

DATE <u>09/10/13</u>	SUSPENSE	ENGINEER <u>VG</u>	LOGGED IN <u>09/10/13</u>	TYPE <u>IPI</u>	APP NO. <u>PPRG1325360910</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



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 SWD-1378-B

OGRID 873 - Apache
 API # 30-015-40876
 Well Geronimo 28 State #2
 Location I-28-17S-28E
 2135' FSL + 690' FEL

[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.

Fatima Vasquez

Print or Type Name

Signature

Regulatory Tech II

Title

9/03/2013

Date

Fatima.Vasquez@apachecorp.com

e-mail Address



RECEIVED OGD

2013 SEP -9 P 12:31

09/04/2013

Mr. Phillip Goetze
Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

RE: Geronimo 28 State SWD #2

Mr. Phillip Goetze,

Based on the order SWD 1378-B issued on June 17, 2013 for Geronimo 28 State SWD #2, the maximum surface injection pressure is 1435 psi. Apache Corporation respectfully requests to increase the injection pressure. Step rate tests have been performed and the results are summarized below. More detailed information in regards to the test and wellbore are enclosed.

Well	API	Fracture Pressure	Requested Inj. Pressure Limit	SRT Date
Geronimo 28 State SWD #2	30-015-40876	2212 psig surface	Highest Allowable Pressure	08/27/2013

Please feel free to contact the engineer, Mark Thomas, at (432) 818-1071 or myself should you have any questions or need any other information. Thank you for your time and consideration.

Regards,

Fatima Vasquez
Regulatory Tech II
Apache Corporation
Fatima.Vasquez@apachecorp.com
(432) 818-1015

