

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE NO. 5790  
Order No. R-5330

APPLICATION OF DOME PETROLEUM  
CORPORATION FOR POOL CREATION  
AND ASSIGNMENT OF A DISCOVERY  
ALLOWABLE, MCKINLEY COUNTY,  
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on November 10, 1976, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 30th day of November, 1976, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That the applicant, Dome Petroleum Corporation, has discovered a new common source of supply for the production of oil from the Entrada formation in its Federal 21 Well No. 1, located in Unit K of Section 21, Township 20 North, Range 5 West, NMPM, McKinley County, New Mexico, said well being completed to produce from the Entrada formation August 26, 1976, through casing perforations from 5,877 feet to 5,885 feet.

(3) That the applicant seeks the creation and designation of a new oil pool for said Federal 21 Well No. 1, and the assignment of an oil discovery allowance to the discovery well.

(4) That having made a bona fide deepest McKinley County discovery of a new common source of supply, the discovery well, applicant's Federal 21 Well No. 1 is eligible for and should be assigned an oil discovery allowable of ten barrels for each foot of depth from the surface of the ground to the top of the perforations at 5,877 feet, or 58,770 barrels.

(5) That a new pool for said discovery well should be created and designated the Ojo Encino-Entrada Oil Pool, and the vertical limits of said pool should be the Entrada formation and the horizontal limits should comprise:

TOWNSHIP 20 NORTH, RANGE 5 WEST, NMPM  
Section 21: SE/4 NW/4 and NE/4 SW/4

(6) That creation of a new pool and the assignment of a discovery allowable, all as described in Findings Nos. (4) and (5) above are in the interest of conservation, will prevent waste, and will not impair correlative rights, and should be approved.

IT IS THEREFORE ORDERED:

(1) That effective December 1, 1976, a new pool for the production of oil from the Entrada formation in McKinley County, New Mexico, is hereby created and designated as the Ojo Encino-Entrada Oil Pool with vertical limits comprising the Entrada formation and horizontal limits as follows:

TOWNSHIP 20 NORTH, RANGE 5 WEST, NMPM  
Section 21: SE/4 NW/4 and NE/4 SW/4

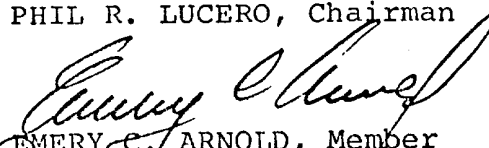
(2) That the discovery well for said pool, the Dome Petroleum Corporation Federal 21 Well No. 1 located in Unit K of Section 21, Township 20 North, Range 5 West, NMPM, McKinley County, New Mexico, is hereby assigned an oil discovery allowable of 58,770 barrels of oil, to be produced within 730 days after the effective date of this order.

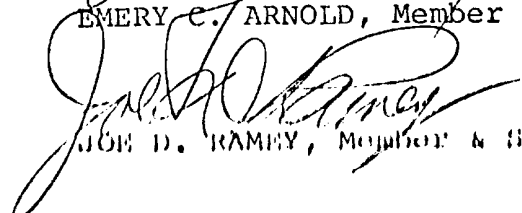
(3) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

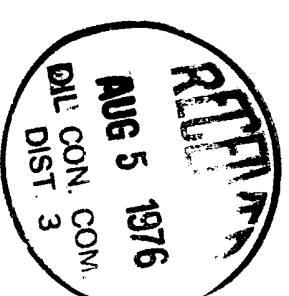
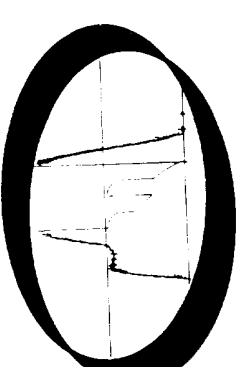
  
