

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name VIRGINIA CAREY #1-5 Test No. 1 Date 5/23/94
Company BEREXCO INC Zone MORROW
Address 970 FOURTH FINANCIAL CNTR WICHITA KS 67202 Elevation _____
Co. Rep./Geo. CHARLIE SPRADLIN Cont. BEREDCO DRLG RIG #2 Est. Ft. of Pay 11
Location: Sec. 5 Twp. 34S Rge. 38W Co. STEVENS State KS

Interval Tested <u>6206-6217</u>	Drill Pipe Size <u>4.5" XH</u>
Anchor Length <u>11</u>	Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth <u>6201</u>	Drill Collar - 2.25 Ft. Run <u>603</u>
Bottom Packer Depth <u>6206</u>	Mud Wt. <u>9</u> lb/Gal.
Total Depth <u>6217</u>	Viscosity <u>50</u> Filtrate <u>8</u>

Tool Open @ _____ Initial Blow LOST CIRCULATION GOING IN THE HOLE WITH TEST TOOL
19 STANDS OFF BOTTOM

Final Blow _____

Recovery - Total Feet _____ Flush Tool? NO

Rec. _____	Feet of _____
Rec. _____	Feet of _____
Rec. _____	Feet of _____
Rec. _____	Feet of _____
Rec. _____	Feet of _____

BHT _____ °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 650 ppm System

(A) Initial Hydrostatic Mud _____ PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure _____ PSI @ (depth) 6209 w / Clock No. 26191

(C) First Final Flow Pressure _____ PSI AK1 Recorder No. 1055 Range 4100

(D) Initial Shut-in Pressure _____ PSI @ (depth) 6214 w / Clock No. 14389

(E) Second Initial Flow Pressure _____ PSI AK1 Recorder No. _____ Range _____

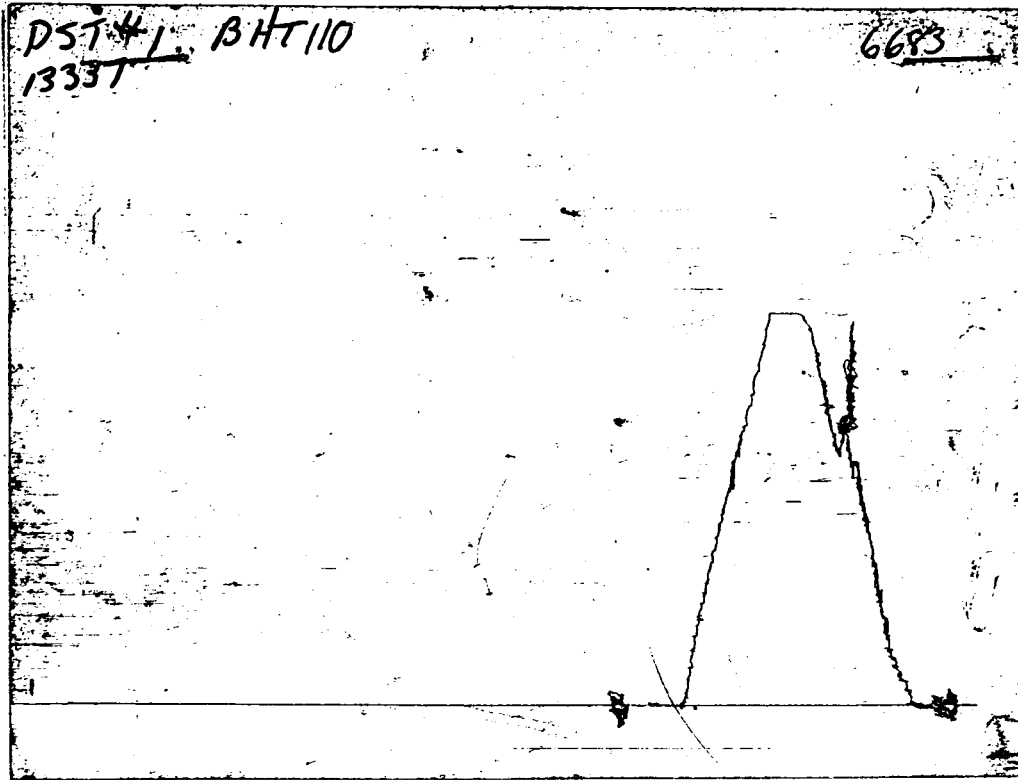
(F) Second Final Flow Pressure _____ PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure _____ PSI Initial Opening _____ Final Flow _____

