

2-24-78 - Approval given to ^{Murphy & Bayless} Covert to Water Disposal Well.

4/83 PAB

FILE NOTATIONS

Entered in WED File ✓
Location Map Entered ✓
Card Entered ✓

Checked by Chief ^{CWB}
Approval Letter ^{P. B. 1/8}
Disapproval Letter

COMPLETION DATA:

Date Well Completed ³⁻¹³⁻⁷⁴
^{SWD}
WV..... WW. ✓ TA.....
GW..... OS..... PA.....

Location Inspected
Bond released
State or Fee Land

LOGS FILED

Miller's Log..... ✓
Electric Log (N.C.)
..... E..... East E Est..... GR-N..... Micro.....
..... Sonic GR..... Est..... RI-I..... Sonic.....
CCLog..... CCLog..... Others.....

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
 DRILL DEEPEN PLUG BACK
 b. TYPE OF WELL
 OIL WELL GAS WELL OTHER
 Diagonal offset to only producer SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
 Arapaho Petroleum, Incorporated, et al

3. ADDRESS OF OPERATOR
 1110 Security Life Bldg., Denver, Colorado 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
 At surface 510 feet from South line, 730 feet from West line, Section 28, Township-41-South, Range-26-East,
 At proposed prod. zone Same SE SW SW -S.L.P.M., (surveyed)

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
 Six miles southeast of Aneth, Utah 84510

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
 510 feet

16. NO. OF ACRES IN LEASE
 640

17. NO. OF ACRES ASSIGNED TO THIS WELL
 80

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
 4110 feet north to dry hole

19. PROPOSED DEPTH
 6200 feet

20. ROTARY OR CABLE TOOLS
 Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
 4922 Ground

22. APPROX. DATE WORK WILL START*
 December 31, 1973

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	18#	300' ✓	250 sacks ✓
7 7/8"	5 1/2"	15#	6200'	300 sacks

Well will be spudded in Morrison shale. Surface hole of 12 1/4" diameter will be drilled to approximately 315', 8 5/8" surface pipe set and cemented to surface. Blowout preventer will be installed. Long hole of 7 7/8" diameter will be drilled to total depth of 6000' to 6200'. Lower Ismay and Desert Creek zones will be drillstem tested if shows of oil or gas are encountered. Logs will be run to total depth and if warranted, production casing of 5 1/2" diameter will be run to test zones of possible commercial production. After perforating casing opposite such zones and running tubing, acid treatment may be necessary. If the well is non productive, it will be plugged and abandoned after receiving USGS and state of Utah approval of the plugging procedure. ✓

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Norris N. Requist TITLE Exploration Manager DATE December 13, 1973

(This space for Federal or State office use)
 PERMIT NO. 43-037-30143 APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____
 CONDITIONS OF APPROVAL, IF ANY:

Development Plan for Surface Use

The proposed location for the Arapaho Petroleum, Incorporated, et al #1 Navajo-"A" well is located on the surface outcrop of the Morrison formation just south of a 160-foot high southfacing Dakota sandstone mesa. The area near the location is a south to southeast sloping sparsely grass-covered shale terrain cut by a shallow (5 to 6-foot) deep broad arroyo. The position of the normal 660-foot location very near the arroyo necessitated moving the location southeastward.

A print of a portion of the U.S.G.S. open file 1:24,000 topographic map is attached showing existing highways and roads. The proposed location and the approximately 1000 feet of access road to be built to the location are also shown. This road will be constructed for one-way truck traffic with compaction and only enough earth moved to smooth the surface.

Water for drilling will be hauled from Aneth, Utah by truck.

All waste and trash will be buried and all mud pits fenced subsequent to drilling until they can be levelled and reseeded.

The turnaround will be south and west of the well location and the reserve pit southeast of the location. The turnaround and drilling pad will be compacted.

No camp nor airstrip will be built and if the well is productive the tank battery will be located south of the well.

The company field representative responsible for compliance with this Development Plan for Surface Use is:

Norris N. Requist
1110 Security Life Building
Denver, Colorado 80202

Phone (303) 534-3178

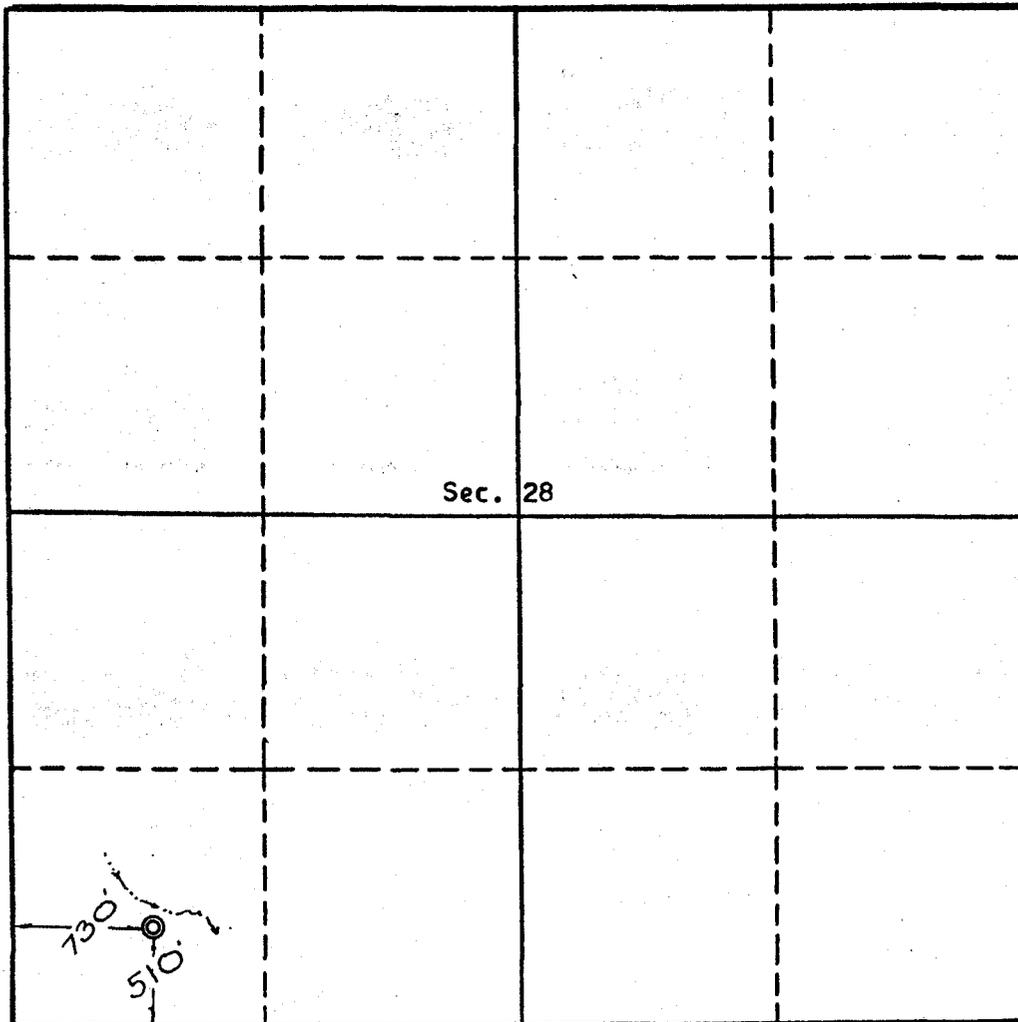
Company ARAPAHO PETROLEUM, INCORPORATED

Well Name & No. #1 Navajo-A

Location 510 feet from the South line and 730 feet from the West line.

Sec. 28, T. 41 S., R. 26 E., S. L. M., County San Juan, Utah

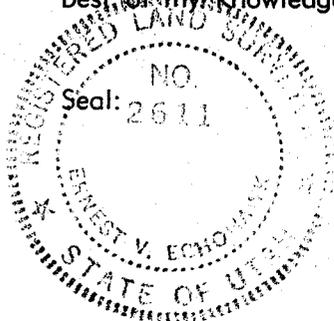
Ground Elevation 4922



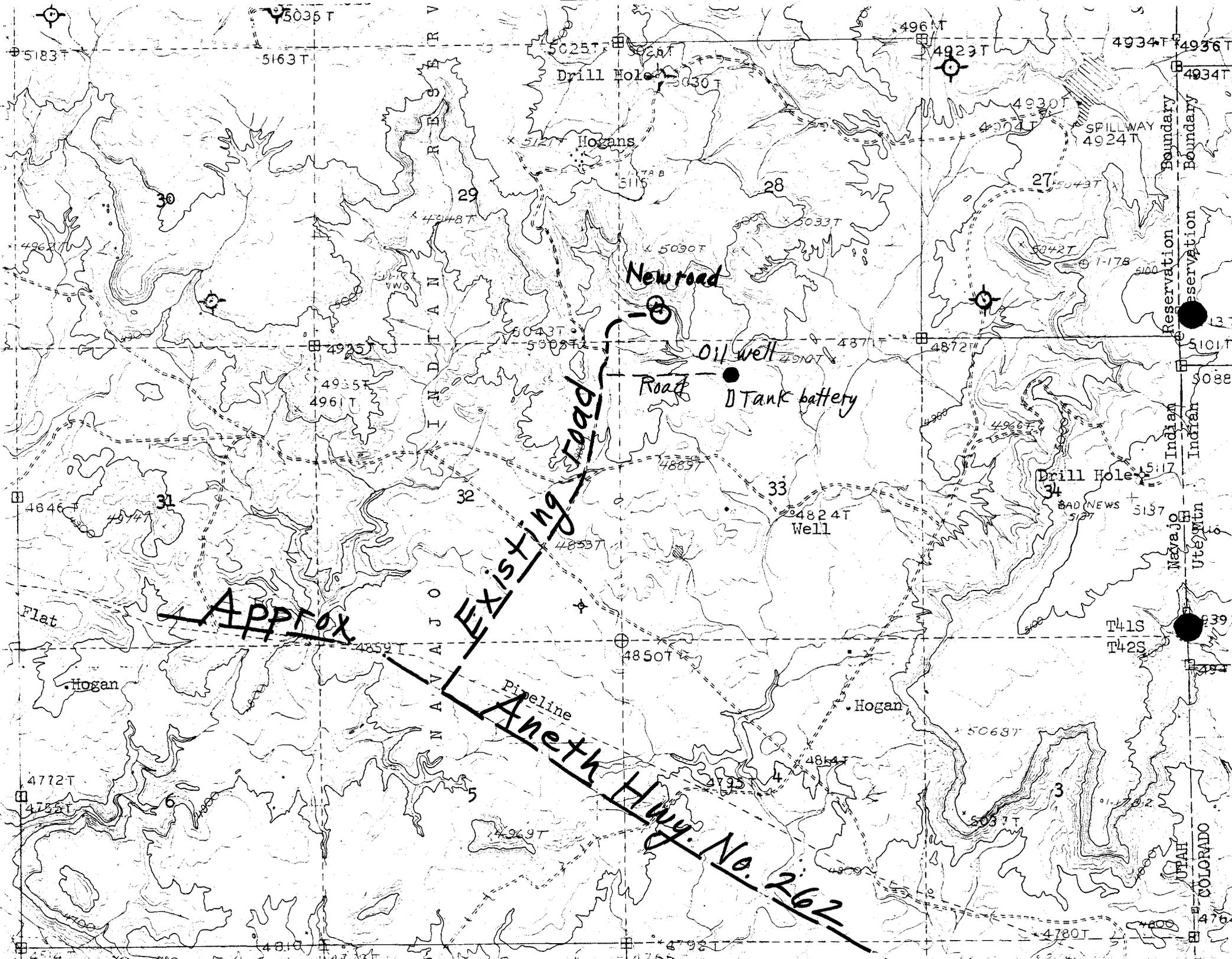
Scale, 1 inch = 1,000 feet

Surveyed October 24, 1973

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.



Ernest V. Echohawk
Ernest V. Echohawk
Registered Land Surveyor
Utah Registration No. 2611



Drill Hole

Hogans

New road

Oil well

Tank battery

Existing Road

Approx.

Pipeline

Aneth Hwy. No. 262

INDIAN RESERVATION

Indian Reservation Boundary

MAYAJO UTÉ MEN

UTAH COLORADO

SPILLWAY

Drill Hole

SAD NEWS

T41S T42S

5183T

5163T

4810T

5025T

5028T

5115

5030T

5043T

5002T

4850T

4792T

496T

4923T

4930T

4904T

4924T

5043T

4871T

4872T

4900T

4906T

5137

4939T

5068T

5037T

4780T

4934T

4936T

4934T

5101T

5088

ARAPAHO PETROLEUM, INCORPORATED

JP

Suite 1110 Security Life Bldg. • Denver, Colorado 80202 • (303) 534-3178

December 14, 1973

Division of Oil and Gas Conservation
Utah Department of Natural Resources
Salt Lake City, Utah 84115

Gentlemen:

Enclosed are two copies of USGS Form 9-331 C, Application for Permit to Drill and a completed Designation of Agent form.

If all are in order please issue approval to us at the above address.

