

CRUDE OIL TESTING, INC.

DATE 5/12/84

TEST TICKET NO. 4149

Company: A. Scott Ritchie
 Company Address: 125 N. Market Suite 950 Wichita KS 67202
 Location: Sec. 13 Twp. 11S Range 34W Co. Logan State KS
 Well Name & Number: Wassemler #1 Code E14

ENGINEERING DATA	Elevation 3160 KB	Drill Pipe Length 3974	ID 3.8 "
	Mud Viscosity 43	Weight Pipe Length	
	Mud Weight 9.3	Drill Collar Length 94	ID 2.25"
	Water Loss 9.8	Top Packer Depth 4103	
	Type of Mud Starch	Bottom Packer Depth 4108	
	Anchor Length 19	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 # 10992	
	Extra Equipment	None	

REMARKS DST #1
 Tool slid on first flow period.

FORMATION Lansing Zone 35 Test Type Conventional
 Interval 4108 To 4127 Total Depth 4127
 Open 30 Shut In 45 Open 30 Shut In 45
 Packer(s) Set 09:23PM Started Off Bottom 11:55PM
 Blow 1st Opening Steady increasing blow to 4.5 inches.
 2nd Opening Steady increasing blow to 3.5 inches.

RECOVERY Total Feet 195
 Recovered 195 feet of Muddy water

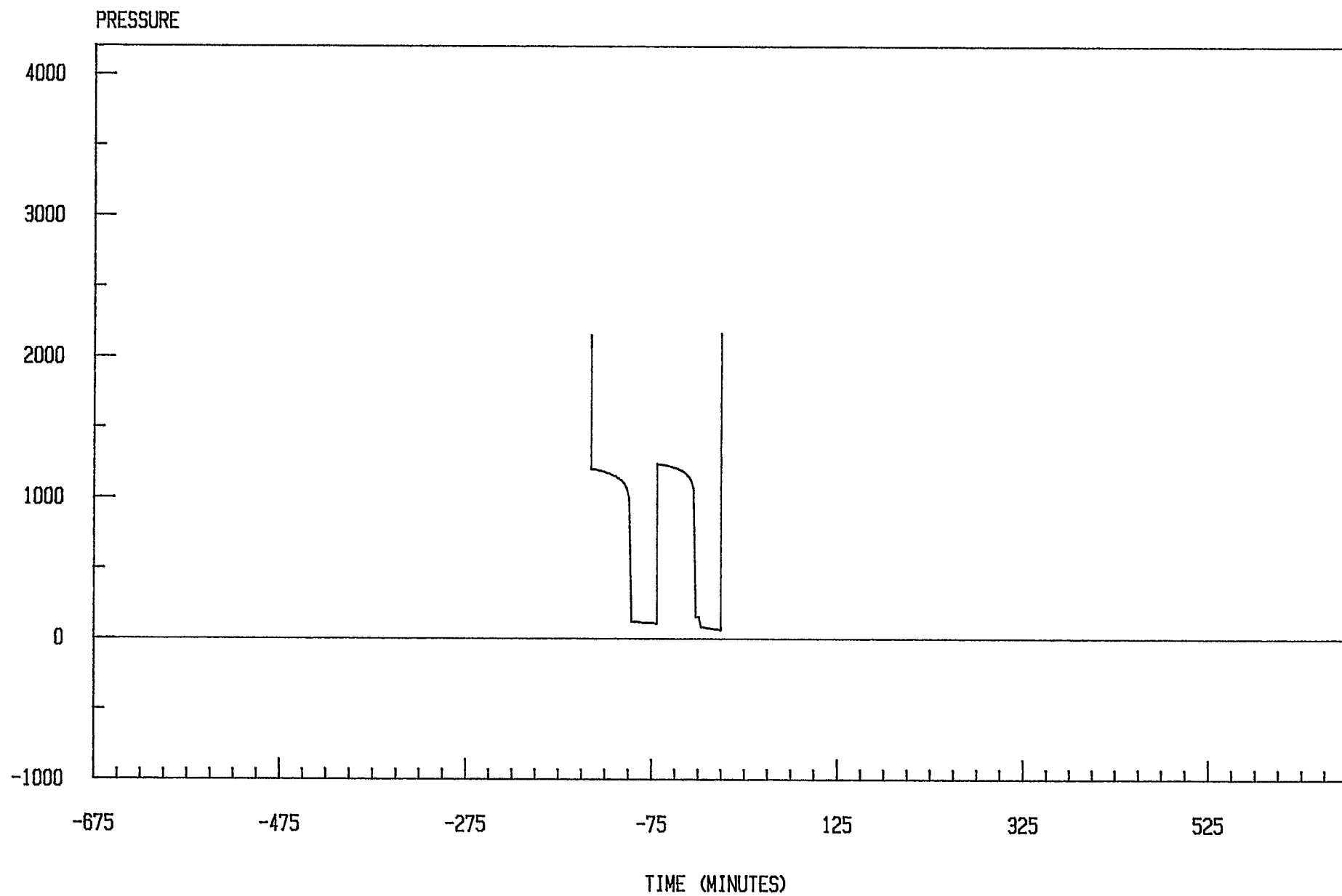
CALCULATED Gas Oil Water 129 Mud 66
 RECOVERY Gravity (Oil) Test Water Chlorides 43,000 PPM
 Test Area Temperature 125F Mud System Chlorides 60,000 PPM

