

Started inspecting as of ~~January~~ 1962. (mo. Prod. Report)
April,

FILE NOTATIONS

Entered in NID File

Entered On S R Sheet _____

Location Map Pinned

Card Indexed

IWR for State or Fee Land _____

Checked by Chief RS

Copy NID to Field Office

Approval Letter _____

Disapproval Letter _____

COMPLETION DATA:

Date Well Completed 5-10-61

OW _____ WW _____ TA _____

GW _____ CS PA _____

Location Inspected _____

Bond released _____

State of Fee Land _____

LOGS FILED

Driller's Log 5-12-61

Electric Logs (No.) 2

E _____ I _____ E-I GR _____ GR-N Micro _____

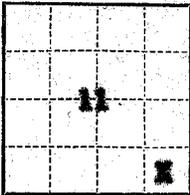
Lat _____ Mi-L _____ Sonic _____ Others _____

Copy to A L C

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Indian Agency Window Rock
Allottee Navajo
Lease No. 1-149-IND-8837



SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	<input checked="" type="checkbox"/>	SUBSEQUENT REPORT OF WATER SHUT-OFF.....	
NOTICE OF INTENTION TO CHANGE PLANS.....		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....		SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL.....		SUBSEQUENT REPORT OF REDRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....		SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....		SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

February 14, 19 61

Well No. Navajo 'A' 44-11 is located 348 ft. from XXX line and 732 ft. from E line of sec. 11

SE SE Sec. 11 408 24E SLD&M
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)
Aneth San Juan Utah
(Field) (County or Subdivision) (State or Territory)

The elevation ~~above sea level~~ above sea level is 4770 ft. ungraded ground

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Propose to drill well to test Paradox Formation at a depth of approximately 5800'.

Will set approximately 1000' of 9-5/8" surface pipe with cement circulated to surface.

Will set 4-1/2" casing through any commercial production encountered and will cement with 250 sacks.

Location approved by Utah Conservation Commission Order Cause No. 44.

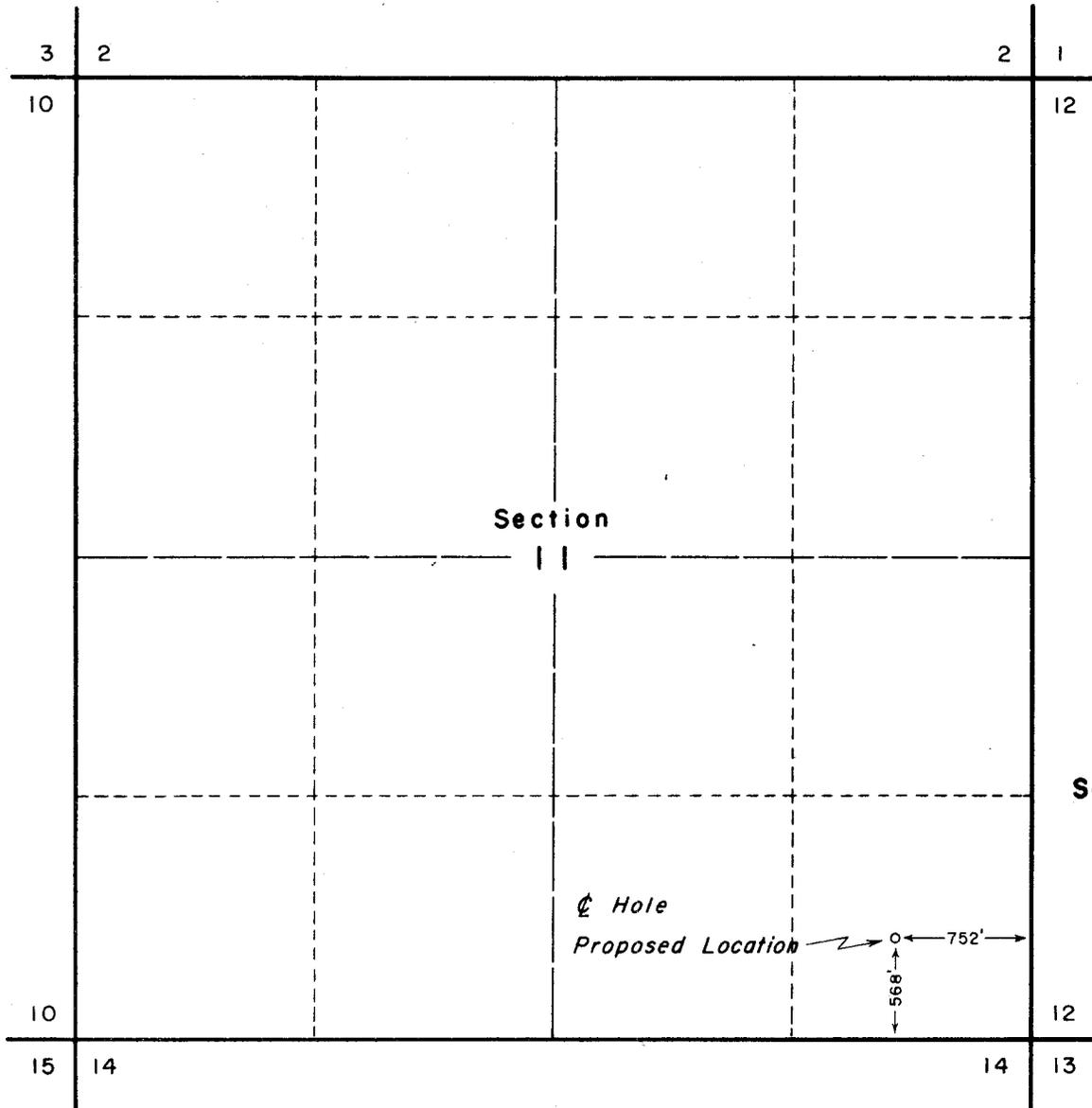
I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company The Superior Oil Company

