

Checklist for the removal and replacement of petroleum underground storage tanks and underground equipment

This checklist is taken from *Contaminated Land Management Guidelines No. 1 – Reporting on Contaminated Sites in New Zealand (Revised 2011)* and relates to the removal and replacement of petroleum underground storage tanks and underground equipment. Please refer to the guideline for further details on the use and application of the checklist.

This checklist should be included as a coversheet for all contaminated site investigations of this nature.

Report form for the removal and replacement of petroleum underground storage tanks and underground equipment

Checklist									
<input type="checkbox"/>	Company information				<input type="checkbox"/>	Site plan and locality diagram			
<input type="checkbox"/>	Site information				<input type="checkbox"/>	Bore/pit logs			
<input type="checkbox"/>	Contaminant information				<input type="checkbox"/>	Analytical result sheets / chain of custody			
<input type="checkbox"/>	Interpretation				<input type="checkbox"/>	Photographs			
Company information									
Oil company name:									
Company representative/ agent:									
Date(s) on-site:									
Ownership:			<input type="checkbox"/>	Company	<input type="checkbox"/>	Operator	<input type="checkbox"/>	Third party	
Owner's details (trading name and postal address):									
Current site use:			<input type="checkbox"/>	Service station	<input type="checkbox"/>	Workshop	<input type="checkbox"/>	Commercial	
			<input type="checkbox"/>	Truckstop	<input type="checkbox"/>	Other (describe)			
Reason for removal:			<input type="checkbox"/>	Replacement	<input type="checkbox"/>	Partial removal	<input type="checkbox"/>	Complete	
			<input type="checkbox"/>	Transfer	<input type="checkbox"/>	Other			
Site information									
Name:									
Address:									
Legal description:									
City/district council area:									
City/district council zoning			Site:						
			Adjacent:						
All HAIL activities undertaken on site:									
Dangerous goods officer responsible:									
DGI notified on:						DGI on-site at (date/time):			
Number of tankpits:						Number of tanks removed:			
Removed/replaced tank information									
Tank/ pit ID	Capacity (litres)	Contents (product)	Remove/ replace	Age (yr)	Material	Holed (y/n)	Condition	Pit construction/ condition	

Site environment				
Neighbouring land uses (<i>indicate on site plan</i>)	North	<input type="checkbox"/> Industrial/commercial	<input type="checkbox"/> Residential	<input type="checkbox"/> Agricultural
	South	<input type="checkbox"/> Industrial/commercial	<input type="checkbox"/> Residential	<input type="checkbox"/> Agricultural
	East	<input type="checkbox"/> Industrial/commercial	<input type="checkbox"/> Residential	<input type="checkbox"/> Agricultural
	West	<input type="checkbox"/> Industrial/commercial	<input type="checkbox"/> Residential	<input type="checkbox"/> Agricultural
Topography:		<input type="checkbox"/> Sloping	<input type="checkbox"/> Gently sloping	<input type="checkbox"/> Flat
Surface covering (<i>show on plan</i>):		<input type="checkbox"/> Unsealed	<input type="checkbox"/> Mixed seal/gravel	<input type="checkbox"/> Sealed
Surface drainage/runoff (<i>show on plan</i>):		<input type="checkbox"/> Drains	<input type="checkbox"/> Soakholes	<input type="checkbox"/> Interceptor
Underground services (<i>show on plan</i>):		<input type="checkbox"/> Present	<input type="checkbox"/> Distant	<input type="checkbox"/> Absent
Could services affect migration?		<input type="checkbox"/> Yes (to what extent?)		<input type="checkbox"/> No
Nearest surface water body:		<input type="checkbox"/> > 100 metres	<input type="checkbox"/> < 100 metres (<i>show on plan</i>)	
Surface water use:		<input type="checkbox"/> Recreation	<input type="checkbox"/> Drinking	<input type="checkbox"/> Irrigation
		<input type="checkbox"/> Aquaculture	<input type="checkbox"/> Industry	<input type="checkbox"/> Shipping
		<input type="checkbox"/> Not utilised	<input type="checkbox"/> Not known	
Site soil type log (<i>lithology if known</i>):		Depth (m)	Description (eg, brown silty clay)	
Include anomalous or unusual soil characteristics				
Was groundwater encountered?		<input type="checkbox"/> No	<input type="checkbox"/> Yes	Depth (m bgl)
Was sheen or free product visible?		<input type="checkbox"/> No	<input type="checkbox"/> Yes	If yes, describe and reference photo
Have on-site wells been sampled?		<input type="checkbox"/> No	<input type="checkbox"/> Yes	
Checked for separate phase?		<input type="checkbox"/> No	<input type="checkbox"/> Yes	
Off-site wells (check with Regional Council):				
Well number	Distance from site	Direction from site	Depth (m)	Use
Local groundwater flow direction (<i>if more than one aquifer comment on each aquifer individually</i>):				

