

Release Date: 7-11-67

CONFIDENTIAL



P-W

Texaco, Inc. 1 Navajo-2
NW/4-SW/4 Sec 36-Twp 41N-R30E
Apache, County

113

County Apache
Sucros Pos Field Area Four Corners

Lease No. Nav 14-20-603-4165

Well Name Texaco, Inc. Navajo-2

Location NW SW Sec 36 Twp 41N Range 30E Footage 560 FWL, 1980 FSL
5274 Gr CD 5286 KB DF Spud Re-Completed 1-67 Total 6997
Elev 5280 Gr 5291 KB Date 3-17-60 Abandon 7-10-60 Depth 6330 PBD

Contractor _____ Status: OH-P

Casing Size	Depth	Cement	Drilled by Rotary	Cable Tool
<u>13 3/8</u>	<u>220</u>	<u>300</u>	<u>X</u>	
<u>5 1/2</u>	<u>6820</u>	<u>600</u>		
<u>9 5/8</u>	<u>1583</u>	<u>1100</u>		
<u>2 3/8</u>	<u>6722</u>			

Production Horizon McCracken 6758-93
Initial Production 8 BOPD & 7 BSW gty.
40.7 degrees.
(Recompleted as Helium Well from Perf. 6270-6320
I.P. 3202 MCF)

REMARKS
Texaco str. 5-4-65, high helium contact. Re-completed as Helium well 7-30-67
Must have correct dedication prior to production and potential test report.

Elec Logs Sonic; GRN; IE; Microlog Sample Log Am Strat
Applic. Plugging Completion Sample Descript.
to Plug X Record X Report X Sample Set T-1189 P-614
(10-24-69) (1-21-70) Core Analysis _____
DSTs _____

Water well accepted by _____

Bond Co. Lumbermens Mutual Casualty Co Bond no 5 3181 275 (3-15-75)
& No. Travelers Indemnity Company #837525

Bond Am't \$ 25,000 Cancelled _____ Date _____ Organization Report 1-20-65

Filing Receipt 9222 Dated 3-17-60 Well Book X Plat Book X

Loc. Plat X Dedication All 36-41N-30E

API No. _____

RELEASE 7-17-67

Permit Number 113 Date Issued 3-17-60

ARIZONA
APACHE COUNTY
WILDCAT (W)

PETROLEUM INFORMATION
DENVER CASPER
ROCKY MOUNTAIN
OIL INFORMATION

Twp 41n-30e
Section 36
nw sw
1980 n/s 560 e/w

OPR: Texaco Inc.

WELL #:

1 Navajo "Z"

ELEV: 5274 DF

DSTS. & CORES:

SPUD: 3-17-60

COMPL: 7-10-60

*TOPS: Log 2-20-60
DeChelley 2742
Hermosa 4468
Paradox A 5142
Paradox B 5280
Paradox C 5596
Molas 6042
Leadville 6164
McCracken 6632
Aneth 6758
PreCambrian 6930

Crds 5173-85, rec 12 dense
ls. Crd 5185-5220, rec 35
12 sh; 6 ls; 2 ls, dense; 1
ls, bleeding oil; 7 ls, vuggy
poro; 4 ls; 3 sh. DST 5135
5220, open 3 hrs, gas in
65 min, continued good to
fair blow thruout test, too
small to measure, rec 185
sli GCM, FP 65-66#, SIP
(1 hr) 695#, HP 2490#.
Crd 5221-74, rec 53-5 ls

TD: 6997

PB: 6815

CSG:

13-3/8" @ 220 w/300; 9-5/8" @
1583 w/800; 5 1/2" @ 6820 w/600.

PERF:

Squeezed open hole 6820-6997.
Perf 6758-93 w/4 per ft; acidized
w/508; sd oil fract.

BROD. ZONE:

McCracken 6758-93.

INIT. PROD:

IPP 8 BO, 7 bbls salt wtr per day,
41 gty.

(McCRACKEN DISC - NEW FIELD)

HGCM, FP 235-300#, SIP 2230#, HP 3105#. DST 6299-
6334, open 5 hr, gas in 6 min, mixture of helium, co2 & natural gas, gauged 670 MCFPD (5.7%
helium) rec 90' of HGCM, FP 45-110#, SIP 2165#, HP 3225#. DST 6334-87, open 1 1/2 hrs, rec 1710'
salt wtr & mud, cut w/co2 gas, FP 140-660#, SIP (30 min) 2150#.

A8-068240

*For Electric Logs on Rocky Mountain Wells—Ask Us!

TEXACO INC #1 NAVAJO "Z" nw sw 36-41n-30e. APACHE COUNTY, ARIZ., PAGE 2

HP 3240#. DST 6520-91, open 3 hrs, rec 1654' flammable gas, 70' HO&GCM, 4' free oil, FP 70-85#, SIP (30 min) 1820#, HP 3380#. DST 6588-6615, open 2 hrs, rec 10 sll O&GCM, FP 0-0#, SIP (1 hr) 0#, HP 3260#. DST 6615-20, SI 1 hr, open 1 hr, rec 10' mud, FP 0-0#, SIP (1 hr) 10#, HP 3350#. DST 6760-6800, 4 hrs, rec 90 HO&GCM, 120 free oil, 44 gty, FP 70-100#, SIP (30 min) 2380#, HP 3395#. DST 6810-6997, 3½ hrs, gas in 2 hrs, died after 2 hrs 40 min, rec 5602 salt wr, FP 1330-2405#, SIP (3 min) 2420#, HP 3355#.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

DESIGNATE TYPE OF COMPLETION: Plug & Abandon

New Well Work-Over Deepen Plug Back Same Reservoir Different Reservoir Oil Gas Dry

DESCRIPTION OF WELL AND LEASE

Operator: TEXACO Inc. Address: Box 810, Farmington, New Mexico

Federal, State or Indian Lease Number or name of lessor if fee lease: 14-20-603-4165, Navajo Tribe Well Number: Z-1 Field & Reservoir: _____

Location: 1980 N. of So. 560 E. of W. Lines County: Apache

Sec. TWP-Range or Block & Survey: 36-T41N-R-30E-G & SR

Date spudded: _____ Date total depth reached: _____ Date completed, ready to produce: _____ Elevation (DF, RKB, RT or Gr.) feet: _____ Elevation of casing hd. flange feet: _____

Total depth: _____ P.B.T.D.: _____ Single, dual or triple completion?: _____ If this is a dual or triple completion, furnish separate report for each completion.

Producing interval (s) for this completion: _____ Rotary tools used (interval): _____ Cable tools used (interval): _____

Was this well directionally drilled?: _____ Was directional survey made?: _____ Was copy of directional survey filed?: _____ Date filed: _____

Type of electrical or other logs run (check logs filed with the commission): _____ Date filed: _____

CASING RECORD

Casing (report all strings set in well—conductor, surface, intermediate, producing, etc.)

Purpose	Size hole drilled	Size casing set	Weight (lb./ft.)	Depth set	Sacks cement	Amt. pulled

TUBING RECORD

LINER RECORD

Size in.	Depth set ft.	Packer set at ft.	Size in.	Top ft.	Bottom ft.	Sacks cement	Screen (ft.)

PERFORATION RECORD

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

Number per ft.	Size & type	Depth Interval	Amt. & kind of material used	Depth Interval

INITIAL PRODUCTION

Date of first production: _____ Producing method (indicate if flowing, gas lift or pumping—if pumping, show size & type of pump): _____

Date of test	Hrs. tested	Choke size	Oil prod. during test bbls.	Gas prod. during test MCF	Water prod. during test bbls.	Oil gravity ° API (Corr)

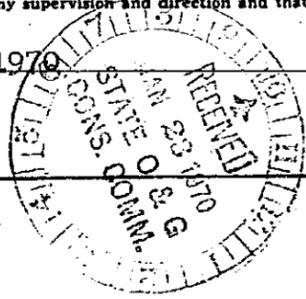
Tubing pressure	Casing pressure	Cal'ated rate of Production per 24 hrs.	Oil bbls.	Gas MCF	Water bbls.	Gas-oil ratio

Disposition of gas (state whether vented, used for fuel or sold): _____

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the District Supt. of Farmington of the TEXACO Inc. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Date: January 21, 1970

Signature: G. L. Eaton



Permit No. 113

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Well Completion or Recompletion Report and Well Log
Form No. 4 File Copy 2

DETAIL OF FORMATIONS PENETRATED

Formation	Top	Bottom	Description*
Well was plugged & abandoned as follow:			
Filled hole w/38 vis mud. Squeezed 50 sx reg. cx from 5950-6350 w/ 500#. Tested w/ 1000#. Shot casing off @ 1974 & pulled 90 jts 5 1/2" 14#. Spotted 24 sx cement plug across casing stub, 1925-2025. Spotted 29 sx plug, 1519-1619 & 10 sx surface plug & erected 5" pipe marker.			
Work started 12-16-69, completed 12-21-69.			

* Show all important zones of porosity, detail of all cores, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

INSTRUCTIONS:

Attach drillers log or other acceptable log of well.

This Well Completion or Recompletion report and well log shall be filed with the State of Arizona Oil & Gas Conservation Commission not later than thirty days after project completion.

Form 9-331
(May 1963)

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN REVERSE SIDE
LICATE* is on re-

Form approved
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

14-20-603-4165

6. INDIAN, ALLOTTEE OR TRIBE NAME

Navajo

7. UNIT AGREEMENT NAME

Navajo Tribe "Z"

8. FARM OR LEASE NAME

1

10. FIELD AND POOL, OR WILDCAT

Undesignated Miss

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

36 41N. 30E. C&SR

12. COUNTY OR PARISH 13. STATE

Apache Arizona

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

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

1980 ft. f/ So. & 560 ft. f/ West lines

14. PERMIT NO.

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

5291 DF

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"/>	

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.)

Work started 12-16-69 - completed 12-21-69. Well was plugged and abandoned as follows:

Filled hole w/ 38 vis mud. Squeezed 50 sx reg. cement from 5950-6350 w/ 500#. Tested w/ 1000#. Shot casing off @ 1974 & pulled 90 lbs. 5 1/2" 14# casing (1974). Spotted 24 sx cement plug across casing stub, 1925 to 2025. Spotted 29 sx plug, 1519-1619, and 10 sack surface plug & erected 5" pipe marker. Location is cleaned & ready for inspection.



18. I hereby certify that the foregoing is true and correct
SIGNED [Signature] TITLE Dist. Supt. DATE 12-24-69

(This space for Federal or State office use)
APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

113
3
USGS(3)0000(2)Navajo Tribe-HHB-CWS-CGH
Phoenix
*See Instructions on Reverse Side

Form 5-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLI
(Other instructions
verse side)

Form approved.
Budget Bureau No. 42-B1424.

5. LEASE DESIGNATION AND SERIAL NO.

14-20-603-4165

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo

7. UNIT AGREEMENT NAME

Navajo Tribe "Z"

8. FARM OR LEASE NAME

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Undesignated Miss.

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

36, 41N, 30E, C&SR

12. COUNTY OR PARISH

Apache

13. STATE

Arizona

14. PERMIT NO.

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

5291DF

16.

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

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

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.)

Propose to Plug and Abandon well as follows:

Kill well with mud.

Spot 50 sack cement plug from 6350 to 5950 and subject to bradenhead squeeze.

Cut and pull approximately 3500' of 5 1/2" OD casing.

Spot cement plugs as follows:

100 ft centered on top of casing stub

150 ft from 2650 to 2800' KB

100 ft centered on base of surface casing

10 sack plug at surface

Erect surface marker and clean location.



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

SIGNED

G. L. Eaton

TITLE Dist. Supt.

DATE 10-24-69

(This space for Federal or State office use)

APPROVED BY

John H. Summers

TITLE Executive Secretary

DATE 10-30-69

CONDITIONS OF APPROVAL, IF ANY:

4

*See Instructions on Reverse Side

USGS(3)-OGCC(2)-Navajo Tribe-MHB-CWS-CGH

Phoenix

113

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.
14-20-603-4165

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
Navajo

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Navajo Tribe "Z"

9. WELL NO.
1

10. FIELD AND POOL, OR WILDCAT

Undesignated Miss.

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

36, 41N, 30E, C&SR

12. COUNTY OR PARISH 13. STATE

Apache Arizona

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

2. NAME OF OPERATOR
TEXACO Inc.

3. ADDRESS OF OPERATOR
Box 810, Farmington, N. Mex. 87401

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

1980' from So Line & 560' f/West line

14. PERMIT NO.

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

5291DF

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*

(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.)*

Propose to Plug & Abandon well as follows:

Kill well w/ mud. Spot 50 sack cement plug from 6350 to 5950. Cut & Pull approx. 3500' of 5 1/2" OD csg. Spot 10 sack cx plugs @ bottom of 9 5/8" casing (1583') and @ surface. Erect marker & clean up location.



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

SIGNED [Signature] TITLE **Dist. Supt.** DATE **10-20-69**

(This space for Federal or State office use)

APPROVED BY [Signature] TITLE **Executive Secretary** DATE **10-30-69**
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

USGS(3)-0000(2)-Navajo Tribe-MHB-CMS-WLM
Phoenix

113

Instructions

General: This form is designed for submitting proposals to perform certain well operations, and reports of such operations when completed, as indicated, on Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law 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. Consult local

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 17: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of packing of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

ARIZONA OIL AND GAS CONSERVATION COMMISSION
MULTIPOINT AND ONE POINT BACK PRESSURE TESTS FOR GAS WELL

Type Test <input type="checkbox"/> Initial <input checked="" type="checkbox"/> Annual <input type="checkbox"/> Special		Test Date 6/9/69	Well Name Navajo Tribe "Z" No. 1	
Company TEXACO Inc.		Connection Air Reduction Co.		Permit No. 113
Pool Undesignated		Formation Leadville-Mississippian		Unit -
Completion Date Recomp 1/17/67	Total Depth 6997'	Plug Back TD 6330'	Elevation 5291' DF	Farm or Lease Name Navajo Tribe "Z"
Csg. Size 5 1/2	Wt. 14	d 5.012	Set At 6820'	Perforations: From 6270' To 6320'
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 6237'	Perforations: From None To
Type Well -- Single -- Bradenhead -- G.G. or G.O. Multiple Single			Packer Set At 6237'	County Apache
Producing Thru Tubing	Reservoir Temp. °F 142 @ 6200'	Mean Annual Temp. °F 50	Baro. Pres. - P _a 12.1	State Arizona
L 6237	H 6237	Gg. 1.030	% CO ₂ 27	% N ₂ 48
			% He 5.04	Prover -
			Meter Run 1.689	Taps Flange

FLOW DATA					TUBING DATA		CASING DATA		Duration of Flow		
NO.	Prover Line Size	X	Choke Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	
1.	1.689 x 1.246			1098	9.7	61	1118	68	-	-	49 Hrs. Continuous
2.											
3.											
4.											
5.											

NO.	Coefficient (24-Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super. Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	9.006	103.7	1110.1	.9924	.9853	1.080	986.4
2.							
3.							
4.							
5.							

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	A.P.I. Gravity of Liquid Hydrocarbons	Specific Gravity Separator Gas	Specific Gravity Flowing Fluid	Critical Pressure	Critical Temperature
1.	1.69	521	1.54	.858						
2.										
3.										
4.										
5.										

NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	(1) $\frac{P_c^2}{P_c^2 - P_w^2} =$	(2) $\frac{P_c^2}{P_c^2 - P_w^2} =$
1.	1277.1	1144.3	1309.3	551.5	3.374	2.8085
2.						
3.						
4.						
5.						

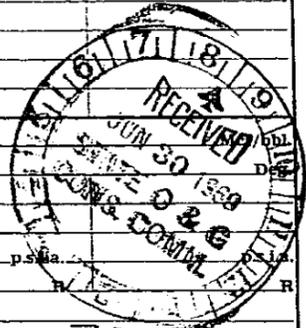
Absolute Open Flow	2770	Mcf/d @ 15.025	Angle of Slope @	49.60	Slope, n	.85
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Remarks: P_{cr} & T_{cr} obtained from Analyses.
 Unable to obtain four point test because of helium plant operation
 Assumed "n" value of 0.85 as approved by OGCC ltr. dated 6-14-68.