Address P. O. Drawer 'G'
Cortez, Colorado

Original Signed By
D. D. KINGMAN
By D. D. Kingman
Title Engineer

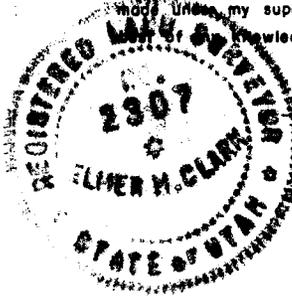
CERTIFICATE OF SURVEY



WELL LOCATION: The Superior Oil Co., Navajo "A" No. 44 - 11

Located 568 feet North of the South line and 752 feet West of the East line of Section 11
 Township 40 South Range 24 East Salt Lake Meridian
 San Juan County, Utah
 Existing ground elevation determined at 4778 feet based on U. S. G. S. Datum

I hereby certify the above plat represents a survey made under my supervision and is accurate to the best of my knowledge and belief.



Elmer M. Clark
 ELMER M. CLARK
 Registered Land Surveyor
 State of Utah (No. 2307)

E.M. CLARK & ASSOCIATES
 Durango, Colorado
 Nov. 23, 1960
 File No. 60 671

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

IN THE MATTER OF THE APPLICATION
OF THE SUPERIOR OIL COMPANY FOR
AUTHORITY TO DRILL AN OFF PATTERN
WELL IN THE GREATER ANETH AREA IN
SAN JUAN COUNTY, UTAH.

Q B B B B

CAUSE No. 44

This cause came on regularly for hearing on the 13th day of December, 1960, and the following appearances were made, to-wit: The Applicant Superior Oil Company was represented by E. F. Patman and Brigham E. Roberts and there were no other appearances; and it further appearing that Notice of the Hearing on the Application of Superior Oil Company was duly and regularly published as required by law and no one appearing in opposition or to protest said application, and upon evidence duly submitted, and after due consideration and deliberation, now, therefore,

IT IS HEREBY ORDERED that the Applicant Superior Oil Company be, and it hereby is permitted and authorized to drill an off pattern well in the SE quarter of the SE quarter of Section 11, Township 4 south, Range 24 East, San Juan County, Utah, not less than 500 feet from any property or lease line or governmental quarter quarter section line;

IT IS FURTHER ORDERED that the allowable on said well be, and it hereby is as follows:

219

IT IS FURTHER ORDERED that the Commission hereby retains jurisdiction of this Cause to make such further order, or orders, as may be reasonable.

DATED this 13th day of December, 1960.

STATE OF UTAH

OIL & GAS CONSERVATION COMMISSION



EDWARD W. CLYDE
Presiding Commissioner



M. V. HATCH, Commissioner



C. S. THOMSON, Commissioner

February 16, 1961

The Superior Oil Company
P. O. Drawer 'G'
Cortez, Colorado

Attn: D. D. Kingman, Engineer

Gentlemen:

This is to acknowledge receipt of your notice of intention to drill Well No. Navajo 'A' 44-11, which is to be located 568 feet from the south line and 752 feet from the east line of Section 11, Township 40 South, Range 24 East, SLBM, San Juan County, Utah.

Please be advised that insofar as this office is concerned approval to drill said well is hereby granted in accordance with the Order issued in Cause No. 44 on December 13, 1960.

This approval terminates within 90 days if the above mentioned well has not been spudded in within said period.

Very truly yours,

OIL & GAS CONSERVATION COMMISSION

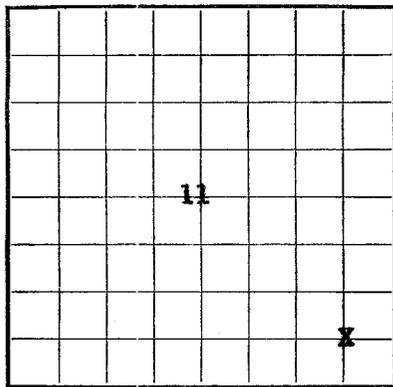
CLEON B. FEIGHT,
EXECUTIVE SECRETARY

CBF:mg

cc: P. T. McGrath, Dist. Eng.
U. S. Geological Survey

H. L. Coonts - OGCC, Moab

U. S. LAND OFFICE **Santa Fe**
SERIAL NUMBER **1-149-Ind-8837**
LEASE OR PERMIT TO PROSPECT **Navajo**



LOCATE WELL CORRECTLY

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company The Superior Oil Company Address P. O. Drawer G, Cortez, Colorado
Lessor or Tract Navajo A Field Aneth State Utah
Well No. 44-11 Sec. 11 T. 40S R. 24E Meridian SLBM County San Juan
Location 568 ft. ^(N)_(S) of S Line and 752 ft. ^(E)_(W) of E Line of section 11 Elevation 4790 KB
(Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed W. M. Ransburg Title Engineer
Date April 10, 1961

The summary on this page is for the condition of the well at above date.

Commenced drilling February 23, 19 61 Finished drilling March 20, 19 61

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 5510 to 5659 No. 4, from _____ to _____
No. 2, from 5689 to 5785 No. 5, from _____ to _____
No. 3, from _____ to _____ No. 6, from _____ to _____

IMPORTANT WATER SANDS

No. 1, from _____ to _____ No. 3, from _____ to _____
No. 2, from _____ to _____ No. 4, from _____ to _____

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated		Purpose
							From—	To—	
9-5/8	36	8	J-55	851'	Flange	None	5638	5734	Surface
4-1/2	50	8	J-55	5075'	Flange	None			Production

HISTORY OF OIL OR GAS WELL

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
9-5/8	862	285	Circulated to surface.		
4-1/2	5785'	250	Pump & plug.		

PLUGS AND ADAPTERS

Heaving plug—Material _____ Length _____ Depth set _____
Adapters—Material _____ Size _____

SHOOTING RECORD

FOLD MARK

MUDDING AND CEMENTING RECORD

FOLD MARK

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
9-5/8	862	285	Circulated to surface.		
4-1/2	5785'	250	Pump & plug.		

