

TRILOBITE TESTING COMPANY *L.L.C.*

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name FRITZLER #1 Test No. 1 Date 2/1/92
Company HESS OIL COMPANY Zone Tested FT. SCOTT
Address P.O. BOX 1009 McPHERSON KS 67460 Elevation 2310 G.L.
Co. Rep./Geo. JAMES C. HESS Cont. MALLARD Est. Ft. of Pay _____
Location: Sec. 21 Twp. 19S Rge. 24W Co. NESS State KS

Interval Tested 4250-4310 Drill Pipe Size 4.5 FH
Anchor Length 60 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 4245 Drill Collar - 2.25 Ft. Run 300
Bottom Packer Depth 4250
Total Depth 4310

Mud Wt. 9.4 lb / gal. Viscosity 49 Filtrate 6

Tool Open @ 5:05 Initial Blow VERY GOOD BOTTOM OF BUCKET IN 2 MINUTES

Final Blow SAME AS INITIAL

Recovery - Total Feet 2125 Flush Tool? NO

Rec. 85 Feet of OIL & GAS CUT MUD-10%GAS/10%OIL/80%MUD

Rec. 120 Feet of GAS & OIL CUT MUD-40%GAS/35%OIL/10%WTR/15%MUD

Rec. 576 Feet of SLTLY WTR CUT GASSY OIL-50%GAS/40%OIL/10%WTR

Rec. 192 Feet of OIL,GAS & WTR CUT MUD-15%GAS/15%OIL/20%WTR/50%MUD

Rec. 1152 Feet of OIL & WTR CUT MUD-10%OIL/85%WTR/5%MUD

BHT 125 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW 0.1 @ 65 °F Chlorides 85000 ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 2120.6 PSI AK1 Recorder No. 13851 Range 4425

(B) First Initial Flow Pressure 204.5 PSI @ (depth) 4285 w/Clock No. 25813

(C) First Final Flow Pressure 703.2 PSI AK1 Recorder No. 13850 Range 4325

(D) Initial Shut-in Pressure 1084.5 PSI @ (depth) 4310 w/Clock No. 25814

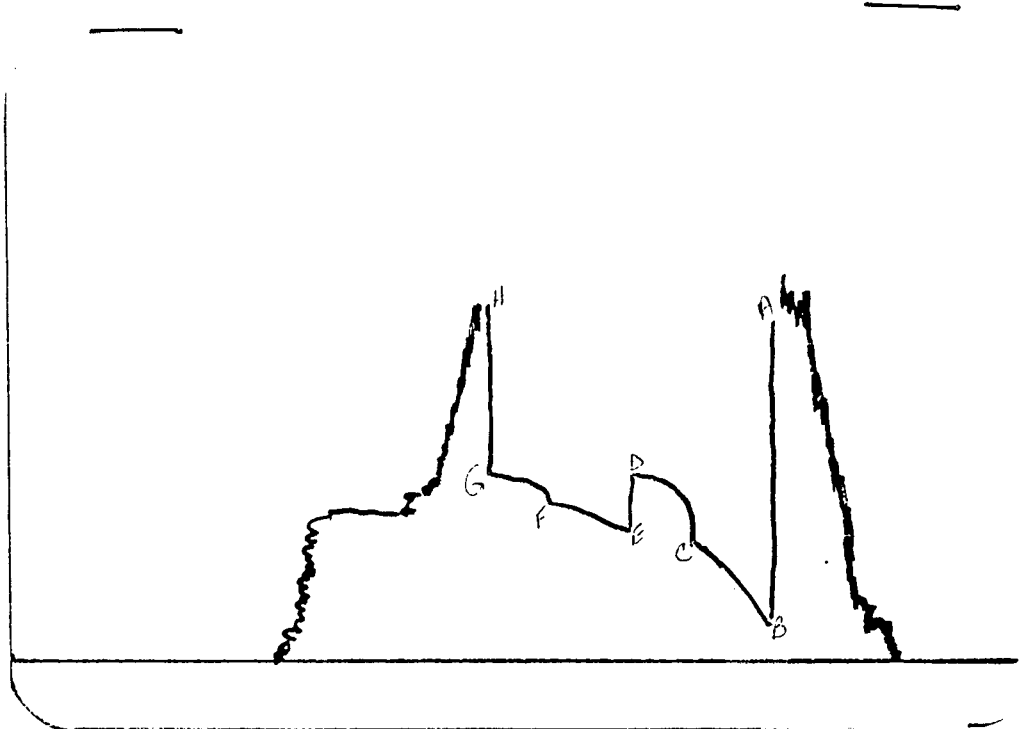
(E) Second Initial Flow Pressure 760.4 PSI AK1 Recorder No. _____ Range _____