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Dist. Supt. of the TEXACO Inc. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Date: 6/28/69
 Signature: *[Signature]*
 OGCC(2)-DEN-File 113

STATE OF ARIZONA OIL & GAS
 CONSERVATION COMMISSION
 Multipoint and One Point Back Pressure
 Tests for Gas Well
 Form No. 18 (File two copies)



**ZONA OIL AND GAS CONSERVATION COMMISSION
DELIVERABILITY TEST REPORT**

Type Test <input type="checkbox"/> Initial <input checked="" type="checkbox"/> Annual <input type="checkbox"/> Special		Test Date 6/9/69	Well Name Navajo Tribe "Z" No. 1								
Company TEXACO Inc.		Connection Air Reduction Co.		Permit No. 113							
Pool Undesignated		Formation Mississippian-Leadville		Unit							
Completion Date Recomp 1/17/67	Total Depth 6997'	Plug Back TD 6330'	Elevation 5291' DF	Farm or Lease Name Navajo Tribe "Z"							
Csg. Size 5 1/2	Wt. 14	d 5.012	Set At 6820'	Perforations: From 6270' To 6320'							
Tbg. Size 2 3/8	Wt. 4.7	d 1.995	Set At 6237'	Perforations: From None To							
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single			Packer Set At 6237'	County Apache							
Producing Thru Tubing	Reservoir Temp. °F 114 @ 6200	Mean Annual Temp. °F 50°	Baro. Pres. - P _a 12.1	State Arizona							
L 6237'	H 6237'	Gg. 1.030	% CO ₂ 27 --	% N ₂ 48 --							
			Prover ---	% He 5.04							
				Meter Run 1.689							
				Taps Flange							
FLOW DATA			TUBING DATA		CASING DATA		Duration of Flow				
NO.	Prover Line Size	X	Choke Orifice Size	Press. p.s.i.g.	Diff. h w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
SI	-	-	-	-	-	-	1352	70	Pkr	-	49 Hrs.
1.	1.689	x	1.246	1098	9.7	61	1118	68	-	-	Continuous
NO.	Coefficient (24-Hour)		$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor F _t	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd			
1.	9.006		103.7	1110.1	.9924	.9853	1.080	986.4			
NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio		Mcf/bbl.				
1.	1.69	521	1.54	858	A.P.I Gravity of Liquid Hydrocarbons		Deg.				
	P _d 682 (1)				Specific Gravity Separator Gas						
	P _d 465.1				Specific Gravity Flowing Fluid						
	P _c 1364.1 P _c 1860.8				Critical Pressure		p.s.i.a. p.s.i.a.				
					Critical Temperature		R R				
					p _f p _f ²						
NO.	P ₁	P ₂	P _c ² - P ₁ ²	P _w	P _w ²	P _c ² - P _w ²	P _s	P _s ²	P ₁ ² - P _s ²		
1.	1130.1	1277.1	583.7	1114.3	1309.3	551.5	1114.7	2087.1			

$$\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{1178.8}{551.5} = 2.137$$

$$\log \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = .32980$$

$$\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = 1.907$$

$$n \log \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = .28033$$

$$\text{Deliv.} = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = 1881.0$$

Deliv. 1881.0 Mcfd
n .85
Assumed w/OGCC approval 6-14-68
(Source of n)

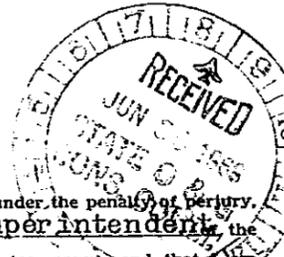
(1) Undesignated Field; Assumed P_d = 50%
P_c & T_c obtained from Analyses
for determination of Z.

OGCC(?) - DEN - File

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Dist. Superintendent of the TEXACO Inc. (company), and that I am authorized by said company to make this report and that this report was prepared under my supervision and direction and that the facts therein are true, correct and complete to the best of my knowledge.

Signature [Signature] Date 6/28/69

STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION
Deliverability Test Report (File two copies)
Form No. 20



113

WELL SITE CHECK

Contractor _____

Person(s) Contacted _____

By [Signature]

Date 7-28-69

Spud date _____

Type Rig _____ Rotary Cable _____

Present Operations _____

Samples _____

Pipe _____

Drilling with Air _____ Mud _____

Water Zones _____

Size Hole _____

Lost Circ. Zones _____

Size Drill Pipe _____

Formation Tops _____

Type Bit _____

Corés, Logs, DST _____

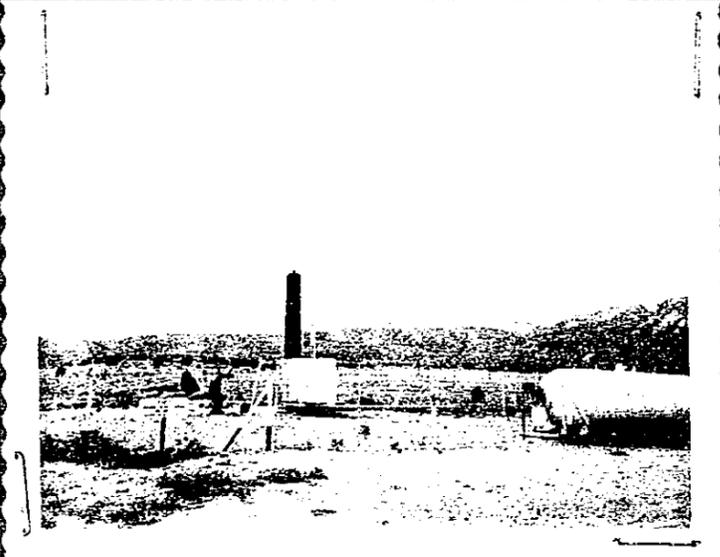
No. Bit _____ Drilling Rate _____

Crews _____

Formation _____

Lithology _____

REMARKS, PHOTO, MAP



Picture shows
Teyaco Z-1 location
(across road from
Teec Nos Pos Trading
Post on Navajo
Highway)

WELL NAME Teyaco Z-1 Navajo

Permit No. 113
Confidential: (No)

**ARIZONA OIL AND GAS CONSERVATION COMMISSION
DELIVERABILITY TEST REPORT**

Type Test <input checked="" type="checkbox"/> Initial <input checked="" type="checkbox"/> Annual <input type="checkbox"/> Special		Test Date 7-29-68	Well Name Navajo Tribe "Z" No. 1
Company TEXACO Inc.		Connection Air Reduction Co.	Permit No. 113
Pool Undesignated		Formation Leadville Mississippian	Unit
Completion Date Recompleted 1/17/67	Total Depth 6997'	Plug Back TD 6330'	Elevation 5291' DF
Farm or Lease Name Navajo Tribe "Z"		Well No. 1	
Csg. Size 5 1/2"	Wt. 14#	d 5.012	Set At 6820'
Perforations: From 6270 To 6320		Well No. 1	
Tbg. Size 2-3/8	Wt. 4.7#	d 1.995	Set At 6237'
Perforations: From None To		Sec. Twp. Rge. NW SW 36-41N-30E	
Type Well - Single - Bradenhead - G.G. or G.O. Multiple Single		Packer Set At 6237'	County Apache
Producing Thru Tubing	Reservoir Temp. °F 136 @ 6300'	Mean Annual Temp. °F est. 60°F	Baro. Pres. - P _a 12.1 psia
State Arizona		Meter Run 2" Flange	
L 6237	H 6237	Gg. 0.9484	% CO ₂ 23 --
		% N ₂ 40 --	Prover --
		% He 6	Taps 2"

FLOW DATA				TUBING DATA		CASING DATA		Duration of Flow			
NO.	Prover Line Size	X	Choke Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. °F	Press. p.s.i.g.	Temp. °F	Press. p.s.i.g.	Temp. °F	Duration of Flow
1.	1.689 x 1.246		1526	18.5	68	1730	70	70	Pkr.	-	Static
1.	1.689 x 1.246		1526	18.5	68	1546	68	68	Pkr.	-	continuous

NO.	Coefficient (24-Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd
1.	9.006	168.65	1538.1	0.9924	1.0269	1.0794	1.670.7

NO.	P _r	Temp. °R	T _r	Z	Gas Liquid Hydrocarbon Ratio	Mcf/bbl.
1.					No liquid	

NO.	P _d	P _d ²	P _c	P _c ²	Critical Pressure	p.s.i.a.	p.s.i.a.
	871 (1)						
	758.6						
	1742.1		3034.9				

NO.	P _t	P _w	P _c ² - P _t ²	P _w	P _w ²	P _c ² - P _w ²	P _s	P _s ²	P _f ² - P _s ²
1.									

$$\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \frac{2276.3}{617.2} = 3.69$$

$$\text{Log} \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \text{---}$$

$$\left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = 3.03$$

$$n \text{Log} \frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} = \text{---}$$

$$\text{Deliv.} = Q \left[\frac{P_c^2 - P_d^2}{P_c^2 - P_w^2} \right]^n = 5062$$

Deliv. 5062 Mcfd
n 0.85

Assumed w/OGCC approval 6/14/68
(Source of n)

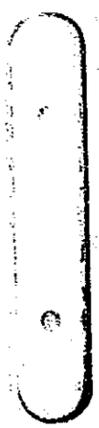
(1) Undesignated Field; assume P_d = 50% P_c

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the District Supt. of TEXACO Inc. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts therein are true, correct and complete to the best of my knowledge.

Signature [Signature] Date July 9, 1968

STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION
Deliverability Test Report (File two copies)
Form No. 20

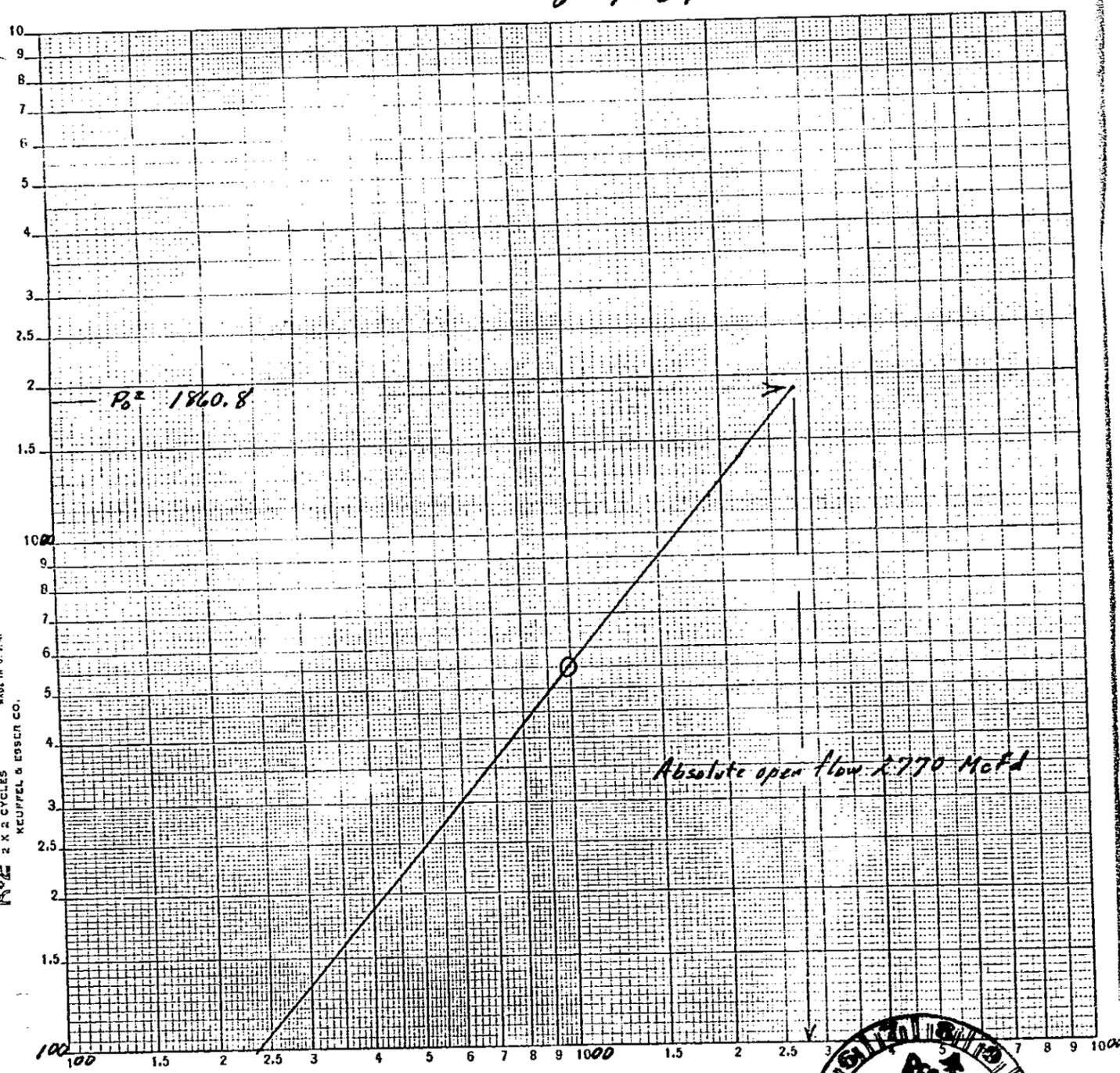
113



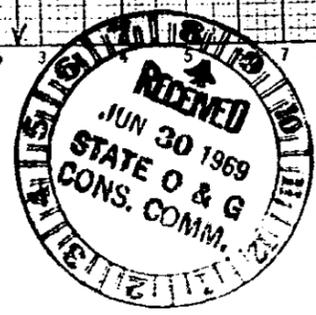
TEXAS Inc.
 Navajo Tribe "Z" Well No. 1
 NW SW 36-41N-30E
 Apache County
 6-9-69

$P_o^2 - P_w^2$ Thousands

KEE LOGARITHMIC
 46 7200
 MADE IN U.S.A.
 KEUFFEL & ESSER CO.



Q, Mcfd



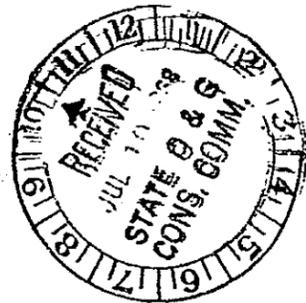
ARIZONA OIL AND GAS CONSERVATION COMMISSION
MULTIPOINT () ONE POINT BACK PRESSURE TEST FOR GAS WELL

Type Test <input checked="" type="checkbox"/> Initial <input checked="" type="checkbox"/> Annual <input type="checkbox"/> Special		Test Date 6/26/68	Well Name Navajo Tribe "Z" #1								
Company TEXACO Inc.		Connection Air Reduction Co.	Permit No. 113								
Pool Undesignated		Formation Leadville Mississippian	Unit								
Completion Date Recompleted 1/17/67 6997/	Total Depth 6997'	Plug Back TD 6330'	Elevation 5291' DF								
Farm or Lease Name Navajo Tribe "Z"		Well No. 1									
Csg. Size 5 1/2"	Wt. 14#	d 5.012	Set At 6820'								
Tbg. Size 2=3/8"	Wt. 4.7#	d 1.995	Set At 6237'								
Type Well - Single - Bradenhead - G.G. or G.O. Multiple single		Packer Set At 6237'	County Apache								
Producing Thru Tubing	Reservoir Temp. *F 136 @ 6300'	Mean Annual Temp. *F Est. 60	Baro. Pres. - P _a 12.1 psia								
L 6237	H 6237	Gg. 0.9484	% CO ₂ 23								
			% N ₂ 40								
			% He 6								
			Prover -								
			Meter Run 2"								
			Taps Flange								
FLOW DATA		TUBING DATA		CASING DATA		Duration of Flow					
NO.	Prover Line Size	X	Choke Orifice Size	Press. p.s.i.g.	Diff. h _w	Temp. *F	Press. p.s.i.g.	Temp. *F	Press. p.s.i.g.	Temp. *F	Duration of Flow
SI							1730	70	Pkr.	-	Static
1.	1.689 x		1.246	1526	18.5	68	1546	68	Pkr.	-	Continuous (1)
2.											
3.											
4.											
5.											
RATE OF FLOW CALCULATIONS											
NO.	Coefficient (24-Hour)	$\sqrt{h_w P_m}$	Pressure P _m	Flow Temp. Factor Ft.	Gravity Factor F _g	Super Compress. Factor, F _{pv}	Rate of Flow Q, Mcfd				
1.	9.006	168.65	1538.1	0.9924	1.0269	1.0794	1670.7				
2.											
3.											
4.											
5.											
NO.	P _r	Temp. *R	T _r	Z	Gas Liquid Hydrocarbon Ratio. No liquid		Mcf/bbl.				
1.					A.P.I Gravity of Liquid Hydrocarbons		Deg.				
2.					Specific Gravity Separator Gas						
3.					Specific Gravity Flowing Fluid						
4.					Critical Pressure	p.s.i.a.	p.s.i.a.				
5.					Critical Temperature	R	R				
$P_c = 1742.1$ $P_w^2 = 3034.9$ (1) $\frac{P_c^2}{P_c^2 - P_w^2} = 4.998$ (2) $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 3.92$											
NO.	P _t ²	P _w	P _w ²	P _c ² - P _w ²	AOF = Q $\left[\frac{P_c^2}{P_c^2 - P_w^2} \right]^n = 6,549$						
1.		1558.1	2427.7								
2.											
3.											
4.											
5.											
Absolute Open Flow 6,549 Mcfd @ 15.025				Angle of Slope $\theta = 49.6^\circ$		Slope, n 0.85(1)					
Remarks: (1) Unable to obtain 4-point test because of helium plant operation; assumed "n" value of 0.85 as approved by OGCC letter dated 6/14/68.											