		FIELD READING	OFFICE READING	
PRESSURE	(A) Initial Hydrostatic Mud	2172	2163	PSI
	(B) First Initial Flow Pressure	66	60	PSI
	(C) First Final Flow Pressure	87	82	PSI
	(D) Initial Closed-In Pressure	1233	1241	PSI
	(E) Second Initial Flow Pressure	109	106	PSI
	(F) Second Final Flow Pressure	120	123	PSI
	(G) Final Closed-In Pressure	1190	1203	PSI
	(H) Final Hydrostatic Mud	2150	2150	PSI

CRUDE OIL TESTING INC Test 4149 DST 1

FOR: A. Scott Ritchie

05/12/84



PRESSURE BREAKDOWN

TEST TICKET NO. 4149

DST Number: 1 Recorder Number: 10992 Clock Number: 25108

First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In
Mins. Press.	Mins. Press.	Mins. Press.	Mins. Press.
0 60	0 82	0 106	0 122
3 66	3 152	3 110	3 998
6 67	6 157	6 110	6 1071
9 70	9 1070	9 111	9 1106
12 73	12 1129	12 112	12 1126
15 75	15 1156	15 112	15 1139
18 79	18 1175	18 116	18 1153
21 82	21 1189	21 118	21 1161
	24 1199	24 119	24 1171
	27 1208	27 122	27 1177
	30 1214		30 1184
	33 1220		33 1189
	36 1225		36 1193
	39 1231		39 1199
	42 1234		42 1201
	45 1238		44 1203
	48 1240		

EQUIPMENT DATA
TOOL SEQUENCE REPORT

DST Number: 1

TEST TICKET NO. 4149

WELL NAME: Wassemiller #1

WELL LOCATION: 13-11S-34W

Tool #	Tool	Length	I.D.	O.D.
1	Drill Pipe - 4.5"	3974.00	3.826	4.50
4	Drill Collar - 6"	94.00	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	15.00	2.750	5.00
15	Recorder Carrier	1.00		5.00
16	Bull Plug	2.00		5.00
	Total Depth	4110.75		

CALCULATED RECOVERY ANALYSIS

DST Number: 1

TEST TICKET NO. 4149

Sample #	Total Feet	***** Gas %	***** Feet	***** Oil %	***** Feet	***** Mud %	***** Feet
1	15	0.00	0.00	0.00	0.00	40.00	6.00
2	60	0.00	0.00	0.00	0.00	45.00	27.00
3	60	0.00	0.00	0.00	0.00	35.00	21.00
4	60	0.00	0.00	0.00	0.00	20.00	12.00
TOTAL	<u>195</u>	0.00	<u>0.00</u>	0.00	<u>0.00</u>	33.85	<u>66.00</u>

Sample #	***** Water %	***** Feet	Chlorides (PPM)	Resistivity (Ohms)	Temperature (Deg)
1	60.00	9.00	43,000		
2	55.00	33.00			
3	65.00	39.00			
4	80.00	48.00			
TOTAL	66.15	<u>129.00</u>			

CRUDE OIL TESTING, INC.

