

10/30/06 DATE IN	SUSPENSE	D CATANACH ENGINEER	10/30/06 LOGGED IN	IPI TYPE	APP NO. PTDS0630359882
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

- [1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]
- [A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD
- Check One Only for [B] or [C]
- [B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM
- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☒ IPI ☐ EOR ☐ PPR
- [D] Other: Specify _____
- [2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply
- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
- [B] ☐ Offset Operators, Leaseholders or Surface Owner
- [C] ☐ Application is One Which Requires Published Legal Notice
- [D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] ☐ Waivers are Attached

- [3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

- [4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Print or Type Name	Signature	Title	Date
		e-mail Address	



RANGE RESOURCES

October 24, 2006

New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: MAXIMUM INJECTION PRESSURE REQUEST

Candelario 24-1 SWD
Loving; Brushy Canyon, East Field
30-015-26536
Property 300261 Pool 40350
Eddy County, New Mexico

Attention: Mr. Daniel Sanchez

Dear Mr. Sanchez:

Range Operating New Mexico, Inc. [NMOCD Operator No. 227588] is respectfully requesting that the maximum injection pressure for the Candelario 24-1 SWD be increased from 850 psig surface pressure to 960 psig surface pressure based on the attached step rate test that was performed on October 12, 2006.

If you have questions regarding this request, please contact me at (817) 810-1953.

Sincerely,

Bill Frey

Bill Frey
District Engineer

Step Rate Test



Cardinal Surveys Company

October 12, 2006

Range Operating New Mexico, Inc
Well: Candalario 24-1
Field: East Loving
Eddy County, NM

