# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** UP-2

**Site Name, Location:** BMS- Bldg 5- Humacao

**Personnel:** N. Rivera / J. Del Valle

**Equipment Used:** dedicated bladder, tubing, cord.

**Date:** Sept 5, 2016

**Monitoring Well Information:**

Diameter/Material: 2 / PVC
Depth to Bottom (ft from TOC): 14
Top of Screen (ft from TOC): 4
Bottom of Screen (ft from TOC): 14
Pump Intake Level (ft from TOC): ~11
Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 6.65 / 1142
Measured DTB (ft from TOC)/Time: (14) /
Headspace Reading (ppm):
Time @ Start Purging: 1203
Time @ Stop Purging: 1226
Time @ Stop Sampling: 1254
Purge Volume (gallons): 1.25

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1146 | START | | | | | | | |
| 1153 | Stop. | water got to chamber, but then stopped. Pulled pump out. | | | | | | |
| | | Loose bottom ball valve | | | | | | |
| 1203 | 6.65 | Start | | | | | | |
| 1206 | 6.68 | 29.99 | 1032 | 1.13 | 6.61 | -71.2 | 19.3 | 100 |
| 1211 | 6.70 | 30.00 | 1020 | 0.37 | 6.75 | -92.7 | 11.2 | 150 |
| 1216 | 6.69 | 29.93 | 1015 | 0.22 | 6.82 | -104.9 | 6.59 | 125 |
| 1221 | 6.68 | 29.88 | 1005 | 0.12 | 6.87 | -111.6 | 5.13 | 150 |
| 1226 | 6.68 | 29.89 | 1001 | 0.09 | 6.90 | -113.0 | 3.81 | 150 |
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| | | | 29.89 | Ready to sample | | | | |
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**Comments:**
Sample Time: 1241 DUP 1254 MS / MSD /
Water Quality/Appearance: clear
Sample Analysis: See below DUP See below MS / MSD /

Additional Comments: VOC 3, LMA 3, VPH 3, SVOC(2), PEST(1), EPH (2)

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** VP-1

**Site Name, Location:** BMS - Bldg 5 - Humacao

**Personnel:** A. Rivera / J. Del Valle

**Equipment Used:** dedicated bladder pump, tubing, cord

**Date:** Sept 5, 2012

**Monitoring Well Information:**

Diameter/Material: 2, PVC

Depth to Bottom (ft from TOC): 14

Top of Screen (ft from TOC): 4

Bottom of Screen (ft from TOC): 14

Pump Intake Level (ft from TOC): ~9

Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 3.68 / 1518

Measured DTB (ft from TOC)/Time: (14) /

Headspace Reading (ppm):

Time @ Start Purging: 1529

Time @ Stop Purging: 1550

Time @ Stop Sampling: 1607

Purge Volume (gallons): 1

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1523 | Start | | | | | | | |
| 1525 | STOP. - Needed to remove pump. Bottom ball valve as stuck. Loose it | | | | | | | |
| 1529 | 3.68 | START | | | | | | |
| 1530 | 3.73 | 32.56 | 439 | 1.11 | 6.99 | -105.8 | 11.6 | 200 |
| 1535 | 3.73 | 32.58 | 432 | 0.31 | 6.89 | -120.3 | 6.38 | 200 |
| 1540 | 3.71 | 32.54 | 430 | 0.13 | 6.87 | -123.7 | 5.72 | 100 |
| 1545 | 3.71 | 32.39 | 430 | 0.12 | 6.86 | -123.8 | 4.47 | 100 |
| 1550 | 3.71 | 32.33 | 430 | 0.11 | 6.85 | -123.4 | 3.75 | 100 |
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| | | | READY TO SAMPLE | | | | | |
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**Comments:**

Sample Time: 1607 DUP / MS / MSD / Water Quality/Appearance: clear

Sample Analysis: SCL DUP / MS / MSD /

Additional Comments: VOC, LMA, VPH, SVOC, Pest, EPH

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** S-31R(2)

**Site Name, Location:** BMS

**Personnel:** R. Stuart/Jose Del Valle

**Equipment Used:** YSI 650 MSD; dedicated bladder/tubing/cord

**Date:** September 6, 2016

**Monitoring Well Information:**

Diameter/Material: 2" / PVC
Depth to Bottom (ft from TOC): 15.6
Top of Screen (ft from TOC): 5.6
Bottom of Screen (ft from TOC): 15.6
Pump Intake Level (ft from TOC): 7.4
Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 8.02 / 1135
Measured DTB (ft from TOC)/Time: (15.6) /
Headspace Reading (ppm):
Time @ Start Purging: 1155
Time @ Stop Purging: 1244
Time @ Stop Sampling: 1304
Purge Volume (gallons): 2.5

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1155 | 8.02 | | START | | | | | |
| 1159 | 8.04 | 35.28 | 0.870 | 0.71 | 6.53 | -104.1 | 21.2 | 150 |
| 1204 | 8.07 | 34.89 | 0.771 | 0.51 | 6.48 | -103.2 | 30.8 | 350 |
| 1209 | 8.07 | 34.84 | 0.728 | 0.42 | 6.44 | -92.3 | 37.2 | 150 |
| 1214 | 8.07 | 34.66 | 0.718 | 0.37 | 6.42 | -100.6 | 38.2 | 150 |
| 1219 | 8.07 | 34.73 | 0.735 | 0.34 | 6.40 | -98.4 | 27.0 | 150 |
| 1224 | 8.07 | 34.53 | 0.786 | 0.32 | 6.39 | -95.6 | 12.2 | 175 |
| 1229 | 8.07 | 34.45 | 0.807 | 0.30 | 6.38 | -93.7 | 6.5 | 200 |
| 1234 | 8.07 | 34.37 | 0.823 | 0.30 | 6.38 | -92.6 | 6.2 | 200 |
| 1239 | 8.07 | 34.26 | 0.841 | 0.28 | 6.38 | -88.6 | 1.6 | 250 |
| 1244 | 8.07 | 34.16 | 0.846 | 0.28 | 6.38 | -89.8 | -0.7 | 250 |
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| | | | Ready to sample | | | | | |
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**Comments:**

Sample Time: 1304 DUP ✓ MS ✓ MSD ✓ Water Quality/Appearance: clear

Sample Analysis: DUP ✓ MS ✓ MSD ✓

Additional Comments: VOC, LMA, VPH, EPH, SVOC, PEST

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** S-29R

**Site Name, Location:** BMS

**Personnel:** R. Shiart / J. Del Valle

**Equipment Used:** YSI 556 dedicated bladder / pump, hosing

**Date:** September 6, 2016.

**Monitoring Well Information:**

Diameter/Material: 2" / PVC
Depth to Bottom (ft from TOC): 21.4
Top of Screen (ft from TOC): 11.4
Bottom of Screen (ft from TOC): 21.4
Pump Intake Level (ft from TOC): 12.5
Desired Pumping Rate (Lpm): 0.1 - 0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 8.90 / 1335.
Measured DTB (ft from TOC)/Time: (21.4) /
Headspace Reading (ppm):
Time @ Start Purging: 1340
Time @ Stop Purging: 1422
Time @ Stop Sampling: 1447
Purge Volume (gallons): 2.75

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1340 | 8.90 | | | START | | | | |
| 1342 | 8.90 | 33.18 | 895.0 | 2.66 | 6.72 | -93.3 | 17.6 | 100 |
| 1347 | 8.94 | 33.55 | 887.0 | 0.59 | 23.3 | -79.0 | 19.5 | 150 |
| 1352 | 8.94 | 33.54 | 889.0 | 0.23 | 22.6 | -81.5 | 22.9 | 200 |
| 1357 | 8.94 | 33.49 | 890.0 | 0.18 | 23.1 | -77.0 | 17.6 | 200 |
| 1402 | 8.94 | 33.26 | 889 | 0.09 | 6.61 | -80.6 | 12.5 | 200 |
| 1407 | 8.94 | 33.12 | 886 | 0.07 | 6.60 | -82.4 | 7.5 | 100 |
| 1412 | 9.02 | 33.02 | 885 | 0.07 | 6.59 | -79.0 | 7.68 | 100 |
| 1417 | 8.97 | 33.26 | 884 | 0.07 | 6.61 | -70.4 | 6.12 | 150 |
| 1422 | 8.95 | 33.33 | 884 | 0.08 | 6.61 | -71.3 | 5.23 | 150 |
| | | | Ready to sample | | | | | |
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**Comments:**

