ConocoPhillips

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February 3, 2004

New Mexico Oil Conservation Division
1220 So. St. Francis Drive
Santa Fe, NM 87505

Attn: Will Jones

RE: Jicarilla 30 #5 SWD, API #30-039-20460
UIC Permit - SWD-807
Rio Arriba County, NM

Dear Mr. Jones,

Attached please find letter submitted to the EPA requesting an increase in maximum surface injection pressure on the above-mentioned Salt Water Disposal well.

If you have any questions or require additional information, please call me at (832) 486-2329 or email me at yolanda.perez@conocophillips.com .

Sincerely,

Yolanda Perez
Sr. Regulatory Analyst
Mid America Business Unit

ConocoPhillips

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February 3, 2004

USEPA
1445 Ross Ave.
Dallas, TX 75202

Attn: Bill Hurlbut (6WQ-SG)

RE: **Jicarilla 30 #5 SWD**
UIC Permit #06SNMJ1P9071
Permit Modification for Injection Pressure Increase

Dear Bill,

A step-rate test was conducted on the Jicarilla 30 #5 SWD on November 8, 2003. Two tests were concluded to show a consistent increase in parting pressure for the injected intervals. The conclusion of the analysis is that an increase in allowable surface injection pressure is warranted. The current permitted maximum surface injection pressure is 934 psi. The included data and analysis observed a fracture parting pressure of 3389 & 3394 psi. ConocoPhillips Company requests approval to modify the above-mentioned UIC permit to allow a maximum surface injection pressure of 1500 psi.

Both tests were conducted consistently. Each started at the minimum allowable pump rate of 0.7 bpm. Seven steps were conducted on each test. The steps were fifteen minutes in length with an increase of 0.5 bpm. A bottom hole pressure gauge was run in accordance with compliance to ascertain exact bottom hole pressure data. Step-rate test #1 observed an estimated fracture parting pressure of 3389 psi. Step-rate test #2 observed an estimated fracture parting pressure of 3394 psi. The BHP gauge depth was 5254', the Injection liquid was 2% KCl and Liquid Gradient was 0.438 psi/ft. The surface pressure and pumping data, as well as the BHP gauge data, was previously submitted to the EPA electronically on January 16, 2004.

If you have any questions or need additional information, please contact me at (832) 486-2329 or by email at yolanda.perez@conocophillips.com .

Sincerely,

Yolanda Perez

Yolanda Perez
Sr. Regulatory Analyst
Mid America Business Unit

CC: Will Jones, NMOCD

B / Sec 32 / 25N / 4W

SWD-807
4672-5326'
934 psi 7/23/01
30-039-20480

ConocoPhillips Company
Jicarilla 30-#5 SWD
Mesa Verde Formation
Test Summary & Conclusion

