

CRUDE OIL TESTING, INC.

DATE 8/31/85

TEST TICKET NO. 5437

Company: A. Scott Ritchie
 Company Address: 125 N. Market Suite 950 Wichita KS 67202
 Location: Sec. 25 Twp. 5S Range 22W Co. Norton State KS
 Well Name & Number: McKinley #1-25 Code E19

ENGINEERING DATA	Elevation 2315 KB	Drill Pipe Length 2890	ID 3.8 "
	Mud Viscosity 46	Weight Pipe Length	
	Mud Weight 9.5	Drill Collar Length 476	ID 2.25"
	Water Loss 8	Top Packer Depth 3384	
	Type of Mud Chemical	Bottom Packer Depth 3389	
	Anchor Length 51	Tool Joint Size 4.5	XH
	Hole Size 7 7/8	Test Tool Size 5 1/2	
	Casing Size 8 5/8	Packer Size 6 3/4	
	Surface Choke 3/4	Reversed Out	No
	Bottom Choke 3/4	Recorder # 13255	
	Extra Equipment	None	

REMARKS DST #1

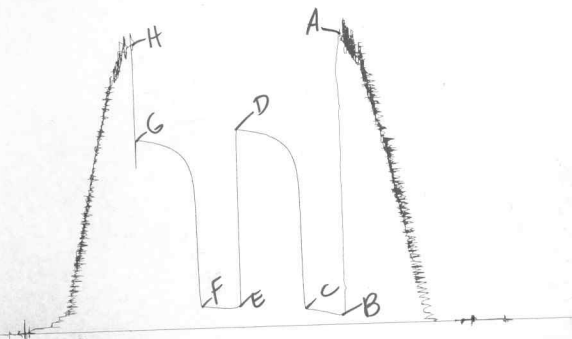
FORMATION	Lansing Zone Top	Test Type Conventional
	Interval 3389 To 3440	Total Depth 3440
	Open 30 Shut In 45	Open 30 Shut In 45
	Packer(s) Set 08:03PM	Started Off Bottom 10:35PM
	Blow 1st Opening Weak increasing blow to 6 inches in bucket.	
	2nd Opening Weak increasing blow to 4 inches in bucket.	

RECOVERY Total Feet 216
 Recovered 92 feet of Muddy water
 Recovered 124 feet of Salt water

CALCULATED RECOVERY	Gas Oil	Water 162.2	Mud 53.8
	Gravity (Oil)	Test Water Chlorides 26,000	PPM
	Test Area Temperature 112F	Mud System Chlorides 4,000	PPM

	FIELD READING	OFFICE READING	
PRESSURE (A) Initial Hydrostatic Mud	1740	1756	PSI
(B) First Initial Flow Pressure	46	58	PSI
(C) First Final Flow Pressure	81	100	PSI
(D) Initial Closed-In Pressure	1180	1192	PSI
(E) Second Initial Flow Pressure	105	113	PSI
(F) Second Final Flow Pressure	116	133	PSI
(G) Final Closed-In Pressure	1134	1147	PSI
(H) Final Hydrostatic Mud	1717	1718	PSI

