

DATE IN <u>1/10/11</u>	SUSPENSE	ENGINEER <u>TW</u>	LOGGED IN <u>1/10/11</u>	TYPE <u>FPI</u>	APP NO. <u>1101055877</u>
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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



Ever Vest
143199

WLH 645 Unit #35

ADMINISTRATIVE APPLICATION CHECKLIST *30-015-36771*

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]
 State
☐ [DHC-Downhole Commingling]
 ☐ [CTB-Lease Commingling]
 ☐ [PLC-Pool/Lease Commingling]
☐ [PC-Pool Commingling]
 ☐ [OLS - Off-Lease Storage]
 ☐ [OLM-Off-Lease Measurement]
 Edd
☐ [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.

Shirley Galik
 Print or Type Name

S. Galik
 Signature

Sr. Regulatory Tech
 Title

1/7/20100
 Date

sgalik@enervest.net
 e-mail Address



January 7, 2011

New Mexico Oil Conservation Division
Attention Mr. Terry Warnell
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Injection Pressure Increase Request
West Loco Hills G4S Unit #35 (R-13128),
Loco Hills; Queen-Grayburg-San Andres Pool (39520)
Eddy County, New Mexico

Dear Mr. Warnell,

Enverest Operating, LLC, (OGRID 143199) is requesting an exception to the approved injection pressure of 734 psi for the **WLHU #35** injection well, (API #30-015-36771, perfs 2630-46'). Based on the attached Step Rate Test data, Enervest requests that the allowable surface injection pressure be raised to 1898 psi. This increase is needed to balance injection and withdrawal rate in order to optimize waterflood operations.

At the current injection pressure limit, we are not able to inject enough water into the formation to effectively drain the reservoir through the producers.

Please do not hesitate to contact me at 713.495.5344 or Shirley Galik, Regulatory at 713.495.1514 with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'Josh Caldwell', with a large, stylized flourish extending from the end.

Josh Caldwell
Production Engineer

Attachment

Step Rate Test



Cardinal Surveys Company

20-Dec-10

Enervest Operating LLC

Well: W.L.H. Unit No. 35

Field:

County: Eddy County, New Mexico

SC 59400

File No. 20111

Intercept @ 724.8 BPD, 3,205 BH PSIA & Surface Intercept @ 1,898 PSIA

Downhole PSI Tool Ser. No. CSC2601

Surface PSI Gauge Ser. No. 10213

Tool @ 2,600'

	Start	End	Rate	
1	8:15 AM	9:00 AM	0	2,600
2	9:00 AM	9:30 AM	100	
3	9:30 AM	10:00 AM	200	
4	10:00 AM	10:30 AM	300	
5	10:30 AM	11:00 AM	400	
6	11:00 AM	11:30 AM	600	
7	11:30 AM	12:00 PM	900	
8	12:00 PM	12:30 PM	1200	
9	12:30 PM	1:00 PM	1500	
10	1:00 PM	1:08 PM	1800	
11	1:08 PM	2:08 PM	60 Min Fall Off	
12				
13				
14				
15				
16				
17				
18				

Step Rate Test
20-Dec-10

Enervest Operating LLC

Well: W.L.H. Unit No. 35

Field:

Location: Eddy County, New Mexico



	S Time	E Time	D Time Min	Last Rate BPD	Step BPD	BHP PSIA	Surf PSIA	Cum BBL	Delta BBL	Avg. BPD	Lower Trend	Upper Trend
1	8:15 AM	9:00 AM	45	0	0	1970.9	836.1	0	0	0		
2	9:00 AM	9:30 AM	30	100	100	2101.4	966.5	2.9	2.9	139		
3	9:30 AM	10:00 AM	30	200	100	2225.3	1075.4	7.3	4.4	211	2225.3	
4	10:00 AM	10:30 AM	30	300	100	2503	1349.1	13.4	6.1	293	2503	
5	10:30 AM	11:00 AM	30	400	100	2684.4	1532.4	22.3	8.9	427	2684.4	
6	11:00 AM	11:30 AM	30	600	200	2969.3	1850.3	34.9	12.6	605	2969.3	
7	11:30 AM	12:00 PM	30	900	300	3251	1938.6	53.7	18.8	902		3251
8	12:00 PM	12:30 PM	30	1200	300	3361.3	2265.3	78.3	24.6	1181		3361.3
9	12:30 PM	1:00 PM	30	1500	300	3445	2381.3	110.1	31.8	1526		3445
10	1:00 PM	1:08 PM	8	1800	300	3458	1777	110.7	0.6	29		
11	1:08 PM	2:08 PM	60	0	0	2377.1	1221.2	110.7	0	0		

