Form 4 - Biopile Visual Inspection Form

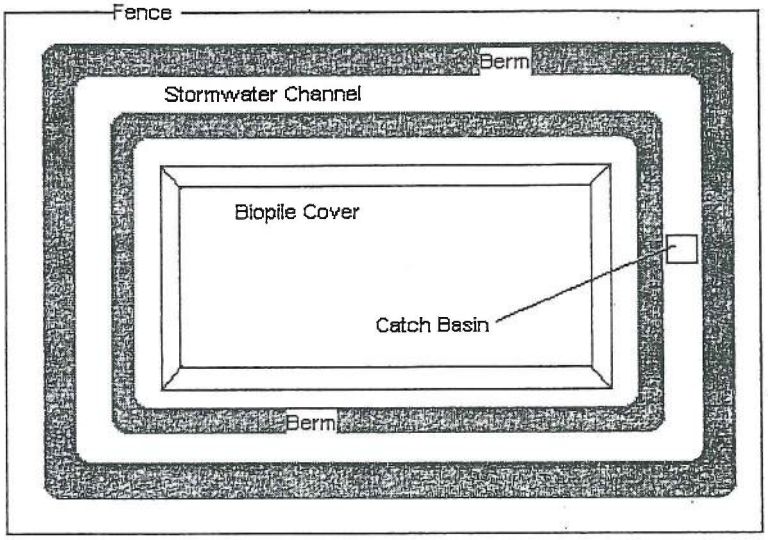
Bristol-Myers Squibb Manufacturing Company

Date: 07/02/13

Time: 0730

Inspected by: J. Toro

Non Mechanical Equipment



Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity ok

Non Mechanical Equipment, General Observations:

Leachate = 14" se le Notificó a E. Robles para Gestión de Vacc. truck

Berms

Integrity of toe ok

Integrity of crest ok

Mechanical Equipment

Blower was off. Startup @ 0730 Blower #1

Valves ok

Gauges Temp = 45°C

Press = 28" H_2O

Sump Pump ok

Form 4 - Biopile Visual Inspection Form

Bristol-Myers Squibb Manufacturing Company

Date: 07/04/13

Time: 1545

Inspected by: E. Barreto

Non Mechanical Equipment

Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

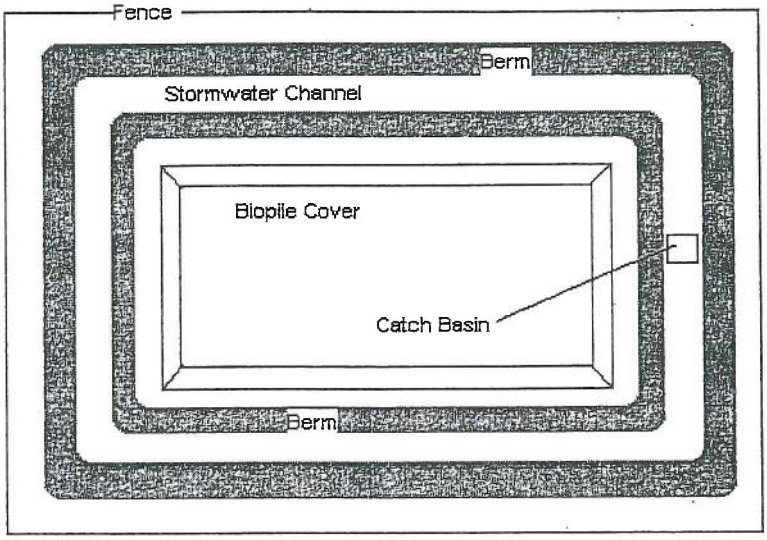
Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity OK



Non Mechanical Equipment, General Observations:

Leachate 4"

Berms

Integrity of toe OK

Integrity of crest OK

Mechanical Equipment

Blower #1 ON - Se encontró el blower #1 apagado, se encendio y se dejó en servicio. E. Barreto 07/04/13.