DST#1
#13255
TOP
T#5437



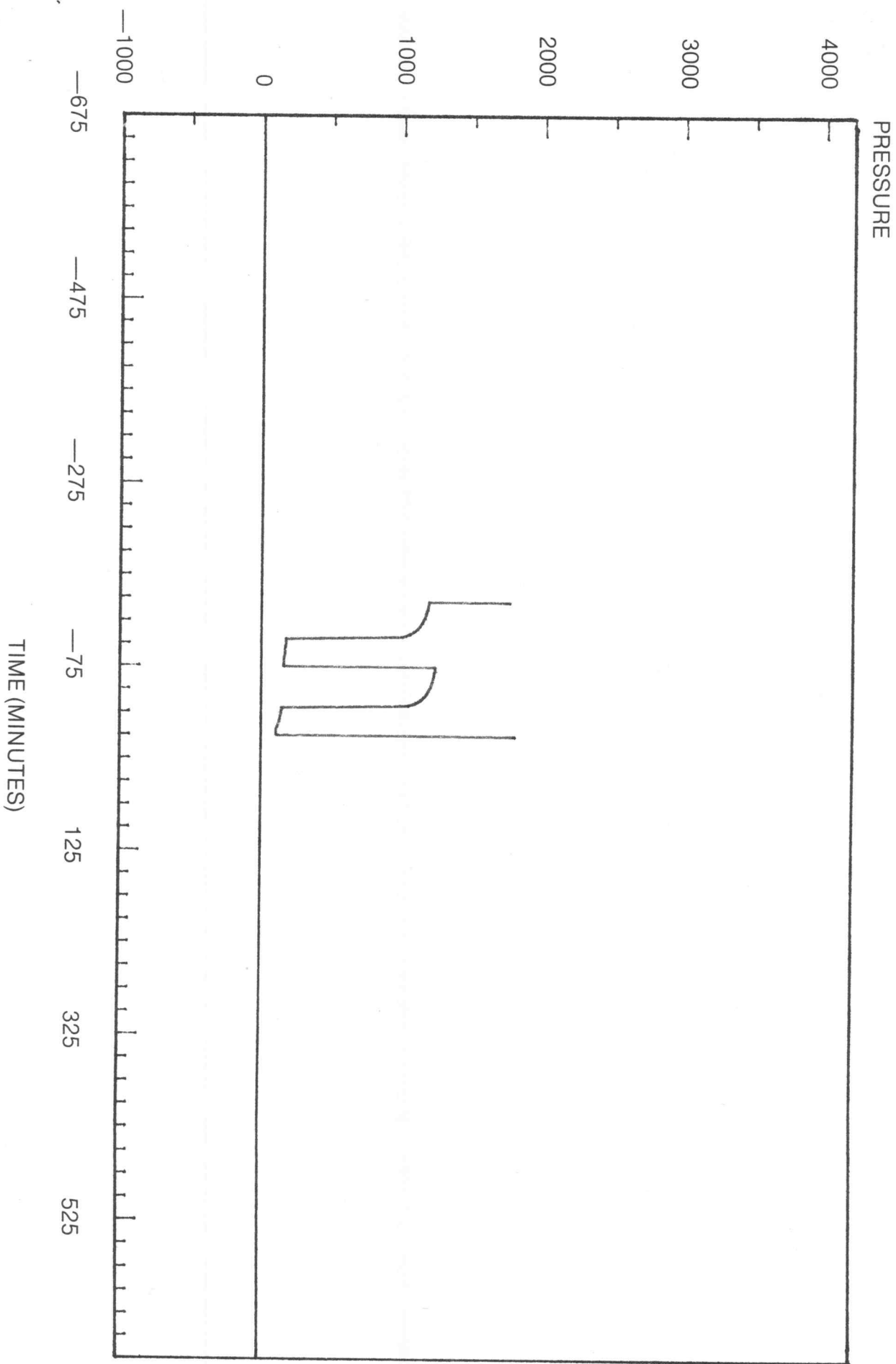
CRUDE OIL TESTING INC.

FOR: A. Scott Ritchie

TEST 5437

DST 1

08/31/85



PRESSURE BREAKDOWN

TEST TICKET NO. 5437

DST Number: 1 Recorder Number: 13255 Clock Number: 25113

First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In
Mins. Press.	Mins. Press.	Mins. Press.	Mins. Press.
0 58	0 100	0 113	0 132
3 60	3 1002	3 116	3 959
6 60	6 1055	6 116	6 1012
9 68	9 1087	9 116	9 1043
12 75	12 1108	12 120	12 1067
15 81	15 1125	15 122	15 1081
18 86	18 1137	18 124	18 1095
21 89	21 1148	21 127	21 1105
24 95	24 1160	24 130	24 1116
27 99	27 1165	27 131	27 1122
30 100	30 1172	30 132	30 1128
	33 1176		33 1134
	36 1181		36 1139
	39 1184		39 1144
	42 1189		42 1147
	45 1191		

EQUIPMENT DATA

TOOL SEQUENCE REPORT

DST Number: 1

TEST TICKET NO. 5437

WELL NAME: McKinley #1-25

WELL LOCATION: 25-5S-22W

Tool #	Tool	Length	I.D.	O.D.
1	Drill Pipe - 4.5"	2890.00	3.826	4.50
4	Drill Collar - 6"	476.00	2.250	6.00
8	Circulating Sub	1.00	3.000	5.00
7	Changeover Sub	2.00	3.000	5.00
9	Shut-In Tool	5.45	0.870	5.00
10	Hydraulic Tool	5.60	1.000	5.00
14	Packer	5.35	1.530	6.75
14	Packer	5.35	1.530	6.75
6	Anchor	47.00	2.750	5.00
15	Recorder Carrier	1.00		5.00
16	Bull Plug	2.00		5.00
	Total Depth	3440.75		

