

111 W. 16<sup>th</sup> Avenue, Suite 302 Anchorage, Alaska 99501-5109 907-743-9399 Phone 907-743-9398 Fax

56016-007

November 30, 2005

USAED Alaska District Northern Area Office U.S. Army Corps of Engineers P.O. Box 35066 Fairbanks, AK 99703-0066

Attention: Mr. Paul Schneider, P.E.

## **Correct BCS Responses to USACE Comments on Rev 0 Planning Documents** W911KB-05-P-0103 Gambell FUDS Remedial Action Gambell, Alaska

Dear Mr. Schneider:

The purpose of this letter is to provide Bristol Construction Services, LLC's (BCS's) correct responses to the U.S Army Corps of Engineers' comments on the Rev 0 planning documents for the Gambell FUDS Remedial Action project. We initially transmitted our responses to you under our serialized letter 56001-006 dated November 11, 2005. Unfortunately, the responses attached to letter 56001-006 were not complete. Please discard them and replce them with those attached to this letter.

We suggest we hold a Comment resolution Conference in the near future to discuss and develop a mutual understanding of the modifications we will make to the Rev 0 planning documents. Because of leave time scheduled by BCS project staff, we suggest meeting either during the week of December 5, 2005, or after January 2, 2006. We look forward to meeting with you to discuss our responses.

If you have questions or wish to discuss our responses, please call me at (907) 743-9322.

Sincerely,

**Bristol Construction Services, LLC** 

Steven A. Johnson, P.E. Project Manager

Attachment: Corrected BCS Responses

A subsidiary of Bristol Bay Native Corporation

200-1f F10AK069601\_07.01\_0001\_a 200-1f F10AK069603\_07.01\_0001\_a

| REVIEW P |          | PROJECT: Gambell FUDS Remedial Action | DOCUMENT: Groundwater Sampling for Gambell FUDS Remedial Action |            |                                |          |  |
|----------|----------|---------------------------------------|---|------------|--------------------------------|----------|--|
| COMMENTS |          | LOCATION: St. Lawrence Island, Alaska |   |            |                                |          |  |
| DATE     |          | <b>REVIEWER:</b> Reviewer 1           | PHONE:  |            |                                |          |  |
| Item     | Location | COMMENTS                              |   | Review     | Bristol Environmental Response | USACE    |  |
| No.      |          |                                       |   | Conference |                                | Response |  |

|    | Work Plan       |   |   |   |  |
|----|-----------------|---|---|---|--|
| 1. | Sec 3.2.2/p. 12 | Reference to Table 4-1 should be Table 3-1  | А | Reference will changed in Work Plan.  |  |
| 2. | Sec 3.4.1/p. 12 | The Waste Accumulation Point is not apparent on my copy of Figure 3. If it's there, please highlight it in the final copy   | А | Figures will be edited to clarify Waste Accumulation Point.   |  |
| 3. | Sec 3.6/p. 14   | Using 26 mg/Kg as the cleanup level for chromium may be<br>impractical with the XRF. Given the unlikelihood of<br>hexavalent chromium, we should reconsider this in our<br>review session.  | A | This will be discussed during the comment review conference.  |  |
| 4. | Sec 4.0/p. 19   | The Project Schedule dates need to be updated   | A | The project schedule will be updated in the final Work Plan.  |  |
|    | Sampling and An | alysis Plan   |   |   |  |
| 1. | Paragraph 3.4   | As stated in the scope of work: -all viable wells, minimum<br>of 5 of the 8 known wells, are to be sampled. The SAP<br>states a maximum of 5 are to be sampled. This is<br>incorrect.   | W | Carey Cossaboom – This was changed<br>during negotiations. Maximum of 5, with<br>Options to sample up to two more.  |  |
| 2. | Paragraph 4.2.3 | State under what conditions, the sampler will decide to<br>collect a well sample. Typically, we want the well<br>parameters, pH, temp, DO, conductivity, etc. to stabilize.<br>That sometimes takes more than 3 well volumes. Taking a<br>sample immediately after 3 well volumes regardless of the<br>parameter readings may result in a poor sample that does<br>not reflect contaminant levels in the aquifer. | A | Item 6 has been changed as follows:<br>"Collect the following field measurements<br>form the groundwater (down the well) or<br>purge water. The well should be purged<br>until these parameters have been stabilized<br>so that the variance between subsequent<br>measurements are no greater than those<br>listed below.<br>Temperature – $0.5^{\circ}$ C<br>Specific conductance – $3\%$<br>Conductivity – $3\%$<br>Salinity – $3\%$<br>Dissolved oxygen – $10\%$<br>pH – $0.5$ units<br>Oxidation-reduction potential – $10mV$<br>Turbidity – $10\%$ or 3 readings below 10<br>NTUs." |  |

