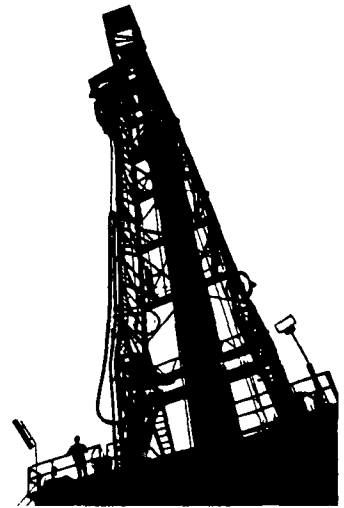


# Appendix F



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**Norton-Christensen / Coring Engineer's Reports**

Date 10-31-85

**WELL INFORMATION**

Company BECHTEL  
Contractor CLEVELAND #6  
Number STATE 3-14  
County IMPERIAL State CALIF  
Hole Size 17 1/2  
Formation Name \_\_\_\_\_  
Formation Disc. SAND + CLAY + SHALE  
Mud - Wt. 9.9 Vis. 4.6

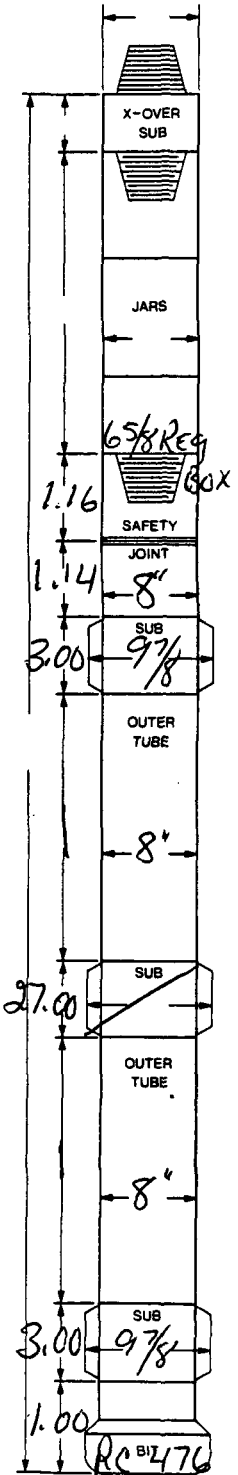
**EQUIPMENT**

Core Barrel No. 2319-A  
Size 8" X 5 1/4 Length 30'  
Bit No. 0112309  
Size 9 7/8" X 5 1/4 Type RC-476  
Previous footage 0  
This core 24' Core No. 1  
Total footage 24'  
Pump Pressure 400 Liner Size 16 X 6 Strokes 27-30

**PERFORMANCE**

Interval Cored - Finish 157  
- Start 1553  
Footage Cored 24'  
Core Recovery 24'  
% Recover 100%

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT											OPERATING CONDITIONS							
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT
0	1553	3:30	0	AM											375	70	200			
1	54		2	CORE #1																
2	55		3	CUT 24																
3	56		3	REC 24																
4	57		3																	
5	58		3																	
6	59		3																	
7	60		3	TIME 3 HR 30 MIN													240			
8	61		3	CORE TRAYS																
9	62		3																	
10	1563		7																	
11	64		8																	
12	65		8																	
13	66		10																	
14	67		10																	
15	68		10																	
16	69		10																	
17	70		10																	
18	71		10																	
19	72		10																	
20	1573		7																	
21	74		5	"NOTE"																
22	75		5	RUNNING LIFE																
23	76		5	WEIGHT IN 17 1/2																
24	1577	7:00	14	HOLE.																
25																				
26																				
27																				
28																				
29																				
30																				
31																				
32																				
33																				
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Date 11-1-85

WELL INFORMATION

Company BECHTEL  
Contractor CLEULAND #3  
Number STATE # 2-14  
County Imp State CA  
Hole Size 1 7/2  
Formation Name \_\_\_\_\_  
Formation Disc \_\_\_\_\_  
Mud - Wt. 9.1 Vis. 43

EQUIPMENT

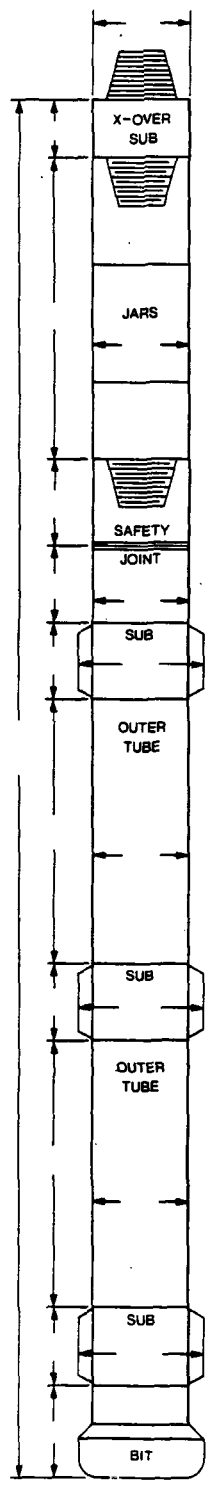
Core Barrel No. 2319-A  
Size 6X5 1/4 Length 30'  
Bit No. 0119309  
Size 9 7/8 X 5 1/4 Type RC 476  
Previous footage 24'  
This core \_\_\_\_\_ Core No. (2)  
Total footage \_\_\_\_\_

PERFORMANCE

Interval Cored - Finish 20'  
- Start 19.9'  
Footage Cored 30'  
Core Recovery 30'  
% Recover 100%

Pump Pressure 400 Liner Size 6X16 Strokes 27

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT																		OPERATING CONDITIONS			
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT	ROTATING RPM	FLUID GPM	
0	19 83	6:30	CORE #2																		2 1/4	70	250
1	34		CUT 30'																				
2	85		REC 30'																				
3	36		TIME 3 HRS 35 MIN																				
4	19 87																						
5	88																						
6	89																						
7	90																						
8	91																						
9	92																						
10	19 93																						
11	94																						
12	95																						
13	96																						
14	97																						
15	98																						
16	99																						
17	20 00																						
18	01																						
19	02																						
20	03																						
21	04																						
22	05																						
23	06																						
24	20 07																						
25	08																						
26	09																						
27	10																						
28	11																						
29	12																						
30	20 13	10:00	8																				
31																							
32																							
33																							
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36																							
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010

Date 11-2-85

**WELL INFORMATION**

Company LECHTEL  
Contractor CLEULAND #8  
Number STATE # 2-14  
County IMP State CA  
Hole Size 1 7/8  
Formation Name \_\_\_\_\_  
Formation Disc. SANDSTONE + SHALE  
Mud - Wt. 9.1 Vis. 48

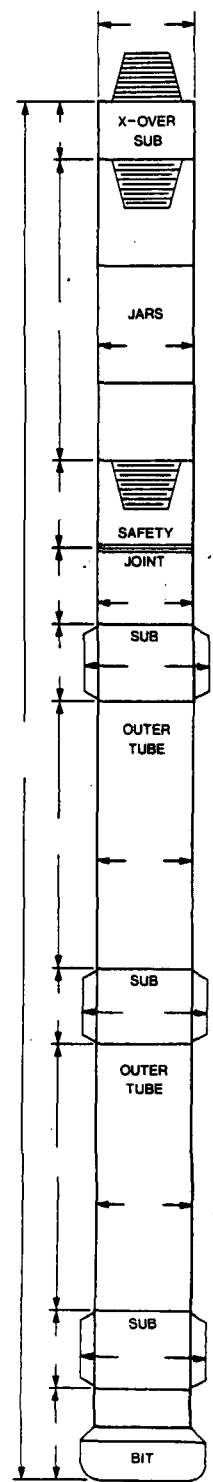
**EQUIPMENT**

Core Barrel No. 3319-A  
Size ØX5Y4 Length 30'  
Bit No. 0112309  
Size 975X5Y4 Type RC 476  
Previous footage 54'  
This core 30 Core No. (3)  
Total footage Ø4'  
Pump Pressure 400 Liner Size 6X16 Strokes 25

**PERFORMANCE**

Interval Cored - Finish 347'  
- Start 344'  
Footage Cored 30'  
Core Recovery 30  
% Recover 100%

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT											OPERATING CONDITIONS												
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT	ROTATING RPM	FLUID GPM			
0	244	9:45	PM																						
1	48																			Ø10	70	250			
2	49																								
3	50																								
4	51																								
5	52																								
6	53																								
7	54																								
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9	56																								
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11	58																								
12	59																								
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14	61																								
15	62																								
16	63																								
17	64																								
18	65																								
19	66																								
20	67																								
21	68																								
22	69																								
23	70																								
24	71																								
25	72																								
26	73																								
27	74																								
28	75																								
29	76																								
30	77	8:00	PM																						
31																									
32																									
33																									
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**CORING LOGS**

Date 11-8-85

**WELL INFORMATION**

Company BECHTEL  
Contractor CLEVELAND #8  
Number STATE 2-14  
County IMP State CA  
Hole Size 17 1/2  
Formation Name  
Formation Disc. SANDSTONE & SLTSTONE  
Mud - Wt. 9.2 Vis. 47

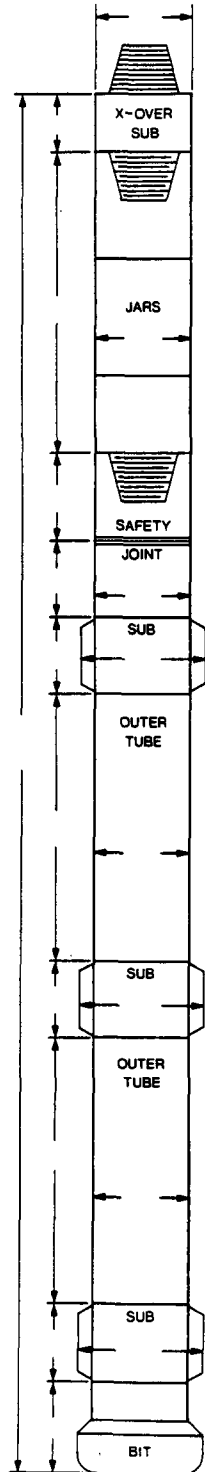
**EQUIPMENT**

Core Barrel No. 2319-A  
Size 8X5 1/4 Length 30  
Bit No. 0112309  
Size 978X5 1/4 Type RC 476  
Previous footage 144  
This core 60' Core No. 5  
Total footage 204  
Pump Pressure 350-500 Liner Size 6X16 Strokes 25

**PERFORMANCE**

Interval Cored - Finish 3167  
- Start 3107  
Footage Cored 60'  
Core Recovery 55%  
% Recover 91%

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT											OPERATING CONDITIONS														
		1	2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT	ROTATING RPM	FLUID CPM				
0	3107	5:00	AM																								
1	08																										
2	09																										
3	10																										
4	11																										
5	12																										
6	13																										
7	14																										
8	15																										
9	16																										
10	17																										
11	18																										
12	19																										
13	3120																										
14	21																										
15	22																										
16	23																										
17	24																										
18	25																										
19	26																										
20	27																										
21	28																										
22	29																										
23	3130																										
24	31																										
25	32																										
26	33																										
27	34																										
28	35																										
29	36																										
30	37																										
31	38																										
32	39																										
33	3140																										
34	41																										
35	42																										
36	43																										
37	44																										
38	45																										
39	46																										
40	47																										
41	48																										
42	49																										
43	3150																										
44	51																										
45	52																										
46	53																										
47	54																										
48	55																										
49	56																										
50	57																										
51	58																										
52	59																										
53	60																										
54	61																										
55	62																										
56	63																										
57	3164																										
58	65																										
59	66																										
60	3167																										



