DRILL-STEM TEST DATA

Well Name:	BRADFORD 1-32				
Company :	RANKEN ENERGY CORPORATION				
Location - Sec:	32	**Twp:**	23S	**Rge:**	23W
County:	HODGEMAN	**State:**	KS		
Date:	11-Oct-95				

TRILOBITE TESTING L.L.C.

OPERATOR : Ranken Energy Corp DATE 10/11/95
WELL NAME: Bradford 1-32 KB 2449.00 ft TICKET NO: 8752 DST #2
LOCATION : 32-23S-23W, Hodgeman KS GR 2440.00 ft FORMATION: Mississippian
INTERVAL : 4673.00 To 4716.00 ft TD 4716.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins		Field	1	2	3	4
PF 30	Rec.	13754	13754	13849		
SI 60	Range(Psi)	4000.0	4000.0	4375.0	0.0	0.0
SF 60	Clock(hrs)	AK-1	AK-1	AK-1		
FS 120	Depth(ft)	4677.0	4677.0	4712.0	0.0	0.0

TIME DATA----------
PF Fr. 0855 to 0925 hr
IS Fr. 0925 to 1025 hr
SF Fr. 1025 to 1125 hr
FS Fr. 1125 to 1325 hr

	Field	1	2	3	4
A. Init Hydro	2441.0	2448.0	0.0	0.0	0.0
B. First Flow	39.0	35.0	0.0	0.0	0.0
B1. Final Flow	39.0	37.0	0.0	0.0	0.0
C. In Shut-in	1186.0	1190.0	0.0	0.0	0.0
D. Init Flow	49.0	55.0	0.0	0.0	0.0
E. Final Flow	78.0	77.0	0.0	0.0	0.0
F. Fl Shut-in	1136.0	1148.0	0.0	0.0	0.0
G. Final Hydro	2289.0	2269.0	0.0	0.0	0.0
Inside/Outside	I	I	O		

T STARTED 0740 hr
T ON BOTM hr
T OPEN 0855 hr
T PULLED 1325 hr
T OUT 1505 hr

RECOVERY
Tot Fluid 165.00 ft of 0.00 ft in DC and 165.00 ft in DP
165.00 ft of Slightly oil cut watery mud -
5% oil, 30% water, 65% mud

TOOL DATA----------

Tool Wt.	0.00 lbs
Wt Set On Packer	30000.00 lbs
Wt Pulled Loose	60000.00 lbs
Initial Str Wt	55000.00 lbs
Unseated Str Wt	55000.00 lbs
Bot Choke	0.75 in
Hole Size	7.88 in
D Col. ID	2.25 in
D. Pipe ID	3.80 in
D.C. Length	0.00 ft
D.P. Length	4652.00 ft

RW .32 @ 80 F
SALINITY 35000.00 P.P.M. A.P.I. Gravity 0.00

MUD DATA----------

Mud Type	Chemical
Weight	9.40 lb/cf
Vis.	50.00 S/L
W.L.	10.00 in3
F.C.	0.00 in
Mud Drop	
Amt. of fill	0.00 ft
Btm. H. Temp.	118.00 F
Hole Condition	
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out	
Tool Chased	
Tester	Dan Bangle
Co. Rep.	Doug Bellis
Contr.	Duke
Rig #	4
Unit #	
Pump T.	

