

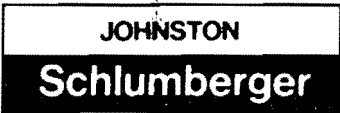
JOHNSTON

Schlumberger

JOHNSTON TESTERS

A DIVISION OF SCHLUMBERGER CANADA LIMITED
321 - 50th AVENUE S.E. CALGARY, ALBERTA T2G 2B3

TEST DATA				TOOL SEQUENCE				
Type of Test	Open hole, Straddle, Bypass.			Tool	Length	O.D.		
Time Started in Hole	2230	Hrs.	Tool Opened	0326	Hrs.	P.O. Sub	1.00	
First Flow	5	Min.	Initial Shut-In	60	Min.	D.P. Sub	1.00	
Second Flow	90	Min.	Second Shut In		Min.	MFE Tool	9.10	
Third Flow		Min.	Final Shut In	90	Min.	Bypass Tool	2.95	
Pulled Loose @	0830	Hrs.	Out of Hole	1200	Hrs.	Jars	8.50	
Wt. Set/on Packers	40,000	#	Pulled Loose Wt.	60,000	#	Hanger Sub	.80	
Description of Blow During Test	Fair initial blow, slowly decreasing throughout test.			Safety Joint			1.75	
				S.S. & Packer			8.25	7 3/4"
				Total			33.35	
				Stub			1.00	
				Perfs			24.00	
FLUID RECOVERY				Was Test Reverse Circulated			Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
Total Fluid Recovered	420				Ft.	Receiver Sub	.85	
Description of Fluid Recovered				Recorder			5.60	
420' Muddy water (slightly gasified near bottom).				Recorder			4.40	
				Sub			.90	
				Drill Collars			31.15	
				Sub			1.00	
				Travel Collar			3.50	
				Total Interval			72.40	
				Packer			2.90	7 3/4"
				Perf			5.00	
				Selec. Zone Tool			1.00	
				TOTAL LENGTH				
				Elevation G.L.			N/A	K.B. 1380
				Bottom Hole Choke Size			1/2"	
				Fluid Cushion Type			Nil	Amt.
				MUD AND HOLE DATA				
				Mud Type			Gel Chem	W.L. 6.6
				Filter Cake			2/32 Visc. 109	Wt. 9.0
				Time Taken				
				Contractor			G.P. Drilling	Rig No.24
				Drill Pipe Size			4 1/2" FH	
				Drill Collar Size			2 7/8" ID &	
				Drill Collar Length			337'	&
				Main Hole Size			8 3/4"	Rat Hole
				RESISTIVITY				
				SALT CONTENT				
Recovery Water	@	°F.	2,500	ppm.				
Mud Pit sample filtrate	@	°F.		ppm.				
District	Inuvik	Ticket No.	D08043	Date	April 13, 1973	Test No.	1 J.T. No. 1	
Company	Murphy Oil Company Ltd.			Address	700 Aquitaine Tower, 540 - 5th Ave. S.W.			
Well Name	Murphy Mesa BP S Whitestone YT N-58			Box	2721, Calgary, Alberta			
Number	65° 17' 50" N 138° 25' 30" W			Field	Wildcat Province N.W.T.			
Formation		Thickness		Co. Rep.	E. Stevenson			
Interval	5930 - 6002		T.D.	6993' Technician N. Young				
Distribution of Reports 14 - Calgary				Attention: E. Van Wieren				



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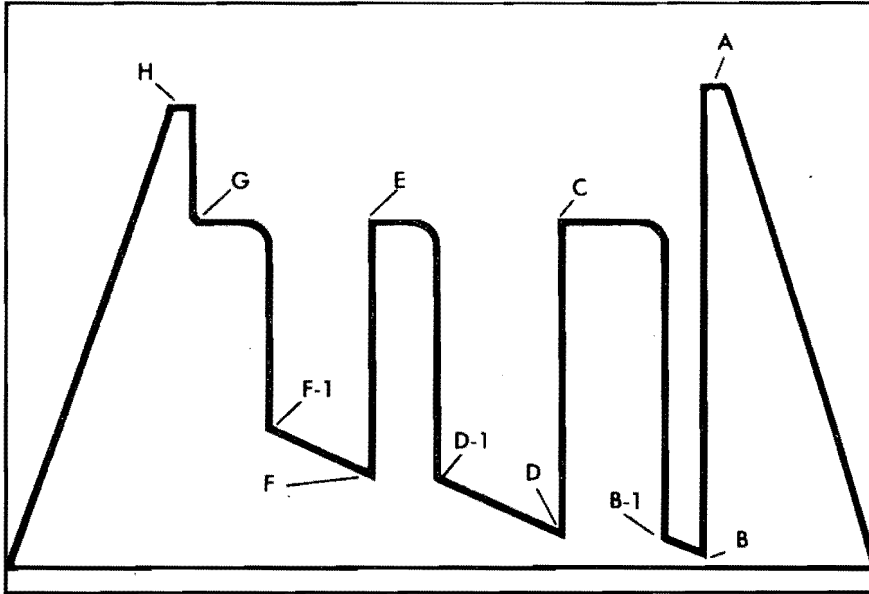
GUIDE TO IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

FIELD
 REPORT NO.