PLUGS AND ADAPTERS

Heaving plug—Material _____ Length _____ Depth set _____
 Adapters—Material _____ Size _____

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out

TOOLS USED

Rotary tools were used from 0 feet to 5785 feet, and from _____ feet to _____ feet
 Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet

DATES

_____, 19____ ~~Production~~ **Suspended Operations** ~~March 28~~ **March 28**, 19 **61**
 The production for the first 24 hours was _____ barrels of fluid of which _____% was oil; _____% emulsion; _____% water; and _____% sediment. Gravity, °Bé. _____
 If gas well, cu. ft. per 24 hours _____ Gallons gasoline per 1,000 cu. ft. of gas _____
 Rock pressure, lbs. per sq. in. _____

EMPLOYEES

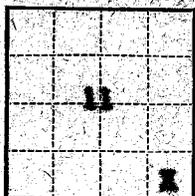
_____, Driller _____, Driller
 _____, Driller _____, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
			Electric Log Tops:
			Hermosa: 4645'
			Ismay: 5510'
			Gothic Shale: 5659'
			Desert Creek: 5689'

(SUBMIT IN TRIPLICATE)

Indian Agency Navajo



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Allettee Navajo

Lease No. 1-149-Ind-8037

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	<input checked="" type="checkbox"/>
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL	SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING	SUPPLEMENTARY WELL HISTORY	<input checked="" type="checkbox"/>
NOTICE OF INTENTION TO ABANDON WELL		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

April 10, 1961

Navajo 'A'
Well No. 44-11 is located 560 ft. from N line and 752 ft. from E line of sec. 11

SE SE Sec. 11 40S 24E SLM
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)
Aneth San Juan Utah
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is 4790 ft. K.B.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Spudded: February 23, 1961

Suspended Operations: March 28, 1961

Total Depth: 5785' FBTD: 5745'

Casing: 9-5/8" 36# & 40# set at 862' with 283 sacks.
4-1/2" 9.50# set at 5785' with 250 sacks.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company The Superior Oil Company
Address P. O. Drawer G
Cortez, Colorado

By W. H. Ransburg
Title Engineer

Electric Log Tops:

Hermosa: 4645'
Ismay: 5510'
Gothic Shale: 5659'
Desert Creek: 5689' (-900)

Perforations: Ismay Zone: 5636' - 5641'
Desert Creek Zone: 5698' - 5701'
5710' - 5717'
5728' - 5734'

Drill Stem Tests: None

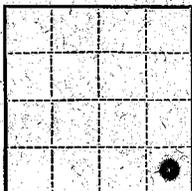
Treatments: 3-25-61 Acid Job #1 (Perfs: 5636'-41', 5698'-5701', 5710'-17', 5728'-34')
200 gals Spearhead Acid, 4,000 gals regular acid with 150 gals
temp block between stages. Max. Press 3400#/2000#, F.P.-3000#/
2000#, Avg. Inj. rate on acid 4.0 BPM.

Initial Production: Suspended Operations:

APR 12 1961

(SUBMIT IN TRIPLICATE)

Indian Agency Navajo



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Allottee _____

Lease No. 1-143-IND-8837

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	X
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	X
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	X
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

January 31, 1962

Aneth Unit
Well No. N411 is located 568 ft. from S line and 752 ft. from E line of sec. 11

SE 1/4 of Sec. 11 (1/4 Sec. and Sec. No.) 40-S (Twp.) 24-E (Range) 91M (Meridian)
Aneth (Field) **San Juan** (County or Subdivision) **Utah** (State or Territory)

The elevation of the derrick floor above sea level is 4790 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Moved in pulling unit, pulled rods and tubing and commenced workover 12-21-61. Set drillable bridge plug at 5670' and packer at 5555'. Pressured up on tubing to 5000# to test casing in Ismay zone. Hold pressure on tubing for 1-1/2 hours without a drop. Pulled packer and drilled out bridge plug at 5670' and cement from 5735' to 5766'. Perforated 4-1/2" casing from 5737' to 5756' and 5759' to 5762' with 2 jets per foot. Set packer at 5660' and treated all perforations (5698' to 5701', 5710' to 5717, 5728' to 5756' and 5759' to 5762') with 500 gallons of NKLST acid and 4000 gallons of emulsified acid. After acidizing, pulled packer. Ran 2-3/8" plastic lined tubing with Baker Injection Packer on bottom of tubing and set packer at 5651'. Put inhibitor behind packer and tested with 1000# pressure, packer
(Continued on reverse side)

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company TEXACO Inc.

Address P. O. Box 810

Farmington, N. M.

By [Signature]

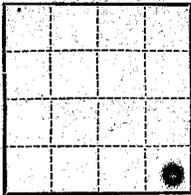
Title District Superintendent

tested OK. Completed workover and shut well in 12-31-61. This is a water injection well and is now shut-in waiting on water injection line.

FEB 1 1962

Copy H. L. C.
(SUBMIT IN TRIPLICATE)

Indian Agency Navajo



**UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY**

Allottee _____

Lease No. **1-149-120-9837**

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	<input checked="" type="checkbox"/>
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL	SUBSEQUENT REPORT OF REDRILLING OR REPAIR	<input checked="" type="checkbox"/>
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING	SUPPLEMENTARY WELL HISTORY	<input checked="" type="checkbox"/>
NOTICE OF INTENTION TO ABANDON WELL		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

December 21, 19 **62**

Well No. **NA11** is located **568** ft. from **SK** line and **752** ft. from **E** line of sec. **11**

SE 1/4 of Sec. 11 **40-S** **24-E** **SLM**
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)

Aneth **San Juan** **Utah**
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is **4790** ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Moved in pulling unit and commenced workover 10-26-62.

