



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301

Well Number and Location: MW- 1

Sampler: Billy Buckwalter / Zack Bentley/ Audrey Yorke

Pump Depth (BTOC): 15'

Purging Method: Low Flow

Quantity of Water Removed: 250 ml/min * 35 min = 2.31 gal

Gauging date/time: 10/15/13 1350 Initial Depth to Water: 3.34'

Sampling date/time: 10/15/13 1435

FIELD MEASUREMENTS

Time	Rate (GPM)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
1400	250 ml/min	4.11	19.11	6.51	0.911	0	4.03	<div style="writing-mode: vertical-rl; transform: rotate(180deg);"> NY 10/15/13 </div>
1405	"	4.43	18.85	6.41	0.933	0	2.22	
1410	"	4.64	19.65	6.38	0.928	0	1.32	
1415	"	4.95	19.98	6.38	0.925	0	1.08	
1420	"	5.20	20.34	6.36	0.921	0	0.92	
1425	"	5.25	21.15	6.35	0.911	0	0.82	
1430	"	5.30	21.44	6.34	0.907	0	0.82	
1435	Sample collected at MW-1.							
NY 10/15/13								

BTOC = Below Top of Casing

Comments: _____

Form Completed by: A. Yorke NY 10/16/13



Low-Flow Groundwater Sampling Log

(Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301

Well Number and Location: MW- 1D (Upper)

Sampler: Billy Buckwalter / Zack Bentley / Audrey Yorke

Pump Depth (BTOC): ≈ 164' (BTOC)

Purging Method: Low Flow (2" Groundfos w/ GAL)

Quantity of Water Removed: Approx 5.0 gal.

Gauging date/time: _____ Initial Depth to Water: 15.43'

Sampling date/time: 10/15/13 @ 0935

FIELD MEASUREMENTS

Time	Rate (GPM) <small>ML/MIN</small>	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
0850	≈ 450	7.55'	14.2	5.90	1.10	> 999	4.06	Initial Purge
0900	"	16.21	14.3	6.62	1.06	> 999	1.69	—
0910	"	16.25	14.8	6.89	1.06	> 999	1.47	—
0920	"	16.25	15.2	7.01	1.05	> 999	1.41	—
0930	"	16.25	15.6	7.08	1.02	> 999	1.36	parameters stable

BTOC = Below Top of Casing

Comments: Sunny, 60°F

Form Completed by: Billy Buckwalter (Leidos)



Low-Flow Groundwater Sampling Log

(Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301

Well Number and Location: MW- 10(L)

Sampler: Billy Buckwalter / Zack Bentley / Audrey Yorke

Pump Depth (BTOC): 275' (btoe)

Purging Method: Low Flow

Quantity of Water Removed: Approx 8.0 gal.

Gauging date/time: _____ Initial Depth to Water: 10.40'

Sampling date/time: 10/14/13 @ 1535

FIELD MEASUREMENTS

Time	Rate (GPM)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
1430	≈500	7.30 10.40'	16.2	7.68	0.664	197	5.97	Initiate purge
1440	"	7.33	17.2	7.58	1.00	63.9	2.71	—
1450	"	14.16	15.7	7.59	1.05	172	2.37	—
1500	"	18.62	17.4	7.56	1.05	122	2.00	—
1510	"	22.54	19.2	7.56	1.05	112	1.83	—
1520	"	28.00	19.1	7.58	1.05	162	1.87	—
1530	"	28.00	19.0	7.57	1.05	165	1.84	Parameters stable

BTOC = Below Top of Casing

Comments: Sunny, 72°F

Form Completed by: Bill E Buckwalter



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301

Well Number and Location: MW- 2D upper

Sampler: Billy Buckwalter / Zack Bentley / Audrey Yorke

Pump Depth (BTOC): 80'

Purging Method: Low Flow

Quantity of Water Removed: 7000 ml ~ 1.84 Gal

Gauging date/time: 10/15/13 1150 Initial Depth to Water: 8.73

Sampling date/time: 10/15/13 @ 1235

FIELD MEASUREMENTS

Time	Rate (GPM)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
1150	200 ml/min	10.65	16.8	7.22	1.33	1493.0	3.39	
1155		10.80	18.1	7.06	1.34	147.0	2.13	
1200		11.95	19.1	7.03	1.33	172.0	1.94	
1205		12.39	19.0	7.00	1.42	-5.0	1.57	
1210		13.40	17.9	7.00	1.42	-5.0	1.21	put horizon in shade
1215		14.85	17.3	6.96	1.43	-5.0	1.08	
1220		15.61	17.4	6.96	1.42	-5.0	1.02	
1225			17.4	6.95	1.41	-5.0	1.03	
Sampled					at 1235			

