

Computer Inventoried

TRILOBITE TESTING L.L.C.

OPERATOR : Grave Drilling, inc.

DATE 10/29/199

WELL NAME: Jones #1

KB 1389.00 ft TICKET NO: 12324 DST #1

LOCATION : 12-28s-5w Kingman co KS *S2 SW SW*

GR 1381.00 ft FORMATION: Swope

INTERVAL : 3305.00 To 3325.00 ft

TD 3325.00 ft TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	10991	10991	3246			PF Fr. 0822 to 0852 hr
SI 60 Range (Psi)	4200.0	4200.0	4995.0	0.0	0.0	IS Fr. 0852 to 0952 hr
SF 30 Clock (hrs)	12hr.	12hr.	elec.			SF Fr. 0952 to 1022 hr
FS 60 Depth (ft)	3323.0	3323.0	3311.0	0.0	0.0	FS Fr. 1022 to 1122 hr

	Field	1	2	3	4	
A. Init Hydro	1639.0	1625.0	1605.0	0.0	0.0	T STARTED 0657 hr
B. First Flow	32.0	31.0	21.0	0.0	0.0	T ON BOTM 0819 hr
B1. Final Flow	64.0	57.0	85.0	0.0	0.0	T OPEN 0822 hr
C. In Shut-in	1343.0	1345.0	1351.0	0.0	0.0	T PULLED 1122 hr
D. Init Flow	106.0	1104.0	88.0	0.0	0.0	T OUT 1245 hr
E. Final Flow	128.0	117.0	141.0	0.0	0.0	
F. Fl Shut-in	1332.0	1232.0	1342.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	1576.0	1588.0	1588.0	0.0	0.0	Tool Wt. 2100.00 lbs
Inside/Outside	0	0	I			Wt Set On Packer 20000.00 lbs
						Wt Pulled Loose 42000.00 lbs
						Initial Str Wt 38000.00 lbs
						Unseated Str Wt 38000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.88 in
						D Col. ID 0.00 in
						D. Pipe ID 3.80 in
						D.C. Length 0.00 ft
						D.P. Length 3317.00 ft

RECOVERY

Tot Fluid 290.00 ft of 0.00 ft in DC and 290.00 ft in DP

40.00 ft of Oil and gas cut muddy water

0.00 ft of trace of oil 46% water 40% mud

250.00 ft of Gas cut muddy water 20% gas 74% water 6% mud

0.00 ft of Trace of gas in pipe

0.00 ft of

0.00 ft of

0.00 ft of

0.00 ft of

SALINITY 140000.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow:

Weak blow built to bottom of bucket in 18 mins.

Initial Shut-in:

Bled down for 5 mins. no blow back.

Final Flow:

Weak surface blow built to bottom of bucket in 22 mins.

Final Shut-in:

Bled down for 5 mins. no blow back

SAMPLES:

SENT TO:

MUD DATA-----

Mud Type	Chemical
Weight	9.40 lb
Vis.	42.00 S/I
W.L.	11.20 in
F.C.	0.32 in
Mud Drop N	
Amt. of fill	0.00 ft
Btm. H. Temp.	114.00 F
Hole Condition	good
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00 n
Cushion Type	none
Reversed Out N	
Tool Chased N	
Tester	Darren L. Amerine
Co. Rep.	Tim Pierce
Contr.	Duke
Rig #	2
Unit #	no
Pump T.	none

Test Successful: Y

P.O. SUB	
C.O. SUB top of tool@	3286
S.I. TOOL	3291
HMV	3296
JARS	
SAFETY JOINT	
PACKER	3300
PACKER	3305
DEPTH 3305	
STUBB 1'to	3306
ANCHOR 14'of perfs.	3320
Alpine rec.@ 3311	
	3320
T.C.	
DEPTH	
	3320
Ak-1 rec.@ 3323	
BULLNOSE 5'bullnose to	3325
T.D.	

TEST HISTORY
Tk#12324 DST#1 Jones #1 Grave Drilling, Inc.

Flag Points

$t(\text{Min.}) \leq P(\text{PSI}q)$

A: 0.00 1604.77

B: 0.00 20.75

C: 29.25 84.82

D: 60.00 1351.14

E: 0.00 88.30

F: 29.25 140.56

G: 61.00 1341.57

Q: 0.00 1588.04

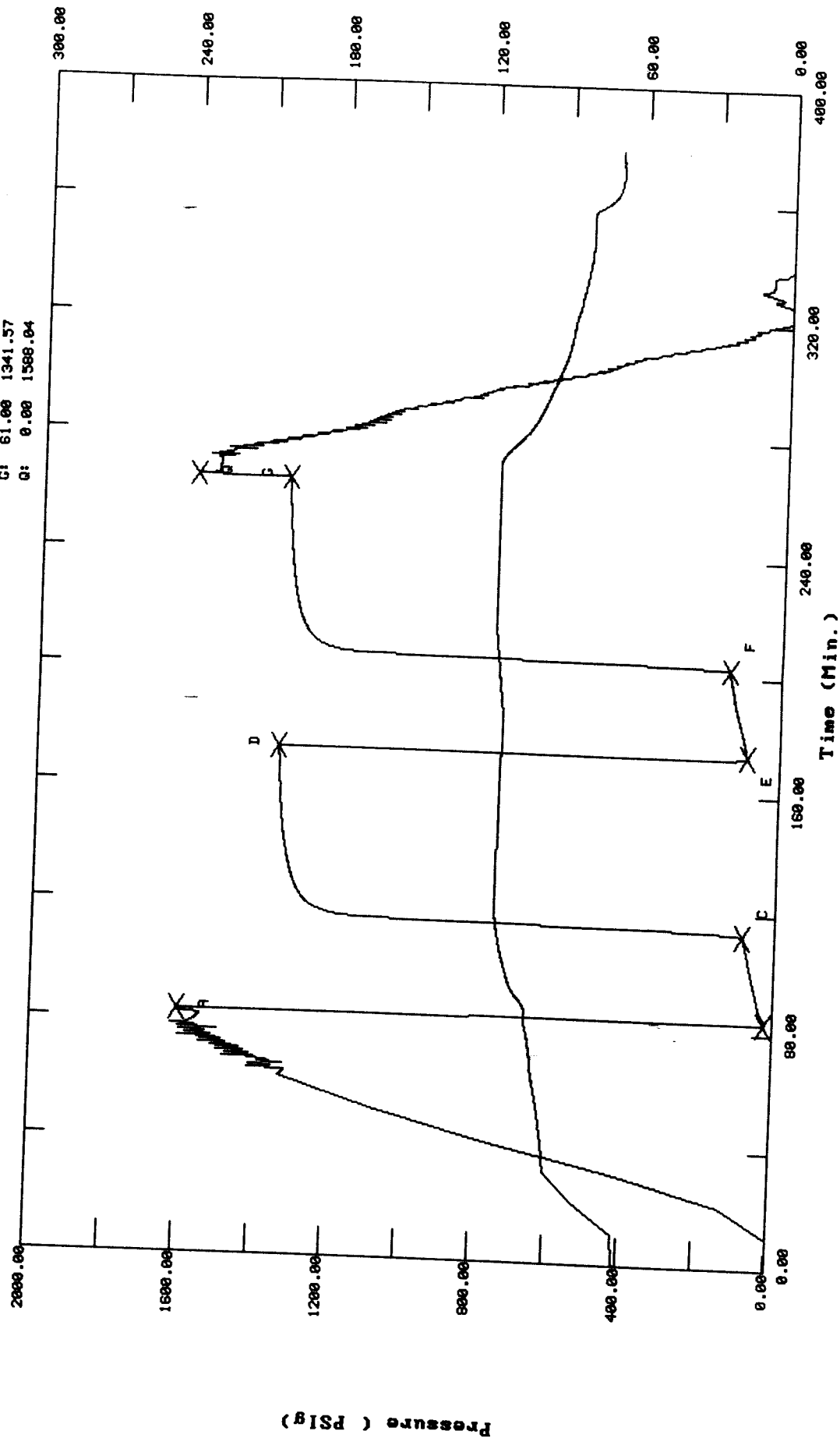
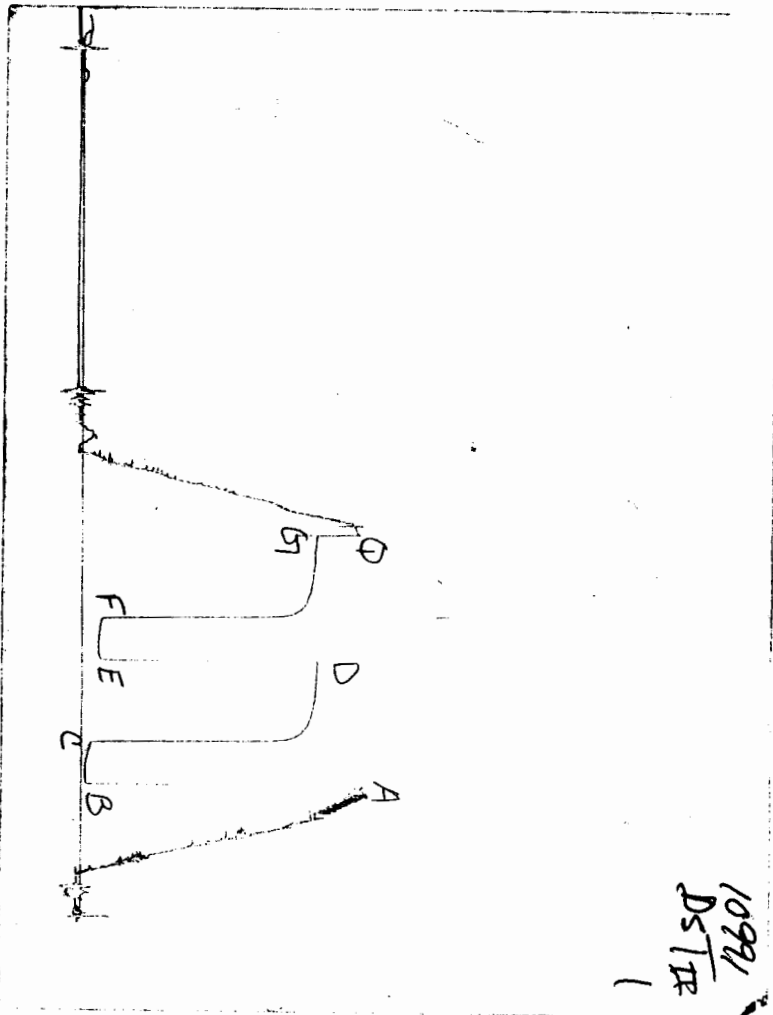


