

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-122

Revised 12-1-55

MULTI-POINT BACK PRESSURE TEST FOR GAS WELLS

Pool Blanco Formation Mesaverde County Rio Arriba
Initial x Annual - Special - Date of Test 11-6-58
Company Magnolia Petroleum Company Lease Jicarilla "F" Well No. 6 MV-LT
Unit A Sec. 27 Twp. 27N Rge. 3W Purchaser Pacific Northwest
Casing 5" Wt. 15# I.D. 4.408" Set at 6442' Perf. 5864' To 6344'
Tubing 2 3/8" Wt. 4.7# I.D. 1.995" Set at 6342' Perf. - To -
Gas Pay: From 5864' To 6344' L 6342' xG 0.680 est. GL 4313 Bar.Press. 12 psia
Producing Thru: Casing - Tubing x Type Well G. G. Dual
Date of Completion: 10-6-58 Packer yes Single-Bradenhead-G. G. or G.O. Dual
Reservoir Temp. -

OBSERVED DATA

Tested Through (Prover) (Choke) (Meter) Type Taps -

No.	Flow Data					Tubing Data		Casing Data		Duration of Flow Hr.
	(Prover) (Line) Size	(Choke) (Orifice) Size	Press. psig	Diff. h _w	Temp. °F.	Press. psig	Temp. °F.	Press. psig	Temp. °F.	
1.	2"	0.750"	331	-	59	331	59	-	-	3 hrs.
2.										
3.										
4.										
5.										

FLOW CALCULATIONS

No.	Coefficient (24-Hour)	$\sqrt{h_w P_f}$	Pressure psia	Flow Temp. Factor F _t	Gravity Factor F _g	Compress. Factor F _{pv}	Rate of Flow Q-MCFPD @ 15.025 psia
1.	12.3650	-	343	1.0010	0.9393	1.040	4446
2.							
3.							
4.							
5.							

PRESSURE CALCULATIONS

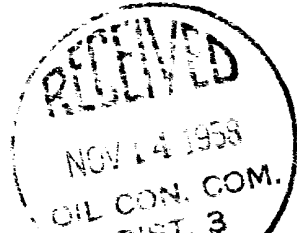
Gas Liquid Hydrocarbon Ratio - cf/bbl.
Gravity of Liquid Hydrocarbons - deg.
P_c 9.402 (1-e^{-s}) 0.269

Specific Gravity Separator Gas -
Specific Gravity Flowing Fluid -
P_c 1622 P_c 2630.9

No.	P _t (psia)	P _t ²	F _c Q	(F _c Q) ²	(F _c Q) ² (1-e ^{-s})	P _w ²	P _c ² -P _w ²	Cal. P _w	P _w P _c
1.	343	117.6	38.981	1519.5	408.7	526.3	2104.6	-	-
2.									
3.									
4.									
5.									

Absolute Potential: 4901 MCFPD; n 0.75
COMPANY MAGNOLIA PETROLEUM COMPANY
ADDRESS P. O. Box 2406, Hobbs, New Mexico
AGENT and TITLE M. J. Thacker
WITNESSED -
COMPANY -

REMARKS



INSTRUCTIONS

This form is to be used for reporting multi-point back pressure tests on gas wells in the State, except those on which special orders are applicable. Three copies of this form and the back pressure curve shall be filed with the Commission at Box 871, Santa Fe.

The log log paper used for plotting the back pressure curve shall be of at least three inch cycles.

NOMENCLATURE

Q = Actual rate of flow at end of flow period at W. H. working pressure (P_w).
MCF/da. @ 15.025 psia and 60° F.

P_c = 72 hour wellhead shut-in casing (or tubing) pressure whichever is greater.
psia

P_w = Static wellhead working pressure as determined at the end of flow period.
(Casing if flowing thru tubing, tubing if flowing thru casing.) psia

P_t = Flowing wellhead pressure (tubing if flowing through tubing, casing if
flowing through casing.) psia

P_f = Meter pressure, psia.

h_w = Differential meter pressure, inches water.

F_g = Gravity correction factor.

F_t = Flowing temperature correction factor.