CALCULATED RECOVERY ANALYSIS

DST Number: 1

TEST TICKET NO. 5437

Sample #	Total Feet	***** Gas %	***** Feet	***** Oil %	***** Feet	***** Mud %	***** Feet
1	92	0.00	0.00	0.00	0.00	45.00	41.40
2	124	0.00	0.00	0.00	0.00	10.00	12.40
TOTAL	<u>216</u>	0.00	<u>0.00</u>	0.00	<u>0.00</u>	24.91	<u>53.80</u>

Sample #	**** Water %	**** Feet	Chlorides (PPM)	Resistivity (Ohms)	Temperature (Deg)
1	55.00	50.60			
2	90.00	111.60	26,000		
TOTAL	75.09	<u>162.20</u>			

CRUDE OIL TESTING, INC.

DATE 9/1/85

TEST TICKET NO. 5438

Company: A. Scott Ritchie
 Company Address: 125 N. Market Suite 950 Wichita KS 67202
 Location: Sec. 25 Twp. 5S Range 22W Co. Norton State KS
 Well Name & Number: McKinley #1-25 Code E19

ENGINEERING DATA	Elevation	2315 KB	Drill Pipe Length	3011	ID 3.8 "
	Mud Viscosity	46	Weight Pipe Length		
	Mud Weight	9.5	Drill Collar Length	476	ID 2.25"
	Water Loss	8	Top Packer Depth	3505	
	Type of Mud Chemical		Bottom Packer Depth	3510	
	Anchor Length	26	Tool Joint Size	4.5 XH	
	Hole Size	7 7/8	Test Tool Size	5 1/2	
	Casing Size	8 5/8	Packer Size	6 3/4	
	Surface Choke	3/4	Reversed Out	No	
	Bottom Choke	3/4	Recorder #	13255	
	Extra Equipment		None		

REMARKS DST #2
 Flushed tool during 2nd open - initial surge only after flushing.

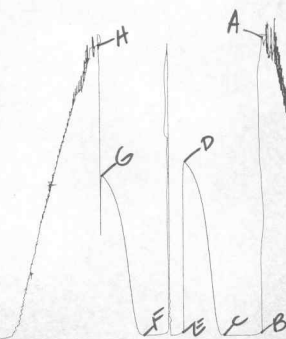
FORMATION Lansing/KC Zone 35' Test Type Conventional
 Interval 3510 To 3536 Total Depth 3536
 Open 30 Shut In 30 Open 30 Shut In 30
 Packer(s) Set 02:48PM Started Off Bottom 04:50PM
 Blow 1st Opening Weak blow died in 10 min.
 2nd Opening No blow, flushed tool, no blow.

RECOVERY Total Feet 5
 Recovered 5 feet of Mud - slight show of oil in tool

CALCULATED RECOVERY	Gas	Oil	Water	Mud	5
	Gravity (Oil)		Test Water Chlorides		PPM
	Test Area Temperature 114F		Mud System Chlorides		4,000 PPM

		FIELD READING	OFFICE READING	
PRESSURE	(A) Initial Hydrostatic Mud	1832	1820	PSI
	(B) First Initial Flow Pressure	23	26	PSI
	(C) First Final Flow Pressure	23	31	PSI
	(D) Initial Closed-In Pressure	1077	1077	PSI
	(E) Second Initial Flow Pressure	35	29	PSI
	(F) Second Final Flow Pressure	35	37	PSI
	(G) Final Closed-In Pressure	997	1005	PSI
	(H) Final Hydrostatic Mud	1809	1780	PSI

DST#2
#13255
TOP
T#5438



CRUDE OIL TESTING INC.

