



# TREND EXPLORATION LIMITED

Seventeenth Street Plaza - Suite 2000  
1225 -17th Street  
Denver, Colorado 80202

October 18, 1985



00213162

OCT 18 1985

COLORADO OIL & GAS CONS. COM.

(303) 298-9595  
Telex 45670

State of Colorado  
Oil and Gas Commission  
1580 Logan Street, Suite 380  
Denver, Colorado 80203

Attn: Ed DiMatteo

Re: State #2-16, SWD Application  
NE/4 Sec. 16-T6N-R90W  
Moffatt County, Colorado

Dear Mr. DiMatteo:

Please withdraw the above-referenced saltwater disposal application submitted on September 11, 1985. Also, please cancel the hearing scheduled for Monday, October 21, 1985.

This will serve as a follow-up to the phone conversation of October 16, 1985 which formally requested the cancellations.

Thank you for your assistance in this matter.

Cordially,  
TREND EXPLORATION LIMITED

Jean M. Muse  
Production Supervisor

JMM/jm

*new address  
Adobe Resources - Trend Division  
1100 Western United Life Bldg  
Midland Texas 79701*

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SEP 27 1985

COLO. OIL & GAS CONS. COMM.

State of Colorado  
Oil & Gas Commission  
Suite 380, 1580 Logan Street  
Denver, Colorado 80203

Re: State #2-16  
Moffat County, Colorado

Dear Sirs,

This letter is to notify you that I strongly protest the completion of the well in Section 16 Township 6 North Range 90 in Moffat County, Colorado by Trend Exploration Limited for use as a saltwater disposal unit.

There are several springs in this same area where seven different families get the water for their homes. I strongly believe that no one can guarantee these people that their water supplies are not in jeopardy.

I do not believe in doing anything that might damage another person or their property and I will do all I possibly can to prevent this disposal unit.

Sincerely,

*Mike Voloshin*

Mike Voloshin  
P. O. Box 981  
Craig, Colorado 81626  
Ph. 824-6284

*Back Page  
103*

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COLO. OIL & GAS CONS. COMM.

John F. Ashbaugh  
Box 398  
Craig, Co, 81626  
9-26-85

Bill Smith  
State of Co Oil and Gas Comm.  
Suite 380  
1580 Logan St.  
Denver, Co. 80203

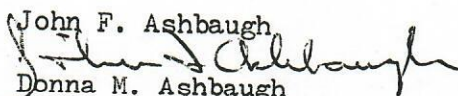
Dear Mr. Smith:

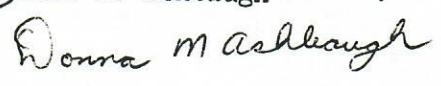
We are writting this letter in protest of Trend Exploration Limited plans to complete State Well # 2-16 located in Sec 16, T 6N, R 90W, as a salt water disposal unit.

Our reason for this protest is that we are concerned about the possibility of salt water being pumped into this well and getting intermixed into our water supply. We have an excellent spring located approximately one mile NorthEast of this well located in Sec 10, T 6N, R 90W. Enclosed is a copy of a Quad Map for your convenience to show the close approximation of our spring and State Well # 2-16.

Sincerely,

John F. Ashbaugh

  
Donna M. Ashbaugh

  
Donna M Ashbaugh







## DISPOSAL APPLICATION REVIEW

Operator Trend ExplorationField Buck PeakDate Received Sept 11, 1985Well State 2-16

☒ Plat - all wells within  $\frac{1}{4}$  mi.  
☐ 0 Water wells in area \_\_\_\_\_ Depth  
☐ List of owners and surface owners  
☐ Notice to landowners and offsets  
☒ Electric logs submitted run OCT 22, 1984  
☒ Bond Log will run Cement top \_\_\_\_\_  
☐ Injection Zone Morapos  
☐ Water Quality Injection zone \_\_\_\_\_ TDS  
☐ Source and Injection Water Quality  
 Well Name \_\_\_\_\_ Formation \_\_\_\_\_ TDS  
Noland #1 Niobrara 41,524 mg/l

☒ Maximum per day injected 1000 Minimum per day injected 300  
☒ Anticipated injection pressure 700 - 1200 PSI  
☒ Frac gradient or pressure .7 Set max surface injection pressure @ 1250 PSI  
 Completion Type:  
☒ tubing-packer \_\_\_\_\_ dual completion\* \_\_\_\_\_ casing disposal  
 \* \_\_\_\_\_ disposes down tubing - produces up casing  
 \* \_\_\_\_\_ disposes down casing - produces up tubing  
 \* \_\_\_\_\_ two tubing strings  
☒ Injected thru: ☒ perforations \_\_\_\_\_ open hole  
☒ Stimulation Program \_\_\_\_\_ frac \_\_\_\_\_ acid ☒ none  
☐ Casing Pressure Test tested to will test to 1000 psi  
☐ Form 4 requesting approval  
☐ Copy of application delivered to CDWR Date \_\_\_\_\_  
 WELL BORE DATA ON REVERSE SIDE

Application needs the following for approval:

\_\_\_\_\_ CBL or Logs  
 \_\_\_\_\_ Form 4  
☒ Water analysis (formation)  
 \_\_\_\_\_ Water analysis (injection)  
 \_\_\_\_\_ Other on the plat, didn't specify who the mineral &  
 \_\_\_\_\_ Other surface owners are in Sec. 9, need to specify  
Source Wells, unclear as to tubing - revise Schematic  
showing tubing & packer, need surface schematic  
Need form 5, they say inj interval from 4430-4700 yet perf record

\_\_\_\_\_ CDWR review need to address line why not cemented, plug back liner perfect bridge plus?  
need log showing interval from 6460 to TD (8400?)



## WELL BORE DATA

	Size	Depth	Cemented with
Surface casing	9 5/8	442	95 sxs
Intermediate casing			sxs
Production casing	7"	6838	135 sxs
Liner	4 1/2	top 6560 btm 8175	none sxs
Tubing			
Packer set at		4350	
Perforations	4432 to 4500	4460 to 4518	
PBTD			
TD			

## Formation Record

Formation Name

Top

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins or other markings visible.





## TREND EXPLORATION LIMITED

Seventeenth Street Plaza - Suite 2000  
1225 - 17th Street  
Denver, Colorado 80202

RECEIVED  
SEP 11 1985  
(303) 298-9595  
COLO. OIL & GAS 45670  
CONS. COMM.

September 9, 1985

State of Colorado  
Oil and Gas Commission  
1580 Logan Street, Suite 380  
Denver, Colorado 80203

Attn: Ed DiMatteo

Re: State #2-16  
Moffat County, CO

Dear Mr. DiMatteo:

Attached is our application for authorization to dispose of fluids in the Trend State #2-16 well. The well is located in the NE/4 of Sec. 16-T6N-R90W, Moffatt County, Colorado.

You will find the following attachments to complete our application:

1. Location plat with the location of all oil, gas, abandoned, and dry holes of public record. This plat will also show domestic and irrigation wells within one-quarter mile radius.
2. The name, description and depth of the formation into which the water is to be injected.
3. Dual induction log.
4. Description of casing, schematic drawing, and description of the proposed or cement jobs already in place.
5. A statement specifying the source water to be injected and an analysis of this water.
6. Estimated quantities of daily injection and anticipated injection pressure.
7. Names and addresses of persons notified by certified mail of the planned operations and a copy of the letter.
8. Salt water conversion procedures.



Page 2  
State of Colorado  
Salt Water Disposal Application

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9. Geological paper on Buck Peak by Kenneth F. Cummings.

I trust this information will be sufficient, but if not, please do not hesitate to contact me.