Date 11-12-85

**WELL INFORMATION**

Company BECHTEL  
Contractor CLEVELAND #8  
Number STATE 8-14  
County IMPERIAL State CALIF  
Hole Size 17 1/2  
Formation Name CLAYSTONE  
Formation Disc. SANDSTONE & SHALE  
Mud - Wt. 9.3 Vis. 49

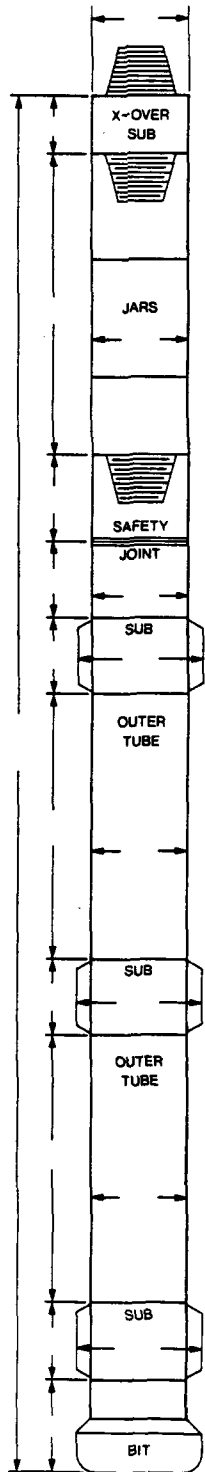
**EQUIPMENT**

Core Barrel No. 3319-A  
Size 8X514 Length 60'  
Bit No. 0112309  
Size 9 7/8 X 5 1/4 Type RC 476  
Previous footage 39.4  
This core 35 Core No. 6  
Total footage 5.39'  
Pump Pressure 400 Liner Size 6X16 Strokes 25

**PERFORMANCE**

Interval Cored - Finish 350'  
- Start 3470'  
Footage Cored 35'  
Core Recovery \_\_\_\_\_  
% Recover \_\_\_\_\_

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT											OPERATING CONDITIONS							
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT
0	3470	11:00	8 AM											8 1/2	70	250				
1	71		8	CORE # 6																
2	72		10																	
3	73		10																	
4	74		8																	
5	75		9	CONV CUT 25																
6	76		10	REC 97%																
7	77		11	TIME 5 1/2 AM																
8	78		7																	
9	79		8																	
10	80		14																	
11	81		13																	
12	82		12																	
13	83		10																	
14	84		15																	
15	85		11																	
16	86		10																	
17	87		9																	
18	88		7																	
19	89		9																	
20	90		7																	
21	91		10																	
22	92		11																	
23	93		9																	
24	94		8																	
25	95		7																	
26	96		6																	
27	97		11																	
28	98		10																	
29	99		12																	
30	3500		14																	
31	01		15																	
32	02		13																	
33	03		10																	
34	04		20	CONNECTION 10 MIN																
35	3505	4:30	35	PUMP PRESSURE OFF																
36				NO TORQUE																
37				NO PENETRATION																
38																				
39																				
40																				
41																				
42				BARREL JAMMED																
43																				
44																				
45																				
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54																				
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56																				
57																				
58																				
59																				
60																				



**CORING LOGS**

Date 11-19-85

**WELL INFORMATION**

Company BECHTEL  
Contractor CLEVELAND #8  
Number STATE 8-14  
Country IMPERIAL State CALIF  
Hole Size 12.75 978 Rat/Ble  
Formation Name \_\_\_\_\_  
Formation Desc SAND STONE, SILTSTONE, CLAYSTONE  
Mud - Wt. 9.3 Vis. 39

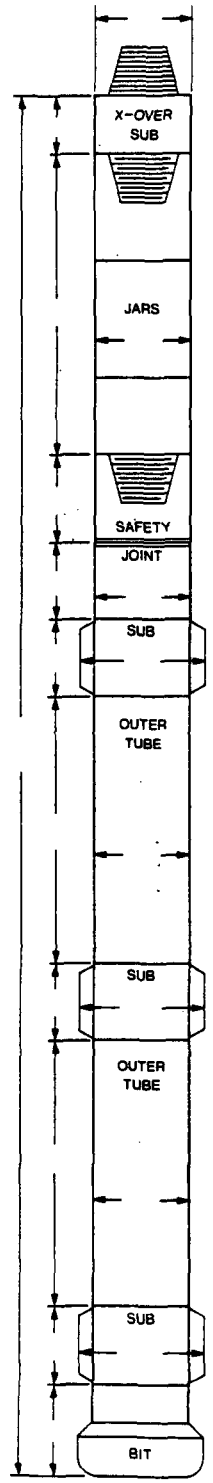
**EQUIPMENT**

Core Barrel No. 2319-A  
Size 8x5.4 Length 60'  
Bit No. 0112308  
Size 978x5.4 Type R 476  
Previous footage \_\_\_\_\_  
This core 60 Core No. 3  
Pump Pressure 450 Liner Size 6X16 Strokes 35-30

**PERFORMANCE**

Interval Cored - Finish \_\_\_\_\_  
- Start 3790  
Footage Cored 60'  
Core Recovery 57  
% Recover 95%

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT											OPERATING CONDITIONS										
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT	ROTATING RPM	FLUID GPM	
0	3790	8.30	8	Am	CORE #1											8/10	70	300					
1	91		5		CUT 60'											10/15	65	800					
2	92		6		REC 5'																		
3	93		5		TIME 4 HRS																		
4	94		5		30 MIN																		
5	95		7		RAN NEW BIT																		
6	96		6																				
7	97		6																				
8	98		6																				
9	99		5																				
10	3800		1																				
11	01		1																				
12	02		1																				
13	03		2																				
14	04		3																				
15	05		3																				
16	06		3																				
17	07		4																				
18	08		4																				
19	09		3																				
20	3810		4																				
21	11		4																				
22	12		4																				
23	13		4																				
24	14		4																				
25	15		4																				
26	16		4																				
27	17		4																				
28	18		4																				
29	19		4																				
30	3820		8		CONNECTION 10 MIN																		
31	31		8																				
32	32		8																				
33	33		8																				
34	34		8																				
35	35		8																				
36	36		8																				
37	37		8																				
38	38		8																				
39	39		8																				
40	3830		8																				
41	40		8																				
42	41		8																				
43	42		8																				
44	43		8																				
45	44		8																				
46	45		8																				
47	46		8																				
48	47		8																				
49	48		8																				
50	3840		7																				
51	41		7																				
52	42		7																				
53	43		7																				
54	44		7																				
55	45		7																				
56	46		7																				
57	47		7																				
58	48		7																				
59	49		7																				
60	3850	11:20	9	PM																			





Date 11-20-85

**WELL INFORMATION**

Company BECHTEL  
Contractor CLEVELAND #8  
Number STATE 8-14  
County IMPERIAL State CA  
Hole Size 12 1/4  
Formation Name \_\_\_\_\_  
Formation Dis Siltstone, claystone  
Mud - Wt. 9.3 Vis. 39

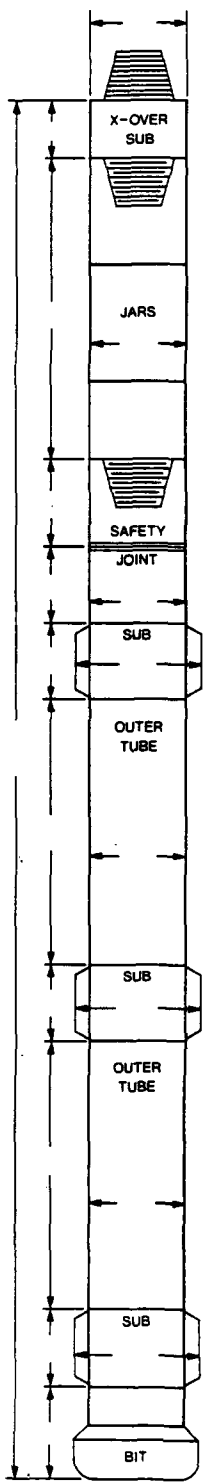
**EQUIPMENT**

Core Barrel No. 9319-A  
Size 8 X 5/4 Length 60'  
Bit No. 0113308  
Size 9 7/8 X 5/4 Type 476  
Previous footage 60'  
This core 60' Core No. 8  
Total footage 120'  
Pump Pressure 400 Liner Size 6 X 16 Strokes 25-30

**PERFORMANCE**

Interval Cored - Finish 4067  
- Start 4007  
Footage Cored 60'  
Core Recovery 61  
% Recover 100%

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT																		OPERATING CONDITIONS		
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT	ROTATING RPM	FLUID GPM
0	4007 10:00	5 AM																				
1	08	CORE #8																		3/10	70	300
2	09	CUT 60'																		10/30	60	300
3	10	REC 61'																				
4	11	TIME 5 HRS																				
5	12																					
6	4013																					
7	14																					
8	15																					
9	16																					
10	17																					
11	18																					
12	19																					
13	4020																					
14	21																					
15	22																					
16	23																					
17	24																					
18	25																					
19	26																					
20	27																					
21	28																					
22	29																					
23	4030																					
24	31																					
25	32																					
26	33																					
27	34																					
28	35																					
29	36																					
30	37																					
31	38																					
32	39	CONNECTION 10 MIN																				
33	4040																					
34	41																					
35	42																					
36	43																					
37	44																					
38	45																					
39	46																					
40	47																					
41	48																					
42	49																					
43	4050																					
44	51																					
45	52																					
46	53																					
47	54																					
48	55																					
49	56																					
50	57																					
51	4058																					
52	59																					
53	60																					
54	61																					
55	62																					
56	63																					
57	64																					
58	65																					
59	66																					
60	4067 3:00	1 1/2 PM																				



Date 11-21-85

**WELL INFORMATION**

Company DECHTEL  
Contractor CLEVELAND #8  
Number STATE 2-14  
County IMPERIAL State CA  
Hole Size 12.4  
Formation Name \_\_\_\_\_  
Formation Dis SANDSTONE + SHALE  
Mud - Wt. 9.4 Vis. 38

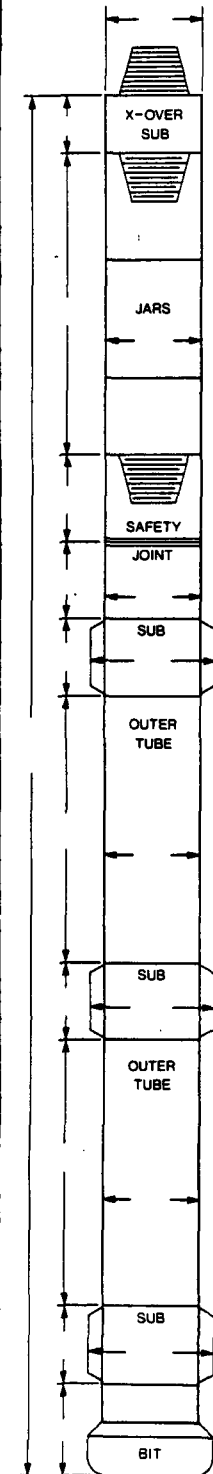
**EQUIPMENT**

Core Barrel No. 8319-A  
Size 8x5 1/4 Length 60'  
Bit No. 0112308  
Size 9 7/8 x 5 1/4 Type RC-476  
Previous footage 120  
This core 60 Core No. (9)  
Total footage 180  
Pump Pressure 450 Liner Size 6X16 Strokes 20-30

