Appendix E –

BGA 2 COC Field Copies

Page: _____ of _____
Project #:
GEL Quote #:
COC Number (1):
PO Number:

GEL Chain of Custody and Analytical Request

See www.gel.com for GEL's Sample Acceptance SOP

GEL Work Order Number:

GEL Laboratories, LLC
2040 Savage Road
Charleston, SC 29407
Phone: (843) 556-8171
Fax: (843) 766-1178

Client Name: Phone #:

Project/Site Name: Fax #:

Address:

Collected by: Send Results To:

Sample Analysis Requested (5) (Fill in the number of containers for each test)

Sample ID *For composites - indicate start and stop date/time	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code (2)	Field Filtered (3)	Sample Matrix (4)	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Number of containers	<-- Preservative Type (6)	Comments
BGA 1.4.2	12/21/15									Note: extra sample is required for sample specific QC
BGA 1.5.1	12/21/15									
BGA 1.5.2	12/21/15									
BGA 2.1.1	12/21/15									
BGA 2.1.2	12/21/15									
BGA 2.1.3	12/21/15									
BGA 2.1.4	12/21/15									
BGA 2.1.5	12/21/15									
BGA 2.2.1	12/21/15									
BGA 2.2.2	12/21/15									

TAT Requested: Normal: Rush: Specify: (Subject to Surcharge) Fax Results: Yes / No Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards

Sample Collection Time Zone
Eastern Pacific
Central Other _____
Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1			1		
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM:
Method of Shipment: Date Shipped:
Airbill #:
Airbill #:

1.) Chain of Custody Number = Client Determined
2.) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
3.) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered
4.) Matrix Codes: DW=Drinking Water, GW=Groundwater, SW=Surface Water, WW=Waste Water, W=Water, ML=Misc Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=N
5.) Sample Analysis Requested: Analytical method requested (i.e. *8260B, 6010B/7470A*) and number of containers provided for each (i.e. *8260B - 3, 6010B/7470A - 1*)
6.) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate; If no preservative is added = leave field blank

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

Page: _____ of _____
Project #:
GEL Quote #:
COC Number [1]:
PO Number:

GEL Chain of Custody and Analytical Request

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2040 Savage Road
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Fax (843) 766-1178

Client Name: Phone #:

Project/Site Name: Fax #

Address:

Collected by: Send Results To:

Sample Analysis Requested [5] (Fill in the number of containers for each test)

Sample ID (* For composites - indicate start and stop date/time)	*Date Collected (mm-dd-yy)	*Time Collected (Military) (hhmm)	QC Code [2]	Field Filtered [3]	Sample Matrix [4]	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Number of containers										--- Preservative Type (6)	Comments
BGA 2.3.1	12/21/15																		Note: extra sample is required for sample specific QC
BGA 2.3.2	12/21/15																		
BGA 2.4.1	12/21/15																		
BGA 2.4.2	12/21/15																		
BGA 2.5.1	12/21/15																		
BGA 2.5.2	12/21/15																		
BGA 2.1.6	12/21/15																		

TAT Requested: Normal: Rush: Specify: (Subject to Surcharge) Fax Results: Yes / No Circle Deliverable: C of A / QC Summary / Level 1 / Level 2 / Level 3 / Level 4

Remarks: Are there any known hazards applicable to these samples? If so, please list the hazards

Sample Collection Time Zone
Eastern Pacific
Central Other _____
Mountain

Chain of Custody Signatures

Relinquished By (Signed)	Date	Time	Received by (signed)	Date	Time
1			1		
2			2		
3			3		

Sample Shipping and Delivery Details

GEL PM:
Method of Shipment: Date Shipped:
Airbill #:
Airbill #:

1) Chain of Custody Number -- Client Determined
2) QC Codes: N = Normal Sample, TB = Trip Blank, FD = Field Duplicate, EB = Equipment Blank, MS = Matrix Spike Sample, MSD = Matrix Spike Duplicate Sample, G = Grab, C = Composite
3) Field Filtered: For liquid matrices, indicate with a - Y - for yes the sample was field filtered or - N - for sample was not field filtered.
4) Matrix Codes: DW - Drinking Water, GW - Groundwater, SW - Surface Water, WW - Waste Water, W - Water, ML - Miscellaneous Liquid, SO - Soil, SD - Sediment, SL - Sludge, SS - Solid Waste, O - Oil, F - Filter, P - Wipe, U - Urine, F - Fecal, N - Other
5) Sample Analysis Requested: Analytical method requested (i.e. *8260B - 3, 6010B/7470A - 1*)
6) Preservative Type: HA = Hydrochloric Acid, NI = Nitric Acid, SH = Sodium Hydroxide, SA = Sulfuric Acid, AA = Ascorbic Acid, HX = Hexane, ST = Sodium Thiosulfate, If no preservative is added - leave field blank

