

ORIGINAL

FORM MUST BE TYPED

SIDE ONE

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
ACD-1 WELL HISTORY
DESCRIPTION OF WELL AND LEASE

Operator: License # 3180
Name: Deutsch Oil Company
Address 107 N. Market - Suite 1115
City/State/Zip Wichita, Kansas 67202

Purchaser: _____
Operator Contact Person: Kent Deutsch
Phone (316) 267-7551

Contractor: Name: Duke Drilling Co., Inc.
License: 5929

Wellsite Geologist: Kent Deutsch

Designate Type of Completion
 New Well Re-Entry Workover

Oil SVD SLOW
 Gas EXHR SIB
 Dry Other (Cathodic, etc.)
RECEIVED
KANSAS CORPORATION COMMISSION
SEP 09 1997

If Workover/Re-Entry: old well info as follows: 1997

Operator: _____
Well Name: _____
Comp. Date _____ Old Total Depth _____

Deepening Re-perf. Conv. to Inj/SWD
 Plug Back PSTD
 Commingled Docket No. _____
 Dual Completion Docket No. _____
 Other (SVD or Inj?) Docket No. _____

07-03-97 07-09-97 07-10-97
Spud Date Date Reached TD Completion Date

API NO. 15- 145-214470000
County Pawnee County, Kansas
W/2 W/2 - NW - Sec. 31 Twp. 23S Rng. 15 ^E _{XXV}

1320 Feet from S (circle one) Line of Section
330 Feet from E (circle one) Line of Section

Footages Calculated from Nearest Outside Section Corner:
NE, SE, or SW (circle one)

Lease Name Hill Well # 1-31

Field Name _____

Producing Formation None

Elevation: Ground 2050' xs 2058'

Total Depth 4200' PSTD 4200'

Amount of Surface Pipe Set and Cemented at 262' Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set _____ Feet

If Alternate II completion, cement circulated from _____

feet depth to _____ w/ _____ sx cat.

Drilling Fluid Management Plan D&A 9/9 9-29-97
(Data must be collected from the Reserve Pit)

Chloride content 80000 ppm Fluid volume 160 bbls

Dewatering method used Vac. Trk.

Location of fluid disposal if hauled offsite: _____

Operator Name Bullseye Roustabout Service

Lease Name Beck License No. 31056

NW Quarter Sec. 6 Twp. 27 S Rng. 12 E/W
County Pratt Docket No. D21-516

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature [Signature]
Title Owner Date 8/20/97
Subscribed and sworn to before me this 20th day of August
19 97
Notary Public [Signature]
Date Commission Expires 10-1-97

K.C.C. OFFICE USE ONLY
F Letter of Confidentiality Attached
C Wireline Log Received
C Geologist Report Received
Distribution
 KCC SWD/Rep NGPA
 KGS Plug Other
(Specify)

SIDE TWO

Operator Name Deutsch Oil Company Lease Name Hill Well # 1-31
 Sec. 31 Twp. 23S Rge. 15 East County Pawnee County, Kansas
 West

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken Yes No
 (Attach Additional Sheets.)
 Samples Sent to Geological Survey Yes No
 Cores Taken Yes No
 Electric Log Run Yes No
 (Submit Copy.)

Log Formation (Top), Depth and Datum Sample

Name	Top	Datum
Heebner	3530	-1473
Lansing	3676	-1619
Arbuckle	4155	-2098

List All E. Logs Run: Dual Induction
 Comp. Neutron/Density

CASING RECORD

New Used

Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs./Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12-1/4"	8-5/8"	20#	262'	60/40 Poz	190	3%cc 2%gel

ADDITIONAL CEMENTING/SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type	Acid, Fracture, Shot, Cement Squeeze Record	
	Specify Footage of Each Interval Perforated	(Amount and Kind of Material Used)	Depth

TUBING RECORD Size Set At Packer At Liner Run Yes No

Date of First, Resumed Production, SWD or Inj. D&A Producing Method Flowing Pumping Gas Lift Other (Explain)

Estimated Production Per 24 Hours Oil N/A Bbls. Gas N/A Mcf Water N/A Bbls. Gas-Oil Ratio Gravity

Disposition of Gas: Vented Sold Used on Lease (If vented, submit ACO-18.) METHOD OF COMPLETION: Open Hole Perf. Dually Comp. Commingled. Production Interval Other (Specify) _____

SEP 01 1997 **ALLIED CEMENTING CO., INC.** 8272

Federal Tax I.D.# 48-0727860

CONSERVATION DIVISION
100 BOX 111
WICHITA, KS
RUSSELL, KANSAS 67665

SERVICE POINT:

At Brand

DATE <u>7-3-97</u>	SEC. <u>31</u>	TWP. <u>23</u>	RANGE <u>15</u>	CALLED OUT <u>4:00 PM.</u>	ON LOCATION <u>6:00 PM.</u>	JOB START <u>8:00 PM</u>	JOB FINISH <u>8:30 PM</u>
LEASE <u>Hill</u>	WELL # <u>1-31</u>	LOCATION <u>200 R-35, 4E, 1/4 S, E/S</u>			COUNTY <u>Rawlree</u>	STATE <u>Ka</u>	
OLD OR <u>NEW</u> (Circle one)							

CONTRACTOR Dyer #1

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D. 264'

CASING SIZE 8 5/8 20# DEPTH 264'

TUBING SIZE _____ DEPTH _____

DRILL PIPE _____ DEPTH _____

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. 15'

PERFS. _____

DISPLACEMENT 11 1/4 bbls

OWNER Same

CEMENT AMOUNT ORDERED 1902.26 60/40 3% CE, 2% Ad,

COMMON	<u>114</u>	@	<u>6.10</u>	<u>695.40</u>
POZMIX	<u>76</u>	@	<u>3.15</u>	<u>239.40</u>
GEL	<u>3</u>	@	<u>9.50</u>	<u>28.50</u>
CHLORIDE	<u>6</u>	@	<u>28.00</u>	<u>168.00</u>
		@		
		@		
		@		
		@		
HANDLING	<u>190</u>	@	<u>1.05</u>	<u>199.50</u>
MILEAGE	<u>40</u>			<u>304.00</u>

EQUIPMENT

PUMP TRUCK CEMENTER Tom A

181 HELPER Bob B

BULK TRUCK

_____ DRIVER Kerry A

BULK TRUCK

_____ DRIVER _____

TOTAL \$ 16,348.00

REMARKS:

SERVICE

Ran 264' of 8 5/8 20# csg. Broke air.
Mixed 1902.26 60/40 3% CE, 2% Ad,
Deployed plug with fresh water.
Cement did circulate

Thanks

DEPTH OF JOB	<u>264'</u>			
PUMP TRUCK CHARGE				<u>445.00</u>
EXTRA FOOTAGE		@		
MILEAGE	<u>40</u>	@	<u>2.85</u>	<u>114.00</u>
PLUG 1-8 5/8 WOODROW		@	<u>45.00</u>	<u>45.00</u>
		@		
		@		

TOTAL \$ 6,040.00

CHARGE TO: Dents Oil Co.

