

ROTARY ENGINEERS LIMITED
CORE ANALYSIS TABULAR DATA

COMPANY Texas & Pacific Coal & Oil	WELL State B-1	FIELD Bagley Slure - Devonian
COUNTY Lea	STATE New Mexico	DATE 11-20-49
FORMATION Devonian	TYPE ANALYSIS Special	ANALYST LCL, JS
REMARKS Analysis of entire core cut with diamond bit.		JOB NO. L-65

SAMPLE NUMBER	DEPTH	MATRIX POROSITY %	FRACTURED PORE %	TOTAL POROSITY %	EFFECTIVE POROSITY %	PERMEABILITY M. D.	TOTAL WATER SATURATION % P. V.	RESIDUAL OIL SATURATION % P. V.	PROBABLE PRODUCTION	REMARKS
1	10824-25.5				6.5	175	22.0	20.0	Oil	
2	25.5-27.0				3.8	5	33.4	16.4	"	
3	27.0-28.5				3.5	5	17.5	14.7	"	
4	28.5-30.0				4.5	10	17.5	14.3	"	
5	30.0-31.5				1.2	-1	41.4	21.2	None	
6	31.5-33.0				0.4	-1	55.4	12.4	"	
7	33.0-34.5				0.2	-1	27.3	0.0	"	
8	34.5-36.0				0.2	-1	35.2	0.0	"	
9	36.0-37.5				0.2	-1	26.7	0.0	"	
10	10874.0-75.5				2.0	4	27.5	8.4	Oil	
11	75.5-77.0				2.6	4	36.4	4.3	"	
12	77.0-78.6				2.2	5	42.7	9.7	"	
13	78.5-80.0				4.0	40	21.3	16.8	"	
14	80.0-81.5				5.7	100	18.6	7.4	"	
15	81.5-83.0				6.0	55	16.7	8.9	"	
16	83.0-84.5				4.0	25	12.9	12.4	"	
17	84.5-86.0				7.4	110	22.6	16.3	"	
18	86.0-87.5				5.0	15	31.0	16.8	"	
19	87.5-89.0				11.5	130	14.7	18.7	"	
20	89.0-90.5				7.1	33	17.6	12.3	"	
21	90.5-92.0				3.4	13	29.7	4.7	"	
22	92.0-93.5				4.7	32	18.3	10.6	"	
23	93.5-95.0				5.8	12	19.7	7.8	"	
24	95.0-96.5				4.9	49	41.8	10.2	"	
25	96.5-98.0				9.0	58	10.6	14.5	"	
26	98.0-99.5				6.6	12	12.7	16.2	"	
27	99.5-10901.0				3.7	11	16.7	12.3	"	
28	10901.0-02.5				5.6	49	12.7	12.7	"	
29	02.5-04.0				3.7	12	16.4	13.6	"	
30	04.0-05.5				7.6	19	14.3	6.8	"	
31	05.5-07.0				6.5	13	16.7	9.7	"	
32	07.0-08.5				6.1	12	12.7	14.3	"	
33	08.5-10.0				5.8	15	18.3	18.4	"	
34	10.0-11.5				5.7	11	12.4	14.3	"	
35	11.5-13.0				5.7	12	16.6	9.2	"	

ROTARY ENGINEERING AND MANUFACTURING CO., INC.
DRILLING ENGINEERS
BOX 1007
MIDLAND, TEXAS

November 25, 1949

Texas & Pacific Coal & Oil Co.
601 West Missouri Street
Midland, Texas

Attention: Mr. G. R. Carter.

Gentlemen:

We are submitting to you eight (8) copies of our core analysis in both tabular and graphic forms on your State B No.1 well, Bagley-Sluro-Devonian Field in Lea County, New Mexico. These cores having been analyzed for porosity, permeability and fluid saturation as percent pore space occupied.

The porosities were obtained by resaturating eighteen (18) inch sections of the core, starting with vacuum and going to 1000 pounds applied pressure. The total volume of fluid injected was assumed to be the effective pore space. Volume, time and pressure measurements were made at 12 different intervals during the resaturation of each sample and the permeability was computed from these measurements. Thus the permeability measurements are non directional.

Curves are submitted showing resaturation characteristics of each sample.

Fluid saturation as percent pore space is believed to be unreliable due to the vuglar nature of the formation.

We wish to thank you for the consideration and cooperation shown us and our personnel in securing the information on this well.

Yours very truly,

ROTARY ENG, & MFG. CO., INC.

