

U.S. DEPARTMENT OF HOMELAND SECURITY
FEDERAL EMERGENCY MANAGEMENT AGENCY

PW # 31

PROJECT WORKSHEET

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DECLARATION NO.	PW REF NO.	DATE	FIPS NO.	CATEGORY	EMMIE NO.
FEMA 4050 DR AK	SHC-F01	01/26/12	180-68890-00	F	
APPLICANT				WORK COMPLETED AS OF:	
City of Shaktoolik				DATE:	PERCENT:
				01/23/12	0%
DAMAGED FACILITY				COUNTY	
Water tank shell				Nome	
LOCATION				LATITUDE	LONGITUDE
West of main street near city hall				64.354230	-161.195470

Was this site previously damaged? Yes No Unsure

DAMAGE DESCRIPTION AND DIMENSIONS:
During the event period of November 8-13, 2011 a powerful and extremely dangerous storm of near record or record magnitude impacted the west coast of Alaska. As a result of the storm, two horizontal rows of 157' long by 4' wide aluminum sheeting panels and stainless steel bands on the community water tank were blown off. A total of 1,256 SF of sheet aluminum and 10 stainless steel bands were damaged. Exposure to moisture has compromised the tank's polyurethane insulation layer under the aluminum sheeting.

GPS taken at the facility
(continued on DDSW continuation page)

SCOPE OF WORK: Fund at 75%

WORK TO BE COMPLETED:
In order to restore the structure to its pre-disaster design, function, and capacity in accordance with applicable codes or standards the Applicant will use a contractor to remove and replace two horizontal rows of damaged 157' long by 4' wide water tank exterior aluminum sheeting (1,256 SF) and replace damaged stainless steel bands (10) and the underlying polyurethane insulation layer. The above described damages and repair are directly attributed to the DR 4050 event and exclude any pre existing damages.

(continued on DDSW continuation page)

PROJECT COST						
ITEM	CODE	NARRATIVE	QUANTITY	UNIT	UNIT PRICE	COST
1		WORK TO BE COMPLETED:				\$ -
2	9999	Water Tank Contract (ESTIMATE)	1.00	LS	\$ 33,307.50	\$ 33,307.50
3	9902	NO DIRECT ADMINISTRATIVE COST	1.00	LS	\$ -	\$ -
SUBTOTAL FROM COST CONTINUATION PAGE(S)						\$ -
TOTAL PROJECT COST						\$ 33,307.50

PREPARED BY: John Chandler <i>[Signature]</i>	TITLE: Public Assistance Project Specialist
FEMA PAC CREW LEADER: Ron Hormann <i>[Signature]</i>	STATE PAC CREW LEADER: Don Orgill
APPLICANT: Eugene Asicksik <i>[Signature]</i>	DATE: PHONE: 907-955-3441

AK 2/1/12 47 sent

FEDERAL EMERGENCY MANAGEMENT AGENCY

DAMAGE DESCRIPTION & SCOPE OF WORK

DECLARATION NO.				PW REF NO.	DATE	FIPS NO.	CATEGORY	EMMIE NO.
FEMA	4050	DR	AK	SHC-F01	01/26/12	180-68890-00	F	

APPLICANT

City of Shaktoolik

COUNTY

Nome

DAMAGE DESCRIPTION & SCOPE OF WORK (CONTINUED):

DAMAGE DESCRIPTION CONTINUED:

A summary of issues related to the water tank are noted below:

1. Project worksheet (PW) #24 was written on 01/14/2005 for similar water tank sheeting damage from a storm event occurring 10/18-20/2004.
5. There is no evidence the city replaced damaged water tank sheeting from the 2004 storm.
2. Version 1 of PW #24 was written on 02/07/2008 to deobligate \$8,550.00 in project costs at the request of the State of Alaska due to lack of applicant documentation.(attached)
3. PW #24 is conditioned to obtain and maintain appropriate wind insurance for the water tank.
4. Shaktoolik Mayor Asicksik indicated at the 01/23/2012 kick off meeting the city has no insurance on the water tank.
7. Mayor Asicksik indicated the current storm resulted in the loss of two rows of water tank sheeting(an estimated 25% of sheeting).
8. In addition to the two rows of damaged water tank sheeting related to this storm event, additional water tank sheeting is missing or in disrepair (refer to photographs).
6. There is no indication the city regularly maintains the exterior water tank sheeting. The city has no onsite equipment to reach upper damaged areas of the water tank.