F_{pv} = Supercompressibility factor.

n = Slope of back pressure curve.

Note: If P_w cannot be taken because of manner of completion or condition of well, then P_w must be calculated by adding the pressure drop due to friction within the flow string to P_t .

OIL CONSERVATION COMMISSION		
AZTEC DISTRICT OFFICE		
No. Copies Received 4		
DISTRIBUTION		
Operator	1	
Geologist	1	
Production Engineer		
Records and Reports		
Oil & Gas	1	
Transmission		
File	1	<input checked="" type="checkbox"/>

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

(Form C-104)
Revised 7/1/57

REQUEST FOR (OIL) - (GAS) ALLOWABLE

New Well
~~Recompletion~~

This form shall be submitted by the operator before an initial allowable will be assigned to any completed Oil or Gas well. Form C-104 is to be submitted in QUADRUPLICATE to the same District Office to which Form C-101 was sent. The allowable will be assigned effective 7:00 A.M. on date of completion or recompletion, provided this form is filed during calendar month of completion or recompletion. The completion date shall be that date in the case of an oil well when new oil is delivered into the stock tanks. Gas must be reported on 15.025 psia at 60° Fahrenheit.

Hobbs, New Mexico November 7, 1958
(Place) (Date)

WE ARE HEREBY REQUESTING AN ALLOWABLE FOR A WELL KNOWN AS:

Magnolia Petroleum Company Jicarilla "F" Well No. 6 LT-MV in NE 1/4 NE 1/4,
(Company or Operator) (Lease)
A Sec. 27 T. 27N R. 3W NMPM, Blanco Mesaverde Pool
Unit Letter

Rio Arriba

Please indicate location:

D	C	B 990	A
E	F	G	H 990
L	K	J	I
M	N	O	P

County. San Juan Date Spudded 9-10-58 Date Drilling Completed 10-6-58
Elevation 7362 Total Depth 6440 PBD 6405
Top ~~Oil~~/Gas Pay 5864 Name of Prod. Form. Blanco Mesaverde

PRODUCING INTERVAL -

Perforations 5864-6344
Open Hole - Depth - Casing Shoe 6440 Depth - Tubing 6342

OIL WELL TEST -

Natural Prod. Test: _____ bbls. oil, _____ bbls water in _____ hrs, _____ min. Size _____
Test After Acid or Fracture Treatment (after recovery of volume of oil equal to volume of Choke
load oil used): _____ bbls. oil, _____ bbls water in _____ hrs, _____ min. Size _____

GAS WELL TEST -

Natural Prod. Test: _____ MCF/Day; Hours flowed _____ Choke Size _____

Tubing, Casing and Cementing Record

Size	Feet	Sax
10 3/4"	307	240
7 5/8"	4390	125
5"	Top 4218	225
5"	Bottom 6440	

Method of Testing (pitot, back pressure, etc.): _____

Test After Acid or Fracture Treatment: 4146 MCF/Day; Hours flowed 3

Choke Size 3/4" Method of Testing: Back Pressure

Acid or Fracture Treatment (Give amounts of materials used, such as acid, water, oil, and sand): 91,000 gal water and 65,000 # sand

Casing Press. _____ Tubing Press. 3500 Date first new oil run to tanks _____

Oil Transporter _____

Gas Transporter Pacific Northwest Pipe Line Corporation

Remarks: _____

I hereby certify that the information given above is true and complete to the best of my knowledge. D.
Approved _____ NOV 10 1958 _____
MAGNOLIA PETROLEUM COMPANY
(Company or Operator)

OIL CONSERVATION COMMISSION

Original Signed Emery C. Arnold

By: _____

Title Supervisor Dist. # 3

By: Lee E. Robinson
(Signature)

Title District Gas Superintendent

Send Communications regarding well to:

Name Magnolia Petroleum Company

Address Box 2406, Hobbs, New Mexico

OIL CONSERVATION COMMISSION		
AZTEC DISTRICT OFFICE		
No. Copies Received <u>7</u>		
DATE RECEIVED		
Operator		
Santa Fe		
Production Office		
State Land Office		
U. S. G. S.		
Transporter		
File		<input checked="" type="checkbox"/>