Reason for workover was to increase injectivity by opening additional pay in Subzone II.

Pulled plastic lined tubing with packer stinger. Drilled out packer at 5651' and cement from 5766' to 5784'. Perforated 4 1/2" casing from 5770' to 5783' with two jet shots per foot. Set packer at 5686' and treated all perforations (5698' to 5701', 5710'-5717', 5728 to 5734', 5759 to 5762' and 5770' to 5783') with 500 gallons regular 15% acid followed by 3000 gallons retarded acid. Treating pressure 3200 to 2200 PSI with an average injection rate of three barrels per minute. Five minute
(OVER)

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company **TEXACO Inc.**

Address **Box 810**

Farmington, N. M.

By *[Signature]*

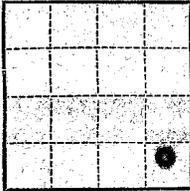
Title **Dist. Supt.**

shut-in pressure 700 PSI. After completing treatment, pulled packer. Loaded casing annulus with inhibited water and tested packer with 1000 PSI. Packer tested OK. Connected well to water injection line and put well back on injection status. On test ending 10-30-62, injected 960 barrels of water into well in 24 hours.

JAN 14 1963

Copy H.L.E.
(SUBMIT IN TRIPLICATE)

Indian Agency Navajo



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Allottee _____

Lease No. X-149-IND-8837

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	<input checked="" type="checkbox"/>
NOTICE OF INTENTION TO TEST WATER SHUT-OFF	SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL	SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE	SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING	SUPPLEMENTARY WELL HISTORY	
NOTICE OF INTENTION TO ABANDON WELL		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

Superior (WI Well)

May 20, 1963

Aneth Unit

Well No. H411 is located 568 ft. from N line and 752 ft. from W line of sec. 11

SE 1/4 of Sec. 11 40-S 24-E SLM
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)

Aneth San Juan Utah
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is 4790 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Commenced workover 3-1-63.

Reason for remedial work was to increase injectivity by acidizing.

Treated all perforations (5698' to 5701', 5710' to 5717', 5728' to 5734', 5759' to 5762' and 5770' to 5783') through tubing with 1500 gallons of regular 15% acid with 1000 cubic feet of CO₂ gas per barrel of acid. Treating pressure 3500 psi with an average injection rate of 5 barrels per minute. Back flowed and returned well to water injection. On 24 hour test ending 3-5-63, injected 1249 barrels of water in well with an injection tubing pressure of 1300 psi.

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company TEXACO Inc.

Address P. O. Box 810
Farmington, New Mexico

By *C.P. Gunn*

Title District Superintendent

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN
(Other instruc.
verse side)

Form approved.
Budget Bureau No. 42-R1424

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.)

5. LEASE DESIGNATION AND SERIAL NO.

I-149-IND-8837

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

NAVAJO

7. UNIT AGREEMENT NAME

Aneth Unit

8. FARM OR LEASE NAME

9. WELL NO.

H-411

10. FIELD AND POOL, OR WILDCAT

Aneth

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

11, 40-S, 24-E, SLM

12. COUNTY OR PARISH 13. STATE

San Juan

UTAH

1.

OIL WELL GAS WELL OTHER

Injection Well

2. NAME OF OPERATOR

TEXACO Inc.

3. ADDRESS OF OPERATOR

Box 810, 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

568' from South Line and 752' from East Line

14. PERMIT NO.

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

4790'DF

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*

(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.)*

Reason for workover was to increase injectivity by acidizing.

Commenced workover on 6-2-64.

Treated all perforations (5698' to 5701', 5710' to 5717', 5728' to 5734', 5759' to 5762' and 5770' to 5783') through tubing with 600 gallons of 15% HCL acid with iron stabilizing agent added. Treating pressure 2000 PSI with an average injection rate of two barrels per minute. Acid was left in bottom of hole for one hour then back flushed from well. After completing treatment, well was returned to injection. Injected 380 barrels of water into well on 24 hour test ending 6-3-64.

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

SIGNED

TITLE **Acting District Supt.**

DATE **8-24-64**

(This space for Federal or State office use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

8/21/85

Texaco Dave Wiedrich
H-411 (303)565-8401
Sec. 11, T40S, R24E
San Juan Co.

Well is SZ. Csg. leak. Well comp. in 1961.

SG: 9 $\frac{5}{8}$ " @ 862' in 12 $\frac{1}{4}$ hole. Cement to surf.
4 $\frac{1}{2}$ " @ 5785'. Cont w/ 250 SX

Desert Ck perfs. 5698'-5783'

Tight spot @ 2000'.

Desert Ck @ 5689'

Ismay Top @ 5510'

Hermosa @ 4645'

- ① locate leaks - squeeze w/ 100 SX +
- ② DO plug.
- ③ Spot cement across perfs w/ 100' above.
- ④ 100' plug in & out of Ismay (5545-5455)
- ⑤ Shoot @ 2734'
- ⑥ 100' plug 2734 - 2634' (DeChelly)
- ⑦ Shoot @ 1676'
- ⑧ 100' plug 1676' - 1576' (Chinle)
- ⑨ Shoot @ 900'
- ⑩ 100' plug 900' - 800'

(11) Shoot @ 100'

(12) Cement 100' to surface

→ Will start work tomorrow.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPPLICATE*
(Other instructions on reverse side)

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

16

5. LEASE DESIGNATION AND SERIAL NO.

I-149-IND-8837

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo

7. UNIT AGREEMENT NAME

Aneth Unit

8. FARM OR LEASE NAME

9. WELL NO.

H411

10. FIELD AND POOL, OR WILDCAT

Aneth

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

Sec. 11, T40S, R24E

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 Injection Well

2. NAME OF OPERATOR
Texaco Inc.

3. ADDRESS OF OPERATOR
P. O. Box EE, Cortez, CO. 81321

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)
At surface
568' FSL & 752' FEL

RECEIVED
OCT 10 1985
DIVISION OF OIL
GAS & MINES

14. PERMIT NO. 43-037-16325
15. ELEVATIONS (Show whether DF, RT, GR, etc.)
4790' DF

18. 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.)