CHART PAGE



This is a photocopy of the actual AK-1 recorder chart

TRILOBITE TESTING L.L.C.

OPERATOR : Grave Drilling, Inc.

WELL NAME: Jones

LOCATION : 12-28s-5w Kingman co KS

INTERVAL : 3758.00 To 3780.00 ft

DATE 10/30/199

KB 1389.00 ft

GR 1381.00 ft

TD 3780.00 ft

TICKET NO: 12325

DST #2

FORMATION: Miss.

TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins		Field	1	2	3	4	TIME DATA-----
PF	30	Rec.	10991	10991	3246		PF Fr. 1648 to 1718 hr
SI	60	Range(Psi)	4200.0	4200.0	4995.0	0.0	IS Fr. 1718 to 1818 hr
SF	60	Clock(hrs)	12hr.	12hr.	elec.	0.0	SF Fr. 1818 to 1918 hr
FS	60	Depth(ft)	3777.0	3777.0	3764.0	0.0	FS Fr. 1918 to 2018 hr

	Field	1	2	3	4	
A. Init Hydro	1903.0	1907.0	1900.0	0.0	0.0	T STARTED 1458 hr
B. First Flow	32.0	40.0	17.0	0.0	0.0	T ON BOTM 1645 hr
B1. Final Flow	32.0	40.0	23.0	0.0	0.0	T OPEN 1648 hr
C. In Shut-in	927.0	946.0	951.0	0.0	0.0	T PULLED 2018 hr
D. Init Flow	43.0	49.0	30.0	0.0	0.0	T OUT 2130 hr
E. Final Flow	43.0	49.0	46.0	0.0	0.0	
F. Fl Shut-in	842.0	859.0	871.0	0.0	0.0	
G. Final Hydro	1892.0	1896.0	1860.0	0.0	0.0	TOOL DATA-----
Inside/Outside	0	0	I	0.0	0.0	Tool Wt. 2100.00 lbs

RECOVERY

Tot Fluid 110.00 ft of 0.00 ft in DC and 110.00 ft in DP

2334.00 ft of Gas in pipe

50.00 ft of Oil and gas cut muddy water

0.00 ft of 20% gas 5% oil 45% water 30% mud

60.00 ft of Slight oil and gas cut muddy water

0.00 ft of 28% gas 2% oil 65% water 5% mud

0.00 ft of

0.00 ft of

0.00 ft of

SALINITY 80000.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow:

Strong blow bottom of bucket in 34 secs.

Initial Shut-in:

Bled down for 1 1/2 mins. no blow back

Final Flow:

Strong blow bottom of bucket in 15 secs.

Final Shut-in:

Bled down for 5 mins.no blow back.

SAMPLES:

SENT TO:

MUD DATA-----

Mud Type	Chemical
Weight	9.30 lb/c
Vis.	46.00 S/L
W.L.	10.00 in3
F.C.	0.32 in
Mud Drop N	

Amt. of fill	0.00 ft
Btm. H. Temp.	118.00 F
Hole Condition	good
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00 n
Cushion Type	none
Reversed Out N	
Tool Chased N	
Tester	Daren L.Amerine
Co. Rep.	Tim Pierce
Contr.	Duke
Rig #	2
Unit #	no
Pump T.	none

Test Successful: Y

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Jones

LOCATION : Sec.12

WELL No. 12325 D.S.T. No. 2 DATE 10/30/199

TOTAL TOOL TO BOTTOM OF TOP PACKERS 20

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 22

TOTAL TOOL 42

WELL COLLAR ANCHOR IN INTERVAL

C. ANCHOR STAND.Stands Single Total

P. ANCHOR STAND.Stands Single Total

TOTAL ASSEMBLY

C. ABOVE TOOLS.Stands Single Total

P. ABOVE TOOLS.Stands60 Single 1 Total 3748

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 3790

TOTAL DEPTH 3780

TOTAL DRILL PIPE ABOVE K.B. 10

MARKS:

P.O. SUB

C.O. SUB Top of tool@

3759

S.I. TOOL

3764

HMV

3769

JARS

SAFETY JOINT

PACKER

3753

PACKER

3758

DEPTH 3758

STUBB 1'to

3759

ANCHOR 16' of prfs.to

3775

Alpine rec.@ 3764

T.C.