| <b>REVIEWPROJECT:</b> Gambell FUDS Remedial Action <b>COMMENTSLOCATION:</b> St. Lawrence Island, Alaska |                 | <b>DOCUMENT:</b> Groundwater Sampling for Gambell FUDS Remedial Action |        |                      |   |                   |
|---|-----------------|--|--------|----------------------|---|-------------------|
| DAT   | ГE:             | <b>REVIEWER:</b> Reviewer 1  | PHONE: |                      |   |                   |
| Iten<br>No.   |                 | COMMENTS   |        | Review<br>Conference | Bristol Environmental Response              | USACE<br>Response |
|   | <b>D</b>        |  |        |                      |   |                   |
| 3.  | Paragraph 4.2.3 | Explain how the purge water will be containe                           |        | A                    | The following text will be added to item 5: |                   |

|    | T aragraph 4.2.5 | that it will be put into a bucket is insufficient as a bucket is<br>not an appropriate storage device for potentially<br>contaminated water. Also explain how the water will be<br>stored while you await analytical results for the water and<br>how it will be stored if it must be stored over the winter. |   | "Based upon historical knowledge,<br>purgewater will be disposed on by spilling<br>on-site."   |  |
|----|------------------|---|---|--|--|
| 4. | General          | PQLs: some of the listed PQLs do not meet the DoD QSM requirements. Ensure the lab will comply with DoD QSM requirements and is current in its NELAP accreditation for the methods to be used.  | A | SGS (our project laboratory), will comply<br>with D0D QSM requirements and verify that<br>DoD QSM control limits are met.  |  |
| 5. | Table 5-3        | Preparation method for total metals analysis in soils is 3050B.   | A | Table 5-3 has been corrected.  |  |
|    | Waste Managem    | ent Plan  |   |  |  |
| 1. | General          | If placarding will be required for any wastes, the contractor<br>must meet DOT security requirements; 49 CFR 172.704;<br>172.800. The new manifest with preprinted manifest<br>numbers will be required by September 5, 2006.   | A | The following text will be added to the<br>Waste Management Plan:<br>"DOT security requirements specified under<br>49 CFR 172.704 -172.800 will be followed if<br>placarding is required. Preprinted<br>manifests will be used for wastes shipped<br>after September 5, 2006." |  |
|    | Environmental P  | rotection Plan  |   |  |  |
| 1. | General          | If removal of Marston matting will disturb more than 1 acre<br>of land, then the NPDES permit requirements may apply.   | A | The following text will be added to the<br>Environmental Protection Plan:  |  |
|    |                  |   |   | "If Marston matting removal disturbs more<br>than 1 acre of land, requirements from the<br>NPDES General Permit for Stormwater<br>Discharges from Large and Small<br>Construction Activities will be followed."  |  |

| REVIE | <b>REVIEW PROJECT:</b> Gambell FUDS Remedial Action |                                       | DOCUMENT: Groundwater Sampling for Gambell FUDS Remedial Action |            |                                       |          |  |
|-------|---|---------------------------------------|---|------------|---------------------------------------|----------|--|
| COM   | MENTS   | LOCATION: St. Lawrence Island, Alaska |   |            |                                       |          |  |
| DATE  | :   | <b>REVIEWER:</b> Reviewer 1           | <b>PHONE:</b>   |            |                                       |          |  |
| Item  | Location  | COMMENTS                              |   | Review     | <b>Bristol Environmental Response</b> | USACE    |  |
| No.   |   |                                       |   | Conference |                                       | Response |  |

|    | Site Safety and H | ealth Plan  |          |  |  |
|----|-------------------|---|----------|--|--|
| 1. | Table 6-1         | Trail repairs and stream crossings are not applicable to the anticipated work in Gambell. | A        | References to trail repairs and stream crossings have been removed from Table 6-1. |  |
| 2. | Page 63           | Include phone number for the Gambell Health Clinic.                                       | A        | The phone number for the Gambell Health Clinic has been added to Section 11.7.     |  |
| 3. | Figure 3          | Please correct typos.   | <b>A</b> | All figures will be reviewed and typos corrected.                                  |  |