P & A Completed 8/28/85
The well developed a casing leak that was uneconomical to repair. Thus the well was plugged & Abandoned as follows:
Set a cement retainer @ 3370' KB. Pumped 240 sxs class B Cmt. thru retainer to squeeze perfs @ 2200 psi. St. ing out & Circ. annulus, no cmt returns. Loaded hole w/10 Bbls of 9.2#/Gal. mud. Shot 4-way sqz. shot @ 2734' KB. Spotted 30 sxs class B cmt w/2% CaCl2 @ 2734' KB. Sqz'd 20 sxs into perfs. Tagged cmt. @ 2604' KB & Tested csg to 500 psi. Loaded hole w/15 Bbls mud. Perf'd 4-way shot @ 1676' KB. Spotted 30 sxs class B cmt w/3% Cacl2 @ 1676' KB. Sqz'd 20 sxs into perfs. Tagged cmt. @ 1540' KB. Shot 4-way @ 900' KB. Loaded hole w/11 Bbls mud. Spotted 30 sxs Class B Cmt. w/3% CaCl2 @ 900' KB. Sqz'd 20 sxs into perfs. Tagged cmt @ 771' KB and tested csg. to 500 psi. Loaded hole w/mud. Shot 4-way @ 100' KB. Filled csg & Annulus w/cmt. to surface. SI Well. Erected P & A Marker.

18. I hereby certify that the foregoing is true and correct
SIGNER M.S. Vidler / A.P. May TITLE Area Superintendent DATE 10/7/85

(This space for Federal or State office use)

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

BLM (4) - UOGCC (3) - Navajo Tribe - JNH-AJS-ARM

*See Instructions on Reverse Side

STATE OF UTAH
 DIVISION OF OIL, GAS, AND MINING
 ROOM 4241 STATE OFFICE BUILDING
 SALT LAKE CITY, UTAH 84114
 (801) 533-5771
 (RULE 1-5)

FORM NO. DOGM-UIC-1

IN THE MATTER OF THE APPLICATION OF
Texaco Inc.

ADDRESS P. O. Box EE
Cortez, Colorado ZIP 81321
 INDIVIDUAL PARTNERSHIP CORPORATION
 FOR ADMINISTRATIVE APPROVAL TO DISPOSE OR
 INJECT FLUID INTO THE ANETH UNIT... H-111 WELL
 SEC. 11 TWP. 40S RANGE 24E
San Juan COUNTY, UTAH

CAUSE NO. _____

ENHANCED RECOVERY INJ. WELL
 DISPOSAL WELL

APPLICATION

Comes now the applicant and shows the Division the following:

1. That Rule 1-5 (b) 6 authorizes administrative approval of enhanced recovery injections or disposal operations.
2. That the applicant submits the following information.

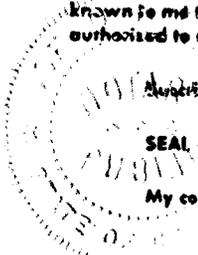
Lease Name <u>Aneth Unit</u>	Well No. <u>H411</u>	Field <u>Aneth</u>	County <u>San Juan</u>
Location of Enhanced Recovery Injection or Disposal Well <u>SE 1/4 - SE 1/4</u> Sec. <u>11</u> Twp. <u>40S</u> Rge. <u>24E</u>			
New Well To Be Drilled Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Old Well To Be Converted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Casing Test Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Date <u>12-21-61</u>	
Depth-Base Lowest Known Fresh Water Within 1/2 Mile <u>1150'</u>	Does Injection Zone Contain Oil-Gas-Fresh Water Within 1/2 Mile YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	State What <u>Oil & Gas</u>	
Location of Injection Source(s) wells & <u>Aneth Unit Producing wells & San Juan River</u>	Geologic Name(s) and Depth of Source(s) <u>Desert Creek & Ismay +/- 5600'</u>		
Geologic Name of Injection Zone <u>Paradox: ISMAV & DESERT CREEK</u>	Depth of Injection Interval <u>5636'</u> to <u>5783'</u>		
a. Top of the Perforated Interval: <u>5636'</u>	b. Base of Fresh Water: <u>1150'</u>	c. Intervening Thickness (a minus b) <u>4486'</u>	
Is the intervening thickness sufficient to show fresh water will be protected without additional data? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
Lithology of Intervening Zones <u>Sandstone, limestone & anhydrite w/intermittent shale layers</u>			
Injection Rates and Pressures Maximum _____ <u>2,000</u> B/D _____ <u>2,500</u> PSI			
The Names and Addresses of Those To Whom Copies of This Application and Attachments Have Been Sent <u>The Navajo Tribe</u> <u>Box 146</u> <u>Window Rock, Arizona 86515</u>			

State of Colorado
 County of Montezuma

Alvin R. Marx Field Supt.
 Applicant

Before me, the undersigned authority, on this day personally appeared Alvin R. Marx known to me to be the person whose name is subscribed to the above instrument, who being by me duly sworn on oath states, that he is duly authorized to make the above report and that he has knowledge of the facts stated therein, and that said report is true and correct.

