

## **ATTACHMENT 5: WATER LEVEL MEASUREMENTS**

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This attachment contains water level measurements for the JPL relatively shallow standpipe monitoring wells (i.e., MW-1, MW-5 through MW-10, MW-13, MW-15, and MW-16) and the Westbay™ multiport wells (i.e., MW-3, MW-4, MW-11, MW-12, MW-14, and MW-17 through MW-26) obtained during the first quarter 2022. Water level measurements were recorded before and after the sampling event on January 28, 2022, and February 18, 2022, respectively. Monitoring wells MW-11, MW-21, MW-22, MW-24, and MW-26 were not accessible during the collection of pre-sampling groundwater elevations, and therefore, groundwater elevations were collected prior to sampling on February 2 (MW-22 and MW-24), February 4 (MW-26), February 7 (MW-11), and February 9 (MW-21), respectively. Water levels for the shallow wells were measured using a Solinst™ water level meter. In the deep multiport wells, the hydraulic head at each sampling port was measured with a Westbay™ MOSDAX sampling probe. Water level measurements were conducted by Blaine Tech Services, Inc.

Note: During the first quarter 2022 water level measurements could not be obtained from MW-12 due to an issue with the multi-port (MP) casing which was later determined to be a disconnected MP-38 casing joint.

## WELL GAUGING DATA

Project # 220128HS-1 Date 1-28-22 Client Tidelwater

Site JPL

Well ID	Well Size (in.)	Time Gauged	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC
MW-1	4	1442					27.37		Ded. pump
MW-5	4	0800					134.30	135.55	
MW-6	4	1015					DRY	238.23	
MW-7	4	1515					DRY	268.02	
MW-8	4	1530					DRY	202.10	
MW-9	4	1438					20.47		Ded. pump
MW-10	4	0815					DRY	153.29	
MW-13	4	0900					DRY	234.78	
MW-15	4	1500					32.39		Ded. pump
MW-16	4	1445					284.30	285.49	

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-3  
 DATE: 1/28/22  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING: 1100.34  
 WEATHER: clear, sunny

PROBE TYPE: Westbay Sampler 0-500psi  
 SERIAL NO.: EMS 2502  
 PROJECT: JPL Pasadena  
 OPERATOR(S): L. Henderson  
 ATM. PRESSURE (Patm): (start) 14.14 (finish) 14.15  
 Temp: 22.55 19.42

DTW - 181.32

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) P(ft)=(P2-Patm)*2.307 ft/psi	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sup>2</sup> O Inside Casing	Trans. Temp. (oC)				
5	653	651	219.90	216.30	219.90	21.99			1416	
4	558	556	178.63	178.45	178.63	21.94			1418	
3	346	345	86.37	86.71	86.37	21.17			1420	
2	252	250	45.45	46.09	45.45	20.47			1421	
1	172	171	14.28	20.74	14.28	19.89			1422	

Comments: Collar Detect is 2' above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-4  
 DATE: 1/28/22  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING 1082.84  
 WEATHER: clear, sunny

PROBE TYPE Westbay Sampler 0-500psi  
 SERIAL NO. EMS 2502  
 PROJECT JPL Pasadena  
 OPERATOR(S) L. Henderson  
 ATM. PRESSURE (Patm): (start) 14.12 (finish) 14.11  
 Temp: 14.73 18.09

DTW - 172.69

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) P(ft)=(P2-Patm)*2.307 ft/psi)	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sup>2</sup> O Inside Casing	Trans. Temp. (oC)				
5	513	511	162.86	167.66	162.86	17.31			0920	
4	392	390	110.19	115.10	110.19	18.41			0922	
3	322	320	79.71	85.38	79.71	18.89			0923	
2	240	238	44.00	50.26	44.00	19.22			0925	
1	150	148	14.27	21.78	14.27	19.10			0926	

Comments: Collar Detect is 2' above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-11  
 DATE: 2/7/22  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING 1139.3  
 WEATHER: clear, sunny