D08043

RECORDER NO.

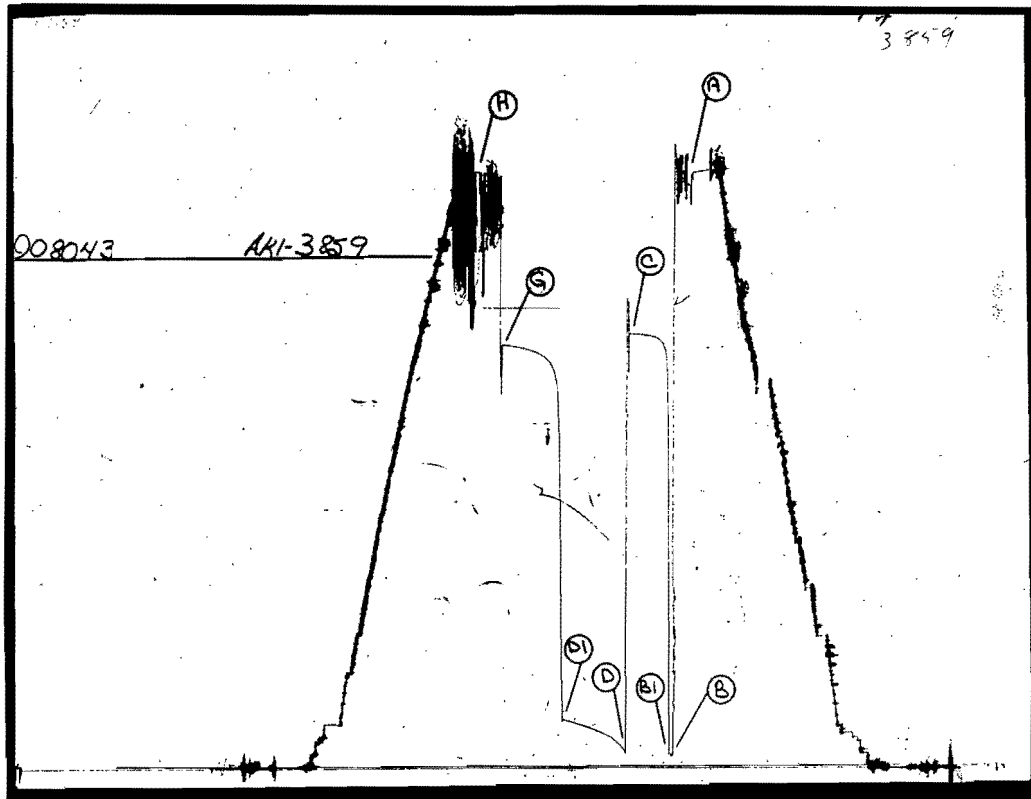
AK1-3859

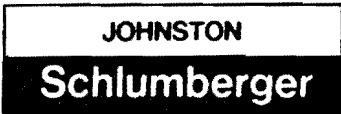


- A. Initial Hyd. Mud
- B. First Flow
- C. Initial Shut-In
- D. Second Flow
- E. Second Shut-In
- F. Third Flow
- G. Final Shut-In
- H. Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings (testing different zones).

- A-1, A-2, A-3, etc. Initial Hyd. Pressures
- Z - Special pressure points such as pumping pressures recorded for formation breakdown.





JOHNSTON TESTERS

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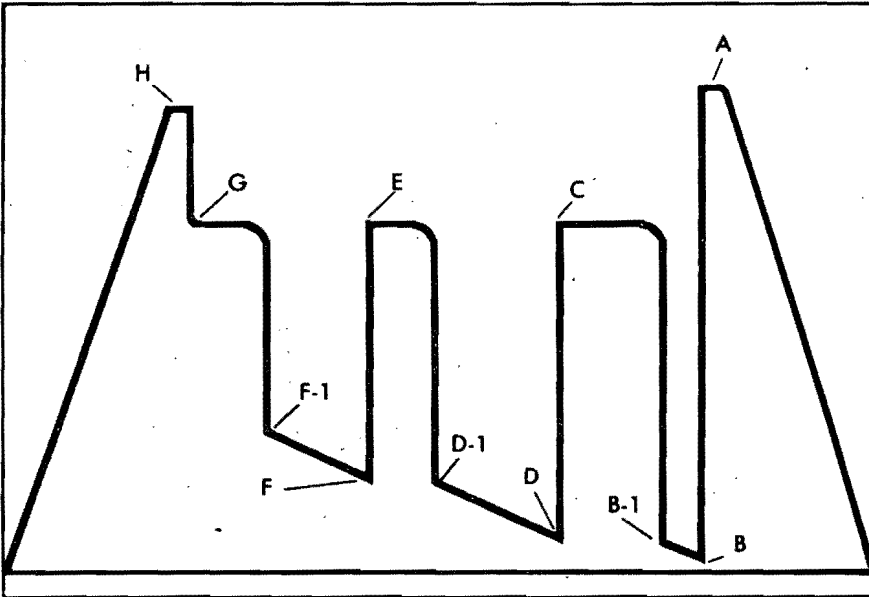
GUIDE TO IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

FIELD REPORT NO.

