Sellafield

SITE

SITE OWNER **Nuclear Decommissioning Authority WASTE CUSTODIAN** Sellafield Limited **ILW WASTE TYPE** Is the waste subject to Nο Scottish Policy: **WASTE VOLUMES** Reported Stocks: At 1.4.2022..... ~~104.4 m3 1.4.2022 - 31.3.2070...... ~~104.4 m3 Future arisings -Total future arisings: 104.4 m³ 208.8 m³ Total waste volume: Comment on volumes: The actual volumes of many of these wastes will only be known when they have been retrieved and characterised. The waste is problematic and/or orphan meaning there is no defined waste route therefore future arisings cannot be accurately predicted as waste routes may arise or more problematic and orphan waste may be found. It has been assumed that these wastes will arise on an irregular basis up to 2070. Uncertainty factors on Stock (upper): x 1.5 Arisings (upper) x 3.0 volumes: Stock (lower): x 0.33 x 0.67 Arisings (lower) **WASTE SOURCE** A collection of a number of mainly small volume heterogeneous wastes that arise from a wide range of operational and research activities. The waste is problematic or orphan meaning there is no defined waste route. Waste arisings from a number of facilities both operational and undergoing Post Operational Clean Out/ Decommissioning. PHYSICAL CHARACTERISTICS The waste is made up of a range of components, including monitoring equipment, General description: residues, surplus materials and plant equipment, oils, solvents, and lead. Some of the wastes may have degraded during storage. Physical components (%vol): Sealed sources: Not yet determined. Problematic and Orphan Sources population identified as a subcategory of the total source populations. Source data is not recorded on this sheet to avoid double counting. Bulk density (t/m3): NE The mean bulk density will vary from waste to waste. Comment on density: CHEMICAL COMPOSITION General description and The waste is made up of a range of materials consisting of uranium and plutonium metals components (%wt): and oxide powders, calcium metal and calcium fluoride slags and other miscellaneous components. Chemical state: Chemical form of radionuclides: Metals and alloys (%wt): Type(s) / Grade(s) with proportions % of total C14 (%wt) activity Stainless steel..... Other ferrous metals..... Iron..... Aluminium..... Beryllium..... Cobalt.....

	Copper			
	Lead			
	Magnox/Magnesium			
	Nickel			
	Titanium			
	Uranium			
	Zinc			
	Zircaloy/Zirconium			
	Other metals			
Organic	s (%wt): -			
		(%wt)	Type(s) and comment	% of total C14
	Total cellulosics			activity
	Paper, cotton			
	Wood			
	Halogenated plastics			
	Total non-halogenated plastics			
	Condensation polymers			
	Others			
	Organic ion exchange materials			
	Total rubber			
	Halogenated rubber			
	Non-halogenated rubber			
	Hydrocarbons			
	Oil or grease			
	Fuel			
	Asphalt/Tarmac (cont.coal tar)			
	Asphalt/Tarmac (no coal tar)			
	Bitumen			
	Others			
	Other organics			
Other m	naterials (%wt):			
	•			
		(%wt)	Type(s) and comment	% of total C14 activity
	Inorganic ion exchange materials			
	Inorganic sludges and flocs			
	Soil			
	Brick/Stone/Rubble			
	Cementitious material			
	Sand			
	Glass/Ceramics			
	Graphite			
	Desiccants/Catalysts			

	-		
	Asbestos		
	Non/low friable		
	Moderately friable		
	Highly friable		
	Free aqueous liquids		
	Free non-aqueous liquids		
	Powder/Ash		
Inorganic ani	ons (%wt): -		
		(%wt)	Type(s) and comment
		(/0111)	Typo(o) and common
	Fluoride		
	Chloride		
	lodide		
	Cyanide		
	Carbonate		
	Nitrate		
	Nitrite		
	Phosphate		
	Sulphate		
	Sulphide		
Materials of i			
waste accept	tance criteria:		
		(%wt)	Type(s) and comment
	Combustible metals		
	Low flash point liquids		
	Explosive materials		
	Phosphorus		
	Hydrides		
	Biological etc. materials		
	Biodegradable materials		
	Putrescible wastes		
	Non-putrescible wastes		
	Corrosive materials		
	Pyrophoric materials		
	Generating toxic gases		
	Reacting with water		
	Higher activity particles		
	Soluble solids as bulk chemical compounds		
Hazardous s non hazardo	ubstances / - us pollutants:		
		(%wt)	Type(s) and comment
	Acrylamide		

