

CRUDE OIL TESTING, INC.

DATE 4/26/85

TEST TICKET NO. 5168

Company: A. Scott Ritchie
 Company Address: 125 N. Market Suite 950 Wichita KS 67202
 Location: Sec. 15 Twp. 11S Range 31W Co. Gove State KS
 Well Name & Number: #1 Ward Code E6

ENGINEERING DATA	Elevation 2986 KB	Drill Pipe Length 3018	ID 3.8 "
	Mud Viscosity 45	Weight Pipe Length 825	ID 2.76"
	Mud Weight 9.4	Drill Collar Length 240	ID 2.25"
	Water Loss 10.8	Top Packer Depth 4099	
	Type of Mud Chemical	Bottom Packer Depth 4104	
	Anchor Length 30	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 # 13251	
	Extra Equipment	None	

REMARKS DST #1

FORMATION	Lansing Zone E & F	Test Type Conventional
	Interval 4104 To 4134	Total Depth 4134
	Open 30 Shut In 30	Open 30 Shut In 30
	Packer(s) Set 11:43AM	Started Off Bottom 01:45PM
	Blow 1st Opening Strong blow 12 inches in water in 11 min.	
	2nd Opening Strong blow 12 inches in water in 20 min.	

RECOVERY Total Feet 870
 Recovered 870 feet of Muddy water

CALCULATED RECOVERY	Gas	Oil	Water	Mud
	Gravity (Oil)		Test Water Chlorides	78,000 PPM
	Test Area Temperature 114F		Mud System Chlorides	2,000 PPM

		FIELD READING	OFFICE READING	
PRESSURE	(A) Initial Hydrostatic Mud	2056	2087	PSI
	(B) First Initial Flow Pressure	46	52	PSI
	(C) First Final Flow Pressure	230	230	PSI
	(D) Initial Closed-In Pressure	1305	1308	PSI
	(E) Second Initial Flow Pressure	253	217	PSI
	(F) Second Final Flow Pressure	414	415	PSI
	(G) Final Closed-In Pressure	1294	1303	PSI
	(H) Final Hydrostatic Mud	2033	2004	PSI

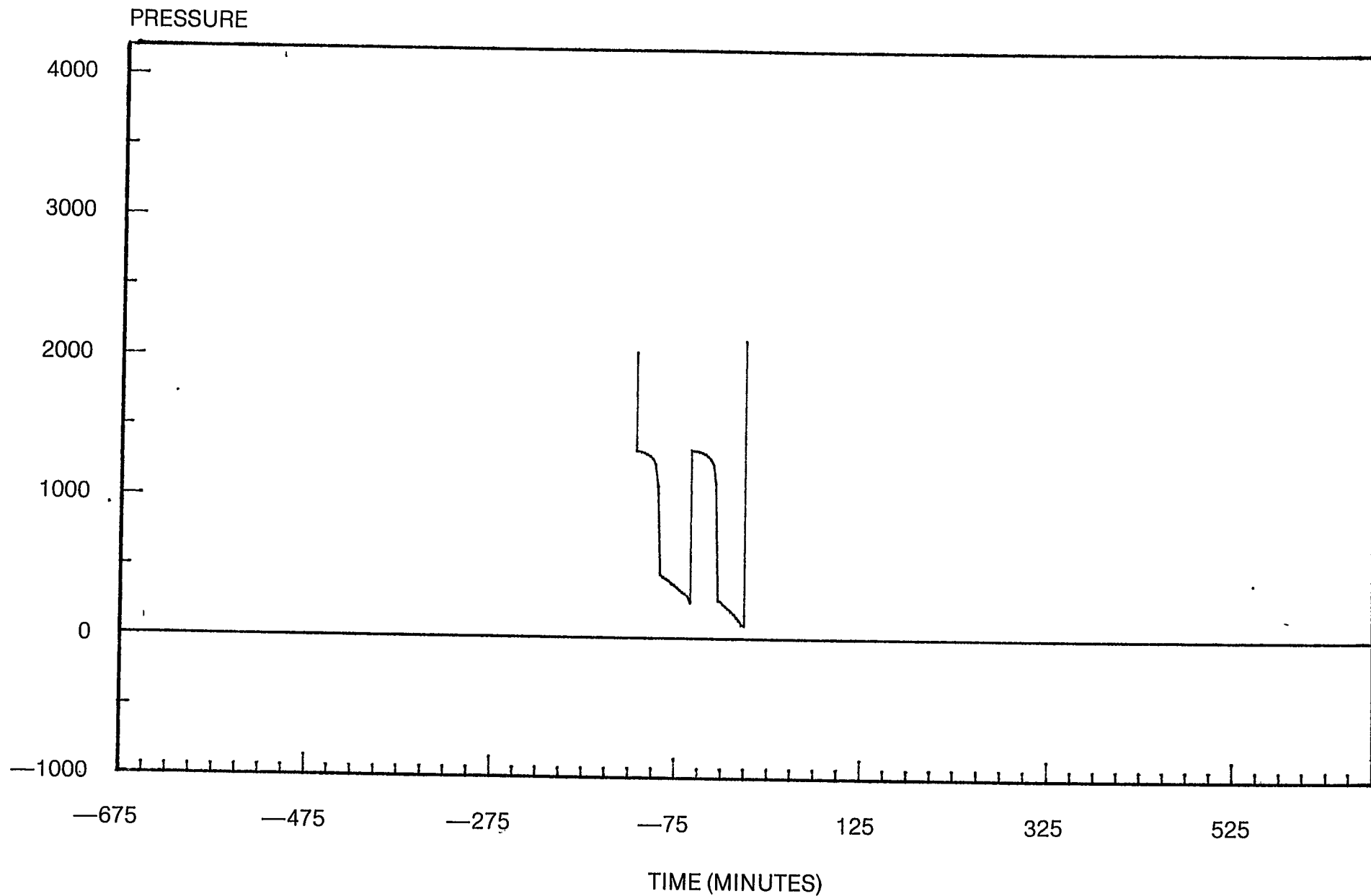
CRUDE OIL TESTING INC.

