

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name WHIPPLE "A" #1-29 Test No. 1 Date 6/5/94
Company CASTELLI EXPLORATION, INC. Zone MISS
Address 9500 WESTGATE DR - #101 OKLAHOMA CITY OK 73162 Elevation 2513 KB
Co. Rep./Geo. TOM CASTELLI Cont. EMPHASIS DRLG RIG #7 Est. Ft. of Pay _____
Location: Sec. 29 Twp. 16S Rge. 24W Co. NESS State KS

Interval Tested 4460-4502 Drill Pipe Size 4.5" XH
Anchor Length 42 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 4455 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 4460 Mud Wt. 9.2 lb/Gal.
Total Depth 4502 Viscosity 45 Filtrate 10

Tool Open @ 7:10 AM Initial Blow WEAK STEADY SURFACE BLOW

Final Blow NO BLOW

Recovery - Total Feet 5 Flush Tool? NO

Rec. 5 Feet of SLIGHTLY OIL CUT MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 118 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud 2364.1 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 26.5 PSI @ (depth) 4464 w / Clock No. 27567

(C) First Final Flow Pressure 26.5 PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-in Pressure 251.9 PSI @ (depth) 4498 w / Clock No. 27501

(E) Second Initial Flow Pressure 29.5 PSI AK1 Recorder No. _____ Range _____

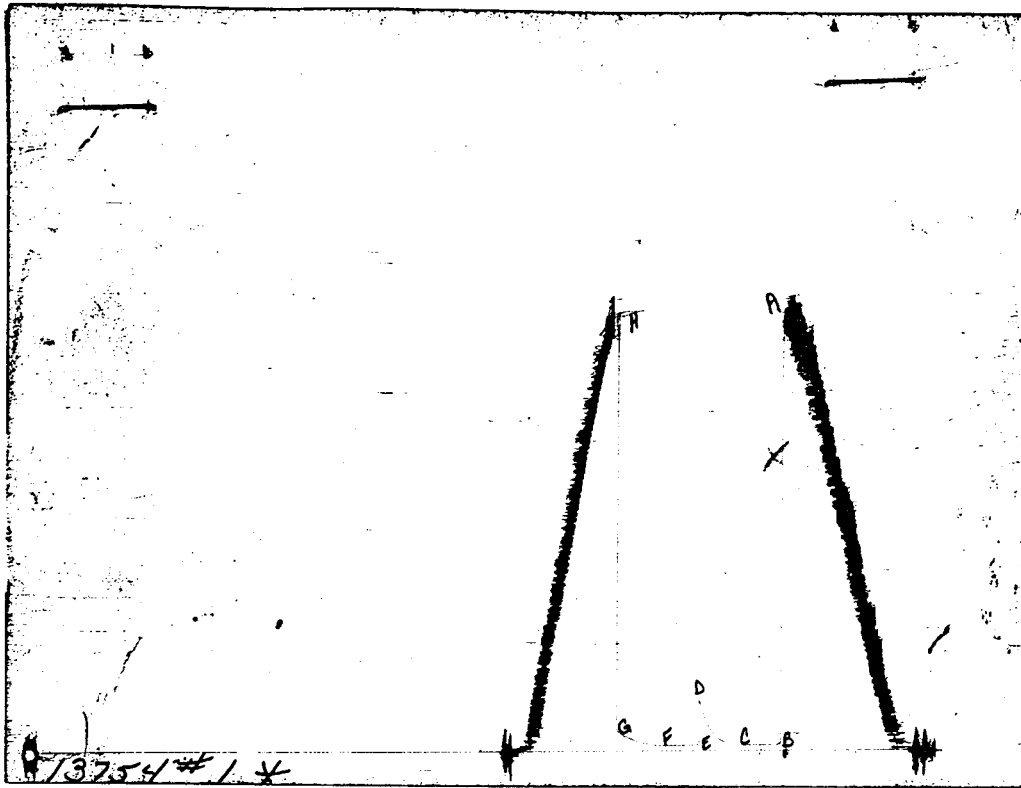
(F) Second Final Flow Pressure 29.5 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 103.3 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 2257.1 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative DAN BANGLE

CHART PAGE



This is an actual photograph of recorder chart #13754

FIELD
READING

OFFICE
READING

(A) INITIAL HYDROSTATIC MUD	2360	2364.1
(B) FIRST INITIAL FLOW PRESSURE	39	26.5
(C) FIRST FINAL FLOW PRESSURE	39	26.5
(D) INITIAL CLOSED-IN PRESSURE	265	251.9
(E) SECOND INITIAL FLOW PRESSURE	39	29.5
(F) SECOND FINAL FLOW PRESSURE	39	29.5
(G) FINAL CLOSED-IN PRESSURE	127	103.3
(H) FINAL HYDROSTATIC MUD	2259	2257.1

