



Indian and Northern
Affairs Canada

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APPLICATION FOR LAND USE PERMIT

Office Use Only					
Application fee	Land use fee	General receipt no.	Date	Class	Permit no.

To be completed by all applicants

☒ New Application

☐ Amendment

1. Applicant's name and mailing address (full name, no initials)			Fax no.
Gordon Clarke Vice-President Exploration North Arrow Minerals Inc. Suite 860, 625 Howe Street Vancouver, BC V6C 2T6			(604) 668-8366
			Telephone no. (604) 668-8355
2. Head office address			Fax no.
North Arrow Minerals Inc. 860 – 625 Howe Street Vancouver, BC V6C 2T6			(604) 668-8366
			Telephone no. (604) 668-8355
Field Supervisor Gordon Clarke or designate (name will be provided prior to program start)	Radio telephone Will notify when conducting field operations	E-Mail address gord@northarrowminerals.com	Telephone no. (867) 445-6527



3. Other personnel (Subcontractor, contractors, company staff, etc.)

Persons authorized to sign on behalf of the applicant (Officers or Directors of North Arrow Minerals):

Gren Thomas– President and Chief Executive Officer
Ken Armstrong – Director
Lou Covello – Director
Blair Murdoch - Director

Personnel working on the property will vary depending on the particular type of work program being conducted. Drilling and aircraft contractors are selected annually and numbers will vary. Typical personnel requirements will likely include 1 project geologist 6 to 7 geologists/geo-technicians, 1 helicopter pilot, 1 helicopter engineer, 1 cook/first aid attendant, and 5 contract drillers. It is possible that up to four additional personnel or guests may occupy the site.

TOTAL: Minimum of 3 persons to a maximum of 20 persons

Subcontractors or contractors:

Great Slave Helicopters - contracted to provide helicopter transportation on site
Bag 7500
Yellowknife, NT
X1A 2R3
Phone 867 873 2081

Discovery Mining Services - contracted to provide expediting services
101 – 487 Range Lake Rd.
PO Box 2248
Yellowknife, NT
X1A 3R9
Phone 867 920 4600

Air Tindi
28 Mitchell Drive
P.O. Box 1693
Yellowknife, NT Canada
X1A 2P3
Phone 867 669-8200

Aurora Geosciences Ltd.
3506 McDonald Drive
Yellowknife, NT
X1A 2H1
Phone 867 920-2729



4. Qualifications

Refer to Section 21 – Territorial Land Use Regulations

a(i) ☒ a(ii) ☐ a(iii) ☐ b ☐? c ☐

No(s) exploration permit mineral claims (if applicable)

5. (a) Summary of operation (Describe purpose, nature and location of all activities – refer to Section 22 (2) (b) – Territorial Land Use Regulations. (Use last page of form if additional room is required).

Please see the appended Project Summary for a full description of the proposed exploration activities associated with this application.

(b) Please indicate if a camp is to be set up (Use last page to provide details)

A camp may be set up. Details listed on last page.

6. Summary of potential environmental and resource impacts (Describe the effects of the proposed program on land, water, flora & fauna and related socio-economic areas. (Use separate pages if necessary)

Table 1 below identifies the potential impacts and proposed mitigation measures to be employed.

Table 1: Potential Impacts and Proposed Mitigation Measures		
Resource/Topic	Potential Impact	Mitigation
Terrain / Permafrost	Overburden drilling will cause minor disturbance to immediate drilling areas. Contamination of terrain/permafrost and, surface and ground water due to fuel spills. Accidental fuel spills.	Drill rigs will be heli-portable and will not traverse the ground surface. Site will be left in a stable state. Proper storage of fuel containers and use of drip pans. See Attachment B Spill Contingency Plan.
Hydrology	Water removal required from local water bodies for drilling.	
Surface Water Quality	None – no discharge to receiving water environment, negligible sedimentation.	No mitigation required.
Fish and Fish Habitat	Entrainment of fish and other aquatic life from water withdrawal for drilling purposes.	Use of screens over intake pipe to prevent entrainment.
Vegetation	Minor compaction of vegetation caused by drill.	Drill-rig will be heli-portable and will not traverse the ground surface.
Wildlife and Wildlife Habitat	Wildlife: short-term aircraft and drilling noise, human interaction. Habitat: Minor disturbance to vegetation in drilling areas by compaction.	Personnel training on wildlife-human interaction/encounters. Pre-drilling reconnaissance site visit prior to drilling activities will assist in identifying sensitive wildlife habitat. Site will be left in a stable state, promoting vegetation re-established. Any critical or sensitive wildlife species