We understand that for a location such as this on Navajo lands that a State of Utah drilling bond under Rule C-1 is not required. Please verify that this is so and also inform us of reporting and plugging requirements. ✓

Very truly yours,

ARAPAHO PETROLEUM, INCORPORATED

Norris N. Requist

NORRIS N. REQUIST
EXPLORATION MANAGER

NNR/rjt

Enclosure

December 18, 1973

Arapaho Petroleum Inc.
1110 Security Life Building
Denver, Colorado 80202

Re: Well No. Navajo "A" #1
Sec. 28, T. 41 S, R. 26 E,
San Juan County, Utah

Gentlemen:

Insofar as this office is concerned, approval to drill the above referred to well is hereby granted in accordance with the General Rules and Regulations.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

PAUL W. BURCHELL - Chief Petroleum Engineer
HOME: 277-2890
OFFICE: 328-5771

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation relative to the above will be greatly appreciated.

The API number assigned to this well is 43-037-30143.

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

CLEON B. FEIGHT
DIRECTOR

CBF:sd
cc: U.S. Geological Survey

ARAPAHO PETROLEUM, INC. CORPORATION

Suite 1110 Security Life Bldg. • Denver, Colorado 80202 • (303) 534-3178

WELL PROGNOSIS

Arapaho Petroleum, Inc. #1 Navajo+'A'
510' FSL, 730' FWL (SW SW)
Sec. 28, T 41 S, R 26 E
San Juan County, Utah

Elevations: 4922 GR
4934 KB

Sample Program:

30-foot samples: surface casing to 2000'
20-foot samples: 2000' to 4500'
10-foot samples: 4500' to Total Depth

Mud Logger:

None

Estimated Formation Tops

Spud in Morrison shale	
Navajo	1140'
Kayenta	1270'
Wingate	1425'
Chinle	1550'
De Chelly	2970'
Organ Rock	3025'
Cedar Mesa	3660'
Hermosa	4760'
Upper Ismay	5645'
Lower Ismay	5735'
Desert Creek	5840'
Akah	5940'
Total Depth	6000'

Logging Program

SP-GR-DIL	Self Potential - Gamma Ray - Dual Induction Laterolog
BHC-SON-GR	Borehole Compensated Sonic - Gamma Ray

1/30/74

Well should spud January 31st

ARAPAHO PETROLEUM, INC.
Suite 1110 Security Life Bldg.
Denver, Colorado 80202



VIA AIR MAIL

Division of Oil and Gas Conservation
State of Utah
1588 West North Temple Street
Salt Lake City, Utah 84116



ARAPAHO PETROLEUM, INC.
Suite 1110 Security Life Bldg.
Denver, Colorado 80202



AIR MAIL



Division of Oil and Gas Conservation
State of Utah
1588 West North Temple Street
Salt Lake City, Utah 84116

ARAPAHO PETROLEUM, INC.
Suite 1110 Security Life Bldg.
Denver, Colorado 80202



Division of Oil and Gas
Conservation
State of Utah
1588 West North Temple Street
Salt Lake City, Utah 84116

4
Arapaho Petroleum #1 Navajo-'A'
San Juan County, Utah

2/28/74 T.D. 6000'. Running logs. Ran DST #3
DST 5930-70' (Desert Creek). Drlg to
6000'. DST #3 DST 5930-70' (Desert Creek).
IO 30 min. ISI 60 min. FO 90 min. FSI 120
min. Very weak blow and died after 50
min of FO. Rec. 4' mud. Salinity same
as mud. IFP 32-53#, ISIP 132#, FFP 53-53#,
FSIP 132#, HH 3401-3401#, BHT 124°.

3 / 1/74 Ran Electric and Acoustic logs. Drlg T.D.
6000'. Log 5998'. Rig released 8:00 p.m.
2/28/74.

h PI
Arapaho Petroleum #1 Navajo-'A'
San Juan County, Utah

2/19/74 Drlg at 5426'

Geologist Staying at: Thunderhead Motel, Farmington
(505) 325-7501 Ext. 32

Drlg Rpt can be obtained each morning from Communi-
cations in Cortez, Colorado (303) 565-7210
OR
in Farmington, New Mexico: (505) 325-5033

Ask for Rpt on Arapahoe Drilling Co. Rig #3.

S PT
Arapaho Petroleum #1 Navajo-'A'
San Juan County, Utah

2/12/74 Drlg at 4248'

July 23, 1974

Arapaho Petroleum Co.
1110 Security Life Building
Denver, Colorado 80202

Re: Well No. Navajo "A" #1
Sec. 28, T. 41 S, R. 26 E,
San Juan County, Utah

Gentlemen:

Our records indicate that you have not filed a "monthly report of operations" for the months of March thru' June, 1974, on the subject well.

Rule C-22(1), General Rules and Regulations and Rules of Practice and Procedure, requires that said report be filed on or before the sixteenth (16) day of the succeeding month. This report may be filed on Form OGC-1b (U.S. Geological Survey 9-331) "Sundry Notices and Reports on Wells" or on company forms containing substantially the same information. We are enclosing forms for your convenience.

Your prompt attention to the above will be greatly appreciated.

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

SCHEREE WILCOX
EXECUTIVE SECRETARY

50

Robert L. Bayless
PETROLEUM CLUB PLAZA BUILDING
P. O. BOX 1541
FARMINGTON, NEW MEXICO 87401

AMB

September 19, 1974

State of Utah
Department of Natural Resources
Division of Oil & Gas Conservation
1588 West North Temple
Salt Lake City, Utah 84116

Re: Navajo A-1
Section 28, T41S, R26E
San Juan County, Utah

Gentlemen:

Arapaho Petroleum has passed on your letter of July 23 regarding monthly reports on the above well.

We took this well over from Arapaho and are holding it for a possible water disposal well in the future. For the present, it is shut in.

Please advise if we need to make the monthly reports until we resume operations.

Yours truly,


Robert L. Bayless

RLB/su

cc Arapaho Petroleum, Incorporated

November 15, 1974

Arapaho Petroleum Company
1110 Security Life Building
Denver, Colorado 80202

Re: Well No. Navajo "A" #1
Sec. 28, T. 41 S, R. 26 E,
San Juan County, Utah

Gentlemen:

This letter is to advise you that the "Well Completion or Recompletion Report and Log" and electric and/or radioactivity logs for the above mentioned well are due and have not been filed with this office as required by our rules and regulations.

Please complete the enclosed Form OGC-3, in duplicate, and forward them to this office as soon as possible. If electric and/or radioactivity logs were not run, please make a statement to this effect in order for us to keep our records accurate and complete.

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

SCHEREE WILCOX
EXECUTIVE SECRETARY

:SW

ARAPAHO PETROLEUM, INCORPORATED

Suite 1110 Security Life Bldg. • Denver, Colorado 80202 • (303) 534-3178

November 19, 1974

State of Utah
Department of Natural Resources
Division of Oil and Gas Conservation
1588 West North Temple
Salt Lake City, Utah 84116

Attention: Scheree Wilcox

Re: Well No. Navajo "A" #1
Sec. 28, T. 41 S, R. 26 E,
San Juan County, Utah

Dear Ms. Wilcox:

This will acknowledge receipt of your letter dated November 15, 1974.

Enclosed please find a copy of letter dated September 19, 1974, from Robert L. Bayless to you explaining that they took the above captioned well over from Arapaho.

In the future please contact Mr. Bayless with matters concerning the above captioned well.

Thank you,

ARAPAHO PETROLEUM, INC.

Rozaland J. Taylor
Rozaland J. Taylor
Assistant Secretary

RJT/j

Enclosure

November 22, 1974

Robert L. Bayless
Petroleum Club Plaza Bldg.
P.O. Box 1541
Farmington, New Mexico 87401

Re: Well No. Navajo "A" #1
Sec. 28, T. 41 S, R. 26 E,
San Juan County, Utah

Gentlemen:

This letter is to advise you that the "Well Completion or Recompletion Report and Log" and electric and/or radioactivity logs for the above mentioned well are due and have not been filed with this office as required by our rules and regulations.

Please complete the enclosed Form OGC-3 in duplication, and forward them to this office as soon as possible. If electric and/or radioactivity logs were not run, please make a statement to this effect in order for us to keep our records accurate and complete.

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

SCHEREE WILCOX
EXECUTIVE SECRETARY

:SW

STATE OF UTAH
OIL & GAS CONSERVATION COMMISSION

SUBMIT IN DUPLICATE*

(See other instructions on reverse side)

5. LEASE DESIGNATION AND SERIAL NO.

NOOC-14-20-5184

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo Tribal

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Navajo

9. WELL NO.

1 A

10. FIELD AND POOL, OR WILDCAT

Rockwell Flat

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

Sec. 28, T41S - R26E

12. COUNTY OR PARISH

San Juan

13. STATE

Utah

WELL COMPLETION OR RECOMPLETION REPORT AND LOG*

1a. TYPE OF WELL: OIL WELL GAS WELL DRY Other Salt Water

b. TYPE OF COMPLETION: NEW WELL WORK OVER DEEP-EN PLUG BACK DIFF. RESVR. Other Disposal Well

2. NAME OF OPERATOR
Arapahoe Petroleum

3. ADDRESS OF OPERATOR
Suite 1110, Security Life Building, Denver, Colorado

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface 510 FSL and 730 FWL
At top prod. interval reported below
At total depth Same

14. PERMIT NO. DATE ISSUED

15. DATE SPUNDED 16. DATE T.D. REACHED 17. DATE COMPL. (Ready to prod.) 18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* 19. ELEV. CASINGHEAD
Jan. 20, 1974 2-28-74 3-13-74 4922

20. TOTAL DEPTH, MD & TVD 21. PLUG, BACK T.D., MD & TVD 22. IF MULTIPLE COMPL., HOW MANY* 23. INTERVALS DRILLED BY 24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 25. WAS DIRECTIONAL SURVEY MADE
6000 5990 4922 All No

26. TYPE ELECTRIC AND OTHER LOGS RUN Induction - Electrolog - Acoustilog 27. WAS WELL CORED No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8	48	224	17 1/4	210 sax	none
2 7/8	6.4	5990	7 7/8	200 sax	none

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)

31. PERFORATION RECORD (Interval, size and number)

5790 - 5820 w/2 shots/fr

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
5790-5820	500 gallons 15% acid

33.* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)					
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) TEST WITNESSED BY

35. LIST OF ATTACHMENTS

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

TITLE

DATE

December 5, 1974

*(See Instructions and Spaces for Additional Data on Reverse Side)

INSTRUCTIONS

General: This form is designed for submitting a complete and correct well completion report and log on all types of lands and leases to either a Federal agency or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office. See instructions on items 22 and 24, and 33, below regarding separate reports for separate completions.

If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, all types electric, etc.), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal and/or State laws and regulations. All attachments should be listed on this form, see item 35.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 18: Indicate which elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

Items 22 and 24: If this well is completed for separate production from more than one interval zone (multiple completion), so state in item 22, and in item 24 show the producing interval, or intervals, top(s), bottom(s) and name(s) (if any) for only the interval reported in item 33. Submit a separate report (page) on this form, adequately identified, for each additional interval to be separately produced, showing the additional data pertinent to such interval.

Item 29: "Sacks Cement": Attached supplemental records for this well should show the details of any multiple stage cementing and the location of the cementing tool.

Item 33: Submit a separate completion report on this form for each interval to be separately produced. (See instruction for items 22 and 24 above.)

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.	NAME	GEOLOGIC MARKERS
	5930	5970	DST, recovered 4' drilling mud	Navajo Chinle Shinarump Cutler De Chelly Hermosa Ismay Desert Creek	1124 1516 2864 3019 3210 4719 5680 5983

Ismay
 REC 9
 1974

December, 23, 1974

Robert L. Bayless
Petroleum Club Plaza Bldg.
P.O. Box 1541
Farmington, New Mexico 87401

Re: Well No. Navajo "A" #1
Sec. 28, T. 41 S, R. 26 E
San Juan County, Utah

Gentlemen:

This letter is to advise you that the electric and/or radioactivity logs for the above mentioned well are due and have not been filed with this office as required by our rules and regulations.

If electric and/or radioactivity logs were not run, please make a statement to that effect in order to keep our records accurate and complete.

Thank you for your cooperation in this request.

Very truly yours,

DIVISION OF OIL & GAS CONSERVATION

SCHEREE WILCOX
EXECUTIVE SECRETARY

SW/th

4

pl

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Robert L. Bayless
PETROLEUM CLUB PLAZA BUILDING
P. O. BOX 1541
FARMINGTON, NEW MEXICO 87401

December 26, 1974

State of Utah
Division of Oil & Gas Conservation
1588 West North Temple
Salt Lake City, Utah 84116

ATTENTION: Ms. Scheree Wilcox
Executive Secretary

Re: Request for logs - Navajo 'A' 1
Sec. 28, T41S, R26E.

Dear Ms. Wilcox:

You should correct your records to show this well as drilled by Arapahoe Petroleum Corporation rather than ourselves.

