

## Martin Water Laboratories, Inc.

Analysts & Consultants since 1953 Bacterial & Chemical Analysis

TO:	DDRESS: PO Box 2760, Midland, TX 79702		LABORATORY NO. SAMPLE RECEIVED: RESULTS REPORTED:	0514-162 (page2) 5-5-14		
ADDRESS:						
COMPANY:				5-6-14		
	Poker Lake Unit			Contraction of the local division of the loc		
LEASE:	Poker Lake Unit		COUNTY, STATE:	Eddy, NM		
FORMATION:			FIELD OR POOL			
_		DESCRIPTION OF S				
No. 1	Submitted water sample - taken					
No. 2	Submitted water sample - taken					
No. 3	Submitted water sample - taken					
No. 4	Submitted water sample - taken	the second se				
strategies and the second strategies and the second state of the s	Physical Properties (milligrams per liter)	No. 1	No. 2	No. 3	No. 4	
Specific Gravity @ 60°F. pH When Sampled		1.1509	1.1865	1.1825	1.1839	
and the second second second	Man I'm and a second of the second se					
pH When Rece		5.7	5.7		5.7	
Bicarbonate as	s HCO3	102	49	54	59	
Total Hardness	s, as CaCO3	50,000	75,000	65,000	75,000	
Calcium, as Ca		16,800	26,000		26,000	
Magnesium, as Mg		1,944	2,430		2,673	
Sodium and/or Potassium		75,773	90,857		95,920	
Sulfate, as SO4		333	100		105	
Chloride, as Cl		151,981	193,172	and the second sec	196,012	
Iron, as Fe		48	39		55	
Barium, as Ba		0	(		C	
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	And a second s	0.044	
Corrosiveness		Severe	Severe		Severe	
the strength of the second strength of the se	e Scaling Tendency	None	None		None	
Calcium Carbonate S.I. @ 77° F. (Stiff-Davis)*		0.43	2.32	and the second se	2.34	
Calcium Carbonate S.I. @ 122" F. (Stiff-Davis)*		1.49	2.28	and the second sec	2.30	
Calcium Sulfate Scaling Tendency		None	None	e None	None	
* Colclum Carbonal	te S.I A positive fig. signifies a scaling potential proportio	nate to the magnitude of the numl	ber, and a negative fig signifie	n na senting polyntiel		

OCD CASE NOS. 15219 AND 15231 BOPCO Exhibit # 15

a start	Analysts & Consultants since 1953 Bacterial & Chemical Analysis			
David Nelson		LABORATORY NO.	0814-110 (page 1)	
DRESS: 6 Desta Drive, Suite 3700, Mic	land TX 79705	SAMPLE RECEIVED:	7/30/14	
MPANY: BOPCO		RESULTS REPORTED:	8/1/14	
ASE: (PLU 40)	1000 A			
		COUNTY, STATE:		
RMATION:		FIELD OR POOL		
	DESCRIPTION OF	SAMPLES		
No. 1 Submitted water sample - take No. 2 Submitted water sample - take No. 3 Submitted water sample - take No. 4 Submitted water sample - take	n 7/20/14. n 7/21/14.		· · · · · · · · · · · ·	
emical and Physical Properties (milligrams per liter)	No. 1	No. 2	No. 3	No. 4
ecific Gravity @ 60°F.	1.1452	1.1455		1.1457
When Sampled			A TANK AND A	
When Received	5.4	5.4	5.4	5.4
carbonate as HCO3	137		· · · · · · · · · · · · · · · · · · ·	98
			A CONTRACTOR OF A CONTRACTOR	and an and a set
			1	
tal Hardness, as CaCO3	46,000	47,000	47,000	46,000
lcium, as Ca	15,600	15,600		15,600
agnesium, as Mg	1,701	1,944	1,944	1,701
dium and/or Potassium	75,757	73,474	72,560	73,90
lfate, as SO4	277	327	334	294
loride, as Cl	149,140	146,299	144,879	146,299
n, as Fe	704	227	168	21
rium, as Ba	0	0	0	(
tal Dissolved-Solids, Calculated	242,611	237,771	235,454	237,900
rbon Dioxide, Calculated	902	837	902	644
drogen Sulfide	0.0	0.0	0.0	0.0
sistivity, ohms/m @ 77°F.	0.251	B Carl a Tartan		0.05
rrosiveness	Severe	Severe	Severe	Seven
rium Sulfate Scaling Tendency	None			None
cium Carbonate 5.1. @ 77° F. (Stiff-Davis)*	0.07			-0.0
clum Carbonate S.I. @ 122° F. (Stiff-Davis)*	1.02	0.99	0.90	0.81
Icium Sulfate Scaling Tendency	None	None	None	None
	815	690	772	740



