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COLO. OIL & GAS CONS. COMM.

GEOLOGIC WELL REPORT

STREAM INC., ET AL

No. 1 Raindrop - State

SW NE NE, Section 22, T-8-N, R-50-W

Logan County, Colorado

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DVR	✓
FJP	
HHM	✓
JAM	✓
JJD	✓
RLS	
ODM	

Submitted by,

W. H. Cobb

W. H. Cobb, Geologist

WELL DATA

Operator - Stream Inc., Et al
Well Name - No. 1 Raindrop State
Location - NE NE, Sec. 22, T-8-N, R-50-W, Logan County, Colorado
Elevation - 4373' GL, 4383' KB
Casing - 4 jts, 158', 8-5/8", set @ 168' KB, w/100 sx, good returns
Contractor - Gear Drilling Co., Rig # 2, (Gene Malaby - Pusher)
Commenced - MI RU, set surf, plug down 4:45 pm, January 5, 1981
Completed - Ran 4-¹/₂" production casing Jan 8, 1981
Total Depth - 4630' DPM, 4630' Petrolog
✓ Status - Waiting on Completion Rig
Measurements - All Measurements taken from Kelly Bushing
Surveys - Petrolog, Induction Electric Log and Compensated Density Log
D S T's - Liberty Testers, "J" Sand, 4560' - 4564', Conclusive Test
Cores -

Formation Log Tops

Niobrara	- 3606	"D" Sand	- 4430 (-47)
Ft. Hays	- 3898	"J" Silt	- 4528
Carlile	- 3994	"J" Sand	- 4536 (-153)
Greenhorn	- 4237	"J" Porosity	- 4556 (-173)
Bentonite	- 4341	Total Depth	- 4530

DISCUSSION

The Stream Inc., Et al, No. 1 Raindrop State is located in the SW NE NE of Section 22, T-8-N, R-50-W, in Logan County, Colorado, approximately 12 miles east of the City of Sterling. The No. 1 Raindrop State is a southwest offset to the Schulein & Associates, No. 1-State, located in the C NE NE of section 22. The Schulein Associates well is a plugged "J" Sand producer which was drilled in 1972. The No. 1 Raindrop State was found to be, structurally, 5 feet high on the top of the "D" Sand and 4 feet high on the top of the "J" Sand Porosity, or producing zone, to the Schulein well. Sample examination and electric log evaluation indicated that the Raindrop State would probably produce gas from the "J" Sand Porosity Zone. Drill Stem Test of the interval 4560 to 4564 gave up gas at the maximum rate of 1,726,000 cubic feet per day, and shut in pressure was equal to the virgin reservoir pressure recorded on drill stem test of the producing zone in the Schulein well. Results of sample and electric log evaluation, drill stem testing and the relative structural position indicated that the Stream Inc., Et al, No. 1 Raindrop-State would produce gas in commercial quantities from the "J" Sand, and it was therefore recommended that this well be completed for production from the "J" Sand Porosity Zone.

SAMPLE DESCRIPTION

Sample intervals are lagged back and adjusted to log measurements.

- 4420
4430 - gray shale, trace sandstone, light gray, silty, tight, no shows
- 40 - sandstone, light gray to wht, fg, sil, interg filling, sandstone
lt gry, fg, good por, NS, "D" Sand
- 50 - ss, lt gry, fg, tight ip, carb & w good por ip
- 55 - ss, lt gry, fg, carb ip, tight ip & w/good por ip, tr ss, lt gry,
vfg, tight, w/ poor dull fl
- Trip for new bit at 4475
- 65 - ss, lt gry, to dirty gry, fg to vfg, carb to v carb, lam ip, abd
pyrite, NS
- 90 - sh, gry, scatt recirc "D" Sand
- 4530 - sh, gry to dk gry, tr to 3% silt, gry brn, siliceous, "J" Silt
- 45 - sh, gry, silty to v silty, ss, lt gry, fg to v fg, speckled, tight,
NS, tr glauc, sil interg filling ip, tight, NS, Top "J" Sand, this
is the silty part of the Upper "J" Sand

SAMPLE DESCRIPTION (Cont.)

Trip for New Bit at 4545'.

- 4545
4555 - sh, gry, mostly recirculated material from above, all very small cuttings & clusters of grains
- 65 - ss, fg, gry, speckled aa, ss, lt gry, mg to cse gr, some very good porosity, some v good, gas bubbles, no fl, Top "J" Porosity Zone
- 70 - ss, lt gry, mg to cse gr, good por, few gas bubbles, no fl
- 80 - tr ss aa
- 90 - ss, lt gry, cse gr to v cse gr, fair por, kao filled ip, NS
- 4600 - ss aa, ss, lt gry, fg vfg, tight, NS
- 30 - sh, gry, scatt ss aa,
- 4630 - Total Depth. Come out of hole to log.