Cordially,  
TREND EXPLORATION LIMITED



Richard D. Griffis  
Petroleum Engineer

RDG/jmm

attachments



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COLORADO OIL & GAS COM.

STATE 2-16

Disposal Application

Item A-1

Attached is a plat showing location of disposal well and the location of all oil and gas wells, abandoned wells and dry holes of public record and names of owners of public record including surface owners within one-quarter mile of proposed disposal well. This plat also shows location and depth of domestic and irrigation wells of public record within one-quarter mile of proposed disposal well and a copy of plans and specifications for the system and its appurtenances.

Item A-2

The proposed injection interval is from 4,430' to 4,700' KB, as seen on the attached Gearhart Dual Induction Laterolog dated 10/22/84. This is the Morapos member of the Mancos shale. See the attached paper "Buck Peak Field, Moffat County, Colorado" by Kenneth F. Cummings for geological description of the Morapos zone and stratigraphic description for the area.

Item A-3

As mentioned in Item A-2, a Gearhart Dual Induction Laterolog is attached.

A bond log shall be run over this interval, as outlined in the planned remedial work prognosis.



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Item A-4

Well Bore Description:

0 - 446'	12 1/4" hole
446' - 6,838'	8 3/4" hole
6,838' - 8,191'	6 1/8" hole

Casing Program:

0 - 442'	9 5/8" 36# J-55 ST&C
0 - 6,838'	7" 23# N-80 ST&C
0 - 8,175'	4 1/2" 11.6# K-55 LT&C

Cement Program:

9 5/8" - cemented with 15 bbls preflush 95 sxs pacesetter  
lite + 6% gel, 10#/sx Hi-Seal, 3% CaCl<sub>2</sub>.

7" - cemented with 135 sxs TXI liteweight + 10#/sx Hi-  
Seal + 5% CF<sub>2</sub>.

4 1/2" - liner not cemented.

Item A-5

The water to be disposed of in this well will be from the Niobrara formation. Trend operates 5 producing wells in Craig airport area, all produce from the Niobrara. The Noland #1 will be the primary source with  $\pm$  300 BWPD. Attached is a water analysis for this well.

Also analysis are included from the fluids in the State 2-16 reserve pit, as we plan to pump this pit and then restore the pit.

Is this permitted?

Item A-6

At this time, no stimulation is planned. Once the Morapos zone has been perforated an injectivity test will be run. Stimulation requirements will be based on the results of the test.



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Item A-7

The injection rates should range between 300 - 1,000 BWPB. The anticipated injection pressure is 700 psig with a maximum surface injection pressure of 1,200 psig. The zone is predicted to have a normal fracture gradient of .7 psi/ft or a fracturing pressure of 3,100 psi.



R 90 W

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5

4

8

TREND  
○<sub>1</sub>

9

10

T  
6  
N

TREND  
○<sub>1</sub>

TREND  
State  
● 2-16  
T.D. 8191'

M. Voloshin  
○  
T.D. 196'

TREND  
●  
1-16

17

16  
M. Voloshin  
○  
T.D. 110'

15

TREND  
●<sub>1</sub>

M. Voloshin  
○  
T.D. 190'

VANGUARD  
○<sub>1</sub>

TREND  
●<sub>1</sub>

SECTION 16, TOWNSHIP 6 NORTH, RANGE 90 WEST  
MOFFAT COUNTY, COLORADO

SURFACE OWNERS OF RECORD:  
MIKE & CHARLES VOLOSHIN  
CRAIG, COLORADO

MINERAL OWNER OF RECORD:  
THE STATE OF COLORADO

PROPOSED STATE  
No. 2-16  
INJECTION PLAT

# BUCK PEAK FIELD, MOFFAT COUNTY, COLORADO

Kenneth F. Cummings  
Malco Refineries, Inc., Denver, Colorado

## LOCATION

The Buck Peak oil field is located on the southeast end of the Breeze anticlinal trend in T. 6 N., R. 90 W., Moffat County, Colorado. The field is seven miles southeast of the town of Craig, Colorado, the county seat of Moffat County.

Surface elevations range from 7100 feet to 7900 feet.

The structure is located on the south end of the Washakie basin, locally referred to as the Sand Wash basin.

## HISTORY

The Breeze anticlinal trend has been mapped and referred to in published material for some time. Three separate closures are located on this trend, namely Craig dome on the northwest end of the structure, Breeze dome, and Buck Peak on the southeast end. The most recent publication which refers to the Buck Peak anticline is USGS Bulletin 1027-D, "Geology and Mineral Fuels of parts of Routt and Moffat Counties, Colorado," by Bass, Eby and Campbell.

The Ohio Oil Company discovered gas on Craig Dome in 1932. The well located in sec. 9, T. 6 N., R. 91 W., was completed for eleven million cubic feet gas per day from a sand in the upper part of the Mancos formation. The field was abandoned in 1940. Continental Oil Company has recently drilled two wells on the structure. Shows were reported in the Niobrara formation. One well, the No. 1 Yost in sec. 10, T. 6 N., R. 91 W., was plugged and abandoned after the casing collapsed. The most recent well, the No. 1 Eberle, sec. 9, T. 6 N., R. 91 W., was plugged and abandoned after repeated production tests failed to establish commercial production in the Niobrara.

The original well on Buck Peak was spudded on August 16, 1956. This well, the Malco Refineries, Inc., No. 1 Charles Kowach located in the NW NW sec. 25, T. 6 N., R. 90 W., was a discovery in the following zones:

1. Trout Creek Sand—gas at 1850 feet.
2. Morapos Sand—gas at 3972 feet.
3. Buck Peak-Niobrara fractured shale interval—oil at 6390 feet.
4. Shinarump—oil at 9292 feet.
5. Weber—oil at 10,074 feet.

The well was originally completed in the Shinarump which rapidly went to water. During the summer of 1957, the No. 1 Kowach was deepened from 9501 feet in the Moenkopi to 10,200 feet and completed as a flowing oil

well from the Weber. Water inroached rapidly and the well was plugged back to the Buck Peak-Niobrara fractured shale interval. The No. 1 Kowach is currently producing from this interval.

To date four oil wells have been completed in the Buck Peak-Niobrara interval and one well is in the process of completion.

One dry hole has been drilled through the Niobrara and one well was plugged and abandoned after penetrating the Morapos sand.

Development of the fractured shale reservoir is on 80-acre spacing.

## STRUCTURE

The Buck Peak anticline is a separate closure on the southeast end of the Breeze Anticlinal trend. From stratigraphic test information it was found that a graben existed which trends in the NW-SE direction. This graben is shown on the accompanying structural map.

Undoubtedly many other faults exist that have not yet been mapped in the subsurface. With continued development drilling, some of these obscure faults may be uncovered.

The highest structurally producing well on Buck Peak is the No. 2 Kowach in the SE NW sec. 25, T. 6 N., R. 90 W. The lowest structural well drilled to date is the No. 1 Paulovich in the NW SW sec. 24, T. 6 N., R. 90 W. This well is in the process of being completed.

## STRATIGRAPHY

Surface beds are mainly the Williams Fork formation of the Mesaverde group (Cretaceous). In one locality, approximately one-half mile south of the No. 1 Kowach, there is a small exposure of possible Lewis shale. Many boulders of Tertiary basalt are scattered over the structure. Surface exposures are sparse and vegetation is heavy.

Listed below is the generalized lithology and thickness of beds as taken from the No. 1 Kowach NW NW sec. 25, T. 6 N., R. 90 W.

The Buck Peak zone as referred to in this report is an electric log correlation interval immediately above the Niobrara member of the Mancos shale. This zone has been previously reported to the scouting services as the Tow Creek zone. This is a misnomer since the Tow Creek is the basal sand member of the Mesaverde group. As such, the writer wishes to correct this mistake and refer to this mapping horizon and electric log interval from now on as the Buck Peak zone.







