

B. & R. SERVICE COMPANY

TEMPERATURE SURVEY

COMPANY EL PASO NATURAL GAS COMPANY

WELL HURBLE #2

FIELD

COUNTY SAN JUAN

STATE

SEC. 17

TWP.

29

RSE 10

DEC 4 1957

OIL COM.

DIST. 7

APPROX. TOP CEMENT 995'

Survey Begins at 500 Ft. Ends at 2097 Ft.

Approx. Fill-Up OVER 100% Max. Temp. 102° @ 2097'

Log Measured From C. F. Run No. 1

Casing Size	Casing Depth	Diam of Hole	Depth
5 1/2 from 0	to 2152'	7 7/8 from	to 2152'
from	to	from	to

Date of Cementing NOVEMBER 26, 1957 Time 6:00 P.M.

Date of Survey NOVEMBER 27, 1957 Time 6:00 A.M.

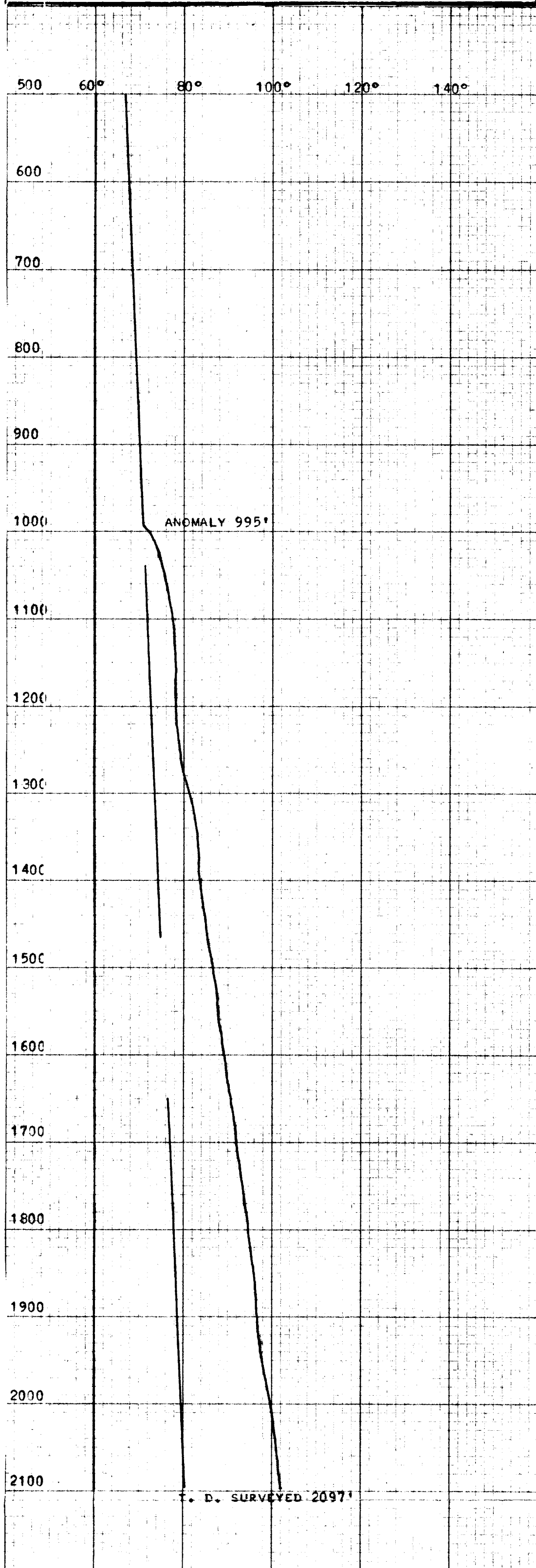
Amount of Cement 150 SACKS Type 50/50 POZMIX

Amount of Admix Type

Recorded by SMITH Witnessed by V. G. GABRIEL

REMARKS OR OTHER DATA

TEMPERATURE IN DEGREES FAHRENHEIT



EL PASO NATURAL GAS COMPANY
OPEN FLOW TEST DATADATE December 20, 1957

Operator El Paso Natural Gas		Lease Hubble No. 2	
Location NW 17-29-10		County San Juan	State New Mexico
Formation Pictured Cliffs		Pool Aztec	
Casing: Diameter 5-1/2	Set At: Feet 2141	Tubing: Diameter 1-1/4	Set At: Feet 2076
Pay Zone: From 2048	To 2094	Total Depth: 2150	
Stimulation Method Sand Water Frac.		Flow Through Casing X	Flow Through Tubing

Choke Size, Inches 3/4		Choke Constant: C 12.365			
Shut-In Pressure, Casing, PSIG 646	+ 12 = PSIA 658	Days Shut-In 14	Shut-In Pressure, Tubing PSIG 646	+ 12 = PSIA 658	
Flowing Pressure: P PSIG 178	+ 12 = PSIA 190		Working Pressure: Pw PSIG 185	+ 12 = PSIA 197	
Temperature: T °F 60	n = .85		Fpv (From Tables) 1.017	Gravity .648	

CHOKE VOLUME = $Q = C \times P_r \times F_r \times F_g \times F_{pv}$

$$Q = 12.365 \times 190 \times 1.000 \times .9623 \times 1.017 = \underline{2299} \text{ MCF/D}$$

$$\text{OPEN FLOW} = Aof = Q \left(\frac{P_c^2}{P_c^2 - P_w^2} \right)^n$$

$$Aof = \left(\frac{432,964}{394,155} \right)^n = 1.0984^{.85} \times 2299 = 1.0830 \times 2299$$

$$Aof = \underline{2490} \text{ MCF/D}$$

TESTED BY Richard Proctor and Frank Clark

WITNESSED BY _____



L. D. Galloway
L. D. Galloway

By: T B 6

OIL CONSERVATION COMMISSION		
ALTOO DISTRICT OFFICE		
No. Copies Received <u>3</u>		
DISTRIBUTION		
	CO. FURNISHED	
Operator		
Santa Fe	<u>1</u>	
Proration Office		
State Land Office		
U. S. G. S.	<u>1</u>	
Transporter		
File	<u>1</u>	☒