

## SPECIAL DATA ANALYSIS



00042898

JANUARY 6, 1970

RECEIVED

MAR 11 1970

COLO. OIL & GAS CONS. COMM.

GENTLEMEN:

THE ENCLOSED TEST APPEARS TO BE A GOOD MECHANICAL DRILL STEM TEST DURING WHICH THE TOOLS DID FUNCTION PROPERLY. THE FORMATION DID NOT PRODUCE ENOUGH RESERVOIR FLUID FOR PROPER IDENTIFICATION. RESERVOIR PRESSURE DRAWDOWN WAS SUFFICIENT BUT ADEQUATE SHUT-IN BUILD-UPS DID NOT OCCUR FOR RELIABLE QUANTITATIVE ANALYSIS. AFTER-FLOW WAS STILL IN EFFECT ON THE INITIAL AND FINAL SHUT-IN BUILD-UPS TO THE EXTENT THAT THEY ARE CONSIDERED UNRELIABLE FOR ANALYSIS.

AS PREVIOUSLY NOTED, THE SHUT-IN TIMES WERE INSUFFICIENT AND THE STRAIGHT LINE PORTION OF THE HORNER PLOT HAD NOT BEEN REACHED. THE CONTOUR OF THE BUILD-UP CURVES AND THE VOLUME OF FLUID PRODUCED ON THIS TEST SUGGESTS A TIGHT FORMATION. NO CALCULATIONS CAN BE MADE FROM THE DATA PRESENTED WITH THIS TEST.

IT IS POSSIBLE THAT THE TIGHT SECTION OF FORMATION EXAMINED BY THIS TEST IS THE RESULT OF DEEP FORMATION DAMAGE RATHER THAN A NATURALLY OCCURRING LOW PERMEABILITY MATRIX. A TEST WITH A SHORT FLOW PERIOD, ONE HOUR, AND AN EXTENDED SHUT-IN PERIOD, 4-6 HOURS, MAY PROVIDE DATA THAT WOULD ALLOW DETERMINATION OF DAMAGE. IT IS POINTED OUT THAT THE TEST MUST SEE BEYOND THE DAMAGE ZONE TO ACCURATELY DETERMINE IF DAMAGE IS PRESENT.

CONTINENTAL ENERGY CORPORATION  
PENROSE #1, RIO BLANCO COUNTY, COLORADO  
TEST #1, 5615' TO 5634'

FIELD REPORT #14684 B



MAR 11 1970



## JOHNSTON

***...found a better way***

## SURFACE INFORMATION

~~COLO. OIL & GAS CONS. COMM.~~

## EQUIPMENT & HOLE DATA

[illegible]

Cushion Type	Amount	Pressure	Bottom Choke
	-		Size 15/16"

## MUD DATA

Mud Type	GEL AND CHEMICAL		Wt.	9.1	
Viscosity	50		Water Loss	5.4 C.C.	
Resist. of Mud	2.7	@ 51 °F;	of Filtrate	2.8	@ 50 °F
Chloride Content	375				PPM

Type Test	M. F. E. OPEN HOLE		
Formation Tested	FORT UNION		
Elevation	6065 (ESTIMATED)		ft.
Net Productive Interval	49		ft.
Estimated Porosity	-		%
All Depths Measured From	KELLY BUSHING		
Total Depth	4198		ft.
Main Hole/Casing Size	7 7/8"		
Rat Hole/Liner Size	-		
Drill Collar Length	489'	I.D.	2.5"
Drill Pipe Length	3611'	I.D.	3.8"
Packer Depth(s)	4132 & 4138		ft.

## MULTI-FLOW EVALUATOR FLUID SAMPLE DATA

Sampler Pressure 30 P.S.I.G. at Surface  
 Recovery: Cu. Ft. Gas -  
           cc. Oil -  
           cc. Water 2340  
           cc. Mud -  
           Tot. Liquid cc. 2340  
 Gravity - °API @ - °F.  
 Gas/Oil Ratio - cu. ft./bbl.

