App E –
Sub-Area 5.2 - COC Forms

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	<-- Preservative Type (6)	Comments
5.2A.R.3.1	12-11-15									Note: extra sample is required for sample specific QC
5.2A.R.3.2	12-11-15									
5.2A.R.4.1	12-11-15									
5.2A.R.4.2	12-11-15									
5.2A.R.5.1	12-11-15									
5.2A.R.5.2	12-11-15									
5.2A.R.6.1	12-11-15									
5.2A.R.6.2	12-11-15									
5.2A.R.7.1	12-11-15									
5.2A.R.7.2	12-11-15									

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=Mixed Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, N=
5) Sample Analysis Requested: Analytical method requested (i.e. 8260B, 6010B/7471BA) 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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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 Note: extra sample is required for sample specific QC
5.2.B.R.3.1	12/11/15									
5.2.B.R.3.2	12/11/15									
5.2.B.R.4.1	12/11/15									
5.2.B.R.4.2	12/11/15									
5.2.B.R.5.1	12/11/15									
5.2.B.R.5.2	12/11/15									
5.2.B.R.6.1	12/11/15									
5.2.B.R.6.2	12/11/15									
5.2.B.R.7.1	12/11/15									
5.2.B.R.7.2	12/11/15									

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=Miss Liquid, SO=Soil, SD=Sediment, SL=Sludge, SS=Solid Waste, O=Oil, F=Filter, P=Wipe, U=Urine, F=Fecal, 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

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											← Preservative Type [6]	Comments
S.2.B.R.8.1	12/11/15																			Note: extra sample is required for sample specific QC
S.2.B.R.8.2	12/11/15																			
S.3.A.R.2.1	12/11/15																			
S.3.A.R.2.2	12/11/15																			
S.3.A.R.3.1	12/11/15																			
S.3.A.R.3.2	12/11/15																			
S.3.A.R.4.1	12/11/15																			
S.3.A.R.4.2	12/11/15																			
S.3.A.R.4.5	12/11/15																			

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, Nas

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

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 (min-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: Note: extra sample is required for sample specific QC
5.5A.R.4.1A, 5.5A.R.4.1B	12-14-15									
5.5A.R.4.2A, 5.5A.R.4.2B	12-14-15									
5.1B.R.1.1A, 5.1B.R.1.1B	12-14-15									
5.1B.R.1.2A, 5.1B.R.1.2B	12-14-15									
5.1B.R.2.1A, 5.1B.R.2.1B	12-14-15									
5.1B.R.2.2A, 5.1B.R.2.2B	12-14-15									
5.1A.R.2.1A, 5.1A.R.2.1B	12-14-15									
5.1A.R.2.2A, 5.1A.R.2.2B	12-14-15									
5.1A.R.2.3	12-14-15									
5.2A.R.2.1	12-14-15									

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

* Each line is 1 sample - A 500mL, B 500mL

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, FI = Filter, P = Wipe, U = Urine, F = Fecal, NS =
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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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	<-- Preservative Type (6)	Comments
S.2.A.R.1.1.A / S.2.A.R.1.1.B	12/14/15									Note: extra sample is required for sample specific QC
S.2.A.R.1.2.A / S.2.A.R.1.2.B	12/14/15									
S.2.A.R.1.3.A / S.2.A.R.1.3.B	12/14/15									
S.2.A.R.1.4.A / S.2.A.R.1.4.B	12/14/15									
S.2.A.R.2.1.A / S.2.A.R.2.1.B	12/14/15									
S.2.A.R.2.2.A / S.2.A.R.2.2.B	12/14/15									
S.2.A.R.2.3.A / S.2.A.R.2.3.B	12/14/15									
S.2.A.R.2.4.A / S.2.A.R.2.4.B	12/14/15									
S.2.A.R.2.5.A / S.2.A.R.2.5.B	12/14/15									
S.2.A.R.2.6.A / S.2.A.R.2.6.B	12/14/15									

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

* Each line is one sample - A is 500mL, B is 500mL

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=Feces, 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 #:
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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 (1)	Field Filtered (2)	Sample Matrix (3)	Should this sample be considered: Radioactive	Should this sample be considered: TSCA Regulated	Number of containers	Preservative Type (6)	Comments
S.2.B.R.1.1	12/15/15									Note: extra sample is required for sample specific QC
S.2.B.R.1.2	12/15/15									
S.2.B.R.1.3	12/15/15									
S.2.B.R.1.4	12/15/15									
S.2.B.R.2.1	12/15/15									
S.2.B.R.2.2	12/15/15									
S.2.B.R.2.3	12/15/15									
S.2.B.R.2.4	12/15/15									
S.2.B.R.2.5	12/15/15									
S.2.B.R.2.6	12/15/15									

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 = Miso 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

App E-
Sub-Area 5.2 - Field Survey Checklists

The MJW Companies

GPS Field Survey Checklist

The following field survey checklist is used once the survey team has walked to the location that they will begin a GPS survey. This checklist is intended to verify none of the cables or settings changed or cables came loose between the initial setup location and the field survey location. Complete step 9 once the current walkover segment is complete

1. ____ Verify the Ludlum Meter is in Rate mode
2. ____ Verify that the Ludlum Meter is alternating display of "DUP" and "Value"
3. ____ Set Menu 1 to "Status" and Menu 2 to "Receiver"
4. ____ Verify that Antenna states "External"
5. ____ Set Menu 1 to "Data"
6. ____ Name a file to start the current survey and start the data logger

   Filename: _____

7. ____ Set Menu 1 to "Status" and Menu 2 to "Sensor"
8. ____ Verify that the sensor field is reading the same as the display on the Ludlum
9. ____ When finished, set Menu 1 to "Data" and close the current file.