BTOC = Below Top of Casing

Comments:

sampled at 1235

Form Completed by:

JB



Low-Flow Groundwater Sampling Log (Field Sheet)

Page 1 of 2

Project Name and Number: HOFF VC 2603100116-3012-301
Well Number and Location: MW- 20 Lower
Sampler: Billy Buckwalter / Zack Bentley / Audrey Yorke
Pump Depth (BTOC): 208'
Purging Method: Low Flow
Quantity of Water Removed: 2.9 Gal
Gauging date/time: 10/14/13 1420 Initial Depth to Water: 7.40'
Sampling date/time: 10/14/13 1530

FIELD MEASUREMENTS

Time	Rate (GPM)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
1430	200 ml/min	6.75	18.9	8.49	0.428	18.7	3.46	7/5
1435		6.99	18.9	8.55	0.426	17.0	3.31	
1440		8.50	19.6	8.50	0.607	8.0	2.11	
1445		9.20	19.2	7.86	0.866	2406	1.73	
1450		9.35	20.0	7.56	1.12	217.0	1.51	
1455		10.40	18.6	7.42	1.22	5.0	1.36	
1500		11.08	17.7	7.44	1.16	524.0	1.28	
1505		11.95	17.3	7.46	1.11	81.9	1.14	
1510		13.00	17.8	7.46	1.08	56.1	1.04	

BTOC = Below Top of Casing

Comments:

Sampled well at 1530

Form Completed by:

ZB

req # 003 VOASU
103 VEDXA
202 SVSL



Low-Flow Groundwater Sampling Log

(Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301

Well Number and Location: MW- 3 D (upper)

Sampler: Billy Buckwalter / Zack Bentley/ Audrey Yorke

Pump Depth (BTOC): ≈ 90.00' (BTOC)

Purging Method: Low Flow

Quantity of Water Removed: Approx 6.2 gal.

Gauging date/time: Initial Depth to Water: 7.21'

Sampling date/time: 10/14/13 @ 1250

FIELD MEASUREMENTS

Time	Rate (GPM) <small>ML/MIN</small>	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
1155	≈ 475	8.31	14.02	8.06	0.510	7999	4.30	Indicak purge
1205	"	8.31	14.2	7.78	0.489	703	2.24	---
1215	"	8.31	14.2	7.73	0.464	571	1.84 1.84	---
1225	"	8.33	14.3	7.69	0.460	510	1.70	---
1235	"		14.3	7.67	0.462	461	1.66	---
1245	"	8.33	14.4	7.67	0.464	470	1.67	Paromaks Stabk

BTOC = Below Top of Casing

Comments: Sunny, 68°F

Form Completed by: Billy Buckwalter



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301

Well Number and Location: MW- 3D (L)

Sampler: Billy Buckwalter Zack Bentley/ Audrey Yorke

Pump Depth (BTOC): Approx 180'

Purging Method: Low Flow

Quantity of Water Removed: Approx 8.0 gal.

Gauging date/time: _____ Initial Depth to Water: 6.85'

Sampling date/time: 10/14/13 @ 1100

FIELD MEASUREMENTS

Time	Rate (GPM) - ML/Min	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
0955	≈ 500	8.41	13.7	7.33	0.417	7999	3.08	Initial purge
1005	"	13.40	14.9	7.88	0.409	7999	1.67	—
1015	"	13.72	16.4	8.06	0.427	927	1.64	—
1025	"	13.95	16.9	8.18	0.430	777	1.69	—
1035	"	14.13	18.4	8.25	0.427 0.427	7999	1.84	—
1045	"	16.51	18.4	8.32	0.410 0.410	871	1.78	—
1055	"	16.51	18.5	8.33	0.411	853	1.76	Parameters Stable

BTOC = Below Top of Casing

Comments: Sunny, 60's °F

Form Completed by: Billy Buckwalter



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301

Well Number and Location: MW- 4D Upper

Sampler: Billy Buckwalter / Zack Bentley / Audrey Yorke

Pump Depth (BTOC): 10/17 110'

