

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name WITT "B" #1 Test No. 1 Date 1/29/93
Company HGB OIL COMPANY Zone MORROW
Address 1707 S. JASMINE DENVER, CO 80224 Elevation 3911
Co. Rep./Geo. DON MCKENNA Cont. EMPHASIS RIG #10 Est. Ft. of Pay 8
Location: Sec. 2 Twp. 18S Rge. 43W Co. GREELEY State KS

Interval Tested 5030-5170 Drill Pipe Size 4.5" XH
Anchor Length 140 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 5025 Drill Collar - 2.25 Ft. Run 150
Bottom Packer Depth 5030 Mud Wt. 9.3 lb/Gal.
Total Depth 5170 Viscosity 48 Filtrate 12.8

Tool Open @ 2:30 PM Initial Blow STRONG BLOW - GAS TO SURFACE - 5 MINUTES/GAUGED
1036 MCF/DAY @ 15 MINUTES / ISI: BLED OFF BLOW-SURFACE RETURN STEADY
Final Blow STRONG RETURN -GAUGED 2319 MCF/DAY @ 60 MINUTES
FSI: BLED OFF BLOW - NO RETURN

Recovery - Total Feet 560 Flush Tool? NO

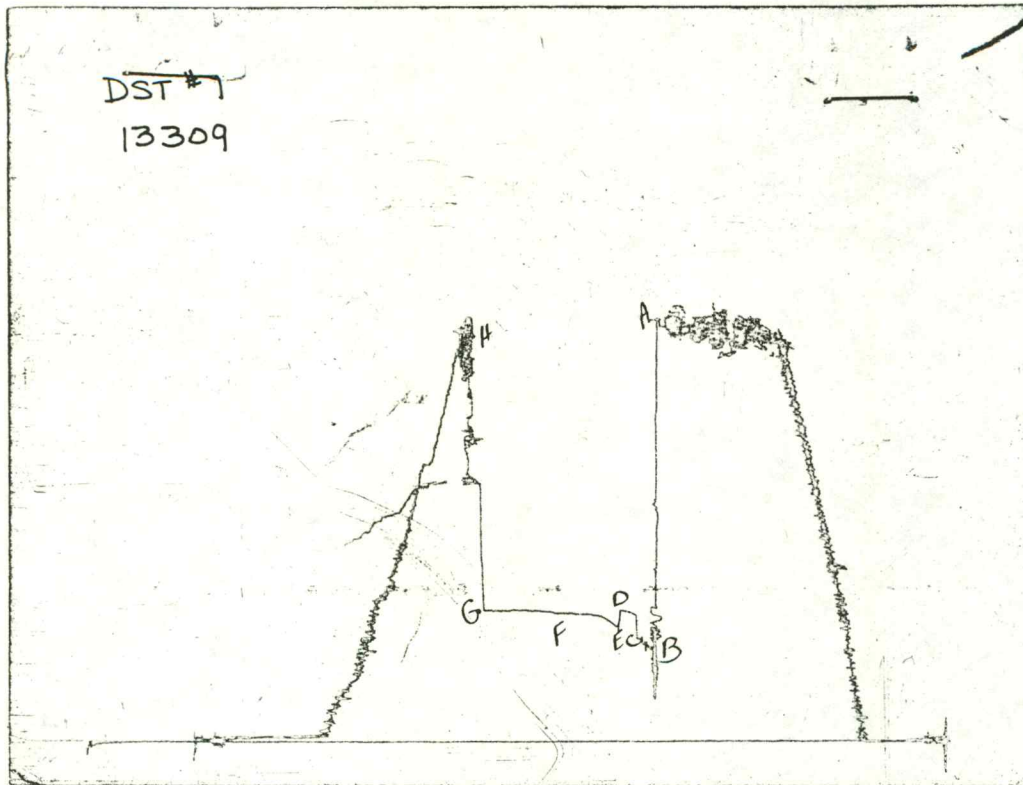
Rec. _____ Feet of GAS TO SURFACE ON FLOWS
Rec. 440 Feet of GASSY MUD-5%GAS/95%MUD
Rec. 120 Feet of GASSY SLIGHTLY OIL CUT MUD-5%GAS/1%OIL/94%MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 130 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 5000 ppm System