Valves OK

Gauges Temp. 44°C

Press. 28" H_2O

Sump Pump OK

Form 4 - Biopile Visual Inspection Form

Bristol-Myers Squibb Manufacturing Company

Date: 07/09/13

Time: 0820

Inspected by: J. Toro

Non Mechanical Equipment

Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

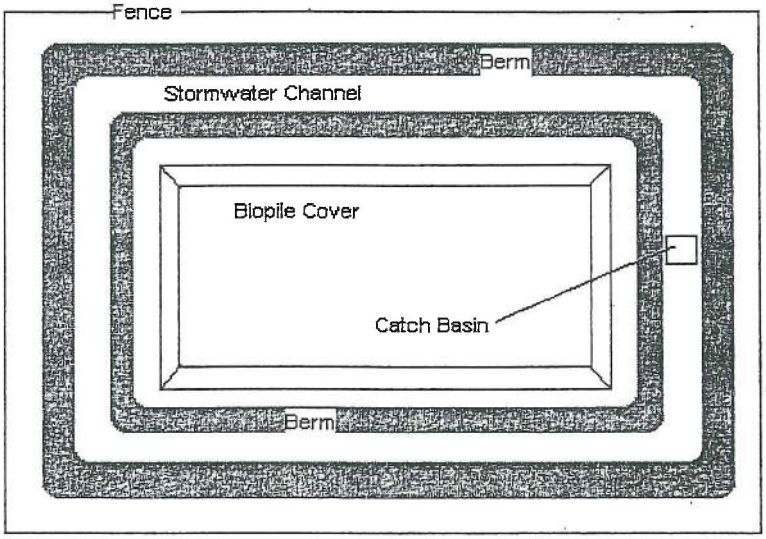
Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity ok



Non Mechanical Equipment, General Observations:

Leachate = 11"

Berms

Integrity of toe ok

Integrity of crest ok

Mechanical Equipment

Blower #1 on

Valves ok

Gauges Temp = 40°C

Press = 28" H_2O

Sump Pump ok

Form 4 - Biopile Visual Inspection Form

Bristol-Myers Squibb Manufacturing Company

Date: 07-11-13

Time: 1330

Inspected by: Amlend

Non Mechanical Equipment

Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

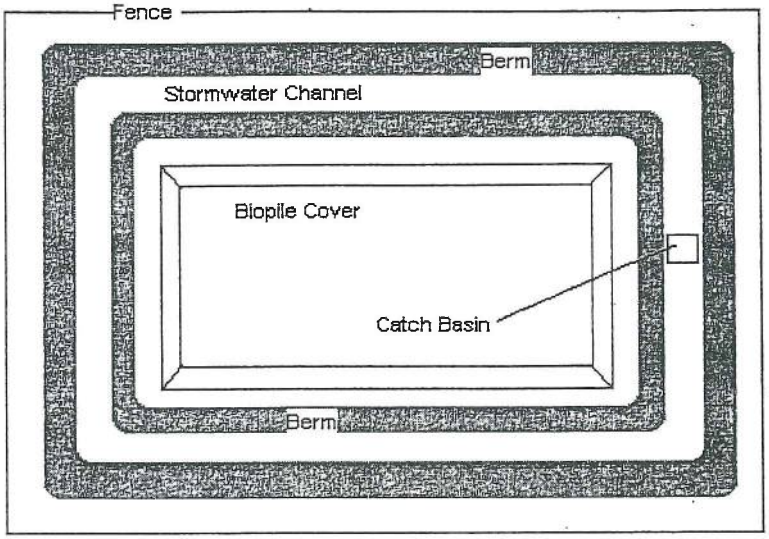
Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity OK



Non Mechanical Equipment, General Observations: Leachate 8"