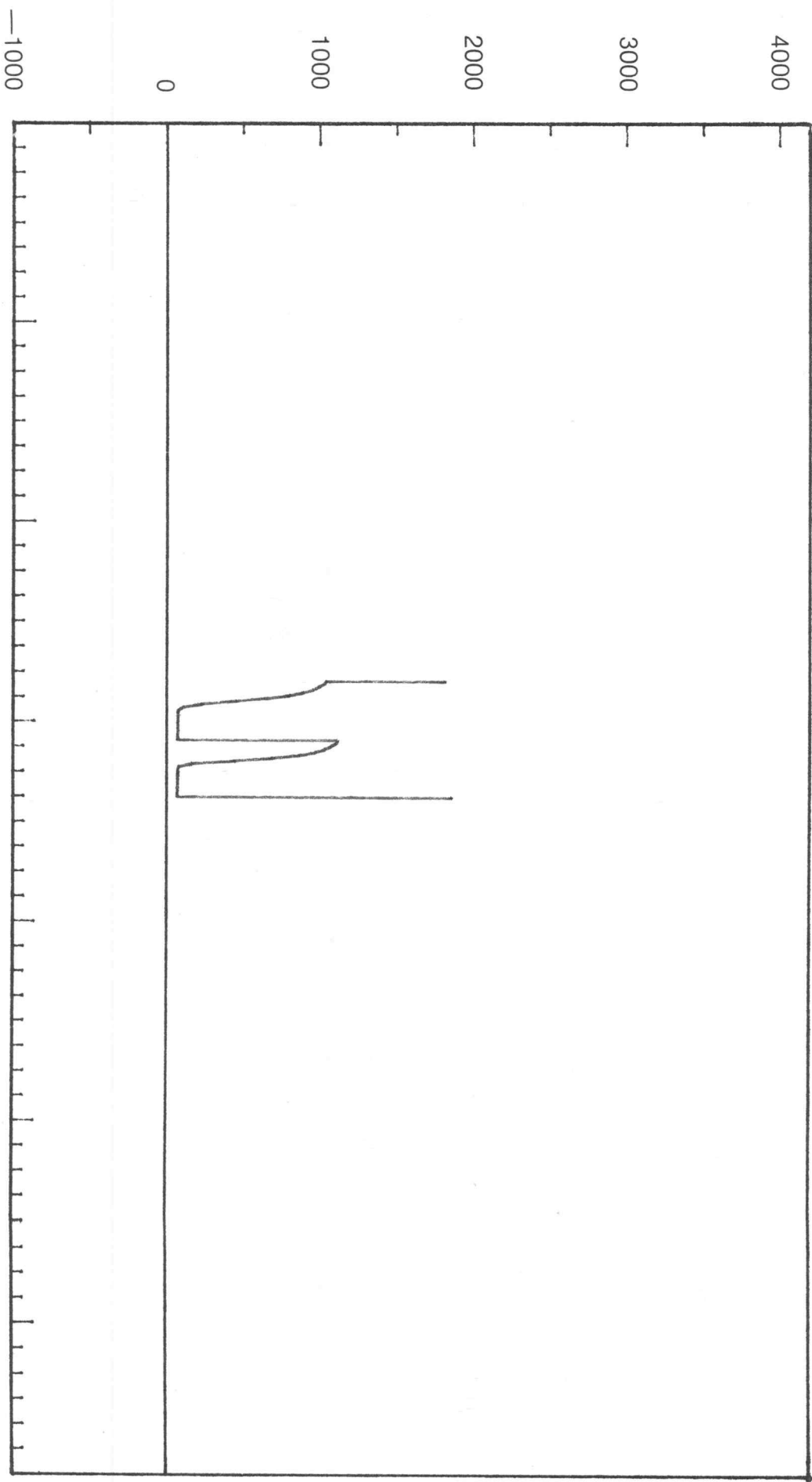
FOR: A. Scott Ritchie

TEST 5438

DST 2

09/01/85

PRESSURE



TIME (MINUTES)

PRESSURE BREAKDOWN

TEST TICKET NO. 5438

DST Number: 2 Recorder Number: 13255 Clock Number: 25113

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Mins. Press.		Mins. Press.		Mins. Press.		Mins. Press.	
0	25	0	31	0	29	0	37
3	26	3	39	3	30	3	71
6	29	6	128	6	31	6	192
9	29	9	404	9	32	9	415
12	29	12	650	12	32	12	619
15	30	15	829	15	32	15	761
18	30	18	931	18	33	18	852
21	30	21	993	21	34	21	916
24	31	24	1036	24	34	24	956
27	31	27	1068	27	34	27	991
		30	1077	30	37	30	1004

EQUIPMENT DATA

TOOL SEQUENCE REPORT

DST Number: 2

TEST TICKET NO. 5438

WELL NAME: McKinley #1-25

WELL LOCATION: 25-5S-22W

Tool #	Tool	Length	I.D.	O.D.
1	Drill Pipe - 4.5"	3011.00	3.826	4.50
4	Drill Collar - 6"	476.00	2.250	6.00
8	Circulating Sub	1.00	3.000	5.00
7	Changeover Sub	2.00	3.000	5.00
9	Shut-In Tool	5.45	0.870	5.00
10	Hydraulic Tool	5.60	1.000	5.00
14	Packer	5.35	1.530	6.75
14	Packer	5.35	1.530	6.75
6	Anchor	22.00	2.750	5.00
15	Recorder Carrier	1.00		5.00
16	Bull Plug	2.00		5.00
	Total Depth	3536.75		

CRUDE OIL TESTING, INC.