EMERY C. ARNOLD, Member

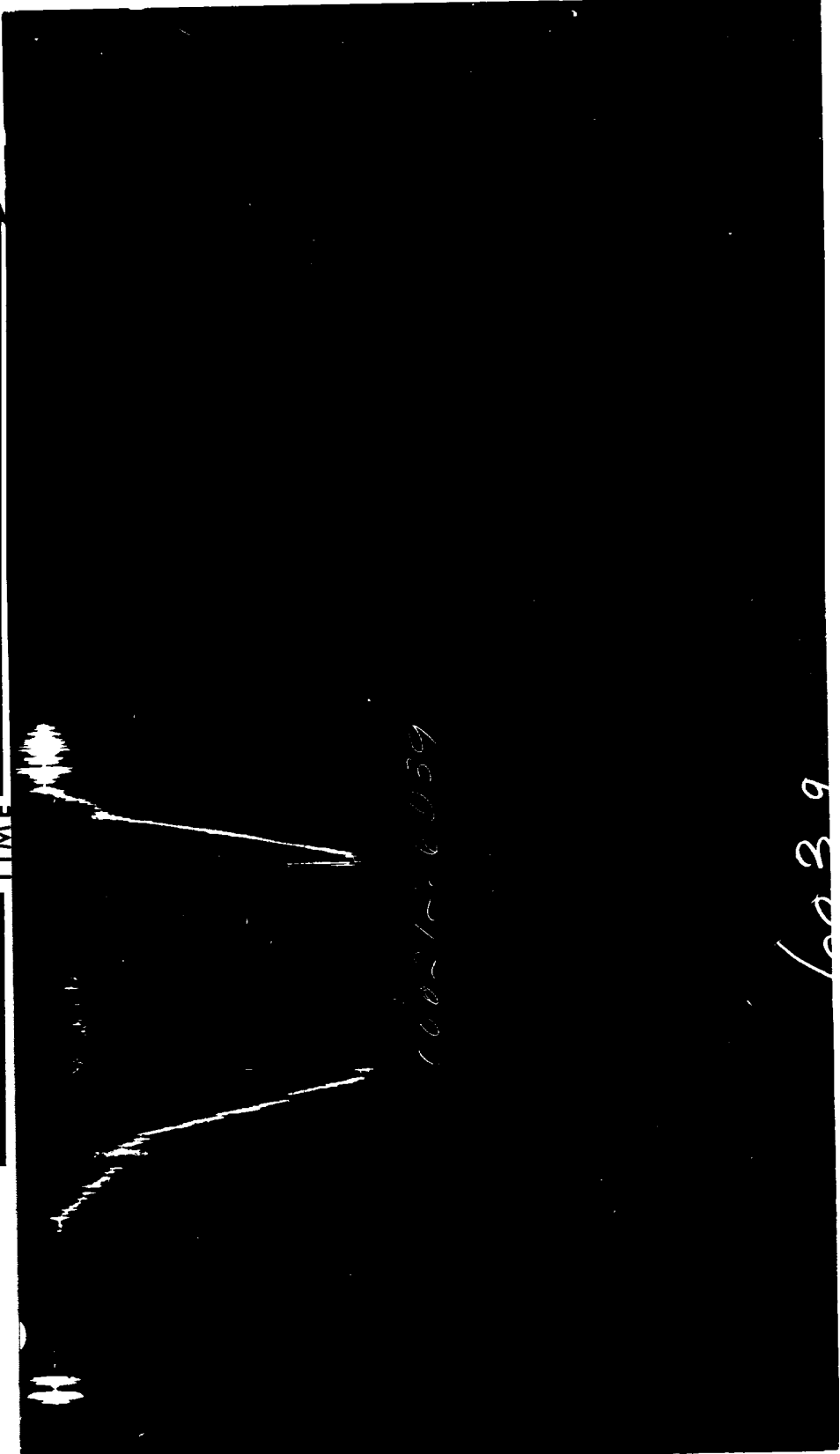
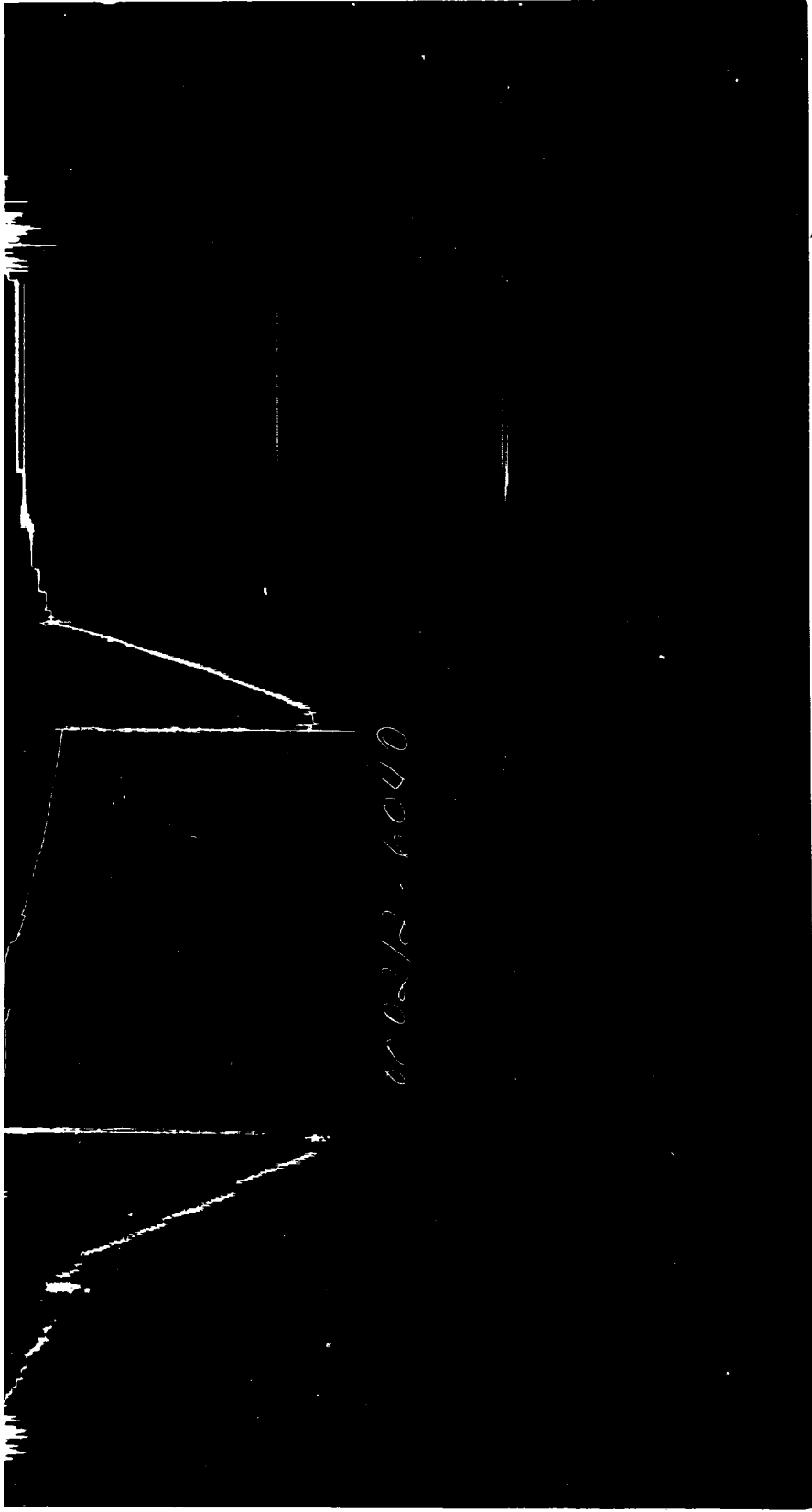
  