Sample Time: 1447 DUP / MS / MSD / Water Quality/Appearance: clear

Sample Analysis: DUP / MS / MSD /

VOC, LMA, VPH, EPH, SVOC, PEST

Additional Comments: The water pump was leaking. The work was stopped at 1338. The work was activated again at 1341. Bubbles in the chamber were observed

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** S-30

**Site Name, Location:** BMS

**Personnel:** N. Rivera / R. Stuart

**Equipment Used:** YSI 556 MPS
dedicated bladder, cord, hosing

**Date:** September 6, 2016

**Monitoring Well Information:**

Diameter/Material: 2" / PVC
Depth to Bottom (ft from TOC): 22.6
Top of Screen (ft from TOC): 12.6
Bottom of Screen (ft from TOC): 22.6
Pump Intake Level (ft from TOC): 13.63
Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 8.97 / 1454
Measured DTB (ft from TOC)/Time: 20.38 /
Headspace Reading (ppm):
Time @ Start Purging: 1543
Time @ Stop Purging: 1621
Time @ Stop Sampling: 1645
Purge Volume (gallons): 2.0

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1535 ~~1435~~ | 8.97 | After installing the tubbing in pump. | | | | | | |
| 1543 | | | | START | | | | |
| 1556 | 9.00 | 32.58 | 740 | 2.92 | 6.77 | -83.4 | 3.99 | 175.0 |
| 1601 | 9.01 | 31.60 | 799 | 0.57 | 6.70 | -85.6 | 3.84 | 200.0 |
| 1606 | 9.01 | 31.38 | 813 | 0.29 | 6.70 | -86.7 | 3.18 | 200.0 |
| 1611 | 9.02 | 31.30 | 826 | 0.25 | 6.71 | -87.1 | 3.24 | 250.0 |
| 1616 | 9.02 | 31.25 | 841 | 0.21 | 6.71 | -87.0 | 2.78 | 250.0 |
| 1621 | 9.03 | 31.24 | 849 | 0.20 | 6.71 | -87.4 | 2.88 | 250.0 |
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| | | | Ready to sample | | | | | |
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**Comments:**
Sample Time: 1645 DUP / MS / MSD / Water Quality/Appearance: Clear
Sample Analysis: DUP / MS / MSD /
Additional Comments: VOC, LMA, VPH, EPH, SVOC, PEST

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** S-34

**Site Name, Location:** BMS

**Personnel:** R. Stuart / J. Del Valle

**Equipment Used:** YSI 650 MDS, dedicated pump, tubing, hose, cord

**Date:** September 7, 2016

**Monitoring Well Information:**

Diameter/Material: 2" / PVC
Depth to Bottom (ft from TOC): 21.2
Top of Screen (ft from TOC): 11.2
Bottom of Screen (ft from TOC): 21.2
Pump Intake Level (ft from TOC): 3.38
Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 17.82 / 1222
Measured DTB (ft from TOC)/Time: ~~21.2~~ 21.82 RS /
Headspace Reading (ppm):
Time @ Start Purging: 1225
Time @ Stop Purging: 1302
Time @ Stop Sampling: 1350
Purge Volume (gallons): 2.0

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1235 | 17.82 | — | START | | | | | |
| 1242 | 18.21 | 29.49 | 905 | 0.67 | 6.69 | -69.1 | 1.0 | 125 |
| 1247 | 18.68 | 28.47 | 880 | 0.40 | 6.73 | -63.4 | -0.8 | 125 |
| 1252 | 19.00 | 28.57 | 877 | 0.35 | 6.76 | -64.0 | 0.6 | 125 |
| 1257 | 19.09 | 29.23 | 879 | 0.36 | 6.78 | -67.0 | -1.1 | 150 |
| 1302 | 19.22 | 28.75 | 882 | 0.32 | 6.76 | -67.0 | -0.5 | 175 |
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| | | | Ready to sample | | | | | |
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**Comments:**

Sample Time: 1350 DUP ✓ MS ✓ MSD ✓ Water Quality/Appearance: Clear

Sample Analysis: DUP ✓ MS ✓ MSD ✓

Additional Comments: Work (purging) was stopped at 1235 due to problems with gas cylinder and pump. At 1239 purging resume.
VOC, SVOC, VPH, EPH, PEST.

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** S-33

**Site Name, Location:** BMS

**Personnel:** N. Rivera / R. Stuart

**Equipment Used:** YSI 650 MDS
dedicated pump, hose, bladder, cord

**Date:** September 7, 2016.

**Monitoring Well Information:**

Diameter/Material: 2" / PVC
Depth to Bottom (ft from TOC): 20.1
Top of Screen (ft from TOC): 10.1
Bottom of Screen (ft from TOC): 20.1
Pump Intake Level (ft from TOC): 4.66
Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 1544 / 1445
Measured DTB (ft from TOC)/Time: (20.1) /
Headspace Reading (ppm):
Time @ Start Purging: 1448
Time @ Stop Purging: 1521
Time @ Stop Sampling: 1543
Purge Volume (gallons): 2.5

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1450 | 15.51 | | | Start | | | | |
| 1456 | 15.55 | 31.11 | 862 | 0.74 | 6.49 | -86.4 | 4.8 | 350 ↓ |
| 1501 | 15.52 | 29.67 | 846 | 0.39 | 6.46 | -84.3 | 11.7 | 100 |
| 1506 | 15.53 | 30.15 | 844 | 0.36 | 6.47 | -82.0 | 9.3 | 150 |
| 1511 | 15.60 | 29.68 | 846 | 0.32 | 6.45 | -81.8 | 2.5 | 300 |
| 1516 | 15.66 | 29.46 | 846 | 0.31 | 6.45 | -81.3 | 1.8 | 300 ↓ |
| 1521 | 15.52 | 29.56 | 846 | 0.30 | 6.46 | -81.7 | 1.7 | 300 |
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| | | | Ready | to | sample | | | |
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**Comments:**
Sample Time: 1543 DUP ✓ MS ✓ MSD ✓ Water Quality/Appearance: Clear
Sample Analysis: DUP ✓ MS ✓ MSD ✓

Additional Comments: VOC, SVOC, VPH, EPH, LMA, PEST

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** S-36

**Site Name, Location:** BMS

**Personnel:** J. Del Valle / R. Stuart

**Equipment Used:** YSI 650 MDS
dedicated pump, hose, bladder, cord

**Date:** September 7, 2016.

**Monitoring Well Information:**

Diameter/Material: 2" / PVC
Depth to Bottom (ft from TOC): 19.5
Top of Screen (ft from TOC): 9.5
Bottom of Screen (ft from TOC): 19.5
Pump Intake Level (ft from TOC): 3.87
Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 15.63 / 1645
Measured DTB (ft from TOC)/Time: (19.5) /
Headspace Reading (ppm):
Time @ Start Purging: 1646
Time @ Stop Purging: 1718
Time @ Stop Sampling: 1537
Purge Volume (gallons): 2-0

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1646 | 15.63 | | | Start | | | | |
| 1648 | 16.00 | 29.52 | 1180 | 1.46 | 6.73 | -7.9 | 10.8 | 100 |
| 1653 | 16.19 | 29.37 | 1142 | 0.78 | 6.76 | -31.7 | 7.5 | 150 |
| 1658 | 16.23 | 29.42 | 1103 | 0.62 | 6.77 | -34.3 | 6.2 | 150 |
| 1703 | 16.35 | 29.42 | 1090 | 0.60 | 6.78 | -34.0 | 4.7 | 150 |
| 1708 | 16.52 | 29.49 | 1092 | 0.46 | 6.80 | -41.6 | 3.9 | 150 |
| 1713 | 16.52 | 29.46 | 1086 | 0.41 | 6.81 | -47.9 | 1.1 | 150 |
| 1718 | 16.53 | 29.43 | 1080 | 0.39 | 6.82 | -50.0 | 0.4 | 150 |
| | | | | | | | | |
| | | | Ready | to sample | | | | |
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**Comments:**
Sample Time: 1537 DUP ✓ MS ✓ MSD ✓ Water Quality/Appearance: clear
Sample Analysis: DUP ✓ MS ✓ MSD ✓

Additional Comments: VOC, SVOC, EPH, VPH, LMA, PEST

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** S-40D

**Site Name, Location:** BMS

**Equipment Used:** YST 650 MDS
dedicated bladder, cord, tubing

**Personnel:** R. Stuart / J. Del Valle

**Date:** September 8, 2016.

**Monitoring Well Information:**

Diameter/Material: 2" / PVC / SS
Depth to Bottom (ft from TOC): 35.4
Top of Screen (ft from TOC): 25.2
Bottom of Screen (ft from TOC): 35.2
Pump Intake Level (ft from TOC): ~30
Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 12.71 / 1208
Measured DTB (ft from TOC)/Time: (35.4) /
Headspace Reading (ppm):
Time @ Start Purging: 1233
Time @ Stop Purging: 1319
Time @ Stop Sampling: 1403
Purge Volume (gallons): 3.5

