

Monitor Well Construction and Groundwater Sampling Data

Harold J. Guidry et al. v. BP America Production Company, et al.
Sections 71, 72 & 73, Township 09 South, Range 05 East
Anse La Butte Oil and Gas Field, St. Martin Parish, Louisiana
HET Project No. 1009.A34

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<i>Monitoring Well I. D. Number</i>	MW1 (80-90')	MW2 (50-60')	MW2 (80-90')	MW3 (50-60')	MW3 (80-90')	MW4 (80-90')	MW5 (80-90')	MW6 (55-65')	MW6 (80-90')
<i>Well Type</i>	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor	Monitor
<i>Casing Material</i>	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC	PVC
<i>Casing Diameter (Inches)</i>	2	2	2	2	2	2	2	2	2
<i>Development Method</i>	Submersible	Submersible	Submersible	Submersible	Submersible	Submersible	Submersible	Submersible	Submersible
<i>Elevation of Natural Ground (Feet)</i>	20.04	19.65	19.67	17.88	18.03	20.43	17.59	10.69	10.48
<i>Top of Casing Elevation (Feet)</i>	24.22	23.10	23.13	21.46	21.76	24.10	20.60	14.61	13.91
<i>Stickup (Feet)</i>	4.18	3.45	3.46	3.58	3.73	3.67	3.01	3.92	3.43
<i>Depth to Water Below TOC (10/03/16)</i>	23.99	22.78	22.82	21.07	21.39	23.77	20.07	13.79	13.09
<i>Water Elevation (NGVD) (10/03/16)</i>	0.23	0.32	0.31	0.39	0.37	0.33	0.53	0.82	0.82
<i>Depth to Water Below TOC (11/02/16)</i>	26.09	24.90	24.94	23.18	23.49	25.88	22.21	15.96	15.24
<i>Water Elevation (NGVD) (11/02/16)</i>	-1.87	-1.80	-1.81	-1.72	-1.73	-1.78	-1.61	-1.35	-1.33
<i>Depth to Water Below TOC (11/21/16)</i>	26.79	25.57	25.62	23.85	24.15	26.54	22.89	16.65	15.92
<i>Water Elevation (NGVD) (11/21/2016)</i>	-2.57	-2.47	-2.49	-2.39	-2.39	-2.44	-2.29	-2.04	-2.01
<i>Latitude</i>	30.25432143	30.25449603	30.25451611	30.25716046	30.25712438	30.25508161	30.25739437	30.25625728	30.25621382
<i>Longitude</i>	-91.94270374	-91.94181861	-91.94182147	-91.94190044	-91.94189276	-91.94168292	-91.93902015	-91.93722982	-91.93725301
<i>Lat / Long Method</i>	Survey	Survey	Survey	Survey	Survey	Survey	Survey	Survey	Survey
<i>Date Completed</i>	9/20/16	9/16/16	9/16/16	9/15/16	9/15/16	9/21/16	8/2/16	9/23/16	9/14/16
<i>Well Depth (Feet below TOC)</i>	94.13	63.69	93.26	63.60	94.90	93.83	93.15	68.65	93.25
<i>Well Depth (Feet below land surface)</i>	89.95	60.24	89.80	60.02	91.17	90.16	90.14	64.73	89.82
<i>Sump Length (Feet)</i>	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
<i>Screened Interval (Field)</i>	80-90'	50-60'	80-90'	50-60'	80-90'	80-90'	80-90'	55-65'	80-90'
<i>Screened Interval (approx. below TOC)</i>	83.96-93.96'	53.52-63.52'	83.09-93.09'	53.43-63.43'	84.73-94.73'	83.66-93.66'	82.98-92.98'	58.48-68.48'	83.08-93.08'
<i>Screened Interval (Feet below land surface)</i>	79.78-89.78'	50.07-60.07'	79.63-89.63'	49.85-59.85'	81.00-91.00'	79.99-89.99'	79.97-89.97'	54.56-64.56'	79.65-89.65'
Sampling Data:									
<i>Gallons Utilized During Drilling</i>	300	175	400	150	300	300	300	175	250
<i>Gallons Pre-Purged</i>	1100	500	1300	550	1050	1100	1,300	600	1000
<i>Sample Date</i>	9/26/16	9/27/16	9/27/16	9/28/16	9/28/16	9/26/16	9/27/16	9/29/16	9/29/16
<i>Gallons Developed Prior to Sampling / Times Dried</i>	55 / OX	45 / OX	60 / OX	50 / OX	62 / OX	55 / OX	60 / OX	55 / OX	65 / OX
<i>Sampling Frequency</i>	Once	Once	Once	Once	Once	Once	Once	Once	Once
Field Parameter Data:									
<i>pH (Initial) - Standard Units</i>	7.33	7.40	7.11	6.99	7.07	7.53	7.24	7.12	7.06
<i>pH (Final) - Standard Units</i>	7.43	7.25	7.32	7.33	7.38	7.32	7.34	7.27	7.31
<i>Turbidity (Initial) - NTU</i>	N/A	N/A	N/A	N/A	N/A	128	N/A	N/A	N/A
<i>Turbidity (Final) - NTU</i>	0.97	0.31	0.42	0.24	0.54	1.46	0.3	1.44	2.28
<i>ORP (Initial)</i>	-115.2	-89.2	-107.6	-52.7	-41.7	-59.8	-107.7	13.1	17.4
<i>ORP (Final)</i>	-142.3	-117.3	-148.9	-128.5	-135.1	-167.5	-124.7	-114.1	-126.4
<i>Temperature (Initial) - °C</i>	23.4	22.2	22.3	22.8	23.6	24.8	22.8	21.1	20.8
<i>Temperature (Final) - °C</i>	23.6	22.8	23.1	23.1	23.7	23.6	22.5	21.9	21.4
<i>Specific Conductance (Initial) - ms/cm</i>	1.8	1.45	2.02	1.28	1.14	1.80	0.88	1.30	0.97
<i>Specific Conductance (Final) - ms/cm</i>	1.63	1.57	2.05	1.18	1.17	1.82	0.91	1.32	1.03

