



00205450



PICK TESTERS

Drill Stem Test Report

Box 341
Sterling, CO 80751

Phone
(303) 522-8387

CFG ENERGY, INC.
TICKET #1450

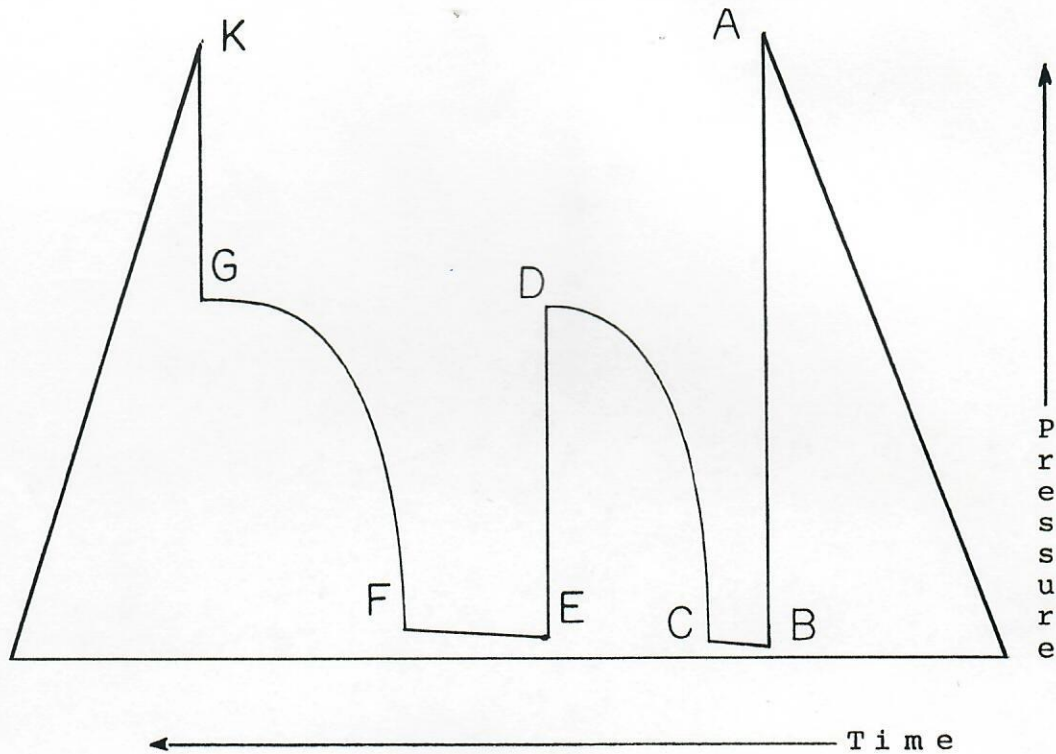
FOSSTON/STATE #1-16
J SAND ~ 7408'-7422'

DST #1
08-27-1993

RECEIVED
FEB 15 1994
COLORADO OIL & GAS CONSULTING

In making any interpretation, our employees will give Customer the benefit of their best judgment as to the correct interpretation. Nevertheless, since all interpretations are opinions based on inferences from electrical, mechanical or other measurements, we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not be liable or responsible, except in the case of gross or wilful negligence on our part, for any loss, costs, damages or expenses incurred or sustained by Customer resulting from any interpretation made by any of our agents or employees.

Kuster AK-1 Chart



- A - Initial Hydrostatic
- B - First Initial Flow
- C - First Final Flow
- D - Initial Shut-In
- E - Second Initial Flow
- F - Second Final Flow
- G - Second Shut-In
- K - Final Hydrostatic

Drill-Stem-Test Reporting By:

Michael Hudson
DATA REPORTING SERVICES

Box 1762

Ph. (303) 522-9068

STERLING, COLORADO 80751

Original pressure charts on file at the above location.