STREET 107 N. Market St

CITY Wichita STATE Ka RECEIVED 7202
KANSAS CORPORATION COMMISSION

FLOAT EQUIPMENT

	@		
	@		
	@		
	@		
	@		

TOTAL _____

To Allied Cementing Co., Inc. CONSERVATION DIVISION
WICHITA, KS
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

TAX -0-

TOTAL CHARGE \$ 2238.80

DISCOUNT \$ 335.82 IF PAID IN 30 DAYS

SIGNATURE Mike Hodfey

Mike Hodfey
PRINTED NAME

Net \$ 1902.98

ORIGINAL ALLIED CEMENTING CO., INC. 8277

Federal Tax I.D.# 48-0727860

MAIL TO: P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT: Hot Blend

DATE <u>7-10-97</u>	SEC. <u>31</u>	TWP. <u>23</u>	RANGE <u>15</u>	CALLED OUT <u>7-9-97 10:30 PM</u>	ON LOCATION <u>7-10-97 12:45 AM</u>	JOB START <u>1:30 PM</u>	JOB FINISH <u>5:45 AM</u>
LEASE <u>Hill</u>		WELL # <u>1-31</u>		LOCATION <u>Zook-3S, 4E, 1/4S, E/S</u>		COUNTY <u>Pawnee</u>	STATE <u>Ks</u>
OLD OR <u>NEW</u> (Circle one)							

CONTRACTOR Duke #1

TYPE OF JOB Rotary Plug

HOLE SIZE 7 7/8" T.D. 4200'

CASING SIZE _____ DEPTH _____

TUBING SIZE _____ DEPTH _____

DRILL PIPE 4 1/2" DEPTH 4155'

TOOL _____ DEPTH _____

PRES. MAX _____ MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. _____

PERFS. _____

DISPLACEMENT _____

OWNER Same

CEMENT

AMOUNT ORDERED 185 lbs @ 60/40 @ 6.90/lb

COMMON	<u>111</u>	@	<u>6.10</u>	<u>677.10</u>
POZMIX	<u>74</u>	@	<u>3.15</u>	<u>233.10</u>
GEL	<u>10</u>	@	<u>9.50</u>	<u>95.00</u>
CHLORIDE		@		
		@		
		@		
		@		
		@		
		@		
HANDLING	<u>185</u>	@	<u>1.05</u>	<u>194.25</u>
MILEAGE	<u>40</u>			<u>296.00</u>

TOTAL \$1495.45

EQUIPMENT

PUMP TRUCK # <u>120</u>	CEMENTER <u>Tom D</u>
BULK TRUCK # <u>341</u>	HELPER <u>Duane S</u>
BULK TRUCK # _____	DRIVER <u>Kerry R</u>
BULK TRUCK # _____	DRIVER _____

REMARKS:

Mixed - 40 lbs @ 4155'

50 lbs @ 1000'

50 lbs @ 290'

10 lbs @ 40'

15 lbs in Rathole

10 lbs in Househole

10 lbs in Waterswell

T. Dukes

SERVICE

DEPTH OF JOB <u>4155'</u>		
PUMP TRUCK CHARGE		<u>550.00</u>
EXTRA FOOTAGE	@	
MILEAGE <u>40</u>	@	<u>2.85</u> <u>114.00</u>
PLUG <u>1-8 3/8 wooden</u>	@	<u>23.00</u> <u>23.00</u>
	@	
	@	

RECEIVED
KANSAS CORPORATION COMMISSION

TOTAL \$687.00

CHARGE TO: Deutch Oil Co.

STREET 107 N. Market Suite 1115

CITY Wichita STATE Ks ZIP 67202

SEP 09 1997

FLOAT EQUIPMENT
CONSERVATION DIVISION
WICHITA, KS

_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____
_____	@	_____

To Allied Cementing Co., Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

TAX - 0 -

TOTAL CHARGE \$2182.45

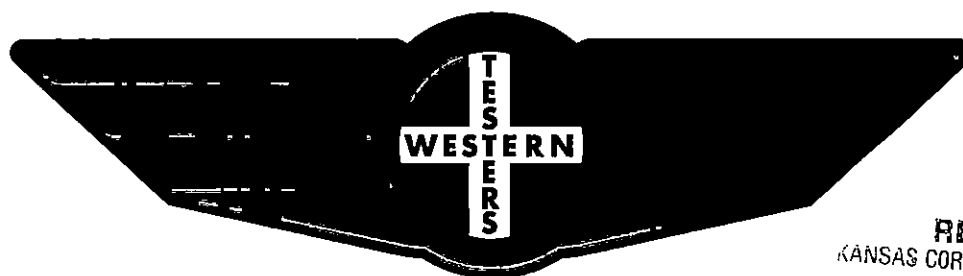
DISCOUNT \$327.37 IF PAID IN 30 DAYS

SIGNATURE X Mike Galley

SIGNATURE X Mike Godfrey
PRINTED NAME

Net \$1855.08

WESTERN TESTING CO., INC.



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

RECEIVED
KANSAS CORPORATION COMMISSION

SEP 29 1997

CONSERVATION DIVISION
WICHITA, KS

FORMATION TEST REPORT

DST REPORT

GENERAL INFORMATION

ORIGINAL

15-145-21447

DATE : 07/05/1997	TICKET : 22419
CUSTOMER : DEUTSCH OIL COMPANY	LEASE : HILL
WELL : 1-31 TEST: 1	GEOLOGIST: KENT DEUTSCH
ELEVATION: 2050 G.L.	FORMATION: HERIN.WIN.TRO.
SECTION : 31	TOWNSHIP : 23S
RANGE : 16W COUNTY: PAWNEE	STATE : KS
GAUGE SN#: 10270 RANGE : 4150	CLOCK : 12 HR.

WELL INFORMATION

PERFORATION INTERVAL FROM: 2010.00 ft TO: 2177.00 ft TVD: 2177.0 ft
 DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
 DEPTH OF RECORDERS: 2013.0 ft 2016.0 ft
 TEMPERATURE: 94.0

DRILL COLLAR LENGTH: 180.0 ft	I.D.:	2.250 in
WEIGHT PIPE LENGTH: 0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH : 1810.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH : 20.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH : 167.0 ft	ANCHOR SIZE:	5.500 in
SURFACE CHOKE SIZE : 0.750 in	BOTTOM CHOKE SIZE:	0.750 in
MAIN HOLE SIZE : 7.875 in	TOOL JOINT SIZE :	4.5XH
PACKER DEPTH: 2005.0 ft	SIZE:	6.630 in
PACKER DEPTH: 2010.0 ft	SIZE:	6.630 in
PACKER DEPTH: 0.0 ft	SIZE:	0.000 in
PACKER DEPTH: 0.0 ft	SIZE:	0.000 in

MUD INFORMATION

DRILLING CON. : DUKE RIG #1	VISCOSITY : 38.00 cp
MUD TYPE : CHEMICAL	WATER LOSS: 12.200 cc
WEIGHT : 8.900 ppg	SERIAL NUMBER:
CHLORIDES : 0 ppm	REVERSED OUT?: NO
JARS-MAKE : NONE	
DID WELL FLOW?: NO	

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BUILDING TO A STRONG BLOW IN 25 MINUTES
 FINAL FLOW PERIOD WEAK BUILDING TO A FAIR BLOW

DST REPORT (CONTINUED)

COMMENTS (CONTINUED)

ORIGINAL

Comment

1 TO 4 INCHES

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
190.0	0.0	0.0	30.0	70.0	WATERY MUD
0.0	0.0	0.0	0.0	0.0	50 FEET GAS ABOVE FLUID
0.0	0.0	0.0	0.0	0.0	CHLORIDES 77000 PPM

RATE INFORMATION

OIL VOLUME:	0.0000 STB	TOTAL FLOW TIME:	60.0000 min.
GAS VOLUME:	0.0000 SCF	AVERAGE OIL RATE:	0.0000 STB/D
MUD VOLUME:	0.7178 STB	AVERAGE WATER RATE:	24.6098 STB/D
WATER VOLUME:	0.3076 STB		
TOTAL FLUID :	1.0254 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 997.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	77.00	83.00
INITIAL SHUT-IN	60.00		406.00
FINAL FLOW	30.00	104.00	104.00
FINAL SHUT-IN	60.00		354.00

FINAL HYDROSTATIC PRESSURE: 956.00

DST REPORT (CONTINUED)

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1001.00

<u>Description</u>	<u>Duration</u>	<u>p1</u>	<u>p End</u>
INITIAL FLOW	30.00	82.00	136.00
INITIAL SHUT-IN	60.00		413.00
FINAL FLOW	30.00	137.00	180.00
FINAL SHUT-IN	60.00		353.00

