

Pierce SRC#2

30-045-10271

from 2011
WCC

A	B	C	D	E	F	G	H	I	J	K
1 Produced Fluids #		1	2	3	4	5				
2 Parameters	Units	Input	Input	Input	Input	Input				
3 Select the brines	Select fluid	☒	☐	☐	☐	☐	Mixed brine:	Click here to run SSP	Click here:	
4 Sample ID	by checking						Cell H28 is		Click here:	
5 Date	the box(es),						STP calc. pH.			
6 Operator	Row 3	CP					Cells H35-38	Goal Seek SSP	Click here to	
7 Well Name		Pierce SRC					are used in		Click here to	
8 Location		2					mixed brines			
9 Field		San Juan					calculations.			
10 Na ⁺	(mg/l)*	5,189.20						Initial(BH)	Final(WH)	S/SR
11 K ⁺ (if not known =0)	(mg/l)	1.38						Saturation Index values		(Final-Initial)
12 Mg ²⁺	(mg/l)	6.24						Calcite		
13 Ca ²⁺	(mg/l)	281.67						-0.83	-0.14	0.69
14 Sr ²⁺	(mg/l)	7.69						Barite		
15 Ba ²⁺	(mg/l)	-0.25								
16 Fe ²⁺	(mg/l)	27.55						Halite		
17 Zn ²⁺	(mg/l)	-7.59						-4.01	-3.95	0.06
18 Pb ²⁺	(mg/l)	0.00						Gypsum		
19 Cl ⁻	(mg/l)	1,200.00						-0.50	-0.59	-0.08
20 SO ₄ ²⁻	(mg/l)	1,320.00						Hemihydrate		
21 F ⁻	(mg/l)	0.00						-0.88	-1.37	-0.49
22 Br ⁻	(mg/l)	0.00						Anhydrite		
23 SiO ₂	(mg/l) SiO ₂	0.00						-0.28	-0.87	-0.59
24 Alkalinity**	(mg/l)	12.20						Celestite		
25 Carboxylic acids**	(mg/l)	0.00						-0.31	-0.48	-0.16
26 Ammonia	(mg/L) NH ₃	0.00						Iron Sulfide		
27 Borate	(mg/L) H ₃ BO ₃	0.00						3.21	4.12	0.90
28 TDS (Measured)	(mg/l)	729.76						Zinc Sulfide		
29 Calc. Density (STP)	(g/ml)	1.004								
30 CO ₂ Gas Analysis	(%)	0.00						Calcium fluoride		
31 H ₂ S Gas Analysis***	(%)	0.0013								
32 Total H ₂ Saq	(mgH ₂ S/l)	3.00						Iron Carbonate		
33 pH, measured (STP)	pH	8.65						0.12	0.54	0.42
34								Inhibitor needed (mg/L)		
35 Choose one option to calculate SI?	0-CO ₂ %+Alk, 1-pH+Alk, 2-CO ₂ %+pH	1	1					Calcite	NTMP	
36 Gas/day(thousand cf/day)	(Mc/D)	250,000	0					0.00	0.00	
37 Oil/Day	(B/D)	1	0					Barite	BHPMP	
38 Water/Day	(B/D)	5	100					0.00	0.00	
39 For mixed brines, enter val	(°C)							pH		
40 Initial T	(F)	180.0	77.0				340.0	7.63	8.65	
41 Final T	(F)	70.0	77.0				77.0	Viscosity (CentiPoise)		
42 Initial P	(psia)	200.0	14.7				7,000.0	0.352	0.984	
43 Final P	(psia)	14.7	14.7				15.0	Heat Capacity (cal/ml/°C)		
44 Use TP on Calcite sheet?	1-Yes;0-No	0	0					0.994	0.991	
45								Inhibitor needed (mg/L)		
46 API Oil Grav.	API grav.	40.00	0.00					Gypsum	HDTMP	
47 Gas Sp.Grav.:	Sp.Grav.	0.80	0.00					0.00	0.00	
48 MeOH/Day	(B/D)	0	0					Anhydrite	HDTMP	
49 MEG/Day	(B/D)	0	0					0.00	0.00	
50 Conc. Multiplier										
51										
52 Quality Control Checks at STP:										
53 H ₂ S Gas	(%)									
54 Total H ₂ Saq (STP)	(mgH ₂ S/l)									
55 pH Calculated	(pH)									
56 PCO ₂ Calculated	(%)									
57 Alkalinity Calculated	(mg/l) as HCO ₃									
58 ΣCations=	(equiv./l)									
59 ΣAnions=	(equiv./l)									
60 Calc TDS=	(mg/l)									
61 Inhibitor Selection	Input	Unit	#	Inhibitor	Unit Converter (From metric to English)					
62 Protection Time	120	min	1	NTMP	From Unit	Value	To Unit	Value		
63 Have ScaleSoftPitzer			2	BHPMP	°C	80	°F	176		
64 pick inhibitor for you?	1	1-Yes;0-No	3	PAA	m ³	100	ft ³	3,531		
65 If No, inhibitor # is:		#	4	DTPMP	m ³	100	bbl(42 US gal)	629		
66 If you select Mixed,	1		5	PPCA	MPa	1,000	psia	145,074		
67 1 st inhibitor # is:	3	#	6	SPA	Bar	496	psia	7,194		
68 % of 1 st inhibitor is:		%	7	HEDP	Torr	10,000	psia	193		
69 2 nd inhibitor # is:	1	#	8	HDTMP	Gal	10,000	bbl(42 US gal)	238		
70 Display act. coeffs?	0	1-Yes;0-No	9	Average	Liters	10,000	bbl(42 US gal)	63		
71			10	Mixed						