(A) Initial Hydrostatic Mud 2466.9 PSI AK1 Recorder No. 13309 Range 4700
(B) First Initial Flow Pressure 88.3 PSI @ (depth) 5035 w / Clock No. 25810
(C) First Final Flow Pressure 650.3 PSI AK1 Recorder No. 13339 Range 4025
(D) Initial Shut-in Pressure 759.5 PSI @ (depth) 5165 w / Clock No. 31154
(E) Second Initial Flow Pressure 599.2 PSI AK1 Recorder No. _____ Range _____
(F) Second Final Flow Pressure 749.5 PSI @ (depth) _____ w / Clock No. _____
(G) Final Shut-in Pressure 773.5 PSI Initial Opening 15 Final Flow 60
(H) Final Hydrostatic Mud 2408.8 PSI Initial Shut-in 60 Final Shut-in 90

Our Representative ROD STEINBRINK

CHART PAGE



This is an actual photograph of recorder chart

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2494	2466.9
(B) FIRST INITIAL FLOW PRESSURE	41	88.3
(C) FIRST FINAL FLOW PRESSURE	599	650.3
(D) INITIAL CLOSED-IN PRESSURE	749	759.5
(E) SECOND INITIAL FLOW PRESSURE	549	599.2
(F) SECOND FINAL FLOW PRESSURE	749	749.5
(G) FINAL CLOSED-IN PRESSURE	759	773.5
(H) FINAL HYDROSTATIC MUD	2453	2408.8

INITIAL FLOW

RECORDER # 13339

DST # 1

TIME(MIN)	PRESSURE	<> PRESSURE
-----	-----	-----
0	88.3	88.3
3	250.5	162.2
6	487.5	237
9	605.2	117.7
12	633.2	28
15	650.3	17.1

FINAL FLOW

RECORDER # 13339

DST # 1

TIME(MIN)	PRESSURE	<> PRESSURE
-----	-----	-----
0	599.2	599.2
3	689.3	90.1
6	711.4	22.1
9	732.4	21
12	746.5	14.1
15	747.5	1
18	748.5	1
21	749.5	1
24	749.5	0
27	749.5	0
30	749.5	0
33	749.5	0
36	749.5	0
39	749.5	0
42	749.5	0
45	749.5	0
48	749.5	0
51	749.5	0
54	749.5	0
57	749.5	0
60	749.5	0

WITT 'B' #1
INITIAL

DST #1
SHUTIN

15 TOTAL FLOW TIME

Slope
P * 760 psi/cycle
psi

	TIME(MIN)	Pws (psi)	Log Horn T	<> PRESSURE	Horn T
	3	650.3	0.778	650.3	6
	6	754.5	0.544	104.2	4
X	9	757.5	0.426	3.0	3
	12	759.5	0.352	2.0	2
	15	759.5	0.301	0.0	2
	18	759.5	0.263	0.0	2
	21	759.5	0.234	0.0	2
	24	759.5	0.211	0.0	2
	27	759.5	0.192	0.0	2
	30	759.5	0.176	0.0	2
	33	759.5	0.163	0.0	1
	36	759.5	0.151	0.0	1
	39	759.5	0.141	0.0	1
X	42	759.5	0.133	0.0	1

