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UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.Lease Serial No.
NMLC066438 ✓

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
891001066X nmmu68292x8. Well Name and No.
BELL LAKE UNIT NORTH 101H9. API Well No.
30-025-45079-00-X110. Field and Pool or Exploratory Area
BELL LAKE-BONE SPRING, NORTH11. County or Parish, State
LEA COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on page 1****RECEIVED**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
KAISER FRANCIS OIL COMPANYContact: CHARLOTTE VAN VALKENBURG
E-Mail: Charlottv@kfoc.net

3a. Address

TULSA, OK 74121-1468

3b. Phone No. (include area code)
Ph: 918-491-4314

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

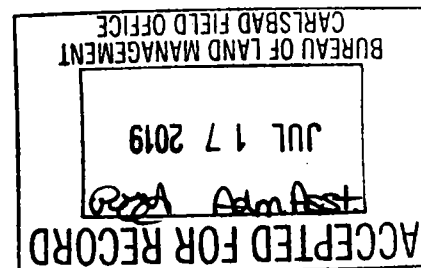
Sec 1 T23S R33E SWNW 2070FNL 325FWL
32.335247 N Lat, 103.533562 W Lon**12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☒ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

This is to request approval to dispose of produced water from the above well.

1. Formation Bone Spring ✓
 2. Amount of water produced 1132 BWPD ✓
 3. See attached water analysis
 4. Storage method Multiple 1000 bbl coated steel tanks
 5. Method of removal from lease pipelined ✓
 6. Operator and disposal facility ✓
- Oilfield Water Logistics
Madera SW McCloy SWD ✓
14 24S 34E 15 24S 32E
Lea Co., NM Lea Co., NM



14. I hereby certify that the foregoing is true and correct.

Electronic Submission #473491 verified by the BLM Well Information System
For KAISER FRANCIS OIL COMPANY, sent to the Hobbs
Committed to AFMSS for processing by PRISCILLA PEREZ on 07/16/2019 (19PP2549SE)

Name (Printed/Typed) CHARLOTTE VAN VALKENBURG

Title MGR., REGULATORY COMPLIANCE

Signature (Electronic Submission)

Date 07/16/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED

FOR RECORD ONLY

XZ NMCD 8-2679



DownHole SAT®
SURFACE WATER CHEMISTRY INPUT

Kaiser Francis

NBLU 101

Sep

Account Manager: Steve Tigert

Report Date: 05-10-2019

Sampled: 05-03-2019

Sample #: 4684

at 1243

CATIONS

Calcium (as Ca)	5146
Magnesium (as Mg)	524.60
Barium (as Ba)	1.20
Strontium (as Sr)	376.60
Sodium (as Na)	46171
Iron (as Fe)	27.91
Manganese (as Mn)	0.980

ANIONS

Chloride (as Cl)	82000
Sulfate (as SO ₄)	939.28
Dissolved CO ₂ (as CO ₂)	110.00
Bicarbonate (as HCO ₃)	130.00
H ₂ S (as H ₂ S)	0.00

PARAMETERS

Calculated T.D.S.	132143
Molar Conductivity	192372
Resistivity	5.20
Sp.Gr.(g/mL)	1.10
Pressure(psia)	50.00
pCO ₂ (atm)	0.0166
pH ₂ S(atm)	0.00
Temperature (°F)	70.00
pH	6.60

COMMENTS

Analyst: Steven Kennedy

ROCKWATER ENERGY SOLUTIONS
7906 West Highway 80, Midland, TX 79706



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SURFACE WATER
DEPOSITION POTENTIAL INDICATORS

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SATURATION LEVEL

Calcite (CaCO_3)	0.880
Aragonite (CaCO_3)	0.770
Witherite (BaCO_3)	< 0.001
Strontianite (SrCO_3)	0.106
Magnesite (MgCO_3)	0.0887
Anhydrite (CaSO_4)	0.391
Gypsum ($\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$)	0.570
Barite (BaSO_4)	5.15
Celestite (SrSO_4)	1.05
Siderite (FeCO_3)	3.92
Halite (NaCl)	0.0605
Iron sulfide (FeS)	0.00

MOMENTARY EXCESS (Lbs/1000 Barrels)

Calcite (CaCO_3)	-0.00306
Aragonite (CaCO_3)	-0.00667
Witherite (BaCO_3)	-25.17
Strontianite (SrCO_3)	-0.278
Magnesite (MgCO_3)	-0.193
Anhydrite (CaSO_4)	-269.82
Gypsum ($\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$)	-151.22
Barite (BaSO_4)	0.572
Celestite (SrSO_4)	5.80
Siderite (FeCO_3)	0.0192
Halite (NaCl)	-130895
Iron sulfide (FeS)	-0.120

SIMPLE INDICES

Langelier	0.320
Ryznar	5.96
Puckorius	5.16
Larson-Skold Index	1179
Stiff Davis Index	-0.269
Oddo-Tomson	-0.808