We took the well over subsequently and completed it as a potential disposal well. However, we did not drill the well and you should contact Arapahoe for the needed logs. It is possible that you already have logs and they are misfiled because of the confusion over ownership.

Yours truly,


Robert L. Bayless

RLB/su

Well

OFF. 325-5093
REG. 327-9094

J. GREGORY MERRION
PETROLEUM ENGINEER
P. O. BOX 507
FARMINGTON, NEW MEXICO 87401

CIRCULATE TO:

DIRECTOR	-----	<input checked="" type="checkbox"/>
PETROLEUM ENGINEER	-----	<input checked="" type="checkbox"/>
MINE COORDINATOR	-----	<input type="checkbox"/>
ADMINISTRATIVE ASSISTANT	-----	<input type="checkbox"/>
ALL	-----	<input type="checkbox"/>

RETURN TO Scherer
FOR FILING

P
EWB

February 1, 1978

Utah Oil and Gas Conservation Commission
1588 West North Temple
Salt Lake City, Utah 84116

ATTENTION: Mr. Pat Driscoll

Dear Sir:

Enclosed please find Application for subsurface Disposal of Produced Water from our Rockwell Flat Field, San Juan County, Utah. I have included all information required by Rule C-11 of the General Rules and Regulations. If there is any further information you require, please contact me.

Yours truly,

MERRION & BAYLESS

By

Steven S. Dunn

STEVEN S. DUNN
Engineer

SSD/eh

Enclosures: 6 - Aztec Navajo Disposal Application, Rockwell Flat

Board gave verbal approval to approve this Application administratively on Feb. 22, 1978 @ exec meeting



APPROVED BY THE DIVISION OF
OIL, GAS, AND MINING
DATE: Feb. 23, 1978
Pat Driscoll

MERRION & BAYLESS
P. O. Box 507
Farmington, New Mexico

APPLICATION FOR APPROVAL TO DISPOSE OF
PRODUCED WATER

RE: Rule C-11

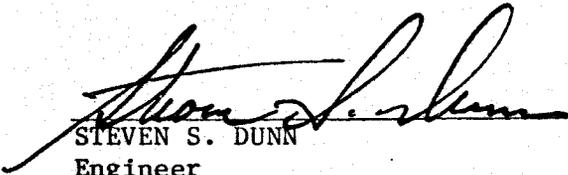
LEASE: Aztec Navajo
FIELD: Rockwell Flat

Well No. 1
San Juan County, Utah

LOCATION: 660 FNL, 1980 FWL, Section 33, T41S, R26E

- I. Approval is requested to dispose of produced water by subsurface injection.
- II. This application is made pursuant to Rule C-11 of the State of Utah General Rules and Regulations. The following information is submitted:
 1. Injection well: Navajo A #1
510 FSL, 730 FWL, Section 28, T41S, R26E
San Juan County, Utah
Navajo Tribal Lease No. 14-20-0603-8495
(See attached location map, Exhibit No. 2)
 2. Produced Water: 310 barrels/day; produced from the Paradox
(See attached water analysis, Exhibit No. 3)
 3. Injection formation: Paradox Formation, a gray dense limestone with vugular and fracture porosity. Injection interval 5790 ft. - 5820 ft.
(See attached well log section, Exhibit No. 4)
 4. Water quality in injected formation: The water produced will be injected in the same formation, the Paradox. A water analysis is attached indicating this water is unfit for domestic use.
 5. Water aquifers: Navajo sand is a possible aquifer, extends throughout this area.
 6. Injection well completion: (See attached well-bore diagram, Exhibit No. 5)
 7. Notification: The proposed disposal well was acquired on a business lease (See Exhibit No. 6) from Arapahoe Petroleum for the specific purpose of injecting produced water. They have, through the leasing process, been notified and have approved the proposed disposal completion. No other acreage within a half mile of the proposed disposal well is leased.

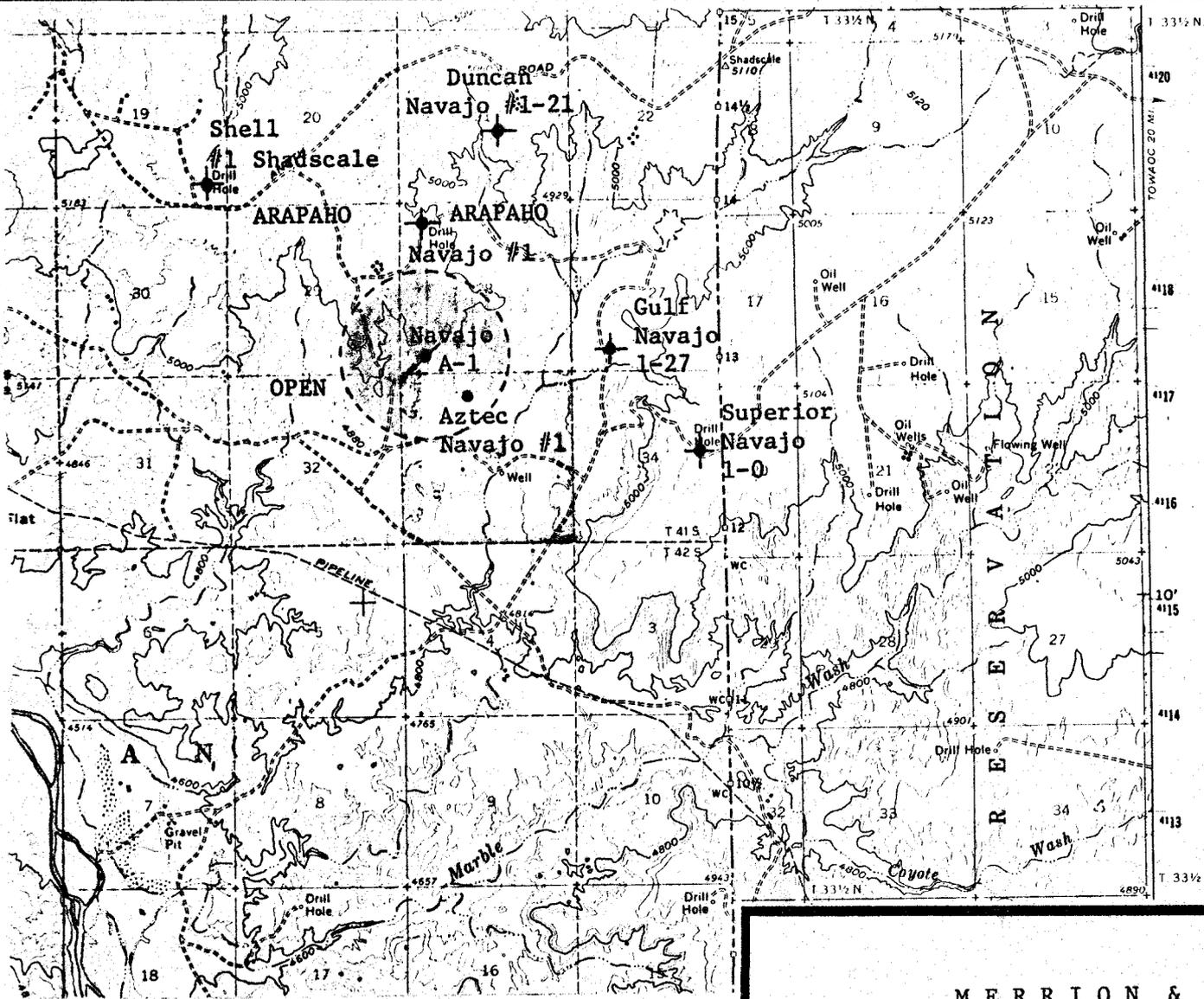
I hereby certify that the information above is true and complete to the best of my knowledge and belief.


STEVEN S. DUNN
Engineer

January 24, 1978

DATE

APPLICATION FOR UNDERGROUND DISPOSAL OF PRODUCED WATER



LEGEND

-  - Disposal Well.
-  - Adjacent Producer Penetrating Proposed Injection Zone.
-  - Adjacent Abandoned Well Penetrating Proposed Injection Zone.
-  - Merrion & Bayless Acreage,

MERRION & BAYLESS

SCALE: 1" = 1 Mile	APPROVED BY:	DRAWN BY SSD
DATE: 01-23-78		REVISED

LOCATION MAP
T41S, R26E, San Juan County, Utah

Navajo A-1 - Proposed Disposal Well	DRAWING NUMBER Exhibit No. 2
-------------------------------------	---------------------------------

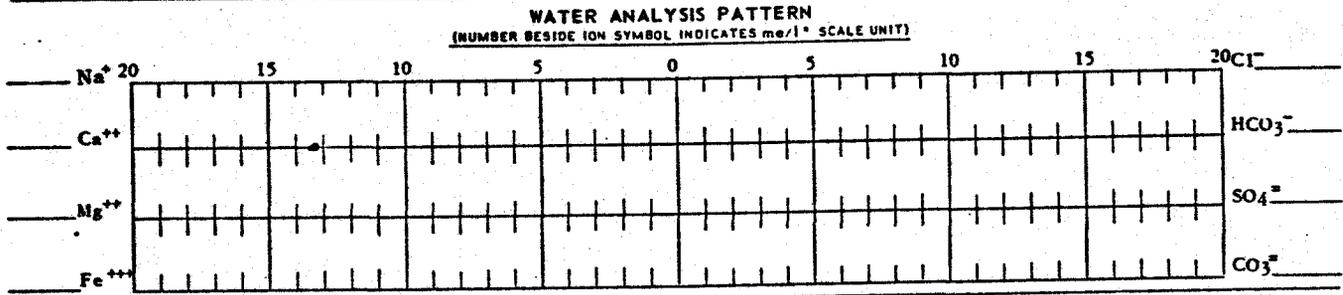
EXHIBIT NO. 3

MERRION & BAYLESS
Navajo A-1 Proposed Disposal Well



AROID DIVISION
NATIONAL LEAD COMPANY
PETROLEUM INDUSTRY CHEMICALS

WATER ANALYSIS TEST REPORT						SHEET NUMBER	
COMPANY Merrion & Bayless						DATE 9/19/70	
FIELD Aztec-Navajo				COUNTY OR PARISH San Juan		STATE Utah	
LEASE OR UNIT Aztec-Navajo		WELL(S) NAME OR NO. Well No. 1		WATER SOURCE (FORMATION) Paradox			
DEPTH, FT. 1900	BHT, F	SAMPLE SOURCE well head	TEMP, F	WATER, BBL/DAY 75	OIL, BBL/DAY 18	GAS, MMCF/DAY	
TYPE OF OIL		API GRAVITY 0	TYPE OF WATER <input checked="" type="checkbox"/> PRODUCED WATER <input type="checkbox"/> INJECTION WATER OTHER _____				



DISSOLVED SOLIDS

CATIONS	me/l *	mg/l *
Total Hardness	1,80	
Sodium, Na ⁺ (calc.)	1,706	39,300
Calcium, Ca ⁺⁺	310	6,800
Magnesium, Mg ⁺⁺	140	1,710
Iron (Total), Fe ⁺⁺⁺	-	7
ANIONS	me/l *	mg/l *
Chloride, Cl ⁻	2,170	77,000
Sulfate, SO ₄ ⁻⁻	14	650
Carbonate, CO ₃ ⁼	0	0
Bicarbonate, HCO ₃ ⁻	2	140
Hydroxyl, OH ⁻	0	0
Sulfide, S ⁼	0	0
Phosphate - Meta, PO ₃ ⁼		
Phosphate - Ortho, PO ₄ ⁼		

DISSOLVED GASES

Hydrogen Sulfide, H ₂ S	0	mg/l *
Carbon Dioxide, CO ₂		mg/l *
Oxygen, O ₂		mg/l *

PHYSICAL PROPERTIES

pH	6.3
Eh (Redox Potential)	
Specific Gravity	
Turbidity, JTU Units	
Total Dissolved Solids (Calc.)	mg/l *
Stability Index @ 68 F	-0.49
@ 122 F	0.45
CaSO ₄ Solubility @ 68 F	82 mg/l *
@ 122 F	84 mg/l *
Max. CaSO ₄ Possible (Calc.)	14 mg/l *
Max. BaSO ₄ Possible (Calc.)	
Residual Hydrocarbons	ppm (Vol/Vol)

SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide Iron Oxide Calcium Carbonate Acid Insoluble