D08043

RECORDER NO.

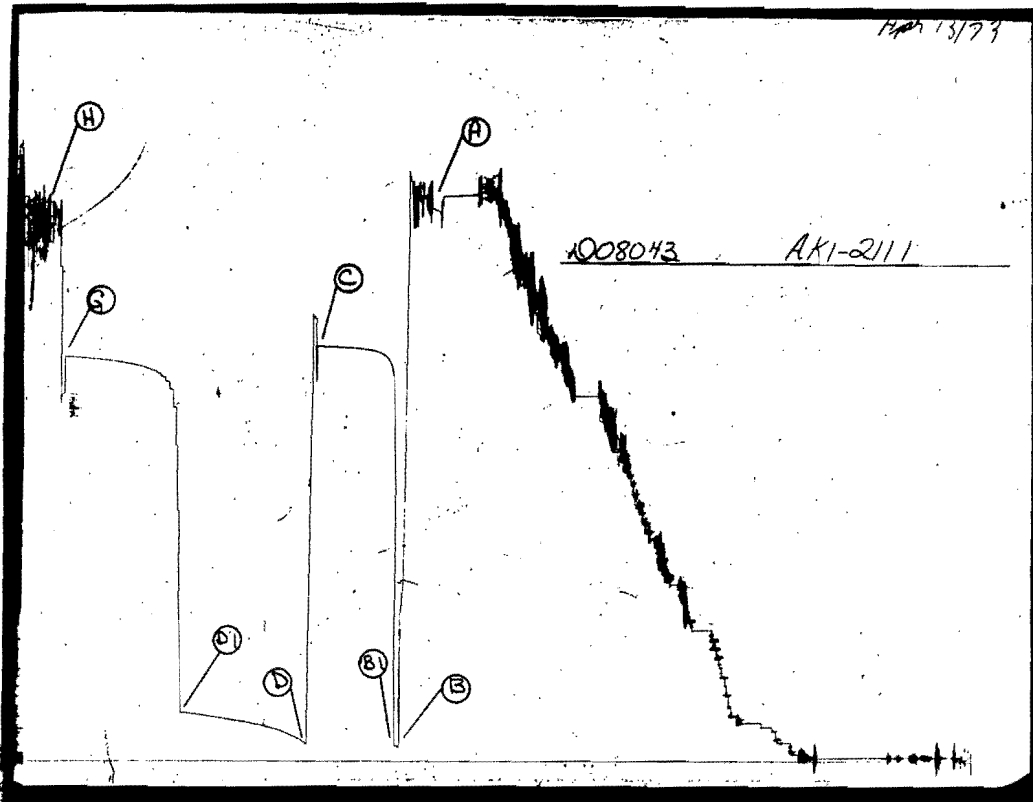
AK1-2111



- A. Initial Hyd. Mud
- B. First Flow
- C. Initial Shut-In
- D. Second Flow
- E. Second Shut-In
- F. Third Flow
- G. Final Shut-In
- H. Final Hyd. Mud

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 321 - 50th AVENUE S.E. CALGARY, ALBERTA T2G 2B3

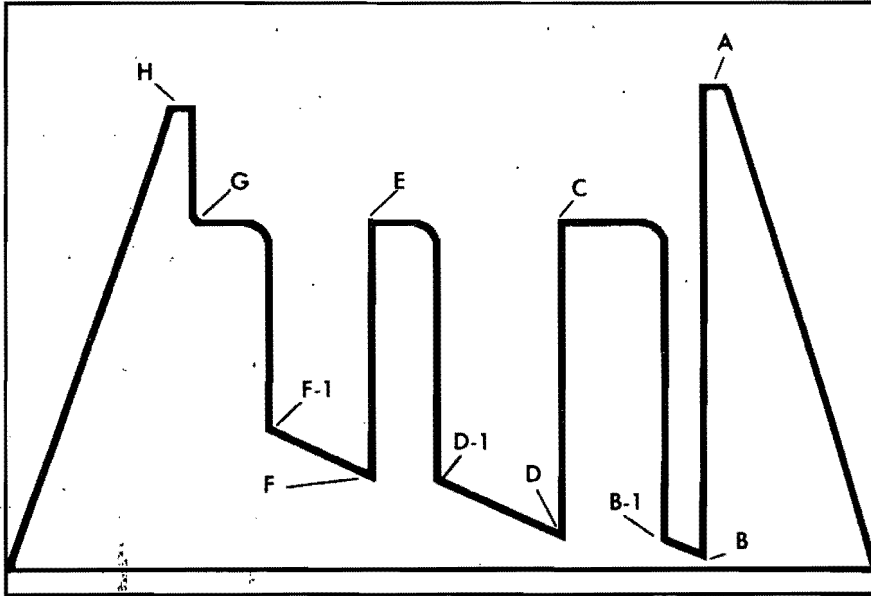
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FIELD REPORT NO.