(H) Final Hydrostatic Mud _____ PSI Initial Shut-in _____ Final Shut-in _____

Our Representative ROBERT COLLINS

CHART PAGE



This is an actual photograph of recorder chart #13337

FIELD
READING

OFFICE
READING

- (A) INITIAL HYDROSTATIC MUD
- (B) FIRST INITIAL FLOW PRESSURE
- (C) FIRST FINAL FLOW PRESSURE
- (D) INITIAL CLOSED-IN PRESSURE
- (E) SECOND INITIAL FLOW PRESSURE
- (F) SECOND FINAL FLOW PRESSURE
- (G) FINAL CLOSED-IN PRESSURE
- (H) FINAL HYDROSTATIC MUD

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name VIRGINIA CAREY #1-5 Test No. 2 Date 5/24/94
Company BEREXCO INC Zone MORROW
Address 970 FOURTH FINANCIAL CNTR WICHITA KS 67202 Elevation _____
Co. Rep./Geo. CHARLIE SPRADLIN Cont. BEREDCO DRLG RIG #2 Est. Ft. of Pay 11
Location: Sec. 5 Twp. 34S Rge. 38W Co. STEVENS State KS

Interval Tested 6206-6223 Drill Pipe Size 4.5" XH
Anchor Length 17 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 6201 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 6206 Mud Wt. 9.1 lb/Gal.
Total Depth 6223 Viscosity 61 Filtrate 7.8

Tool Open @ 10:30 AM Initial Blow GOOD BLOW - BOTTOM IN 2 MINUTES

Final Blow STRONG BLOW - BOTTOM OF BUCKET AS TOOL OPENED

Recovery - Total Feet 10 Flush Tool? NO

Rec. 970 Feet of GAS IN PIPE
Rec. 10 Feet of SLIGHTLY GAS CUT MUD - 5% GAS/ 95% MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 122 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 650 ppm System

(A) Initial Hydrostatic Mud 3006.1 PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 69.1 PSI @ (depth) 6209 w / Clock No. 26191

(C) First Final Flow Pressure 50.3 PSI AK1 Recorder No. 1055 Range 4100

(D) Initial Shut-in Pressure 521.6 PSI @ (depth) 6220 w / Clock No. 14389

(E) Second Initial Flow Pressure 70.1 PSI AK1 Recorder No. _____ Range _____

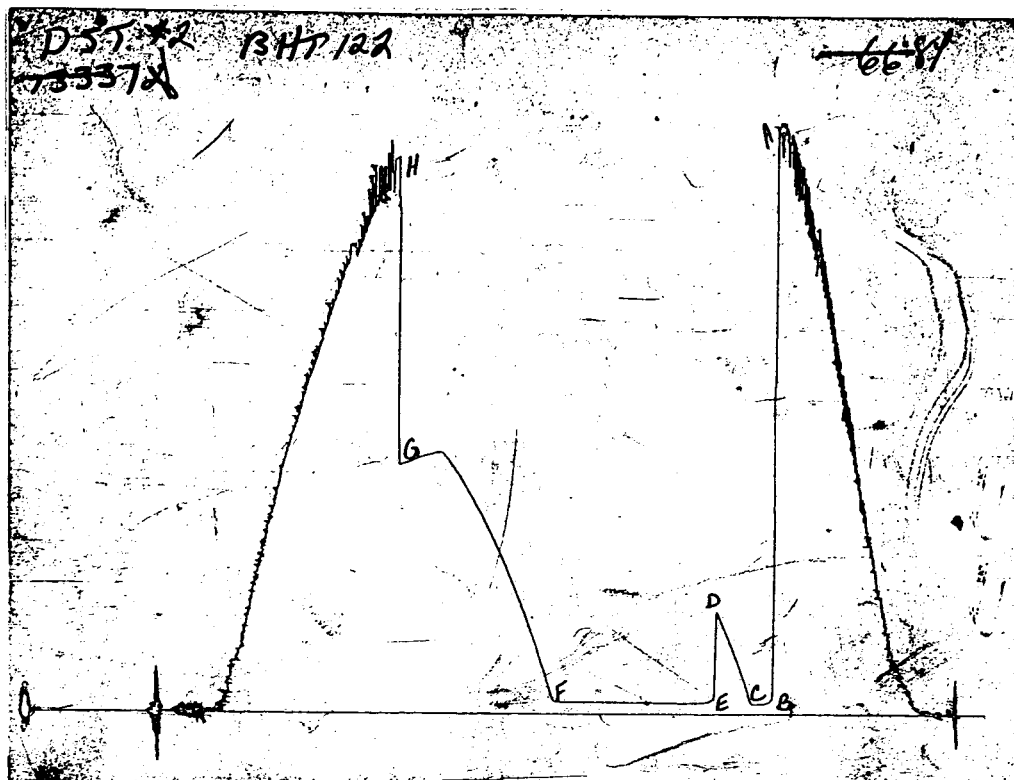
(F) Second Final Flow Pressure 59.3 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 1272.4 PSI Initial Opening 15 Final Flow 120

