

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

# Ameristate Exploration, LLC

111 Congress Ave., Suite 2700

Austin, Texas 78701-4067

(512) 391-0300

Fax (512) 391-0301

March 10, 2006

NMOCD  
1220 South Francis Drive  
Santa Fe, New Mexico 87505  
Attn: David Catanach

RE: East Millman Unit #'s 158, 208, and 212  
Maximum Injection Pressure Increases

Dear Sir:

Ameristate Exploration LLC (AEX) recently purchased and assumed operations of the East Millman Unit located in Eddy County from the prior operator SDX Resources. In 2002, SDX converted the EMU #'s 158, 208, and 212 to injection service as per orders WFX-781 and WFX-782. These orders limited the maximum injection pressure to 0.2 psi/ft. These wells are located within the boundaries of the East Millman Unit which is being waterflooded under order R-2405.

A step rate test conducted by SDX in August of 2005 indicates the actual frac gradient of the reservoir to be 0.49 psi/ft. Enclosed in this letter is a table indicating calculated surface pressures using a 0.475 psi/ft gradient. Also enclosed are treatment reports for wells in the East Millman Unit which support a gradient similar to that indicated on the step rate test.

AEX requests that this letter and supporting documentation serve as an application for an increase in the maximum injection pressure for these three wells. Please feel free to contact me at 512.391.0300 x-32 or at [m.arguijo@mdtrn.com](mailto:m.arguijo@mdtrn.com) if additional information is required. Your assistance with this matter is appreciated.