DATE 5/13/84

TEST TICKET NO. 4150

Company: A. Scott Ritchie
 Company Address: 125 N. Market Suite 950 Wichita KS 67202
 Location: Sec. 13 Twp. 11S Range 34W Co. Logan State KS
 Well Name & Number: Wassemiller #1 Code E14

ENGINEERING DATA	Elevation 3160 KB	Drill Pipe Length 4097	ID 3.8 "
	Mud Viscosity 40	Weight Pipe Length	
	Mud Weight 9.5	Drill Collar Length 94	ID 2.25"
	Water Loss 11.8	Top Packer Depth 4232	
	Type of Mud Starch	Bottom Packer Depth 4239	
	Anchor Length 56	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 #	10992
	Extra Equipment	None	

REMARKS DST #2

FORMATION Lansing Zone 140-160 Test Type Conventional
 Interval 4239 To 4295 Total Depth 4295
 Open 30 Shut In 30 Open 30 Shut In 30
 Packer(s) Set 09:23PM Started Off Bottom 11:25PM
 Blow 1st Opening Weak decreasing blow died in 16 min.
 2nd Opening No blow, flushed tool, good surge, no help.

RECOVERY Total Feet 40
 Recovered 40 feet of Drilling mud (spots of oil on tool)

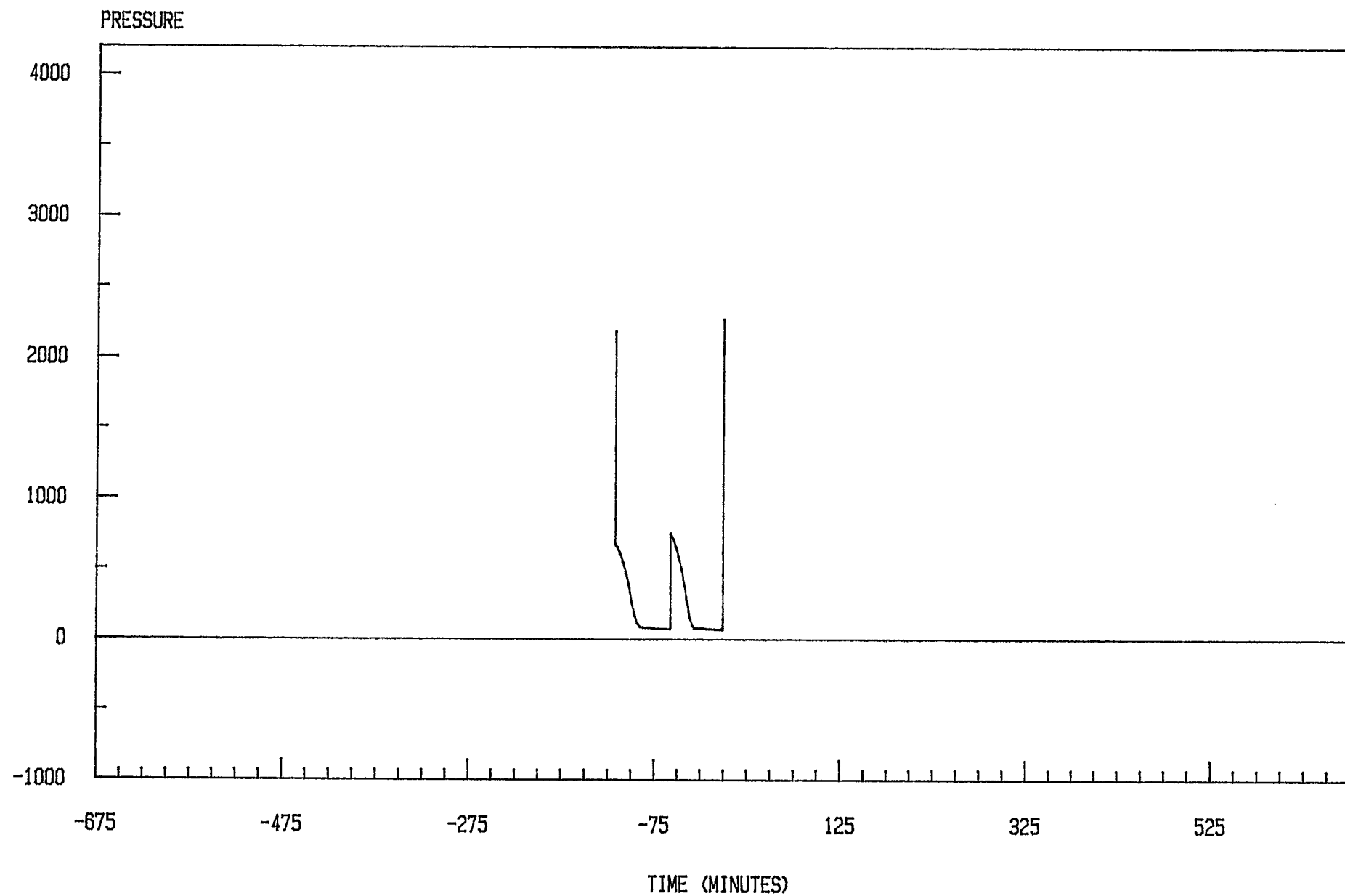
CALCULATED RECOVERY	Gas	Oil	Water	Mud	40
	Gravity (Oil)		Test Water Chlorides		PPM
	Test Area Temperature 124F		Mud System Chlorides	58,000	PPM