PICK TESTERS

Contractor **Gear Drilling**
 Rig No. **2**
 Spot **NE/NE**
 Sec **16**
 Twp. **7 N**
 Rng. **63 W**
 Field **SW Fosston**
 County **Weld**
 State **Colorado**
 Elevation **4872' KB**
 Formation **J Sand**

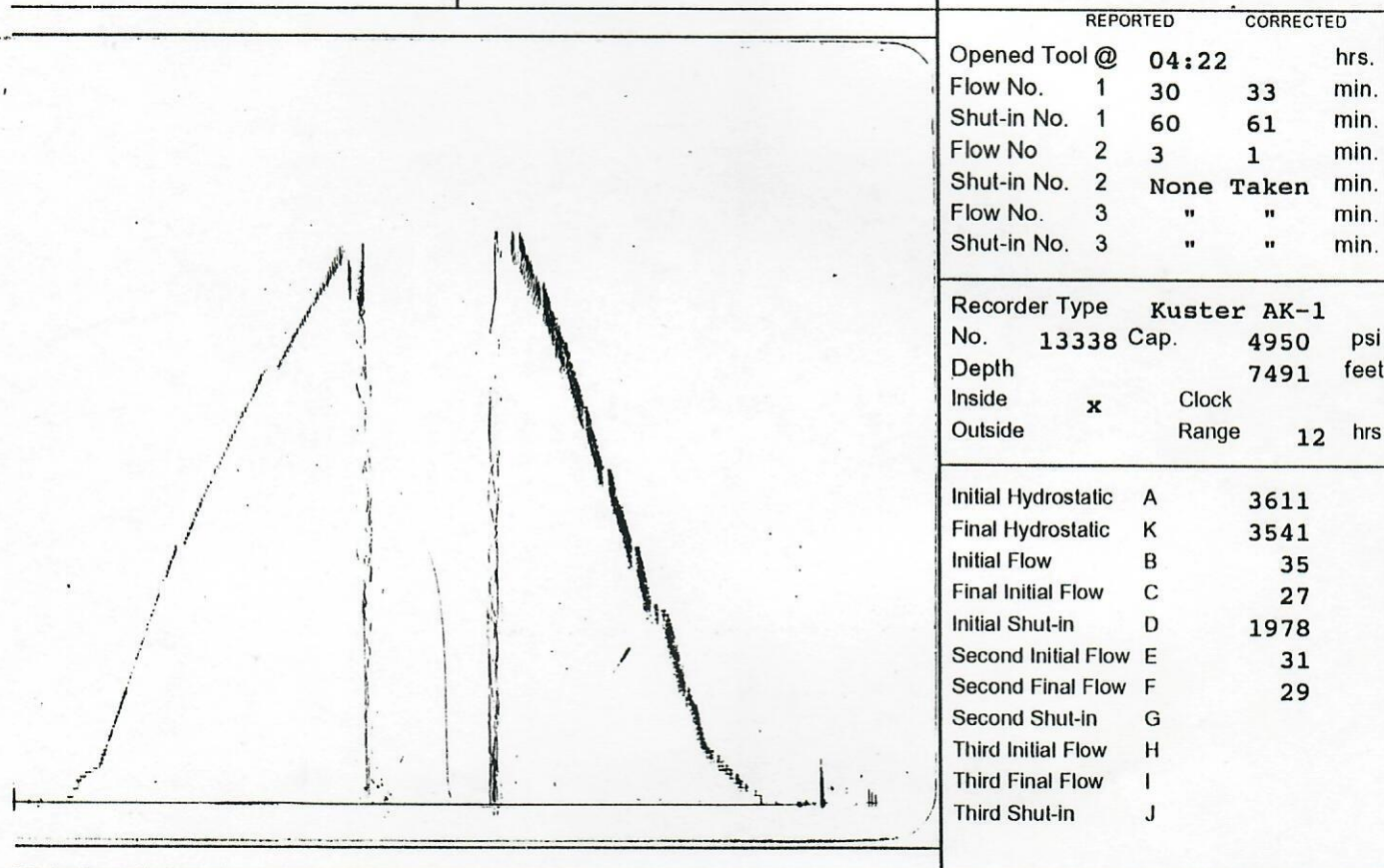
Surface Choke **1"**
 Bottom Choke **3/4"**
 Hole Size **7 7/8"**
 Core Hole Size **None**
 DP Size & Wt. **4 1/2" 16.60**
 Wt. Pipe **None**
 I.D. of DC **2 1/4"**
 Length of DC **467'**
 Total Depth **7422'**
 Type Test **Conventional**
 Interval **7408' - 7422'**