Name: _____ Date: _____

The MJW Companies

GPS Initial Setup Checklist

1. ✓ Complete source check of Ludlum Meter
2. ✓ Power off Ludlum Meter
3. ✓ Verify Trimble is shutdown (not in suspend mode)
4. ✓ Connect the Serial Interface Adapter (SIA) to the Trimble Unit
5. ✓ Connect the Serial cable to the Ludlum Meter
6. ✓ Connect the Serial cable to the Trimble SIA
7. ✓ Connect external GPS antenna cable to the Trimble
8. ✓ Power on Ludlum Meter to Rate mode
9. ✓ Verify that the Ludlum Meter is alternating display of "DUP" and "Value"
10. ✓ Power on the Trimble and wait for it to completely boot — #1 will not power on! SWITCH TO TRIM #2 →
11. ✓ Launch TerraSync and wait for it to load and acquire satellites
12. ✓ Set Menu 1 to "Status" and Menu 2 to "Receiver"
13. ✓ Verify that Antenna states "External"
14. ✓ Set Menu 1 to "Data"
15. ✓ Name a test file and start the data logger
16. ✓ Set Menu 1 to "Status" and Menu 2 to "Sensor"
17. ✓ Verify that the sensor field is reading the same as the display on the Ludlum
18. _____ Set Menu 1 to "Data" and close the current file.

Name: [signature] Date: 5.14.15 8:53 AM

The MJW Companies

GPS Field Survey Checklist

The following field survey checklist is used once the survey team has walked to the location that they will begin a GPS survey. This checklist is intended to verify none of the cables or settings changed or cables came loose between the initial setup location and the field survey location. Complete step 9 once the current walkover segment is complete.

1. 13 Verify the Ludlum Meter is in Rate mode
2. 13 Verify that the Ludlum Meter is alternating display of "DUP" and "Value"
3. 12 Set Menu 1 to "Status" and Menu 2 to "Receiver"
4. 16 Verify that Antenna states "External"
5. 12 Set Menu 1 to "Data"
6. 12 Name a file to start the current survey and start the data logger

   Filename: 12 15 15 5 - 2 b

   12 15 15 5 3 a 12 15 15 5 4 a.
7. 16 Set Menu 1 to "Status" and Menu 2 to "Sensor"
8. 13 Verify that the sensor field is reading the same as the display on the Ludlum
9. 12 When finished, set Menu 1 to "Data" and close the current file.

Name: Judith A. Bo Date: 12/15/15

The MJW Companies

GPS Initial Setup Checklist

1. ✓ Complete source check of Ludlum Meter
2. ✓ Power off Ludlum Meter
3. ✓ Verify Trimble is shutdown (not in suspend mode)
4. ✓ Connect the Serial Interface Adapter (SIA) to the Trimble Unit
5. ✓ Connect the Serial cable to the Ludlum Meter
6. ✓ Connect the Serial cable to the Trimble SIA
7. ✓ Connect external GPS antenna cable to the Trimble
8. ✓ Power on Ludlum Meter to Rate mode
9. ✓ Verify that the Ludlum Meter is alternating display of "DUP" and "Value"
10. ✓ Power on the Trimble and wait for it to completely boot
11. ✓ Launch TerraSync and wait for it to load and acquire satellites
12. ✓ Set Menu 1 to "Status" and Menu 2 to "Receiver"
13. ✓ Verify that Antenna states "External"
14. ✓ Set Menu 1 to "Data"
15. ✓ Name a test file and start the data logger
16. ✓ Set Menu 1 to "Status" and Menu 2 to "Sensor"
17. ✓ Verify that the sensor field is reading the same as the display on the Ludlum
18. ✓ Set Menu 1 to "Data" and close the current file.

Name: _____ Date: 12.15.15 8:21am

App E –
Sub-Area 5.2 - Instrument Field Sheets

MJW TECHNICAL SERVICES

Rev 1 10/18/15

Instrument Field Response Check Log

1. **Instrument Information**[1]
   - Ratemeter: Make/Model: Ludlum 2241-2 Serial No. 206098 Cal. Due Date: 09/01/16
   - Detector 1: Make/Model: Ludlum 44-10 Serial No. PR112642
   - **Bicron MicroRem Meter:** Serial No. 1487 Cal. Due Date: 06/18/16

2. **Check Source Information:**
   - Source 1 Isotope: Th-232 Serial No.: 111 Activity: <0.1 units: μCi Assay Date: 12/30/15
     Response Acceptance Range (+/-20%): uRem/hr +20% _____ uRem/hr -20% _____ net cpm + 20% 53798 net cpm -20% 35866
   - Source 2 Isotope Cs-137 Serial No.: 119E33-12 Activity: 0.02 units: μCi Assay Date: NA
     Response Acceptance Range (+/-20%): uRem/hr +20% _____ uRem/hr -20% _____ net cpm + 20% 13273 net cpm -20% 8849

3. **Technician/Worker Performing Checks:**
   Name: J.Edwards Title: RCT Date: 12/1/15 Time: 0858

4. **Site or Location:** Site/Job: SED / Area 5.2 Location Description: Parking lot / woods
   GPS Coordinates (when required): X-Coord: N 42° 32' 27.172" Y-Coord: W 78° 59' 50.352"