NEW MEXICO OIL CONSERVATION COMMISSION
Santa Fe, New Mexico

(Form C-104)
Revised 7/1/57

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~~Recompletion~~

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Hobbs, New Mexico

November 7, 1958

(Place)

(Date)

WE ARE HEREBY REQUESTING AN ALLOWABLE FOR A WELL KNOWN AS:

Magnolia Petroleum Company Jicarilla "F", Well No. 6 UT-PC, in NE 1/4 NE 1/4,
(Company or Operator) (Lease)

A, Sec. 27, T. 27N, R. 3W, NMPM, Undesignated Pictured Cliffs Pool

Unit Letter

Rio Arriba

County Date Spudded 9-10-58

Date Drilling Completed 10-6-58

Please indicate location:

Elevation 7362 Total Depth 6440 PSTD 6405

Top Gas Pay 4074 Name of Prod. Form Undesignated Pictured Cliffs

PRODUCING INTERVAL -

Perforations 4074-4157 2 Sets

Open Hole - Depth 6440 Casing Shoe 4157

OIL WELL TEST -

Natural Prod. Test: bbls. oil, bbls water in hrs, min. Size Choke

Test After Acid or Fracture Treatment (after recovery of volume of oil equal to volume of load oil used): bbls. oil, bbls water in hrs, min. Size Choke

GAS WELL TEST -

Natural Prod. Test: MCF/Day; Hours flowed Choke Size

Tubing, Casing and Cementing Record

Size Feet Sax

10 3/4"	307	240
7 5/8"	4390	125
5"	Top 4218	225
5"	Bottom 6440	

Method of Testing (pitot, back pressure, etc.):

Test After Acid or Fracture Treatment: 1164 MCF/Day; Hours flowed 3

Choke Size 3/4" Method of Testing: Back Pressure

Acid or Fracture Treatment (Give amounts of materials used, such as acid, water, oil and sand): 99,000 gal water and 49,500 # sand

Casing Press. - Tubing Press. 850 Date first new oil run to tanks -

Oil Transporter

Gas Transporter Pacific Northwest Pipe Line Corporation

Remarks:

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

Approved NOV 10 1958, 19.

MAGNOLIA PETROLEUM COMPANY

(Company or Operator)

By L. E. Robinson (Signature)

Title District Gas Superintendent

Send Communications regarding well to:

Name Magnolia Petroleum Company

Address Box 2406, Hobbs, New Mexico

OIL CONSERVATION COMMISSION

Original Signed Emery C. Arnold

By:

Title Supervisor Dist. # 3

OIL CONSERVATION COMMISSION		
AZTEC DISTRICT OFFICE		
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DISTRIBUTION		
	COPIES	
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Operator		
Santa Fe		
Production Office		
State Land Office		
J. S. G. S.		
Transporter		
File		

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

Form C-110
Revised 7/1/55

(File the original and 4 copies with the appropriate district office)

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION
TO TRANSPORT OIL AND NATURAL GAS

Company or Operator Magnolia Petroleum Company Lease Jicarilla "F"
Well No. 6 UT-PC Unit Letter A S 27 T 27N R 3W Pool Undesignated Pictured Cliffs
County Rio Arriba Kind of Lease (State, Fed. or Patented) Federal
If well produces oil or condensate, give location of tanks: Unit S T R
Authorized Transporter of Oil or Condensate Magnolia Petroleum Company - Various Truckers
Address Box 2406, Hobbs, New Mexico
(Give address to which approved copy of this form is to be sent)
Authorized Transporter of Gas Pacific Northwest Pipe Line Corporation
Address Box 1526, Salt Lake City, Utah Date Connected _____
(Give address to which approved copy of this form is to be sent)
If Gas is not being sold, give reasons and also explain its present disposition:

Reasons for Filing: (Please check proper box) New Well (X)
Change in Transporter of (Check One): Oil () Dry Gas () C'head () Condensate ()
Change in Ownership () Other ()
Remarks: Original Filing (Give explanation below)

The undersigned certifies that the Rules and Regulations of the Oil Conservation Commission have been complied with.