Intercept @ 2162.6 BPD
& 3156.7 PSIA, 959.2
Surf. PSIA,
ISIP 3142 BHP, PSIA

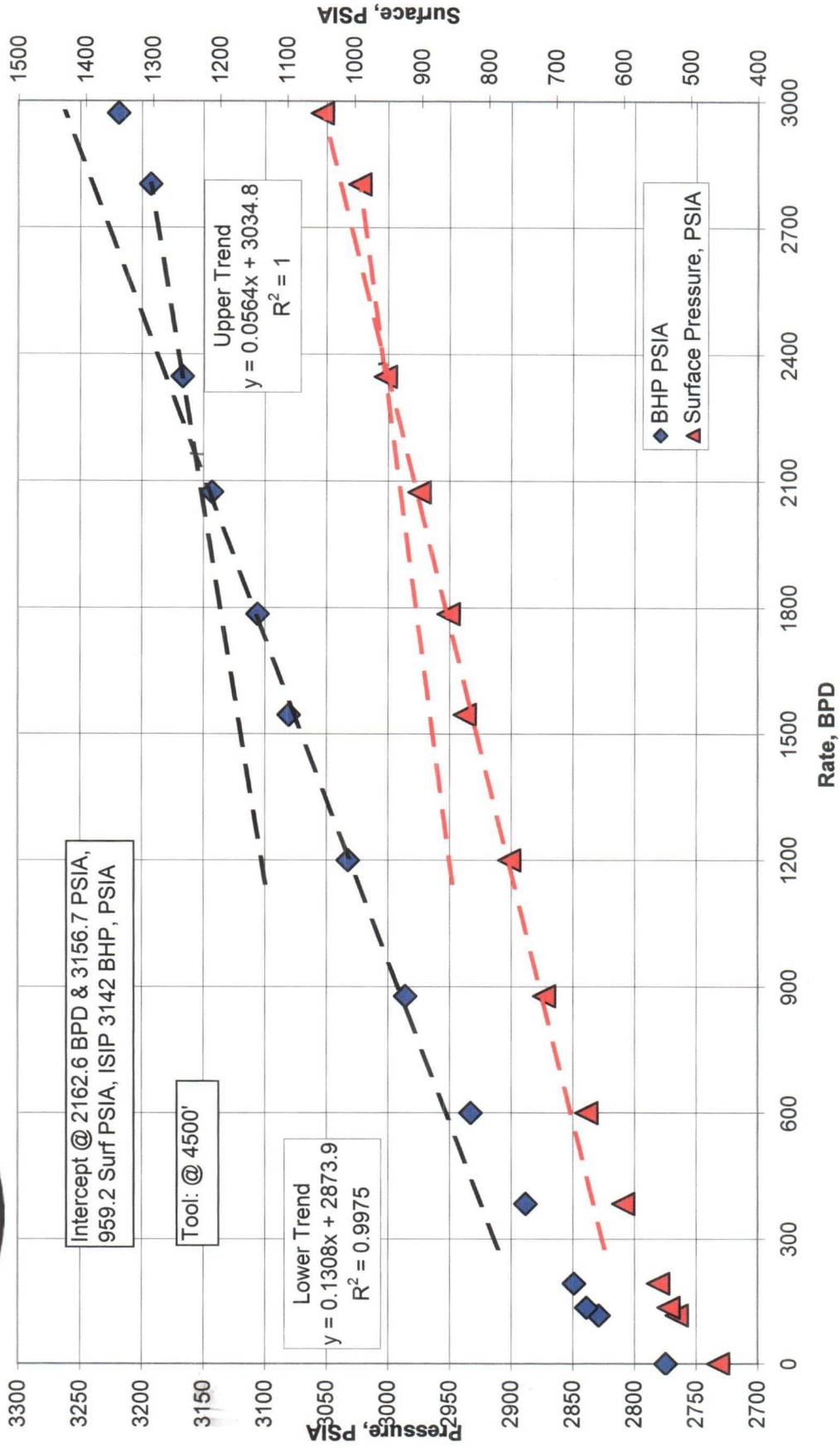
SC 54954

Downhole PSI Tool Ser. No. 76149
Surface PSI Gauge Ser. No. 10332
Tool @ 4500

	Start Time	End Time	Rate BPD	Comments
1	11:15 AM	11:35 AM		0 On Bottom
2	11:35 AM	12:05 PM	100	
3	12:05 PM	12:35 PM	150	
4	12:35 PM	1:05 PM	200	
5	1:05 PM	1:35 PM	400	
6	1:35 PM	2:05 PM	600	
7	2:05 PM	2:35 PM	900	
8	2:35 PM	3:05 PM	1200	
9	3:05 PM	3:35 PM	1500	
10	3:35 PM	4:05 PM	1800	
11	4:05 PM	4:35 PM	2100	
12	4:35 PM	5:05 PM	2400	
13	5:05 PM	5:35 PM	2700	
14	5:35 PM	6:05 PM	3000	
15	6:05 PM	6:20 PM		0 Fall Off