BLOW DESCRIPTION

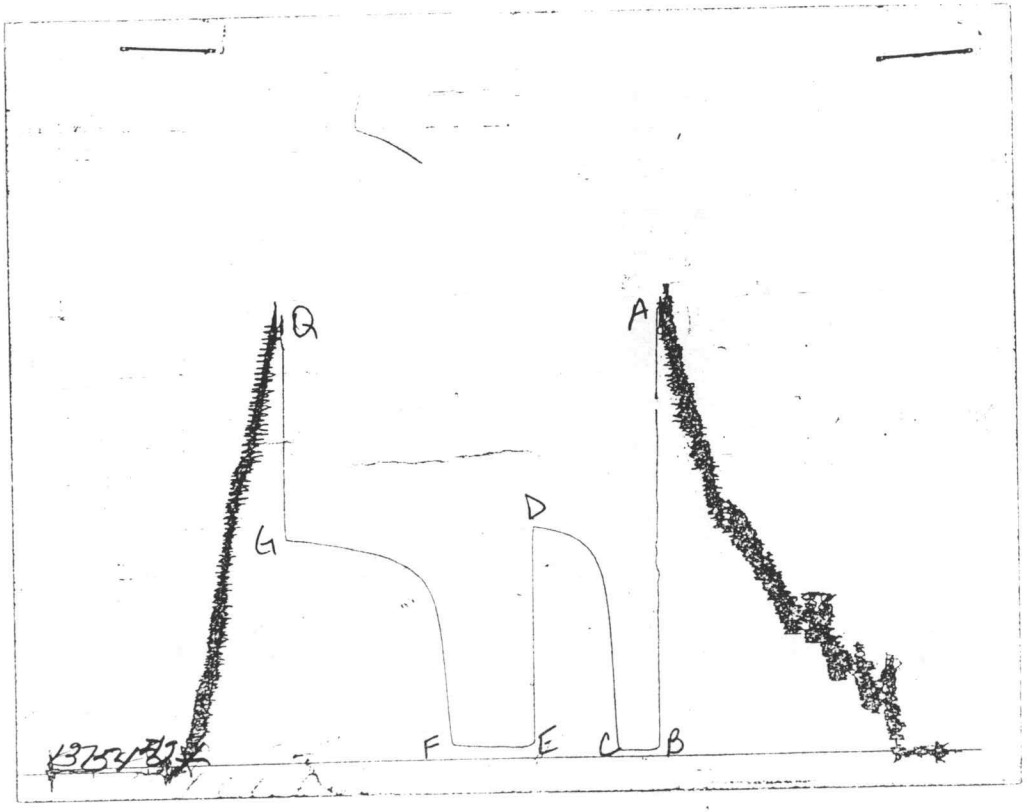
Initial Blow -
Weak, building to 6" fair blow

Final Blow -
Weak, building to 5" fair blow

SAMPLES:
SENT TO:

Test Successful: Y

CHART PAGE



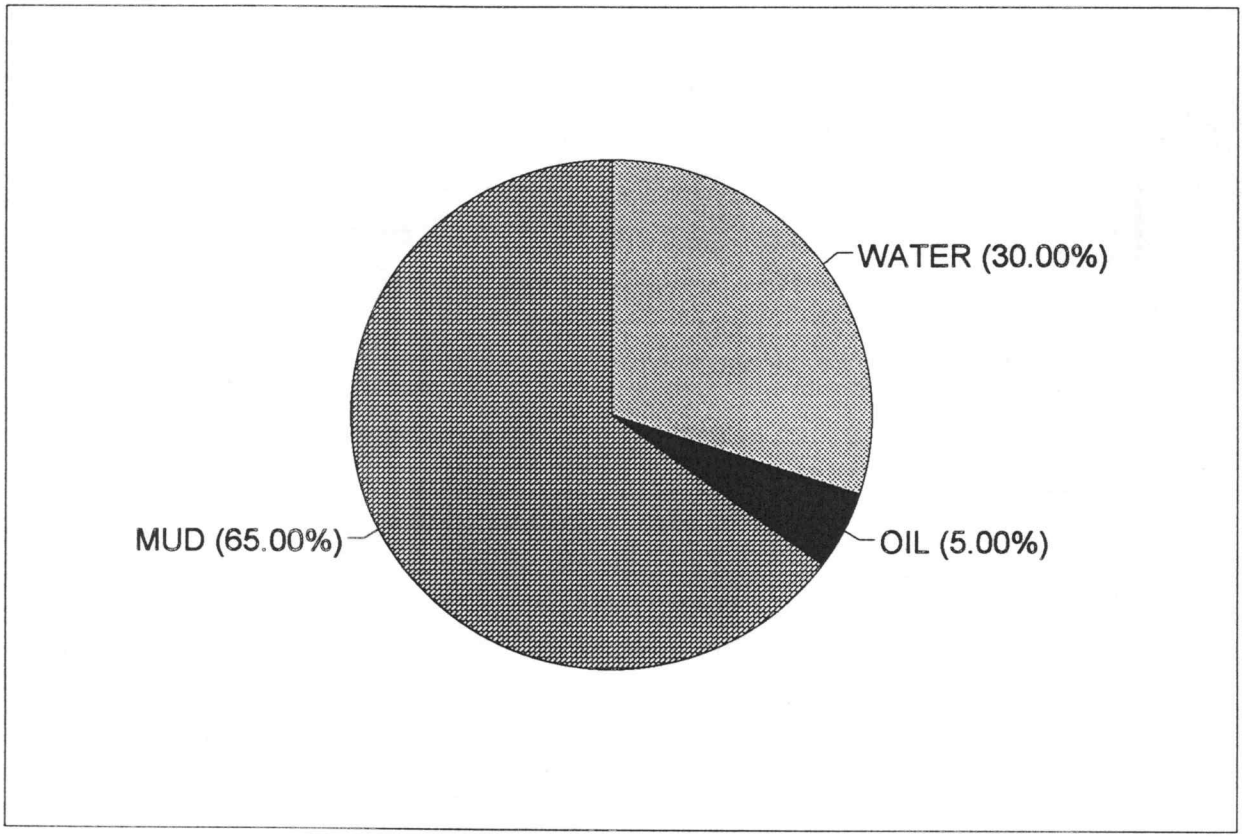
This is an actual photograph of recorder chart