	RESISTIVITY	CHLORIDE CONTENT
Recovery Water	— @ — °F.	— ppm
Recovery Mud	— @ — °F.	
Recovery Mud Filtrate	— @ — °F.	— ppm
Mud Pit Sample	<u>2.7</u> @ <u>51</u> °F.	
Mud Pit Sample Filtrate	<u>2.8</u> @ <u>50</u> °F.	<u>375</u> ppm

[illegible]

Remarks: SLID TOOL 12'.

Address SUITE 320; GREAT PLAINS LIFE BUILDING; CASPER, WYOMING 82601

Company CONTINENTAL ENERGY CORPORATION

Well PEN ROSE ETAL #1

Test Interval 4138' to 4198'

County           RIO BLANCO          

State COLORADO

Technician HULSE (VERNAL)

Test Approved By MR. JACK MERCER

Field WILD CAT

Location NE NW SEC. 35-T1N-R95W

Location \_\_\_\_\_  
Test # 1

Date 12-22-69

Field Report No. 10736 B

No. Reports Requested 5



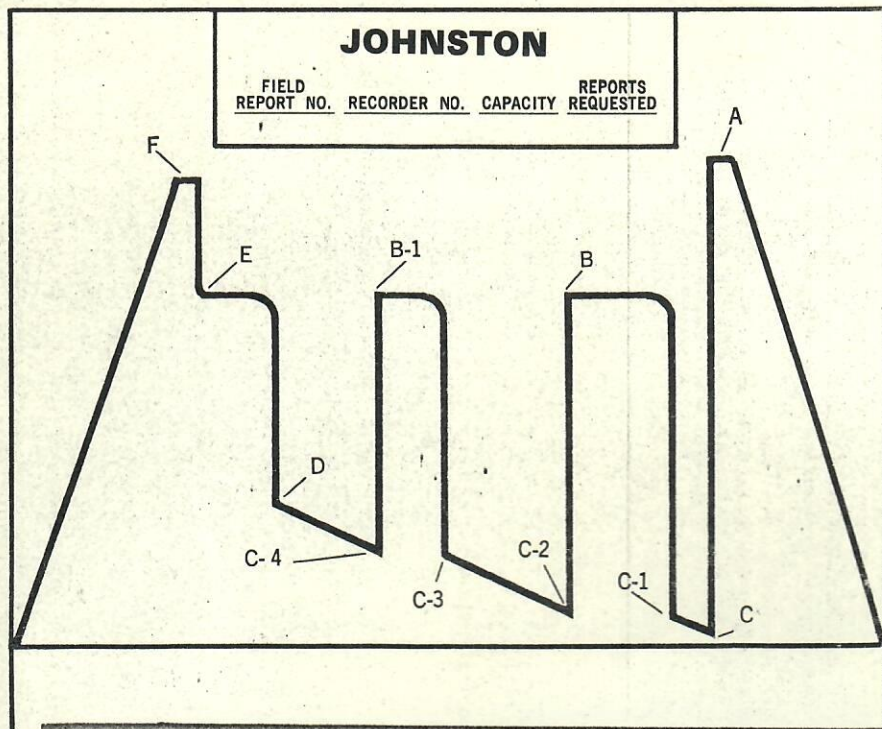
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**JOHNSTON**  
...found a better way

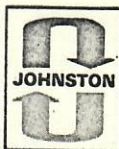
## GUIDE TO IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS



- A. Initial Hyd. Mud
- B. Initial Shut-in
- C. Initial Flow
- D. Final Flow
- E. Final Shut-in
- F. 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
- B-1, B-2, B-3, etc. Subsequent Shut-in Pressures
- C-1, C-2, C-3, etc. Flowing Pressures
- D-1, D-2, D-3, etc. Subsequent Final Flow Pressures
- E-1, E-2, E-3, etc. Subsequent Final Shut-in Pressures
- F-1, F-2, F-3, etc. Final Hyd. Mud Pressures
- Z — Special pressure points such as pumping pressure recorded for formation breakdown.



