCord #10)
1125 FNL & 1580 FEL, Sec 33, T30N R13W
San Juan County, NM

Wellbore - As-Is

(not to scale)

Kirtland @ surface



Plug #4 - surface to 375'

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

Fruitland @ 1120'

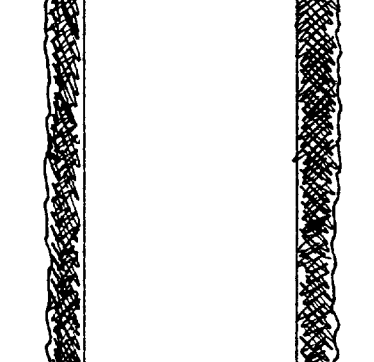


Plug #3 - 978' to 1439'

Pictured Cliffs @ 1380'



Lewis @ 1620'



Cliffhouse @ 2915'



Plug #2 - 2779' to 2977'

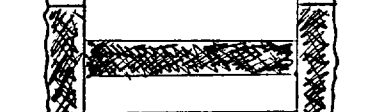
Pt. Lookout @ 3825'



Mancos @ 4185'



DV Tool @ 4235'



Plug #1 - 5037' to 5169'

Dakota @ 5975'



Cement Retainer set @ 5923'

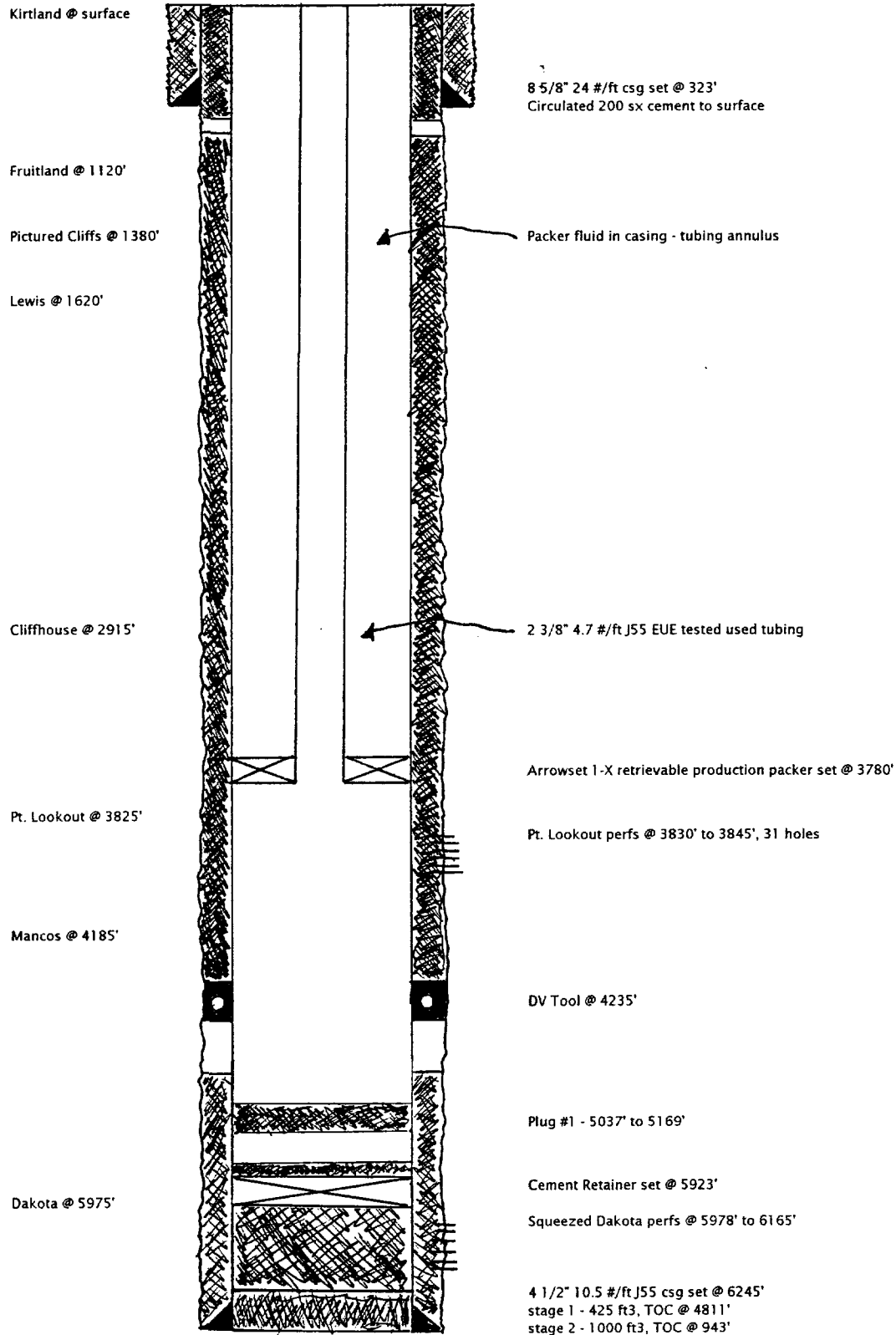
Squeezed Dakota perms @ 5978' to 6165'