	FIELD READING	OFFICE READING	
PRESSURE (A) Initial Hydrostatic Mud	2299	2271	PSI
(B) First Initial Flow Pressure	76	69	PSI
(C) First Final Flow Pressure	76	79	PSI
(D) Initial Closed-In Pressure	761	752	PSI
(E) Second Initial Flow Pressure	87	73	PSI
(F) Second Final Flow Pressure	76	84	PSI
(G) Final Closed-In Pressure	653	674	PSI
(H) Final Hydrostatic Mud	2278	2186	PSI

CRUDE OIL TESTING INC Test 4150 DST 2

FOR: A. Scott Ritchie

05/13/84



PRESSURE BREAKDOWN

TEST TICKET NO. 4150

DST Number: 2 Recorder Number: 10992 Clock Number: 25108

First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In
Mins. Press.	Mins. Press.	Mins. Press.	Mins. Press.
0 69	0 78	0 73	0 84
3 70	3 95	3 73	3 90
6 70	6 152	6 73	6 117
9 70	9 267	9 74	9 182
12 72	12 391	12 74	12 273
15 73	15 503	15 75	15 388
18 75	18 588	18 78	18 468
21 78	21 660	21 81	21 546
24 78	24 716	24 81	24 605
27 78	27 752	27 81	27 653
30 78		30 84	30 674

EQUIPMENT DATA
TOOL SEQUENCE REPORT

DST Number: 2

TEST TICKET NO. 4150

WELL NAME: WasseMiller #1

WELL LOCATION: 13-11S-34W

Tool #	Tool	Length	I.D.	O.D.
1	Drill Pipe - 4.5"	4097.00	3.826	4.50
4	Drill Collar - 6"	94.00	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	52.00	2.750	5.00
15	Recorder Carrier	1.00		5.00
16	Bull Plug	2.00		5.00
	Total Depth	4270.75		

CALCULATED RECOVERY ANALYSIS

DST Number: 2

TEST TICKET NO. 4150

Sample #	Total Feet	***** Gas %	**** Feet	***** Oil %	**** Feet	***** Mud %	**** Feet
1	20	0.00	0.00	0.00	0.00	100.00	20.00
2	20	0.00	0.00	0.00	0.00	100.00	20.00
TOTAL	<u>40</u>	0.00	<u>0.00</u>	0.00	<u>0.00</u>	100.00	<u>40.00</u>

Sample #	**** Water %	*** Feet	Chlorides (PPM)	Resistivity (Ohms)	Temperature (Deg)
1	0.00	0.00			
2	0.00	0.00			
TOTAL	0.00	<u>0.00</u>			

CRUDE OIL TESTING, INC.