WITT 'B' #1
FINAL

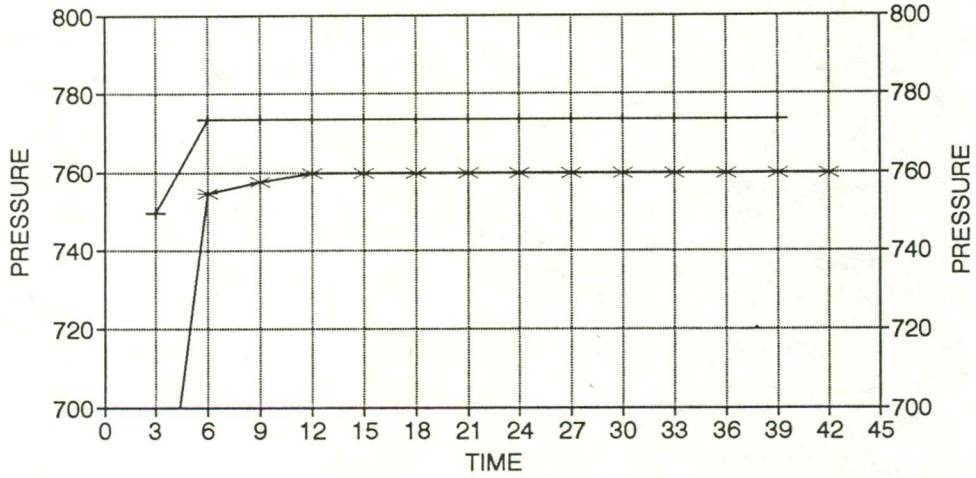
DST #1
SHUTIN

75 TOTAL FLOW TIME

1.50 psi/cycle
P * 774 psi

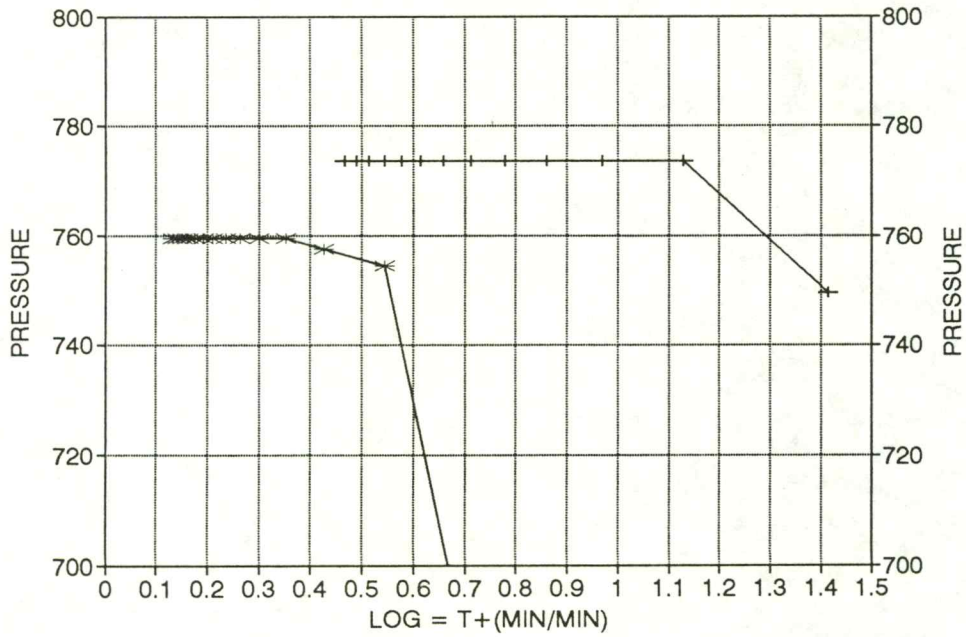
		Pws (psi)	Log Horn T	<> PRESSURE	Horn T
	3	749.5	1.415	749.5	26
X	6	772.5	1.130	23.0	14
	9	773.5	0.970	1.0	9
	12	773.5	0.860	0.0	7
	15	773.5	0.778	0.0	6
	18	773.5	0.713	0.0	5
	21	773.5	0.660	0.0	5
	24	773.5	0.615	0.0	4
	27	773.5	0.577	0.0	4
	30	773.5	0.544	0.0	4
	33	773.5	0.515	0.0	3
	36	773.5	0.489	0.0	3
x	39	773.5	0.466	0.0	3