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System	Formation	Thickness No. 1 Kowach	Depth No. 1 Kowach	Character
Cretaceous	Williams Fork	1682	Surface to 1682	Sandstones, shales and numerous coal beds.
	Iles	1348	1682-3030	Sandstones, shales and few thin coal beds. Trout Creek sand member at top carries gas.
	Mancos	4760	3030-7790	Shale, dark gray to black, marine, carbonaceous in part, calcareous. Sand lenses in upper 1000 feet.
	Morapos member	152	3932-4084	Sandstone, gray-white, medium- to coarse-grained, glauconitic, carries gas. Locally developed in three benches.
	Buck Peak zone	289	6356-6645	Shale, gray-black, carbonaceous, slightly calcareous. Beginning of productive zone. Calcite crystals with inter-crystalline porosity holding fractures open, containing oil. Produces oil.
	Niobrara	905	6645-7550	Shale, gray-black, carbonaceous, more calcareous, speckled. Fractured, with calcite and aragonite crystals. Fractures contain oil. Few thin zones of limestone. Produces oil.
	Carlile	240	7550-7790	Shale, gray-black, carbonaceous, slightly calcareous.
	Frontier	110	7790-7900	Sandstone, gray-white, fine- to medium-grained, micaceous, very calcareous with interbedded shales and siltstones.
	Mowry	343	7900-8243	Shale, gray-black, very slightly calcareous, bentonitic.
	Dakota	65	8243-8308	Sandstone, white, fine- to medium-grained, fair sorting.
	Fuson	30	8308-8338	Shale, gray-green, waxy appearance, hard siliceous.
	Lakota	54	8338-8392	Sandstone, white, medium- to coarse-grained. Abundant chert.
	Morrison	384	8392-8776	Varicolored, gray-green, red-brown, shales, buff to white sands, and limestones.
	Curtis	56	8776-8832	Sandstone, white, with green tint, medium-grained, calcareous, glauconitic.
Jurassic	Entrada	116	8832-8948	Sandstone, white, fine- to medium-grained, well sorted, slightly friable to hard.
	Chinle	344	8948-9292	Siltstone, red-brown, slightly calcareous, micaceous in part.
	Shinarump	68	9292-9360	Sandstone, conglomerate, with dead oil stain. Two benches separated by purple and red-brown shale. Produced oil for short time.
Triassic	Moenkopi	587	9360-9947	Siltstone and shale, red-brown, micaceous, with thin red sand lenses and some sucrosic gypsum.
	Phosphoria	127	9947-10074	Dolomite, dark gray, sandy, dense, with white crystalline anhydrite inclusions. Some sandstone, siltstone and shale.
Permian				
Pennsylvanian	Weber	?	10074-?	Sandstone, gray-gray white, fine- to medium-grained, poorly sorted, dolomitic, fractured and gray-green siliceous, dolomitic shale. Produced oil for short period.



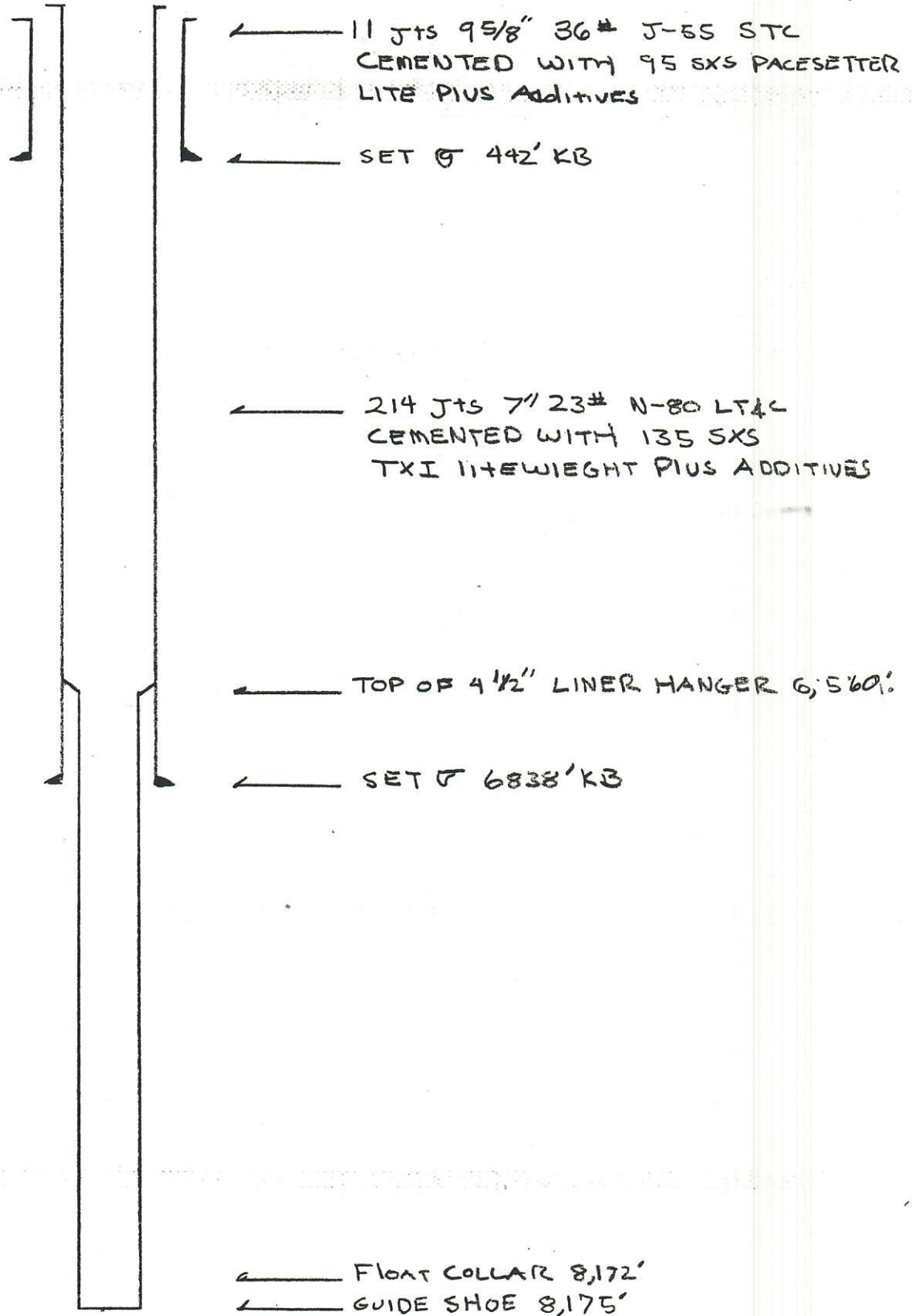
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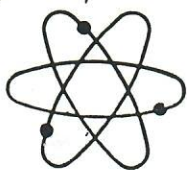
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COLORADO OIL & GAS CONS. COMM.

TD 600' FNL & 1150' FWL NE/4  
SEC. 16 T6N-R90W

TREND STATE 2-16  
BUCK PEAK FIELD  
MOFFAT COUNTY  
COLORADO





# Technology Laboratory, Inc.

Evanston, Wyoming  
789-1157

Techni-Lab

Casper, Wyoming  
266-4683

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COLO. OIL & GAS CONS. COMM.

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AUG 29 1985

PRODUCTION DEPT.

