



**ANNUAL REPORT OF PRESSURE MONITORING,  
 FLUID INJECTION AND ENHANCED RECOVERY**

Complete all blanks - add pages if needed. Copy to be retained for five (5) years after filing date.

OPERATOR: License # \_\_\_\_\_  
 Name: \_\_\_\_\_  
 Address 1: \_\_\_\_\_  
 Address 2: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_  
 Contact Person: \_\_\_\_\_  
 Phone: ( \_\_\_\_\_ ) \_\_\_\_\_  
 Lease Name: \_\_\_\_\_  
 Well Number: \_\_\_\_\_

API No.: \_\_\_\_\_  
 Permit No.: \_\_\_\_\_  
 Reporting Year: \_\_\_\_\_  
 (January 1 to December 31)  
 \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  E  W  
 (a/a/a/a)  
 \_\_\_\_\_ feet from  N /  S Line of Section  
 \_\_\_\_\_ feet from  E /  W Line of Section  
 County: \_\_\_\_\_

**I. Injection Fluid:**

Type (Pick one):  Fresh Water  Treated Brine  Untreated Brine  Water/Brine  
 Source:  Produced Water  Other (Attach list)  
 Quality: Total Dissolved Solids: \_\_\_\_\_ mg/l Specific Gravity: \_\_\_\_\_ Additives: \_\_\_\_\_  
 (Attach water analysis, if available)

**II. Well Data:**

Maximum Authorized Injection Pressure: \_\_\_\_\_ psi Injection Zone: \_\_\_\_\_  
 Maximum Authorized Injection Rate: \_\_\_\_\_ barrels per day  
 Total Number of Enhanced Recovery Injection Wells Covered by this Permit: \_\_\_\_\_ (Include TA's)

III.	Month:	Total Fluid Injected BBL	Maximum Fluid Pressure	Total Gas Injected MCF	Maximum Gas Pressure	# Days of Injection
	January	_____	_____	_____	_____	_____
	February	_____	_____	_____	_____	_____
	March	_____	_____	_____	_____	_____
	April	_____	_____	_____	_____	_____
	May	_____	_____	_____	_____	_____
	June	_____	_____	_____	_____	_____
	July	_____	_____	_____	_____	_____
	August	_____	_____	_____	_____	_____
	September	_____	_____	_____	_____	_____
	October	_____	_____	_____	_____	_____
	November	_____	_____	_____	_____	_____
	December	_____	_____	_____	_____	_____
	<b>TOTAL</b>	_____	_____	_____	_____	_____

Operator	Area	Lease	Location	Site Type	Sample Point Description	Center Name	Salesman
GREAT PLAINS	KANSAS	SWEDE HOLLOW UNIT	INJECTION PLANT	Facility	NOT PROVIDED	Kansas	Greg Pollnow
GREAT PLAINS	KANSAS	SWEDE HOLLOW UNIT	SAUVAGE#1	Well Sites	NOT PROVIDED	Kansas	Greg Pollnow
GREAT PLAINS	KANSAS	SWEDE HOLLOW UNIT	SAUVAGE#3	Well Sites	NOT PROVIDED	Kansas	Greg Pollnow
GREAT PLAINS	KANSAS	SWEDE HOLLOW UNIT	SAUVAGE#5	Well Sites	NOT PROVIDED	Kansas	Greg Pollnow
GREAT PLAINS	KANSAS	SWEDE HOLLOW UNIT	SUAVAGE #8	Well Sites	NOT PROVIDED	Kansas	Greg Pollnow
GREAT PLAINS	KANSAS	SWEDE HOLLOW UNIT	SAUVAGE#10	Well Sites	NOT PROVIDED	Kansas	Greg Pollnow
GREAT PLAINS	KANSAS	SWEDE HOLLOW UNIT	WASSON#2	Well Sites	NOT PROVIDED	Kansas	Greg Pollnow
GREAT PLAINS	KANSAS	SWEDE HOLLOW UNIT	WASSON#3	Well Sites	NOT PROVIDED	Kansas	Greg Pollnow
GREAT PLAINS	KANSAS	SWEDE HOLLOW UNIT	WASSON#7	Well Sites	NOT PROVIDED	Kansas	Greg Pollnow
GREAT PLAINS	KANSAS	SWEDE HOLLOW UNIT	WASSON#8	Well Sites	NOT PROVIDED	Kansas	Greg Pollnow
GREAT PLAINS	KANSAS	SWEDE HOLLOW UNIT	WASSON#9	Well Sites	NOT PROVIDED	Kansas	Greg Pollnow
GREAT PLAINS	KANSAS	SWEDE HOLLOW UNIT	ROBINSON#1	Well Sites	NOT PROVIDED	Kansas	Greg Pollnow