Range Operating New Mexico Candalario 24-1 Step Rate Test 10-12-06



Step Rate Test

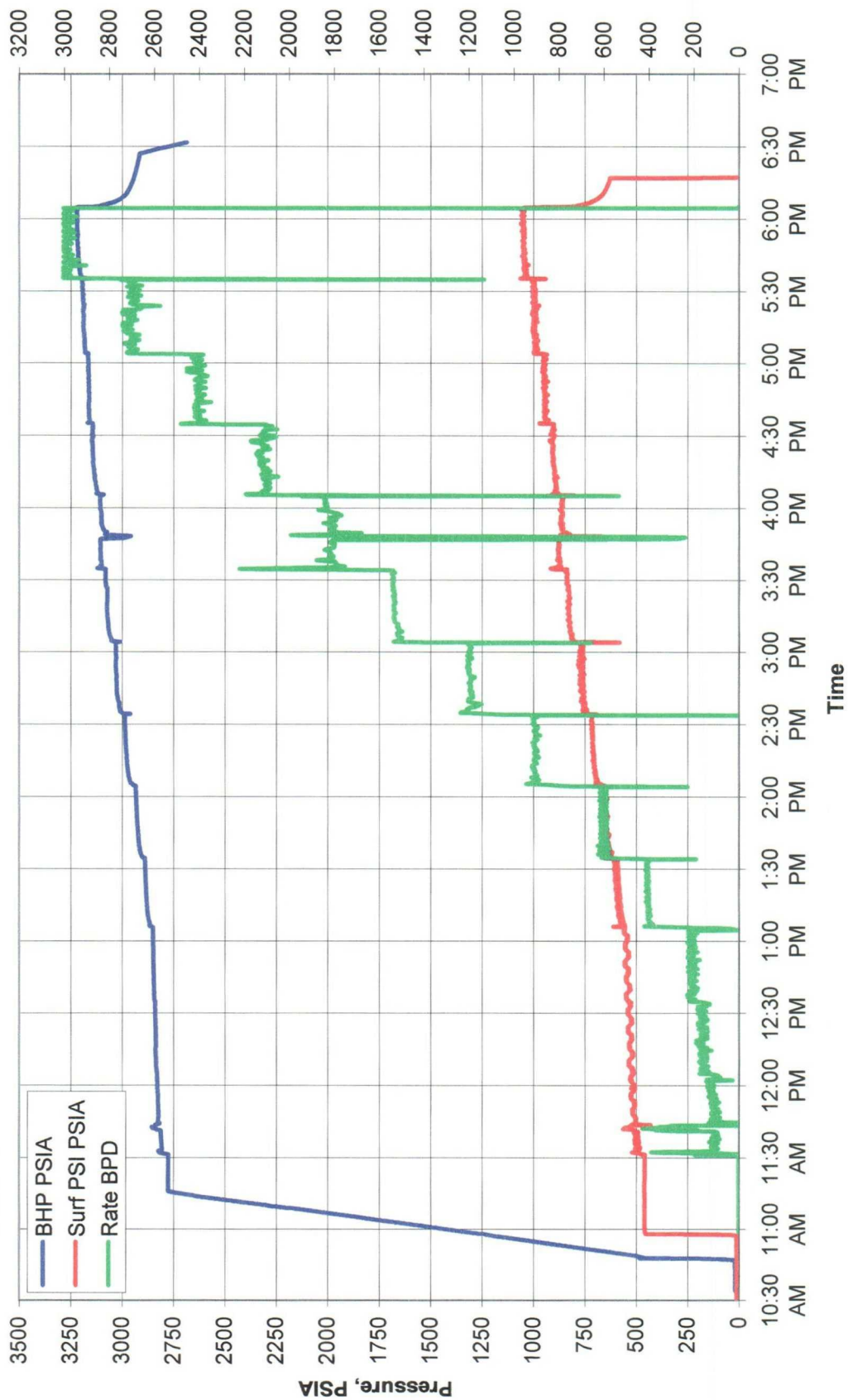
Range Resources New Mexico
Candalario 24-1
Field: East Loving
Eddy County, NM



	D Time		Last Rate	Step B. H. Pressure		Surf	Cum	Delta	Avg.	Lower	Upper		Surf.	Surf.
	Min		BPD	BPD	PSIA	PSIA	BBL	BBL	BPD	Trend	Trend	Trend	Trend	Upper
1	11:15 AM	11:35 AM	0	0	2774.8	458.9	0	0	0					
2	11:35 AM	12:05 PM	100	100	2829.1	520.7	2.4	2.4	115					
3	12:05 PM	12:35 PM	150	50	2839.1	532.7	5.2	2.8	134					
4	12:35 PM	1:05 PM	200	50	2849.1	548.1	9.2	4	192					
5	1:05 PM	1:35 PM	400	200	2888.4	600	17.2	8	384					
6	1:35 PM	2:05 PM	600	200	2933	655	29.7	12.5	600					
7	2:05 PM	2:35 PM	900	300	2985.9	717.7	48	18.3	878	2985.9			717.7	
8	2:35 PM	3:05 PM	1200	300	3032.6	769.4	73	25	1200	3032.6			769.4	
9	3:05 PM	3:35 PM	1500	300	3080.7	835.7	105.2	32.2	1546	3080.7			835.7	
10	3:35 PM	4:05 PM	1800	300	3106.1	859.8	142.4	37.2	1786	3106.1			859.8	
11	4:05 PM	4:35 PM	2100	300	3143.2	903.4	185.6	43.2	2074	3143.2			903.4	
12	4:35 PM	5:05 PM	2400	300	3167.1	954	234.5	48.9	2347		3167.1			954
13	5:05 PM	5:35 PM	2700	300	3192.8	992.1	292.9	58.4	2803		3192.8			992.1
14	5:35 PM	6:05 PM	3000	300	3219	1048.4	354.8	61.9	2971					
15	6:05 PM	6:20 PM	0	-3000	2931.3	635.5	354.8	0	0					
										0.1308	2873.9		0.156	583.7
										0.0564	3034.8		0.0836	757.89
										int point:				
										2162.6344 BPD			2405.93923	
										3156.7726 Psia			959.026519	



Range Operating New Mexico Candalario 24-1
Step Rate Test 10-12-06





Range Operating New Mexico Candalario 24-1
Fall Off Pressure 10-12-06