Purging Method: Low Flow

Quantity of Water Removed: 2.11 gal

Gauging date/time: 10/17/13 @ 9:00 Initial Depth to Water: 13.3

Sampling date/time: 10/17/13 @ 10:10

FIELD MEASUREMENTS

Time	Rate (GPM)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
0925	2.00 nl/min	13.40	15.6	9.70	0.637	62.7	3.19	
0930		13.40	16.2	9.44	0.602	382.6	1.37	
0935		13.15	16.3	8.41	0.645	-5.0	1.21	
0940		13.85	16.4	8.27	0.663	-5.0	0.96	
0945		13.90	16.8	8.03	0.671	-5.0	0.86	<i>ZB</i>
0950		13.95	15.6	7.88	0.677	-5.0	0.76	
0955		14.00	15.5	7.77	0.682	-5.0	0.73	
1000		14.05	15.5	7.65	0.688	-5.0	0.70	
1005		14.10	15.5	7.52	0.696	-5.0	0.67	

BTOC = Below Top of Casing

Comments:

Sample at 1010

Form Completed by:

ZB

Duplicate 3 taken at this location



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301
Well Number and Location: MW- 40 Lower
Sampler: Billy Buckwalter / Zack Bentley / Audrey Yorke
Pump Depth (BTOC): 235'
Purging Method: Low Flow
Quantity of Water Removed: 2.11 Gal
Gauging date/time: 10/17/13 @ 1055 Initial Depth to Water: 21.2'
Sampling date/time: 10/17/13 @ 1145

FIELD MEASUREMENTS

Time	Rate (GPM)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
1055	200 ml/min	15.28	16.3	7.42	0.679	8.5	3.57	[Signature]
1100		16.20	16.9	7.29	0.672	4.4	1.69	
1105		16.44	17.6	7.27	0.664	3.2	1.52	
1110		16.44	18.5	7.23	0.670	2.9	1.28	
1115		17.71	16.9	7.25	0.674	3.1	1.37	
1120		18.70	17.7	7.24	0.674	5.5	1.23	
1125		20.50	15.9	7.19	0.692	11.8	1.29	
1130		21.60	16.0	7.19	0.707	11.7	1.16	
1135		22.55	14.9	7.18	0.732	29.2	1.19	

BTOC = Below Top of Casing

Comments: sampled at : 1145

Form Completed by: [Signature]

Low-Flow Groundwater Sampling Log

(Field Sheet - Continued)

Project Name and Number: Hoff VC 2603100116-2012-301

Well Number and Location: MW- 50 Lower

FIELD MEASUREMENTS

Date/Time	Rate (mL/Min)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
1140	200 ^{ml} / min	23.62	15.0	7.18	0.731	31.6	1.04	
_____ Sampled at 1145 _____								

ZB

10/17/13

BTOC = Below Top of Casing

Comments:

Form Completed by:

ZB



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301

Well Number and Location: MW- OW-4 (U) upper screen

Sampler: Billy Buckwalter / Zack Bentley / Audrey Yorke

Pump Depth (BTOC): ~ 90'

Purging Method: Low Flow (2" GroundFos w/ GAC)

Quantity of Water Removed: Approx 7.0 gal.

Gauging date/time: _____ Initial Depth to Water: 14.70'

Sampling date/time: 10/15/13 @ 1350

FIELD MEASUREMENTS

Time	Rate (GPM) <small>ml/min</small>	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
1255	~500	13.51	15.1	11.02	0.759	>999	3.94	Ferrous Purge
1305	"	17.60	16.1	9.02	0.469	>999	1.76	—
1315	"	17.60	16.7	8.97	0.471	>999	1.65	—
1325	"	17.60	16.7	8.86	0.478	>999	1.58	—
1335	"	17.61	16.9	8.81	0.482	>999	1.56	—
1345	"	17.61	16.8	8.81	0.483	>999	1.56	Parameters Stable

BTOC = Below Top of Casing

Comments: Sunny 75°F

Form Completed by: Billy Buckwalter (Leidos)



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301

Well Number and Location: MW-~~OW-40(L)~~ OW-4-(L) Lower ³⁷⁹ 10/15/13

Sampler: Billy Buckwalter / Zack Bentley / Audrey Yorke

Pump Depth (BTOC): ≈ 200' (BTOC)

Purging Method: Low Flow (2" Grundfos w/6AC)

Quantity of Water Removed: Approx 7.0 gal.