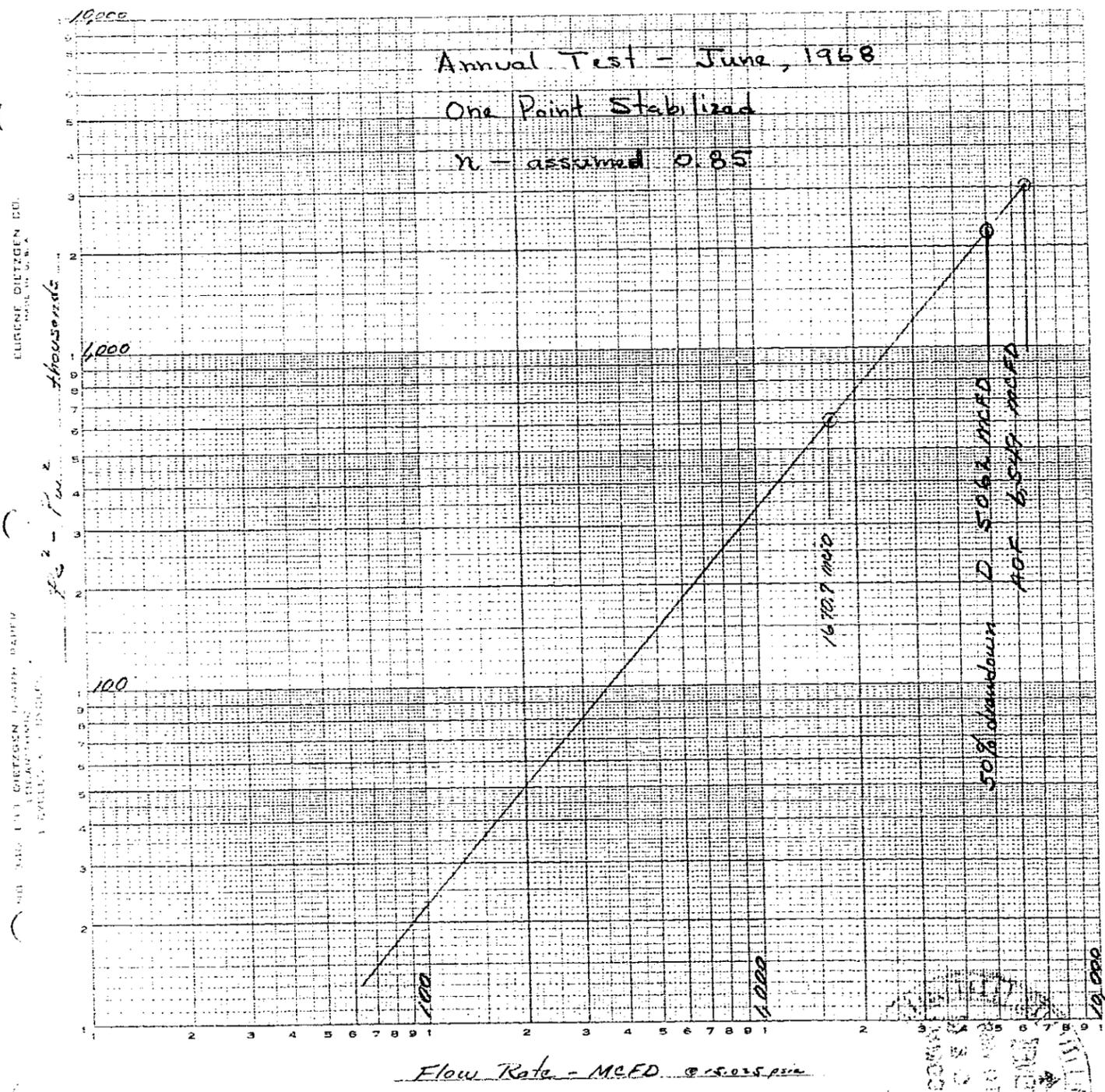
CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the District Supt. of TEXACO Inc. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Date 7/9/68 Signature C. P. Farmer 113

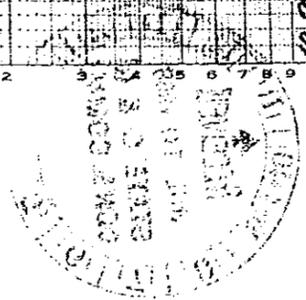
STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION
 Multipoint and One Point Back Pressure Tests for Gas Well
 Form No. 18 (File two copies)

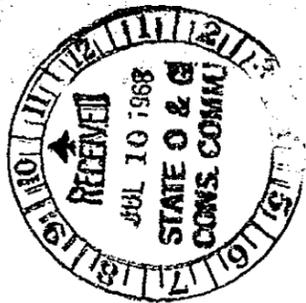


Navajo Tribe "Z" No. 1
 NW SW 36-41N-30E
 Apache County Arizona
 Operator - Texaco Inc

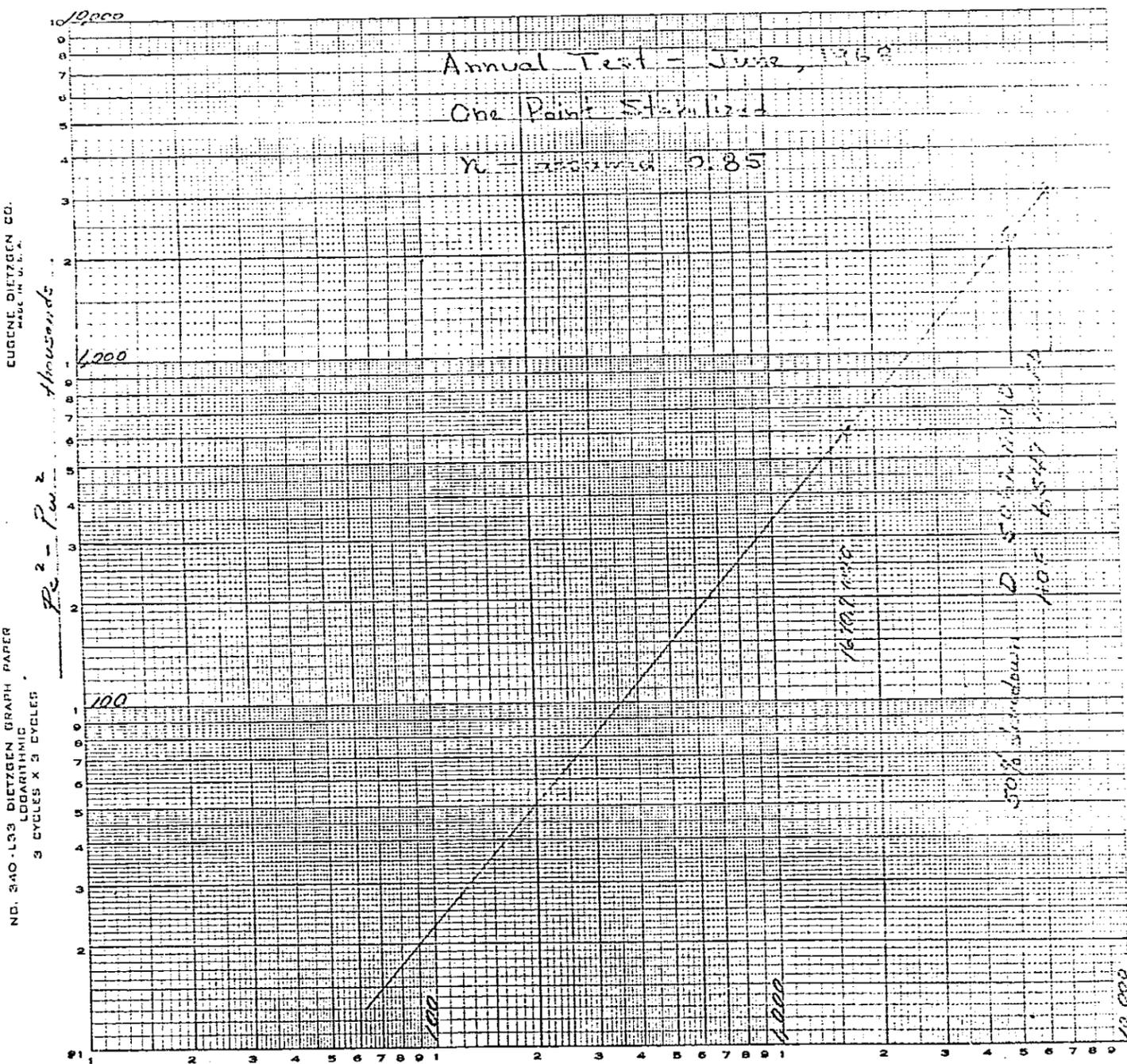


EUGENE DIETZGEN CO.
 MADE IN U.S.A.
 PLOT - Pw2
 Thousands
 100
 1000
 10000





Nousjo Tribe "Z" No. 1
 NW SW 36-41N-30E
 Apache County Arizona
 Operator - Texaco Inc



EUGENE DIETZGEN CO.
 MADE IN U.S.A.

NO. 340-L33 DIETZGEN GRAPH PAPER
 LOGARITHMIC
 3 CYCLES X 3 CYCLES

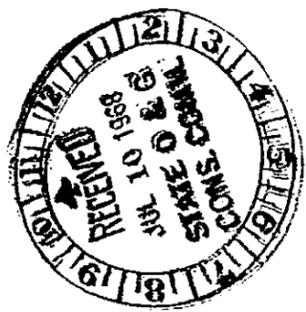
$P_2 - P_{w,2}$
 Thousands

Flow Rate - MCFD @ 15.025 pps

9

113

FCH/4-6-68



213

CURTIS J. LITTLE
CONSULTING GEOLOGIST
TELEPHONE 268-8741
2929 MONTE VISTA BLVD., NE
ALBUQUERQUE, N. M. 87106

Texaco Navajo Z-1
Section 36 T41N R30E
1980' FSL 560' FWL
Apache County, Arizona

Lease expires 5-28-68

Spud 3-17 TD 5-3-60 Set 6820' of 5½" csg with 600 sx regular cement.
Originally completed as Devonian Aneth dolomite oil well. 8 BOPD of 40.7
gravity 6758-93.

Mississippian gas analyses: Helium 6.03%

Raw Gas: Nitrogen 36%
Carbon Dioxide 22%
Methane 32%
Hydrogen Sulphide None

Top Mississippian - 6164

DST 6180-6299. Open 6 ¾ hours. Gas to surface in 7 minutes. Guaged
stabilized 1250 MCF natural gas, carbon dioxide and helium. Recovered 700'
gas cut mud. Helium analysis 6.2%. Flow pressure 235-300 psi. Shut-in pressure
2230 psi.

DST 6299-6334. Open 4 hours. Gas to surface in 6 minutes. Guaged stabilized
670 MCF natural gas, carbon dioxide and helium. Recovered 90' gas cut mud. Helium
analysis 5.74%. Flow pressure 45 to 110 psi. Shut in pressure 2165 psi.

DST 6334-87. Open 1½ hours. Recovered 1710' heavily gas, carbon dioxide
and helium cut mud and salt water. Flow pressure 140 to 660 psi. Shut in
pressure 2150 psi.

Estimated gas-water contact 6350 (-1060 BSL)

Estimated gas column: 80'

Completed as a helium well on 1-17-67. Perforated 6270-76, 6290-98,
6302-20. Acidized with 500 gal mud acid and 3000 gal 15% NE acid. Tested
24 hours on ¾" choke with tubing pressure 693 psi of 3202 MCFGPD stabilized.
Helium analysis: 6.03%.

OPERATOR'S CERTIFICATE OF COMPLIANCE AND AUTHORIZATION TO TRANSPORT OIL OR GAS FROM LEASE		
Federal, State or Indian Lease Number, or lessor's name if fee lease 14-20-603-4165	Field Undesignated	Reservoir Mississippian
Survey or Sec-Twp-Rge 36, T41N, R30E G&SR	County Apache	State Arizona
Operator TEXACO Inc.		
ADDRESS ALL CORRESPONDENCE CONCERNING THIS FORM TO:		
Street P. O. Box 810	City Farmington,	State New Mexico 87401
Above named operator authorizes (name of transporter) Air Reduction Company, Inc.		
Transporter's street address 150 East 42nd Street	City New York	State New York 10017
Field address Unknown at this time		
Oil, condensate, gas well gas, casinghead gas		
To transport	100 % of the	helium from said lease.
OTHER GATHERERS TRANSPORTING FROM THIS LEASE ARE AS FOLLOWS:		
Name of gatherer None	% transported	Product transported
Indicate whether or not this certificate is for a new lease. If not a new lease, indicate whether or not it is a change of operator, change of lease name, change of gatherer, or a consolidation or subdivision of leases and give effective date of change. First Transporter		

The undersigned certifies that the rules and regulations of the State of Arizona Oil & Gas Conservation Commission have been complied with in drilling and producing operations on this lease, except as noted above, and that the above transporter is authorized to transport the above specified percentage of the allowable oil or gas produced from the above described property, and that this authorization will be valid until further notice or until cancelled by the State of Arizona Oil & Gas Conservation Commission.

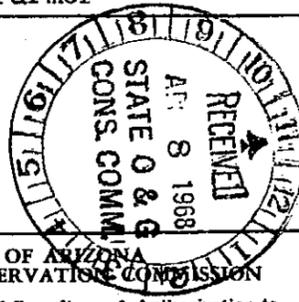
CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the District Superintendent of TEXACO Inc. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

April 5, 1968
Date

C. P. Farmer
Signature C. P. Farmer

Date approved: 4-8-68

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
By: *John Hammett*
Permit No. 113



OGCC(3) HHB(1) RJL(1) File (1)

14

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Operator's Certificate of Compliance & Authorization to Transport Oil or Gas from Lease
File Two Copies
Form No. 8

~~CONFIDENTIAL~~

WELL COMPLETION OR RECOMPLETION REPORT WELL LOG

DESIGNATE TYPE OF COMPLETION:

New Well Work-Over Deepen Plug Back Ramp Reservoir Different Reservoir Oil Gas Dry

DESCRIPTION OF WELL AND LEASE

Operator TEXACO Inc. Address Box 810, Farmington, N.M. 87401

Federal, State or Indian Lease Number or name of lessor if fee lease 14-20-603-4165 (Navajo Tribe) Well Number 1 Field & Reservoir Undesignated Mississippi

Location 1980' from South line and 560' from West line Apache County

Sec. TWP-Range or Block & Survey 36 - 41N - 30E G&SR

Date spudded - Date total depth reached - Date completed, ready to produce - Elevation (DF, RKB, RT or Gr.) 5291 DF feet Elevation of casing hd. range 5281 feet

Total depth 6997' P.B.T.D. 6330' Single, dual or triple completion? single If this is a dual or triple completion, furnish separate report for each completion.