Subscribed and sworn to before me this 16th day of Dec., 1983



My commission expires 10/25/87

Joe D. Roybal
 Notary Public in and for Colorado
 728 N. Beech, Cortez, Co. 81321

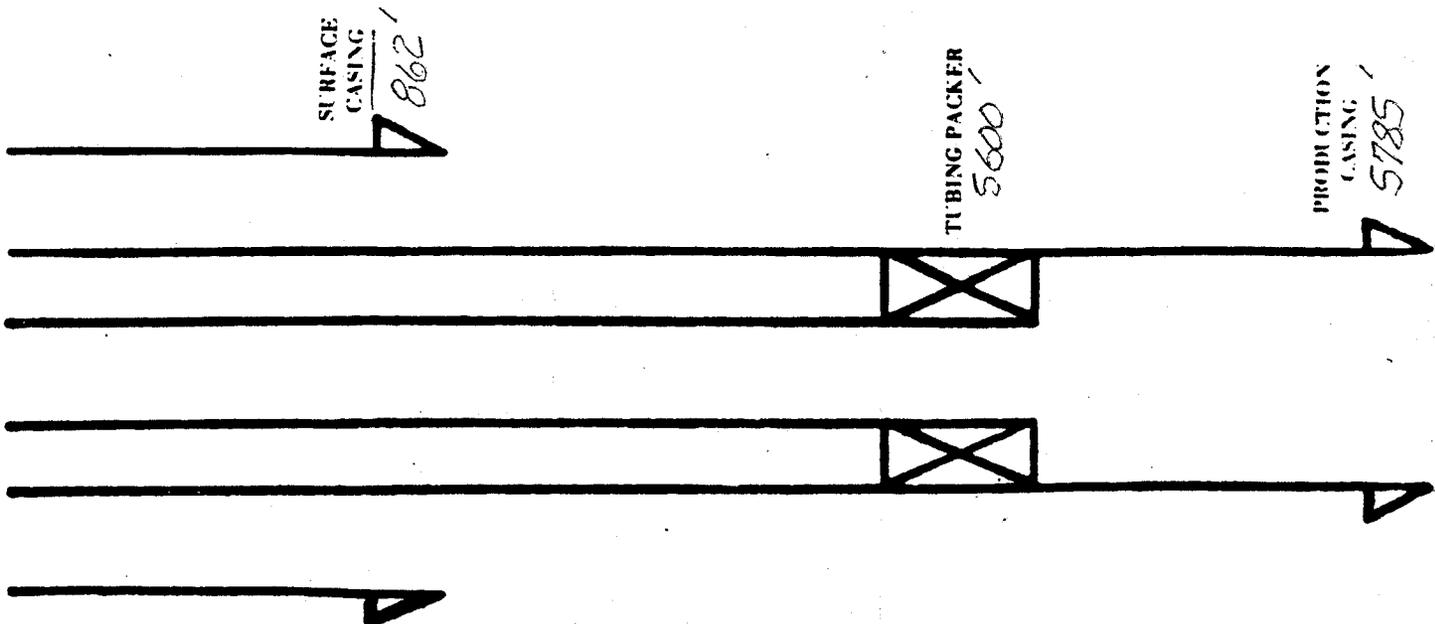
(OVER)

1. Attach qualitative and quantitative analysis of fresh water from 2 or more producing wells within 1 mile of injection well showing location of wells and date samples were taken, or statement as to why samples were not submitted.
2. Attach qualitative and quantitative analysis of representative sample of water to be injected.
3. Attach plat showing subject well and all known oil and gas wells, abandoned, drilling and dry holes within 1/2 mile, together and with name of operator.
4. Attach Drillers Log (Form DOGM-UIC-2). (Appropriate Surety must be on file with Conservation Division.)
5. Attach Electric or Radioactivity Log of Subject well (if released).
6. Attach schematic drawing of subsurface facilities including; Size, setting depth, amount of cement used measured or calculated tops of cement surface, intermediate (if any) and production casings; size and setting depth of tubing; type and setting depth of packer; geologic name of injection zone showing top and bottom of injection interval.
7. The original and 6 copies of application, and one complete set of attachments shall be mailed to the Division.
8. Deliver 1 copy of application to landowner on whose land injection well is located and to each operator of a producing leasehold within 1/2 mile of injection well.
9. Affidavit of mailing or delivery shall be filed not later than five days after the application is filed.
10. Notice that an application has been filed shall be published by the Division in a newspaper of general circulation in the county in which the well is located. The Division shall file proof of publication before the application is approved. The notice shall include name and address of applicant, location of proposed injection or disposal well, injection zone, injection pressure and volume. If no written objection is received within 15 days from date of publication the application will be approved administratively.
11. A well shall not be used for injection or disposal unless completed machine accounting Form DOGM-UIC-3b is filed September 1st, each year.
12. Approval of this application, if granted, is valid only as long as there is no substantial change in the operations set forth in the application. A substantial operation change requires the approval of a new application.
13. If there is less intervening thickness required by Rule I-5 (b) 4 attach sworn evidence and data.

CASING AND TUBING DATA

NAME OF STRING	SIZE	SETTING DEPTH	SACKS CEMENT	TOP OF CEMENT	TOP DETERMINED BY
Surface	9 5/8"	862'	285	NA	
Intermediate	—	—	—	—	
Production	4 1/2"	5785'	250	NA	
Tubing	2 3/8"	5600'	Name - Type - Depth of Tubing Packer 4 1/2" LOCK SET PACKER PLASTIC COATED 5600'		
Total Depth	Geologic Name - Inj. Zone		Depth - Top of Inj. Interval	Depth - Base of Inj. Interval	
5785'	ISMAVIL DESERT CREEK		5636'	5783'	

SKETCH - SUBSURFACE FACILITY



BEST COPY AVAILABLE

FORM DOGM-URC-2
(Rule 1-5 (b) 2)

PLEASE TYPE OR USE BLACK INK ONLY

(To be filed within 30 days after drilling is completed) I-149-IND-8837

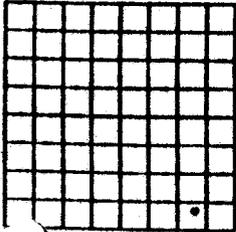
DEPARTMENT OF NATURAL RESOURCES AND ENERGY

COUNTY LEASE NO.