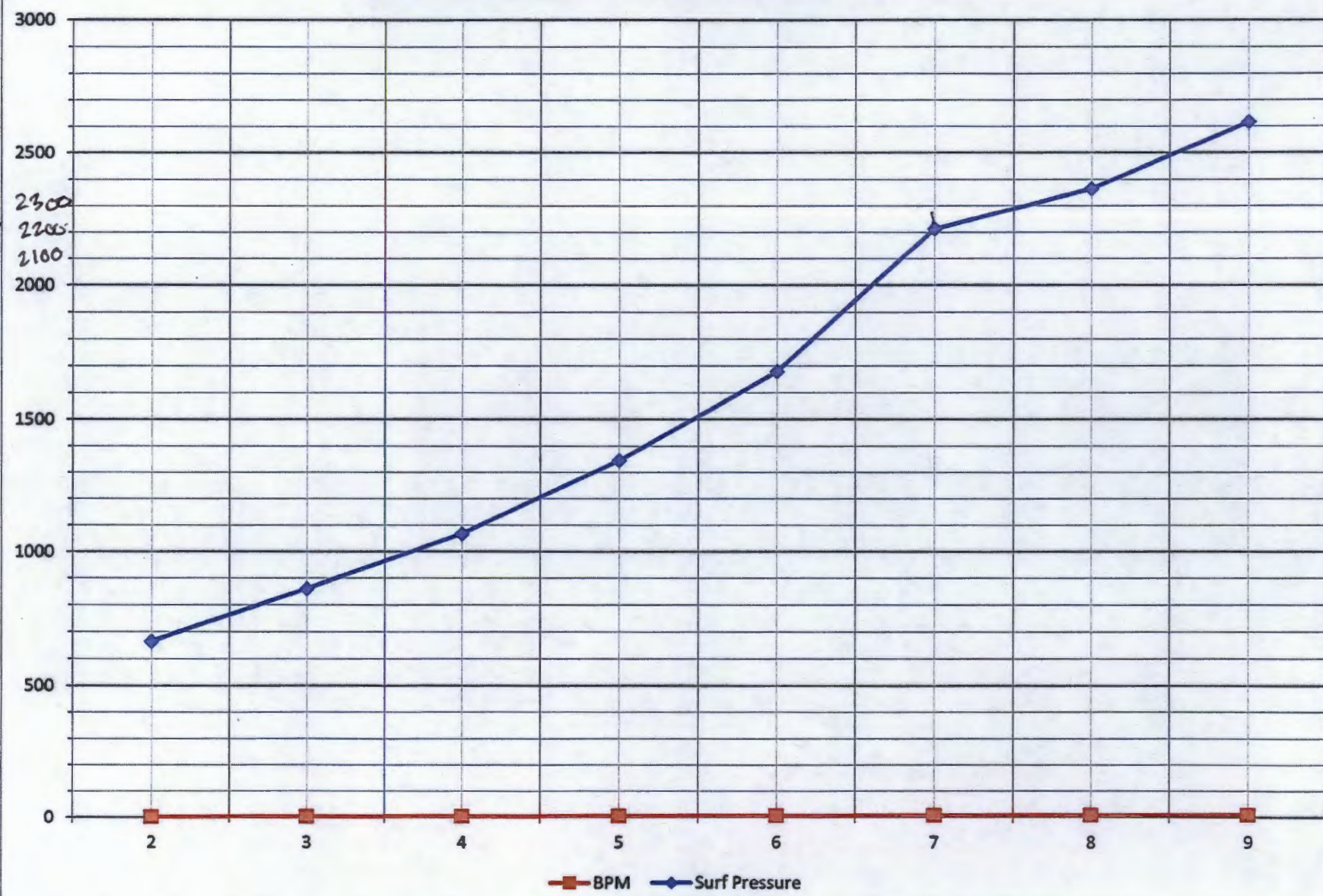
2212 psi
- 50 psi

2162 psi

2162 psi

7434 ft = 0.29

Geronimo 28 State #2 SWD - Step-Rate Injectivity - Surface Pressure





APACHE

JAVIER BERDOZA

Treater: DAVID JUAREZ

8/27/2013

Well: 2

Field: GERONIMO 28 STATE
EDDY, NM



Rolligon

SERVICE REPORT

2

STATION Livingston SERVICE RECEIPT NO. 62964 DATE 8-27-13
COMPANY Apache STATE NM COUNTY Eddy
LEASE Gardner 23 State WELL NO. 2 POOL _____
COMPANY REPRESENTATIVE Travis Bodezza SERVICE ENGINEER David Turner

Casing O.D.	Wt.	Depth	Cement
Liner O.D.	Wt.	From	To
Tubing size	Depth	Perf. - Open End	
Hyd. Hold Down: Make		Depth	
Upper Packer: Make		Depth	
Lower Packer: Make		Depth	
	No. Shots	From	To
Casing Perforations			
Open Hole: Size	From	To	
Open Hole: Size	From	To	
Type Fluid in Tg.		In Csg.	
Other Information			

Date Drilled _____ Formation _____
Pay Section From _____ To _____
Present Total Depth _____ P. B. From _____

_____ Gals. _____ Type _____
_____ Gals. _____ Type _____
_____ Lbs. _____ Material _____
_____ Lbs. _____ Material _____
Other Material _____
Pumps used on Tbg. _____
Pumps used on Csg. _____

Tbg. _____ B.J.s. Csg. _____ Bbls. Open Hole _____ Bbls.
Vol. of Pay Zone _____ Bbls. Vol. to Spot _____ Bbls.
Vol. to Flush _____ Bbls. Over Flush _____ Bbls.

[illegible]

SERVICE REPORT

1

STATION Lumberton SERVICE RECEIPT NO. 62964 DATE 8-27-13
 COMPANY Apache STATE NM COUNTY Eddy
 LEASE Gardner 28 State WELL NO. 2 POOL _____
 COMPANY REPRESENTATIVE Janice Brubaker SERVICE ENGINEER David Turner

Casing O.D.	Wt.	Depth	Cement
Liner O.D.	Wt.	From	To
Tubing Size	Depth	Perf. - Open End	
Hyd. Hold Down: Make		Depth	
Upper Packer: Make		Depth	
Lower Packer: Make		Depth	
	No. Shots	From	To
Casing Perforations			
Open Hole: Size	From	To	
Open Hole: Size	From	To	
Type Fluid in Tbg.		In Csg.	
Other Information			

Date Drilled	Formation
Pay Section From	To
Present Total Depth	P. B. From
Gals.	Step Rate
Gals.	Type
Lbs.	Material
Lbs.	Material
Other Material	
Pumps used on Tbg.	<u>R401</u>
Pumps used on Csg.	<u>R401</u>
Tbg.	Bals. Csg.
Vol. of Pay Zone	Bbls. Vol. to Spot
Vol. to Flush	Bbls. Over Flush