CALCULATED RECOVERY ANALYSIS - DRILL PIPE

DST # 2 TICKET # 8752

SAMPLE #	TOTAL FEET		GAS %	GAS FEET	OIL %	OIL FEET	WATER %	WATER FEET	MUD %	MUD FEET
1	165		0		5	8.25	30	49.5	65	107.25
2			0			0		0		0
3			0			0		0		0
4			0			0		0		0
5			0			0		0		0
6			0			0		0		0
TOTAL	165	0.00	0		5.00	8.25	30	49.5	65.00	107.25

			HRS OPE	BBL/DAY
BBL OIL=	0.117315	*	1.50	1.88
BBL WATER=	0.70389	*		11.26
BBL MUD=	1.525095			
BBL GAS	0			



TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No. 8752

Well Name & No. Bradford 1-32 Test No. 2 Date 10-11-95

Company Ranken Energy, Corp. Zone Tested Miss

Address _____ Elevation 2449 KB 2440 GL

Co. Rep / Geo. Doug Bellis Cont. Duke #4 Est. Ft. of Pay ___ Por. ___ %

Location: Sec. 32 Twp. 23 Rge. 23 Co. Hodgeman State Ks.

No. of Copies STD Distribution Sheet (Y, N) N Turnkey (Y, N) N Evaluation (Y, N) _____

Interval Tested 4673-4706 Initial Str Wt./Lbs. 55,000 Unseated Str Wt./Lbs. 55,000

Anchor Length 43 Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 60,000

Top Packer Depth 4668 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____

Bottom Packer Depth 4673 Wt. Pipe I.D. — 2.7 Ft. Run _____

Total Depth 4706 Drill Collar — 2.25 Ft. Run _____

Mud Wt. 9.4 LCM n/a Vis. 50 WL 10 Drill Pipe Size 4.5 XH Ft. Run 4652

Blow Description I.F. Weak - building to 6" fair blow

F.F. Weak - building to 5" fair blow

Recovery — Total Feet 165 Ft. in DC _____ Ft. in WP _____ Ft. in DP 165

Rec. 165 Feet Of SLTY OC WTRY M %gas 5 %oil 30 %water 65 %mud

Rec. _____ Feet Of _____ %gas %oil %water %mud

Rec. _____ Feet Of _____ %gas %oil %water %mud

Rec. _____ Feet Of _____ %gas %oil %water %mud

Rec. _____ Feet Of _____ %gas %oil %water %mud

BHT 118 °F Gravity _____ °API D@ _____ °F Corrected Gravity _____ °API

RW .32 @ 80 °F Chlorides 35,000 ppm Recovery Chlorides n/a ppm System

(A) Initial Hydrostatic Mud	2441 PSI	Recorder No.	13754	T-Started	0740
(B) First Initial Flow Pressure	39 PSI	@ (depth)	4677	T-Open	0855
(C) First Final Flow Pressure	39 PSI	Recorder No.	13849	T-Pulled	1325
(D) Initial Shut-in Pressure	1186 PSI	@ (depth)	4712	T-Out	1505
(E) Second Initial Flow Pressure	49 PSI	Recorder No.			
(F) Second Final Flow Pressure	78 PSI	@ (depth)			
(G) Final Shut-in Pressure	1136 PSI	Initial Opening	30	Test	600
(H) Final Hydrostatic Mud	2289 PSI	Initial Shut-in	60	Jars	
		Final Flow	60	Safety Joint	
		Final Shut-in	120	Straddle	
				Circ. Sub	
				Sampler	
				Extra Packer	
				Elect. Rec.	
				Other	
				TOTAL PRICE $	600

Approved By Doug Bellis

Our Representative Dan Banale

TRILOBITE TESTING L.L.C.