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DORESS: 6 Desta Drive, Suite 3700, Midland, TX 79705   DOMPANY: BOPCO   CASE: Poker Lake Unit		AMPLE RECEIVED:			
		RESULTS REPORTED: 9/12/14 COUNTY, STATE:			
ed water sample - taken 9	/10/14 from PLU	#422.			
narties (millisenme ner liter)	No.1	No 3	No. 2	No. 4	
Contraction of the same sector of the same	The Case of States	and the second se	NO. 5	NO. 4	
	1.1075	1.1951			
	5.60	5.40	1		
pH When Received Bicarbonate as HCO <sub>3</sub>		15			
			1		
Total Hardness, as CaCO3					
Calcium, as Ca					
Magnesium, as Mg				-	
Sodium and/or Potassium					
Sulfate, as SO4 Chloride, as Cl			1		
Iron, as Fe					
Barlum, as Ba		the second se	the state of the s		
alculated	299,210	343,154			
	0.00	0.00			
Hydrogen Sulfide Resistivity, ohms/m @ 77°F.		and the second se	the second		
	0.045	0.042			
and the second					
A second s					
				ł	
	ake Unit ed water sample - taken 9 red water sample - taken 9 perties (milligrams per liter) 3 m	Drive, Suite 3700, Midland, TX 79705 ake Unit DESCRIPTION OF 54 red water sample - taken 9/10/14 from PLU red water sample - taken 9/10/14 from PLU perties (milligrams per liter) No. 1 1.1675 5.60 34 3 63,000 20,800 2,673 90,874 229 184,600 112 0 Calculated 299,210 0.00	No. 1   No. 2     perties (milligrams per liter)   No. 1   No. 2     1.1675   1.1951     5.60   5.40     34   15     3   63,000   95,000     20,800   31,600     229   131     184,600   213,000     112   133     0   0     0   0     0   0	No. 1 No. 2 No. 3   Perties (milligrams per liter)   No. 1 No. 2 No. 3   1.1675 1.1951 5.60 5.40   3 63,000 95,000   20,800 31,600   229 131   184,600 213,000   112 133   0 0   0 0   0 0   0 0   0 0	

I By: Greg Ogden, B.S.

(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



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## Martin Water Laboratories, Inc.

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TO:	David Nelson et al		LABORATORY NO.	1114-394 (page 3)	
ADDRESS:	6 Desta Drive, Suite 3700, Midl	and, TX 79705	SAMPLE RECEIVED:	11/18/14	
COMPANY:	BOPCO, LP		RESULTS REPORTED:	11/20/14	
LEASE:	PLU		COUNTY, STATE:		
FORMATION:	100		FIELD OR POOL:		
PORIVIATION.		DESCRIPTION OF	the second s		
No. 1	Submitted water sample - taken			Contract of the State of the St	
No. 2	Submitted water sample - taken				
No. 3	Submitted water sample - taken	10/27/14 from #	401.		
No. 4	Submitted water sample - taken				
Chemical and	Physical Properties (miliigrams per liter)	No. 1	No. 2	No. 3	No. 4
Specific Grav	vity @ 60°F.	1.2007	1.2045		1.1668
		112001	112010	111000	
pH When Red	ceived	5.60	5.70	6.20	6.00
Bicarbonate	as HCO <sub>3</sub>	20			68
	-				
Total Hardne	ess, as CaC03	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
	/or Potassium	87,138	84,370	76,196	69,749
Sulfate, as SC		118	1 C 1 1 1 1	Real Control C	323
Chloride, as (	CI	187,440	183,180	157,620	151,940
Iron, as Fe		59	65	92	43
Barium, as Ba	a	(	0	0	0
Total Dissolv	ved Solids, Calculated	302,046	295,793	255,285	244,611
		a suggest		200,200	211,011
Hydrogen Su	lfide	0.00	0.00	0.00	0.00
Resistivity, ol	hms/m @ 77°F.	0.046	0.046	0.050	0.051
Strontium				L	
				1	
			1		