DEPTH

3775

Ak-1 rec.@ 3777

BULLNOSE 5'bullnose to

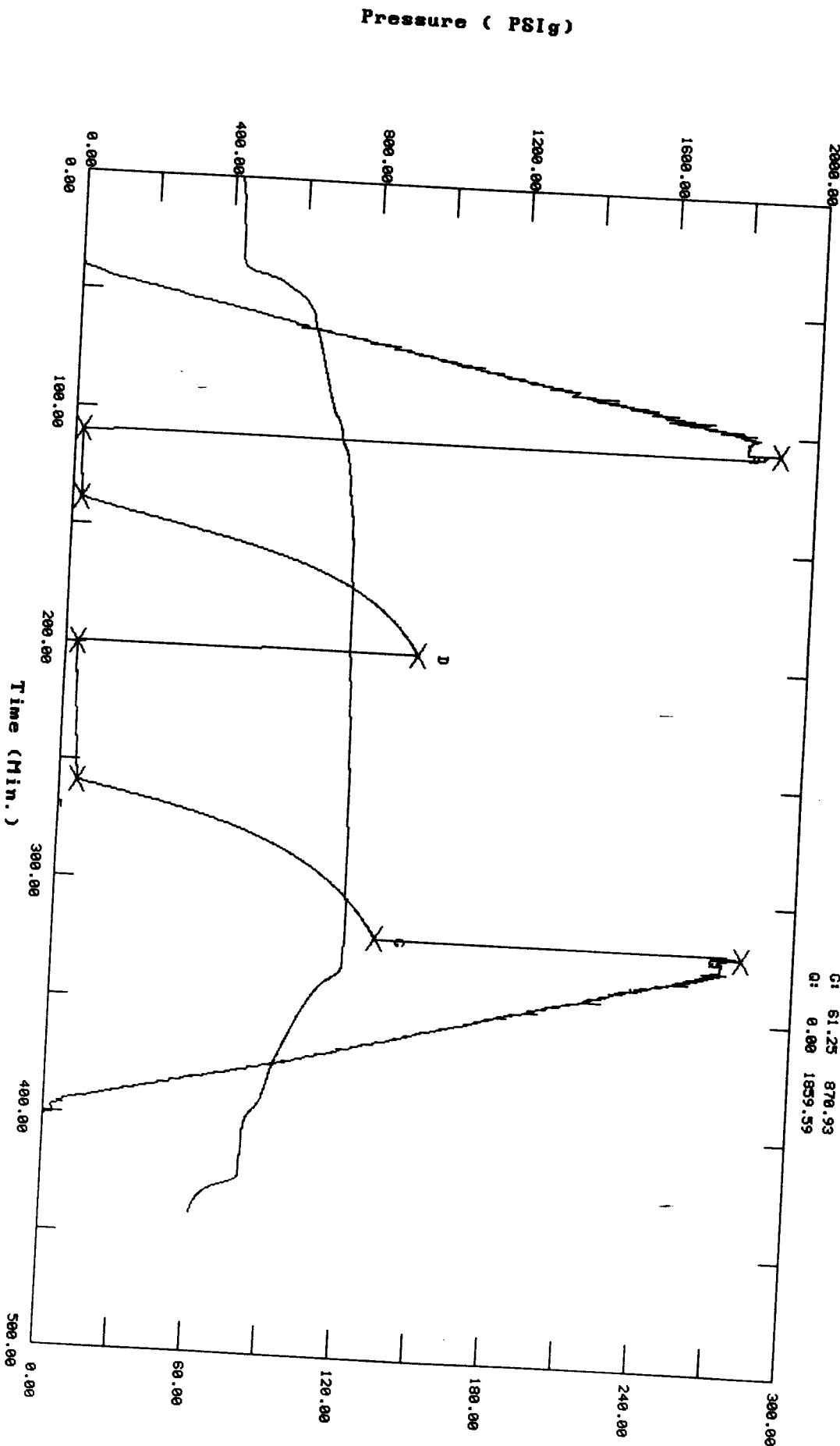
3780

T.D.

TEST HISTORY

Tk#12325 DST#2 Jones #1 Grave Drilling, Inc.

	t(Min.)	Pk PSig)	Flag Points
A:	0.00	1900.03	
B:	0.00	17.09	
C:	28.75	22.57	
D:	60.00	951.38	
E:	0.00	29.80	
F:	59.00	46.27	
G:	61.25	870.93	
H:	0.00	1859.59	



TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

N^o 12325

Test Ticket

Well Name & No. <u>Jones #1</u>	Test No. <u>#2</u>	Date <u>10/30/1999</u>
Company <u>Grave Drilling Inc.</u>	Zone Tested <u>M.SS</u>	
Address <u>P.O. box 8250 Wichita, KS 67208-0250</u>	Elevation <u>1389</u>	KB <u>1381</u> GL
Co. Rep / Geo. <u>Tim Pierce</u>	Cont. <u>Duffe #2</u>	Est. Ft. of Pay <u> </u> Por. <u> </u> %
Location: Sec. <u>12</u>	Twp. <u>28S</u>	Rge. <u>5W</u>
	Co. <u>Kingman</u>	State <u>KS</u>
No. of Copies <u>5</u>	Distribution Sheet (Y, N) <u> </u>	Turnkey (Y, N) <u> </u>
	Evaluation (Y, N) <u> </u>	

Interval Tested <u>3758' - 3780'</u>	Initial Str Wt./Lbs. <u>41000</u>	Unseated Str Wt./Lbs. <u>41000</u>
Anchor Length <u>22'</u>	Wt. Set Lbs. <u>20000</u>	Wt. Pulled Loose/Lbs. <u>7500</u>
Top Packer Depth <u>3753'</u>	Tool Weight <u>2100</u>	
Bottom Packer Depth <u>3758'</u>	Hole Size — 7 7/8" ☒	Rubber Size — 6 3/4" ☒
Total Depth <u>3780'</u>	Wt. Pipe Run <u>N/A</u>	Drill Collar Run <u>N/A</u>
Mud Wt. <u>9.3</u> LCM <u> </u> Vis. <u>46</u> WL <u>10.0</u>	Drill Pipe Size <u>4 1/2 KH</u>	Ft. Run <u>3748'</u>
Blow Description <u>IF: Strong blow p.o.b in 34 sec.</u>		
<u>ISI: Bled down for 1 1/2 mins. No blow back.</u>		
<u>FF: Strong blow p.o.b in 15 sec.</u>		
<u>FSI: Bled down for 5 mins</u>		

Recovery — Total Feet <u>110'</u>	GIP <u>2354</u>	Ft. in DC <u> </u>	Ft. in DP <u>110'</u>
Rec. <u>50'</u> Feet Of <u>OE6CMW</u>	<u>20%</u> gas <u>5%</u> oil	<u>45%</u> water <u>30%</u> mud	
Rec. <u>60'</u> Feet Of <u>SOE6CMW</u>	<u>28%</u> gas <u>2%</u> oil	<u>65%</u> water <u>5%</u> mud	
Rec. <u>2334</u> Feet Of <u>Gas IN Pipe</u>	% gas % oil	% water % mud	
Rec. <u> </u> Feet Of <u> </u>	% gas % oil	% water % mud	
Rec. <u> </u> Feet Of <u> </u>	% gas % oil	% water % mud	
BHT <u>118°</u> °F Gravity <u> </u>	°API D ₄₀ <u> </u>	°F Corrected Gravity <u> </u>	°API <u> </u>
RW <u>.07</u> @ <u>82°</u> °F	Chlorides <u>80000</u> ppm Recovery	Chlorides <u>2200</u> ppm System	