Mud Type **Chemical/Gel**
 Weight **9.2**
 Viscosity **85**
 Water Loss **--**
 Filter Cake **--**
 Resistivity **3.0 @ 80 °F**
1,603 Ppm. NaCl °F
 B.H.T. **193**
 Co. Rep. **Tom Croke**
 Tester **Kent Lochart**
David Pickering

CFG ENERGY, INC.
 TICKET #1450

FOSSON/STATE #1-16
 J SAND ~ 7408' - 7422'

DST #1
 08-27-1993



Pipe Recovery 10' Mud = 0.05 bbl.

Resistivity: 3.5 @ 78 Deg F/1,397 ppm NaCl., 849 ppm Cl.

1st Flow: Tool opened with a slight surface blow, began to decrease slightly after 20 minutes.

Company: CFG Energy, Inc.
 Well: Fosston/State #1-16
 DST No: 1

Recorder Type	Kuster	AK-1	
No.	13617	Cap.	4550 psi
Depth			7415 feet
Inside	x	Clock	
Outside		Range	12 hrs.

Initial Hydrostatic	A	3646
Final Hydrostatic	K	3551
Initial Flow	B	59
Final Initial Flow	C	39
Initial Shut-In	D	1975
Second Initial Flow	E	76
Second Final Flow	F	73
Second Shut-In	G	
Third Initial Flow	H	
Third Final Flow	I	
Third Shut-In	J	

Recorder Type	--	
No.		Cap.
Depth		psi
Inside		feet
Outside		
		Clock
		Range
		hrs.

Initial Hydrostatic	A
Final Hydrostatic	K
Initial Flow	B
Final Initial Flow	C
Initial Shut-In	D
Second Initial Flow	E
Second Final Flow	F
Second Shut-In	G
Third Initial Flow	H
Third Final Flow	I
Third Shut-In	J

Company: CFG Energy, Inc.
 Well: Fosston/State #1-16
 DST No: 1

SAMPLER REPORT

Pressure in Sampler:	None	psig
Total Volume of Sampler:	2150	cc.
Total Volume of Sample:	2050	cc.
Oil:	None	cc.
Water:	None	cc.
Mud:	2050	cc.
Gas:	None	cu. ft.
Other:	None	

Sample RW: 3.5 @ 78 Deg F/1,397 ppm NaCl., 849 ppm Cl.
 Resistivity

Make up Water	@	°F of Chloride Content	ppm.
Mud Pit Sample	3.0 @ 80	°F of Chloride Content	1,603 ppm.
Gas / Oil Ratio	Gravity	°API @	°F

Where was sample drained On Location.

Remarks:

Company: CFG Energy, Inc.