SCOPE OF WORK CONTINUED:

1. A quote from VERTARIB Tank Insulation Systems was obtained through Philip Gagnon, P.E. Village Safe Water Engineer with DEC - Village Safe Water. Quote is for complete restoration of the water tank including previous damage. This Project Worksheet will use 25% of the materials and installation cost plus applicable freight (for materials), airfare and per diem (for contractor crew) (documents attached).
2. Contracts must be of reasonable cost, generally must be competitively bid, and must comply with Federal, State, and local procurement standards. (FEMA regulations at 44 CFR Part 13). Quote is from sole source and other bids may be required.
3. City of Shaktoolik is working with Village Safe Water to obtain additional funding to completely restore the facility to original design, function and capacity.

PREPARED BY: John Chandler

TITLE: Public Assistance Project Specialist

SCOPE NOTES

APPLICANT	PW REF NO.	CATEGORY	FIPS NO.	DISASTER	
City of Shaktoolik	SHC-F01	F	180-68890-00	4050	AK

Check next to appropriate comment for Data Specialist to add to the Scope of Work

Topic	Comment
Record Retention	Complete records and cost documents for all approved work must be maintained for at least 3 years from the date the last project was completed or from the date final payment was received, whichever is later.
Direct Administrative Costs	<input type="checkbox"/> The subgrantee is requesting direct administrative costs that are directly chargeable to this specific project. Associated eligible work is related to administration of the PA project only and in accordance with 44 CFR 13.22. These costs are treated consistently and uniformly as direct costs in all federal awards and other subgrantee activities and are not included in any approved indirect cost rates.
Mitigation	No Mitigation Opportunities Identified because: <input type="checkbox"/> PW is for Emergency Work - Mitigation not eligible. <input type="checkbox"/> Work already completed and no add-on mitigation is feasible. <input checked="" type="checkbox"/> Mitigation not technically feasible. <input type="checkbox"/> Applicant has decided not to incorporate mitigation.
CEF	<input type="checkbox"/> This project was estimated using the Cost Estimated Format (CEF).
CEF - Not Used	This project was not estimated using the CEF because: <input checked="" type="checkbox"/> The PW is a small project. <input type="checkbox"/> The PW is for Emergency Work. <input type="checkbox"/> The work is greater than 90% complete at the time of inspection.
Permits	<input checked="" type="checkbox"/> Applicant is required to comply with all applicable regulations and to obtain all required permits.
	<input type="checkbox"/>

PREPARED BY: John Chandler TITLE: Public Assistance Project Specialist

SPECIAL CONSIDERATIONS

DISASTER	APPLICANT NAME	PW REF NO.	FIPS NO.	DATE
4050 AK	City of Shaktoolik	SHC-F01	180-68890-00	01/26/12

omit

1. Does the damaged facility or item of work have insurance and/or is it an insurable risk? (e.g., buildings, equipment, vehicles, etc.)

Yes No Unsure

Applicant states they do not have insurance on the water tank.

2. Is the damaged facility located within a floodplain or coastal high hazard area, or does it have an impact on a floodplain or wetland?

Yes No Unsure

Area is in an unmapped area (refer Community ID #025070).

3. Is the damaged facility or item of work located within or adjacent to a Coastal Barrier Resource System Unit or an Otherwise Protected Area?

Yes No Unsure

4. Will the proposed facility repairs/reconstruction change the pre-disaster condition? (e.g., footprint, material, location, capacity, use or function)

Yes No Unsure

5. Does the applicant have a hazard mitigation proposal or would the applicant like technical assistance for a hazard proposal?