**PERFORMANCE**

Interval Cored - Finish \_\_\_\_\_  
- Start 4241  
Footage Cored 60'  
Core Recovery 59  
% Recover \_\_\_\_\_

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT											OPERATING CONDITIONS							
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT
0	4241	31	30	4	TIME											1060	70	300		
1	42	5	CORE #9																	
2	43	5	CUT 60'																	
3	44	5	REC 59																	
4	45	5	TIME 3HR 30MIN																	
5	46	5																		
6	47	5																		
7	48	5																		
8	49	5																		
9	4250	4																		
10	51	4																		
11	52	4																		
12	53	4																		
13	54	4																		
14	55	4																		
15	56	4																		
16	57	4																		
17	58	4																		
18	59	4																		
19	4260	6																		
20	61	5																		
21	62	5																		
22	63	5																		
23	64	5																		
24	65	5																		
25	66	6																		
26	67	5																		
27	68	5																		
28	69	4																		
29	4270	5	CONNECTION																	
30	71	4																		
31	72	4																		
32	73	3																		
33	74	3																		
34	75	4																		
35	76	5																		
36	77	1																		
37	78	1																		
38	79	1																		
39	4280	2																		
40	81	1																		
41	82	1																		
42	83	1																		
43	84	2																		
44	85	1																		
45	86	1																		
46	87	1																		
47	88	3																		
48	89	1																		
49	90	1																		
50	91	1																		
51	92	2																		
52	93	1																		
53	4294	1																		
54	95	2																		
55	96	1																		
56	97	1																		
57	98	1																		
58	99	1																		
59	4300	1																		
60	4301	1																		



Date 11-22-85

**WELL INFORMATION**

Company BECHTEL  
Contractor CLEVELAND #8  
Number STATE 2-14  
County IMPERIAL State CA  
Hole Size 12 1/4  
Formation Name \_\_\_\_\_  
Formation Desc SHALE + SANDSTONE  
Mud - Wt 9.3 Vis 40

**EQUIPMENT**

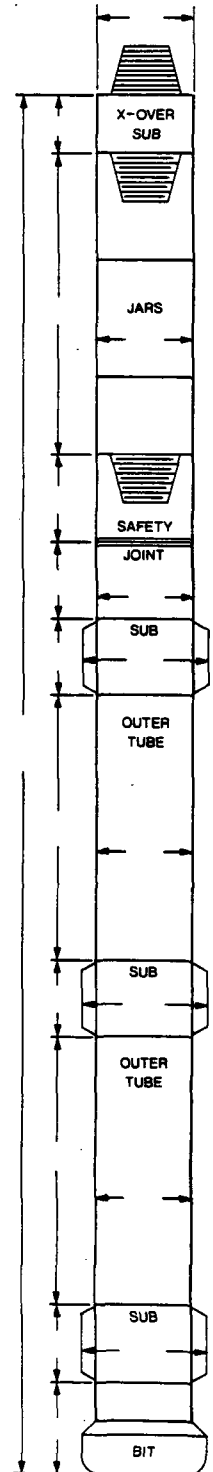
Core Barrel No. 9319-A  
Size 8 X 5 1/4 Length 60'  
Bit No. 0112308  
Size 9 7/8 X 5 1/4 Type RC 476  
Previous footage 180  
This core 33' Core No. (10)  
Total footage \_\_\_\_\_

**PERFORMANCE**

Interval Cored - Finish 4334  
- Start 4301  
Footage Cored 33'  
Core Recovery 33'  
% Recover \_\_\_\_\_

Pump Pressure 450 Liner Size 6 X 1/6 Strokes 90-80

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT											OPERATING CONDITIONS															
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT	ROTATING RPM	FLUID GPM						
0	4301	11.30	6 AM																									
1	02		CORE #10											70	60	500												
2	03																											
3	04		cut 33'											11/20	60	300												
4	4305		PEC 33'																									
5	06																											
6	07																											
7	08		TIME 3 HRS 30 MIN																									
8	09																											
9	4310																											
10	11																											
11	12		BIT RINGED																									
12	13		out on gauge																									
13	14		cutters																									
14	4315																											
15	16																											
16	17																											
17	18																											
18	19																											
19	4320																											
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29	4330																											
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35	4336																											
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38	4339																											
39	4340																											
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55	4356																											
56	4357																											
57	4358																											
58	4359																											
59	4360																											
60	4361																											



**CORING LOGS**

11-25-85  
Date 11-24-85

**WELL INFORMATION**

Company BECHTEL  
Contractor CLEVELAND #8  
Number STATE 2-14  
County IMPERIAL State CA  
Hole Size 1.274  
Formation Name \_\_\_\_\_  
Formation Disc. \_\_\_\_\_  
Mud - Wt. 9.3 Vis. 4.7

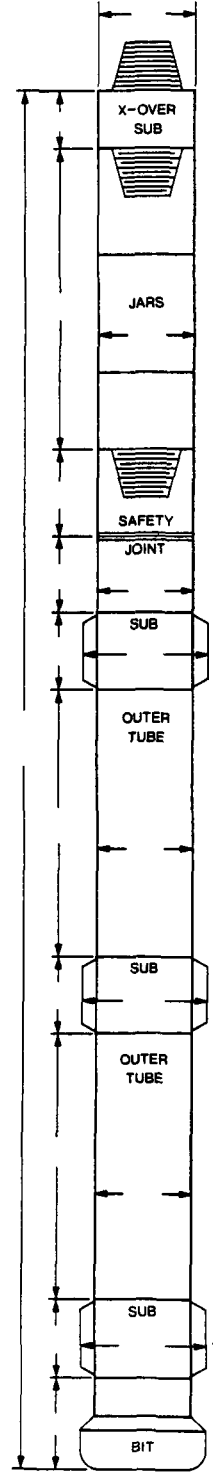
**EQUIPMENT**

Core Barrel No. 2319-A  
Size 8X5/4 Length 60  
Bit No. 011961  
Size 978X5/4 Type 201  
Previous footage 0  
This core 33 Core No. (11)  
Total footage 33'  
Pump Pressure 400 Liner Size 6X4 Strokes 20-25

**PERFORMANCE**

Interval Cored - Finish 2676  
- Start 2643  
Footage Cored 33'  
Core Recovery 33  
% Recover 100%

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT											OPERATING CONDITIONS												
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT	ROTATING RPM	FLUID GPM			
0	2643	3:00 PM																							
1	44	CORE # (11)											8/10	60	300										
2	45	CUT 33'											10/13	60	300										
3	46	DEC 33'																							
4	47	TIME 37:45																							
5	48	30 MIN																							
6	49	(FRACTURED)																							
7	50																								
8	51																								
9	52																								
10	53																								
11	54																								
12	46:55																								
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16	59																								
17	60																								
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28	71																								
29	72																								
30	73																								
31	74																								
32	75																								
33	46:26																								
34	77																								
35		CONNECTION 10 min																							
36		MADE CONNECTION "																							
37		NO PUMP PRESSURE																							
38		NO TORQUE																							
39		NO PENETRATION																							
40		Roll																							
41		D.O.D																							
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Date 11-25-85

WELL INFORMATION

Company BECHTEL  
Contractor CLEVELAND #8  
Number STATE 2-14  
County Imp State CA  
Hole Size 12 1/4  
Formation Name \_\_\_\_\_  
Formation Disc. \_\_\_\_\_  
Mud - Wt. 9.1 Vis. 3.7

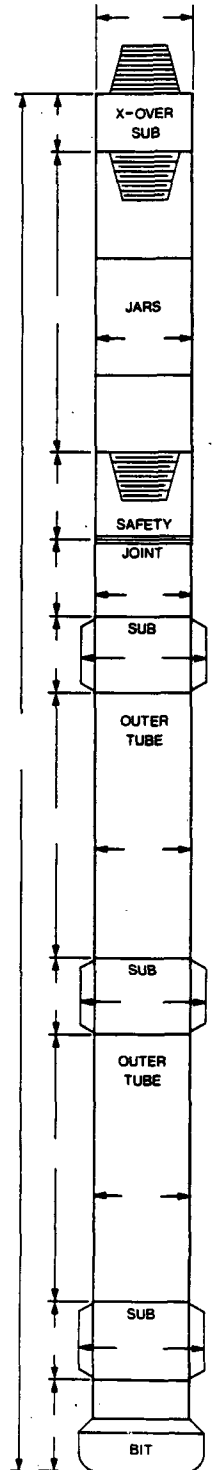
EQUIPMENT

Core Barrel No. 2319  
Size 8x5 1/4 Length 60'  
Bit No. 0111961  
Size 9 7/8 Type 201  
Previous footage 33  
This core 6 Core No. (12)  
Total footage 39'  
Pump Pressure 400 Liner Size 6X16 Strokes 25-30

PERFORMANCE

Interval Cored - Finish 4682  
- Start 4676  
Footage Cored 6  
Core Recovery 33%  
% Recover 50%  
BADLY FRACTURED

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT																	OPERATING CONDITIONS				
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT	ROTATING RPM	FLUID GPM	
0	4676	3:00	15	DR																	310	50	300
1	77	15	CORE #12																				
2	78	14	cut 6'																	10/2	60		
3	4679	13	REC 3 1/2																	12/5	60	300	
4	80	21	TIME 2 HRS																				
5	81	25																					
6	4682	39																					
7																							
8																							
9																							
10																							
11			CUT 3' OF "																				
12			CORE, THEN PUMP																				
13			PRESSURE STARTED																				
14			GOING UP + DOWN																				
15			VERY SLOW PENETRATION																				
16			NO TORQUE																				
17			P.O.H.																				
18			CORE JAMMED																				
19			IN CATCHER.																				
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30			" SOME FLAT DIAMOND "																				
31			ON B.T.																				
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42																							
43			" BADLY FRACTURED FORMATION "																				
44																							
45																							
46			D.O.I.D.																				
47																							
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**CORING LOGS**

Date 12-7-85

**WELL INFORMATION**

Company BECHTEL  
Contractor CLEVELAND #8  
Number STATE 2-14  
County IMPERIAL State CA  
Hole Size 12 1/4  
Formation Name \_\_\_\_\_  
Formation Disc. \_\_\_\_\_  
Mud - Wt. 9.3 Vis. 4.7