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

Robert L. Bayless
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San Juan County, NM

Wellbore - After Workover

(not to scale)



Robert L. Bayless, Producer LLC
SWD #4
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PART V – Wells and Leases Within Two Miles of the SWD #4 Injection Well

OPERATOR	WELL/LEASE NAME	WELL #	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	NORTHBRIDGE	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	NORTHBRIDGE	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	VIERNON	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

Robert L. Bayless, Producer LLC
SWD #4
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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

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Part VII – Proposed Operations Data

1. The proposed average daily injection rate is 300 BWPD. The proposed maximum daily injection rate is 500 BWPD. These rates may be adjusted based on well tests.
2. The injection system will be closed.
3. The proposed average injection pressure will be 600 psi. The proposed maximum injection pressure will be 1000 psi. These pressures may be adjusted based on well tests.
4. The source of the water will be various Pictured Cliffs and/or Fruitland Coal wells to be drilled on this and adjacent properties by the operator. A typical water analysis for both the Pictured Cliffs formation and the Fruitland Coal Formation is attached. Pictured Cliffs and Fruitland Coal waters are disposed of into other Mesa Verde disposal wells in the area with no apparent compatibility problems. Compatibility of the water to be injected will be tested upon completion of the well.
5. Bayless does not have a water analysis for the injection zone at this time. However, the following water analysis has a resistivity comparable to known Point Lookout water resistivities in the area. As a result, it is representative of Point Lookout water. If possible, a sample of Point Lookout water will be collected during completion of this injection well.

Ph: 7.46
Specific Gravity: 1.025
Resistivity: 0.22 ohm-m

<u>Constituent</u>	<u>PPM</u>
FE	0
CA	385
MG	39
K	460
CL	14,535
SO4	0
HCO3	1,122
TDS	25,603

OFF: (505) 325-5667



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
Project:	Arnie and Tiger API Waters	Collection Date:	1/26/99
		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 CaCO ₃)	890	5		mg/L CaCO ₃	1	2/5/99
Alkalinity, Carbonate (As CaCO ₃)	ND	5		mg/L CaCO ₃	1	2/5/99
Alkalinity, Hydroxide	ND	5		mg/L CaCO ₃	1	2/5/99
Alkalinity, Total (As CaCO ₃)	890	5		mg/L CaCO ₃	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 CaCO ₃)	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

1 of 1

D. SHEPHERD

Robert L. Bayless
SWD #4
Application for Authorization to Inject

Part VIII – Geological Data

The injection zone is the Point Lookout sandstone of the Mesa Verde group. The perforated interval will be 15 feet thick, from 3830 to 3845 feet. The overall thickness of the Point Lookout formation is 360 feet, from 3825 to 4185 feet. The porosity of the sandstone is approximately 17%, with a water saturation of 100%. The permeability of the Point Lookout is approximately 2 millidarcies.

No sources of drinking water are known to exist below the Point Lookout, the injection zone. The main source of fresh water in this area is the alluvium (valley fill) of the Glade Arroyo, which can be approximately 75 feet deep. The Ojo Alamo sandstone, a good source of fresh water, is not present in the SWD #4 wellbore due to erosion at the surface. The SWD #4 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 (covering the alluvium), and is cemented to the surface.

Part IX – Proposed Stimulation Program

If necessary, the injection zone will be stimulated with 500 gallons of 15% HCl acid, followed by a fracture treatment consisting of 60,000 gallons of and 60,000 pounds of 20-40 sand.

Part X – Logging and Test Data

Open hole logs for the proposed injection well were submitted to the OCD by Southern Union Production Company in 1963. Tests run by Bayless to ascertain injectivity will be submitted when run.

