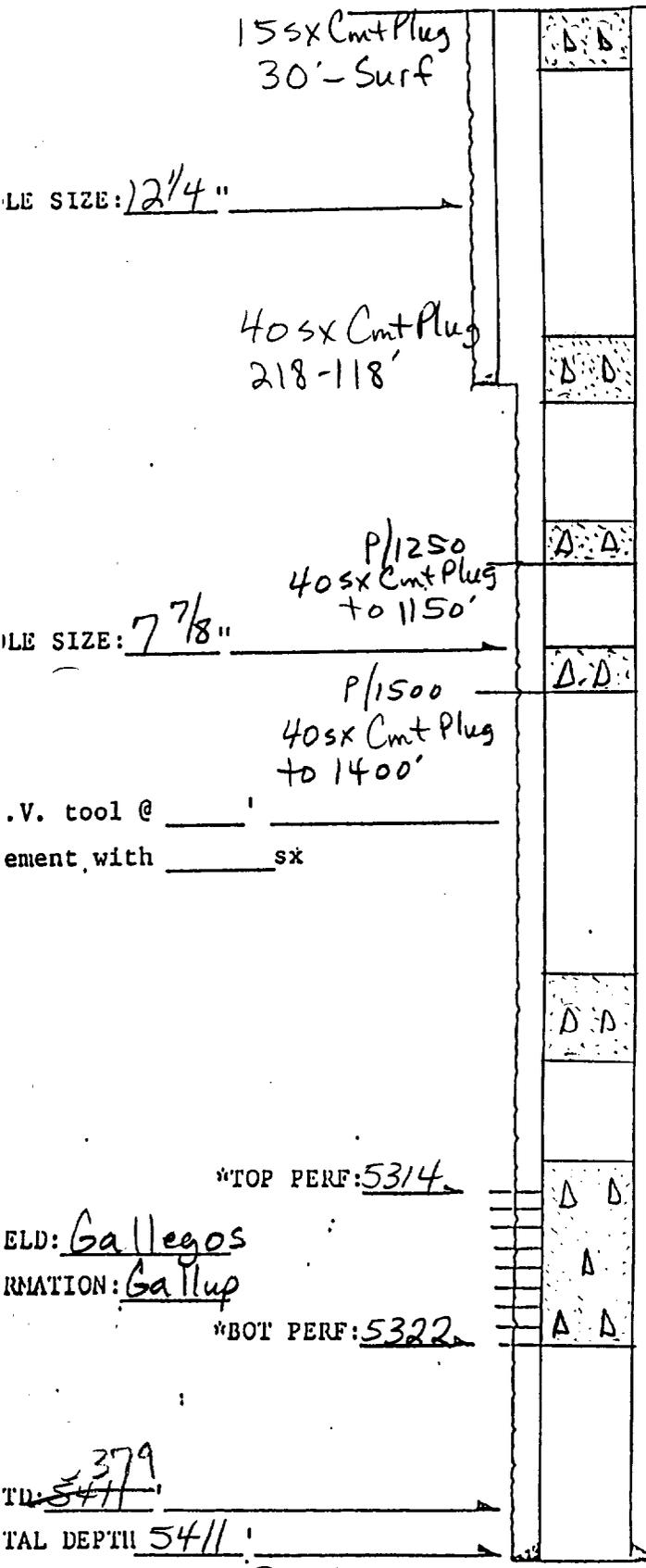


#61

WELBORE DIAGRAM

K.B. ELEV.: 5792
K.B. CORRECTION: 11
G.L. ELEV.: 5781



9 5/8\" 36 #555 GRADE
SET AT 168
CEMENT WITH 125 SX
Top of Cement at Surf

Gelled Mud Between Plugs.

15sx Cmt Plug 4500-4400'

15sx Cmt Plug 5322-5222'

5 1/2\" 15.5 #555 GRADE
SET AT 5411
CEMENT WITH 125 SX STGS
Top of cement at 4412

*TOP PERF: 5314
FIELD: Gallegos
FORMATION: Gallup
*BOT PERF: 5322

TOTAL DEPTH 5411
INDIVIDUAL PERFS: 5314-22

SPF = HOLES

WELL NAME: NW CHA CHA UNIT WELL NO.: 34-4

WELBORE DIAGRAM AS OF DATE: 2/11/91

DATE: NM COUNTY: San Juan BLOCK: A SECTION: 34

TOWNSHIP: 29N RANGE: 14W LEGAL: 560 N 560 E

OPERATOR: SOI WORKING INTEREST: ROYALTY INTEREST:

COMPLETION DATE: 4/61 CURRENT STATUS: (PMP) (FLOW) (INJ) (T/A) (SI) PJA

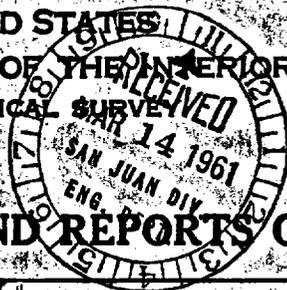
(SUBMIT IN TRIPLICATE)