DATE 9/2/85

TEST TICKET NO. 5439

Company: A. Scott Ritchie
 Company Address: 125 N. Market Suite 950 Wichita KS 67202
 Location: Sec. 25 Twp. 5S Range 22W Co. Norton State KS
 Well Name & Number: McKinley #1-25 Code E19

ENGINEERING DATA	Elevation	2315 KB	Drill Pipe Length	3038	ID 3.8 "
	Mud Viscosity	44	Weight Pipe Length		
	Mud Weight	9.7	Drill Collar Length	476	ID 2.25"
	Water Loss	10	Top Packer Depth	3532	
	Type of Mud Chemical		Bottom Packer Depth	3537	
	Anchor Length	28	Tool Joint Size	4.5 XH	
	Hole Size	7 7/8	Test Tool Size	5 1/2	
	Casing Size	8 5/8	Packer Size	6 3/4	
	Surface Choke	3/4	Reversed Out	No	
	Bottom Choke	3/4	Recorder #	13255	
	Extra Equipment		None		

REMARKS DST #3
 Flushed tool during 2nd open - weak blow
 died in 5 min.

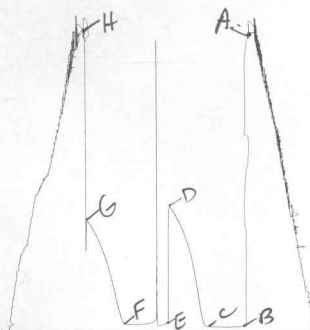
FORMATION Lansing/KC Zone 50' & 70' Test Type Conventional
 Interval 3537 To 3565 Total Depth 3565
 Open 30 Shut In 30 Open 30 Shut In 30
 Packer(s) Set 05:28AM Started Off Bottom 07:30AM
 Blow 1st Opening Weak blow died in 21 min.
 2nd Opening No blow, flushed tool.

RECOVERY Total Feet 20
 Recovered 20 feet of Mud - slight show of oil in tool

CALCULATED RECOVERY	Gas	Oil	Water	Mud	20
	Gravity (Oil)		Test Water Chlorides		PPM
	Test Area Temperature 115F		Mud System Chlorides		8,000 PPM

		FIELD READING	OFFICE READING	
PRESSURE	(A) Initial Hydrostatic Mud	1855	1860	PSI
	(B) First Initial Flow Pressure	35	30	PSI
	(C) First Final Flow Pressure	35	33	PSI
	(D) Initial Closed-In Pressure	744	758	PSI
	(E) Second Initial Flow Pressure	35	34	PSI
	(F) Second Final Flow Pressure	46	45	PSI
	(G) Final Closed-In Pressure	663	669	PSI
	(H) Final Hydrostatic Mud	1832	1825	PSI

DST#3
#13255
TOP
T#5439



CRUDE OIL TESTING INC.