DIVISION OF OIL, GAS, AND MINING
Room 4241 State Office Building
Salt Lake City, Utah 84114

API NO

640 Acres



Lease Well Contour and Outline Lines

COUNTY San Juan SEC. 11 TWP. 40S RGE. 24E
COMPANY OPERATING Texaco Inc
OFFICE ADDRESS P O Box EE
TOWN Cortez STATE ZIP Colo 81321
FARM NAME Aneth Unit WELL NO. H411
DRILLING STARTED 2-23-61 DRILLING FINISHED 3-19-61
DATE OF FIRST PRODUCTION START IN COMPLETED 3-28-61
WELL LOCATED 1/4 SE 1/4 SE 1/4
568 FT. FROM SE OF @ SEC. & 750 FT. FROM EL. OF @ SEC.
ELEVATION DERRICK FLOOR 4790 GROUND 4780

TYPE COMPLETION

Single Zone _____ Order No. _____
Multiple Zone _____ Order No. _____
Comingled ISMAY & DESERT CREEK Order No. NA

LOCATION EXCEPTION _____ Order No. _____ Penalty _____

OIL OR GAS ZONES

Name	From	To	Name	From	To
<u>ISMAY</u>	<u>5636</u>	<u>5641</u>			
<u>DESERT CREEK</u>	<u>5698</u>	<u>5783</u>			

CASING & CEMENT

Casing Set				Cap. Test	Cement		
Size	Wgt	Grade	Foot	Psi	Size	Fillup	Top
<u>9 5/8"</u>	<u>36</u>	<u>J</u>	<u>862'</u>	<u>NA</u>	<u>385</u>	<u>NA</u>	<u>NA</u>
<u>4 1/2"</u>	<u>9.5</u>	<u>J</u>	<u>5785'</u>	<u>NA</u>	<u>250</u>	<u>NA</u>	<u>NA</u>

TOTAL DEPTH 5785'

COMPLETION & TEST DATA BY PRODUCING FORMATION

FORMATION	1	2	3
Desert Creek	Desert Creek	Ismay	<u>ISMAY</u>
SPACING & SPACING ORDER NO.	40 acre	40 acre	<u>DESERT CREEK</u>
CLASSIFICATION (Oil; Gas; Dry; Inj. Well)	<u>3-28-61 OIL</u>	<u>3-28-61 OIL</u>	<u>12-21-61 INJECTION</u>
PERFORATED	<u>5698-5701</u> <u>5710-5717</u>	<u>5636-5641</u>	
INTERVALS	<u>5708-5734</u> <u>5737-5756</u> <u>5759-5762</u>	<u>10-26-62 PERF</u> <u>5770-5783</u> <u>DESERT CREEK</u>	
ACIDIZED?	<u>200 GAL HCL</u> <u>4000 GAL REG</u> <u>12-21-61</u>	<u>10-26-62</u> <u>500 GAL NEST</u> <u>4000 GAL EMULS ACID</u>	
FRACTURE TREATED?	<u>NO</u>	<u>3500 GAL REG 15%</u>	

INITIAL TEST DATA

Date	<u>3-28-61</u>		
Oil. bbl./day	<u>12 (BHS)</u>		
Oil Gravity	<u>NA</u>		
Gas. Cu. Ft./day	<u>NA</u>	<u>CF</u>	<u>CF</u>
Gas-Oil Ratio Cu. Ft./Bbl.	<u>NA</u>		
Water-Bbl./day	<u>132</u>		
Pumping or Flowing	<u>SUABBED</u>		
CHOKE SIZE	<u>NA</u>		
FLOW TUBING PRESSURE	<u>NA</u>		

A record of the formations drilled through, and pertinent remarks are presented on the reverse. (use reverse side)

I, the undersigned, being first 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.

Telephone 1-303-565-8401 John R. Martz Field Supt.
State of Colorado Name and title of representative of company

County of Montezuma 16th day of December, 1983

Subscribed and sworn before me this 10/25/87 day of October, 1987
My commission expires 10/25/87 Joe D. Roybal

728 N. Beech, Cortez, Co. 81321

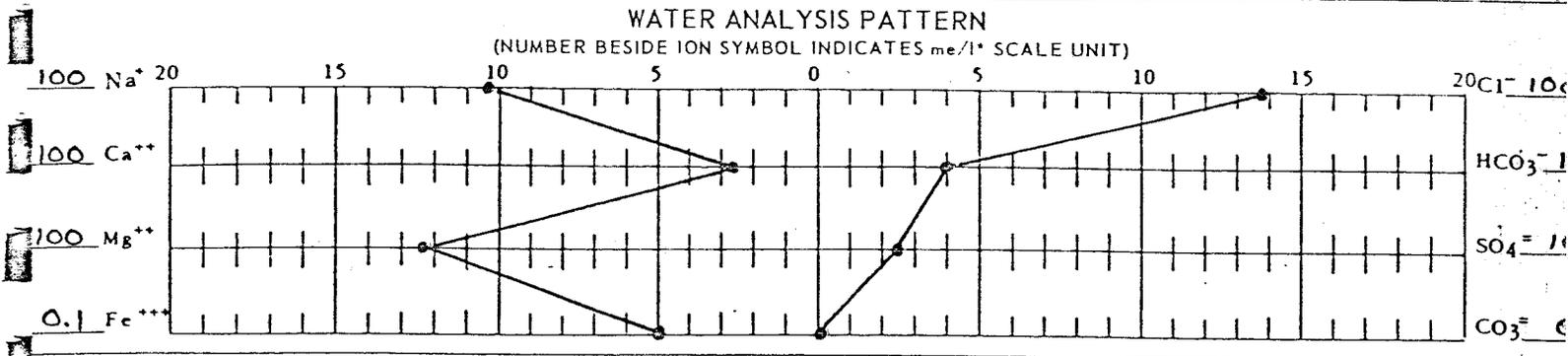
PACKERS SET DEPTH 5600'

WATER ANALYSIS REPORT

NL Treating Chemicals/NL Industries, Inc.