D08044

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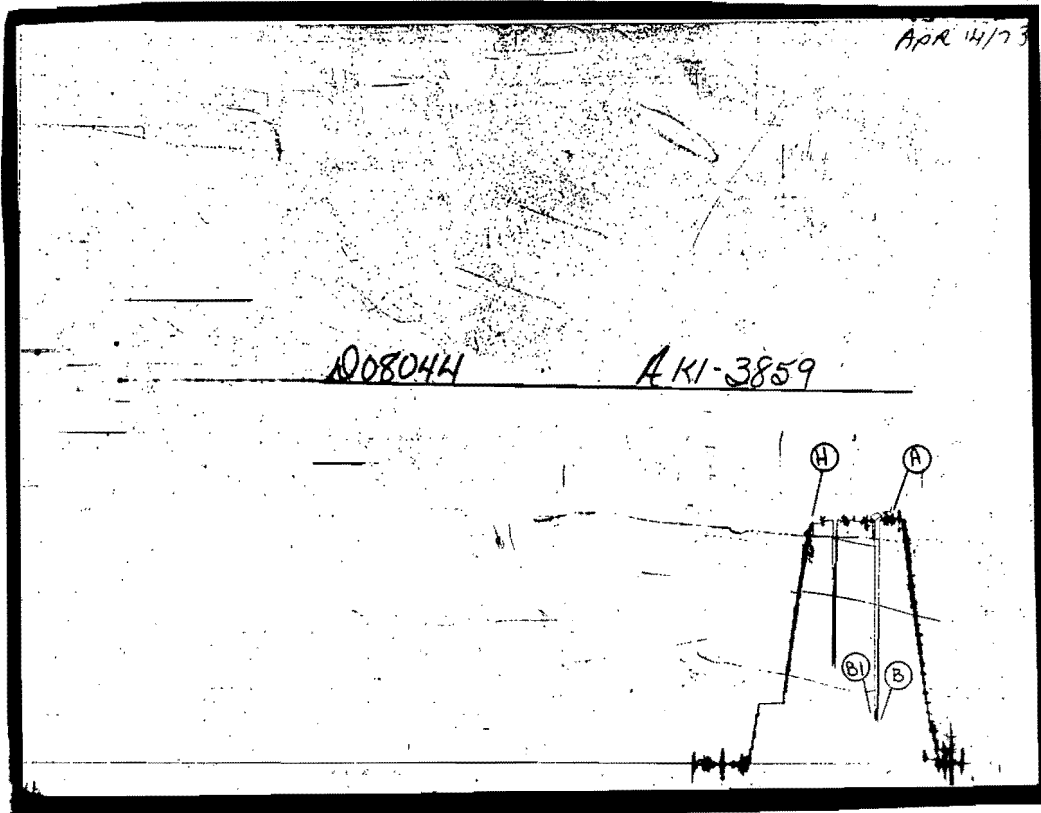
AK1-3859



- A. Initial Hyd. Mud
- B. First Flow
- C. Initial Shut-In
- D. Second Flow
- E. Second Shut-In
- F. Third Flow
- G. Final Shut-In
- H. Final Hyd. Mud

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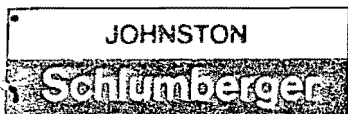
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JOHNSTON TESTERS

