

CLEAN UP NOTICE

Mr. Peter Charles Clement
AGCO AUSTRALIA LIMITED
615-645 SOMERVILLE RD
SUNSHINE WEST VIC 3020

TO: AGCO AUSTRALIA LIMITED ACN: 004 092 684

ADDRESS: 615-645 SOMERVILLE RD, SUNSHINE WEST VIC 3020

PREMISES: The premises are listed in Appendix A, by Volume and Folio Number, ("the premises"), SUNSHINE VIC

LEGAL REFERENCE: EP Act 1970 s.62A(1) Clean up and ongoing management measures required

Who we are: Environment Protection Authority (EPA) Victoria is an independent statutory authority established under the *Environment Protection Act 1970* (the EP Act). Our purpose is to protect and improve our environment by preventing harm to the environment and human health.

Why we serve remedial notices: Remedial notices are served to prevent or remedy actual or likely pollution, environmental hazards and a range of non-compliances with the EP Act.

What you are required to do: Section 62A(1) of the EP Act requires you to comply with the requirements in this notice with one or more actions to prevent or remedy an actual or likely non-compliance. Under section 60A(1), if someone plans to take control of your premises, you must notify them of this notice and your progress towards compliance.

When you are required to act: Immediately, from the date below.

If you want compliance dates extended: An application to extend a compliance date listed in Section 3 of this notice must be received *at least 10 working days prior to the compliance date*. Application forms, available at www.epa.vic.gov.au/business-and-industry/forms must be addressed to the Manager of the EPA office listed on this notice with the subject line: "Notice amendment application". Your served notice remains legally binding until EPA advises of any change. Refer to the Remedial notices policy (publication 1418) for further information on amendment applications.

What happens if you don't comply: If found guilty of contravening a requirement of this notice, you may be ordered to pay a fine of up to 2400 penalty units (\$373,104).

What your review rights are: An application for review of this notice can be made to EPA and/or the Supreme Court. Applications for an EPA review must be made within 7 calendar days from the notice issue date (below). Application forms are available at www.epa.vic.gov.au/business-and-industry/forms, or from our offices. For more information on your review rights, refer to the Remedial notice review policy (publication 1531) or contact us on 1300 EPA VIC (1300 372 842).

For the purpose of this notice 'You' means the recipient of this notice and 'Premises' means the site at the premises address, as identified above.



.....
Nial Finegan

DELEGATE OF THE ENVIRONMENT PROTECTION AUTHORITY

DATE OF ISSUE: 19/06/2017

NOTICE STRUCTURE

1 EPA OBSERVATIONS

This section details what was observed during the inspection.

2 REASONS FOR VIEW FORMED

This section interprets the observations and articulates why the authorised officer believes a clean up notice should be issued in accordance with section 62A of the EP Act.

3 REQUIREMENTS - WHAT OUTCOMES ARE REQUIRED TO COMPLY?

Considering the view that has been formed, this section lists the requirements or actions to address the environmental risk(s) or impact(s).

4 AN EXAMPLE OF HOW YOU CAN COMPLY

This section provides an example of how you may achieve compliance with the requirements of this notice.

1 EPA OBSERVATIONS

1.1 EPA Officers have been conducting an investigation into the contamination of soil and groundwater at the former Massey Ferguson Manufacturing site which occupied a large land holding in Sunshine, Victoria. This site was made up of numerous land titles which together were used for a large industrial complex of factories to manufacture agricultural machinery and vehicles. The entire area that made up the former Massey Ferguson Manufacturing site is represented on the attached map in Appendix B.

1.2 EPA reviewed the Australian Securities and Investments Commission (ASIC) Company extract for AGCO Australia Limited (ACN 004092684) on 19 November 2015 and again on 15 December 2016. These extracts indicate that AGCO Australia Limited has been registered as a company in Australia since 23 December 1921 and has been known by the following names during the following periods:

- AGCO AUSTRALIA LIMITED (10/07/1996 - present)
- MASSEY FERGUSON ISEKI AUSTRALIA LIMITED (01/07/1992 – 09/07/1996)
- MASSEY-FERGUSON (AUSTRALIA) LIMITED (10/04/1958 – 30/06/1992)
- H.V.MCKAY MASSEY HARRIS LIMITED 10/06/1957 – 09/04/1958)
- H.V. MCKAY MASSEY HARRIS PROPRIETARY LIMITED (07/10/1930 – 09/06/1957) and
- H.V. MCKAY PROPRIETARY LIMITED (23/12/1921 – 06/10/1930)

For clarification and for ease of reference, a reference to AGCO Australia Limited in this Notice also extends to the above company names.