Well: Fosston/State #1-16, DST #1

Field: SW Fosston

[Friday: Aug. 27, 1993]

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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
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Gauge #13338 @ 7491 ft:

Opened for flow #1:

1	0	4:22: 0	0.0000	35.39
2	0	4:25: 0	0.0499	47.37
3	0	4:28: 0	0.1000	36.38
4	0	4:31: 0	0.1500	36.39
5	0	4:34: 0	0.2000	44.86
6	0	4:37: 0	0.2499	50.67
7	0	4:40: 1	0.3003	23.38
8	0	4:43: 1	0.3502	28.47
9	0	4:46: 1	0.4002	36.81
10	0	4:49: 1	0.4502	34.41
11	0	4:52: 1	0.5003	28.26
12	0	4:55:19	0.5553	27.19

Closed for shut-in #1:

13	0	4:55:19	0.0000	27.19
14	0	4:56:20	0.0169	40.53
15	0	4:57:19	0.0333	86.03
16	0	4:58:17	0.0494	256.62
17	0	4:59:18	0.0663	899.09
18	0	5: 0:19	0.0832	1093.03
19	0	5: 1:16	0.0992	1189.19
20	0	5: 2:18	0.1164	1266.43
21	0	5: 3:20	0.1337	1331.97
22	0	5: 4:19	0.1500	1388.82
23	0	5: 5:19	0.1665	1441.38
24	0	5: 7:18	0.1997	1512.15
25	0	5: 9:18	0.2331	1573.93
26	0	5:11:19	0.2666	1621.18
27	0	5:13:20	0.3001	1662.49
28	0	5:15:21	0.3338	1699.11
29	0	5:17:18	0.3664	1729.92
30	0	5:19:20	0.4002	1756.57
31	0	5:21:18	0.4329	1781.70
32	0	5:23:19	0.4667	1805.94
33	0	5:25:21	0.5005	1824.39
34	0	5:28:20	0.5502	1850.03
35	0	5:31:19	0.6000	1872.15
36	0	5:34:18	0.6498	1890.62
37	0	5:37:18	0.6996	1907.58
38	0	5:40:21	0.7505	1923.03
39	0	5:43:21	0.8004	1935.84
40	0	5:46:20	0.8503	1948.65
41	0	5:49:20	0.9002	1958.44
42	0	5:52:19	0.9501	1968.23

Company: CFG Energy, Inc.