A DIVISION OF SCHLUMBERGER CANADA LIMITED
321 - 50th AVENUE S.E. CALGARY, ALBERTA T2G 2B3

TEST DATA				TOOL SEQUENCE			
Type of Test	Open hole, Straddle, Bypass.			Tool	Length	O.D.	
Time Started in Hole	2115	Hrs.	Tool Opened	Hrs.	P.O. Sub	1.00	
First Flow		Min.	Initial Shut-In	Min.	D.P. Sub	1.00	
Second Flow		Min.	Second Shut In	Min.	MFE Tool	9.10	
Third Flow		Min.	Final Shut In	Min.	Bypass Tool	2.95	
Pulled Loose @	2345	Hrs.	Out of Hole	0130	Hrs.	Jars	8.50
Wt. Set/on Packers	35,000	#	Pulled Loose Wt.	#	Hanger Sub	.80	
Description of Blow During Test				Safety Joint			1.75
N.I.L.				S.S. & Packer			8.25 7 3/4"
				Total			33.35
				Stub			1.00
				Perfs			29.00
FLUID RECOVERY Was Test Reverse Circulated Yes <input type="checkbox"/> No <input type="checkbox"/>				Receiver Sub			.85
Total Fluid Recovered				Recorder			4.40
Description of Fluid Recovered				Recorder			4.40
N.I.L.				Sub			.90
				Drill Collars			60.35
				Sub			1.00
				Travel Collar			3.50
				Total Interval			105.40
				Packer			2.90 7 3/4"
				Perf			5.00
				Selec. Zone Tool			1.00
				TOTAL LENGTH			
				Elevation G.L.			N/A K.B. 1380
				Bottom Hole Choke Size			1/2"
				Fluid Cushion Type			Nil Amt.
				MUD AND HOLE DATA			
				Mud Type			Gel Chem W.L. 6.6
				Filter Cake			2/32 Visc. 109 Wt. 9.0
				Time Taken			
				Contractor			G.P. Drilling Rig No. 24
				Drill Pipe Size			4 1/2" FH
				Drill Collar Size			2 7/8" ID &
				Drill Collar Length			337' &
				Main Hole Size			8 3/4" Rat Hole
RESISTIVITY				SALT CONTENT			
Recovery Water @ °F. ppm.							
Mud Pit sample filtrate @ °F. ppm.							
District	Inuvik	Ticket No.	D08045	Date	April 14, 1973	Test No.	3 J.T. No. 3
Company	Murphy Oil Company Ltd.			Address	700 Aquitaine Tower, 540 - 5th Ave. S.W.		
Well Name	Murphy Mesa BP S Whitestone YT N-58			Box 2721, Calgary, Alberta			
Number	65°17'50"N 138°25'30"W			Field	Wildcat Province N.W.T.		
Formation	Blackie	Thickness		Co. Rep.	E. Stevenson		
Interval	2355 - 2460	T.D.	6993'	Technician	N. Young		
Distribution of Reports 14 - Calgary				Attention: E. Van Wieren			



JOHNSTON TESTERS
 A DIVISION OF SCHLUMBERGER CANADA LIMITED
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D08045

PRESSURE DATA

FLUID SAMPLE REPORT

INSTRUMENT No.	AK1-3859	AK1-2111			Sample No.		
CAPACITY (psig)	3700	4000			Type	5"	
INSTRUMENT DEPTH FT.	2386	2890			Depth	2333'	
INSTRUMENT OPENING	Outside	Outside			Volume	2500 cc	
WELL TEMP. °F.					Sample Pressure:		
INITIAL HYDROSTATIC A						psig. at Surface	
FIRST FLOW B					Gravity	API @ °F	
	B-1				Gas/Oil Ratio	Cu.Ft./bbl.	
INITIAL SHUT-IN C					Recovery:		
SECOND FLOW D	NO PRESSURES AVAILABLE					Cu. Ft. Gas	
	D-1					cc. Oil	
SECOND SHUT-IN E						cc. Water	
THIRD FLOW F					cc. Mud		
	F-1				Total Liquid cc.		
FINAL SHUT-IN G							
FINAL HYDROSTATIC H							

REMARKS: No prints made on recorder #AK1-2111.

PRESSURE INCREMENTS ON RECORDER #

POINT MINUTES	PRESSURE	$\frac{T + \Delta t}{\Delta t}$	POINT MINUTES	PRESSURE	$\frac{T + \Delta t}{\Delta t}$	POINT MINUTES	PRESSURE	$\frac{T + \Delta t}{\Delta t}$



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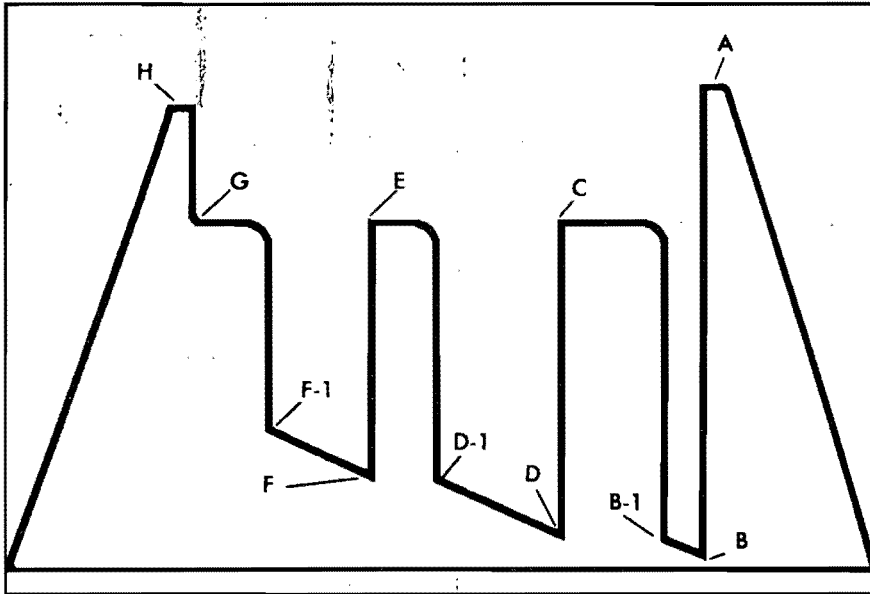
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FIELD REPORT NO.