Part XI – Chemical Analysis of Nearby Fresh Water Wells

There are no water wells permitted with the City of Farmington within a 1 mile radius of the proposed SWD #4 injection well. For reference, enclosed are chemical analysis of fresh water taken from 3 water wells which exist over 2 miles to the southwest of the SWD #4 well. The exact location of each well is shown on it's analysis. The depths of these fresh water wells range from 20 to 40 feet deep, producing from alluvium from the Glade Arroyo.

Part XII – Affirmative Statement

Bayless has examined available geologic and engineering data in the area of the proposed injection well and can find no evidence of open faults or any other hydrologic connection between the injection zone and any underground source of drinking water.

Part XIII – Proof of Notice

Attached are copies of certified letters and their Return Receipt cards which were sent to surface owners or leasehold owners within one-half mile of the proposed injection well. Also attached is an Affidavit of Publication from the Farmington Daily Times newspaper stating a legal notice was published by this newspaper advising the public of Bayless' intent to dispose of water in this well.

OFF: (505) 325-5667



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
Project:	Water Wells	Collection Date:	5/21/99
		COC Record:	10169

NW 1/4 Sec 9
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 CaCO ₃)	190	5		mg/L CaCO ₃	1	5/21/99
Alkalinity, Carbonate (As CaCO ₃)	ND	5		mg/L CaCO ₃	1	5/21/99
Alkalinity, Hydroxide	ND	5		mg/L CaCO ₃	1	5/21/99
Alkalinity, Total (As CaCO ₃)	190	5		mg/L CaCO ₃	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 CaCO ₃)	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

1 of 1

OFF: (505) 325-5667



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
Project:	Water Wells	Collection Date:	5/21/99
		COC Record:	10169

 SENW Sec 9
 T29N R 13W

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 CaCO ₃)	220	5		mg/L CaCO ₃	1	5/21/99
Alkalinity, Carbonate (As CaCO ₃)	ND	5		mg/L CaCO ₃	1	5/21/99
Alkalinity, Hydroxide	ND	5		mg/L CaCO ₃	1	5/21/99
Alkalinity, Total (As CaCO ₃)	220	5		mg/L CaCO ₃	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 CaCO ₃)	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

1 of 1

OFF: (505) 325-5667



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
Project:	Water Wells	Collection Date:	5/21/99
		COC Record:	10169

SENW Sec 9
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 CaCO ₃)	260	5		mg/L CaCO ₃	1	5/21/99
Alkalinity, Carbonate (As CaCO ₃)	ND	5		mg/L CaCO ₃	1	5/21/99
Alkalinity, Hydroxide	ND	5		mg/L CaCO ₃	1	5/21/99
Alkalinity, Total (As CaCO ₃)	260	5		mg/L CaCO ₃	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 CaCO ₃)	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

1 of 1

PROOF OF NOTICE

ROBERT L. BAYLESS, PRODUCER LLC

OIL & GAS PRODUCER

P. O. Box 168

FARMINGTON, NM 87499

**FAX NO.
(505) 326-6911**

**OFFICE NO.
(505) 326-2659**

May 26, 1999

Certified Mail - Return Receipt Requested - Z409704384

**Bureau of Land Management
1235 La Plata Highway
Farmington, New Mexico 87401**

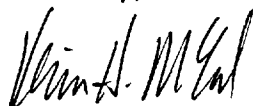
**RE: Application for Authorization to Inject
Robert L. Bayless, Producer LLC
SWD #4
1125' FNL and 1580' FEL (NWNE)
Section 33, T30N R13W
San Juan County, New Mexico**

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. Robert L. Bayless, Producer LLC 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 SWD #4. A copy of our application to the New Mexico Oil Conservation Division is attached.

If you have any questions regarding this application, please contact me at the address given on the letterhead 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, New Mexico 87504-2088.

Sincerely,



**Kevin H. McCord
Petroleum Engineer**

Encl.

ROBERT L. BAYLESS, PRODUCER LLC

OIL & GAS PRODUCER

P. O. Box 168

FARMINGTON, NM 87499

FAX NO.

(505) 326-6911

OFFICE NO.

(505) 326-2659

May 26, 1999

Certified Mail - Return Receipt Requested - Z409704385

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

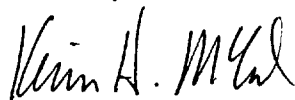
RE: Application for Authorization to Inject
Robert L. Bayless, Producer LLC
SWD #4
1125' FNL and 1580' FEL (NWNE)
Section 33, T30N R13W
San Juan County, New Mexico

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. Robert L. Bayless, Producer LLC 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 SWD #4. A copy of our application to the New Mexico Oil Conservation Division is attached.

