

Checklist for the Removal of Petroleum Underground Storage Tanks

This checklist is taken from *Contaminated Land Management Guidelines No. 1 – Reporting on Contaminated Sites in New Zealand* and relates to the removal of Petroleum Underground Storage Tanks. The reader is referred to this document for further details regarding the use and application of the checklist.

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

Petroleum Underground Storage Tank Removal Report Form

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	
Owners 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 (e.g., 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>):				

Contaminant information								
Hydrocarbon impact assessment								
Location	Visual inspection		PID reading		Samples taken		Evidence of contamination (staining, odour, etc)	Justification for why no samples taken if there was evidence of contamination
	Yes	No	Yes	No	Yes	No		
Tank pit walls	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Pit bedding material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Under pumps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Dispensing lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Remote fills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Fill lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Vent lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Other (services etc)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Surface soils (show on plan)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Vegetation/soil removal								
Site & near-site vegetation condition:					<input type="checkbox"/> Good	<input type="checkbox"/> Poor		
Was impacted soil/bedding removed from site?					<input type="checkbox"/> Yes	<input type="checkbox"/> No		
If yes, how much, where on the site did it come from, and where was it disposed?								
Sampling (locations shown on plan) (ensure sample numbers are same as those represented on site plan)								
Sample	Date sampled	Location	Depth (m)	Soil type	Odour?		Remaining/removed	
					Yes	No		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
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					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

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:	<input type="checkbox"/> SAND, sandy loams, silty sands	<input type="checkbox"/> PUMICE	
<i>* Considered for groundwater inhalation risk only</i>	<input type="checkbox"/> SANDY SILT, silt, silty loam, clay sand	<input type="checkbox"/> GRAVELS*	
	<input type="checkbox"/> SILTY CLAY, clay loam, sandy clay	<input type="checkbox"/> FRACTURED BASALT*	
	<input type="checkbox"/> CLAY	<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	Soil ingestion	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Petroleum use	Dermal absorption	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Industrial/commercial	Maintenance/excavation worker	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Residential	Inhalation of vapour from soil	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Agricultural	Inhalation of vapour from water	<input type="checkbox"/>	<input type="checkbox"/>
	Groundwater usage	<input type="checkbox"/>	<input type="checkbox"/>
	Produce ingestion	<input type="checkbox"/>	<input type="checkbox"/>
Future site use	Soil ingestion	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Petroleum use	Dermal absorption	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Industrial/commercial	Maintenance/excavation worker	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Residential	Inhalation of vapour from soil	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Agricultural	Inhalation of vapour from water	<input type="checkbox"/>	<input type="checkbox"/>
	Groundwater usage	<input type="checkbox"/>	<input type="checkbox"/>
	Produce ingestion	<input type="checkbox"/>	<input type="checkbox"/>
Adjoining site use	Soil ingestion	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Petroleum use	Dermal absorption	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Industrial/commercial	Maintenance/excavation worker	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Residential	Inhalation of vapour from soil	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Agricultural	Inhalation of vapour from water	<input type="checkbox"/>	<input type="checkbox"/>
	Groundwater usage	<input type="checkbox"/>	<input type="checkbox"/>
	Produce ingestion	<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:		