KOLAR Document ID: 1752289

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form U3C
June 2015
Form must be Typed
Form must be completed on a per well basis

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 # 35263
Name: Enterra Resources, LLC
Address 1: PO BOX 5278
Address 2:
City: EDMOND State: OK Zip: 73083 + 5278
Contact Person: Les Evans
Phone: (405) 341-0005
Lease Name: WMU
Well Number: 91-1

API No.: 15-129-20903-00-01
Permit No: E34147.1
Reporting Year: 2023
(January 1 to December 31)

____ - NW - NW - NE Sec. 9 Twp. 31 S. R. 40 ☐ E ☑ W
(Q/Q/Q/Q)
5001 feet from ☐ N / ☑ S Line of Section
2291 feet from ☑ E / ☐ W Line of Section
County: Morton

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: 1500 psi Injection Zone: MORROW
Maximum Authorized Injection Rate: 5000 barrels per day
Total Number of Enhanced Recovery Injection Wells Covered by this Permit: 3 *(Include TA's)*

III.

Month:	Total Fluid Injected BBL	Maximum Fluid Pressure	Total Gas Injected MCF	Maximum Gas Pressure	# Days of Injection
January	46828	-12			21
February	70184	-12			28
March	85534	-12			31
April	73336	-12			30
May	40290	-12			22
June	502	-18			2
July	5971	-18			6
August	36906	-18			31
September	15596	-18			30
October	17991	-18			31
November	27615	-18			30
December	50302	-18			31
TOTAL	471055		0		

Submitted Electronically

SGBSOLUTIONS

DownHole SAT®

FORMATION WATER
DEPOSITION POTENTIAL INDICATORS

Enterra Resources
WMU 41-2
(Water injected into WMU 41-1)

Pro-Stim Chemicals
Troy Pelton

WMU 42-3
WMU 42-4

Report Date: 06-14-2022
Sample #: 13906

Sampled: 06-07-2022 at 0823
Sample ID: WBaten

SATURATION LEVEL	
Calcite ($CaCO_3$)	0.625
Aragonite ($CaCO_3$)	0.579
Witherite ($BaCO_3$)	0.00
Strontianite ($SrCO_3$)	0.00
Calcium oxalate (CaC_2O_4)	0.00
Magnesite ($MgCO_3$)	0.155
Anhydrite ($CaSO_4$)	0.102
Gypsum ($CaSO_4*2H_2O$)	0.169
Barite ($BaSO_4$)	0.00
Celestite ($SrSO_4$)	0.00
Fluorite (CaF_2)	0.00
Calcium phosphate	0.00
Hydroxyapatite	0.00
Silica (SiO_2)	0.00
Brucite ($Mg(OH)_2$)	< 0.001
Magnesium silicate	0.00
Iron hydroxide ($Fe(OH)_3$)	136.61
Strengite ($FePO_4*2H_2O$)	0.00
Siderite ($FeCO_3$)	66.37
Halite (NaCl)	< 0.001
Thenardite ($Na2SO_4$)	< 0.001
Iron sulfide (FeS)	0.00

FREE ION MOMENTARY EXCESS (ppm)	
Calcite ($CaCO_3$)	-0.209
Aragonite ($CaCO_3$)	-0.253
Witherite ($BaCO_3$)	-23.39
Strontianite ($SrCO_3$)	-7.57
Calcium oxalate (CaC_2O_4)	-0.282
Magnesite ($MgCO_3$)	-1.59
Anhydrite ($CaSO_4$)	-1402
Gypsum ($CaSO_4*2H_2O$)	-1062
Barite ($BaSO_4$)	-0.0224
Celestite ($SrSO_4$)	-37.61
Fluorite (CaF_2)	-33.21
Calcium phosphate	>-0.001
Hydroxyapatite	-574.45
Silica (SiO_2)	-118.44
Brucite ($Mg(OH)_2$)	0.00402
Magnesium silicate	-231.35
Iron hydroxide ($Fe(OH)_3$)	< 0.001
Strengite ($FePO_4*2H_2O$)	>-0.001
Siderite ($FeCO_3$)	0.399
Halite (NaCl)	-446285
Thenardite ($Na2SO_4$)	-120230
Iron sulfide (FeS)	-0.0606

SIMPLE INDICES	
Langelier	-0.0806
Ryznar	6.95
Puckorius	5.48
Larson-Skold Index	7.05
Stiff Davis Index	-0.211
Oddo-Tomson	-0.214

BOUND IONS	TOTAL	FREE
Calcium	201.50	159.26
Barium	0.00	0.00
Carbonate	0.629	0.210
Phosphate	0.00	0.00
Sulfate	715.00	569.33

OPERATING CONDITIONS

Temperature (°F)	76.00
Time(mins)	3.00

SGB Solutions
5918 S County Road 1273, Midland, TX 79706

DownHole SAT®

FORMATION WATER CHEMISTRY INPUT

Enterra Resources
WMU 41-2
(Water injected into WMU 91-1)

Pro-Stim Chemicals
Troy Pelton

WMU42-3
WMU42-4

Report Date: 06-14-2022
Sample #: 13906

Sampled: 06-07-2022 at 0823
Sample ID: WBaten

CATIONS		ANIONS	
Calcium (as Ca)	201.50	Chloride (as Cl)	1197
Magnesium (as Mg)	63.18	Sulfate (as SO_4)	715.00
Barium (as Ba)	0.00	Bromine (as Br)	0.00
Strontium (as Sr)	0.00	Dissolved CO_2 (as CO_2)	136.00
Sodium (as Na)	914.56	Bicarbonate (as HCO_3)	422.00
Potassium (as K)	0.00	Carbonate (as CO_3)	0.00
Lithium (as Li)	0.00	Oxalic acid (as C_2O_4)	0.00
Ammonia (as NH_3)	0.00	Silica (as SiO_2)	0.00
Aluminum (as Al)	0.00	Phosphate(as PO_4)	0.00
Iron (as Fe)	11.73	H_2S (as H_2S)	0.00
Manganese (as Mn)	0.0950	Fluoride (as F)	0.00
Zinc (as Zn)	0.00	Nitrate (as NO_3)	0.00
Lead (as Pb)	0.00	Boron (as B)	0.00

PARAMETERS

Calculated T.D.S.	3530
Molar Conductivity	4603
Resistivity	217.23
Sp.Gr.(g/mL)	1.00
Pressure(psia)	14.70
pCO_2(psia)	0.0487
pH_2S(atm)	0.00
Temperature (^{0}F)	76.00
pH	6.79

CORROSION RATE PREDICTION

CO_2 - H_2S Rate(mpy)	0.0152

COMMENTS All anions & cations are in mg/l

SGB Solutions
5918 S County Road 1273, Midland, TX 79706