(F) Second Final Flow Pressure 930.6 PSI @ (depth) _____ w/Clock No. _____

(G) Final Shut-in Pressure 1083.4 PSI Initial Opening 60 Final Flow 60

(H) Final Hydrostatic Mud 2110.4 PSI Initial Shut-in 45 Final Shut-in 45

Our Representative HARRY SCHMIDT TOTAL PRICE \$ 635



POINT This is an actual photograph of recorder chart PRESSURE

POINT	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2118	2120.6
(B) FIRST INITIAL FLOW PRESSURE	200	204.5
(C) FIRST FINAL FLOW PRESSURE	696	703.2
(D) INITIAL CLOSED-IN PRESSURE	1079	1084.5
(E) SECOND INITIAL FLOW PRESSURE	751	760.4
(F) SECOND FINAL FLOW PRESSURE	925	930.6
(G) FINAL CLOSED-IN PRESSURE	1079	1083.4
(H) FINAL HYDROSTATIC MUD	2118	2110.4

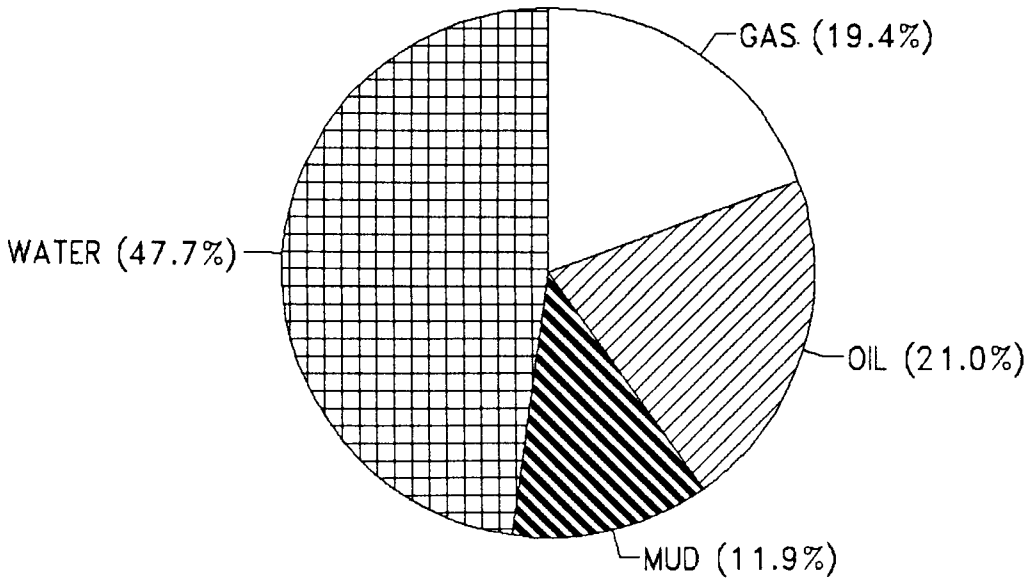
CALCULATED RECOVERY ANALYSIS

DST # 1 TICKET # 4516

SAMPLE #	TOTAL FEET	GAS		OIL		WATER		MUD	
		%	FEET	%	FEET	%	FEET	%	FEET
DRILL 1	85	10	8.5	10	8.5	0	0	80	68
PIPE 2	120	40	48	35	42	10	12	15	18
3	576	50	288	40	230.4	10	57.6	0	0
4	192	15	28.8	15	28.8	20	38.4	50	96
5	852		0	10	85.2	85	724.2	5	42.6
6			0		0		0		0
WEIGHT 1			0		0		0		0
PIPE 2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
DRILL 1	300	0	0	10	30	85	255	5	15
COLLAR 2			0		0		0		0
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
TOTAL	2125		373.3		424.9		1087.2		239.6