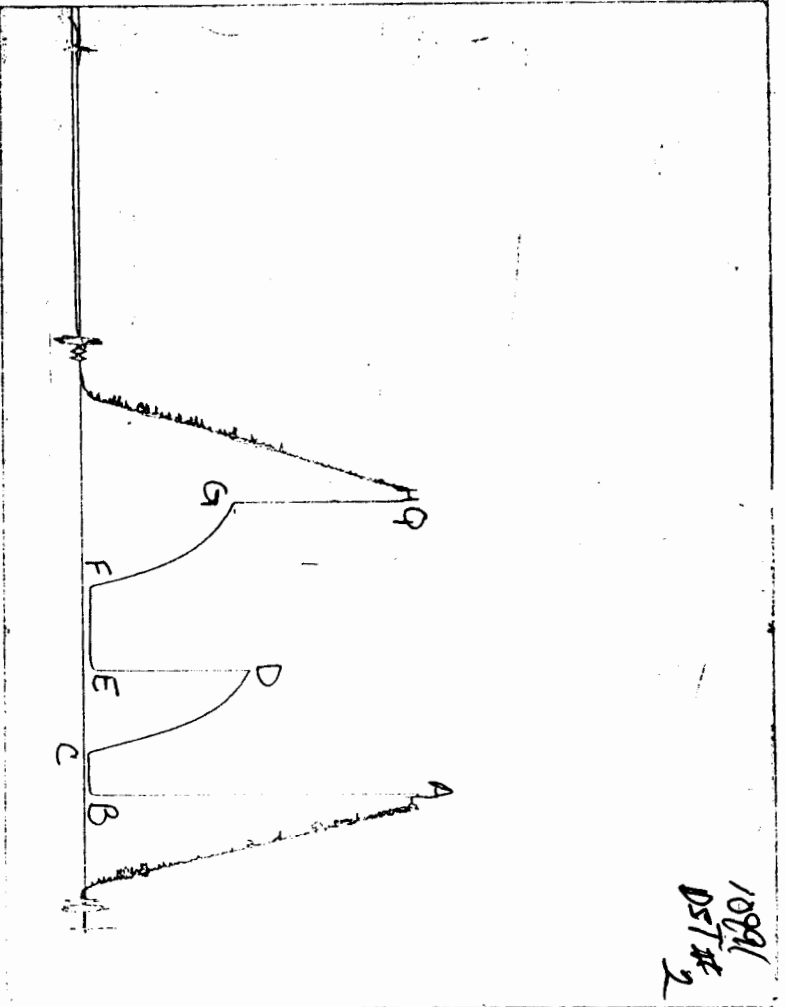
	AK-1	Alpine		
(A) Initial Hydrostatic Mud	<u>1903</u>	<u>1900</u>	PSI Recorder No. <u>3246</u>	T-On Location <u>1400</u>
(B) First Initial Flow Pressure	<u>32</u>	<u>17</u>	PSI (depth) <u>3764'</u>	T-Started <u>1457</u>
(C) First Final Flow Pressure	<u>32</u>	<u>23</u>	PSI Recorder No. <u>10991</u>	T-Open <u>1648</u>
(D) Initial Shut-In Pressure	<u>927</u>	<u>751</u>	PSI (depth) <u>3777'</u>	T-Pulled <u>2018</u>
(E) Second Initial Flow Pressure	<u>43</u>	<u>30</u>	PSI Recorder No. <u> </u>	T-Out <u>2145</u>
(F) Second Final Flow Pressure	<u>43</u>	<u>46</u>	PSI (depth) <u> </u>	T-Off Location <u>2230</u>
(G) Final Shut-in Pressure	<u>842</u>	<u>871</u>	PSI Initial Opening <u>30</u>	Test ☒
(Q) Final Hydrostatic Mud	<u>1892</u>	<u>1860</u>	PSI Initial Shut-in <u>60</u>	Jars <u> </u>
			Final Flow <u>60</u>	Safety Joint <u> </u>
			Final Shut-in <u>60</u>	Straddle <u> </u>
				Circ. Sub <u> </u>
				Sampler <u> </u>
				Extra Packer <u> </u>
				Elec. Rec. ☒
				Mileage <u> </u>
				Other <u> </u>
				TOTAL PRICE \$ <u> </u>

TRILOBITE TESTING L.L.C. 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 SUSTAINED, 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.

Approved By Tim Pierce

Our Representative Darren S. Amersin

CHART PAGE



This is a photocopy of the actual AK-1 recorder chart

TRILOBITE TESTING L.L.C.

OPERATOR : Grave Drilling, Inc.

DATE 10/31/199

WELL NAME: Jones #1

KB 1389.00 ft

TICKET NO: 12326 DST #3

LOCATION : 12-28s-5w Kingman co KS

GR 1381.00 ft

FORMATION: Miss.

INTERVAL : 3780.00 To 3802.00 ft

TD 3802.00 ft

TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	10991	10991	3246			PF Fr. 0538 to 0608 hr
SI 60 Range(Psi)	4200.0	4200.0	4995.0	0.0	0.0	IS Fr. 0608 to 0708 hr
SF 60 Clock(hrs)	12hr.	12hr.	elec.			SF Fr. 0708 to 0808 hr
FS 60 Depth(ft)	3799.0	3799.0	3786.0	0.0	0.0	FS Fr. 0808 to 0908 hr

	Field	1	2	3	4	
A. Init Hydro	1914.0	1912.0	1916.0	0.0	0.0	T STARTED 0401 hr
B. First Flow	21.0	30.0	42.0	0.0	0.0	T ON BOTM 0535 hr
B1. Final Flow	21.0	30.0	60.0	0.0	0.0	T OPEN 0538 hr
C. In Shut-in	1087.0	1092.0	1118.0	0.0	0.0	T PULLED 0908 hr
D. Init Flow	43.0	53.0	54.0	0.0	0.0	T OUT 1030 hr
E. Final Flow	53.0	63.0	96.0	0.0	0.0	
F. Fl Shut-in	1045.0	1043.0	1066.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	1871.0	1858.0	1854.0	0.0	0.0	Tool Wt. 2100.00 lbs
Inside/Outside	O	O	I			Wt Set On Packer 20000.00 lbs
						Wt Pulled Loose 45000.00 lbs
						Initial Str Wt 41000.00 lbs
						Unseated Str Wt 0.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.88 in
						D Col. ID 0.00 in
						D. Pipe ID 3.80 in
						D.C. Length 0.00 ft
						D.P. Length 3779.00 ft

RECOVERY

Tot Fluid 210.00 ft of 0.00 ft in DC and 210.00 ft in DP
 3569.00 ft of Gas in pipe
 30.00 ft of Oil and gas cut watery mud
 0.00 ft of 8% gas 34% oil 8% water 50% mud
 120.00 ft of Oil and gas cut water mud
 0.00 ft of 35% gas 35% oil 15% water 15% mud
 30.00 ft of Heavy oil and gas cut watery mud
 0.00 ft of 40% gas 40% oil 10% water 10% mud
 0.00 ft of

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

BLOW DESCRIPTION

Strong blow

ISI:Bled down for 5 mins.no blow back.

FF:Strong blow b.o.b in 10 sec.Gauge-gas

FSI:Bled down for 10 mins.no

SAMPLES: Caraway Analytical,728 N.Roosevelt

SENT TO:Liberal,Ks.

MUD DATA-----

Mud Type	Chemical
Weight	9.30 lb/
Vis.	45.00 S/L
W.L.	10.00 in3
F.C.	0.32 in
Mud Drop N	

Amt. of fill	0.00 ft
Btm. H. Temp.	117.00 F
Hole Condition	good
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00 n
Cushion Type	none
Reversed Out N	
Tool Chased N	
Tester	Darren L.Amerine
Co. Rep.	Tim Pierce
Contr.	Duke
Rig #	2
Unit #	no
Pump T.	none

Test Successful: Y

GAS RECOVERY -----

COMPANY: Grave Drilling, Inc.

DATE: 10/31/199

WELL NAME: Jones #1

KB Elev: 1389.00 ft TICKET #12326 DST #3

WELL LOCATION: Sec.12 Twp.28s

GR Elev: 1381.00 ft FORMATION: Miss.