Sincerely,



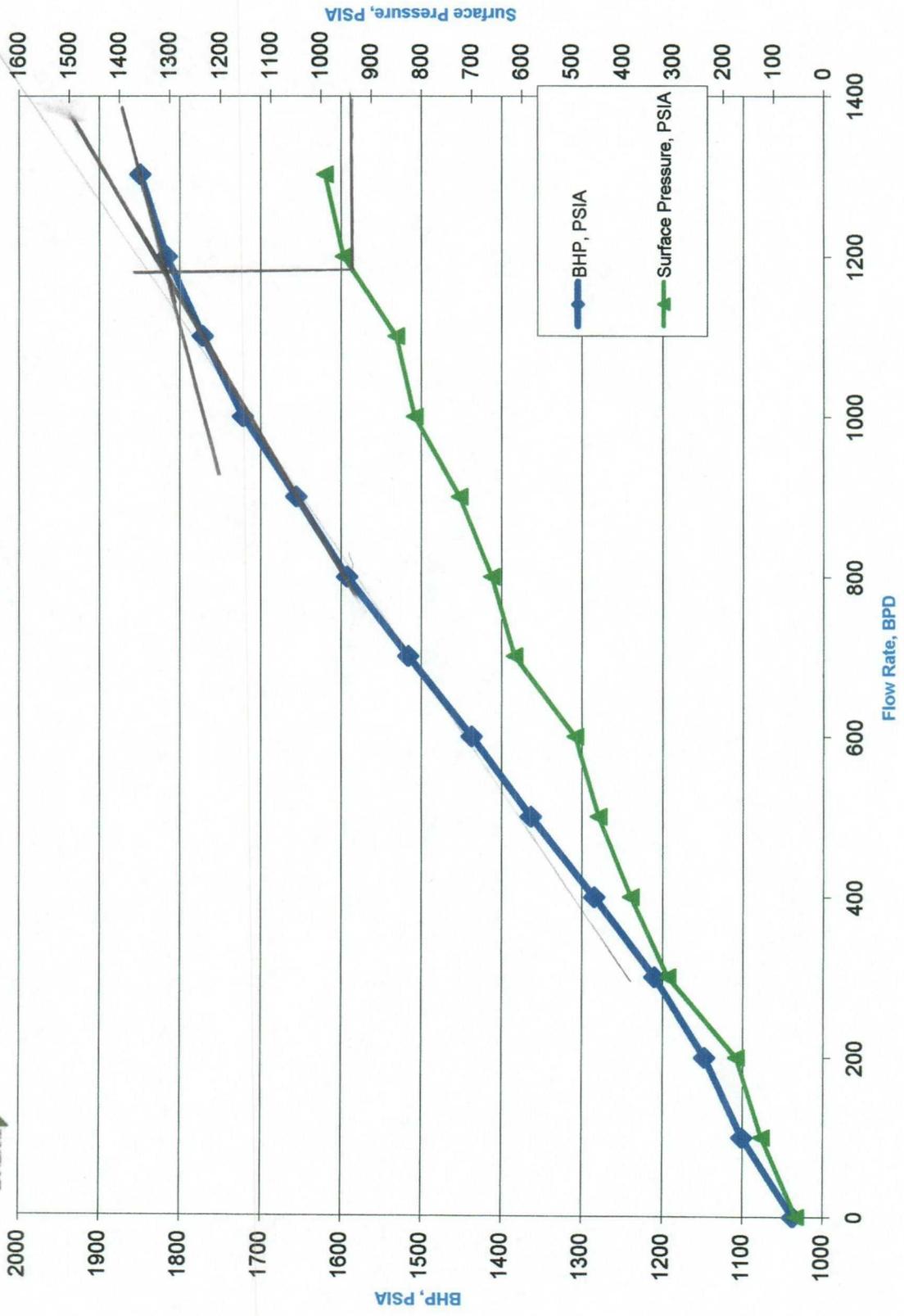
Michael Arguijo

Vice President - Operations

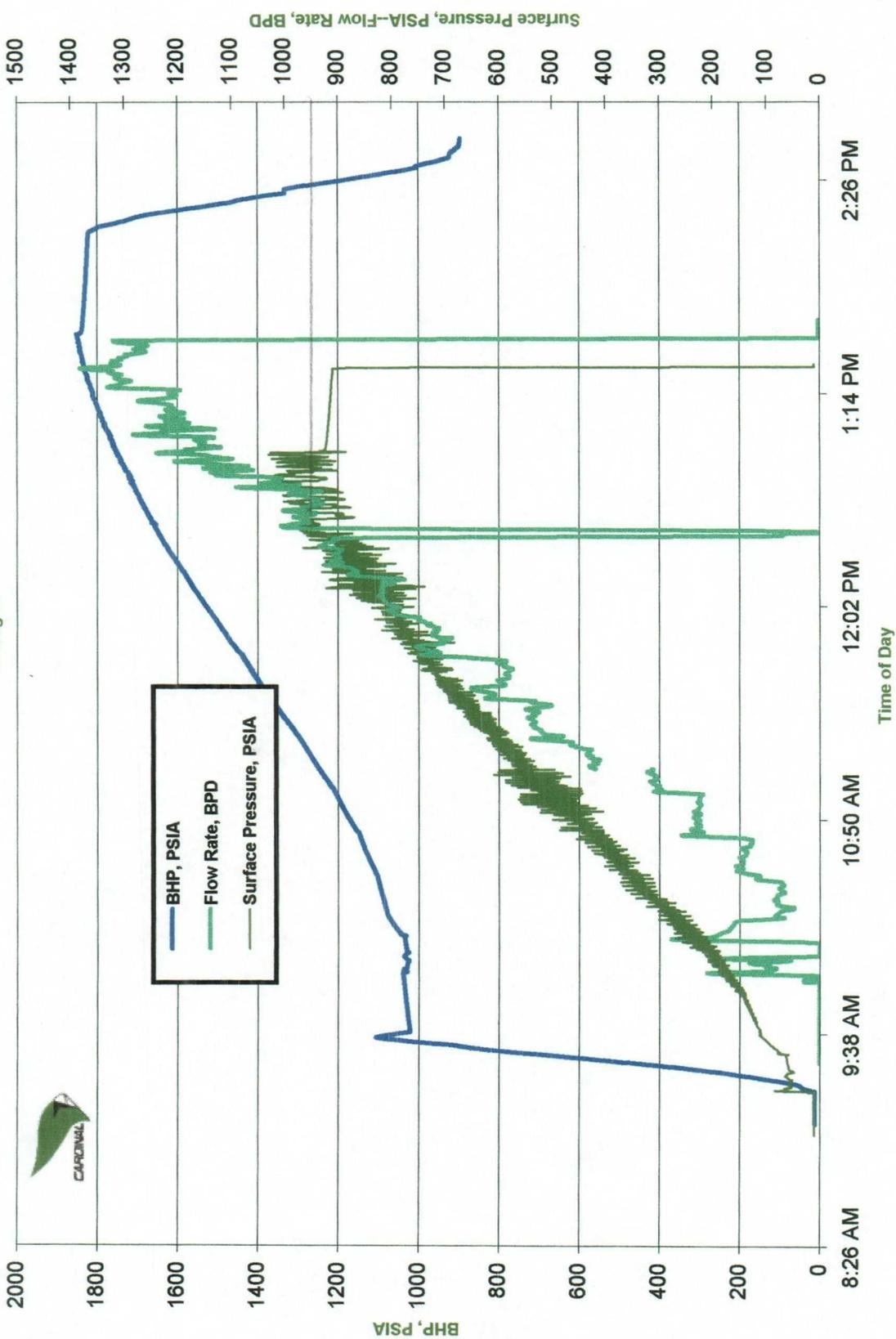
SDX Resources, Inc.  
East Millman Unit

Well #	API #	Order #	injection interval	requested injection gradient: psi/ft.	Calculated maximum surface pressure
158	30-015-02289	WFX-782	1878'-2568'	0.475	892
208	30-015-27467	WFX-782	1682'-2290'	0.475	799
212	30-015-27469	WFX-781	1920'-2283'	0.475	912

SDX Resources, Step Rate Test  
 East Millman #212  
 13-Aug-06



SDX Resources  
E. Millman #212  
13-Aug-05



**Step Rate Test**

**SDX Resources  
East Millman #212  
13-Aug-05**



**Eddy County, New Mexico**

	S Time	E Time	D Time		Last Rate	Step Size	Last BHP		Last Surf		Cum BBL	Delta BBL
			Min	BPD			PSIA	BPD	PSIA	PSIA		