FINAL HYDROSTATIC PRESSURE: 963.00

Company: DEUTSCH OIL COMPANY
Well: HILL 1-31 DST #1
Field: TKT #22419

[Saturday: July 5, 1997]
Page 1

REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
START FLOW 1				
1	0	0: 0:29	0.0000	82.40
2	0	0: 0:36	0.0020	82.40
7	0	0: 1:12	0.0120	79.79
12	0	0: 1:48	0.0220	77.19
17	0	0: 2:24	0.0320	74.59
22	0	0: 3: 0	0.0420	72.86
27	0	0: 3:36	0.0520	72.86
32	0	0: 4:12	0.0620	71.99
37	0	0: 4:48	0.0719	71.12
42	0	0: 5:24	0.0819	70.25
47	0	0: 6: 0	0.0919	70.25
52	0	0: 6:36	0.1019	69.39
57	0	0: 7:12	0.1119	68.52
62	0	0: 7:48	0.1219	69.39
67	0	0: 8:24	0.1319	69.39
72	0	0: 9: 0	0.1419	69.39
77	0	0: 9:36	0.1519	69.39
82	0	0:10:11	0.1619	69.39
87	0	0:10:47	0.1719	70.25
92	0	0:11:23	0.1819	70.25
97	0	0:11:59	0.1918	70.25
102	0	0:12:35	0.2018	70.25
107	0	0:13:11	0.2118	71.12
112	0	0:13:47	0.2218	71.12
117	0	0:14:23	0.2318	71.12
122	0	0:14:59	0.2418	71.99
127	0	0:15:35	0.2518	72.86
132	0	0:16:11	0.2618	73.72
137	0	0:16:47	0.2718	73.72
142	0	0:17:23	0.2818	74.59
147	0	0:17:59	0.2918	76.33
152	0	0:18:35	0.3018	76.33
157	0	0:19:11	0.3117	77.19
162	0	0:19:47	0.3217	78.06
167	0	0:20:23	0.3317	78.93
172	0	0:20:59	0.3417	79.79
177	0	0:21:35	0.3517	79.79
182	0	0:22:11	0.3617	80.66
187	0	0:22:47	0.3717	80.66
192	0	0:23:23	0.3817	81.53
197	0	0:23:59	0.3917	82.40
202	0	0:24:35	0.4017	83.26
207	0	0:25:11	0.4117	84.13
212	0	0:25:47	0.4216	85.87
217	0	0:26:23	0.4316	88.47
222	0	0:26:59	0.4416	93.67
227	0	0:27:35	0.4516	101.48
232	0	0:28:11	0.4616	111.02
237	0	0:28:47	0.4716	119.69
242	0	0:29:23	0.4816	128.37
247	0	0:29:58	0.4916	136.17
END FLOW 1				
START SHUTIN 1				
248	0	0:30: 6	0.4936	138.77
252	0	0:30:34	0.5016	145.71

WESTERN TESTING CO., INC.

Company: DEUTSCH OIL COMPANY
Well: HILL 1-31 DST #1
Field: TKT #22419

[Saturday: July 5, 1997]
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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
257	0	0:31:10	0.5116	154.39
262	0	0:31:54	0.5236	163.06
266	0	0:32:30	0.5336	174.33
271	0	0:33: 6	0.5436	183.87
276	0	0:33:42	0.5535	190.81
281	0	0:34:17	0.5635	197.75
286	0	0:34:53	0.5735	202.96
291	0	0:35:29	0.5835	210.76
296	0	0:36: 5	0.5935	217.70
301	0	0:36:41	0.6035	222.90
306	0	0:37:17	0.6135	228.98
311	0	0:37:53	0.6235	234.18
316	0	0:38:29	0.6335	240.25
321	0	0:39: 5	0.6435	245.46
326	0	0:39:41	0.6535	250.66
331	0	0:40:17	0.6635	255.86
336	0	0:40:53	0.6734	260.20
341	0	0:41:29	0.6834	266.27
346	0	0:42: 5	0.6934	271.48
351	0	0:42:41	0.7034	275.81
356	0	0:43:17	0.7134	279.28
361	0	0:43:53	0.7234	283.62
366	0	0:44:29	0.7334	287.95
371	0	0:45: 5	0.7434	291.42
376	0	0:45:41	0.7534	294.89
381	0	0:46:17	0.7634	300.10
386	0	0:46:53	0.7734	304.43
391	0	0:47:29	0.7833	307.90
396	0	0:48: 5	0.7933	312.24
401	0	0:48:41	0.8033	314.84
406	0	0:49:17	0.8133	318.31
411	0	0:49:53	0.8233	322.65
416	0	0:50:29	0.8333	325.25
421	0	0:51: 5	0.8433	328.72
426	0	0:51:41	0.8533	331.32
431	0	0:52:17	0.8633	333.92
436	0	0:52:53	0.8733	336.53
441	0	0:53:29	0.8833	339.99
446	0	0:54: 5	0.8933	342.60
451	0	0:54:40	0.9032	346.07
456	0	0:55:16	0.9132	348.67
461	0	0:55:52	0.9232	350.40
466	0	0:56:28	0.9332	353.87
471	0	0:57: 4	0.9432	355.61
476	0	0:57:40	0.9532	357.34
481	0	0:58:16	0.9632	359.94
486	0	0:58:52	0.9732	361.68
491	0	0:59:28	0.9832	362.55
492	0	1: 0:11	0.9952	365.15
495	0	1: 0:47	1.0052	367.75
500	0	1: 1:23	1.0152	370.35
505	0	1: 1:59	1.0251	371.22
510	0	1: 2:35	1.0351	373.82
515	0	1: 3:11	1.0451	375.56
520	0	1: 3:47	1.0551	377.29

WESTERN TESTING CO., INC.

Company: DEUTSCH OIL COMPANY
Well: HILL 1-31 DST #1
Field: TKT #22419

[Saturday: July 5, 1997]
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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
525	0	1: 4:23	1.0651	379.89
530	0	1: 4:59	1.0751	381.63
535	0	1: 5:35	1.0851	383.36
540	0	1: 6:11	1.0951	384.23
545	0	1: 6:47	1.1051	385.96
550	0	1: 7:23	1.1151	387.70
555	0	1: 7:59	1.1251	389.43
560	0	1: 8:35	1.1351	391.17
565	0	1: 9:11	1.1451	392.90
570	0	1: 9:47	1.1550	394.64
575	0	1:10:23	1.1650	396.37
580	0	1:10:59	1.1750	398.11
585	0	1:11:35	1.1850	398.97
590	0	1:12:11	1.1950	399.84
595	0	1:12:47	1.2050	400.71
600	0	1:13:23	1.2150	401.58
605	0	1:13:59	1.2250	402.44
610	0	1:14:35	1.2350	404.18
615	0	1:15:11	1.2450	405.04
620	0	1:15:47	1.2550	405.91
625	0	1:16:23	1.2650	406.78
630	0	1:16:59	1.2749	407.65
635	0	1:17:35	1.2849	410.25
640	0	1:18:10	1.2949	411.12
645	0	1:18:46	1.3049	411.98
650	0	1:19:22	1.3149	412.85
655	0	1:19:58	1.3249	413.72
		END SHUTIN 1		
656	0	1:20: 6	1.3269	412.85
		START FLOW 2		
659	0	1:20:27	1.3329	137.91
660	0	1:20:34	1.3349	137.91
665	0	1:21:10	1.3449	133.57
670	0	1:21:46	1.3549	128.37
675	0	1:22:22	1.3649	124.03
680	0	1:22:58	1.3749	121.43
685	0	1:23:34	1.3849	118.82
690	0	1:24:10	1.3948	117.96
695	0	1:24:46	1.4048	117.09
700	0	1:25:22	1.4148	116.22
705	0	1:25:58	1.4248	115.36
710	0	1:26:34	1.4348	114.49
715	0	1:27:10	1.4448	113.62
720	0	1:27:46	1.4548	112.75
725	0	1:28:22	1.4648	111.89
730	0	1:28:58	1.4748	111.89
735	0	1:29:34	1.4848	111.89
740	0	1:30:10	1.4948	111.89
745	0	1:30:46	1.5048	111.02
750	0	1:31:22	1.5147	111.02
755	0	1:31:58	1.5247	111.02
760	0	1:32:34	1.5347	111.89
765	0	1:33:10	1.5447	111.02
769	0	1:33:46	1.5547	111.02
774	0	1:34:22	1.5647	111.02

WESTERN TESTING CO., INC.