L. C. Locke
L. C. Locke

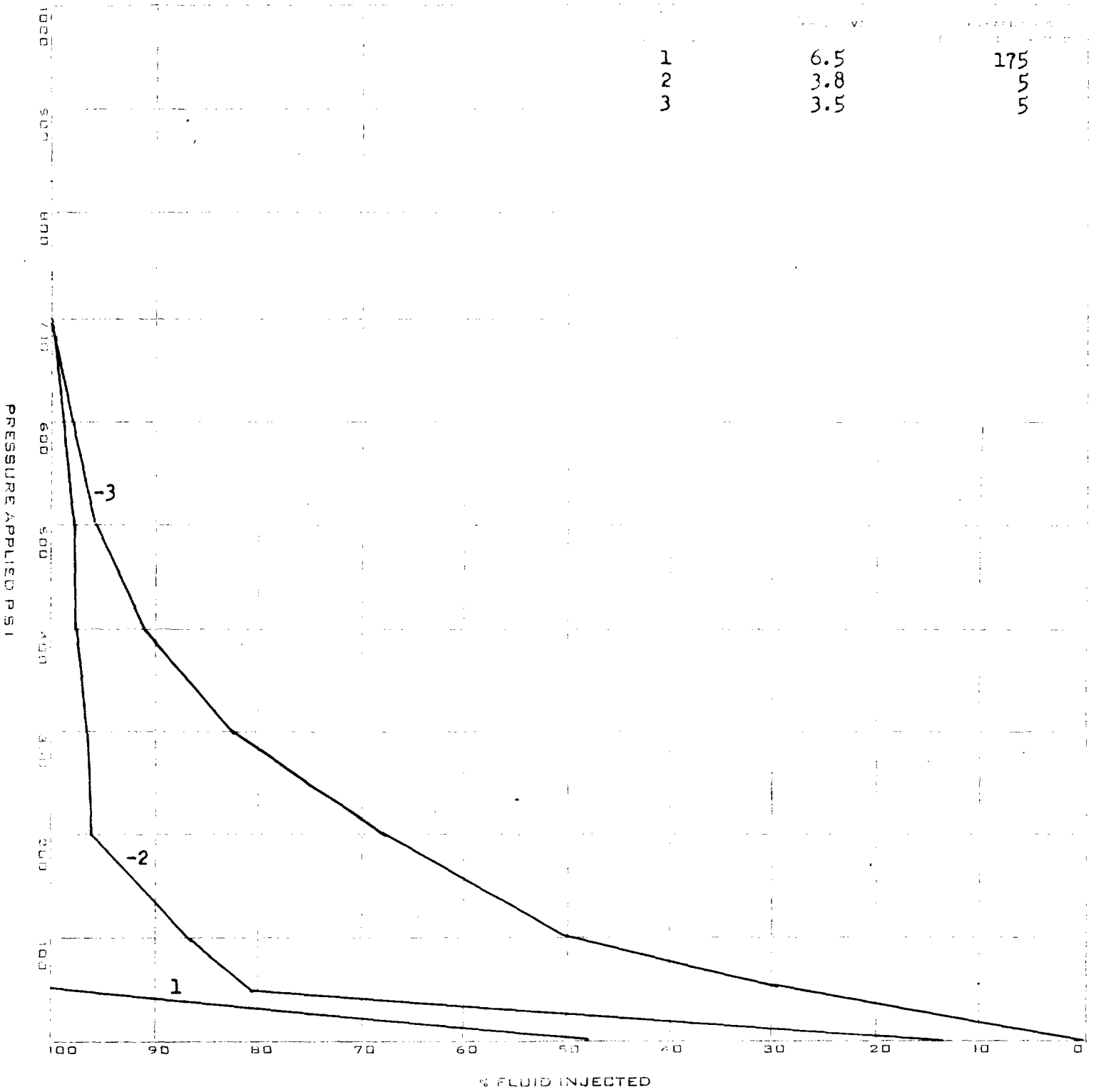
LCL:mp
Enclosure

ROTARY ENGINEERING & MANUFACTURING CO.

CORE ANALYSIS GRAPHIC DATA

COMPANY TEXAS & PACIFIC COAL & OIL
 WELL State B #1
 COUNTY Lea County,
 STATE New Mexico

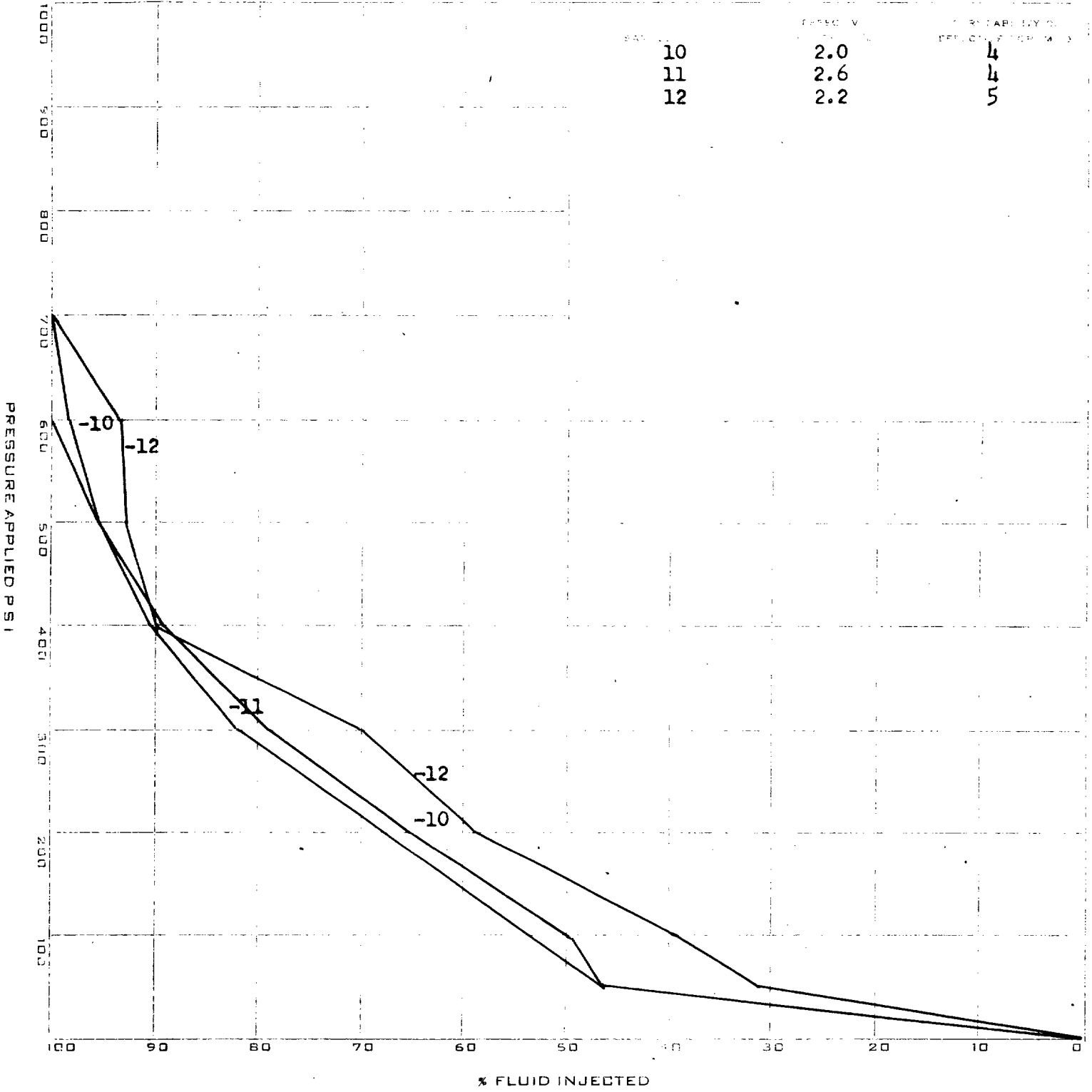
PAGE 1
 JOB NO. L-65
 ANALYST JS, LCL



ROTARY ENGINEERING & MANUFACTURING CO.
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COMPANY TEXAS & PACIFIC COAL & OIL
WELL State B #1
COUNTY Lea
STATE New Mexico