Gauging date/time: _____ Initial Depth to Water: 5.65'

Sampling date/time: 10/15/13 @ 1150

FIELD MEASUREMENTS

Time	Rate (GPM) ML/Min.	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
1055	≈500	5.70'	14.1	7.67	0.378	41.9	4.25	Initiate purge
1105	"	6.90'	14.3	7.72	0.376	166	1.90	—
1115	"	7.00'	14.2	7.76	0.374	321	1.69	—
1125	"	7.10'	14.2	7.79	0.373	459	1.61	—
1135	"	7.12'	14.3	7.80	0.373	476	1.58	—
1145	"	7.12'	14.3	7.80	0.373	467	1.56	—
								Parameters stable

BTOC = Below Top of Casing

Comments: Sunny. 70°F

Form Completed by: Billy Buckwalter (Leidos)



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301
Well Number and Location: MW- SD upper
Sampler: Billy Buckwalter / Zack Bentley / Audrey Yorke
Pump Depth (BTOC): 80'
Purging Method: Low Flow
Quantity of Water Removed: 5000 mL
Gauging date/time: 10/15/13 1510 Initial Depth to Water: 13.87
Sampling date/time: 10/15/13 @ 1540

FIELD MEASUREMENTS

Time	Rate (GPM)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
1510	2 ⁰⁰ mL/min	17.82	14.8	8.50	1.01	626.0	8.00	
1515		17.50	14.2	7.26	1.14	-5.0	4.77	
1520		17.83	14.3	7.14	1.15	-5.0	4.71	
1525		17.80	14.3	7.09	1.15	-5.0	4.69	
1530		17.85	14.3	7.09	1.14	-5.0	4.65	
1535		17.92	14.3	7.08	1.14	-5.0	4.66	
			Sampled at 1540					

BTOC = Below Top of Casing

Comments:

Sampled at 1540

Form Completed by:

ZB



Low-Flow Groundwater Sampling Log (Field Sheet)

Page 1 of 1

Project Name and Number: HOFF VC 2603100116-3012-301

Well Number and Location: MW- 5 D Lower

Sampler: Billy Buckwalter / Zack Bentley / Audrey Yorke

Pump Depth (BTOC): 150'

Purging Method: Low Flow

Quantity of Water Removed: 8000 mL

Gauging date/time: 10/15/13 @ Initial Depth to Water: 12.20

Sampling date/time: 10/15/13 @ 1415

FIELD MEASUREMENTS

Time	Rate (GPM)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
1325	200 min	15.40	17.3	7.82	0.581	0.0	1.88	
1330		17.11	16.8	7.72	0.574	189.0	1.29	
1335		17.65	16.90	7.66	0.564	402.0	1.01	
1340		18.20	17.3	7.66	0.577	-5.0	0.87	
1345		18.66	16.6	7.66	0.573	-5.0	0.83	
1350		19.00	16.5	7.66	0.571	137.0	0.81	
1355		19.40	16.3	7.66	0.569	21.5	0.79	
1400		19.87	16.7	7.67	0.561	21.1	0.77	
1405		20.90	16.3	7.67	0.569	19.3	0.77	

BTOC = Below Top of Casing

Comments: Sampled at 1415

Form Completed by: ZB



Low-Flow Groundwater Sampling Log

(Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301

Well Number and Location: MW- OW-6 (U) upper

Sampler: Billy Buckwalter / Zack Bentley / Audrey Yorke

Pump Depth (BTOC): ≈ 80'

Purging Method: Low Flow (2" GroundFos w/ GAL)

Quantity of Water Removed: Approx 3.0 gal

Gauging date/time: _____ Initial Depth to Water: 0.42'

Sampling date/time: 10/16/13 @ 1145

FIELD MEASUREMENTS

Time	Rate (GPM)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
1100	≈ 300	Arksian	15.2	7.45	0.538	426	3.15	Initiate purge
1110	"	2.98'	14.2	7.45	0.544	7999	1.80	—
1120	"	3.20	14.5	7.46	0.538	7999	1.63	—
1130	"	3.22'	14.6	7.46	0.535	7999	1.62	—
1140	"	3.22'	14.4	7.47	0.535	7999	1.62	parameters stable

BTOC = Below Top of Casing

Comments: overcast, 60°F

Form Completed by: Billy Buckwalter (Leidos)



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301

Well Number and Location: MW- ~~OW-6(L)~~ Lower

Sampler: Billy Buckwalter / Zack Bentley / Audrey Yorke

Pump Depth (BTOC): ~ 240'

Purging Method: Low Flow (2" Grundfos w/ GAC)

Quantity of Water Removed: Approx 3.0 gal.