Yes No Unsure

6. Is the damaged facility on the National Register of Historic Places or the state historic listing? Is it older than 50 years? Are there more, similar buildings near the site?

Yes No Unsure

Facility Constructed In: 1980

7. Are there any pristine or undisturbed areas on, or near, the project site? Are there large tracts of forestland?

Yes No Unsure

8. Are there any hazardous materials at or adjacent to the damaged facility and/or item of work?

Yes No Unsure

9. Are there any other environmentally or controversial issues associated with the damaged facility and/or item of work?

Yes No Unsure

10. Is the damaged facility or item of work located within two-hundred feet of a body of water?

Yes No Unsure

Norton Bay

PREPARED BY: John Chandler

REPETITIVE LOSS STATEMENT

APPLICANT	PW REF NO.	FIPS NO.	CATEGORY	DISASTER	
City of Shaktoolik	SHC-F01	180-68890-00	F	4050	AK

1. **Has this project / site had previous damage?** Yes No Unsure
(If the answer is NO, It is not necessary to address the remaining questions)

2. **Did FEMA provide funding for the repair of this previous damage?** Yes No Unsure
(If the answer is NO, It is not necessary to address the remaining questions)

3. **What is the date and cause of the previous damage?**

Date (MM/DD/YY):

10/18/04

- Fire
- Flood
- Earthquake
- Tornado / Wind
- Hall / Rain

4. **Was mitigation approved in the previous disaster?** Yes No Unsure

5. **Was the mitigation work completed prior to this disaster?** Yes No Unsure

6. **If known, provide the following information on the previous disaster:**

Disaster No:

1571

PW No:

24

Version No:

1

7. **Comments:**

Version 1 of PW #24 was written 02/07/2008 to deobligate \$8,550 at the request of the State of Alaska Department of Homeland Security and Emergency Management. The State had numerous failed requests to receive documentation from the applicant.



Thermacon Tank Insulation Systems
by Vertarib Inc.
471 N. Broadway, Suite 196
Jericho, NY 11753

March 5, 2012

Philip Gagnon, P.E.
DEC-Village Safe Water
555 Cordova Street
Anchorage, AK 99501-2617
907-269-7681
907-269-7509 fax
Philip.gagnon@alaska.gov

Phil:

Thank you for the opportunity to work with you on the tank in Shaktoolik, AK. I have put together pricing for material and installation – with multiple options to handle various possibilities as follows:

Scope of Work

1 Tank – 66' diameter x 32' height

Option A - Provide "Thermacon" horizontal Aluminum Outer Panel (1" panel) to be placed over existing panel system – Shell and/or Roof; Existing insulation will be repaired by reinsulating areas with holes and/or damage, tightening bands and then reinstalling outer Thermacon panel over existing metal skin.

Option B – Replacement of Current System with new panel system with total 5" insulation.

We propose the Thermacon Tank Insulation System that will consist of:

Tank Sidewall

- **Option A** -The insulation system shall be comprised of an outer panel, precurved to fit the tank shell curvature, composed of 48" x 96" x .032" aluminum sheathing laminated to one (1") inch thick foil faced (both sides) isocyanurate foam.
- **Option B** – In addition to the 1" laminated outer panel in Option A – Existing system will be stripped and two inner layers consisting of a total of four (4") inch 25psi density polystyrene foam.

- Fastening System and Weather Sealing: An effective weather tight system shall be provided. The weather tight system shall have a shop-installed, extruded aluminum vertical weather seal, and neoprene gasket insert on the end of each panel. The extrusion shall function as a weather sealed overlap; the slotted ends and factory punched slots will provide location and prevent vertical movement of the horizontal banding system.
- An aluminum band shall be provided for sealing the top edge of all panels. The band shall be of sufficient width to insure a 1-inch minimum lap over the external sheathing.
- Bandsion Clamping System consisting of external Bands and clamps shall be provided for attaching the panels to the tank. The banding and clamping system shall be designed to withstand wind pressures per the International Building Code (latest MOA adopted and amended edition) requirement and shall allow for extremes of thermal expansion and contraction of the banding.
- All manways, nozzles, brackets, vents, and stairways will have the panels cut tight against them and will be sealed with polyurethane caulk or equal.