WITT 'B' #1 DELTA T DELTA P



* INITIAL + FINAL

HORNER PLOT



GAS VOLUME REPORT

HGB OIL COMPANY

WITT "B" #1

DST # 1

MIN	PSIG	ORIFICE	MCF/D	MIN	ORIFICE	MCF/D	
1	B.O.B.	0.25		10	16	1.5	1694
5	GTS	1.5		20	24		2200
10	50	1.5	493	23	MIST OF MUD		
15	7	1.5	1036				
				60	26	1.5	2319

Remarks: GAS BURNS ORANGE

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Test Ticket

No 5812

Well Name & No.	Witt 'B' #1	Test No.	1	Date	1-29-93								
Company	HGB Oil Company	Zone Tested	Morrow										
Address	1707 S. Jasmine Denver, CO. 80224	Elevation	3911 (KB)										
Co. Rep./Geo.	Don McKenna	cont.	Emphasis #10	Est. Ft. of Pay	8'								
Location: Sec.	2	Twp.	18 ^S	Rge.	43 ^W	Co.	Greeley	State	KS.				
No. of Copies	33	Distribution Sheet	X	Yes		No	Turnkey	X	Yes		No	X	Evaluation

Interval Tested	5030 - 5170	Drill Pipe Size	4 1/2" XH			
Anchor Length	140'	Top Choke - 1"	Bottom Choke - 3/4"			
Top Packer Depth	5025	Hole Size - 7 7/8"	Rubber Size - 6 3/4"			
Bottom Packer Depth	5030	Wt. Pipe I.D. - 2.7 Ft. Run				
Total Depth	5170	Drill Collar - 2.25 Ft. Run	150'			
Mud Wt.	9.3	lb/gal.	Viscosity	48	Filtrate	12.8

Tool Open @ 2:30pm (CDT) Initial Blow Strong blow - GTS - 5 mins. gauged 1036 mcf/day @ 15 min
ISI: Bled off blow - surface return steady throughout.
Final Blow Strong return - gauged 2319 mcf/day @ 60 mins
FSI: Bled off blow - no return.

Recovery - Total Feet 560' Feet of Gas in Pipe GTS on flows Flush Tool? No

Rec.	Feet Of	%gas	%oil	%water	%mud	
Rec. 440'	Feet Of Gassy Mud	5	%gas -	%oil -	%water 95	%mud
Rec.	Feet Of	%gas	%oil	%water	%mud	
Rec. 120'	Feet Of Gassy Slightly Oil	%gas	%oil	%water	%mud	
Rec.	Feet Of Cut Mud	5	%gas 1	%oil -	%water 94	%mud

BHT 130° °F Gravity °API @ °F Corrected Gravity °API

RW @ °F Chlorides ppm Recovery Chlorides 5,000 ppm System

- (A) Initial Hydrostatic Mud 2494 PSI AK1 Recorder No. 13309 Range 4700
- (B) First Initial Flow Pressure 41 PSI @ (depth) 5035 w/Clock No. 25810
- (C) First Final Flow Pressure 599 PSI AK1 Recorder No. 13339 Range 4025
- (D) Initial Shut-In Pressure 749 PSI @ (depth) 5165 w/Clock No. 31154
- (E) Second Initial Flow Pressure 549 PSI AK1 Recorder No. Range
- (F) Second Final Flow Pressure 749 PSI @ (depth) w/Clock No.
- (G) Final Shut-In Pressure 759 PSI Initial Opening 15 Test 700
- (H) Final Hydrostatic Mud 2453 PSI Initial Shut-In 60 Jars X 200

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.

Final Flow 60 Safety Joint X 50
Final Shut-In 90 Straddle
Circ. Sub X N/C
Sampler

Approved By Dj McKenna

Our Representative Rod Steinbrink

Extra Packer

Other partial eval

TOTAL PRICE \$ (975⁰⁰)