FIELD REPORT NO.

10736 B

CAPACITY

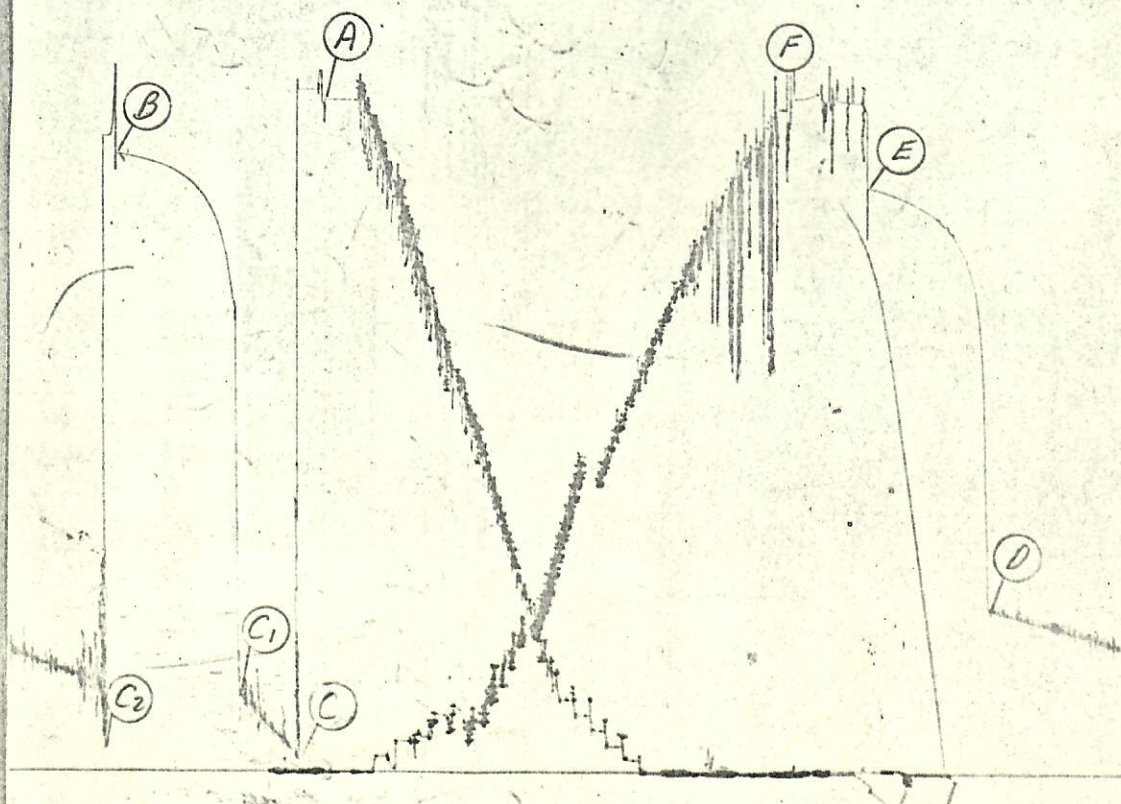
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RECORDER NO.

J-016

REPORTS REQUESTED

5-







### EQUIPMENT & HOLE DATA

Type Test	M. F. E. STRADDLE OPEN HOLE		
Formation Tested	WILLIAMS FORK		
Elevation	6077		Ft.
Net Productive Interval	19		Ft.
Estimated Porosity	15		%
All Depths Measured From	KELLY BUSHING		
Total Depth	5834		Ft.
Main Hole/Casing Size	7 7/8"		
Rat Hole/Liner Size	-		
Drill Collar Length	341'	I.D.	2.75"
Drill Pipe Length	5240'	I.D.	3.8"
Packer Depth(s)	5611, 5615 & 5634 Ft.		