Tank Roof

- The tank roof insulation shall be of similar construction to sidewall panels composed of:
 - Option A - one (1") inch thick foil-faced (both sides) isocyanurate foam insulation laminated to .032" thick 3105H25 alloy aluminum sheathing.
 - Option B - In addition to the 1" laminated outer panel in Option A – Existing system will be stripped and two inner layers consisting of a total of four (4") inches 40 psi density polystyrene foam.
- The panels shall be secured to the internal cables with stainless steel clips incorporated into the panel seam and tied to each crossing cable.
- Joints between panels short edge shall be filled with foam filler pieces and coped with riveted z-coping and .032" aluminum flashing.
- All penetrations to the metal sheathing will have turned up edges to prevent water entry and to provide for thermal expansion. These edges will be caulk sealed and counter flashed.

<u>Price</u>	<u>Shell</u>	<u>Roof</u>	<u>Total</u>
<u>Option A</u>			
Insulation Materials	\$ 46,100	\$ 25,745	\$ 71,845
Installation	\$ 42,450	\$ 17,200	\$ 59,650
	<u>\$ 88,550</u>	<u>\$ 42,945</u>	<u>\$ 131,495</u>
<u>Option B</u>			
Insulation Materials	\$ 67,605	\$ 42,830	\$ 110,435
Installation, includes stripping	\$ 51,275	\$ 24,050	\$ 75,325
Total	<u>\$118,880</u>	<u>\$ 66,880</u>	<u>\$ 185,760</u>

Terms

- Allow for 2-3 weeks for submittal drawings (if required).
 - Production will commence 3 weeks after receipt of drawing approval, purchase order and initial payment (35% of total price).
 - Product shipment within 3-4 weeks.
 - Freight to deliver to Seattle, WA. Is included (Crated).
 - 1" Panels – 6 crates – approx. size 50"w x 100"l x 84"h – 1,000 lbs each.
 - Inner Layers – 12 crates - approx. size – 8'w x 8'l x 8'h – 500 lbs per skid. (can be shipped from Anchorage at no extra charge)
- Freight to site can be arranged by Vertarib at actual freight cost plus 15%.
- Price does not include any duties, permits or sales and use taxes.
 - Installation is included, VSW to provide lift and subsistence for two men. The cost of stripping existing insulation off tank is included in installation price (cost of disposal of existing insulation not included).