Indian Agency **Navajo Tribal Council**

			<input checked="" type="checkbox"/>

APPROVAL UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

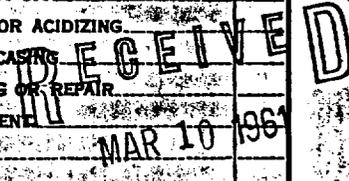
MAR 9 1961
P. J. McElroy
P. J. McElroy
DISTRICT ENGINEER



Allottee _____
Lease No. **14-20-603-2168**

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)

VERBAL APPROVAL OBTAINED MARCH 9, 1961.

U. S. GEOLOGICAL SURVEY
FARMINGTON, NEW MEXICO

March 9, 1961

Ojo Amarillo

Well No. **7** is located **360** ft. from **N** line and **360** ft. from **E** line of sec. **34**

NE/4 NE/4 Section 34 **29N** **14W** **NMPM**
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)
Cha Cha Gallup **San Juan** **New Mexico**
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is **5791** 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)

It is intended to drill a well through the Lower Gallup Formation using rotary tools and mud circulation. Possible productive intervals will be perforated and sandoil fractured.

Estimated Total Depth **5420'**

Casing Program:

9-5/8" at 160' with 150 sacks cement circulated to surface.

5-1/2" at 5420' with 200 sacks cement.

The **E/2 NE/4** of Section 34 is dedicated to this well.

E/2 NE/4 Section 34 Navajo Tribal Council 14-20-603-2168

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

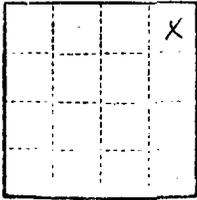
Company **El Paso Natural Gas Products Company**

Address **Post Office Box 1560**
Farmington, New Mexico

ORIGINAL SIGNED BY: JOSEPH E. KREGER

By _____

Title **Petroleum Engineer**



(SUBMIT IN TRIPPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Budget Bureau No. 42-R358.4
Approval expires 12-31-60.

Land Office Navajo Tribal Council

Lease No. 14-20-603-2168

Unit _____

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL	SUBSEQUENT REPORT OF WATER SHUT-OFF	<input checked="" type="checkbox"/>
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 RE-DRILL OR REPAIR WELL	SUBSEQUENT REPORT OF RE-DRILLING 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)

3/13, 1961

000 Amarillo
Well No. 7 is located 560 ft. from N/S line and 560 ft. from E/W line of sec. 34

NE14 NE14 34 29 N 140 NMPM
(1/4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)
Cha Cha Gallup San Juan (New Mexico) (Wyoming) (Utah)
(Field) (County or Subdivision) (State or Territory)
(Colorado) (Arizona)

The elevation of the derrick floor above sea level is 5791 ft.

DETAILS OF WORK

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

Spud Date: 3-11-61 1961. 3-11-, 1961 TD 169'.
Ran 5 joints 9 5/8", 36 #, J-55 Csg. (153.35')
set at 167.83' with 125 sacks regular cement, 2 % CaCl₂ circulated to surface.

Held 500#/30 Minutes.

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

Company El Paso Natural Gas Products Company

Address Post Office Box 1565

Farmington, New Mexico

By Van E. Dykes

Title Petroleum Engineer

(SUBMIT IN TRIPLICATE)

Indian Agency **Navajo Tribal Council**

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Allottee _____
Lease No. **14-20-603-2168**

			X

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	X
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			

RECEIVED
MAR 14 1961

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

U. S. GEOLOGICAL SURVEY
FARMINGTON, NEW MEXICO

March 13, 1961

Ojo Amarillo

Well No. **7** is located **360** ft. from **[N]** line and **560** ft. from **[E]** line of sec. **34**

NE/4 NE/4 Section 34 **29N** **14W** **NMPM**
(4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)

Cha Cha Gallup **San Juan** **New Mexico**
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is **5791** 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)

Spud Date: **March 11, 1961.**

March 11, 1961: Total Depth 169'.

Ran 5 joints, 9-5/8", 86.00#, J-55 Csg. (153.85') set at 167.83' with 125 sacks regular cement, 2% CaCl₂ circulated to surface.

Held 500#/30 Minutes.

