

Soil Analytical Summary - 29-B Analyses

Vincent Charles Bundrick & Cajun Pride, Inc. v. Anadarko Petroleum Corporation, et al
 Section 71 & 72, Township 90 South, Range 09 East
 Anse La Butte Field, St. Martin Parish, Louisiana
 HET Project No. 1009.54

Table 3
 Page 3 of 4

Sample ID / Depth (feet)	Sample Date	Sampler	Salinity													O&G	Metals (HET Results Reported on Wet Weight, ICON Results Reported on Dry Weight)													Additional Parameters				
			Chloride	Chloride	SPLP Chloride	EC	ESP	SAR	Calcium	Magnesium	Sodium	SPLP Sodium	CEC	Bicarbonate (as CaCO3)	Sulfate	Oil & Grease	Total Arsenic	SPLP Arsenic	Total Barium	True Total Barium	SPLP Barium	Total Cadmium	Total Chromium	Total Lead	Total Mercury	Total Selenium	Total Silver	Total Strontium	Total Zinc	Saturation %	pH (Saturated Paste)	% Moisture		
			29B	9056A	1312	29B	29B	29B	29B	29B	29B	1312	29B	2320B	9056	29B	6010B	1312	6010B	29B	1312	6010B	6010B	6010B	7471A	6010B	6010B	6010B	6010B	6010B	29B	29B	2540G	
			meq/L	mg/L	mg/L	mmhos/cm	%	N/A	meq/L	meq/L	meq/L	mg/L	meq/100g	mg/Kg	meq/L	%	mg/Kg	mg/L	mg/Kg	mg/Kg	mg/L	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	%	s.u.	%
LDNR Standards ¹	N/A	N/A	N/A	N/A	N/A	4	<15	<12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	10	N/A	N/A	40,000	N/A	10	500	500	10	10	200	N/A	500	N/A	6-9	N/A		
LDEQ Standards ²	N/A	N/A	N/A	N/A	5000 ³	N/A	N/A	N/A	N/A	N/A	N/A	1200 ³	N/A	N/A	N/A	N/A	12	0.2 ³	550	N/A	40 ³	3.9	100	100	2.3	20	39	N/A	2300	N/A	N/A	N/A		
HMW-2 (0-1)	09/03/14	HET	—	<9.93	—	0.51	2.06	3.29	1.28	0.599	3.19	—	27.2	<98.2	61.7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	55.3	6.09	20.4	
HMW-2 (1-2)	09/03/14	HET	—	<9.86	—	0.434	5.87	4.49	0.522	0.335	2.94	—	24.5	<99.9	102	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	62	6.95	18.7	
HMW-2 (2-3)	09/04/14	HET	—	10.7	—	0.357	7.09	4.03	0.466	0.299	2.49	—	22.9	143	30.4	<0.10	—	—	—	375	—	—	—	—	—	—	—	—	—	—	58.7	7.49	18.9	
HMW-2 (3-5)	09/03/14	HET	—	18.6	1.39	0.313	—	5.26	0.211	0.148	2.23	39	—	152	26.2	—	10.5	—	129	276	—	<0.982	11	11.6	<0.0982	<1.96	<0.982	—	40.6	55.8	7.48	19.5		
HMW-2 (3-5)	09/03/14	ICON	—	—	—	0.24	6	4.68	<1.00	<1.00	1.83	—	22.6	—	—	—	3.92	—	168	208	—	<0.5	13.1	8.44	<0.1	—	—	—	—	—	—	—		
HMW-2 (13-15)	09/03/14	HET	—	18.8	—	0.293	—	2.65	0.449	0.307	1.63	—	—	125	<9.49	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	46.3	7.44	24.5	
HMW-2 (13-15)	09/03/14	ICON	—	—	—	0.28	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
HMW-2 (18-20)	09/04/14	HET	—	95.6	—	0.841	1.19	0.927	3.47	2.56	1.61	—	15.5	105	<9.70	<0.10	3.53	—	51.4	193	—	<1.00	9.92	3.23	<0.0979	<2.00	<1.00	—	34	52.8	7.52	22.8		
HMW-2 (18-20)	09/03/14	ICON	—	—	—	0.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
HMW-2 (22-24)	09/03/14	HET	—	56.8	—	0.427	—	0.928	1.3	1.02	1	—	—	<96.8	<9.99	<0.10	2.58	—	54.5	164	—	<0.984	12.2	<0.984	<0.0960	<1.97	<0.984	—	28.2	53.5	7.08	17.3		
HMW-2 (22-24)	09/03/14	ICON	—	—	—	0.49	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
HMW-2A (25-27)	03/15/16	HET	3.96	78	—	0.501	—	—	1.85	1.34	1.05	—	—	1	0.076	<0.10	2.4	—	30.3	99.5	—	<0.100	10.7	3.67	<0.01330	<0.500	<0.250	4.56	15.5	34	7.71	7.9		
HMW-2A (25-27)	03/15/16	ICON	—	—	27.8	0.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.8		
HMW-2A (29-31)	03/15/16	HET	11.9	180	—	1.35	—	—	3.34	2.08	5.73	—	—	1	0.111	<0.10	<1.00	—	9.18	<50.0	—	<0.100	3.03	1.21	<0.01330	<0.500	<0.250	1.26	5.17	24.2	8.1	35.5		
HMW-2A (29-31)	03/15/16	ICON	—	—	—	2.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	19.2		
HMW-2A (36-38)	03/15/16	HET	11.1	172	—	1.8	—	—	8.37	4.55	3.84	—	—	3	4.62	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	43.7	7.9	26.5	
HMW-2A (38-40)	03/15/16	HET	4.9	101	—	1.06	—	—	5.36	2.8	1.88	—	—	2	3.89	—	—	—	—	—	—	—	—	—	—	—	—	—	—	33.5	7.86	23.5		