HRS OPEN BBL/DAY

BBL OIL= 5.762178 * 2 69.1461
 BBL WATER13.08083 * 156.97
 BBL MUD= 3.267162
 BBL GAS =5.308326



TRILOBITE TESTING COMPANY L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 4516

Well Name & No. <u>FRITZLER #1</u>		Test No. <u>ONE</u>	Date <u>2-1-92</u>
Company <u>HESS OIL CO.</u>		Zone Tested <u>1ST. SCOTT</u>	
Address <u>P.O. 1009 McPHERSON, 155 67460</u>		Elevation <u>2310 GL</u>	
Co. Rep./Geo. <u>JAMES C. HESS</u>		Cont. <u>MALLARD</u>	Est. Ft. of Pay _____
Location: Sec. <u>21</u>	Twp. <u>19 S</u>	Rge. <u>24 W</u>	Co. <u>NESS</u> State <u>KS.</u>
No. of Copies <u>5</u>	Distribution Sheet _____	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Turnkey _____ Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Evaluation _____

Interval Tested <u>4250 TO 4310</u>	Drill Pipe Size <u>4 1/2" 15.14.</u>
Anchor Length <u>60'</u>	Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth <u>4245'</u>	Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth <u>4250'</u>	Wt. Pipe I.D. — 2.7 Ft. Run _____
Total Depth <u>4310'</u>	Drill Collar — 2.25 Ft. Run <u>300'</u>
Mud Wt. <u>9.4</u> lb/gal.	Viscosity <u>49</u> Filtrate <u>8.6</u>
Tool Open @ <u>5:05</u>	Initial Blow <u>VERY GOOD BOT. BUCKET IN 1 MIN.</u>
	<u>GOOD BLOW BACK ON SHUT IN</u>
Final Blow <u>SAME AS INITIAL</u>	

Recovery — Total Feet <u>2125</u>	Feet of Gas in Pipe _____	Flush Tool? <u>NO</u>
Rec. <u>85</u> Feet Of <u>O + G. C. M.</u>	<u>10%</u> gas <u>10%</u> oil <u>80%</u> water <u>0%</u> mud	
Rec. <u>120</u> Feet Of <u>G + O. C. M.</u>	<u>40%</u> gas <u>35%</u> oil <u>10%</u> water <u>15%</u> mud	
Rec. <u>576</u> Feet Of <u>GASSY OIL</u>	<u>50%</u> gas <u>40%</u> oil <u>10%</u> water _____ mud	
Rec. <u>192</u> Feet Of <u>O. G. + W. C. M.</u>	<u>15%</u> gas <u>15%</u> oil <u>20%</u> water <u>50%</u> mud	
Rec. <u>1152</u> Feet Of _____	<u>10%</u> gas <u>10%</u> oil <u>85%</u> water <u>5%</u> mud	

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BHT 125 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW 0.1 @ 65 °F Chlorides 85,000 ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 2118 PSI AK1 Recorder No. 13851 Range 4425

(B) First Initial Flow Pressure 200 PSI @ (depth) 4285 w/Clock No. 25813

(C) First Final Flow Pressure 696 PSI AK1 Recorder No. 13850 Range 4325

(D) Initial Shut-In Pressure 1079 PSI @ (depth) 4310 w/Clock No. 25814

(E) Second Initial Flow Pressure 751 PSI AK1 Recorder No. _____ Range _____

(F) Second Final Flow Pressure 925 PSI @ (depth) _____ w/Clock No. _____

(G) Final Shut-In Pressure 1079 PSI Initial Opening 60 Test 550⁰⁰

(H) Final Hydrostatic Mud 2118 PSI Initial Shut-In 45 Jars _____

TRILOBITE TESTING COMPANY SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUBSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Final Flow 60 Safety Joint 50⁰⁰