(H) Final Hydrostatic Mud 2828.7 PSI Initial Shut-in 30 Final Shut-in 120

Our Representative ROBERT COLLINS

CHART PAGE



This is an actual photograph of recorder chart #13337

	FIELD READING	OFFICE READING
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(A) INITIAL HYDROSTATIC MUD	2975	3006.1
(B) FIRST INITIAL FLOW PRESSURE	49	69.1
(C) FIRST FINAL FLOW PRESSURE	49	50.3
(D) INITIAL CLOSED-IN PRESSURE	523	521.6
(E) SECOND INITIAL FLOW PRESSURE	59	70.1
(F) SECOND FINAL FLOW PRESSURE	59	59.3
(G) FINAL CLOSED-IN PRESSURE	1274	1272.4
(H) FINAL HYDROSTATIC MUD	2809	2828.7

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name VIRGINIA CAREY #1-5 Test No. 3 Date 5/25/94
Company BEREXCO INC Zone MORROW
Address 970 FOURTH FINANCIAL CNTR WICHITA KS 67202 Elevation _____
Co. Rep./Geo. CHARLIE SPRADLIN Cont. BEREDCO DRLG RIG #2 Est. Ft. of Pay 12
Location: Sec. 5 Twp. 34S Rge. 38W Co. STEVENS State KS

Interval Tested 6223-6238
Anchor Length 15
Top Packer Depth 6218
Bottom Packer Depth 6223
Total Depth 6238

Drill Pipe Size 4.5" XH
Wt. Pipe I.D. - 2.7 Ft. Run _____
Drill Collar - 2.25 Ft. Run 603
Mud Wt. 8.7 lb/Gal.
Viscosity 60 Filtrate 6.6

Tool Open @ 12:00 PM Initial Blow STRONG BLOW BOTTOM OF BUCKET AS TOOL OPENED

Final Blow GAS TO SURFACE IN 2 MINUTES

Recovery - Total Feet 180 Flush Tool? NO

Rec. _____ Feet of GAS TO SURFACE
Rec. 90 Feet of SLIGHTLY GAS CUT MUD- 10% GAS/ 90% MUD
Rec. 90 Feet of MUDDY WATER- 70% WTR/ 30% MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 130 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW 0.165 @ 74 °F Chlorides 65000 ppm Recovery Chlorides 820 ppm System

(A) Initial Hydrostatic Mud 2931.5 PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 67.2 PSI @ (depth) 6226 w / Clock No. _____