INTERVAL Fr.: 3780.00 To 3802.00 T.D.: 3802.00 ft TEST TYPE: CONVENTIONAL

GAS RECOVERY MEASURED WITH Adj.Choke

*** GAS RATES FOR FLOW #1

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
21	0.38	0	30	19500.0
30	0.38	0	34	20800.0

*** GAS RATES FOR FLOW #2

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
10	0.38	1	0	63400.0
20	0.38	8	0	55300.0
30	0.38	6	0	48800.0
40	0.38	6	0	46400.0
50	0.38	5	0	44200.0
60	0.38	5	0	44200.0

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Jones #1

LOCATION : Sec.12 Twp.28s

TICKET No. 12326 D.S.T. No. 3 DATE 10/31/199

TOTAL TOOL TO BOTTOM OF TOP PACKERS 20

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 22

TOTAL TOOL 42

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY

D.C. ABOVE TOOLS.Stands Single Total

D.P. ABOVE TOOLS.Stands61 Single Total 3779

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 3821

TOTAL DEPTH 3802

TOTAL DRILL PIPE ABOVE K.B. 19

REMARKS:

P.O. SUB

C.O. SUB Top of tool @ 3761

S.I. TOOL 3766

HMV 3771

JARS

SAFETY JOINT

PACKER 3775

PACKER 3780

DEPTH 3780

STUBB 1'to 3781

ANCHOR 16'of perfs.to 3797

Alpine rec.@ 3786

T.C.
DEPTH

3797

Ak-1 rec.@ 3799

BULLNOSE 5' bullnose to
T.D. 3802

TEST HISTORY

Tk#12326 DST#3 Jones #1 Grave Drilling, Inc

Flag Points

t (Min.)	P (PSig)
A: 0.00	1916.19
B: 0.00	41.92
C: 27.50	59.69
D: 60.50	1117.72
E: 0.00	54.16
F: 50.00	96.25
G: 60.75	1066.31
Q: 0.00	1854.11

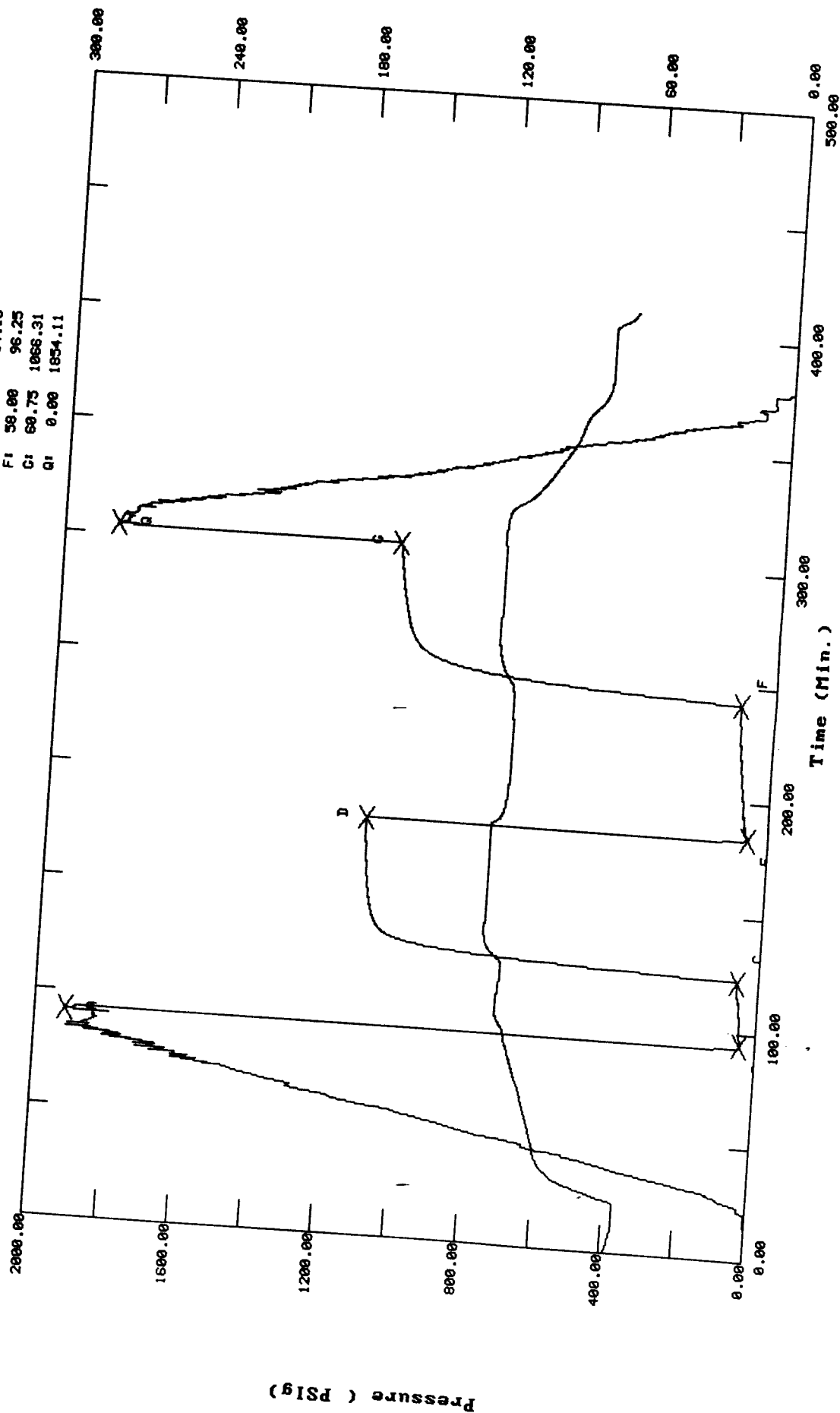
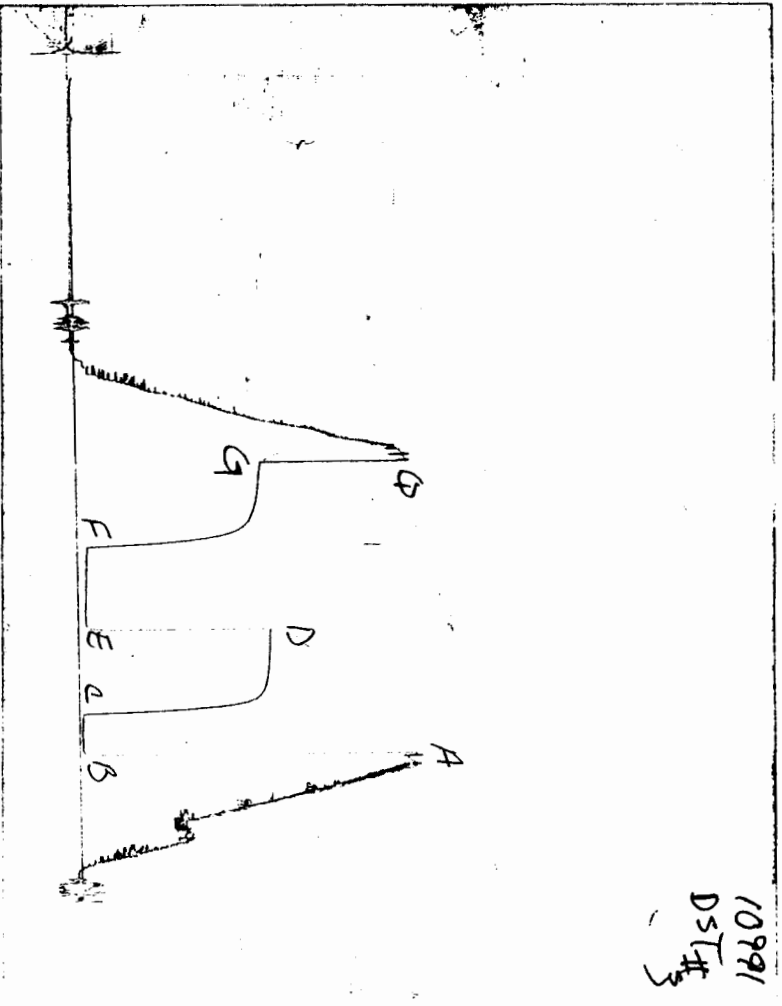


CHART PAGE



This is a photocopy of the actual AK-1 recorder chart



GAS VOLUME REPORT

Jones #1

WELL NAME AND NO.