PROBE TYPE Westbay Sampler 0-500psi  
 SERIAL NO. EMS 2508  
 PROJECT JPL Pasadena  
 OPERATOR(S) L. Henderson  
 ATM. PRESSURE (Patm): (start) 14.17 (finish) 14.15  
 Temp: 23.30 18.36

DTW 206.82

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) P(ft)=(P2-Patm)*2.307 ft/psi	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sub>2</sub> O Inside Casing	Trans. Temp. (oC)				
5	639	637	201.45	179.67	201.45	21.34			1257	
4	524	522	151.89	152.00	151.89	21.53			1300	
3	429	427	110.93	109.96	110.93	20.39			1302	
2	259	257	37.18	40.91	37.18	19.15			1305	
1	149	147	14.27	17.32	14.27	18.36			1307	

Comments: Collar Detect is 6" above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-12  
 DATE: 1/28/22  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING: 1102.14  
 WEATHER: clear, Sunny  
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PROBE TYPE: Westbay Sampler 0-500psi  
 SERIAL NO.: EMS 2502  
 PROJECT: JPL Pasadena  
 OPERATOR(S): L. Henderson  
 ATM. PRESSURE (Patm): (start) 14.15 (finish) 14.14  
 Temp: 22.06 19.88

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) P(ft)=(P2-Patm)*2.307 ft/psi	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sup>2</sup> O Inside Casing	Trans. Temp. (oC)				
5	548	546	173.56	157.85	173.56	22.07			1521	
4	436	435	124.92	124.07	124.92	22.08			1525	
3	323	322	75.76	77.54	75.76	21.67			1526	
2	243	242	40.86	43.53	40.86	21.03			1527	
1	140	140	14.24	18.36	14.24	20.32			1529	

Comments: Collar Detect is 6" above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-14  
 DATE: 1/20/22  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING 1173.47  
 WEATHER: Clear, Sunny

PROBE TYPE Westbay Sampler 0-500psi  
 SERIAL NO. EMS 2502  
 PROJECT JPL Pasadena  
 OPERATOR(S) L. Henderson  
 ATM. PRESSURE (Patm): (start) 14.17 (finish) 14.14  
 Temp: 19.30 19.78

DTW - 198.38

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) P(ft)=(P2-Patm)*2.307 ft/psi	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sup>2</sup> O Inside Casing	Trans. Temp. (oC)				
5	540	538	163.87	148.27	163.87	19.96			1016	
4	456	454	127.37	111.78	127.37	20.51			1018	
3	382	380	95.13	79.69	95.13	20.49			1021	
2	277	275	49.35	33.97	49.35	20.35			1023	
1	207	206	19.27	14.57	19.27	20.11			1025	
			18.85		18.85					

Comments: Collar Detect is 6" above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-17  
 DATE: 1/28/22  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING 1191.21  
 WEATHER: clear, sunny

PROBE TYPE Westbay Sampler 0-500psi  
 SERIAL NO. EMS 2502  
 PROJECT JPL Pasadena  
 OPERATOR(S) L. Henderson  
 ATM. PRESSURE (Patm): (start) 14.12 (finish) 14.11  
 Temp: 20.18 18.30

DTW - 211.12

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) P(ft)=(P2-Patm)*2.307 ft/psi	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sup>2</sup> O Inside Casing	Trans. Temp. (oC)				
5	726	725	238.12	191.32	238.12	20.31			1243	
4	582	581	175.81	130.81	175.81	20.43			1245	
3	468	467	126.36	96.87	126.36	19.99			1246	
2	370	369	83.80	57.08	83.80	19.35			1248	
1	250	250	31.66	14.66	31.66	18.76			1249	

Comments: Collar Detect is 6" above sample port



**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-18  
 DATE: 1/28/22  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING 1225.41  
 WEATHER: Clear, Sunny