| REVIEW<br>COMMENTS<br>DATE: |          | PROJECT: Gambell FUDS Remedial Action<br>LOCATION: St. Lawrence Island, Alaska<br>REVIEWER: Reviewer 2 | DOCUMENT: Groundwater Sampling for Gambell FUDS Remedial Action PHONE: |            |                                |          |
|-----------------------------|----------|--|--|------------|--------------------------------|----------|
| DATE                        | ·        | <b>REVIEWER:</b> Reviewer 2  | PHONE:   |            |                                |          |
| Item                        | Location | COMMENTS   |  | Review     | Bristol Environmental Response | USACE    |
| No.                         |          |  |  | Conference |                                | Response |

|    | Work Plan      |   |   |  |  |
|----|----------------|---|---|--|--|
| 1. | p. 9, Line 11  | The cleanup level of 11 mg/kg is a site-specific background<br>level approved by the ADEC as a cleanup level. It is not a<br>promulgated ADEC cleanup level   | A | The text has been edited to the following:<br>"The wooden timbers were treated with<br>arsenic resulting in soil contamination in this<br>area in excess of the site-specific<br>background level of 11 mg/kg approved by<br>the Alaska Department of Environmental<br>Conservation (ADEC)." |  |
| 2. | p. 16, Line 23 | This paragraph may be clarified by inserting text which states constructed using five foot sections of 2 inch   | A | The text has been edited to the following:<br>"Then the temporary well point will be<br>constructed using five-foot section of two-<br>inch inside diameter stainless steel drive<br>screen and black iron riser pipe."  |  |
| 3. | All figures    | No scale bars included. Should be determined for future reference, or at least in Remedial Action Report figures.   | Α | All figures will be reviewed and scale bars included where possible.   |  |
| 4. | Figure 3       | Please correct typos in Source text: investigation  | A | All figures will be reviewed and typos corrected.  |  |
| 5. | Figure 4       | Please correct typos in Source text: NALEMP, Excavation.<br>The border depicting Site 7 is not distinguishable from<br>other solid black lines on the figure which indicate<br>buildings, other areas of concern not related to this project,<br>etc. Site boundaries could be deleted. | A | All figures will be reviewed and typos corrected. Drawings will be reviewed to eliminate confusion.  |  |
| 6. | Figure 5       | Consider labeling trails as such.   | Α | The trails will be labeled.  |  |
| 7. | Figure 6       | MW16 is no longer present and should not be included on the figure.   | Α | MW16 will be removed from all drawings.  |  |
|    | Sampling and A | nalysis Plan  |   |  |  |
| 1. | General        | Method QC requirements (PQLs, control limits, etc.) must meet DoD QSM limits.   | Α | Laboratory control limits will be reviewed to confirm that they meet DOD QSM requirements.   |  |

| <b>REVIEW PROJECT:</b> Gambell FUDS Remedial Action |          | DOCUMENT: Groundwater Sampling for Gambell FUDS Remedial Action |               |            | on                                    |          |
|---|----------|---|---------------|------------|---------------------------------------|----------|
| COMM  | MENTS    | LOCATION: St. Lawrence Island, Alaska                           |               |            |                                       |          |
| DATE  |          | <b>REVIEWER:</b> Reviewer 2                                     | <b>PHONE:</b> |            |                                       |          |
| Item  | Location | COMMENTS  |               | Review     | <b>Bristol Environmental Response</b> | USACE    |
| No.   |          |   |               | Conference |                                       | Response |

