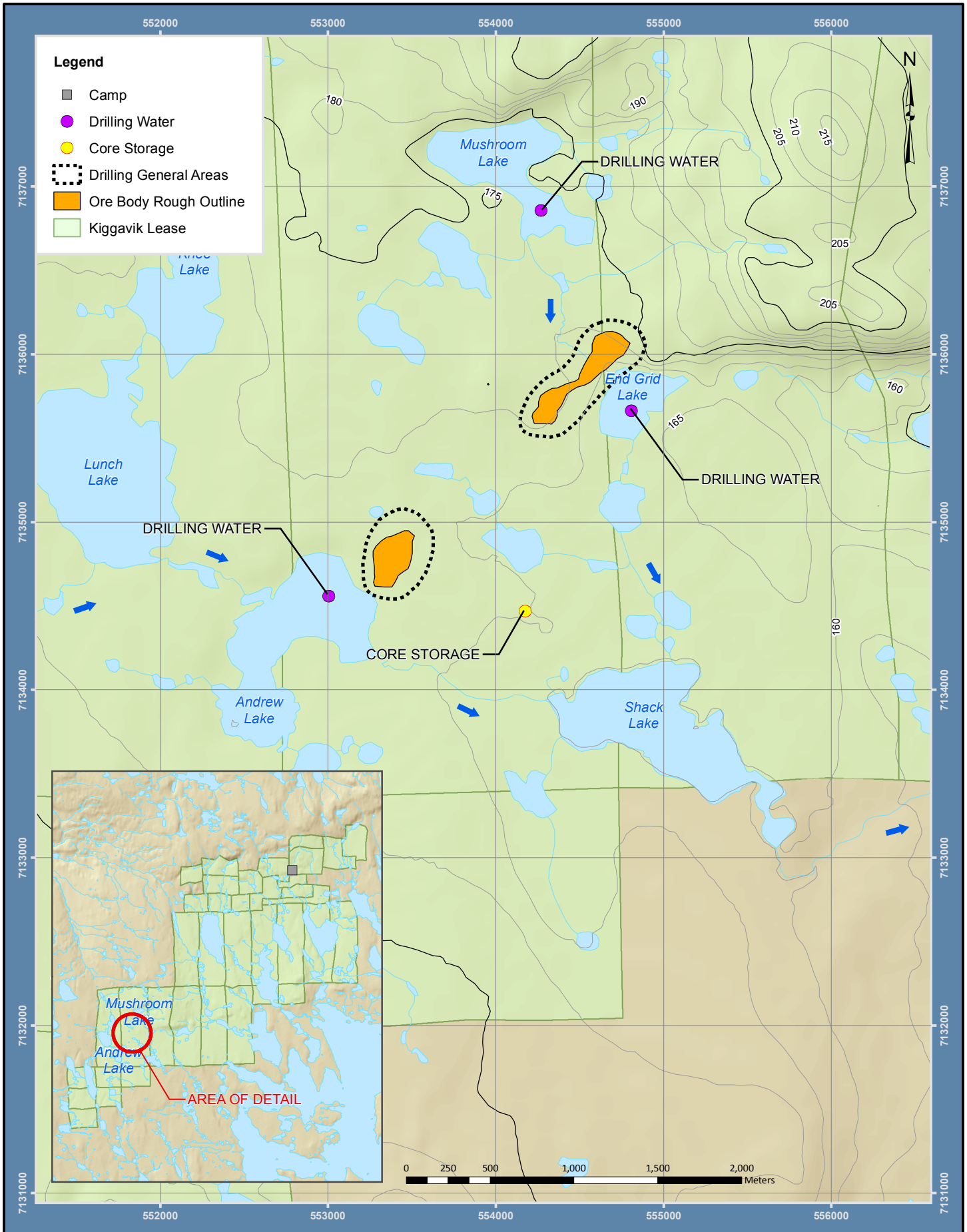

Projection: NAD 1983 UTM Zone 14N
Creator: CDC
Date: 05/18/2011 Scale: 1:30,000
File: KI09A021
Data Sources: *Natural Resources Canada, Geobase®, Nation Topographic Database, AREVA Resources Canada Inc.*