Table 1: Potential Impacts and Proposed Mitigation Measures

Resource/Topic	Potential Impact	Mitigation
		encountered during the drilling season, such as nesting raptors in the area, will be avoided by a 10 m buffer zone.
Wildlife and Wildlife Habitat	Disturbance of wildlife from low-level aircraft activities.	Low-level aircraft activity will be restricted to flights into and out of the camp for crew changes and supply deliveries.
Socio-economics	Positive impacts. Personnel actively employed from local communities if initial results positive and scope of project increases.	N/A

7. Proposed restoration plans (please use last page if required)

Please see appended Abandonment and Restoration Plan (Appendix I).

8. Other rights, licenses or permits related to this permit application (mineral claims, timber permits, water licenses, etc.)

Permit/License No.	Regulatory Body	Type	Expiry
	Nunavut Water Board	Water License Type B	Application Review in Progress
	Kitikmeot Inuit Association	Land Use-Geological mapping and prospecting, ground geophysics, diamond drilling	Application Review in Progress
	NIRB		Application Review in Progress



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Roads: ☐ Is this to be a pioneered
road? Not Applicable

☐ Has the route been laid out or ground
truthed? Not Applicable

☐ Has funding been applied for (i.e.
RTAP)? Not Applicable

Routes: Please provide details on back
page Not Applicable

No roads will be used. All personnel and equipment will be moved by fixed wing aircraft and or helicopter and
or barge.



9. Proposed disposal methods

- | | |
|--|--|
| a) Garbage:
Ordures:
Garbage will incinerated and/or
backhauled to Yellowknife | c) Brush & trees:
Broussailles et arbres:
Not applicable |
| b) Sewage (Sanitary & Grey Water):
Eaux usées (Eaux d'égoût et eaux
ménagères)
Sanitary – Incinerated or backhauled to
Yellowknife
Grey Water – Discharged to sump. | d) Overburden (Organic soils, waste material, etc.):
Terrain de recouvrement: (Dépôts organiques,
déchets, etc.)
Not applicable |

Bulky Items/Scrap Metal

Scrap metal and any other non-combustible refuse will be collected then transported for disposal at an approved site.

Waste Oil/Hazardous Waste

Waste oil will be collected and sealed in clearly marked 205 L drums and transported to an approved disposal site. Lead-acid batteries will also be contained in appropriate sealed containers, clearly marked, and transported to an approved disposal site.

Empty Barrels/Fuel Drums

Empty drums will be collected and transported to Yellowknife either for refilling or disposal.

Sanitary Sewage (Black Water)

No black water will be produced.

Grey Water

Grey water from the kitchen and showers will be routed into natural sumps.

Drill Cuttings

Cuttings will be collected in a natural sump. They will not be allowed to flow into any watercourse.

Drill Water

Any surface runoff during or after drilling will be contained or channeled so it will be filtrated and not directly enter any watercourse.