| 2. | Table 3-6 and paragraph 3.9.1 | You cannot mix wastes from different sites that have<br>different contaminants. Waste with arsenic contamination<br>cannot be mixed with the wastes that have chromium and<br>other metal contamination. This is a RCRA requirement.<br>Mixing soil from the two sites would be considered dilution<br>under RCRA. | A | Agreed. The waste streams will not be mixed .  |  |
|----|-------------------------------|--|---|--|--|
| 3. | Paragraph 4.2.3               | Well parameters must be stable prior to sampling, simply pulling out three well volumes may not be sufficient.   | A | Item 6 has been changed as follows:<br>"Collect the following field measurements<br>form the groundwater (down the well) or<br>purge water. The well should be purged<br>until these parameters have been stabilized<br>so that the variance between subsequent<br>measurements are no greater than those<br>listed below. |  |
|    |                               |  |   | Temperature $-0.5^{\circ}$ C<br>Specific conductance $-3\%$<br>Conductivity $-3\%$<br>Salinity $-3\%$<br>Dissolved oxygen $-10\%$<br>pH $-0.5$ units<br>Oxidation-reduction potential $-10mV$<br>Turbidity $-10\%$ or 3 readings below 10<br>NTUS."  |  |
| 4. | General                       | QA laboratory will be assigned by the District Chemist   | А | The District Chemist has assigned STL, Seattle as the QA laboratory.   |  |
| 5. | Table 5-3                     | Preparatory method for metals analysis in soils is SW3050.   | А | Table 5-3 has been corrected.  |  |
|    | Waste Manageme                | ent Plan   |   |  |  |
| 1. | Page 7, Line 13               | The waste accumulation point is not shown on Figure 3.   | A | The waste accumulation point was added to Figure 3.  |  |
| 2. | Figure 3                      | Please correct typos.  | A | All figures will be reviewed and typos corrected.  |  |

| REVIEW PROJECT: Gambell FUDS Remedi |          | PROJECT: Gambell FUDS Remedial Action | DOCUMENT: Groundwater Sampling for Gambell FUDS Remedial Action |            |                                       |          |
|-------------------------------------|----------|---------------------------------------|---|------------|---------------------------------------|----------|
| COM                                 | MENTS    | LOCATION: St. Lawrence Island, Alaska |   |            |                                       |          |
| DATE                                | :        | <b>REVIEWER:</b> Reviewer 2           | <b>PHONE:</b>   |            |                                       |          |
| Item                                | Location | COMMENTS                              |   | Review     | <b>Bristol Environmental Response</b> | USACE    |
| No.                                 |          |                                       |   | Conference |                                       | Response |

|    | Environmental P   | rotection Plan  |   |   |  |
|----|-------------------|---|---|---|--|
| 1. | P. 7, lines 9-10  | Alaska Natives are not exempt from the Act. The Act allows Alaska Natives to take marine mammals subject to certain restrictions.   | A | Text will be edited to clarify that Alaska<br>Natives are not exempt from the Act.  |  |
| 2. | P. 15, Section 4. | Identifying a list of permits and laws is useless without<br>determining which apply to the proposed action. Identify<br>specific known permit, legal, and coordination<br>requirements as a starting point for contractor compliance.  | A | Agreed. Only project-specific permits and laws will be identified.  |  |
| 3. | P. 20, line 25.   | Wording related to NHPA is ambiguous. Reworks so it is<br>clear that workers will not disturb or remove artifacts or<br>remains from the work sites or from anywhere else while<br>they are employed on the island.   | A | Text will be edited to make it clear that<br>workers will not disturb or remove artifacts<br>or remains from any site while they are<br>employed on the island. |  |
| 4. | P. 21, line 1     | The affected sites are not on Federal land. ARPA of 1979 does not apply.  | A | Text will be edited to reflect comment that sites are not on federal land.  |  |
| 5. | General           | Throughout the document, Gambell is referred to as the village of Gambell or the Village of Gambell. Gambell is listed as a second class city the State of Alaska. The Native Village of Gambell is the village corporation that owns surface rights to much of the lands in and surrounding Gambell. The City includes everyone in Gambell. The village corporation includes only members of that "tribe," and specifically excludes other Natives and races. Texts should be edited to maker it plain whether it refers to the a group of Natives comprising part of the Gambell population or the community. We generally use "community" for more general references to avoid ambiguity and to avoid the appearance that we are ignoring other population segments. | A | Text will be edited to clarify whether the<br>village corporation (Village of Gambell) or<br>the community (City of Gambell) is being<br>referenced.            |  |

|      | <b>REVIEWPROJECT:</b> Gambell FUDS Remedial Act <b>COMMENTSLOCATION:</b> St. Lawrence Island, Alaska |          | DOCUME | NT: Groundwate | er Sampling for Gambell FUDS Remedial Acti | on       |
|------|--|----------|--------|----------------|--|----------|
| DATE | DATE: REVIEWER: Reviewer 3   |          | PHONE: |                |  |          |
| Item | Location   | COMMENTS |        | Review         | Bristol Environmental Response             | USACE    |
| No.  |  |          |        | Conference     | -  | Response |