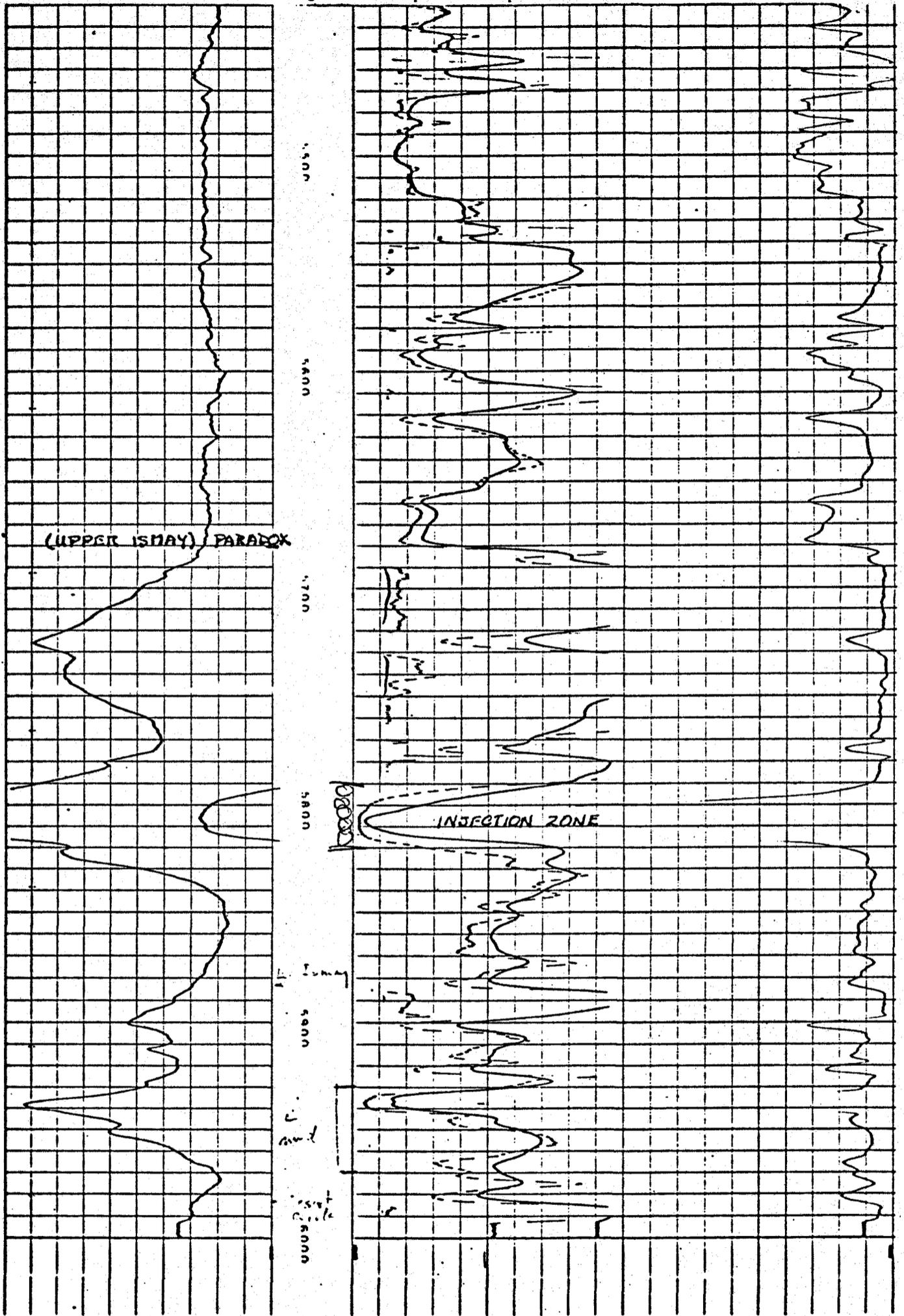
REMARKS AND RECOMMENDATIONS:

Iron count indicates that 0.2 lbs of iron is being removed from the tubing each day.

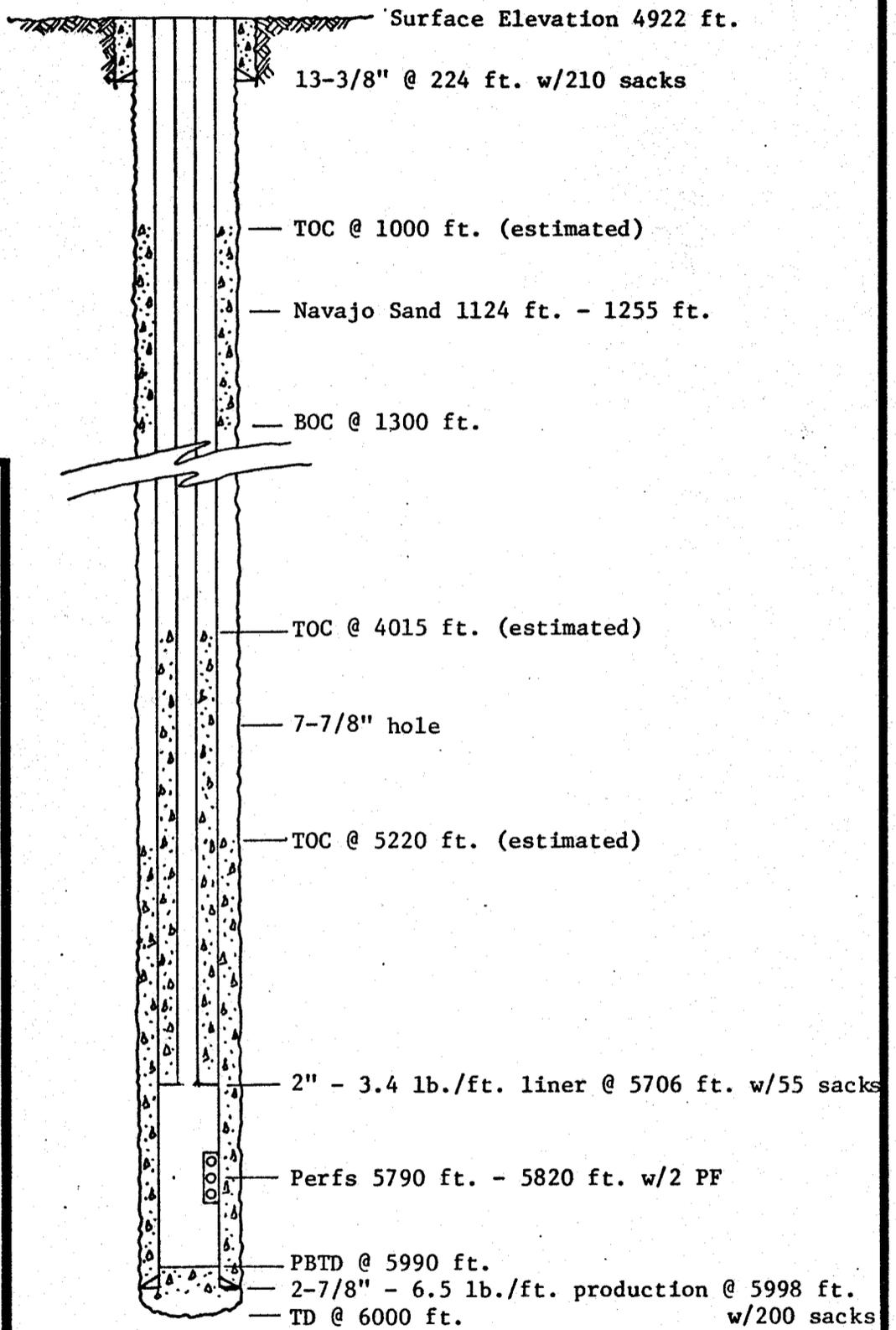
* NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

PIC ENGINEER Herb Friddle	DIST. NO. 22	ADDRESS Farmington	OFFICE PHONE 325-1896	HOME PHONE 334-2809
TESTED BY H	DATE 9/19	DISTRIBUTION <input type="checkbox"/> CUSTOMER <input type="checkbox"/> AREA OR <input type="checkbox"/> PIC ENGINEER OR <input type="checkbox"/> PIC LAB <input type="checkbox"/> DISTRICT OFFICE <input type="checkbox"/> PIC SALES SUPERVISOR		

EXHIBIT NO. 4
MERRION & BAYLESS
Navajo A-1 Proposed Disposal Well



NAVAJO A #1
 510 FSL, 730 FWL, Section 28, T41S, R26E
 San Juan County, Utah



MERRION & BAYLESS APPROVED BY:		SCALE: none
		DATE: 01-23-78
WELL-BORE DIAGRAM Proposed Injection Well		DRAWN BY: SSD
		REVISED
DRAWING NUMBER		Exhibit No. 5

EXHIBIT NO. 6

MERRION & BAYLESS
Navajo A-1 Proposed Disposal Well

LETTER AGREEMENT

This LETTER AGREEMENT dated February 25, 1974, between ARAPAHO PETROLEUM, INC. hereinafter known as ARAPAHO and J. GREGORY MERRION and ROBERT L. BAYLESS, hereinafter known as OPERATOR is to define the terms whereby OPERATOR will assume operation of the #1 Navajo - A drilling well, located in SW SW of Section 28, Township 41 South, Range 26 East, San Juan County, Utah.

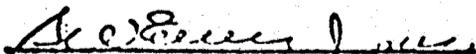
Upon determination by ARAPAHO that the test well described above is not capable of commercial production and is ready to be plugged and abandoned, then OPERATOR will assume responsibility from that point on and will provide 2-7/8" EUE casing to the drilling contractor to be run in the test well. OPERATOR will abide by rules and regulations of the United States Geological Survey and State of Utah and will provide the proper bonds to these regulator agencies but OPERATOR'S responsibility commences at the above determination and is not retroactive. OPERATOR hereby agrees to hold ARAPAHO harmless from any and all claims, losses and damages which may be asserted against or by ARAPAHO with respect to the operations of OPERATOR in connection with the #1 Navajo - A drilling well; and OPERATOR agrees to indemnify ARAPAHO for all damages and expenses incurred by ARAPAHO in connection with any litigation or settlement of litigation, or in connection with the payment or settlement of any claims, including reimbursement for reasonable attorneys fees incurred by ARAPAHO, arising out of the operations of OPERATOR hereunder.

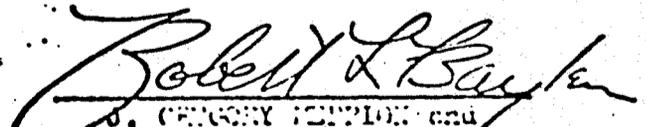
As consideration for the assignment by ARAPAHO to OPERATOR of the well bore, OPERATOR will relieve ARAPAHO of the cementing charges they would have incurred in plugging and abandoning the test well; and in addition, OPERATOR agrees to

make available the test well to ARAPAHO for salt water disposal if ARAPAHO'S oil operations in this area in the future make disposal necessary. Such water disposal to be compatible with OPERATOR'S disposal operations.

Also, in the event that in the future OPERATOR no longer has a use for this disposal well, OPERATOR will make it available at no cost to ARAPAHO for their use. In this event, OPERATOR will notify ARAPAHO and will allow 30 days for ARAPAHO'S assumption of the well or ARAPAHO will have no further rights. OPERATOR will proceed with an application to the Navajo Tribe for a business lease covering this disposal well and will obtain whatever approval is required under the actions called for in this lease.

Accepted by:


ARAPAHO PETROLEUM, INC.


G. GREGORY PAPPAS and
ROBERT L. BAYLESS

MERRION & BAYLESS
P. O. Box 507
Farmington, New Mexico

APPLICATION FOR APPROVAL TO DISPOSE OF
PRODUCED WATER

RE: Rule C-11

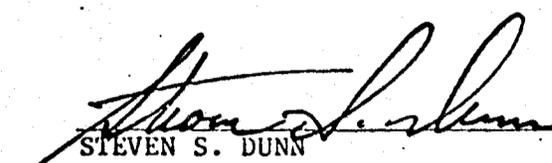
LEASE: Aztec Navajo
FIELD: Rockwell Flat

Well No. 1
San Juan County, Utah

LOCATION: 660 FNL, 1980 FWL, Section 33, T41S, R26E

- I. Approval is requested to dispose of produced water by subsurface injection.
- II. This application is made pursuant to Rule C-11 of the State of Utah General Rules and Regulations. The following information is submitted:
 1. Injection well: Navajo A #1
510 FSL, 730 FWL, Section 28, T41S, R26E
San Juan County, Utah
Navajo Tribal Lease No. 14-20-0603-8495
(See attached location map, Exhibit No. 2)
 2. Produced Water: 310 barrels/day; produced from the Paradox
(See attached water analysis, Exhibit No. 3)
 3. Injection formation: Paradox Formation, a gray dense limestone with vugular and fracture porosity. Injection interval 5790 ft. - 5820 ft.
(See attached well log section, Exhibit No. 4)
 4. Water quality in injected formation: The water produced will be injected in the same formation, the Paradox. A water analysis is attached indicating this water is unfit for domestic use.
 5. Water aquifers: Navajo sand is a possible aquifer, extends throughout this area.
 6. Injection well completion: (See attached well-bore diagram, Exhibit No. 5)
 7. Notification: The proposed disposal well was acquired on a business lease (See Exhibit No. 6) from Arapahoe Petroleum for the specific purpose of injecting produced water. They have, through the leasing process, been notified and have approved the proposed disposal completion. No other acreage within a half mile of the proposed disposal well is leased.