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Drill-Stem Test Data

Well Name WHIPPLE "A" #1-29 Test No. 2 Date 6/5/94
Company CASTELLI EXPLORATION, INC. Zone MISS
Address 9500 WESTGATE DR - #101 OKLAHOMA CITY OK 73162 Elevation 2513 KB
Co. Rep./Geo. TOM CASTELLI Cont. EMPHASIS DRLG RIG #7 Est. Ft. of Pay 6
Location: Sec. 29 Twp. 16S Rge. 24W Co. NESS State KS

Interval Tested 4460-4508 Drill Pipe Size 4.5" XH
Anchor Length 48 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 4455 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 4460 Mud Wt. 9.3 lb/Gal.
Total Depth 4508 Viscosity 45 Filtrate 10

Tool Open @ 11:55 PM Initial Blow WEAK-BUILDING TO 4" FAIR BLOW

Final Blow WEAK-LOST PACKER SEAT IN INITIAL SHUTIN/ MISRUN

Recovery - Total Feet 480 Flush Tool? NO

Rec. 100 Feet of OIL CUT MUD - 25%OIL/ 75%MUD
Rec. 380 Feet of VERY SLIGHTLY OIL CUT MUD - 4% OIL/ 96% MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 121 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 4000 ppm System

(A) Initial Hydrostatic Mud 2360.3 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 44.2 PSI @ (depth) 4464 w / Clock No. 27567

(C) First Final Flow Pressure 44.2 PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-in Pressure _____ PSI @ (depth) 4504 w / Clock No. 27501

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

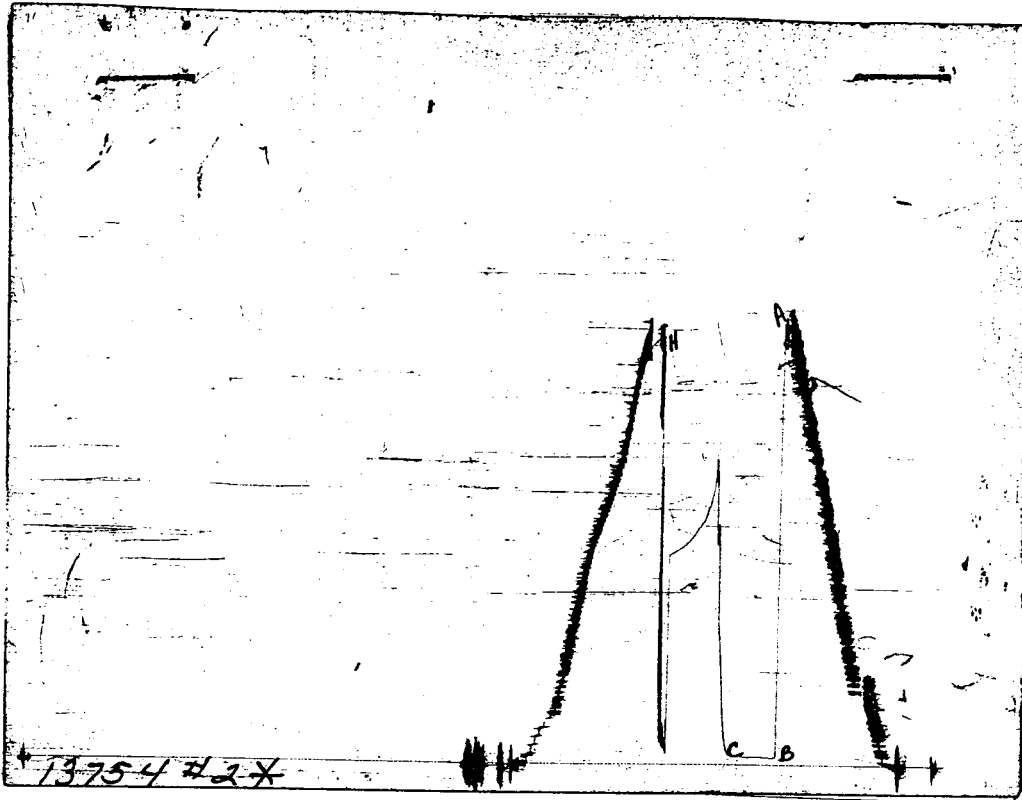
(F) Second Final Flow Pressure _____ PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure _____ PSI Initial Opening 30 Final Flow 5