Company: DEUTSCH OIL COMPANY
Well: HILL 1-31 DST #1
Field: TKT #22419

[Saturday: July 5, 1997]
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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
779	0	1:34:58	1.5747	111.89
784	0	1:35:34	1.5847	111.89
789	0	1:36:10	1.5947	111.89
794	0	1:36:46	1.6047	111.89
799	0	1:37:22	1.6147	111.89
804	0	1:37:58	1.6247	111.89
809	0	1:38:33	1.6346	111.89
814	0	1:39: 9	1.6446	111.89
819	0	1:39:45	1.6546	111.89
824	0	1:40:21	1.6646	111.89
829	0	1:40:57	1.6746	111.02
834	0	1:41:33	1.6846	111.89
839	0	1:42: 9	1.6946	111.89
844	0	1:42:45	1.7046	111.89
849	0	1:43:21	1.7146	111.89
854	0	1:43:57	1.7246	111.89
859	0	1:44:33	1.7346	111.89
864	0	1:45: 9	1.7445	111.89
869	0	1:45:45	1.7545	111.89
874	0	1:46:21	1.7645	112.75
879	0	1:46:57	1.7745	112.75
884	0	1:47:33	1.7845	112.75
889	0	1:48: 9	1.7945	112.75
894	0	1:48:45	1.8045	112.75
899	0	1:49:21	1.8145	112.75
904	0	1:49:57	1.8245	112.75
909	0	1:50:33	1.8345	113.62
914	0	1:51: 9	1.8445	114.49
919	0	1:51:45	1.8545	116.22
924	0	1:52:21	1.8644	118.82
929	0	1:52:57	1.8744	122.29
934	0	1:53:33	1.8844	128.37
939	0	1:54: 9	1.8944	134.44
944	0	1:54:45	1.9044	139.64
949	0	1:55:21	1.9144	145.71
954	0	1:55:57	1.9244	151.78
959	0	1:56:33	1.9344	156.12
964	0	1:57: 9	1.9444	161.32
969	0	1:57:44	1.9544	165.66
974	0	1:58:20	1.9644	170.00
979	0	1:58:56	1.9744	176.07
984	0	1:59:32	1.9843	180.41
		END FLOW 2		
		START SHUTIN 2		
988	0	2: 0: 1	1.9923	184.74
989	0	2: 0: 8	1.9943	184.74
994	0	2: 0:44	2.0043	189.08
999	0	2: 1:20	2.0143	194.28
1004	0	2: 1:56	2.0243	197.75
1009	0	2: 2:32	2.0343	201.22
1012	0	2: 3:15	2.0463	205.56
1017	0	2: 3:51	2.0563	209.03
1021	0	2: 4:27	2.0663	212.50
1025	0	2: 5: 3	2.0763	215.97
1030	0	2: 5:39	2.0863	220.30

WESTERN TESTING CO., INC.

Company: DEUTSCH OIL COMPANY
Well: HILL 1-31 DST #1
Field: TKT #22419

[Saturday: July 5, 1997]
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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
1035	0	2: 6:15	2.0963	223.77
1040	0	2: 6:51	2.1063	227.24
1045	0	2: 7:27	2.1162	230.71
1049	0	2: 8:18	2.1302	235.05
1050	0	2: 9: 1	2.1422	239.38
1055	0	2: 9:37	2.1522	243.72
1060	0	2:10:13	2.1622	246.32
1065	0	2:10:49	2.1722	248.92
1070	0	2:11:25	2.1822	251.53
1075	0	2:12: 1	2.1922	253.26
1080	0	2:12:37	2.2022	255.86
1085	0	2:13:13	2.2122	258.47
1090	0	2:13:49	2.2222	261.07
1095	0	2:14:24	2.2321	263.67
1100	0	2:15: 0	2.2421	266.27
1105	0	2:15:36	2.2521	269.74
1110	0	2:16:12	2.2621	272.34
1115	0	2:16:48	2.2721	274.94
1120	0	2:17:24	2.2821	276.68
1125	0	2:18: 0	2.2921	278.41
1130	0	2:18:36	2.3021	280.15
1135	0	2:19:12	2.3121	281.88
1140	0	2:19:48	2.3221	283.62
1145	0	2:20:24	2.3321	285.35
1150	0	2:21: 0	2.3421	287.09
1155	0	2:21:36	2.3520	288.82
1160	0	2:22:12	2.3620	291.42
1165	0	2:22:48	2.3720	293.16
1170	0	2:23:24	2.3820	294.89
1175	0	2:24: 0	2.3920	297.50
1180	0	2:24:36	2.4020	298.36
1185	0	2:25:12	2.4120	300.10
1190	0	2:25:48	2.4220	301.83
1195	0	2:26:24	2.4320	302.70
1200	0	2:27: 0	2.4420	305.30
1205	0	2:27:36	2.4520	307.04
1210	0	2:28:12	2.4620	308.77
1215	0	2:28:48	2.4719	309.64
1220	0	2:29:24	2.4819	311.37
1225	0	2:30: 0	2.4919	313.11
1230	0	2:30:36	2.5019	314.84
1235	0	2:31:12	2.5119	315.71
1240	0	2:31:48	2.5219	316.58
1245	0	2:32:24	2.5319	318.31
1249	0	2:33: 0	2.5419	320.05
1254	0	2:33:36	2.5519	320.91
1258	0	2:34:11	2.5619	323.52
1263	0	2:34:47	2.5719	325.25
1268	0	2:35:23	2.5819	326.12
1273	0	2:35:59	2.5918	327.85
1278	0	2:36:35	2.6018	329.59
1283	0	2:37:11	2.6118	330.45
1288	0	2:37:47	2.6218	332.19
1293	0	2:38:23	2.6318	333.06
1298	0	2:38:59	2.6418	333.92

WESTERN TESTING CO., INC.

Company: DEUTSCH OIL COMPANY
Well: HILL 1-31 DST #1
Field: TKT #22419

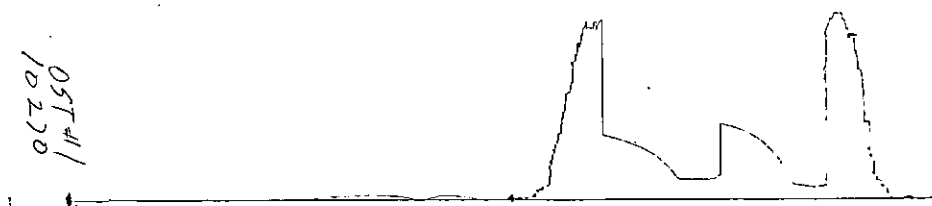
[Saturday: July 5, 1997]
Page 6

REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
1303	0	2:39:35	2.6518	335.66
1308	0	2:40:11	2.6618	337.39
1313	0	2:40:47	2.6718	338.26
1318	0	2:41:23	2.6818	339.99
1323	0	2:41:59	2.6918	339.99
1328	0	2:42:35	2.7018	341.73
1333	0	2:43:11	2.7117	342.60
1338	0	2:43:47	2.7217	344.33
1343	0	2:44:23	2.7317	345.20
1348	0	2:44:59	2.7417	346.07
1353	0	2:45:35	2.7517	346.93
1358	0	2:46:11	2.7617	347.80
1363	0	2:46:47	2.7717	348.67
1368	0	2:47:23	2.7817	349.54
1373	0	2:47:59	2.7917	350.40
1378	0	2:48:35	2.8017	351.27
1383	0	2:49:11	2.8117	353.06

WESTERN TESTING CO., INC.

KT 2419

OST #1
10220



Inside Recorder

KT 2419

OST #1
13548



Outside Recorder

DST REPORT

GENERAL INFORMATION

DATE : 07/08/97	TICKET : 22420
CUSTOMER : DEUTSCH OIL COMPANY	LEASE : HILL
WELL : 1-31 TEST: 2	GEOLOGIST: KENT DEUTSCH
ELEVATION: 2050 G.L.	FORMATION: CONGLOMERATE
SECTION : 31	TOWNSHIP : 23S
RANGE : 15W COUNTY: PAWNEE	STATE : KS
GAUGE SN#: 10270 RANGE : 4150	CLOCK : 12 HR.