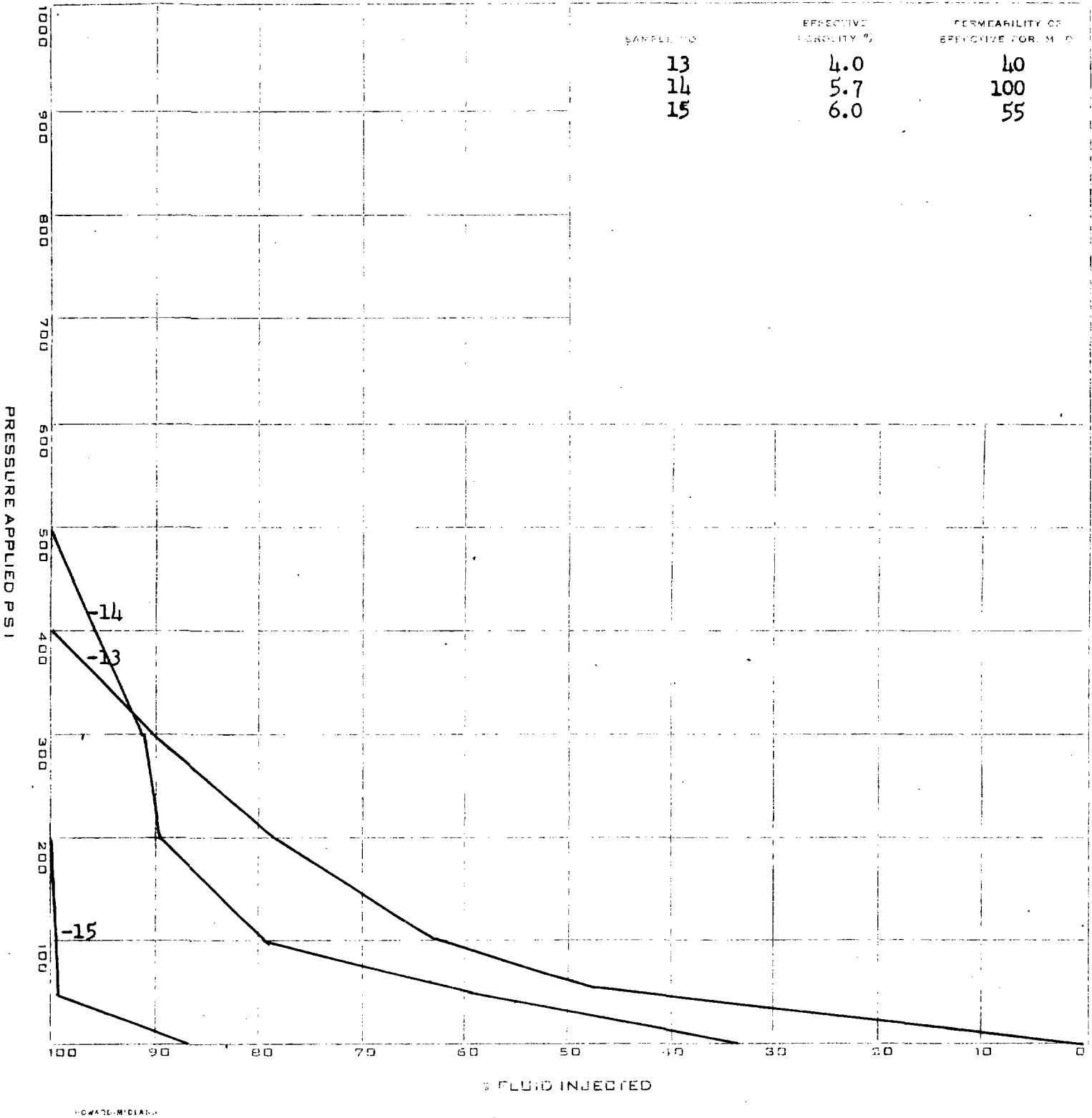
PAGE 2
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CORE ANALYSIS GRAPHIC DATA