(C) First Final Flow Pressure 52.3 PSI AK1 Recorder No. 13255 Range 6300

(D) Initial Shut-in Pressure 1485.9 PSI @ (depth) 6235 w / Clock No. _____

(E) Second Initial Flow Pressure 61.2 PSI AK1 Recorder No. _____ Range _____

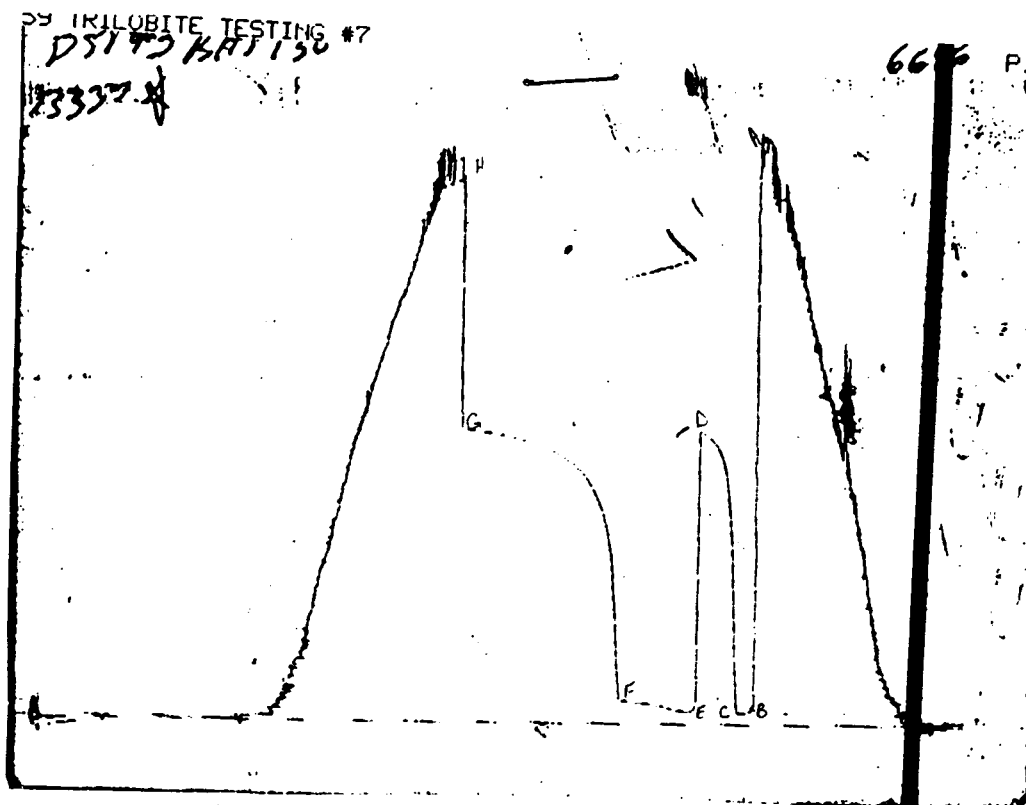
(F) Second Final Flow Pressure 102.7 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 1482.1 PSI Initial Opening 15 Final Flow 60

(H) Final Hydrostatic Mud 2809.2 PSI Initial Shut-in 30 Final Shut-in 120

Our Representative ROBERT COLLINS

CHART PAGE



This is an actual photograph of recorder chart #13337

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	2907	2931.5
(B) FIRST INITIAL FLOW PRESSURE	59	67.2
(C) FIRST FINAL FLOW PRESSURE	59	52.3
(D) INITIAL CLOSED-IN PRESSURE	1474	1485.9
(E) SECOND INITIAL FLOW PRESSURE	59	61.2
(F) SECOND FINAL FLOW PRESSURE	128	102.7
(G) FINAL CLOSED-IN PRESSURE	1484	1482.1
(H) FINAL HYDROSTATIC MUD	2850	2809.2

COMPUTER GAS EVALUATION BY TRILOBITE TESTING, L.L.C.

BEREXCO INC

VIRGINIA CAREY #1-5

DST 3

5 34S 38W

STEVENS

KS

ELEVATION:	3220 KB	EST. PAY:	12 FT.
DATUM:	-3007	ZONE TESTED:	MORROW
TEST INTERVAL:	6223-6238	TIME INTERVALS:	15-30-60-120
RECORDER DEPTH:	6226	VISCOSITY:	0.01275 CP
BOTTOM HOLE TEMP:	130	HOLE SIZE:	7.875 IN
COMPRESSIBILITY:	0.9976	GAS GRAVITY:	0.6312

TEMPERATURE RANKINE:	590.00	&
TRANSMISSIBILITY:	57.57	Kh/%
THEORITICAL FLOW CAPICITY:	0.73	Kh
AVERAGE EFFECTIVE PERMEABILITY:	0.06	K(md.)
RADIUS OF INVESTIGATION:	2.14	FT.
DAMAGE RATIO:	3.47	
ABSOLUTE OPEN FLOW(MAX)	19.58	MCFD
ABSOLUTE OPEN FLOW(MIN)	19.54	MCFD
THEORITICAL OPEN FLOW(MAX)	67.88	MCFD
THEORITICAL OPEN FLOW(MIN)	67.74	MCFD
POTENTIOMETRIC SURFACE	677.49	(FT.)

INITIAL SHUT-IN VALUES:	
SLOPE	433617.84
THEORETICAL STATIC PRESSURE	1625

FINAL SHUT-IN VALUES:	
SLOPE	326379.08
THEORETICAL STATIC PRESSURE	1588

DRAWDOWN FACTOR:	2.27 (%)
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INITIAL FLOW

