



Martin Water Laboratories, Inc.

Analysts & Consultants since 1953
Bacterial & Chemical Analysis

TO: Fritz Schoch
ADDRESS: PO Box 2760, Midland, TX 79702
COMPANY: BOPCO
LEASE: Poker Lake Unit
FORMATION:

LABORATORY NO. 0514-162 (page2)
SAMPLE RECEIVED: 5-5-14
RESULTS REPORTED: 5-6-14
COUNTY, STATE: Eddy, NM
FIELD OR POOL

DESCRIPTION OF SAMPLES				
No. 1	Submitted water sample - taken 5-2-14 from PLU 401 ? @ wellhead.			
No. 2	Submitted water sample - taken 5-2-14 from PLU 409 @ wellhead.			
No. 3	Submitted water sample - taken 5-2-14 from PLU 411 @ wellhead.			
No. 4	Submitted water sample - taken 5-2-14 from PLU 412 @ wellhead.			
Chemical and Physical Properties (milligrams per liter)	No. 1	No. 2	No. 3	No. 4
Specific Gravity @ 60°F.	1.1509	1.1865	1.1825	1.1839
pH When Sampled				
pH When Received	5.7	5.7	5.8	5.7
Bicarbonate as HCO ₃	102	49	54	59
Total Hardness, as CaCO ₃	50,000	75,000	65,000	75,000
Calcium, as Ca	16,800	26,000	21,600	26,000
Magnesium, as Mg	1,944	2,430	2,673	2,673
Sodium and/or Potassium	75,773	90,857	92,240	95,926
Sulfate, as SO ₄	333	100	110	105
Chloride, as Cl	151,981	193,172	188,200	196,012
Iron, as Fe	48	39	57	55
Barium, as Ba	0	0	0	0
Total Dissolved Solids, Calculated	246,933	312,607	304,876	317,576
Carbon Dioxide, Calculated	338	161	140	193
Hydrogen Sulfide	0.00	0.00	0.00	0.00
Resistivity, ohms/m @ 77°F.	0.051	0.045	0.045	0.044
Corrosiveness	Severe	Severe	Severe	Severe
Barium Sulfate Scaling Tendency	None	None	None	None
Calcium Carbonate S.I. @ 77° F. (Stiff-Davis)*	0.43	2.32	1.78	2.34
Calcium Carbonate S.I. @ 122° F. (Stiff-Davis)*	1.49	2.28	2.34	2.30
Calcium Sulfate Scaling Tendency	None	None	None	None

* Calcium Carbonate S.I. - A positive fig. signifies a scaling potential proportionate to the magnitude of the number, and a negative fig. signifies no scaling potential

(432) 683-4521 * 709 W. Indiana, Midland, Texas 79701 * (fax) 682-8819

Remit to Address: P.O. Box 98, Midland, Texas 79702

Email: martinwaterlabs@nts-online.net

OCD CASE NOS.
15219 AND 15231

BOPCO
Exhibit # 15



Martin Water Laboratories, Inc.

Analysts & Consultants since 1953
Bacterial & Chemical Analysis

TO: David Nelson
ADDRESS: 6 Desta Drive, Suite 3700, Midland, TX 79705
COMPANY: BOPCO
LEASE: **PLU 401**
FORMATION:

LABORATORY NO. 0814-110 (page 1)
SAMPLE RECEIVED: 7/30/14
RESULTS REPORTED: 8/1/14
COUNTY, STATE:
FIELD OR POOL

DESCRIPTION OF SAMPLES

No. 1 Submitted water sample - taken 7/19/14.
No. 2 Submitted water sample - taken 7/20/14.
No. 3 Submitted water sample - taken 7/21/14.
No. 4 Submitted water sample - taken 7/22/14.