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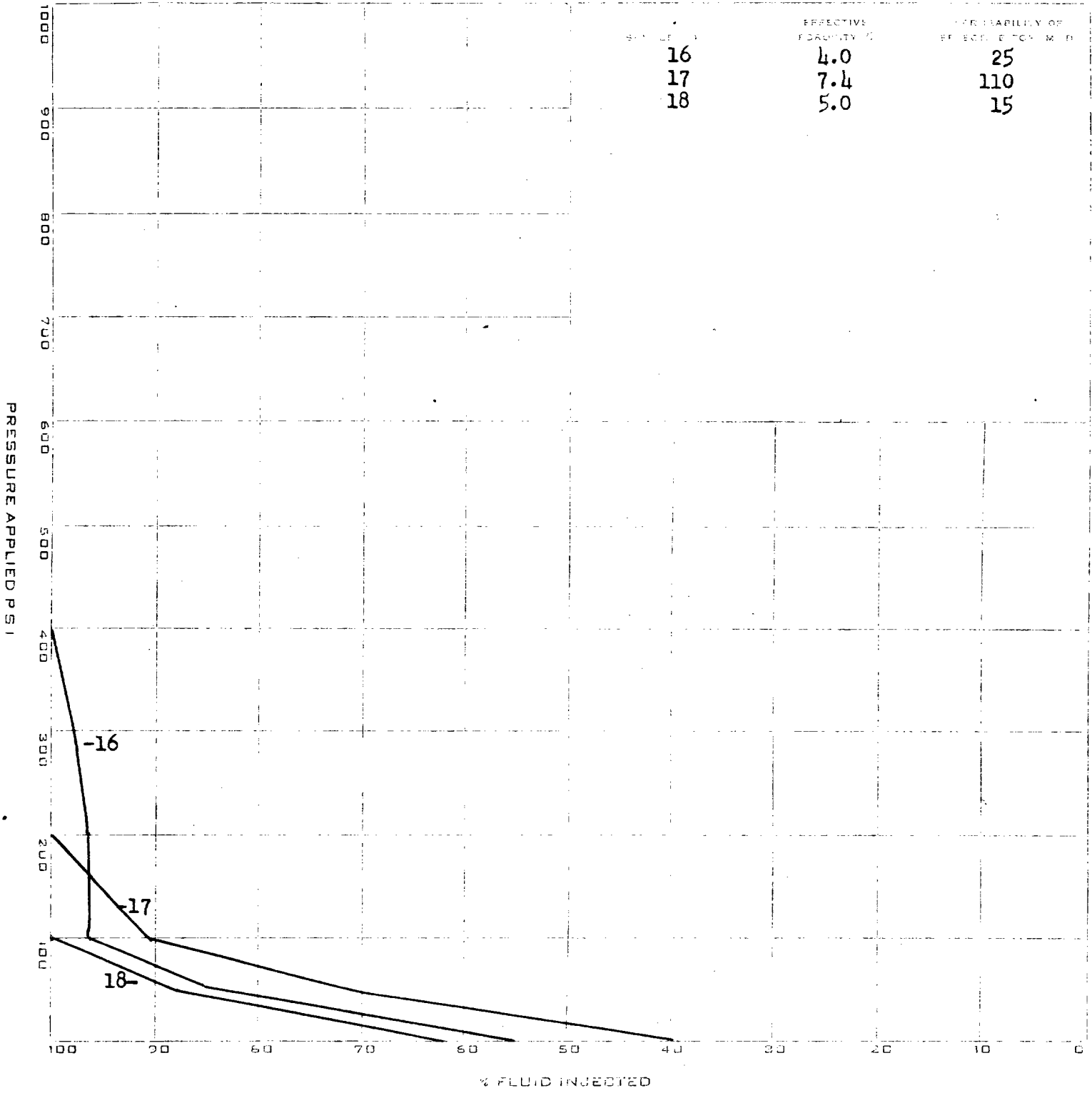


HOWARD M. DEAN

ROTARY ENGINEERING & MANUFACTURING CO.
CORE ANALYSIS GRAPHIC DATA

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COUNTY Lea
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Curve Label	EFFECTIVE PERCENTAGE	PERMEABILITY OF BESSONETON M.D.
16	4.0	25
17	7.4	110
18	5.0	15

ROTARY ENGINEERING & MANUFACTURING CO.
CORE ANALYSIS GRAPHIC DATA

COMPANY TEXAS & PACIFIC COAL & OIL

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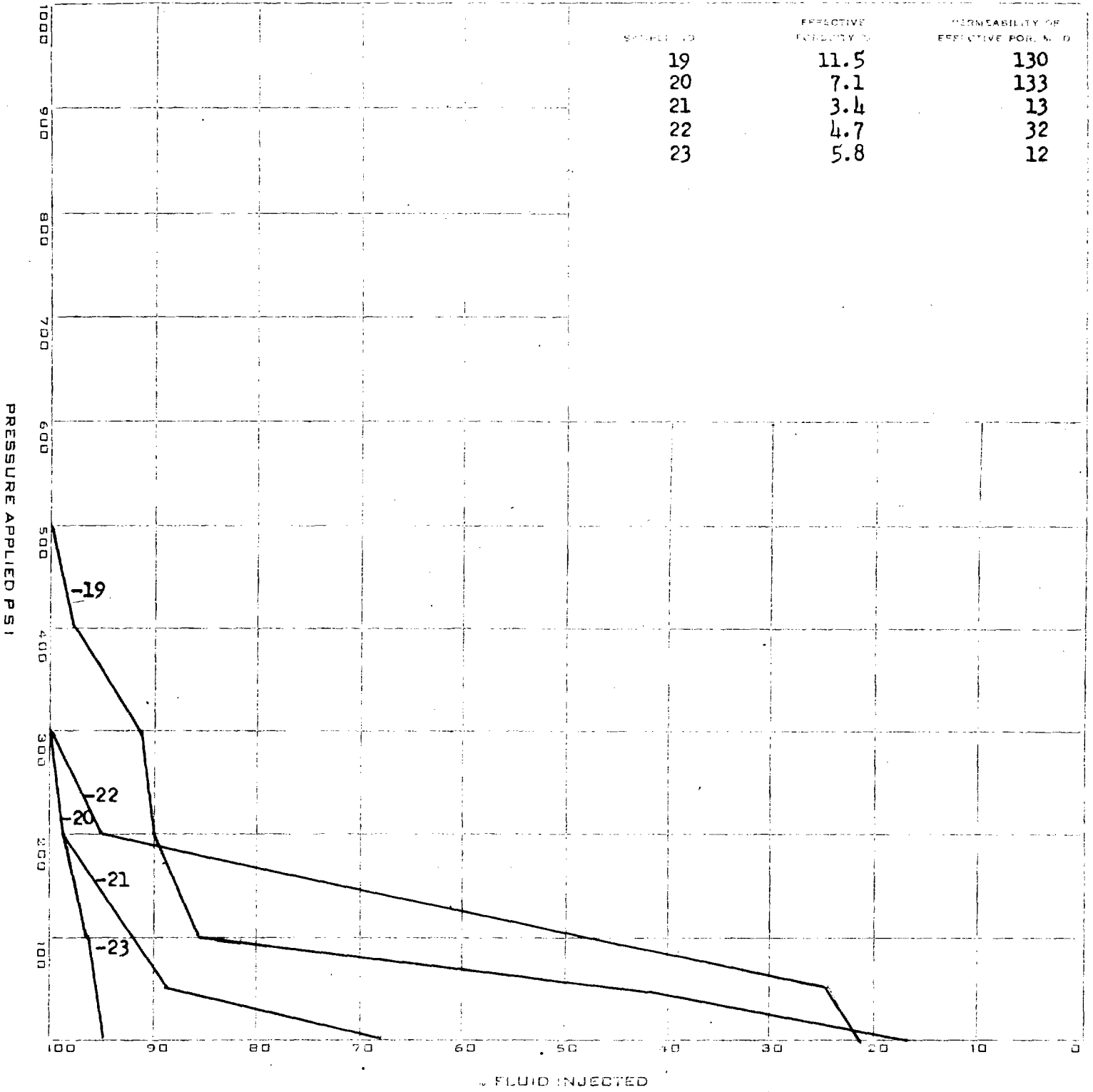
WELL State B #1