Executed this the 17th day of November 19 58

By Lee E. Robinson, Jr.
Title District Gas Superintendent

Approved NOV 20 1958 19

OIL CONSERVATION COMMISSION

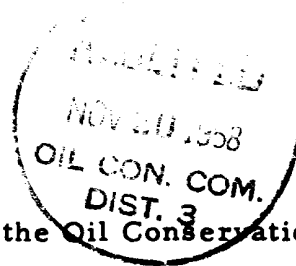
Company Magnolia Petroleum Company

By Original Signed Emery C. Arnold

Address Box 2406

Title Supervisor Dist. # 3

Hobbs, New Mexico



OIL CONSERVATION COMMISSION
AZTEC 11 22 77

No. Co. Rec.

[illegible]

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

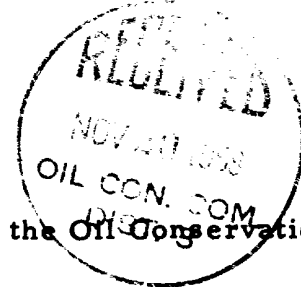
Form C-110
Revised 7/1/55

(File the original and 4 copies with the appropriate district office)

CERTIFICATE OF COMPLIANCE AND AUTHORIZATION
TO TRANSPORT OIL AND NATURAL GAS

Company or Operator Magnolia Petroleum Company Lease Jicarilla "F"
Well No. 6 LT-MW Unit Letter A S 27 T 27N R 3W Pool Blanco Mesaverde
County Rio Arriba Kind of Lease (State, Fed. or Patented) Federal
If well produces oil or condensate, give location of tanks: Unit S T R
Authorized Transporter of Oil or Condensate Magnolia Petroleum Company - Various Truckers
Address Box 2406, Hobbs, New Mexico
(Give address to which approved copy of this form is to be sent)
Authorized Transporter of Gas Pacific Northwest Pipe Line Corporation
Address Box 1526, Salt Lake City, UTAH Date Connected _____
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If Gas is not being sold, give reasons and also explain its present disposition:

Reasons for Filing: (Please check proper box) New Well (X)
Change in Transporter of (Check One): Oil () Dry Gas () C'head () Condensate ()
Change in Ownership () Other ()
Remarks: Original Filing (Give explanation below)



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Approved NOV 20 1958 19

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OIL CONSERVATION COMMISSION

Company Magnolia Petroleum Company

By Original Signed Emery C. Arnold

Address Box 2406

Title Supervisor Dist. # 3

Hobbs, New Mexico

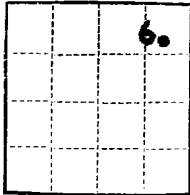
ARTIC INFORMATION OFFICE

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OIL CONSERVATION COMMISSION
AZTEC DISTRICT OFFICE

MUL. CONSERV. DIST. NO. 1

FILED



(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	SUBSEQUENT REPORT OF WATER SHUT-OFF.....	XX
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)

September 12, 1958

Well No. 6 is located 990 ft. from [N] line and 990 ft. from [E] line of sec. 27

NE 1/4 Sec. 27 (1/4 Sec. and Sec. No.)	27N (Twp.)	3W (Range)	N.Y.P.M. (Meridian)
Blanco & Unalig, TC (Field)	Rio Arriba (County or Subdivision)	New Mexico (State or Territory)	

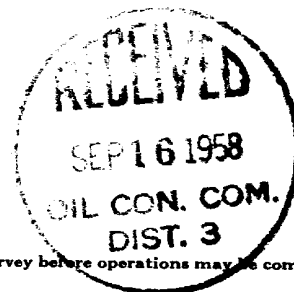
The elevation of the derrick floor above sea level is 7372 ft. EST.

DETAILS OF WORK

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

Commenced drilling operations 9:00 AM, September 10, 1958. (3rd date)

Set 275' of 10-3/4" Cag., cemented w/240 sks. mont. Plug down 7 PM, September 10, 1958. WOC 24 hours. Test 10-3/4" Cag. w/200# for 30 minutes, hold OK.