PROBE TYPE Westbay Sampler 0-500psi  
 SERIAL NO. EMS 2502  
 PROJECT JPL Pasadena  
 OPERATOR(S) L. Henderson  
 ATM. PRESSURE (Patm): (start) 14.06 (finish) 14.11  
 Temp: 20.81°C 18.98

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) P(ft)=(P2-Patm)*2.307 ft/psi	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sub>2</sub> O Inside Casing	Trans. Temp. (oC)				
5	684	682	183.50	169.92	183.50	20.85			1215	
4	564	562	131.32	117.68	131.32	21.02			1217	
3	424	422	70.48	65.03	70.48	20.51			1221	
2	330	328	29.51	23.72	29.51	19.75			1222	
1	270	268	14.26	14.18	14.26	19.39			1224	

Comments: Collar Detect is 6" above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-19  
 DATE: 1/28/22  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING: 1142.94  
 WEATHER: clear, sunny

PROBE TYPE: Westbay Sampler 0-500psi  
 SERIAL NO.: EMS 2502  
 PROJECT: JPL Pasadena  
 OPERATOR(S): L. Henderson  
 ATM. PRESSURE (Patm): (start) 14.13 (finish) 14.13  
 Temp: 20.96 19.63

DTW - 143.40

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) P(ft)=(P2-Patm)*2.307 ft/psi	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sup>2</sup> O Inside Casing	Trans. Temp. (oC)				
5	498	496	168.33	119.88	168.33	20.81			1312	
4	444	442	144.92	96.58	144.92	20.62			1314	
3	392	390	122.36	87.76	122.36	20.47			1315	
2	314	312	88.47	64.55	88.47	20.34			1317	
1	242	240	57.21	25.07	57.21	20.05			1319	

Comments: Collar Detect is 6" above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-20  
 DATE: 1/28/22  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING 1165.05  
 WEATHER: clear, Sunny

PROBE TYPE Westbay Sampler 0-500psi  
 SERIAL NO. EMS 2502  
 PROJECT JPL Pasadena  
 OPERATOR(S) L. Henderson  
 ATM. PRESSURE (Patm): (start) 14.14 (finish) 14.11  
 Temp: 22.36 19.58

DTW = 244.97

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) P(ft)=(P2-Patm)*2.307 ft/psi	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sub>2</sub> O Inside Casing	Trans. Temp. (oC)				
5	900	897	299.94	296.46	299.94	22.26			1144	
4	700	697	212.75	202.81	212.75	22.67			1147	
3	562	561	152.76	144.76	152.76	22.32			1149	
2	392	396	78.97	73.01	78.97	21.41			1151	
1	230	229	14.27	14.23	14.27	20.33			1153	

Comments: Collar Detect is 6" above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-21

PROBE TYPE Westbay Sampler 0-500psi

DATE: 2/9/22

SERIAL NO. EMS 75090

LOCATION: JPL

PROJECT JPL Pasadena

ELEV. TOP OF WESTBAY CASING 1059.10

OPERATOR(S) L. Henderson

WEATHER: clear, sunny

ATM. PRESSURE (Patm): (start) 14.22 (finish) 14.15

DTW - 117.97

Temp: 22.99 19.05

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) P(ft)=(P2-Patm)*2.307 ft/psi)	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sup>2</sup> O Inside Casing	Trans. Temp. (oC)				
5	372	371	123.71	123.90	123.71	20.69			1051	
4	310	309	98.91	97.17	98.91	20.42			1053	
3	240	240	68.81	67.38	68.81	19.89			1055	
2	161	160	34.35	33.30	34.35	19.35			1058	
1	90	89	14.25	14.24	14.25	19.13			1100	

Comments: Collar Detect is 2' above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-22  
 DATE: 2/2/22  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING 1176.98  
 WEATHER: clear, sunny

PROBE TYPE Westbay Sampler 0-500psi  
 SERIAL NO. EMS 2508  
 PROJECT JPL Pasadena  
 OPERATOR(S) L Henderson  
 ATM. PRESSURE (Patm): (start) 14.08 (finish)  
 Temp: 12.87