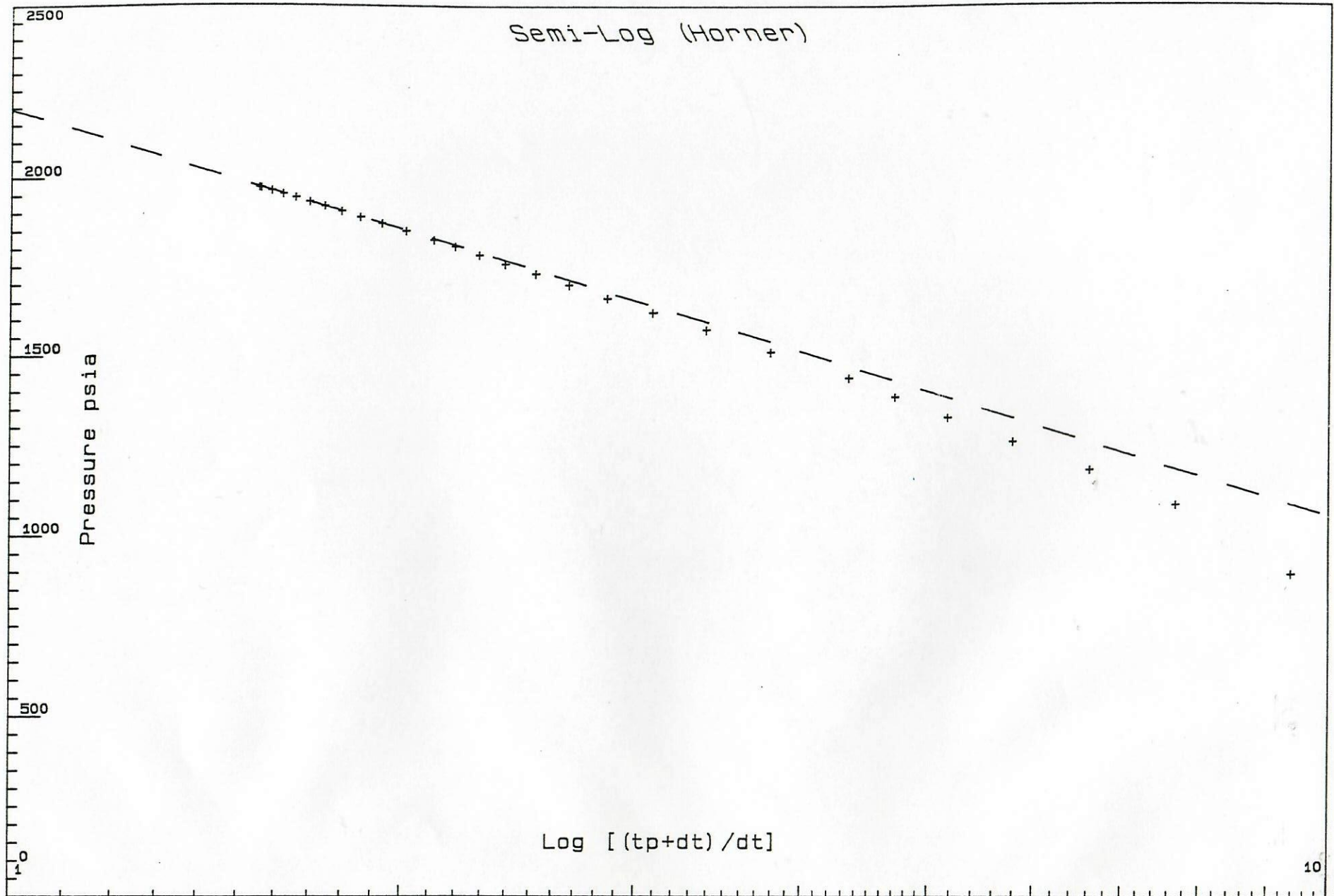
Well: Fosston/State #1-16, DST #1

[Friday: Aug. 27, 1993]