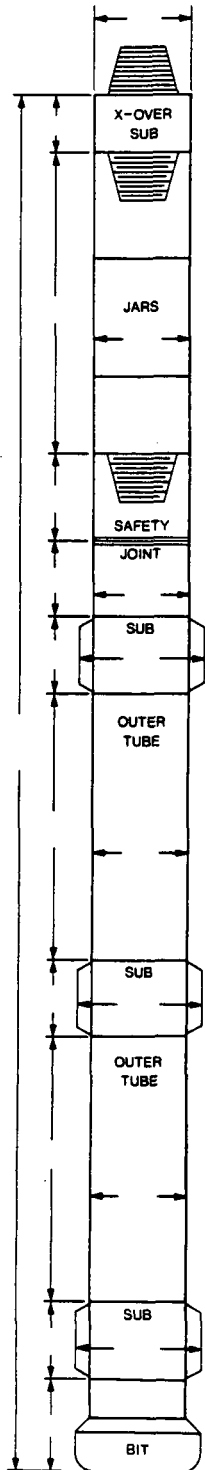
**EQUIPMENT**

Core Barrel No. 9319  
Size 8 X 5/4 Length 30  
Bit No. 0111961  
Size 9 7/8 X 5/4 Type 201  
Previous footage 69'  
This core 17' Core No. 14  
Total footage 86'  
Pump Pressure 800 Liner Size 7 X 1/2 Strokes 30-35

**PERFORMANCE**

Interval Cored - Finish 5591  
- Start 5574  
Footage Cored 17'  
Core Recovery 17'  
% Recover 100%

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT											OPERATING CONDITIONS							
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT
0	5574	9:00	E-PM																	
1	75	30	CORE #14											8/10	40	260				
2	76	15	CUT 17'											10/20	45	280				
3	77	17	REC 17'											10/20	50	290				
4	78	11	TIME (HRS)											10/20	60	300				
5	79	23	30 MIN																	
6	80	25	FRACTURED																	
7	81	21	SHALE																	
8	82	19																		
9	83	17																		
10	84	33																		
11	85	35																		
12	86	37																		
13	87	19																		
14	88	19																		
15	89	25																		
16	90	27																		
17	5591	30																		
18																				
19																				
20																				
21																				
22			PUMP PRESSURE																	
23			STARTED GOING																	
24			UP AND DOWN																	
25			NO TORQUE																	
26			SLOW PENETRATION																	
27			POOH.																	
28																				
29																				
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Date 12-1-85

**WELL INFORMATION**

Company SECHTEL  
Contractor CLEVELAND #8  
Number STATE 2-14  
County IMPERIAL State CALIF  
Hole Size 12 1/4  
Formation Name \_\_\_\_\_  
Formation Disc \_\_\_\_\_  
Mud - Wt. 9.3 Vis. 39

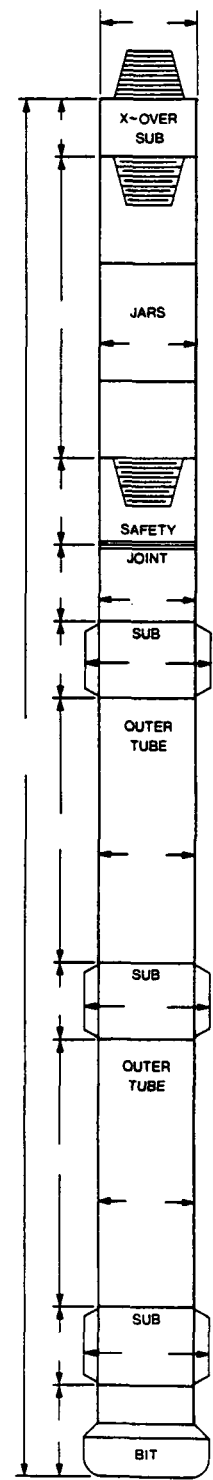
**EQUIPMENT**

Core Barrel No. 2319  
Size 8x5 1/4 Length 30'  
Bit No. 0111961  
Size 9 7/8 Type 201  
Previous footage 39'  
This core 30' Core No. (13)  
Total footage 69' "ALUMINUM"  
Pump Pressure 600 Liner Size 7X16 Strokes 30

**PERFORMANCE**

Interval Cored - Finish 5218  
- Start 5188  
Footage Cored 30'  
Core Recovery \_\_\_\_\_  
% Recover \_\_\_\_\_

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT											OPERATING CONDITIONS										
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT	ROTATING RPM	FLUID GPM	
0	5188	9:00	A.M.														8/10	70	260				
1	85		18	CORE #13														10/5	70				
2	90		20	CUT 30'														10/18	55	260			
3	91		23	REC 30'																			
4	92		24	TIME 8 HR 30 MIN																			
5	93		25																				
6	94		21																				
7	5195		23																				
8	96		27																				
9	97		25																				
10	98		19																				
11	99		17																				
12	5200		19																				
13	01		22																				
14	02		18																				
15	03		16																				
16	04		16																				
17	5205		15																				
18	06		17																				
19	07		14																				
20	08		15																				
21	09		15																				
22	5210		14																				
23	11		12																				
24	12		13																				
25	13		12																				
26	14		14																				
27	15		17																				
28	16		16																				
29	17		19																				
30	5218	5:35	33																				
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Date 12-17-85

WELL INFORMATION

Company BECHTEL  
Contractor CLEVELAND #8  
Number STATE 2-14  
County IMPERIAL State CA.  
Hole Size 8 1/2  
Formation Name \_\_\_\_\_  
Formation Disc. \_\_\_\_\_  
Mud - Wt. 9.3 Vis. 49

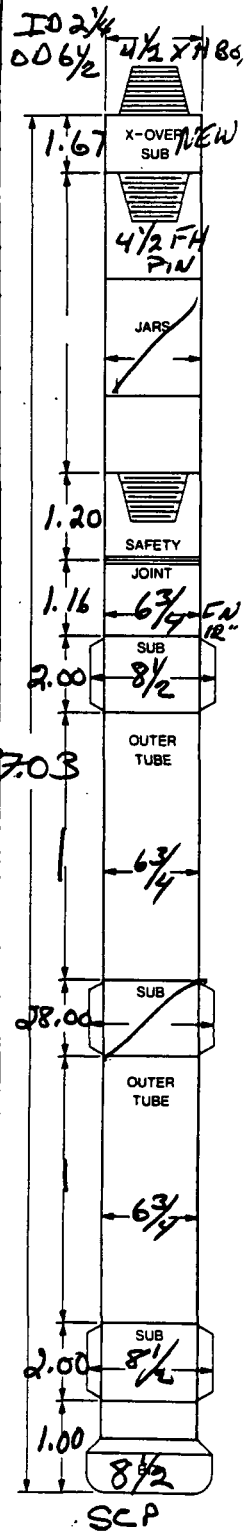
EQUIPMENT

Core Barrel No. \_\_\_\_\_  
Size 6 3/4 X 4 Length 30' ALUMINUM  
Bit No. 0111813  
Size 8 1/2 X 4 Type SCP  
Previous footage \_\_\_\_\_  
This core 18' Core No. (15)  
Total footage 18'  
Pump Pressure 1300 Liner Size 7 X 9 1/2 Strokes 4.5

PERFORMANCE

Interval Cored - Finish \_\_\_\_\_  
Footage Cored 18'  
Core Recovery 18'  
% Recover 100%

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT											OPERATING CONDITIONS							
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT
0	6026 6'00"	5 PM											5/10	60	400					
1	37	15	CORE # 15											10/15						
2	38	38	CUT 18'											15/20	50					
3	39	34	REC 18'											20/25	50	400				
4	30	38	TIME 11 AM																	
5	31	40																		
6	32	48																		
7	33	46																		
8	34	45																		
9	35	48																		
10	36	48																		
11	37	40	← TORQUE FALLING																	
12	38	48	← OFF																	
13	39	39																		
14	40	42																		
15	41	49																		
16	42	50																		
17	43	51																		
18	44 5'00"	48	←																	
19																				
20			NOTE																	
21			LOST 200 PSI PUMP																	
22			PRESSURE, NO TORQUE																	
23			NOTE																	
24			LOST ANOTHER																	
25			200 PSI PUMP																	
26			PRESSURE STARTED																	
27			TO POH AND LOST																	
28			24,000 LB STRAIN WT																	
29			NO TORQUE.																	
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44																				
45			"VERY BAD FRACTURES"																	
46																				
47																				
48																				
49			"HAD TO CUT ALUMINUM"																	
50			"IN 3 FT SECTIONS"																	
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010

88730

**CORING LOGS**

Date 1-4-86

**WELL INFORMATION**

Company BECHTEL  
Contractor CLEVELAND #2  
Number STATE 2-14  
County Imp State CA  
Hole Size 8 1/2  
Formation Name \_\_\_\_\_  
Formation Disc. SAALE  
Mud - Wt. 8.6 Vis. 4.7

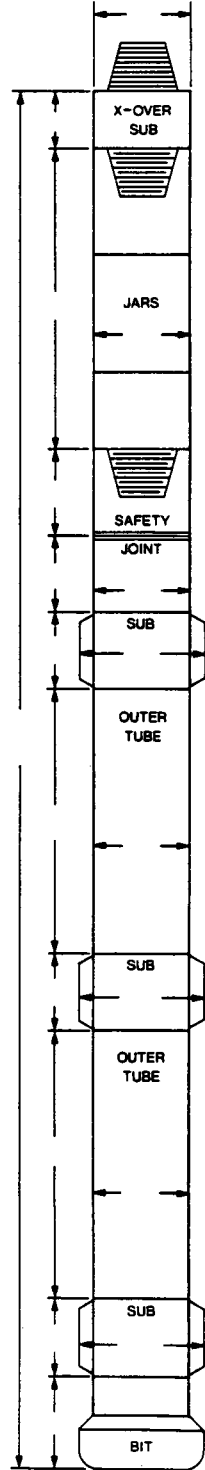
**EQUIPMENT**

Core Barrel No. 2319  
Size 6 3/4 X 4 Length 30'  
Bit No. 0111403  
Size 8 1/2 X 4 Type 476  
Previous footage \_\_\_\_\_  
This core 11 Core No. 16  
Total footage 11'  
Pump Pressure 700 Liner Size 7 X 9

**PERFORMANCE**

Interval Cored - Finish 657  
- Start 650  
Footage Cored 11  
Core Recovery 11  
% Recover 100%  
Aluminum  
Strokes 40-45

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT																		OPERATING CONDITIONS		
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT	ROTATING RPM	FLUID GPM
0	6508 12:45	3																		8 1/2	60	300
1	07	3																				
2	08	5																				
3	09	5																				
4	10	7																				
5	11	5																				
6	12	7																				
7	13	8																				
8	14	9																				
9	15	7																				
10	16	9																				
11	6519 2:00 25																					
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Date 1-5-6-86

WELL INFORMATION

Company BECHTEL  
Contractor CLEVELAND  
Number STATE 2-14  
County IMP State CA  
Hole Size 8 1/2  
Formation Name \_\_\_\_\_  
Formation Disc SHALE + SANDSTONE  
Mud - Wt. 8.6 Vis. 4.7

