

SWD 7/14/00  
78)

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose:  Secondary Recovery  Pressure Maintenance  Disposal  Storage  
Application qualifies for administrative approval?  yes  no

II. Operator: Merrion Oil & Gas Corporation

Address: 610 Reilly Avenue, Farmington, NM 87401

Contact party: Connie Dinning Phone: 327-9801 x 126

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 NA  
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.

JUN 29 2000

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: Connie S. Dinning Title Engineer

Signature: [Signature] Date: June 1, 2000

\* 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.

### 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 footacre 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 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, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

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

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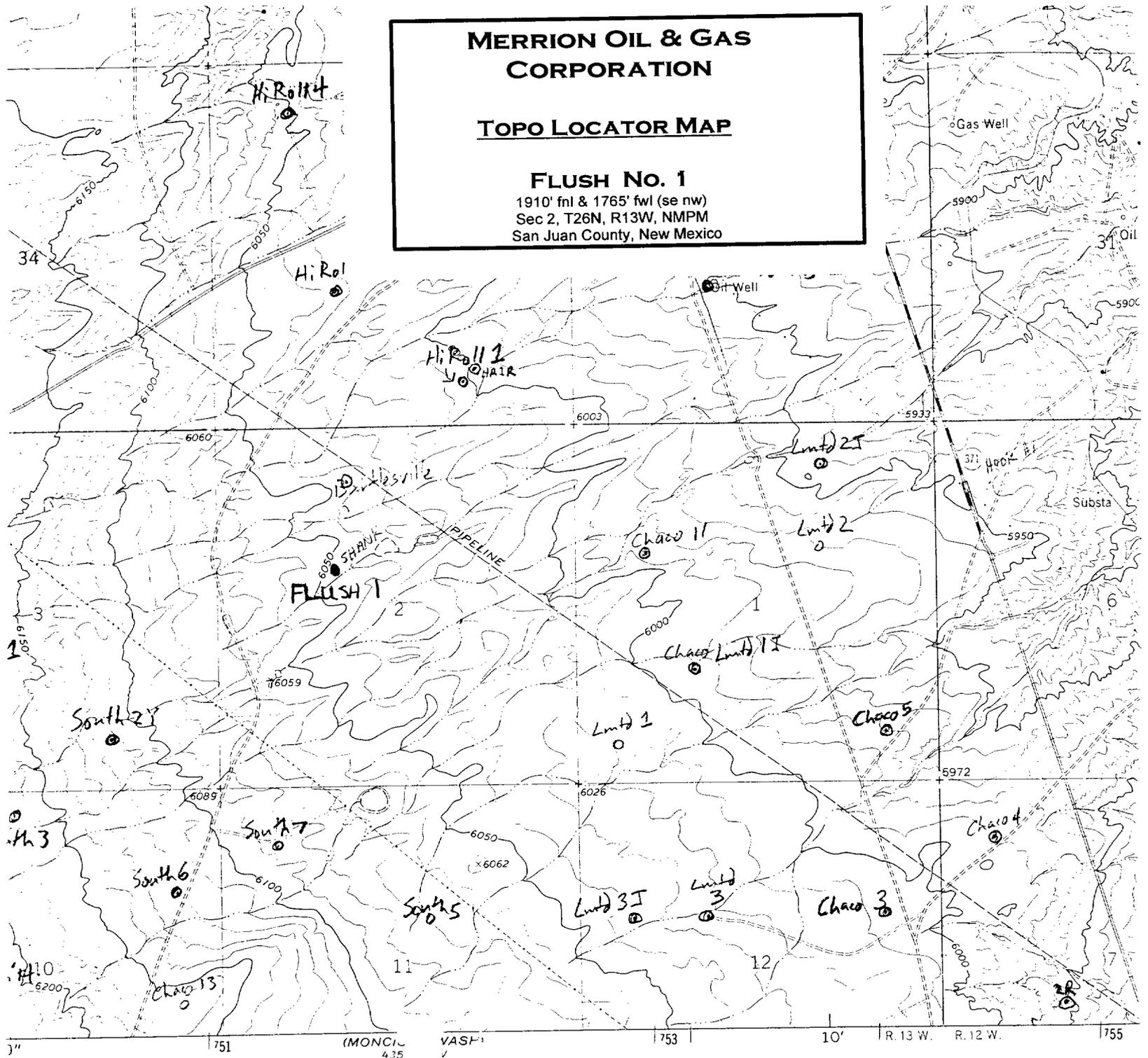
NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