## WATER ANALYSIS REPORT

Company: TREND EXPLORATION  
Attention: MR. RICHARD GRIFFIS  
State: COLORADO  
Field: BUCK PEAK  
Lease:  
Sample Point: PIT MUD

Date Received: 8/23/85  
Date Sampled:  
County: MOFFAT  
Formation:  
Well number: STATE 2-16  
Lab Number: 858-1E

### DISSOLVED SOLIDS

#### CATIONS mg/L

Sodium, Na 1000  
Potassium, K 116  
Calcium, Ca 79  
Magnesium, Mg 3

### OTHER PROPERTIES

pH 8.56  
Resistivity (ohm-meters) 68F .29

### ANIONS

Sulfate, SO4 750  
Chloride, Cl 586  
Carbonate, CO3 36  
Bicarbonate, HCO3 573

Total dissolved solids 2853

### WATER PATTERN - me/l

#### LOGARITHMIC

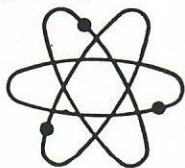
Na			*			*			Cl
Ca				*		*			HCO3
Mg					*	*			SO4
Fe					*				CO3

### REMARKS & RECOMMENDATIONS:

cc: MR. DALE GRIFFIN

*Carey Madding*  
TECHNOLOGY LABORATORY, INC.





# Technology Laboratory, Inc.

Evanston, Wyoming  
789-1157

Techni-Lab

Casper, Wyoming  
266-4683

RECEIVED

SEP 11 1985

COLO. OIL & GAS CONS. COMM.

## WATER ANALYSIS REPORT

Company: TREND EXPLORATION  
Attention: MR. RICHARD GRIFFIS  
State: COLORADO  
Field: BUCK PEAK  
Lease:  
Sample Point: PIT WATER

Date Received: 8/23/85  
Date Sampled:  
County: MOFFAT  
Formation:  
Well number: STATE 2-16  
Lab Number: 858-2E

### DISSOLVED SOLIDS

#### CATIONS mg/L

Sodium, Na 1460  
Potassium, K 140  
Calcium, Ca 189  
Magnesium, Mg 43

#### ANIONS

Sulfate, SO<sub>4</sub> 1300  
Chloride, Cl 1076  
Carbonate, CO<sub>3</sub> 30  
Bicarbonate, HCO<sub>3</sub> 878

Total dissolved solids 4671

### OTHER PROPERTIES

pH 8.21  
Resistivity (ohm-meters) 68F 1.90

### WATER PATTERN - me/l

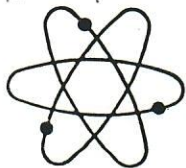
#### LOGARITHMIC

Na			*			*			Cl
Ca				*		*			HCO <sub>3</sub>
Mg				*		*			SO <sub>4</sub>
Fe					*				CO <sub>3</sub>

### REMARKS & RECOMMENDATIONS:

CC: MR. DALE GRIFFIN

*Carey Madding*  
TECHNOLOGY LABORATORY, INC.



# Technology Laboratory, Inc.

Evanston, Wyoming  
789-1157

Techni-Lab

Casper, Wyoming  
266-4683

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SEP 13 1985

COLO. OIL & GAS CONS. COMM.

## WATER ANALYSIS REPORT

Company: TREND EXPLORATION  
Attention: MR. RICHARD GRIFFIS  
State: COLORADO  
Field: BUCK PEAK  
Lease:  
Sample Point: PRODUCED WATER

Date Received: 8/23/85  
Date Sampled:  
County: MOFFAT  
Formation:  
Well number: NOLAND #1  
Lab Number: 858-3E

### DISSOLVED SOLIDS

#### CATIONS

mg/L

Sodium, Na 15000  
Potassium, K 135  
Calcium, Ca 1265  
Magnesium, Mg 167

### OTHER PROPERTIES

pH 6.73  
Resistivity (ohm-meters) 68F .20

#### ANIONS

Sulfate, SO<sub>4</sub> 0  
Chloride, Cl 24698  
Carbonate, CO<sub>3</sub> 0  
Bicarbonate, HCO<sub>3</sub> 525

Total dissolved solids 41524

### WATER PATTERN - me/l

#### LOGARITHMIC

Na	*					*	Cl
Ca		*		*			HCO <sub>3</sub>
Mg		*	*				SO <sub>4</sub>
Fe			*				CO <sub>3</sub>

### REMARKS & RECOMMENDATIONS:

cc: MR. DALE GRIFFIN

*Care Madding*  
TECHNOLOGY LABORATORY, INC.



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STATE 2-16

SEP 11 1985

Moffat County, Colorado

COLORADO OIL & GAS CONS. COMM.

Salt Water Disposal Conversion Prognosis

1. MIRU Service Rig.
2. TOH with 2 3/8", 8rd, 6.5# tubing.
3. Set CIBP at  $\pm$  6,540'. Dump 25 sx cement on top.
4. TOH with tubing.
5. Run CBL/GR from  $\pm$  6,540' to TOC (est. TOC 5,000').
  - a) Determine what if any cement exists across the interval from 4,430' - 4,700'. Take remedial steps required to have cement at least 500' above interval ( $\pm$  3,900').
6. Pressure test casing to 1,000 psig.
7. Perforate 4,432' to 4,460' with 2 JSPF and 4,500' - 4,518' with 2 JSPF.
8. Set retrievable packer at  $\pm$  4,350'. Perform injectivity test. Determine if stimulation is required and perform if necessary.
9. TOH with tubing.
10. Set injection packer at  $\pm$  4,350'. String into tubing. ND BOP, NU wellhead, begin displacing fluid.
11. Release rig.



TREND EXPLORATION LIMITED

Seventeenth Street Plaza - Suite 2000

1225-17th Street

Denver, Colorado 80202

August 22, 1985

REC-1

SEP 11 1985

COLORADO OIL & GAS COMMISSION

(303) 298-9595

Telex 45670

State of Colorado  
Oil & Gas Commission  
Suite 380, 1580 Logan Street  
Denver, Colorado 80203

Mr. Mike Voloshin  
Mr. Charles Voloshin  
Box 981  
Craig, Colorado 81626

Re: State #2-16  
Moffatt County, Colorado

Dear Sirs:

Trend Exploration has previously drilled the above referenced well. Our efforts to complete this as a producing property have failed, and it is now our intention to complete the well as a saltwater disposal unit.

For your information, I have attached a copy of the proposed operation which is required by the Oil and Gas Commission of the State of Colorado and a copy of the following regulations. A public hearing on the authorization of the proposed operation may be required by the Commission. Any person who would be adversely affected or aggrieved by the authorization of an underground disposal operation may request a public hearing on the proposed authorization by filing with the Commission a written request for such a hearing within 15-days after the notice of application has been mailed or delivered in compliance with the rules and regulations for application. The Commission shall hold such a hearing if it finds, based upon such request(s), a significant degree of public interest in a hearing. Such hearings shall be conducted in accord with the requirements of C.R.S. 1973, 34-60-108, as amended.

I trust this information will be sufficient for your needs, at this time, but if not, please contact me at (303) 298-9595 and I will be happy to answer any questions you might have.

Cordially,  
TREND RESOURCES LIMITED

Jean M. Muse  
Production Supervisor

JMM/jm

enclosures



RICHARD D. LAMM  
Governor



JERIS A. DANIELSON  
State Engineer

**OFFICE OF THE STATE ENGINEER**  
DIVISION OF WATER RESOURCES

1313 Sherman Street-Room 818  
Denver, Colorado 80203  
(303) 866-3581

October 2, 1985

RECEIVED  
OCT 7 1985  
COLO. OIL & GAS CONSV. COMM.