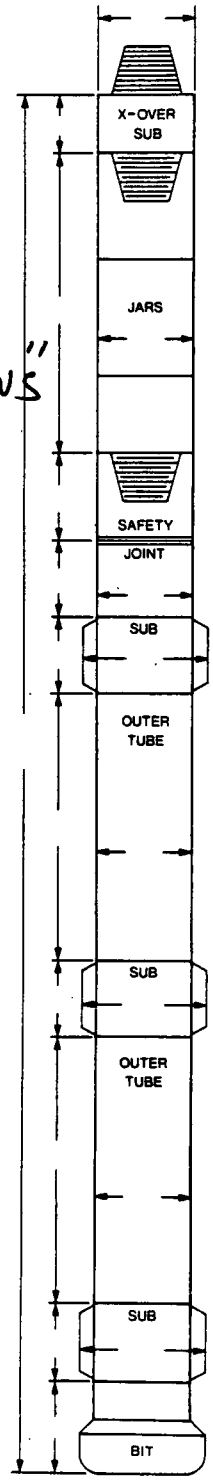
EQUIPMENT

Core Barrel No. 9319  
Size 6 3/4 X 4 Length 30  
Bit No. 011403  
Size 8 1/2 X 4 Type RC-476  
Previous footage 11  
This core 13 Core No. 17  
Total footage 24  
Pump Pressure 500 Liner Size 7 X 9 Strokes 40-45

PERFORMANCE

Interval Cored - Finish 6771  
- Start 6758  
Footage Cored 13  
Core Recovery 13  
% Recover 100%  
NO CIRCULATION

NO. FEET CORDED	INTERVAL	PENETRATION RATE MINUTES PER FOOT											OPERATING CONDITIONS										
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT	ROTATING RPM	FLUID GPM	
0	6758 8:00																						
1	59	2																		8/10	80	8	
2	60	2																		10/15	60	?	
3	61	1 1/2																			50	300	
4	62	2																					
5	63	3																					
6	64	2																					
7	65	2																					
8	66	3																					
9	67	4																					
10	68	3																					
11	69	2																					
12	70	2																					
13	6971 8:48:15																						
14																							
15																							
16																							
17	SOME BIT																						
18	DAMAGE																						
19																							
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Date 1-14-86

WELL INFORMATION

Company BECHTEL  
Contractor CLEVELAND #2  
Number STATE 2-14  
County IND State CA  
Hole Size 8 1/2  
Formation Name \_\_\_\_\_  
Formation Disc \_\_\_\_\_  
Mud - Wt. \_\_\_\_\_ Vis. \_\_\_\_\_

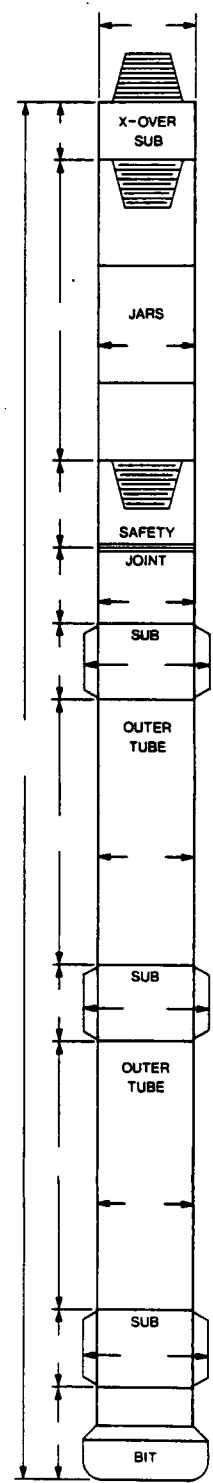
EQUIPMENT

Core Barrel No. 2319  
Size 6 3/4 X 4 Length 30'  
Bit No. 0111403  
Size 8 1/2 X 4 Type RC-476  
Previous footage 24'  
This core 9' Core No. 18  
Total footage 33'  
Pump Pressure 600 Liner Size 7 X 9 Strokes 40

PERFORMANCE

Interval Cored - Finish 6889  
- Start 6880  
Footage Cored 9'  
Core Recovery 5'  
% Recover 55%  
STEEL INNER BARREL

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT															OPERATING CONDITIONS						
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT	ROTATING RPM	FLUID GPM	
0	6880	5:00																			8/10	70	300
1	81																						
2	82		1																		10/15	70	
3	83		1 1/2																				
4	84		2																				
5	85		1																				
6	86		2																				
7	87		2 1/2																				
8	88		2																				
9	6889		1 1/2																				
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**WELL INFORMATION**

Company BECHTEL  
Contractor CLEVELAND  
Number STATE 2-14  
County IMP State CA  
Hole Size 8 1/2  
Formation Name \_\_\_\_\_  
Formation Disc \_\_\_\_\_  
Mud - Wt. 8.6 Vis. 32

**EQUIPMENT**

Core Barrel No. 2319  
Size 6 3/4 X 4 Length 30  
Bit No. 0111403  
Size 8 1/2 X 4 Type RC-476  
Previous footage 33'  
This core 9 Core No. 19  
Total footage 42'  
Pump Pressure 700 Liner Size 7 X 9 Strokes 40

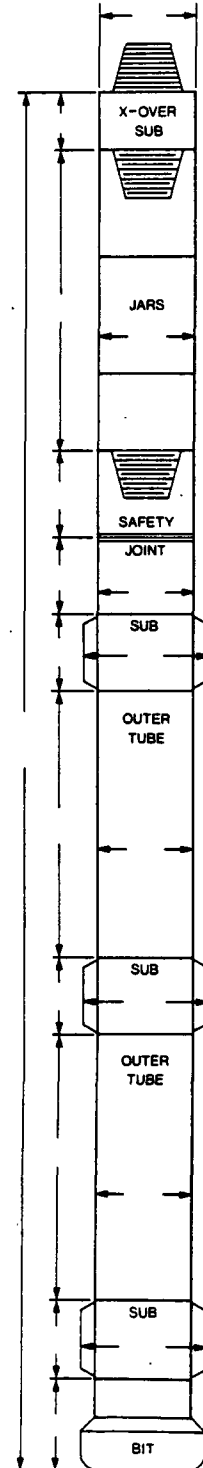
Date 1-16-86

**PERFORMANCE**

Interval Cored - Finish 7109  
- Start 7190  
Footage Cored 9  
Core Recovery 6'  
% Recover 66%

**'STEEL INNER BARREL'**

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT											OPERATING CONDITIONS									
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT	ROTATING RPM	FLUID GPM
0	7100	11:30	5																	4/5	42	300
1	01		3																	CORE #19		
2	02		3																	CUT 9'		
3	03		4																	REC 10'		
4	04		3																	TIME 59 MIN		
5	05		3																	6/7	45	300
6	06		3																			
7	07		3																			
8	08		3																			
9	7109	12:29	5																			
10																						
11																						
12																						
13																				Last pump		
14																				PRESSURE		
15																				NO TORQUE		
16																				NO PENETRATION		
17																						
18																						
19																						
20																						
21																						
22																						
23																						
24																						
25																				NOTE		
26																						
27																						
28																				CORE BROKEN UP		
29																				JAMMED IN CATCHER		
30																						
31																						
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Date 1-17-86

**WELL INFORMATION**

Company BECHTEL  
Contractor CLEVELAND  
Number STATE 2-14  
County IMP State CA  
Hole Size 8 1/2  
Formation Name \_\_\_\_\_  
Formation Disc \_\_\_\_\_  
Mud - Wt. 8.6 Vis. 33

**EQUIPMENT**

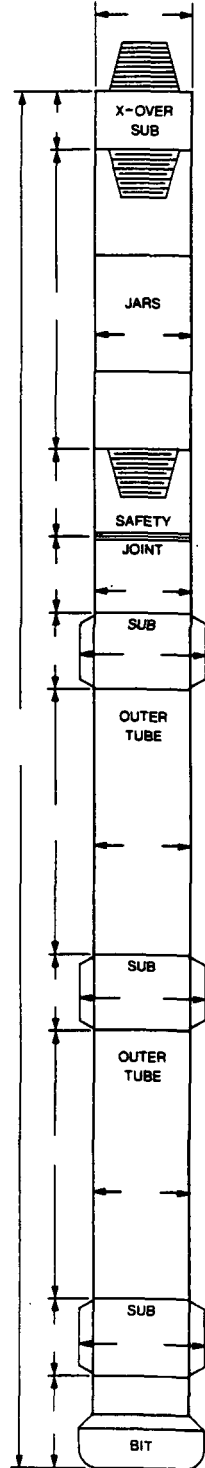
Core Barrel No. 2319  
Size 6 3/4 x 4 Length 30'  
Bit No. 011878  
Size 8 1/2 x 4 Type SC-226  
Previous footage 0  
This core \_\_\_\_\_ Core No. 90  
Total footage \_\_\_\_\_

**PERFORMANCE**

Interval Cored - Finish 7313  
- Start 7300  
Footage Cored 13'  
Core Recovery 11  
% Recover 84.6%

Pump Pressure 850 Liner Size 7X9 Strokes 40

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT											OPERATING CONDITIONS							
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT
0	7300	4:00	4 DM											7/8	50	300				
1	01	4	CORE #20																	
2	02	5	CUT 13'											8/10	45	300				
3	03	5	REC 11'																	
4	04	5	TIME 1 HR 20 MIN											10/2	1	1				
5	05	7	"CORE ALL BROKEN"																	
6	06	6	UP.																	
7	07	5	"LOST PUMP PRESSURE"																	
8	08	5	"NO TORQUE"																	
9	09	6	"NO PENETRATION"																	
10	10	7																		
11	11	6																		
12	12	5																		
13	7313	15																		
14																				
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31			"NOTE"																	
32			"RAN NEW CHROME"																	
33			"INNER BARREL"																	
34			"WITH 4 SLIP & KNIFE"																	
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Date 1-19-86

WELL INFORMATION

Company BECHTEL  
Contractor CLEVELAND  
Number STATE 2-14  
County IMP State CA  
Hole Size 8 1/2  
Formation Name \_\_\_\_\_  
Formation Disc Claystone + Siltstone  
Mud - Wt 8.7 Vis 32

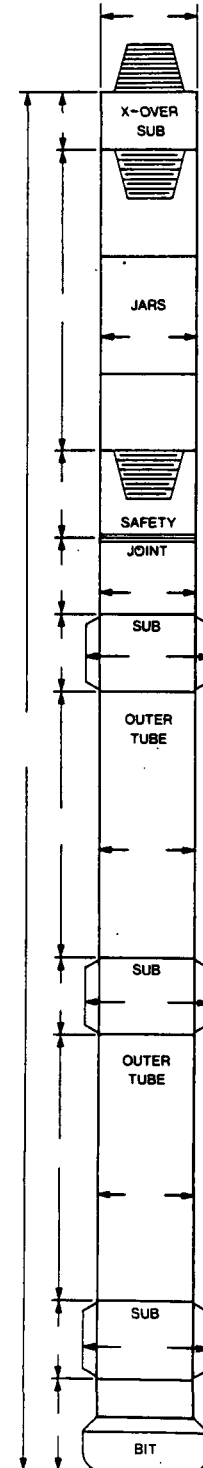
EQUIPMENT

Core Barrel No. 2319  
Size 6 3/4 x 4 Length 30'  
Bit No. 0111878  
Size 8 1/2 x 4 Type SC-226  
Previous footage 13  
This core 30 Core No. 21  
Total footage 43'  
Pump Pressure 1200 Liner Size 7 X 6 Strokes 90

PERFORMANCE

Interval Cored - Finish 7577  
- Start 7547  
Footage Cored 30'  
Core Recovery 28%  
% Recover \_\_\_\_\_