(miss)

DST NO.

T.S in 11 min
Critical Flow

Final Flow

[illegible]

Remarks:

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Nº 12326

Test Ticket

Well Name & No. Jones #1 Test No. #3 Date 10/31/1999
Company Crave Drilling, Inc. Zone Tested M.55
Address P.O. box 8250 Wichita, KS 67208-0250 Elevation 1389 KB 1381 GL
Co. Rep / Geo. Tim Pierce Cont. Duke #2 Est. Ft. of Pay Por. %
Location: Sec. 12 Twp. 28S Rge. 5W Co. Kingman State KS
No. of Copies 5 Distribution Sheet (Y, N) Turnkey (Y, N) Evaluation (Y, N)

Interval Tested 3780' - 3802' Initial Str Wt./Lbs. 41,000 Unseated Str Wt./Lbs. 41,000
Anchor Length 22' Wt. Set Lbs. 20,000 Wt. Pulled Loose/Lbs. 15,000
Top Packer Depth 3775' Tool Weight 2100
Bottom Packer Depth 3780' Hole Size — 7 7/8" ✓ Rubber Size — 6 3/4" ✓
Total Depth 3802' Wt. Pipe Run N/A Drill Collar Run N/A
Ld Wt. 9.3 LCM 0 Vis. 45 WL 10.0 Drill Pipe Size 4 1/2 x 11 Ft. Run 3779'
Log Description TF: Strong blow b.o.b in 30 sec G.T.S in 11 min.
IST: Bled down for 5 min no blow back
FF: Strong blow b.o.b in 10 sec G.T.S in Buge Gas
FST Bled down for 10 min.
Recovery — Total Feet 210' GIP 3569 Ft. in DC Ft. in DP 210'
C. 30' Feet Of 0.6 GCM 8 %gas 34 %oil 8 %water 50 %mud
C. 120' Feet Of 0.6 GCM 35 %gas 35 %oil 15 %water 15 %mud
C. 60' Feet Of 1.0 GCM 40 %gas 40 %oil 10 %water 10 %mud
C. Feet Of %gas %oil %water %mud
C. Feet Of %gas %oil %water %mud
IT 117° °F Gravity °API D @ °F Corrected Gravity °API
V @ °F Chlorides ppm Recovery Chlorides 2200 ppm System

	AK-1	Alpine		
Initial Hydrostatic Mud	<u>1914</u>	<u>1916</u>	PSI Recorder No. <u>3246</u>	T-On Location <u>0345</u>
First Initial Flow Pressure	<u>21</u>	<u>42</u>	PSI (depth) <u>3786'</u>	T-Started <u>0401</u>
First Final Flow Pressure	<u>21</u>	<u>60</u>	PSI Recorder No. <u>10991</u>	T-Open <u>0338</u>
Initial Shut-In Pressure	<u>1087</u>	<u>1118</u>	PSI (depth) <u>3786'</u>	T-Pulled <u>0908</u>
Second Initial Flow Pressure	<u>43</u>	<u>54</u>	PSI Recorder No. <u> </u>	T-Out <u>1030</u>
Second Final Flow Pressure	<u>53</u>	<u>96</u>	PSI (depth) <u> </u>	T-Off Location <u>1130</u>
Final Shut-in Pressure	<u>1045</u>	<u>1066</u>	PSI Initial Opening <u>30</u>	Test <u>✓</u>
Final Hydrostatic Mud	<u>1871</u>	<u>1854</u>	PSI Initial Shut-in <u>60</u>	Jars <u> </u>
			Final Flow <u>60</u>	Safety Joint <u> </u>
			Final Shut-in <u>60</u>	Straddle <u> </u>

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE 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, OR ITS STATEMENTS OF 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.

Approved By Tim Pierce
Representative Darren J. Linsing

Extra Packer
Elec. Rec. ✓
Mileage
Other
TOTAL PRICE \$

TRILOBITE TESTING L.L.C.

OPERATOR : Grave Drilling, Inc.

DATE 10/31/199

WELL NAME: Jones #1

KB 1389.00 ft

TICKET NO: 12327

DST #4

LOCATION : 12-28s-5w Kingman co KS

GR 1381.00 ft

FORMATION: Miss.

INTERVAL : 3802.00 To 3827.00 ft

TD 3827.00 ft

TEST TYPE: CONVENTIONAL

RECORDER DATA

Mins	Field	1	2	3	4	TIME DATA-----
PF 30 Rec.	10991	10991	3246			PF Fr. 1925 to 1955 hr
SI 60 Range(Psi)	4200.0	4200.0	4995.0	0.0	0.0	IS Fr. 1955 to 2055 hr
SF 60 Clock(hrs)	12hr.	12hr.	elec.			SF Fr. 2055 to 2155 hr
FS 60 Depth(ft)	3824.0	3824.0	3808.0	0.0	0.0	FS Fr. 2155 to 2255 hr

	Field	1	2	3	4	
A. Init Hydro	1956.0	1943.0	1942.0	0.0	0.0	T STARTED 1730 hr
B. First Flow	32.0	38.0	42.0	0.0	0.0	T ON BOTM 1922 hr
B1. Final Flow	43.0	42.0	59.0	0.0	0.0	T OPEN 1925 hr
C. In Shut-in	1119.0	1121.0	1124.0	0.0	0.0	T PULLED 2255 hr
D. Init Flow	64.0	70.0	65.0	0.0	0.0	T OUT 0030 hr
E. Final Flow	85.0	87.0	98.0	0.0	0.0	
F. Fl Shut-in	1098.0	1002.0	1104.0	0.0	0.0	TOOL DATA-----
G. Final Hydro	1935.0	1934.0	1874.0	0.0	0.0	Tool Wt. 2100.00 lbs
Inside/Outside	0	0	I			Wt Set On Packer 20000.00 lbs
						Wt Pulled Loose 44000.00 lbs
						Initial Str Wt 41000.00 lbs
						Unseated Str Wt 41000.00 lbs
						Bot Choke 0.75 in
						Hole Size 7.88 in
						D Col. ID 0.00 in
						D. Pipe ID 3.80 in
						D.C. Length 0.00 ft
						D.P. Length 3813.00 ft

RECOVERY

Tot Fluid 220.00 ft of 0.00 ft in DC and 220.00 ft in DP
 3593.00 ft of Gas in pipe
 40.00 ft of Oil and gas cut mud 8% gas 26% oil 66% mud
 120.00 ft of Oil and gas cut mud
 0.00 ft of 33% gas 29% oil 8% water 30% mud
 55.00 ft of Heavy oil and gas cut mud
 0.00 ft of 60% gas 24% oil 6% water 10% mud
 5.00 ft of Water
 0.00 ft of

SALINITY 65000.00 P.P.M. A.P.I. Gravity 0.00

BLOW DESCRIPTION

Initial Flow:

Strong blow bottom of bucket in
 45 secs.

Initial Shut-in:

Bled down for 2 mins. no blow back

Final Flow:

Strong blow bottom of bucket in
 15 secs. gas to surface in 1 min.
 gauge gas

Final Shut-in:

Bled down for 5 mins. no blow back.