RECORDER 13337

DST # 3

TIME(MIN) PRESSURE <> PRESSURE

0	67.2	67.2
3	56.3	-10.9
6	52.3	-4.0
9	52.3	0.0
12	52.3	0.0

FINAL FLOW

RECORDER 13337

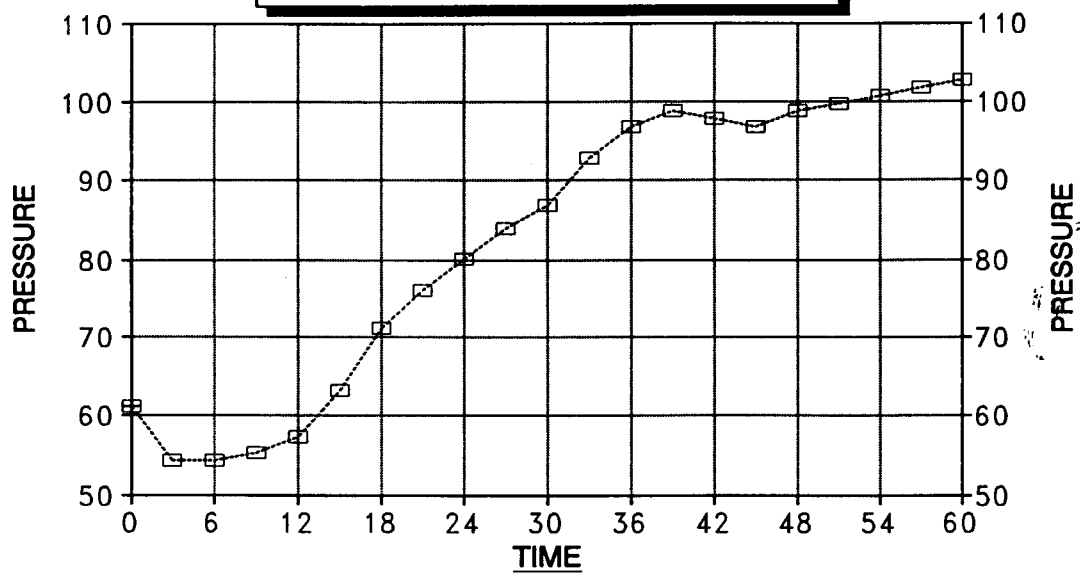
DST # 3

TIME(MIN) PRESSURE <> PRESSURE

0	61.2	61.2
3	54.3	-6.9
6	54.3	0.0
9	55.3	1.0
12	57.3	2.0
15	63.2	5.9
18	71.1	7.9
21	76.1	5.0
24	80.1	4.0
27	84.0	3.9
30	86.9	2.9
33	92.8	5.9
36	96.8	4.0
39	98.8	2.0
42	97.8	-1.0
45	96.8	-1.0
48	98.8	2.0
51	99.7	0.9
54	100.7	1.0
57	101.7	1.0
60	102.7	1.0