For Lab Receiving Use Only
Custody Seal Intact? YES NO
Cooler Temp. C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

Appendix E-

BGA 2 Sample Data Sheets

MJW TECHNICAL SERVICES

SAMPLE LOCATION DATA SHEET

Date: 12/21/15 Project: NYSERDA Name: J. Brown

Weather: windy, rainy, lows 30's

1. Sample Area (SA):

SA Designation: BGA2 Description: _____

SA Origin Location: _____ Coord. System: _____

SA Land Mark Description: _____ Coord: _____

2. Sample Location Data:

Sample Area ID: BGA2.1 Matrix: Soil

Location Coord: 42°46'33.95" N 78°38'03.87" W

Alternate Location Measurements (distance from SA origin and Local Coord.)
X Dist. from Origin (0,0) _____ Y Dist. from Origin: _____

Site Sketch Attached (Yes) (NO)

Sample Location Description: flat, open, ≈3" wet snow (cleared), tall grass (cleared) ground

Canopy Type: open Land Use: hiking, etc Soil Moisture (Wet, dry. etc.): damp

★ Did not use - too much water in hole - moved ≈120 ft N - closer to BSW and higher

3. Location Radiation Readings:

2x2 NaI (cpm)			Bicron (uRem/hr)		Notes
Count time (min)	1 cm	1m	1 cm	1m	
1	7114	6862	5	4	Bicron Micro Rem #A2244 cal due 8/4/16
1	7002	6787			Ludlum 2241-2 # 216737
					with 44-10 probe # PR111123 cal due 7/2/16

4. Sample Information:

Sample Area ID: BGA2.1.1-5

Description by Depth:

Depth Interval (cm)	*Soil Type* (Org; clay; sand, etc.)	*Soil Color*	*Sample ID*	*Sampling Description* (Surface litter type/depth, sample depth retention, refusal, stone or rock, topography, erosion features)
0-15			BGA2.1.1	Not
15-30			BGA2.1.2	
30-60			BGA2.1.3	
60-100			BGA2.1.4	
0-15			BGA2.1.5	Sampled

Sample Recorded on Laboratory COC form and Container Labeled: (Y) (N)

MW TECHNICAL SERVICES

SAMPLE LOCATION DATA SHEET

Date: 12/21/15 Project: NYSERDA Name: J. Brown

Weather: windy, rainy, low 30's

1. Sample Area (SA): new location for this sample only

SA Designation: BGA2 Description: mostly open field, off access road S of BSG

SA Origin Location: Coord. System:

SA Land Mark Description: Coord:

2. Sample Location Data:

Sample Area ID: BGA.2.1 Matrix: Soil

* New sample location *

Location Coord: 42° 26' 34.31" N 78° 38' 02.25" W

Alternate Location Measurements (distance from SA origin and Local Coord.)
X Dist. from Origin (0,0) Y Dist. from Origin:

Site Sketch Attached (Yes) (NO)

Sample Location Description: flat, open, ≈ 3" wet snow (cleared), grass (cleared), top of small hill, middle of group of trees

Canopy Type: open Land Use: hiking, etc Soil Moisture (Wet, dry, etc.): damp

3. Location Radiation Readings:

2x2 NaI (cpm)			Bicron (uRem/hr)		Notes
Count time (min)	1 cm	1m	1 cm	1m	
1	5874	5753	4	3	Bicron MicroRem #A2244 cal due 8/4/16
1	5918	5645			Ludlum 2241-2 # 262737
					with 44-10 probe # PR 111127 cal due 9/2/16

4. Sample Information: *Sample Area ID:* BGA.2.1.1-5

Description by Depth:

Depth Interval (cm)	*Soil Type* (Org; clay; sand, etc.)	*Soil Color*	*Sample ID*	*Sampling Description* (Surface litter type/depth, sample depth retention, refusal, stone or rock, topography, erosion features)
0-15	topsoil	dk brown	BGA2.1.1	roots
15-30	topsoil	dk brown	BGA 2.1.2	roots
30-50	topsoil, clay	dk brown	BGA 2.1.3	roots
50-100	topsoil, clay	dk brown	BGA 2.1.4	some water
0-15	topsoil	dk brown	BGA 2.1.5	roots