Producing interval (s) for this completion 6270-6276, 6290-6298, 6302-6320' Rotary tools used (interval) - Cable tools used (interval) -

Was this well directionally drilled? - Was directional survey made? - Was copy of directional survey filed? - Date filed -

Type of electrical or other logs run, (check logs filed with the commission) Only correlation log run during plug back Date filed Not filed

CASING RECORD

Casing (report all strings set in well—conductor, surface, intermediate, producing, etc.)

Table with 7 columns: Purpose, Size hole drilled, Size casing set, Weight (lb./ft.), Depth set, Sacks cement, Amt. pulled. Rows include Conductor, Surface, and Production.

TUBING RECORD

LINER RECORD

Table with 8 columns: Size, Depth set, Packer set at, Size, Top, Bottom, Sacks cement, Screen (ft.).

PERFORATION RECORD

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

Table with 4 columns: Number per ft., Size & type, Depth Interval, Am't. & kind of material used. Includes jet perforation and acid treatment details.

INITIAL PRODUCTION

Date of first production 12-11-66 Producing method (indicate if flowing, gas lift or pumping—if pumping, show size & type of pump:) Flowing

Table with 7 columns: Date of test, Hrs. tested, Choke size, Oil prod. during test, Gas prod. during test, Water prod. during test, Oil gravity.

Table with 7 columns: Tubing pressure, Casing pressure, Cal'd rate of Production per 24 hrs., Oil, Gas, Water, Gas-oil ratio.

Disposition of gas (state whether vented, used for fuel or sold): Shut-in, no market. *Helium content 6.03%

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the... District Superintendent... of the TEXACO Inc. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

March 22, 1967 Date

Signature C.P. Farmer

STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION

Well Completion or Recompletion Report and Well Log

Form No. 4 File One Copy

Permit No. # 113

(Complete Reverse Side)

Orig to Doc - 3/22/67

SUNDRY NOTICES AND REPORTS ON WELLS
CONFIDENTIAL

1. Name of Operator TEXACO Inc.
 2. OIL WELL GAS WELL OTHER (Specify) _____
 3. Well Name Navajo Tribe "Z" No. 1
 Location 1980' from South line and 560' from West line
 Sec. 36 Twp. 41-N Rge. 30-E County Apache Arizona.
 4. Federal, State or Indian Lease Number, or lessor's name if fee lease 14-20-603-4165

5. Field or Pool Name Undesignated Mississippian

6. 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 checked="" type="checkbox"/>	MONTHLY PROGRESS <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	DIRECTIONAL DRILL <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	PERFORATE CASING <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(OTHER) <u>Complete as helium gas well</u>	ABANDONMENT <input type="checkbox"/>
(OTHER) _____			<input checked="" type="checkbox"/>

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

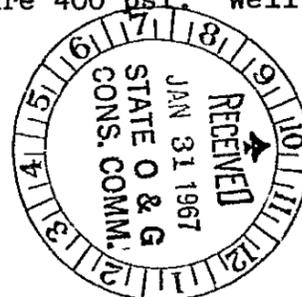
7. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to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

Remedial work was for the purpose of plugging the Devonian Zone and testing the Mississippian Zone. Procedure was as follows:

Moved in pulling unit and commenced workover 12/6/66. Spotted 20 sack cement plug over perforations 6685' to 6815'. Perforated 5-1/2" casing with 4 jet shots at 6359' and with 4 jet shots at 6369'. Set packer at 6330' and broke formation down with 3500 psi. Squeezed perforations with 100 sacks of regular neat cement with a maximum squeeze pressure of 4000 psi. Reversed out 65 sacks. Perforated 5-1/2" casing from 6270' to 6276', 6290' to 6298' and 6302' to 6320' with 2 jet shots per foot. Set packer at 6237' and treated perforations with 500 gallons of mud acid. Treating pressure 2500 psi with an average injection rate of 1/2 barrel per minute. Ten minute shut-in pressure 400 psi. Well commenced flowing and is now shut in waiting on test.

CONFIDENTIAL

Release Date 7-30-67 JB



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

Signed [Signature] Title District Supt. Date January 20, 1967

STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Sundry Notices and Reports On Wells
 File Two Copies
 Form No. 25

Permit No. 113

16

Form 9-3-51
(May 1963)

CONFIDENTIAL
UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Form approved.
Budget Bureau No. 42-R142.
5. LEASE DESIGNATION AND SERIAL NO.
14-20-603-4165
6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Navajo
7. UNIT AGREEMENT NAME
Navajo Tribe Z
8. FARM OR LEASE NAME
1
9. WELL NO.
1
10. FIELD AND POOL, OR WILDCAT
**Undesignated
Mississippian**
11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
36, T41N, R30E, G&SR
12. COUNTY OR PARISH | 13. STATE
Apache | Arizona

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
2. NAME OF OPERATOR
TEXACO Inc.
3. ADDRESS OF OPERATOR
P. O. 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
1980' from South line and 560' from West line
14. PERMIT NO. | 15. ELEVATIONS (Show whether DF, ST, OR, etc.)
5291' DF

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 checked="" type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLET <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZ <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input checked="" type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) Complete as helium gas well <input checked="" 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.)*

Remedial work was for the purpose of plugging the Devonian Zone and testing the Mississippian Zone. Procedure was as follows:

Moved in pulling unit and commenced workover 12/6/66. Spotted 20 sack cement plug over perforations 6685' to 6815'. Perforated 5-1/2" casing with 4 jet shots at 6359' and with 4 jet shots at 6369'. Set packer at 6330' and broke formation down with 3500 psi. Squeezed perforations with 100 sacks of regular neat cement with a maximum squeeze pressure of 4000 psi. Reversed out 65 sacks. Perforated 5-1/2" casing from 6270' to 6276', 6290' to 6298' and 6302' to 6320' with 2 jet shots per foot. Set packer at 6237' and treated perforations with 500 gallons of mud acid. Treating pressure 2500 psi with an average injection rate of 1/2 barrel per minute. Ten minute shut-in pressure 400 psi. Well commenced flowing and is now shut-in waiting on test.

CONFIDENTIAL

Release Date 1-30-67

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

SIGNED [Signature] TITLE District Superintendent DATE 1/20/67

(This space for Federal or State office use)

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

*See Instructions on Reverse Side

11317

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator TEXACO Inc.
 2. OIL WELL GAS WELL OTHER (Specify) Abandoned
 3. Well Name Navajo Tribe "Z" #1
 Location 1980' from South line and 560' from West line
 Sec. 36 Twp. 41-N Rge. 30-E County Apache Arizona.
 4. Federal, State or Indian Lease Number, or lessor's name if fee lease 14-20-603-4165
 5. Field or Pool Name Undesignated - Devonian

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF	<input checked="" type="checkbox"/>	PULL OR ALTER CASING	<input type="checkbox"/>
FRACTURE TREAT	<input type="checkbox"/>	DIRECTIONAL DRILL	<input type="checkbox"/>
SHOOT OR ACIDIZE	<input checked="" type="checkbox"/>	PERFORATE CASING	<input type="checkbox"/>
REPAIR WELL	<input type="checkbox"/>	CHANGE PLANS	<input type="checkbox"/>
(OTHER)	<input checked="" type="checkbox"/>	Complete as Helium gas well	<input checked="" type="checkbox"/>

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

7. 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.)

Proposed remedial work is for the purpose of plugging the Devonian Zone and testing the Mississippian Zone. Procedure for remedial work is as follows:

ok
del
Load hole with water and spot 20 sack cement plug from 6685' to 6615'. Perforate 5-1/2" casing at 6353' and 6363' with four jet shots each. Break down formation and cement with 100 sacks of cement to assure adequate seal between Mississippian Zone and water zone below 6353', with cement top at 6330'. Perforate 5-1/2" casing from 6270' to 6276', 6290' to 6298' and 6302' to 6320' with four jet shots per foot. Treat all perforations with 500 gallons of mud acid and swab test for water. If water-free, retreat all perforations with 3000 gallons of 15 percent NE acid. Commence flowing and test.

Approved 12-7-66
John B. Bannister
 OIL & GAS CONSERVATION COMMISSION
 STATE OF ARIZONA
 1624 WEST ADAMS - SUITE 208
 TELEPHONE: 271-5181
 PHOENIX, ARIZONA. 85007



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

Signed *W. B. Garmar* Title District Superintendent 11/22/66

STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Sundry Notices and Reports On Wells
 File Two Copies
 Form No. 25

Permit No. 113

STATE OF ARIZONA
OIL AND GAS CONSERVATION COMMISSION
PHOENIX, ARIZONA

FORM O&G 52

Form Prescribed Under Oil and Gas Conservation Act of 1951
WELL COMPLETION REPORT
(File in Duplicate)

Operator TEXACO Inc. Field Wildcat
Street P. O. Box 810 Pool Undesignated Devonian
City Farmington, State New Mexico County Apache
Lease Name Navajo Tribe "Z" Well No. 1 Acres in Unit 80
Location 1980' from South Line and 560' from West Line of
Sec. 36 Twp. 41 North Rge. 30 East
Elevation DF 5291' GR 5280' Electric Log Run May 3, 1960
Number of Crude Oil Producing Wells on this Lease, including this well 1
Has Authorization to Transport Oil or Gas From Well, Form O&G 57 been filed? No

OFFICIAL COMPLETION GAUGE

Date Test Commenced 7/9 1960 Hour 8 A.M. Date Test Completed 7/10 1960 Hour 8 A.M.
Length of Test 24 Hours -- Minutes

For Flowing Well: For Pumping Well:
Flowing pressure on Tbg. -- lbs. / sq. in. Length of stroke used 88" inches
Flowing pressure on csg. -- lbs. / sq. in. Number of strokes per min. 12
Size tbg. -- in. No. ft. run -- Size of working barrel 1-1/4 inches
Size choke -- in. Type choke -- Size tubing 2 in. No. ft. run 6762'
Length -- in. Shut in pressure --

If flowing well, was this well flowed for the entire duration of this test without the use of swab or other artificial flow device? -- If jetted, used -- cu. ft. gas per bbl. oil. Result of this test (bbls. net oil per 24 hrs.) (100% tank tables.)

Gas-oil ratio of this well is TSTM cu. ft. of gas per bbl. of oil.
Per cent water produced during this test 47

Gravity of oil produced during this test (Corrected to A. P. I. 60° F) 40.7°
Name of Pipe Line or other carrier Undetermined at this date

If perforated: No. Shots 140 From 6758' To 6793' Date Perforated 5/10/60
Date well Spudded March 17 1960 Date Well Completed July 10, 1960
Top Pay 6758 Ft. Total depth of well 6997 Ft. P.B.T.D. 6815'

CASING LINER AND TUBING RECORD

String	Size	Wt./Ft.	Name and Type	Amount Ft. In.	Depth Set at	Perforated From	To
Conductor	13-3/8"	48	Casing - Smls	216'	220'		
Surface	9-5/8"	36	Casing - Smls	1569'	1583'		
Oil	5-1/2"	14	Casing - Smls	4737'	--		
	5-1/2"	15.5	Casing - Smls	1507'			
	5-1/2"	17	Casing - Smls	571'	6820'	6758'	6793'
Tubing	2"		Tubing - Usset	6761'	6772'		

CEMENT AND TESTING RECORD

Size of Hole	String	Where Cement Placed	No. Sacks Cement	Method Used	Pressure Applied in Testing	Hardness of Cement Drilled	Type of Cement
17-1/4"	13-3/8"	Circulated	300	HOWCO	800#	None Drilled	Regular
12-1/4"	9-5/8"	Circulated	1275	HOWCO	800#	None Drilled	Regular
7-7/8"	5-1/2"	6997' to 4000'	600	HOWCO	1000#	Unavailable	Regular

CHEMICAL OR SHOOTING RECORD BEFORE COMPLETION

Size	Chemical or	Quantity	Date	From	To
5-1/2"	Acid	2000	5-12-60	6758'	6793'
5-1/2"	Oil & Sand	10,000 gals. oil & 10,000# sand	5-16-60	6758'	6793'

I, C. P. Farmer, being first duly sworn on oath state that I have knowledge of the facts and matter herein set forth and that the same are true and correct.

Note: All measurements from derrick floor, 11' above ground.

[Signature] Dist. Sup't.
Representative of Company

Subscribed and sworn to and before me this 29th day of July, 1960
San Juan County, New Mexico [Signature] Notary Public

My Commission expires: 11-22-61

3 20



CERTIFICATE FOR LOAD OIL CREDIT AND PERMIT TO TRANSPORT RECOVERED LOAD OIL

Operator TEXACO Inc.		Address Box 810, Farmington, New Mexico	
Lease Name Navajo Tribe "Z"	Well No. 1	Field and Pool Wildcat	County Apache
Location Section 36, T-41-N, R-30-E, Gila and Salt River Meridian			

Barrels load oil recovered
119

Oil was purchased from* Luna-Eaves Company	Address Box 2151, Farmington, New Mexico
	Date purchased May 9 & 16, 1960

Oil from the lease and well first above described is gathered and transported by:
Luna-Eaves Company

This report will certify that the number of barrels of load oil, shown above, was recovered from the property first above described; also that this load oil was purchased from the named firm (or lease), and permission is hereby requested for the running of the said number of barrels of oil by the gatherer and transporter.

833 barrels load oil originally purchased. Permission was requested to run 714 barrels recovered load oil on Form No. P-19, dated 6-22-60. However, only 678 barrels were actually run by Transporter. Therefore, 155 barrels of the total oil purchased now remain to be run.

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the District Accountant of the TEXACO Inc. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Date
July 19, 1960

Signature
A. Z. Glascock

Note: This report required only when load oil was obtained from a source other than the lease on which used.
* Insert lease name, location and pool if oil supplied from a lease.

STATE OF ARIZONA STATE LAND COMMISSIONER
Certificate for Load Oil Credit and permit to Transport Recovered Load Oil

Form No. P-19

File three copies

Authorized by Order No. 4-6-59

Effective April 6, 1959

WJM
21

113

NEW WELL COMPLETION
(OFFICIAL COMPLETION GAUGE)

Date of First Production Test 7-9-60 Date of Completion Gauge 7-10-60

Total Oil saved while testing well prior to the date of the official completion gauge _____
65 Barrels.

Production Gauge on 24 Hour Basis 8 Bbl. Oil; 47 % Water; TSTM MCF Gas.

The undersigned certifies that the Rules and Regulations of the Commissioner have been complied with except as noted above, and that the transporter('s) authorized to transport the percentage of Oil and/or Gas produced from the above described drilling unit, and that this authorization will be valid until further notice to the transporter named herein or until cancelled by the Commissioner.

Executed this the 18th day of July 1960.

TEXACO Inc.
(Company or Operator)
A. L. Glascock Dist. Accountant
(Affiant) (Title)

STATE OF New Mexico

COUNTY OF San Juan

Before me, the undersigned authority, on this day personally appeared A. L. Glascock, 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 authorized to make this report and has knowledge of the facts stated herein and that said report is true and correct.

Subscribed and sworn to before me this the 18th day of July 1960.