Sampler Pressure	20	P.S.I.G. at Surface
Recovery: Cu. Ft. Gas	-	
cc. Oil	1	
cc. Water	2100	
cc. Mud	200	
Tot. Liquid cc.	2301	
Gravity	-	°API @ - °F.
Gas/Oil Ratio	-	cu. ft./bbl.

### CHLORIDE CONTENT

Mud Pit Sample .85 @ 70 °F.  
Mud Pit Sample Filtrate .90 @ 68 °F. 2700 ppm

Type	LOW SOLIDS		Wt.	9.3	
ity	65		Water Loss	4.8 C.C.	
t: of Mud	• 85	@ 70 °F,	of Filtrate	• 90	@ 68 °F
ide Content	2700			PPM	

RECOVERED IN SAMPLER: 1% OIL, 80% WATER AND 19% MUD.

320 GREAT PLAINS LIFE BUILDING; CASPER, WYOMING 82601

Field WILD CAT

Date 12-29-69

Test # 3

Field Report No. 14684 B

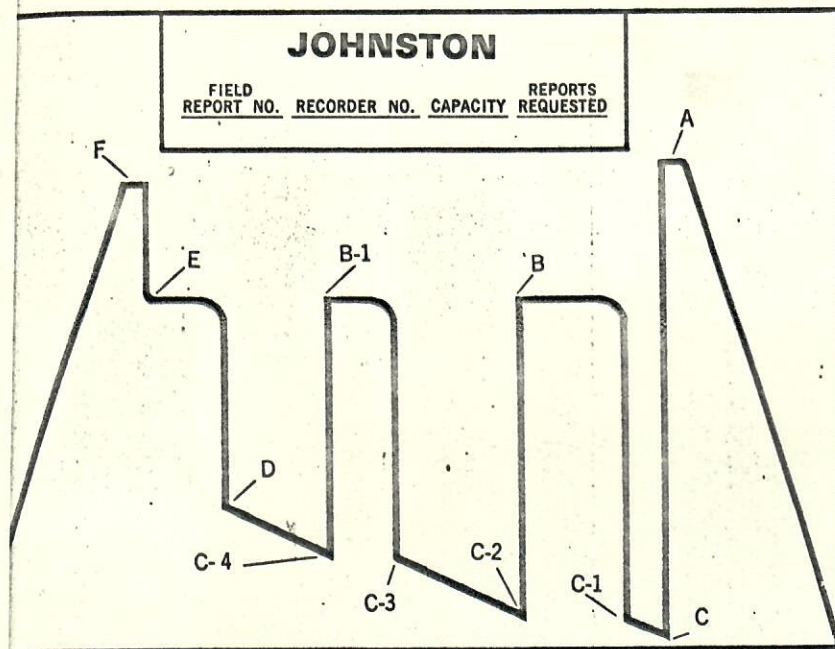
COLORADO

MR. G. WILLIAM HURLEY

No. Reports Requested 4x



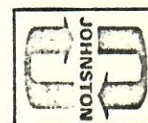
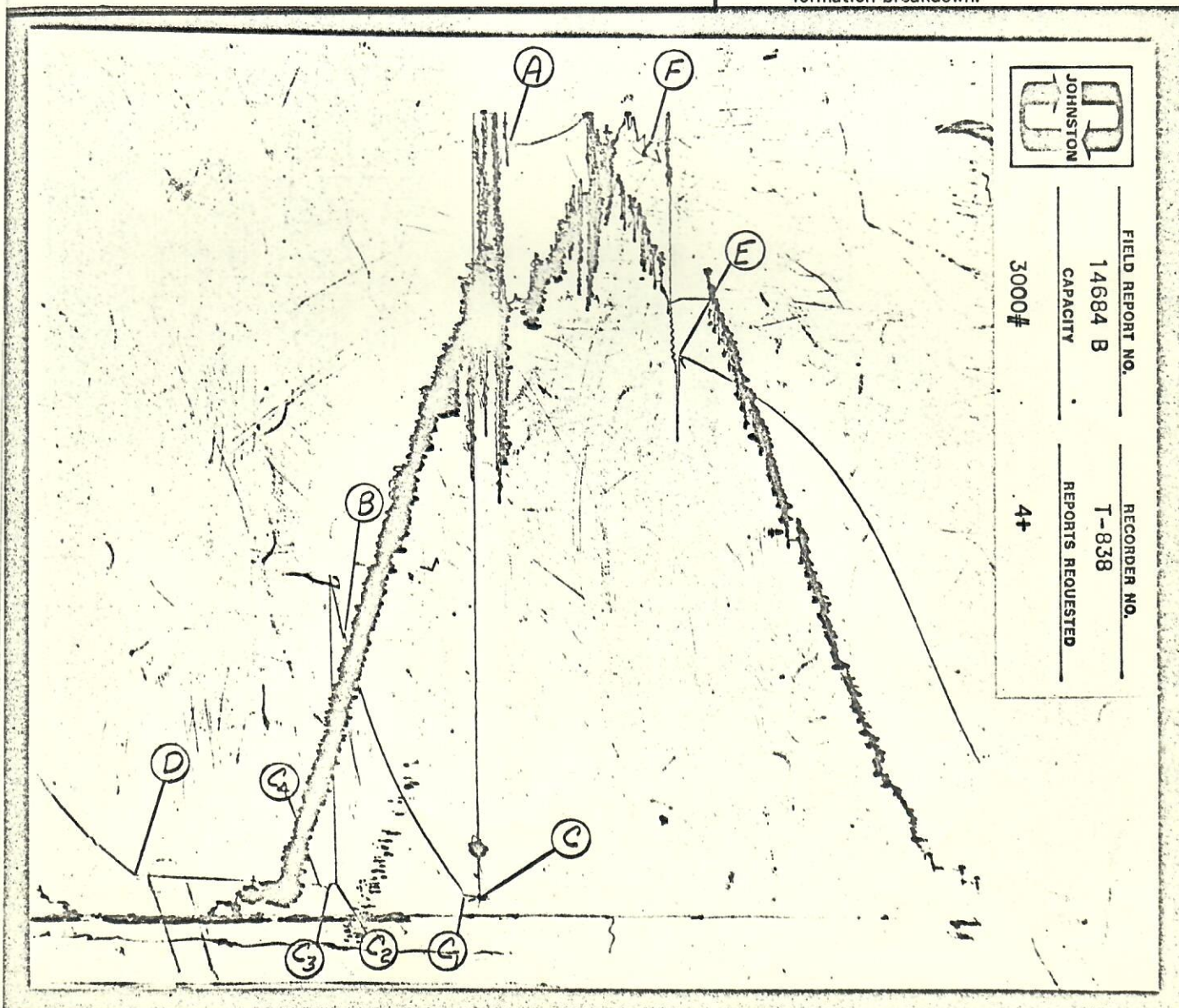
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FIELD REPORT NO. 14684 B  
CAPACITY 3000#  
RECORD NO. T-838  
REPORTS REQUESTED 4+