Gauging date/time: Initial Depth to Water: 1.13'

Sampling date/time: 10/16/13 @ 0945 *

FIELD MEASUREMENTS

Time	Rate (GPM) <small>ml/min</small>	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
0850	~200	Artesian	13.4	5.54	0.407	234	8.96	Initial purge
0900	"	"	13.4	6.74	0.385	7999	1.95	—
0910	"	"	13.4	7.21	0.383	7999	1.51	—
0920	"	"	13.5	7.40	0.381	7999	1.39	—
0930	"	"	13.5	7.49	0.383	7999	1.36	—
0940	"	"	13.5	7.54	0.385	7999	1.35	Parameters stable

BTOC = Below Top of Casing

Comments: overcast, Fog, 59°F

* Collect duplicate sample @ well (DUP 02 @ 1625)

Form Completed by: Billy E Buckwalter (Leidos)



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301
Well Number and Location: MW- 7 D Lower
Sampler: Billy Buckwalter / Zack Bentley / Audrey Yorke
Pump Depth (BTOC): 190'
Purging Method: Low Flow
Quantity of Water Removed: 6000 gal / 3285 gal
Gauging date/time: 10/16/13 Initial Depth to Water: 115' TOC
Sampling date/time: 10/16/13 @ 1155

FIELD MEASUREMENTS

Time	Rate (GPM)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
11 20	200 ml/min	1.73'	15.3	7.36	0.964	180.0	1.27	
11 25		1.77	14.9	7.31	0.977	127.0	1.06	
11 30		1.80	14.7	7.28	0.995	66.4	1.08	
11 35		1.80	14.7	7.29	0.996	64.8	1.08	
11 40		1.80	14.7	7.28	1.02	79.9	1.04	
11 45		1.80	14.7	7.26	1.03	79.0	1.02	
11 50			14.7	7.26	1.04	80.0	1.02	
			Sample	at	1155	1.01		

BTOC = Below Top of Casing

Comments:

sampled at 1155

Form Completed by:

3/6



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301
Well Number and Location: MW- 7D Upper
Sampler: Billy Buckwalter / Zack Bentley / Audrey Yorke
Pump Depth (BTOC): 140'
Purging Method: Low Flow
Quantity of Water Removed: 9000 mL
Gauging date/time: 10/16/13 @ 9:20 Initial Depth to Water: 6"
Sampling date/time: 10/16/13 @ 10:15

FIELD MEASUREMENTS

Time	Rate (GPM)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
0925	200 mL/min	6"	15.0	7.49	0.716	5.3	3.92	
0930		9.5"	14.9	7.36	0.778	20.5	2.12	
0935		9.5"	14.9	7.32	0.799	29.7	1.35	
0940		9.5"	14.9	7.31	0.801	41.5	1.27	
0945		1.0'	14.8	7.31	0.794	43.7	1.16	
0950		1.0'	14.6	7.30	0.802	57.8	1.04	
0955		1.1'	14.6	7.29	0.802	61.0	1.03	
1000		1.1'	14.6	7.29	0.801	76.4	0.99	
1005		1.1'	14.6	7.29	0.801	70.2	0.96	

BTOC = Below Top of Casing

Comments:

Sampled at 10:15

Form Completed by:

ZB

Low-Flow Groundwater Sampling Log

(Field Sheet – Continued)

Project Name and Number: Hoff VC 260310016-3012-301
Well Number and Location: MW- 7 Dupper

FIELD MEASUREMENTS

Date/Time	Rate (mL/Min)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
10/0	200 ml/min	1.0'	14.6	7.29	0.801	75.6	0.93	
sampled at 1815								
[Handwritten signature]								

BTOC = Below Top of Casing

Comments: [Handwritten signature]

Form Completed by: [Handwritten signature]



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301

Well Number and Location: MW- 8d (u) upper

Sampler: Billy Buckwalter / Zack Bentley / Audrey Yorke

Pump Depth (BTOC): ~ 100'

Purging Method: Low Flow (2" Grundfos w/ 55 gal. Drum)

Quantity of Water Removed: Approx 810 gal.