	Instrument Field Response[2]				Use Acceptance Criteria					Remarks
Meter	Bkg Cnt Time	Bkg Counts (cpm) or uRem/hr)	Source Cnt Time	Source Response (gross cpm or uRem/hr)	+/- 20% source gross cpm or uRem/hr (Y/N)	Inst. Calib. current (Y/N)	Battery Check (Y/N)	Time Of check	Ambient Temp. (°F)	Initials and Comments (add'l info: inst. Condition, etc.)
Ratemeter	1 min	9844 cpm	1 min	45753 cpm	Y	Y	Y	0903	54.1°	Th-232 DE
Ratemeter			1 min	10775 cpm	Y	Y	Y	0909	54.2°	Cs-137 DE
Ratemeter	1 min	8435 cpm	1 min	42589 cpm	Y	Y	Y	1304	57.3°	Th-232 DE
Ratemeter			1 min	10451 cpm	Y	Y	Y	1308	57.5°	Cs-137 DE
Ratemeter	1 min	7749 cpm	1 min	45076 cpm	Y	Y	Y	1440	59.1°	Th-232 DE
Ratemeter			1 min	9475 cpm	Y	Y	Y	1449	59.1°	Cs-137 DE
Bicron	NA	6 μrem/hr	NA	30 μrem/hr	Y	Y	Y	0905	54.2°	Th-232 DE
Bicron	NA	6 μrem/hr	NA	25 μrem/hr	Y	Y	Y	1257	57.3°	Th-232 DE
Bicron	NA	5 μrem/hr	NA	30 μrem/hr	Y	Y	Y	1445	59.0°	Th-232 DE

1. Instrument designated check source is listed on calibration sticker. Record check source response (net cpm) prior to field deployment for all check sources being used.
2. Source and Background count rate should be determined from the **average of three static counts** at the same location. Repeat counts should be within 20%. If count rate diverges significantly, perform additional counts to evaluate instrument stability

MJW TECHNICAL SERVICES

Rev 1 10/18/15

Instrument Field Response Check Log

1. **Instrument Information**[1]

Ratemeter: Make/Model: LUDLUM 2241-2 Serial No 262737 Cal. Due Date: 9/2/16

Detector 1: Make/Model: LUDLUM 44-10 Serial No. PR 111127

Bicron MicroRem Meter: Serial No. A224U Cal. Due Date: 8/4/16

2. **Check Source Information:**

Source 1 Isotope: Th-232 Serial No.: 116 Activity: <0.1 units: µci Assay Date: 12/30/10

Response Acceptance Range (+/-20%): uRem/hr +20% _____ uRem/hr -20% _____ net cpm + 20% 22926 net cpm -20% 15284

Source 2 Isotope: Cs-137 Serial No.: 87E13-48 Activity: 0.02 units: µci Assay Date: 1/20/10

Response Acceptance Range (+/-20%) uRem/hr +20% _____ uRem/hr -20% _____ net cpm + 20% 13375 net cpm -20% 8919

3. **Technician/Worker Performing Checks:**

Name: STEVE KOSMOW Title: RCT Date: 12/11/15 Time: 0900

4 **Site or Location:** Site/Job: S-2 Location Description: WOODS

GPS Coordinates (when required): X-Coord. N 42° 32' 30.6" Y-Coord W 79° 59' 74.9"

	Instrument Field Response[2]				Use Acceptance Criteria					Remarks
Meter	Bkg Cnt Time (min)	Bkg Counts (cpm) or uRem/hr)	Source Cnt Time (min)	Source Response (gross cpm or uRem/hr)	+/- 20% source gross cpm or uRem/hr (Y/N)	Inst. Calib. current (Y/N)	Battery Check (Y/N)	Time Of check	Ambient Temp. (°F)	Initials and Comments (add'l Info: Inst. Condition, etc.)
Ratemeter	1.0	7770	1	19788	Y	Y	Y	0900	53.0	Th 232 SK
Ratemeter	1	7770	1	11315	Y	Y	Y	0900	53.0	Cs 137 SK
Ratemeter	1	7874	1	20148	Y	Y	Y	1300	61.3	Th 232 SK
Ratemeter	1	7874	1	11267	Y	Y	Y	1300	61.3	Cs 137 SK
Ratemeter	1	6915	1	19544	Y	Y	Y	1500	59.0	Th 232 SK
Ratemeter	1	6915	1	10359	Y	Y	Y	1500	59.0	Cs 137 SK
Bicron	NA	6	NA	18	Y	Y	Y	0900	53.0	Th 232 SK
Bicron	NA	6	NA	17	Y	Y	Y	1300	61.3	Th 232 SK
Bicron	NA	5	NA	17	Y	Y	Y	1500	59.0	Th 232 SK

1. Instrument designated check source is listed on calibration sticker. Record check source response (net cpm) prior to field deployment for all check sources being used.
2. Source and Background count rate should be determined from the average of three static counts at the same location. Repeat counts should be within 20%. If count rate divergus significantly, perform additional counts to evaluate instrument stability

MJW TECHNICAL SERVICES

Rev 1 10/18/15

Instrument Field Response Check Log

1. **Instrument Information**[1]
   Ratemeter: Make/Model: Ludlum 2241-2 Serial No. 202098 Cal. Due Date: 09/01/16
   Detector 1: Make/Model: Ludlum 44-10 Serial No. PR112642
   Bicron MicroRem Meter: Serial No. _____ Cal. Due Date: _____

2. **Check Source Information:**
   Source 1 Isotope: Th-232 Serial No.: 111 Activity: <0.1 units: µCi Assay Date: 12/30/10
   Response Acceptance Range (+/-20%): uRem/hr +20% _____ uRem/hr -20% _____ net cpm + 20% 53798 net cpm -20% 35866
   Source 2 Isotope: Cs-137 Serial No.: 119523-12 Activity: 0.02 units: µCi Assay Date: NA
   Response Acceptance Range (+/-20%): uRem/hr +20% _____ uRem/hr -20% _____ net cpm + 20% 13273 net cpm -20% 8849

3. **Technician/Worker Performing Checks:**
   Name: J. Edwards Title: RCT Date: 12/15/15 Time: 0804