DTW - 245.12

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) P(ft)=(P2-Patm)*2.307 ft/psi)	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sub>2</sub> O Inside Casing	Trans. Temp. (oC)				
5	588	586	164.51	157.86	164.51	19.81			0854	
4	467	466	111.84	107.40	111.84	20.92			0856	
3	389	387	77.84	78.42	77.84	20.95			0858	
2	329	327	51.69	52.15	51.69	20.69			0900	
1	245	243	14.56	14.90	14.56	20.22			0901	

Comments: Collar Detect is 1' above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-23  
 DATE: 1/28/22  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING: 1108.84  
 WEATHER: clear, sunny

PROBE TYPE: Westbay Sampler 0-500psi  
 SERIAL NO.: EMS 2502  
 PROJECT: JPL Pasadena  
 OPERATOR(S): L. Henderson  
 ATM. PRESSURE (Patm): (start) 14.18 (finish) 14.22  
 Temp: 16.70 19.78

DTW - 142.63

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) P(ft)=(P2-Patm)*2.307 ft/psi)	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sup>2</sup> O Inside Casing	Trans. Temp. (oC)				
5	542	540	187.75	167.50	187.75	18.39			0945	
4	445	444	145.77	125.62	145.77	19.26			0947	
3	319	318	91.20	76.37	91.20	19.70			0948	
2	254	253	<del>62.85</del>	46.27	<del>62.85</del>	19.84	62.95		0949	
1	174	173	28.18	14.58	28.18	19.80			0957	

Comments: Collar Detect is 1' above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-24

PROBE TYPE Westbay Sampler 0-500psi

DATE: 2/2/22

SERIAL NO. EMS 2508

LOCATION: JPL

PROJECT JPL Pasadena

ELEV. TOP OF WESTBAY CASING 1200.94

OPERATOR(S) L. Henderson

WEATHER: clear, sunny

ATM. PRESSURE (Patm): (start) 14.01 (finish) 14.00

DTU - 251.04

Temp: 21.62 23.01

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) P(ft)=(P2-Patm)*2.307 ft/psi	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sup>2</sup> O Inside Casing	Trans. Temp. (oC)				
5	678	676	199.42	180.21	199.42	22.21			1138	
4	554	552	145.66	131.66	145.66	22.17			1141	
3	435	433	94.02	87.15	94.02	21.89			1143	
2	373	371	67.15	60.53	67.15	21.83			1144	
1	279	277	26.38	17.86	26.38	22.10			1146	

Comments: Collar Detect is 1' above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-25  
 DATE: 1/28/22  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING 934.53  
 WEATHER: Clear Sunny

PROBE TYPE Westbay Sampler 0-500psi  
 SERIAL NO. EMS 2502  
 PROJECT JPL Pasadena  
 OPERATOR(S) L. Henderson  
 ATM. PRESSURE (Patm): (start) 14.28 (finish) 14.25  
 Temp: 18.62 20.44

DTW - 248.75

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) P(ft)=(P2-Patm)*2.307 ft/psi	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sub>2</sub> O Inside Casing	Trans. Temp. (oC)				
5	713	711	216.29	216.57	216.29	19.47			1113	
4	633	631	181.83	182.55	181.83	20.27			1114	
3	503	501	125.59	126.82	125.59	20.58			1115	
2	423	421	90.87	92.26	90.87	20.60			1116	
1	358	357	62.61	63.93	62.61	20.53			1119	

Comments: Collar Detect is 2' below sample port



**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-26  
 DATE: 2/4/20  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING 1059.08  
 WEATHER: clear, sunny

PROBE TYPE Westbay Sampler 0-500psi  
 SERIAL NO. EMS 2508  
 PROJECT JPL Pasadena  
 OPERATOR(S) L. Henderson  
 ATM. PRESSURE (Patm): (start) 14.27 (finish) 14.26  
 Temp: 19.63 19.25