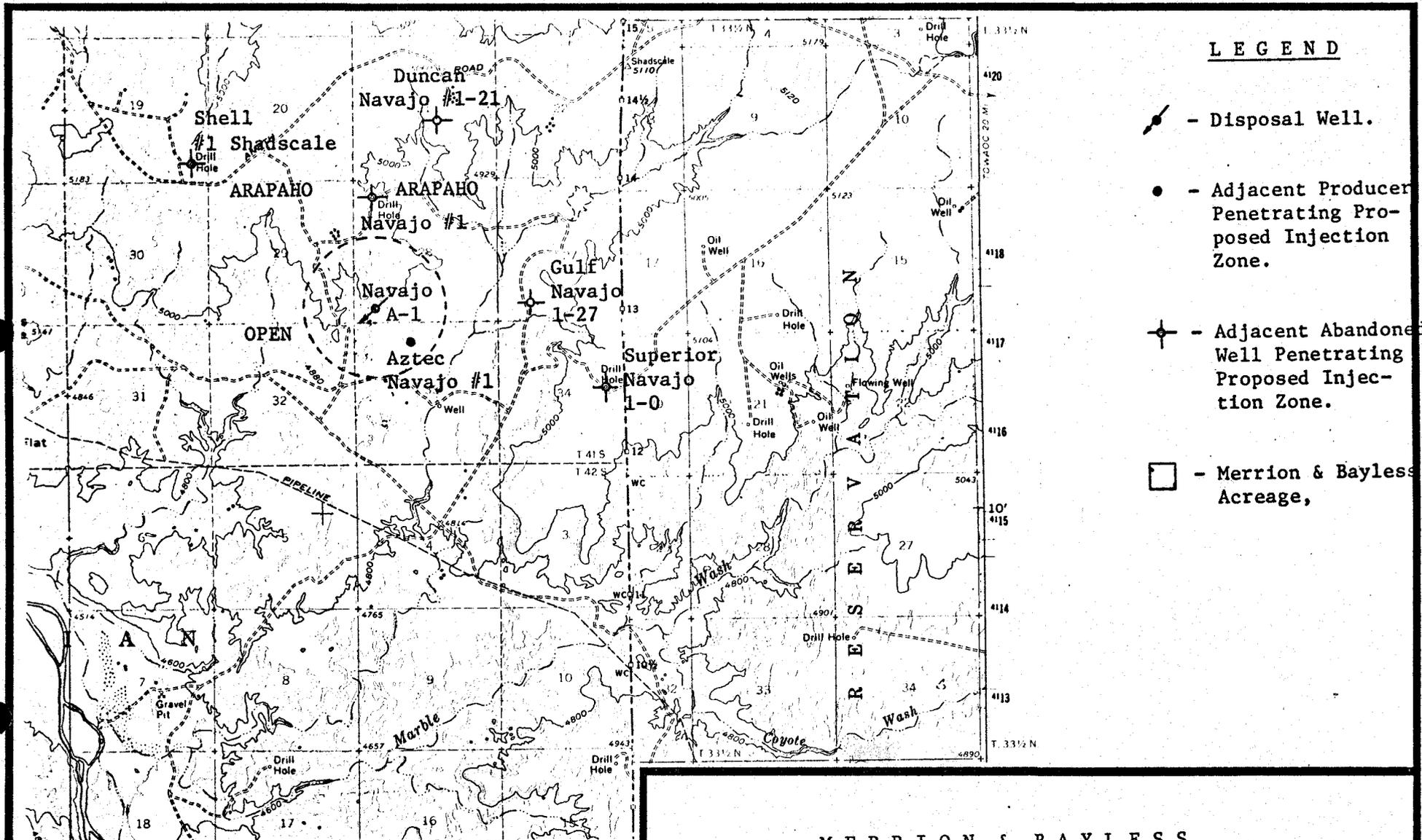
I hereby certify that the information above is true and complete to the best of my knowledge and belief.


STEVEN S. DUNN
Engineer

January 24, 1978

DATE

APPLICATION FOR UNDERGROUND DISPOSAL OF PRODUCED WATER



LEGEND

- Disposal Well.
- Adjacent Producer Penetrating Proposed Injection Zone.
- Adjacent Abandoned Well Penetrating Proposed Injection Zone.
- Merrion & Bayless Acreage,

MERRION & BAYLESS

SCALE: 1" = 1 Mile	APPROVED BY:	DRAWN BY SSD
DATE: 01-23-78		REVISED

LOCATION MAP
T41S, R26E, San Juan County, Utah

Navajo A-1 - Proposed Disposal Well

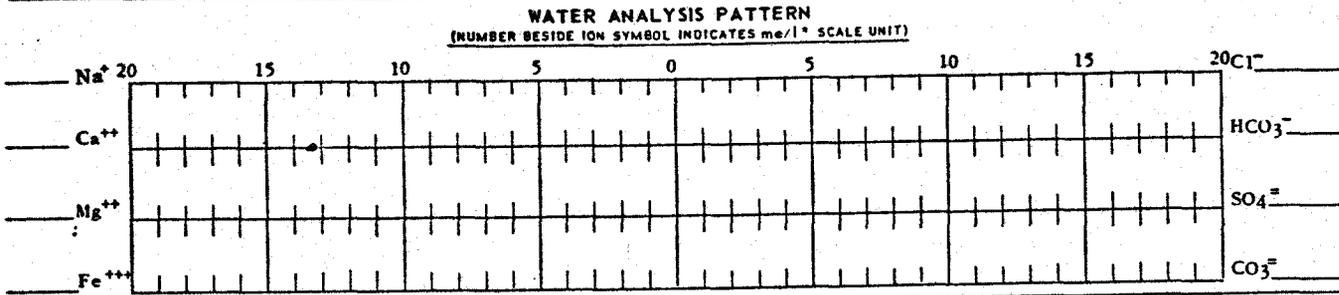
DRAWING NUMBER
Exhibit No. 2

MERRION & BAYLESS
Navajo A-1 Proposed Disposal Well



BAROID DIVISION
NATIONAL LEAD COMPANY
PETROLEUM INDUSTRY CHEMICALS

WATER ANALYSIS TEST REPORT						SHEET NUMBER
COMPANY Merrion & Bayless						DATE 9/19/70
FIELD				COUNTY OR PARISH San Juan	STATE Utah	
LEASE OR UNIT Aztec-Navajo		WELL(S) NAME OR NO. Well No. 1		WATER SOURCE (FORMATION) Paradox		
DEPTH, FT. 4900	BHT, F	SAMPLE SOURCE well head	TEMP, F	WATER, BBL/DAY 75	OIL, BBL/DAY 18	GAS, MMCF/DAY
TYPE OF OIL		API GRAVITY 0	TYPE OF WATER <input checked="" type="checkbox"/> PRODUCED WATER <input type="checkbox"/> INJECTION WATER OTHER _____			



DISSOLVED SOLIDS

CATIONS	me/l*	mg/l*
Total Hardness	180	
Sodium, Na ⁺ (calc.)	1,706	39,300
Calcium, Ca ⁺⁺	340	6,800
Magnesium, Mg ⁺⁺	140	1,710
Iron (Total), Fe ⁺⁺⁺	-	7
ANIONS		
Chloride, Cl ⁻	2,170	77,000
Sulfate, SO ₄ ⁼	14	650
Carbonate, CO ₃ ⁼	0	0
Bicarbonate, HCO ₃ ⁻	2	140
Hydroxyl, OH ⁻	0	0
Sulfide, S ⁼	0	0
Phosphate - Meta, PO ₃ ⁼		
Phosphate - Ortho, PO ₄ ⁼		

DISSOLVED GASES

Hydrogen Sulfide, H ₂ S	0	mg/l *
Carbon Dioxide, CO ₂		mg/l *
Oxygen, O ₂		mg/l *

PHYSICAL PROPERTIES

pH	6.3
Eh (Redox Potential)	_____ MV
Specific Gravity	_____
Turbidity, JTU Units	_____
Total Dissolved Solids (Calc.)	_____ mg/l *
Stability Index @ 68 F	-0.49
@ 122 F	0.45
CaSO ₄ Solubility @ 68 F	82 mg/l me/l
@ 122 F	14 mg/l me/l
Max. CaSO ₄ Possible (Calc.)	14 mg/l me/l
Max. BaSO ₄ Possible (Calc.)	_____ mg/l *
Residual Hydrocarbons	_____ ppm (Vol/Vol)

SUSPENDED SOLIDS (QUALITATIVE)

Iron Sulfide Iron Oxide Calcium Carbonate Acid Insoluble

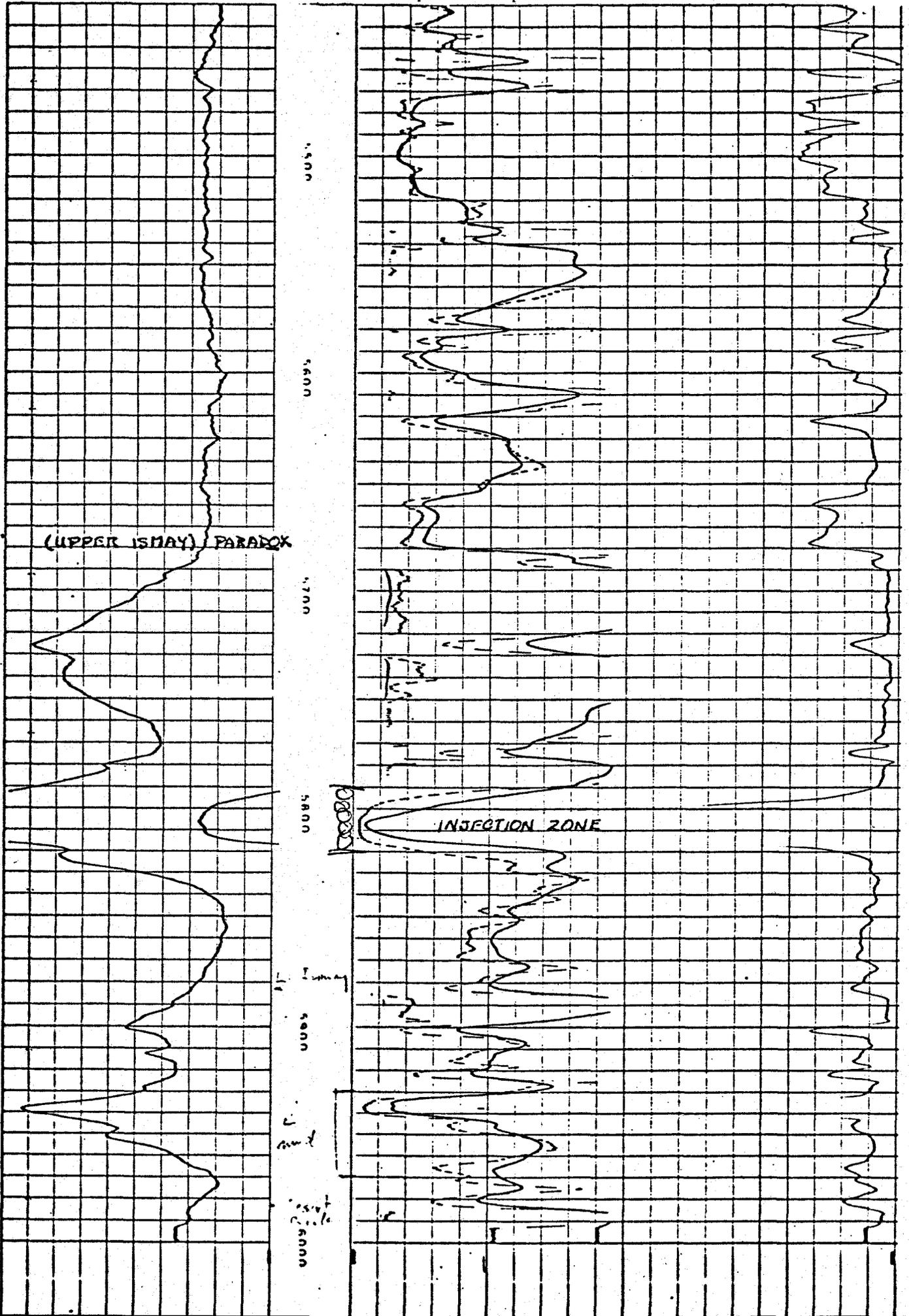
REMARKS AND RECOMMENDATIONS:

Iron count indicates that 0.2 lbs of iron is being removed from the tubing each day.