(H) Final Hydrostatic Mud 2259.1 PSI Initial Shut-in 45 Final Shut-in 0

Our Representative DAN BANGLE

CHART PAGE



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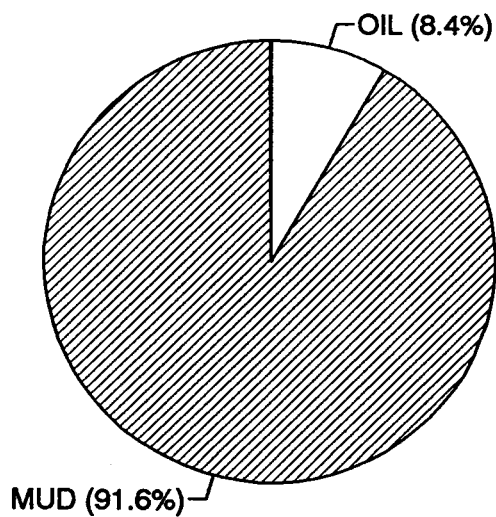
FIELD
READING

OFFICE
READING

(A) INITIAL HYDROSTATIC MUD	2370	2360.3
(B) FIRST INITIAL FLOW PRESSURE	49	44.2
(C) FIRST FINAL FLOW PRESSURE	49	44.2
(D) INITIAL CLOSED-IN PRESSURE		
(E) SECOND INITIAL FLOW PRESSURE		
(F) SECOND FINAL FLOW PRESSURE		
(G) FINAL CLOSED-IN PRESSURE		
(H) FINAL HYDROSTATIC MUD	2269	2259.1

CALCULATED RECOVERY ANALYSIS						DRILL	PIPE		
DST #	3 2			TICKET		7124			
SAMPLE	TOTAL	GAS	OIL			WATER		MUD	
#	FEET	%	FEET	%	FEET	%	FEET	%	FEET
1	100	0	0	25	25	0	0	75	75
2	380	0	0	4	15.2	0	0	96	364.8
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
6			0		0		0		0
TOTAL	480	0	0	8.38	40.2	0	0	91.6	439.8

			HRS	BBL/DAY
BBL OIL=	0.571644	*	0.58	23.654
BBL WATER=	0	*		0
BBL MUD=	6.253956			
BBL GAS	0			



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Drill-Stem Test Data

Well Name WHIPPLE "A" #1-29 Test No. 3 Date 6/6/94
Company CASTELLI EXPLORATION, INC. Zone MISS
Address 9500 WESTGATE DR - #101 OKLAHOMA CITY OK 73162 Elevation 2513 KB
Co. Rep./Geo. TOM CASTELLI Cont. EMPHASIS DRLG RIG #7 Est. Ft. of Pay _____
Location: Sec. 29 Twp. 16S Rge. 24W Co. NESS State KS

Interval Tested 4489-4511 Drill Pipe Size 4.5" XH
Anchor Length 22 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 4484 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 4489 Mud Wt. 9.3 lb/Gal.
Total Depth 4511 Viscosity 50 Filtrate 9.6

Tool Open @ 11:40 AM Initial Blow COULD NOT GET PACKER SEAT / MISRUN

Final Blow _____

Recovery - Total Feet _____ Flush Tool? NO

Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 121 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 4500 ppm System

(A) Initial Hydrostatic Mud 2360.3 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure _____ PSI @ (depth) 4493 w / Clock No. 27567

(C) First Final Flow Pressure _____ PSI AK1 Recorder No. 13849 Range 4375

(D) Initial Shut-in Pressure _____ PSI @ (depth) 4507 w / Clock No. 27501

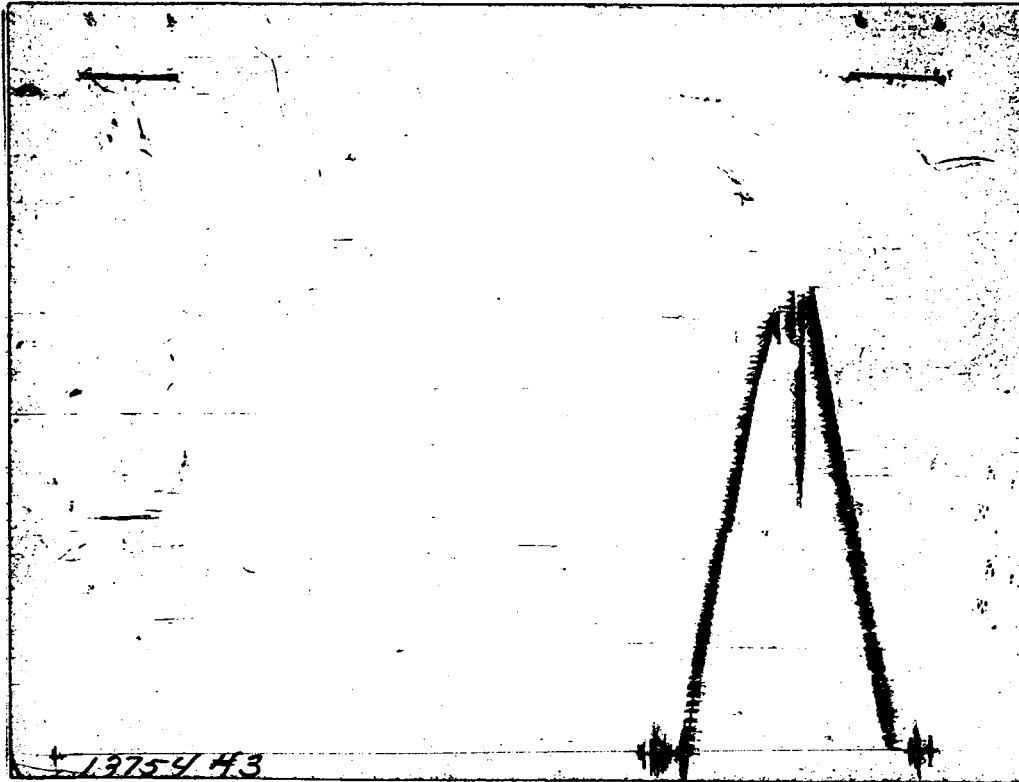
(E) Second Initial Flow Pressure _____ PSI AK1 Recorder No. _____ Range _____