DTW - 59.80

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) P(ft)=(P2-Patm)*2.307 ft/psi	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sub>2</sub> O Inside Casing	Trans. Temp. (oC)				
2	215	212	81.43	46.48	81.43	19.54				1112
1	135	133	46.60	14.36	46.60	19.53				1114

Comments: Collar Detect is 2' below sample port

## WELL GAUGING DATA

Project # 220128HS-1 Date 2-18-22 Client Tidelwater

Site JPL

Well ID	Well Size (in.)	Time Gauged	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC
MW-1	4	0800					27.42		Decl pump
MW-5	4	1450					134.33	135.55	
MW-6	4	1228					Dry	238.23	
MW-7	4	1440					DRY	268.02	
MW-8	4	1430					DRY	202.10	
MW-9	4	0818					20.66		Decl pump
MW-10	4	1300					Dry	<del>141</del> 153.29	
MW-13	—	—					PARCELED OVER		
MW-15	4	1430					32.85		Decl pump (16.00)
MW-16	4	1500					284.36	285.44	

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-3  
 DATE: 2-18-22  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING: 1100.34  
 WEATHER: Clear, Sunny

PROBE TYPE: Westbay Sampler 0-500psi  
 SERIAL NO. EMS 2508  
 PROJECT: JPL Pasadena  
 OPERATOR(S): L-Henderson  
 ATM. PRESSURE (Patm): (start) 14.20 (finish) 14.28  
 Temp: 20.40 17.67

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) $P(ft) = (P2 - Patm) * 2.307 \text{ ft/psi}$	Depth to Water Outside Port (ft) $DTW = Dp - P(ft)$	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sup>2</sup> O Inside Casing	Trans. Temp. (oC)				
5	653	651	218.80	221.42	218.80	21.08			1644	
4	558	556	177.50	180.35	177.50	21.04			1045	
3	346	345	85.28	88.58	85.28	19.20			1048	
2	252	250	44.39	48.02	44.39	18.62			1050	
1	172	170	14.31	15.31	14.31	18.02			1852	

Comments: Collar Detect is 2' above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-4  
 DATE: \_\_\_\_\_  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING 1082.84  
 WEATHER: \_\_\_\_\_

PROBE TYPE Westbay Sampler 0-500psi  
 SERIAL NO. \_\_\_\_\_  
 PROJECT JPL Pasadena  
 OPERATOR(S) \_\_\_\_\_  
 ATM. PRESSURE (Patm): (start) \_\_\_\_\_ (finish) \_\_\_\_\_  
 Temp: \_\_\_\_\_

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) $P(ft)=(P2-Patm)*2.307 ft/psi$	Depth to Water Outside Port (ft) $DTW = Dp-P(ft)$	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sup>2</sup> O Inside Casing	Trans. Temp. (oC)				
5	513									
4	392									
3	322									
2	240		PARILED OVER							
1	150									

Comments: Collar Detect is 2' above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-11  
 DATE: 2/18/22  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING: 1139.3  
 WEATHER: clear, sunny

PROBE TYPE: Westbay Sampler 0-500psi  
 SERIAL NO. EMS 2508  
 PROJECT: JPL Pasadena  
 OPERATOR(S): L. Henderson  
 ATM. PRESSURE (Patm): (start) 14.11 (finish) 14.12  
 Temp: 26.28 18.54

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) P(ft)=(P2-Patm)*2.307 ft/psi	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sup>2</sup> O Inside Casing	Trans. Temp. (oC)				
5	639	637	201.69	179.57	201.69	23.52			1404	
4	524	522	152.10	152.21	152.10	22.79			1406	
3	429	427	111.22	110.46	111.22	21.40			1408	
2	259	257	37.64	41.97	37.64	19.63			1410	
1	149	147	14.20	24.80	14.20	18.92			1412	