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COUNTY Lea

ANALYST JS, LCL

STATE New Mexico



FORWARD M-GLA-11

ROTARY ENGINEERING & MANUFACTURING CO.
CORE ANALYSIS GRAPHIC DATA

COMPANY TEXAS & PACIFIC COAL & OIL

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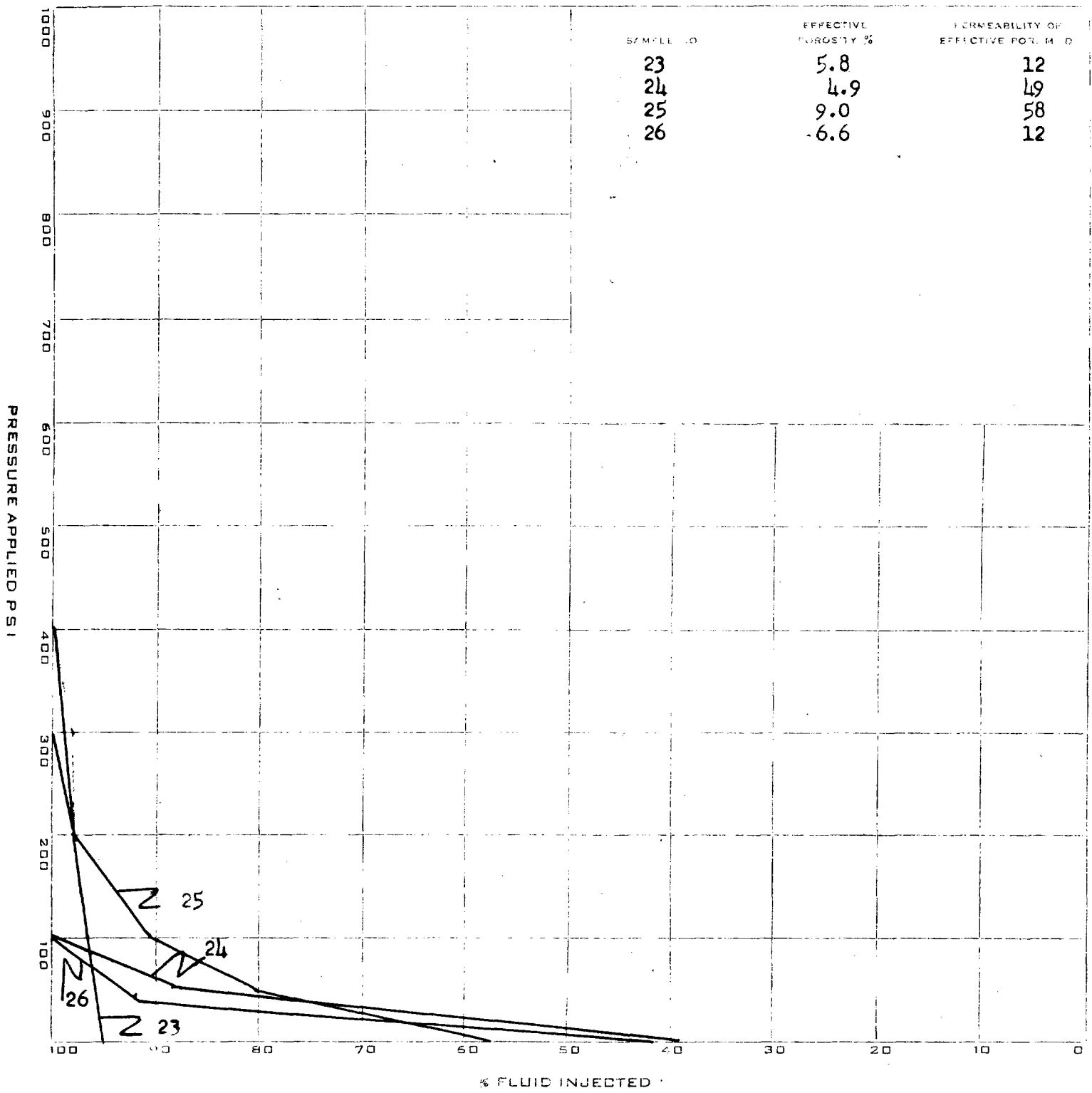
WELL State B #1