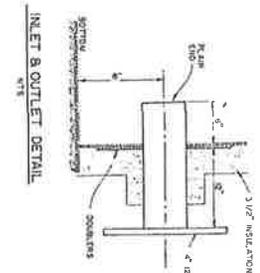
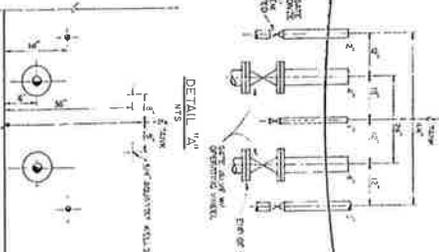
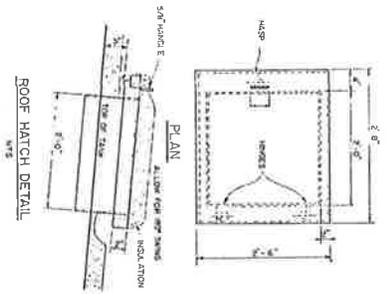
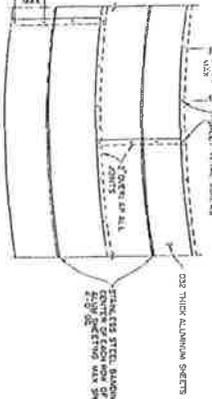
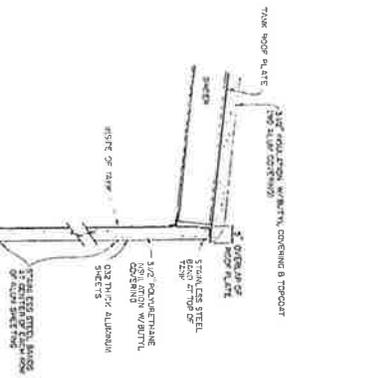
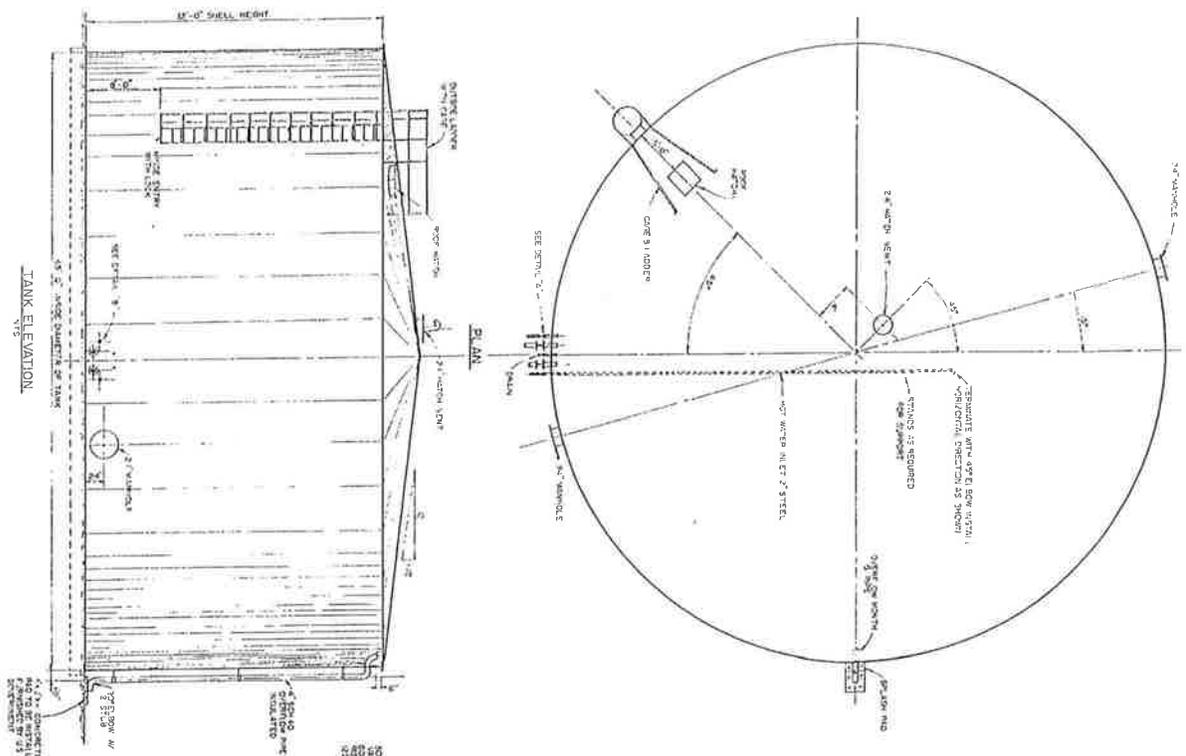
Thank you for giving Vertarib the opportunity to participate in solving your insulation needs. If you have any questions feel free to contact me at your convenience.

Regards,

Thermacon Insulation Systems
by **Vertarib**

Alan Dinow

Alan Dinow
Vice President



- NOTES**
1. ROOF SHELL BOTTOM PLATES AS 36 STEEL
 2. ALL 3\"/>

SHAATOOLIK ALASKA 19000 SAND ANVA WALKER TANK PUBLIC LAW 86-121 PROJECT PROJECT NO. 21-17-93	SHEET NO. 22 OF 22
ORDERED BY: SHAATOOLIK ALASKA DATE: 06-27-93	CHECKED BY: [Signature] DATE: 07-17-93
U.S. Department of Health, Education & Welfare Public Health Service Indian Health Service	
SANITATION FACINGS CONSTRUCTION BRANCH OFFICE: ANCHORAGE, ALASKA	