PACKAGIN	G AND CONDITI	ONING		
Potential for t		Not yet determined.		
	Total complexing			
	Other organic con			
	Polycarboxylic aci			
	NTA			
	DPTA			
	EDTA			
			(%wt)	Type(s) and comment
Complexing	agents (%wt):			
Comments				
	EEE Type 2			
		cal Equipment (EEE)		
	Others			
	Mercury compoun			
	Vanadium			
	Tin			
	Thallium			
	Molybdenum			
	Chromium			
	Selenium			
	Caesium			
	Cadmium			
		al)		
)		
	Boron (in Borol)			
	Barium			
	Arsenic			
	Vinyl chloride			
	Other organophos			
	Tri-butyl phosphat			
	Styrene			
	Phenol			
	Organometallics			
	Formaldehyde			
	Chlorinated solver	nts		
	Benzene			

2022 Inventory

Conditioning method:

Plant Name:

Location:

Plant startup date: -

Total capacity

(m³/y incoming waste):

Target start date for packaging this stream:

-

Throughput for this stream (m³/y incoming waste):

-

Other information:

Likely container

type:

Container	Waste packaged (%vol)	Waste loading (m³)	Payload (m³)	Number of packages

Likely container type

comment:

-

Range in container waste

volume:

•

Other information on

containers:

-

Likely conditioning matrix:

Other information:

Conditioned density (t/m³):

Conditioned density

comment:

-

Other information on

conditioning:

It has not yet been determined how these wastes will be treated or what are the likely

disposal routes. Wastes may not be disposed of as HAW.

Opportunities for alternative

disposal routing:

Not yet determined

Baseline Opportunity Stream Date that Opportunity Confidence

Management Route Management Route volume (%) Will be realised Confidence

RADIOACTIVITY

Source:

Uncertainty: -

Definition of total alpha and total beta/gamma:

Where totals are shown on the table of radionuclide activities they are the sums of the listed alpha or beta/gamma emitting radionuclides plus 'other alpha' or 'other beta/gamma'.

Measurement of radioactivities:

-

Other information: -

Nuclide		Mean radioactivity, TBq/m³				Mean radioactivity, TBq/m³				
Be 10	Nuclide	Waste at	Bands and	Future		Nuclide		Bands and	Future	Bands and Code
C 14 Na 22 Na 22 Na 26 C 136 C 137 C 137 C 138 C 138 C 141 C 138 C 141 C 139 C 141 C	H 3					Gd 153				
Na 22	Be 10					Ho 163				
A128	C 14					Ho 166m				
Cl S	Na 22					Tm 170				
Ar 39 Ar 42 K 40 Ca 41 Hr 182 Ca 41 Mn 53 Mn 64 Pb 205 Pb 210 Cb 60 Bi 206 Ni 63 Pb 210 Ni 63 Pb 221 Sa 79 Kr 81 Kr 81 Rs 223 Sa 79 Kr 85 Ra 222 Sr 90 Sr 90 Th 227 Sr 90 Th 227 Sr 90 Th 227 Sr 90 Th 228 Nb 91 Nb 93 Nb 91 Nb 93 Nb 94 Nb 94 Nb 93 Nb 94 Nb 93 Nb 94 Nb 94 Nb 93 Nb 94 Nb 94 Nb 93 Nb 94 Nb 94 Nb 95 Ra 123 Tc 97 Pa 233 Tc 97 Pa 233 Tc 97 Pa 233 Tc 97 Pa 233 Sn 126 Sn 121 Sn 119 Sn 119 Sn 119 Sn 123 Sn 126 Sn 121 Sn 127 Sn 127 Sn 124 Sn 126 Sn 127 Sn 127 Sn 127 Sn 124 Sn 228 Sn 126 Sn 127 Sn 127 Sn 128 Sn 126 Sn 127 Sn 127 Sn 128 Sn 126 Sn 127 Sn 127 Sn 128 Sn 128 Sn 126 Sn 127 Sn 127 Sn 128 Sn 126 Sn 127 Sn 127 Sn 128 Sn 128 Sn 126 Sn 127 Sn 127 Sn 128 Sn 126 Sn 127 Sn 127 Sn 127 Sn 128 Sn 128 Cn 124 Cn 242 Cn 243 Cn 243 Cn 244 Cn 245 Cn 1245 Cn 1246 Cn 246 Cn 246 Cn 247 Sn 147 Sn 148 Sn 158 Sn 168 Sn 169 Sn 161	AI 26					Tm 171				
Ar 39 Ar 42 K 40 Ca 41 Hr 182 Ca 41 Mn 53 Mn 64 Pb 205 Pb 210 Cb 60 Bi 206 Ni 63 Pb 210 Ni 63 Pb 221 Sa 79 Kr 81 Kr 81 Rs 223 Sa 79 Kr 85 Ra 222 Sr 90 Sr 90 Th 227 Sr 90 Th 227 Sr 90 Th 227 Sr 90 Th 228 Nb 91 Nb 93 Nb 91 Nb 93 Nb 94 Nb 94 Nb 93 Nb 94 Nb 93 Nb 94 Nb 94 Nb 93 Nb 94 Nb 94 Nb 93 Nb 94 Nb 94 Nb 95 Ra 123 Tc 97 Pa 233 Tc 97 Pa 233 Tc 97 Pa 233 Tc 97 Pa 233 Sn 126 Sn 121 Sn 119 Sn 119 Sn 119 Sn 123 Sn 126 Sn 121 Sn 127 Sn 127 Sn 124 Sn 126 Sn 127 Sn 127 Sn 127 Sn 124 Sn 228 Sn 126 Sn 127 Sn 127 Sn 128 Sn 126 Sn 127 Sn 127 Sn 128 Sn 126 Sn 127 Sn 127 Sn 128 Sn 128 Sn 126 Sn 127 Sn 127 Sn 128 Sn 126 Sn 127 Sn 127 Sn 128 Sn 128 Sn 126 Sn 127 Sn 127 Sn 128 Sn 126 Sn 127 Sn 127 Sn 127 Sn 128 Sn 128 Cn 124 Cn 242 Cn 243 Cn 243 Cn 244 Cn 245 Cn 1245 Cn 1246 Cn 246 Cn 246 Cn 247 Sn 147 Sn 148 Sn 158 Sn 168 Sn 169 Sn 161						Lu 174				
K 40	Ar 39					Lu 176				
Ca 41	Ar 42					Hf 178n				
Ca 41	K 40					Hf 182				
Mn 54 Fe 55 Co 60 Ni 59 Ni 63 Ni 63 Po 210 Zn 65 Sa 79 Ra 223 Sa 79 Ra 225 Kr 81 Kr 81 Ra 226 Rr 828 Rb 87 Sr 90 Th 227 Sr 90 Th 227 Sr 90 Th 228 Nb 91 Nb 92 Th 230 Nb 93 Nb 91 Th 228 Nb 91 Th 229 Nb 93 Th 230 Nb 93 Th 230 Nb 93 Th 230 Nb 93 Th 244 Nb 93 Ru 106 Pd 107 Pd 238 Sn 128	Ca 41					Pt 193				
Fe 55	Mn 53					TI 204				
Fe 55	Mn 54					Pb 205				
Bi 208										
Ni 59 Ni 63 Ni 63 Ri 223 Ri 8223 Ri 8225 Ri 79 Ri 8225 Ri 78 Ri 826 Ri 827 Ri 828 Ri 828 Ri 828 Ri 828 Ri 828 Ri 828 Ri 829 Ri 820 Ri 8										
Ni 63										