		BARRELS OF FLUID PUMPED				REMARKS	Tested Connections	
TIME	PRESSURES	In	Per	Per			Tbg.	Csg.
A.M.-P.M.	Casing	Tubing	Formation	Reading	Minute			
7:00	0	0	0	0	0	Safety Meeting		
7:41	497	0	0	0.3	0	Test Casing		
8:12	498	738	-	1.8	.8	1.8 BPM		
8:23	479	735	-	10	.8	10 BBLs		
8:27	447	707	-	20	.8	20 BBLs		
8:43	427	690	-	25	.8	25 BBLs		
8:47	422	694	-	28.5	1.0	1 BPM		
8:57	396	680	-	38.5	1	10 BBLs		
9:07	374	653	-	48.5	1	20 bbls		
9:11	364	641	-	53.5	1	25 bbls		
9:12	363	655	-	55.3	1.5	1.5 BPM		
9:19	349	616	-	65.3	1.5	10 bbls		
9:26	333	650	-	75.3	1.5	20 bbls		
9:29	325	638	-	80.3	1.5	25 bbls		
9:30	325	668	-	81.4	2	2 BPM		
9:35	315	626	-	91.4	2	10 bbls		
9:40	307	663	-	101.4	2	20 bbls		
9:43	297	666	-	106.4	2	25 bbls		
9:44	295	700	-	109.5	2.5	2.5 BPM		
9:49	290	740	-	119.5	2.5	10 bbls		
9:52	289	749	-	129.5	2.5	20 bbls		
9:54	281	756	-	134.5	2.5	25 bbls		
9:54	281	803	-	135.6	3	3 BPM		
9:58	279	826	-	145.6	3	10 bbls		
10:01	274	847	-	155.6	3	20 bbls		
10:03	273	861	-	160.6	3	25 bbls		
						Instant Shut Down Pressure		
						Pressures	Minutes After ISDP	
						Maximum Pressures and Avg. Injection Rate		
						Minimum Pressures		
						Total Load: Acid	Bbls. Oil - Water	Bbls.

SERVICE REPORT

3

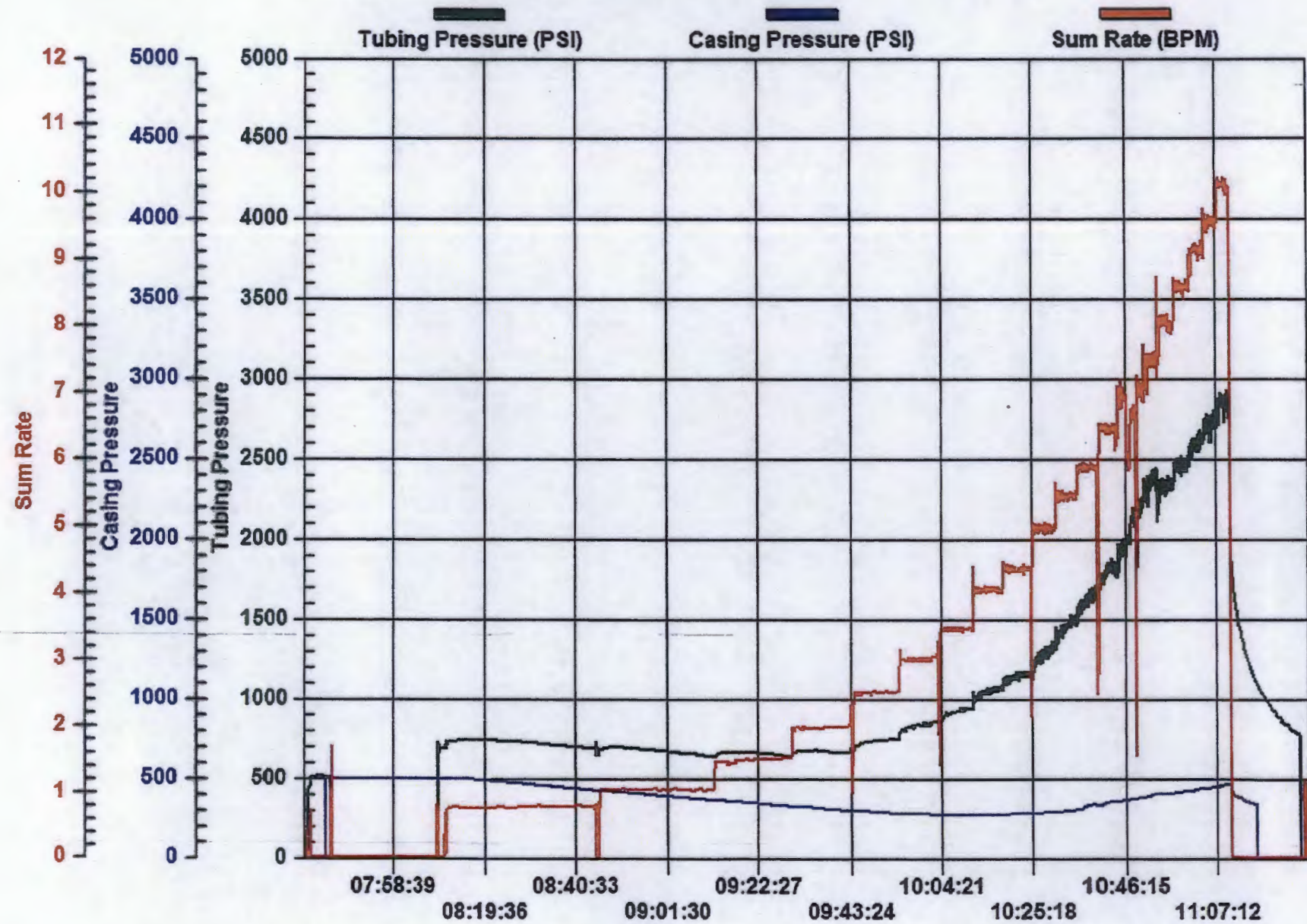
STATION Livingston SERVICE RECEIPT NO. 62964 DATE 8-27-13
 COMPANY Apache STATE NM COUNTY Eddy
 LEASE Gerwin 28 State WELL NO. 2 POOL _____
 COMPANY REPRESENTATIVE Javier Bardoza SERVICE ENGINEER David Juarez