Date Out	Sample Date	Comments	pH	CO2T	H2ST	Chloride	Measured Specific Graviity	Alk T	Sulfate	Phosphorus	Reported
8/15/2016	8/8/2016		7	88	120	39600	1.05	378	877	0	0
8/15/2016	8/8/2016		7	62	240	39000	1.055	439	629.5	0	0
8/15/2016	8/8/2016		6.8	62	240	42400	1.055	593	827	0	0
8/15/2016	8/8/2016		7.8	72	100	41000	1.055	397	1185.5	0	0
8/15/2016	8/8/2016		7.5	74	240	38500	1.05	415	429.7	0	0
8/15/2016	8/8/2016		7.5	107	300	34200	1.055	610	165.7	0	0
8/15/2016	8/8/2016		7	65	150	37200	1.055	610	413.4	0.02324	0.0711144
8/15/2016	8/8/2016		7	88	10	53100	1.065	335	1341	0.08231	0.2518686
8/15/2016	8/8/2016		7.5	80	120	35800	1.045	445	443.1	0	0
8/15/2016	8/8/2016		7.5	88	120	36700	1.04	457	599.8	0	0
8/15/2016	8/8/2016		7.5	65	150	49200	1.06	287	2122	0	0
8/15/2016	8/8/2016		7.2	65	60	67100	1.075	195	2732.5	0	0

Sodium	Calcium	Magnesium	Barium	Strontium	Mangenes	Fe	Potassium	Zinc	Boron	Total Hardness	TDS
21190.4	1306.49	430.358	4.474	242.481	0.050885	0.009464	125.376	0	9.747	5318.985372	64154.63935
20651.3	1469.53	426.706	1.314	119.326	0.061313	0.267078	123.645	0	10.206	5568.841952	62860.64939
23109.5	1446.3	475.815	4.855	285.912	0.049383	0.022173	135.752	0	10.392	5905.58192	69278.20556
22293.1	1444.36	429.226	0.410927	125.173	0.068317	0.569372	134.561	0	10.993	5522.307495	67009.96862
20605.6	1212.09	424.786	4.397	286.344	0.279584	10.111	122.528	0	9.657	5109.976496	62010.83558
18363.3	1021.28	374.843	7.595	325.743	0.079695	0.516606	110.617	0	8.749	4474.42934	55179.6743
20466.7	1178.12	400.18	5.593	228.925	0.084806	5.651	121.886	0	9.215	4859.087804	60630.53981
29448.9	2024.73	601.105	0.609563	118.865	2.188	50.687	170.415	0	12.938	7674.327462	87193.49956
19117.7	1230.46	388.222	2.659	203.623	0.269798	3.714	113.254	0	9.025	4909.690612	57748.0018
19883.1	1234.83	384.952	4.766	212.017	0.139788	12.732	120.004	0	9.197	4918.246268	59609.34079
26965.6	1684.7	526.532	2.36	253.752	0.065094	1.755	155.405	0	11.325	6672.0572	81199.16909
37051	2588.62	733.308	0	87.926	0.157393	1.489	210.089	0	14.476	9593.0146	110700.0894