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

Company **El Paso Natural Gas Products Company**

Address **Post Office Box 1560**
Farmington, New Mexico

ORIGINAL SIGNED BY: VAN E. DYKES

By _____

Title **Petroleum Engineer**

(SUBMIT IN TRIPLICATE)

Indian Agency Navajo Tribal
Council

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Allottee _____
Lease No. 14-20-603-2168

			X

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	X
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			

RECEIVED
MAR 27 1961

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

U. S. GEOLOGICAL SURVEY
FARMINGTON, NEW MEXICO

March 27, 19 61

Ojo Amarillo

Well No. 7 is located 360 ft. from N line and 360 ft. from E line of sec. 34

NE/4 NE/4 Section 34 29N 14W NMPM
(4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)
Cha Cha Gallup San Juan New Mexico
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is 5791 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)

March 22, 1961 Total Depth 5412'.
Ran 173 joints, 5-1/2", 15.50#, J-55 Casing (5396.36') set at 5410.71' with 63 sacks regular cement, 62 sacks Pozmix, 4% Gel, 1/4# Flocele/sack.
Held 1000#/30 Minutes.
Top of cement by temperature survey at 4412'.

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

Company El Paso Natural Gas Products Company

Address Post Office Box 1560
Farmington, New Mexico

ORIGINAL SIGNED BY: VAN E. DYKES

By _____

Title Petroleum Engineer

(SUBMIT IN TRIPLICATE)

Indian Agency Navajo Tribal
Council

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

Allottee _____
Lease No. 14-20-603-2168

		X

SUNDRY NOTICES AND REPORTS ON WELLS RECEIVED

NOTICE OF INTENTION TO DRILL _____	SUBSEQUENT REPORT OF WATER SHUT-OFF _____	MAR 27 1961
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 REPAIRS _____	S. GEOLOGICAL SURVEY
NOTICE OF INTENTION TO SHOOT OR ACIDIZE _____	SUBSEQUENT REPORT OF ABANDONMENT _____	FARMINGTON, NEW MEXICO
NOTICE OF INTENTION TO PULL OR ALTER CASING _____	SUPPLEMENTARY WELL HISTORY _____	
NOTICE OF INTENTION TO ABANDON WELL _____	Sandoil Frac.	X

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

March 27, 1961

Ojo Amarillo
Well No. 7 is located 360 ft. from N line and 560 ft. from E line of sec. 34
NE/4 NE/4 Section 34 **29N** **14W** **NMPM**
(4 Sec. and Sec. No.) (Twp.) (Range) (Meridian)
Cha Cha Gallup **San Juan** **New Mexico**
(Field) (County or Subdivision) (State or Territory)

The elevation of the derrick floor above sea level is 5791 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)

March 26, 1961 Total Depth 5411'. Clean Out Total Depth 5379'.
Sandoil fractured Lower Gallup perforated intervals 5314'-5322' (perforated 4 shots/foot) with 73,206 gals. lease crude and 60,000# sand. Breakdown pressure 2300 psi; maximum treating pressure 2700 psi; average treating pressure 2300 psi. Injection Rate: 41.1 bbls./min. Flush with 5334 gals. lease crude.

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

Company El Paso Natural Gas Products Company

Address Post Office Box 1560
Farmington, New Mexico

ORIGINAL SIGNED BY: JOSEPH E. KREGER

By _____

Title Petroleum Engineer

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

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

Form approved.
Budget Bureau No. 42-R1424

5. LEASE DESIGNATION AND SERIAL NO. 14-20-603-2168

6. IF INDIAN, ALLOTTEE OR TRIBE NAME Navajo

7. UNIT AGREEMENT NAME NW Cha Cha

8. FARM OR LEASE NAME NW Cha Cha Unit

9. WELL NO. 41-34

10. FIELD AND POOL, OR WILDCAT Cha Cha Gallup

11. SEC., T., R., M., OR BLM. AND SURVEY OR AREA Sec. 34-29N-14W NMPM

12. COUNTY OR PARISH San Juan

13. STATE N. M.

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 Humble Oil & Refining Company

3. ADDRESS OF OPERATOR P. O. Box 120, Denver, Colorado 80201

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)
At surface NE NE (560' FNL, 560' FEL) Sec. 34

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
5792' KB

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

NOTICE OF INTENTION TO:

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

PULL OR ALTER CASING
MULTIPLE COMPLETE
ABANDON*
CHANGE PLANS

SUBSEQUENT REPORT OF:

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

REPAIRING WELL
ALTERING CASING
ABANDONMENT*

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

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

- 10-12-72 Spot 15 sack cement plug 5322-5222
Spot 15 sack cement plug 4500-4400
- 10-14-72 Shot casing @ 1500'. 40 sxs cement plug inside and outside casing from 1400' to 1500'.
Shot casing @1250'. Spot 40 sxs cement plug from 1250 to 1150.
Shot casing off @ 1080. Pulled casing.
- 10-16-72 Spot 40 sack cement plug from 218' to 118'.
Spot 15 sace cement plug from 30' to 0'.
Installed regulation dry hole marker and cleaned location for inspection.
Intervals between plugs filled with gelled mud.

CC: 2-New Mexico Oil Conservation Commission
1-Minerals Supervisor-Navajo Tribe
1-Midland

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

SIGNED J. Roy Dorrrough TITLE District Superintendent

DATE 2/14/73

(This space for Federal or State office use)

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