Berms

Integrity of toe OK

Integrity of crest OK

Mechanical Equipment

Blower #1 on

Valves ok

Gauges 28" H_2O

50°C

Sump Pump ok

Form 4 - Biopile Visual Inspection Form

Bristol-Myers Squibb Manufacturing Company

Date: 07/15/13

Time: 1218

Inspected by: E. Barreto

Non Mechanical Equipment

Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

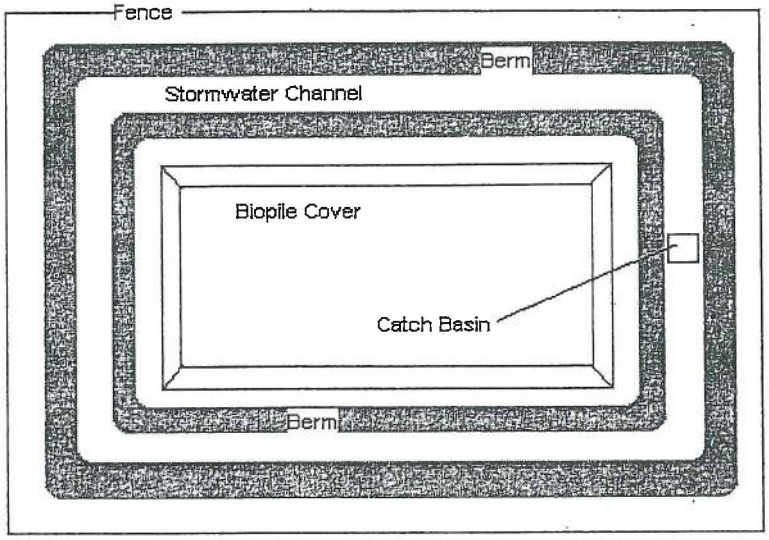
Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity OK



Non Mechanical Equipment, General Observations:

Leachate in 8"

Berms

Integrity of toe OK

Integrity of crest OK

Mechanical Equipment

Blower #1 ON - Se encontró apagado, se encendió y se dejó en servicio.

Valves OK

Gauges Temp. 46°C

Press. 28" H_2O

Sump Pump OK

Form 4 - Biopile Visual Inspection Form

Bristol-Myers Squibb Manufacturing Company

Date: 07/17/13

Time: 1220

Inspected by: E. Barrett

Non Mechanical Equipment

Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

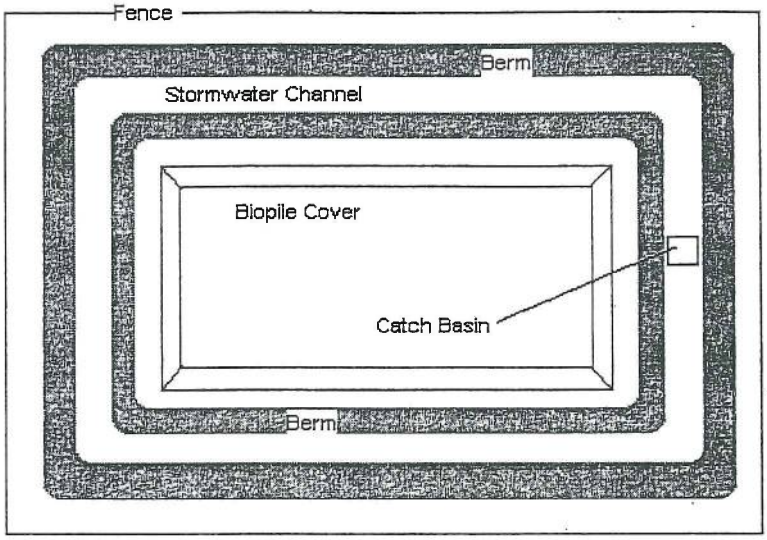
Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity OK



Non Mechanical Equipment, General Observations:

Leachate 8"

Berms

Integrity of toe OK

Integrity of crest OK

Mechanical Equipment

Blower #1 ON. Se encontró el blower apagado, se encendió y se dejó en servicio.