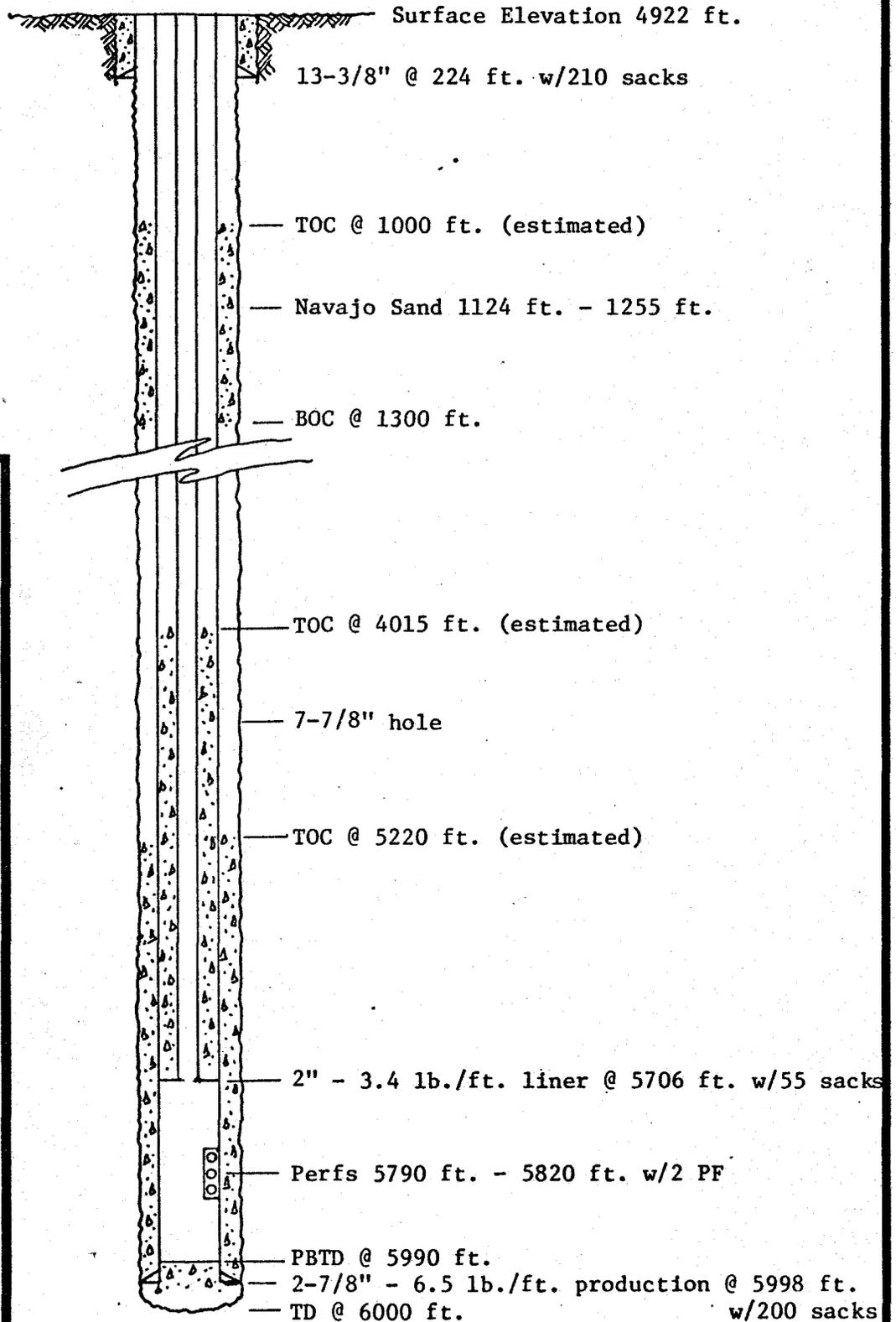
* NOTE: me/l and mg/l are commonly used interchangeably for epm and ppm respectively. Where epm and ppm are used, corrections should be made for specific gravity.

PIC ENGINEER Herb Friddle	DIST. NO. 22	ADDRESS Farmington	OFFICE PHONE 325-1896	HOME PHONE 334-2809
TESTED BY H	DATE 9/19	DISTRIBUTION <input type="checkbox"/> CUSTOMER <input type="checkbox"/> AREA OR <input type="checkbox"/> DISTRICT OFFICE <input type="checkbox"/> PIC ENGINEER OR <input type="checkbox"/> PIC LAB <input type="checkbox"/> PIC SALES SUPERVISOR		

EXHIBIT NO. 4
MERRION & BAYLESS
Navajo A-1 Proposed Disposal Well



NAVAJO A #1
 510 FSL, 730 FWL, Section 28, T41S, R26E
 San Juan County, Utah



MERRION & BAYLESS APPROVED BY:		SCALE: none
		DATE: 01-23-78
WELL-BORE DIAGRAM Proposed Injection Well		DRAWN BY SSD
		REVISID
DRAWING NUMBER		Exhibit No. 5

MERRION & BAYLESS
Navajo A-1 Proposed Disposal Well

LETTER AGREEMENT

This LETTER AGREEMENT dated February 25, 1974, between ARAPAHO PETROLEUM, INC. hereinafter known as ARAPAHO and J. GREGORY MERRION and ROBERT L. BAYLESS, hereinafter known as OPERATOR is to define the terms whereby OPERATOR will assume operation of the #1 Navajo - A drilling well, located in SW SW of Section 28, Township 41 South, Range 26 East, San Juan County, Utah.

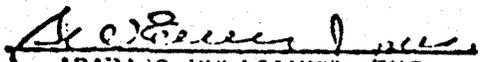
Upon determination by ARAPAHO that the test well described above is not capable of commercial production and is ready to be plugged and abandoned, then OPERATOR will assume responsibility from that point on and will provide 2-7/8" EUE casing to the drilling contractor to be run in the test well. OPERATOR will abide by rules and regulations of the United States Geological Survey and State of Utah and will provide the proper bonds to these regulator agencies but OPERATOR'S responsibility commences at the above determination and is not retroactive. OPERATOR hereby agrees to hold ARAPAHO harmless from any and all claims, losses and damages which may be asserted against or by ARAPAHO with respect to the operations of OPERATOR in connection with the #1 Navajo - A drilling well; and OPERATOR agrees to indemnify ARAPAHO for all damages and expenses incurred by ARAPAHO in connection with any litigation or settlement of litigation, or in connection with the payment or settlement of any claims, including reimbursement for reasonable attorneys fees incurred by ARAPAHO, arising out of the operations of OPERATOR hereunder.

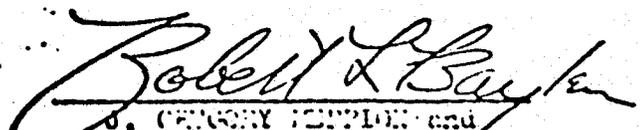
As consideration for the assignment by ARAPAHO to OPERATOR of the well bore, OPERATOR will relieve ARAPAHO of the cementing charges they would have incurred in plugging and abandoning the test well; and in addition, OPERATOR agrees to

make available the test well to ARAPAHO for salt water disposal if ARAPAHO'S oil operations in this area in the future make disposal necessary. Such water disposal to be compatible with OPERATOR'S disposal operations.

Also, in the event that in the future OPERATOR no longer has a use for this disposal well, OPERATOR will make it available at no cost to ARAPAHO for their use. In this event, OPERATOR will notify ARAPAHO and will allow 30 days for ARAPAHO'S assumption of the well or ARAPAHO will have no further rights. OPERATOR will proceed with an application to the Navajo Tribe for a business lease covering this disposal well and will obtain whatever approval is required under the actions called for in this lease.

Accepted by:


ARAPAHO PETROLEUM, INC.


G. GREGORY JEFFERSON and
ROBERT L. BAYLESS

*Need Boundary Notice
for Navajo
& State OK*

MERRION & BAYLESS
P. O. Box 507
Farmington, New Mexico

APPLICATION FOR APPROVAL TO DISPOSE OF
PRODUCED WATER
****AMENDED****

*0603-8495
~~700-5184~~*

RE: NTL-2B

Nav. Tr.

Well No. 1
San Juan County, Utah

LEASE: Aztec Navajo
FIELD: Paradox

LOCATION: 660 FNL, 1980 FWL, Section 33, T41S, R26E

- I. Approval is requested to dispose of produced water by subsurface injection.
- II. This application is made pursuant to Section II of NTL-2B. The following information is submitted:
 1. Injection well: Navajo A #1 *→ Nav. Tr. No. 14-20-5184 (Paradox)*
510 FSL, 730 FWL, Section 28, T41S, R26E
San Juan County, Utah
(location map attached)
 2. Produced water: 310 barrels/day; produced from the Paradox
(water analysis attached)
 3. Injection formation: Paradox Formation
 4. Water quality in injected formation: The water produced will be injected in the same formation, the Paradox. A water analysis is attached indicating this water is unfit for domestic use.
 5. Water aquifers: Navajo sand is a possible aquifer, extends throughout this area.
 6. Injection well completion: Intend to perforate proposed zone and test for injection rate. If satisfactory, will run 1" macaroni string down back side to 1255 ft. and spot cement across the Navajo sandstone. Will rig up surface for injection and begin disposal. (See attached well-bore diagram.)
 7. General: It is proposed to complete this well for disposal purposes. Injection pressures and volumes would be monitored by field personnel to insure proper injection operation. If it should be necessary to shut-in the disposal system the producing well would also be shut-in.

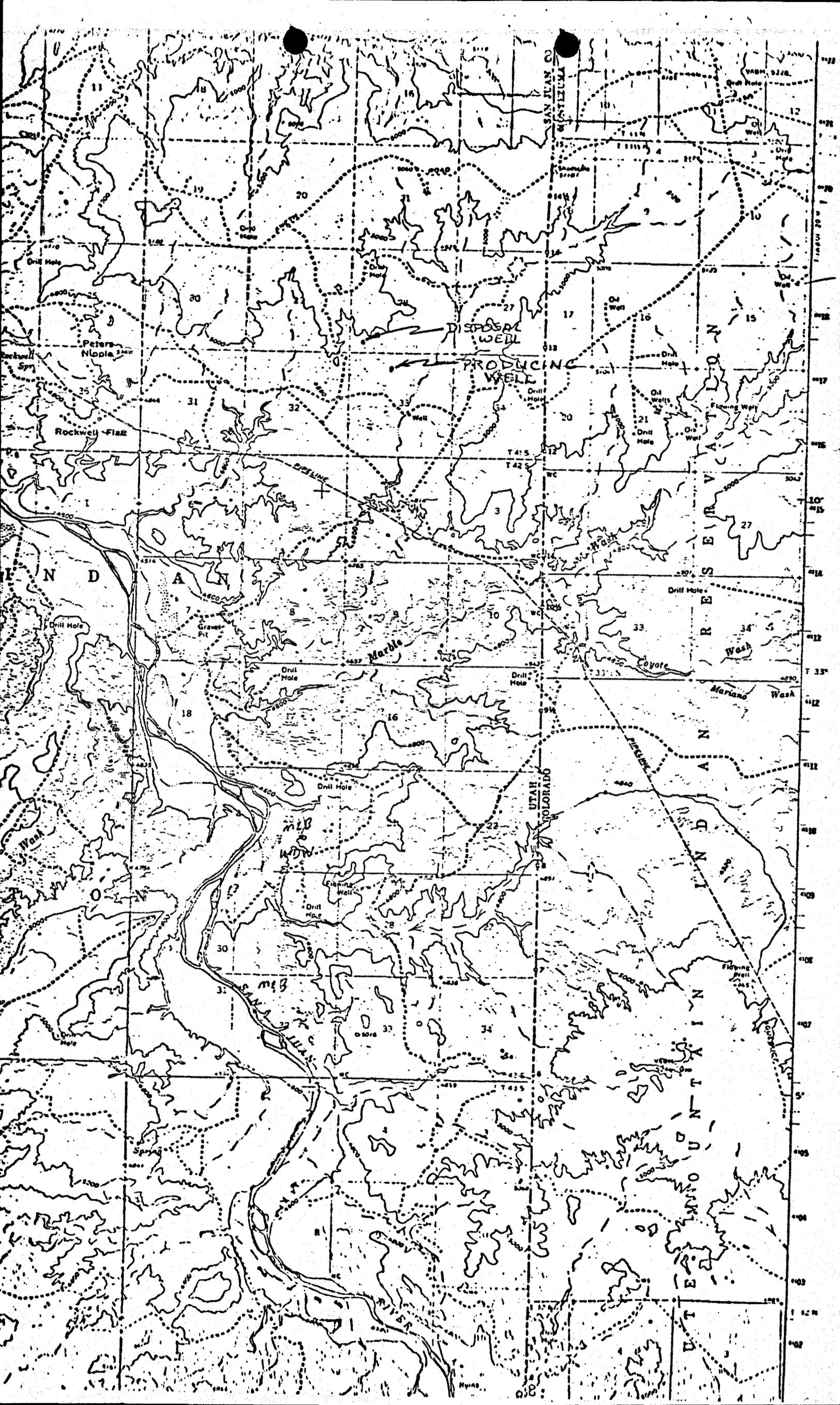
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Steven S. Dunn
STEVEN S. DUNN
Engineer