|    | Work Plan   |   |   |   |  |
|----|---|---|---|---|--|
| 1. | General   | Please note DEC review and concurrence on this work plan<br>is to ensure that the work is done in accordance with State<br>of Alaska environmental conservation laws and regulations.<br>While DEC may comment on other state and federal laws<br>and regulation, our concurrence on the plan does not<br>relieve responsible person from the need to comply with<br>other applicable laws and regulations, for example the<br>DOT&PF restriction involving work near the airstrip. | A   | Acknowledged  |  |
|    | Sampling and Ar   | nalysis Plan  |   |   |  |
| 1. | Table 3-3   | Ingestion/Inhalation cleanup levels should apply for the entire Gambell site.   | A   | Table 3-3 has been corrected to reflect ingestion & inhalation pathway cleanup levels.  |  |
| 2. | Page 13, Line 7 Clarify that five foot section of 2 inch screen and pipe will used. | Clarify that five foot section of 2 inch screen and pipe will be  | Α   | The text has been edited to the following:  |  |
|    |   |   | "The temporary well point will be<br>constructed using five-foot sections of 2-<br>inch inside diameter stainless steel drive<br>screen and black iron riser pipe." |   |  |
| 3. | Section 3.4   | More details should be provided regarding the anticipated<br>groundwater sampling timeframes. Low/high water level<br>data or pumping rates should be included from the Alaska<br>Village Safe Water or other sources. Provide reasoning for<br>proposed sampling dates.  | A   | BCS will obtain data on groundwater levels<br>from VSW and determine the appropriate<br>sampling schedule. Our rationale for the<br>proposed sampling times will be presented<br>at the Comment Resolution Conference<br>and then included in the final document.   |  |
| 4. | Page 18, 13   | Tank scrap is not anticipated in Gambell.   | А   | Text has been edited to the following:  |  |
|    |   |   |   | "Compatibility field screening (discussed in<br>Section 4.1.3) will be conducted to aid in the<br>consolidation and bulking of potential<br>petroleum, oil, and lubricant-contaminated<br>water, other liquids, sludges, residues,<br>sediments, and containerized hazard and<br>toxic waste (Con-HTW) if discovered on |  |

| <b>REVIEWPROJECT:</b> Gambell FUDS Remedial Action <b>COMMENTSLOCATION:</b> St. Lawrence Island, Alaska |          | DOCUME                      | NT: Groundwate | er Sampling for Gambell FUDS Remedial Activ | on                             |          |
|---|----------|-----------------------------|----------------|---|--------------------------------|----------|
| DATE  | :        | <b>REVIEWER:</b> Reviewer 3 | PHONE:         |   |                                |          |
| Item  | Location | COMMENTS                    |                | Review                                      | Bristol Environmental Response | USACE    |
| No.   |          |                             |                | Conference                                  | -                              | Response |

|    |                 |  |   | site."   |  |
|----|-----------------|--|---|--|--|
| 5. | All Figures     | Please correct typos   | A | All figures will be reviewed and typos corrected.  |  |
| 6. | Appendix        | Change sample log location to Gambell sites.   | A | Sample sites, analyses, etc. have been<br>changed to those appropriate for the<br>Gambell FUDS project.  |  |
| 7. | Appendix        | Include laboratory sheets for SGS  | A | Please note that CT&E and SGS are the same company, however SGS forms have been included in the Appendix.  |  |
|    | Environmental P | rotection Plan   |   |  |  |
| 1. | Page 21, Line 8 | The correct phone number for the USACE Archaeologist,<br>Ms. Margan Grover, is 753-5670. | A | The text has been changed to:<br>"The QAR will notify Ms. Margan Grover,<br>the USACE Archaeologist at (907 753-5670<br>and will forward the photographs and notes<br>to her. Ms. Grover will consult with the<br>State Historical Preservation Office<br>regarding findings." |  |
| 2. | Figure 3        | Please correct typos.  | A | All figures will be reviewed and typos corrected.  |  |