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

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

(H) Final Hydrostatic Mud 2259.1 PSI Initial Shut-in _____ Final Shut-in _____

Our Representative DAN BANGLE



This is an actual photograph of recorder chart #13754

FIELD
READING

OFFICE
READING

(A) INITIAL HYDROSTATIC MUD	2390	2360.3
(B) FIRST INITIAL FLOW PRESSURE		
(C) FIRST FINAL FLOW PRESSURE		
(D) INITIAL CLOSED-IN PRESSURE		
(E) SECOND INITIAL FLOW PRESSURE		
(F) SECOND FINAL FLOW PRESSURE		
(G) FINAL CLOSED-IN PRESSURE		
(H) FINAL HYDROSTATIC MUD	2289	2259.1

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name WHIPPLE "A" #1-29 Test No. 4 Date 6/6/94
Company CASTELLI EXPLORATION, INC. Zone MISS
Address 9500 WESTGATE DR - #101 OKLAHOMA CITY OK 73162 Elevation 2513 KB
Co. Rep./Geo. TOM CASTELLI Cont. EMPHASIS DRLG RIG #7 Est. Ft. of Pay 6
Location: Sec. 29 Twp. 16S Rge. 24W Co. NESS State KS

Interval Tested 4438-4511 Drill Pipe Size 4.5" XH
Anchor Length 73 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 4433 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 4438 Mud Wt. 9.3 lb/Gal.
Total Depth 4511 Viscosity 50 Filtrate 9.6

Tool Open @ 3:35 PM Initial Blow WEAK-BUILDING TO 5"

Final Blow WEAK-BUILDING TO 10" FAIR BLOW

Recovery - Total Feet 154 Flush Tool? NO

Rec. 30 Feet of GAS IN PIPE
Rec. 30 Feet of HEAVY OIL CUT MUD - 30% OIL/ 70% MUD
Rec. 124 Feet of HEAVY OIL CUT MUD - 40% OIL/ 60% MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 121 °F Gravity _____ °API @ _____ °F Corrected Gravity 34 °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 4500 ppm System

(A) Initial Hydrostatic Mud 2344.6 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 51.1 PSI @ (depth) 4442 w / Clock No. 27567