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1214 | 12.63 | with pump and tubing installed | | | | | | |
| | | | | | | | | |
| 1239 | 13.10 | 29.75 | 1.149 | 3.31 | 7.10 | 175.0 | -7.0 | 125 |
| 1244 | 13.12 | 28.60 | 1.021 | 1.30 | 7.10 | 198.6 | -5.7 | 150 |
| 1249 | 12.95 | 28.55 | 1.016 | 1.04 | 7.10 | 211.0 | -2.6 | 200 |
| 1254 | 12.98 | 28.41 | 1.015 | 0.91 | 7.09 | 221.0 | -1.9 | 200 |
| 1259 | 12.98 | 28.29 | 1.015 | 0.93 | 7.09 | 229.3 | 0.9 | 225 |
| 1304 | 13.00 | 28.15 | 1.014 | 0.96 | 7.09 | 234.8 | 1.0 | 200 |
| 1309 | 13.06 | 28.12 | 1.014 | 1.49 | 7.10 | 237.5 | 1.2 | 300 |
| 1314 | 13.05 | 27.92 | 1.013 | 1.18 | 7.09 | 244.2 | 1.8 | 275 |
| 1319 | 13.12 | 27.88 | 1.013 | 1.09 | 7.10 | 246.6 | -1.3 | 300 |
| | | | | | | | | |
| | | | Ready to sample | | | | | |
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**Comments:**
Sample Time: 1403 DUP ✓ MS ✓ MSD ✓ Water Quality/Appearance: clear
Sample Analysis: DUP ✓ MS ✓ MSD ✓

Additional Comments: Gas tank ~~was~~ became empty at 1351. Resume sampling at 1357.
VOC, SVOC, EPH, VPH, LMS, PEST

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** S-40S

**Site Name, Location:** BMS

**Personnel:** R. Stuart / J. Del Valle

**Equipment Used:** YSI 650 MDS
dedicated tubing, bladder, cord

**Date:** September 8, 2016

**Monitoring Well Information:**

Diameter/Material: 2" / PVC
Depth to Bottom (ft from TOC): 23.5
Top of Screen (ft from TOC): 13.5
Bottom of Screen (ft from TOC): 23.5
Pump Intake Level (ft from TOC): ~19
Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 13.62 / 1221
Measured DTB (ft from TOC)/Time: 23.5 /
Headspace Reading (ppm):
Time @ Start Purging: 1426
Time @ Stop Purging: 1524
Time @ Stop Sampling: 1539
Purge Volume (gallons): 5.0

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1224 | 13.57 | | with pump and tubing installed | | | | | |
| | | | | START | | | | |
| 1429 | 14.03 | 27.97 | 1.097 | 0.93 | 6.76 | -65.8 | 10.5 | 400 ↓ |
| 1434 | 14.27 | 27.78 | 1.095 | 0.56 | 6.77 | -68.1 | 240.1 | 350 ↓ |
| 1439 | 14.19 | 28.01 | 1.096 | 0.50 | 6.78 | -76.0 | 167.3 | 175 |
| 1444 | 14.05 | 28.25 | 1.098 | 0.50 | 6.80 | -81.3 | 114.1 | 175 |
| 1449 | 14.07 | 27.98 | 1.098 | 0.47 | 6.82 | -85.6 | 91.8 | 200 |
| 1454 | 14.07 | 27.74 | 1.097 | 0.45 | 6.82 | -87.3 | 61.1 | 200 |
| 1459 | 14.05 | 27.81 | 1.096 | 0.43 | 6.84 | -89.8 | 42.1 | 200 |
| 1504 | 14.12 | 27.72 | 1.096 | 0.42 | 6.85 | -93.2 | 40.0 | 200 |
| 1509 | 14.18 | 27.63 | 1.096 | 0.39 | 6.86 | -96.0 | 32.3 | 200 |
| 1514 | 14.13 | 27.80 | 1.096 | 0.39 | 6.87 | -101.1 | 29.3 | 200 |
| 1519 | 13.85 | 28.34 | 1.096 | 0.41 | 6.88 | -102.0 | 26.3 | 200 |
| 1524 | 13.80 | 28.86 | 1.097 | 0.47 | 6.90 | -101.3 | 26.0 | 200 |
| | | | | | | | | |
| | | | Ready to sample | | | | | |
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**Comments:**

Sample Time: 1539 DUP ✓ MS ✓ MSD ✓ Water Quality/Appearance: quite turbidded

Sample Analysis: DUP ✓ MS ✓ MSD ✓

Additional Comments: VOC, SVOC, EPH, VPH, LMA, PEST

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** S-41S

**Site Name, Location:** BMS - Bldg 5 - Humacao

**Personnel:** N. Rivera / R. Stuart

**Equipment Used:** dedicated bladder, tubing, cord

**Date:** Sept 8, 2016

**Monitoring Well Information:**

Diameter/Material: 2 / PVC
Depth to Bottom (ft from TOC): 22.78
Top of Screen (ft from TOC): 12.58
Bottom of Screen (ft from TOC): 22.58
Pump Intake Level (ft from TOC): -18
Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 1235 / 1317
Measured DTB (ft from TOC)/Time: [22.78] /
Headspace Reading (ppm):
Time @ Start Purging: 1401
Time @ Stop Purging: 1426
Time @ Stop Sampling: 1444
Purge Volume (gallons): 4.5

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1320 | 1222 | After | installing | pump | / tubing | | | |
| 1401 | START | | | | | | | |
| 1406 | 1312 | 16.54 | 1450 | 2.03 | 7.11 | -83.7 | 9.14 | 350 |
| 1411 | 1307 | 16.42 | 1458 | 1.68 | 7.13 | -92.3 | 6.44 | 350 |
| 1416 | 1309 | 13.81 | 1530 | 2.12 | 7.14 | -94.2 | 5.54 | 350 |
| 1421 | 1307 | 13.61 | 1517 | 2.09 | 7.14 | -98.9 | 5.19 | 350 |
| 1426 | 1307 | 13.46 | 1513 | 1.84 | 7.15 | -101.1 | 5.30 | 350 |
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| | | | Ready to Sample | | | | | |
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**Comments:**
Sample Time: 1444 DUP ✓ MS ✓ MSD ✓
Sample Analysis: ✓ DUP ✓ MS ✓ MSD ✓
Water Quality/Appearance: clear

Additional Comments: VOC, SMA, VPA, SVOC, PEST, EPA

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** S-41D

**Site Name, Location:** BMS Humacao

**Personnel:** A Rivera

**Equipment Used:** dedicated bladder, tubing, cord

**Date:** Sept 8, 2016

**Monitoring Well Information:**

Diameter/Material: 2 / PVC/SS

Depth to Bottom (ft from TOC): 33.79

Top of Screen (ft from TOC): 13.49

Bottom of Screen (ft from TOC): 33.49

Pump Intake Level (ft from TOC): ~19

Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 1020 / 1025

Measured DTB (ft from TOC)/Time: (33.79) /

Headspace Reading (ppm):

Time @ Start Purging: 1503

Time @ Stop Purging: 1538

Time @ Stop Sampling: 1620

Purge Volume (gallons): 2.75

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1030 | 9.98 | After installing pump / hose | | | | | | |
| 1040 | START | | | | | | | |
| 1045 | 10.55 | 9.58 | 3331 | 7.87 | 691 | 61.9 | | 275 |
| 1050 | | HAVE warm H2O at Temp | | | | | | |
| | | | | | | | | |
| 1503 | START @ 1009 | | | | | | | |
| 1518 | 10.41 | -3.90 | 2679 | 11.20 | 7.31 | 53.0 | 4.52 | 150 |
| 1523 | 10.41 | -2.44 | 2607 | 5.41 | 7.22 | 47.0 | 4.34 | 150 |
| 1528 | 10.45 | -2.02 | 2485 | 3.71 | 7.21 | 41.7 | 3.91 | 200 |
| 1533 | 10.48 | -2.53 | 2481 | 3.72 | 7.20 | 39.0 | 6.47 | 200 |
| 1538 | 10.51 | -2.08 | 2508 | 3.62 | 7.20 | 36.1 | 5.41 | 200 |
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| | | | Ready to sample | | | | | |
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**Comments:**