F. E. Brock
Commission expires 11-22-61

San Juan County, New Mexico
Notary Public In and For

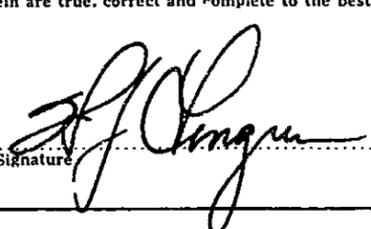
Approved Charles Kell MD
COMMISSIONER

BY: _____

(FOLLOW INSTRUCTIONS IN INSTRUCTION SHEET)

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**CERTIFICATE FOR LOAD OIL CREDIT AND
PERMIT TO TRANSPORT RECOVERED LOAD OIL**

Operator TEXACO Inc.		Address Box 810, Farmington, New Mexico			
Lease Name Navajo Tribe "Z"	Well No. 1	Field and Pool Wildcat	County Apache		
Location Section 36, T-41-N, R-30-E, Gila and Salt River Meridian					
<table border="1" style="margin: auto;"> <tr> <td>Barrels load oil recovered 714</td> <td style="font-size: 2em; vertical-align: middle;">833</td> </tr> </table>				Barrels load oil recovered 714	833
Barrels load oil recovered 714	833				
Oil was purchased from* Luna-Eaves Company		Address Box 2151, Farmington, New Mexico			
		Date purchased *May 9 & 16, 1960			
Oil from the lease and well first above described is gathered and transported by: Luna-Eaves Company					
<p>This report will certify that the number of barrels of load oil, shown above, was recovered from the property first above described; also that this load oil was purchased from the named firm (or lease), and permission is hereby requested for the running of the said number of barrels of oil by the gatherer and transporter.</p> <p align="center">*338 barrels of load oil purchased on 5-9-60 and 495 barrels purchased 5-16-60.</p>					
<p>CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the <u>District Sup't.</u> of the <u>TEXACO Inc.</u> (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.</p>					
Date <u>June 22, 1960</u>		Signature 			
<p>Note: This report required only when load oil was obtained from a source other than the lease on which used.</p> <p>* Insert lease name, location and pool if oil supplied from a lease.</p>		<p>STATE OF ARIZONA STATE LAND COMMISSIONER Certificate for Load Oil Credit and permit to Transport Recovered Load Oil</p> <p>Form No. P-19 File three copies Authorized by Order No. <u>4-8-59</u> Effective <u>April 6,</u> 19<u>59</u></p>			

24
113


Form 9-331 b
(April 1952)

Budget Bureau No. 42-R359.4
Approval expires 12-31-60.

APPROVED
MAR 18 1960
E. J. SHORGER
ACTING DISTRICT ENGINEER

(SUBMIT IN TRIPLICATE)
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Indian Agency _____
Contract No. 14-20-603-4105
Allottee _____
Lease No. _____

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)

Lease No. **185651**
Navajo Tribe "2" Lease _____ **March 15**, 19**60**

Well No. **1** is located **1930** ft. from **S** line and **560** ft. from **W** line of sec. **36**
 N1/4 SW/4 Sec. 36 T-41-N R-30-E OASR
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)
Wildcat **Apache** **Arizona**
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is **5291** ft.

DETAILS OF WORK

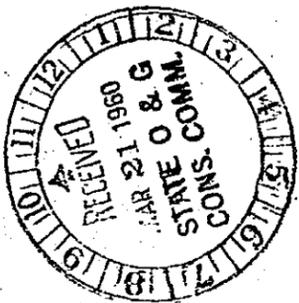
(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

OBJECTIVE FORMATION	SIZE CASING	WEIGHT	LENGTH	CASING PROGRAM (APPROX.)	CEMENT
Objective Form.: Devonian				Set at	Cement
Total Depth: 7250'	13-3/8"	40#	New	200'	200 #
	9-5/8"	32.3#	New	1600'	1200 "
	5-1/2"	14#	New		
	5-1/2"	15.5#	New	6550'	500 "
				7250'	

To obtain information for your information from TEXACO

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 3109 Midland, Texas**
 _____ **TEXACO Inc.**
 By **J. J. Teltner**
 Title **Division Civil Engineer**



APPLICATION FOR PERMIT TO DRILL, DEEPEN OR PLUG BACK

(Texaco Lse.)
(No. 186651)

APPLICATION TO DRILL DEEPEN PLUG BACK

DATE March 15, 1960

NAME OF COMPANY OR OPERATOR

TEXACO Inc.

Address P.O.Box 3109, 707 Midland Savings & Loan Bldg. City Midland State Texas

DESCRIPTION OF WELL AND LEASE

Name of lease Navajo Tribe "Z"	Well number 1	Elevation (ground) 5274
Well location (give footage from section lines) 1980' FSL - 560' FWL	Section—township—range or block & survey Sec.36, T-41-N, R-30-E	
Field & reservoir (If wildcat, so state) Fld.: Wildcat - Obj. Form.: Devonian	County Apache	
Distance, in miles, and direction from nearest town or post office 2 mi. SE of Carrizo, Arizona		
Nearest distance from proposed location to property or lease line: 1980 feet	Distance from proposed location to nearest drilling, completed or applied—for well on the same lease: This is first well feet	
Proposed depth: 7250'	Rotary or cable tools Rotary	Approx. date work will start At once
Number of acres in lease: 1280	Number of wells on lease, including this well, completed in or drilling to this reservoir: This is first well	
If lease, purchased with one or more wells drilled, from whom purchased:	Name	Address

Status of bond
\$10,000 blanket bond filed with this permit to drill.

Remarks: (If this is an application to deepen or plug back, briefly describe work to be done, giving present producing zone and expected new producing zone)

* Fill in Proposed Casing Program on other side

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Division Civil Engineer of the TEXACO Inc. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Date March 15, 1960

Signature J. J. Velten
J. J. Velten

Permit Number: # 113
Approval Date: March 17, 1960
Approved By: J. Wharton
Notice: Before sending in this form be sure that you have given all information requested. Much unnecessary correspondence will thus be avoided.
See Instruction on Reverse Side of Form

STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION
Application to Drill, Deepen or Plug Back
Form No. P-1 File two copies
Authorized by Order No. 4-8-59
Effective April 6, 19 59

INSTRUCTIONS

READ CAREFULLY AND COMPLY FULLY

For the purpose of this determination attach hereto a neat, accurate plat, map or sketch of this lease, section, block or lot locating thereon the proposed site for this location. Plat shall be drawn to a scale which will permit the facile observation of all pertinent data. Show distances of the proposed well from the two nearest lease and section lines, and from the nearest wells on the same lease completed in or drilling to the same reservoir. If the location requested is not in conformance with the applicable well-spacing rules, show all off-setting wells to the proposed well, and the names and addresses of all adjoining lease or property owners.

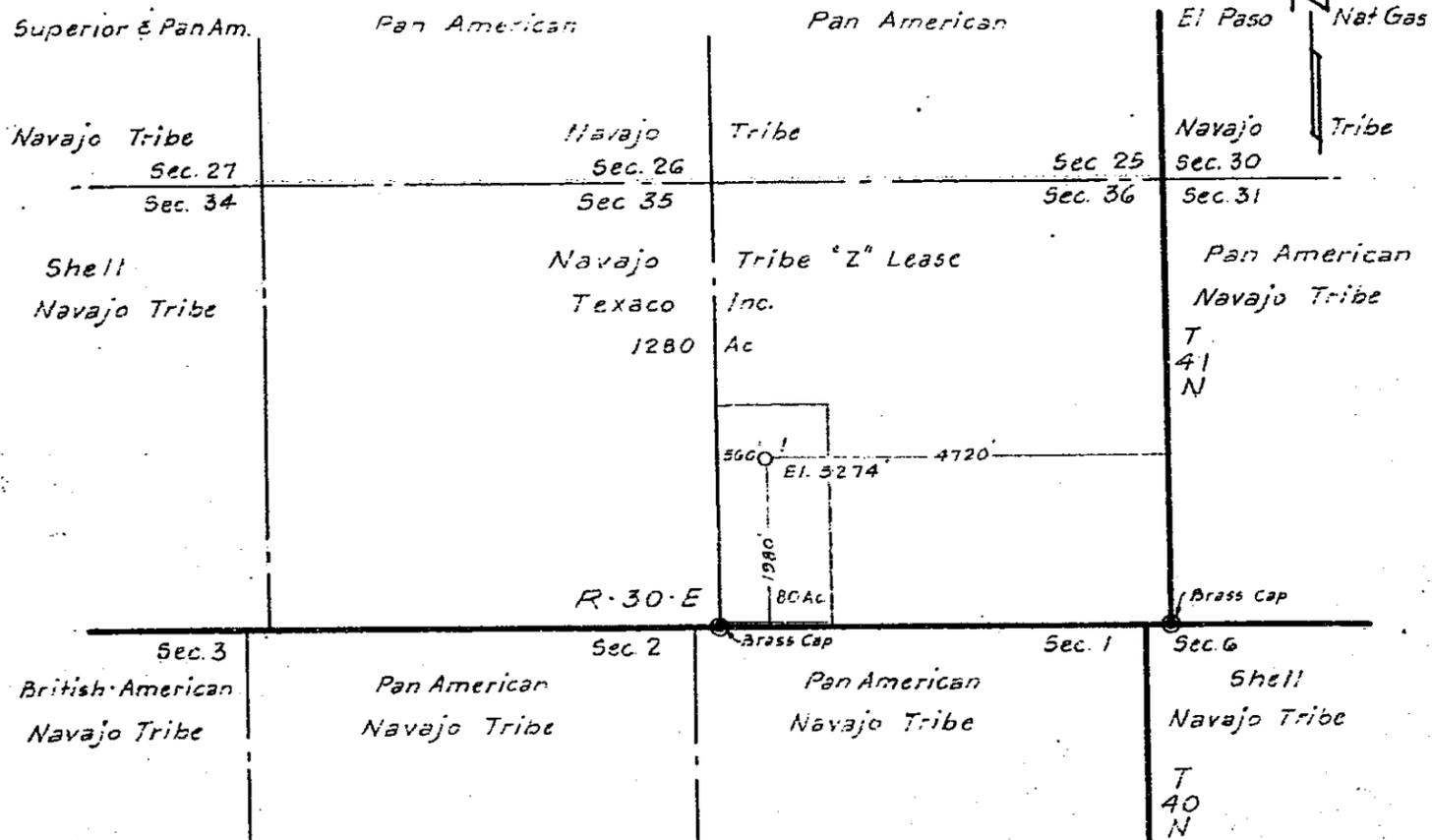
In event plat is filed for the purpose of designating the drilling and producing unit, or proration unit, on which the proposed well is to be drilled, the boundaries of such unit shall be shown, also the boundaries of all other such units attributed to other wells on the same lease completed in or drilling to the same reservoir. The acreage contained within each unit shall also be shown.

Do not confuse survey lines with lease lines. The sketch or plat should show your entire lease if possible. If it is not practical to show the entire lease and the plat shows only a section, block or lot out of your lease, you should clearly show that same is only a part of the lease.

Designate scale to which plat or sketch is drawn. Also designate northerly direction on the sketch or plat.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
13-3/8"	48#	H-40	0'	200'	200'	200 sx.
9-5/8"	32.3#	H-40	0'	1600'	1600'	1200 sx.
5-1/2"	14#	J-55	0'	5500'	6550'	
5-1/2"	15.5#	J-55	5500'	7250'	7250'	500 sx.

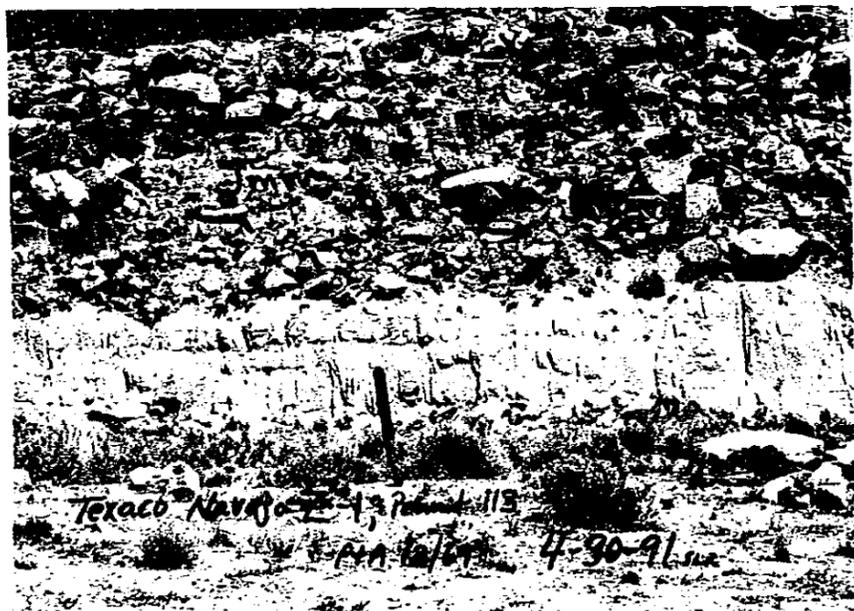


APACHE COUNTY, ARIZONA
SCALE 1" = 2000'

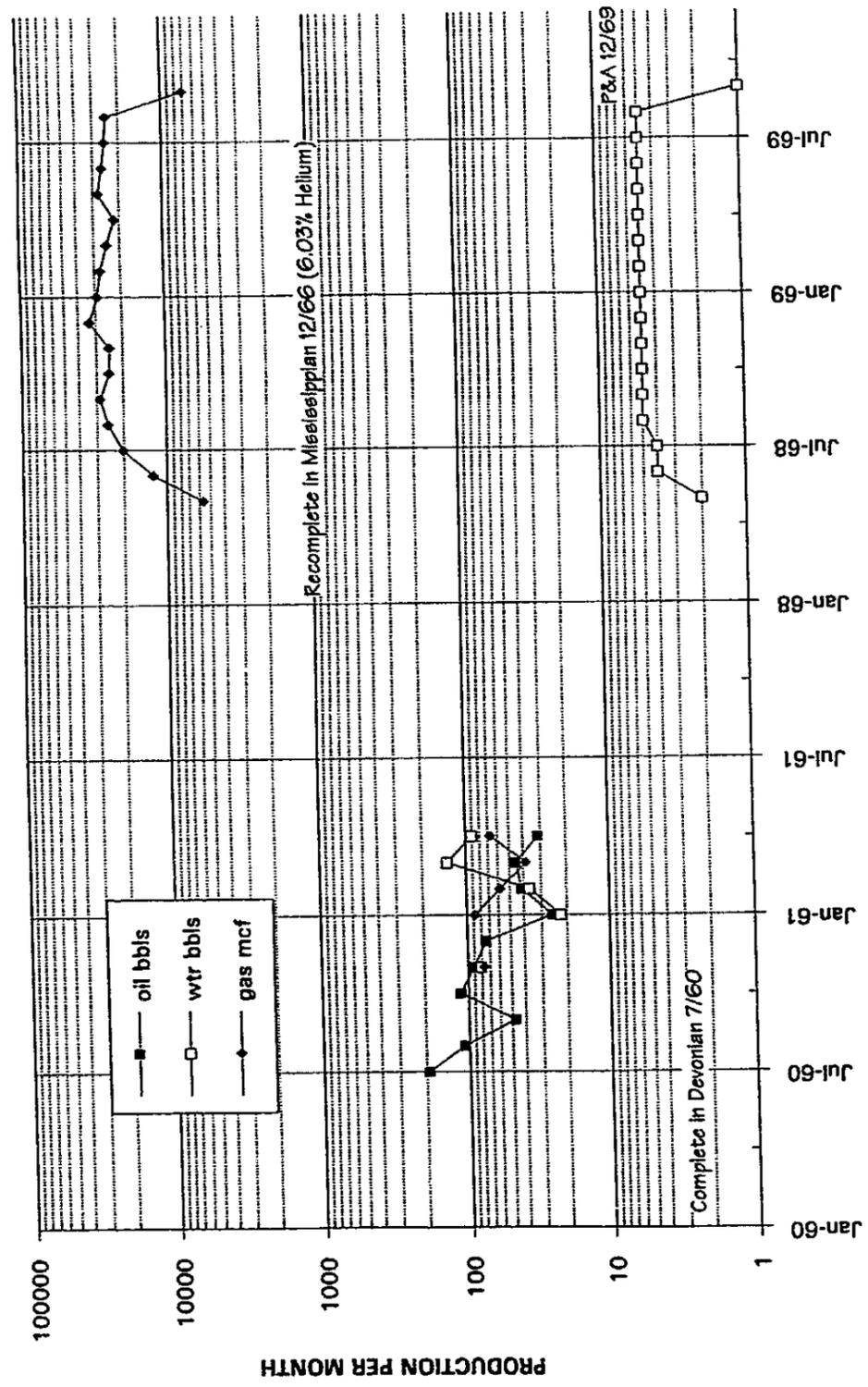
This is to certify that the courses, distances and objects reflected on the plat to which this certificate is affixed were observed and compiled under my supervision and, according to my best knowledge and belief, are true and correct.