RECORDER NO.

D08045

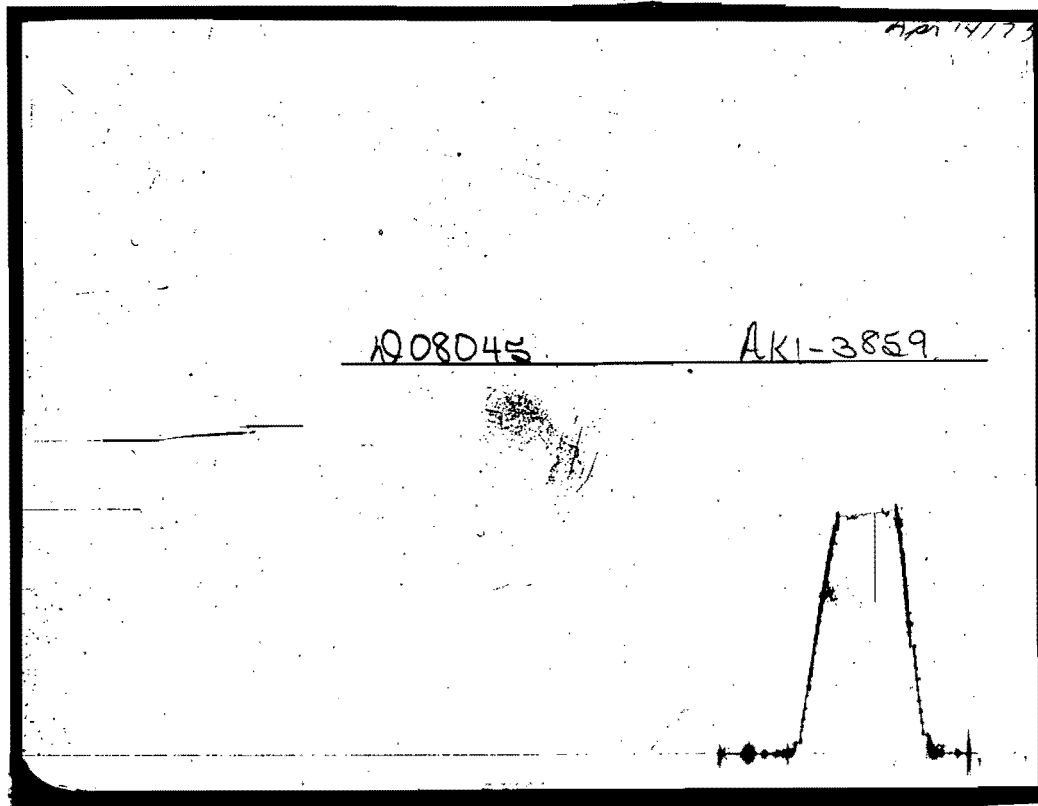
AK1-3859

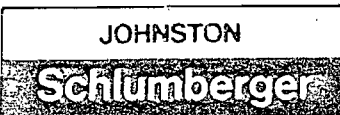


- A. Initial Hyd. Mud
- B. First Flow
- C. Initial Shut-In
- D. Second Flow
- E. Second Shut-In
- F. Third Flow
- G. Final Shut-In
- H. Final Hyd. Mud

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TEST DATA					
Type of Test	Open hole, Straddle, Bypass.				
Time Started in Hole	0345	Hrs.	Tool Opened	Hrs.	
First Flow		Min.	Initial Shut-In	Min.	
Second Flow		Min.	Second Shut In	Min.	
Third Flow		Min.	Final Shut In	Min.	
Pulled Loose @	0630	Hrs.	Out of Hole	0900	Hrs.
Wt. Set/on Packers	40,000	#	Pulled Loose Wt.	#	
Description of Blow During Test					

NIL

FLUID RECOVERY Was Test Reverse Circulated Yes No

Total Fluid Recovered _____ Ft.

Description of Fluid Recovered

NIL

GAS BLOW MEASUREMENT

Measured With			I.D. Riser
Time	Sfce. Choke		M Cubic Feet/Day

NIL

REMARKS: Misrun, packer did not hold.
Opened tool and slid about 7'.

RESISTIVITY SALT CONTENT

Recovery Water	@	°F.	ppm.
Mud Pit sample filtrate	@	°F.	ppm.