	No. 1	No. 2	No. 3	No. 4
Chemical and Physical Properties (milligrams per liter)				
Specific Gravity @ 60°F.	1.1452	1.1455	1.1467	1.1457
pH When Sampled				
pH When Received	5.4	5.4	5.4	5.4
Bicarbonate as HCO ₃	137	127	137	98
Total Hardness, as CaCO ₃	46,000	47,000	47,000	46,000
Calcium, as Ca	15,600	15,600	15,600	15,600
Magnesium, as Mg	1,701	1,944	1,944	1,701
Sodium and/or Potassium	75,757	73,474	72,560	73,907
Sulfate, as SO ₄	277	327	334	294
Chloride, as Cl	149,140	146,299	144,879	146,299
Iron, as Fe	704	227	168	217
Barium, as Ba	0	0	0	0
Total Dissolved Solids, Calculated	242,611	237,771	235,454	237,900
Carbon Dioxide, Calculated	902	837	902	644
Hydrogen Sulfide	0.0	0.0	0.0	0.0
Resistivity, ohms/m @ 77°F.	0.251	0.051	0.052	0.051
Corrosiveness	Severe	Severe	Severe	Severe
Barium Sulfate Scaling Tendency	None	None	None	None
Calcium Carbonate S.I. @ 77° F. (Stiff-Davis)*	0.07	0.04	0.00	-0.07
Calcium Carbonate S.I. @ 122° F. (Stiff-Davis)*	1.02	0.99	0.90	0.88
Calcium Sulfate Scaling Tendency	None	None	None	None
Strontium	815	690	772	746

* Calcium Carbonate S.I. - A positive fig. signifies a scaling potential proportionate to the magnitude of the number, and a negative fig. signifies no scaling potential.

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TO: David Nelson
ADDRESS: 6 Desta Drive, Suite 3700, Midland, TX 79705
COMPANY: BOPCO
LEASE: Poker Lake Unit
FORMATION:

LABORATORY NO. 0914-300
SAMPLE RECEIVED: 9/11/14
RESULTS REPORTED: 9/12/14
COUNTY, STATE:
FIELD OR POOL:

DESCRIPTION OF SAMPLES				
No. 1	Submitted water sample - taken 9/10/14 from PLU #401.			
No. 2	Submitted water sample - taken 9/10/14 from PLU #422.			
No. 3				
No. 4				
Chemical and Physical Properties (milligrams per liter)	No. 1	No. 2	No. 3	No. 4
Specific Gravity @ 60°F.	1.1675	1.1951		
pH When Received	5.60	5.40		
Bicarbonate as HCO ₃	34	15		
Total Hardness, as CaCO ₃	63,000	95,000		
Calcium, as Ca	20,800	31,600		
Magnesium, as Mg	2,673	3,888		
Sodium and/or Potassium	90,874	94,520		
Sulfate, as SO ₄	229	131		
Chloride, as Cl	184,600	213,000		
Iron, as Fe	112	133		
Barium, as Ba	0	0		
Total Dissolved Solids, Calculated	299,210	343,154		
Hydrogen Sulfide	0.00	0.00		
Resistivity, ohms/m @ 77°F.	0.045	0.042		
Strontium				

REMARKS: The undersigned certifies the above to be true and correct to the best of his knowledge and belief.


By: Greg Ogden, B.S.

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TO: David Nelson et al

ADDRESS: 6 Desta Drive, Suite 3700, Midland, TX 79705

COMPANY: BOPCO, LP

LEASE: PLU

FORMATION:

LABORATORY NO. 1114-394 (page 3)

SAMPLE RECEIVED: 11/18/14

RESULTS REPORTED: 11/20/14

COUNTY, STATE:

FIELD OR POOL:

DESCRIPTION OF SAMPLES				
No. 1	Submitted water sample - taken 11/6/14 from # 393 H.			
No. 2	Submitted water sample - taken 11/12/14 from # 393 H.			
No. 3	Submitted water sample - taken 10/27/14 from # 401.			
No. 4	Submitted water sample - taken 10/28/14 from # 401 H.			
Chemical and Physical Properties (milligrams per liter)	No. 1	No. 2	No. 3	No. 4
Specific Gravity @ 60°F.	1.2007	1.2045	1.1655	1.1668
pH When Received	5.60	5.70	6.20	6.00
Bicarbonate as HCO ₃	20	15	59	68
Total Hardness, as CaCO ₃	75,000	75,000	57,000	63,000
Calcium, as Ca	23,200	25,200	18,400	18,400
Magnesium, as Mg	4,131	2,916	2,673	4,131
Sodium and/or Potassium	87,138	84,370	76,196	69,749
Sulfate, as SO ₄	118	112	337	323
Chloride, as Cl	187,440	183,180	157,620	151,940
Iron, as Fe	59	65	92	43
Barium, as Ba	0	0	0	0
Total Dissolved Solids, Calculated	302,046	295,793	255,285	244,611
Hydrogen Sulfide	0.00	0.00	0.00	0.00
Resistivity, ohms/m @ 77°F.	0.046	0.046	0.050	0.051
Strontium				

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