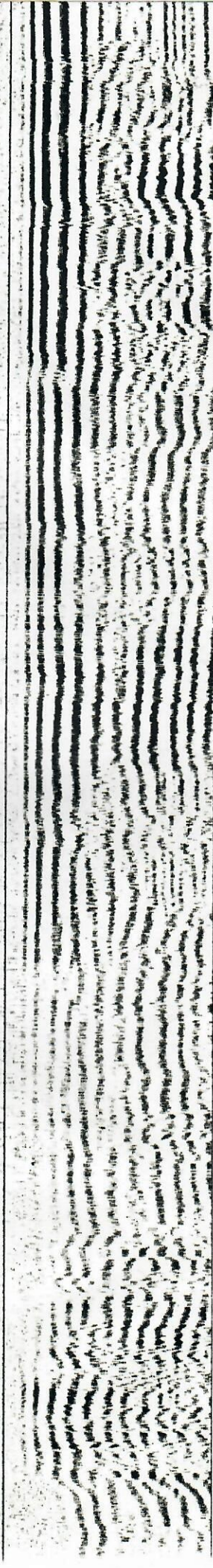
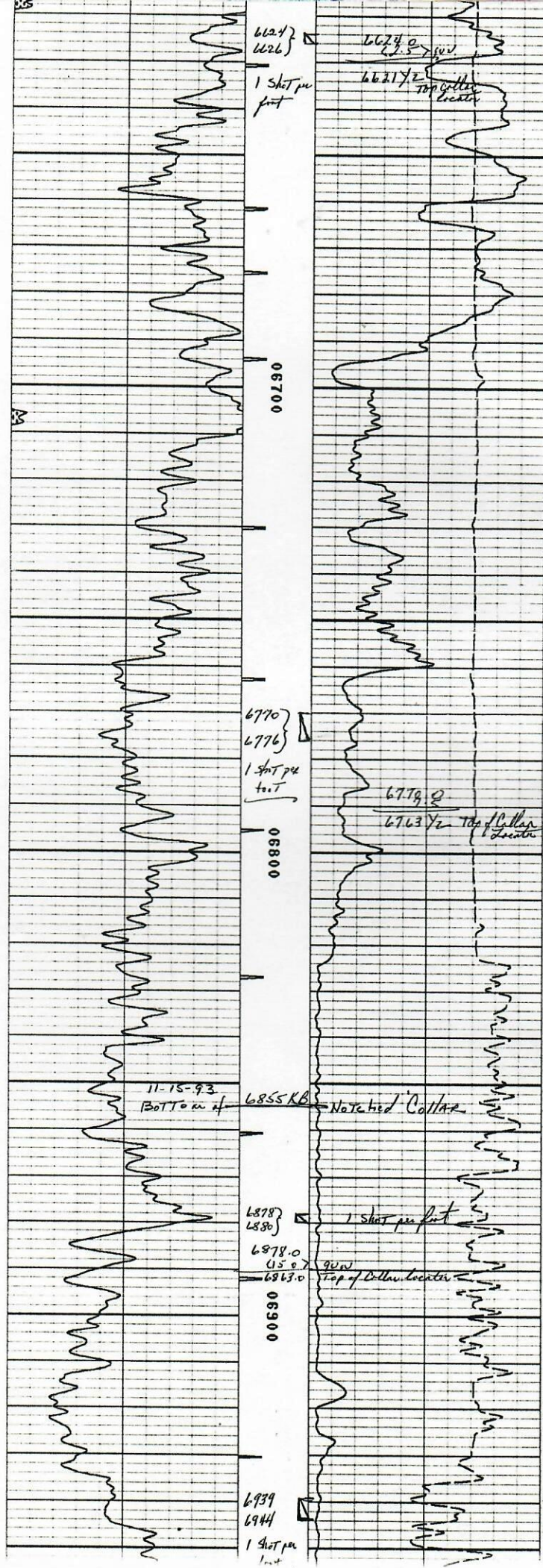
Field: SW Fosston

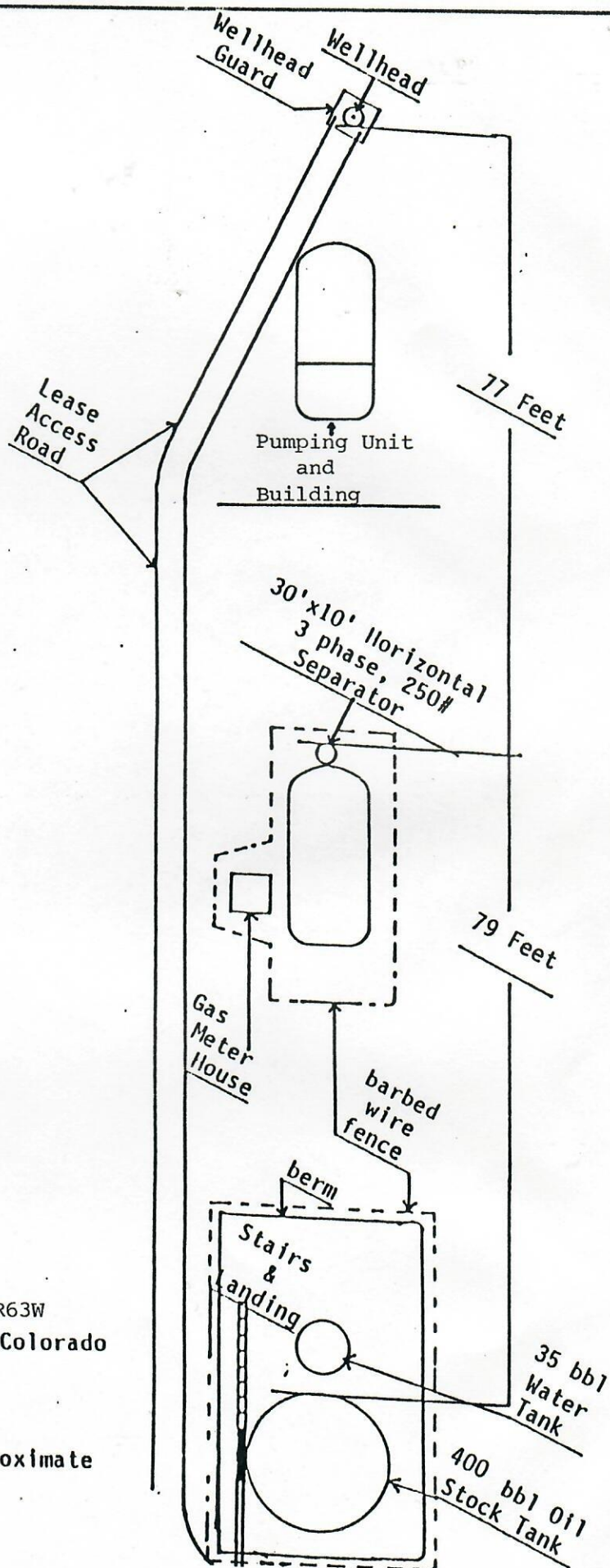
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REC #	DAY	REAL TIME	DT (HRS)	BHP (PSIA)
43	0	5:55:19	1.0000	1976.52
44	0	5:55:52	1.0090	1977.80
Opened for flow #2:				
45	0	5:59:43	0.0000	30.51
46	0	6: 0:56	0.0200	29.00