FIGURE 1.0-2
SISSONS MAIN AREA COMPONENTS

SPILL CONTIGENCY PLAN
APPENDIX III

Kiggavik Project

AREVA

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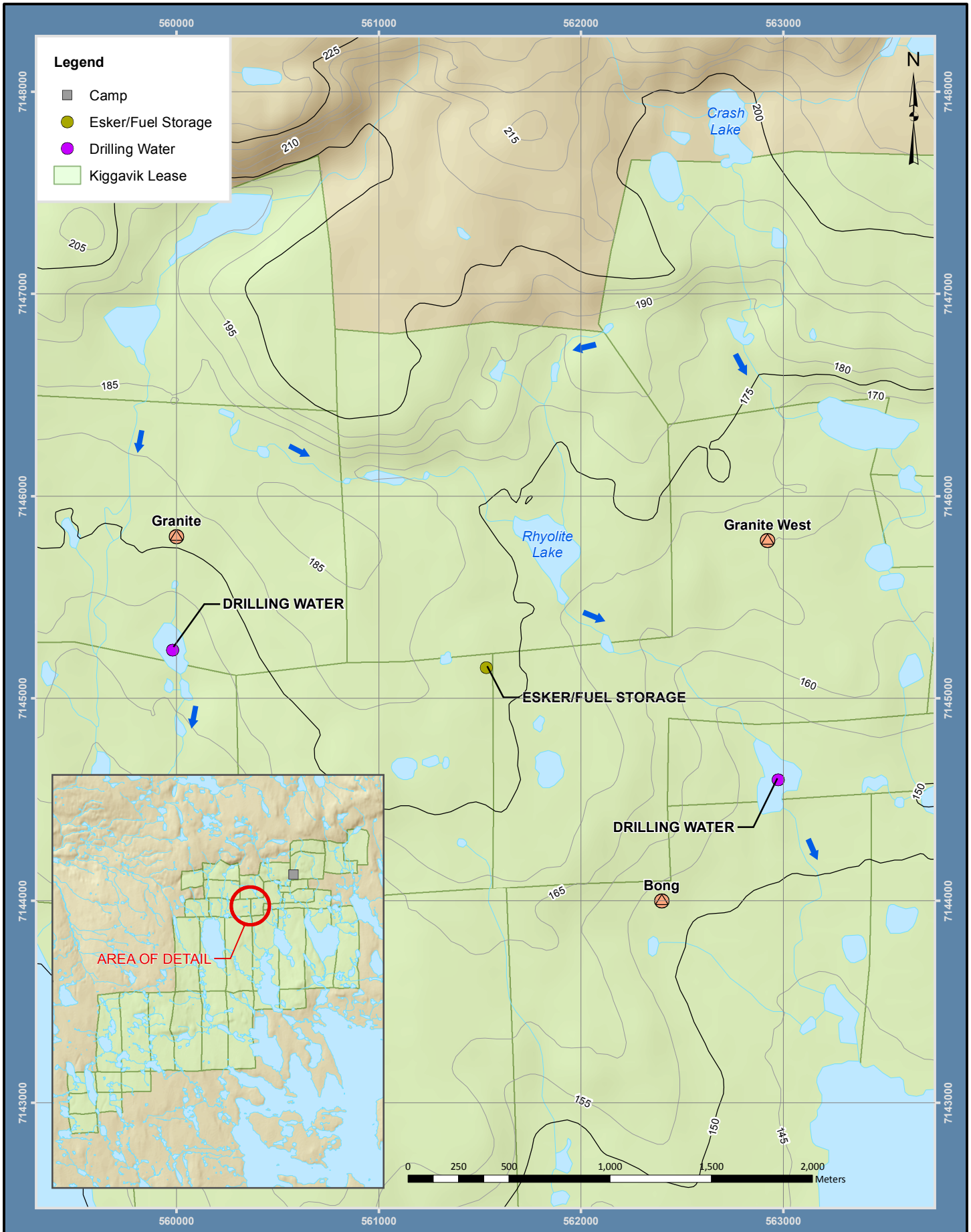

Projection: NAD 1983 UTM Zone 14N
Creator: CDC
Date: 02/18/2011 Scale: 1:25,000
File: KI09A022
Data Sources: *Natural Resources Canada, Geobase®, Nation Topographic Database, AREVA Resources Canada Inc.*

FIGURE 1.0-3
BONG AND GRANITE MAIN AREA COMPONENTS

SPILL CONTIGENCY PLAN
APPENDIX III

Kiggavik Project

AREVA

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Attachment D Response to an Off Site Incident Involving Uranium Ore Concentrate

D.1 AREVA Resources Canada – Response to UOC Incident

ARC has implemented an emergency response assistance plan (ERAP) to respond to incidents involving the transport of uranium ore concentrates along transportation routes within Canada. The ERAP commits ARC to response actions, including the cleanup of UOC spills and the remediation of any area impacted by the material. An ARC response team will attend the incident and provide equipment and expertise for radiation monitoring.