# MERRION OIL & GAS CORPORATION

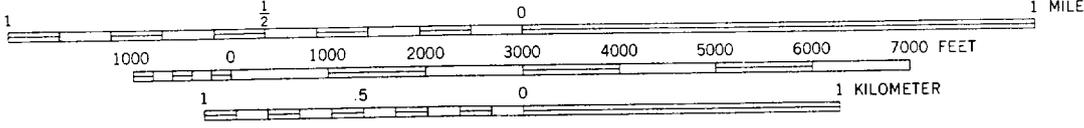
## TOPO LOCATOR MAP

### FLUSH NO. 1

1910' fnl & 1765' fwl (se nw)  
Sec 2, T26N, R13W, NMPM  
San Juan County, New Mexico



SCALE 1:24 000



CONTOUR INTERVAL 10 FEET  
NATIONAL GEODETIC VERTICAL DATUM OF 1929



QUADRANGLE LOCATION

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

30-045-30271

Flush No. 1, New Drill, Salt Water Disposal Well					
<b>III. Well Data</b>					
A.					
1)	<b>Well :</b> Flush #1	<b>Location:</b> 1910' fnl & 1765' fwl, Sec 2, T26N, R13W San Juan County, New Mexico			
2)	<b>Casing:</b>				
	<i>Size</i>	<i>Depth Set</i>	<i>Hole Size</i>	<i>Cement</i>	<i>TOC</i>
	10 3/4"	280'	12 1/4"	88 sx	Circulate
	7"	3950'	8 7/8"	491 sx	Circulate
3)	<b>Tubing:</b>	3 1/2", 9.3#, EUE, Set @ approximately 2,000' KB, plastic lined			
4)	<b>Packer:</b>	Baker Lok Set (or equivalent), Retrievable Casing Packer Set @ approximately 2,000' KB			
B.					
1)	<b>Name of Pool/Formation:</b>	Undesignated Mesaverde			
2)	<b>Injection Interval:</b>	2110' - 3900', perforated w/ 0.34" shots, to be chosen after logging			
3)	<b>Original Purpose of Well:</b>	New Drill as SWD			
4)	<b>No other perforations in the well</b>				
5)	<b>The Fruitland Coal is productive in the area. The Mesaverde is about 1000' below the Coal we do not anticipate communication. There are a few Gallup producers to the northeast, but the Gallup is about 1000' below the injection interval and we do not anticipate communication.</b>				

