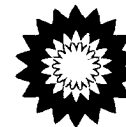


bp



Amoco Production Company

A Part of the BP Amoco Group
501 WestLake Park Blvd.
Houston, TX 77079-3092

Phone: 281-366-2000

November 11, 2003

New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, NM 87410

Attention: Mr. Charlie Perrin

Step Rate Test Procedure
Pritchard SWD Well No. 1
Section 34C-T31N-R9W
API#: 30004528351
San Juan County, New Mexico

Amoco respectfully submits the attached step rate test procedure for the Pritchard SWD #1 for your review and approval. The results of this step rate test will be used to support a request to increase the maximum allowable surface injection pressure on this well. We would like to perform this step rate test as early in December as possible and will notify you of the date and time of the test. Thank you for your prompt attention to this matter.

If you have any questions please contact Daniel Crosby at (281) 366-0769.

Respectfully yours,

Daniel Crosby
Production Engineer

Attachments

cc: UIC Environmental File
Brittany Benko -Farmington
Baynard Duke - Farmington

EMAIL Guidelines 11-13-03
d

Crosbydc@BP.com

Pritchard SWD #1 - Step Rate Test Entrada Formation

Step Rate Test Procedure:

Prior to performing the step rate test the building setting over the wellhead must be removed by a roustabout crew. Ensure that water storage tanks are completely full before initiating the step rate test. Water storage capacity on location is 2000 bbls, available capacity for test is 1000⁺ bbls. Must contact NMOCD prior to the step rate test so that they can have a representative witness the test.

1. Rig up wireline unit and lubricator. Trip in the hole with tandem pressure bombs capable of measuring pressure from 0 psig to 10,000 psig. Land bombs in 2.25" ID F seating nipple at approximately 8311' (KB=18'). Note the exact time the gauge was set in the seating nipple.

- the gauge should allow water to pass by.
- Program bombs to take readings every 5 seconds throughout the test.

2. Shut-in well for 24 hours prior to running step rate test.

3. Rig up pump trucks (if required provide second pump truck to span range of injection rates for step rate test). Tie suction to disposal tanks and discharge to tubing. Pressure test lines and connections. Monitor casing and bradenhead pressures during the test.

4. Perform step rate test as follows:

<u>Step</u>	<u>Time</u>	<u>Injection Rate</u>		<u>Cum. Inj. Vol.</u>
		(BPM)	(BWPD)	BW
1	20 minutes	0.40	576	8
2	20 minutes	0.80	1152	16
3	20 minutes	1.20	1728	24
4	20 minutes	1.60	2304	32
5	20 minutes	2.00	2880	40
6	20 minutes	2.40	3456	48
7	20 minutes	2.80	4032	56
8	20 minutes	3.20	4608	64
9	20 minutes	3.60	5184	72
10	20 minutes	4.00	5760	80
11	20 minutes	4.40	6336	88
12	20 minutes	4.80	6912	96
13	20 minutes	5.20	7448	104
14	20 minutes	5.60	8064	112
Total= 280 minutes or 4.7 hrs				Total = 842 bbls

Note: 1. Well disposal rates = 700 to 1200 BWPD

- Continuously monitor surface injection pressure and rate in a digital format.
Use a computer van or equivalent if necessary.
- The time step intervals are critical. Inconsistencies such as shorter or longer time steps are not acceptable.
- Once an injection rate has been established at or near the requested rate every effort must be made to keep the rate constant.

5. Shut down and record ISIP.
6. After performing the step rate test, trip out of the hole with pressure gauges.
7. Perform Mechanical Integrity Test following New Mexico Oil Conservation Division guidelines (if required).
8. Return well to injection. Send all test results to David Reese in Houston immediately.