4. **Site or Location:** Site/Job: Area 5.2 Location Description: woods
   GPS Coordinates (when required): X-Coord: N42°31'8.683" Y-Coord: W78°58'41.797"

	Instrument Field Response[2]				Use Acceptance Criteria					Remarks
Meter	Bkg Cnt Time	Bkg Counts (cpm) or uRem/hr)	Source Cnt Time	Source Response (gross cpm or uRem/hr)	+/- 20% source gross cpm or uRem/hr (Y/N)	Inst. Calib. current (Y/N)	Battery Check (Y/N)	Time Of check	Ambient Temp. (°F)	Initials and Comments (add'l Info: inst. Condition, etc.)
Ratemeter	1 min	8333 cpm	1 min	44189 cpm	Y	Y	Y	0808	47.1°	Th-232 JE
Ratemeter			1 min	10364 cpm	Y	Y	Y	0812	47.3°	Cs-137 JE
Ratemeter	1 min	8944 cpm	1 min	46517 cpm	Y	Y	Y	1145	48.5°	Th-232 JE
Ratemeter			1 min	10964 cpm	Y	Y	Y	1150	48.5°	Cs-137 JE
Ratemeter	1 min	11118 cpm	1 min	46862 cpm	Y	Y	Y	1456	47.0°	Th-232 JE
Ratemeter			1 min	13164 cpm	Y	Y	Y	1449	47.6°	Cs-137 JE
Bicron	NA	8 uRem/hr	NA	40 uRem/hr	Y	Y	Y	1142	48.5°	Th-232 JE
Bicron	NA	8 uRem/hr	NA	36 uRem/hr	Y	Y	Y	1445	47.0°	Th-232 JE
Bicron	NA		NA							

1. Instrument designated check source is listed on calibration sticker. Record check source response (net cpm) prior to field deployment for all check sources being used.
2. Source and Background count rate should be determined from the **average of three static counts** at the same location. Repeat counts should be within 20%. If count rate diverges significantly, perform additional counts to evaluate instrument stability

App E –
Sub-Area 5.2 - Sample Data Sheets

MJW TECHNICAL SERVICES

SAMPLE LOCATION DATA SHEET

Date: 12/14/15 Project: NYSERDA Name: J. Brown

Weather: cloudy, upper 60's

1. Sample Area (SA):

SA Designation: S.2A Description: wooded lot

SA Origin Location: _____ Coord. System: _____

SA Land Mark Description: _____ Coord: _____

2. Sample Location Data:

Sample Area ID: S.2.A.R.1 Matrix: Soil

Location Coord: 42° 31' 7.46" N 78° 58' 23.45" 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 ground, some trees and ground brush, dead leaves (cleared)

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

3. Location Radiation Readings:

2x2 NaI (cpm)			Bicron (uRem/hr)		Notes
Count time (min)	1 cm	1m	1 cm	1m	
1	7692	7397	5	4	Bicron MicroRem # 1487 6/18/15 cal date
1	7668	7368			Ludlum 2241-2 # 226098
					Inspector 44-10 # 112642 cal date 9/1/15

4. Sample Information:

Sample Area ID: S.2.A.R.1.1-4

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	dark brown	S.2.A.R.1.1	few roots
15-30	topsoil	brown	S.2.A.R.1.2	few roots
30-60	topsoil/sand	brown	S.2.A.R.1.3	few roots
60-100	topsoil/sand	brown	S.2.A.R.1.4	more roots

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

MJW TECHNICAL SERVICES

SAMPLE LOCATION DATA SHEET

Date: 12/9/15 Project: NYSERDA Name: J Brown

Weather: cloudy, upper 60's

1. Sample Area (SA):

SA Designation: S.2.A Description: wooded lot
SA Origin Location: _____ Coord. System: _____
SA Land Mark Description: _____ Coord: _____

2. Sample Location Data:

Sample Area ID: S.2.A.R.2 Matrix: Soil

Location Coord: 42° 31' 7.53" N 73° 58' 22.60" 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 ground, some trees and ground brush, dead leaves (cleared)

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

3. Location Radiation Readings:

2x2 NaI (cpm)			Bicron (uRem/hr)		Notes
Count time (min)	1 cm	1m	1 cm	1m	
1	7986	7398	7	6	Bicron MicroRem #1487 cal due 6/8/16
1	7364	7444			Ludlum 2241-2 # 206098
					with probe 44-16 # 117642 cal due 9/1/16

4. Sample Information:

Sample Area ID: S.2.A.R.2.1-6

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	dark brown	S.2.A.R.2.1	few roots
15-30	topsoil	brown	S.2.A.R.2.2	few roots
30-60	topsoil	light brown	S.2.A.R.2.3	more roots
60-100	topsoil/sand	light brown	S.2.A.R.2.4	more roots, some large
0-15	topsoil	dark brown	S.2.A.R.2.5	few roots
15-30	topsoil	brown	S.2.A.R.2.6	few roots

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

MTS
MW TECHNICAL SERVICES

SAMPLE LOCATION DATA SHEET

Date: 12-11-15 Project: NYSERDA Name: Tori Brown

Weather: calm, sunny, 40-50°F

1. Sample Area (SA):

SA Designation: 5.2A Description: Woods
SA Origin Location: _____ Coord. System: _____
SA Land Mark Description: _____ Coord: _____

2. Sample Location Data:

Sample Area ID: 6.2A.R.3 Matrix: Soil

Location Coord: N42°31'06.9" W78°58'23.9"

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

Site Sketch Attached (Yes) (NO)