DELTA T DELTA P

FINAL FLOW / DST #3



---[]--- VIRGINIA CAREY #1-5

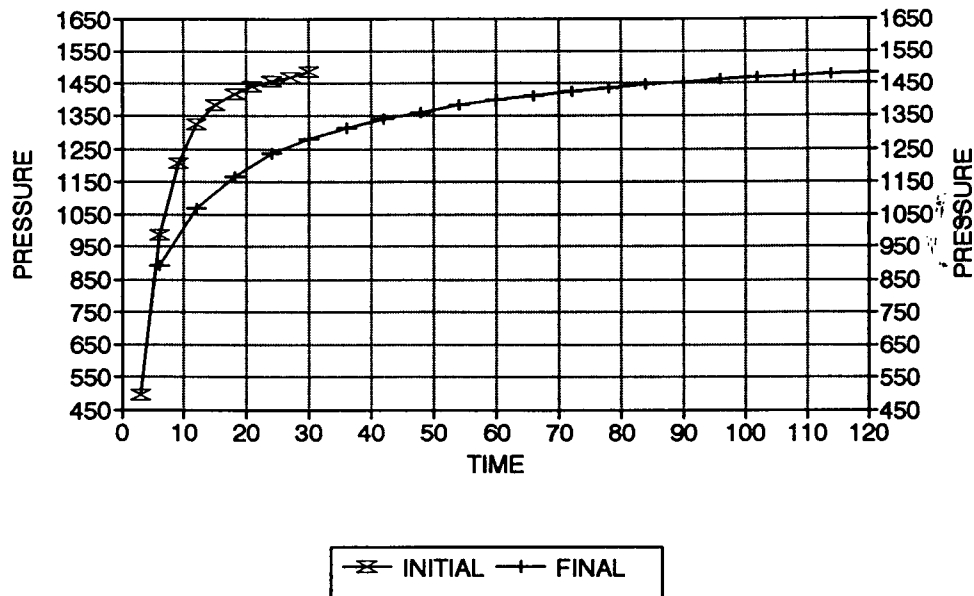
VIRGINIA CAREY
INITIAL

		DST #3		SHUTIN	
15 INITIAL FLOW TIME		Slope	433617.84	psi/cycle	
		P *	1625	psi	
		Log	<>		
TIME(MIN)	Pws (psi)	Horn T	PRESSURE	Horn T	
3	497.0	0.778	497.0	6	
6	987.2	0.544	490.2	4	
9	1206.5	0.426	219.3	3	
12	1326.2	0.352	119.7	2	
15	1384.2	0.301	58.0	2	
18	1417.1	0.263	32.9	2	
X 21	1440.0	0.234	22.9	2	
24	1455.0	0.211	15.0	2	
27	1470.0	0.192	15.0	2	
X 30	1485.9	0.176	15.9	2	

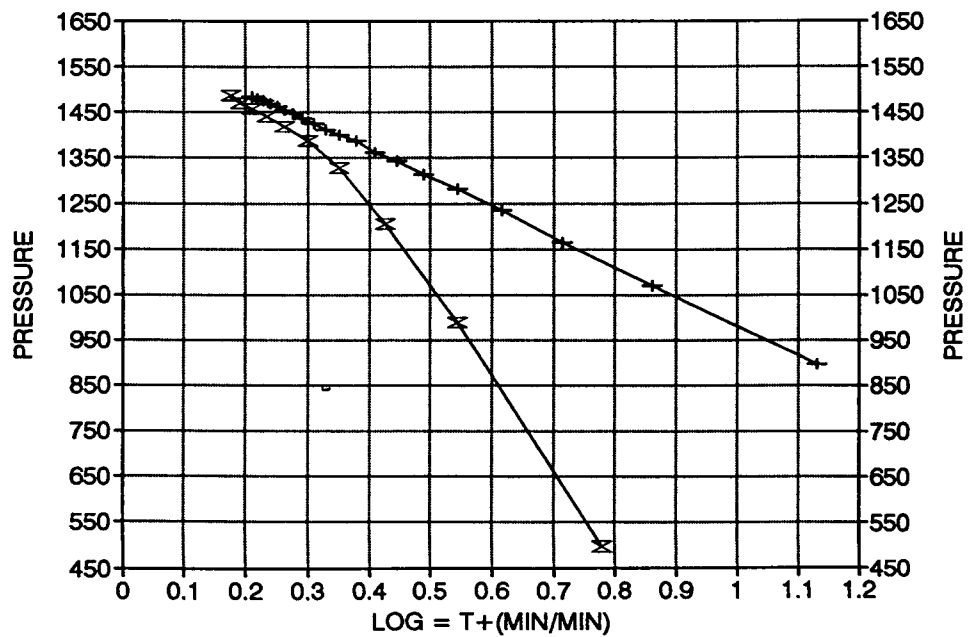
VIRGINIA CAREY
FINAL

		DST #3		SHUTIN	
75 TOTAL FLOW TIME		Slope	326379.08	psi/cycle	
		P *	1588	psi	
		Log	<>		
	Pws (psi)	Horn T	PRESSURE	Horn T	
6	894.8	1.130	894.8	14	
12	1068.8	0.860	174.0	7	
18	1165.6	0.713	96.8	5	
24	1234.4	0.615	68.8	4	
30	1280.4	0.544	46.0	4	
36	1312.3	0.489	31.9	3	
42	1341.2	0.445	28.9	3	
48	1361.2	0.409	20.0	3	
54	1384.2	0.378	23.0	2	
60	1398.1	0.352	13.9	2	
66	1411.1	0.330	13.0	2	
72	1424.1	0.310	13.0	2	
78	1435.0	0.293	10.9	2	
84	1446.0	0.277	11.0	2	
90	1454.0	0.263	8.0	2	
X 96	1462.0	0.251	8.0	2	
102	1468.0	0.239	6.0	2	
108	1474.0	0.229	6.0	2	
114	1479.0	0.220	5.0	2	
X 120	1482.1	0.211	3.1	2	

VIRGINIA CAREY #1-5 / DST #3 DELTA T DELTA P



HORNER PLOT



GAS VOLUME REPORT

BEREXCO INC

VIRGINIA CAREY #1-5

DST # 3

MIN	PSIG	ORIFICE	MCF/D	MIN	PSIG	ORIFICE	MCF/D
				10	1	0.25	8.95
				20	3	0.25	15.7
				30	5	0.25	20.7
				40	5	0.25	20.7
				50	5	0.25	20.7
				60	4.5	0.25	19.5