Final Shut-In 45 Straddle _____

Circ. Sub 35⁰⁰

Sampler _____

Extra Packer _____

Other _____

Approved By [Signature]

Our Representative [Signature]

TOTAL PRICE \$ 635⁰⁰

TRILOBITE TESTING COMPANY T.T.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name FRITZLER #1 Test No. 2 Date 2/2/92
Company HESS OIL COMPANY Zone Tested MISSISSIPPI
Address P.O. BOX 1009 McPHERSON KS 67460 Elevation 2310 G.L.
Co. Rep./Geo. JAMES C. HESS Cont. MALLARD Est. Ft. of Pay _____
Location: Sec. 21 Twp. 19S Rge. 24W Co. NESS State KS

Interval Tested 4320-4394 Drill Pipe Size 4.5 FH
Anchor Length 74 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 4315 Drill Collar — 2.25 Ft. Run 300
Bottom Packer Depth 4320
Total Depth 4394

Mud Wt. 9.3 lb / gal. Viscosity 45 Filtrate 8.8

Tool Open @ 1:45 Initial Blow DIED IN 5 MINUTES

Final Blow NONE TAKEN

Recovery — Total Feet 8 Flush Tool? YES

Rec. 8 Feet of MUD

Rec. _____ Feet of _____

Rec. _____ Feet of _____

Rec. _____ Feet of _____

Rec. _____ Feet of _____

BHT 125 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 2190.4 PSI AK1 Recorder No. 13851 Range 4425

(B) First Initial Flow Pressure 22.4 PSI @ (depth) 4323 w/Clock No. 25813

(C) First Final Flow Pressure 22.4 PSI AK1 Recorder No. 13850 Range 4325

(D) Initial Shut-in Pressure _____ PSI @ (depth) 4394 w/Clock No. 25814

(E) Second Initial Flow Pressure _____ PSI AK1 Recorder No. _____ Range _____

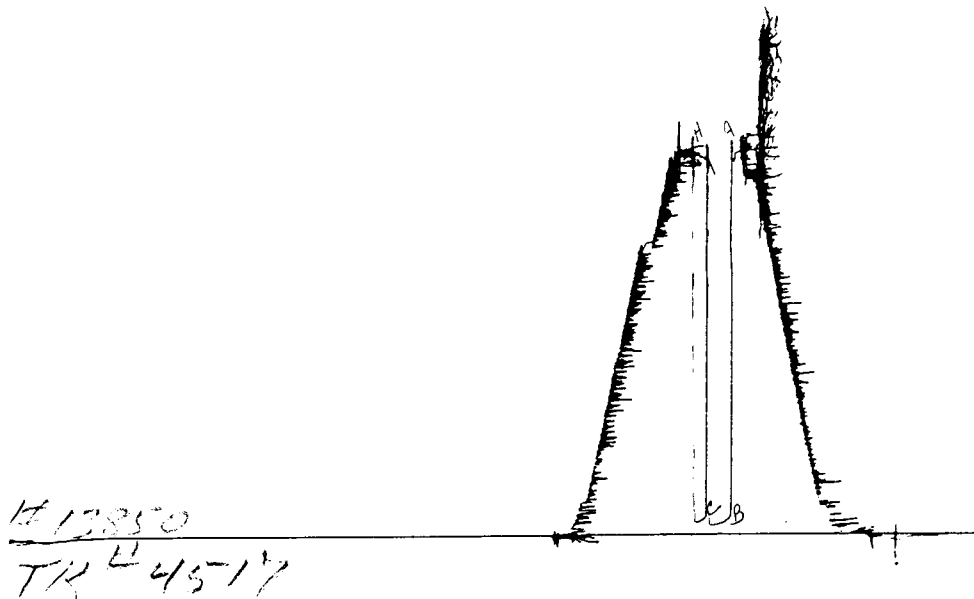
(F) Second Final Flow Pressure _____ PSI @ (depth) _____ w/Clock No. _____