Mr. Ed DiMatteo  
Colorado Oil and Gas Conservation Commission  
Logan Tower Building, Room 388  
1580 Logan Street  
Denver, Colorado 80203

Dear Ed:

With respect to an application to convert State #2-16 well in the NE1/4, NE1/4, Section 16, Township 6 North, Range 90 West, Moffat County, to an injection well we have the following comments:

Known and potential aquifers in the area are all surficial deposits, and sandstones of the Williams Fork and Iles Formations. Most of the fresh-water yielding surficial deposits of the area are confined to the area within the floodplain of the Yampa River. Water wells utilizing these surficial deposits are generally less than 50 feet in depth. Sandstones of the underlying Williams Fork Formation yield water to many wells in the region. Well depths range from about 100 feet to generally less than 500 feet. One well in section 20 is 777 feet deep. We have no records of the quality of water from this well. Note that the Williams Fork extends to a depth of 2000 feet in 1-16 state well. The Iles Formation extends to a depth of about 3180 feet in 1-16 state. Even though depths are excessive and the Iles is known to yield petroleum products in some areas we must consider it as a potential aquifer until proven otherwise.

The accompanying map shows that surface drainage from the site is toward the floodplain of the Yampa River; about one half mile toward the northwest, note the location of wells in the area.

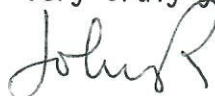
Mr. Ed DiMatteo  
October 2, 1985

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COLO. OIL & GAS CONS. COMM.

The complex system of sandstones in the Williams Fork and Iles Formations indicates that you should treat the application with caution. Even with 442 feet of cemented surface casing.

If you have any questions please contact me.

Very truly yours,



John C. Romero  
Supervising Water Resources Engineer

Enclosures

JCR:pd/5867H

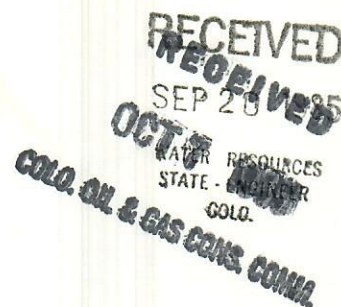


COLORADO OIL AND GAS CONSERVATION COMMISSION

1580 Logan St., Suite 380  
Denver, Colorado 80203

MEMO

9-17-85



To: Division of Water Resources

From: Larry Robbins, Underground Injection Control Program

Subject: Need for Hydrologic Information

The Oil and Gas Conservation Commission has received an application for an injection well to be located;

$\frac{1}{4}$   $\frac{1}{4}$  NE NE, Section 16, Township 6N, Range 90W  
Moffat County.

- 1) Well name State#2-16 Field Buck Peak
- 2) Injection Zone Morapos
- 3) Depth of Injection Interval 4432 to 4518
- 4) Proposed Injection Pressure 700-1200 psi
- 5) Frac Gradient or Pressure 0.7
- 6) Quantity of Fluid to be Injected 300-1000 bbl/day
- 7) TDS of Fluid to be Injected 41,524 ppm
- 8) TDS of Injection Zone Fluid to be determined ppm

Would you please furnish us with the name and depth of any aquifer in the area that is a known or potential fresh water strata. We would also like a list of the wells within one-half mile of this location. Any other information with regard to distance to streams, ditches or outcrops would be very helpful.

Thank you

Larry Robbins



## TREND EXPLORATION LIMITED

Seventeenth Street Plaza - Suite 2000

1225 -17th Street

Denver, Colorado 80202

August 22, 1985

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AUG 27 1985

COLO. OIL & GAS CONS. COMM.

(303) 298-9595

Telex 45670

State of Colorado  
Oil & Gas Commission  
Suite 380, 1580 Logan Street  
Denver, Colorado 80203

Mr. Mike Voloshin  
Mr. Charles Voloshin  
Box 981  
Craig, Colorado 81626

Re: State #2-16  
Moffatt County, Colorado

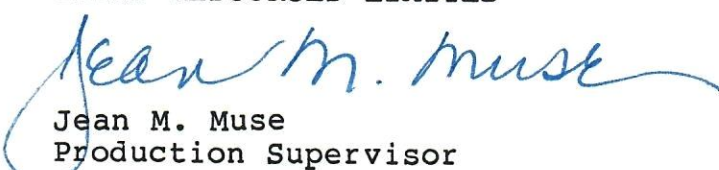
Dear Sirs:

Trend Exploration has previously drilled the above referenced well. Our efforts to complete this as a producing property have failed, and it is now our intention to complete the well as a saltwater disposal unit.

For your information, I have attached a copy of the proposed operation which is required by the Oil and Gas Commission of the State of Colorado and a copy of the following regulations. A public hearing on the authorization of the proposed operation may be required by the Commission. Any person who would be adversely affected or aggrieved by the authorization of an underground disposal operation may request a public hearing on the proposed authorization by filing with the Commission a written request for such a hearing within 15-days after the notice of application has been mailed or delivered in compliance with the rules and regulations for application. The Commission shall hold such a hearing if it finds, based upon such request(s), a significant degree of public interest in a hearing. Such hearings shall be conducted in accord with the requirements of C.R.S. 1973, 34-60-108, as amended.

I trust this information will be sufficient for your needs, at this time, but if not, please contact me at (303) 298-9595 and I will be happy to answer any questions you might have.

Cordially,  
TREND RESOURCES LIMITED

  
Jean M. Muse  
Production Supervisor

JMM/jm

enclosures

cc: file



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COLORADO OIL & GAS CONS. COMM.

(7) The estimated minimum and maximum amount of water to be injected daily with anticipated injection pressures and known or calculated fracturing pressure of the disposal formation.

(8) The names and addresses of those persons notified by the applicant, as required by paragraph (d) of this rule.

(b) Application may be made to include the use of more than one (1) disposal well on the same lease, or on more than one lease. Wherever feasible and applicable, the application should contemplate a coordinated plan for the whole field.

(c) The designated operator of a unitized or cooperative project shall execute the application.

(d) Notice of the application shall be given by the applicant by registered or certified mail, or by delivering a copy of the application to each owner of record, including each surface owner within one-quarter mile of the proposed well or wells. Such notice shall be mailed to, or filed with the Commission, and the applicant shall certify that notice by registered or certified mail, or by delivery to each of the required owners of record including surface owners has been accomplished. The notice shall describe the proposed operation and shall state that a public hearing on the authorization of the proposed operation may be required before the Commission. The notice shall also state that additional information on the operation for which authorization has been applied may be obtained at the Commission office.

(e) Any person who would be adversely affected or aggrieved by the authorization of an underground disposal operation may request a public hearing on the proposed authorization by filing with the Commission a written request for such a hearing within 15-days after the notice of application has been mailed or delivered in compliance with paragraph (d). The Commission shall hold such a hearing if it finds, based upon such request(s), a significant degree of public interest in a hearing. Such hearings shall be conducted in accord with the requirements of C.R.S. 1973, 34-60-108, as amended.