FOR: A. Scott Ritchie

TEST 5168

DST 1

04/26/85



PRESSURE BREAKDOWN

TEST TICKET NO. 5168

DST Number: 1 Recorder Number: 13251 Clock Number: 23935

First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In
Mins. Press.	Mins. Press.	Mins. Press.	Mins. Press.
0 51	0 230	0 216	0 414
3 60	3 1079	3 263	3 1056
6 89	6 1212	6 278	6 1211
9 112	9 1245	9 291	9 1246
12 137	12 1265	12 309	12 1265
15 155	15 1279	15 324	15 1277
18 173	18 1289	18 342	18 1287
21 190	21 1296	21 354	21 1293
24 207	24 1301	24 372	24 1298
27 227	27 1304	27 385	27 1302
29 230	30 1308	30 399	
		33 414	

EQUIPMENT DATA

TOOL SEQUENCE REPORT

DST Number: 1

TEST TICKET NO. 5168

WELL NAME: #1 Ward

WELL LOCATION: 15-11S-31W

Tool #	Tool	Length	I.D.	O.D.
1	Drill Pipe - 4.5"	3018.00	3.826	4.50
3	Weight Pipe	825.00	2.760	4.50
4	Drill Collar - 6"	240.00	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	26.00	2.750	5.00
15	Recorder Carrier	1.00		5.00
16	Bull Plug	2.00		5.00
	Total Depth	4136.75		

CRUDE OIL TESTING, INC.

DATE 4/29/85

TEST TICKET NO. 5169

Company: A. Scott Ritchie
 Company Address: 125 N. Market Suite 950 Wichita KS 67202
 Location: Sec. 15 Twp. 11S Range 31W Co. Gove State KS
 Well Name & Number: #1 Ward Code E6

ENGINEERING	Elevation	2986 KB	Drill Pipe Length	3508	ID 3.8 "
DATA	Mud Viscosity	49	Weight Pipe Length	825	ID 2.76"
	Mud Weight	9.6	Drill Collar Length	240	ID 2.25"
	Water Loss	10.2	Top Packer Depth	4589	
	Type of Mud Chemical		Bottom Packer Depth	4594	
	Anchor Length	39	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 #	13251	
	Extra Equipment		None		

REMARKS DST #2
 Packer failure - Misrun.