For the air transportation of UOC between the Kiggavik Site and the connection to the road network in northern Saskatchewan, ARC will have emergency response and remediation equipment staged at both the origin and destination terminals in order to respond quickly to an incident.

D.2 Emergency Services Providers

ARC supplements its own commodity-specific expertise by contracting service providers experienced and capable of responding to incidents. Quantum Murray (QM) is one of Canada's leading environmental remediation and hazardous materials abatement companies. QM has the advantage of being able to draw on the company's large pool of experienced, in-house specialists who are working full-time in the areas of site remediation, the treatment of contaminated soil and water, and the mitigation and disposal of hazardous materials. Their knowledge and expertise in the safe management of hazardous waste materials provides QMLP's Emergency Response Team with the capabilities and resources required to manage a variety of incidents.

D.3 Quantum Murray's Activation and Response

The following is a detailed summary of Quantum Murray's activation procedure and response to an incident involving UOC while in transport from AREVA's project sites in northern Canada.

Quantum Murray's 24 hour emergency call centre would receive the call in from AREVA personnel as per the AREVA ERAP protocol. During office hours, Quantum Murray emergency response personnel will gather up all needed equipment and be ready for departure to the incident site within thirty minutes. During off hours, Quantum Murray emergency response personnel will be ready for departure to the incident site within sixty minutes from time of activation.

The three primary Quantum Murray emergency response centres that would be responding would be Quantum Murray Edmonton, Quantum Murray Saskatoon and Quantum Murray Stoney Creek. Depending on where the incident is located, the Quantum Murray emergency response centre geographically closest will take the lead with support coming from the other centres as needed depending on the severity and scope of the incident.

In the case that response to an incident and remediation of the incident are long term, Quantum Murray will use personnel from other Quantum Murray centres in Canada to ensure a continuous 24 hour work day.

Transportation of Quantum Murray personnel and equipment to remote sites in the transportation corridor can be completed using Quantum Murray charter agreements in place with commercial and charter air service providers. Existing agreements AREVA has in place with Helicopter Transport Services, North Central Helicopters and Forest Helicopter Services can be used to place Quantum Murray personnel and equipment as close to the incident site as possible. Further agreements can be sought out to ensure maximum coverage and transportation to an incident, if needed.

Quantum Murray can be responsible for bringing necessary equipment to the incident site. Table C.1 lists typical initial response equipment. Table C.2 lists specialty equipment maintained by Quantum Murray and its network to respond to remote areas requiring environmental cleanup. Depending on the location of the incident, Quantum Murray will use equipment made available by AREVA from their production or mining site, including monitoring equipment, tools and heavy equipment. Quantum Murray is also able to make its equipment heli-portable in the event that response and cleanup is beyond road access.

Upon arrival on site, response personnel typically don the appropriate PPE based on the severity of the incident. This may include SCBA, APR with HEPA or P100 filters, Neoprene or rubber gloves, long sleeved coveralls or disposable splash suits, steel-toed safety boots, chemical goggles or safety glasses with side shields and a personal alarming dosimeter.

Quantum Murray Team Leader will liaise with the AREVA Initial Response Team to:

- Ensure the incident site is isolated 25m in all directions with an increased isolation distance of 100m downwind. If there is a fire involved with the incident, the isolation distance would increase to 300m in all directions. The isolation zone would be marked using traffic cones or caution tape. Entry and exit to the control zone would be through an upwind access point.
- Ensure that all those entering and exiting the control zone are logged and that those exiting and their equipment are monitored and decontaminated as necessary.
- Monitor for radioactivity. When safe to do so, a grid around the incident site will be set up and monitored for radioactivity. If conditions allow, measurements of both airborne and ground level contamination can be taken. The initial isolation distance can be increased or decreased as appropriate.
- Come up with an Incident Action Plan (IAP) to mitigate the incident safely and quickly minimizing the risk to life, the environment and property.

D.4 Cleanup Tactics

D.4.1 Undamaged containers

Undamaged containers present no immediate threat to personnel or the environment. Any undamaged and still sealed drums will be re-oriented and moved to a designated recovery area where they can be decontaminated, as required, and readied for transport.