(G) Final Shut-in Pressure _____ PSI Initial Opening 20 Final Flow _____

(H) Final Hydrostatic Mud 2180.3 PSI Initial Shut-in _____ Final Shut-in _____

Our Representative HARRY SCHMIDT

TOTAL PRICE \$ 600



POINT This is an actual photograph of recorder chart
PRESSURE

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2185	2190.4
(B) FIRST INITIAL FLOW PRESSURE	20	22.4
(C) FIRST FINAL FLOW PRESSURE	20	22.4
(D) INITIAL CLOSED-IN PRESSURE		
(E) SECOND INITIAL FLOW PRESSURE		
(F) SECOND FINAL FLOW PRESSURE		
(G) FINAL CLOSED-IN PRESSURE		
(H) FINAL HYDROSTATIC MUD	2185	2180.3

TRILOBITE TESTING COMPANY LLC.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

N2 4517

Well Name & No. <u>FRITZLER #1</u>	Test No. <u>Two</u>	Date <u>2-2-92</u>
Company <u>MESS OIL CO.</u>	Zone Tested <u>MISS.</u>	
Address <u>P.O. 1009 McPHERSON KS 67460</u>	Elevation <u>2310GL</u>	
Co. Rep./Geo. <u>JAMES C. MESS</u>	Cont. <u>MALLARD</u>	Est. Ft. of Pay _____
Location: Sec. <u>21</u>	Twp. <u>19S</u>	Rge. <u>24W</u> Co. <u>MESS</u> State <u>KS.</u>
No. of Copies <u>5</u>	Distribution Sheet _____	Yes _____ <input checked="" type="radio"/> No _____
Turnkey _____	Yes _____	<input checked="" type="radio"/> No _____ Evaluation _____

Interval Tested <u>4320 TO 4394</u>	Drill Pipe Size <u>4 1/2" F.H.</u>
Anchor Length <u>74'</u>	Top Choke — 1" _____ Bottom Choke — 3/4" _____
Top Packer Depth <u>4315</u>	Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
Bottom Packer Depth <u>4320</u>	Wt. Pipe I.D. — 2.7 Ft. Run _____
Total Depth <u>4394</u>	Drill Collar — 2.25 Ft. Run <u>300</u>
Mud Wt. <u>9.3</u> lb/gal.	Viscosity <u>45</u> Filtrate <u>8-8</u>
Tool Open @ <u>1:45</u>	Initial Blow <u>DIED IN 5 MIN.</u>

Final Blow NONIE TAIEN

Recovery — Total Feet <u>8</u>	Feet of Gas in Pipe _____	Flush Tool? <u>YES</u>
Rec. <u>8</u> Feet Of <u>MUD</u>	%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 _____	
Rec. _____ Feet Of _____	%gas _____ %oil _____ %water _____ %mud _____	

BHT 225 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud <u>2185</u>	PSI	AK1 Recorder No. <u>13851</u>	Range <u>4425</u>
(B) First Initial Flow Pressure <u>20</u>	PSI	@ (depth) <u>4393</u>	w/Clock No. <u>25813</u>
(C) First Final Flow Pressure <u>20</u>	PSI	AK1 Recorder No. <u>13850</u>	Range <u>4325</u>
(D) Initial Shut-In Pressure _____	PSI	@ (depth) <u>4394</u>	w/Clock No. <u>25814</u>
(E) Second Initial Flow Pressure _____	PSI	AK1 Recorder No. _____	Range _____
(F) Second Final Flow Pressure _____	PSI	@ (depth) _____	w/Clock No. _____
(G) Final Shut-In Pressure _____	PSI	Initial Opening <u>20</u>	Test <u>55000</u>
(H) Final Hydrostatic Mud <u>2185</u>	PSI	Initial Shut-In _____	Jars _____

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Approved By <u>James C. Mess</u>	Final Flow _____	Safety Joint <u>5000</u>
Our Representative <u>[Signature]</u>	Final Shut-In _____	Straddle _____
		Circ. Sub _____
		Sampler _____
		Extra Packer _____
		Other _____
		TOTAL PRICE \$ <u>60000</u>