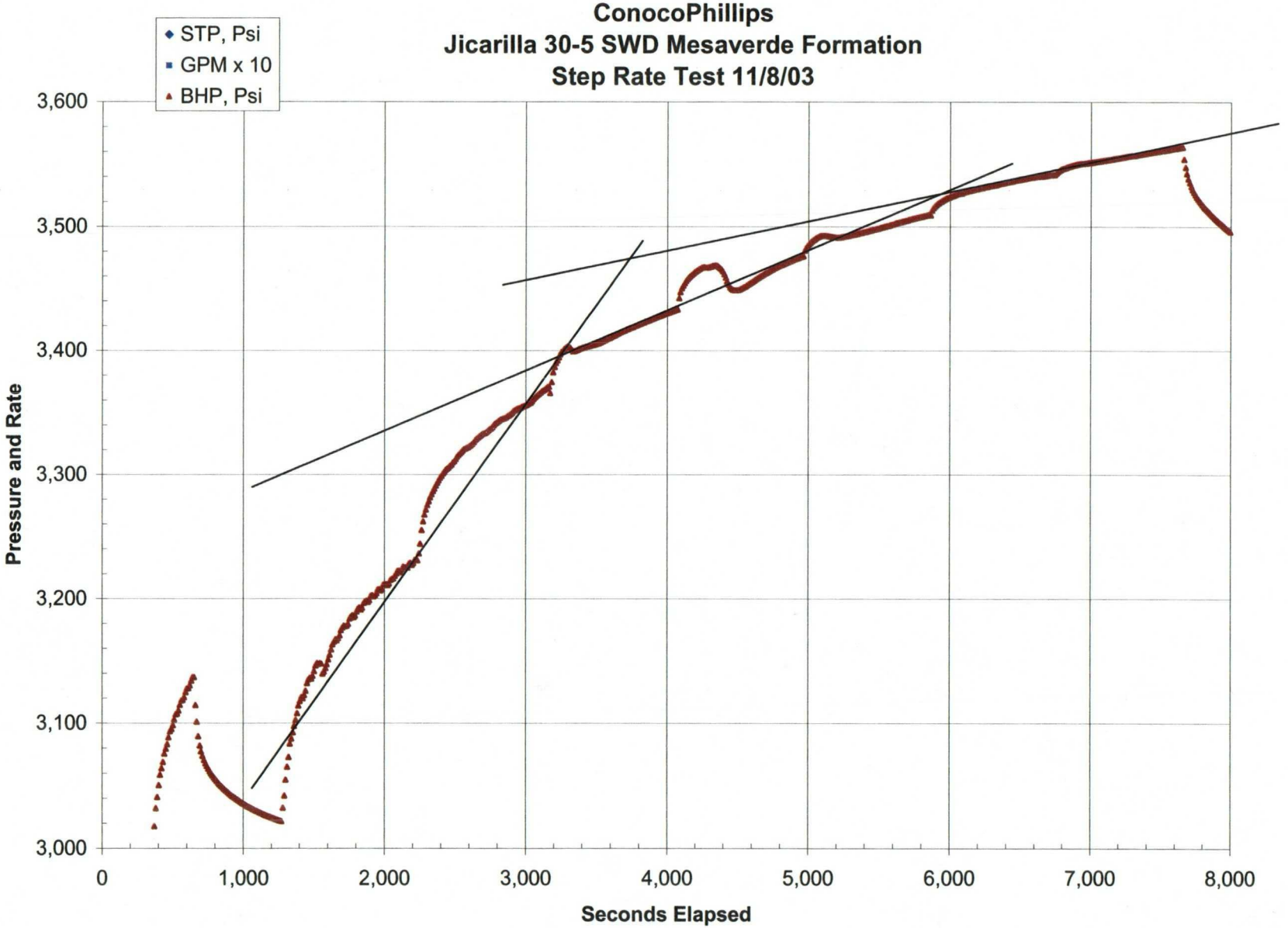
A step-rate test was conducted on the Jicarilla 30 #5 SWD on November 8, 2003. Two tests were concluded to show a consistent increase in parting pressure for the injected intervals. The conclusion of the analysis is that an increase in allowable surface injection pressure is warranted. The current permitted maximum surface injection pressure is 934 psi. The included data and analyses observed a fracture parting pressure of 3389 & 3394 psi. ConocoPhillips Company agrees with the third party, Schlumberger, recommendation of 1088 psi surface injection.