D.4.2 Spills into Water

If a spill of product were to occur into a water course, the product would generally sink to the bottom of that water course since is the product is non-soluble in water and has a high specific gravity. A spill to water would require specialty equipment dependent on the size of spill, the flow rate of the water source, the depth of the water source, the width of the water source and the time of year.

If the spill occurred in a lake, river, or stream, the water would be sampled to determine uranium content to provide health advisories as warranted. Cleanup may require equipment for dredging out the affected area where the spill occurred to remove the spilled product.

If the spill occurred in a river, the spill area would be dammed to prevent the spilled solids from moving downstream. An overflow (or underflow) dam would be created using damming materials (wooden planks, sandbags, etc.) and large diameter piping to allow water to continue to pass while confining contaminated solids.

Photo 1: Water-filled dam (Aquadam ®) used at incident scene.

Devices such as water-filled portable dams (e.g. Aquadam ®) allow for efficient, temporary stream diversion or temporary containment during cleanup work. Once the affected area is dammed off, the spill area can be dewatered and the contaminated material removed from the bottom of the watercourse by HEPA vacuum, shovel or dredging equipment.

If the spill occurred in a marsh/bog/muskeg area, the spill area would be contained similar to a river response. The spill area would be isolated, dewatered as necessary, and any product would be removed by HEPA vacuum, shovel or dredging with heavy equipment.

Photo 2: A shallow area near the shoreline that has been boomed off and is in the process of being dewatered using a general purpose pump.

D.4.3 Spill on Land

If a spill of product were to occur on land, whether it is tundra or forest, the response would proceed in a similar fashion. The priority would be to contain and isolate the material, and then to clean it up.

Any spilled product would be covered over with plastic sheeting or plastic tarps to prevent further spread of materials. Dust control sprayers could be used to minimize any airborne dust particles from the product. Areas downwind of the spill would be monitored for radioactivity. Product would be removed using HEPA vacuums, shovels or through the use of heavy equipment, as available.

D.4.4 Packaging and Transport

Uranium ore concentrates are transported in 205 L steel drums. Uranium materials excavated during recovery operations would be repackaged into similar containers. Where transport drums have been damaged, they can be placed into overpack containers. Once all materials are packaged and secure, drums can be removed from remote locations by slinging with helicopters as necessary.

D.4.5 Monitoring

After a spill response, monitoring the spill area will be done to ensure all contaminated material has been removed. Once all the product and contaminated material has been safely removed in salvage drums/bins to be disposed in accordance with regulations, equipment and personnel shall be monitored and decontaminated as necessary. Any equipment that cannot be decontaminated shall be disposed of as per regulations. Post-remediation monitoring would be undertaken to assure remediation is complete and the environment restored.

D.5 Special Considerations

Uranium is mined in remote locations in Northern Canada. Incidents which occur in severe cold weather offer both advantages and disadvantages. Incidents on frozen ground help confine spilled materials and reduce mobility in the environment, however, work in severe cold weather is challenging for both equipment and personnel.

Quantum Murray prepares for impacts of the weather on their emergency response activities by:

- Maintaining winter gear for all employees, including survival gear.
- Keeping extra sets of winter gear on all Quantum Murray vehicles.
- Purchasing equipment and instrumentation rated for severe conditions.
- Maintaining their training year round and responding to incidents in all weather conditions, including winter.

Work in very remote locations requires experience, preparedness, and caution. Quantum Murray prepares for response in remote locations by:

- Maintaining a network of local responders and equipment throughout Canada.
- Calling on the expertise of local people to support their activity where possible.
- Ensuring equipment can be packaged to be heli-portable
- Supplying satellite phones to response teams with communications protocols to ensure safety.
- Drawing upon experience from previous incidents/exercises/projects/training in remote areas to ensure successful mitigation of an incident, for example, QM has sent people up to Distant Early Warning (DEW)line sites in the far north for training exercises and have responded to many remote rail incidents by various modes of transportation (ATV, boat, plane, etc.).