J. J. Vetter

 TEXACO Inc. DIVISION CIVIL ENGR.



MONTHLY PRODUCTION AT TEXACO 1 NAVAJO-Z(113), ARIZONA JUL 1960 - SEP 1969
 nw sw 36-41n-30e, Teec Nos Pos Field, Apache County



MONTHLY PRODUCTION AT TEXACO 1NAVAJO-Z (113), ARIZONA
 nw sw 36-41n-30e, Teec Nos Pos Field, Apache County
 (per SLr audit of monthly producer's reports 7/60 - 9/69)

DATE	oil bbls	wtr bbls	gas mcf	oil ytd bbls	wtr ytd bbl	gas ytd bbl	oil cum bbl	wtr cum bbl	gas cum bbl	DATE	
Jan-60										Jan-60	
Feb-60										Feb-60	
Mar-60										Mar-60	
Apr-60				DEVONIAN COMPLETION: 6758'-6793'							Apr-60
May-60										May-60	
Jun-60										Jun-60	
Jul-60	190			190			190			Jul-60	
Aug-60	107			297			297			Aug-60	
Sep-60	47			344			344			Sep-60	
Oct-60	113			457			457			Oct-60	
Nov-60	91	81	77	548	81	77	548	81	77	Nov-60	
Dec-60	74			622	81	77	622			Dec-60	
Jan-61	25	22	88	25	22	88	647	103	165	Jan-61	
Feb-61	41	36	58	66	58	146	688	139	223	Feb-61	
Mar-61	45	135	38	111	193	184	733	274	261	Mar-61	
Apr-61	31	90	67	142	283	251	764	364	328	Apr-61	
May-61										May-61	
Jun-61										Jun-61	
Jul-61										Jul-61	
Aug-61										Aug-61	
Sep-61										Sep-61	
Oct-61										Oct-61	
Nov-61										Nov-61	
Dec-61										Dec-61	
Jan-68										Jan-68	
Feb-68										Feb-68	
Mar-68				MISSISSIPPIAN COMPLETION: 6270-76', 6290-98', 6302-20'							Mar-68
Apr-68				HELIUM - 6.03 %							Apr-68
May-68		2	5626		2	5626		2	5626	May-68	
Jun-68		4	12547		6	18173		6	18173	Jun-68	
Jul-68		4	20101		10	38274		10	38274	Jul-68	
Aug-68		5	25265		15	63539		15	63539	Aug-68	
Sep-68		5	28477		20	92016		20	92016	Sep-68	
Oct-68		5	24605		25	116621		25	116621	Oct-68	
Nov-68		5	24520		30	141141		30	141141	Nov-68	
Dec-68		5	33134		35	174275		35	174275	Dec-68	
Jan-69		5	28904		5	28904		40	203179	Jan-69	
Feb-69		5	27273		10	56177		45	230452	Feb-69	
Mar-69		5	24352		15	80529		50	254804	Mar-69	
Apr-69		5	21447		20	101976		55	276251	Apr-69	
May-69		5	27592		25	129568		60	303843	May-69	
Jun-69		5	25862		30	155430		65	329705	Jun-69	
Jul-69		5	24866		35	180296		70	354571	Jul-69	
Aug-69		5	24146		40	204442		75	378717	Aug-69	
Sep-69		1	7057		41	211499		76	385774	Sep-69	
Oct-69										Oct-69	
Nov-69										Nov-69	
Dec-69										Dec-69	



Fife Symington
Governor

State of Arizona
Arizona Geological Survey

416 W. Congress, Suite 100
Tucson, Arizona 85701
(520) 770-3500



Larry D. Fellows
Director and State Geologist

April 23, 1997

Ms. Carole Newton
Texaco
P.O. Box 2100
Denver, CO 80201

Re: Texaco, Inc.
\$25,000 Oil Drilling Blanket Bond No. M126180
Insurance Company of North America

Dear Ms. Newton:

Our records show that neither Texaco or any of its predecessors-in-interest listed in your fax memo of 4/16/97 have any outstanding drilling or plugging obligations in Arizona. As a result, this letter serves as written permission by the Arizona Oil and Gas Conservation Commission to cancel the referenced bond.

Please advise if we may be of further assistance.

Sincerely,

Steven L. Rauzi
Oil & Gas Administrator



Texaco Exploration and Production Inc
Denver Division

P O Box 2100
Denver CO 80201
4601 DTC Boulevard
Denver CO 80237

April 21, 1997

Mr. Steven L. Rauzi
Arizona Geological Survey
416 W. Congress, Ste. 100
Tucson, AZ 85701

Dear Mr. Rauzi:

Thank you for your letter dated April 16, 1997. Texaco does request a release from the INA Oil Drilling Bond No. M126180. Please send a confirmation of release to me. Thank you for your assistance.

Very truly yours,

Carole L. Newton

Carole L. Newton
EH&S/Retained Liabilities
(303) 793-4705



Fife Symington
Governor

State of Arizona
Arizona Geological Survey

416 W. Congress, Suite 100
Tucson, Arizona 85701
(520) 770-3500



Larry D. Fellows
Director and State Geologist

April 16, 1997

Ms. Carole Newton
Texaco
P.O. Box 2100
Denver, CO 80201

file 113

Re: Texaco, Inc.
\$25,000 Oil Drilling Blanket Bond No. M126180
Insurance Company of North America

Dear Ms. Newton:

Our records show that Texaco maintains the referenced oil drilling blanket bond and that neither Texaco or any of its predecessors-in-interest listed in your fax memo of 4/16/97 have any outstanding drilling or plugging obligations in Arizona. We have no record of written permission by the Arizona Oil and Gas Conservation Commission to terminate liability under the bond.

A copy of the referenced bond; Barton's letter of May 7, 1979; continuation certificate dated April 30, 1981; and Wilder's letter of June 9, 1981 are enclosed for your information and file.

Please advise me at the letterhead address if you have any questions or if Texaco wishes to be released from liability under the bond.

Sincerely,

Steven L. Rauzi
Oil & Gas Administrator

Enclosures

FAX

Date 4/16/97

Number of pages including cover sheet 1

TO: AZ O&G Conservation
Commission



Phone 520-770-3500
Fax Phone 520-770-3505

FROM: Carole Newton
Texaco
P. O. Box 2100
Denver, CO 80201

Phone (303) 793-4705
Fax Phone (303) 793-4490

CC: _____

REMARKS: Urgent For your review Reply ASAP Please Comment

Do your records show Texaco, Inc., Texaco Exploration & Production, Inc. or Texaco USA (or any of its predecessors-in-interest listed below) as having any blanket, surface, operating or plugging bonds?

1. The Texas Company
2. Dome Petroleum Corp.
3. Tidewater
4. Skelly
5. Getty
6. Seaboard Oil Company
7. Reserve Oil, Inc.
8. Lewis Producing

If so, please list the bond(s) and the amount(s) and what the bond covers. You may respond by fax or send your response to the above mailing address. Thank you for your assistance.



PETROLEUM PRODUCTS

PRODUCING DEPARTMENT
WEST UNITED STATES
DENVER DIVISION
J. C. MENCIN, JR.
DIVISION LANDMAN

RECEIVED
MAY 16 1979
O & G CONS. COM. L.

TEXACO INC.
P. O. BOX 2100
DENVER, COLORADO 80201
May 7, 1979

SURETY BONDS - ARIZONA
1.04-A

Oil and Gas Conservation Commission
1645 West Jefferson, Suite 420
Phoenix, Arizona 85007

file 113

In March 1975, Texaco filed with you a \$25,000.00 surety bond for compliance with the Commission rules and regulations. The Surety named in that bond is the Lumbermens Mutual Casualty Company.

Texaco now desires to file a replacement bond and secure cancellation of the presnet bond due to a change in surety. To accomplish the replacement, enclosed is a new bond with Insurance Company of North America as surety. The bond has been properly executed by an Arizona resident agent.

If the enclosed bond is satisfactory please advise us of its acceptance, and the cancellation of the prior bond.

Very truly yours,

J. C. MENCIN, Jr.

By *G. L. Barton*
G. L. Barton
Supervisor (Land Records)

GLB
ms

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS

Bond Serial No. M 12 61 80

That we: Texaco Inc., a Delaware Corporation

of the County of Denver in the State of Colorado

as principal, and Insurance Company of North America

of 1050 - 17th Street, Suite 2200, Denver, Colorado 80202 4-23-79

AUTHORIZED TO DO BUSINESS WITHIN the State of Arizona.

as surety, are held and firmly bound unto the State of Arizona and the Oil and Gas Conservation Commission, hereinafter referred to as the "Commission", in the penal sum of \$25,000.00 lawful money of the United States, for which payment, well and truly to be made, we bind ourselves, and each of us, and each of our heirs, executors, administrators or successors, and assigns jointly and severally, firmly by these presents.

The conditions of this obligation are that, whereas the above bounden principal proposes to drill a well or wells for oil, gas or stratigraphic purposes in and upon the following described land situated within the State, to-wit:

This is a blanket bond covering all wells drilled by Principal on lands within the State of Arizona

(May be used as blanket bond or for single well)

NOW, THEREFORE, if the above bounden principal shall comply with all the provisions of the Laws of this State and the rules, regulations and orders of the Commission, especially with reference to the requirements of A.R.S. §27-516, providing for the proper drilling, casing and plugging of said well or wells, and filing with the Oil and Gas Conservation Commission all notices and records required by said Commission, then in the event said well or wells do not produce oil or gas in commercial quantities, or cease to produce oil or gas in commercial quantities, this obligation is void; otherwise it shall remain in full force and effect.

Whenever the principal shall be, and declared by the Oil and Gas Conservation Commission in violation of the Laws of this State and the rules, regulations and orders of the Commission, the surety shall promptly:

1. Remedy the violation by its own efforts, or
2. Obtain a bid or bids for submission to the Commission to remedy the violation, and upon determination by the Commission and the Surety of the lowest responsible bidder, arrange for a contract between such bidder and the Commission, and make available as work progresses sufficient funds to pay the cost of remedying the violation; but not exceeding, including other costs and damages for which the surety may be liable hereunder, the amount set forth in the first paragraph hereof.

Liability under this bond may not be terminated without written permission of this Commission.

WITNESS our hands and seals, this 2nd day of April, 1979

TEXACO INC.

By: J.C. [Signature]
Agent and Attorney-in-Fact ^{Principal}

WITNESS our hands and seals this 2nd day of April, 1979

INSURANCE COMPANY OF NORTH AMERICA

By: Lisa Eacker
Attorney-in-Fact ^{Surety} Lisa Eacker

[Signature]
Surety, Resident Arizona Agent
If issued in a state other than Arizona

(If the principal is a corporation, the bond should be executed by its duly authorized officers, with the seal of the corporation affixed. When principal or surety executes this bond by agent, power of attorney or other evidence of authority must accompany the bond.)

Approved Date: 5-10-79

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

By: _____

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

Bond

File Two Copies

Form No. 2

Permit No. _____

January 16, 1970

Mr. G. L. Eaton
District Superintendent
P. O. Box 810
Farmington, New Mexico 87401

Re: Texaco, Incorporated Navajo Z-1
T41N, R30E, G & SRM
Sec. 36: NW/4 SW/4
Apache County
Permit #113

Dear Mr. Eaton:

We are in receipt of your Monthly Producers Report for December, 1969. The well is said to be plugged and abandoned as of 12-21-69. In order to complete our files please submit a well completion report.. This form is enclosed for your convenience.

Sincerely,

John Bannister
Executive Secretary

jd
Enc. (3)

113



PETROLEUM PRODUCTS

*Copy to
Red Walsh*

P. O. Box 810
Farmington, N. M. 87401
June 28, 1969

ANNUAL GAS WELL TEST
NAVAJO TRIBE "Z" NO. 1
APACHE COUNTY, ARIZONA

State of Arizona
Oil and Gas Conservation Commission
1624 West Adams
Phoenix, Arizona 85007

Dear Sir:

4
Attached are copies of forms 18 and 20 for subject well, which are submitted in compliance with Rule 401 and the procedures adopted by the Oil and Gas Conservation Commission.

The use of the one-point test and the assumed slope of .85 for the back pressure curve were approved for this well in your letter of June 14, 1968.

Yours very truly,

G. L. Eaton
District Superintendent

WEL-CS

Att.

HHB - File



X-Lambert
X-chron

May 22, 1969

Mr. C. P. Farmer
District Superintendent
Texaco Incorporated
P. O. Box 810
Farmington, New Mexico 87401

Re: Texaco Incorporated Navajo Z-1

Permit #113

Dear Mr. Farmer:

In accordance with Rule 401 the Oil and Gas Conservation Commission, State of Arizona, has adopted procedures for the annual testing for all gas and/or helium wells.

The Commission's procedure is based upon and must be used in conjunction with the Manual of Back-pressure Testing of Gas Wells as issued by Interstate Oil Compact Commission, P. O. Box 53127, Oklahoma City, Oklahoma 73105.

The Commission has prepared, in addition, a supplement to the IOCC manual inasmuch as that manual is based upon a pressure base other than the 15.025 required by the State of Arizona. The supplement to the IOCC manual has made all necessary corrections to the IOCC manual to reflect the 15.025 pressure base.

The tests as required by Rule 401 shall be conducted during the month of June each year and reported in duplicate by July 10th of each year. Forms 18 and 20 will be used for this purpose.

Yours truly,

James A. Lambert
Administrative Assistant

JB:jf
Enc.

113

September 17, 1968

Texaco Inc.
P.O. Box 2100
Denver, Colorado 80201

Attention: Mr. N.G. Kittrell

Gentlemen:

Your letter of September 9, 1968 requested that the area of Texaco's #1-2 Navajo well, located NW SE of Section 36, Township 41 North, Range 30 East, be designated as the "Teec Nos Pos Field."

This Commission has no objection to this naming of the area in the immediate vicinity of this well.

Very truly yours,

John Bannister
Executive Secretary
mr

cc: The Navajo Indian Tribe
Window Rock, Arizona 86515



PETROLEUM PRODUCTS

Box 2100
Denver, Colorado 80201

September 9, 1968

Oil and Gas Conservation Commission
State of Arizona
1624 West Adams
Phoenix, Arizona 85007

Attention: Mr. John Bannister

Gentlemen:

TEXACO Inc. has recently begun gas sales from its Navajo Tribe "Z" Well No. 1, located NW-SE, Section 36, Township 41 North, Range 30 East, Apache County, Arizona. No field name has been designated for this area.

Based on TEXACO's ownership of the only producing well in the immediate vicinity, it is recommended that the Commission consider the area near the well be named Teec Nos Pos Field. This name is suggested because of the close proximity of the well to the community of Teec Nos Pos, Arizona.

Please advise if the name Teec Nos Pos Field is satisfactory with the Arizona Commission.

Yours very truly,

N. G. Kittrell
N. G. Kittrell

HFS-LC



113

August 22, 1968

Mr. E. C. Hall
Texaco Incorporated
Box 810
Farmington, New Mexico 87401

Re: Texaco Inc. Navajo Z #1
T41N, R30E, G & SRM
Sec. 36: NW/4 SW/4
Apache County, Arizona
Permit #113

Dear Mr. Hall:

We have at hand our form No. 16, Monthly Producers Report, for May, June and July, 1968. Please advise whether any barrels of water were produced in those respective months.

We will appreciate you supplying this information on those future reports you will submit.

Yours truly,

James A. Lambert
Administrative Assistant

JAL:jf

EWELL N. WALSH
PETROLEUM ENGINEER CONSULTANT
PETROLEUM CLUB PLAZA BLDG.
P. O. BOX 254
FARMINGTON, NEW MEXICO
87401



July 26, 1968

Mr. John Bannister
Executive Secretary
Oil and Gas Conservation Commission
State of Arizona
1624 West Adams, Room 202
Phoenix, Arizona 85007

Re: Report of Backpressure Test and Deliverability
Texaco #1-Z Navajo
NW SW 36-41N-30E, Apache County, Arizona
File 113

Dear Mr. Bannister:

After reviewing the One Point Back Pressure Test
and Deliverability Test calculation, I find the calculation
to be correct.