Valves OK

Gauges OK Temp. 48°C

Press. 38" H_2O

Sump Pump OK

Form 4 - Biopile Visual Inspection Form

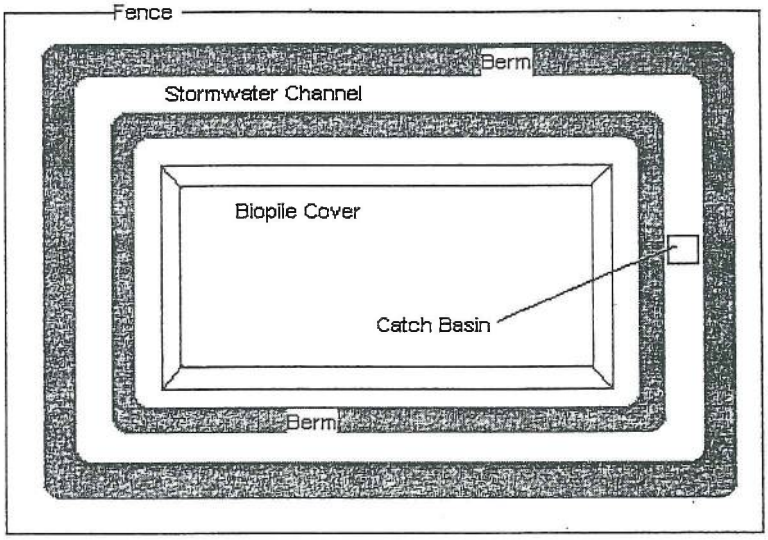
Bristol-Myers Squibb Manufacturing Company

Date: 07-22-13

Time: 1515

Inspected by: Amelnd

Non Mechanical Equipment



Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity OK

Non Mechanical Equipment, General Observations: leachate 12"

Berms

Integrity of toe OK

Integrity of crest OK

Mechanical Equipment

Blower #1 on

Valves OK

Gauges 28" H_2O – Pressure

44°C – Temp.

Sump Pump OK

Form 4 - Biopile Visual Inspection Form

Bristol-Myers Squibb Manufacturing Company

Date: 07-23-13

Time: 1740

Inspected by: [illegible] / J Rivera

Non Mechanical Equipment

Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

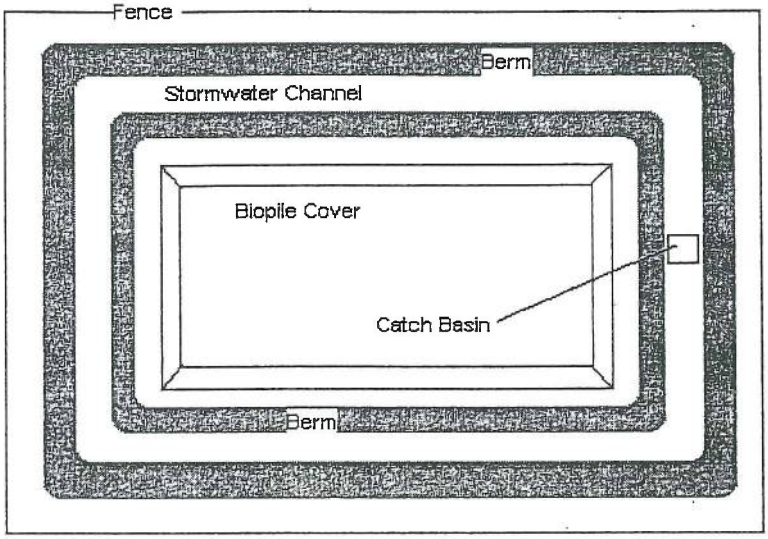
Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity ok



Non Mechanical Equipment, General Observations: Leachate 13"