TRILOBITE TESTING COMPANY L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name FRITZLER #1 Test No. 3 Date 2/2/92
Company HESS OIL COMPANY Zone Tested FT SCOTT
Address P.O. BOX 1009 McPHERSON KS 67460 Elevation 2310 G.L.
Co. Rep./Geo. JAMES C. HESS Cont. MALLARD Est. Ft. of Pay 4
Location: Sec. 21 Twp. 19S Rge. 24W Co. NESS State KS

Interval Tested 4250-4394 Drill Pipe Size 4.5 FH
Anchor Length 144 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 4245 Drill Collar - 2.25 Ft. Run 240
Bottom Packer Depth 4250
Total Depth 4394

Mud Wt. 9.3 lb / gal. Viscosity 45 Filtrate 8.8

Tool Open @ 5:30 Initial Blow VERY GOOD - BOTTOM OF BUCKET IN 1 MINUTE

Final Blow BOTTOM OF BUCKET IN 5 MINUTES

Recovery — Total Feet 2040 Flush Tool? NO

Rec. 2040 Feet of OIL, GAS & WTR CUT MUD-15%GAS/5%OIL/30%WTR/50%MUD

Rec. _____ Feet of _____

Rec. _____ Feet of _____

Rec. _____ Feet of _____

Rec. _____ Feet of _____

BHT 125 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API

RW 0.1 @ 65 °F Chlorides 85000 ppm Recovery Chlorides _____ ppm System

(A) Initial Hydrostatic Mud 2190.4 PSI AK1 Recorder No. 13851 Range 4425

(B) First Initial Flow Pressure 260.7 PSI @ (depth) 4389 w/Clock No. 25813

(C) First Final Flow Pressure 710.3 PSI AK1 Recorder No. 13850 Range 4325

(D) Initial Shut-in Pressure 1150.6 PSI @ (depth) 4394 w/Clock No. 25814

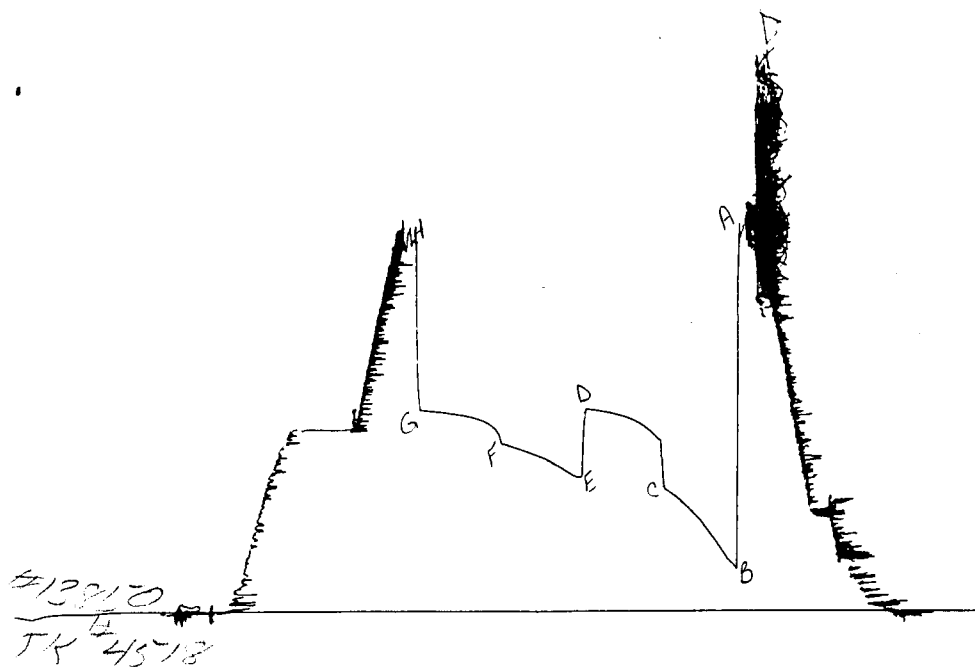
(E) Second Initial Flow Pressure 760.4 PSI AK1 Recorder No. _____ Range _____