# Merrion Oil & Gas Corporation

## Wellbore Schematic

Flush No. 1, SWD

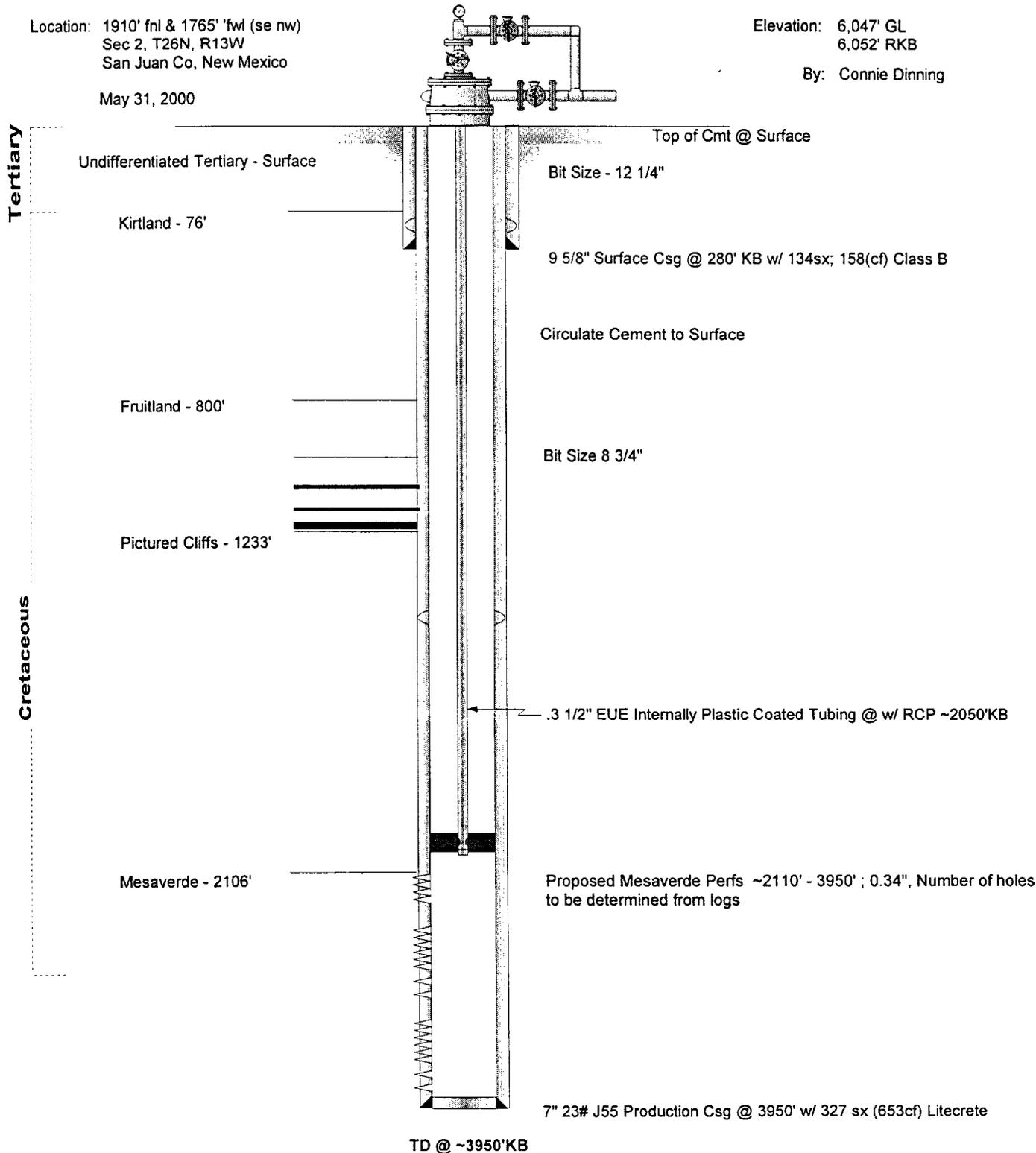
Proposed Wellbore Configuration

Location: 1910' fnl & 1765' 'fwl (se nw)  
Sec 2, T26N, R13W  
San Juan Co, New Mexico

Elevation: 6,047' GL  
6,052' RKB

By: Connie Dinning

May 31, 2000



APPLICATION FOR AUTHORIZATION TO INJECT, SECTION VI

<b>Flush No. 1, New Drill, Salt Water Disposal Well</b>			
<b>Wells Within Area of Notification</b>			
<i>The three well listed below are within a one half mile radius of the subject well.</i>			
<i>Copies of this permit application will be sent to these operators.</i>			
<i>These three wells do not penetrate the proposed injection formation.</i>			
<b>Well Name</b>	<b>Operator</b>	<b>TD</b>	
Bartlesville No.1	J.K Edwards	1350'	
Shank Com No. 1	Merrion Oil & Gas	1385'	
Kingfish Com No. 1	Dugan Production	1420'	
<i>Note: This well is permitted, but has not been drilled to date.</i>			