Berms

Integrity of toe ok

Integrity of crest ok

Mechanical Equipment

Blower #1 on

Valves ok

Gauges Pressure – 28" H_2O

Temp – 48°C

Sump Pump ok

Form 4 - Biopile Visual Inspection Form

Bristol-Myers Squibb Manufacturing Company

Date: July 25, 2013

Time: 2PM

Inspected by: D. Lindstrand

Non Mechanical Equipment

Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

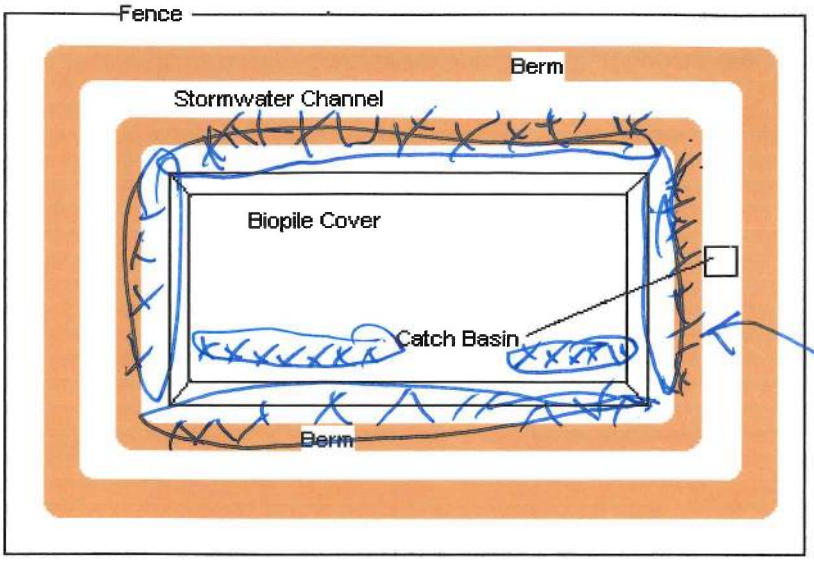
Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity OK



Non Mechanical Equipment, General Observations: Installed 150 patches over top cover outlet holes. Patches were strips of Tapecoat M50RC tape material. Surface was prepared (cleaned) by swabbing with 91% IPA. Top cover outlet holes covered were located in the following areas

Berms

Integrity of toe OK

Integrity of crest OK

Mechanical Equipment

Blower Blower No. 1 operational

Valves No change

Gauges Not checked

ump Pump OK

Form 4 - Biopile Visual Inspection Form

Bristol-Myers Squibb Manufacturing Company

Date: 07/26/13

Time: 1645

Inspected by: E. Barreto

Non Mechanical Equipment

Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

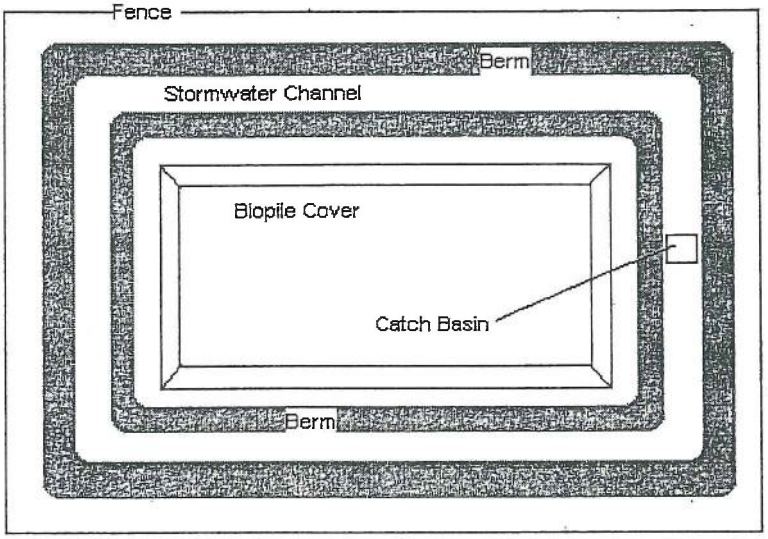
Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity OK



Non Mechanical Equipment, General Observations:

Leachate in 13½" leachate was sucked. Final level in 0.