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

Company Magnolia Petroleum Company

Address P. O. Box 2606

Hobbs, New Mexico

By

Title District Superintendent

NEW MEXICO OIL CONSERVATION COMMISSION

SANTA FE, NEW MEXICO

7-3-58

APPLICATION FOR DUAL COMPLETION

Field Name Blanco		County Rio Arriba	Date September 15, 1958
Operator Magnolia Petroleum Company		Lease Jicarilla "F"	Well No. 6
Location of Well A	Unit 27	Section 27N	Range 3W

1. Has the New Mexico Oil Conservation Commission heretofore authorized the dual completion of a well in these same pools or in the same zones within one mile of the subject well? YES ☒ NO ☐
2. If answer is yes, identify one such instance: Order No. **DC-454**; Operator, Lease, and Well No.:

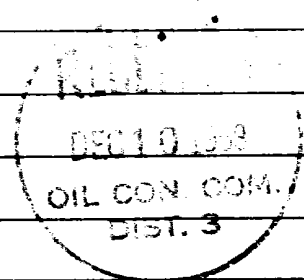
3. The following facts are submitted:	Upper Zone	Lower Zone
a. Name of reservoir	Pictured Cliffs	Mesa Verde
b. Top and Bottom of Pay Section (Perforations)	3870 Top 3980 Bottom	5670 Top 6200 Bottom
c. Type of production (Oil or Gas)	Gas	Gas
d. Method of Production (Flowing or Artificial Lift)	Flowing	Flowing

4. The following are attached. (Please mark YES or NO)

- ☒ **Yes** a. Diagrammatic Sketch of the Dual Completion, showing all casing strings, including size and setting, top of cement, perforated intervals, tubing strings, including diameters and setting depth, location and type of packers and side door chokes, and such other information as may be pertinent.
- ☒ **Yes** b. Plat showing the location of all wells on applicant's lease, all offset wells on offset leases, and the names and addresses of operators of all leases offsetting applicant's lease.
- ☒ **Yes** c. Waivers consenting to such dual completion from each offset operator, or in lieu thereof, evidence that said offset operators have been furnished copies of the application.*
- ☒ **No** d. Electrical log of the well or other acceptable log with tops and bottoms of producing zones and intervals of perforation indicated thereon. (If such log is not available at the time application is filed, it shall be submitted as provided by Rule 112-A.)

5. List all offset operators to the lease on which this well is located together with their correct mailing address.

Pacific Northwest Production Company, Simms Bldg., Albuquerque, New Mexico



6. Were all operators listed in Item 5 above notified and furnished a copy of this application? YES ☒ NO ☐ . If answer is yes, give date of such notification **September 15, 1958** .

CERTIFICATE: I, the undersigned, state that I am the **Authorized Agent** of the **Magnolia Petroleum Company** (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.

B. Young, Jr.
Signature

- * Should waivers from all offset operators not accompany an application for administrative approval, the New Mexico Oil Conservation Commission will hold the application for a period of twenty (20) days from date of receipt by the Commission's Santa Fe office. If, after said twenty-day period, no protest nor request for hearing is received by the Santa Fe office, the application will then be processed.
- NOTE: If the proposed dual completion will result in an unorthodox well location and/or a non-standard proration unit in either or both of the producing zones, then separate application for approval of the same should be filed simultaneously with this application.

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

6-1-56

PACKER-SETTING AFFIDAVIT
(Dual Completions)

STATE OF NEW MEXICO)
County of SAN JUAN) ss

G. W. Walker, being first duly sworn according to law, upon his oath deposes and says:

That he is of lawful age and has full knowledge of the facts herein below set out.

That he is employed by Magnolia Petroleum Company in the capacity of Production Foreman and as such is its authorized agent.

That on October 8, 19 58, he personally supervised the setting of a Baker Model "D" in Magnolia Petroleum Company's
(Make and Type of Packer) (Operator)

Jicarilla "T" Well No. 6, located in Unit
(lease)
Letter A, Section 27, Township 27N, Range 3W, NMPM,
Rio Arriba County, New Mexico.