Comments: Collar Detect is 6" above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-12  
 DATE: \_\_\_\_\_  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING 1102.14  
 WEATHER: \_\_\_\_\_

PROBE TYPE Westbay Sampler 0-500psi  
 SERIAL NO. \_\_\_\_\_  
 PROJECT JPL Pasadena  
 OPERATOR(S) \_\_\_\_\_  
 ATM. PRESSURE (Patm): (start) \_\_\_\_\_ (finish) \_\_\_\_\_  
 Temp: \_\_\_\_\_

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) $P(ft)=(P2-Patm)*2.307 ft/psi$	Depth to Water Outside Port (ft) $DTW = Dp-P(ft)$	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sup>2</sup> O Inside Casing	Trans. Temp. (oC)				
5	548									
4	436		- Cannot go past				130' ft			
3	323		- Inaccessible -							
2	243									
1	140									

Comments: Collar Detect is 6" above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-14  
 DATE: 2/10/22  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING: 1173.47  
 WEATHER: Clear, Sunny

PROBE TYPE: Westbay Sampler 0-500psi  
 SERIAL NO.: EMS 2508  
 PROJECT: JPL Pasadena  
 OPERATOR(S): L. Henderson  
 ATM. PRESSURE (Patm): (start) 14.12 (finish) 14.12  
 Temp: 22.19 19.49

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) P(ft)=(P2-Patm)*2.307 ft/psi)	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sub>2</sub> O Inside Casing	Trans. Temp. (oC)				
5	540	538	163.34	148.32	163.34	21.74			13 12	
4	456	454	126.73	112.03	126.73	21.13			13 15	
3	382	380	94.57	79.97	94.57	20.65			13 17	
2	277	275	48.92	34.30	48.92	20.03			13 18	
1	207	206	18.42	14.24	18.42	19.64			13 20	

Comments: Collar Detect is 6" above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-17  
 DATE: \_\_\_\_\_  
 LOCATION: JPL  
 ELEV. TOP OF WASTBAY CASING 1191.21  
 WEATHER: \_\_\_\_\_

PROBE TYPE Westbay Sampler 0-500psi  
 SERIAL NO. \_\_\_\_\_  
 PROJECT JPL Pasadena  
 OPERATOR(S) \_\_\_\_\_  
 ATM. PRESSURE (Patm): (start) \_\_\_\_\_ (finish) \_\_\_\_\_  
 Temp: \_\_\_\_\_

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) $P(ft)=(P2-Patm)*2.307 \text{ ft/psi}$	Depth to Water Outside Port (ft) $DTW = Dp-P(ft)$	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sup>2</sup> O Inside Casing	Trans. Temp. (oC)				
5	726									
4	582									
3	468		<b>PARKED OVER</b>							
2	370									
1	250									

Comments: Collar Detect is 6" above sample port



**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-18  
 DATE: 2/18/22  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING 1225.41  
 WEATHER: clear, sunny

PROBE TYPE Westbay Sampler 0-500psi  
 SERIAL NO. EMS 2508  
 PROJECT JPL Pasadena  
 OPERATOR(S) L. Henderson  
 ATM. PRESSURE (Patm): (start) 14.14 (finish) 14.13  
 Temp: 21.44 17.94

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) P(ft)=(P2-Patm)*2.307 ft/psi)	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sup>2</sup> O Inside Casing	Trans. Temp. (oC)				
5	684	682	193.17	163.46	193.17	20.96			1013	
4	564	562	131.03	115.35	131.03	20.82			1015	
3	424	422	70.19	65.84	70.19	19.82			1017	
2	330	328	29.31	25.69	29.31	18.84			1019	
1	270	268	14.29	14.25	14.29	18.36			1020	

Comments: Collar Detect is 6" above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-19  
 DATE: 2-18-22  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING: 1142.94  
 WEATHER: Clear, Sunny