**MERRION OIL & GAS CORPORATION**

**OFFSET OPERATOR MAP**

**FLUSH No. 1**  
 1910' fml & 1785' fwl (se nw)  
 Sec 2, T26N, R13W, NMPM  
 San Juan County, New Mexico

28

2

DUGAN

WEBB

WEE

BL CO

EL PASO P

MCHUG

DUGAN

DUGAN PRODUCTION CORP

DUGAN

.TTY

EL PASO P

DUGAN PRODUCTION CORP

MERRION

DUGAN PRODUCTION CORP  
 MCHUG

DUGAN

33

34

35

DUGAN

WEBB

MERRION

MERRION



DUGAN

MERRION OIL & GAS CORP

MERRION

MERRION



EDWARDS

DUGAN PRODUCTION CORP

EDWARDS

DIETRICH

DUGAN PRODUCTION CORP

MERRION OIL & GAS CORP

MERRION ME

4

COAL CREEK OIL CO

3

2

DOME PETROLEUM CORP

MERRION

MERRION & BAYLESS

DIETRICH EXPL CO INC MERRION

OIL & GAS CORP

S G INTERESTS I LTD

MERRION

COLEMAN O

MERRION

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9

MERRION 10

11

MERRION PRODUCTION CORP



MERIDIAN OIL INC

DUGAN



S G INTERESTS I LTD

DUGAN PRODUCTION CORP

EDWARDS

DUGAN



MERRION

APPLICATION FOR AUTHORIZATION TO INJECT, SECTION VI

<b>Flush No. 1, New Drill, Salt Water Disposal Well</b>					
<b>Wells Within Area of Review</b>					
<b>Well Data</b>					
There are no wells within the area of review which penetrate the subject formation.					



APPLICATION FOR AUTHORIZATION TO INJECT

<b>Flush #1, New Drill, Salt Water Disposal Well</b>			
<b>VII. Operational Data</b>			
1)	<b>Ave Rate:</b>	2.75 - 3 BPM	<b>Daily Rate:</b> 4000 bpd (max)
2)	<b>Open System</b>		
3)	<b>Ave. Pressure:</b>	1800 psi	<b>Max Pressure:</b> 2000 psi
4)	<b>Injection water is produced from Fruitland Coal (Analysis attached)</b>		
5)	<b>Formation water salinity, gathered from Burlington Resources Study of Rw values. In this area the Mesaverde Rw is 0.2 ohms. This translates to about 25,000 ppm TDS.</b>		
<b>VIII. Geological Data</b>			
	<b>Injection Zone:</b>	Mesaverde	
	<b>Thickness:</b>	approx. = 1800'	
	<b>Top:</b>	+/- 2106' KB	
<b>IX. Stimulation Program</b>			
The well will be fractured with slick water and about 100,000# of 20/40 sand to improve conductivity. (completion procedure/stimulation will be designed after drilling)			
<b>X. Logging and Test Data</b>			
All offset logs are on file with the OCD office in Aztec Gamma Ray, Porosity and Induction logs will be run to locate the injection zone.			
<b>XI. Fresh Water Analysis</b>			
There are no known water zones <10,000 ppm in the area of review except the formation from which the water is produced.			
<b>XII. Engineering and Geology Review to Protect Fresh Water</b>			
According to engineering and geological review, there are no known formations in the area of review below the Mesaverde which contain water with < 10,000 ppm TDS. The Fruitland Coal produces water that has a TDS of about 20000 ppm. It is 1000' above the Mesaverde, and it is a producing gas zone. There is no reason to believe the injected water would migrate back up to the coal zone however if it did, it would be returning to its point of origin. According to logs in the area, the Rw of the Mesaverde is about 0.2 ohms, this translates to almost 25,000 ppm TDS. There are no domestic water wells in the area of review, according to the local State Engineer's Office.			