DATE 5/14/84

TEST TICKET NO. 4233

Company: A. Scott Ritchie
 Company Address: 125 N. Market Suite 950 Wichita KS 67202
 Location: Sec. 13 Twp. 11S Range 34W Co. Logan State KS
 Well Name & Number: Wassemiller #1 Code E14

ENGINEERING DATA	Elevation 3160 KB	Drill Pipe Length 4132	ID 3.8 "
	Mud Viscosity 45	Weight Pipe Length	
	Mud Weight 9.7	Drill Collar Length 94	ID 2.25"
	Water Loss 10.2	Top Packer Depth 4287	
	Type of Mud Starch	Bottom Packer Depth 4292	
	Anchor Length 45	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 # 10992	
	Extra Equipment	None	

REMARKS DST #3

FORMATION Lansing Zone 200 Test Type Conventional
 Interval 4292 To 4337 Total Depth 4337
 Open 30 Shut In 30 Open 30 Shut In 30
 Packer(s) Set 12:43PM Started Off Bottom 02:45PM
 Blow 1st Opening Weak decreasing blow died in 21 min.
 2nd Opening No blow, flushed tool, weak blow died 4 min.

RECOVERY Total Feet 50
 Recovered 50 feet of Slightly oil spotted watery mud

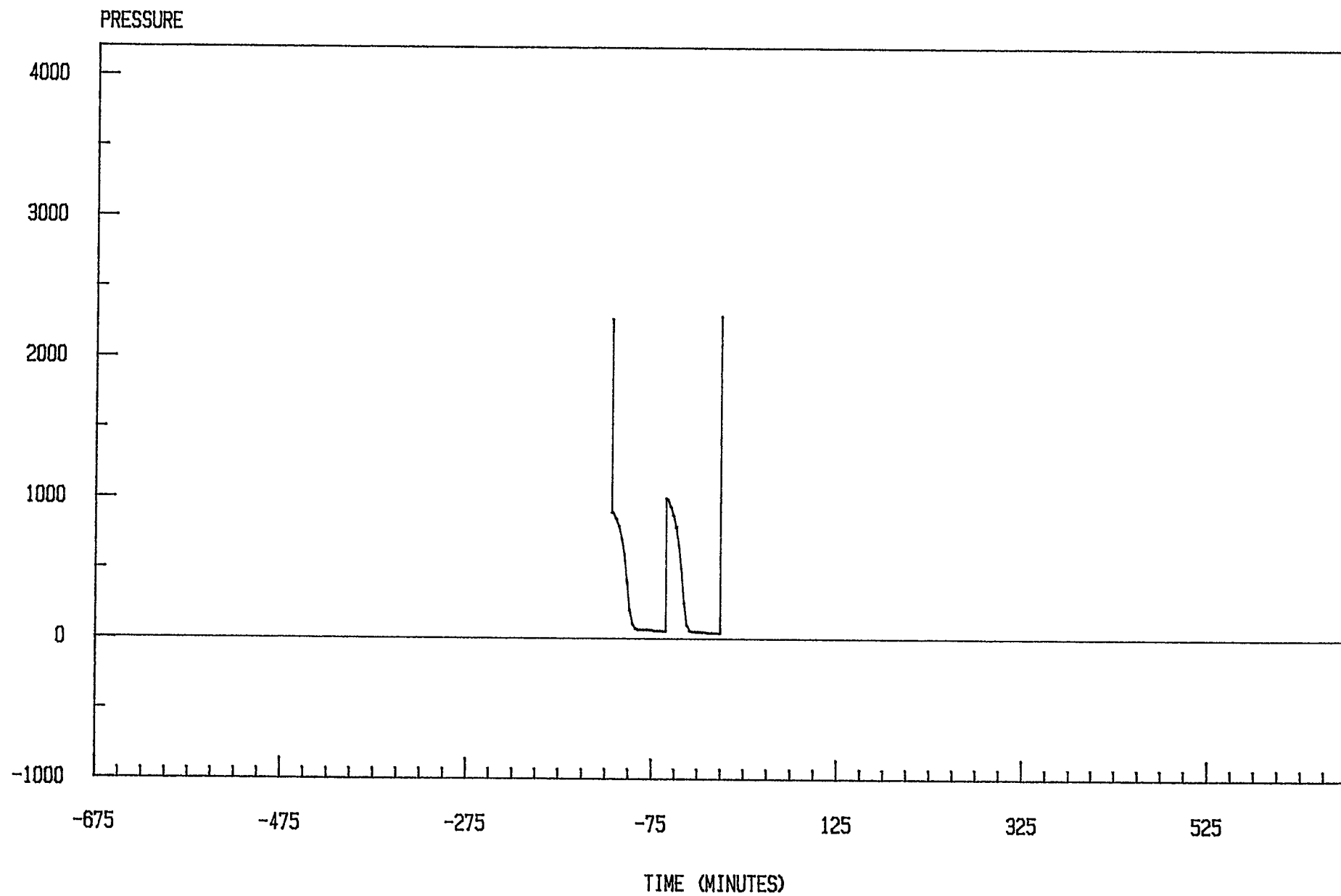
CALCULATED RECOVERY Gas Oil 1.25 Water 16.25 Mud 32.5
 Gravity (Oil) Test Water Chlorides 43,000 PPM
 Test Area Temperature 128F Mud System Chlorides 54,000 PPM