Sample Location Description: Woods, large trees, fallen trees, leaves

Canopy Type: Open Land Use: Hiking Soil Moisture (Wet, dry, etc.): Dry

3. Location Radiation Readings:

2x2 NaI (cpm)			Bicron (uRem/hr)		Notes
Count time (min)	1 cm	1m	1 cm	1m	Bicron - LUDLUM 2241-2 Serial # 262737 cal due 9/2/16
1	6693	4414	5	4	2x2 - LUDLUM 44-10
1	6835	4285			Serial #PR141127 #A2240
					cal due 8/4/16

4. Sample Information:

Sample Area ID: 5.2A.R.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	soil	Brown	5.2A.R.3.1	N/A
15-30	soil	light brown	5.2A.R.3.2	rocks, sand

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

MJW TECHNICAL SERVICES

SAMPLE LOCATION DATA SHEET

Date: 12-11-15 Project: NYSERDA Name: Tori Brown

Weather: Calm, sunny, 50°

1. Sample Area (SA):

SA Designation: 5.2A Description: Woods

SA Origin Location: _____ Coord. System: _____

SA Land Mark Description: _____ Coord: _____

2. Sample Location Data:

Sample Area ID: 5.2A.R.4 Matrix: Soil

Location Coord: N42° 31' 06.41" W78° 58' 22.40"

Alternate Location Measurements (distance from SA origin and Local Coord.)

X Dist. from Origin (0,0) N/A Y Dist. from Origin: N/A

Site Sketch Attached (Yes) (NO)

Sample Location Description: Woods, very light basin, large trees, leaves

Canopy Type: Open Land Use. Hiking Soil Moisture (Wet, dry, etc.): _____

3. Location Radiation Readings:

2x2 NaI (cpm)			Bicron (uRem/hr)		Notes
Count time (min)	1 cm	1m	1 cm	1m	Bicron - LUDLUM 2241-2 Serial # 262737 Cal due 9/2/16
1	6635	6474	6	5	2x2 - LUDLUM 44-10
1	6693	6418			Serial #PR111127 #A2240
					cal due 8/4/16

4. Sample Information:

Sample Area ID: S.2A.R.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	soil	Brown	S.2A.R.4.1	loamy silt then light brown sand rocky
15-30	soil/rocks	light brown	S.2A.R.4.2	small + medium rocks

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

MJW TECHNICAL SERVICES

SAMPLE LOCATION DATA SHEET

Date: 12-1-15 Project: NYSERDA Name: Tori Brown

Weather: Calm, sunny, 50°F

1. Sample Area (SA):

SA Designation: 5.2A Description: Woods
SA Origin Location: _____ Coord. System: _____
SA Land Mark Description: _____ Coord: _____

2. Sample Location Data:

Sample Area ID: 5.2A.R.S Matrix: Soil

Location Coord: N 42°31'06.55" W 78°58'23.8"

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

Site Sketch Attached (Yes) (NO)

Sample Location Description: Saplings, large trees, leaves

Canopy Type: Open Land Use: Hiking Soil Moisture (Wet, dry, etc.): Dry

3. Location Radiation Readings:

2x2 NaI (cpm)			Bicron (uRem/hr)		Notes
Count time (min)	1 cm	1m	1 cm	1m	Bicron - LUDLUM 2241-2 Serial # 262737 Cal due 9/2/16
1	7021	6738	6	4	2x2 - LUDLUM 44-10
1	6822	6573			Serial #PR111127 #A2240
					Cal due 8/4/16

4. Sample Information:

Sample Area ID: 5.2A.R.S.1-2

Description by Depth:

Depth Interval (cm)	*Soil Type* (Org; clay; sand, etc.)	*Soil Color*	*Sample ID*	*Sampling Description* (Surface liter type/depth, sample depth retention, refusal, stone or rock, topography, erosion features)
0-15	Soil	Brown	5.2A.R.S.1	N/A
15-30	Soil	Brown/light	5.2A.R.S.2	Small roots

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

MW TECHNICAL SERVICES

SAMPLE LOCATION DATA SHEET

Date: 12-11-15 Project: NYSERDA Name: Tori Brown

Weather: Calm, sunny, 50°F

1. Sample Area (SA):

SA Designation: S.2A Description: Woods

SA Origin Location: _____ Coord. System: _____

SA Land Mark Description: _____ Coord: _____

2. Sample Location Data:

Sample Area ID: S.2A.R.6 Matrix: Soil

Location Coord: N42° 31' 06.4" W 78° 58' 24.8"

Alternate Location Measurements (distance from SA origin and Local Coord.)

X Dist. from Origin (0,0) N/A Y Dist. from Origin: N/A

Site Sketch Attached (Yes) (NO)

Sample Location Description: dead trees, very light brush, leaves

Canopy Type: Open Land Use: Hiking Soil Moisture (Wet, dry, etc.): Dry

3. Location Radiation Readings:

2x2 NaI (cpm)			Bicron (uRem/hr)		Notes
Count time (min)	1 cm	1m	1 cm	1m	Bicron - LUDLUM 2241-2 Serial # 262737 Cal due 9/2/16
1	6851	6337	7	6	2x2 - LUDLUM 44-10
1	6928	6428			Serial #PR111127 #A2240
					Cal due 8/4/16

4. Sample Information:

Sample Area ID: S.2A.R.6.1-2

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	Soil/rock	Brown/light	S.2A.R.6.1	loamy → light brown and rocky
15-30	Soil/rock	light brown	S.2A.R.6.2	small roots, rocky

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

MJW TECHNICAL SERVICES

SAMPLE LOCATION DATA SHEET

Date: 12-11-15 Project: NYSERDA Name: Tom Brown

Weather: _____

1. Sample Area (SA):

SA Designation: 5.2A Description: Woods
SA Origin Location: _____ Coord. System: _____
SA Land Mark Description: _____ Coord: _____