(C) First Final Flow Pressure 70.8 PSI AK1 Recorder No. 13849 Range 4573

(D) Initial Shut-in Pressure 979.2 PSI @ (depth) 4507 w / Clock No. 27501

(E) Second Initial Flow Pressure 71.8 PSI AK1 Recorder No. _____ Range _____

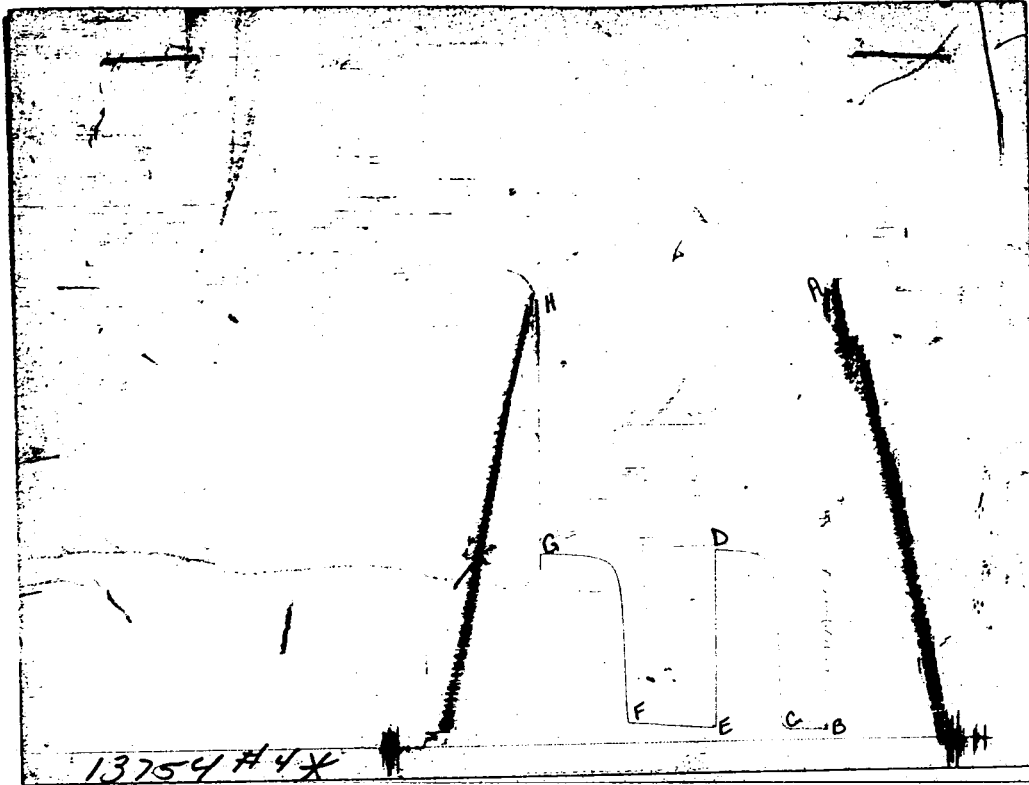
(F) Second Final Flow Pressure 107.2 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 977.2 PSI Initial Opening 30 Final Flow 60

(H) Final Hydrostatic Mud 2275.2 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative DAN BANGLE

CHART PAGE



This is an actual photograph of recorder chart #13754

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2390	2344.6
(B) FIRST INITIAL FLOW PRESSURE	68	51.1
(C) FIRST FINAL FLOW PRESSURE	68	70.8
(D) INITIAL CLOSED-IN PRESSURE	986	979.2
(E) SECOND INITIAL FLOW PRESSURE	88	71.8
(F) SECOND FINAL FLOW PRESSURE	108	107.2
(G) FINAL CLOSED-IN PRESSURE	986	977.2
(H) FINAL HYDROSTATIC MUD	2309	2275.2

COMPUTER OIL EVALUATION BY TRILOBITE TESTING, L.L.C.

CASTELLI EXPLORATION, INC.

WHIPPLE "A" #1-29

DST 4

29

16S

24W

NESS KS

ELEVATION:	2513 KB	EST. PAY	6 FT
DATUM:	-1930	ZONE TESTED:	MISS
TEST INTERVAL:	4438-4511	TIME INTERVALS:	30-45-60-60
RECORDER DEPTH:	4442	VISCOSITY:	8.39 CP
BOTTOM HOLE TEMP:	121	HOLE SIZE:	7.875 IN

CUBIC FEET OF GAS IN PIPE:	2		
TOTAL FEET OF RECOVERY:	154.00	CORRECTED PIPE FILLUP:	289.811
TOTAL BARRELS OF RECOVERY:	2.19	CORR. BARRELS OF RECOVERY:	4.110 BBL
BARRELS IN DRILL PIPE:	2.19	API GRAVITY:	34
BARRELS IN WEIGHT PIPE:	0.00	FLUID GRADIENT:	0.370
BARRELS IN DRILL COLLARS:	0.00		
GAS OIL RATIO:	1.09	CU.FT/BBL	
BUBBLE POINT PRESSURE:	14		
UNCORRECTED INITIAL PRODUCTION:			35.04 BBL
INITIAL PRODUCTION CORRECTED TO FINAL FLOW PRESSURE:			65.75 BBL/DAY
INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE:			32.176

INITIAL SLOPE	122.61 PSI/CYCL	FINAL SLOPE	61.88 PSI/CYCLE
INITIAL P*	1002.73 PSI	FINAL P*	1001.83 PSI

TRANSMISSIBILITY	172.77 (MD.-FT./CP.)
PERMEABILITY	241.55 (MD.)
INDICATED FLOW CAPACITY	1449.28 (MD.FT)
PRODUCTIVITY INDEX	0.20 (BARREL/DAY/PSI)
DAMAGE RATIO	2.65
RADIUS OF INVESTIGATION	147.44 (FT,)
POTENTIOMETRIC SURFACE	394.23 (FT.)
DRAWDOWN FACTOR	0.090 (%)
THEORETICAL POTENTIAL FROM FINAL FLOW PRESSURE	173.95
THEORETICAL POTENTIAL FROM PSEUDO STEADY FLOW STATE	85.12