**AFFIDAVIT OF PUBLICATION**

**Ad No. 42814**

**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 meeting of Chapter 167 of the 1937 Session Laws of the State of New Mexico for publication on the following day(s):

Sunday, May 21, 2000

And the cost of the publication is: \$22.72

Alethia Rothlisberger

ON 6/15/2000 ALETHIA ROTH LISBERGER appeared before me, whom I know personally to be the person who signed the above document.

Darcey L. Slade  
My Commission Expires April 10, 2004

**COPY OF PUBLICATION**

918 Legals  
**PUBLIC NOTICE**

Merrion Oil & Gas  
610 Reilly Avenue  
Farmington, NM 87401  
Attention: Connie Dinning

Merrion Oil & Gas proposes to drill a new water injection well to dispose of produced water from the Fruitland Coal formation.

Injection Well Location: 1910' Int'l & 1770' Int'l, Section 2, T26N, R13W, San Juan County, New Mexico

Injection Formation:  
Mesaverde  
Depth of Injection Zone:  
3815'  
Maximum Pressure:  
1000 psi.  
Maximum Rate:  
2000 bpd

Interested parties must file objections or request for hearing with the Oil Conservation Division, 2040 S. Pacheco St., Santa Fe, New Mexico 87505 within 15 days of this notice.

Legal No. 42814 published in the Daily Times, Farmington, New Mexico, Sunday, May 21, 2000.

**ILLEGIBLE**

# MERRION

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Oil & Gas

July 13, 2000

Mr. Ben Stone  
New Mexico Oil Conservation Division  
2040 S. Pacheco  
Santa Fe, NM 87505

RE: C-108 Injection Permit Application  
Flush No. 1  
Section 2, T26N, R13W  
San Juan County, New Mexico

Dear Mr. Stone

Please find enclosed the return receipts from the mailings of copies of our Application for Authorization to inject into the subject well. These were mailed to offset operators and the State Land Office (as surface owner). If you need anything further, please contact me at (505) 327-9801 ext. 126.

Sincerely

  
Connie Dinning, Engineer

xc: Well File

Is your RETURN ADDRESS completed on the reverse side?

**SENDER:**

- Complete items 1 and/or 2 for additional services. Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- 1.  Addressee's Address
- 2.  Restricted Delivery



3. Article Addressed to:  
 Edwards Energy Corp.  
 1401 17th St., Suite 1400  
 Denver, CO 80202

4a. Article Number  
 Z 387 669 870

4b. Service Type  
 Registered  Certified  
 Express Mail  Insured  
 Return Receipt for Merchandise  COD

7. Date of Delivery

5. Received By: (Print Name)  
 Feldman

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Addressee or Agent)

Thank you for using Return Receipt Service.

Is your RETURN ADDRESS completed on the reverse side?

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- 1.  Addressee's Address
- 2.  Restricted Delivery

3. Article Addressed to:  
 Dugan Production  
 P.O. Box 420  
 Farmington, NM  
 87499-0420

4a. Article Number  
 Z 387 669 869

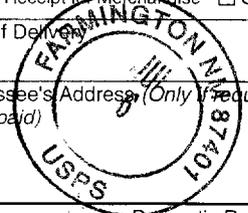
4b. Service Type  
 Registered  Certified  
 Express Mail  Insured  
 Return Receipt for Merchandise  COD

7. Date of Delivery

5. Received By: (Print Name)  
 Clinton Bell

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Addressee or Agent)



Thank you for using Return Receipt Service.

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- 1.  Addressee's Address
- 2.  Restricted Delivery

3. Article Addressed to:  
 State Land Office  
 Commercial Resources Div.  
 Attn: Joseph Lopez  
 PO Box 11148  
 Santa Fe, NM 87504

4a. Article Number  
 Z 186 735 481

4b. Service Type  
 Registered  Certified  
 Express Mail  Insured  
 Return Receipt for Merchandise  COD

7. Date of Delivery

5. Received By: (Print Name)  
 [Signature]

8. Addressee's Address (Only if requested and fee is paid)

6. Signature (Addressee or Agent)

Thank you for using Return Receipt Service.