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Monitoring Well	MW7 (58-63')	MW7 (80-90')							
I. D. Number									
Well Type	Monitor	Monitor							
Casing Material	PVC	PVC							
Casing Diameter (Inches)	2	2							
Development Method	Submersible	Submersible							
Elevation of Natural Ground (Feet)	17.86	17.94							
Top of Casing Elevation (Feet)	21.57	21.33							
Stickup (Feet)	3.71	3.39							
Depth to Water Below TOC (10/03/16)	21.52	20.84							
Water Elevation (NGVD) (10/03/16)	0.05	0.49							
Depth to Water Below TOC (11/02/16)	23.24	22.97							
Water Elevation (NGVD) (11/02/16)	-1.67	-1.64							
Depth to Water Below TOC (11/21/16)	23.92	23.65							
Water Elevation (NGVD) (11/21/2016)	-2.35	-2.32							
Latitude	30.25627910	30.25630731							
Longitude	-91.93938906	-91.93939744							
Lat / Long Method	Survey	Survey							
Date Completed	9/27/16	9/22/16							
Well Depth (ft below TOC)	66.55	93.55							
Well Depth (Feet below land surface)	62.84	90.16							
Sump Length (Feet)	0.17	0.17							
Screened Interval (Field)	58-63'	80-90'							
Screened Interval (approx. below TOC)	61.38-66.38'	83.38-93.38'							
Screened Interval (Feet below land surface)	57.67-62.67'	79.99-89.99'							
Sampling Data:									
Gallons Utilized During Drilling	150	300							
Gallons Pre-Purged	600	1100							
Sample Date	9/29/16	9/28/16							
Gallons Developed Prior to Sampling / Times Dried	55 / 0X	65 / 0X							
Sampling Frequency	Once	Once							
Field Parameter Data:									
pH (Initial) - Standard Units	7.54	7.46							
pH (Final) - Standard Units	7.24	7.36							
Turbidity (Initial) - NTU	N/A	N/A							
Turbidity (Final) - NTU	0.74	0.41							
ORP (Initial)	22.8	-29.1							
ORP (Final)	-107.4	-132.1							
Temperature (Initial) - °C	23.9	24.5							
Temperature (Final) - °C	22.5	23.4							
Specific Conductance (Initial) - ms/cm	3.07	1.03							
Specific Conductance (Final) - ms/cm	3.47	1.05							