(F) Second Final Flow Pressure 950.8 PSI @ (depth) _____ w/Clock No. _____

(G) Final Shut-in Pressure 1150.6 PSI Initial Opening 60 Final Flow 60

(H) Final Hydrostatic Mud 2180.3 PSI Initial Shut-in 60 Final Shut-in 60

Our Representative HARRY SCHMIDT TOTAL PRICE \$ 635



POINT This is an actual photograph of recorder chart PRESSURE

POINT	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2185	2190.4
(B) FIRST INITIAL FLOW PRESSURE	255	260.7
(C) FIRST FINAL FLOW PRESSURE	707	710.3
(D) INITIAL CLOSED-IN PRESSURE	1145	1150.6
(E) SECOND INITIAL FLOW PRESSURE	751	760.4
(F) SECOND FINAL FLOW PRESSURE	947	950.8
(G) FINAL CLOSED-IN PRESSURE	1145	1150.6
(H) FINAL HYDROSTATIC MUD	2185	2180.3

TRILOBITE TESTING COMPANY L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Test Ticket

No 4518

Well Name & No. FRITZLER #1 Test No. THREE Date 2-2-92
 Company HIESS OIL CO. Zone Tested FT. SCOTT
 Address P.O.B. 1009 MLD PATERSON KS 67460 Elevation 2310 G.L.
 Co. Rep./Geo. J.C. HIESS Cont. MALLARD Est. Ft. of Pay 4
 Location: Sec. 21 Twp. 19S Rge. 24W Co. NESS State KS
 No. of Copies 5 Distribution Sheet Yes No Turnkey Yes No Evaluation

Interval Tested 4250 TO 4394 Drill Pipe Size 4 1/2" 13H
 Anchor Length 144 Top Choke — 1" Bottom Choke — 3/4"
 Top Packer Depth 4245 Hole Size — 7 7/8" Rubber Size — 6 3/4"
 Bottom Packer Depth 4250 Wt. Pipe I.D. — 2.7 Ft. Run
 Total Depth 4394 Drill Collar — 2.25 Ft. Run 240
 Mud Wt. 9.3 lb/gal. Viscosity 45 Filtrate 8.8
 Tool Open @ 5:30 Initial Blow VERY GOOD ROT. BUCKET IN 1 MIN
 Final Blow ROT. BUCKET IN 5 MIN.

Recovery — Total Feet	Feet of Gas in Pipe	Flush Tool?
<u>2040</u>	<u>—</u>	<u>NO</u>
Rec. <u>2040</u> Feet Of <u>O.G. + W.C.M.</u>	<u>15% gas</u>	<u>5% oil</u>
Rec. _____ Feet Of _____	<u>30% water</u>	<u>50% mud</u>
Rec. _____ Feet Of _____	% gas	% oil
Rec. _____ Feet Of _____	% gas	% oil
Rec. _____ Feet Of _____	% gas	% oil
Rec. _____ Feet Of _____	% gas	% oil

BHT 225 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
 RW 0.1 @ 65 °F Chlorides 85,000 ppm Recovery Chlorides _____ ppm System
 (A) Initial Hydrostatic Mud 2185 PSI AK1 Recorder No. 13851 Range 4425
 (B) First Initial Flow Pressure 255 PSI @ (depth) 4389 w/Clock No. 25813
 (C) First Final Flow Pressure 707 PSI AK1 Recorder No. 13850 Range 4325
 (D) Initial Shut-In Pressure 1145 PSI @ (depth) 4394 w/Clock No. 25814
 (E) Second Initial Flow Pressure 751 PSI AK1 Recorder No. _____ Range _____
 (F) Second Final Flow Pressure 947 PSI @ (depth) _____ w/Clock No. _____
 (G) Final Shut-In Pressure 1145 PSI Initial Opening 60 Test 530
 (H) Final Hydrostatic Mud 2185 PSI Initial Shut-in 60 Jars _____

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Final Flow 60 Safety Joint 50
 Final Shut-in 60 Straddle _____
 Circ. Sub 35
 Sampler _____
 Extra Packer _____
 Other _____
 TOTAL PRICE \$ 635.00

Approved By James C. Hieck
 Our Representative [Signature]