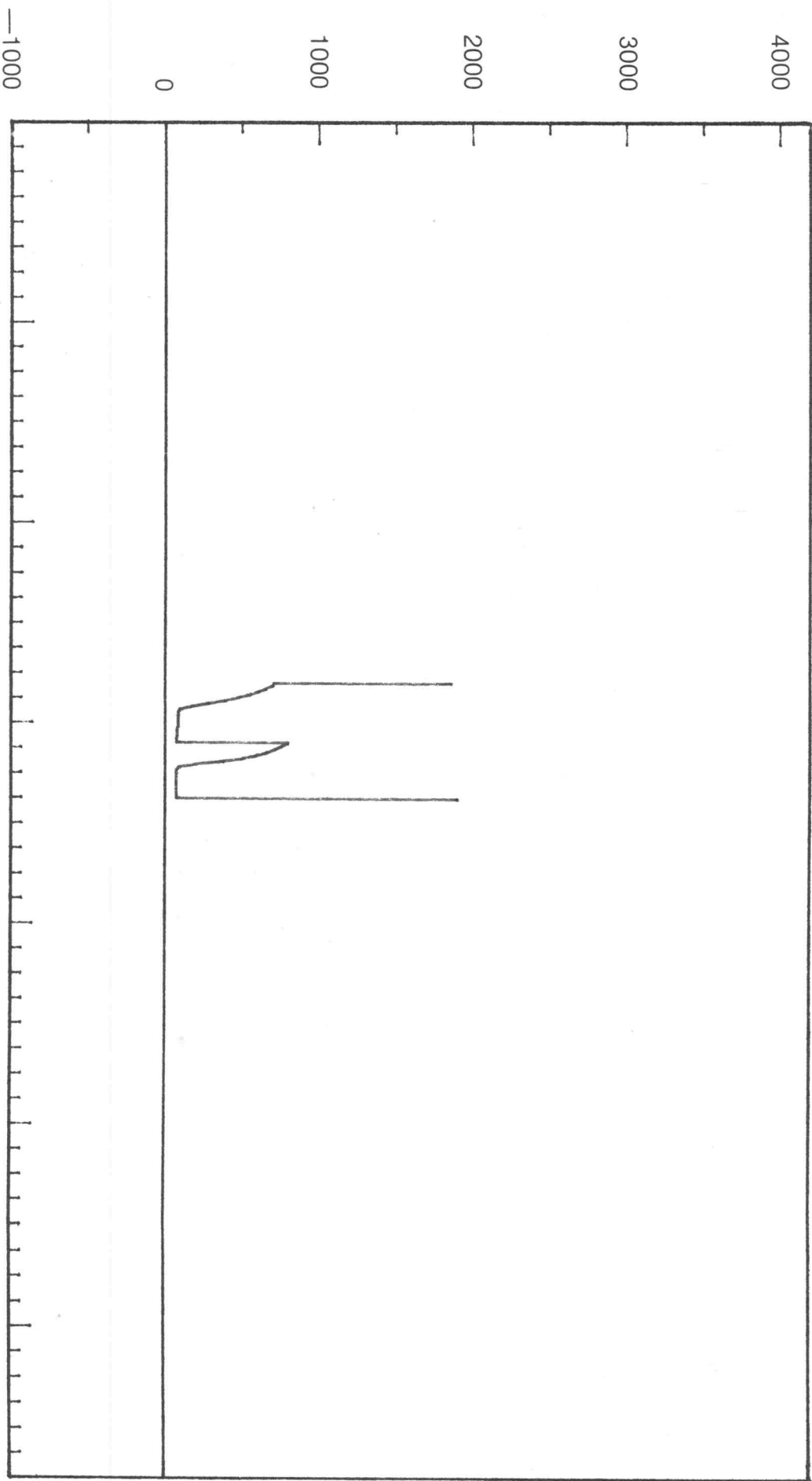
FOR: A. Scott Ritchie

TEST 5439

DST 3

09/02/85

PRESSURE



-675

-475

-275

-75

125

325

525

TIME (MINUTES)

PRESSURE BREAKDOWN

TEST TICKET NO. 5439

DST Number: 3 Recorder Number: 13255 Clock Number: 25113

First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In
Mins. Press.	Mins. Press.	Mins. Press.	Mins. Press.
0 30	0 32	0 33	0 45
3 30	3 47	3 33	3 55
6 30	6 165	6 36	6 138
9 30	9 337	9 36	9 243
12 30	12 466	12 36	12 358
15 30	15 556	15 41	15 444
18 30	18 623	18 43	18 515
21 31	21 676	21 43	21 572
24 32	24 721	24 43	24 617
27 32	27 758	27 45	27 661
28 32	28 758	30 45	30 669

EQUIPMENT DATA

TOOL SEQUENCE REPORT

DST Number: 3

TEST TICKET NO. 5439

WELL NAME: McKinley #1-25

WELL LOCATION: 25-5S-22W

Tool #	Tool	Length	I.D.	O.D.
1	Drill Pipe - 4.5"	3038.00	3.826	4.50
4	Drill Collar - 6"	476.00	2.250	6.00
8	Circulating Sub	1.00	3.000	5.00
7	Changeover Sub	2.00	3.000	5.00
9	Shut-In Tool	5.45	0.870	5.00
10	Hydraulic Tool	5.60	1.000	5.00
14	Packer	5.35	1.530	6.75
14	Packer	5.35	1.530	6.75
6	Anchor	24.00	2.750	5.00
15	Recorder Carrier	1.00		5.00
16	Bull Plug	2.00		5.00
	Total Depth	3565.75		

CRUDE OIL TESTING, INC.