OPERATOR : Ranken Energy Corp DATE 10/10/95
WELL NAME: Bradford 1-32 KB 2449.00 ft TICKET NO: 8751 DST #1
LOCATION : 32-23S-23W, Hodgeman KS GR 2440.00 ft FORMATION: Mississippian
INTERVAL : 4673.00 To 4709.00 ft TD 4709.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins		Field	1	2	3	4
PF 30	Rec.	13754	13754	13849		
SI 60	Range(Psi)	4000.0	4000.0	4375.0	0.0	0.0
SF 30	Clock(hrs)	AK-1	AK-1	AK-1		
FS 60	Depth(ft)	4677.0	4677.0	4705.0	0.0	0.0

TIME DATA----------
PF Fr. 2020 to 2050 hr
IS Fr. 2050 to 2150 hr
SF Fr. 2150 to 2220 hr
FS Fr. 2220 to 2320 hr

	Field	1	2	3	4
A. Init Hydro	2168.0	2167.0	0.0	0.0	0.0
B. First Flow	59.0	54.0	0.0	0.0	0.0
B1. Final Flow	59.0	54.0	0.0	0.0	0.0
C. In Shut-in	1156.0	1148.0	0.0	0.0	0.0
D. Init Flow	78.0	71.0	0.0	0.0	0.0
E. Final Flow	78.0	64.0	0.0	0.0	0.0
F. Fl Shut-in	1126.0	1120.0	0.0	0.0	0.0
G. Final Hydro	2087.0	2071.0	0.0	0.0	0.0
Inside/Outside	I	I	O		

T STARTED 1840 hr
T ON BOTM hr
T OPEN 2020 hr
T PULLED 2320 hr
T OUT 0115 hr

RECOVERY
Tot Fluid 50.00 ft of 0.00 ft in DC and 50.00 ft in DP
60.00 ft of Gas in pipe
50.00 ft of Slightly oil cut mud - 5% oil, 95% mud

TOOL DATA----------

Tool Wt.	0.00 lbs
Wt Set On Packer	30000.00 lbs
Wt Pulled Loose	60000.00 lbs
Initial Str Wt	55000.00 lbs
Unseated Str Wt	55000.00 lbs
Bot Choke	0.75 in
Hole Size	7.88 in
D Col. ID	2.25 in
D. Pipe ID	3.80 in
D.C. Length	0.00 ft
D.P. Length	4652.00 ft

SALINITY 0.00 P.P.M. A.P.I. Gravity 0.00

MUD DATA----------

Mud Type	Chemical
Weight	9.40 lb/cf
Vis.	50.00 S/L
W.L.	10.00 in3
F.C.	0.00 in
Mud Drop	
Amt. of fill	0.00 ft
Btm. H. Temp.	118.00 F
Hole Condition	
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00
Cushion Type	
Reversed Out	
Tool Chased	
Tester	Dan Bangle
Co. Rep.	Doug Bellis
Contr.	Duke
Rig #	4
Unit #	
Pump T.	