JOE D. RAMSEY, Member & Secretary

S E A L  
jr/

Fo

Information Testing Service Report





Pressure vs. Time

10039

## NOMENCLATURE

$b$	=	Approximate Radius of Investigation	Feet
$b_1$	=	Approximate Radius of Investigation (Net Pay Zone $h_1$ )	Feet
$D.R.$	=	Damage Ratio	—
$El$	=	Elevation	Feet
$GD$	=	B.T. Gauge Depth (From Surface Reference)	Feet
$h$	=	Interval Tested	Feet
$h_1$	=	Net Pay Thickness	Feet
$K$	=	Permeability	md
$K_1$	=	Permeability (From Net Pay Zone $h_1$ )	md
$m$	=	Slope Extrapolated Pressure Plot (Psi <sup>2</sup> /cycle Gas)	psi/cycle
$OF_1$	=	Maximum Indicated Flow Rate	MCF/D
$OF_2$	=	Minimum Indicated Flow Rate	MCF/D
$OF_3$	=	Theoretical Open Flow Potential with/Damage Removed Max.	MCF/D
$OF_4$	=	Theoretical Open Flow Potential with/Damage Removed Min.	MCF/D
$P_s$	=	Extrapolated Static Pressure	Psig.
$P_f$	=	Final Flow Pressure	Psig.
$P_{ot}$	=	Potentiometric Surface (Fresh Water *)	Feet
$Q$	=	Average Adjusted Production Rate During Test	bbls/day
$Q_1$	=	Theoretical Production w/Damage Removed	bbls/day
$Q_g$	=	Measured Gas Production Rate	MCF/D
$R$	=	Corrected Recovery	bbls
$r_w$	=	Radius of Well Bore	Feet
$t$	=	Flow Time	Minutes
$t_o$	=	Total Flow Time	Minutes
$T$	=	Temperature Rankine	°R
$Z$	=	Compressibility Factor	—
$\mu$	=	Viscosity Gas or Liquid	CP
$Log$	=	Common Log	

\* Potentiometric Surface Reference to Rotary Table When Elevation Not Given, Fresh Water Corrected to 100 °F.





	O. D.	I. D.	LENGTH	DEPTH
Drill Pipe or Tubing .....				
Reversing Sub .....	6"	2.25"	1'	
Water Cushion Valve .....				
Drill Pipe .....	4"	3.340"	3245'	
Drill Collars .....	6 1/4"	2.25"	599'	
Handling Sub & Choke Assembly .....				
Dual CIP Valve .....				
Dual CIP Sampler .....	5"	.87"	8'	3843'
Hydro-Spring Tester .....	5"	.75"	5'	3851'
Multiple CIP Sampler .....				
Extension Joint .....				
AP Running Case .....	5"	3.50"	4'	3856'
Hydraulic Jar .....	5"	1.75"	5'	
VR Safety Joint .....	5"	1"	3'	
Pressure Equalizing Crossover .....				
Packer Assembly .....	7 1/2"	1.53"	6'	3873'
Distributor .....				
Packer Assembly .....	7 1/2"	1.53"	6'	3879'
Flush Joint Anchor .....				
Pressure Equalizing Tube .....				
Blanked-Off B.T. Running Case .....				
Drill Collars .....				
Anchor Pipe Safety Joint .....				
Packer Assembly .....				
Distributor .....				
Packer Assembly .....				
Anchor Pipe Safety Joint .....				
Side Wall Anchor .....				
Drill Collars .....	6 1/4"	2.25"	66'	
Flush Joint Anchor .....	5 3/4"	2.50"	30'	
Blanked-Off B.T. Running Case .....	5 3/4"	3.50"	4'	3976'
Total Depth .....				3979'