DATE 9/3/85

TEST TICKET NO. 5440

Company: A. Scott Ritchie
 Company Address: 125 N. Market Suite 950 Wichita KS 67202
 Location: Sec. 25 Twp. 5S Range 22W Co. Norton State KS
 Well Name & Number: McKinley #1-25 Code E19

ENGINEERING DATA	Elevation	2315 KB	Drill Pipe Length	3212	ID 3.8 "
	Mud Viscosity	47	Weight Pipe Length		
	Mud Weight	9.7	Drill Collar Length	476	ID 2.25"
	Water Loss	10.4	Top Packer Depth	3682	
	Type of Mud Chemical		Bottom Packer Depth	3687	
	Anchor Length	85	Tool Joint Size	4.5	XH
	Hole Size	7 7/8	Test Tool Size	5 1/2	
	Casing Size	8 5/8	Packer Size	6 3/4	
	Surface Choke	3/4	Reversed Out	No	
	Bottom Choke	3/4	Recorder #	13255	
	Extra Equipment		None		

REMARKS DST #4

FORMATION	Reagan	Zone Sand	Test Type	Conventional
	Interval 3687	To 3772	Total Depth	3772
	Open 15	Shut In 15	Open 0	Shut In 0
	Packer(s) Set	01:43PM	Started Off Bottom	02:15PM
	Blow 1st Opening Strong blow off bottom of bucket in 1 min. 2nd Opening N/A			

RECOVERY	Total Feet	1741
	Recovered	625 feet of Watery mud
	Recovered	372 feet of Muddy water
	Recovered	744 feet of Salt water

CALCULATED RECOVERY	Gas	Oil	Water	1074.34	Mud	666.66
	Gravity (Oil)		Test Water Chlorides	58,000 PPM		
	Test Area Temperature	120F	Mud System Chlorides	3,000 PPM		

PRESSURE		FIELD	OFFICE	
		READING	READING	
	(A) Initial Hydrostatic Mud	1947	1944	PSI
	(B) First Initial Flow Pressure	744	766	PSI
	(C) First Final Flow Pressure	894	906	PSI
	(D) Initial Closed-In Pressure	1054	1059	PSI
	(E) Second Initial Flow Pressure			PSI
	(F) Second Final Flow Pressure			PSI
	(G) Final Closed-In Pressure			PSI
	(H) Final Hydrostatic Mud	1924	1902	PSI