If you have any questions regarding this application, please contact me at the address given on the letterhead 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, New Mexico 87504-2088.

Sincerely,



Kevin H. McCord
Petroleum Engineer

Encl.

ROBERT L. BAYLESS, PRODUCER LLC

OIL & GAS PRODUCER

P. O. Box 168

FARMINGTON, NM 87499

FAX NO.
(505) 326-6911

OFFICE NO.
(505) 326-2659

May 26, 1999

Certified Mail - Return Receipt Requested - Z409704386

Dugan Production Corp
P.O. Box 420
Farmington, New Mexico 87499

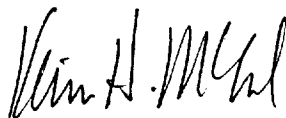
RE: Application for Authorization to Inject
Robert L. Bayless, Producer LLC
SWD #4
1125' FNL and 1580' FEL (NWNE)
Section 33, T30N R13W
San Juan County, New Mexico

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. Robert L. Bayless, Producer LLC 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 SWD #4. A copy of our application to the New Mexico Oil Conservation Division is attached.

If you have any questions regarding this application, please contact me at the address given on the letterhead 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, New Mexico 87504-2088.

Sincerely,



Kevin H. McCord
Petroleum Engineer

Encl.

ROBERT L. BAYLESS, PRODUCER LLC

OIL & GAS PRODUCER

P. O. Box 168
FARMINGTON, NM 87499

FAX NO.
(505) 326-6911

OFFICE NO.
(505) 326-2659

May 26, 1999

Certified Mail – Return Receipt Requested – Z409704387

Energen Resources
2198 Bloomfield Highway
Farmington, New Mexico 87401

RE: Application for Authorization to Inject
Robert L. Bayless, Producer LLC
SWD #4
1125' FNL and 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. Robert L. Bayless, Producer LLC 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 SWD #4. A copy of our application to the New Mexico Oil Conservation Division is attached.

If you have any questions regarding this application, please contact me at the address given on the letterhead 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, New Mexico 87504-2088.

Sincerely,



Kevin H. McCord
Petroleum Engineer

Encl.

AFFIDAVIT OF PUBLICATION

No. 41243

COPY OF PUBLICATION

STATE OF NEW MEXICO

County of San Juan:

ALETHIA ROTH LISBERGER, being duly sworn says: That she is the Classified 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 meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico for publication on the following day(s):

Wednesday, May 26, 1999

and the cost of publication is: \$25.39

Alethia Rothlisberger

On 5-26-99 ALETHIA ROTH LISBERGER

appeared before me, whom I know personally to be the person who signed the above document.

Christine L. Dwyer
My Commission Expires May 3, 2003.

LEGAL NOTICE INTENT TO DISPOSE OF PRODUCE WATER IN THE SUBSURFACE

Robert L. Bayless, Producer LLC is requesting approval to reenter, the former Meridian Oil Company McCord #10 well and complete it as a water disposal well. The well will be renamed the SWD No. 4. This well is located 1125' FNL and 1580' FEL (NWNE) of Section 33, T30N R13W, San Juan County, New Mexico. The proposed injection zone is in the Mesa Verde Group in the Point Lookout formation at 3830 to 3845'. The proposed average injection rate is 300 BWPD and the proposed maximum injection rate is 500 BWPD. The proposed maximum anticipated injection pressure is 1000 psi. Any questions regarding this notice should be addressed to Kevin McCord with Robert L. Bayless, Producer LLC at PO Box 168, Farmington, NM 87499, or can be discussed by calling (505) 326-2659 during business hours. Interested parties must file objections or request a hearing with the New Mexico Oil Conservation Division, PO Box 2088, Santa Fe, NM 87504-2088 within 15 days.

Legal-No. 41243, published in The Daily Times, Wednesday, May 26, 1999.

Ashley, Mark

From: Busch, Ernie
Sent: Tuesday, July 13, 1999 3:15 PM
To: Ashley, Mark
Subject: FW: Robert L Bayless, Producer LLC SWD #4
Importance: High

-----Original Message-----

From: Busch, Ernie
Sent: Monday, June 14, 1999 1:55 PM
To: Stone, Ben
Cc: Perrin, Charlie; Martin, William
Subject: Robert L Bayless, Producer LLC SWD #4
Importance: High

Robert L Bayless, Producer LLC SWD #4
1125' FNL; 1580' FEL
33-30N-13W
SWD Application
Recommend: Approval