10. Equipment (includes drills, pumps, etc.) (Please use last page if required)

Helicopter (1)	Hughes 500, Bell 206, A-Star	Transportation of personnel, drill moves, drill support
Fixed wing aircraft (occasionally)	Twin Otter, Otter, Beaver, 185	Movement of personnel, supplies and equipment, backhaul garbage
Diamond Drill (1)	Boyles 25A equivalent or smaller	Core rock samples
Water pump (1)	Standard for Boyles 25A or equivalent	Drill Water
Coil Stove (1 to 2)	Standard for heating drill water	To keep drill water from freezing
Water Pump (camp) (1)	General purpose 2" pump	Camp water use
Diesel generator (1)	10 kw	Camp power
Gas generator (1)	2 kw	Camp power backup
Ice Auger (1)	Standard 1 person power auger	Drill holes for water in winter
Rock Saw Hand Held (1)	Chain saw size	Cutting rock samples
Rock Saw Table mounted	Standard size	Cutting rock samples
Snowmobiles (1 to 3)	Ski-doo tundra or equivalent	Transport supplies and personnel
Inflatable Boat w motor	12 ft Zodiac w 20 hp outboard or equivalent	Crew mobilization in summer

11. Fuels – Combustibles		Number of containers - Nombre de réservoirs	Capacity of containers - Capacité des réservoirs
Diesel		80	205 Litres (drum)
Gasoline		4	205 Litres (drum)
Aviation fuel	Jet B	60	205 Litres (drum)
Propane		20	45 Kg (100lb)
Other	Oil	Several cases of 4 cycle engine oil and 2 stoke oil	1 Litre each (24/case)

12. Containment fuel spill contingency plans (Please attach separate contingency plan if necessary)

Please see appended Spill Contingency Plan (Appendix II)

13. Methods of fuel transfer (To other tanks, vehicles, etc.)

Fuel transfer will be by hand wobble pump or grounded hand electric pump directly from fuel drums to helicopter, etc. Absorbent pads/mats and drip trays will be used where required. Spill kits will be on-site. No smoking will be permitted during fuel transfer.



14. Period of operation (includes time to cover all phases of project work applied for, including restoration)

2 years from start of period of permit

15. Period of permit (up to two years, with maximum of one year extension)

Permit applied for two years, with possibility of extension one additional year, and renewable thereafter

Start date

Date Permit Granted

Completion date

2 years from date permit granted

16. Location of activities by map co-ordinates (attached maps and sketches)

68°09'48"N/106°30'00"W by 68°15'48"N/106°37'30"W (does not include IOL BB-58)

Maps and Sketches showing work areas are attached.

Map Sheet No. 77A/3,6

17. Applicant

Gordon Clarke Vice-President Exploration
North Arrow Minerals Inc.
Suite 860, 625 Howe Street
Vancouver, BC V6C 2T6

Print name in full

Signature

Date

18. Fees – Based on a total of 1 Ha. For drill sites only.

Application fee:	<input checked="" type="checkbox"/> Class A \$150.00	Class B \$150.00	\$ 150.00
Land use fees:	Less than or equal to 2 ha	1.0 \$50.00	\$50.00
	Each additional ha or portion in excess of 2 ha	Hectares @ \$50.00/ha	0 Ha. = \$
Total application and land use fees			\$ 200.00

Total Area used = 1.5 ha. (drill sites and camp)



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19. Calculation of area involved (including access, staging areas, airstrips, campsites, etc.)

Total area (Ha.)	_____	Less 2 hectares (-2)	_____	TOTAL (for fee calculation)	_____
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20. Application Checklist

- | | |
|---|---|
| a) <input type="checkbox"/> Application signed and
dated | e) <input type="checkbox"/> Screening report |
| b) <input type="checkbox"/> Fees attached | f) <input type="checkbox"/> Timber permit applied for |
| c) <input type="checkbox"/> Map included | g) <input type="checkbox"/> Fees attached |
| d) <input type="checkbox"/> Address and telephone
number | h) <input type="checkbox"/> Lease applied for |