That said packer was set at a subsurface depth of 5820 feet,
said depth measurement having been furnished by Schlumberger Well Servicing Corp.

That the purpose of setting this packer was to effect a seal in the annular space between the two strings of pipe where the packer was set so as to prevent the commingling, within the well-bore, of fluids produced from a stratum below the packer with fluids produced from a stratum above the packer. That this packer was properly set and that it did, when set, effectively and absolutely seal off the annular space between the two strings of pipe where it was set in such manner as that it prevented any movement of fluids across the packer.

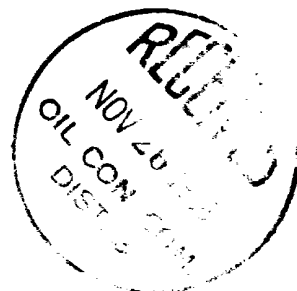
MAGNOLIA PETROLEUM COMPANY
(Company)

G. W. Walker
(its Agent)

Subscribed and sworn to before me this the 24 day of Nov, AD, 1958.

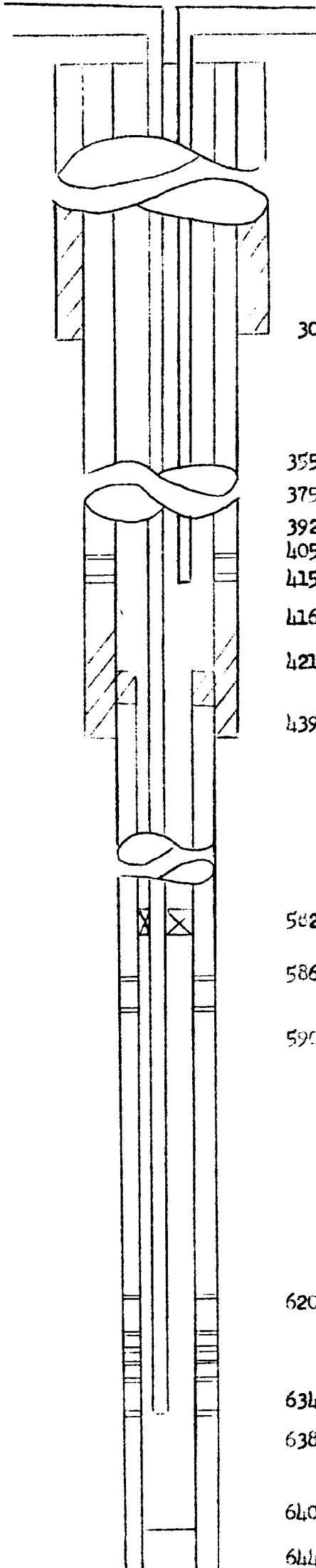
Barbara Christensen
Notary Public in and for the County
of San, N. M.

My Commission Expires 9-25-61.



MANCILLA PETROLEUM COMPANY
 JICARILLA "F" WELL NO. 6
 UNDEVELOPED PICTURED CLIFFS AND
 ALAMO MOUNTAIN
 RIO ARriba COUNTY, NEW MEXICO

ELEVATION: 7378



307' - 10 3/4" Casing set with 240 sks. cement

3556' - Top of Ojo Alamo

3756' - Top Birdland Fruitland

3920' - Top of Cement

4057' - Top of Pictured Cliffs

4157' - Bottom of 2" Tubing

4163' - Top of Lewis

4218' - Top of 5" Liner - Top of Cement

4390' - 7 5/8" Casing set w/125 sks. cement

Perforated 7 5/8"
 Casing w/66 Super
 Bullets

4074 - 92

4142 - 57

5820' - Baker Model "D" Production Packer

5864' - Top of Cliff House

5905' - Top of Menefee

Perforated 5" Liner
 with 112 Bullets

5864-69

5874-70

6183-94

6238-42

6254-67

6270-75

6289-6305

6336-44

6200' - Top of Point Lookout

6342' - Bottom of 2" Tubing

6382' - Top of Mancos

6405' - Plug Back Total Depth

6440' - Total Depth - 5" Liner set w/225 sks.