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COUNTY Lea

ANALYST JS, LCL

STATE New Mexico

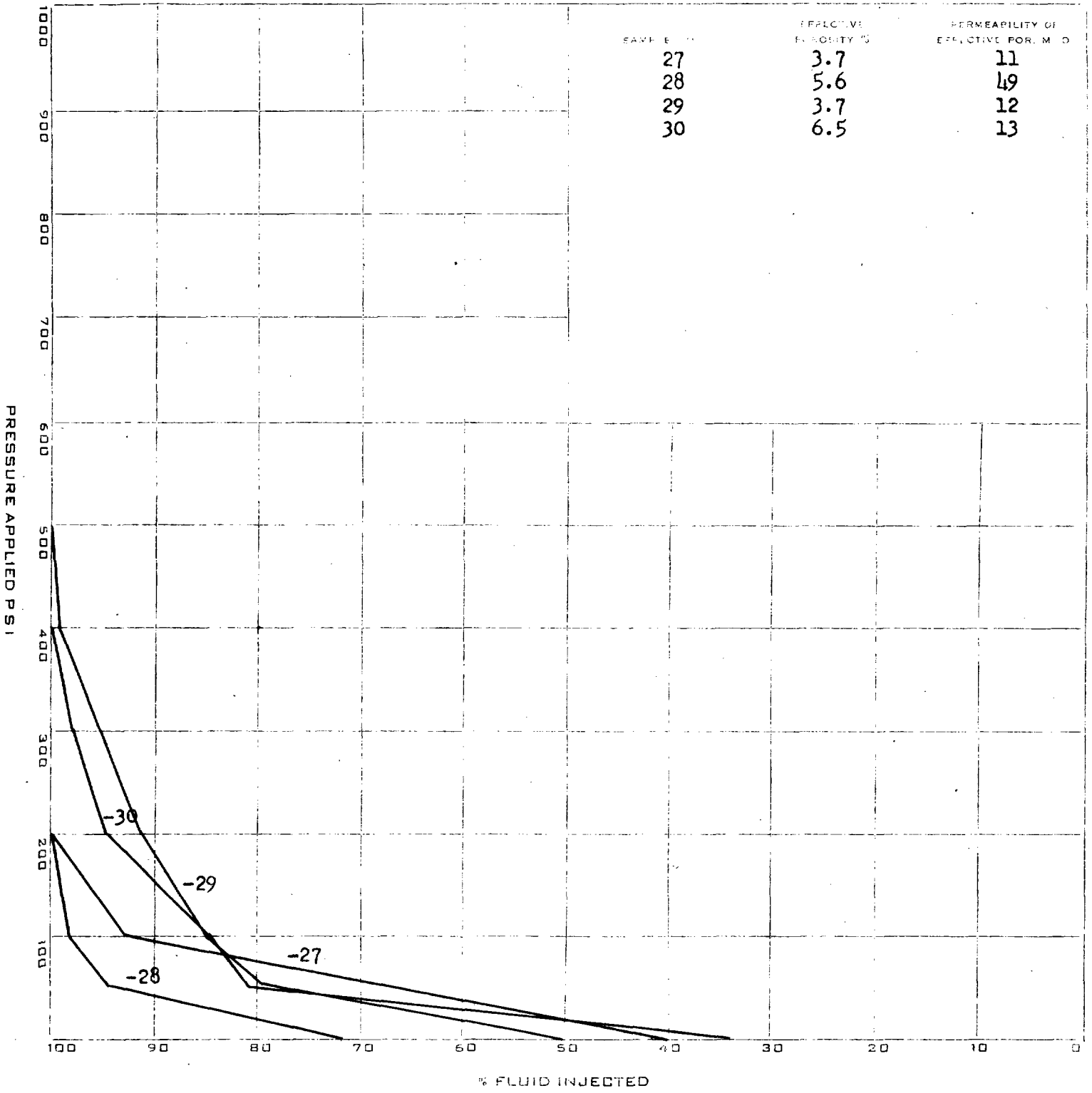


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CORE ANALYSIS GRAPHIC DATA

COMPANY TEXAS & PACIFIC COAL & OIL
 WELL State B #1
 COUNTY Lea
 STATE New Mexico

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ROTARY ENGINEERING & MANUFACTURING CO.

CORE ANALYSIS GRAPHIC DATA

COMPANY TEXAS & PACIFIC COAL & OIL

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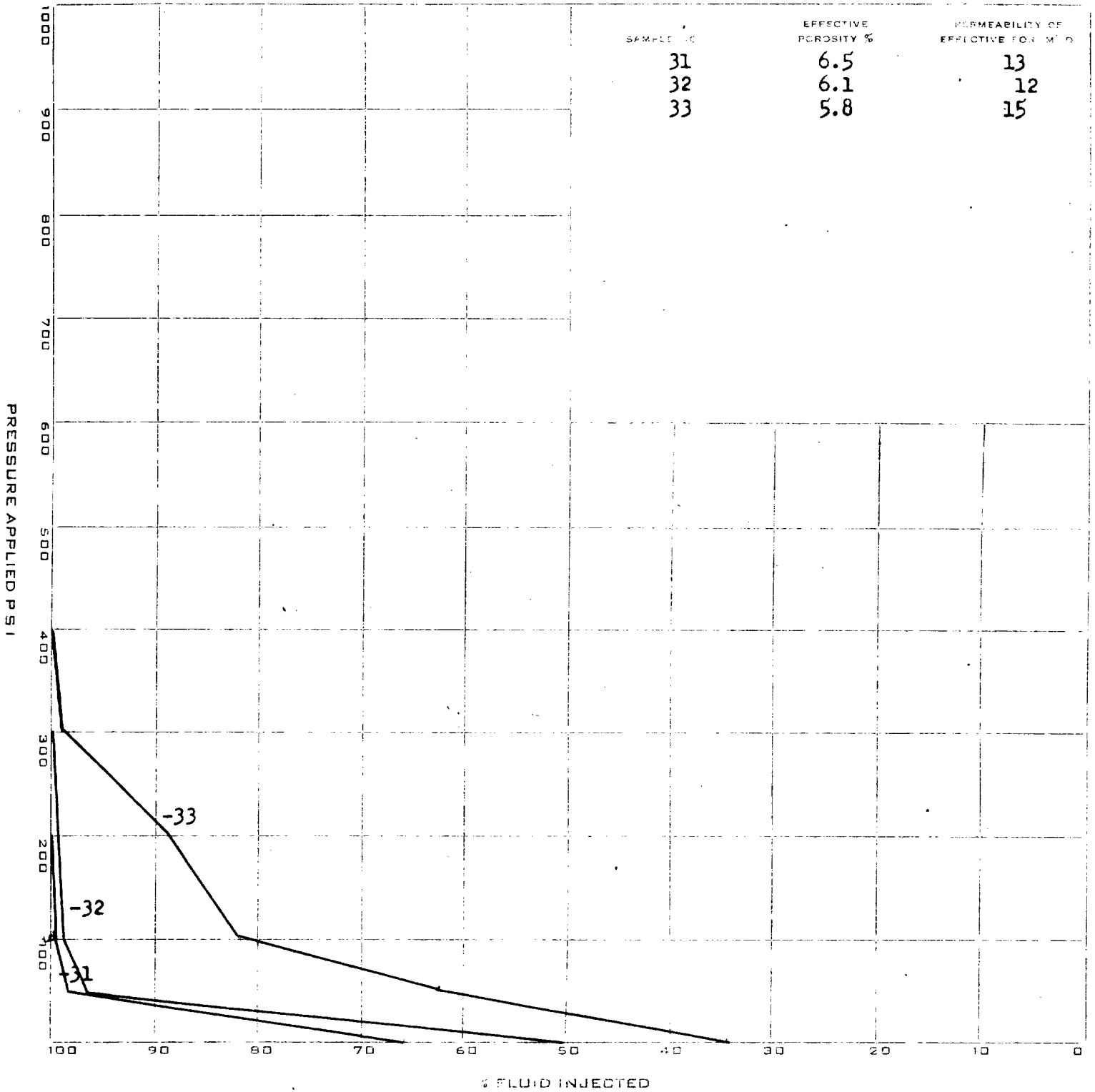
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COUNTY Lea