Gauging date/time: _____ Initial Depth to Water: 12.82'

Sampling date/time: 10/17/13 @ 1155

FIELD MEASUREMENTS

Time	Rate (GPM)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
1100	~500	17.70	16.0 12.70	7.40	0.952	>999	1.71	First. ork purge
1110	"	14.05'	16.0	7.29	0.952	160	0.71	—
1120	"	14.05	16.5	7.29	0.951	130	0.65	—
1130	"	14.05	16.2	7.29	0.953	160 130	0.56	—
1140	"	14.08	17.0	7.30	0.953	129	0.53	—
1150	"	14.08	16.9	7.30	0.954	130	0.51	Parameters stable

BTOC = Below Top of Casing

Comments: Sunny. 72°F

Form Completed by: Bella Buckwalter (Leidos)



Low-Flow Groundwater Sampling Log

(Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301

Well Number and Location: MW- 80 (L) Lower

Sampler: Billy Buckwalter / Zack Bentley / Audrey Yorke

Pump Depth (BTOC): ≈ 220'

Purging Method: Low Flow (2" Grundfos w/ 55 gal. Drum)

Quantity of Water Removed: Approx 6.0 gal.

Gauging date/time: _____ Initial Depth to Water: 24.36'

Sampling date/time: 10/17/13 @ 1000

FIELD MEASUREMENTS

Time	Rate (GPM)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
0905	≈ 450	16.80'	13.9	6.91	0.597	5	1.96	In.trate purge
0915	"	27.00	14.5	7.57	0.591	28	1.40	—
0925	"	29.85	15.5	7.89	0.588	45	1.16	—
0935	"	30.22	16.3	7.97	0.588	35	1.14	—
0945	"	30.22	16.2	8.09	0.590	31	1.06	—
0955	"	30.25	16.5	8.11	0.588	26	1.06	Parameters Stable

BTOC = Below Top of Casing

Comments: Partly Sunny, 65°F

Form Completed by: Billy Buckwalter (Leidos)



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301

Well Number and Location: MW-15

Sampler: Billy Buckwalter / Zack Bentley / Audrey Yorke

Pump Depth (BTOC): 25'

Purging Method: Low Flow

Quantity of Water Removed: 250 mL/min * 35 min = 8750 mL = 2.26 gal

Gauging date/time: 10/15/13 1531 Initial Depth to Water: 5.70'

Sampling date/time: 10/15/13 1615

FIELD MEASUREMENTS

Time	Rate (GPM)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
1540	250 mL/min	6.30	17.88	6.73	4.42	17	4.30	<div style="writing-mode: vertical-rl; transform: rotate(180deg);"> 5/15/10/13 Ag 10/15/13 </div>
1545	"	6.30	18.24	6.74	4.27	35	1.03	
1550	"	6.35	18.25	6.74	4.26	34	0.98	
1555	"	6.29 6.33 Ag 10/15/13	18.88	6.73	4.24	36	0.77	
1600	"	6.32	19.38	6.73	4.24	38	0.61	
1605	"	6.35	19.11	6.71	4.28	38	0.59	
1610	"	7.30	17.76	7.70	4.38	42	0.54	
1615	Sample				collected out MW-15.			
Ag 10/15/13								

BTOC = Below Top of Casing

Comments:

Ag 10/15/13

Form Completed by:

A Yorke



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301

Well Number and Location: MW- 2s

Sampler: Billy Buckwalter / Zack Bentley / Audrey Yorke

Pump Depth (BTOC): 25'

Purging Method: Low Flow

Quantity of Water Removed: 250 mL x 40 min = 10,000 mL (2.64 gal)

Gauging date/time: 10/14/13 1023 Initial Depth to Water: 11.13, total depth: 28.95'

Sampling date/time: 10/14/13 1111

FIELD MEASUREMENTS

Time	Rate (GPM)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
1030	250 mL/min	11.70	17.92	6.71	1.13	34	4.34	<div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px;"> <p style="margin: 0;">10/14/13</p> </div>
1035	"	11.85	18.85	6.78	1.27	30	2.29	
1040	"	12.10	20.19	6.79	1.32	31	1.32	
1045	"	12.15	20.89	6.78	1.29	20	1.17	
1050	"	12.40	20.89	6.79	1.33	18	1.19	
1055	"	12.72	19.43	6.76	1.34	10	1.03	
1100	"	12.90	19.21	6.75	1.32	11	0.99	
1105	"		19.01	6.75	1.29	10	0.93	
1111	Sample collected at MW-2s							