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT																	OPERATING CONDITIONS			
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT	ROTATING RPM	FLUID GPM
0	7547	1:00	6 PM																	5/6	50	300
1	48		CORE # 21																			
2	49		CUT 30'																	8/9	60	300
3	50		REC 28'																	10/12	60	300
4	51		TIME 3 HRS																			
5	7552																					
6	53																					
7	54																					
8	55																					
9	56																					
10	7557		MUSED SLIP +																			
11	58		KNIFE CATCHER																	10/15	65	300
12	59																					
13	60																					
14	61																					
15	7562																					
16	63																					
17	64																					
18	65																					
19	66																					
20	7567																			14/20	65	300
21	68																					
22	69																					
23	70																					
24	71																					
25	7572																					
26	73																					
27	74																					
28	75																					
29	76																					
30	7577	4:00																				
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Date 1-21-86

**WELL INFORMATION**

Company BECHTEL  
Contractor CLEVELAND  
Number STATE 2-14  
County IM P State CA  
Hole Size 8 1/2  
Formation Name \_\_\_\_\_  
Formation Disc. Chaystone 10%  
Mud - Wt. 8.6 Vis. 33

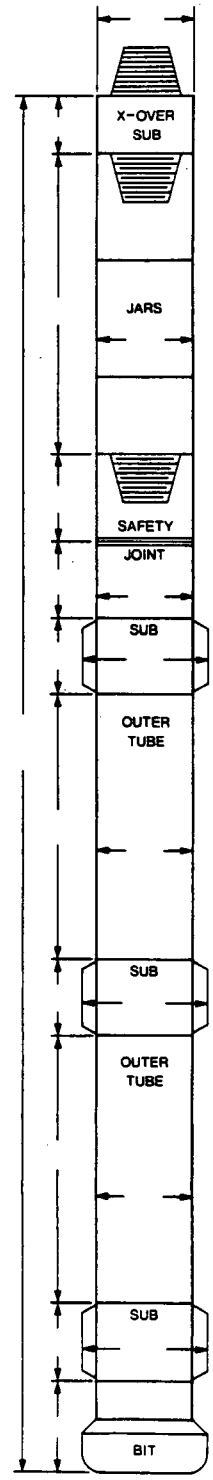
**EQUIPMENT**

Core Barrel No. 2319  
Size 6 3/4 x 4 Length 30  
Bit No. 0111 87 8  
Size 8 1/2 x 4 Type SC-226  
Previous footage 43  
This core 30 Core No. 52  
Total footage 73  
Pump Pressure 1200 Liner Size 7X16 Strokes 40

**PERFORMANCE**

Interval Cored - Finish 7734  
- Start 7708  
Footage Cored 30'  
Core Recovery 30%  
% Recover 100%

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT											OPERATING CONDITIONS								
		1	2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT
0	7704 4/100	6														8 1/2	60	300			
1	05	6																			
2	06	6																			
3	07	6																			
4	08	6																			
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6	10	6																			
7	11	6																			
8	12	6																			
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11	15	6																			
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16	20	6																			
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24	28	6																			
25	29	6																			
26	30	6																			
27	31	6																			
28	32	6																			
29	33	6																			
30	7734	6																			
31																					
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**CORING LOGS**

Date 1-28-86

WELL INFORMATION

Company BECHTEL  
Contractor CLEVELAND  
Number STATE 2-14  
County Imp State CA  
Hole Size 8 1/2  
Formation Name ?  
Formation Disc. ?  
Mud - Wt. 9.0 Vis. 4.0

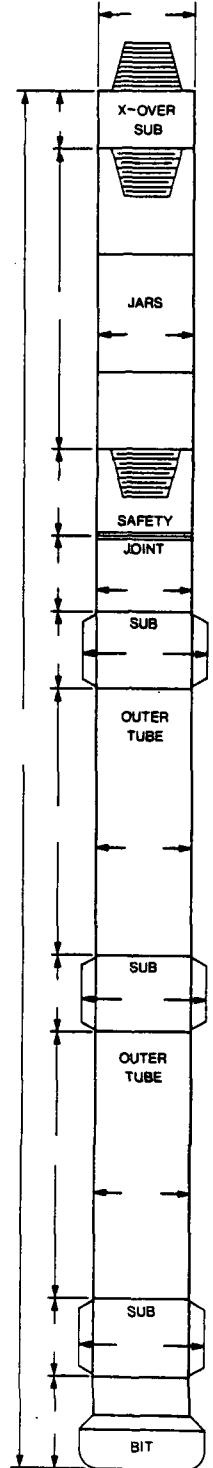
EQUIPMENT

Core Barrel No. #966  
Size 6 3/4 X 4 Length 30'  
Bit No. 011878  
Size 8 1/2 X 4 Type SC-226  
Previous footage 73'  
This core 25' Core No. (23)  
Total footage 98'  
Pump Pressure 1000 Liner Size 7 X 1/6 Strokes 40-45

PERFORMANCE

Interval Cored - Finish 8:58  
- Start 8:33  
Footage Cored 25'  
Core Recovery 25%  
% Recover 100%

NO FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT											OPERATING CONDITIONS							
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT
0	8:33	4:00	AM																	
1	34	12	CORE #93											8/10	60	300				
2	35	14	CUT 25'											14/15	60	300				
3	36	10	REC 25'																	
4	37	11	TIME 4 1/2 HRS																	
5	38	7																		
6	39	6																		
7	40	5																		
8	41	7																		
9	42	8																		
10	43	6																		
11	44	5																		
12	8:45	8																		
13	46	10																		
14	47	12	" NOTE "																	
15	48	13	BAN CHROME																	
16	49	10	INNER BARREL																	
17	50	11																		
18	51	12																		
19	52	13																		
20	53	11																		
21	54	10	SLIP + KNIFE																	
22	55	11	CATCHER.																	
23	56	12																		
24	57	13																		
25	8:58	8:30	14	AM																
26																				
27			" NOTE "																	
28			HAD CORE BARREL																	
29			INSPECTED BY																	
30			RECO. 1-27-86																	
31																				
32																				
33																				
34																				
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37																				
38			" LOST CIRCULATION "																	
39			AFTER 5' OF CORE																	
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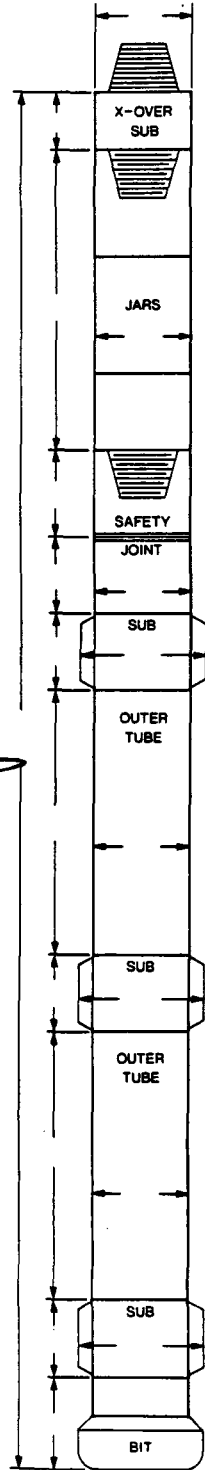
Date 1-31-86

WELL INFORMATION  
Company BECHTEL  
Contractor CLEVELAND  
Number STATE 2-14  
County IMPERIAL State CA  
Hole Size 8 1/2  
Formation Name ?  
Formation Disc. ?  
Mud - Wt. 8.7 Vis. 40

EQUIPMENT  
Core Barrel No. 966  
Size 6 3/4 X 4 Length 30'  
Bit No. 0111878  
Size 8 1/2 X 4 Type SG 226  
Previous footage 98'  
This core 7 Core No. 24  
Total footage 105'  
Pump Pressure 1000 Liner Size 7 X 6 Strokes 40-45

PERFORMANCE  
Interval Cored - Finish 8402  
- Start 8395  
Footage Cored 7'  
Core Recovery 7'  
% Recover 100%  
CHARMÉ  
INNER BARREL

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT											OPERATING CONDITIONS								
		1	2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT
0	8395	3:00	AM														9/8	60	300		
1	76	29	CORE # 24														8/6				
2	97	26	CUT														8/6				
3	98	30	REC														10/7	100	300		
4	99	15	TIME 3 HR 40														8/10				
5	8400	16															10/2	60	350		
6	01	19																			
7	8402	5:40	27																		
8																					
9																					
10			NOTE																		
11			LOST PUMP																		
12			PRESSURE																		
13			NO TORQUE																		
14			SLOW PENETRATION																		
15																					
16																					
17																					
18																					
19																					
20																					
21			BARREL JAMMED																		
22																					
23																					
24																					
25																					
26																					
27			CORE ALL BROKEN UP																		
28																					
29																					
30																					
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Date 2-1-86

**WELL INFORMATION**

Company BECHTEL  
Contractor CLEVELAND  
Number STATE 2-14  
County IMPERIAL State CA  
Hole Size 8 1/2  
Formation Name ?  
Formation Disc. ?  
Mud - Wt.      Vis.     

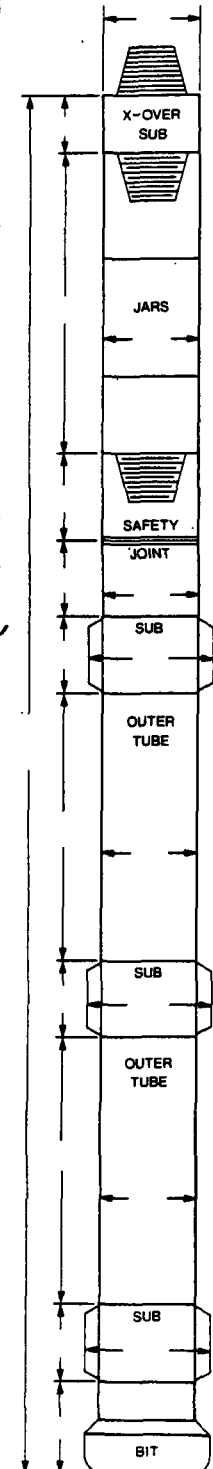
**EQUIPMENT**

# 966  
Core Barrel No.       
Size 6 3/4 X 4 Length 30'  
Bit No. 0111878  
Size 8 1/2 X 4 Type SC-226  
Previous footage 105  
This core 19 Core No. 25  
Total footage 124'  
Pump Pressure 400 to 900 Size 7X16 Strokes 40

**PERFORMANCE**

Interval Cored - Finish 8604  
- Start 8585  
Footage Cored 19'  
Core Recovery 15%  
% Recover 77%