Remarks: GAS TO SURFACE IN 2 MINUTES/ GAS WILL BURN

NATURAL GAS ANALYSIS REPORT

Sampled by:
Trilobite Testing, L.L.C.
Hays, Kansas
Scott City, Kansas
Phone: 800-728-5369
Fax: 913-625-5620

Analyzed by:
Caraway Analytical, L.L.C.
728 North Roosevelt
Liberal, Kansas 67901
Phone: 316-324-5389
Fax: 316-626-7108

Lab Number: 940273
Sample From: Virginia 1-5 DST 3
Producer: Berexco
Date:
Time:
Sampler:
Source:

Analyzed: 05/26/94
Pressure:
Temperature:
Location: 5-34S-38N
County: Stevens
State: Kansas
Formation: Morrow

	Mole %	GPM
Helium	He:	0.000
Oxygen	O2:	0.000
Nitrogen	N2:	2.357
Carbon Dioxide	CO2:	0.035
Methane	C1:	91.009
Ethane	C2:	3.323
Propane	C3:	1.526
Iso Butane	iC4:	0.232
Normal Butane	nC4:	0.524
Iso Pentane	iC5:	0.149
Normal Pentane	nC5:	0.224
Hexanes Plus	C6+:	0.621

TOTAL: 100.000 1.957
Z Fact: 0.9976
SP.GR.: 0.6312
BTU (SAT): 1073.9 @ 14.73 psia
BTU (DRY): 1093.0 @ 14.73 psia
OCTANE RATING: 124.3

COMMENTS: Sample entered under vacuum
Insufficient pressure for Helium analysis



GAS VOLUME REPORT

Virginia Carey 1-5

WELL NAME AND NO.

3
DST NO.

Remarks:

645 in 2 min Gas will burn

1	0.503	497.049
2	1.002	987.2883
3	1.222	1206.542
4	1.342	1326.299
5	1.4	1384.2
6	1.433	1417.12
7	1.456	1440.073
8	1.471	1455.045
9	1.486	1470.021
10	1.502	1485.961

1	0.908	894.8659
2	1.084	1068.868
3	1.181	1165.623
4	1.25	1234.479
5	1.296	1280.405
6	1.328	1312.33
7	1.357	1341.268
8	1.377	1361.233
9	1.4	1384.2
10	1.414	1398.165
11	1.427	1411.134
12	1.44	1424.105
13	1.451	1435.083
14	1.462	1446.061
15	1.47	1454.047
16	1.478	1462.033
17	1.484	1468.024
18	1.49	1474.014
19	1.495	1479.007
20	1.498	1482.003

959-1642
FSJ-1576

C-11

DL-D36

A25-A44

0.068	67.218
0.057	56.3293
0.053	52.3693
0.053	52.3693
0.053	52.3693
1.498	1482.003
0.157	155.116
0.16	158.08
0.162	160.056
0.165	163.02
0.168	165.984
0.824	812.3761
0.842	830.0548
0.859	846.7488
0.874	861.4766
0.887	874.239
0.899	886.0184
0.909	895.8491
0.917	903.7146
0.926	912.5629
0.932	918.4616
0.939	925.3431

I.F

1	0.062	61.27925
2	0.055	54.34917
3	0.055	54.34917
4	0.056	55.3392
5	0.058	57.31947
6	0.064	63.25867
7	0.072	71.178
8	0.077	76.12894
9	0.081	80.08571
10	0.085	84.02781
11	0.088	86.9836
12	0.094	92.89315
13	0.098	96.83135
14	0.1	98.8
15	0.099	97.81571
16	0.098	96.83135
17	0.1	98.8
18	0.101	99.788
19	0.102	100.776
20	0.103	101.764
21	0.104	102.752

F.F

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

Well Name VIRGINIA CAREY #1-5 Test No. 4 Date 5/26/94
Company BEREXCO INC Zone MORROW
Address 970 FOURTH FINANCIAL CNTR WICHITA KS 67202 Elevation _____
Co. Rep./Geo. CHARLIE SPRADLIN Cont. BEREDCO DRLG RIG #2 Est. Ft. of Pay 10
Location: Sec. 5 Twp. 34S Rge. 38W Co. STEVENS State KS

Interval Tested 6238-6250 Drill Pipe Size 4.5" XH
Anchor Length 12 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 6233 Drill Collar - 2.25 Ft. Run 603
Bottom Packer Depth 6238 Mud Wt. 8.6 lb/Gal.
Total Depth 6250 Viscosity 48 Filtrate 7.2