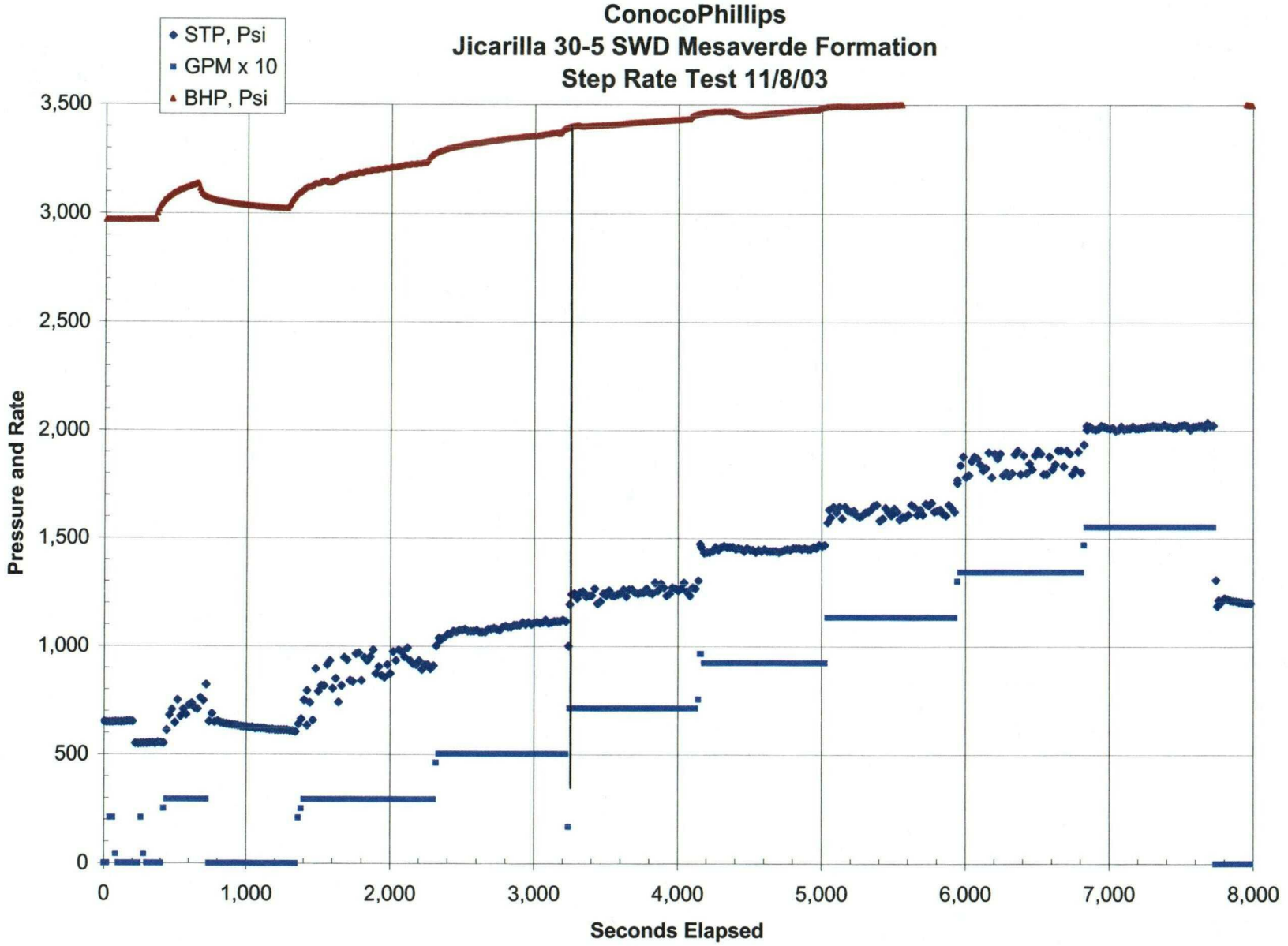
Both tests were conducted consistently. Each started at the minimum allowable pump rate of 0.7 bpm. Seven steps were conducted on each test. The steps were fifteen minutes in length with an increase of 0.5 bpm. A bottom hole pressure gauge was run in accordance with compliance to ascertain exact bottom hole pressure data. Step-rate test #1 observed an estimated fracture parting pressure of 3389 psi. Step-rate test #2 observed an estimated fracture parting pressure of 3394 psi.

BHP gauge depth: 5254'

Injection liquid: 2% KCl

Liquid Gradient: 0.438 psi/ft


ConocoPhillips
Jicarilla 30-5 SWD Mesaverde Formation
Step Rate Test 11/8/03
STP, Psi
GPM x 10
BHP, Psi
Pressure and Rate
3,600
3,500
3,400
3,300
3,200
3,100
3,000
0
1,000
2,000
3,000
4,000
5,000
6,000
7,000
8,000
Seconds Elapsed


ConocoPhillips
Jicarilla 30-5 SWD Mesaverde Formation
Step Rate Test 11/8/03
STP, Psi
GPM x 10
BHP, Psi
Pressure and Rate
3,500
3,000
2,500
2,000
1,500
1,000
500
0
0
1,000
2,000
3,000
4,000
5,000
6,000
7,000
8,000
Seconds Elapsed

WELL JICARILLA 30 #5

FIELD WEST LINDRITH

COUNTY RIO ARRIBA STATE NEW MEXICO

LOCATION: NW NE 2

SEC 32 TWP 25N RGE 4W

Other Services: NONE

Permanent Datum G.L. Elev. 6855

Log Measured from K.B. 14.0 Ft. Above Permanent Datum

Drilling Measured from K.B.

Elevations: KB 6869, DF, GL 6855

Date	2-13-72			
Run No.	ONE			
Depth—Driller	7520			
Depth—Logger	7525			
Bottom Logged Interval	7523			
Top Logged Interval	190			
Casing—Driller	8 5/8 @ 238	@	@	@
Casing—Logger	243			
Bit Size	7 7/8			
Type Fluid in Hole	FGM			
Density and Viscosity	9.0 54			
pH and Fluid Loss	8.0 6.8 cc	cc	cc	cc
Source of Sample	FLOWLINE			
Rm @ Meas. Temp.	2.2 @64 °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	1.8 @64 °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	2.6 @64 °F	@ °F	@ °F	@ °F
Source of Rmf and Rmc	MEASURED			
Rm @ BHT	0.94 @150 °F	@ °F	@ °F	@ °F
Time Since Circ.	4 HRS.			
Max. Rec. Temp. Deg. F.	150 °F	°F	°F	°F
Equip. No. and Location	6080 FARM.			
Recorded By	DICKERSON - KNOSTMAN			
Witnessed By	MR. SCOTT			