BTOC = Below Top of Casing

Comments: _____

Form Completed by: A. Yorke

[Signature] 10/14/13



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301

Well Number and Location: MW- 35

Sampler: Billy Buckwalter / Zack Bentley/ Audrey Yorke

Pump Depth (BTOC): 20'

Purging Method: Low Flow

Quantity of Water Removed: 250 ml/min * 25 min = 6250/3785 = 1.65 gal

Gauging date/time: 10/14/13 1240 Initial Depth to Water: 29' 8.05', Total depth: 29.8'

Sampling date/time: 10/14/13 1310

FIELD MEASUREMENTS

Time	Rate (GPM)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
1245	250 ml/min	8.23	18.58	7.27	0.330	0	3.92	<div style="border-left: 1px solid black; border-right: 1px solid black; border-bottom: 1px solid black; padding: 5px;"> <p style="text-align: right; margin: 0;">10/14/13</p> </div>
1250	"	8.30	17.92	7.06	0.332	0	1.50	
1255	"	8.32	18.00	7.02	0.330	0	1.23	
1300	"	8.35	18.13	7.11	0.327	0	1.12	
1305	"	8.35	18.20	7.09	0.327	0	1.14	
1310	Sample collected @ MW-35							
<p style="font-size: 2em; opacity: 0.5;">Aug 10/14/13</p>								

BTOC = Below Top of Casing

Comments: _____

Form Completed by: A. Yorke



Low-Flow Groundwater Sampling Log

(Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301

Well Number and Location: MW- ~~65~~ 55

Sampler: Billy Buckwalter / Zack Bentley / Audrey Yorke

Pump Depth (BTOC): 25'

Purging Method: Low Flow

Quantity of Water Removed: 250 mL/min * 30 min = 7500 mL = (1.98 gal)

Gauging date/time: 10/14/13 1418 Initial Depth to Water: 5.10'

Sampling date/time: 10/14/13 1455

FIELD MEASUREMENTS

Time	Rate (GPM)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
1425	280 ^{mL} /min	5.25	16.80	6.83	0.212	6	9.43	
1430	"	5.23	17.73	6.10	0.208	0	8.23	
1435	"	5.30	18.91	6.03	0.205	0	8.02	
1440	"	5.33	18.75	5.99	0.205	14	8.17	
1445	"	5.41	18.09	5.98	0.203	15	8.26	
1450	"	5.30	19.04	5.96	0.201	14	7.77	
1455	Sample collected at MW-55.							
					Avg 10/14/13			

BTOC = Below Top of Casing

Comments:

Form Completed by:

A. Yorke

Avg 10/14/13



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301

Well Number and Location: MW-65

Sampler: Billy Buckwalter / Zack Bentley / Audrey Yorke

Pump Depth (BTOC): 27'

Purging Method: Low Flow

Quantity of Water Removed: 250 * 40 = 10,000 = (2.64 gal)

Gauging date/time: 10/14/13 1549 Initial Depth to Water: 1.67' , total depth: 28.8'

Sampling date/time: 10/14/13 1635

FIELD MEASUREMENTS

Time	Rate (GPM)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
1555	250 ml/min	2.00	15.37	6.51	0.210	100	8.40	<div style="writing-mode: vertical-rl; transform: rotate(180deg);"> No 10/14/13 </div>
1600	"	1.76	15.56	6.06	0.181	130	9.69	
1605	"	1.75	16.15	5.96	0.163	140	5.58	
1610	"	1.75	16.35	5.92	0.157	160	5.68	
1615	"	1.70	16.70	5.92	0.148	170	6.70	
1620	"	2.15	16.06	5.97	0.126	190	7.40	
1625	"	2.33	15.82	5.99	0.129	180	7.89	
1630	"	2.25	16.16	5.92	0.119	170	7.82	
1635	Sample collected at MW-65.							