1.3 EPA reviewed historical Certificates of Title information and found that AGCO Australia Limited was issued with Certificates of Title (Volume and Folio) for the following parcels of land, as listed in Appendix A:

- Volume 4578 Folio 915417
- Volume 4578 Folio 915418
- Volume 5109 Folio 1021693
- Volume 5426 Folio 1085063
- Volume 5617 Folio 1123358
- Volume 5861 Folio 1172152
- Volume 5861 Folio 1172117
- Volume 6059 Folio 1211680
- Volume 6077 Folio 1215325
- Volume 6350 Folio 1269925
- Volume 6401 Folio 1280036
- Volume 6439 Folio 1287758
- Volume 7875 Folio 199
- Volume 7988 Folio 89
- Volume 8356 Folio 674
- Volume 8356 Folio 675
- Volume 8356 Folio 676
- Volume 8417 Folio 371
- Volume 8937 Folio 694
- Volume 9644 Folio 28
- Volume 9750 Folio 239
- Volume 9750 Folio 240
- Volume 8354 Folio 677

1.4 EPA observed that these historical Certificates of Title information together show that AGCO Australia Limited owned the area highlighted in green shading, which was used for manufacturing machinery in Sunshine Victoria, as represented on the attached map in Appendix B. For ease of reference, the area encompassed by the parcels of land identified in appendix A and represented in the map in appendix B, is hereafter referred to as “the premises”.

1.5 EPA reviewed various historical documents, manuscripts, maps and reports on the on-line Museum Victoria collection of documents that relate to the premises. (<http://collections.museumvictoria.com.au/search?collection=H.V.+McKay+Sunshine+Collection>). These records indicate that AGCO Australia Limited conducted a range of industrial and trade uses and activities at the premises including, railway siding and railway loading and unloading operations, quarry, waste disposal, foundries, sheet metal works, metal works, welding, annealing works, black smithing, painting, paint dipping, leather and textile works, wood milling, machining, tool making, vehicle and machinery assembly, tin smithing, munitions manufacturing, laboratory, metal pressing, chain manufacturing, bright steel manufacturing, packaging, storage, engine works, tyre manufacturing as well as a range of other commercial, administrative and office activities.

1.6 EPA observed that the area of the premises is consistent with the area included in a 1958 Factory Plan for Massey Ferguson Aust. LTD obtained from the on-line Museum Victoria collection (<http://collections.museumvictoria.com.au/search?collection=H.V.+McKay+Sunshine+Collection>).

1.7 EPA observed that the current land use on the premises is diverse and undertaken by a range of different entities. These different land uses include shopping centres (Sunshine Marketplace & Sunshine Plaza), cinema, offices (Vic Roads, City of Brimbank), police station, law courts (Sunshine Magistrates Court), apartments (Foundry Apartments), restaurants, retail petrol station, car wash, Brimbank Civic Centre, car parking and a range of shops and other commercial and retail activities.

1.8 On 13 February 2015 EPA searched the database of Statutory Environmental Audits on the EPA website and found 3 audit reports that assessed sections of the premises shortly after AGCO Australia Limited ceased operations at the premises. These reports were:

1.8.1 R A Graham, Environmental Auditor 1994, Environmental Audit Report: Southern Section of Former Massey Ferguson Site, Report for City of Sunshine, February 1994.

1.8.2 R A Graham, Environmental Auditor 1997, Report of Environmental Audit (Contaminated Land): Police and Court Complex, Sunshine, Prepared for Department of Justice/Atkinson Project Management, October 1997.

1.8.3 R A Graham, Environmental Auditor 1999, Report of Environmental Audit (Contaminated Land): Sunshine Market Place Development Site, Report for Nascon Australia Pty Ltd, January 1999.

1.9 EPA reviewed the following assessment reports referred to in the three Statutory Environmental Audits, identified in 1.8 above:

1.9.1 Preliminary Contamination Assessment Massey Ferguson Site Sunshine, Victoria by Golder Associates, October 1991

1.9.2 Contaminated Assessment Lots 2, 11 and 12 Massey Ferguson Site, Sunshine, Victoria, by Golder Associates, May 1992

1.9.3 Work Plan, Environmental Audit, Devonshire Road Office Site, Sunshine City Centre, by Golder Associates, October 1993

1.9.4 Contaminated Assessment, Devonshire Road Office Site, Sunshine City Centre, Sunshine, Victoria, by Golder Associates, December 1993

1.9.5 Contamination Assessment, Sunshine Market Place Development, Sunshine, Victoria', by Golder Associates, April 1995

1.9.6 Stage 2 Contamination Assessment: Lot 10, Former Massey Ferguson Site, Ballarat Road Sunshine, Victoria', by Golder Associates, October 1997