Berms

Integrity of toe OK

Integrity of crest OK

Mechanical Equipment

Blower #1 ON

Valves OK

Gauges temp. 76°C

Press. 46" H_2O

Sump Pump OK

Form 4 - Biopile Visual Inspection Form

Bristol-Myers Squibb Manufacturing Company

Date: July 29, 2013

Time: 4 PM

Inspected by: David Lindstrand

Non Mechanical Equipment

Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

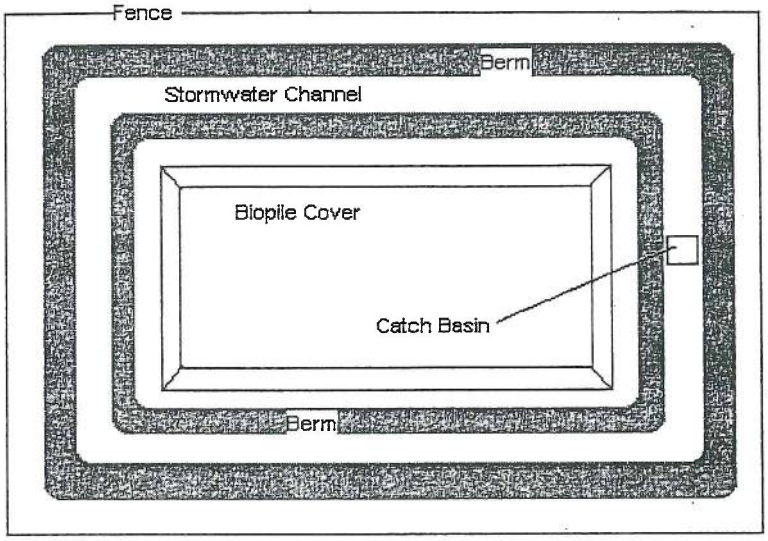
Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity OK



Non Mechanical Equipment, General Observations:

Measured air flows into aeration pipes. Measured gas concentrations at Soil Gas Probes. Used compressed air to clear gas probes. Leachate level less than one-inch

Berms

Integrity of toe OK

Integrity of crest OK

Mechanical Equipment

Blower Blower No. 1 operating

Valves No changes in valve positions were made.

Gauges P1 = 27 in. wc. T1 = 51°C, P2 = 28 in. wc. T2 = 48°C

Sump Pump OK

Form 3 - Soil Gas Monitoring Form

Bristol-Myers Squibb Manufacturing Company

Date: July 29, 2013

Sampled by: David Lindskrand

Date and time blower switched off (if respiration test): Monitoring only, Blower Not operating

Monitoring Point ID	Time	~~O_2 (%)~~ CH4 (%)	CO_2 (%)	~~Flam. (ppmv)~~ O2 (%)	~~H2S (%)~~ Bal. (%)	PID (ppmv)
SG-1	3:05	0.0	0.1	19.4	80.5	34
SG-2	3:09	11.2	3.2	16.4	68.6	5588
SG-3	3:12	0.9	0.2	19.2	79.7	1410
SG-4	3:15	6.3	17.6	0.6	75.0	7663
SG-5	2:55	0.0	2.3	17.2	80.5	397
SG-6	1:20	3.0	4.4	11.0	81.8	4374
SG-7	12:30	0.0	2.2	17.0	80.8	263
SG-8	11:50	0.4	0.7	19.0	79.7	410
SG-9	2:51	0.0	0.2	19.6	80.2	537
SG-10	3:46	4.9	6.9	9.1	71.3	>15000
SG-11	3:33	24.4	17.2	0.7	52.4	1390
SG-12	3:28	1.4	5.1	11.7	81.8	3284
Average value						

Comments/Observations: Compressed air used to clear probes SG-10, 11, and 12 between 12:00 and 1:00. Compressed air used at each probe for about 10 minutes at about 5 psig.