Sample Time: 1620 DUP — MS — MSD — Water Quality/Appearance: clear

Sample Analysis: DUP — MS — MSD —

Additional Comments: VOC, LMA, VPP, SVOC, PEST, EPH

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** S-37

**Site Name, Location:** BMS- Bldg 5- Humacao

**Personnel:** N. Rivera / R. Stuart

**Equipment Used:** dedicated bladder pump, cord tubing

**Date:** Sept 9, 2016

**Monitoring Well Information:**

Diameter/Material: 2 / PVC

Depth to Bottom (ft from TOC): 31.7

Top of Screen (ft from TOC): 21.7

Bottom of Screen (ft from TOC): 31.7

Pump Intake Level (ft from TOC): ~ 26

Desired Pumping Rate (Lpm): 0.1-0.2

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 21.04 / 1138

Measured DTB (ft from TOC)/Time: (31.7) /

Headspace Reading (ppm):

Time @ Start Purging: 15.59

Time @ Stop Purging: 1632

Time @ Stop Sampling: 1656

Purge Volume (gallons):

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1559 | START | | | | | | | |
| 1607 | 21.43 | 28.82 | 916 | 2.93 | 7.33 | -50.6 | 3.89 | 250 |
| 1612 | 21.48 | 28.35 | 918 | 2.12 | 7.17 | -98.3 | 3.46 | 300 ↓ |
| 1617 | 21.46 | 28.26 | 919 | 2.21 | 7.17 | -104.5 | 2.76 | 250 ↓ |
| 1622 | 21.44 | 28.25 | 920 | 0.79 | 7.18 | -105.1 | 3.01 | 200 |
| 1627 | 21.44 | 28.24 | 919 | 0.72 | 7.17 | -101.1 | 2.63 | 200 |
| 1632 | 21.43 | 28.22 | 919 | 0.65 | 7.16 | -99.4 | 2.51 | 200 |
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| | | | READY to sample | | | | | |
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**Comments:**

Sample Time: 1656 DUP — / MS — / MSD — / Water Quality/Appearance: clear

Sample Analysis: DUP — / MS — / MSD — /

Additional Comments: VOC, SVOC, LMA, VPH, EPH, PEST

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** S-35D

**Site Name, Location:** BMS - Bldg 5, Humacao

**Personnel:** N Rivera / R Stuart

**Equipment Used:** dedicated bladder, tubing, cord decontaminated pump

**Date:** Sept 9, 2016

**Monitoring Well Information:**

Diameter/Material: 2 / PVC/SS

Depth to Bottom (ft from TOC): 35.28

Top of Screen (ft from TOC): 25.08

Bottom of Screen (ft from TOC): 35.08

Pump Intake Level (ft from TOC): ~30

Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 1121 / 1132

Measured DTB (ft from TOC)/Time: (35.28) /

Headspace Reading (ppm):

Time @ Start Purging: 1146

Time @ Stop Purging: 1250

Time @ Stop Sampling: 1402

Purge Volume (gallons): 2

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1136 | 1117 | | | | | | | |
| 1146 | STARTS | | | | | | | |
| 1210 | 1131 | 30.35 | 846 | 1.91 | 7.19 | 121.3 | 3.21 | 150 |
| 1215 | 1135 | 29.64 | 843 | 0.68 | 7.23 | 112.7 | 3.14 | 175 |
| 1220 | 1135 | 29.56 | 842 | 0.57 | 7.27 | 101.7 | 3.11 | 175 |
| 1225 | 1135 | 29.57 | 840 | 0.47 | 7.28 | 84.6 | 3.33 | 175 |
| 1230 | 1136 | 29.50 | 840 | 0.41 | 7.29 | 71.1 | 2.84 | 175 |
| 1235 | 1136 | 29.51 | 839 | 0.41 | 7.29 | 62.1 | 3.00 | 175 |
| 1240 | 1135 | 29.53 | 839 | 0.38 | 7.29 | 54.5 | 3.32 | 175 |
| 1245 | 1135 | 29.44 | 839 | 0.38 | 7.29 | 49.8 | 3.05 | 175 |
| 1250 | 1135 | 29.51 | 838 | 0.36 | 7.29 | 45.3 | 2.83 | 175 |
| | | | | | | | | |
| | | | Ready to sample | | | | | |
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**Comments:**

Sample Time: 1314 DUP / MS 1338 MSD 1402

Water Quality/Appearance: clear

Sample Analysis: DUP / MS MSD

Additional Comments: VOC, SVOC, LMA, EPH, VPH, PEST

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** S-35

**Site Name, Location:** BMS - Bldg 5, Humacao

**Personnel:** N. Rivera / R. Stuart

**Equipment Used:** dedicated bladder, tubing, hose, cord

**Date:** Sept 9, 2016

**Monitoring Well Information:**

Diameter/Material: 2" / PVC

Depth to Bottom (ft from TOC): 18

Top of Screen (ft from TOC): 8

Bottom of Screen (ft from TOC): 18

Pump Intake Level (ft from TOC): ~16

Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 13.43 / 1132

Measured DTB (ft from TOC)/Time: (18) /

Headspace Reading (ppm):

Time @ Start Purging: 1440

Time @ Stop Purging: 1503

Time @ Stop Sampling: 1530

Purge Volume (gallons): 2.25

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1135 | 1349 | After loosing both top / bottom ball valves | | | | | | |
| 1435 | 1345 | | | | | | | |
| 1440 | START | | | | | | | |
| 1443 | 13.64 | 29.62 | 856 | 1.26 | 6.71 | -35.6 | 11.1 | 100 |
| 1448 | 13.89 | 29.18 | 851 | 0.46 | 6.70 | -78.4 | 8.4 | 150 |
| 1453 | 13.96 | 28.97 | 833 | 0.37 | 6.73 | -88.2 | 6.75 | 150 |
| 1458 | 14.03 | 28.91 | 823 | 0.29 | 6.73 | -90.8 | 6.00 | 150 |
| 1503 | 14.04 | 28.77 | 819 | 0.24 | 6.71 | -89.0 | 5.0 | 150 |
| 1508 | | | | | | | | |
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| | | | Ready to sample | | | | | |
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**Comments:**

Sample Time: 1530 DUP / MS / MSD /

Water Quality/Appearance: clear

Sample Analysis: DUP / MS / MSD /

Additional Comments: VOC, SVOC, VPH, EPA, LMA, PEST

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** S-32

**Site Name, Location:** BMS

**Personnel:** R. Stuart / J. Del Valle

**Equipment Used:** YSI 650 MDS

**Date:** September 9, 2016.

dedicated bladder pump, tubing, cord

**Monitoring Well Information:**

Diameter/Material: 2" / PVC
Depth to Bottom (ft from TOC): 21.6
Top of Screen (ft from TOC): 11.6
Bottom of Screen (ft from TOC): 21.6
Pump Intake Level (ft from TOC): 7.98
Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 13.62 / 1203
Measured DTB (ft from TOC)/Time: 21.6 / ____
Headspace Reading (ppm): ____
Time @ Start Purging: 1206
Time @ Stop Purging: 1236
Time @ Stop Sampling: 1258
Purge Volume (gallons): 3.0

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| 1211 | 13.74 | 36.95 | 882 | 0.70 | 6.37 | -97.5 | 4.2 | 150 |
| 1216 | 13.84 | 33.28 | 866 | 0.45 | 6.31 | -90.2 | 18.5 | 150 |
| 1221 | 13.96 | 32.66 | 868 | 0.34 | 6.30 | -92.2 | 9.9 | 200 |
| 1226 | 13.81 | 32.56 | 873 | 0.31 | 6.29 | -92.8 | 2.2 | 150 |
| 1231 | 13.94 | 32.49 | 878 | 0.30 | 6.29 | -92.8 | 1.4 | 150 |
| 1236 | 14.09 | 32.16 | 881 | 0.27 | 6.28 | -89.3 | -0.7 | 200 |
| | | | | | | | | |
| | | | Ready to sample | | | | | |
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**Comments:**

Sample Time: 1258 DUP ✓ MS ✓ MSD ✓

Water Quality/Appearance: slightly turbided

Sample Analysis: VOC, SVOC, LMA, VPH, EPH, PEST DUP ✓ MS ✓ MSD ✓

Additional Comments: Apparent odor, a "sheen" or something similar was observed during sampling.