ANALYST JS, LCL

STATE New Mexico



ROTARY ENGINEERING & MANUFACTURING CO.

CORE ANALYSIS GRAPHIC DATA

COMPANY TEXAS & PACIFIC COAL & OIL

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WELL State B #1

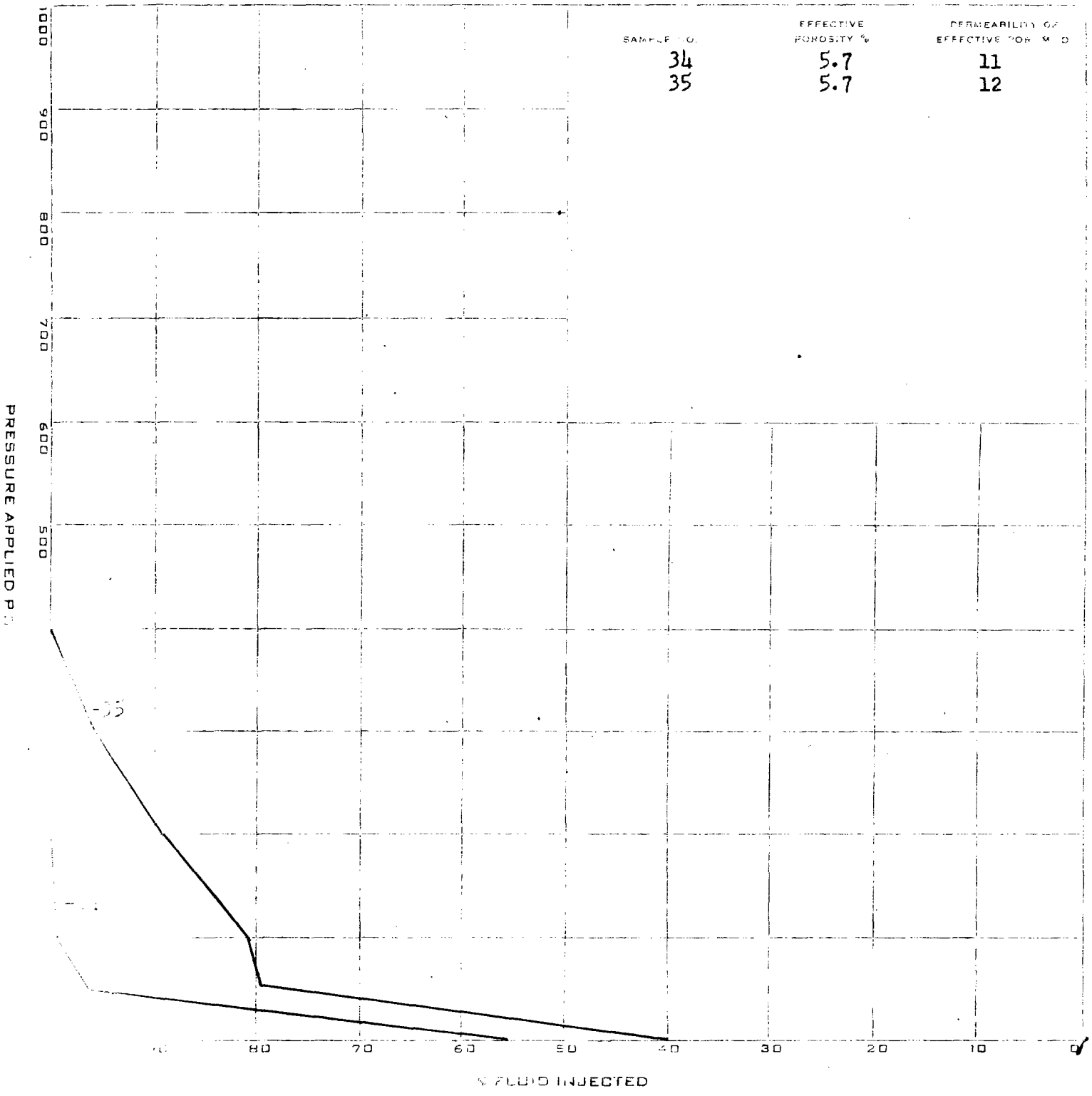
JOB NO. L-65

COUNTY Lea

ANALYST JS, LCL

STATE New Mexico

SAMPLE NO.	EFFECTIVE POROSITY %	PERMEABILITY OF EFFECTIVE POR. M.D.
34	5.7	11
35	5.7	12



S C H L U M B E R G E R

WELL SURVEYING CORPORATION

Location of Well 1980' FS & E/L SEC. 2 12S-33E Elevation: D.F.: 4235' K.B.: or G.L.:	COMPANY: AMERADA PETROLEUM CORP. WELL: STATE B T A #1 FIELD: WILDCAT LOCATION: SEC. 2 12S-33E COUNTY: LEA STATE: NEW MEXICO FILING No.	COUNTY: LEA FIELD OR LOCATION: WILDCAT WELL: STATE B T A #1 COMPANY: AMERADA PETROLEUM CORP.
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RUN NO.	I	II	III	IV	V
Date	12-11-48	3-15-49	5-18-49	6-7-49	7-8-49
First Reading	3925 3925	9263 9263	11193 11193	11486 11486	11762 11762
Last Reading	289 0	3924 4185	9263 9263	11200 11193	11486 11486
Footage Measured	3636 3925	5339 5078	1930 1930	286 293	276 276
Csg Shoe Schlum.	289	3924	-	11200	-
Csg Shoe Driller	287	3925	-	11200	11200
Max. Depth Reached	3928	9266	11196	11489	11765
Bottom Driller	3930	9265	11205	11490	11766
Depth Datum	1' above RT	1' above RT	1' above RT	1' above RT	1' above RT
Mud Nature	Impermix	Impermix	Sat. Salt	Fresh Water	Aquagel
" Density	11.7	11.7	9.3		8.8
" Viscosity	42	46	67		65
" Resistivity	Sat. @ Salt F	Sat. @ Salt F	.06 @ 65 °F	4.0 @ 70 °F	0.46 @ 75 °F
" Resistivity BHT	@ °F	@ °F	@ °F	@ °F	@ °F
" pH	@ °F	@ °F	@ °F	@ °F	@ °F
" Water Loss	CC/30 Min.	CC/30 Min.	CC/30 Min.	CC/30 Min.	CC/30 Min.
Maximum Temp. °F	122			225	238
Bit Size	12 1/2 to 1725	11" to TD (2)	7 7/8	4 3/4	4 3/4
Spacings - AM	10"	10"	10"	10"	10"
A					
AO	32"	32"	32"	32"	32"
E.S. Rig Time	2 hours	12 1/2 hours	7 1/2 hours	4 hours	1 1/2 hours
Truck No.	214	214	279	279	277
Recorded By	Hamilton	Cargill	Hamilton-Scott	Hamilton	Hamilton
Witnessed By					

REMARKS

IV. Schlumberger depths were adjusted to operators
 Sch. CSO. 11,190
 Sch. TD 11,479

Spontaneous-Potential millivolts	DEPTH	Resistivity -ohms. m ² /m.
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S C H L U M B E R G E R

WELL SURVEYING CORPORATION