FOLD HERE

Densilog — Equipment Data

Run No.	ONE
Tool Model No.	2207
Serial No.	405
Diam.	5"
Computer Model No.	2254
Serial No.	-
Source Model No.	S3T20
Serial No.	317

Computer Data

Gamma Ray — Equipment Data

Run No.	ONE
Tool Model No.	1305
Serial No.	69
Diam.	3 5/8"
Detect. Model No.	D4G1
Type	SCINT.
Length	4"
Dist. to Source	

General

Hoist Truck No.	HL6080
Auxiliary Equipment	

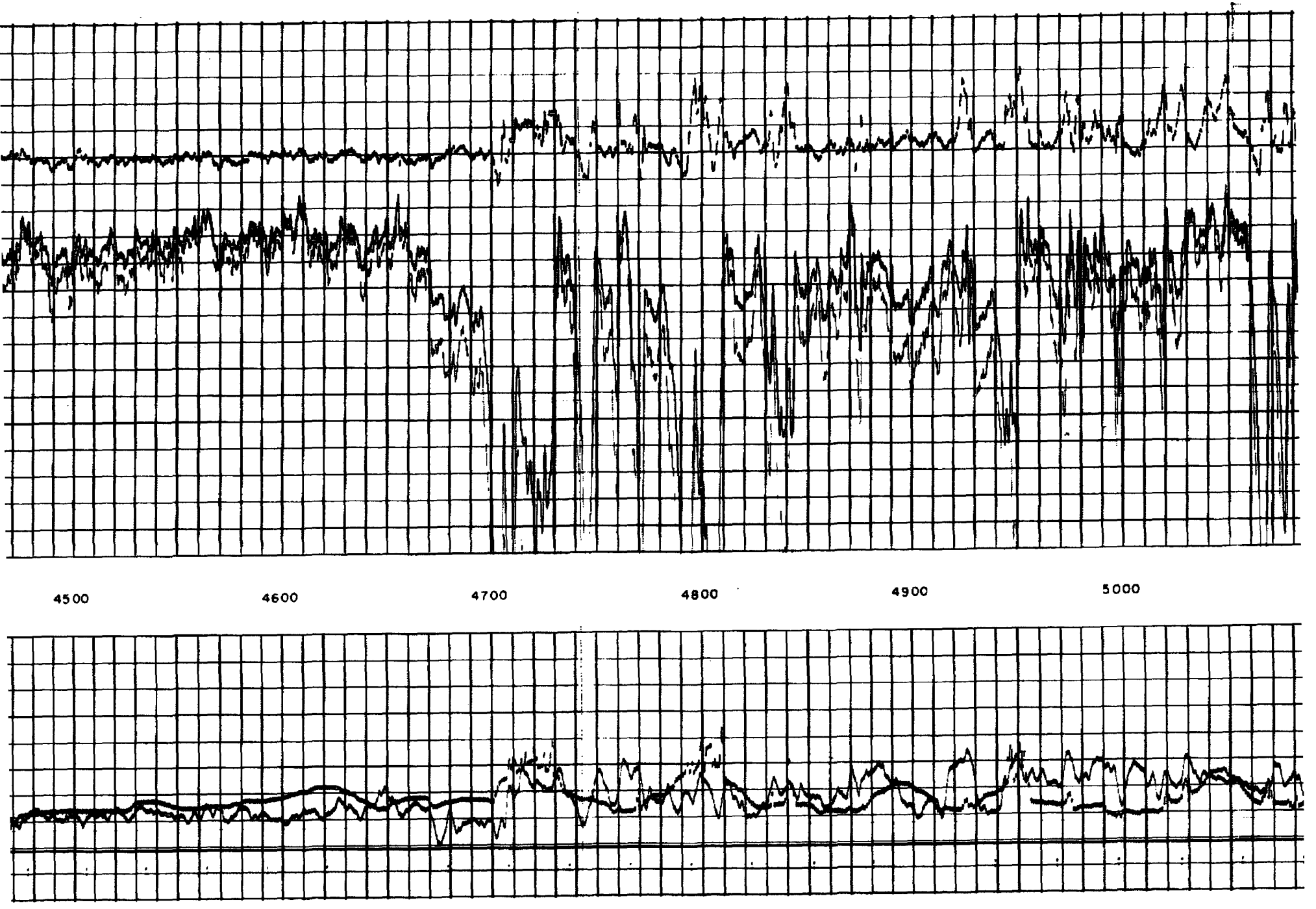
Logging Data

Gamma Ray

Run No.	Depths From	Depths To	Speed Ft./Min.	T.C. Sec.	Sens. Settings	Zero Div. L or R	API G.R. Units Per Log Div.
1	7523	243	25	3.0	330 X1	0	20