WELL INFORMATION

PERFORATION INTERVAL FROM: 4029.00 ft	TO: 4120.00 ft	TVD: 4120.0 ft
DEPTH OF SELECTIVE ZONE:	TEST TYPE: OIL	
DEPTH OF RECORDERS: 4032.0 ft	4035.0 ft	
TEMPERATURE: 111.0		
DRILL COLLAR LENGTH: 0.0 ft	I.D.: 0.000 in	
WEIGHT PIPE LENGTH : 0.0 ft	I.D.: 0.000 in	
DRILL PIPE LENGTH : 4009.0 ft	I.D.: 3.800 in	
TEST TOOL LENGTH : 20.0 ft	TOOL SIZE : 5.500 in	
ANCHOR LENGTH : 91.0 ft	ANCHOR SIZE: 5.500 in	
SURFACE CHOKE SIZE : 0.750 in	BOTTOM CHOKE SIZE: 0.750 in	
MAIN HOLE SIZE : 7.875 in	TOOL JOINT SIZE : 4.5XH	
PACKER DEPTH: 4024.0 ft	SIZE: 6.630 in	
PACKER DEPTH: 4029.0 ft	SIZE: 6.630 in	
PACKER DEPTH: 0.0 ft	SIZE: 0.000 in	
PACKER DEPTH: 0.0 ft	SIZE: 0.000 in	

MUD INFORMATION

DRILLING CON. : DUKE RIG #1	
MUD TYPE : CHEMICAL	VISCOSITY : 58.00 cp
WEIGHT : 9.300 ppg	WATER LOSS: 15.200 cc
CHLORIDES : 5600 ppm	
JARS-MAKE : NO	SERIAL NUMBER:
DID WELL FLOW?: NO	REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK BUILDING TO A STRONG BLOW
 IN 2 MINUTES
 FINAL FLOW PERIOD STRONG BLOW THROUGHOUT

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
55.0	0.0	0.0	0.0	100.0	MUD
0.0	0.0	0.0	0.0	0.0	1325 FT GAS ABOVE FLUID

RATE INFORMATION

OIL VOLUME:	0.0000	STB	TOTAL FLOW TIME:	75.0000	min.
GAS VOLUME:	0.0000	SCF	AVERAGE OIL RATE:	0.0000	STB/D
MUD VOLUME:	0.7714	STB	AVERAGE WATER RATE:	0.0000	STB/D
WATER VOLUME:	0.0000	STB			
TOTAL FLUID :	0.7714	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2025.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	41.00	33.00
INITIAL SHUT-IN	60.00		375.00
FINAL FLOW	45.00	52.00	31.00
FINAL SHUT-IN	90.00		437.00

FINAL HYDROSTATIC PRESSURE: 2004.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2019.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	86.00	40.00
INITIAL SHUT-IN	60.00		366.00
FINAL FLOW	45.00	88.00	75.00
FINAL SHUT-IN	90.00		443.00

FINAL HYDROSTATIC PRESSURE: 2007.00

Company: DEUTSCH OIL COMPANY
Well: HILL 1-31 DST #2
Field: TKT #22420

[Tuesday: July 8, 1997]
Page 1

REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)

START FLOW 1				
1	0	0: 0:26	0.0000	86.10
2	0	0: 0:33	0.0020	86.10
7	0	0: 1: 8	0.0118	73.06
12	0	0: 1:44	0.0216	61.76
17	0	0: 2:20	0.0315	57.39
22	0	0: 2:55	0.0415	53.89
27	0	0: 3:31	0.0514	52.13
32	0	0: 4: 7	0.0614	49.50
37	0	0: 4:43	0.0713	46.87
42	0	0: 5:19	0.0813	45.10
47	0	0: 5:55	0.0913	43.34
52	0	0: 6:31	0.1012	42.44
57	0	0: 7: 6	0.1112	41.55
62	0	0: 7:42	0.1212	39.78
67	0	0: 8:18	0.1312	38.89
72	0	0: 8:54	0.1411	38.86
77	0	0: 9:30	0.1511	37.96
82	0	0:10: 6	0.1611	37.93
87	0	0:10:42	0.1711	37.04
92	0	0:11:18	0.1811	37.01
97	0	0:11:54	0.1911	36.98
102	0	0:12:30	0.2011	36.08
107	0	0:13: 6	0.2111	36.05
112	0	0:13:42	0.2210	35.16
117	0	0:14:18	0.2310	34.26
122	0	0:14:54	0.2410	34.23
127	0	0:15:30	0.2510	34.20
132	0	0:16: 6	0.2610	35.04
137	0	0:16:42	0.2710	34.15
142	0	0:17:18	0.2810	34.12
147	0	0:17:54	0.2910	34.09
152	0	0:18:29	0.3009	34.06
157	0	0:19: 5	0.3109	34.03
162	0	0:19:41	0.3209	34.00
167	0	0:20:17	0.3309	33.10
172	0	0:20:53	0.3409	33.94
177	0	0:21:29	0.3509	33.91
182	0	0:22: 5	0.3609	33.89
187	0	0:22:41	0.3709	33.86
192	0	0:23:17	0.3809	33.83
197	0	0:23:53	0.3909	34.67
202	0	0:24:29	0.4009	34.64
207	0	0:25: 5	0.4109	34.61
212	0	0:25:41	0.4209	34.58
217	0	0:26:17	0.4309	35.42
222	0	0:26:53	0.4409	35.39
227	0	0:27:29	0.4509	36.23
232	0	0:28: 5	0.4609	37.93
237	0	0:28:41	0.4709	38.77
242	0	0:29:17	0.4809	39.61
247	0	0:29:53	0.4909	40.45
END FLOW 1				
START SHUTIN 1				
249	0	0:30: 8	0.4949	40.44
252	0	0:30:29	0.5009	40.42

WESTERN TESTING CO., INC.

Company: DEUTSCH OIL COMPANY
Well: HILL 1-31 DST #2
Field: TKT #22420

[Tuesday: July 8, 1997]
Page 2

REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
257	0	0:31: 5	0.5109	41.26
262	0	0:31:41	0.5209	41.23
267	0	0:32:17	0.5309	42.07
272	0	0:32:53	0.5409	42.04
277	0	0:33:29	0.5509	42.88
282	0	0:34: 5	0.5609	43.71
287	0	0:34:41	0.5709	45.42
292	0	0:35:17	0.5809	47.99
297	0	0:35:54	0.5910	51.43
302	0	0:36:30	0.6010	54.87
307	0	0:37: 6	0.6111	59.18
312	0	0:37:42	0.6211	63.49
317	0	0:38:18	0.6312	66.93
322	0	0:38:54	0.6412	69.50
327	0	0:39:31	0.6513	72.94
332	0	0:40: 7	0.6613	75.52
337	0	0:40:43	0.6713	78.09
342	0	0:41:19	0.6814	80.66
347	0	0:41:55	0.6914	82.37
352	0	0:42:31	0.7014	84.07
357	0	0:43: 7	0.7114	85.78
362	0	0:43:43	0.7214	86.62
367	0	0:44:19	0.7314	88.32
372	0	0:44:55	0.7414	89.16
377	0	0:45:31	0.7515	90.00
382	0	0:46: 7	0.7614	90.84
387	0	0:46:43	0.7715	91.68
392	0	0:47:19	0.7814	91.65
397	0	0:47:55	0.7915	92.49
402	0	0:48:31	0.8015	93.32
407	0	0:49: 7	0.8115	94.16
412	0	0:49:43	0.8214	94.13
417	0	0:50:19	0.8315	95.84
422	0	0:50:55	0.8415	95.81
427	0	0:51:31	0.8515	97.52
432	0	0:52: 8	0.8615	101.82
437	0	0:52:44	0.8716	107.00
442	0	0:53:20	0.8817	113.04
447	0	0:53:57	0.8918	120.82
452	0	0:54:33	0.9019	128.59
457	0	0:55: 9	0.9120	135.50
462	0	0:55:46	0.9221	144.15
467	0	0:56:22	0.9323	151.92
472	0	0:56:59	0.9424	160.57
477	0	0:57:35	0.9525	167.48
482	0	0:58:11	0.9626	173.52
487	0	0:58:48	0.9727	180.43
492	0	0:59:24	0.9828	188.21
497	0	1: 0: 0	0.9929	194.25
502	0	1: 0:37	1.0029	201.16
507	0	1: 1:13	1.0130	207.20
512	0	1: 1:49	1.0231	214.98
517	0	1: 2:26	1.0332	221.89
522	0	1: 3: 2	1.0433	227.06
527	0	1: 3:38	1.0534	232.24

WESTERN TESTING CO., INC.