Zn 65 Ra 223 Ra 225 Rr 81 Ra 226 Rr 81 Ra 226 Rr 81 Ra 226 Ra 228 Ra 229 Ra 221 Ra 222 Ra 221 Ra 221 Ra 221 Ra 221 Ra 221 Ra 222 Ra 221 Ra 22										
Se 79 Ra 225 Ra 226 Ra 226 Ra 226 Ra 228 Ra 227 Ra 228 Ra 227 Ra 228 Ra 227 Ra 228 Ra 228 Ra 228 Ra 227 Ra 228 Ra 229 Ra 228 Ra 229 Ra										
Kr 81 Kr 85 Kr 85 Ra 228 Rb 87 Sr 90 Sr 90 Th 227 Th 227 Th 227 Th 229 Nb 91 Nb 92 Nb 92 Nb 92 Nb 93 Nb 94 Mo 93 Th 230 Nb 94 Mo 93 Tr 92 To 99 U 232 Ru 106 U 233 Pd 107 Ag 108m U 236 Ag 110m U 236 Cd 113m Sn 12a										
Kr. 85 Ra 228 Rb 87 Ac 227 Sr 90 Th 227 Zr 93 Th 228 Nb 91 Th 229 Nb 92 Th 230 Nb 93m Th 232 Nb 94 Pa 231 Mo 93 Pa 231 Tc 97 Pa 233 Tc 99 U 232 Ru 106 U 236 Pd 107 U 236 Ag 108m U 236 Ag 110m U 236 Cd 109 U 238 Ag 119m Pu 238 Sn 121m Pu 238 Sn 122 Pu 240 Sb 125 Pu 241 Sb 126 Pu 242 Te 125m Am 241 Te 127m Am 242m 1129 Am 243 Cc 134 Cm 243 Cs 137 Am 242 Ba 133 Cm 244 La 137 Cm 246 La 138 Cm 248 Cc 144 Cf 249 Pm 147 Cf 252 Sm 151 Other a Eu 152 </td <td></td>										
Rb 87 Sr 90 Sr 90 Cr 93 Th 227 Th 227 Th 227 Th 228 Nb 91 Nb 92 Nb 93 Nb 94 Nb 93 Nb 94 Nb 93 Th 232 Th 224 Nb 93 Tc 97 Tc 97 Tc 97 Tc 97 Ru 106 U 233 Pd 107 Ag 108m Ag 100m U 236 U 238 Qd 107 Cd 109 Cd 109 Cd 109 Cd 109 Cd 109 Sh 121 Sh 122 Sh 126 Sh 125 Sh 125 Sh 126 Fu 241 Sh 126 Sh 127 Sh 128 Sh 12										
Sr 90 Th 227 Th 228 Th 228 Th 228 Th 228 Th 230 Th 229 Th 230 Th 230 Th 232 Th 230 Th 232 Th										
Zr 93										
Nb 91										
Nb 92 Nb 93m Nb 94 Nb 94 Nb 93 Th 232 Nb 93 To 97 To 97 To 99 Ru 106 Pd 107 Ag 108m Ag 110m U 234 Ag 10m U 235 Ag 110m U 236 Cd 109 U 238 Cd 119 Ch 119m Sh 121m Sh 122 Sh 125 Sh 125 Sh 125 Sh 126 Sb 126 Fb 127m To 137 Ba 133 La 137 La 137 Ca 136 Ca 144 Ch 144 Ch 145 Ch 146 Ch 147 Ch 147 Ch 148										
Nb 93m										
Nb 94										
Mo 93 Pa 231 Pa 233 Tc 97 Pa 233 Tc 97 Pa 233 Tc 99 U 232 U 232 U 233 U 234 Ag 108m U 236 U 236 U 236 Ag 110m U 236 U 238 U 239 U 240 U 24										
Tc 97 Tc 99 Ru 106 Ru 106 Pd 107 Ag 108m Ag 110m Cd 109 Cd 113m Sn 119m Sn 119m Sn 123 Sn 126 Sb 125 Sb 126 Te 125m Te 127m Te 127m Te 127m Te 127m Te 127m The 133 Cs 134 Cc 135 Cs 137 Ba 133 La 137 La 138 Cc 144 Pm 145 Pm 147 Sm 151 Eu 152 Eu 154 Pu 232 Ru 233 U 232 U 233 Pu 234 U 235 V 236 Pu 236 Pu 238 Sn 126 Sb 126 Pu 240 Sb 126 Pu 241 Sb 126 Pu 242 Te 426 Te 427 Am 241 Am 242m Am 243 Cc m 242 Cc m 243 Cc m 244 Cc m 244 Cc m 245 Cc m 244 Cc m 245 Cc m 246 Cc m 248 C										
Tc 99 Ru 106 Pd 107 Ag 108m Ag 110m Cd 109 Cd 113m Sn 12m Sn 121m Sn 12tm Sn 126 Sb 125 Sb 126 Te 125m Te 127m I 129 Cs 134 Cc 134 Cc 135 Cs 137 Ba 133 La 137 La 138 Cc 144 Pm 145 Pm 145 Pm 147 Sm 147 Sm 151 Eu 152 Eu 154 Eu 152 Eu 154 V 238 V 242 V 240 V 241 V 242 V 243 V 244 V 243 V 244 V 244 V 245 V 247 V 248 V 247 V 248 V 249 V 244 V 245 V 247 V 248 V 249 V 247 V 248 V 249 V 249 V 249 V 241 V 242 V 242 V 242 V 243 V 244 V 244 V 245 V 246 V 247 V 248 V 248 V 249 V 248 V 249 V 248 V 249 V 248 V 249 V 249 V 247 V 248 V 249 V 247 V 248 V 249 V 240 V 247 V 248 V 249 V 248 V 249 V 2										