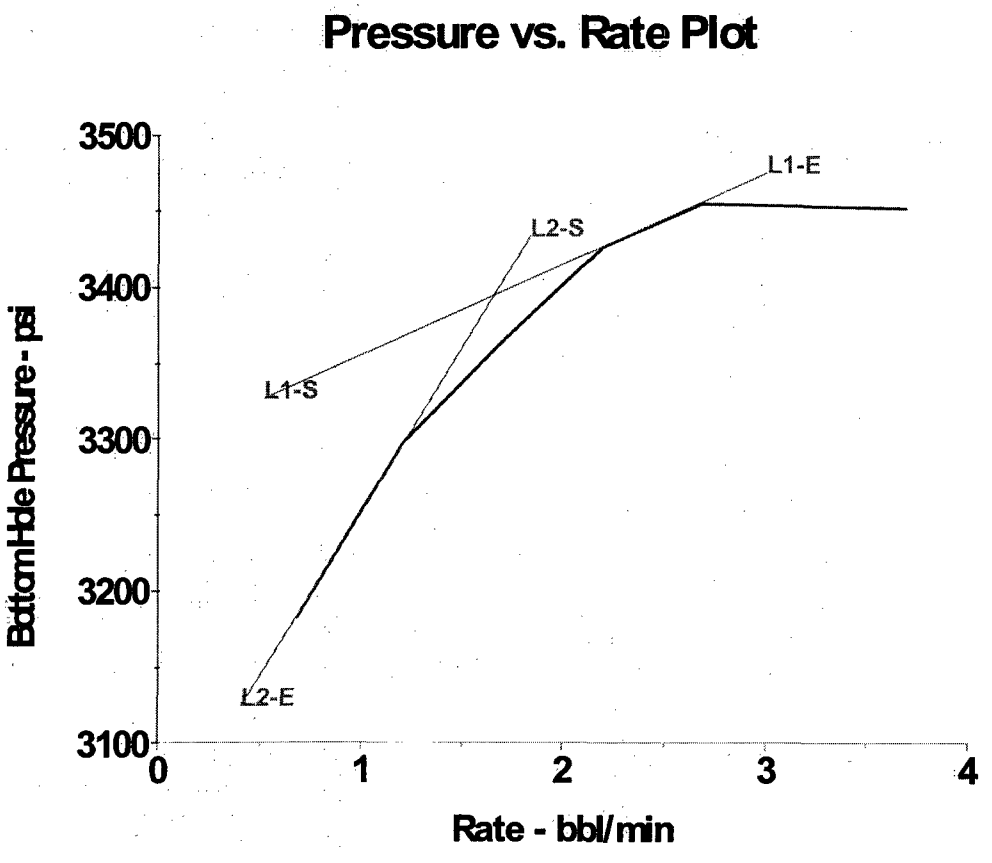
Density

Run No.	T.C. Sec.	Density Scale
1	3.0	2 - 3


4500
4600
4700
4800
4900
5000

Step-Rate Test #1

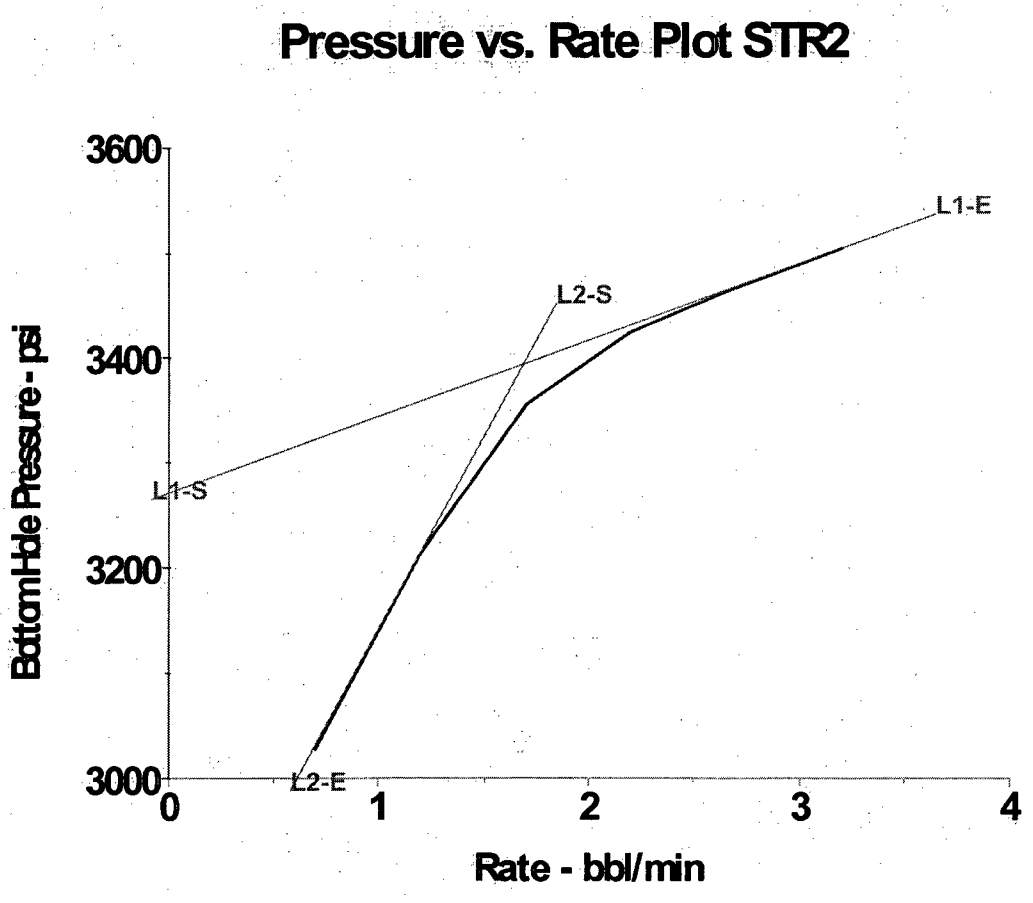
The test started at an injection rate of 0.7 bpm. Seven steps were conducted each a consistent 0.5 bpm increase. Please see the included data for this test.