Company: DEUTSCH OIL COMPANY
Well: HILL 1-31 DST #2
Field: TKT #22420

[Tuesday: July 8, 1997]
Page 3

REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
532	0	1: 4:15	1.0635	239.15
537	0	1: 4:51	1.0736	245.19
542	0	1: 5:27	1.0836	248.63
547	0	1: 6: 3	1.0937	252.94
552	0	1: 6:39	1.1037	257.24
557	0	1: 7:16	1.1138	261.55
562	0	1: 7:52	1.1239	266.73
567	0	1: 8:28	1.1339	271.90
572	0	1: 9: 5	1.1440	277.08
577	0	1: 9:41	1.1541	281.38
582	0	1:10:17	1.1641	286.56
587	0	1:10:53	1.1742	290.87
592	0	1:11:29	1.1843	296.04
597	0	1:12: 6	1.1943	299.48
602	0	1:12:42	1.2044	302.92
607	0	1:13:18	1.2144	307.23
612	0	1:13:54	1.2245	311.54
617	0	1:14:30	1.2345	314.98
622	0	1:15: 6	1.2446	318.42
627	0	1:15:43	1.2546	322.73
632	0	1:16:19	1.2647	326.17
637	0	1:16:55	1.2747	329.61
642	0	1:17:31	1.2847	333.05
647	0	1:18: 7	1.2948	337.36
652	0	1:18:44	1.3049	340.80
657	0	1:19:20	1.3149	345.10
662	0	1:19:56	1.3250	349.41
667	0	1:20:32	1.3350	351.98
672	0	1:21: 8	1.3450	355.42
677	0	1:21:44	1.3551	359.73
682	0	1:22:21	1.3651	363.17
687	0	1:22:57	1.3752	366.61
		END SHUTIN 1		
		START FLOW 2		
692	0	1:24:22	1.3989	88.99
697	0	1:24:58	1.4088	81.16
702	0	1:25:33	1.4186	72.45
707	0	1:26: 9	1.4285	67.22
712	0	1:26:45	1.4385	63.72
717	0	1:27:20	1.4484	61.09
722	0	1:27:56	1.4584	59.33
727	0	1:28:32	1.4683	56.70
732	0	1:29: 8	1.4783	55.80
737	0	1:29:44	1.4883	54.91
742	0	1:30:20	1.4983	54.01
747	0	1:30:56	1.5083	53.11
752	0	1:31:32	1.5182	51.35
757	0	1:32: 8	1.5282	50.45
762	0	1:32:44	1.5382	50.42
767	0	1:33:20	1.5482	49.53
772	0	1:33:55	1.5581	48.63
777	0	1:34:31	1.5681	48.60
782	0	1:35: 7	1.5781	47.71
787	0	1:35:43	1.5881	46.81

WESTERN TESTING CO., INC.

Company: DEUTSCH OIL COMPANY
Well: HILL 1-31 DST #2
Field: TKT #22420

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
792	0	1:36:19	1.5981	46.78
797	0	1:36:55	1.6081	45.88
802	0	1:37:31	1.6181	45.86
807	0	1:38: 7	1.6280	44.96
812	0	1:38:43	1.6380	44.93
817	0	1:39:19	1.6480	44.03
822	0	1:39:55	1.6580	43.14
827	0	1:40:31	1.6680	43.11
832	0	1:41: 7	1.6780	43.08
837	0	1:41:43	1.6880	43.05
842	0	1:42:19	1.6980	43.02
847	0	1:42:55	1.7079	42.99
852	0	1:43:31	1.7179	42.96
857	0	1:44: 7	1.7279	42.94
862	0	1:44:43	1.7379	42.91
867	0	1:45:19	1.7479	42.88
872	0	1:45:55	1.7579	42.85
877	0	1:46:31	1.7679	42.82
882	0	1:47: 6	1.7779	42.79
887	0	1:47:42	1.7879	42.76
892	0	1:48:18	1.7979	42.73
897	0	1:48:54	1.8079	42.70
902	0	1:49:30	1.8178	42.67
907	0	1:50: 6	1.8278	42.65
912	0	1:50:42	1.8378	42.62
917	0	1:51:18	1.8478	42.59
922	0	1:51:54	1.8578	42.56
927	0	1:52:30	1.8678	42.53
932	0	1:53: 6	1.8778	42.50
937	0	1:53:42	1.8878	42.47
942	0	1:54:18	1.8978	42.44
947	0	1:54:54	1.9078	42.41
952	0	1:55:30	1.9178	42.39
957	0	1:56: 6	1.9278	42.36
962	0	1:56:42	1.9377	42.33
967	0	1:57:18	1.9477	42.30
972	0	1:57:54	1.9577	42.27
977	0	1:58:30	1.9677	42.24
982	0	1:59: 6	1.9777	42.21
987	0	1:59:42	1.9877	42.18
992	0	2: 0:18	1.9977	41.29
997	0	2: 0:54	2.0077	41.26
1002	0	2: 1:30	2.0177	41.23
1007	0	2: 2: 6	2.0277	41.20
1012	0	2: 2:42	2.0376	41.17
1017	0	2: 3:18	2.0476	41.14
1022	0	2: 3:54	2.0576	41.11
1027	0	2: 4:30	2.0676	41.08
1032	0	2: 5: 6	2.0776	41.92
1037	0	2: 5:41	2.0876	41.89
1042	0	2: 6:17	2.0976	41.86
1047	0	2: 6:53	2.1076	41.84
1052	0	2: 7:29	2.1176	41.81
1057	0	2: 8: 5	2.1276	42.65
1062	0	2: 8:41	2.1376	42.62

WESTERN TESTING CO., INC.

Company: DEUTSCH OIL COMPANY
Well: HILL 1-31 DST #2
Field: TKT #22420

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
1067	0	2: 9:17	2.1476	43.45
1072	0	2: 9:53	2.1576	45.16
1077	0	2:10:30	2.1676	46.87
1082	0	2:11: 6	2.1777	49.44
1087	0	2:11:42	2.1877	52.88
1092	0	2:12:18	2.1977	55.45
1097	0	2:12:54	2.2078	59.76
1102	0	2:13:30	2.2179	65.80
1107	0	2:14: 7	2.2279	70.11
1112	0	2:14:43	2.2380	75.28
		END FLOW 2		
		START SHUTIN 2		
1116	0	2:15:12	2.2461	79.60
1117	0	2:15:19	2.2481	80.46
1122	0	2:15:55	2.2581	84.77
1127	0	2:16:32	2.2682	89.07
1132	0	2:17: 8	2.2783	95.12
1137	0	2:17:44	2.2884	100.29
1142	0	2:18:20	2.2984	106.33
1147	0	2:18:57	2.3085	112.38
1152	0	2:19:33	2.3186	117.55
1157	0	2:20: 9	2.3287	121.86
1162	0	2:20:45	2.3387	127.03
1167	0	2:21:22	2.3488	131.34
1172	0	2:21:58	2.3589	136.52
1177	0	2:22:34	2.3689	140.82
1182	0	2:23:10	2.3790	145.13
1187	0	2:23:47	2.3890	149.44
1192	0	2:24:23	2.3991	153.75
1197	0	2:24:59	2.4092	158.92
1202	0	2:25:35	2.4192	162.36
1207	0	2:26:11	2.4293	166.67
1212	0	2:26:48	2.4393	171.84
1217	0	2:27:24	2.4494	176.15
1222	0	2:28: 0	2.4595	180.46
1227	0	2:28:36	2.4695	183.90
1232	0	2:29:12	2.4796	188.21
1237	0	2:29:49	2.4896	190.78
1242	0	2:30:25	2.4997	195.09
1247	0	2:31: 1	2.5097	198.53
1252	0	2:31:37	2.5197	202.84
1257	0	2:32:13	2.5298	205.41
1262	0	2:32:49	2.5398	208.85
1267	0	2:33:26	2.5499	212.29
1272	0	2:34: 2	2.5599	216.60
1277	0	2:34:38	2.5700	219.17
1282	0	2:35:14	2.5800	222.61
1287	0	2:35:50	2.5900	226.05
1292	0	2:36:26	2.6001	229.49
1297	0	2:37: 2	2.6101	232.06
1302	0	2:37:39	2.6202	236.37
1307	0	2:38:15	2.6302	239.81
1312	0	2:38:51	2.6403	243.25
1317	0	2:39:27	2.6503	246.69
1322	0	2:40: 3	2.6603	249.27

WESTERN TESTING CO., INC.