Location of Well 660' FSL & 1989' FWL SEC. 2 12S-33E <i>Julsa</i> Elevation: D.F.: K.B.: or G.L.:	COMPANY: AMERADA PETROLEUM CORP. WELL: STATE B.T.D.#1. FIELD: WILDCAT LOCATION: SEC. 2 12S-33E COUNTY: LEA STATE: NEW MEXICO FILING No.	COUNTY: LEA FIELD OR LOCATION: WILDCAT WELL: STATE B.T.D.#1 COMPANY: AMERADA PETROLEUM CORP.
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RUN NO.	I	II			
Date	8-18-49	11-26-49			
First Reading	3882 3882	10977 10977			
Last Reading	290 0	3882 3882			
Footage Measured	3592 3882	7095 7095			
Csg Shoe Schlum.	290	-			
Csg Shoe Driller	290	-			
Max. Depth Reached	3885	10980			
Bottom Driller	3885	10980			
Depth Datum	18" above RT	1 1/2' abv. RT or 17' abv. Jr.			
Mud Nature	Impervix	Zeogel			
" Density	11	9.4			
" Viscosity	33	85			
" Resistivity	.10 @ 85 °F	.08 @ 65 °F	@ °F	@ °F	@ °F
" Resistivity BHT	@ °F	.023 @ 212 °F	@ °F	@ °F	@ °F
" pH	@ °F	@ °F	@ °F	@ °F	@ °F
" Water Loss	CC 30 Min.	5 CC 30 Min.	CC 30 Min.	CC 30 Min.	CC 30 Min.
Maximum Temp. °F	130	212			
Bit Size	11"	7 7/8"			
Spacings - AM	10"	10"			
A					
AO	32"	32"			
E.S. Rig Time	4 hours	10 1/2 hrs.			
Truck No.	252	279			
Recorded By	Scott	Cargill			
Witnessed By		Stephenson			

REMARKS
Filter Cake - 2/32"

SCHLUMBERGER

WELL SURVEYING CORPORATION

Location of Well 660' Fr S/L 1980' Fr W/L SEC. 35 11S-33E	COMPANY: AMERADA PETROLEUM CORP. WELL: STATE & T.C. #1 FIELD: WILDCAT LOCATION: SEC. 35 11S-33E COUNTY: LEA STATE: NEW MEXICO FILING No.	COUNTY: LEA FIELD OR LOCATION: WILDCAT WELL: STATE & T.C. #1 COMPANY: AMERADA PETROLEUM CORP.
Elevation: D.F.: 4250' K.B.: or G.L.:		

ILLEGIBLE

RUN NO.	I	II	III		
Date	6-26-49	9-3-49	10-23-49		
First Reading	3502 3882	9483 9483	10969 10969		
Last Reading	322 0	3880 3880	9483 9483		
Footage Measured	3500 3882	5603 5603	1486 1486		
Csg Shoe Schlum.	322	3880	-		
Csg Shoe Driller	325	3884	-		
Max. Depth Reached	3885	9486	10972		
Bottom Driller	3885	9495	10980		
Depth Datum	1' Adv. RT	1' above RT	or 13' above Ground		
Mud Nature	Zeogel	Impermix-Zeogel	Zeogel		
" Density	11.1	10.1	10		
" Viscosity	34	48	54		
" Resistivity	at salt °F	.32 @ 85 °F	.08 @ 64 °F	@ °F	@ °F
" Resistivity BHT	@ °F	.13 @ 190 °F	.026 @ 205 °F	@ °F	@ °F
" pH	@ °F	@ °F	@ °F	@ °F	@ °F
" Water Loss	CC 30 Min.	CC 30 Min.	8 CC/30 Min.	CC/30 Min.	CC/30 Min.
Maximum Temp. °F		190	205		
Bit Size	13 3/4	9 3/4	9 3/4		
Spacings - AM	10"	10"	10"		
A					
AO	32"	32"	32"		
E.S. Rig Time	8 1/2 hrs.	7 1/2 hrs.	3 hrs.		
Truck No.	214	252	279		
Recorded By	Scott	Scott	Cargill		
Witnessed By			Tilge		