2. Sample Location Data:

Sample Area ID: 5.2A.R.7 Matrix: Soil

Location Coord: N 42° 31' 05.9" W 78° 58' 23.3"

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

Site Sketch Attached (Yes) (NO)

Sample Location Description: Woods, down trees, along logging trail, leaves

Canopy Type: Open Land Use: Hiking Soil Moisture (Wet, dry, etc.): Dry

3. Location Radiation Readings:

2x2 NaI (cpm)			Bicron (uRem/hr)		Notes
Count time (min)	1 cm	1m	1 cm	1m	Bicron - LUDLUM 2241-2 Serial # 262737 Cal due 9/2/16
1	7052	6303	5	4	2x2 - LUDLUM 44-10
1	6804	6342			Serial #PR111127 #A2240
					cal due 8/4/16

4. Sample Information:

Sample Area ID: 5.2A.R.7.1-2

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	Soil	Brown	5.2A.R.7.1	N/A
15-30	Soil/rocks	Brown	5.2A.R.7.2	N/A

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

MJW TECHNICAL SERVICES

SAMPLE LOCATION DATA SHEET

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

Weather: wind, upper 40's

1. Sample Area (SA):

SA Designation: 5.2.B Description: wooded lot

SA Origin Location: _____ Coord. System: _____

SA Land Mark Description: _____ Coord: _____ _____

2. Sample Location Data:

Sample Area ID: 5.2.B.R.1 Matrix: Soil

Location Coord: 42° 31' 5.00" N 78° 38' 24.42" 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 ground, many trees, dead leaves (cleared)

Canopy Type: slightly 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	9119	8477	6	5	Bicron Micro Rem # 1487 cal due 6/18/16
1	9076	8261			Ludlum 2241-2 # 206094 cal due 9/16
					Ludlum probe 44-10 # PR 112642

4. Sample Information:

Sample Area ID: 5.2.B.R.1.1-4

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	dark brown	5.2.B.R.1.1	
15-30	topsoil	dark brown	5.2.B.R.1.2	Same as 1
30-50	topsoil, sand	brown	5.2.B.R.1.3	Same as 1
50-100	topsoil, sand	brown	5.2.B.R.1.4	Same as 1

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

MJW TECHNICAL SERVICES

SAMPLE LOCATION DATA SHEET

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

Weather: windy, rainy, upper 40's

1. Sample Area (SA):

SA Designation: S.2.B Description: wooded lot
SA Origin Location: _____ _____ Coord. System: _____
SA Land Mark Description: _____ Coord: _____ _____

2. Sample Location Data:

Sample Area ID: S.2.B.R.2 Matrix: Soil

Location Coord: 42° 31' 4.69" N 78° 58' 25.24" 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 ground some trees, dead leaves (cleared)

Canopy Type: partially 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	9364	8993	7	6	Bicron Micro Rem # 1489 cal date 9/18/16
1	9544	8974			Ludlum 2241-2 # 206098
					with probe 44-10 # PR 112642 cal date 9/1/16

4. Sample Information:

Sample Area ID: S.2.B.R.2.1-6

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	dark brown	S.2.B.R.2.1	few roots
15-30	topsoil	light brown	S.2.B.R.2.2	few roots
30-60	topsoil/sand	light brown	S.2.B.R.2.3	few roots
60-100	topsoil/sand	light brown	S.2.B.R.2.4	more roots/few rocky
0-15	topsoil	lt. brown	S.2.B.R.2.5	few roots
30-60	topsoil/sand	lt. brown	S.2.B.R.2.6	few roots

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

MJW TECHNICAL SERVICES

SAMPLE LOCATION DATA SHEET

Date: 12/11/15 Project: NYSERDA Name: J. Brown

Weather: sunny, low 50's

1. Sample Area (SA):

SA Designation: S.2.B Description: wooded lot

SA Origin Location: _____ Coord. System: _____

SA Land Mark Description: _____ Coord: _____

2. Sample Location Data:

Sample Area ID: S.2.B.R.3 Matrix: Soil

Location Coord: 42° 31' 4.36" N 78° 58' 24.35" 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, some trees, dead leaves (cleared)

Canopy Type: partially 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	7805	7680	5	5	Bicron Microrem # 1487 cal due 6/15/16
1	7948	7412			Ludlum 2241-2 # 206095
					with probe 44-10 # 112642 cal due 9/1/16

4. Sample Information:

Sample Area ID: S.2.B.R.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	dark brown	S.2.B.R.3.1	few roots
15-30	topsoil	dark brown	S.2.B.R.3.2	few roots

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

MJW TECHNICAL SERVICES

SAMPLE LOCATION DATA SHEET

Date: 12/11/15 Project: NMSC RI04 Name: J. Brown

Weather: sunny, low 50's

1. Sample Area (SA):

SA Designation: S.2B Description: wooded lot

SA Origin Location: _____ Coord. System: _____

SA Land Mark Description: _____ Coord: _____

2. Sample Location Data:

Sample Area ID: S.2.B.R.4 Matrix: Soil

Location Coord: 42° 51' 4.14" N 78° 58' 25.32" 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, some trees, dead leaves (cleared)

Canopy Type: partially 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	7672	7394	6	5	Bicron Micro Rem #1457 cal due 6/2016
1	7781	7549			Ludlum 2241-2 # 208009
					Ludlum 44-10 #117942 cal due 9/16

4. Sample Information:

Sample Area ID: S.2.B.R.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	dark brown	S.2.B.R.4.1	few roots
15-30	topsoil	dark brown	S.2.B.R.4.2	few roots

