App E –

Area 1 - COC Forms

Field Copy

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 Note: extra sample is required for sample specific QC
1.3.C.1	10-21-15	9:35	N							
1.3.C.2	10-21-15	9:50	N							
1.3.C.3	10-21-15	10:00	N							
1.3.C.5	10-21-15	9:40	FD							
1.3.C.6	10-21-15	9:55	FD							
3.1.4.R.1	10-21-15	10:55	N							
3.1.4.R.2	10-21-15	11:05	N							
3.1.4.R.3	10-21-15	11:15	N							
3.1.4.R.4	10-21-15	11:20	N							

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=
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

FIELD COPY

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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 (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
1.1.C1	10/22/15									Note: extra sample is required for sample specific QC
1.1.C2	10/22/15									
1.1.C3	10/22/15									
1.2.C1	10/22/15									
1.2.C2	10/22/15									
1.2.C3	10/22/15									
1.1.RS	10/22/15		EB							
~~1.2.RS~~	~~10/22/15~~									

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 #:

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For Lab Receiving Use Only

Custody Seal Intact? YES NO

Cooler Temp: C

WHITE = LABORATORY YELLOW = FILE PINK = CLIENT

App E-

Area 1- 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. 262641 Cal. Due Date: 11/03/15
   Detector 1: Make/Model: Ludlum 44.10 Serial No. PR288429
   Bicron MicroRem Meter: Serial No. 1487 Cal. Due Date: 06/18/15

2. **Check Source Information:**
   Source 1 Isotope: TI232 Serial No.: 111 Activity: 10.1 units: uCi 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.: 119E23-12 Activity: 0.02 units: uCi Assay Date: N/A
   Response Acceptance Range (+/-20%): uRem/hr +20% _____ uRem/hr -20% _____ net cpm + 20% 13273 net cpm -20% 8849

3. **Technician/Worker Performing Checks:**
   Name: Earl Eademy Title: RCT Date: 10/22/15 Time: 09:11

4. **Site or Location:** Site/Job: 1.1 + 1.2 Location Description: Driveway by Car
   GPS Coordinates (when required): X-Coord: 43° 28' 12.3 Y-Coord: 078° 41' 06.0

	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	1.0	7149	1.0	9310	Y	Y	Y	09:20	60.9°	SC. Taken on concrete
Ratemeter	1.0	7344	1.0	9597	Y	Y	Y	11:10	60.4°	Driveway *
Ratemeter										
Ratemeter										
Bicron	NA	7.0	NA	400	Y	Y	Y	09:11		*
Bicron	NA	7.0	NA	360	Y	Y	Y	11:00		*
Bicron	NA		NA							
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

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. PR111127

   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: uci 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: .02 units: uci 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 KINSMAN Title: RCT Date: 10/27/15 Time: 0845

4. **Site or Location:** Site/Job: AREA 1 Location Description: N456RDA

   GPS Coordinates (when required): X-Coord: N 42° 27' 17.1" Y-Coord: W 078° 39' 41.5"

	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	8115	1 MIN	19687	Y	Y	Y	0845	41.9	Th 232
Ratemeter	1 MIN	8115	1 MIN	11565	Y	Y	Y	0845	41.9	Cs 137
Ratemeter	1 MIN	7666	1 MIN	19014	Y	Y	Y	1415	59.1	Th 232
Ratemeter	1 MIN	7666	1 MIN	11034	Y	Y	Y	1415	59.1	Cs 137
Ratemeter	1 MIN	7384	1 MIN	19504	Y	Y	Y	1515	58.8	Th 232
Ratemeter	1 MIN	7384	1 MIN	10894	Y	Y	Y	1515	58.8	Cs 137
Bicron	NA	5	NA	17	Y	Y	Y	0845	41.9	
Bicron	NA	6	NA	18	Y	Y	Y	1415	59.1	
Bicron	NA	6	NA	18	Y	Y	Y	1515	58.8	

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