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** S-28

**Site Name, Location:** BMS- Bldg 5 - Thermaco

**Personnel:** N. Rivera / J. Del Valle

**Equipment Used:** dedicated bladder pump, tubing, cord

**Date:** Sept 12, 2016

**Monitoring Well Information:**

Diameter/Material: 2" PVC

Depth to Bottom (ft from TOC): 19.8

Top of Screen (ft from TOC): 9.8

Bottom of Screen (ft from TOC): 19.8

Pump Intake Level (ft from TOC): ~15

Desired Pumping Rate (Lpm): 0.1 - 0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 8.96 / 1157

Measured DTB (ft from TOC)/Time: (19.8) /

Headspace Reading (ppm):

Time @ Start Purging: 1216

Time @ Stop Purging: 1245

Time @ Stop Sampling: 1345

Purge Volume (gallons): 1.50

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1205 | START | | | | | | | |
| 1213 | -Stop. Needed to loose top/bottom ball valve | | | | | | | |
| 1216 | Start | | | | | | | |
| 1220 | 9.15 | 31.92 | 1033 | 1.38 | 6.65 | -57.6 | 17.4 | 200 |
| 1225 | 9.21 | 31.03 | 1043 | 0.45 | 6.54 | -58.5 | 13.8 | 350 ↓ |
| 1230 | 9.19 | 30.98 | 1057 | 0.60 | 6.57 | -56.2 | 13.0 | 200 |
| 1235 | 9.19 | 31.03 | 1062 | 0.96 | 6.64 | -51.2 | 14.1 | 250 |
| 1240 | 9.19 | 30.97 | 1067 | 1.06 | 6.65 | -48.4 | 13.9 | 250 |
| 1245 | 9.19 | 31.01 | 1069 | 1.13 | 6.67 | -46 | 15.0 | 250 |
| | | | | | | | | |
| | | | Ready to sample | | | | | |
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**Comments:**

Sample Time: 1310 DUP — MS 1330 MSD 1345 Water Quality/Appearance: slightly cloudy

Sample Analysis: DUP — MS MSD

Additional Comments: VOC, LMS, VPH, SVOC, EPH

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** S-38

**Site Name, Location:** BMS

**Personnel:** R. Stuart / J. Del Valle

**Equipment Used:** YSI 650 MDS
dedicated bladder pump, hose, cord

**Date:** September 12, 2016

**Monitoring Well Information:**

Diameter/Material: 2" / PVC
Depth to Bottom (ft from TOC): 14
Top of Screen (ft from TOC): 4
Bottom of Screen (ft from TOC): 14
Pump Intake Level (ft from TOC): ~10
Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 5.35 / 1141
Measured DTB (ft from TOC)/Time: (14) /
Headspace Reading (ppm):
Time @ Start Purging: 1144
Time @ Stop Purging: 1215
Time @ Stop Sampling: 1235
Purge Volume (gallons): 2.0

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1145 | 5.60 | — | — | START | — | — | — | — |
| 1146 | 5.62 | 30.58 | 630 | 0.56 | 6.45 | 85.5 | 47.2 | 125 |
| 1151 | 5.45 | 30.66 | 642 | 0.46 | 6.44 | 52.0 | -16.7 | 100 |
| 1156 | 5.42 | 31.20 | 647 | 0.50 | 6.52 | 33.8 | -20.9 | 100 |
| 1201 | 5.44 | 31.24 | 649 | 0.49 | 6.53 | 24.8 | -25.1 | 100 |
| 1206 | 5.47 | 31.25 | 642 | 0.47 | 6.54 | 19.3 | -26.5 | 125 |
| 1211 | 5.43 | 31.12 | 641 | 0.45 | 6.54 | 15.7 | -28.2 | 125 |
| 1215 | Stop | Purging | | | | | | |
| | | | Ready to sample | | | | | |
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**Comments:**

Sample Time: 1235 DUP ✓ MS ✓ MSD ✓ Water Quality/Appearance: clear

Sample Analysis: DUP ✓ MS ✓ MSD ✓

Additional Comments: VOC, LMA, SVOC, VPH, EPH, PEST

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** A1-R4

**Site Name, Location:** BMS

**Personnel:** R. Stuart / J. D

**Equipment Used:** YSI 650 MDS
dedicated bladder, pump, hose, cord

**Date:** September 12, 2016.

**Monitoring Well Information:**

Diameter/Material: 2" / PVC
Depth to Bottom (ft from TOC): 14.1
Top of Screen (ft from TOC): 4.1
Bottom of Screen (ft from TOC): 14.1
Pump Intake Level (ft from TOC): 9.55
Desired Pumping Rate (Lpm): 0.1 - 0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 4.55 / 1357
Measured DTB (ft from TOC)/Time: 14.1 / ____
Headspace Reading (ppm): —
Time @ Start Purging: 13.58
Time @ Stop Purging: 1437
Time @ Stop Sampling: 1457
Purge Volume (gallons): 1.5

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1358 | 4.55 | | | | | | | |
| 1401 | 4.77 | 32.28 | 1.887 | 1.83 | 6.57 | -86.3 | -36.5 | 100 |
| 1406 | 4.77 | 32.54 | 1.494 | 0.45 | 6.61 | -93.7 | -33.3 | 100 |
| 1411 | 4.77 | 32.49 | 1.427 | 0.39 | 6.60 | -94.2 | -32.9 | 100 |
| 1416 | 4.77 | 32.40 | 1.514 | 0.34 | 6.59 | -97.7 | -33.8 | 100 |
| 1421 | 4.77 | 32.28 | 1.692 | 0.30 | 6.58 | -101.2 | -34.8 | 100 |
| 1426 | 4.77 | 32.20 | 1.857 | 0.28 | 6.55 | -102.8 | -35.9 | 100 |
| 1431 | 4.77 | 32.11 | 1.860 | 0.27 | 6.54 | -101.7 | -37.2 | 100 |
| 1436 | 4.77 | 32.01 | 1.832 | 0.27 | 6.53 | -101.1 | -38.0 | 100 |
| | | | | | | | | |
| | | | Ready to sample | | | | | |
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**Comments:**
Sample Time: 1457 DUP — MS ____ MSD ____ Water Quality/Appearance: slightly turbidied
Sample Analysis: ____ DUP — MS — MSD —

Additional Comments: VOC, LMA, VPH, EPH, SVOC, PEST

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** A-2R(2)

**Site Name, Location:** BMS

**Personnel:** R. Stuart

**Equipment Used:** YSI 650 MDS

**Date:** September 12, 2016

dedicated bladder, hose, bladder, cord

**Monitoring Well Information:**

Diameter/Material: 2" / PVC
Depth to Bottom (ft from TOC): 12.7
Top of Screen (ft from TOC): 2.7
Bottom of Screen (ft from TOC): 12.7
Pump Intake Level (ft from TOC): 8.61
Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 4.09 / 1540
Measured DTB (ft from TOC)/Time: 12.7 / ____
Headspace Reading (ppm): ____
Time @ Start Purging: 1552
Time @ Stop Purging: 1622
Time @ Stop Sampling: 1640
Purge Volume (gallons): 2.5

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1550 | 4.10 | | | START | | | | |
| | | | | | | | | |
| 1552 | 4.53 | 31.66 | 0.573 | 0.63 | 6.87 | 35.4 | -17.2 | 100 |
| 1557 | 4.53 | 31.68 | 0.560 | 0.38 | 6.77 | 37.9 | -34.2 | 100 |
| 1602 | 4.53 | 31.75 | 561 | 0.39 | 6.77 | 38.0 | -35.4 | 100 |
| 1607 | 4.40 | 31.75 | 561 | 0.36 | 6.76 | 43.4 | -36.2 | 125 |
| 1612 | 4.38 | 31.73 | 563 | 0.36 | 6.76 | 51.5 | -38.2 | 100 |
| 1617 | 4.38 | 31.72 | 563 | 0.32 | 6.77 | 56.5 | -38.6 | 100 |
| 1622 | 4.39 | 31.62 | 561 | 0.31 | 6.77 | 61.2 | -39.0 | 100 |
| | | | | | | | | |
| | | | Ready | to sample | | | | |
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**Comments:**

Sample Time: 1640 DUP ✓ MS ✓ MSD ✓ Water Quality/Appearance: clear

Sample Analysis: ____ DUP ✓ MS ✓ MSD ✓

Additional Comments: VOC, SVOC, PES, VPH, LMA, EPH

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** S.395

**Site Name, Location:** BMS - Blg 5 **Personnel:** N. River

**Equipment Used:** dedicated bladder, hose, cord **Date:** Sept 15, 2014

**Monitoring Well Information:**

Diameter/Material: 2, PVC
Depth to Bottom (ft from TOC): 20.5
Top of Screen (ft from TOC): 10.3
Bottom of Screen (ft from TOC): 20.3
Pump Intake Level (ft from TOC): 15
Desired Pumping Rate (Lpm): 0.1-0.2