Company: DEUTSCH OIL COMPANY
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Field: TKT #22420

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
1327	0	2:40:39	2.6704	252.71
1332	0	2:41:16	2.6804	255.28
1337	0	2:41:52	2.6905	258.72
1342	0	2:42:28	2.7005	262.16
1347	0	2:43: 4	2.7106	265.60
1352	0	2:43:40	2.7206	268.17
1357	0	2:44:16	2.7306	270.75
1362	0	2:44:52	2.7407	274.19
1367	0	2:45:29	2.7507	276.76
1372	0	2:46: 5	2.7607	280.20
1377	0	2:46:41	2.7708	284.51
1382	0	2:47:17	2.7808	286.21
1387	0	2:47:53	2.7908	288.79
1392	0	2:48:29	2.8009	292.23
1397	0	2:49: 5	2.8109	294.80
1402	0	2:49:42	2.8210	297.37
1407	0	2:50:18	2.8310	299.95
1412	0	2:50:54	2.8410	302.52
1417	0	2:51:30	2.8510	305.09
1422	0	2:52: 6	2.8611	306.80
1427	0	2:52:42	2.8711	310.24
1432	0	2:53:18	2.8812	312.81
1437	0	2:53:54	2.8912	315.38
1442	0	2:54:30	2.9012	317.96
1447	0	2:55: 6	2.9112	319.66
1452	0	2:55:43	2.9213	323.10
1457	0	2:56:19	2.9313	325.65
1462	0	2:56:55	2.9413	327.73
1467	0	2:57:31	2.9513	329.81
1472	0	2:58: 7	2.9614	331.88
1477	0	2:58:43	2.9714	333.96
1482	0	2:59:19	2.9814	336.04
1487	0	2:59:55	2.9914	338.12
1492	0	3: 0:31	3.0015	340.19
1497	0	3: 1: 7	3.0115	342.27
1502	0	3: 1:44	3.0215	344.35
1507	0	3: 2:20	3.0315	346.42
1512	0	3: 2:56	3.0416	349.17
1517	0	3: 3:32	3.0516	351.13
1522	0	3: 4: 8	3.0616	353.09
1527	0	3: 4:44	3.0716	355.05
1532	0	3: 5:20	3.0817	357.01
1537	0	3: 5:56	3.0917	358.97
1542	0	3: 6:32	3.1017	360.92
1547	0	3: 7: 8	3.1117	362.88
1552	0	3: 7:44	3.1217	364.84
1557	0	3: 8:20	3.1318	366.80
1562	0	3: 8:57	3.1418	368.76
1567	0	3: 9:33	3.1518	370.72
1572	0	3:10: 9	3.1618	372.68
1577	0	3:10:45	3.1719	374.63
1582	0	3:11:21	3.1819	376.59
1587	0	3:11:57	3.1919	378.37
1592	0	3:12:33	3.2019	380.09
1597	0	3:13: 9	3.2119	381.82

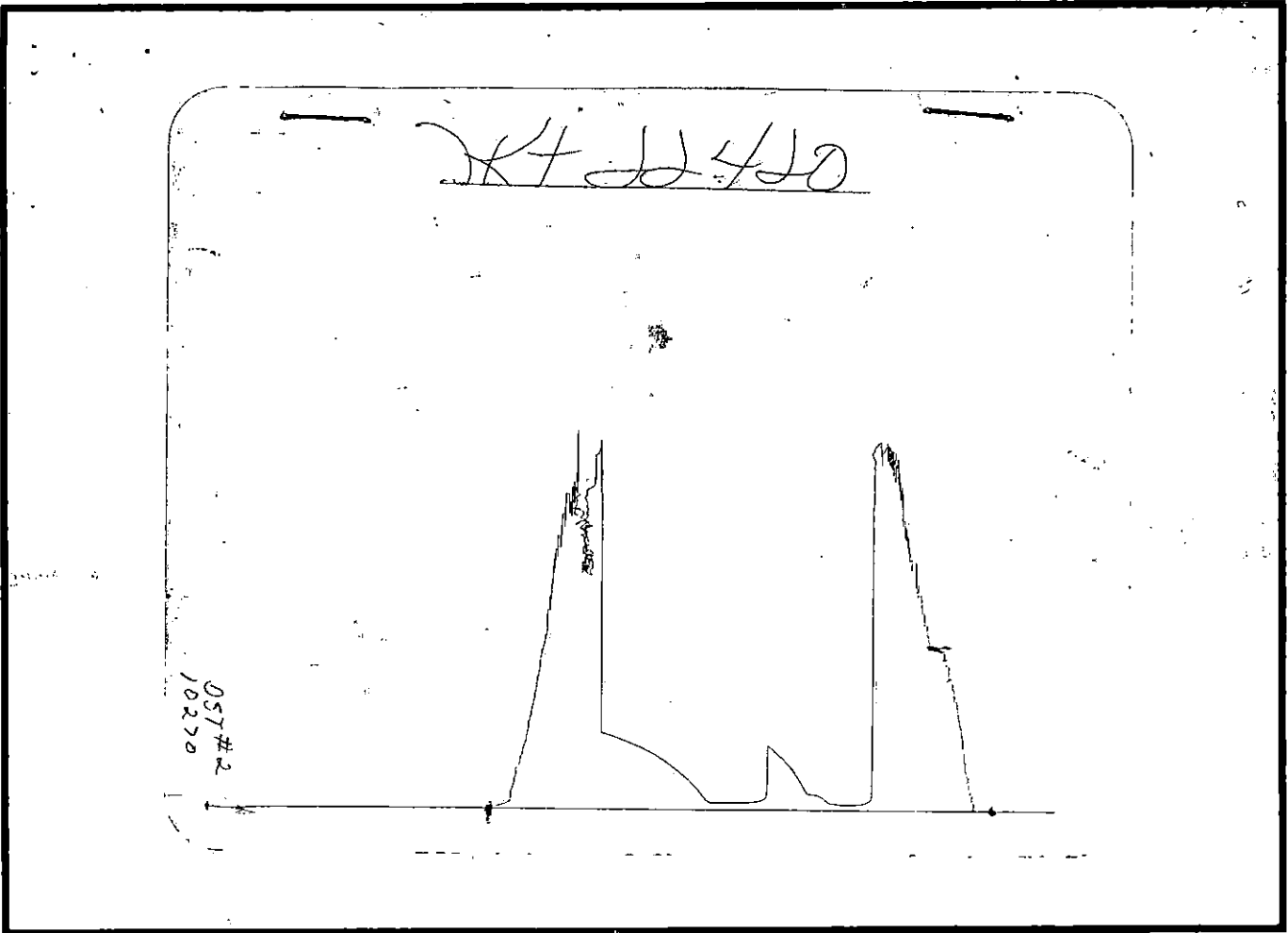
WESTERN TESTING CO., INC.