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Pd 107 Ag 108m Ag 110m Cd 109 Cd 113m Sn 119m Sn 123 Sn 126 Sb 125 Sb 126 Te 125m Te 127m I 129 Cs 134 Cs 135 Cs 134 Cs 135 Cs 137 Ba 133 La 137 La 138 Ce 144 Pm 145 Pm 145 Pm 147 Sm 147 Sm 147 Sm 147 Sm 151 Eu 152 Eu 154 U 234 U 235 U 236 Pu 238 Np 237 Pu 236 Pu 239 Pu 240 Pu 241 Pu 241 Am 242 Am 241 Am 242 Am 241 Am 242m Am 243 Cc 250 Cm 243 Cc 244 Cm 245 Cm 246 Cm 248 Cf 249 Cm 248 Cf 250 Cm 248 Cf 250 Cm 147 Cf 252 Cm 151 Cf 252 Cm 151 Cf 252 Cm 152 Cm 154 Cm 164 Cm 17 Cm 185 Cm 185 Cm 185 Cm 185 Cm 185 Cm 185 Cm 248 Cf 250 Cm 185										
Ag 108m U 235 U 236 Cd 109 U 238 U 238 Cd 113m Np 237 Np 237 Sn 119m Pu 236 Pu 238 Sn 121m Pu 238 Pu 239 Sn 126 Pu 240 Pu 241 Sb 126 Pu 241 Pu 242 Te 125m Am 241 Am 242m I 129 Am 243 Cm 242 Cs 134 Cm 242 Cm 243 Cs 137 Cm 244 Cm 243 Cs 137 Cm 244 Cm 245 Ba 133 Cm 246 Cm 248 Ce 144 Cm 248 Cm 249 Pm 145 Cf 250 Cf 251 Pm 147 Cf 252 Other b/g Sm 151 Cm 152 Other b/g Eu 154 Total a NE										
Ag 110m U 236 Cd 109 U 238 Cd 113m Np 237 Sn 119m Pu 236 Sn 121m Pu 238 Sn 123 Pu 239 Sn 126 Pu 240 Sb 125 Pu 241 Sb 126 Pu 242 Te 125m Am 241 Te 127m Am 242m I 129 Am 243 Cs 134 Cm 242 Cs 135 Cm 242 Cs 135 Cm 244 Cs 137 Cm 244 Ba 133 Cm 246 La 138 Cm 246 Ce 144 Cf 249 Pm 145 Cf 250 Pm 147 Cf 250 Sm 147 Cf 252 Sm 151 Citter b/g Eu 152 Other b/g Eu 154 NE										
Cd 109 U 238 Cd 113m Np 237 Sn 119m Pu 236 Sn 121m Pu 238 Sn 123 Pu 239 Sn 126 Pu 240 Sb 125 Pu 241 Sb 126 Pu 242 Te 125m Am 241 Te 127m Am 242m I 129 Am 243 Cs 134 Cm 242 Cs 135 Cm 242 Cs 137 Cm 244 Ba 133 Cm 244 La 137 Cm 246 La 138 Cm 248 Ce 1444 Cf 249 Pm 145 Cf 250 Pm 147 Cf 250 Sm 151 Cf 252 Sm 151 Cf 151 Eu 152 Other b/g Eu 154 NE										
Cd 113m Np 237 Sn 119m Pu 236 Sn 121m Pu 238 Sn 123 Pu 239 Sn 126 Pu 240 Sb 125 Pu 241 Sb 126 Pu 242 Te 125m Am 241 Te 127m Am 242m I 129 Am 243 Cs 134 Cm 242 Cs 135 Cm 242 Cs 137 Cm 244 Ba 133 Cm 246 La 137 Cm 248 Ce 144 Cf 249 Pm 145 Cf 250 Pm 147 Cf 250 Sm 151 Other a Eu 152 Other b/g Eu 154 NE										
Sn 119m Pu 236 Sn 121m Pu 238 Sn 123 Pu 239 Sn 126 Pu 240 Sb 125 Pu 241 Sb 126 Pu 242 Te 125m Am 241 Te 127m Am 242m I 129 Am 243 Cs 134 Cm 242 Cs 135 Cm 243 Cs 137 Cm 244 Ba 133 Cm 245 La 137 Cm 246 La 138 Cm 248 Ce 144 Cf 249 Pm 145 Cf 250 Pm 147 Cf 252 Sm 151 Other a Eu 152 Other b/g Eu 154 NE										
Sn 121m										
Sn 123 Pu 239 Sn 126 Pu 240 Sb 125 Pu 241 Sb 126 Pu 242 Te 125m Am 241 Te 127m Am 242m I 129 Am 243 Cs 134 Cm 242 Cs 135 Cm 243 Cs 137 Cm 244 Ba 133 Cm 245 La 137 Cm 246 La 138 Cm 248 Ce 144 Cf 249 Pm 147 Cf 250 Sm 147 Cf 252 Sm 147 Other a Sm 151 Other b/g Eu 154 NE										