### 327. MECHANICAL INTEGRITY TESTING

(a) For the purpose of this rule, a mechanical integrity test of an injection well is a test designed to determine if:

(1) there is a significant leak in the casing, tubing, or packer of the well, and

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STATE 2-16

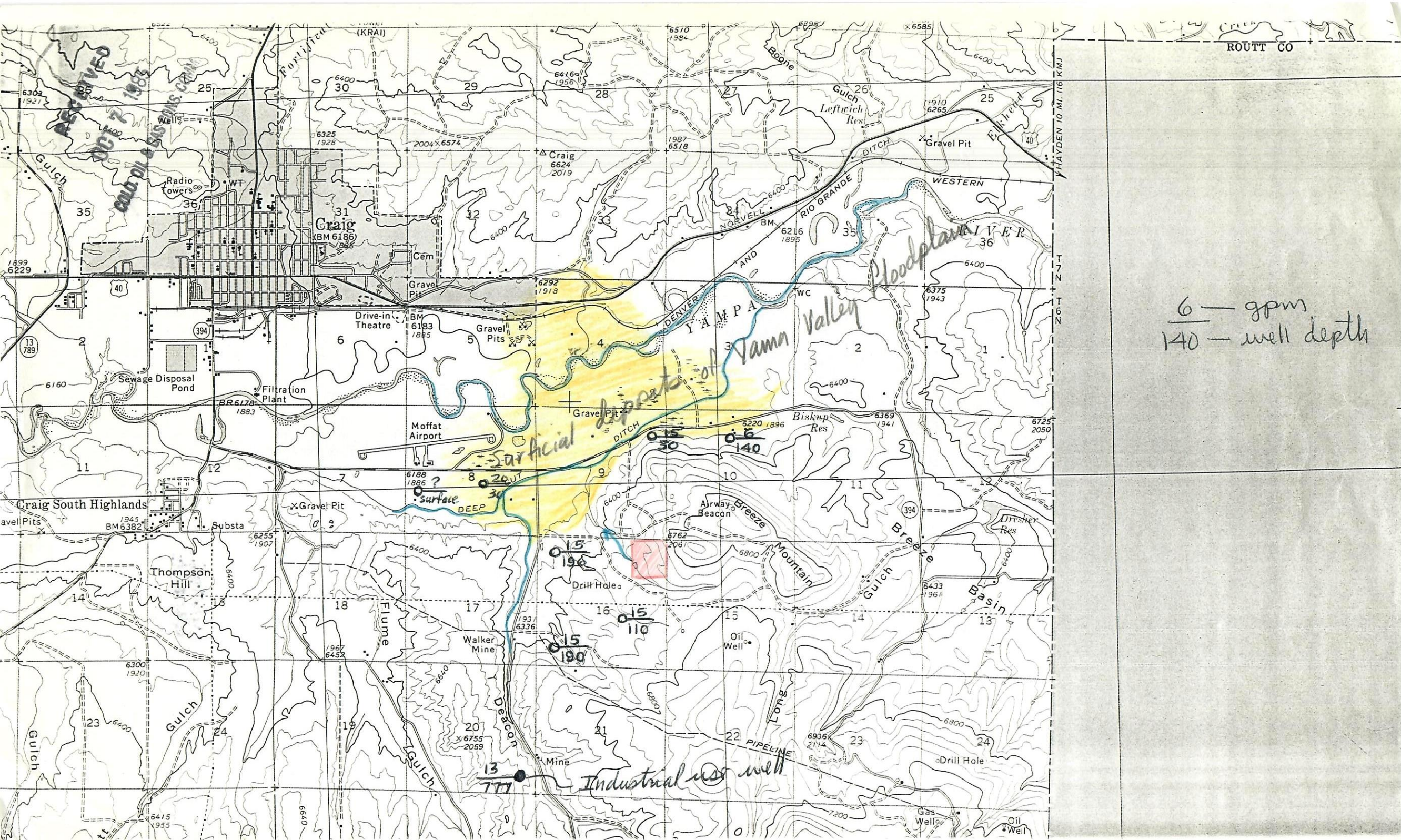
Moffat County, Colorado

COLO. OIL & GAS CONS. COMM.

Salt Water Disposal Conversion Prognosis

1. MIRU Service Rig.
2. TOH with 2 3/8", 8rd, 6.5# tubing.
3. Set CIBP at  $\pm$  6,540'. Dump 25 sx cement on top.
4. TOH with tubing.
5. Run CBL/GR from  $\pm$  6,540' to TOC (est. TOC 5,000').
  - a) Determine what if any cement exists across the interval from 4,430' - 4,700'. Take remedial steps required to have cement at least 500' above interval ( $\pm$  3,900').
6. Pressure test casing to 1,000 psig.
7. Perforate 4,432' to 4,460' with 2 JSPF and 4,500' - 4,518' with 2 JSPF.
8. Set retrievable packer at  $\pm$  4,350'. Perform injectivity test. Determine if stimulation is required and perform if necessary.
9. TOH with tubing.
10. Set injection packer at  $\pm$  4,350'. String into tubing. ND BOP, NU wellhead, begin displacing fluid.
11. Release rig.







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JUN 17 1985  
CONS

PAGE 4806

DATE OF UPDATE IS 12-29-83

\*\*\* 6 05 \*\*\*

NO SER

IGAE-RT, DIVISION OF WATER RESOURCES, GROUND WATER SECTION, MASTER EXTRACT LIST																	
FULL MASTER LIST BY LOCATION																	
FILE CONTROL		OWNER NAME/S		STREET ADDRESS										CITY		ZIP	
D-CT	PERMIT																
-----	PRIORITY	-----		W	M	D	P		TOWN	SHIP	SEC	SEC	LOCAT'N	QUARTER	SECTIONS	USE	DATE
NUMBER	APR-DATE	ADJ-DATE		D	D	B	M	RANGE				COORDINATES					
6-41-074948	BRETT, JOSEPH A.	44	99	99	S	090	OW	06	ON	20	0980S, 0870E	SE SE	8	09-20-76	13.5	777	30
		44	99	99	S	090	OW	06	ON	20	1200S, 1500W	BREEZE BASIN RT B.21	SE Sd	1	05-25-74	9.0	300
6-41-074957	CORDLE, BEN	44	99	99	S	090	OW	06	ON	20	2300S, 0400E	BOX 25A BB RT	NE SE	1	07-01-74	10.0	115
6-41-114971	CLAY, WILLIAM	44	99	99	S	090	OW	06	ON	20	2710N, 1450W	P.O. BOX 101	SW NW	1	11-11-80	8.0	420
6-41-082639	VOLOSHIN, MIKE	44	99	99	S	090	OW	06	ON	20	0075N, 1830W	PO BOX 981	NE NW	3	06-01-61	15.0	196
6-41-082640	VOLOSHIN, MIKE	44	99	99	S	090	OW	06	ON	21	0450N, 2500E	PO BOX 981	NW NE	3	06-01-61	15.0	200
6-41-082641	VOLOSHIN, MIKE	44	99	99	S	090	OW	06	ON	21	0500N, 1680W	PO BOX 981	NE NW	3	06-01-61	15.0	200
6-41-082643	VOLOSHIN, MIKE	44	99	99	S	090	OW	06	ON	21	0500S, 0200W	PO BOX 981	NW NW	3	06-03-61	15.0	80
6-41-079350	KNEZ, ANTOINE	44	99	99	S	090	OW	06	ON	28	1100N, 2200W	P.O. BOX 508	NE NW	1	06-10-75	3.0	200
6-41-089740	RODEWALD, DORIS C	44	99	99	S	090	OW	06	ON	28	0330S, 1200W	379 RUSSELL ST	SW SW	1	07-13-77	7.0	485
6-41-092425	LOVEJOY, MARIJYN	44	99	99	S	090	OW	06	ON	28	2375S, 0600W	95 RANNEY ST	NW SW	0	07-02-77	10.0	440
6-41-087965	RHYNE, WENDELL R	44	99	99	S	090	OW	06	ON	29	0100N, 2000E	BREEZE BASIN R BX 200	NW NE	1	10-01-76	12.0	320
6-41-002325F	CABEEN EXP CORP	44	99	99	S	090	OW	06	ON	31	679 TAYLOR	NW NE	4	10-20-59	50.0	460	
6-41-001223	JOHNSON BROS	44	99	99	S	090	OW	07	ON	03		NE SE	1	05-14-58	10.0	85	
6-41-001224	JOHNSON DAVID W	44	99	99	S	090	OW	07	ON	03		NE SE	1	05-11-58	10.0	75	
6-41-002203F	SINDEN DAIRY CO	44	99	99	S	090	OW	07	ON	03		SE NE	4	07-23-59	5.0	245	
6-41-015901	JOHNSON D W	44	99	99	S	090	OW	07	ON	03		SE NE	4	07-23-59	5.0	245	



BEST IMAGE  
AVAILABLE

83-83

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OCT 7 1985  
L & BAS CONS. COMM.