SAMPLES: Caraway Analytical, 728 N. Roosevelt

SENT TO: Liberal, Ks.

MUD DATA-----

Mud Type	Chemical
Weight	9.20 lb/cf
Vis.	46.00 S/L
W.L.	10.00 in3
F.C.	0.32 in
Mud Drop N	
Amt. of fill	0.00 ft
Btm. H. Temp.	119.00 F
Hole Condition	good
% Porosity	0.00
Packer Size	6.75 in
No. of Packers	2
Cushion Amt.	0.00 n
Cushion Type	none
Reversed Out N	
Tool Chased N	
Tester	Darren L. Amerine
Co. Rep.	Tim Pierce
Contr.	Duke
Rig #	2
Unit #	none
Pump T.	no

Test Successful: Y

GAS RECOVERY

COMPANY: Grave Drilling, Inc.

DATE: 10/31/199

WELL NAME: Jones #1

KB Elev: 1389.00 ft TICKET #12327 DST #4

WELL LOCATION: Sec.12 Twp.28s Rge.5w

GR Elev: 1381.00 ft FORMATION: Miss.

INTERVAL Fr.: 3802.00 To 3827.00 T.D.: 3827.00 ft TEST TYPE: CONVENTIONAL

AS RECOVERY MEASURED WITH Adj.Choke

*** GAS RATES FOR FLOW #2

Time (min)	Orifice (in)	Pressure (Psi)	H2O (in)	Rate (cf/d)
11	0.25	0	20	7510.0
21	0.25	0	23	8000.0
31	0.25	0	23	8000.0
41	0.25	0	25	8400.0
51	0.25	0	26	8560.0
60	0.25	0	26	8560.0

*** TOOL DIAGRAM *** CONVENTIONAL

WELL NAME: Jones #1

LOCATION : Sec.12 Twp.28s Rge.5w

TICKET No. 12327 D.S.T. No. 4 DATE 10/31/199

TOTAL TOOL TO BOTTOM OF TOP PACKERS 20

INTERVAL TOOL

BOTTOM PACKERS AND ANCHOR 25

TOTAL TOOL 45

DRILL COLLAR ANCHOR IN INTERVAL

D.C. ANCHOR STND.Stands Single Total

D.P. ANCHOR STND.Stands Single Total

TOTAL ASSEMBLY

D.C. ABOVE TOOLS.Stands Single Total

D.P. ABOVE TOOLS.Stands62 Single 1 Total 3810

TOTAL DRILL COLLARS DRILL PIPE & TOOLS .. 3855

TOTAL DEPTH 3827

TOTAL DRILL PIPE ABOVE K.B. 28

REMARKS:

P.O. SUB	
C.O. SUB top of tool @	3783
S.I. TOOL	3788
HMV	3793
JARS	
SAFETY JOINT	
PACKER	3797
PACKER	3802
DEPTH 3802	
STUBB 1'to	3803
ANCHOR 19'of perfs.to	3822
Alpine rec. @ 3808	
T.C.	
DEPTH	
	3822
Ak-1 rec.@ 3824	
BULLNOSE 5'Bullnose to	3827
T.D.	

TEST HISTORY

Tk#12327 DST#4 Jones #1 Grave Drilling, Inc.

Flag Points

t (Min.) P (PSig)

A: 0.00 1941.82
B: 0.00 42.00
C: 28.25 59.40
D: 59.75 1124.39
E: 0.00 65.21
F: 59.25 97.68
G: 69.25 1103.97
Q: 0.00 1874.01

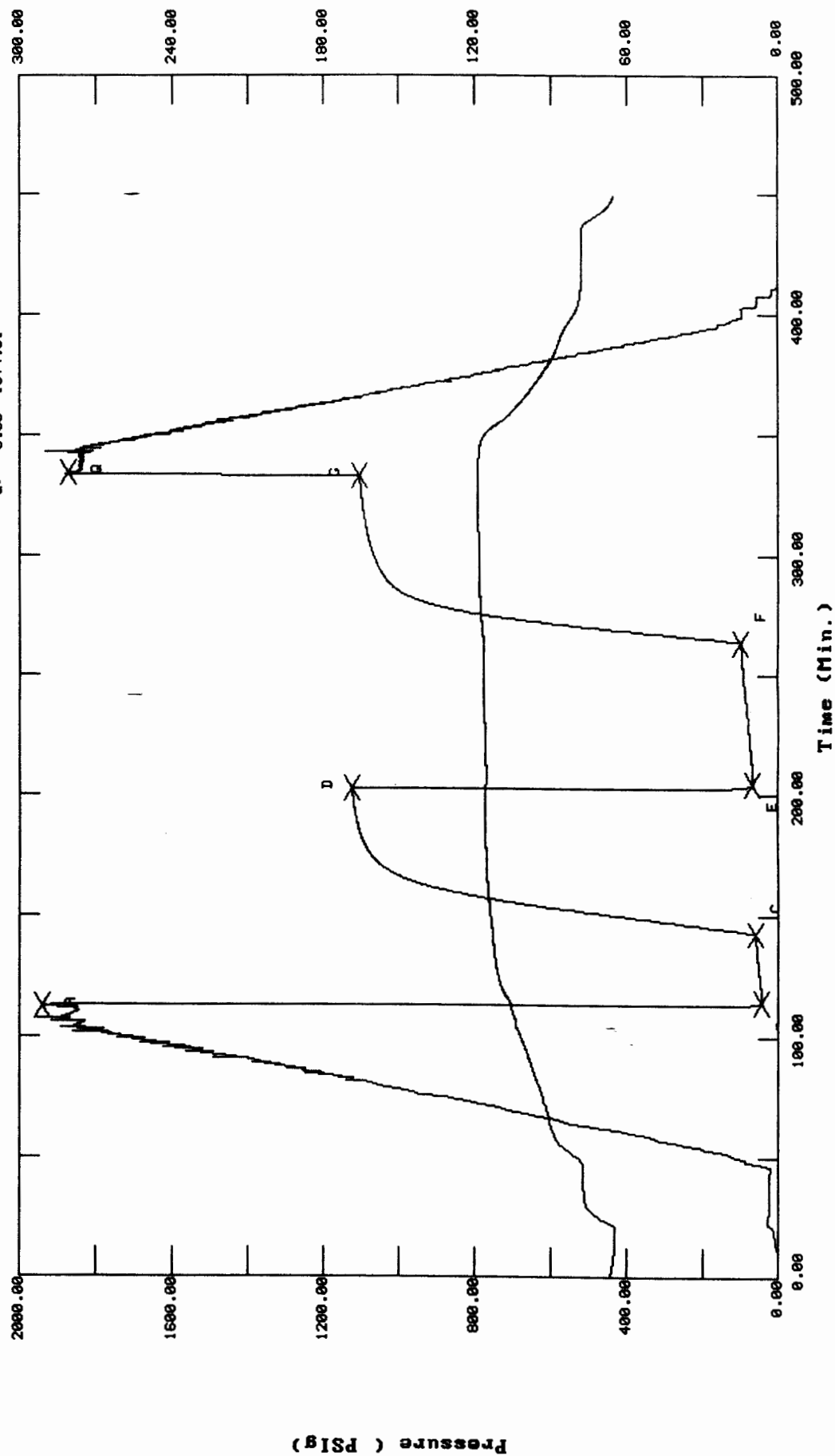
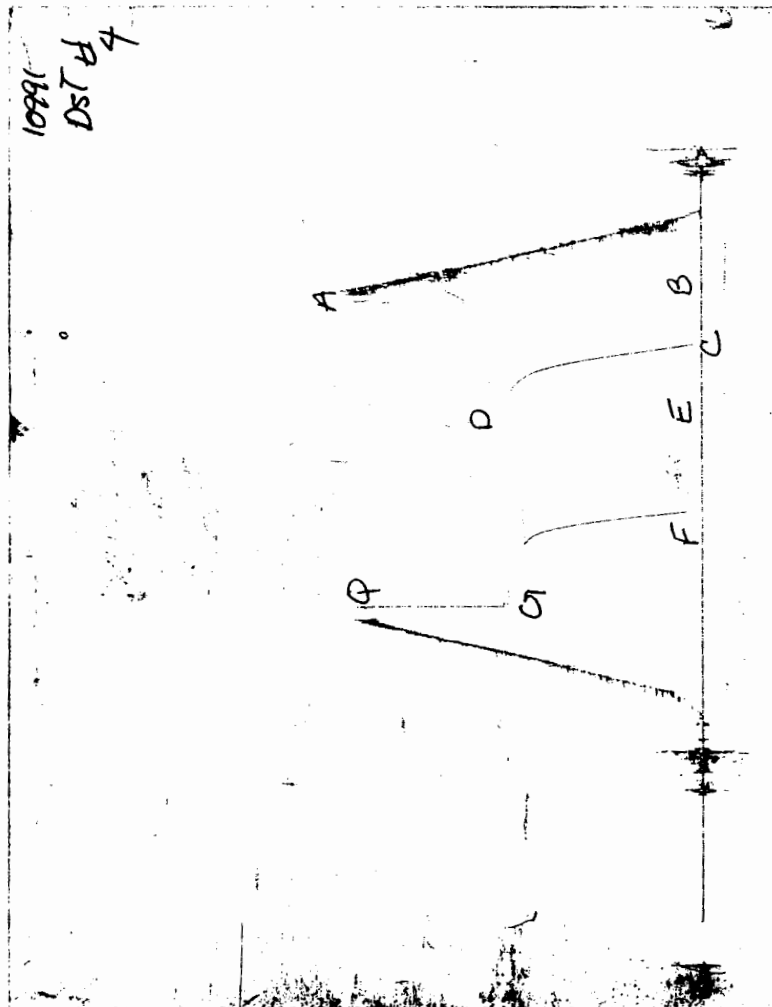