INITIAL FLOW

RECORDER 13754

DST # 4

TIME(MIN) PRESSURE <> PRESSURE

0	51.1	51.1
3	49.2	-1.9
6	55.1	5.9
9	54.1	-1.0
12	53.1	-1.0
15	54.1	1.0
18	57.1	3.0
21	55.1	-2.0
24	55.1	0.0
27	55.1	0.0
30	59.1	4.0
33	70.8	11.7

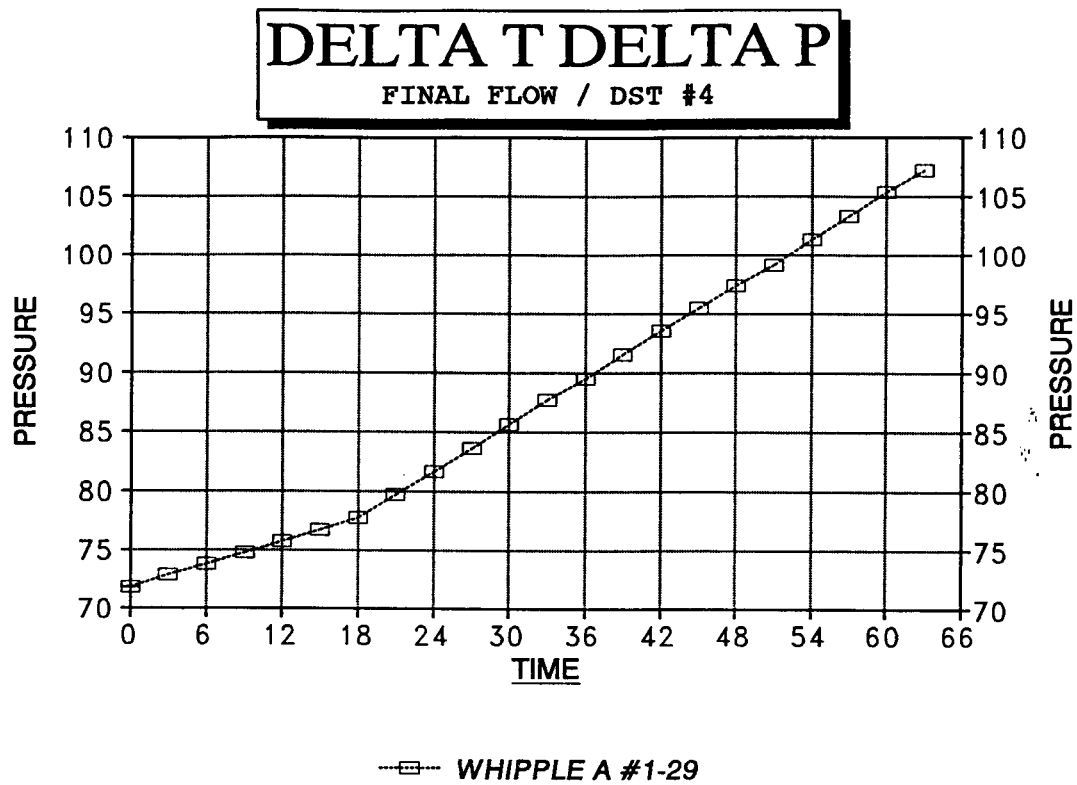
FINAL FLOW

RECORDER 13754

DST # 4

TIME(MIN) PRESSURE <> PRESSURE

0	71.8	71.8
3	72.8	1.0
6	73.8	1.0
9	74.8	1.0
12	75.7	0.9
15	76.7	1.0
18	77.7	1.0
21	79.7	2.0
24	81.6	1.9
27	83.6	2.0
30	85.6	2.0
33	87.6	2.0
36	89.5	1.9
39	91.5	2.0
42	93.5	2.0
45	95.4	1.9
48	97.4	2.0
51	99.1	1.7
54	101.3	2.2
57	103.3	2.0
60	105.3	2.0
63	107.2	1.9



INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE:

32.176

WHIPPLE A #1-29
INITIAL

DST #4
SHUTIN

30 INITIAL FLOW TIME		-----			
		SLOPE	122.6	PSI/CYCLE	
		P*	1002.73	PSI	

		Log	<>		
TIME(MIN)	Pws (psi)	Horn T	PRESSURE	Horn T	
		-----	-----	-----	
	3	469.4	1.041	469.4	11
	6	827.1	0.778	357.7	6
	9	894.2	0.637	67.1	4
	12	923.9	0.544	29.7	4
	15	940.7	0.477	16.8	3
X	18	950.5	0.426	9.8	3
	21	956.5	0.385	6.0	2
	24	962.4	0.352	5.9	2
	27	966.4	0.325	4.0	2
	30	968.3	0.301	1.9	2
	33	971.3	0.281	3.0	2
	36	973.3	0.263	2.0	2
	39	974.3	0.248	1.0	2
	42	975.2	0.234	0.9	2
	45	976.2	0.222	1.0	2
	48	977.2	0.211	1.0	2
	51	978.2	0.201	1.0	2
X	54	979.2	0.192	1.0	2