IGAE-RT, DIVISION OF WATER RESOURCES, GROUND WATER SECTION, MASTER EXTRACT LIST  
FULL MASTER LIST BY LOCATION

FILE CONTROL D-CT-PERMIT		OWNER NAME/S										STREET ADDRESS										CITY		ZIP	
----- PRIORITY ----- NUMBER APR-DATE ADJ-DATE		W	D	B	M	RANGE	TOWN	SHIP	SEC	SEC	LOCAT'N	QUARTER	SECTIONS	USE	DATE	WELL YIELD	WELL DPTH	WATR LVEL	ANNUAL APPRCP						
6-41-104040	DURHAM LIVESTOCK CO	44	99	99	S	090 0W	05 ON	34		0700S,	2400W	RURAL ROUTE	SE SW 3	08-01-67	15.0			HAMILTON	81638						
6-41-070878	MYERS, DAVID O.	44	99	99	S	090 0W	06 ON	04		0099N,	2533E	P.O. BOX 11	NW NE 0	08-20-73	6.0			50 HAYDEN	81639						
6-41-079717	DAVIDSON, DOUGLAS W.	44	99	99	S	090 0W	06 ON	04		0844N,	1716E	P.O. BOX 154	NW NE 1	10-02-75	.0			200 CRAIG	81625						
6-41-016214	CALDER R V	44	99	99	S	090 0W	06 ON	05				BOX 786	NE NE 1	07-10-63	10.0			60 CRAIG	20						
6-41-020822	COOPER RUSSEL	44	99	99	S	090 0W	06 ON	05					NE NW 1	07-23-64	12.0			58 CRAIG	37						
6-41-027035	WILSON HOMER	44	99	99	S	090 0W	06 ON	05					NW NW 2	06-09-66	40.0			20 CRAIG	12						
6-41-027036	WILSON HOMER	44	99	99	S	090 0W	06 ON	05				HAYDEN RT	NW NW 1	06-08-66	25.0			25 CRAIG	15						
6-41-037473	WILSON HOMER	44	99	99	S	090 0W	06 ON	05					SE NE 1	04-18-69	15.0			33 CRAIG	3						
6-41-003710F	MOFFAT CO FAIR BOARD	44	99	99	S	090 0W	06 ON	06				COURT HOUSE	NE NW 6	08-08-62	300.0			35 CRAIG	16						
6-41-020530	WILSON ELLIS	44	99	99	S	090 0W	06 ON	06				BOX 955	SW NW 2	07-17-64	20.0			48 CRAIG	12						
6-41-022613	CRAIG LUMBER CO	44	99	99	S	090 0W	06 ON	06				BOX 92	NW NW 1	01-14-65	18.0			37 CRAIG	23						
6-41-042501	PREACE STANLY	44	99	99	S	090 0W	06 ON	06				EAST OF CRAIG	SE NW 1	08-11-70	8.0			20 CRAIG	15						
6-41-006954	BOWER FRED	44	99	99	S	090 0W	06 ON	07					SW NW 1	09-12-60	5.0			350 CRAIG	0						
6-41-024431	PREECE JOHN	44	99	99	S	090 0W	06 ON	07				BOX 576	NE NE 1	06-28-65	10.0			450 6617 CRAIG	.0						
6-41-027725	TUTTLE BURTON	44	99	99	S	090 0W	06 ON	07				BOX 1046	NW NE 1	06-10-66	.5			355 6617 CRAIG	.0						
6-41-021326	MYERS CLAUDE J	44	99	99	S	090 0W	06 ON	08					NW SW 1	08-26-64	4525.9			0 CRAIG	0						
6-41-031048	MOFFAT COUNTY COLO	44	99	99	S	090 0W	06 ON	08					NW NE 1	05-15-67	20.0			30 CRAIG	4						
6-41-081001	RITCHIE, HOWARD W	44	99	99	S	090 0W	06 ON	09		4010S,	BREEZE BASIN	RT BX 27	NE NE 1	09-23-75	15.0			30 CRAIG	10						
6-41-105634	ASHBAUGH, JOHN F.	44	99	99	S	090 0W	06 ON	10		0700N,	0725W	BOX 398	NW NW 3	08-16-79	6.0			140 CRAIG	0						
6-41-082642	VOLOSHIN, MIKE	44	99	99	S	090 0W	06 ON	16		1150S,	0300W	PO BOX 981	SW SW 3	06-01-61	15.0			190 CRAIG	.0						
6-41-082644	VOLOSHIN, MIKE	44	99	99	S	090 0W	06 ON	16		0550N,	0600W	PO BOX 981	NW NW 3	06-03-61	15.0			196 CRAIG	.0						
6-41-082645	VOLOSHIN, MIKE	44	99	99	S	090 0W	06 ON	16		2500S,	2580E	PO BOX 981	NW SE 3	06-03-61	15.0			110 CRAIG	.0						
6-41-071117	BISKUP, EUGENE	44	99	99	S	090 0W	06 ON	19		0132N,	2140E	P.O. BOX 282	NE NW 3	08-29-73	3.0			360 CRAIG	46						
6-41-022688F	SOVIEW & BREEZE HLDS WTR CO											PO BOX 867						CRAIG	81625						

DATE OF UPDATE IS 12-29-83

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IGAE-RT, DIVISION OF WATER RESOURCES, GROUND WATER SECTION, MASTER EXTRACT LIST  
FULL MASTER LIST BY LOCATION

FILE CONTROL D-CT-PERMIT	OWNER NAME/S	STREET ADDRESS										CITY		ZIP
----- PRIORITY ----- NUMBER APR-DATE ADJ-DATE	W D B M RANGE	TOWN SHIP SEC	SEC LOCAT'N COORDINATES	QUARTER SECTIONS USE	DATE	WELL YIELD	WELL DPTH	WATR LVEL	ANNUAL APPROP					
6-41-074948	BRETT, JOSEPH A.	44 99 99 S 090 0W 06 ON 20	0980S, 0870E	SE SE 8	09-20-76	13.3	777	30	15.0					
		44 99 99 S 090 0W 06 ON 20	1200S, 1500W	SE SE 1	05-25-74	9.0	300	205	5.0					
6-41-074957	CORDLE, BEN	44 99 99 S 090 0W 06 ON 20	2300S, 0400E	NE SE 1	07-01-74	10.0	115	40	2.0					
6-41-114971	CLAY, WILLIAM	44 99 99 S 090 0W 06 ON 20	2710N, 1450W	SW NW 1	11-11-80	8.0	420	40	1.0					
6-41-082639	VOLOSHIN, MIKE	44 99 99 S 090 0W 06 ON 21	0075N, 1830W	NE NW 3	06-01-61	15.0	196		0					
6-41-082640	VOLOSHIN, MIKE	44 99 99 S 090 0W 06 ON 21	0450N, 2500E	NW NE 3	06-01-61	15.0	200		0					
6-41-082641	VOLOSHIN, MIKE	44 99 99 S 090 0W 06 ON 21	0500N, 1680W	NE NW 3	06-01-61	15.0	200		0					
6-41-082643	VOLOSHIN, MIKE	44 99 99 S 090 0W 06 ON 27	2050S, 0200W	NW SW 3	06-03-61	15.0	80		0					
6-41-079350	KNEZ, ANTOINE	44 99 99 S 090 0W 06 ON 28	1100N, 2200W	NE NW 1	06-10-75	3.0	200	0	1.0					
6-41-089740	RODEWALD, DORIS C	44 99 99 S 090 0W 06 ON 28	0330S, 1200W	SW SW 1	07-13-77	7.0	485	60	1.5					
6-41-092425	LOVEJOY, MARILYN	44 99 99 S 090 0W 06 ON 28	2375S, 0600W	NW SW 0	07-02-77	10.0	440		1.0					
6-41-087965	RHYNE, WENDELL R	44 99 99 S 090 0W 06 ON 29	0100N, 2000E	NW NE 1	10-01-76	12.0	320		2.0					
6-41-002325F	CABEEN EXP CORP	44 99 99 S 090 0W 06 ON 31	679 TAYLOR	NW NE 4	10-20-59	50.0	440	0	.0					
6-41-001223	JOHNSON BROS	44 99 99 S 090 0W 07 ON 03		NE SE 1	05-14-58	10.0	85	72	.0					
6-41-001224	JOHNSON DAVID W	44 99 99 S 090 0W 07 ON 03		NE SE 1	05-11-58	10.0	75	80	.0					
6-41-002203F	SINDEN DAIRY CO	44 99 99 S 090 0W 07 ON 03		SE NE 4	07-23-59	5.0	245	190	.0					
6-41-015901	JOHNSON D W	44 99 99 S 090 0W 07 ON 03	BOX 508	NW SE 1	06-17-63	5.0	90	10	.0					