Chandler, Johnny

From: Don Orgill [dorgill@aidrc.com]
Sent: Wednesday, March 14, 2012 10:32 AM
To: Gagnon, Philip F (DEC) (philip.gagnon@alaska.gov)
Cc: Chandler, Johnny; jolly.tangog@alaska.gov
Subject: RE: Contact Information for Shaktoolik Tank Quote

Mr. Phil Gagnon,

Just checking to see if this afternoon (Wed.) is a good time to discuss the Shaktoolik repairs, or if you would prefer another day? Please let us know what time is best for you.

Thank you,

Don Orgill
Division of Homeland Security
and Emergency Management
Alaska State Public Assistance Specialist
JFO Phone: 907-271-4300
JFO Fax: 907-271-4315
Cell Phone: 315-723-6782

From: Don Orgill [mailto:dorgill@aidrc.com]
Sent: Thursday, March 08, 2012 10:44 AM
To: johnny.chandler@fema.dhs.gov
Cc: jolly.tangog@alaska.gov
Subject: FW: Contact Information for Shaktoolik Tank Quote

From: Gagnon, Philip F (DEC) [mailto:philip.gagnon@alaska.gov]
Sent: Wednesday, March 07, 2012 10:24 PM
To: Don Orgill
Cc: Gregory.Fewins@fema.dhs.gov; Mark Spafford; Eugene Asicksik
Subject: FW: Contact Information for Shaktoolik Tank Quote

Don,

Attached please find a quote I received for the repair of the Shatoolik water storage tank skin. The option we discussed is, "Option A" under "Shell." It should be noted that when the quote was provided it was stated that they will not place the shell directly over the existing insulation. The existing insulation will have moisture and other damage that must be repaired prior to installation of a new skin. If the damage and moisture are not removed first the skin will trap the moisture and cause additional damage.

My calculations are that two panels – damaged under the FEMA storm – equate to approximately one quarter of the tank shell area. Therefore materials and installation cost equal: $\$88,550 * 0.25 = \$22,137.50$.

In addition to this freight must be added. From past experience freight from Anchorage to Shaktoolik is approximately \$1.50/lb and freight from Seattle to Anchorage is about the same. Therefore $12,000\text{lb} * \$1.50/\text{lb} = \$18,000$ (ANC – SKK)

and 6,000lb * \$1.50/lb = \$9,000 (SEA – ANC) Note no freight costs from Seattle to Anchorage on the inner layers.
Therefore total freight costs (\$18,000 + \$9,000) * 0.25 = \$6,750

Airfare and subsistence for two men were not included in the estimate. For two weeks of work and possible weather hold on airplane to Shaktoolik, \$60/day per diem and round trip airfare for two men (~\$2,000/person, \$1,300 SEA-OME, \$700 OME-SKK), total subsistence and airfare, (\$2,000 * 2) + [(\$60 * 2 * 14)*0.25] = \$5,680. Airfare will not change regardless of the portion of the tank skin that is repaired all other costs have been multiplied by one quarter.

Total cost for repair of the tank skin is, \$33,307.50. The below table summarizes the costs.

Materials	\$11,525.00
Installation	\$10,612.50
Freight	\$6,750.00
Airfare	\$4,000.00
Per Diem	\$420.00
Total	\$33,307.50

I will work on completing leach field repair estimates in the near future, hopefully I can get those to you at the beginning of next week. I had a conversation with the individual who did the most recent repairs and he provided me with a much better understanding of what occurred and what the current systems consist of.

I've been coordinating with Mark Spafford of the Denali Commission on some of the Shaktoolik repairs. In our discussions we concluded there may be repairs that could be completed as part of the FEMA project that would reasonably prevent this type of damage from occurring again – my understanding is this is the second storm, requiring FEMA aid, which has caused damage to the water storage tank. Is there a time next Wednesday or Thursday afternoon that we could meet to discuss other options for the Shaktoolik repairs? I would hope to have materials to discuss the leach field repairs at the same time.