NO. FEET CORRED	INTERVAL	PENETRATION RATE MINUTES PER FOOT																OPERATING CONDITIONS				
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT	ROTATING RPM	FLUID GPM
0	8585	10:00	AM																8 1/8	160	300	
1	86		14	CORE #25																		
2	87		10	CUT 19'																		
3	88		11	REC 15'																		
4	89		12	TIME 3 HRS																		
5	90		6	20 MIN																		
6	91		5	(CORE ALL																		
7	92		6	(BROKEN UP)																		
8	93		4																			
9	94		5																			
10	95		7																			
11	96		8																	10 1/2	65	
12	97		6																			
13	98		7																	10 1/8	60	300
14	99		8																			
15	8600		10	NOTE "																		
16	08		12																			
17	08		14																			
18	03		15	LOST PUMP PRESSURE																		
19	8604	1:20	20	LOST TORQUE																		
20				SLOW PENETRATION																		
21				P.O.H																		
22																						
23				NOTE "																		
24				CORING WITH LAST CIRCULATION,																		
25				NO RETURNS."																		
26																						
27				" CHROME INNER BARREL "																		
28				" SLIP & KNIFE CATCHER "																		
29																						
30																						
31																						
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34																						
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36																						
37																						
38				NOTE "																		
39				CORE ALL BROKEN UP																		
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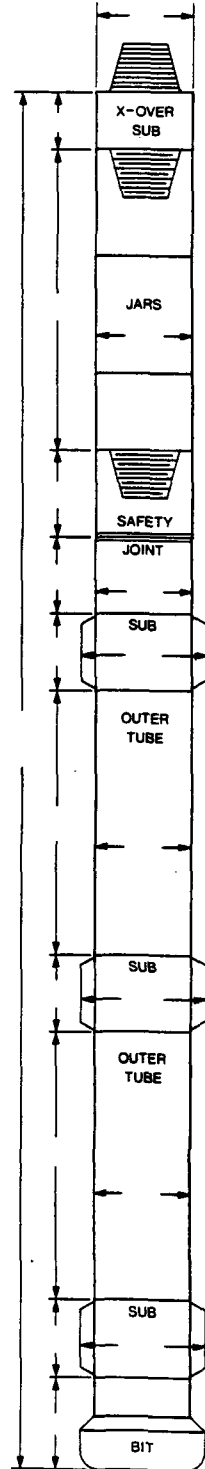


Date 2-3-86  
PERFORMANCE  
Interval Cored — Finish 8807  
— Start 8800  
Footage Cored 7'  
Core Recovery 5.5'  
% Recover 78.5%  
CHROME BARREL  
SLIP + KNIFE

WELL INFORMATION  
Company BECHTEL  
Contractor CLEVELAND  
Number STATE 2-14  
County IMP State CA  
Hole Size 8 1/2  
Formation Name ?  
Formation Disc. ?  
Mud - Wt. 0 Vis. 0

EQUIPMENT  
Core Barrel No. 966  
Size 6 3/4 x 4 Length 30'  
Bit No. SC-226 \$  
Size 8 1/2 x 4 Type 0111878  
Previous footage 7'  
This core 7' Core No. 22  
Total footage 131'  
Pump Pressure 500-700 Iner Size 7X1/6 Strokes 40

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT																		OPERATING CONDITIONS				
		1	2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT	ROTATING RPM	FLUID GPM	
0	8800	2:00	2:00																					
1	01	10	CORE #26																		5/10	60	300	
2	02	15	CUT 7																					
3	03	40	REC 5.5																		10/25			
4	04	7																						
5	05	14																						
6	06	13																						
7	8807	4:10	19	←																		15/8	60	300
8																								
9	"		10 MIN																					
10																								
11			(SOMBIT DAMAGE)																					
12																								
13			" CORE ALL BROKEN "																					
14			" UP. ALL RUBBLE "																					
15			" NO CIRCULATION "																					
16			" NO RETURNS "																					
17			" GOT RETURNS "																					
18			" AFTER 4' OF CORE "																					
19																								
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Date 2-4-86

**WELL INFORMATION**

Company BECHTEL  
Contractor CLEVELAND  
Number STATE 2-14  
County IMP State CA  
Hole Size 8 1/2  
Formation Name ?  
Formation Disc. ?  
Mud - Wt. 8.6 - O. Vis. 30 - 0 WATER

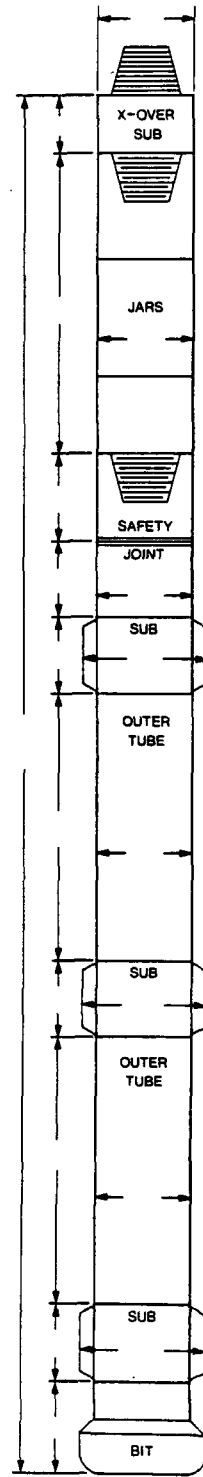
**EQUIPMENT**

Core Barrel No. #966  
Size 6 3/4 X 4 Length 30'  
Bit No. 0111878  
Size 8 1/2 X 4 Type SC-226  
Previous footage 131'  
This core 23 Core No. 27  
Total footage 154'  
Pump Pressure 1100 Liner Size 7X16 Strokes 40

**PERFORMANCE**

Interval Cored - Finish 9027  
- Start 9004  
Footage Cored 23  
Core Recovery 5  
% Recover 21%  
CHROME BARREL  
SLIP + KNIFE

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT											OPERATING CONDITIONS										
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT	ROTATING RPM	FLUID GPM	
0	9004	10:00 AM																			5/10	50	300
1	05		7																				
2	06		6																				
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18	22		15																				
19	23		14																				
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21	25		15																				
22	26		18																				
23	9027	2:30 AM	14																				
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Date 5-7-86

WELL INFORMATION

Company BECHTEL  
Contractor CLEVELAND  
Number STATE 2-14  
County IMD State CA  
Hole Size 8 1/2  
Formation Name ?  
Formation Disc. ?  
Mud - Wt. 8.6 Vis. 3.4

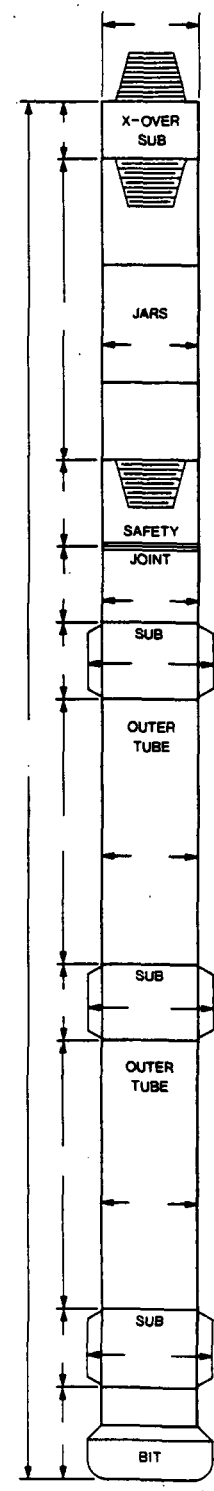
EQUIPMENT

Core Barrel No. 966  
Size 6 3/4 X 4 Length 30'  
Bit No. 0111878  
Size 8 1/2 X 4 Type SC-226  
Previous footage 154'  
This core 3 Core No. (18)  
Total footage 157  
Pump Pressure 900 Liner Size 7 X 1 1/2 Strokes 40

PERFORMANCE

Interval Cored - Finish 9098  
- Start 9095  
Footage Cored 3'  
Core Recovery 3'  
% Recover 100%  
CHROME INNER  
BARREL

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT																	OPERATING CONDITIONS			
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT	ROTATING RPM	FLUID GPM
0	9095 10:00 AM																			5/10	50	300
1	96																					
2	97																					
3	9098 12:00 50 AM																			10/12	50	300
4																				12/15	50	300
5																						
6																						
7	CORE ALL																					
8	BROKEN UP																					
9																						
10																						
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12	Bit getting																					
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14	DULL																					
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**CORING LOGS**

Date 9-9-86

**WELL INFORMATION**

Company BECHTEL  
Contractor CLEVELAND  
Number STATE 2-14  
County IMP State CA  
Hole Size 8 1/2  
Formation Name ?  
Formation Disc ?  
Mud - Wt 8.8 Vis 35

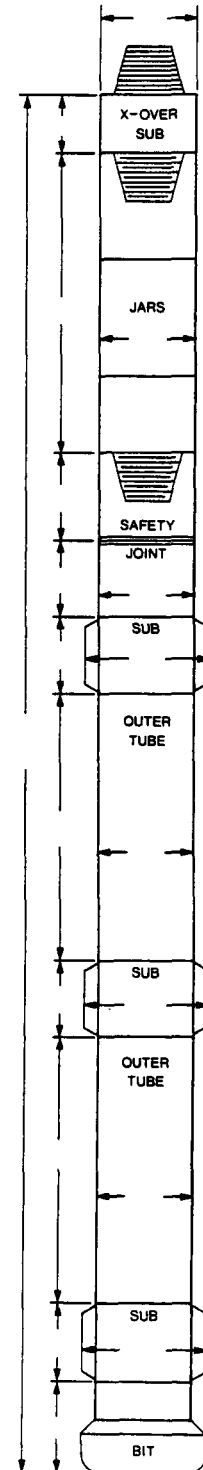
**EQUIPMENT**

Core Barrel No. 966  
Size 6 3/4 x 4 Length 30'  
Bit No. 0111878  
Size 8 1/2 x 4 Type SC-226  
Previous footage 157'  
This core 5' Core No. 29  
Total footage 162'  
Pump Pressure 1100 Liner Size 7 X 1 1/2 Strokes 40-45

**PERFORMANCE**

Interval Cored - Finish 9253  
- Start 9248  
Footage Cored 5'  
Core Recovery 4'  
% Recover 80%  
CHROME BARREL  
SLIP + KNIFE

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT											OPERATING CONDITIONS							
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT
0	<u>9248</u>	<u>7:30 AM</u>																		
1	<u>49</u>	<u>30</u>											<u>CORE</u>	<u>29</u>	<u>8 1/2</u>	<u>40</u>	<u>355</u>			
2	<u>50</u>	<u>19</u>													<u>10 1/2</u>					
3	<u>51</u>	<u>28</u>											<u>CUT</u>	<u>5</u>						
4	<u>52</u>	<u>49</u>													<u>12 1/5</u>					
5	<u>9253</u>	<u>11:00 AM</u>											<u>REC</u>	<u>4'</u>	<u>13 1/5</u>	<u>40</u>	<u>355</u>			
6																				
7													<u>TIME SAPS</u>							
8													<u>CORE JAMMED</u>							
9													<u>30 MIN</u>							
10													<u>IN CATCHER</u>							
11													<u>Lost Pump Pressure</u>							
12													<u>Lost Torque</u>							
13													<u>Bit Starting</u>							
14													<u>Very Slow Penetration</u>							
15													<u>ROH</u>							
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Date 2-12-86

WELL INFORMATION

Company BECHTEL  
Contractor CLEVELAND  
Number STATE 2-14  
County IMP State CA  
Hole Size 8 1/2  
Formation Name ?  
Formation Disc ?  
Mud - Wt 8.7 Vis 36