District	Tuvik	Ticket No.	D08046	Date	April 15, 1973	Test No.	(4)	J.T. No.	4
Company	Murphy Oil Company Ltd.			Address	700 Aquitaine Tower 540 - 5 Ave. S.W.				
Well Name	Murphy Mesa BP S Whitestone YT N-58			Field	Wildcat Province N.W.T.				
Number	65° 17' 50" N 138° 25' 30" W			Co. Rep.	E. Stevenson				
Formation	Blackie			Technician	N. Young				
Interval	2361 - 2454								

Distribution of Reports 14 - Calgary Attention: E. Van Wieren

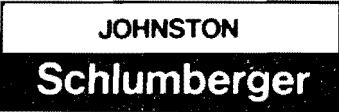
TOOL SEQUENCE		
Tool	Length	O.D.
P.O. Sub	1.00	
D.P. Sub	1.00	
MFE Tool	9.10	
Bypass Tool	2.95	
Jars	8.50	
Hanger Sub	.80	
Safety Joint	1.75	
S.S. & Packer	9.25	
T.C. & Packer	5.40	7 3/4"
Total	39.75	
Stub	1.00	
Perfs	17.00	
Receiver Sub	.85	
Recorder	4.40	
Recorder	4.40	
Sub	.90	
Drill Collars	60.35	
Sub	1.00	
Travel Collar	3.50	
Total Interval	93.40	
Packer	2.90	7 3/4"
T.C. & Packer	6.40	
Selec. Zone Tool	1.00	

TOTAL LENGTH
 Elevation G.L. N/A K.B. 13.80
 Bottom Hole Choke Size 1/2"

Fluid Cushion Type Nil Amt.

MUD AND HOLE DATA
 Mud Type Gel Chem W.L. 6.6
 Filter Cake 2/32 Visc. 109 Wt. 9.0
 Time Taken
 Contractor G.P. Drilling Rig No. 24
 Drill Pipe Size 4 1/2" FH
 Drill Collar Size 2 7/8" ID &
 Drill Collar Length 337' &

Main Hole Size 8 3/4" Rat Hole



JOHNSTON TESTERS

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 321 - 50th AVENUE S.E. CALGARY, ALBERTA T2G 2B3

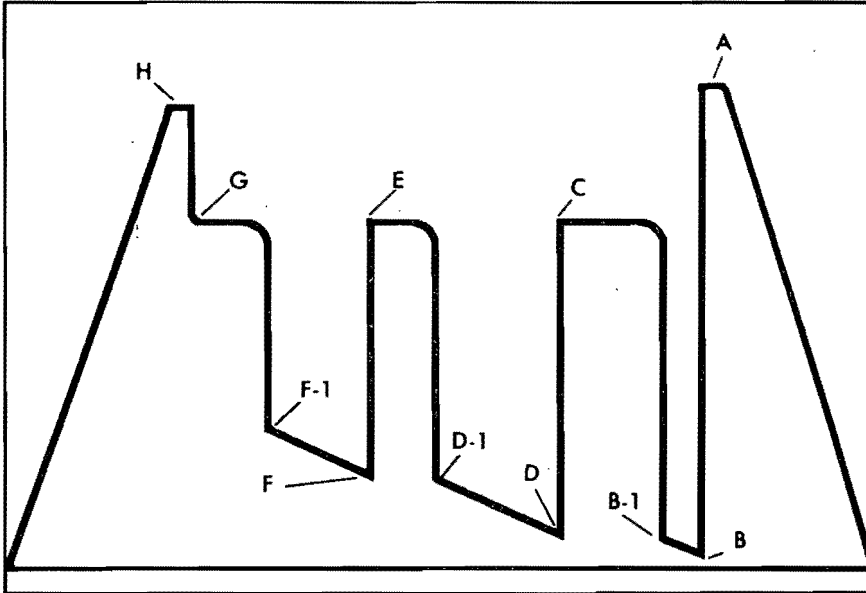
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FIELD REPORT NO.

RECORDER NO.