Bristol-Myers Squibb Company

Interim Corrective Measure, Building 5 Area Project

Aeration Leg Flow Adjustment Using Dwyer Series 471 Thermo-Anemometer

Date and Time: July 29, 2013, 4:37 PM

Valve Tag No.	Velocity Meas. (fpm)	Air Flow (cfm)
BV-1	168	3.8
BV-2	280	6.4
BV-3	259	5.9
BV-4	258	5.9
BV-5	411	9.4
BV-6	499	11.4
BV-7	251	5.7
BV-8	375	8.6
BV-9	165	3.8
BV-10	316	7.2
BV-11	311	7.1
BV-12	252	5.8
BV-13	450	10.3
BV-14	170	3.9
BV-15	486	11.1
BV-16	221	5.1
BV-17	145	3.3
BV-18	201	4.6
BV-19	266	6.1
BV-20	212	4.9
BV-21	367	8.4
BV-22	435	10.0
BV-23	310	7.1
BV-24	304	7.0
BV-25	366	8.4
BV-26	377	8.6
BV-27	264	6.0

Total Flow (cfm): 186

Form 4 - Biopile Visual Inspection Form

Bristol-Myers Squibb Manufacturing Company

Date: 07-31-13

Time: 1700

Inspected by: [illegible]

Non Mechanical Equipment

Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

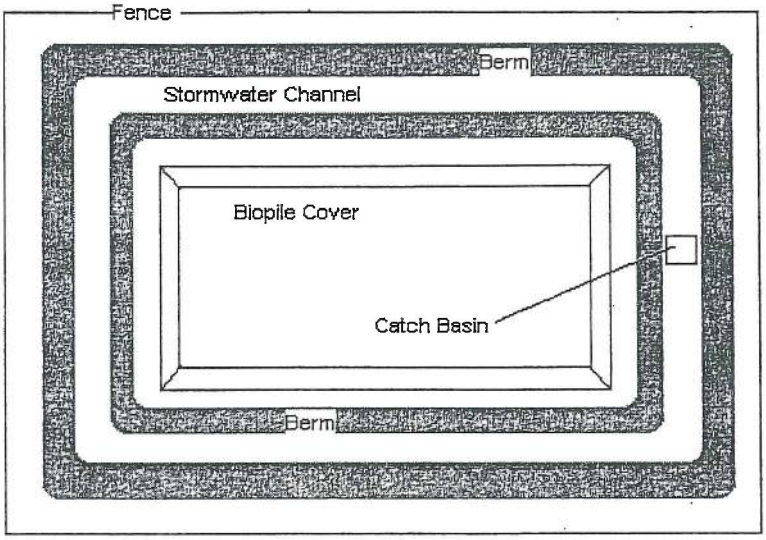
Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity ok



Non Mechanical Equipment, General Observations: Leachate 0"

Berms

Integrity of toe ok

Integrity of crest ok

Mechanical Equipment

Blower #1 on

Valves ok

Gauges Pressure → 14" H_2O

Temp → 42°C

Sump Pump ok

Form 4 - Biopile Visual Inspection Form

Bristol-Myers Squibb Manufacturing Company

Date: July 31, 2013

Time:

Inspected by: David Lindstrand

Non Mechanical Equipment

Cover

Exposed soil Yes / No

Rips/tears Yes / No

Ropes/boards secure Yes / No

if yes to any above indicate on drawing

Fence

Damaged Yes / No

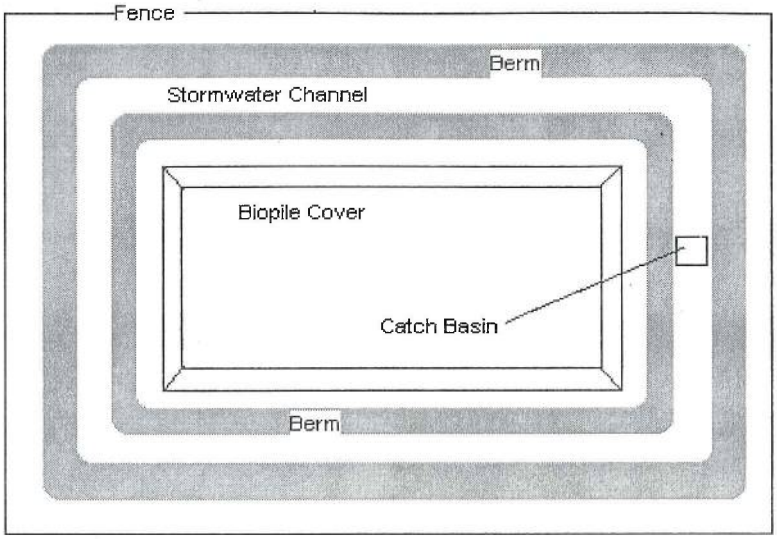
Holes Yes / No

if yes to any above indicate on drawing

Storm water channel

Blockages Yes / No

Integrity OK



Non Mechanical Equipment, General Observations: Increased air flows into mid section of Biopile based on gas concentration data obtained on July 29, 2013. Performed air flow measurements on aeration pipes after air flow adjustment. Measured gas concentration at soil gas probes. Used compressed air to clear soil gas probes. Leachate level less than 1-inch.

Berms

Integrity of toe OK

Integrity of crest – OK

Mechanical Equipment

Blower Blower no. 1 operating

Valves Flow increased at BV-9, 12, 14, 16, 17, 18, 19, and 20

Gauges Final readings after valve adjustments:
P1 = 15 inwc T1 = 45°C P2 = 16 inwc T2 = 43°C

Sump Pump OK

Bristol-Myers Squibb Company

Interim Corrective Measure, Building 5 Area Project

Aeration Leg Flow Adjustment Using Dwyer Series 471 Thermo-Anemometer

Date and Time: July 31, 2013, 12:20 PM

Valve Tag No.	Velocity Meas. (fpm)	Air Flow (cfm)
BV-1	177	4.1
BV-2	261	6.0
BV-3	231	5.3
BV-4	224	5.1
BV-5	373	8.5
BV-6	394	9.0
BV-7	203	4.6
BV-8	270	6.2
BV-9	601	13.8
BV-10	241	5.5
BV-11	250	5.7
BV-12	383	8.8
BV-13	359	8.2
BV-14	645	14.8
BV-15	352	8.1
BV-16	562	12.9
BV-17	647	14.8
BV-18	495	11.3
BV-19	245	5.6
BV-20	333	7.6
BV-21	150	3.4
BV-22	290	6.6
BV-23	185	4.2
BV-24	177	4.1
BV-25	222	5.1
BV-26	215	4.9
BV-27	147	3.4

Total Flow (cfm): 198

Flow at the following valves was increased prior to measurements at the following locations: BV-9,12,14,16,17,18,19,20

Form 3 - Soil Gas Monitoring Form

Bristol-Myers Squibb Manufacturing Company

Date: July 31, 2013

Sampled by: D. Lindstrand

Date and time blower switched off (if respiration test): Monitoring only, Blower No. 1 Operational

Monitoring Point ID	Time	~~O_2 (%)~~ CH_4 (%)	CO_2 (%)	~~Flam. (ppmv)~~ O_2 (%)	~~H2S (%)~~ Bal. (%)	PID (ppmv)
SG-1	1:36	0.0	0.2	19.5	80.3	262
SG-2	1:38	12.0	3.1	16.8	66.9	>15,000
SG-3	1:48	1.0	0.1	19.3	79.7	2130
SG-4	1:50	6.4	18.1	1.0	73.9	4817
SG-5	1:32	0.0	2.4	17.3	80.3	483
SG-6	2:05	3.1	6.4	6.7	82.0	6050
SG-7	2:20	1.2	1.6	16.6	80.5	1286
SG-8	3:29	0.1	0.8	19.4	79.8	1709
SG-9	1:31	0.0	0.3	19.6	80.9	993
SG-10	2:09	3.6	6.5	10.1	79.9	1864
SG-11	2:16	16.0	5.2	11.9	79.9	1819
SG-12	3:31	0.6	4.6	14.7	80.2	4392
Average value						

Comments/Observations: Compressed air used to clear probes SG-6, 7, 10, 11, 12 between 12:00 and 1:00. Compressed air used at each probe for about 10 minutes at about 5 psig.