Lines L1-S & L2-S are based upon the inflection point of the rate vs. bottom hole pressure curve. The point of intersection defines the estimated fracture parting pressure, 3389 psi.

Step-Rate Test #2

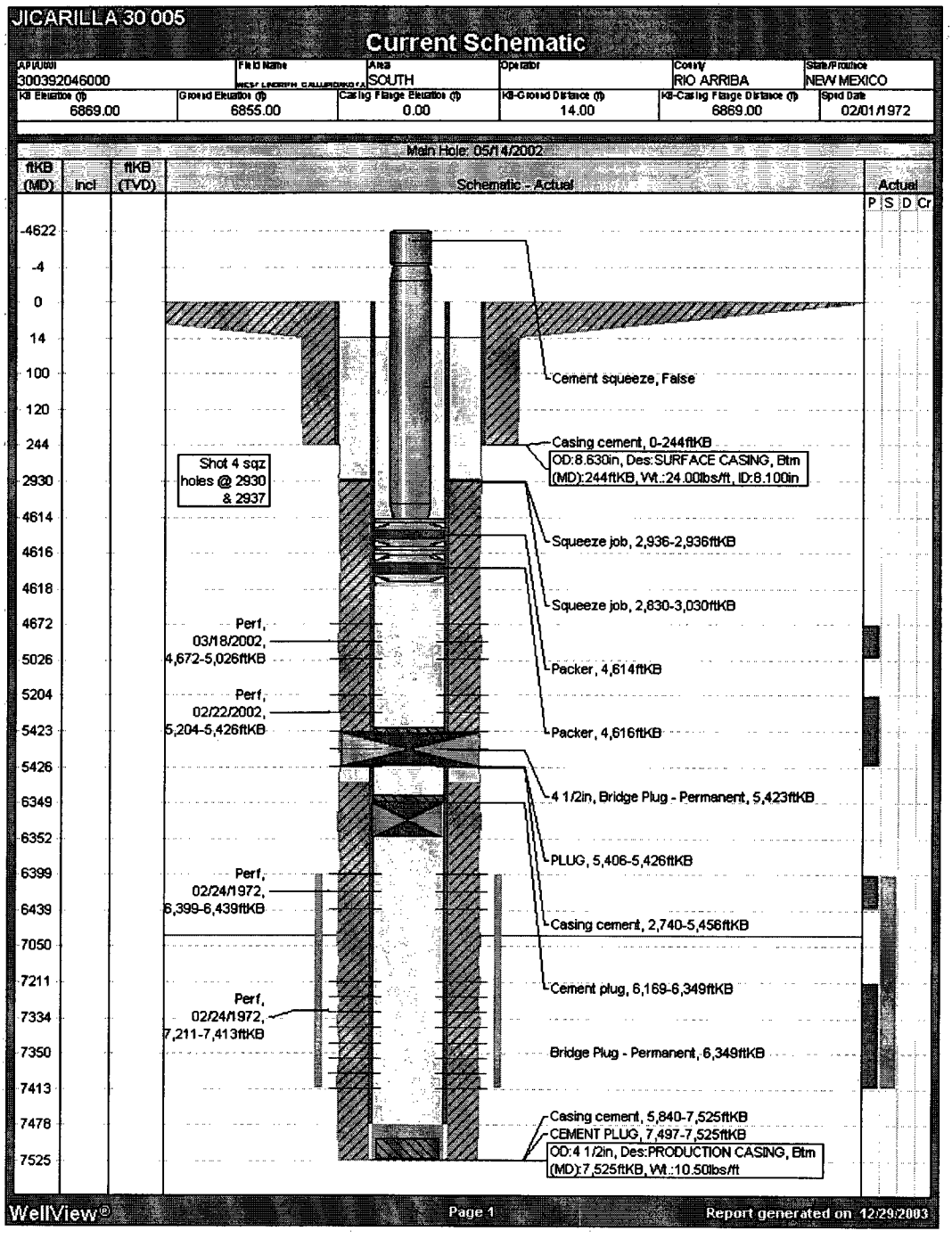
The test started at an injection rate of 0.7 bpm. Seven steps were conducted each a consistent 0.5 bpm increase. Please see the included data for this test.