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 9.84 / 1223
Measured DTB (ft from TOC)/Time: (20.50) /
Headspace Reading (ppm):
Time @ Start Purging: 1400
Time @ Stop Purging: 1433
Time @ Stop Sampling: 1508
Purge Volume (gallons): 2.75

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1229 | 9.78 | After | installing pump | | | | | |
| 1357 | 9.98 | | | | | | | |
| 1400 | START | | | | | | | |
| 1403 | 10.30 | 28.66 | 1120 | 1.34 | 7.08 | -69.9 | 15.3 | 375 |
| 1408 | 10.23 | 28.14 | 1132 | 0.56 | 6.99 | -106.2 | 10.3 | 200 |
| 1413 | 1022 | 28.06 | 1135 | 0.36 | 6.98 | -113.3 | 9.19 | 200 |
| 1418 | 1022 | 27.35 | 1164 | 0.26 | 6.98 | -115.7 | 8.95 | 200 |
| 1423 | 1023 | 26.24 | 1199 | 0.21 | 6.96 | -117.4 | 7.50 | 200 |
| 1428 | 1024 | 26.19 | 1205 | 0.18 | 6.95 | -117.7 | 5.81 | 200 |
| 1433 | 1024 | 26.23 | 1207 | 0.17 | 6.94 | -117.5 | 5.12 | 200 |
| 1438 | | | | | | | | |
| | | | Ready to Sample | | | | | |
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**Comments:**
Sample Time: 1508 DUP _____ MS _____ MSD _____ Water Quality/Appearance: Clear
Sample Analysis: _____ DUP _____ MS _____ MSD _____

Additional Comments: VOC, SVOC, VPH, LMA, EPH, PEST

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** S-39D

**Site Name, Location:** BMS - Bldg 5 - Humacao

**Personnel:** N. Rivera

**Equipment Used:** dedicated bladder, cord, hose

**Date:** Sept 15, 2016

**Monitoring Well Information:**

Diameter/Material: 2 / PVC / SS

Depth to Bottom (ft from TOC): 30.10

Top of Screen (ft from TOC): 18.80

Bottom of Screen (ft from TOC): 28.80

Pump Intake Level (ft from TOC): ~ 24

Desired Pumping Rate (Lpm): 0.1 – 0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 9.89 / 1201

Measured DTB (ft from TOC)/Time: (30.10) /

Headspace Reading (ppm):

Time @ Start Purging: 1215

Time @ Stop Purging: 1313

Time @ Stop Sampling: 1347

Purge Volume (gallons): 2.5

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1208 | 9.82 | After installing pump / tubing | | | | | | |
| 1215 | 9.84 | START | | | | | | |
| 1223 | 10.08 | 30.15 | 934 | 3.41 | 7.27 | 58.9 | 63.5 | 150 |
| 1228 | 10.17 | 29.39 | 938 | 1.25 | 7.00 | -7.1 | -40.0 | 175 |
| 1233 | 10.21 | 29.00 | 939 | 0.47 | 7.09 | -66.8 | 56.1 | 175 |
| 12:38 | 10.22 | 28.97 | 938 | 0.38 | 7.18 | -83.6 | 45.4 | 175 |
| 12.43 | 10.25 | 28.88 | 937 | 0.33 | 7.22 | -93.8 | 21.6 | 200 |
| 12.58 | 10.28 | 28.79 | 936 | 0.27 | 7.25 | -98.8 | 11.01 | 175 |
| 13.03 | 10.29 | 28.75 | 936 | 0.27 | 7.26 | -97.8 | 8.25 | 175 |
| 13.08 | 10.30 | 28.55 | 939 | 0.24 | 7.26 | -99.9 | 6.11 | 200 |
| 13.13 | 10.31 | 28.34 | 942 | 0.24 | 7.27 | -102.5 | 5.68 | 200 |
| | | | | | | | | |
| | | | Ready to Sample | | | | | |
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**Comments:**

Sample Time: 1347 DUP ____ MS ✓ MSD ✓ Water Quality/Appearance: clear

Sample Analysis: ____ DUP ✓ MS ✓ MSD ✓

Additional Comments: VOC, SVOC, LMA, VPH, EPH

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** RA-105

**Site Name, Location:** BMS

**Personnel:** R. Stuart / J. Del Valle

**Equipment Used:** VST, dedicated bladder tubing cord

**Date:** September 15, 2016

**Monitoring Well Information:**

Diameter/Material: 2" / PVC
Depth to Bottom (ft from TOC): 14.12
Top of Screen (ft from TOC): 4.12
Bottom of Screen (ft from TOC): 14.12
Pump Intake Level (ft from TOC): 8.0
Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 6.12 / 1202
Measured DTB (ft from TOC)/Time: 14.12 / ____
Headspace Reading (ppm): ____
Time @ Start Purging: 1416
Time @ Stop Purging: 1444
Time @ Stop Sampling: 1502
Purge Volume (gallons): 2.25

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1415 | 6.14 | | with pump and tubbing inside | | | | | |
| 1416 | | | | | | | | |
| 1417 | 6.18 | 30.03 | 755 | 2.40 | 6.80 | 29.1 | 34.2 | 300 ↓ |
| 1422 | 6.17 | 29.87 | 752 | 0.90 | 6.65 | 38.6 | 2.8 | 225 |
| 1427 | 6.17 | 29.82 | 751 | 0.68 | 6.64 | 43.1 | 7.3 | 225 |
| 1432 | 6.17 | 29.76 | 751 | 0.57 | 6.64 | 44.8 | 7.5 | 225 |
| 1437 | 6.17 | 29.75 | 751 | 0.55 | 6.64 | 45.6 | 7.2 | 225 |
| 1442 | 6.17 | 29.67 | 751 | 0.49 | 6.64 | 46.7 | 5.4 | 225 |
| 1444 | | | Ready to sample. | | | | | |
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**Comments:**

Sample Time: 1502 DUP / MS / MSD / Water Quality/Appearance: clear

Sample Analysis: ____ DUP / MS / MSD /

Additional Comments: VOC, SVOC, LMA, EPH, VPH, PEST

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** RA-10D

**Site Name, Location:** BMS

**Personnel:** R. Stuart / J. Del Valle

**Equipment Used:** YSI 650 MDS

**Date:** September 15, 2016

dedicated bladder pump; hosing, cord, tubing

**Monitoring Well Information:**

Diameter/Material: 2" / PVC ~~SS~~

Depth to Bottom (ft from TOC): 21.95

Top of Screen (ft from TOC): 11.95

Bottom of Screen (ft from TOC): 21.95

Pump Intake Level (ft from TOC): 16.01

Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 5.94 / 1149

Measured DTB (ft from TOC)/Time: 21.95 / ____

Headspace Reading (ppm): ____

Time @ Start Purging: 1205

Time @ Stop Purging: 1318

Time @ Stop Sampling: 13.52

Purge Volume (gallons): 4.0

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1204 | 5.94 | | Start with pump and tubing inside | | | | | |
| 1205 | | | start pumping | | | | | |
| 1211 | 5.94 | 31.22 | 788.0 | 2.65 | 6.51 | -19.7 | 100.9 | 100 |
| 1216 | 5.94 | 30.27 | 895.0 | 1.40 | 6.52 | -41.6 | 149.3 | 125 |
| 1221 | 5.95 | 30.04 | 878.0 | 1.03 | 6.54 | -46.4 | 200.3 | 150 |
| 1226 | 5.95 | 29.83 | 811.0 | 0.82 | 6.56 | -47.6 | 218.5 | 150 |
| 1231 | 5.95 | 29.71 | 738.0 | 0.75 | 6.57 | -45.3 | 248.5 | 150 |
| 1236 | 5.95 | 29.62 | 707 | 0.71 | 6.57 | -43.3 | 249.8 | 150 |
| 1241 | 5.95 | 29.59 | 691 | 0.65 | 6.57 | -43.5 | 240.2 | 150 |
| 1246 | 5.96 | 29.55 | 681 | 0.60 | 6.58 | -44.2 | 178.2 | 175 |
| 1251 | 5.96 | 29.59 | 676 | 0.62 | 6.62 | -44.6 | 134.1 | 200 |
| 1256 | 5.96 | 29.56 | 676 | 0.60 | 6.64 | -43.9 | 87.1 | 225 |
| 1301 | 5.96 | 29.62 | 675 | 0.57 | 6.65 | -40.1 | 77.0 | 200 |
| 1306 | 5.96 | 29.74 | 674 | 0.57 | 6.66 | -39.0 | 61.1 | 200 |
| 1311 | | 30.20 | 674 | 0.56 | 6.67 | -34.1 | 53.8 | 150 |
| 1316 | | 30.70 | 675 | 0.57 | 6.68 | -28.1 | 52.6 | |
| 1318 | | | Ready to sample | | | | | |
| | | | | | | | | |