BIT RECORD

<u>Run</u>	<u>Make</u>	<u>Size</u>	<u>Type</u>	<u>Out</u>	<u>Feet</u>	<u>Hours</u>	<u>Remarks</u>
	STC	12 1/4		170	170		Re-run Surface Hole
1	STC	7-7/8	DTJ	4475	4305	28-3/4	
2	HTC	"	OSC3	4545	70	6-1/4	
3	HTC	"	OSC3	4630	85	4-3/4	T. D. Out to Log

MUD RECORD

<u>Date</u>	<u>Time</u>	<u>Depth</u>	<u>Wt</u>	<u>Vis</u>	<u>Gel</u>	<u>PH</u>	<u>WL</u>	<u>Cake</u>	<u>Salt</u>	<u>Cal</u>	<u>Sd</u>	<u>Solids</u>
1/7/81	11:40 am	4475	9.8	70	8/28	8	5.1	2/32			tr	6
1/7/81	6:00 pm	4545	9.9	40	1/4	8	4.6	2/32			-	13

DEVIATION

<u>Depth</u>	<u>Degrees</u>	<u>Depth</u>	<u>Degrees</u>	<u>Depth</u>	<u>Degrees</u>	<u>Depth</u>	<u>Degrees</u>
1083	1/4	3004	1 1/2				
2016	3/4	3595	3/4				
2508	1	4475	1/4				

Date	7-8-81	Ticket Number	752
Kind of Job	STRADDLE DST		
Tester	TOM MICHEL	MR. STORM	Witness MR. COBB
Drilling Contractor	GEAR DRILLING COMPANY		
EQUIPMENT & HOLE DATA			
Formation Tested	J SAND		
Elevation	4383	Ft.	
Net Productive Interval	4	Ft.	
All Depths Measured From	KB		
Total Depth	4630	Ft.	
Main Hole/Casing Size	7 7/8"		
Drill Collar Length	209	I.D. 2.250"	
Drill Pipe Length	4087	I.D. 3.826"	
Packer Depth(s)	4541-----4560-----4564	Ft.	
Depth Tester Valve	4526	Ft.	

FLUID SAMPLE DATA			
Sampler Pressure	200	P.S.I.G. at Surface	
Recovery: Cu. Ft. Gas	1.254		
cc. Oil	0		
cc. Water	50		
cc. Mud	0		
Tot. Liquid cc.	50		
Gravity		° API @	° F.
Gas/Oil Ratio		cu. ft./bbl.	
		RESISTIVITY	CHLORIDE CONTENT
Recovery Water	2.30 @ 60	° F.	3000 ppm
Recovery Mud	@	° F.	ppm
Recovery Mud Filtrate	@	° F.	ppm
Mud Pit Sample	3.00 @ 60	° F.	2200 ppm
Mud Pit Sample Filtrate	@	° F.	ppm
Mud Weight	9.8	vis	60 cp

Cushion	TYPE	AMOUNT	Depth Back Pres. Valve	Surface Choke	Bottom Choke
	NONE		NONE	3/8" - 1" Choke	3/4"
Recovered	90	Feet of	WATER R W	2.35 @ 60°	2800PPM
Recovered		Feet of			1.002 BBLs
Recovered		Feet of			
Recovered		Feet of			
Recovered		Feet of			

Remarks OPEN TOOL WITH A STRONG BLOW TO BOTTOM OF BUCKET IN 30 SECONDS THEN INCREASED TO 66 PSI ON A 3/4" ORFICE IN 5 MIN. (941 MCF) (GAS TO SURF. IN 4 MIN.)--CLOSED FOR A 30 MIN. INITIAL SHUT IN.--OPEN TOOL FOR A 30 MIN. FINAL FLOW WITH A STRONG BLOW INCREASED TO 66 PSI IN 10 MIN. ON A 1 INCH. ORFICE (1726 MCF) THEN STABILIZED FOR LAST 20 MIN. OF FINAL FLOW. CLOSED TOOL FOR A 30 MIN. FINAL SHUT IN. (OVER FOR FURTHER BREAK DOWN)

TEMPERATURE	Gauge No.	Gauge No. 10228	Gauge No. 10229	TIME
	Depth: Ft.	Depth: 4569 Ft.	Depth: 4589 Ft.	
Est. °F.	Hour Clock	12 Hour Clock	12 Hour Clock	Tool
	Blanked Off	Blanked Off YES	Blanked Off YES	Opened 2:30 P.M.
Actual 130°F.	Pressures	Pressures	Pressures	Opened XXX
	Field	Office	Field	Bypass 4:05 P.M.
Initial Hydrostatic				Reported
				Minutes
Flow Initial				Computed
Flow Final				Minutes
Closed in				Minutes
Flow Initial				Minutes
Flow Final				Minutes
Closed in				Minutes
Final Hydrostatic				Minutes

PRODUCTION TEST DATA

Legal Location: NW 22 NE 22 NE 22 T8N R50W
 Lease Name:
 Well No.:
 Test No.:
 Field Area:
 Mea From Tester Valve:
 County:
 Tasted Interval:
 LOGAN
 STATE
 COLO.
 Lease Owner/Company Name:
 12

12845 Tumbleweed Dr.

Sterling, Colo. 80751

303 - 522 - 7025

Box 1454

STREAM INC. ETAL

LOGAN CO. COLO.

RAIN DROP STATE--DST # 1

INTERVAL:4560--4564'

INCREMENTAL READING DATA

RECORDER NO. 10228 @ 4569'

Initial Flow (5)
(min) Pressure (psi)

0	474
5	493

Final Flow (30)
(min) Pressure (psi)

0	540
30	558

Initial Shut-in (30)

(2 min-intervals)

0	493
2	1007
4	1025
6	1034
8	1036
10	1038
12	1040
14	1042
16	1043
18	1044
20	1044
22	1044
24	1044
26	1044
28	1044
30	1044

Final Shut-in (30)

(2 min intervals)

0	558
2	957
4	996
6	1011
8	1018
10	1021
12	1025
14	1027
16	1029
18	1030
20	1031
22	1032
24	1033
26	1034
28	1034
30	1034