P.O. Box 1675, Houston, Texas 77001

							SHEET NUMBER	
COMPANY TEXACO, INCORPORATED							DATE 5 APRIL 1982	
FIELD ANETH				COUNTY OR PARISH SAN JUAN		STATE UTAH		
LEASE OR UNIT ANETH			WELL(S) NAME OR NO. INJECTION WATER		WATER SOURCE (FORMATION)			
DEPTH. FT.	BHT. F	SAMPLE SOURCE PLANT	TEMP. F	WATER, BBL/DAY	OIL, BBL/DAY	GAS, MMCF/DAY		
DATE SAMPLED 6 APRIL 1982		TYPE OF WATER						
		<input type="checkbox"/> PRODUCED		<input checked="" type="checkbox"/> SUPPLY		<input checked="" type="checkbox"/> WATERFLOOD		
		<input type="checkbox"/> SALT WATER DISPOS						



DISSOLVED SOLIDS		DISSOLVED GASES	
CATIONS	me/l*	mg/l*	
Total Hardness	392.0		Hydrogen Sulfide, H ₂ S 337.5 mg/l*
Calcium, Ca ⁺⁺	268.0	5360.0	Carbon Dioxide, CO ₂ 185.0 mg/l*
Magnesium, Mg ⁺⁺	124.0	1519.0	Oxygen, O ₂ 1.0 mg/l*
Iron (Total) Fe ⁺⁺⁺	0.5	10.0	
Barium, Ba ⁺⁺	—	1.0	PHYSICAL PROPERTIES
Sodium, Na ⁺ (calc.)	1035.1	23807.3	pH 6.65
ANIONS			Eh (Redox Potential) N.D. MV
Chloride, Cl ⁻	1380.3	49000.0	Specific Gravity N.D.
Sulfate, SO ₄ ⁼	24.5	1175.0	Turbidity, JTU Units N.D.
Carbonate, CO ₃ ⁼	0.0	0.0	Total Dissolved Solids (calc.) 81385.3 mg/l*
Bicarbonate, HCO ₃ ⁻	4.0	244.0	Stability Index @ 77 F +0.39
Hydroxyl, OH ⁻	0.0	0.0	@ 140 F +1.32
Sulfide, S ⁼	18.8	300.0	CaSO ₄ Solubility @ 77 F 306.6 me/l*
			@ 176 F 306.8 me/l*
			Max. CaSO ₄ Possible (calc.) 24.5 me/l*
			Max. BaSO ₄ Possible (calc.) 1.0 mg/l*
			Residual Hydrocarbons N.D. ppm(Vol/Vol)

SUSPENDED SOLIDS (QUALITATIVE)
 Iron Sulfide Iron Oxide Calcium Carbonate Acid Insoluble

REMARKS AND RECOMMENDATIONS:
WATER SHOWS A TENDENCY TOWARD SCALING; PRIMARILY CALCIUM CARBONATE

* 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.

BTC ENGINEER MARK BROTHERS	DIST. NO. 12	ADDRESS FARMINGTON, N.M.	OFFICE PHONE 505-325-5701	HOME PHONE 505-325-48
ANALYZED	DATE	DISTRIBUTION		

TEXACO

INSTRUCTIONS - CANCELS LETTER(S) OF _____

SIGNED BY _____

 PERMANENT ROUTINE TEMPORARY

19

(LOCATION)

(DATE)

Subject: Water Analysis from
Navajo Aquifer

Aneth Unit H415

Location - SE $\frac{1}{4}$ - SE $\frac{1}{4}$ Sec 15, T40S, R24E

Sample Date - 1-17-59

Depth - Navajo Aquifer

Temp - 67° F

Ph - 8.7

Total Dissolved Solids - 2573 ppm

SiO₂ - 16 ppmCO₃⁼ - 130 ppmCa⁺ - 7 ppmHCO₃⁻ - 156 ppmMg⁺⁺ - 28 ppmSO₄⁼ - 599 ppmNa⁺ - 76 ppmCl⁻ - 757 ppm

Aneth Unit G422

Location - SW $\frac{1}{4}$ - SE $\frac{1}{4}$ Sec 22, T40S, R24E

Sample Date - 1-18-59

Depth - Navajo Aquifer

Temp - 67° F

Ph - 9.2

Total Dissolved Solids - 2823 ppm

SiO₂ - 17 ppmCO₃⁼ - 925 ppmCa⁺ - 6 ppmHCO₃⁻ - 912 ppmMg⁺⁺ - 8 ppmSO₄⁼ - 265 ppmNa⁺ - 915 ppmCl⁻ - 271 ppm* Note: these numbers were obtained from TEXACO Files
in the Denver Division officesIf letter requires reply prepare in triplicate, for-
warding original and duplicate, and retain copy.

P.O. Box 2100

Denver, Colo.
80201

By _____

ADDRESSEE: Use reverse side to reply. Return original. Retain duplicate.

CHECKLIST FOR INJECTION WELL APPLICATION AND FILE REVIEW

* * * * *

Operator: Texaco Well No. #411

County: San Juan T 405 R 24E Sec. 11 API# 43-037-16325

New Well Conversion Disposal Well Enhanced Recovery Well

	<u>YES</u>	<u>NO</u>
UIC Forms Completed	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Plat including Surface Owners, Leaseholders, and wells of available record	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schematic Diagram	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Fracture Information	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pressure and Rate Control	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Adequate Geologic Information	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Fluid Source Desert Creek - San Juan

Analysis of Injection Fluid Yes No TDS 81,385

Analysis of Water in Formation to be injected into Yes No TDS 81,385

Known USDW in area None Depth 1150

Number of wells in area of review 4 Prod. 2 P&A 1
Water 0 Inj. 1

Aquifer Exemption Yes NA

Mechanical Integrity Test Yes No

Date _____ Type _____

Comments: T

Reviewed by: 