	FIELD READING	OFFICE READING	
PRESSURE (A) Initial Hydrostatic Mud	2320	2290	PSI
(B) First Initial Flow Pressure	44	40	PSI
(C) First Final Flow Pressure	44	50	PSI
(D) Initial Closed-In Pressure	987	997	PSI
(E) Second Initial Flow Pressure	55	53	PSI
(F) Second Final Flow Pressure	55	66	PSI
(G) Final Closed-In Pressure	879	896	PSI
(H) Final Hydrostatic Mud	2299	2270	PSI

CRUDE OIL TESTING INC Test 4233 DST 3

FOR: A. Scott Ritchie

05/14/84



PRESSURE BREAKDOWN

TEST TICKET NO. 4233

DST Number: 3 Recorder Number: 10992 Clock Number: 25108

First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In
Mins. Press.	Mins. Press.,	Mins. Press.	Mins. Press.
0 39	0 50	0 52	0 65
3 39	3 58	3 52	3 76
6 39	6 98	6 53	6 106
9 40	9 250	9 53	9 205
12 41	12 501	12 55	12 409
15 44	15 669	15 59	15 602
18 47	18 795	18 61	18 713
21 47	21 881	21 62	21 799
24 47	24 943	24 62	24 852
27 48	27 985	27 63	27 893
30 50	29 997	30 65	29 896

EQUIPMENT DATA

TOOL SEQUENCE REPORT

DST Number: 3

TEST TICKET NO. 4233

WELL NAME: Wassemilller #1

WELL LOCATION: 13-11S-34W

Tool #	Tool	Length	I.D.	O.D.
1	Drill Pipe - 4.5"	4132.00	3.826	4.50
4	Drill Collar - 6"	94.00	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	41.00	2.750	5.00
15	Recorder Carrier	1.00		5.00
16	Bull Plug	2.00		5.00
	Total Depth	4294.75		

CALCULATED RECOVERY ANALYSIS

DST Number: 3

TEST TICKET NO. 4233

Sample #	Total Feet	***** Gas %	***** Feet	***** Oil %	***** Feet	***** Mud %	***** Feet
1	25	0.00	0.00	0.00	0.00	70.00	17.50
2	25	0.00	0.00	5.00	1.25	60.00	15.00
TOTAL	<u>50</u>	0.00	<u>0.00</u>	2.50	<u>1.25</u>	65.00	<u>32.50</u>

Sample #	**** Water %	*** Feet	Chlorides (PPM)	Resistivity (Ohms)	Temperature (Deg)
1	30.00	7.50	43,000		
2	35.00	8.75			
TOTAL	32.50	<u>16.25</u>			