Soil Analytical Summary - 29-B Analyses

Vincent Charles Bundrick & Cajun Pride, Inc. v. Anadarko Petroleum Corporation, et al
 Section 71 & 72, Township 90 South, Range 09 East
 Anse La Butte Field, St. Martin Parish, Louisiana
 HET Project No. 1009.54

Table 3
 Page 4 of 4

Sample ID / Depth (feet)	Sample Date	Sampler	Salinity													O&G	Metals (HET Results Reported on Wet Weight, ICON Results Reported on Dry Weight)													Additional Parameters				
			Chloride	Chloride	SPLP Chloride	EC	ESP	SAR	Calcium	Magnesium	Sodium	SPLP Sodium	CEC	Bicarbonate (as CaCO3)	Sulfate	Oil & Grease	Total Arsenic	SPLP Arsenic	Total Barium	True Total Barium	SPLP Barium	Total Cadmium	Total Chromium	Total Lead	Total Mercury	Total Selenium	Total Silver	Total Strontium	Total Zinc	Saturation %	pH (Saturated Paste)	% Moisture		
			29B	9056A	1312	29B	29B	29B	29B	29B	29B	1312	29B	2320B	9056	29B	6010B	1312	6010B	29B	1312	6010B	6010B	6010B	6010B	7471A	6010B	6010B	6010B	6010B	29B	29B	2540G	
			meq/L	mg/L	mg/L	mmhos/cm	%	N/A	meq/L	meq/L	meq/L	mg/L	meq/100g	mg/Kg	meq/L	%	mg/Kg	mg/L	mg/Kg	mg/Kg	mg/L	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	%	s.u.	%
LDNR Standards ¹	N/A	N/A	N/A	N/A	N/A	4	<15	<12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	10	N/A	N/A	40,000	N/A	10	500	500	10	10	200	N/A	500	N/A	6-9	N/A		
LDEQ Standards ²	N/A	N/A	N/A	N/A	5000 ³	N/A	N/A	N/A	N/A	N/A	N/A	1200 ³	N/A	N/A	N/A	N/A	12	0.2 ³	550	N/A	40 ³	3.9	100	100	2.3	20	39	N/A	2300	N/A	N/A	N/A		
HMW-3 (0-1)	09/03/14	HET	—	<9.80	—	1.32	1.19	1.49	3.08	0.831	2.08	—	20.6	<99.9	30.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	45.6	7.17	21.5
HMW-3 (1-2)	09/03/14	HET	—	12.7	—	0.38	3.64	4.21	0.459	0.263	2.53	—	23.5	<99.0	33.9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	57.6	5.08	16.8
HMW-3 (2-3)	09/03/14	HET	—	27.1	—	0.484	5.22	4.75	0.559	0.384	3.26	—	26	<98.0	56.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	59.2	5.45	16.9
HMW-3 (3-5)	09/03/14	HET	—	29.5	—	0.505	—	4.94	0.577	0.387	3.43	—	—	148	16.5	—	2.74	—	155	5640	—	<1.00	8.3	3.7	<0.0990	<2.00	<1.00	—	22.2	52.7	6.78	20.4		
HMW-3 (3-5)	09/03/14	ICON	—	—	—	0.42	4.6	5.65	<1.00	<1.00	3.26	—	23.8	—	—	—	6.78	—	442	462	—	<0.5	11.8	13.5	<0.1	—	—	—	—	—	—	—		
HMW-3 (13-15)	09/03/14	HET	—	32.2	—	0.361	—	3.46	0.45	0.292	2.11	—	—	<96.5	10.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	50.3	6.79	26.9
HMW-3 (13-15)	09/03/14	ICON	—	—	—	0.49	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
HMW-3 (19-21)	09/04/14	HET	—	184	9.5	1.28	1.84	1.88	4.47	3.24	3.7	6.48	16.2	<99.2	<9.72	<0.10	2.05	—	106	324	—	<0.986	8.28	4.3	<0.100	<1.97	<0.986	—	35.8	62.6	6.55	26.1		