BTOC = Below Top of Casing

Comments:

Form Completed by:

A. Yorke

10/14/13



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301

Well Number and Location: MW- 7s

Sampler: Billy Buckwalter / Zack Bentley/ Audrey Yorke

Pump Depth (BTOC): 20'

Purging Method: Low Flow

Quantity of Water Removed: 250 * 35 = 8750 mL = 2.31 gal

Gauging date/time: 10/15/13 1140 Initial Depth to Water: 4.86'

Sampling date/time: 10/15/13 1225

FIELD MEASUREMENTS

Time	Rate (GPM)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)	
1150	250 ml/min	5.21	18.12	6.92	1.19	54	5.69	<div style="writing-mode: vertical-rl; transform: rotate(180deg);"> Aug 10/15/13 </div>	
1155	"	5.50	17.39	6.60	1.21	41	2.44		
1200	"	5.43	18.30	6.60	1.21	25	2.50		
1205	"	5.59	19.04	6.60	1.21	18	2.53		
1210	"	5.77	18.30	6.60	1.21	23	1.90		
1215	"	5.83	18.70	6.59	1.20	18	1.88		
1220	"	5.95	18.67	6.60	1.20	18	1.72		
1225	Sample collected at MW-7s								
Aug 10/15/13									

BTOC = Below Top of Casing

Comments:

DUP 1 collected here

Aug 10/15/13

Form Completed by:

A. Yorke



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301
Well Number and Location: MW- 8
Sampler: Billy Buckwalter / Zack Bentley/ Audrey Yorke
Pump Depth (BTOC): 25'
Purging Method: Low Flow
Quantity of Water Removed: 250 ml/min * 7500 ml = 1.98 gal
Gauging date/time: 10/16/13 1111 Initial Depth to Water: 12.12'
Sampling date/time: 10/16/13 1150

FIELD MEASUREMENTS

Time	Rate (GPM)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
1120	250 ml/min	12.45	14.15	6.73	0.912	52	2.36	
1125	"	12.70	14.21	6.75	0.970	43	1.64	
1130	"	13.00	14.53	6.75	0.978	35	1.05	
1135	"	13.35	14.55	6.76	0.968	26	0.82	
1140	"	13.50	14.79	6.77	0.965	23	0.77	
1145	"	13.50	14.82	6.77	0.966	23	0.83	
1150	Sample collected at MW-8.							
				Ag 10/16/13				

BTOC = Below Top of Casing

Comments:

Form Completed by: A. Yorke



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301

Well Number and Location: MW- 13

Sampler: Billy Buckwalter / Zack Bentley/ Audrey Yorke

Pump Depth (BTOC): 20'

Purging Method: Low Flow

Quantity of Water Removed: 250 mL/min * 25 min = 6250 mL (1.65 gal)

Gauging date/time: 10/16/13 0917 Initial Depth to Water: 10.13

Sampling date/time: 10/16/13 0945

FIELD MEASUREMENTS

Time	Rate (GPM)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)	
0920	250 ml/min	10.33	16.38	6.73	0.786	9	4.25	By 10/16/13	
0925	"	10.61	16.77	6.25	0.788	5	2.24		
0930	"	10.93	16.75	6.21	0.782	4	1.57		
0935	"	11.10	16.98	6.20	0.785	2	1.53		
0940	"	11.29	17.23	6.19	0.782	0	1.58		
0945	Sample collected at MW-13.								
Aug 10/16/13									

BTOC = Below Top of Casing

Comments: _____

Form Completed by: A. Yorke Aug 10/16/13



Low-Flow Groundwater Sampling Log (Field Sheet)

Project Name and Number: HOFF VC 2603100116-3012-301
Well Number and Location: MW- 14
Sampler: Billy Buckwalter / Zack Bentley / Audrey Yorke
Pump Depth (BTOC): 13'
Purging Method: Low Flow
Quantity of Water Removed: 250 ml/min * 25 min = 6250 mL = 1.65 gal
Gauging date/time: 10/16/13 1310 Initial Depth to Water: 10.17'
Sampling date/time: 10/16/13 1340

FIELD MEASUREMENTS

Time	Rate (GPM)	Water Level (BTOC)	Temp (°C)	pH (Standard Units)	Specific Conductivity (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Remarks (including sand production)
1315	250 ml/min	10.20	17.83	6.39	1.32	130	2.43	10/16/13
1320	"	10.50	17.93	6.29	1.30	38	4.61	
1325	"	10.71	18.12	6.28	1.30	23	5.80	
1330	"	10.92	18.37	6.28	1.29	21	6.19	
1335	"	11.10	18.42	6.28	1.29	21	5.92	
1340	Sample collected at MW-14.							
Ag 10/16/13								

BTOC = Below Top of Casing

Comments:

Form Completed by: A. Yorke