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

NAVTECHNICAL SERVICES

SAMPLE LOCATION DATA SHEET

Date: 10/6/16 Project: MISERIA Name: J. Brown

Weather: Sunny low 50's

1. Sample Area (SA):

SA Designation: S 2B Description: wooded lot

SA Origin Location: _____ Coord. System: _____

SA Land Mark Description: _____ Coord: _____

2. Sample Location Data:

Sample Area ID: S 2.B.R.S Matrix: Soil

Location Coord: 42°41'3.57" N 78°58'25.23" 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 ground some trees, dead leaves (deer road)

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

3. Location Radiation Readings:

2x2 NaI (cpm)			Bicron (uRem/hr)		Notes
Count time (min)	1 cm	1m	1 cm	1m	
1	7825	7225	5	5	Bicron Micro Rem #1457 cal due 6/13/16
1	7730	7148			Ludlum 2241-2 #206098
					ludlum probe 44-10 #112642 cal due 9/1/16

4. Sample Information:

Sample Area ID: S.2 B.R.S.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	dark brown	S.2.B.R.S.1	few roots
15-30	topsoil	dark brown	S.2.B.R.S.2	few roots

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

MJW TECHNICAL SERVICES

SAMPLE LOCATION DATA SHEET

Date: 12/11/15 Project: WSERD Name: J Brown

Weather: Sunny, upper 50's

1. Sample Area (SA):

SA Designation: S.2.B Description: wooded lot

SA Origin Location: _____ Coord. System: _____

SA Land Mark Description: _____ Coord: _____

2. Sample Location Data:

Sample Area ID: S.2.B.R.6 Matrix: Soil

Location Coord: 42°31'3.52" N 78°58'24.28" 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 ground, few trees, dead leaves (cleared)

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

3. Location Radiation Readings:

2x2 NaI (cpm)			Bicron (uRem/hr)		Notes
Count time (min)	1 cm	1m	1 cm	1m	
1	8173	7246	5	4	Bicron Meter Rem #1487 cal due 6/2/16
1	8095	7371			Ludlum 224 I # 201098
					Ludlum probe 44-9 # 177442 cal due 9/1/16

4. Sample Information:

Sample Area ID: S.2.B.R.6.1.2

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	dark brown	S.2.B.R.6.1	few roots
15-30	topsoil	dark brown	S.2.B.R.6.2	few roots

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

NEW TECHNICAL SERVICES

SAMPLE LOCATION DATA SHEET

Date: 12/11/15 Project: NTSCADA Name: J. Brown

Weather: Sunny, mid 50's

1. Sample Area (SA):

SA Designation: S.2.B Description: Wooded lot

SA Origin Location: _____ Coord. System: _____

SA Land Mark Description: _____ Coord: _____

2. Sample Location Data:

Sample Area ID: S.2.B.R.7 Matrix: Soil

Location Coord: 42°51'30.05" N 77°38'24.90" 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 ground, some trees, dead leaves (cleared)

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

3. Location Radiation Readings:

2x2 NaI (cpm)			Bicron (uRem/hr)		Notes
Count time (min)	1 cm	1m	1 cm	1m	
1	8074	7754	6	5	Bicron Micro Rate #1487 calib. 6/15/16
1	7934	7581			Ludlum, 2241-2 #226098
					with probe 44-10 #112142 cal due 7/1/16

4. Sample Information:

Sample Area ID: S.2.B.R.7.1-2

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	brown	S.2.B.R.7.1	few roots
15-30	topsoil	brown	S.2.B.R.7.2	more roots

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

MJW TECHNICAL SERVICES

SAMPLE LOCATION DATA SHEET

Date: 12/11/15 Project: NYSERDA Name: T. Brown

Weather: Sunny, upper 50's

1. Sample Area (SA):

SA Designation: 5.2B Description: wooded lot

SA Origin Location: _____ Coord. System: _____

SA Land Mark Description: _____ Coord: _____

2. Sample Location Data:

Sample Area ID: 5.2.B.R.8 Matrix: Soil

Location Coord: 42° 31' 3.03" N 78° 58' 23.73" 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 ground, some trees, dead leaves (cleared)

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

3. Location Radiation Readings:

2x2 NaI (cpm)			Bicron (uRem/hr)		Notes
Count time (min)	1 cm	1m	1 cm	1m	
1	8324	7510	5	4	Bicron MicroRem # 1437 cal date 6/15/14
1	8252	7431			Ludlum 2241-2 # 206098
					Ludlum 44-10 # 112642 cal date 9/1/16

4. Sample Information:

Sample Area ID: 5.2.B.R.8.1-2

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	5.2.B.R.8.1	roots
15-30	topsoil	dk. brown	5.2.B.R.8.2	roots

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

App E-
Sub-Area 5.2- Static Survey Sheets

AREA 5.2A

Date						Elevation				Coordinates	
Collected	Sample					0-15 cm	15-30 cm	30-60 cm	60-100c cm		
12/14/15	5.2A	R	1	.	1	X				42°31'7.46"N	78°58'23.45"W
12/14/15	5.2A	R	1	.	2		X				
12/14/15	5.2A	R	1	.	3			X			
12/14/15	5.2A	R	1	.	4				X		
12/14/15	5.2A	R	2	.	1	X				42°31'7.33"N	78°58'22.60"W
12/14/15	5.2A	R	2	.	2		X				
12/14/15	5.2A	R	2	.	3			X			
12/14/15	5.2A	R	2	.	4				X		
12/14/15	5.2A	R	2		5	X					
12/14/15	5.2A	R	2		6		X				
	5.2A	R	3	.	1	X				42°31'6.91"N	78°58'23.91"W
	5.2A	R	3	.	2		X				
	5.2A	R	4	.	1	X				42°31'6.91"N	78°58'22.46"W
	5.2A	R	4	.	2		X				
	5.2A	R	5	.	1	X				42°31'6.55"N	78°58'23.18"W
	5.2A	R	5	.	2		X				
	5.2A	R	6	.	1	X				42°31'6.40"N	78°58'24.01"W
	5.2A	R	6	.	2		X				
	5.2A	R	7	.	1	X				42°31'6.16"N	78°58'23.19"W
	5.2A	R	7	.	2		X				