**Comments:**

Sample Time: 1352 DUP ✓ MS ✓ MSD ✓

Water Quality/Appearance: turbid

Sample Analysis: ____ DUP ✓ MS ✓ MSD ✓

Additional Comments: VOC, EPA, SVOC, VPH, LMA

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** E - 1R

**Site Name, Location:** BMS

**Personnel:** R. Stuart / J. Del Valle

**Equipment Used:** pump and tubing dedicated

**Date:** September 19, 2016

**Monitoring Well Information:**

Diameter/Material: 2" / PVC
Depth to Bottom (ft from TOC): 20.7
Top of Screen (ft from TOC): 5.7
Bottom of Screen (ft from TOC): 20.7
Pump Intake Level (ft from TOC): 12.5
Desired Pumping Rate (Lpm): 0.1 - 0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 8.20 / 1150
Measured DTB (ft from TOC)/Time: 20.7 /
Headspace Reading (ppm):
Time @ Start Purging: 1155
Time @ Stop Purging: 1248
Time @ Stop Sampling: 1312
Purge Volume (gallons): 2.25

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1155 | 8.20 | | | START | | | | |
| 1158 | 8.21 | 32.46 | 1,378 | 0.91 | 6.57 | 2.9 | RS ~~720~~ 146.5 | 300 ↓ |
| 1203 | — | 34.22 | 12 | — | — | — | — | — |
| ~~1208~~ | | | | | | | | |
| ~~1213~~ | | | | | | | | |
| 1210 | 7.96 | Resume purging | | | | | | |
| 1212 | | 32.11 | 1,378 | 3.34 | 6.97 | -2.1 | 209.4 | — |
| 1214 | | Purging was stopped | | | | | | |
| 1216 | | Resume purging | | | | | | |
| 1218 | 8.01 | 32.01 | 1,381 | 2.05 | 6.90 | -23.0 | 104.1 | 300 ↓ |
| 1223 | 8.04 | 32.12 | 1,398 | 0.79 | 6.80 | -56.4 | 93.2 | 100 |
| 1228 | 8.04 | 32.26 | 1,404 | 0.52 | 6.82 | -71.1 | 132.2 | 125 |
| 1233 | 8.04 | 32.24 | 1,405 | 0.43 | 6.83 | -79.8 | 87.0 | 150 |
| 1238 | 8.04 | 32.22 | 1,402 | 0.38 | 6.85 | -86.0 | 80.1 | 150 |
| 1243 | 8.04 | 32.13 | 1,399 | 0.36 | 6.87 | -89.6 | 76.3 | 150 |
| 1248 | 8.04 | 31.99 | 1,394 | 0.33 | 6.87 | -91.4 | 76.1 | 150 |
| | | | Ready to sample | | | | | |
| | | | | | | | | |

**Comments:**

Sample Time: 1312 DUP / MS / MSD / Water Quality/Appearance: turbid

Sample Analysis: VOC, SVOC, LMW, PEST, TPH, EPH DUP / MS / MSD /

Additional Comments: at 1204, the parameters readings were paused due to the level water inside the chamber was going up and down. The water pump will be removed from the well. Resume pursing at 1210. Pause pursing, connector between the tubing is being replace. (1214)

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** D - 1 R

**Site Name, Location:** BMS

**Personnel:** R. Stuart / J. Del Valle

**Equipment Used:** pump and tubing dedicated

**Date:** September 19, 2016.

**Monitoring Well Information:**

Diameter/Material: 2" / PVC
Depth to Bottom (ft from TOC): 16.1
Top of Screen (ft from TOC): 6.1
Bottom of Screen (ft from TOC): 16.1
Pump Intake Level (ft from TOC): 7.94
Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 8.16 / 1406
Measured DTB (ft from TOC)/Time: 16.1 / ____
Headspace Reading (ppm): ____
Time @ Start Purging: 1408
Time @ Stop Purging: 1456
Time @ Stop Sampling: 1519
Purge Volume (gallons): 3.5

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1408 | 8.16 | | | Start | | | | |
| 1411 | 8.17 | 33.46 | 901 | 0.93 | 6.66 | -79.8 | 115.2 | 100 |
| 1416 | 8.17 | 32.74 | 897 | 0.56 | 6.55 | -72.5 | 165.8 | 100 |
| 1421 | 8.17 | 32.41 | 890 | 0.44 | 6.54 | -73.3 | 113.3 | 100 |
| 1426 | 8.19 | 32.27 | 888 | 0.40 | 6.54 | -74.2 | 73.3 | 100 |
| 1431 | 8.21 | 32.11 | 887 | 0.38 | 6.53 | -75.0 | 44.6 | 100 |
| 1436 | 8.20 | 31.78 | 884 | 0.35 | 6.53 | -75.8 | 32.6 | 100 |
| 1441 | 8.24 | 31.56 | 885 | 0.33 | 6.54 | -76.5 | 17.4 | 100 |
| 1446 | 8.25 | 31.38 | 884 | 0.31 | 6.54 | -77.4 | 9.9 | 100 |
| 1451 | 8.28 | 31.27 | 884 | 0.30 | 6.55 | -78.3 | 4.2 | 100 |
| 1456 | 8.28 | 31.19 | 885 | 0.30 | 6.55 | -78.9 | 1.6 | 100 |
| | | | | | | | | |
| | | | Ready | to sample | | | | |
| | | | | | | | | |
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**Comments:**

Sample Time: 1519 DUP ____ / MS ____ / MSD ____ / Water Quality/Appearance: clear

Sample Analysis: ____ DUP ____ / MS ____ / MSD ____ /

Additional Comments: VOC, SVOC, VPH, PESST, LMA, EPH

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** G-1R(3)

**Site Name, Location:** BMS-Bld 5, Humacao

**Personnel:** N. Rivera

**Equipment Used:** dedicated bladder pump, tubing cord

**Date:** Sept 19, 2016

**Monitoring Well Information:**

Diameter/Material: 2 / PVC
Depth to Bottom (ft from TOC): 15.7
Top of Screen (ft from TOC): 5.7
Bottom of Screen (ft from TOC): 15.7
Pump Intake Level (ft from TOC): ~15
Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 5.81 / 1140
Measured DTB (ft from TOC)/Time: 15.7 /
Headspace Reading (ppm):
Time @ Start Purging: 1200
Time @ Stop Purging: 1233
Time @ Stop Sampling: 1259
Purge Volume (gallons): 2.25

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1200 | START | | | | | | | |
| 1203 | 6.76 | 26.60 | 355 | 0.45 | 6.55 | -6.3 | 30.4 | 250 ↓ |
| 1208 | 6.92 | 26.37 | 325 | 0.38 | 6.55 | -16.3 | 36.2 | 200 ↓ |
| 1213 | 6.93 | 26.37 | 324 | 0.52 | 6.47 | -16.7 | 34.8 | 150 |
| 1218 | 6.94 | 26.32 | 337 | 0.75 | 6.53 | -21.0 | 35.3 | 150 |
| 1223 | 6.98 | 26.28 | 354 | 0.98 | 6.55 | -21.0 | 25.5 | 150 |
| 1228 | 7.01 | 26.28 | 362 | 1.18 | 6.58 | -20.8 | 24.6 | 150 |
| 1233 | 7.03 | 26.23 | 369 | 1.26 | 6.58 | -19.7 | 24.7 | 150 |
| | | | | | | | | |
| | | | Ready to sample | | | | | |
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**Comments:**
Sample Time: 1259 DUP / MS / MSD / Water Quality/Appearance: See below
Sample Analysis: DUP / MS / MSD /

Additional Comments: VOC, VPH, LMA, SVOC, EPH, PEST
Purged water is cloudy, w/ VOC odor (methane) & has Reddish brown flakes