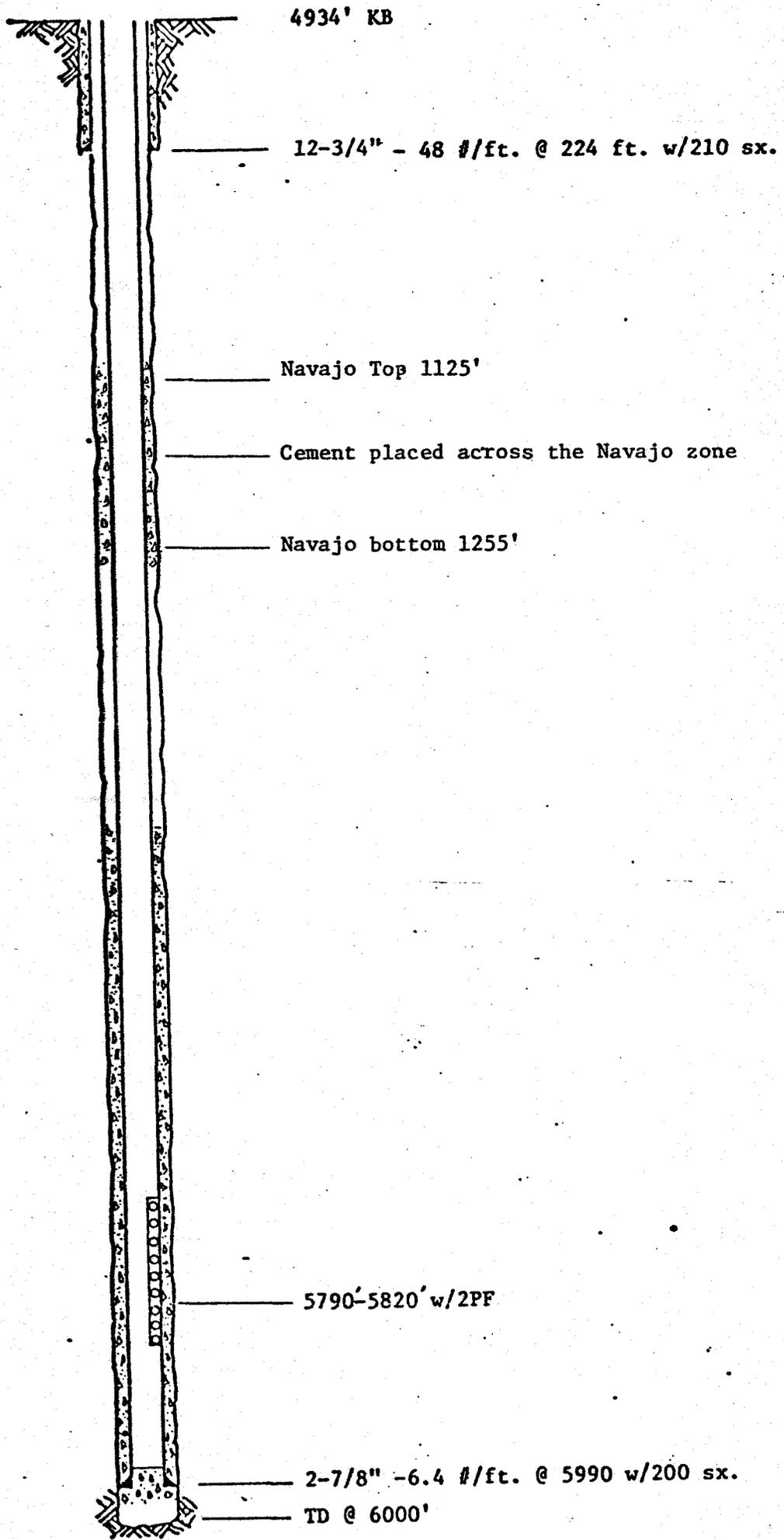
RECEIVED
JUL 20 1977
U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

5-5093

July 18, 1977
Date
APPROVED
AUG 2 1977
[Signature]
M. L. SEELINGER
ACTING DISTRICT ENGINEER



NAVAJO A #1
 Section 28, T41S, R26E
 San Juan County, Utah



MERRION-BAYLESS	
WELL NO.	6-30-77
WELL NAME	NAVAJO A #1
DATE	1-77
SSD	

CIRCULATE TO:

DIRECTOR _____
PETROLEUM ENGINEER _____
MINE ENGINEER _____
ADMINISTRATIVE ASSISTANT _____
K. B. Feight
RETURN TO _____
FOR FILING

February 24, 1978

Merrion and Bayless
Box 507
Farmington, New Mexico

Water Disposal Well

Re: Rockwell Flat Field
San Juan County, Utah

Gentlemen:

As authorized by the Board of Oil, Gas, and Mining at their regular monthly meeting February 22, 1978, this Division hereby grants administrative approval to dispose of water produced from the Rockwell Flat Field into the following well:

Navajo A #1 ✓
510 FSL & 730 FWL
Sec. 28, T. 41 S, R. 26 E,
San Juan County, Utah

However, said operation shall be conducted as in accordance with the Order issued in Cause No. 172-1, dated January 25, 1978, and more specifically in accordance with the following provisions:

- 1) That the Applicant shall provide continuous monitoring of the disposal well as to the amount of fluids injected and injection pressures, and such information shall be recorded and logged and furnished to the Division of Oil, Gas, and Mining on a monthly basis.

Very truly yours,

CLEON B. FEIGHT
Director

cc: U.S. Geological Survey



SCOTT M. MATHESON
Governor

OIL, GAS, AND MINING BOARD

GORDON E. HARMSTON
Executive Director,
NATURAL RESOURCES

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING
1588 West North Temple
Salt Lake City, Utah 84116
(801) 533-5771

I. DANIEL STEWART
Chairman

CHARLES R. HENDERSON
JOHN L. BELL
THADIS W. BOX
C. RAY JUVELIN

CLEON B. FEIGHT
Director

February 24, 1978

*Azte New
Disposal Well*

Merrion and Bayless
Box 507
Farmington, New Mexico

Re: Rockwell Flat Field
San Juan County, Utah

Gentlemen:

As authorized by the Board of Oil, Gas, and Mining at their regular monthly meeting February 22, 1978, this Division hereby grants administrative approval to dispose of water produced from the Rockwell Flat Field into the following well:

Navajo A #1
510 FSL & 730 FWL
Sec. 28, T. 41 S, R. 26 E,
San Juan County, Utah

However, said operation shall be conducted as in accordance with the Order issued in Cause No. 172-1, dated January 25, 1978, and more specifically in accordance with the following provisions:

- 1) That the Applicant shall provide continuous monitoring of the disposal well as to the amount of fluids injected and injection pressures, and such information shall be recorded and logged and furnished to the Division of Oil, Gas, and Mining on a monthly basis.

Very truly yours,

Cleon B. Feight
CLEON B. FEIGHT
Director

cc: U.S. Geological Survey

MEMO TO FILE :

RE: AZTEC

MAY 11, 1978

NAVAJO
DISPOSAL

PHIL McGRATH USGS CALLED
AND INDICATED THAT SINCE ARAPAHO
DRILLINGS MINERAL LEASE HAD EXPIRED
UNDER THE DISPOSAL WELL WE WOULD
NEED A BUSINESS LEASE FROM THE
NAVAJO TRIBE. HE ALSO INDICATED
NO APPROVAL FOR DISPOSAL OPERATION
TO COMMENCE WAS REQUIRED FROM
THE USGS, AND THEREFORE WE ARE
CLEAR TO DISPOSE W/ STATE APPROVAL.

AUTHORIZED DISTRIBUTOR FOR:

John Crane
Katty Casting Service
F. H. Maloney
Murphy-Lock

Panhandle Industrial Corp.
Power Valve, Inc.
Texcentric Valve Co.
Winslow Filters

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on re-
verse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

NOOC-14-20-5184

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo Tribe

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Navajo

9. WELL NO.

1-A

10. FIELD AND POOL, OR WILDCAT

Rockwell Flat

11. SEC., T., R., M., OR BLK. AND
SURVEY OR AREA

Sec. 28, T41S, R26E

12. COUNTY OR PARISH

San Juan

13. STATE

Utah

1.

OIL WELL GAS WELL OTHER Salt Water Disposal Well

2. NAME OF OPERATOR

Arapahoe Petroleum

3. ADDRESS OF OPERATOR

Suite 1110, Security Life Bldg., Denver, CO

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface

510 FSL and 730 FWL

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

4922 ft.

16.

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

FULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

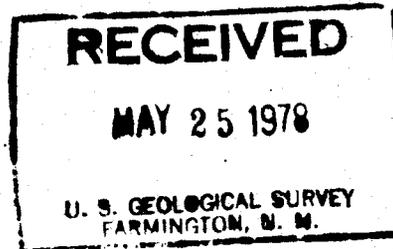
ABANDONMENT*

Preparing for Water Disposal

(NOTE: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)

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

Chronological data attached.



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

SIGNED

TITLE

Agent

DATE

May 23, 1978

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

STATE U-30

MERRION & BAYLESS

Navajo A-1
Disposal Well

- 09-30-77 Rig up Farmington Well Service, Western, Blue Jet. Open well making small stream of water and gas. Pumped in 3.5 bbl./min. at 1500 PSI bleed down to 300 PSI in 4 minutes and holding steady. Perry McDonald Construction dug pit. Run in with strip gun, 20 ft. w/2 PF 2-1/8" glass jets. Hit tight spot at 5665' KB. Pulled free; lost jets in the hole. Tight spots encountered around 4200'. Ran in with sinker bars and stopped at 1925' GL by tight spot. Worked sinker bar up and down and made additional 60' of depth. Rig up and pumped in at 1/2 BPM at 4000 PSI. Shut down and flowed well back. Rigged up and pumped in at 2.5 BPM at 1500 PSIG. Displaced acid (1000 gals. 15% HCL) and overflushed 3 bbls. No break or pressure reduction indicated. Ran 1" tubing down back side to 1291' KB. SDON.
- 10-01-77 Rig up Fleet Cementers. Cemented across Navajo with 125 sax . Good circulation. Pulled 1" tubing and rig down.
- 10-17-77 Move in, rig up Flint triple-double. Run in with sinker bars; found bottom at 5708' K.B. Rig up circulating spool, stripping head, and slips. Running 1-1/4" drill pipe with MT threads and 3 tooth carbide, cut rite bit.
- 10-18-77 Run in with 1-1/4" drill pipe. Tag tight spot at 5649' KB per tally. Turned through. No circulation by reversing. Bit apparently plugged. Run on in pipe unplugged itself, then plugged again. Ran bit to 5929' KB by tally measurement. Pulled wet string. Last 8 joints filled with very thick black crude. Ran in with Blue Jet glass jets. Gun stopped at 5746'; unable to go down.
- 10-19-77 Run in with sinker bar to 5939' KB. Running in with bit and casing scraper. Broke circulation at 20 joints in. (Average Jt. - 31.34 ft.)
- 10-20-77 Running in with 1-1/4" drill pipe and circulating 24 SPM, 5"x8"x1-1/2", .0446 bbl./strk. = 1.07 bbl./min.
Vol. drill pipe = 1.85 bbl./100 cft. x 5.8 = 10.73 bbl.
Vol. annulus = 3.1 bbl/1000 ft. x 5.8 = 17.98 bbl.
@ 24 SPM
Conventional = 17 min.
Reverse = 10 min.
Circulate down to 188-2/3 joints
Trip out, SDON
- 10-21-77 Run in with glass jets 2-1/8" 20 ft. with 2 PF ^{5800'-5820'} ~~2800'-2820'~~ KB per G.R. log. Left one wire in hole. Run sinker bar. TD @ 5813' KB. Indicates 7 ft. of perms mechanically inaccessible. Swab well down to 4300 ft. - can't go deeper. Swabbing gas cut drilling mud. Rig up, run Baker invertible packer.

- 10-24-77 Rig up Western Co. Circulated 250 gallons of 15% acid with packer at 5780' KB. Set packer with 5000 lbs. over weight of drill pipe, in tension. The water previously flowing back to the surface out of the drill pipe stopped. Backside continued to flow. Pressured up to 500 PSIG on the backside, bled down to 400 PSIG quickly and steadily bled down thereafter. No communication between the backside and the drill pipe was indicated at the surface. The pressure on the backside was bled off. The packer was checked and found to be still set well. Started pumping into the drill pipe to break down. Well taking water with small pressure breaks evident. At 2300 PSIG well was taking 1.3 bbl./min. and a large breakback in pressure occurred, and simultaneously communication with the backside could be seen at the wellhead. We bled off pressure and reset the packer in three different spots up the hole, each time we pumped in and communicated. We tripped out with the packer and shut down overnight. Found bad collar in the drill string 8th joint from bottom.
- 10-25-77 Old packer was torn up. Ran a new Baker Invertible Packer in the hole. we set the packer at 141 joints in and pressure tested to 500 PSIG. Held pressure steady and no communication to backside indicated. Set the packer at 179 joints in the hole and started pumping water. Communication established at 2500 PSIG and 1.1 bbl./min. Resetting packer did no good. Shut down overnight.
- 10-26-77 Running out with packer. String too light on weight indicator. Tried to set packer and it wouldn't set. Lost packer in the hole. Ran back in and it took 186 joints in the hole to tag. Couldn't turn on to fish so we tripped out. Found a parted tool joint collar and collar on next joint above also cracked. Shut down overnight.
- 10-27-77 Rig up to run overshot on 2", J-55 buttress thread tubing. Left 58 joints of drill pipe in the hole. Got out with 125 joints; 183 total joints run. Took an extra 3 joints to tag fish, so packer at 5793' KB. Tagged fish with 128 joints of 2" buttress in the hole. Pulled free and tripped part way out. Shut down.
- 10-28-77 Finished trip out with drill pipe and packer. Ran 2" Buttress back in and tagged with 189 joints in or at 5866' KB. (Below the perfs) Spotted three bbls. of sugar water on bottom. Pulled up and set 2" in slips at 5706' KB. Established circulation and pump 5 sax of Class "G" slurry and displaced with 16 bbls. Shut well in at 8:00 p.m.
- 10-29-77 Hook up to backside and establish injection rate. Mix 50 sax Class "G" and displace to wellhead. Shut down for 30 minutes. Well on vaccum. Chased cement and bumped with 1/4 bbl. water. Shut in backside. Run sinker bar to 5820' KB. No cement in the liner. Rig up Western Co. Unable to pump in at 4000 PSIG. Bleed off 700 PSIG in 5 minutes. Shut down.