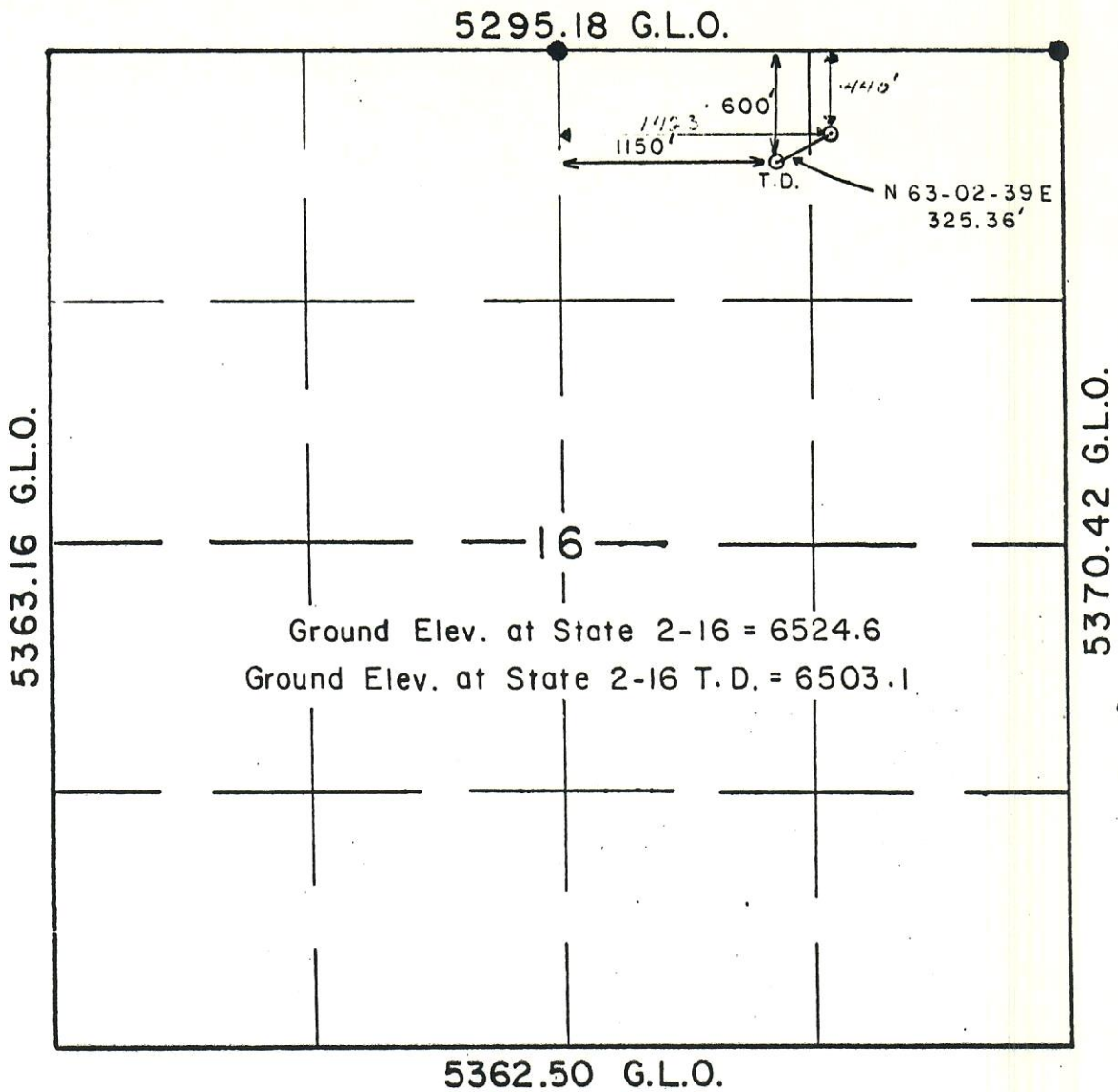


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SEP 11 1985

COLO. OIL & GAS CONS. COMM.

R 90 W



T6N

● = Brass Cap found and used

SCALE 1" = 1000'

E & C Consulting, Inc. of Craig, Colorado has in accordance with a request from TREND EXPLORATION of DENVER, COLORADO determined the location of State 2-16 to be 600 FNL and 1150 FWL, Section 16, Township 6 North, Range 90 West of the 6th P.M., Moffat County, Colorado.

I hereby certify that this plat is an accurate representation of a correct survey showing the location of State 2-16 .

DATE:

6-11-84

Colorado Registration No. 14815  
Peter Epp L.S.



BEFORE THE OIL AND GAS CONSERVATION COMMISSION  
OF THE STATE OF COLORADO

IN THE MATTER OF THE PROMULGATION )  
AND ESTABLISHMENT OF FIELD RULES TO )  
GOVERN OPERATIONS IN THE BUCK PEAK ) CAUSE NO. 103  
FIELD, MOFFAT COUNTY, COLORADO )

NOTICE OF HEARING

TO ALL INTERESTED PERSONS AND TO WHOM IT MAY CONCERN:

On September 11, 1985, Trend Exploration, Ltd. filed with the Commission an application pursuant to Rule 326 of the Rules and Regulations for approval to use Well No. 2-16 Trend State, located in the NE1/4 Section 16, Township 6 North, Range 90 West, Buck Peak Field, Moffat County, Colorado, as a water disposal well into the Morapos member of the Mancos Shale formation. Protests to the granting of the application have been received.

NOTICE IS HEREBY GIVEN, that the Oil and Gas Conservation Commission of the State of Colorado, pursuant to the above, has scheduled the above-entitled matter for hearing on:

DATE: Monday, October 21, 1985

TIME: 9:00 a.m.

PLACE: Room 110, State Centennial Building  
1313 Sherman Street  
Denver, Colorado 80203

At said hearing, Applicant and Protestants and any other interested persons, are requested to appear and present testimony in order for the Commission to determine if approval for said water disposal well should be given.

Pursuant to said hearing in the above-entitled matter at the time and place aforesaid, or at any adjourned meeting, the Commission will enter such orders as it deems appropriate to prevent the pollution of the waters of the State and protect the environment, and to carry out the purposes of the statute.

IN THE NAME OF THE STATE OF COLORADO.

OIL AND GAS CONSERVATION COMMISSION  
OF THE STATE OF COLORADO

By Frank J. Piro  
Frank J. Piro, Secretary

Dated at Denver, Colorado  
October 1, 1985