D08046

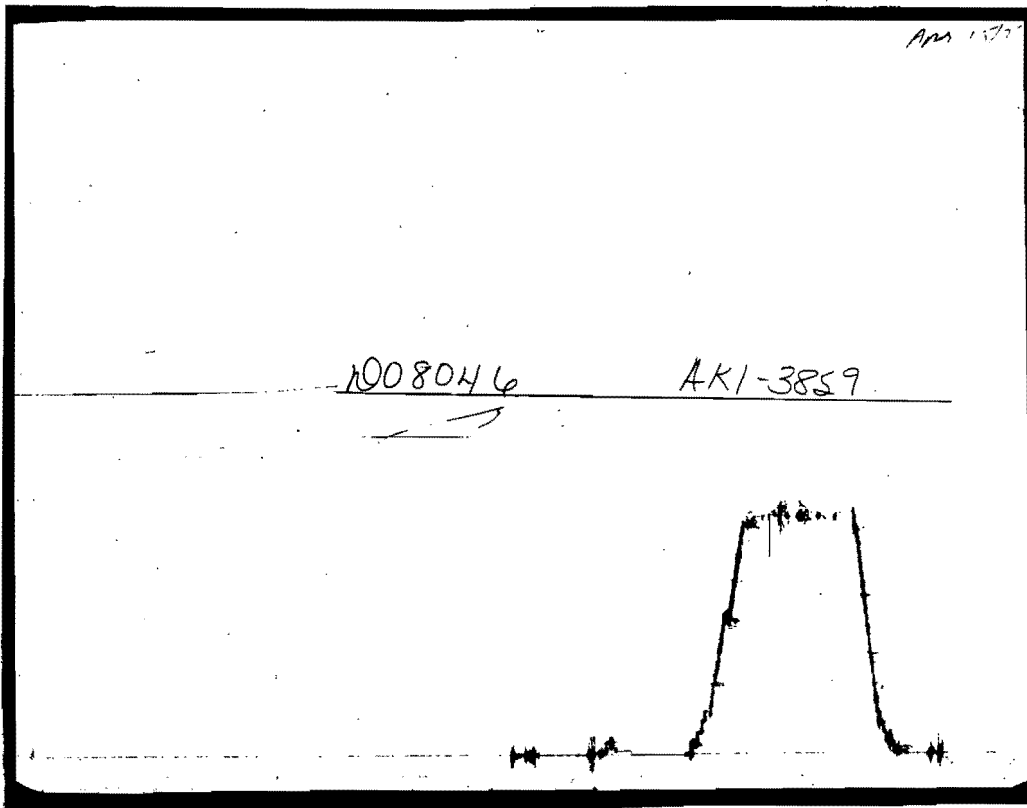
AK1-3859



- A. Initial Hyd. Mud
- B. First Flow
- C. Initial Shut-In
- D. Second Flow
- E. Second Shut-In
- F. Third Flow
- G. Final Shut-In
- H. Final Hyd. Mud

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CORE LABORATORIES - CANADA LTD.

PETROLEUM RESERVOIR ENGINEERING

WATER ANALYSIS



File 7021-3648 Page 1 of 1

Company Murphy Oil Company Ltd.

Well Murphy Mesa BP S Whitestone YT N-58 K.B. _____ Grd. 2800'

Location 65° 57' 50.00 N.L.
138° 25' 30.00 W.L. Field Whitestone River Province Yukon Territories

Formation Paleozoic Interval 5930' - 6002'

Sampled from DST #1 (Top of Tool) by Johnston Testers

Date sampled _____ Date analysed May 4/73 Analyst L. Kinsella

Recovery _____

Mud type _____ Water cushion _____

Resistivity 2.09 Ohm-meters @ 70 °F

Specific gravity 1.0033 @ 60°F

pH 8.2 H₂S Absent

Refractive Index 1.3330 @ 70°F

Total Solids:

Calculated 4,467 mg/liter

By evaporation @ 110°C _____ mg/liter

By evaporation @ 180°C _____ mg/liter

At ignition _____ mg/liter

MILLIGRAMS PER LITER

Na + K	Ca	Mg	Fe	Ba	Br	I	Cl	HCO ₃	SO ₄	CO ₃	OH
1290	25	3	Trace	Abs.	-	-	442	2577	130	0	0

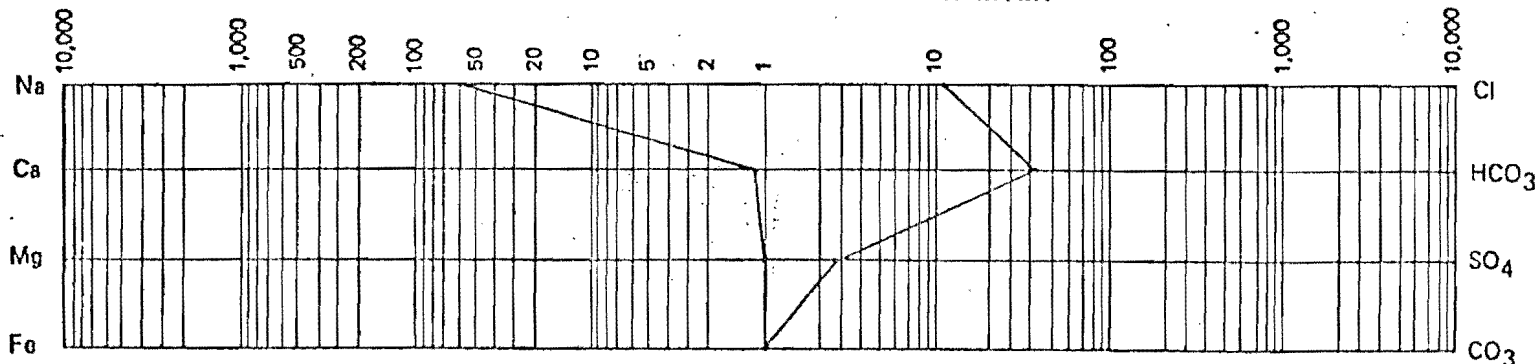
PER CENT CALCULATED SOLIDS

28.9	.6	.1	Trace	Abs.	-	-	9.9	57.7	2.9	.0	.0
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MEQ PER LITER

56.1	1.2	.2	Trace	Abs.	-	-	12.5	42.3	2.7	.0	.0
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LOGARITHMIC PATTERN MEQ PER LITER



2523. 1290.0