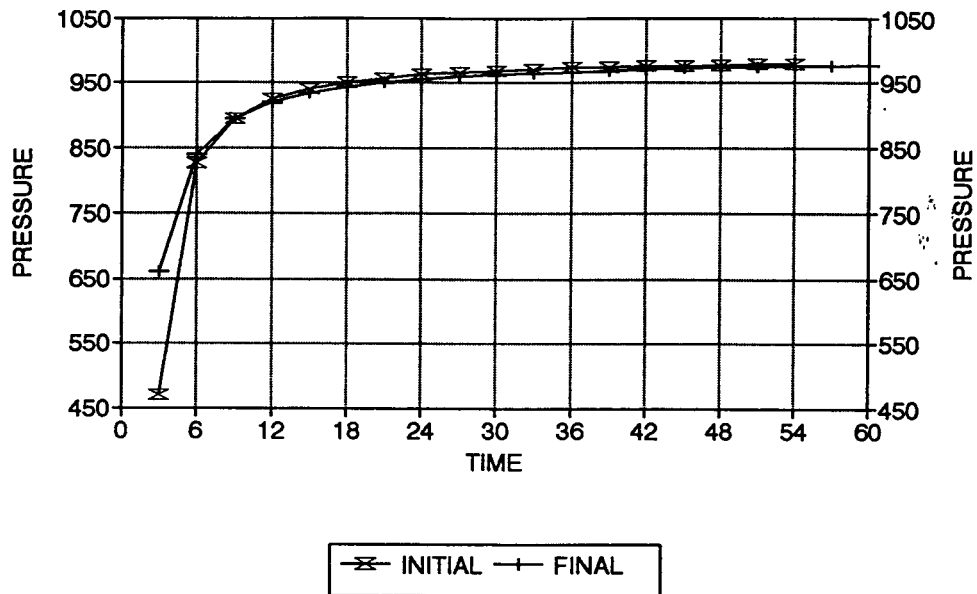
WHIPPLE A #1-29
FINAL

DST #4
SHUTIN

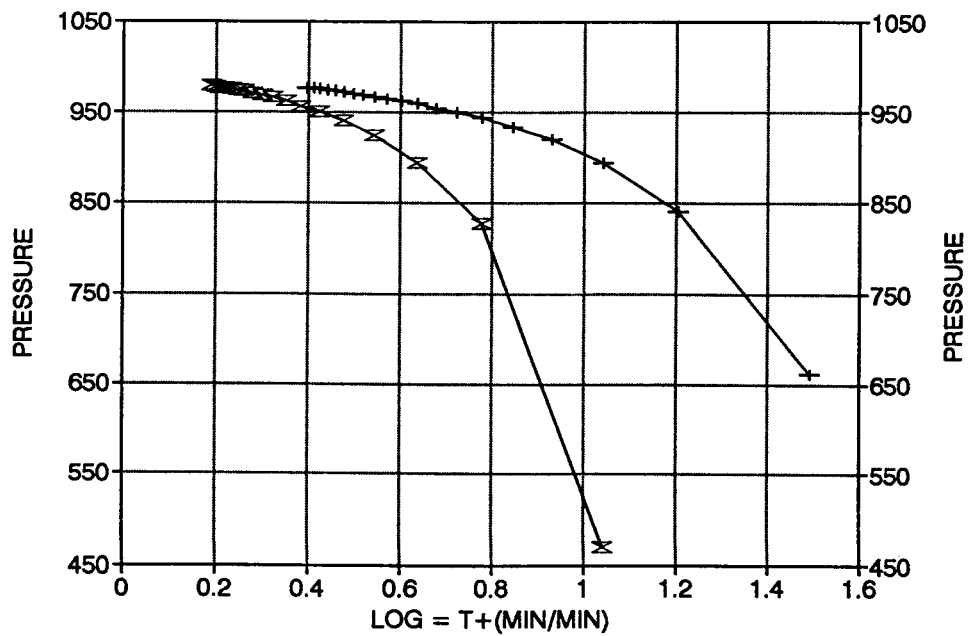
90 TOTAL FLOW TIME		-----			
		SLOPE	61.9	PSI/CYCLE	
		P*	1001.8	PSI	