Accepted by _____

Date _____

Remarks _____

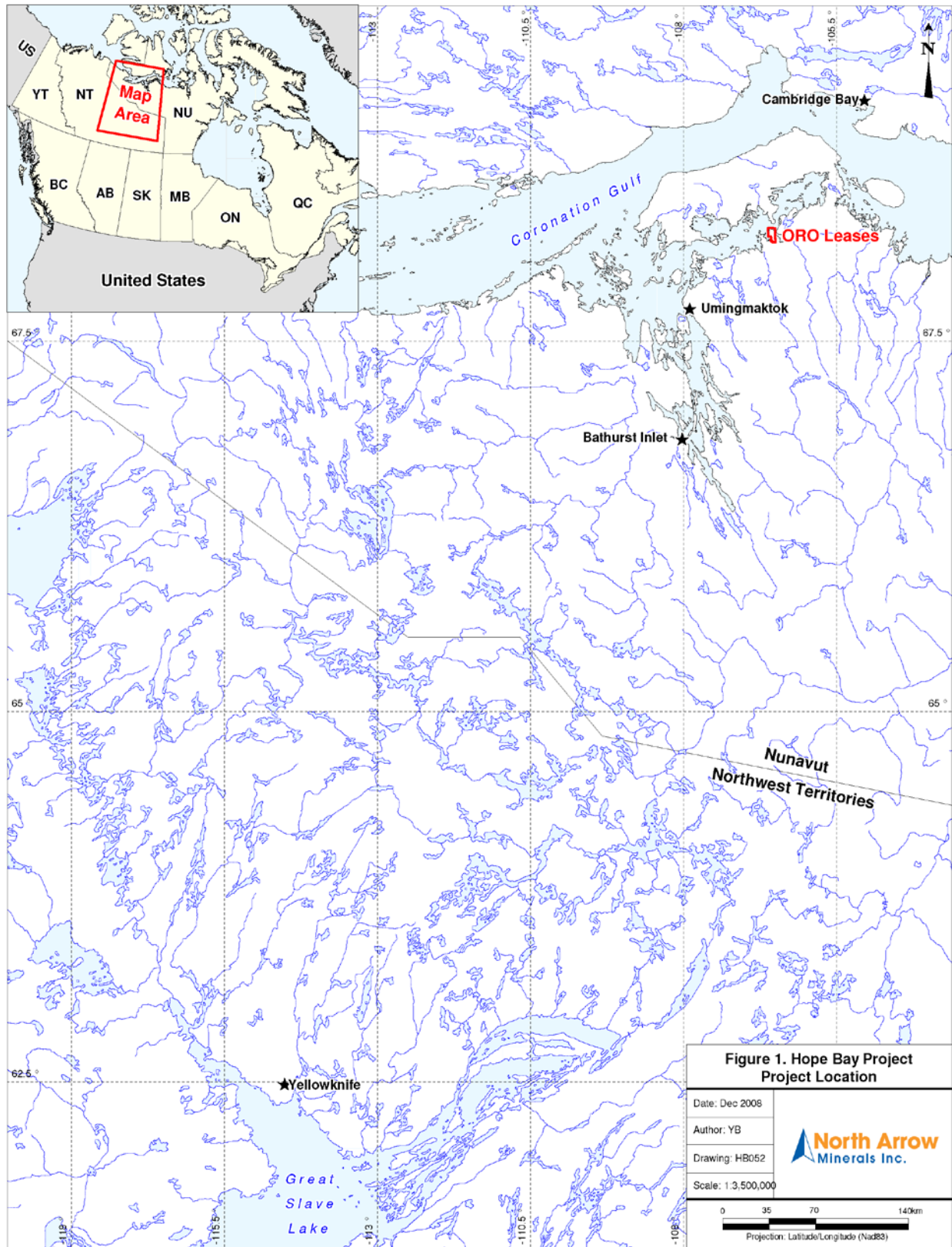
Camp Details



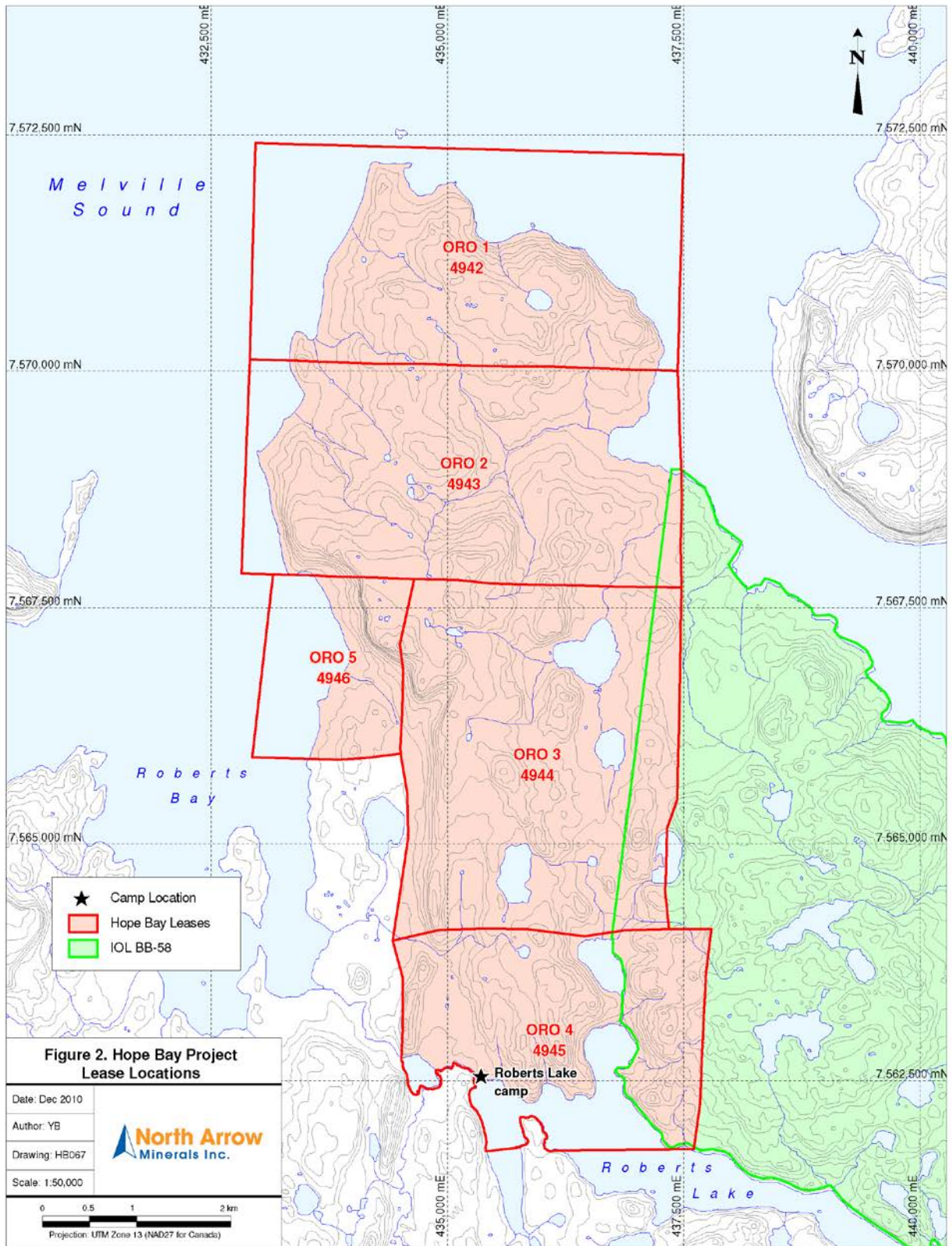
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If required it would consists of an exploration tent camp suitable for up to 20 personnel at approximately, 68° 10' 18" N 106° 33' 36" W on Crown land (see lease location map). Exact location will depend upon float plane access along shoreline. The camp would include 7 sleeping tents, combination cooks tent/first aid station, kitchen, dry, office, core shack, outhouse, generator shack, and a fuel cache. Specifics of the final layout will be dependant upon the topographic conditions encountered during camp construction. A layout plan would be forwarded after camp construction.



Regional Location Map



Detailed Lease Location Map



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Appendix I – Abandonment and Restoration Plan



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Appendix II – Spill Contingency Plan