Casing O.D.	Wt.	Depth	Cement
Liner O.D.	Wt.	From	To
Tubing Size	Depth	Perf. - Open End	
Hyd. Hold Down: Make		Depth	
Upper Packer: Make		Depth	
Lower Packer: Make		Depth	
	No. Shots	From	To
Casing Perforations			
Open Hole: Size	From	To	
Open Hole: Size	From	To	
Type Fluid in Tbg.		In Csg.	
Other Information			

Date Drilled	Formation
Pay Section From	To
Present Total Depth	P. B. From
Gals.	Type
Gals.	Type
Lbs.	Material
Lbs.	Material
Other Material	
Pumps used on Tbg.	
Pumps used on Csg.	
Tbg.	Bals. Csg.
Bbls. Open Hole	Bbls.
Vol. of Pay Zone	Bbls. Vol. to Spot
Bbls.	
Vol. to Flush	Bbls. Over Flush
Bbls.	

		BARRELS OF FLUID PUMPED				REMARKS	Tested Connections	
TIME	PRESSURES	In	Per	Per			Tbg.	Csg.
A.M.-P.M.	Casing	Tubing	Formation	Reading	Minute			
10:40	345	1749	-	325	6.5	6.5 RPM		
10:42	352	1844	-	339	6.5	10 bbls		
10:43	355	1829	-	349	6.5	20 bbls		
10:44	355	1815	-	359	6.5	25 bbls		
10:45	359	1815	-	359	7	7 BPM		
10:46	367	1959	-	360	7	10 bbls		
10:49	382	2232	-	390	7	20 bbls		
10:50	375	2212	-	390	7	25 bbls		
10:51	393	2317	-	396	7.5	7.5 RPM		
10:52	395	2292	-	406	7.5	10 bbls		
10:53	407	2405	-	416	7.5	20 bbls		
10:54	401	2238	-	421	7.5	25 bbls		
10:54	405	2366	-	423	8	8 BPM		
10:55	407	2358	-	433	8	10 bbls		
10:56	412	2359	-	443	8	20 bbls		
10:57	413	2364	-	449	8	25 bbls		
10:58	412	2477	-	451	8.5	8.5 BPM		
10:59	421	2446	-	461	8.5	10 bbls		
11:00	424	2484	-	471	8.5	20 bbls		
11:01	426	2461	-	475	8.5	25 bbls		
11:01	421	2589	-	481	9	9 BPM		
11:02	432	2602	-	491	9	10 bbls		
11:03	447	2628	-	501	9	20 bbls		
11:04	443	2617	-	506	9	25 bbls		
11:05	445	2234	-	517	9.5	9.5 RPM		
11:06	446	2745	-	527	9.5	10 bbls		
11:06	455	2729	-	532	9.5	Instant Shut Down Pressure		
11:07	455	2763	-	537	9.5	Minutes After ISDP		
11:07	458	2896	-	542	10	Maximum Pressures and Avg. Injection Rate		
11:08	461	2825	-	550	10	Pressures		
11:09	464	2850	-	560	10	Acid		
11:10	468	2853	-	565	10	Bbls. Oil - Water		