CHART PAGE



This is a photocopy of the actual AK-1 recorder chart



GAS VOLUME REPORT

Grave Drilling, Inc

Jones #1

WELL NAME AND NO.

#4
DST NO.

6.75 1 min. into Final flow.

[illegible]

Remarks:

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Nº 12327

Test Ticket

Well Name & No. <u>Jones #1</u>	Test No. <u>#4</u>	Date <u>10/31/1999</u>
Company <u>Grave Drilling, Inc.</u>	Zone Tested <u>M.55</u>	
Address <u>P.O. box 8250 Wichita, KS 67208-0250</u>	Elevation <u>1389</u>	KB <u>1381</u> GL
Co. Rep / Geo. <u>Tim Pierce</u>	Cont. <u>Duke #2</u>	Est. Ft. of Pay <u> </u> Por. <u> </u> %
Location: Sec. <u>12</u> Twp. <u>28S</u> Rge. <u>5W</u>	Co. <u>Kingman</u> State <u>KS</u>	
No. of Copies <u>5</u>	Distribution Sheet (Y, N) <u> </u>	Turnkey (Y, N) <u> </u> Evaluation (Y, N) <u> </u>

Interval Tested <u>3802' - 3827'</u>	Initial Str Wt./Lbs. <u>41,000</u>	Unseated Str Wt./Lbs. <u>41,000</u>
Anchor Length <u>25'</u>	Wt. Set Lbs. <u>20,000</u>	Wt. Pulled Loose/Lbs. <u>41,000</u>
Top Packer Depth <u>3797'</u>	Tool Weight <u>2100</u>	
Bottom Packer Depth <u>3802'</u>	Hole Size — 7 7/8" <u>✓</u>	Rubber Size — 6 3/4" <u>✓</u>
Total Depth <u>3827</u>	Wt. Pipe Run <u>N/A</u>	Drill Collar Run <u>N/A</u>
Mud Wt. <u>9.2</u> LCM <u>0</u> Vis. <u>46</u> WL <u>10.0</u>	Drill Pipe Size <u>4 1/2 X H</u>	Ft. Run <u>3813</u>
Blow Description <u>IF: Strong blow b.o.b in 4.5 sec.</u>		
<u>IST: Bled down for 2 min no blowback.</u>		
<u>FF: Strong blow b.o.b in 15 sec. GTS in 1 min Gauge Gcs</u>		
<u>EST: Bled down for 5 min</u>		
Recovery — Total Feet <u>220'</u>	GIP <u>3593'</u>	Ft. in DC <u> </u> Ft. in DP <u>220'</u>
Rec. <u>40</u>	Feet Of <u>OIL AND GAS CUT MUD</u>	%gas <u>26%</u> %oil <u>66%</u> %water <u>66%</u> %mud <u> </u>
Rec. <u>120</u>	Feet Of <u>" " "</u>	%gas <u>33%</u> %oil <u>29%</u> %water <u>8%</u> %mud <u>30%</u>
Rec. <u>1055'</u>	Feet Of <u>HEAVY OIL & GAS CUT MUD</u>	%gas <u>60%</u> %oil <u>24%</u> %water <u>6%</u> %mud <u>10%</u>
Rec. <u>3593</u>	Feet Of <u>Gas in pipe</u>	%gas <u>0</u> %oil <u> </u> %water <u> </u> %mud <u> </u>
Rec. <u>5'</u>	Feet Of <u>Water @ Tool</u>	%gas <u> </u> %oil <u> </u> %water <u> </u> %mud <u> </u>
BHT <u>119</u>	°F Gravity <u> </u>	°API D@ <u> </u> °F Corrected Gravity <u> </u> °API <u> </u>
RW <u>0.1</u>	@ <u>85°</u> °F Chlorides <u>65,000</u>	ppm Recovery Chlorides <u>4,300</u> ppm System <u> </u>

	AK-1	Alpine	PSI Recorder No.	T-On Location
(A) Initial Hydrostatic Mud	<u>1956</u>	<u>1942</u>	<u>3246</u>	<u>1900</u>
(B) First Initial Flow Pressure	<u>32</u>	<u>42</u>	PSI (depth) <u>3808</u>	T-Started <u>1730</u>
(C) First Final Flow Pressure	<u>43</u>	<u>59</u>	PSI Recorder No. <u>10991</u>	T-Open <u>1925</u>
(D) Initial Shut-In Pressure	<u>1119</u>	<u>1124</u>	PSI (depth) <u>3824'</u>	T-Pulled <u>2255</u>
(E) Second Initial Flow Pressure	<u>64</u>	<u>65</u>	PSI Recorder No. <u> </u>	T-Out <u>0030</u>
(F) Second Final Flow Pressure	<u>85</u>	<u>98</u>	PSI (depth) <u> </u>	T-Off Location <u>0145</u>
(G) Final Shut-in Pressure	<u>1098</u>	<u>1104</u>	PSI Initial Opening <u>30</u>	Test <u>✓</u>
(Q) Final Hydrostatic Mud	<u>1935</u>	<u>1874</u>	PSI Initial Shut-in <u>60</u>	Jars <u> </u>
			Final Flow <u>- 60</u>	Safety Joint <u> </u>
			Final Shut-in <u>60</u>	Straddle <u> </u>
				Circ. Sub <u> </u>
				Sampler <u> </u>
				Extra Packer <u> </u>
				Elec. Rec. <u>✓</u>
				Mileage <u> </u>
				Other <u> </u>
				TOTAL PRICE \$ <u> </u>

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Approved By

Our Representative

Tim Pierce
Dawn S. Amador