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** ~~MW~~ S-42D

**Site Name, Location:** BMS

**Personnel:** N. Rivera

**Equipment Used:** pump + tubbing dedicated

**Date:** 9/20/16

**Monitoring Well Information:**

Diameter/Material: 2" / PVC
Depth to Bottom (ft from TOC): 26.10
Top of Screen (ft from TOC): 15.80
Bottom of Screen (ft from TOC): 25.80
Pump Intake Level (ft from TOC): ~~25.80~~ MR ~21
Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 7.94 / 1222
Measured DTB (ft from TOC)/Time: 26.10 /
Headspace Reading (ppm):
Time @ Start Purging: 1240
Time @ Stop Purging: 1305
Time @ Stop Sampling: 1343
Purge Volume (gallons): 2

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1221 | 7.94 | Start | | | | | | |
| 1240 | | | | | | | | |
| 1245 | 8.09 | 25.84 | 1,077 | 1.72 | 6.78 | -33.6 | 2.80 | 250 |
| 1250 | 8.08 | 25.62 | 1,110 | 0.44 | 6.67 | -71.6 | 1.61 | 250 |
| 1255 | 8.09 | 25.55 | 1,121 | 0.32 | 6.74 | -84.3 | 1.17 | 250 |
| 1300 | 8.09 | 25.70 | 1126 | 0.26 | 6.78 | -87.2 | 1.21 | 250 |
| 1305 | 8.08 | 25.58 | 1134 | 0.23 | 6.79 | -81.3 | 1.16 | 200 |
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| | | | READY to sample. | | | | | |
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**Comments:**
Sample Time: 1343 DUP ✓ MS ✓ MSD ✓ Water Quality/Appearance: clear
Sample Analysis: DUP ✓ MS ✓ MSD ✓

Additional Comments: VOC, SVOC, EPH, LMA, PEST. VPH

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** MW-425

**Site Name, Location:** BMS - Bldg 5

**Personnel:** N Friven

**Equipment Used:** dedicated bladder, tubing, cord

**Date:** 9/20/16

**Monitoring Well/Information:**

Diameter/Material: 2 / PVC
Depth to Bottom (ft from TOC): 16.30
Top of Screen (ft from TOC): 6.00
Bottom of Screen (ft from TOC): 16.00
Pump Intake Level (ft from TOC): ~14
Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 8.05 / 1220
Measured DTB (ft from TOC)/Time: 16.30 /
Headspace Reading (ppm):
Time @ Start Purging: 1403
Time @ Stop Purging: 1420
Time @ Stop Sampling: 1501
Purge Volume (gallons): 1.5

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1234 | 8.05 | After | | | | | | |
| 1403 | Start | | | | | | | |
| 1406 | 8.11 | 25.69 | 1108 | 0.49 | 6.77 | -75.3 | 10.76 | 150 |
| 1411 | 8.10 | 25.70 | 1111 | 0.29 | 6.68 | -76.8 | 8.57 | 150 |
| 1416 | 8.11 | 25.71 | 1115 | 0.28 | 6.73 | -83.6 | 8.34 | 175 |
| 1421 | 8.10 | 25.72 | 1116 | 0.22 | 6.77 | -88.6 | 8.89 | 175 |
| 1426 | 8.11 | 25.61 | 1118 | 0.19 | 6.78 | -90.2 | 9.36 | 150 |
| 1431 | | | | | | | | |
| | | | Ready to sample | | | | | |
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**Comments:**
Sample Time: 1501 DUP ✓ MS ✓ MSD ✓ Water Quality/Appearance: Clear
Sample Analysis: DUP ✓ MS ✓ MSD ✓

Additional Comments: VOC, SVOC, PESS, VPH, EPH, 2MA

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** S-43S

**Site Name, Location:** BMS (gate B)

**Personnel:** R. Stuart / J. Del Valle

**Equipment Used:** pump and tubbing dedicated

**Date:** 9/20/16

**Monitoring Well Information:**

Diameter/Material: 2" / PVC
Depth to Bottom (ft from TOC): 18.35
Top of Screen (ft from TOC): RS ~~18~~ 8.05
Bottom of Screen (ft from TOC): 18.35
Pump Intake Level (ft from TOC): 13.75
Desired Pumping Rate (Lpm): 0.1-0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 4.60 / 1336
Measured DTB (ft from TOC)/Time: 18.35 / ____
Headspace Reading (ppm): ____
Time @ Start Purging: 1520
Time @ Stop Purging: 1542
Time @ Stop Sampling: 1605
Purge Volume (gallons): 1.5

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1519 | 4.60 | with pump and tubbing dedicated — Start — | | | | | | |
| | | | | | | | | |
| 1522 | 4.64 | 30.60 | 695 | 3.73 | 6.64 | -7.6 | 34.7 | 200 |
| 1527 | 4.64 | 30.00 | 666 | 0.72 | 6.46 | -33.4 | 6.2 | 200 |
| 1532 | 4.64 | 29.95 | 666 | 0.62 | 6.53 | -41.4 | 4.0 | 200 |
| 1537 | 4.66 | 29.90 | 662 | 0.58 | 6.56 | -44.8 | 3.2 | 200 |
| 1542 | 4.66 | 29.86 | 662 | 0.52 | 6.57 | -45.6 | 2.2 | 200 |
| | | | | | | | | |
| | | | Ready to sample | | | | | |
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**Comments:**

Sample Time: 1605 DUP ✓ MS ✓ MSD ✓ Water Quality/Appearance: clear

Sample Analysis: ____ DUP ✓ MS ✓ MSD ✓

Additional Comments: VOC, SVOC, VPH, EPH, PESG, LMA

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**

# AMAI Well Purging and Low Flow Sampling Form

**Well Number:** S-43D

**Site Name, Location:** BMS (gate B)

**Personnel:** R. Stuart / J. Del Valle

**Equipment Used:** pump and tubing dedicated

**Date:** 9/20/16

**Monitoring Well Information:**

Diameter/Material: 2" / PVC / SS

Depth to Bottom (ft from TOC): 20.60

Top of Screen (ft from TOC): 10.60

Bottom of Screen (ft from TOC): 20.60

Pump Intake Level (ft from TOC): 15.82

Desired Pumping Rate (Lpm): 0.1 - 0.4

**Well Purging Information:**

Measured DTW (ft from TOC)/Time: 4.78 / 1340

Measured DTB (ft from TOC)/Time: 20.60 / ____

Headspace Reading (ppm): ____

Time @ Start Purging: 1402

Time @ Stop Purging: 1446

Time @ Stop Sampling: 1514

Purge Volume (gallons): 2.50

| Time | DTW (ft TOC) | Temp (C) | S.Cond (µS/cm) | DO (mg/l) | pH | ORP (mV) | Turbidity (NTU) | Flow (mL/min) |
|---|---|---|---|---|---|---|---|---|
| 1402 | 4.77 | | with pump and tubing inside | | | | start | |
| | | | | | | | | |
| 1406 | 4.78 | 30.64 | 811 | 3.64 | 6.42 | 20.7 | 239.1 | 400 ↓ |
| 1411 | 4.78 | 30.71 | 833 | 1.27 | 6.37 | -16.7 | 212.4 | 150 |
| 1416 | 4.76 | 30.83 | 843 | 0.93 | 6.50 | -34.0 | 197.9 | 150 |
| 1421 | 4.76 | 30.62 | 836 | 0.77 | 6.55 | -42.4 | 184.4 | 150 |
| 1426 | 4.76 | 30.36 | 828 | 0.65 | 6.57 | -45.9 | 146.2 | 150 |
| 1431 | 4.76 | 30.08 | 820 | 0.58 | 6.58 | -47.4 | 118.4 | 150 |
| 1436 | 4.78 | 30.05 | 813 | 0.55 | 6.61 | -50.2 | 95.7 | 150 |
| 1441 | 4.80 | 30.06 | 808 | 0.54 | 6.63 | -52.4 | 87.9 | 150 |
| 1446 | 4.80 | 29.97 | 804 | 0.49 | 6.64 | -53.7 | 84.5 | 150 |
| | | | | | | | | |
| | | | Ready to sample | | | | | |
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**Comments:**

Sample Time: 1514 DUP ✓ MS ✓ MSD ✓ Water Quality/Appearance: turbidity

Sample Analysis: ____ DUP ✓ MS ✓ MSD ✓

Additional Comments: VOC, LMA, VPH, PEST, EPH, SVOC

**Well Stabilization :** is considered to be achieved when three consecutive readings, taken at 5 minute intervals are within the following limits: **DO +/- 0.3 mg/L; Spec. Cond. +/-3%; Temp. +/-3%; pH +/- 0.1 unit; ORP +/-10 mV; Addn'l Guidelines: Drawdown <= 0.33 feet; Pumping rates = 100 to 400 ml/min; Turbidity +/-10% or < 10 NTU.**