REVIEW PROJECT: Gambell FUDS Remedial Action DOCUMENT: Groundwater Sampling for Gambell FUDS Remedial Action COMMENTS LOCATION: St. Lawrence Island, Alaska DATE: **REVIEWER:** Reviewer 4 **PHONE:** Location COMMENTS Item Review **Bristol Environmental Response** USACE No. Conference Response

|    | Work Plan         |  |   |   |  |
|----|-------------------|--|---|---|--|
| 1. | Paragraph 3.8     | As stated in the scope of work: all viable wells, minimum of 5 of the 8 known wells, are to be sampled.  | w | Carey Cossaboom – This was changed<br>during negotiations. Maximum of 5, with<br>Options to sample up to two more.  |  |
|    | Sampling and An   | alysis Plan  |   |   |  |
| 1. | Sec. 3.1          | I think some additional detail is needed to make sure we've<br>thought through the best way to remove the As-contaminated<br>soil. For starters, the surveyed corners should be located<br>and squared to approximate the actual slab location. Next,<br>the top 8" of soil (gravel) should be scraped away to remove<br>the backfill. Excavate a 2-3 foot wide swath along the<br>centerline of the framing timbers which should have lines the<br>outside edges of the former concrete pad. Bias the<br>excavation towards ay stained or timber-remnant soils. Bias<br>excavation to corners where high As soils were collected.<br>Hand tools may not cut it. | A | BCS agrees that additional detail is<br>appropriate and wishes to discuss this<br>during the Comment Resolution<br>Conference.  |  |
| 2. | Sec. 3-2          | Four-six inches may not be deep enough. I would think that<br>we might concentrate the dig upon one or two "hot spots"<br>and dig down a foot or two. Hand tools may not cut it.   | A | Per the SAP, 4-6 inches will be excavated<br>and the site field screened for further<br>contamination. However, we would like to<br>discuss this during the Comment<br>Resolution Conference. |  |
| 3. | Pg. 16, Table 3-7 | Parameter (sp.)  | А | Table 3-7 will be reviewed and typos corrected.   |  |

| REVIE<br>COM | EW<br>MENTS | <b>PROJECT:</b> Gambell FUDS Remedial Action<br>LOCATION: St. Lawrence Island, Alaska | DOCUME | NT: Groundwater | Sampling for Gambell FUDS Remedial Action | on       |
|--------------|-------------|---|--------|-----------------|---|----------|
| DATE         | :           | <b>REVIEWER:</b> Reviewer 4   | PHONE: |                 |   |          |
| Item         | Location    | COMMENTS  |        | Review          | Bristol Environmental Response            | USACE    |
| No.          |             |   |        | Conference      |   | Response |

| 4. | 4.2.3, number 5 | You should not be sampling until these parameters have<br>stabilized such that variance from previous well volume is not<br>greater than as follows:<br>Temp. – .1 degree C<br>Cond. – 3%<br>D.O. – 10%<br>pH – 0.1 unit<br>ORP - 10 mV<br>Turb. – 10%, or 3 readings below 10 NTUs<br>If parameters don't stabilize after an hour of purging, well can<br>be sampled. | A | Item 6 has been changed as follows:<br>"Collect the following field measurements<br>form the groundwater (down the well) or<br>purge water. The well should be purged<br>until these parameters have been stabilized<br>so that the variance between subsequent<br>measurements are no greater than those<br>listed below.<br>Temperature – $0.5^{\circ}$ C<br>Specific conductance – $3\%$<br>Conductivity – $3\%$<br>Salinity – $3\%$<br>Dissolved oxygen – $10\%$<br>pH – $0.5$ units<br>Oxidation-reduction potential – $10mV$<br>Turbidity – $10\%$ or 3 readings below 10<br>NTUs." |  |
|----|-----------------|--|---|---|--|
| 5. | Sec. 4.2.3      | What will you do if the well purges dry?   | A | An additional item (item 6) has been added<br>stating:<br>"If the well purges dry, this will be assumed<br>to be one well volume. The well will be<br>allowed to recover and be purged again for<br>a total of 3 well volumes or purged dry a<br>total of 3 times."   |  |

|      | <b>REVIEWPROJECT:</b> Gambell FUDS Remed <b>COMMENTSLOCATION:</b> St. Lawrence Island, |          | DOCUME        | NT: Groundwate | er Sampling for Gambell FUDS Remedial Acti | on       |
|------|--|----------|---------------|----------------|--|----------|
| DATE | DATE: REVIEWER: Reviewer 5   |          | <b>PHONE:</b> |                |  |          |
| Item | Location   | COMMENTS |               | Review         | Bristol Environmental Response             | USACE    |
| No.  |  |          |               | Conference     |  | Response |