BOUND IONS

Calcium	5146	4993
Barium	1.20	1.20
Carbonate	2.24	0.0384
Sulfate	939.28	378.12

TOTAL

FREE

OPERATING CONDITIONS

Temperature (°F)	70.00
Time(secs)	0.00

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	Pressure (psi)						
CATIONS	14.70	257.25	499.80	742.35	984.90	1227	1470
Calcium(as Ca)	5146	5146	5146	5146	5146	5146	5146
Magnesium(as Mg)	524.60	524.60	524.60	524.60	524.60	524.60	524.60
Barium(as Ba)	1.20	1.20	1.20	1.20	1.20	1.20	1.20
Strontium(as Sr)	376.60	376.60	376.60	376.60	376.60	376.60	376.60
Sodium(as Na)	46171	46171	46171	46171	46171	46171	46171
Iron(as Fe)	27.91	27.91	27.91	27.91	27.91	27.91	27.91
Manganese (as Mn)	0.980	0.980	0.980	0.980	0.980	0.980	0.980
ANIONS							
Chloride(as Cl)	82000	82000	82000	82000	82000	82000	82000
Sulfate(as SO ₄)	939.28	939.28	939.28	939.28	939.28	939.28	939.28
Acidity	100.36	411.51	780.13	1209.84	1717.87	2331.38	3066.60
"M" Alkalinity	92.88	88.04	84.93	68.49	44.31	26.34	15.84
Oxalic acid(as C ₂ O ₄)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
H ₂ S(as H ₂ S)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PARAMETERS							
pH	7.05	5.66	5.32	5.11	4.94	4.80	4.68
Temperature(°F)	70.00	70.00	70.00	70.00	70.00	70.00	70.00
Pressure(psia)	14.70	257.25	499.80	742.35	984.90	1227	1470
Sp.Gr.(g/mL)	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Calculated TDS	132116.	132322.	132571.	132853.	133183.	133590.	134084.
Calc. Conductivity	192369.	192370.	192367.	192368.	192371.	192372.	192371.
Calc. Resistivity	5.20	5.20	5.20	5.20	5.20	5.20	5.20

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DEPOSITION POTENTIAL INDICATORS
VERSUS PRESSURE

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at 1243

	Pressure (psi)						
SATURATION LEVEL	14.70	257.25	499.80	742.35	984.90	1227	1470
Calcite	2.41	0.0992	0.0432	0.0207	0.00895	0.00384	0.00177
Aragonite	2.11	0.0869	0.0378	0.0181	0.00784	0.00336	0.00155
Witherite	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Strontianite	0.289	0.0121	0.00534	0.00259	0.00114	< 0.001	< 0.001
Magnesite	0.242	0.0102	0.00454	0.00222	< 0.001	< 0.001	< 0.001
Anhydrite	0.394	0.376	0.358	0.341	0.325	0.309	0.294
Gypsum	0.574	0.550	0.527	0.504	0.483	0.462	0.441
Barite	5.19	4.95	4.71	4.49	4.27	4.06	3.86
Celestite	1.05	1.00	0.958	0.912	0.869	0.827	0.787
Siderite	10.68	0.450	0.200	0.0978	0.0432	0.0189	0.00888
Halite	0.0607	0.0596	0.0585	0.0574	0.0564	0.0554	0.0543
Iron sulfide	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SIMPLE INDICES							
Langelier	0.773	-0.633	-0.981	-1.21	-1.39	-1.54	-1.68
Ryznar	5.50	6.92	7.29	7.53	7.72	7.89	8.04
Oddo-Tomson	-0.357	-1.75	-2.09	-2.30	-2.47	-2.61	-2.73
Stiff-Davis	0.182	-1.21	-1.55	-1.76	-1.93	-2.06	-2.19
Puckorius	5.13	5.19	5.24	5.41	5.71	6.07	6.42
Larson-Skold	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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Sampled: 05-03-2019
at 1243

		Pressure (psi)						
TOTAL VS FREE IONS		14.70	257.25	499.80	742.35	984.90	1227	1470
Ca	Total	5146	5146	5146	5146	5146	5146	5146
	Free	4994	4991	4988	4988	4989	4989	4988
Ba	Total	1.20	1.20	1.20	1.20	1.20	1.20	1.20
	Free	1.20	1.20	1.20	1.20	1.20	1.20	1.20
CO ₃	Total	6.10	0.262	0.119	0.0592	0.0267	0.0119	0.00570
	Free	0.105	0.00449	0.00204	0.00101	< 0.001	< 0.001	< 0.001
PO ₄	Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Free	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SO ₄	Total	939.28	939.28	939.28	939.28	939.28	939.28	939.28
	Free	378.79	374.32	369.83	365.17	360.39	355.59	350.77

FREE ION MOMENTARY EXCESS (Lbs/1000 Barrels)

Calcite	0.0356	-0.0237	-0.0262	-0.0279	-0.0294	-0.0308	-0.0321
Aragonite	0.0320	-0.0274	-0.0301	-0.0320	-0.0336	-0.0352	-0.0367
Witherite	-25.07	-25.53	-25.94	-26.35	-26.77	-27.20	-27.63
Strontianite	-0.220	-0.314	-0.325	-0.334	-0.344	-0.353	-0.363
Magnesite	-0.160	-0.213	-0.218	-0.223	-0.227	-0.231	-0.235
Anhydrite	-267.29	-284.73	-302.67	-321.04	-339.90	-359.49	-379.85
Gypsum	-149.32	-162.39	-175.79	-189.48	-203.51	-218.07	-233.17
Barite	0.573	0.567	0.560	0.552	0.544	0.535	0.526
Celestite	6.69	0.567	-5.68	-12.10	-18.68	-25.40	-32.24
Siderite	0.0638	-0.0036	-0.0054	-0.0062	-0.0068	-0.0071	-0.0073
Halite	-130662	-132272	-133897	-135536	-137190	-138859	-140545
Iron sulfide	-0.0437	-0.825	-1.49	-2.11	-2.73	-3.35	-3.99

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