The second test illustrates the fracture parting pressure as 3394 psi.

Conclusion

The step-rate test on the Jicarilla 30-#5 was performed to illustrate the increase fracture parting pressure for the current injection of produced field water. The fracture parting pressure is estimated to be 3389 psi. The project used 2% KCL which has a specific gravity of 1.012 ppg. This extrapolates a surface treating pressure of 1088 psi.


JICARILLA 30 005
Current Schematic
API/UWI
300392046000
Field Name
Area
SOUTH
Operator
County
RIO ARRIBA
State/Province
NEW MEXICO
KB Elevation (ft)
6869.00
Ground Elevation (ft)
6855.00
Casing Flange Elevation (ft)
0.00
KB-Ground Distance (ft)
14.00
KB-Casing Flange Distance (ft)
6869.00
Spud Date
02/01/1972
Main Hole: 05/14/2002
ftKB (MD)
Incl
ftKB (TVD)
Schematic - Actual
Actual
P S D Cr
-4622
-4
0
14
100
120
244
2930
4614
4616
4618
4672
5026
5204
5423
5426
6349
6352
6399
6439
7050
7211
7334
7350
7413
7478
7525
Cement squeeze, False
Casing cement, 0-244ftKB
OD:8.630in, Des:SURFACE CASING, Btm (MD):244ftKB, Wt.:24.00lbs/ft, ID:8.100in
Shot 4 sqz holes @ 2930 & 2937
Squeeze job, 2,936-2,936ftKB
Squeeze job, 2,830-3,030ftKB
Perf, 03/18/2002, 4,672-5,026ftKB
Packer, 4,614ftKB
Perf, 02/22/2002, 5,204-5,426ftKB
Packer, 4,616ftKB
4 1/2in, Bridge Plug - Permanent, 5,423ftKB
PLUG, 5,406-5,426ftKB
Perf, 02/24/1972, 6,399-6,439ftKB
Casing cement, 2,740-5,456ftKB
Cement plug, 6,169-6,349ftKB
Perf, 02/24/1972, 7,211-7,413ftKB
Bridge Plug - Permanent, 6,349ftKB
Casing cement, 5,840-7,525ftKB
CEMENT PLUG, 7,497-7,525ftKB
OD:4 1/2in, Des:PRODUCTION CASING, Btm (MD):7,525ftKB, Wt.:10.50lbs/ft
WellView©
Page 1
Report generated on 12/29/2003

Convert to Salt Water Disposal Procedure
Jicarilla 30-5

Objective: To convert the well from its current state of temporarily abandoned Gallup/Dakota producer to a saltwater disposal well in the Mesa Verde. The well will need to be perforated in the Mesa Verde, a step rate test completed, stimulated if necessary, and tubing and packer installed.