Best regards,

Philip Gagnon, P.E.
Village Safe Water Engineer

DEC - Village Safe Water
555 Cordova Street
Anchorage, AK 99501-2617
Phone: (907) 269-7681
Fax: (907) 269-7509
philip.gagnon@alaska.gov

From: adinow@thermacon.com [mailto:adinow@thermacon.com]
Sent: Monday, March 05, 2012 10:42 AM
To: Gagnon, Philip F (DEC)
Subject: Re: Contact Information for Shaktoolik Tank Quote

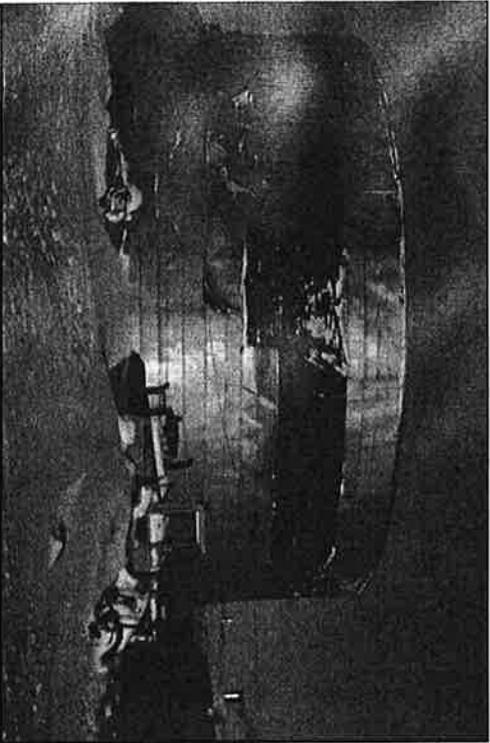
Phil

I tried to include various options in the proposal. It should meet most of the variables we discussed.

If you have any questions or want to review please feel free to contact me.

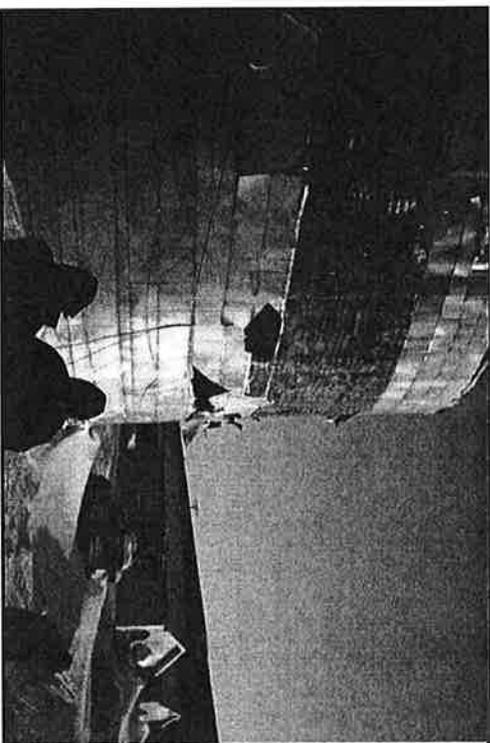
FEDERAL EMERGENCY MANAGEMENT AGENCY
PHOTO SHEET

APPLICANT	City of Shaktoolik	CATEGORY	F
FIPS NO.	180-68890-00	PW REF NO.	SHC-F01



Water tank shell damage.

TO INSERT PICTURE, SELECT THIS BOX AND CLICK "INSERT PICTURE" BUTTON.



Water tank shell damage.

TO INSERT PICTURE, SELECT THIS BOX AND CLICK "INSERT PICTURE" BUTTON.

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOCATION MAP

APPLICANT:	City of Shaktoolik	CATEGORY:	F
FIPS NO.	180-68890-00	PW REF NO.	SHC-F01



FEDERAL EMERGENCY MANAGEMENT AGENCY

FIRMETTE

APPLICANT:	City of Shaktoolik	CATEGORY:	F
FIPS NO.	180-68890-00	PW/REF NO.	SHC-F01