PROBE TYPE: Westbay Sampler 0-500psi  
 SERIAL NO. EMS 2508  
 PROJECT: JPL Pasadena  
 OPERATOR(S): C. Henderson  
 ATM. PRESSURE (Patm): (start) 14.16 (finish) 14.19  
 Temp: 20.99 18.66

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) P(ft)=(P2-Patm)*2.307 ft/psi	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sup>2</sup> O Inside Casing	Trans. Temp. (oC)				
5	498	496	168.20	118.30	168.20	20.27			1114	
4	444	442	144.78	96.36	144.78	20.05			1116	
3	392	390	122.12	87.52	122.12	19.85			1117	
2	314	312	88.27	54.27	88.27	19.61			1118	
1	242	240	57.09	25.13	57.09	19.37			1119	

Comments: Collar Detect is 6" above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-20  
 DATE: 2-18-22  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING: 1165.05  
 WEATHER: Clear, sunny

PROBE TYPE: Westbay Sampler 0-500psi  
 SERIAL NO.: EMS 2502  
 PROJECT: JPL Pasadena  
 OPERATOR(S): L. Henderson  
 ATM. PRESSURE (Patm): (start) 14.16 (finish) 14.16  
 Temp: 19.87 17.56

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) P(ft)=(P2-Patm)*2.307 ft/psi)	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sub>2</sub> O Inside Casing	Trans. Temp. (oC)				
5	900	897	207.95 <del>299.05</del>	295.78	297.95	23.03 <del>22.56</del>			0936	
4	700	697	211.08	199.81	211.08	22.90			0944	
3	562	561	151.32	140.23	151.32	21.88 21.29			0946	
2	392	390	77.13	72.34	77.13	19.61			0949	
1	230	229	14.29	14.27	14.29	18.21			0951	

Comments: Collar Detect is 6" above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-21  
 DATE: 2-18-22  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING: 1059.10  
 WEATHER: clear, sunny

PROBE TYPE: Westbay Sampler 0-500psi  
 SERIAL NO.: EMS 2508  
 PROJECT: JPL Pasadena  
 OPERATOR(S): L. Henderson  
 ATM. PRESSURE (Patm): (start) 14.21 (finish) 14.22  
 Temp: 20.22 19.08

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) $P(ft) = (P2 - Patm) * 2.307 \text{ ft/psi}$	Depth to Water Outside Port (ft) $DTW = Dp - P(ft)$	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sub>2</sub> O Inside Casing	Trans. Temp. (oC)				
5	372	371	125.08	124.02	125.08	20.22				12-09
4	310	309	98.09	97.18	98.09	20.18				12-10
3	240	240	68.07	67.34	68.07	19.60				12-12
2	161	160	33.69	33.24	33.69	19.34				12-14
1	90	89	14.27	14.29	14.27	19.17				12-15

Comments: Collar Detect is 2' above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-22  
 DATE: \_\_\_\_\_  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING 1176.98  
 WEATHER: \_\_\_\_\_

PROBE TYPE Westbay Sampler 0-500psi  
 SERIAL NO. \_\_\_\_\_  
 PROJECT JPL Pasadena  
 OPERATOR(S) \_\_\_\_\_  
 ATM. PRESSURE (Patm): (start) \_\_\_\_\_ (finish) \_\_\_\_\_  
 Temp: \_\_\_\_\_

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) $P(ft)=(P2-Patm)*2.307 ft/psi$	Depth to Water Outside Port (ft) $DTW = Dp-P(ft)$	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sup>2</sup> O Inside Casing	Trans. Temp. (oC)				
5	588									
4	467									
3	389		— PARKED OVER —							
2	329									
1	245									

Comments: Collar Detect is 1' above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-23  
 DATE: 2/18/22  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING 1108.84  
 WEATHER: Clear, Sunny

PROBE TYPE Westbay Sampler 0-500psi  
 SERIAL NO. EMS 2508  
 PROJECT JPL Pasadena  
 OPERATOR(S) L. Henderson  
 ATM. PRESSURE (Patm): (start) 14.18 (finish) 14.16  
 Temp: 23.10 20.37