Well Information:

Production Casing: 4 1/2" 10.5 lb/ft set at 7525'
Capacity - .01594 bbls/ft or .6698 gals/ft
Drift diameter 3.927"

Current Perfs: Gallup 6399' – 6439'
Dakota 7211' – 7413'

Proposed Tubing: 2 3/8" to 4550'
Capacity - .00387 bbls/ft or .1626 gals/ft

Proposed Perfs: Mesa Verde
Cliffhouse Member: 4672'-78', 4680'-96',
Menefee Member: 4752'-58', 4772'-82' 4816'-26' 4846'-64', 4894'-4904', 4912'-16', 4930'-40', 4996'-5000', 5008'-28', 5176'-82',
Point Lookout Member: 5204'-24', 5234'-44', 5278'-98', 5306'-26'

Procedure:

1. Rig up pulling unit.
2. Install BOP
3. Pressure test casing to 1500 psi.
4. RIH with 2 3/8" tubing to 5400' and circulate hole clean. Note: all fluid used in this procedure should be clean produced water.
5. Pull tubing up to 3000' and swab fluid level to that point. POOH.
6. Rig up perforating company with lubricator.
7. Perforate Point Lookout Interval of the Mesa Verde and the lowest section of the Menefee (5176') with 4 shots per foot.
8. Rig up a pump truck and begin pumping clean produced water into the perforations at ¼ BPM, continue increasing injection rate in 1/8 BPM increments (with each step being at least 5 minutes in duration or longer if necessary to get a stabilized rate and pressure) until a clear change in slope of the pressure rate curve occurs. Take at least two step beyond the break point before concluding the test. Record the pressure and rate

JICARILLA 30 5 Proposed SWD Completion (300392046000) 4/10/2001

Tubing String - Primary Tubing

Grd	Item (In)	Comments	ID (In)	Thd	Jnts	Len (ft)	Top (ftKB)	Wt
	2.3740 in Tubing		1.9961			4550.0	0.0	4.60

Formation/Horizon Tops

Formation	Top (ftKB)
Ojo Alamo	2492.0
Pictured Cliffs	3021.0
Chacra	3884.0
Mesaverde	4670.0
Mancos	5644.0
Gallup	6344.0
Dakota	7208.0

Other (plugs, equip., etc.) - Plug Backs

Int (ftKB)	Item	Comments	Date
7497.0 - 7525.0	Cement Plug	6/17/91 Tag Fill @ 7450' (47' Fill) Did not clean out	2/23/1972

Other (plugs, equip., etc.) - Temporay Abandonment

Int (ftKB)	Item	Comments	Date
6349.0 - 6350.0	C.I.B.P.		2/12/2001
7061.0 - 7161.0	Cement Plug		2/12/2001
7161.0 - 7162.0	C.I.B.P.		2/8/2001

Other (plugs, equip., etc.) - Injection Packer

Int (ftKB)	Item	Comments	Date
4550.0 - 4553.0	Packer		6/1/2001

Stimulations & Treatments

Int	Zone	Comments	Type	Date	Fluid
7211.0 - 7413.0	Dakota	Acid w/ 1500 G + 40 BS. Balled off @ 4000#	Acid Squeeze	2/24/1972	15% HCL
7211.0 - 7413.0	Dakota	4000 G pad gel water. Frac w/ 58,760 G 1% KCL + 77,000# 10/20 sd. AIR= 41 bpm @ 3300# ISIP 2000#	Fracture	2/24/1972	Water
6399.0 - 6439.0	Gallup	Acid w/ 500 G + 30 BS. Balled off	Acid Squeeze	2/25/1972	15% HCL
6399.0 - 6439.0	Gallup	2,000 G pad gel water. Frac w/ 32,450 G 1% KCL + 31,600# 10/20 sd. AIR= 35 bpm @ 3000# ISIP 800#	Fracture	2/25/1972	Water
6399.0 - 7413.0	Gallup/Dako	Dumped 500 G - flush with 10 bbls water	Acid Dump	12/7/1989	15% HCL

Logs Run

Int	Comments	Company	Type	Date
200.0 - 7523.0		Dresser	IND DENS	2/12/1972
2700.0 - 7485.0		Gearhart	GR-CBL	2/22/1972
6000.0 - 7520.0		McCullough	GR-C	5/2/1979