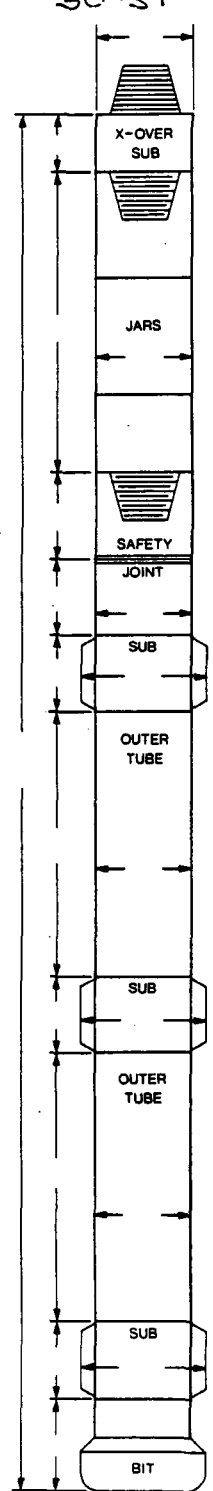
EQUIPMENT

Core Barrel No. 906  
Size 6 3/4 X 4 Length 30'  
Bit No. 0111878  
Size 8 1/2 X 4 Type SC-226  
Previous footage 162  
This core 5' Core Nos 30  
Total footage 167'  
Pump Pressure 400 Liner Size 7 X 1 1/2 Strokes 30-31

PERFORMANCE

Interval Cored - Finish 945  
- Start 945  
Footage Cored 5'  
Core Recovery 3'  
% Recover 60%  
CRACKING  
BARREL

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT													OPERATING CONDITIONS							
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT	ROTATING RPM	FLUID CFM
0	<u>9453</u>	<u>8.45</u>	<u>AM</u>																	<u>5/10</u>	<u>50</u>	<u>300</u>
1	<u>54</u>	<u>49</u>																				
2	<u>55</u>	<u>60</u>																				
3	<u>56</u>	<u>58</u>																				
4	<u>57</u>	<u>60</u>																				
5	<u>9458</u>	<u>1:20</u>	<u>64</u>																	<u>12/8</u>	<u>50</u>	<u>300</u>
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Date 5-13-86

WELL INFORMATION

Company BECHTEL  
Contractor CLEVELAND  
Number STATE 2-14  
County IMP State CA  
Hole Size 8 1/2  
Formation Name ?  
Formation Disc ?  
Mud - Wt. WATER Vis. 0

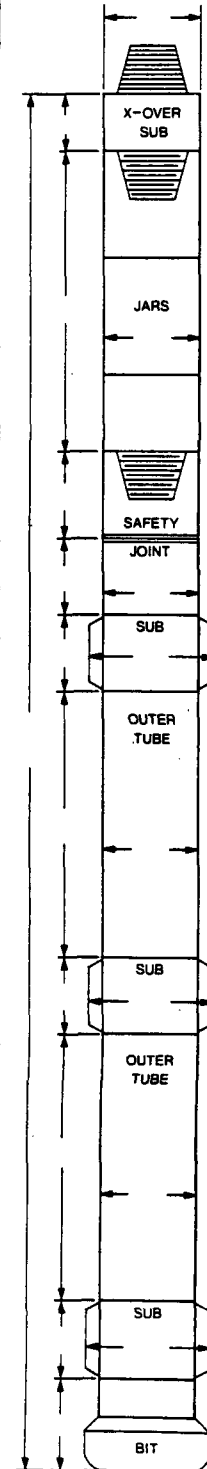
EQUIPMENT

Core Barrel No. #966  
Size 6 3/4 X 4 Length 30'  
Bit No. 0312868  
Size 8 1/2 X 4 Type SC-226  
Previous footage 0  
This core 15' Core No. (31)  
Total footage 15  
Pump Pressure 300 Liner Size 7 X 6 Strokes 35

PERFORMANCE

Interval Cored - Finish 947  
- Start 9458  
Footage Cored 15'  
Core Recovery 6 1/2  
% Recover 44%  
CHROME BARREL  
SLIP & KNIFE

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT												OPERATING CONDITIONS						
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT
0	9458	61	00	00	CORE #31												216	45	280	
1	59	35	CUT 15'												6/8	50				
2	60	30	REC 6 1/2"																	
3	61	10	TIME 2.5 HRS												8/15	55				
4	62	9																		
5	63	8																		
6	64	8																		
7	65	7																		
8	9456	5																		
9	66	2																		
10	68	8													15	35				
11	69	10																		
12	70	13																		
13	71	10																		
14	72	15																		
15	9473	3:00	18	Lost Circulation																
16				No Returns																
17				"NOTE"																
18				PUMP PRESSURE																
19				GOING UP & DOWN																
20				CANT TELL IF																
21				JAMMED OR BIT																
22				RINGING OUT. P.O.H																
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41				FROM 300 LBS TO 1000 LBS																
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Date 2-22-86

**WELL INFORMATION**

Company TECHTEL  
Contractor CLEVELAND  
Number STATE 2-14  
County IMPERIAL State CA  
Hole Size 8 1/2  
Formation Name ?  
Formation Disc ?  
Mud - Wt. 8.7 Vis. 34

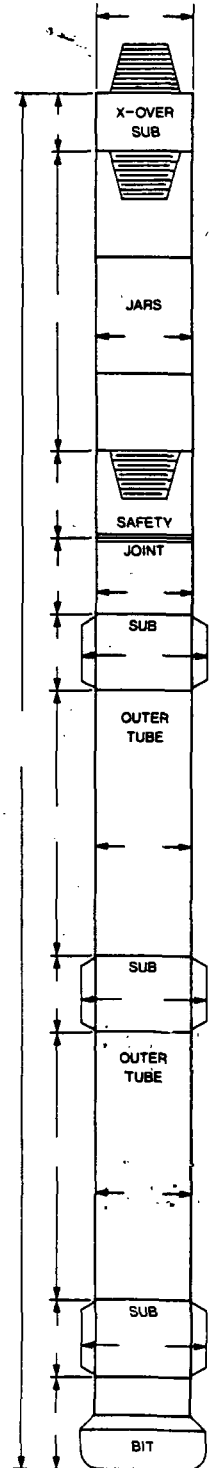
**EQUIPMENT**

Core Barrel No. 1966  
Size 6 3/4 x 4 Length 30'  
Bit No. 1450653  
Size 8 1/2 x 4 Type MC-201  
Previous footage 3'  
This core 3' Core No. (32)  
Total footage 3'  
Pump Pressure 1000 Liner Size 7X16 Strokes 30

**PERFORMANCE**

Interval Cored - Finish 9476  
- Start 9473  
Footage Cored 3  
Core Recovery 2  
% Recover 66%  
CHROME BARREL  
SLIP + KNIFE

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT											OPERATING CONDITIONS										
		1	2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT	ROTATING RPM	FLUID CPM
0	9473	3:00																					
1	74	13																					
2	75	14																					
3	9476	3:45	16																				
4	(Bit in good condition)																						
5	(Condition)																						
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11	(CORE ALL BROKEN UP)																						
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**CORING LOGS**

Date 2-28-86

**WELL INFORMATION**

Company BECHTEL  
Contractor CLEVELAND  
Number STATE 3-14  
County IM 2 State CA  
Hole Size 3 1/2  
Formation Name 3  
Formation Disc 3  
Mud - Wt. 8.6 Vis. 35

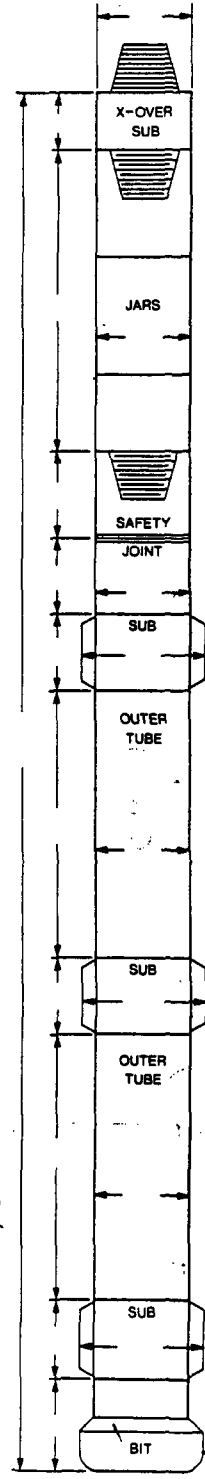
**EQUIPMENT**

Core Barrel No. 466  
Size 6 3/4 X 4 Length 30'  
Bit No. C307627  
Size 8 1/2 X 4 Type C-201  
Previous footage 0  
This core 33 Core No. 33  
Total footage 33

**PERFORMANCE**

Interval Cored - Finish 9698  
- Start 9696  
Footage Cored 4  
Core Recovery 3 1/4  
% Recover 87.5  
CHROME BARREL  
SLIP + KNIFE  
Pump Pressure 500 Liner Size 7 X 1 1/2 Strokes 30

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT											OPERATING CONDITIONS										
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT	ROTATING RPM	FLUID GPM	
0	9694	3.00																			314	50	280
1	9695																				310		
2	9696																						
3	9697																						
4	9698																						
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"NOTE"  
STUCK 70' OFF  
BOTTOM. SET JARS  
OFF 2 TIMES AND  
CAME LOOSE.  
"TOLD CO. PEOPLE  
GURRICH - DAVE RIVER  
IT WOULD NOT BE  
HELD RESPONSIBLE FOR  
BIT DAMAGE DUE TO  
REAMING. THEY SAID  
TO GO AHEAD AND REAM  
40'.



**CORING LOGS**

Date 3-2-86

**WELL INFORMATION**

Company BECHTEL  
 Contractor CLEVELAND #8  
 Number SATIC #2-14  
 County IMPERIAL (State CALIF.)  
 Hole Size 8 1/2  
 Formation Name ?  
 Formation Disc. ?  
 Mud - Wt. 8.0 Vis. 4.4

**EQUIPMENT**

Core Barrel No. 79  
 Size 5 3/4 x 3 1/2 Length 30'  
 Bit No. 0312843  
 Size 7 3/8 x 2 1/2 Type 0-201  
 Previous footage 0  
 This core 5 Core No. 34  
 Total footage 5

**PERFORMANCE**

Interval Cored - Finish 99.2  
 - Start 99.7  
 Footage Cored 5  
 Core Recovery 9"  
 % Recover 15%

Pump Pressure 1000-1100 Liner Size 7 X 1 1/2 Strokes 36

NO. FEET CORED	INTERVAL	PENETRATION RATE MINUTES PER FOOT																OPERATING CONDITIONS				
		2	3	4	5	6	7	8	9	10	15	20	30	40	50	60	70	80	90	WEIGHT	ROTATING RPM	FLUID GPM
0	99.07 - 99.49																					
1	8	118																		CORE #34	15-20	45
2	9	119																		CHT 5'	20-22	45
3	10	78																		REC 9"		
4	11	99																				
5	99.72 - 6'45	143																				
6																						
7																				8 HRS 30 MIN		
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17																						
18																				RUNTIME 1.25		
19																				IN HOLE 1.10		
20																						
21																				BIT A FEW		
22																				MARK FROM		
23																				BUTTON, DIA.		
24																				FLATEN OFF ON		
25																				ONE SIDE		
26																						
27																				RBI 34.3		
28																				BIL BBL 35.4		
29																				XO BIL BBL 38.20		
30																						
31																						
32																						
33																						
34																				ROAD CO. MAN		
35																				RAY FERGUSON		
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