BLOW DESCRIPTION

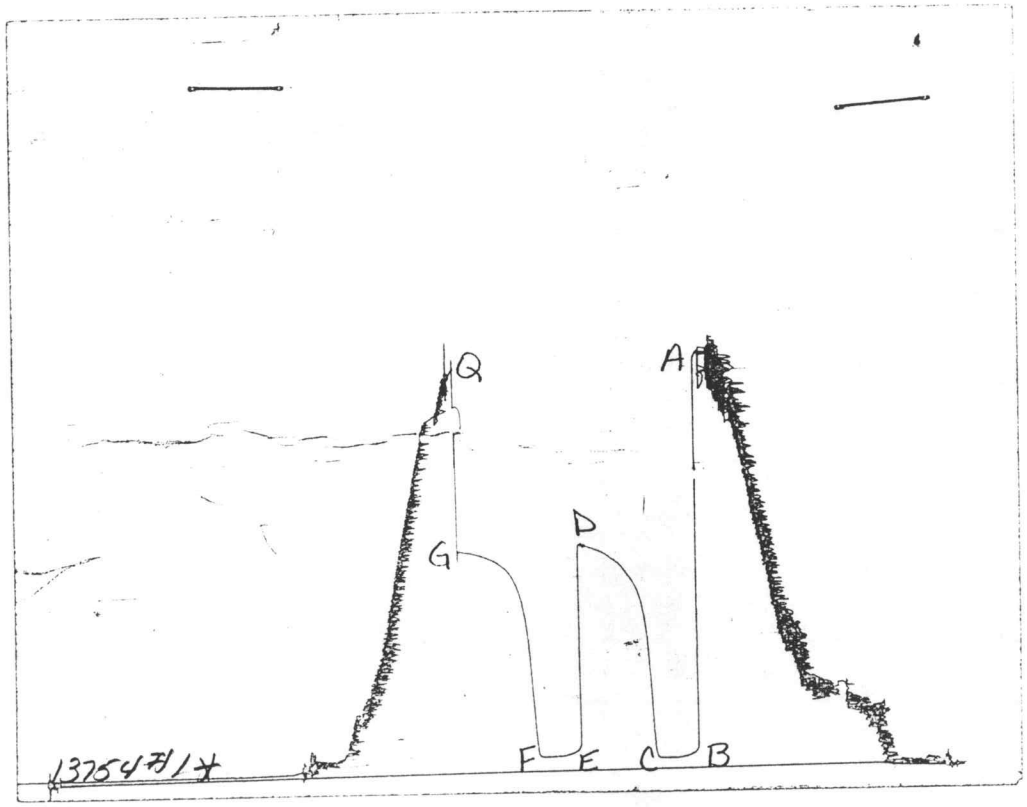
Initial Blow -
Weak, building to 4"

Final Blow -
Weak, building to .25"

SAMPLES:
SENT TO:

Test Successful: Y

CHART PAGE



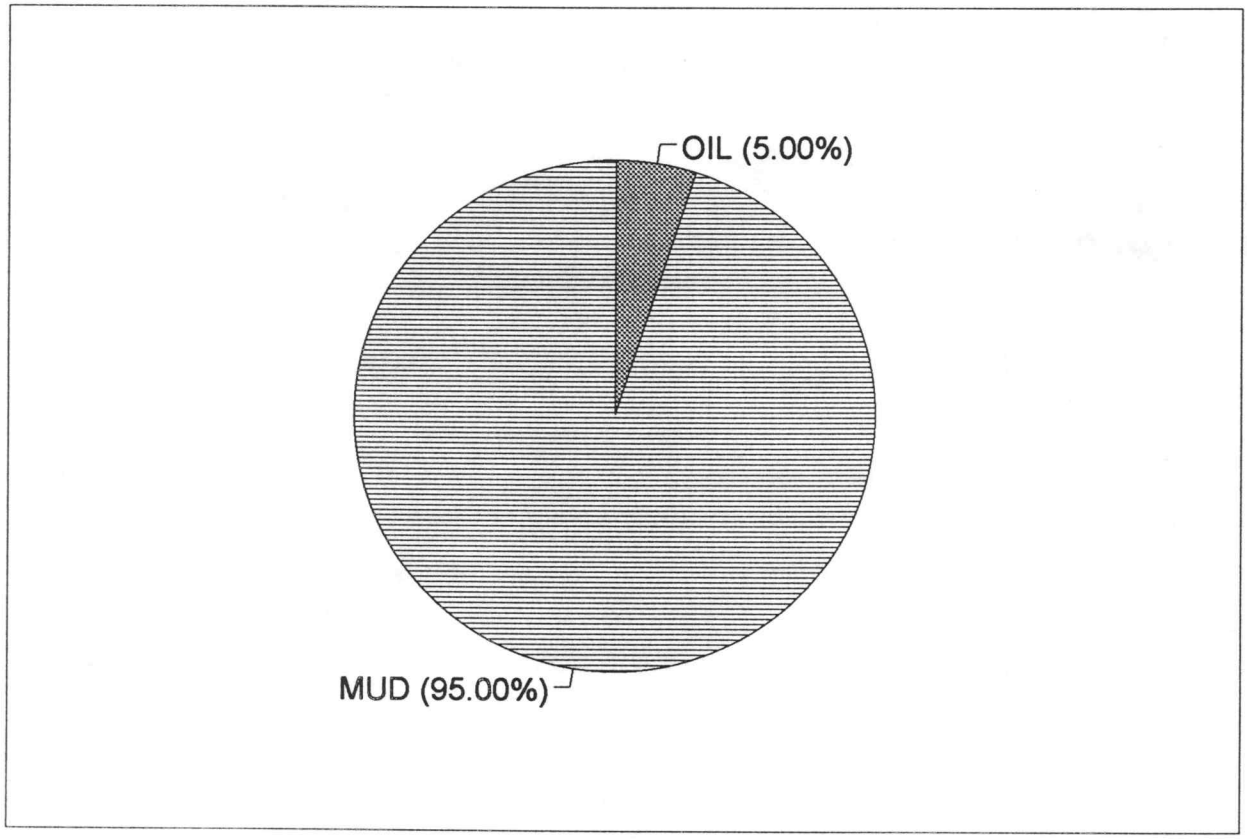
This is an actual photograph of recorder chart