Company: DEUTSCH OIL COMPANY
Well: HILL 1-31 DST #2
Field: TKT #22420

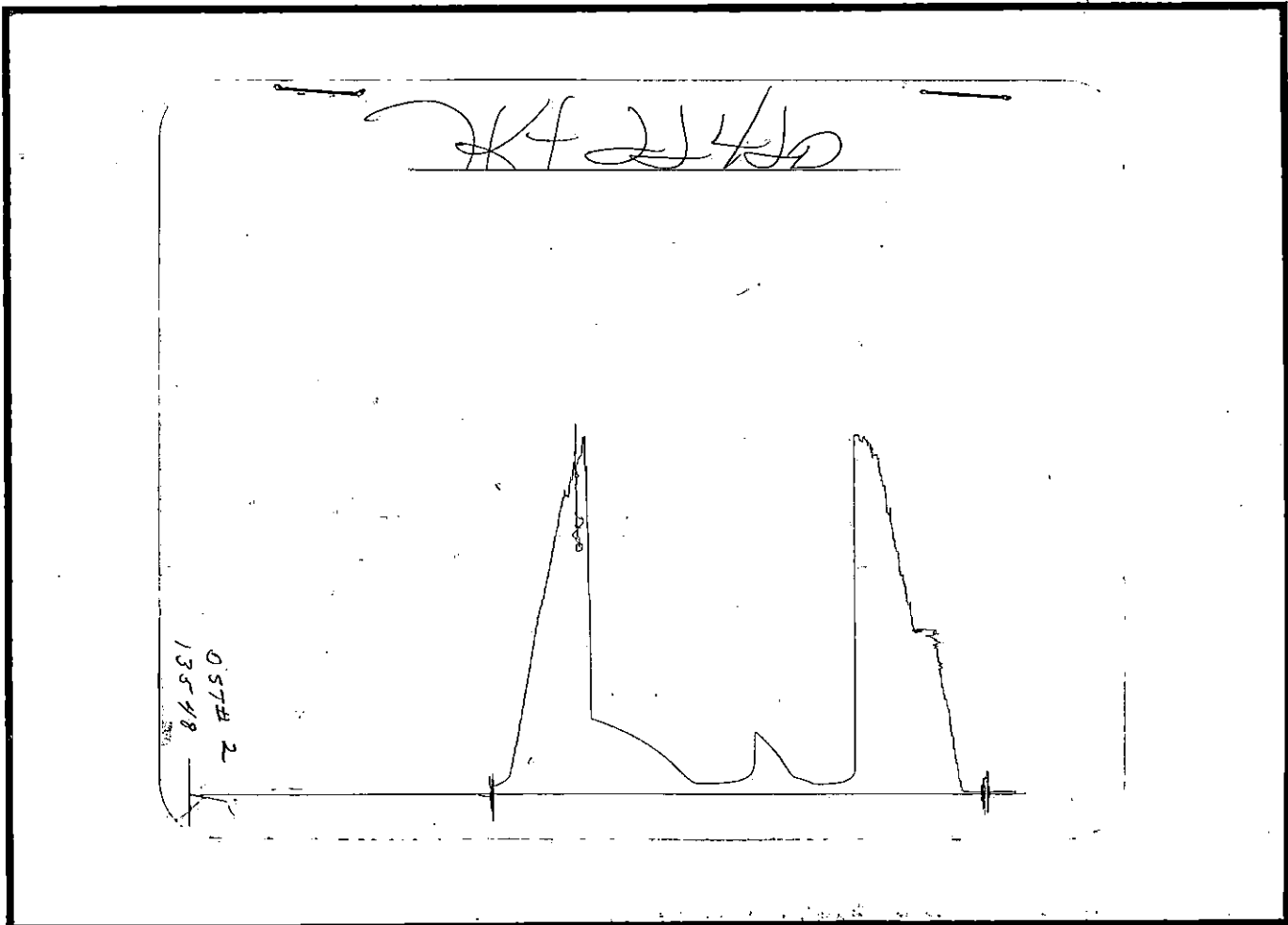
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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
1602	0	3:13:45	3.2220	383.55
1607	0	3:14:21	3.2320	385.28
1612	0	3:14:57	3.2420	387.01
1617	0	3:15:33	3.2520	388.73
1622	0	3:16: 9	3.2620	390.46
1627	0	3:16:45	3.2720	392.19
1632	0	3:17:22	3.2821	393.92
1637	0	3:17:58	3.2921	396.09
1642	0	3:18:34	3.3021	397.74
1647	0	3:19:10	3.3121	399.38
1652	0	3:19:46	3.3221	401.03
1657	0	3:20:22	3.3322	402.67
1662	0	3:20:58	3.3422	404.32
1667	0	3:21:34	3.3522	405.97
1672	0	3:22:10	3.3622	407.61
1677	0	3:22:46	3.3722	409.26
1682	0	3:23:22	3.3822	410.82
1687	0	3:23:58	3.3923	412.23
1692	0	3:24:34	3.4023	413.65
1697	0	3:25:10	3.4123	415.07
1702	0	3:25:46	3.4223	416.48
1707	0	3:26:22	3.4323	417.90
1712	0	3:26:58	3.4423	419.32
1717	0	3:27:34	3.4523	420.73
1722	0	3:28:11	3.4624	422.15
1727	0	3:28:47	3.4724	423.56
1732	0	3:29:23	3.4824	424.92
1737	0	3:29:59	3.4924	426.25
1742	0	3:30:35	3.5024	427.58
1747	0	3:31:11	3.5124	428.92
1752	0	3:31:47	3.5224	430.25
1757	0	3:32:23	3.5324	431.59
1762	0	3:32:59	3.5425	432.92
1767	0	3:33:35	3.5525	433.54
1772	0	3:34:11	3.5625	434.83
1777	0	3:34:47	3.5725	436.12
1782	0	3:35:23	3.5825	437.41
1787	0	3:35:59	3.5925	438.25
1792	0	3:36:35	3.6026	443.43

WESTERN TESTING CO., INC.



Inside Recorder

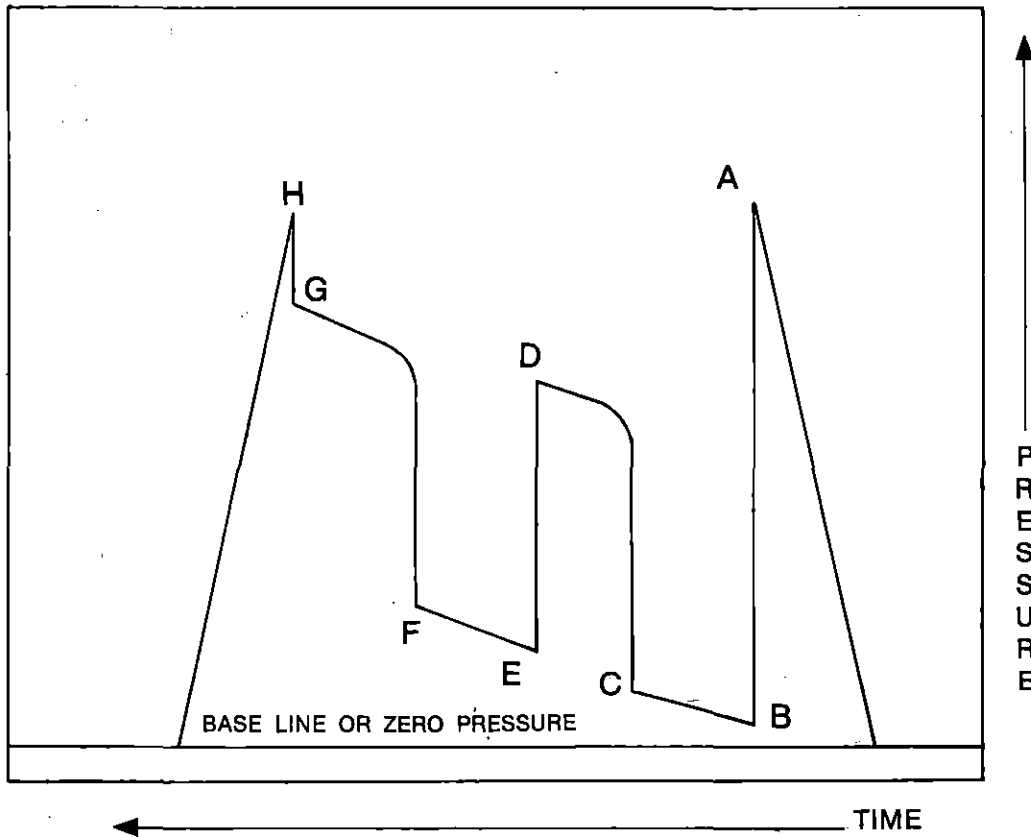


Outside Recorder

COMPANY TERMS

Western Testing Co., Inc. shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained directly or indirectly through the use of its equipment, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

AK-1 Recorders



- A - Initial Hydrostatic
- B - First Initial Flow
- C - First Final Flow
- D - Initial Shut-In

- E - Second Initial Flow
- F - Second Final Flow
- G - Final Shut-In
- H - Final Hydrostatic