Shut-in #1:
 $P^* = 2195$ psi
 $M = -1135.171$ psi/cycle





FOSTON/STATE 1-16 WELL

CFG ENERGY, INC.
Wellsite Diagram

NENE-16-T7N-R63W
Weld County, Colorado

NOTE: footages are approximate

11-8-93

- CFL Energy Inc #1-16 Forston State
- 0700 Get the crew on loc and rigging to pump tubing.
40 PSI on csg - Juc was open
- 0745 Start out of hole w/ tubing - Lally out.
- 1005 out of 117 stands of tub. plan & 2 joints ruined
- 1025 Start in hole w/E250 squeeze port & tub.
Set Retainer (5g. par.) at 7280 ft -
Spotted Cla Fire Water down annulus.
Pressure down of Water 3100 PSI at 4 BPM.
Mixed 50 bag Standard Cement w/ 70% Water &
followed w/ 75 bag Standard. Displaced at
3 BPM until lost 2 BHA and with 5 bag
Cement in the tubing, we got a running squeeze
to 4500 PSI - floored and closed - Held OK.
Reversed out 5 bag Cement and pulled setting
tool and tubing.
- 1630 out of hole w/ tub - Clean up sign & Read.
Rig a cap to put on the casing mouth.
- 1700 Finished for day.

Thank you
W.C. Madder

JOB SUMMARY

HALLIBURTON
DIVISION
HALLIBURTON
LOCATION

Western Area
Brighton Co

BILLED ON
TICKET NO. 529,710

WELL DATA

FIELD _____ SEC 16 TWP. 7N RNG. E3W COUNTY Weld STATE CO

FORMATION NAME _____ TYPE _____
FORMATION THICKNESS _____ FROM _____ TO _____
INITIAL PROD: OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD
PRESENT PROD: OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD
COMPLETION DATE _____ MUD TYPE _____ MUD WT. _____
PACKER TYPE _____ SET AT _____
BOTTOM HOLE TEMP. _____ PRESSURE _____
MISC. DATA _____ TOTAL DEPTH _____

JOB DATA

CALLER OUT <u>11-8-93</u>	ON LOCATION <u>11-8-93</u>	JOB STARTED <u>11-8-93</u>	JOB COMPLETED <u>11-8-93</u>
DATE	DATE	DATE	DATE
TIME <u>0900</u>	TIME <u>1200</u>	TIME	TIME