Table D.1: Initial Response Equipment List

SCBA (various) with full facepiece	Dust Control Sprayers
APR with HEPA or P100 filters	Plastic Sheeting
Replacement HEPA or P100 filters	Plastic Tarps
Disposable Splash suits with hoods	Euroclean GD 930-8 HEPA vacuums
Safety Goggles and/or Safety Glasses with side shields	SOS/T Class 7 Monitors
Steel toed Safety Boots	RDS-30 Class 7 Dosimeters
Boot Covers	Pancake Geiger Counter
Rubber Gloves	ChemPro 100i Handheld Chemical Detector
Neoprene Gloves	Plugging and Patching Equipment (magnetic patches, wooden plugs, etc...)
Reflective Vests	Class 7 Radioactive Labels
Shovels	Class 7 Radioactive Placards
Brooms	
Rakes	

Table D.2: Specialty Equipment for Response and Remediation

Description
POWER UNITS
Squad Response Unit
5 Ton Response Unit
Support Unit
TRAILERS
Type “A” Response Trailer
Type “B” Response Trailer
Decontamination Trailer
Flatbed Trailer
Incident Command Trailer
PERSONAL PROTECTIVE EQUIPMENT (PPE)
SCBA
SAR Manifold
SAR Pack
Bottle Refill – 4500 psi
Bottle Refill –2216 psi
Bottle Refill – 300ft3 (K- cylinder)
Bunker Gear (Per Man)
INSTRUMENTATION
CHEMICAL SPECIFIC
4 Gas Monitors (LEL, O2, H2S, CO)
Specialty Gas Monitors (Area Rae, Chem Pro, PID, Toxic Gas Specific)
Colourimetric Tube Pump
Mercury (Mercury vapour analyzer)
TEMPERATURE
Thermometers (Digital Thermometer)
Thermometers(Infrared Laser Thermometer)
Thermal Imaging (4 hr minimum applies)
RADIATION
Dosimeters
Survey Meters/ GM Detector
HEALTH SURVEILLANCE
Pulse & BP (Digital Blood Pressure Monitors)
Temperature (Thermometer)
MISCELLANEOUS
Noise(Digital Sound Level Meter)
Electrical (Digital Circuit Tester)
Digital GPS Locator
Electronic pH Meters

COMMUNICATIONS
Radios (Intrinsically Safe)
Satellite Phone
Satellite Air Time
TRANSFER EQUIPMENT
LIQUID (Specialty – DG or other) PUMPS
2”
3”
PRESSURE PUMPS
2”
3”
VAPOUR
Vapour Compressor
HYDROGEN PEROXIDE PUMP
2”
GENERAL PURPOSE (NON- DG) (“Trash Pumps”) PUMPS
2”
3”
HOSE TYPES
Liquid
Pressure
PIPING SYSTEMS
Connectors (Valves, Fittings, Flow meters)(SS, AL, PVC)
Stingers (SS, AL, PVC)
CONTAINMENT EQUIPMENT
“A” Kit – Cylinder Capping/ Plugging, plus
“B” Kit – Tonner Capping/ Plugging, plus
“C” Kit – Rail Tank Car Capping/ Plugging, plus
Midland Kit - Rail Tank Car Capping/ Plugging, plus
Rental – Midland Kit
BETTS Valve
Tank Truck Dome Clamps
MISCELLANEOUS SPECIALTY EQUIPMENT
Confined Space Entry Equipment (Per team)
Confined Space Rescue Equipment (Per Team)
Air Compressor 185 CFM (Tow Behind)
Flaring Equipment Kit – Portable Flare Stack (LPG/Ammonia)
Sparging/ transfer kit (Cylinder, Tonner)
Fire Protection Kit (Extinguishers, hose, nozzles, fittings)
Fire Extinguisher Recharge – 10LB
Fire Extinguisher Recharge – 20LB
Mercury Spill Kits
COMPRESSORS
25CFM, Gas

185 CFM, Diesel
DECONTAMINATION
Portable Decon Kit (3 Stage System)
VACUUM SYSTEMS
HAZ-VAC (Regular)
Barrel Vacuum
Mor-Vac System
HEPA VACUUM
Particulate Filtration System
MERCURY
Hg HEPA Vacuum
MARINE
Marine Response Vessel (<6M)
Marine Response Landing Craft (<8M)
Marine Boom Trailer
SKIMMERS
Drum Style Oil Skimmers (Small)
CONTAINMENT BOOM
In-Shore Boom
River Boom
Shoreseal Boom
WASTE HANDLING
DOCUMENTATION
Manifests
Bill of Lading
MARKING
TDG Label kit (Waste, TDG, Special)
Placards (All Classes)
DISPOSAL
Disposal is in accordance with local regulation and is subject to Broker Cost plus QMLP Event Coordination and Administration