11-02-77 Rig up Nowsco, Western Company. Run 1" coil tubing to 5830'. Spotted acid across perforations and broke down at 3800 PSIG, and 0.3 bbl./min. down 1" tubing. Final rate 0.50 bbl./min. at 4500 PSIG. Blew acid back with nitrogen. (Total acid 14 bbls.) Pulled coil tubing out of the hole. (Making estimated 80 MCF/day natural gas.) Pumped with fresh water at the following:

.7 bbl./min. @ 1200 PSIG
1.5 bbl./min. @ 1500 PSIG
1.8 bbl./min. @ 2000 PSIG

Well ISDP - 800 PSIG, went on vacuum in 4 minutes. Shut in.

12-28-77 Rig up Western Company and Big "A" Well Service. Acidize well with 5000 gallons 15% HCL with inhibitor and surfactant.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on re-
verse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

NOOC-14-20-5184

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo Tribe

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Navajo

9. WELL NO.

1-A

10. FIELD AND POOL, OR WILDCAT

Rockwell Flat

11. SEC., T., R., M., OR BLK. AND
SURVEY OR AREA

Sec. 28, T41S, R26E

12. COUNTY OR PARISH 13. STATE

San Juan

Utah

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. OIL WELL GAS WELL OTHER Salt Water Disposal Well

2. NAME OF OPERATOR
Arapahoe Petroleum

3. ADDRESS OF OPERATOR
Suite 1110, Security Life Bldg., Denver, CO

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*
See also space 17 below.)
At surface
510 FSL and 730 FWL

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

4922 ft.

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

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF
FRACTURE TREAT
SHOOT OR ACIDIZE
REPAIR WELL
(Other)

PULL OR ALTER CASING
MULTIPLE COMPLETE
ABANDON*
CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF
FRACTURE TREATMENT
SHOOTING OR ACIDIZING
(Other)

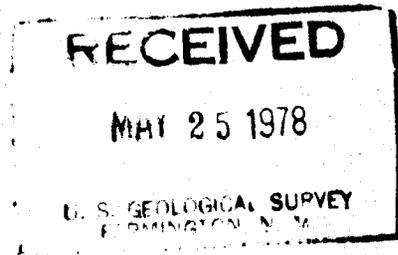
REPAIRING WELL
ALTERING CASING
ABANDONMENT*

Preparing for Water Disposal

(NOTE: Report results of multiple completion on Well
Completion or Recompletion Report and Log form.)

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

Chronological data attached.



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

SIGNED

[Signature]

TITLE

Agent

DATE

May 23, 1978

(This space for Federal or State office use)

APPROVED BY

CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

~~OPERATOR~~

*See Instructions on Reverse Side

STATE Utah

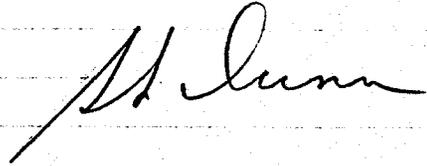
23 FEB 78

10:00 A.M.

MEMO TO FILES:

RE: CHINLE WASH DISPOSAL
AZTEC NAVAJO DISPOSAL

PAT DRISCOLL, UTAH STATE OIL & GAS COMMISSION,
CALLED AND GAVE ADMINISTRATIVE APPROVAL OF OUR PLAN
TO DISPOSE WATER AT THE AZTEC-NAVAJO EFFECTIVE
TODAY. IN ADDITION HE INDICATED OUR CHINLE WASH
APPLICATION WAS ALSO APPROVED AND WE NEED NOT
WAIT THE ARRIVAL OF APPROVING ORDERS TO COMMENCE
OUR OPERATIONS ON EITHER PROJECT.



J. GREGORY MERRION
PETROLEUM ENGINEER
P. O. BOX 507
FARMINGTON, NEW MEXICO 87401

(505)

June 8, 1979



State of Utah
Division of Oil, Gas & Mining
1588 West North Temple
Salt Lake City, Utah 84116

RE: Navajo 1-A
Salt Water Disposal Well
Sec. 28, T41S, R26E
NOOC-14-20-5184

Gentlemen:

Enclosed please find two (2) copies of Sundry Notice dated May 23, 1978, for the above well. These copies have been held by the U.S.G.S. office in Farmington until today, and we have been instructed to forward them to you.

Yours very truly,

MERRION & BAYLESS

By *Steven S. Dunn*
STEVEN S. DUNN
Engineer

SSD/eh

Enclosures (2)

*North
flow going
into Montezuma
Creek
NW of producing
fallow pipeline
2" line
1/2 mile*



SCOTT M. MATHESON
Governor

OIL, GAS, AND MINING BOARD

CHARLES R. HENDERSON
Chairman

TEMPLE A. REYNOLDS
Executive Director,
NATURAL RESOURCES

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING
1588 West North Temple
Salt Lake City, Utah 84116
(801) 533-5771

JOHN L. BELL
EDWARD T. BECK
E. STEELE MCINTYRE
BOB NORMAN
MARGARET BIRD
HERM OLSEN

CLEON B. FEIGHT
Director

September 8, 1981

Mr. J. Gregory Merrion
P.O. Box 507
Farmington, NM 87401

Re: Navajo 1-A (SWD)
Sec. 28, T41S, R26E &
#C-1 (SWD)
Sec. 20, T42S, R26E
San Juan County, Utah

Dear Mr. Merrion,

Please be aware that under the new Environmental Protection Agency program for Underground Injection Control (UIC), regular inspections will be made of all injection wells within the State of Utah. Therefore, on September 3, 1981, an inspection was made on the above mentioned wells and the following conditions need to be corrected:

- 1) Navajo 1-A - the unit pumping water which is attached to the pump jack has a slight leak which may become worse if the condition is not corrected. Also, the Flo-Trac totalizer was not working but water was being pumped through the lines. The totalizer must be operative in order to obtain the proper cumulative amount of water being injected into the well:
- 2) #C-1 - the pit was found in poor condition and it needs to be burned-off and lined as to prevent seepage and possible pollution. Water was also leaking from the pump switch located on the producing well location which is next to the water tank. Also, the new totalizer on the injection well and the old totalizer on the producing well location have two different readings and no start-up count was given to determine the exact cumulative amount being injected.

If you have any questions, please feel free to contact this office and I will be happy to answer any questions you may have. Thank you in advance for your cooperation on this matter.

Very truly yours,

DIVISION OF OIL, GAS, AND MINING

THALIA R. PRATT
UIC SPECIALIST

STATE OF UTAH
OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

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

1. OIL WELL GAS WELL OTHER Salt Water Disposal

2. NAME OF OPERATOR
Merrion Oil & Gas Corporation

3. ADDRESS OF OPERATOR
P. O. Box 1017, Farmington, New Mexico 87401

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
510 FSL and 730 FWL

14. PERMIT NO. _____

15. ELEVATIONS (Show whether DF, RT, OR, etc.)
4922 ft.

5. LEASE DESIGNATION AND SERIAL NO.
NOOC-14-20-5184

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
Navajo Tribe

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Navajo

9. WELL NO.
1-A

10. FIELD AND POOL, OR WILDCAT
Rockwell Flat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 28, T41S, R26E

12. COUNTY OR PARISH
San Juan

13. STATE
Utah

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <u>Change of Operator</u>	
(Other) _____		(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)	

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

Change of Operator from Merrion and Bayless to MERRION OIL & GAS CORPORATION.

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

SIGNED [Signature] TITLE Operations Manager DATE 4/2/82

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

STATE OF UTAH
OIL & GAS CONSERVATION COMMISSION

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

43-03230143

SUNDRY NOTICES AND REPORTS ON WELLS

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

1. <input type="checkbox"/> OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER Salt water disposal		5. LEASE DESIGNATION AND SERIAL NO. NOO-C-14-20-5184
2. NAME OF OPERATOR Merrion Oil & Gas Corporation		6. IF INDIAN, ALLOTTEE OR TRIBE NAME Navajo
3. ADDRESS OF OPERATOR P. O. Box 1017, Farmington, New Mexico 87499		7. UNIT AGREEMENT NAME
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface 510' FSL and 730' FWL		8. FARM OR LEASE NAME Navajo
14. PERMIT NO.		9. WELL NO. 1-A
15. ELEVATIONS (Show whether DF, RT, GR, etc.) 4922' GL		10. FIELD AND POOL, OR WILDCAT Rockwell Flat
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 28, T41S, R26E
		12. COUNTY OR PARISH San Juan
		13. STATE Utah

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input checked="" type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	
(Other) <input type="checkbox"/>			

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

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

Filled casing from 5820' to surface with 85 sx Class B cement (100.30 cu. ft.).
Erected dry hole marker.

*Talked to BLM in Farmington, NM, said annulus had been previously filled with cement because of casing problems so the 85 sx cement was put in tubing. This was approved by the BLM people.
5/12/83 [Signature]*

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

SIGNED [Signature] TITLE Operations Manager DATE 4/26/83

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:



STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

May 2, 1983

Merrion Oil and Gas
P.O. Box 1017
Farmington, New Mexico 87499

Gentlemen:

Please provide more details on the Navajo A-1 Salt Water Disposal Well.

Sincerely,

Maren Nelson

MAREN NELSON
ADMINISTRATIVE AIDE

Form No: DOGM-UIC-6
640 Acres
N

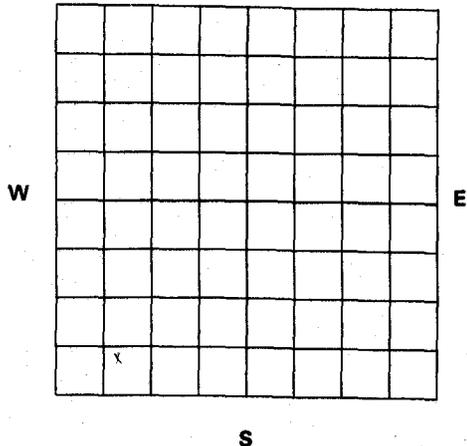
PLUGGING RECORD

Division of Oil, Gas, and Mining
Room 4241 State Office Building
Salt Lake City, Utah 84114

(801) 533-5771

RULE I-7 (g)

Notice: All questions on this form must be satisfactorily answered and mailed to the Division of Oil, Gas and Mining in duplicate and within 15 days after plugging is completed.



Company Operating Merrion Oil & Gas Corporation

Office Address P. O. Box 1017, Farmington, NM ZIP 87499

County San Juan Sec. 28 Twp. 41S Range 26E

Location in Section SE ¼ SW ¼ SW ¼ API No. _____

Farm Name Navajo Well No. 1-A Field Rockwell

Character of Well (whether oil, gas, dry, injection or disposal) Disposal Flat

Locate Well Correctly
and Outline Lease

Commenced Plugging 4/12/83 Finished 4/13/83 Total Depth 5990

Have you filed a DOGM-UIC-2? _____ If not, a DOGM-UIC-2 MUST BE attached.

Was permission obtained from the Division of OGM or its agents before plugging was commenced? _____

Name of Field Inspector _____ Perforations: 5790 - 5820

Signature of UIC Inspector _____

Name of Producing formation N/A Depth top _____ Bottom _____

SAND OR ZONE RECORDS

CASING RECORDS

Formation	Content	From	To	Size	Put In	Pulled Out
Paradox	Salt Water	5790	5820	2-7/8 & 2"	5990'	None

Describe in detail the manner in which the well was plugged, indicating where the mud fluid was placed and the methods used in introducing it into the hole.

If cement or other plugs were used, state the character of same and depth placed:

5820 - surface 85 sx Class B cement (100.30 cu. ft.)

Does the above conform strictly to the oil and gas regulations? Yes

REMARKS: Why plugged? Indians revoked business lease. If abandoned oil or gas well, state amount and date of last production _____

Plugging Contractor's Name and Address Cementers, Inc., P. O. Box 302, Farmington, New Mexico 87499

Correspondence regarding this well should be addressed to Merrion Oil & Gas Corporation

Address P. O. Box 1017, Farmington, New Mexico 87499

I, the undersigned, being duly sworn upon oath, state that this well record is true, correct and complete according to the records of this office and to the best of my knowledge and belief.

Steve S. Dunn, Operations Manager

Name and title of representative of company

Subscribed and sworn to before me this the 9th day of May, 19 83

Commission expires Dec 11, 1985

Notary Public