Very truly yours,

Ewell N. Walsh, P. E.
Petroleum Engineer Consultant

ENW:lt

Enclosure:Tests

113

July 17, 1968

Mr. Ewell N. Walsh
Consulting Petroleum Engineer
P.O. Box 254
Farmington, New Mexico 87401

Re: Report of Backpressure Test and Deliverability
Texaco #1-2 Navajo
NW SW 36-41N-30E, Apache County, Arizona
File 113

Dear Red:

Enclosed is the first reporting we have received under the new procedure. It looks all right to me, but would you look it over and give me your comments.

Sincerely,

John Bannister
Executive Secretary
mr
enc

TEXACO
INC.

PETROLEUM PRODUCTS



P. O. Box 810
Farmington, New Mexico
87401

July 9, 1968

ANNUAL GAS WELL TEST
Navajo Tribe "Z" No. 1
Apache County, Arizona

AIR MAIL

Mr. John Bannister
Oil and Gas Conservation Commission
1624 West Adams
Phoenix, Arizona 85007

Dear Sir:

Reference your letter of June 14, 1968, wherein the Commission approved the use of One-Point testing and assumed slope of 0.85. As was anticipated, the maximum spread of flow rates to the new helium plant was less than ten percent which prevented a good Four-Point test.

Attached are copies of Forms 18 and 20 for the subject well which are submitted as per annual test requirements.

Yours very truly,

C. P. Farmer
District Superintendent

FSH-LC

Attachments



113

June 14, 1968

Texaco Inc.
P.O. Box 810
Farmington, New Mexico 87401

Attention: Mr. C.P. Farmer, District Superintendent

Re: Texaco #1 Navajo Z
NW SE 36-41N-30E, Apache County
Permit 113

Gentlemen:

This will acknowledge your letter of June 11, 1968 concerning the annual testing of captioned well pursuant to Rule 401.

In reviewing the problem pointed out by you, this Commission has no objection to your using a value of 0.85 for the slope of the backpressure curve, "n".

The Commission has no desire to cause the venting of this valuable gas. Consequently the approval sought in your letter is hereby granted.

If we may be of any further help, please advise.

Very truly yours,

John Bannister
Executive Secretary
mr

bcc: Ewell N. Walsh, consulting petroleum engineer

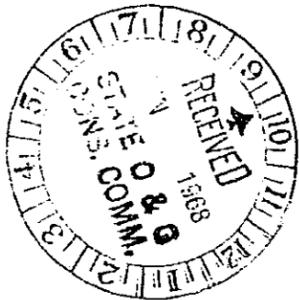
TEXACO
INC.

PETROLEUM PRODUCTS



P. O. Box 810
Farmington, New Mexico 87401

June 11, 1968



ANNUAL TESTING OF GAS WELLS

(Rule 401)
Navajo Tribe "Z" Well No. 1
Apache County, Arizona

Arizona Oil and Gas Conservation Commission
Suite 202, 1624 West Adams
Phoenix, Arizona 85007

Gentlemen:

TEXACO Inc. Navajo Tribe "Z" Well No. 1 is connected to the Airco/BOC helium plant at Teec Nos Pos, Arizona. It is the only well connected to the plant at the present time. Due to the operating characteristics of the plant, requiring a surge of 1,000 cubic feet at the rate of eight surges per hour to recharge the alternate carbon dioxide absorption towers, a stable 15 minute continuous flow and pressure cannot be obtained. We plan to attempt to obtain a multipoint capacity test employing a stabilized static pressure and average rates and pressures obtained during plant operation.

Plant operating characteristics and capacity may prevent adequate spacing of pressure points to develop the slope of the back pressure curve, "n". We therefore request Commission approval to employ an assumed "n" value of 0.85 or be assigned a slope to use for this well. If such is not agreeable with the Commission, it will be necessary to shut down the plant and test the well to atmosphere resulting in waste of the valuable helium gas produced by this well.

Unless you object, we will proceed to run four-point test under the plant operating conditions. However, it is anticipated that good results may not be obtained; therefore, it is requested that you sanction either (1) a one-point average flow test using an assumed "n" value, or (2) a four-point test to atmosphere. Your early reply will be appreciated.

Yours very truly,

C. P. Farmer
C. P. Farmer
District Superintendent

#113

WEL-LC

113

April 10, 1968

Texaco Inc.
P.O. Box 810
Farmington, New Mexico 87401

Attention: Mr. C.P. Farmer, District Superintendent

Gentlemen:

Re: Texaco #1 Navajo ²
NW SW 36-41N-30E, Apache County, Arizona
File 113

We are enclosing an approved copy of Operator's Certificate of Compliance and Authorization to Transport Oil or Gas from Lease covering captioned well.

However, as you are aware, you must make proper dedication to this gas well prior to production. Will you please forward this immediately.

Very truly yours,

John Bannister
Executive Secretary
MB

OPERATOR'S CERTIFICATE OF COMPLIANCE AND AUTHORIZATION TO TRANSPORT OIL OR GAS FROM LEASE

Federal, State or Indian Lease Number, or lessor's name if fee lease 14-20-603-4165	Field Undesignated	Reservoir Mississippian
Survey or Sec-Twp-Rge 36, T41N, R30E G&SR	County Apache	State Arizona
Operator TEXACO Inc.		
ADDRESS ALL CORRESPONDENCE CONCERNING THIS FORM TO:		
Street P. O. Box 810	City Farmington,	State New Mexico 87401
Above named operator authorizes (name of transporter) Air Reduction Company, Inc.		
Transporter's street address 150 East 42nd Street	City New York	State New York 10017
Field address Unknown at this time		
Oil, condensate, gas well gas, casinghead gas		
To transport	100 % of the	helium from said lease.
OTHER GATHERERS TRANSPORTING FROM THIS LEASE ARE AS FOLLOWS:		
Name of gatherer None	% transported	Product transported
Indicate whether or not this certificate is for a new lease. If not a new lease, indicate whether or not it is a change of operator, change of lease name, change of gatherer, or a consolidation or subdivision of leases and give effective date of change. First Transporter		

The undersigned certifies that the rules and regulations of the State of Arizona Oil & Gas Conservation Commission have been complied with in drilling and producing operations on this lease, except as noted above, and that the above transporter is authorized to transport the above specified percentage of the allowable oil or gas produced from the above described property, and that this authorization will be valid until further notice or until cancelled by the State of Arizona Oil & Gas Conservation Commission.

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the District Superintendent of TEXACO Inc. (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Date April 5, 1968

Signature *C. P. Farmer*
C. P. Farmer

Date approved: 4-8-68

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

By: *John W. Bannister*
Permit No. 113

OGCC(3) HHB(1) RJL(1) File (1)

113

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Operator's Certificate of Compliance & Authorization to Transport Oil or Gas from Lease
File Two Copies

Form No. 8



THOMAS C. CARLSON
Petroleum Engineer
2415 FIRST NATIONAL BANK BUILDING
DALLAS, TEXAS 75202

214 RIVERBIDE 2-1681

October 27, 1967

Mr. Curtis J. Little
2929 Monte Vista Blvd., NE
Albuquerque, New Mexico 87106

Re: Raw Gas Reserves
Texaco-Navajo 1-Z
Apache County, Arizona

Dear Mr. Little:

At your request of October 23, 1967, gas reserves have been estimated for the Mississippian zone of the Texaco, Inc. 1-Z Navajo well located in Section 36, T-41N, R-30E, Apache County, Arizona. The estimate is based upon well logs, flow-rate tests, pressure build-up analysis and analysis of the produced gas. The data was gathered and prepared by others and were accepted at face value for use in this estimate. A field inspection of the well was not made.

Two independent methods were used to estimate the reserves for this well and the results checked closely. From a very short history of production and reservoir pressure, it was possible to estimate the reserves by a material balance method. In addition, a volumetric estimate of reserves was made from an analysis of the electric log and an arbitrary estimate of areal extent of the reservoir. All gas reserves are reported in thousands of standard cubic feet at 15.025 psia and 60°F.

By material balance methods, the raw gas reserve of the Mississippian zone was estimated to be approximately 1,300,000 MSCF if produced to an abandonment pressure of 500 psig. It should be pointed out that less than two percent of the reserves had been produced at the most recent pressure measurement. Normally, a minimum of five percent recovery is necessary before material balance methods become reliable for the estimate of gas reserves.

Mr. Curtis J. Little
October 27, 1967
Page Two

By volumetric methods, it was estimated that the reservoir rock contained initially 225 MSCF per acre-foot of productive reservoir rock. The net productive thickness of the reservoir in the Navajo well was estimated to be 20 feet. Assuming the reservoir to extend to an area of 320 acres and hold an average thickness of 20 feet, the initial raw gas in place would be approximately 1,440,000 MSCF. The recoverable reserve to an abandonment pressure of 500 psig would be approximately 1,130,000 MSCF.

The table below presents the more important factors used in the estimation of raw gas reserves for the Mississippian zone:

Depth to middle of zone	6300 feet
Net productive thickness	20 feet
Estimated drainage area	320 acres
Original reservoir pressure	2224 psia
Abandonment reservoir pressure	515 psia
Reservoir temperature	142°F
Raw gas specific gravity (Air = 1.0)	0.997
Average reservoir porosity	6 percent
Average reservoir water saturation	40 percent
Pressure base	15,025 psia
Temperature base	60°F

It has been a pleasure preparing this estimate for you. If there are any questions, please call.

Yours very truly,

Thomas C. Carlson
Thomas C. Carlson

TCC/abc

TEXACO
INC.

PETROLEUM PRODUCTS



P. O. Box 810
Farmington, New Mexico
87401

May 1, 1967

NAVAJO TRIBE "Z" WELL NO. 1
Apache County, Arizona

Oil & Gas Conservation Commission
State of Arizona
Room 202
1624 West Adams
Phoenix, Arizona 85007

Attention: Mr. John Bannister

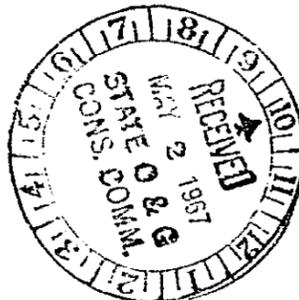
Gentlemen:

Reference is made to your letter of April 28, 1967, concerning the re-completion of the subject well. In your letter you state that we have not furnished the necessary information on this well as required by the Rules and Regulations.

According to our files Form 4, Well Recompletion Report, was mailed to your office on March 22, 1967. This report must have been lost in the mail. We are attaching a copy of the Form 4 for your files.

After re-completion well was placed on test. However, rates and pressures would not stabilize. The test shown on the Form 4 was a flow rate test taken during the last 24 hours of the test period. If it is necessary to take a four-point back pressure test on a shut-in gas well, please advise and we will again test the well.

We are aware that it will be necessary to file a new dedication plat and a Certificate of Compliance and Authorization to Transport before this well can be produced. We prefer not to file the new dedication plat until we are sure that the well will be produced as a gas well. Also, we are unable to file the Certificate of Compliance and Authorization to Transport as we have no market for the gas.



- 2 -

May 1, 1967

We apologize for the delay and the confusion concerning the reports on this well. We delayed the Form 4 (until March 22, 1967) while waiting on a gas analysis.

If you require any additional information concerning this well, please advise.

Yours very truly,

C. P. Farmer
C. P. Farmer
District Superintendent

FEBr-LC

Attachment

5-15

April 28, 1967

Texaco, Inc.
P.O. Box 810
Farmington, New Mexico 87401

Attention: Mr. C.P. Farmer, District Superintendent

Re: Texaco #1 Navajo Z
NW SW 36-41N-30E, Apache County, Arizona
File 113

Gentlemen:

By letter of February 21, 1967 and again on March 19, 1967 we requested that you comply with the Rules and Regulations of this Commission concerning the re-completion of captioned well as a helium well. Results of the tests have not been filed.

We also pointed out that the current 80-acre dedication would have to be changed to comply with Rule 105.B. You were also advised that a Certificate of Compliance and Authorization to Transport must be filed before production from this well could commence.

This Commission has been patient in attempting to secure this necessary information in order to bring our files into compliance with our rules and regulations. Should we not hear from you before May 15, 1967, we will have no choice but to refer this matter to The Attorney General for appropriate action.

Very truly yours,

John Bannister
Executive Secretary
mr
enc: Form 4, 8, 18, 25

March 17, 1967

Texaco, Inc.
P.O. Box 810
Farmington, New Mexico 87401

Attention: Mr. C.P. Farmer, District Superintendent

Re: Texaco #1 Navajo Z
NW SW 36-41N-30E, Apache County, Arizona
File 113

Gentlemen:

Your attention is directed to our letter of February 21, 1967 concerning captioned well.

Your cooperation in furnishing this Commission with the required data and/or current status of this well will be very much appreciated.

Very truly yours,

John Bannister
Executive Secretary
mr

February 21, 1967

Texaco, Inc.
P.O. Box 810
Farmington, New Mexico 87401

Attention: Mr. C.P. Farmer, District Superintendent

Re: Texaco #1 Navajo Z
NW SW 36-41N-30E, Apache County, Arizona
File 113

Gentlemen:

Attached hereto please find our Form 4, Well Recompletion Report. It will be necessary that this report be filed inasmuch as this well has now been recompleted as a helium well.

I also would remind you that currently the W/2SW/4 of 36-41N-30E is dedicated to the well as a producing oil well. This dedication must now be changed, according to our Rule 105.B, and a dedication of 640 acres must be made. Will you please advise as to the new dedication.

Also please find enclose Form 8, Operator's Certificate of Compliance and Authorization to Transport Oil or Gas From Lease. It will be necessary that this be filed prior to commencement of selling the product from the well. Authorization to Transport of July 18, 1960 now on file covers oil only.

On January 20, 1967 you advised us that the well was now shut-in waiting on tests. I would remind you that results of these tests should be reported to this Commission.

Should you have any questions, will you please advise.

Very truly yours,

John Bannister
Executive Secretary
mr
enc

113

November 15, 1965

Texaco Inc.
P.O. Box 2100
Denver, Colorado 80201

Attention: Mr. G.L. Barton

Gentlemen:

This will acknowledge receipt of your letter of November 10, 1965 concerning Traveler's Indemnity Company bond in the amount of \$10,000.

Please be advised that this statewide bond has had six wells drilled under it. Of the six wells drilled, three have been properly plugged and abandoned.

The Texaco #1 Navajo well, located NW/4SE/4 36-41N-30E, Apache County (Permit 113), is an old well which was originally producing from the McCracken formation. If this well has been plugged and abandoned, the necessary reports, i.e. Application to Plug and Abandon, Plugging Record, and a new Well Completion Report, must be submitted. This well of course must remain under bond until such time as it is properly abandoned.

The Texaco #1 Navajo AG well, located NW/4SE/4 16-41N-25E, Apache County (Permit 226), is a producing well and of course must remain under bond until such time as it is properly plugged and abandoned.

The Texaco #2 Navajo AG well, located NW/4NE/4 21-41E-25E, Apache County (Permit 266), is an injection well to dispose of salt water in the Devonian-McCracken formations. This well too must remain under bond until such time as it has been properly plugged and abandoned.

Consequently this Commission is unable to release the above bond until these three wells have been placed under a new bond.

May I remind you that our single well bond must now be in the

Texaco Inc
Attention: Mr. G.L. Barton
November 15, 1965
Page 2

amount of \$5,000. At such time as these three wells have been properly placed under a new bond the above bond may then be released.

If we can help you in any way, please advise.

Very truly yours,

John Bannister
Executive Secretary
nr

TEXACO
INC.

PETROLEUM PRODUCTS



Please reply to:
P. O. Box 810
Farmington, New Mexico
87401

May 21, 1965

Mr. J. R. Scurlock
Petroleum Geologist
Oil & Gas Conservation Commission
Room 202, 1624 West Adams
Phoenix, Arizona 85007

Dear Mr. Scurlock:

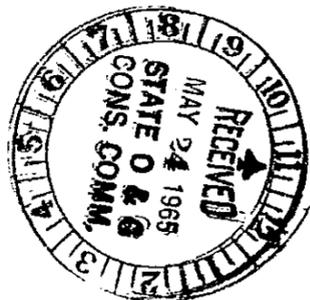
Enclosed are two copies each of the MicroLog,
Induction-Electric, and Gamma Ray-Neutron logs on the
Texaco #1 Navajo Tribe "Z" in Sec. 36, T41N, R30E,
Apache County, Arizona.