|                 | Work Plan                      |  |   |   |
|-----------------|--------------------------------|--|---|---|
| 1.              | Sec. 3.2.2                     | Subs are in Table 3-1  | A | Reference to the subcontractor list will be corrected.  |
| 2.              | Sec. 3.3                       | Supply additional detail to demonstrate that a sufficient effort<br>with be made to consolidate existing survey information and<br>site basemaps to create a fully geo-referenced, ESRI<br>ArcGIS 9ArcView 9.x) compatible basemap with applicable<br>layers for the Gambell site per the SOW. This task requires<br>a definite plan to assure proper location of specific features<br>at Site 7 and 12.                           | A | BCS's GIS specialist will attend the<br>Comment Resolution Conference to<br>participate in this discussion. The results of<br>this discussion will be presented on a tsak-<br>by-task basis in the final plans. |
| 3.              | Sec. 3.4.1                     | Update accordingly   | A | Section 3.4.1 will be updated to reflect that<br>equipment will not be shipped from NE<br>Cape.   |
| 4.              | Sec. 3.4.1, p 12,<br>line 25   | Where on Figure 3 is the WAP?  | Ą | Figures will be edited to clarify Waste<br>Accumulation Point.  |
| 5.              | Sec. 3.4.1, pg.<br>13, line 11 | Where on Figure 3 is the barge loading area?   | A | Figures will be edited to clarify barge loading area.   |
| 6.              | Sec. 3.4.1, pg 13,<br>line 6   | Update accordingly   | А | Reference to Table 3-2 will be corrected.   |
| <sup>•</sup> 7. | Sec. 3.5, pg. 14,              | "shown on Figure 4 as the Former Concrete Slab."   | А | Text for Sec. 3.5 has been edited to:   |
|                 | line 6 & 7                     |  |   | "BCS will excavate up to four tons of<br>arsenic-contaminated soil at Site 7 in the<br>area shown on Figure 4 as the Former<br>Concrete Slab."  |
| 8.              | Sec 3.5                        | I think some additional detail is needed to make sure we've<br>thought through the best way to remove the As-<br>contaminated soil. For starters, the surveyed corners should<br>be located and squared to approximate the actual slab<br>location. Next, the top 8" of soil (gravel) should be scraped<br>away to remove the backfill. Excavate a 2-3 foot wide swath<br>along the centerline of the framing timbers which should | A | BEESC agrees that additional detail is<br>appropriate and wishes to discuss this<br>during the comment resolution conference.   |

.

٠

|      | <b>REVIEWPROJECT:</b> Gambell FUDS Remedial Action <b>COMMENTSLOCATION:</b> St. Lawrence Island, Alaska |                             | DOCUME | NT: Groundwate | er Sampling for Gambell FUDS Remedial Act | ion      |
|------|---|-----------------------------|--------|----------------|---|----------|
| DATE | :   | <b>REVIEWER:</b> Reviewer 5 | PHONE: |                |   |          |
| Item | Location  | COMMENTS                    |        | Review         | Bristol Environmental Response            | USACE    |
| No.  |   |                             |        | Conference     |   | Response |

|     |                              | have lined the outside edges of the former concrete pad.<br>Bias the excavation towards any stained or timber-remnant<br>soils. Bias excavation to comers where high As soils were<br>collected. Hand tools may not cut it.  |   |   |  |
|-----|------------------------------|--|---|---|--|
| 9.  | Sec. 3.6, pg. 14,<br>line 20 | Figure 5 does not show the historical sampling points.   | Α | The historical sampling points will be added to Figure 5.   |  |
| 10. | Sec. 3.6                     | Four-six inches may not be deep enough. I would think that<br>we might concentrate the dig upon one or two "hot spots"<br>and dig down a foot or two. Hand tools may not cut it.   | A | Per the SAP, 4-6 inches will be excavated<br>and the site field screened for further<br>contamination. However, we would like to<br>discuss this during the comment resolution<br>conference.       |  |
| 11. | Sec. 3.8                     | Please include that all eight wells will be fitted with new locking caps or new locks for the protective casing. Refer to photo log from August 2005 (USACE) to assess lock requirements.  | A | The following text has been added to Sec.<br>3.8:<br>"All wells will be fitted with locking caps or<br>new locks for the protective casing."  |  |
| 12. | Sec. 3.8, line 13            | Based on discussion with Village Safewater, the seasonal<br>low water period is in the April/May timeframe. I am seeking<br>actual information from the Native Village of Gambell. This<br>period would be important to sample as the TAPP advisor<br>has suggest the groundwater gradient could be overcome by<br>pumping demands, thereby drawing contaminates from the<br>village proper. I would think this would be doable. Then one<br>round mid summer. | A | BCS will obtain data on groundwater levels<br>from VSW and determine the appropriate<br>sampling schedule. A rational for the<br>proposed sampling times will be included in<br>the final document. |  |
| 13. | Sec. 3.9, line 23            | 1 <sup>st</sup> word = The (Then.)   | Α | Sec. 3.9 has been corrected.  |  |
|     | Sampling and An              | alysis Plan  |   |   |  |
| 1.  | Sec. 2.5/p. 4                | The SAP should explicitly state here that the environmental samplers will be on the ADEC Qualified Persons list, in accordance with the SOW and regulations.   |   | The following text has been added to Sec.<br>2.5:<br>"In accordance with the SOW, all<br>environmental samplers will be on the<br>ADEC Qualified Persons list."                                     |  |
| 2.  | Sec. 2.6.2/p. 5              | It should be stated that the analytical laboratory will not sub-   |   | The following text has been added to Sec.   |  |

