

IPI-362

DATE IN <u>1-27-10</u>	SUSPENSE	ENGINEER <u>Wannell</u>	LOGGED IN <u>1-27</u>	TYPE <u>IPI</u>	APP NO. <u>1002731742</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



Apache

Blankenship #2

## 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]

30-025-07767

2090<sup>th</sup> 35

### [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 \_\_\_\_\_

R-13176  
1209PSE

### [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.

Amber Cooke  
Print or Type Name

Amber Cooke  
Signature

Engineering Tech  
Title

01/26/2010  
Date

amber.cooke@apachecorp.com  
e-mail Address



TWO WARREN PLACE / SUITE 1500 / 6120 S. YALE / TULSA, OKLAHOMA 74136-4224

WWW.APACHECORP.COM  
Telephone: (918) 491-4900

January 21, 2010

State of New Mexico  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

RECEIVED OOD  
2010 JAN 26 P 1:07

Attention: Mr. William V. Jones

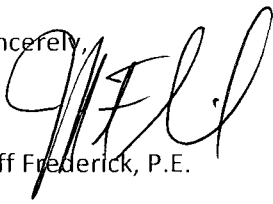
RE: Request for Surface Injection Pressure Amendment – Hearing Order 14360 R-1376-0 ✓  
Blankenship #2 (30-025-07767) 13176  
Lea County, New Mexico

Dear Mr. Jones:

Apache Corporation requests an amendment to the 0.2 psi/ft surface pressure limitation for the Blankenship #2. A step-rate test was performed on January 20, 2010 and this test indicates that the parting pressure occurs at a surface pressure of 2090 psi (0.35 psi/ft). Therefore, Apache Corporation is requesting the allowable surface injection pressure limitation is increased from 1209 psi to 2090 psi.

Your approval of said amendment would be greatly appreciated. Please call (918-491-4982) or email ([jeff.frederick@apachecorp.com](mailto:jeff.frederick@apachecorp.com)) with any questions or comments.

Sincerely,

  
Jeff Frederick, P.E.

Attachments

Cc: Amber Cooke, Engineering Tech

jlf,bm

1209 @ .2  
2090 @ .35  
2090-50 2040 ✓

# Blankenship #2 SRT

Depth 4600 ft  
Fluid Wt 9.2 ppg

Rate (bbl/min)	Surface Pressure (psi)	Friction Pressure (psi)	Hydrostatic Pressure (psi)	Bottom Hole Pressure (psi)
1	576	29	2201	2748
1.5	1244	59	2201	3386
2	1912	98	2201	4015
2.5	2235	146	2201	4290
3	2465	202	2201	4463
3.5	2650	267	2201	4584
4	2926	339	2201	4788
4.5	3065	419	2201	4846
5	3387	507	2201	5081
ISIP	2097	0	2201	4298

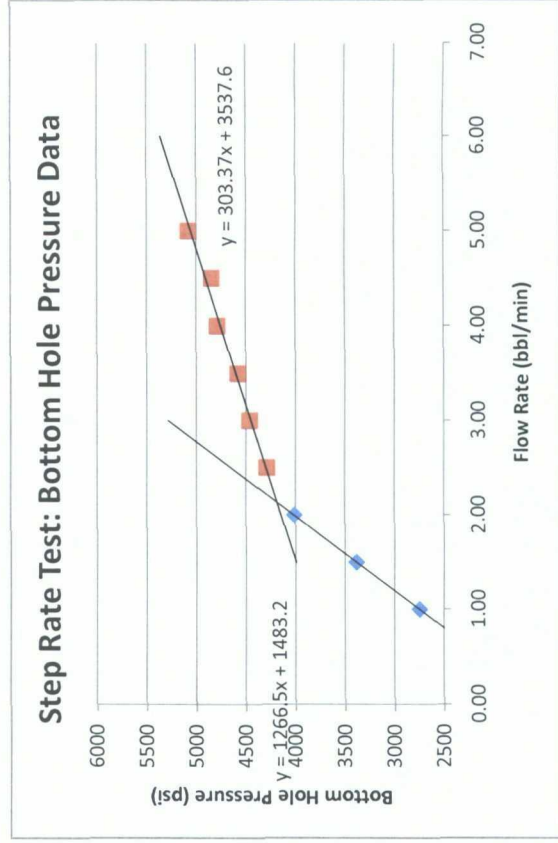
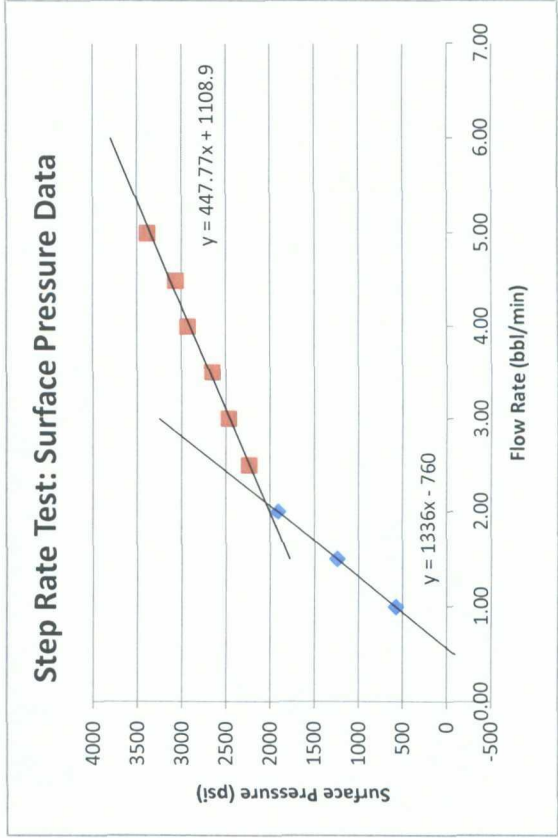
Location	Parting Pressure (psi)	Rate at Parting Pressure (bbl/min)
Bottom hole	4185	2.1
Surface	2090	2.1