FORMATION	Conglomerate Zone Sand	Test Type Conventional
	Interval 4594 To 4633	Total Depth 4633
	Open 0 Shut In 0	Open 0 Shut In 0
	Packer(s) Set 06:15AM	Started Off Bottom 06:20AM
	Blow 1st Opening 0	
	2nd Opening 0	

RECOVERY Total Feet 360
 Recovered 360 feet of Drilling mud

CALCULATED	Gas	Oil	Water	Mud	360
RECOVERY	Gravity (Oil)		Test Water Chlorides		PPM
	Test Area Temperature		Mud System Chlorides	2,000	PPM

		FIELD	OFFICE	
		READING	READING	
PRESSURE	(A) Initial Hydrostatic Mud	2497		PSI
	(B) First Initial Flow Pressure			PSI
	(C) First Final Flow Pressure			PSI
	(D) Initial Closed-In Pressure			PSI
	(E) Second Initial Flow Pressure			PSI
	(F) Second Final Flow Pressure			PSI
	(G) Final Closed-In Pressure			PSI
	(H) Final Hydrostatic Mud	2384	0	PSI

EQUIPMENT DATA

TOOL SEQUENCE REPORT

DST Number: 2

TEST TICKET NO. 5169

WELL NAME: #1 Ward

WELL LOCATION: 15-11S-31W

Tool #	Tool	Length	I.D.	O.D.
1	Drill Pipe - 4.5"	3508.00	3.826	4.50
3	Weight Pipe	825.00	2.760	4.50
4	Drill Collar - 6"	240.00	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	35.00	2.750	5.00
15	Recorder Carrier	1.00		5.00
16	Bull Plug	2.00		5.00
	Total Depth	4635.75		

CRUDE OIL TESTING, INC.

DATE 4/29/85

TEST TICKET NO. 5170

Company: A. Scott Ritchie
 Company Address: 125 N. Market Suite 950 Wichita KS 67202
 Location: Sec. 15 Twp. 11S Range 31W Co. Gove State KS
 Well Name & Number: #1 Ward Code E6

ENGINEERING DATA	Elevation	2986 KB	Drill Pipe Length	3503	ID 3.8 "
	Mud Viscosity	49	Weight Pipe Length	763	ID 2.76"
	Mud Weight	9.6	Drill Collar Length	240	ID 2.25"
	Water Loss	10.2	Top Packer Depth	4522	
	Type of Mud Chemical		Bottom Packer Depth	4527	
	Anchor Length	106	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 #	13251	
	Extra Equipment		None		

REMARKS DST #3
 Tool plugged 1st open - slight plugging on
 2nd open.

FORMATION	Conglomerate Zone Sand		Test Type Conventional	
	Interval 4527	To 4633	Total Depth 4633	
	Open 45	Shut In 60	Open 45	Shut In 60
	Packer(s) Set	10:28AM	Started Off Bottom 02:00PM	
	Blow 1st Opening Good blow 8 inches in water.			
2nd Opening Good blow 8 inches in water.				

RECOVERY Total Feet 420
 Recovered 420 feet of Muddy water

CALCULATED RECOVERY	Gas	Oil	Water	Mud
	Gravity (Oil)		Test Water Chlorides	33,000 PPM
	Test Area Temperature	130F	Mud System Chlorides	2,000 PPM

PRESSURE		FIELD	OFFICE	PSI
		READING	READING	
	(A) Initial Hydrostatic Mud	2452	2526	
	(B) First Initial Flow Pressure	161		
	(C) First Final Flow Pressure			
	(D) Initial Closed-In Pressure	1317		
	(E) Second Initial Flow Pressure	207	204	
	(F) Second Final Flow Pressure	276	277	
	(G) Final Closed-In Pressure	1031	1035	
	(H) Final Hydrostatic Mud	2395	2465	