APACHE-GERONIMO-28-STATE-2---8-27-13



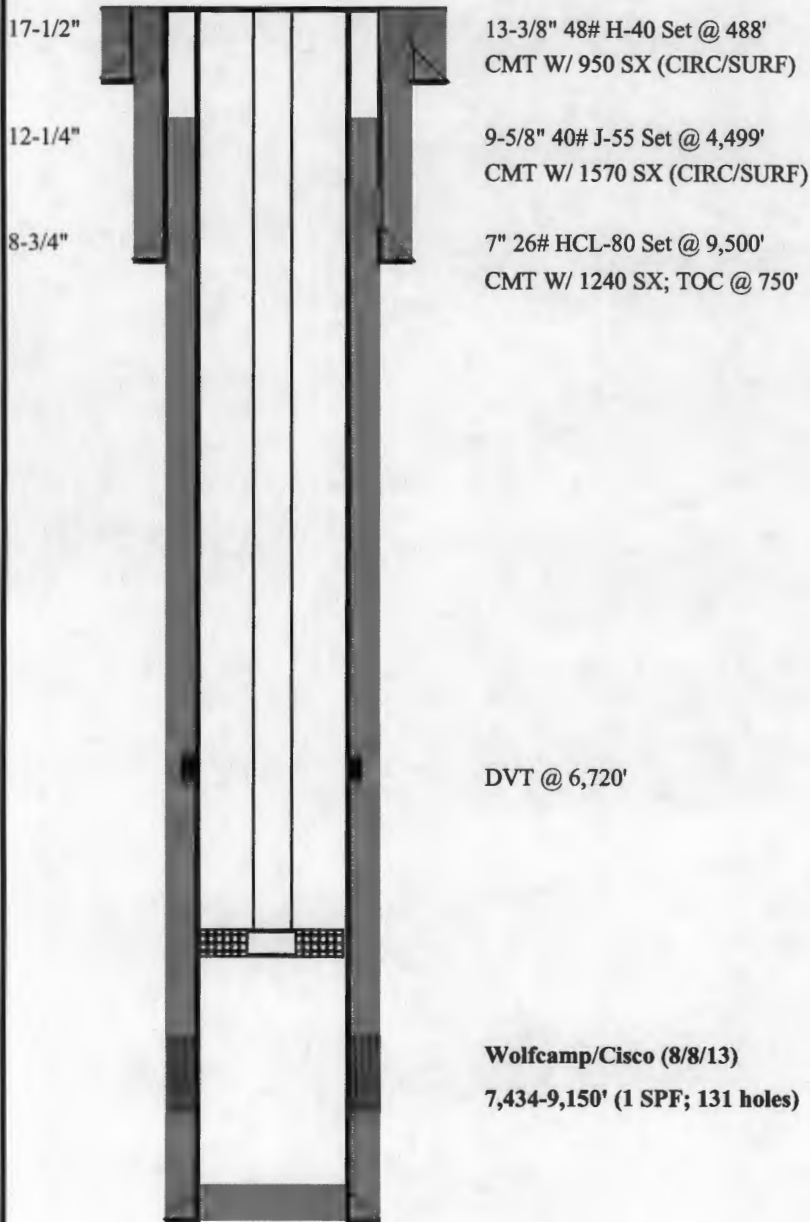
Apache Corp.
Current

GROUP: Permian North
FIELD: Artesia
LEASE/UNIT: Geronimo 28 State SWD
COUNTY: Eddy
API NUMBER: 30-015-40876

DATE: Sep. 04, 2013
BY: HJG
WELL: #2
STATE: New Mexico

Spud: 3/28/13
Rig Release: 4/18/13

KB = 3709'
GL = 3685'



TD = 9,500'
PBTD = 9,430'