**Specific Gravity** Aluminum Chromium Cobalt Copper Lead Molybdenum Nickel Tin Titanium Vanadium Zirconium Formate

1.0427

1.0418

1.0460

1.0445

1.0413

1.0369

1.0404

1.0576

1.0385

1.0397

1.0537

1.0728

Acetate	Propionate	Butyrate	Valerate	MCF/D	BOPD	BWPD	SSP Temp 1	SSP Pressure 1	Barite SI 1	Barite (ptb) 1	Calcite SI 1
							80°F	50 psi	1.427862127	2.561620408	0.405783026
							81°F	50 psi	0.752447776	0.643227464	0.244516612
							93°F	50 psi	1.297638186	2.741831865	0.431005795
							72°F	50 psi	0.567774758	0.178296155	1.238971146
							75°F	50 psi	1.171995323	2.438218802	0.011321134
							79°F	50 psi	1.0157859	4.068952738	0.582327738
							90°F	50 psi	1.140961761	3.084315587	0.642771564
							68°F	50 psi	0.702958043	0.290734146	0.650926714
							84°F	50 psi	0.919645543	1.390647126	0.936907467
							84°F	50 psi	1.289151246	2.68853563	0.954808159
							90°F	50 psi	1.348996294	1.340934552	0.286018714
							67°F	50 psi		0	0.624928178

Calcite (ptb) 1	Gypsum SI 1	Gypsum (ptb) 1	Anhydrite SI 1	Anhydrite (ptb) 1	Celestite SI 1	Celestite (ptb) 1	NaCl SI 1
32.49940288	-0.723911779	0	-0.941874541	0	0.244601285	64.17912815	-1.918609368
21.50659263	-0.810944107	0	-1.02553779	0	-0.199973926	0	-1.936842187
55.95906148	-0.733195139	0	-0.894831712	0	0.260046924	76.12730045	-1.861411585
62.96355091	-0.570604587	0	-0.818478483	0	0.069007868	12.26332946	-1.873134536
0.350648853	-1.053835768	0	-1.292567139	0	0.02343879	6.462157363	-1.936557291
43.07563015	-1.495363656	0	-1.721941939	0	-0.291629679	0	-2.042009902
74.89819118	-1.072988035	0	-1.251721577	0	-0.089925611	0	-1.970238769
38.41541611	-0.471263828	0	-0.722928467	0	0.005293758	0.964055233	-1.625250802
63.57633688	-1.00724558	0	-1.212344816	0	-0.090424057	0	-2.01102268
66.08091762	-0.88723772	0	-1.091382421	0	0.045248127	11.32326014	-1.983576491
8.141697048	-0.317000683	0	-0.485064991	0	0.564351357	130.2914176	-1.723567631
22.12706042	-0.127343186	0	-0.369316493	0	0.123330911	15.53419322	-1.403985238

NaCl (ptb) 1	FeS SI 1	FeS (ptb) 1	FeCO3 SI 1	FeCO3 (ptb) 1	SSP Temp 2	SSP Pressure 2	Barite SI 2	Barite (ptb) 2
0	0.272442227	0.002429499	-3.05806618	0	125°F	500 psi	1.095948783	2.447248023
0	2.041256414	0.145803461	-1.818525724	0	125°F	250 psi	0.43931817	0.497110343
0	0.600691497	0.009152078	-2.666903953	0	125°F	250 psi	1.079904049	2.646761814
0	3.01116019	0.313391518	-0.518793834	0	125°F	250 psi	0.179527605	0.08274999
0	4.293990083	5.570231134	-0.414675229	0	125°F	250 psi	0.806442061	2.204523381
0	3.054027178	0.284359957	-1.037535703	0	125°F	250 psi	0.682205729	3.554168596
0	3.086232803	3.110697428	0.04237037	0.362869474	125°F	250 psi	0.898513293	2.903154464
0	2.879406762	13.71921966	0.672722242	21.4811448	125°F	250 psi	0.288840657	0.176116376
0	3.454293698	2.045463238	0.111884404	0.57984354	125°F	250 psi	0.629376403	1.209158654
0	3.984684004	7.013790189	0.662069159	6.836898111	125°F	250 psi	0.999456605	2.54970779
0	3.156317613	0.966236892	-1.00869942	0	125°F	250 psi	1.111703649	1.295209829
0	2.585817817	0.818144419	-1.012236161	0	125°F	250 psi		0