HMW-3 (19-21)	09/03/14	ICON	—	—	—	1.09	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
HMW-3 (22-24)	09/03/14	HET	—	140	10.6	1.07	—	1.09	4.27	3.19	2.1	33	—	<95.7	<9.87	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	56.9	6.93	23.3
HMW-3 (22-24)	09/03/14	ICON	—	—	—	1.32	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
HMW-3A (25-27)	03/15/16	HET	4.4	102	—	0.584	—	—	2.43	1.53	0.919	—	—	1	0.104	<0.10	2.18	—	45.7	97.6	—	0.144	14.8	5.96	0.02613	<0.500	<0.250	9.04	27.8	55.5	7.33	18.4		
HMW-3A (25-27)	03/16/16	ICON	—	—	29.1	0.64	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.6		
HMW-3A (28-30)	03/15/16	HET	3.64	64.7	—	0.536	—	—	2.12	1.48	0.85	—	—	2	0.106	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	72.8	7.26	22
HMW-3A (37-39)	03/15/16	HET	1.69	25.5	—	1.42	—	—	8.67	4.61	1.59	—	—	4	9.62	<0.10	6.96	—	57.4	223	—	0.388	12.2	6.1	0.02637	<0.500	<0.250	23.2	34.4	73	7.78	26.8		
HMW-3A (37-39)	03/16/16	ICON	—	—	8.34	0.84	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	25.6		
HMW-3A (39-41)	03/15/16	HET	2.5	35.9	—	1.24	—	—	7.21	3.96	1.66	—	—	1	6.22	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	69	7.86	25.7	
HMW-3A (43-45)	03/15/16	HET	2.06	28.6	—	0.392	—	—	1.22	0.801	1.31	—	—	1	0.856	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	28.7	8.08	19.3
Maximum	N/A	N/A	1200	184	852	12.1	33	50.1	8.67	4.61	64.7	39	27.2	152	102	0.13	16.1	<0.02	1810	20700	N/A	0.388	15.2	35.1	1.1	<10	<5	31.5	47.7	73	8.3	35.5		
LDNR Standards ¹	N/A	N/A	N/A	N/A	N/A	4	<15	<12	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	10	N/A	N/A	40,000	N/A	10	500	500	10	10	200	N/A	500	N/A	6-9	N/A		
LDEQ Standards ²	N/A	N/A	N/A	N/A	5000 ³	N/A	N/A	N/A	N/A	N/A	N/A	1200 ³	N/A	N/A	N/A	N/A	12	0.2 ³	550	N/A	40 ³	3.9	100	100	2.3	20	39	N/A	2300	N/A	N/A	N/A		

1 - LDNR Statewide Order 29-B standards for Upland listed for reference purposes only
 2 - RECAP Non-Industrial Screening Standards per Table 1 of RECAP for comparison purposes only
 3 - SPLP standard determined by EPA Water Advisory Limit or RECAP Groundwater Screening Standard multiplied by a default attenuation factor of 20 in accordance with RECAP guidelines
 4 - RECAP screening standard per Table 1, Non-Industrial standard only based on SPLP results that eliminate soil to groundwater pathway
 * - 29-B Leachate Chloride analysis instead of SPLP Chloride analysis
 mg/Kg - milligrams per Kilogram
 mg/L - milligrams per Liter
 meq/L - milli equivalents per Liter
 mmhos/cm - milli mhos per centimeter
 EC - Electrical Conductivity
 ESP - Exchangeable Sodium Percentage
 SAR - Sodium Adsorption Ratio

— Not Analyzed
 N/A - Not Applicable