12
13
14
15

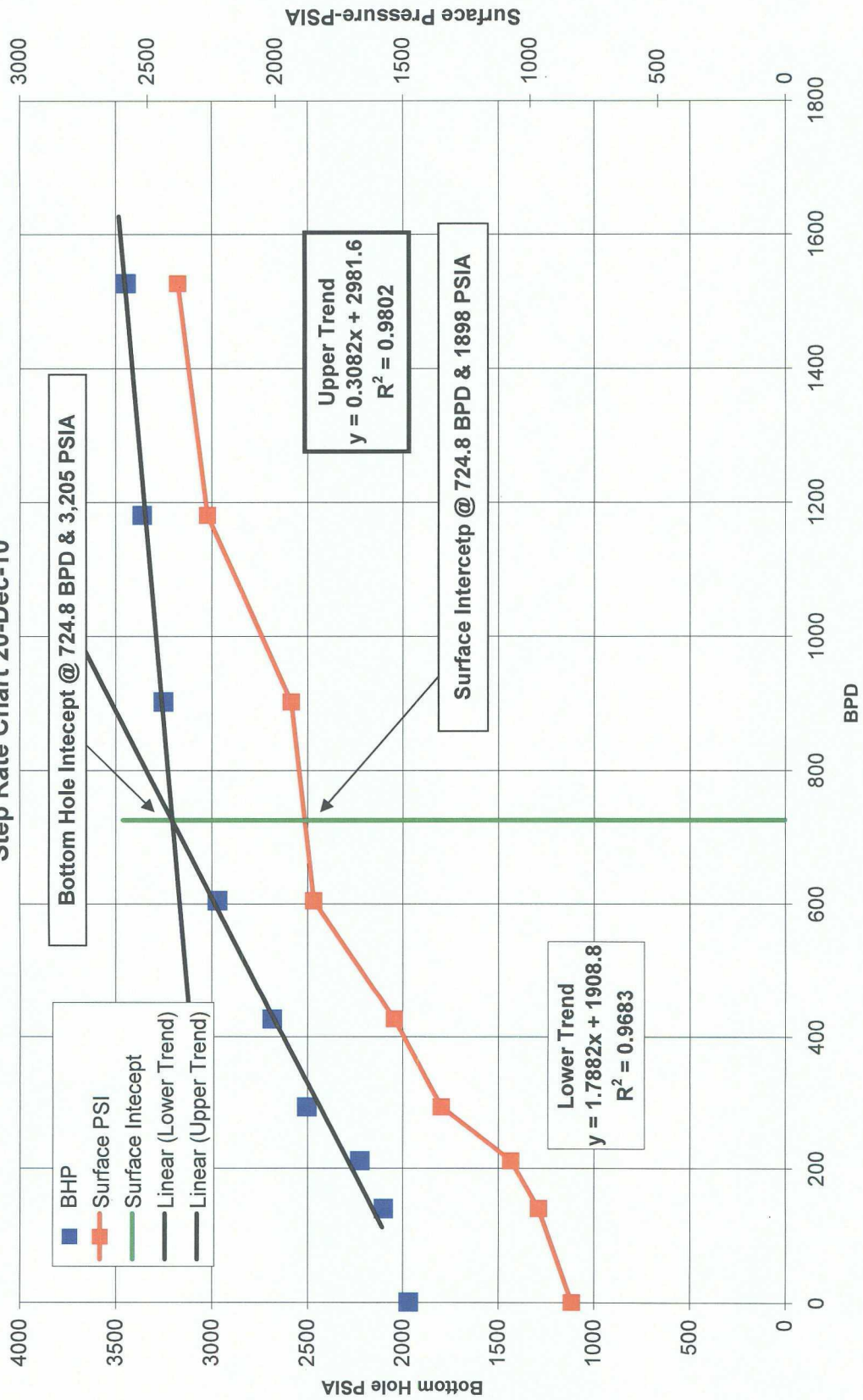
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0.3082 2981.6
intersect 724.864865 BPD
BHP PSI 3205.00335 PSIA