We will send two copies of the Sonic log as
soon as we locate the film, which is probably in Houston.
We regret the delay in getting these prints to you.

Very truly yours,

A. P. McConnell, Jr.
A. P. McConnell, Jr.
District Geologist

rm



1113

May 10, 1965

Texaco, Inc.
P.O. Box 810
Farmington, New Mexico 87401

Attention: Mr. C.P. Farmer, District Superintendent

Re: Texaco Navajo Z #1 well
NW/4SW/4 S36-T41N-R30E, Apache County, Arizona
Permit 113

Gentlemen:

Pursuant to your request in your letter of May 4, 1965, approval is hereby granted to continue the status of the captioned well in a temporarily abandoned state.

At such time that you desire to re-enter this well to re-complete it as a helium well it will be necessary of course to make appropriate application.

Yours very truly,

John Bannister
Executive Secretary

jrs/ar

TEXACO
INC.

PETROLEUM PRODUCTS



P. O. Box 810
Farmington, New Mexico
87401

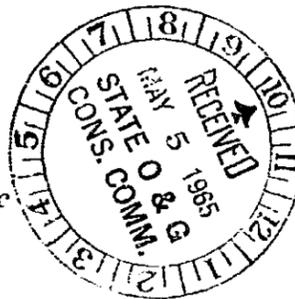
May 4, 1965

NAVAJO TRIBE "Z" WELL NO. 1
Apache County, Arizona

Oil & Gas Conservation Commission
State of Arizona
Room 202
1624 West Adams
Phoenix, Arizona 85007

Attention: Mr. J. R. Scurlock, Petroleum Engineer

Gentlemen:



Reference is made to your letter of April 9, 1965,
concerning the status of subject well.

This well was completed in May 1960, as a small oil
producer and was produced until May 5, 1961. At that time the
well became uneconomical to operate and the pumping equipment
was removed and the well was shut-in. The well has been shut-
in since 1961.

When this well was drilled, gas was encountered with
a high helium content in the Mississippian Formation. However,
since no market was available for the helium gas, the well was
completed as a small oil producer in the Devonian Formation.

Our lease expiration date for this property is
March 31, 1968. When the well was shut-in, our intentions
were to recomplete the well as a helium gas well when and/or
if a market developed, or else plug well before the lease
expired. Your approval is requested to leave well at present
status (temporarily abandoned).

As further requested in your letter, we are contact-
ing logging company and instructing them to mail two copies of
all logs that were run on this well.

Yours very truly,

C. P. Farmer

C. P. Farmer
District Superintendent

FEBR-LC

May 3, 1965

Texaco, Inc.
P.O. Box 810
Farmington, New Mexico 87401

Attention: Mr. C.P. Farmer, District Superintendent

Re: Texaco Navajo Z #1 well
NW/4SW/4 S36-T41N-R30E, Apache County, Arizona
Permit 113

Gentlemen:

Our letter of April 9, 1965 requested that this Commission be notified of the current status of captioned well. To date no information has been received.

In addition, we also requested that duplicate copies of all logs be furnished us.

May we have the information and logs just as soon as possible.

Yours very truly,

J.R. Scurlock
Petroleum Geologist

nr

April 9, 1965

Texaco, Inc.
P.O. Box 810
Farmington, New Mexico 87401

Attention: Mr. C.P. Farmer, District Superintendent

Re: Texaco Navajo "Z" #1 well
NW/4SW/4 S36-T41N-R30E, Apache County, Arizona
Permit 113

Gentlemen:

Will you please notify this office as to the current status of captioned well.

As you know, our Regulations require that if operations have been suspended on a well for more than 60 days the well must be plugged unless permission is granted from this office to do otherwise.

If you have plugged the well, please complete the enclosed form, "Plugging Record", and return to this office at your earliest convenience.

If the well is temporarily abandoned, or if you desire to attempt recompletion of the well, you should request permission to do so from this office.

In addition, our Regulations require that duplicate copies of all logs be furnished to the Commission within 60 days from date of completion of a well. Therefore, will you please furnish these logs.

Yours very truly,

J.R. Scurlock
Petroleum Geologist

mr
enc

February 15, 1961

Mr. W. E. Bissett
Executive Secretary
State Tax Commission
Capitol Building
Phoenix 7, Arizona

Dear Mr. Bissett:

Enclosed are monthly producers reports for the month of January
1961 for the following:

Texas Pacific Coal & Oil Co., Navajo Tract 138, Dry Mesa Field,
Apache County, Arizona;

✓ Texaco Inc., Navajo Tribe "Z", field undesignated, Apache County;

Humble Oil & Refining Co., Navajo Tribe of Indians "E", East
Boundary Butte, Apache County, Arizona.

Yours very truly,

D. A. Jerome
Executive Secretary

EW
Encs. (3)

January 16, 1961

Mr. W. E. Bissett
Executive Secretary
State Tax Commission
Capitol Building
Phoenix 7, Arizona

Dear Sir:

Enclosed are the monthly producers reports for the following:

Texas Pacific Coal & Oil Company, Navajo Tract 138, Dry Mesa
Field, Apache County;

Humble Oil & Refining Company, Navajo Tribe of Indians "E",
East Boundary Butte, Apache County;

Texaco Inc., Navajo Tribe "Z", field undesignated, Apache
County.

Yours very truly,

D. A. Jerome
Executive Secretary

EW
Enclosures: Monthly producers reports
(3)

November 17, 1960

Mr. W. E. Bissett
Executive Secretary
State Tax Commission
Capitol Building
Phoenix, Arizona

Dear Mr. Bissett:

Enclosed are Monthly Producers Reports for the months
July through October 1960 re: Texaco Inc., Navajo Tribe
"Z", in Apache County, Arizona.

Yours very truly,

D. A. Jerome
Executive Secretary

W. F. Maule
Petroleum Engineer

EW
Enclosures

September 14, 1960

Mr. A. L. Glascock
c/o Texaco Inc.
P. O. Box 810
Farmington, New Mexico

Dear Mr. Glascock:

Enclosed is a copy of Form O&G 65 for your files.

Thank you very much.

Yours very truly,

W. F. Maule
Petroleum Engineer

EW
Enclosure

August 25, 1960

Texaco, Inc.
Box 810
Farmington, New Mexico

Attention: A.L. Glascock
Dist. Acct.

Dear Mr. Glascock:

Enclosed is your copy of form O&G 57, Producers Certificate
of Compliance.

Yours very truly,

W. F. Maule
Petroleum Engineer

WFM/ew
Enc.

August 25, 1960

McWald Corporation
Box 1702
Farmington, New Mexico

Gentlemen:

This is your authorization to transport oil for Texaco, Inc.,
Box 810, Farmington, New Mexico, per Form O & G 57, enclosed.

Very truly yours,

W. F. Maule
Petroleum Engineer

WFM/ew
Enc.

July 22, 1960

Mr. Glasscock
Texaco Inc.
Box 810
Farmington, New Mexico

Dear Mr. Glasscock:

Enclosed are Forms OG 52, 57, 58, 65 and 62, which you requested.

We have recently had these forms mimeographed, but they are still in short supply. There are six copies of each form enclosed, but if you require more, please let us know.

Yours very truly,

W. F. Maule
Petroleum Engineer

EW
Enclosures

July 22nd, 1960

Luna-Kaves Company
Box 2151
Farmington, New Mexico

Gentlemen:

We are enclosing an approved copy of Texaco's Form P-19,
Certificate to Transport Recovered Load Oil, as your
authorization to transport recovered load oil.

Yours very truly,

W. F. Maule
Petroleum Engineer

WFM/ew
Enc.

July 22nd, 1960

Mr. A. L. Glascock
District Accountant
Texaco Inc.
Box 810
Farmington, New Mexico

Dear Mr. Glascock:

We are returning herewith your approved Certificate for Load Oil Credit and Permit to Transport Recovered Load Oil, and we are forwarding a copy to the Luna-Eaves Co.

Whitey - get on the ball and start making some oil up there.

Sincerely yours,

W. F. Maulie
Petroleum Engineer

WFM/ew
Enc.

June 24, 1960

Mr. Harvey Longren
District Superintendent
Texaco, Inc.
Box 810
Farmington, New Mexico

Dear Harvey:

Enclosed is an approved copy of Form P-19 pursuant to my conversation with Mr. Glasscock yesterday.

Our rules and regulations have been questioned by the Attorney General so at present we are operating under the 1951-52 rules. This, of course, changes the spacing to 40 acres; rationing remains the same as prescribed by the statutes.

We believe everything is under control here. We sincerely hope you can come back down soon. We are having a cold snap...temperature is down to 109 degrees today but it is pleasant.

Yours very truly,

W. F. Maule
Petroleum Engineer

WFM/ew
Enclosure

June 24, 1960

Luna-Eaves Company
Box 2151
Farmington, New Mexico

Gentlemen:

We enclose an approved copy of form P-19 Certificate for Load Oil Credit and Permit to Transport Recovered Load Oil of Texaco, Inc., Navajo Tribe Z, Well #1, Apache County, Arizona, as your authorization to move the oil as described on the certificate.

Sincerely,

W. F. Maule
Petroleum Engineer

WFM/cw
Enclosure

TEXACO
INC.

PETROLEUM PRODUCTS

DOMESTIC PRODUCING DEPARTMENT
MIDLAND DIVISION



P. O. Box 810
Farmington, New Mexico

June 22, 1960

Oil & Gas Conservation Commission
3500 North Central Avenue
Phoenix, Arizona

Attention: Mr. D. A. Jerome

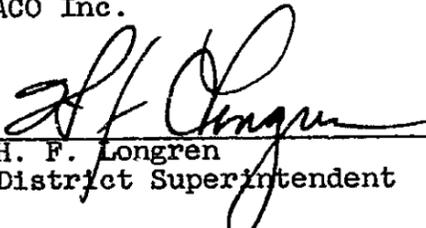
Gentlemen:

Reference is made to the attached Form No. P-19, Certificate For Load Oil Credit And Permit To Transport Recovered Load Oil, for oil recovered from our Navajo Tribe "Z" Well No. 1. We need to move this oil as quickly as possible and would appreciate your handling this form at your earliest convenience.

If any additional information is required in this connection, we would appreciate it if you would call us collect at Davis 5-5050, Farmington, New Mexico.

Yours very truly,

TEXACO Inc.

By: 
H. F. Longren
District Superintendent

FEB-ERA

Attch.

March 17, 1960

Texaco Inc.
P.O. Box 3109
Midland, Texas

Gentlemen:

RE: Navajo Tribe "Z" - Apache County
Sec. 36, T. 41 N., R. 30 E.

Application for Permit to Drill,
Deepen or Plug Back.

Gentlemen:

Enclosed herewith, is your receipt for Drilling Permit
No. 113, in the amount of \$25.00, dated March 17, 1960,
and your approved copy of the Application for Permit to
Drill, Deepen or Plug Back.

Yours very truly,

W. F. Maule,
Petroleum Engineer

WFM:gg
Enc.

DOMESTIC SERVICE	
Check the class of service desired; otherwise this message will be sent as a fast telegram	
TELEGRAM	<input type="checkbox"/>
DAY LETTER	<input type="checkbox"/>
NIGHT LETTER	<input type="checkbox"/>

WESTERN UNION

TELEGRAM

1206 (4-55)

W. P. MARSHALL, PRESIDENT

INTERNATIONAL SERVICE	
Check the class of service desired; otherwise the message will be sent at the full rate	
FULL RATE	<input type="checkbox"/>
LETTER TELEGRAM	<input type="checkbox"/>
SHORE-SHIP	<input type="checkbox"/>

NO. WDS.-CL. OF SVC.	PD. OR COLL.	CASH NO.	CHARGE TO THE ACCOUNT OF	TIME FILED

Send the following message, subject to the terms on back hereof, which are hereby agreed to

WEDNESDAY - 3/16/60 - 10:55 AM - STRAIGHT WIRE TO:

JOHN J. VELTEN
 TEXACO INC.
 PO BOX 3109
 MIDLAND, TEXAS

WIRE TELEPHONED & CHARGED TO
 ACCOUNT:

APPLICATION TO DRILL NAVAJO TRIBE Z-1, SECTION 36 - 41 N - 30 E

APPROVED THIS DATE, PERMIT NO. 113.

SIGNED: M. F. WHARTON
 CHAIRMAN
 STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 3500 N. CENTRAL AVE., SUITE 312
 PHOENIX, ARIZONA

WFMaule: mr: Approved via 'phone to M. F. Wharton -

113

TEXACO
INC.

PETROLEUM PRODUCTS

DOMESTIC PRODUCING DEPARTMENT
MIDLAND DIVISION



P. O. BOX 3109
MIDLAND, TEXAS

March 15, 1960

Mr. D. A. Jerome
Arizona Oil & Gas Conservation Commission
Suite 312, 3500 North Central
Phoenix, Arizona

Dear Sir:

We are enclosing the following information in connection with our application for permit to drill our Navajo Tribe "Z" Well No. 1:

1. Organization Report, in duplicate.
2. Application for Permit to Drill, in triplicate.
3. Bond, in duplicate.
4. Texaco's check in the amount of \$25.00.

We will appreciate your advising us by telephone, MUTual 2-0541, when the application is approved.

Very truly yours,

A handwritten signature in cursive script that reads "J. G. Velten".

J. G. Velten
Division Civil Engineer

JJV-CEW
Encls.
HFL

cc: U.S. Geological Survey
P.O. Box 965, Farmington, N.M.

VIA AIR MAIL

March 8, 1960

Mr. John J. Velten
TEXACO INC.
P. O. Box 3109
Midland, Texas

Dear Mr. Velten:

In accordance with your telephoned request, we are happy to enclose herewith, a copy of our Rules and Regulations governing the Oil and Gas Conservation Commission, together with the following forms, which are required:

1. Organization Report (in duplicate)
2. Application for Permit to Drill (in triplicate; one copy will be returned to you, after approval by Commission)
3. Bond (in duplicate)

When submitting Application for Permit to Drill, it will be necessary for you to remit twenty-five dollars (\$25.00), as fee for same, made payable to the State of Arizona.

If you have any questions, please do not hesitate to advise.

Mr. D. A. Jerome, the Executive Secretary, and Mr. W. F. Maule, Petroleum Engineer are in Farmington, New Mexico, and I advised them of your telephone call, and the office in Farmington will contact you immediately; with reference to the questions you asked.

Yours very truly,

Marylee M. Roush (Mrs.), Secretary

MMR:

enclosures:

113

September 18, 1959

Mr. H. F. Longren, District Superintendent
The Texas Company
P.O. Box 817
Farmington, New Mexico

Dear Mr. Longren:

As you requested, we are enclosing the following:

- 25 Form P-1, Application for Permit
to Drill, Deepen or Plug Back
- 10 Form P-17 Operator's Certificate
of Compliance and Authorization
to Transport Oil or Gas from Lease

If we can be of further service, please feel free
to call on us.

Yours very truly,

D. M. Jerome
Executive Secretary

THE TEXAS COMPANY

TEXACO PETROLEUM PRODUCTS



PRODUCING DEPARTMENT
WEST TEXAS DIVISION

P. O. Box 817
Farmington, New Mexico

September 17, 1959



Oil & Gas Conservation Commission
3500 North Central Avenue
Phoenix, Arizona

Attention: Mr. D. A. Jerome

Gentlemen:

To enable us to file the necessary reports as required by the Oil and Gas Conservation Commission, please send to us at the above address the following forms:

- 25 - Form P-1, Application for Permit to Drill, Deepen or Plug Back
- 10 - Form P-17, Operators Certificate of Compliance and Authorization to Transport Oil or Gas From Lease.

Yours very truly,

TEXACO Inc.

By: H. F. Longren
H. F. Longren
District Superintendent

FEB-ERA