This is the surface pressure that corresponds to the 4185 psi bottom hole parting pressure.

	Frac Grad psi/ft
SRT	0.91
ISIP	0.93

New Maximum Requested Surface Pressure

2090 psi



# CPS Treatment Report

page 1

Customer:	APACHE	ESO#:	DJUZ7ZVJ26
Well Name & No.:	BLANKENSHIP #2	Formation:	0.00
County:	LEA	Date:	January 20, 2010
State:	NM	Well type:	Oil / Old / Stim.

Customer Information	
Address:	P.O. BOX DRAWER D
City, State:	MONUMENT NM
Zip Code:	88265
Customer Representative:	ALBERT MAES



## Remarks

Arrive on Location:	6:00 AM
Depart Location:	2:00 PM
Total Hours:	8.00

	Depth	O.D	Weight	I.D	Volume	Bbls/linear ft.
Tubing 1 length ft.:	N/A		0	0.000	0.00 BBLs.	0.00000
Tubing 2 length ft.:					0.00 BBLs.	0.00000
Casing 1 length ft.:	N/A	5 1/2	0.00	0.000	##### BBLs.	0.00000
Casing 2 length ft.:					0.00 BBLs.	0.00000
Open Hole length ft.:		N/A	N/A		0.00 BBLs.	0.00000
Combined Depth ft.:	#VALUE!				BBLs.	0.00000
Annular Vol.:						

	Depth	Vol.				
Top Perf/Open Hole:	N/A	#VALUE!	Maximum Pressure:	3387	ISIP:	2097
Bottom Perf/Open Hole:	N/A	#VALUE!	Average Pressure:	2229	5 min:	
Number of Perfs:	N/A		Maximum Rate:	5.0	10 min:	
Perf Size:	0.31	in.	Average Rate:	2.9	15 min:	
Packer Depth:	N/A	ft.	Fluid to Recover:	927.9	Proppant Total:	

Time	STP	CAS	Rate	Stage	Total	Comments
6:00:04 AM	0	0	0.0	0.0	0.0	SAFETY MEETING
						STEP RATE
7:54:02 AM	0	0.0	1.4		0.5	START WATER
8:23:55 AM	0		1.3		40.7	PSI & RATE CHECK
8:39:04 AM	115		1.0		53.4	LOADED
8:51:09 AM	369		1.1		69.5	PSI & RATE CHECK
9:06:46 AM	576		1.1		87.0	END OF 30 MIN
9:07:43 AM	645		1.6		87.6	INCREASED RATE
9:27:52 AM	968		1.5		113.0	PSI & RATE CHECK
9:42:55 AM	1244		1.5		136.0	END OF 30 MIN
9:43:08 AM	1313		2.1		136.8	INCREASED RATE
9:58:25 AM	1728		2.1		169.0	PSI & RATE CHECK
10:13:35 AM	1912		2.1		200.0	END OF 30 MIN
10:13:53 AM	2005		2.5		200.8	INCREASED RATE
10:29:14 AM	2166		2.5		239.6	PSI & RATE CHECK
10:44:10 AM	2235		2.5		278.3	END OF 30 MIN
10:46:15 AM	2350		3.1		282.7	INCREASED RATE
11:01:28 AM	2442		3.2		331.0	PSI & RATE CHECK
11:16:11 AM	2465		3.1		378.2	END OF 30 MIN
11:16:48 AM	2558		3.5		380.0	INCREASED RATE
11:32:11 AM	2604		3.5		434.0	PSI & RATE CHECK
11:47:05 AM	2650		3.5		485.0	END OF 30 MIN
11:47:26 AM	2811		4.0		486.5	INCREASED RATE
12:02:40 PM	2880		4.0		549.0	PSI & RATE CHECK
12:17:05 PM	2926		4.0		608.0	END OF 30 MIN
12:18:04 PM	3041		4.5		612.0	INCREASED RATE
12:34:15 PM	3041		4.5		684.0	PSI & RATE CHECK
12:48:14 PM	3065		4.5		745.0	END OF 30 MIN
12:48:45 PM	3241		5.1		748.0	INCREASED RATE
1:03:55 PM	3341		5.1		825.6	PSI & RATE CHECK
1:18:24 PM	3387		5.0		898.4	END OF 30 MIN

APACHE

BLANKENSHIP #2

1-20-10