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
FLOAT COLLAR		
FLOAT SHOE		
GUIDE SHOE		
CENTRALIZERS		
BOTTOM PLUG		
TOP PLUG		
HEAD <u>2 7/8 x 3 1/2</u>	<u>1</u>	<u>1156</u>
PACKER <u>5 1/2 x 5 1/2</u>	<u>1</u>	<u>1156</u>
OTHER <u>1 1/2 x 2 1/4</u>	<u>1</u>	<u>1156</u>

MATERIALS

TREAT. FLUID _____ DENSITY _____ LB./GAL. °API
DISPL. FLUID _____ DENSITY _____ LB./GAL. °API
PROP. TYPE _____ SIZE _____ LB.
PROP. TYPE _____ SIZE _____ LB.
ACID TYPE _____ GAL. _____ %
ACID TYPE _____ GAL. _____ %
ACID TYPE _____ GAL. _____ %
SURFACTANT TYPE _____ GAL. _____ IN
NE AGENT TYPE _____ GAL. _____ IN
FLUID LOSS ADD. TYPE _____ GAL.-LB. _____ IN
GELLING AGENT TYPE _____ GAL.-LB. _____ IN
FRIC. RED. AGENT TYPE _____ GAL.-LB. _____ IN
BREAKER TYPE _____ GAL.-LB. _____ IN
BLOCKING AGENT TYPE _____ GAL.-LB. _____ IN
PERFPAC BALLS TYPE _____ QTY. _____
OTHER _____
OTHER _____

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
<u>1</u>	<u>50</u>	<u>STANDARD</u>	<u>B</u>	<u>.7010</u>	<u>11-8-93</u>		<u>14.5</u>
<u>2</u>	<u>75</u>	<u>STANDARD</u>	<u>B</u>	<u>NEAT</u>			<u>16.0</u>

PRESSURES IN PSI

CIRCULATING _____ DISPLACEMENT _____
BREAKDOWN 3 at 3000 MAXIMUM 4500
AVERAGE _____ FRACTURE GRADIENT _____
SHUT-IN: INSTANT _____ 5-MIN _____ 15-MIN. _____
HYDRAULIC HORSEPOWER _____
ORDERED _____ AVAILABLE _____ USED _____
AVERAGE RATES IN BPM _____
TREATING _____ DISPL. _____ OVERALL _____
CEMENT LEFT IN PIPE _____
FEET 122 REASON Squeezed

SUMMARY

VOLUMES
PRESLUSH: BBL.-GAL. LOW 2 1/2
LOAD & BKDN: BBL.-GAL. _____ PAD: BBL.-GAL. _____
TREATMENT: BBL.-GAL. _____ DISPL: BBL.-GAL. 27.5
CEMENT SLURRY: BBL.-GAL. 0.11 @ 15
TOTAL VOLUME: BBL.-GAL. _____

REMARKS

CMT weight by densimeter
Revised 1000 cmt



DATE	PAGE NO.
11-8-93	1
TICKET NO.	
529340	

CFG Energy

1-16

LEASE
Foster State

JOB TYPE
Spec

TICKET NO.
529240

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1100							Called Out On Loc w/ all Equipment Safety Meeting
	1200							
	1215							
	1325		60		✓		2000	Pump to spot Clay Fire
								String in
	13		1		✓		500	PSS Hauler
		3	10		✓		400	Injection Rate
		3	26		✓		2500	Mix amt
		3	29		✓		2500	Displace amt
		44			✓		4500	slow Rate Walking Squeeze
								Bleed off (No Flow back)
								rep.s.d. (No Bleed off)
								string out + Reverse 100' eml to Pit
	1500							Job Complete
								Thank you for Calling Halliburton David PAUL

RETAIN



COPY

1455

No

No. 427240

FORM 1911 R-9

[illegible]

CONTINUATION TOTAL