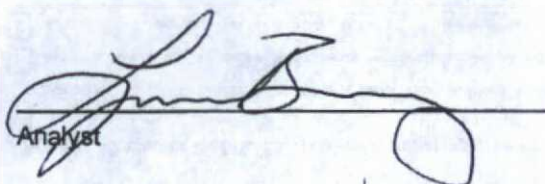
Client: ConocoPhillips
 Sample ID: Braden Head Pierce SRC#2
 Laboratory Number: 59880
 Chain of Custody: 12699
 Sample Matrix: Aqueous
 Preservative: Cool
 Condition: Intact

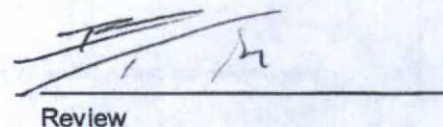
Project #: 96052-1706
 Date Reported: 10/12/11
 Date Sampled: 10/05/11
 Date Received: 10/05/11
 Date Analyzed: 10/06/11

Parameter	Analytical Result	Units		
pH	9.67	s.u.		
Conductivity @ 25° C	17,700	umhos/cm		
Total Dissolved Solids @ 180C	15,800	mg/L		
Total Dissolved Solids (Calc)	17,200	mg/L		
SAR	90.8	ratio		
Total Alkalinity as CaCO3	250	mg/L		
Total Hardness as CaCO3	650	mg/L		
Bicarbonate as CaCO3	250	mg/L	4.1	meq/L
Carbonate as CaCO3	< 0.01	mg/L	0.000	meq/L
Hydroxide as CaCO3	< 0.01	mg/L	0.001	meq/L
Nitrate Nitrogen	7.73	mg/L	0.125	meq/L
Nitrite Nitrogen	0.002	mg/L	0.000	meq/L
Chloride	230	mg/L	6	meq/L
Fluoride	7.20	mg/L	0.379	meq/L
Phosphate	0.030	mg/L	0.001	meq/L
Sulfate	11,200	mg/L	233.18	meq/L
Iron	0.100	mg/L	0.004	meq/L
Calcium	247	mg/L	12	meq/L
Magnesium	6.88	-mg/L	1	meq/L
Potassium	27.1	mg/L	0.7	meq/L
Sodium	5,300	mg/L	231	meq/L
Cations			244	meq/L
Anions			244	meq/L
Cation/Anion Difference			0.05%	

Reference: U.S.E.P.A., 600/4-79-020, "Methods for Chemical Analysis of Water and Wastes", 1983.
 Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments **2011 Well Test**


 Analyst


 Review

CHAIN OF CUSTODY RECORD

12699

Client: COPC			Project Name / Location: 2011 Well Test			ANALYSIS / PARAMETERS														
Client Address:			Sampler Name: Nick Horton			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
Client Phone No.:			Client No.: 96052-1706																	
Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative														
Pierce SRL #2	10/5/11	2:30pm	59880	Soil Solid	Sludge Aqueous	2 Plastic													Y	Y
				Soil Solid	Sludge Aqueous															
				Soil Solid	Sludge Aqueous															
				Soil Solid	Sludge Aqueous															
				Soil Solid	Sludge Aqueous															
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				Soil Solid	Sludge Aqueous															
Relinquished by: (Signature)				Date	Time	Received by: (Signature)				Date	Time									
				10/5/11	3:36pm					10/5/11	3:36pm									
Relinquished by: (Signature)						Received by: (Signature)														
Relinquished by: (Signature) *						Received by: (Signature)														

2. Analytical Laboratory