1	9:37	10:00	0	0	0	0	1037.4	53.4	0	0	2.7	
2	10:16	10:30	15	100	100	100	1101.2	123.1	2.7	2.7	1.8	
3	10:30	10:45	15	200	100	100	1147.8	173.6	4.6	4.6	3.1	
4	10:45	11:00	15	300	100	100	1210.1	310.1	7.6	7.6	4.2	
5	11:00	11:15	15	400	100	100	1284.9	384.1	11.8	11.8	5.2	
6	11:15	11:30	15	500	100	100	1363.8	447.9	17	17	6	
7	11:30	11:45	15	600	100	100	1437.7	494.4	23	23	7	
8	11:45	12:00	15	700	100	100	1516.6	614.7	30	30	8.5	
9	12:00	12:15	15	800	100	100	1592.8	659.7	38.5	38.5	7.3	
10	12:15	12:30	15	900	100	100	1656	724.6	45.8	45.8	11.4	
11	12:30	12:45	15	1000	100	100	1721.8	813.3	57.2	57.2	9.8	
12	12:45	1:00	15	1100	100	100	1772.1	850.1	67	67	13	
13	1:00	1:15	15	1200	100	100	1816.9	956.1	80	80	16.3	
14	1:15	1:30	15	1302	100	100	1849.4	992.8	96.3	96.3		
15	1:30	2:00	30	0			1825.3	896.6				