Interpretation				
Current site use:	<input type="checkbox"/> Petroleum use	<input type="checkbox"/> Industrial/commercial	<input type="checkbox"/> Residential	<input type="checkbox"/> Agricultural
Future site use:	<input type="checkbox"/> Petroleum use	<input type="checkbox"/> Industrial/commercial	<input type="checkbox"/> Residential	<input type="checkbox"/> Agricultural
Adjoining land use:	<input type="checkbox"/> Petroleum use	<input type="checkbox"/> Industrial/commercial	<input type="checkbox"/> Residential	<input type="checkbox"/> Agricultural
Groundwater use:	<input type="checkbox"/> Potable	<input type="checkbox"/> Irrigation	<input type="checkbox"/> Stock	<input type="checkbox"/> Not used <input type="checkbox"/> Not known
Soil type: <i>* Considered for groundwater inhalation risk only</i>	<input type="checkbox"/> SAND, sandy loams, silty sands	<input type="checkbox"/> SANDY SILT, silt, silty loam, clay sand	<input type="checkbox"/> SILTY CLAY, clay loam, sandy clay	<input type="checkbox"/> CLAY
	<input type="checkbox"/> PUMICE	<input type="checkbox"/> GRAVELS*	<input type="checkbox"/> FRACTURED BASALT*	<input type="checkbox"/> PEAT/ORGANIC SOIL
Depth to contamination:	<input type="checkbox"/> < 1 metre	<input type="checkbox"/> 1–4 metres	<input type="checkbox"/> > 4 metres	
Depth to groundwater:	<input type="checkbox"/> 2 metres	<input type="checkbox"/> 4 metres	<input type="checkbox"/> 8 metres	<input type="checkbox"/> Unknown
Human health exposure pathways				
	Pathway	Complete	Incomplete	
Current site use <input type="checkbox"/> Petroleum use <input type="checkbox"/> Industrial/commercial <input type="checkbox"/> Residential <input type="checkbox"/> Agricultural	Soil ingestion Dermal absorption Maintenance/excavation worker Inhalation of vapour from soil Inhalation of vapour from water Groundwater usage Produce ingestion	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Future site use <input type="checkbox"/> Petroleum use <input type="checkbox"/> Industrial/commercial <input type="checkbox"/> Residential <input type="checkbox"/> Agricultural	Soil ingestion Dermal absorption Maintenance/excavation worker Inhalation of vapour from soil Inhalation of vapour from water Groundwater usage Produce ingestion	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Adjoining site use <input type="checkbox"/> Petroleum use <input type="checkbox"/> Industrial/commercial <input type="checkbox"/> Residential <input type="checkbox"/> Agricultural	Soil ingestion Dermal absorption Maintenance/excavation worker Inhalation of vapour from soil Inhalation of vapour from water Groundwater usage Produce ingestion	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

Ecological risk assessment				
	Significantly impacted	Limited impact	Not impacted	
Ecological receptors:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Describe all likely receptors:				
Aesthetic issues				
	Significantly impacted	Limited impact	Not impacted	Description of impact (<i>if applicable</i>)
Odour	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Soil structure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Visual	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Vegetation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Comments				
Report prepared by:				
Authorised by:		Date:		