Sn 126 Pu 240 Sb 125 Pu 241 Sb 126 Pu 242 Te 125m Am 241 Te 127m Am 242m I 129 Am 243 Cs 134 Cm 242 Cs 135 Cm 243 Cs 137 Cm 244 Ba 133 Cm 245 La 137 Cm 246 La 138 Cm 248 Ce 144 Cf 249 Pm 145 Cf 250 Pm 147 Cf 251 Sm 151 Other a Eu 152 Total a NE										
Sb 125 Pu 241 Sb 126 Pu 242 Te 125m Am 241 Te 127m Am 242m I 129 Am 243 Cs 134 Cm 242 Cs 135 Cm 243 Cs 137 Cm 244 Ba 133 Cm 245 La 137 Cm 246 La 138 Cm 248 Ce 144 Cf 249 Pm 145 Cf 250 Pm 147 Cf 251 Sm 147 Other a Sm 151 Other b/g Eu 152 Total a NE NE										
Sb 126 Pu 242 Te 125m Am 241 Te 127m Am 242m I 129 Am 243 Cs 134 Cm 242 Cs 135 Cm 243 Cs 137 Cm 244 Ba 133 Cm 245 La 137 Cm 246 La 138 Cm 248 Ce 144 Cf 249 Pm 145 Cf 250 Pm 147 Cf 251 Sm 147 Cf 252 Sm 151 Other a Eu 152 Total a NE NE										
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1129										
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Cs 135 Cm 243 Cs 137 Cm 244 Ba 133 Cm 245 La 137 Cm 246 La 138 Cm 248 Ce 144 Cf 249 Pm 145 Cf 250 Pm 147 Cf 251 Sm 147 Cf 252 Sm 151 Other a Eu 152 Other b/g Fu 154 NE										
Cs 137 Cm 244 Ba 133 Cm 245 La 137 Cm 246 La 138 Cm 248 Ce 144 Cf 249 Pm 145 Cf 250 Pm 147 Cf 251 Sm 147 Cf 252 Sm 151 Other a Eu 152 Other b/g Fu 154 NE										
Ba 133 La 137 La 138 Ce 144 Pm 145 Pm 147 Sm 147 Sm 151 Eu 152 Eu 154 Cm 245 Cm 246 Cm 248 Cf 249 Cf 250 Cf 250 Cf 251 Cf 252 Other a Other b/g Total a NE NE										
La 137 La 138 Ce 144 Pm 145 Pm 147 Sm 147 Sm 151 Eu 152 Eu 154 Cm 246 Cm 248 Cf 249 Cf 250 Cf 250 Cf 251 Cother a Other b/g Total a NE NE										
La 138 Cm 248 Ce 144 Cf 249 Pm 145 Cf 250 Pm 147 Cf 251 Sm 147 Cf 252 Sm 151 Other a Eu 152 Other b/g Eu 154 Total a NE NE										
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Pm 145 Cf 250 Pm 147 Cf 251 Sm 147 Cf 252 Sm 151 Other a Eu 152 Other b/g Eu 154 Total a NE NE										
Pm 147 Cf 251 Sm 147 Cf 252 Sm 151 Other a Eu 152 Other b/g Eu 154 Total a NE NE										
Sm 147 Cf 252 Sm 151 Other a Eu 152 Other b/g Eu 154 Total a NE										
Sm 151 Other a Eu 152 Other b/g Eu 154 Total a NE NE										
Eu 152 Other b/g Eu 154 Total a NE NE										
Eu 154 Total a NE NE										
Fu 155							NE			
La 100 NE NE	Eu 155					Total b/g	NE		NE	

Bands (Upper and Lower)

A a factor of 1.5 B a factor of 3 C a factor of 10 D a factor of 100

D a factor of 100 E a factor of 1000

Note: Bands quantify uncertainty in mean radioactivity.

Code

- 1 Measured activity
- 2 Derived activity (best estimate)
- 3 Derived activity (upper limit)
- 4 Not present
- 5 Present but not significant
- 6 Likely to be present but not assessed
- 7 Present in significant quantities but not determined
- 8 Not expected to be present in significant quantity