Tool Open @ 9:00 Initial Blow FAIR BLOW BOTTOM OF BUCKET IN 5 MINUTES

Final Blow WEAK BLOW BUILT TO BOTTOM IN 35 MINUTES

Recovery - Total Feet 610 Flush Tool? NO

Rec. 100 Feet of SLTLY OIL CUT MUD - 5% OIL/ 95% MUD
Rec. 510 Feet of SALT WATER
Rec. _____ Feet of _____
Rec. _____ Feet of _____
Rec. _____ Feet of _____

BHT 132 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW 0.115 @ 65 °F Chlorides 115000 ppm Recovery Chlorides 500 ppm System

(A) Initial Hydrostatic Mud 3043.1 PSI AK1 Recorder No. 13337 Range 3975

(B) First Initial Flow Pressure 41.4 PSI @ (depth) 6241 w / Clock No. 26191

(C) First Final Flow Pressure 77.1 PSI AK1 Recorder No. 13255 Range 6300

(D) Initial Shut-in Pressure 1466.1 PSI @ (depth) 6247 w / Clock No. 14389

(E) Second Initial Flow Pressure 163.1 PSI AK1 Recorder No. _____ Range _____

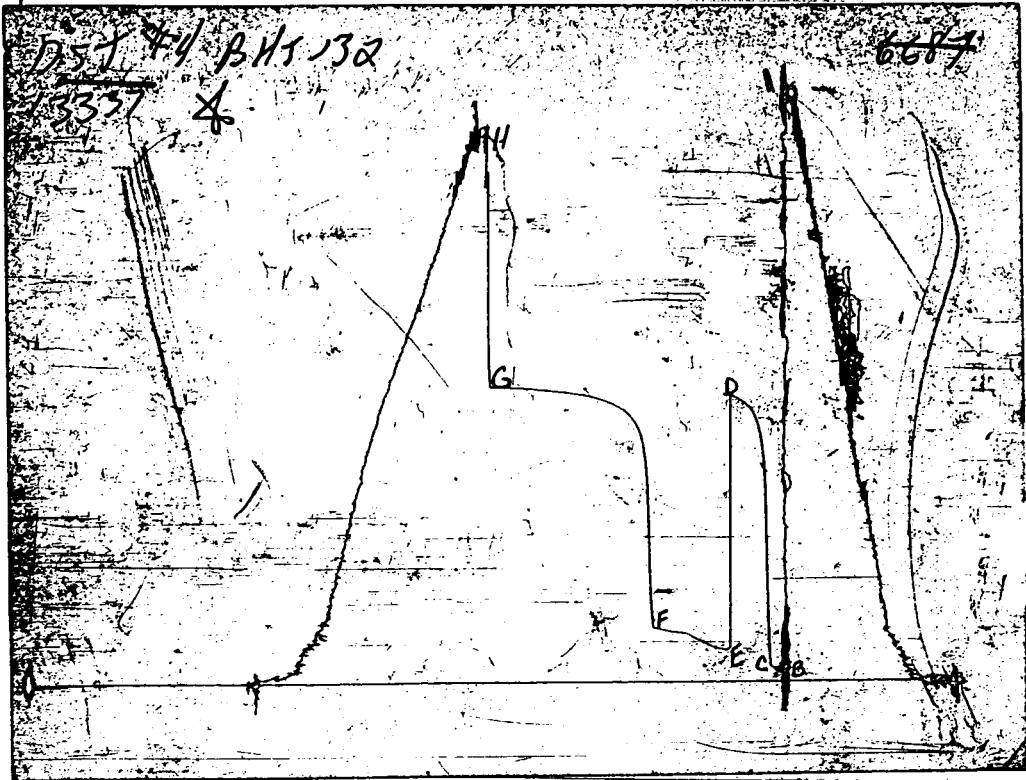
(F) Second Final Flow Pressure 276.6 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 1513.4 PSI Initial Opening 15 Final Flow 60

(H) Final Hydrostatic Mud 2836.5 PSI Initial Shut-in 30 Final Shut-in 120

Our Representative ROBERT COLLINS

CHART PAGE



This is an actual photograph of recorder chart #13337

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	3005	3043.1
(B) FIRST INITIAL FLOW PRESSURE	49	41.4
(C) FIRST FINAL FLOW PRESSURE	79	77.1
(D) INITIAL CLOSED-IN PRESSURE	1474	1466.1
(E) SECOND INITIAL FLOW PRESSURE	158	163.1
(F) SECOND FINAL FLOW PRESSURE	266	276.6
(G) FINAL CLOSED-IN PRESSURE	1513	1513.4
(H) FINAL HYDROSTATIC MUD	2838	2836.5