Enervest Operating LLC

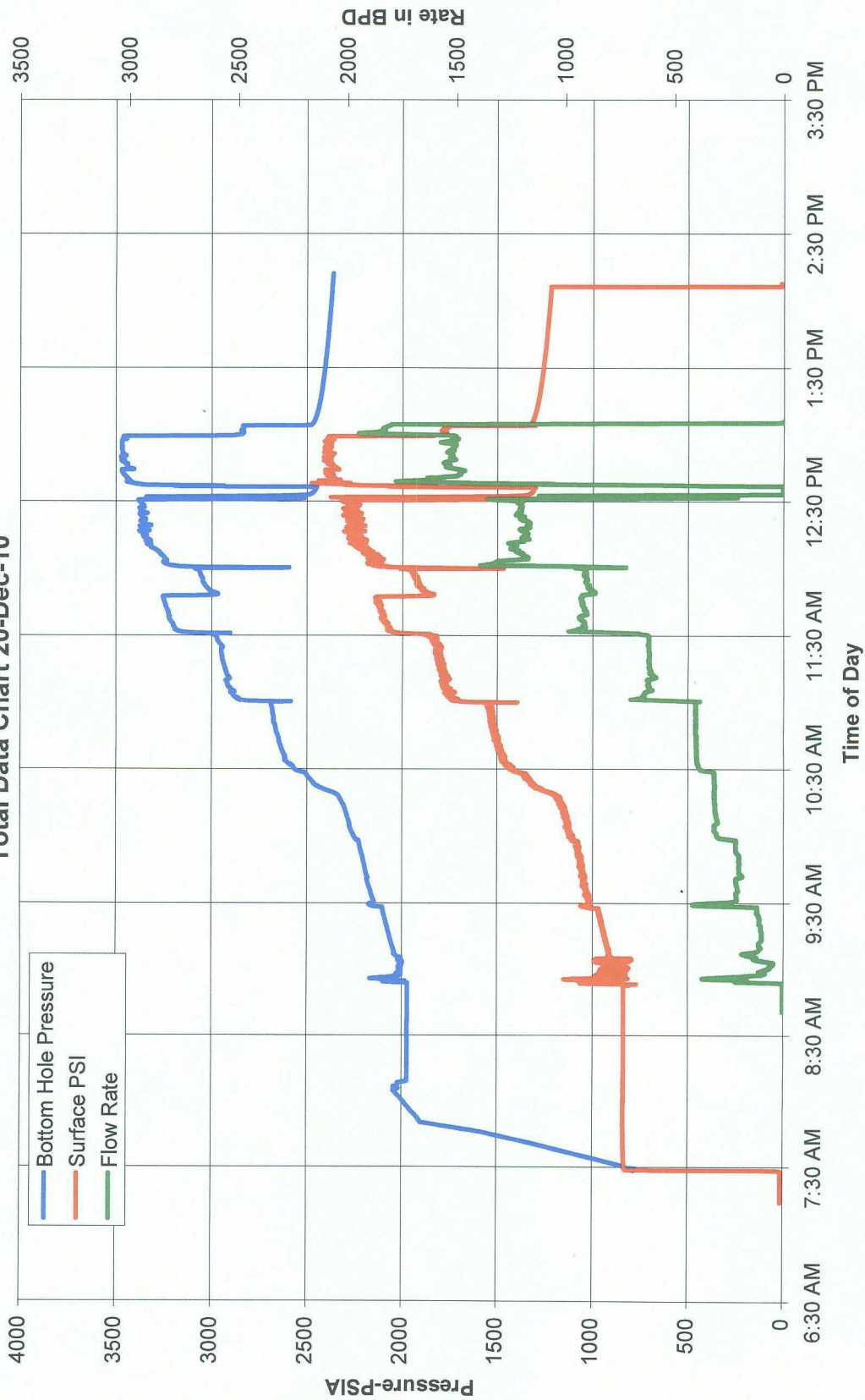
W.L.H. Unit No. 35

Step Rate Chart 20-Dec-10





Enervest Operating LLC
W.L.H. Unit No. 35
Total Data Chart 20-Dec-10



WLHG4S #35
West Loco Field
Eddy County
30-015-36771

Current Wellbore Schematic

Ground Level 3,511'
KB 12
Spud Date 12/28/2009
Rig Release 1/03/10

Injector

12 1/4" Hole

TOC @ Surface

7 7/8" Hole

8 5/8" 24# J-55 Csg @ 381'
Cmt w/ 275 Sx to Surface

2 3/8 " 4.7# J-55 Tbg @ 2,609'PCID

G6 Packer @ 2,606 '

Perfs 2,630-2,646' (Total of 102 holes)

4 1/2" 10.5# J-55 Csg @ 2,810'
Cmt w/ 600 Sx to Surface

TD 2,820'
PBD 2,765'

Sonia Miranda
5/25/2010