### PRESSURE DATA

Instrument No.	T-838	J-252	Field Report No. 14684 B														
Capacity (P.S.I.G.)	3000	4700															
Instrument Depth	5616'	5635'															
Instrument Opening	OUTSIDE	INSIDE															
Pressure Gradient P.S.I./Ft.																	
Well Temperature °F.	120	120	<div>TIME DATA</div> <table><tr><th>Time Given</th><th>Time Computed</th></tr><tr><td>30 Mins.</td><td>35 Mins.</td></tr><tr><td>6 Mins.</td><td>5 Mins.</td></tr><tr><td>- Mins.</td><td>- Mins.</td></tr><tr><td>- Mins.</td><td>- Mins.</td></tr><tr><td>60 Mins.</td><td>60 Mins.</td></tr><tr><td>120 Mins.</td><td>120 Mins.</td></tr></table>	Time Given	Time Computed	30 Mins.	35 Mins.	6 Mins.	5 Mins.	- Mins.	- Mins.	- Mins.	- Mins.	60 Mins.	60 Mins.	120 Mins.	120 Mins.
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30 Mins.	35 Mins.																
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- Mins.	- Mins.																
- Mins.	- Mins.																
60 Mins.	60 Mins.																
120 Mins.	120 Mins.																
Initial Hydrostatic Mud	A	2741.4		2741.4													
Initial Shut-in	B *	1022.2		-													
Initial Flow	C	93.9	-														
	C-1	102.4	-														
	C-2	135.7	-														
Final Flow	D	167.9	-														
Final Shut-in	E *	2005.7	-														
Final Hydrostatic Mud	F	2749.8	2749.0														
Remarks:	C-3	113.1	A-1 2944.1														
	C-4	132.9	A-2 2597.4														
INSTRUMENT NUMBER J-252; BELOW STRADDLE.																	

Shut in pressure did not reach static reservoir pressure.

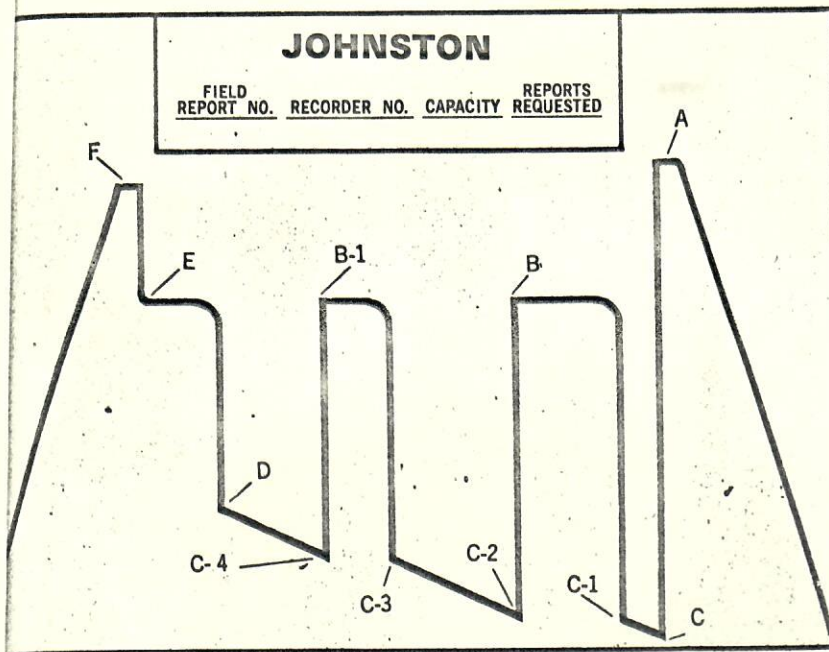
Clock Travel 0.02071 inches per min.

### PRESSURE INCREMENTS

DT	PSI	LOG	DT	PSI	LOG
INITIAL SHUT IN BREAKDOWN					
C 1 0	102.4	0.000	21	537.2	0.093
3	162.3	0.426	24	614.5	0.082
6	212.5	0.263	27	711.1	0.074
9	265.6	0.192	30	820.0	0.067
12	320.9	0.151	33	922.8	0.061
15	382.5	0.125	B 35	1022.2	0.058
18	450.2	0.106			
FINAL SHUT IN BREAKDOWN					
D 0	167.9	0.000	70	1521.8	0.285
10	263.9	0.875	80	1677.1	0.258
20	381.3	0.628	90	1791.1	0.236
30	541.7	0.501	100	1876.4	0.217
40	777.1	0.419	110	1948.1	0.202
50	1052.6	0.362	E 120	2005.7	0.188
60	1315.7	0.319			



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