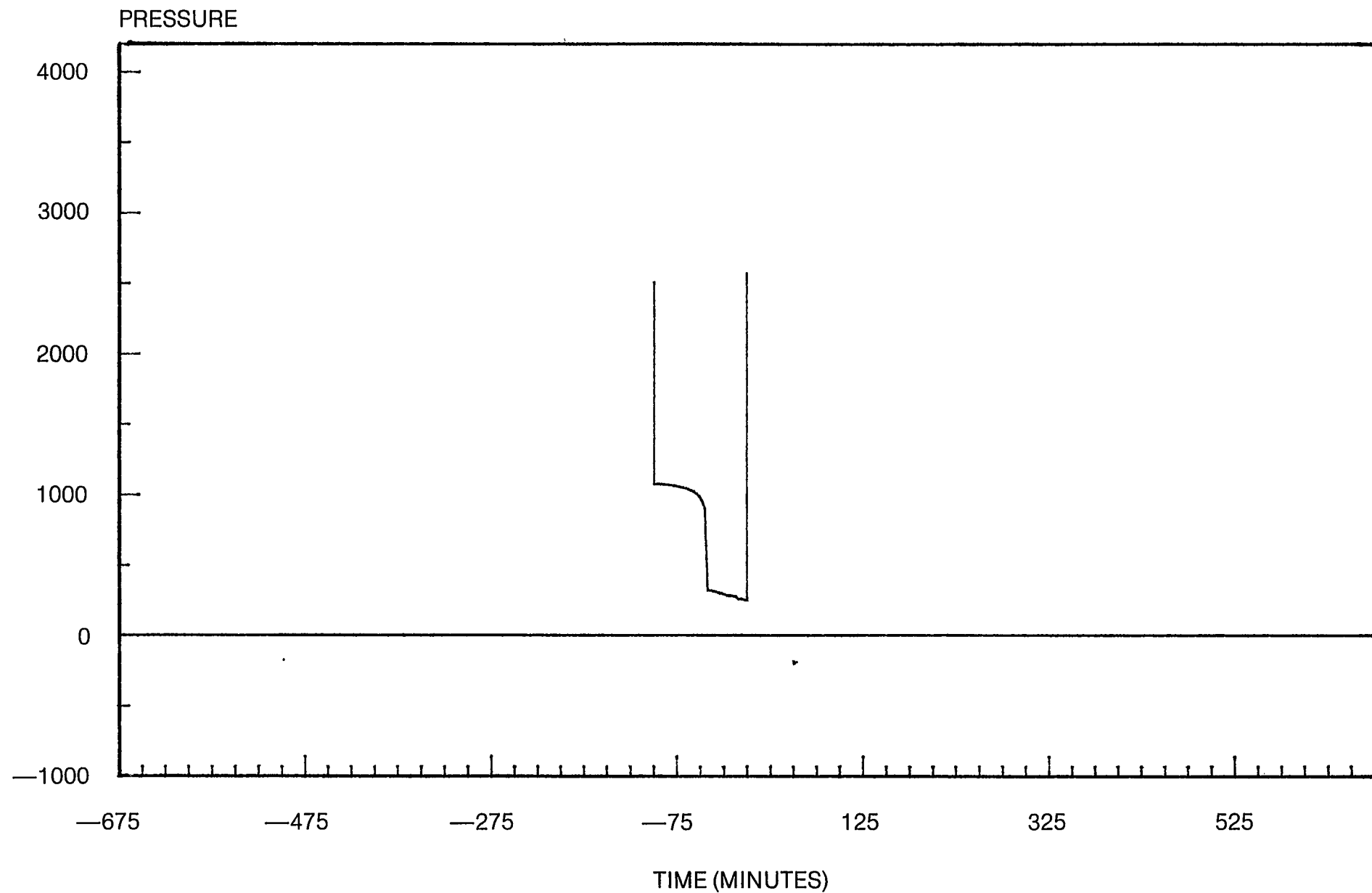
CRUDE OIL TESTING INC.

FOR: A. Scott Ritchie

TEST 5170

DST 3

04/29/85



PRESSURE BREAKDOWN

TEST TICKET NO. 5170

DST Number: 3 Recorder Number: 13251 Clock Number: 23935

First Flow Pressure	Initial Shut-In	Second Flow Pressure	Final Shut-In
Mins. Press.	Mins. Press.	Mins. Press.	Mins. Press.
0 203	0 276		
3 206	3 855		
6 210	6 911		
9 213	9 944		
12 228	12 962		
15 232	15 976		
18 233	18 985		
21 236	21 994		
24 243	24 1000		
27 250	27 1007		
30 254	30 1010		
33 262	33 1014		
36 267	36 1018		
39 273	39 1021		
42 276	42 1024		
	45 1026		
	48 1028		
	51 1030		
	54 1032		
	57 1033		
	58 1034		

EQUIPMENT DATA

TOOL SEQUENCE REPORT

DST Number: 3

TEST TICKET NO. 5170

WELL NAME: #1 Ward

WELL LOCATION: 15-11S-31W

Tool #	Tool	Length	I.D.	O.D.
1	Drill Pipe - 4.5"	3503.00	3.826	4.50
3	Weight Pipe	763.00	2.760	4.50
4	Drill Collar - 6"	240.00	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	102.00	2.750	5.00
15	Recorder Carrier	1.00		5.00
16	Bull Plug	2.00		5.00
	Total Depth	4635.75		