CALCULATED RECOVERY ANALYSIS - DRILL PIPE

DST # 1 TICKET # 8751

SAMPLE #	TOTAL FEET	GAS %	GAS FEET	OIL %	OIL FEET	WATER %	WATER FEET	MUD %	MUD FEET
1	50		0	5	2.5		0	95	47.5
2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
6			0		0		0		0
TOTAL	50	0.00	0	5.00	2.5	0	0	95.00	47.5

			HRS OPE	BBL/DAY
BBL OIL=	0.03555	*	1.00	0.85
BBL WATER=	0	*		0.00
BBL MUD=	0.67545			
BBL GAS	0			



TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

№ 8751

Well Name & No. Bradford 1-32 Test No. 1 Date 10-10-95

Company RanKen Energy, Corp. Zone Tested Miss

Address 601 N. Kelly, Edmond, OKla, 73003-4855 Elevation 2445 KB 2440 GL

Co. Rep / Geo. Doug Bellis Cont. Duke #4 Est. Ft. of Pay ___ Por. ___ %

Location: Sec. 32 Twp. 23 Rge. 23 Co. Hodgeman State Ks.

No. of Copies ___ Distribution Sheet (Y, N) ___ Turnkey (Y, N) ___ Evaluation (Y, N) ___

Interval Tested 4673 - 4709 Initial Str Wt./Lbs. 55,000 Unseated Str Wt./Lbs. 55,000

Anchor Length 36 Wt. Set Lbs. 30,000 Wt. Pulled Loose/Lbs. 60,000

Top Packer Depth 4668 Hole Size — 7 7/8" ___ Rubber Size — 6 3/4" ___

Bottom Packer Depth 4673 Wt. Pipe I.D. — 2.7 Ft. Run ___

Total Depth 4709 Drill Collar — 2.25 Ft. Run ___

Mud Wt. 9.4 LCM n/a Vis. 50 WL 10 Drill Pipe Size 4.5 XH Ft. Run 4652

Blow Description I.F. weak - building to 4"

F.F. weak - building to ½"

Recovery — Total Feet 50 Ft. in DC ___ Ft. in WP ___ Ft. in DP 50

Rec. 50	Feet Of Sltly OCM	%gas 5	%oil	%water 95	%mud		
Rec. ___	Feet Of ___	%gas	%oil	%water	%mud		
Rec. 60	Feet Of GIP	%gas	%oil	%water	%mud		
Rec. ___	Feet Of ___	%gas	%oil	%water	%mud		
Rec. ___	Feet Of ___	%gas	%oil	%water	%mud		

BHT 118 °F Gravity ___ °API D@ ___ °F Corrected Gravity ___ °API

RW ___ @ ___ °F Chlorides ___ ppm Recovery Chlorides n/a ppm System

(A) Initial Hydrostatic Mud	2168 PSI	Recorder No.	13754	T-Started	1840
(B) First Initial Flow Pressure	59 PSI	@ (depth)	4677	T-Open	2020
(C) First Final Flow Pressure	59 PSI	Recorder No.	13849	T-Pulled	2320
(D) Initial Shut-in Pressure	1156 PSI	@ (depth)	4705	T-Out	0115
(E) Second Initial Flow Pressure	78 PSI	Recorder No.	___		
(F) Second Final Flow Pressure	78 PSI	@ (depth)	___		
(G) Final Shut-in Pressure	1126 PSI	Initial Opening	30	Test	600
(H) Final Hydrostatic Mud	2087 PSI	Initial Shut-in	60	Jars	___
		Final Flow	30	Safety Joint	___
		Final Shut-in	60	Straddle	___
		___		Circ. Sub	___
		___		Sampler	___
				Extra Packer	___
				Elect. Rec.	___
				Other	___

Approved By Doug Bellis