Calcite SI 2	Calcite (ptb) 2	Gypsum SI 2	Gypsum (ptb) 2	Anhydrite SI 2	Anhydrite (ptb) 2	Celestite SI 2	Celestite (ptb) 2
0.462812021	35.16233453	-0.725171076	0	-0.751710509	0	0.235645198	62.23863209
0.215804567	17.76083288	-0.803796013	0	-0.828043101	0	-0.197369918	0
0.459173099	57.14620036	-0.727802584	0	-0.748574716	0	0.261904827	76.57337222
1.328697993	64.42940688	-0.5605233	0	-0.582630887	0	0.072177955	12.78891761
-0.025172018	0	-1.047568304	0	-1.072196057	0	0.024348152	6.70928735
0.575488887	40.67206524	-1.490850096	0	-1.519125949	0	-0.290290481	0
0.729194001	81.6950749	-1.068195993	0	-1.093477819	0	-0.087897256	0
0.999357747	55.21122676	-0.45483747	0	-0.465322922	0	0.010883407	1.971339548
1.009169147	65.53079129	-1.001573486	0	-1.028482366	0	-0.087927347	0
1.030071131	68.29896503	-0.881095844	0	-0.907039947	0	0.047980183	11.98444017
0.27261707	7.530501429	-0.308664801	0	-0.323193842	0	0.567536359	130.6830075
0.693450797	22.64790092	-0.103736185	0	-0.100486063	0	0.132937474	16.57823481

NaCl SI 2	NaCl (ptb) 2	FeS SI 2	FeS (ptb) 2	FeCO3 SI 2	FeCO3 (ptb) 2	Initial Temperature (Temperature)
-1.956811884	0	0.053806888	0.000607516	-2.888370423	0	125
-1.971434822	0	1.718189369	0.144321214	-1.736701332	0	125
-1.884055282	0	0.461454176	0.007994046	-2.5659034	0	125
-1.916459868	0	2.624374731	0.312944271	-0.291178811	0	125
-1.977693384	0	3.832487277	5.569587914	-0.319635041	0	125
-2.079997737	0	2.673614146	0.284005496	-0.923898352	0	125
-1.9962965	0	2.969249071	3.10987654	0.212525641	1.533500039	125
-1.668377862	0	2.860295348	13.73389231	1.169552278	30.42195068	125
-2.043283719	0	3.210407487	2.044879459	0.286603006	1.254072759	125
-2.015527839	0	3.742686283	7.013094618	0.839043981	7.602807427	125
-1.747438694	0	2.862238895	0.965550987	-0.945160152	0	125
-1.442861599	0	2.158305855	0.814370917	-0.799825375	0	125

Final Temperature (Temperature)	Initial Pressure (psig)	Final Pressure (psig)	Calcite (CaCO3)	Strontianite (SrCO3)	Anhydrite (CaSO4)
80	500	50			
81	250	50			
93	250	50			
72	250	50			
75	250	50			
79	250	50			
90	250	50			
68	250	50			
84	250	50			
84	250	50			
90	250	50			
67	250	50			

Gypsum (CaSO4*2H2O)	Barite (BaSO4)	Celestite (SrSO4)	Siderite (FeCO3)	Halite (NaCl)	Iron sulfide (FeS)	Anion/Cation Ratio
						1.108218269
						1.107666167
						1.086701646
						1.097534977
						1.100958156
						1.099114947
						1.079267567
						1.064189932
						1.101702638
						1.092878043
						1.097702469
						1.080819432

Density	Formic Acid	Acetic Acid	Propionic Acid	Buteric Acid	Valeric Acid	Borate	Nitrate	Nitrite	Bromide	L-Number
8.689648932						55.65537				L432510-1
8.682675882						58.27626				L432510-3
8.717258794						59.33832				L432510-4
8.705035724						62.77003				L432510-5
8.678096407						55.14147				L432510-13
8.641284661						49.95679				L432510-6
8.670658273						52.61765				L432510-7
8.81380069						73.87598				L432510-8
8.655124858						51.53275				L432510-9
8.665155238						52.51487				L432510-10
8.781498456						64.66575				L432510-11
8.940472948						82.65796				L432510-2