		Log	<>		
		Horn T	PRESSURE	Horn T	
		-----	-----	-----	
	3	661.1	1.491	661.1	31
	6	839.9	1.204	178.8	16
	9	894.2	1.041	54.3	11
	12	919.9	0.929	25.7	9
	15	933.7	0.845	13.8	7
	18	943.6	0.778	9.9	6
	21	949.6	0.723	6.0	5
	24	954.5	0.677	4.9	5
	27	959.4	0.637	4.9	4
	30	962.4	0.602	3.0	4
	33	964.4	0.571	2.0	4
	36	966.4	0.544	2.0	4
	39	968.3	0.520	1.9	3
	42	970.3	0.497	2.0	3
X	45	972.3	0.477	2.0	3
	48	973.3	0.459	1.0	3
	51	974.3	0.442	1.0	3
	54	975.2	0.426	0.9	3
	57	976.2	0.411	1.0	3
X	60	977.2	0.398	1.0	3

WHIPPLE A #1-29 / DST 34 DELTA T DELTA P

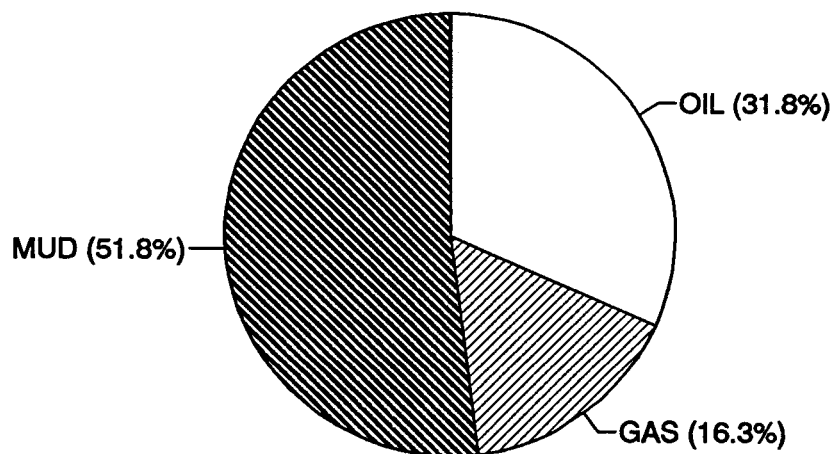


HORNER PLOT



DST #	CALCULATED RECOVERY ANALYSIS					DRILL	PIPE		
	4	TICKET					6876		
SAMPLE #	TOTAL FEET	GAS %	FEET	OIL %	FEET	WATER %	FEET	MUD %	FEET
1	30	100	30	0	0	0	0	0	0
2	30	0	0	30	9	0	0	70	21
3	124	0	0	40	49.6	0	0	60	74.4
4			0		0		0		0
5			0		0		0		0
6			0		0		0		0
TOTAL	184	16.304348	30	31.8	58.6	0	0	51.8	95.4

			HRS	BBL/DAY
BBL OIL=	0.833292	*	1.5	13.333
BBL WATER=	0	*		0
BBL MUD=	1.356588			
BBL GAS	0.4266			



1	0.052	51.17979
2	0.05	49.21
3	0.056	55.11968
4	0.055	54.13467
5	0.054	53.14968
6	0.055	54.13467
7	0.058	57.08979
8	0.056	55.11968
9	0.056	55.11968
10	0.056	55.11968
11	0.06	59.06
12	0.072	70.8684

1	0.073	71.85238
2	0.074	72.83635
3	0.075	73.82031
4	0.076	74.80427
5	0.077	75.78821
6	0.078	76.77215
7	0.079	77.75608
8	0.081	79.72445
9	0.083	81.69337
10	0.085	83.66231
11	0.087	85.63127
12	0.089	87.60025
13	0.091	89.56925
14	0.093	91.53827
15	0.095	93.50731
16	0.097	95.47637
17	0.099	97.44545
18	0.101	99.41423
19	0.103	101.3827
20	0.105	103.3512
21	0.107	105.3196
22	1.09	1076.007

1	0.477	469.4909
2	0.839	827.0695
3	0.907	894.2659
4	0.937	923.9081
5	0.954	940.7072
6	0.964	950.5896
7	0.97	956.5193
8	0.976	962.4491
9	0.98	966.4024
10	0.982	968.3791
11	0.985	971.3441
12	0.987	973.3208
13	0.988	974.3092
14	0.989	975.2976
15	0.99	976.286
16	0.991	977.2744
17	0.992	978.2627
18	0.993	979.2511

ISI - 997.3
FSI - 1006.8

C - 19

A25. A44

DI. D38

1	0.671	661.0555
2	0.852	839.9145
3	0.907	894.2659
4	0.933	919.9556
5	0.947	933.7898
6	0.957	943.6719
7	0.963	949.6013
8	0.968	954.5427
9	0.973	959.4842
10	0.976	962.4491
11	0.978	964.4257
12	0.98	966.4024
13	0.982	968.3791
14	0.984	970.3558
15	0.986	972.3325
16	0.987	973.3208
17	0.988	974.3092
18	0.989	975.2976
19	0.99	976.286
20	0.991	977.2744