Sample Recorded on Laboratory COC form and Container Labeled: (Y) (N)

NAVTECHNICAL SERVICES

SAMPLE LOCATION DATA SHEET

Date: 12/21/15 Project: NYSERDA Name: J. Brown

Weather: windy, rainy, low 30's

1. Sample Area (SA):

SA Designation: BGA2 Description: open field off access road, S of BSW

SA Origin Location: Coord. System:

SA Land Mark Description: Coord:

2. Sample Location Data:

Sample Area ID: BGA2.2 Matrix: Soil

Location Coord: 42°26'33.79"N 78°38'02.87"W

Alternate Location Measurements (distance from SA origin and Local Coord.)
X Dist. from Origin (0,0) Y Dist. from Origin:

Site Sketch Attached (Yes) (NO)

Sample Location Description: flat, open, ≈3" wet snow (cleared) tall grass (cleared)

Canopy Type: open Land Use: hiking, etc Soil Moisture (Wet, dry, etc.): damp

3. Location Radiation Readings:

2x2 NaI (cpm)			Bicron (uRem/hr)		Notes
Count time (min)	1 cm	1m	1 cm	1m	
1	7618	6845	5	4	Bicron MicroRem #4224 cal due 8/14/16
1	7516	6717			Ludlum 2241-2 # 262737
					with 44-10 probe # PR 111127 cal due 9/2/16

4. Sample Information:

Sample Area ID: BGA2.2.1-2

Description by Depth:

Depth Interval (cm)	*Soil Type* (Org; clay; sand, etc.)	*Soil Color*	*Sample ID*	*Sampling Description* (Surface litter type/depth, sample depth retention, refusal, stone or rock, topography, erosion features)
0-15	topsoil	dk brown	BGA2.2.1	
15-30	topsoil	dk brown	BGA2.2.2	water

Sample Recorded on Laboratory COC form and Container Labeled: (Y) (N)

MJW TECHNICAL SERVICES

SAMPLE LOCATION DATA SHEET

Date: 12/21/15 Project: NYSERDA Name: J. Brown

Weather: windy, rainy, low 30's

1. Sample Area (SA):

SA Designation: BGA2 Description: open field, off access road, S of BSW

SA Origin Location: _____ Coord. System: _____

SA Land Mark Description: _____ Coord: _____

2. Sample Location Data:

Sample Area ID: BGA2.3 Matrix: Soil

Location Coord: 42°26'33.71" N 78°38.03.06" W

Alternate Location Measurements (distance from SA origin and Local Coord.)
X Dist. from Origin (0,0)_____ Y Dist. from Origin: _____

Site Sketch Attached (Yes) (NO)

Sample Location Description: flat, open, ≈3" wet snow (cleared) tall grass (cleared)

Canopy Type: open Land Use: hiking, etc Soil Moisture (Wet, dry, etc.): damp

3. Location Radiation Readings:

2x2 NaI (cpm)			Bicron (uRem/hr)		Notes
Count time (min)	1 cm	1m	1 cm	1m	
1	6778	6266	5	4	Bicron MicroRem #4224 cal due 8/4/16
1	6559	6202			Ludlum 2241-2 # 262737
					with 44-10 probe # PR 111127 cal due 9/2/16

4. Sample Information:

Sample Area ID: BGA 2.3 1-2

Description by Depth:

Depth Interval (cm)	*Soil Type* (Org; clay; sand, etc.)	*Soil Color*	*Sample ID*	*Sampling Description* (Surface litter type/depth, sample depth retention, refusal, stone or rock, topography, erosion features)
0-15	topsoil	dk brown	BGA2.3.1	
15-30	topsoil	dk brown	BGA 2.3.2	water

Sample Recorded on Laboratory COC form and Container Labeled: (Y) (N)

MW TECHNICAL SERVICES

SAMPLE LOCATION DATA SHEET

Date: 12/21/15 Project: N4SERDft Name: J. Brown

Weather: windy, rainy, low 30's

1. Sample Area (SA):

SA Designation: BGA2 Description: open field of grass and 1, Set BSL)
SA Origin Location: Coord. System.
SA Land Mark Description: Coord:

2. Sample Location Data:

Sample Area ID: BGA2-4 Matrix: Soil

Location Coord: 42° 26' 33.85" N 78° 38' 03.24" W

Alternate Location Measurements (distance from SA origin and Local Coord.)
X Dist. from Origin (0,0) Y Dist. from Origin:

Site Sketch Attached (Yes) (NO)

Sample Location Description: flat, open, ≈3" wet snow (cleared), tall grass (cleared)

Canopy Type: open Land Use: hiking, etc Soil Moisture (Wet, dry, etc.): damp

3. Location Radiation Readings:

2x2 NaI (cpm)			Bicron (uRem/hr)		Notes
Count time (min)	1 cm	1m	1 cm	1m	
1	6330	6195	5	4	Bicron Micro Rem #A224U cal due 8/4/16
1	6283	6132			Ludlum 2241-2 # 262737
					with 44-10 probe # PR 111127 cal due 9/2/16

4. Sample Information:

Sample Area ID: BGA2-4-1-2

Description by Depth:

Depth Interval (cm)	*Soil Type* (Org; clay; sand, etc.)	*Soil Color*	*Sample ID*	*Sampling Description* (Surface litter type/depth, sample depth retention, refusal, stone or rock, topography, erosion features)
0-15	topsoil	dk brown	BGA2 4-1	
15-30	topsoil	dk brown	BG # 2-4-2	water

Sample Recorded on Laboratory COC form and Container Labeled: (Y) (N)

NEW TECHNICAL SERVICES

SAMPLE LOCATION DATA SHEET

Date: 12/21/15 Project: NYSERDA Name: J. Brown

Weather: windy rainy, low 30's

1. Sample Area (SA):

SA Designation: BGA2 Description: open field off access road, S of BSC

SA Origin Location: Coord. System.

SA Land Mark Description: Coord:

2. Sample Location Data:

Sample Area ID: BGA 2.5 Matrix: Soil

Location Coord: 43° 26' 34.03" N 78° 38' 03.1" W

Alternate Location Measurements (distance from SA origin and Local Coord.)
X Dist. from Origin (0,0) Y Dist. from Origin:

Site Sketch Attached (Yes) (NO)

Sample Location Description: flat, open, ~3" wet snow (cleared), tall grass (cleared)

Canopy Type: open Land Use: hiking, etc Soil Moisture (Wet, dry, etc.): damp

3. Location Radiation Readings:

2x2 NaI (cpm)			Bicron (uRem/hr)		Notes
Count time (min)	1 cm	1m	1 cm	1m	
1	7143	6486	5	4	Bicron MicroRem #A224U cal due 8/4/16
1	7285	6542			Ludlum 2241-2 # 262737
					with 44-10 probe # PR 111127 cal due 9/2/16

4. Sample Information:

Sample Area ID: BGA 2.5.1-2

Description by Depth:

Depth Interval (cm)	*Soil Type* (Org; clay; sand, etc.)	*Soil Color*	*Sample ID*	*Sampling Description* (Surface litter type/depth, sample depth retention, refusal, stone or rock, topography, erosion features)
0-15	topsoil	dk brown	BGA 2.5.1	
15-30	topsoil	dk brown	BGA 2.5.2	water

Sample Recorded on Laboratory COC form and Container Labeled: (Y) (N)

Appendix E-

BGA 2 Static Survey Tables

Background Area 2 Sampling Table

Date		Elevation					
Collected	Sample	0-15 cm	15-30 cm	30-60 cm	60-100c cm	Location	Coordinates
12/21/15	BGA2.1.1	X				open field East of access Road - due South of BSW	42° 26' 34.31" N 78° 38' 02.25" W
12/21/15	BGA2.1.2		X				
12/21/15	BGA2.1.3			X			
12/21/15	BGA2.1.4				X		
12/21/15	BGA2.1.5	X					
12/21/15	BGA2.2.1	X					42° 26' 33.79" N 78° 38' 02.87" W
12/21/15	BGA2.2.2		X				
12/21/15	BGA2.3.1	X					42° 26' 33.71" N 78° 38' 03.06" W
12/21/15	BGA2.3.2		X				
12/21/15	BGA2.4.1	X					42° 26' 33.85" N 78° 38' 03.24" W
12/21/15	BGA2.4.2		X				
12/21/15	BGA2.5.1	X					42° 26' 34.02" N 78° 38' 03.1" W
12/21/15	BGA2.5.2		X