1.9.7 Soil Management, Market Place Development, Former Massey Ferguson Site, Hampshire Road, Sunshine, by Golder Associates, May 1997

1.9.8 Remedial Works, Market Place, Sunshine, by Golder Associates, December 1997

1.9.9 Brimbank City Council's Road Construction and Related Activities, Market Place Development, Former Massey Ferguson Site, Sunshine by Golder Associates, June 1997

1.10 EPA reviewed the report by Golder Associates dated October 1991 identified at 1.9.1 above. The report included the following information:

1.10.1 The site was previously occupied by agricultural machinery manufacturers since 1889 including the H. V. McKay Harvester Company from 1904 to 1955 and subsequently Massey Ferguson until 1986.

1.10.2 The previous land use at the premises during this time included foundries, metal and wood manufacturing and processing areas, agricultural machinery and equipment assembly areas, paint dips and paint shops, warehouses and both open and undercover storage areas. There was underground hydrocarbon infrastructure located at the site and two electrical substations (powerhouses). A railway siding was located to the west side of the site and was used to transport in raw materials and transport out the finished machinery products.

1.10.3 The natural soil underlying the fill was dominantly high plasticity, stiff to hard, grey and brown silty clay. Carbonate material was located in a number of test pits. Basalt gravel to boulders was also located in several pits. Basalt was encountered in seven of the forty test pits. Weathered basalt was encountered at depths 1.2-1.4m or 0.5-0.95 at some locations.

1.10.4 The chemicals analysed at the time of the report were metals (arsenic, nickel, cadmium, chromium, copper, lead, mercury and zinc), cyanide, phenolics, TPH, PAH, organochlorine pesticides, halogenated volatiles organics, polychlorinated biphenyl (PCB's) and BTEX.

1.10.5 Soil sampling at the premises was undertaken at 25 sampling locations and was focussed over the area in Lot 1 on a modified 50m x 50m grid sampling technique. Lots 2, 11 and 12, which were sampled on a much coarser grid of 15 test pits based on an initial scan of contaminants in the area. The samples were ranked in the field at the time of investigation by visual and odorous evidence of contamination using a scale from 0 to 3 (see table 1 in the report for criteria description).

1.10.6 "Permanent groundwater table was judged to be at a depth of 10-15m in the basalt underlying the site. Groundwater contamination was considered low because of the low leach-ability of the metal contaminants at the site and the attenuation of contaminants by the clay overlying the basalt and clay infilling. However, in order to demonstrate that the contaminants found are not affecting the environment we consider that it would be advantageous to confirm that the groundwater underlying the site is not contaminated, particularly due to the petroleum hydrocarbons found. This would require the installation of groundwater monitoring boreholes."

1.10.7 Lot 1 could not be used for residential purposes without clean up in that area. It was determined that the site would be suitable for industrial/commercial purposes, however further assessment and clean-up is likely.

1.10.8 "the creek sediment on the site has been shown to be contaminated. Levels of zinc and petroleum hydrocarbons in the sample analysed are such that if representative of the sediment as a whole, the sediment would have to be disposed of as prescribed waste in a secure landfill licensed to accept such waste."

1.10.9 "Protection of the environment can also be enhanced by providing a low permeability capping layer that reduces the amount of water percolating through the contaminated material."

1.11 EPA reviewed the report prepared by Golder Associates dated May 1992 identified in 1.9.2 above. The report included the following information:

1.11.1 "At the time of the assessment the majority of buildings on the site had been demolished and concrete and asphalt floors and roads removed."

1.11.2 "Uses of parts of the site include foundries, metal and wood manufacturing and processing areas, agricultural machinery and equipment assembly areas, paint dips and paint shops, warehouses and both open and undercover storage areas."

1.11.3 "There were underground tanks, underground pipes including oil pipes and a number of electrical substations on the site."

1.11.4 "A creek originally crossed the site from west to east. It was diverted into drains and backfilled during the 1950's or 1960's. An open section of drain on the east side of the site has had a concrete weir constructed at the downstream end and has been used as a sediment trap."

1.11.5 "The initial test locations were based on a 50 x 50m grid. However, this was modified as required to

- take samples in locations that were judged visually to be potentially contaminated.
- take samples from locations that could be potentially contaminated such as adjacent to paint dips.
- take samples immediately adjacent to the locations at which underground fuel tanks had been removed."

1.11.6 "A photoionisation detector (PID) was used to screen the majority of samples collected for the presence of volatile hydrocarbons."

1.11.7 "Sampling at Test Locations 65 to 71 and 79 was carried out during wet weather and it was not possible to use the PID."