AREA 5.2A

Date						Elevation				Coordinates	
Collected	Sample					0-15 cm	15-30 cm	30-60 cm	60-100c cm		
12-14-15	5.2A	R	1	.	1	X				42°31'7.46"N	78°58'23.45"W
12-14-15	5.2A	R	1	.	2		X				
12-14-15	5.2A	R	1	.	3			X			
12-14-15	5.2A	R	1	.	4				X		
12-14-15	5.2A	R	2	.	1	X				42°31'7.33"N	78°58'22.60"W
12-14-15	5.2A	R	2	.	2		X				
12-14-15	5.2A	R	2	.	3			X			
12-14-15	5.2A	R	2	.	4				X		
12-14-15	5.2A	R	2		5	X					
12-14-15	5.2A	R	2		6		X				
12-11-15	5.2A	R	3	.	1	X				42°31'6.91"N	78°58'23.91"W
12-11-15	5.2A	R	3	.	2		X				
12-11-15	5.2A	R	4	.	1	X				42°31'6.91"N	78°58'22.46"W
12-11-15	5.2A	R	4	.	2		X				
12-11-15	5.2A	R	5	.	1	X				42°31'6.55"N	78°58'23.18"W
12-11-15	5.2A	R	5	.	2		X				
12-11-15	5.2A	R	6	.	1	X				~~42°31'6.40"N~~	~~78°58'24.01"W~~ 42°31'06.4"N 78°58'24.8"W
12-11-15	5.2A	R	6	.	2		X				
12-11-15	5.2A	R	7	.	1	X				~~42°31'6.16"N~~	~~78°58'23.19"W~~ 42°31'05.5"N 78°58'23.3"W
12-11-15	5.2A	R	7	.	2		X				

AREA 5.2B

Date						Elevation				Coordinates	
Collected	Sample					0-15 cm	15-30 cm	30-60 cm	60-100c cm		
12/15/15	5.2B	R	1	.	1	X				42°31'5.00"N	78°58'24.42"W
12/15/15	5.2B	R	1	.	2		X				
12/15/15	5.2B	R	1	.	3			X			
12/15/15	5.2B	R	1	.	4				X		
12/15/15	5.2B	R	2	.	1	X				42°31'4.69"N	78°58'25.24"W
12/15/15	5.2B	R	2	.	2		X				
12/15/15	5.2B	R	2	.	3			X			
12/15/15	5.2B	R	2	.	4				X		
12/15/15	5.2B	R	2		5	X					
12/15/15	5.2B	R	2		6			X			
12/11/15	5.2B	R	3	.	1	X				42°31'4.36"N	78°58'24.35"W
12/11/15	5.2B	R	3	.	2		X				
12/11/15	5.2B	R	4	.	1	X				42°31'4.14"N	78°58'25.32"W
12/11/15	5.2B	R	4	.	2		X				
12/11/15	5.2B	R	5	.	1	X				42°31'3.57"N	78°58'25.23"W
12/11/15	5.2B	R	5	.	2		X				
12/11/15	5.2B	R	6	.	1	X				42°31'3.52"N	78°58'24.28"W
12/11/15	5.2B	R	6	.	2		X				
12/11/15	5.2B	R	7	.	1	X				42°31'3.05"N	78°58'24.90"W
12/11/15	5.2B	R	7	.	2		X				
12/11/15	5.2B	R	8	.	1	X				42°31'3.03"N	78°58'23.93"W
12/11/15	5.2B	R	8	.	2		X				
12/11/15											

AREA 5.2B

Date						Elevation				Coordinates	
Collected	Sample					0-15 cm	15-30 cm	30-60 cm	60-100c cm		
12-15-15	5.2B	R	1	.	1	X				42°31'5.00"N	78°58'24.42"W
12-15-15	5.2B	R	1	.	2		X				
12-15-15	5.2B	R	1	.	3			X			
12-15-15	5.2B	R	1	.	4				X		
12-15-15	5.2B	R	2	.	1	X				42°31'4.69"N	78°58'25.24"W
12-15-15	5.2B	R	2	.	2		X				
12-15-15	5.2B	R	2	.	3			X			
12-15-15	5.2B	R	2	.	4				X		
12-15-15	5.2B	R	2		5	X					
12-15-15	5.2B	R	2		6			X			
12-11-15	5.2B	R	3	.	1	X				42°31'4.36"N	78°58'24.35"W
12-11-15	5.2B	R	3	.	2		X				
12-11-15	5.2B	R	4	.	1	X				42°31'4.14"N	78°58'25.32"W
12-11-15	5.2B	R	4	.	2		X				
12-11-15	5.2B	R	5	.	1	X				42°31'3.57"N	78°58'25.23"W
12-11-15	5.2B	R	5	.	2		X				
12-11-15	5.2B	R	6	.	1	X				42°31'3.52"N	78°58'24.28"W
12-11-15	5.2B	R	6	.	2		X				
12-11-15	5.2B	R	7	.	1	X				42°31'3.05"N	78°58'24.90"W
12-11-15	5.2B	R	7	.	2		X				
12-11-15	5.2B	R	8	.	1	X				42°31'3.03"N	78°58'23.93"W
12-11-15	5.2B	R	8	.	2		X				