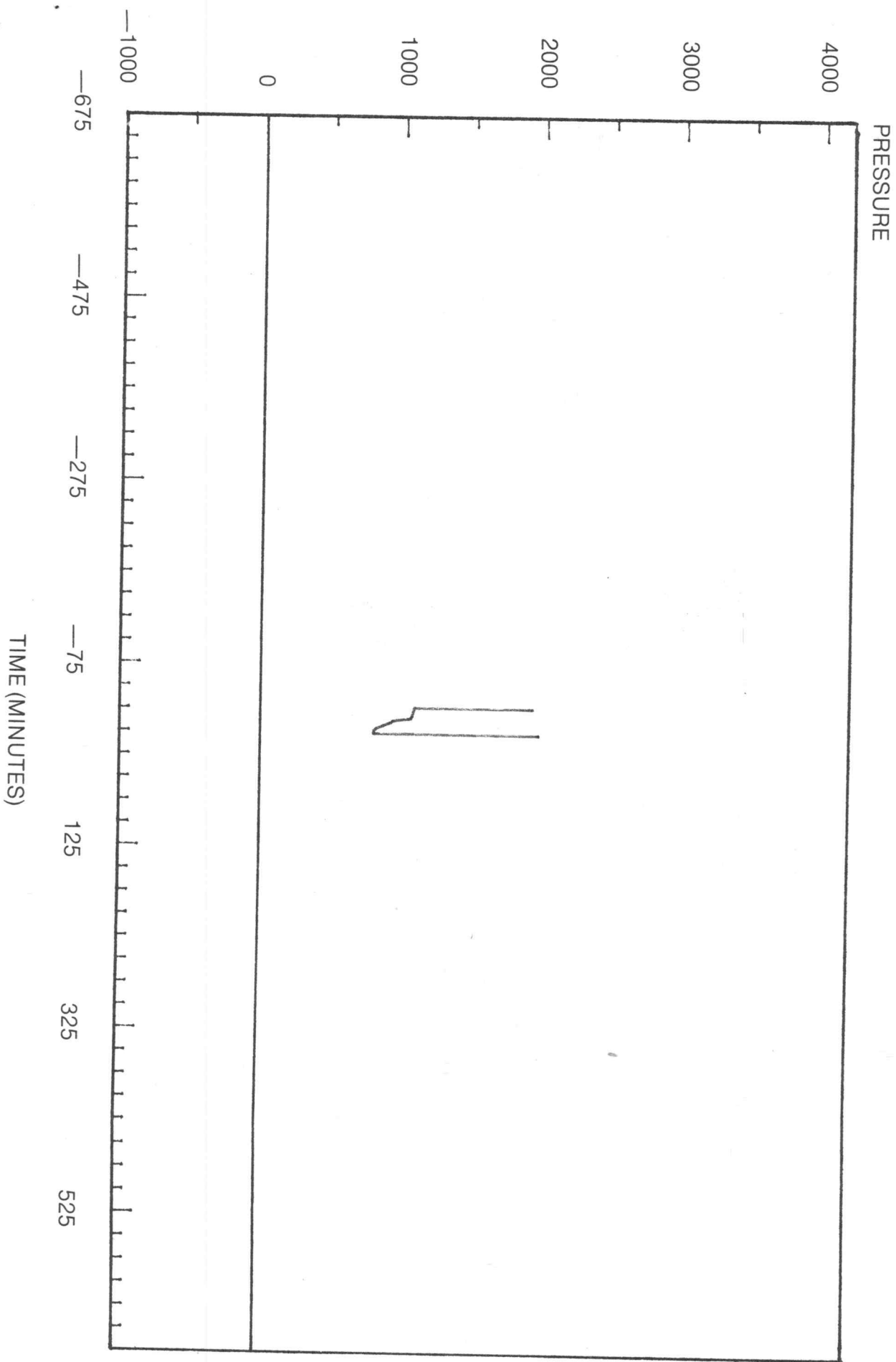
CRUDE OIL TESTING INC.

FOR: A. Scott Ritchie

DST 4

09/03/85

TEST 5440



PRESSURE BREAKDOWN

TEST TICKET NO. 5440

DST Number: 4 Recorder Number: 13255 Clock Number: 25113

First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In
Mins. Press.	Mins. Press.	Mins. Press.	Mins. Press.
0 766	0 905		
3 768	3 1031		
6 788	6 1042		
9 838	9 1047		
12 887	12 1052		
14 905	15 1058		

EQUIPMENT DATA
TOOL SEQUENCE REPORT

DST Number: 4

TEST TICKET NO. 5440

WELL NAME: McKinley #1-25

WELL LOCATION: 25-5S-22W

Tool #	Tool	Length	I.D.	O.D.
1	Drill Pipe - 4.5"	3212.00	3.826	4.50
4	Drill Collar - 6"	476.00	2.250	6.00
8	Circulating Sub	1.00	3.000	5.00
7	Changeover Sub	2.00	3.000	5.00
9	Shut-In Tool	5.45	0.870	5.00
10	Hydraulic Tool	5.60	1.000	5.00
14	Packer	5.35	1.530	6.75
14	Packer	5.35	1.530	6.75
6	Anchor	81.00	2.750	5.00
15	Recorder Carrier	1.00		5.00
16	Bull Plug	2.00		5.00
	Total Depth	3796.75		

CALCULATED RECOVERY ANALYSIS

DST Number: 4

TEST TICKET NO. 5440

Sample #	Total Feet	***** Gas %	***** Feet	***** Oil %	***** Feet	***** Mud %	***** Feet
1	625	0.00	0.00	0.00	0.00	90.00	562.50
2	372	0.00	0.00	0.00	0.00	20.00	74.40
3	372	0.00	0.00	0.00	0.00	5.00	18.60
4	372	0.00	0.00	0.00	0.00	3.00	11.16
TOTAL	<u>1741</u>	0.00	<u>0.00</u>	0.00	<u>0.00</u>	38.29	<u>666.66</u>

Sample #	**** Water %	*** Feet	Chlorides (PPM)	Resistivity (Ohms)	Temperature (Deg)
1	10.00	62.50			
2	80.00	297.60			
3	95.00	353.40			
4	97.00	360.84	58,000		
TOTAL	61.71	<u>1074.34</u>			