| REVIE<br>COMM | EW<br>MENTS | <b>PROJECT:</b> Gambell FUDS Remedial Action<br><b>LOCATION:</b> St. Lawrence Island, Alaska | <b>DOCUMENT:</b> Groundwater Sampling for Gambell FUDS Remedial Action |                      |                                |                   |
|---------------|-------------|--|--|----------------------|--------------------------------|-------------------|
| DATE          | :           | <b>REVIEWER:</b> Reviewer 5  | <b>PHONE:</b>  |                      |                                |                   |
| Item<br>No.   | Location    | COMMENTS   |  | Review<br>Conference | Bristol Environmental Response | USACE<br>Response |

|  | contract any work without the approval of the USACE project chemist. | 2.6.2:<br>"SGS will not subcontract any work without<br>the approval of the USACE project |  |
|--|--|---|--|
|  |  | chemist."   |  |

1

.

| REVIEW<br>COMMENTS |          | <b>PROJECT:</b> Gambell FUDS Remedial Action<br><b>LOCATION:</b> St. Lawrence Island, Alaska | DOCUMENT: Groundwater Sampling for Gambell FUDS Remedial Action |            |                                |          |
|--------------------|----------|--|---|------------|--------------------------------|----------|
| DATE               |          | REVIEWER: Reviewer 6   | PHONE:  |            |                                |          |
| Item               | Location | COMMENTS   |   | Review     | Bristol Environmental Response | USACE    |
| No.                |          |  |   | Conference |                                | Response |

|    | Work Plan                  |   |   |  |  |
|----|----------------------------|---|---|--|--|
| 1. | Page 15                    | Insure that here or in the safety plan that there is an individual identified with responsibility for NOTAM notification to FAA and a contact number at FAA   | A | The individual responsible for filing the NOTAM and the FAA contact name and number will be added to the WP and the SAP.                             |  |
| 2. | General                    | See general comment about "village" in the Environmental Protection Plan comments.  | A | Text will be edited to clarify whether the<br>village corporation (Village of Gambell) or<br>the community (City of Gambell) is being<br>referenced. |  |
|    | Sampling and Analysis Plan |   |   |  |  |
| 1. | Sections 3.3-3.6           | Reference Table 3.5, which specifies the analytes to be tested.   | A | Text has been added to sections 3.1, 3.2, 3.3, and 3.4 saying the following:   |  |
|    |                            |   |   | "The number of samples and parameters are specified in Table 3-5. "  |  |
| 2. | Section 3.9.1              | If a single sample is used to characterize a soil waste stream it should be composited from several discrete locations.   | A | Section 3.9 will be modified to include composite sampling of the soil waste streams.  |  |
| 3. | Section 3.9.2              | If there is no odor or sheen associated with the purge water,<br>please discharge to the ground surface at Site 5. The site is<br>historically clean with the exception of one sample that was<br>at the Table C cleanup level. If a granulated carbon filter is<br>available the purge water can be run through that just to be<br>conservative. | Α | The following text will be added to item 5:  |  |
|    |                            |   |   | "Based upon historical knowledge,<br>purgewater will be disposed on by spilling<br>on-site."   |  |
| 4. | Appendix B                 | Please note I don't need to see the instrument users manual if you want to decrease the size of the documents.  | А | Agreed. User's manuals will be deleted from the SAP.   |  |