Customer: SDX  
 Well Desc: E.MILLMAN 212  
 Formation: GRAYBURG

Date: 16-Sep-1993  
 Ticket #: 498350SX  
 Job Type: FRAC

### JOB SUMMARY

JOB START TIME: 08:46:39  
 JOB END TIME: 09:18:13  
 JOB DURATION: 00:31:34

### STAGES AND EVENTS:

Chart	Time	Slurry Rate (bpm)	Slurry Stage Volume (gal)	Casing Press. (psi)	Remark
Event #1	08:46:39	0.00	0	0	Start Job
Stage #1	08:46:45	0.00	9993	877	Start Pad
Event #2	08:47:52	7.54	0	967	ST PAD
Event #3	08:50:47	32.32	0	1629	PAD ON FORMATION
Stage #2	08:55:37	31.67	18886	1679	Start Sand
Event #4	08:55:54	31.25	0	1677	RAMP 1-7 PPG 12/20 SAND
Event #5	08:56:24	30.82	0	1666	1 PPG ON FORMATION
Event #6	08:57:52	30.60	0	1623	2 PPG ON FORMATION
Event #7	08:59:46	30.60	0	1600	3 PPG ON FORMATION
Event #8	09:01:53	30.54	0	1523	4 PPG ON FORMATION
Event #9	09:04:12	30.20	0	1479	5 PPG ON FORMATION
Event #10	09:06:59	30.48	0	1427	6 PPG ON FORMATION
Stage #3	09:10:21	30.37	3373	1386	Increase Sand
Event #11	09:10:38	30.26	0	1387	RAMP 7-7 PPG AND HOLD
Event #12	09:11:30	30.40	0	1497	7 PPG ON FORMATION
Stage #4	09:13:01	30.43	2022	1536	Start Flush
Event #13	09:13:15	31.05	0	1526	ST FLUSH
Event #14	09:14:47	0.00	0	1121	ISIP
Event #15	09:18:13	0.00	0	46	End Job



DATE 10 11-93 PAGE NO. 1

JOB LOG FORM 2013 R-3

CUSTOMER SDX WELL NO. 158 LEASE EMLI JOB TYPE 601 Acid Stimulation TICKET NO. 498511

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS (T.P.C.)	PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
					TUBING	CASING	
	1305			1			spot Acid start H <sub>2</sub> O 1110
	1323	2.4	60	1	156		start Acid 4RBL 15.10 498511
	1325	2.4	4	1	156		Flush
	1327	2.4	9	1			sh. down on wellhead
	1342						Bit down start Acid
	1346	1.7	8.9	1	720		4RBL to 10.11.6. in down
	1347	2 1/4	11	1	945		Down
	1348	2.7	13	1	1127		" 20V
	1350	3	18	1	1380		" 10 ON → 1410
	1351	3	22	1	1400		Down 15 ON → 1450
		3	26	1	1450		" 20 ON → 1475
	1354	3	30	1	1450		" 25 ON → 1490
	1355	3	34	1	1485		" 30 ON → 1510
	1357	3	38	1	1490		" 35 ON → 1530
	1358	3	42	1	1500		" 40 ON → 1525
		3	46	1	1510		" 45 ON →
	1400	3	50		1520		" 50 ON →
		3	54		1510		Prop 10 55 ON → 1530
		3			1495		Bit 42 1495
			58		1505		65 ON → 1525
		3.1					
	1405		64				start Flush
		3.8			1623		increase
		3.8	69	1	1640		
		4		1	1700		
		4.2		1	1720		
	1407				1300		AV. Rate 3
	1410				1127		AV. P.S.T. 1480
	1412				1103		MAX 1720 @ 4.2 BPM
	1417				1083		MIN 720 @ 1.7 BPM
	1422						

89331 2005

PPR TREATMENT REPORT  
16 Dec 93

SDX RESOURCES, INC.  
E. MILLMAN U. #208  
HOBBS, N.M.