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) P(ft)=(P2-Patm)*2.307 ft/psi)	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sup>2</sup> O Inside Casing	Trans. Temp. (oC)				
5	542	540	187.61	167.49	187.61	22.41			1251	
4	445	444	145.67	125.98	145.67	22.27			1253	
3	319	318	90.93	76.99	90.93	21.78			1254	
2	254	253	62.77	48.90	62.77	21.31			1255	
1	174	173	28.01	14.77	28.01	20.67			1258	

Comments: Collar Detect is 1' above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-24  
 DATE: 2/18/22  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING: 1200.94  
 WEATHER: clear, sunny

PROBE TYPE: Westbay Sampler 0-500psi  
 SERIAL NO. EMS 2508  
 PROJECT: JPL Pasadena  
 OPERATOR(S): L. Henderson  
 ATM. PRESSURE (Patm): (start) 14.14 (finish) 14.10  
 Temp: 22.31 22.46

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) P(ft)=(P2-Patm)*2.307 ft/psi)	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sup>2</sup> O Inside Casing	Trans. Temp. (oC)				
5	678	670	199.03	178.38	199.03	22.55			1336	
4	554	552	145.25	131.11	145.25	22.33			1339	
3	435	433	93.76	86.19	93.76	22.04			1341	
2	373	371	66.98	59.82	66.98	21.98			1343	
1	279	277	26.18	20.70	26.18	22.06			1346	

Comments: Collar Detect is 1' above sample port

**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-25  
 DATE: 2-18-22  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING 934.53  
 WEATHER: clear, sunny

PROBE TYPE Westbay Sampler 0-500psi  
 SERIAL NO. EMS 2508  
 PROJECT JPL Pasadena  
 OPERATOR(S) L. Henderson  
 ATM. PRESSURE (Patm): (start) 14.24 (finish) 14.20  
 Temp: 15.00 14.95

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) $P(ft)=(P2-Patm)*2.307 ft/psi$	Depth to Water Outside Port (ft) $DTW = Dp-P(ft)$	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sub>2</sub> O Inside Casing	Trans. Temp. (oC)				
5	713	711	216.25	216.63	216.25	19.57			0843	
4	633	631	191.78	192.60	191.78	20.48			0845	
3	503	501	125.48	126.87	125.48	20.46			0850	
2	423	421	90.80	92.28	90.80	20.34			0852	
1	358	357	62.54	63.99	62.54	20.16			0854	

Comments: Collar Detect is 2' below sample port



**WESTBAY™ GROUNDWATER MONITORING WELL  
WATER LEVEL MEASUREMENT LOG SHEET**

WELL ID: MW-26  
 DATE: \_\_\_\_\_  
 LOCATION: JPL  
 ELEV. TOP OF WESTBAY CASING 1059.08  
 WEATHER: \_\_\_\_\_

PROBE TYPE Westbay Sampler 0-500psi  
 SERIAL NO. \_\_\_\_\_  
 PROJECT JPL Pasadena  
 OPERATOR(S) \_\_\_\_\_  
 ATM. PRESSURE (Patm): (start) \_\_\_\_\_ (finish) \_\_\_\_\_  
 Temp: \_\_\_\_\_

Port No.	Depth to Meas. Port Valve (ft)		Pressure Readings (psi)				Pressure Head Outside Port (ft) $P(ft)=(P2-Patm)*2.307 ft/psi$	Depth to Water Outside Port (ft) DTW = Dp-P(ft)	True Port Depth (Dp) (ft)	Time
	From Log (Dp)	From Cable	psi Inside Casing	kg/cm <sup>2</sup> Outside Casing P2	mH <sup>2</sup> O Inside Casing	Trans. Temp. (oC)				
2	215									
1	135									
- GATE LOCKED TO ACCESS WELL -										

Comments: Collar Detect is 2' below sample port