Appendix C

Monitoring Well

Development Logs

AMS #7

D-E-M-S

MONITORING WELL DEVELPOMENT/PURGING LOG

09-04-01 –
DATE: 09-05-01

WELL NO.: AAW 016

Depth from Top of Casing:

Top of water (ft) 25.05 - 2.53 = 22.54 bgs
Bottom of well (ft) 33.83 - 2.53 = 31.30 bgs
Well diameter (in) 2

Top, sampling interval: —
Bottom, sampling interval —
V= 0.0408 x ΔH (ft) x D (in²) 1.43 (gal)
3 x V= 24.24 (gal)
well volume in Filter pack 6.65.
Total well volume 6.65 - 1.43 = 8.08 gallons

Well Development Technique:

Pumping with 12 volt electic pump
Did not surge - well volume very low - top of water below top of screen

Groundwater Parameters

TIME	VOLUME (Gal)	TURBIDITY (± 10.0%)	S.C. (± 3.0%)	D.O. (± 10.0%)	TEMP. (± 0.5°C)	pH (± 0.1%)
	+9 gal from 09-04-01					
10:17	11.5	71.4	396		21.7	7.02
10:22	18	47.0	400		21.1	6.94
10:27	20.5	4.72	401		20.8	6.96
10:36	27	6.24	401		21.1	7.04
10:42	29	1.57	405		20.7	7.03
10:47	31.5	1.19	401		20.9	7.07
10:51	34	1.60	403		20.9	7.08
10:55	36	1.15	404		20.8	7.08

NOTES:

When First opened well was not under pressure or vacuum. PID reading 0.00 PPM. 09-04-01 Recovered 9 gallons - well did not pump dry. First Flow very cloudy - clearing at end of pumping. Top of water on 09-05-01 25.11 (From top of casing). Well did not pump dry.

Development/Purging Oversight: Elden Penn

AMS # 7

D-E-M-S

MONITORING WELL DEVELPOMENT/PURGING LOG

WELL NO.: MW 07

09-04-01 —
DATE: 09-05-01

Depth from Top of Casing:

Top of water (ft) 16.65 - 2.67 = 13.98 bgs
Bottom of well (ft) 26.22 - 2.67 = 23.55 bgs
Well diameter (in) 2

Top, sampling interval: ——
Bottom, sampling interval ——
V= 0.0408 x ΔH (ft) x D (in²) 1.56 (gal)
3 x V= 26.49 (gal)

Volume in Filter puck 7.28 gallons
Total well volume 7.28 + 1.56 = 8.83 gallons

Well Development Technique:

Pumping with 12 volt electric pump.
Did not surge - well volume very low - top of water below top of screen.

Groundwater Parameters

TIME	VOLUME (Gal)	TURBIDITY (± 10.0%)	S.C. (± 3.0%)	D.O. (± 10.0%)	TEMP. (± 0.5°C)	pH (± 0.1%)
	+9 gal From 09-04-01					
11:24	10	10.02	713		23.1	6.67
11:33	12	82.5	709		23.6	6.87
11:42	13.5	47.5	704		23.3	6.87
11:55	14	27.5	703		23.2	6.83
12:06	14.5	21.6	690		24.9	6.79
12:10	14.75	14.2	699		25	6.78
12:16	15	11.3	700		24.8	6.84

NOTES:

When first opened well not under pressure or vacuum, PID reading 0.00 PPM. 09-04-01 Pumped dry at 2.5 gallons. Slow recharge. Contined until 9 gallons removed. First fluid very cloudy - clearing at the end of pumping. Top of water on 09-05-01 - 16.69'. Turbidity erratic probably due to pumping well dry between each parameter check.

Development/Purging Oversight: Eldon Penn

Page 1 of 1

AMS #7

D-E-M-S

MONITORING WELL DEVELPOMENT/PURGING LOG

WELL NO.: AAW 08

DATE: 09-04-01 / 09-05-01

Depth from Top of Casing:

Top of water (ft) 24.48 - 3.03 = 21.45 bgs
Bottom of well (ft) 28.03 - 3.03 = 25 bgs
Well diameter (in) 2

Top, sampling interval:
Bottom, sampling interval
V= 0.0408 x ΔH (ft) x D (in²) .58 (gal)
3 x V= 9.81 (gal)

Volume in Filter pack = 2.78 gallons
Total well volume 2.78 + .58 = 3.27 gallons

Well Development Technique:

Pumping with 12 volt electic pump.
Did not surge - well volume very low - top of water below top of screen

Groundwater Parameters

TIME	VOLUME (Gal)	TURBIDITY (± 10.0%)	S.C. (± 3.0%)	D.O. (± 10.0%)	TEMP. (± 0.5°C)	pH (± 0.1%)
14:38	1	off scale	686		25.8	6.68
14:55	2.5	3.7	686		23.2	6.91
09-04-01 15:00	4.5	9	641		25	6.65
15:45	8	~~~	~~~		~~~	~~~
13:30	8.5	10.15	620		22.5	6.77
09-05-01 13:36	9	21.00	616		22.3	6.78
13:43	9.5	12.70	625		21.6	6.79
13:51	10	7.95	629		21.3	6.76

NOTES:

When First opened well not under pressure or vacuum. PID reading 0.00 PPM. 09-04-01 - Well pumped dry at .75 gallons - slow recharge. Took parameter readings to 4.5 gallons removed. PH meter stopped working. Continued removing water until 8 total gallons removed.
09-05-01 - Top of water 24.49' (From top of casing)

Development/Purging Oversight: Eldon Penn

Eldon Penn

AMS #7

D-E-M-S

MONITORING WELL DEVELPOMENT/PURGING LOG

WELL NO.: MW 08

DATE: 09-04-01 — 09-05-01

Depth from Top of Casing:

Top of water (ft) 24.48 - 3.03 = 21.45 bgs
Bottom of well (ft) 28.03 - 3.03 = 25 bgs
Well diameter (in) 2

Top, sampling interval: ———
Bottom, sampling interval ———
V= 0.0408 x ΔH (ft) x D (in²) .58 (gal)
3 x V= 9.81 (gal)
Volume in Filter pack = 2.78 gal
Total well volume 2.78 + .58 = 3.27 gal

Well Development Technique:

Pumping with 12 volt electic pump
Did not surge - well volume very low - top of water below top of screen

Groundwater Parameters

TIME	VOLUME (Gal)	TURBIDITY (± 10.0%)	S.C. (± 3.0%)	D.O. (± 10.0%)	TEMP. (± 0.5°C)	pH (± 0.1%)
13:55	10.5	6.28	631		21.5	6.73
14:03	11	5.52	628		21.1	6.76
14:13	12	4.68	629		20.6	6.73
14:18	12.5	5.75	632		20.7	6.79

NOTES:

09-05-01 - Well pumped dry between each parameter reading. Stopped development - recharge slowing down. Parameter had stabilized.

Development/Purging Oversight: Eldon Penn

Eldon P

AM) AT

D-E-M-S

MONITORING WELL DEVELPOMENT/PURGING LOG

09-05-01
DATE: 09-06-01

WELL NO.: MW 09

Depth from Top of Casing:

Top of water (ft) 25.47 - 3.40 = 22.07
Bottom of well (ft) 215.42
Well diameter (in) 4

Top, sampling interval: ——
Bottom, sampling interval ——
V= 0.0408 x ΔH (ft) x D (in²) 124 (gal)
3 x V= 390 (gal)

Volume in Filter pack 6.12 gal
Total well volume 6.12 + 124 = 130.12

Well Development Technique:

Three quarter horse power 220 volt electic pump. Did not sand bail well. - due to no apparent Fill and past low recharge rate.

Groundwater Parameters

	TIME	VOLUME (Gal)	TURBIDITY (± 10.0%)	S.C. (± 3.0%)	D.O. (± 10.0%)	TEMP. (± 0.5°C)	pH (± 0.1%)
	16:20	30	243	7.19		20.8	9.68
09-05-01	16:25	100	495	7.12		20.9	10.76
	16:39	135	252	7.07		24.7	10.85
	17:07	142	1021	6.97		23.5	10.79
	7:43	162	57.8	8.16		19.7	7.23
09-06-01	7:50	182	16.70	8.13		19.6	7.12
	7:53	202	7.59	8.07		19.6	7.05
	7:59	Well pump dry					

NOTES:

When First opened well not under pressure or vacuum. PID reading 0.00 PPM. 09-05-01 - Well pumped dry at 130 gal. Slow recharge rate. Let well recharge over night. 09-06-01 - Top of water 109.11' (From top of casing). Poor over night recharge. Well pumped dry after 70 gallons. No recharge after 30 min.

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Eldon P

Page __ of __