1.11.8 "Specific sampling was carried out at locations of underground tanks or from where they had been removed. Analysis of these samples was then carried out for total petroleum hydrocarbons and volatile aromatic hydrocarbons. Samples were also screened with a photoionisation detector...We consider from the available information that while there has been some leakage/spillage from several tanks, there is no evidence of gross contamination of soil in the area of these tanks. We would expect the clay soils underlying the fill and clay in the joints in the rock to limit downward migration of petroleum products. However, no assessment of groundwater has been completed and the possibility of downward migration of petroleum hydrocarbons cannot be dismissed on the basis of available data."

1.11.9 "The information indicates that a number of samples analysed contained metals above ANZECC Level B. Of the organic compounds total petroleum hydrocarbons (TPH) and polycyclic aromatic hydrocarbons (PAH) occurred most frequently at above ANZECC Level B. No organochlorine pesticides, halogenated volatile organic solvents, PCB's or volatile aromatic compounds (benzene, toluene, ethylbenzene or xylene) were detected at concentrations above ANZECC Level B."

1.11.10 "The geometric mean concentrations for the chemical analysed therefore also exceed Dutch Level C for chromium, lead, zinc and cadmium and ANZECC Level B for nickel, copper, and phenolics."

1.11.11 "...the maximum concentrations of chemicals identified in some individual samples analysed exceed environmental and health based criteria and it is possible that locally higher concentrations of chemicals may occur than those found. For this reason we recommend that re-development of the site includes a contaminant management strategy."

1.11.12 “Based on the available data, it is unlikely that there is significant contamination of groundwater resulting from contamination present at the site. However, groundwater assessment has not been performed at the site and this possibility cannot be completely dismissed.”

1.12 EPA reviewed the report prepared by Golder Associates dated October 1993 identified at 1.9.3 above. The report included the following information:

1.12.1 “Parts of the Office Site had a range of uses including the

- Factory offices
- Machine assembly warehouse (final assembly)
- Bolt shed (Bright Steel Shop)
- Engine fitting shop
- Car park
- Toilets.”

1.12.2 “No underground tanks are known to have been located on the Office Site. However, a hydraulic oil tank of 680L capacity is understood to remain in place adjacent to the north boundary of the site.”

1.12.3 “Sampling adjacent to Test Pits 54 and 95 and the oil tank to provide further information in these areas.

- Several test pits will be excavated to the base of the fill around the location of the paint dip to assess if there is any visual evidence of contamination in the area of the paint dip and samples taken at selected locations.
- Test Pit 95 was on the edge of the pit and did not find evidence of contamination. However, we will excavate a further test pit in this area to look for visual evidence of contamination.
- There is no remaining evidence of the oil tank.”

1.12.4 “Sampling in other areas where there is surface evidence of possible contamination e.g. Bare or stained soil.”

1.12.5 “Sampling on an infill basis resulting in an overall sampling spacing of less than 30m x 30m.”

1.12.6 “At each location we propose to excavate a test pit to a minimum depth of 1.5m or 0.5m below the fill.”

1.12.7 “Groundwater sampling is not proposed. However, background data will be obtained from the Rural Water Corporation and Melbourne Water for assessment of groundwater depth and quality in the area.”

1.13 EPA reviewed the report prepared by Golder Associates dated December 1993 identified at 1.9.4 above. The report included the following information:

1.13.1 “The present assessment was undertaken to provide additional information on the site and to establish sufficient density of sampling over the site to enable the Auditor to conduct the environmental audit.”

1.13.2 “Sampling from 12 test pits located on the site.”

1.13.3 “Test pits were located by tape measurement. Some were moved slightly from their proposed locations as follows due to the ground conditions encountered:

- Test Pit 108 was moved slightly (1m) to the east of the original location due to the presence of a steel pipe running N-S at a depth of 0.5m at the west end of the test pit.
- Test Pit 109 was moved 3m to the east of the original location due to the presence of a buried concrete pavement at about 0.2m depth. Concrete pavement was also present at the final location, but the backhoe was able to break through to excavate the test pit.
- Test pit 112 was excavated at the presumed location of the former paint dip pit. In close proximity, a

concrete square outlining a buried pit was observed. This was excavated as Test Pit 112A on the assumption it could be the paint dip pit.”

1.13.4 “Gas probes 1 to 4 were monitored with a PID. The instrument showed negligible response, indicating that volatile organic compounds were not present.”

1.13.5 “Elutriation testing for selected heavy metals was performed on selected samples of fill and natural soils...The results indicate that elutriable concentrations of the metal contaminants in samples of fill and natural soil are uniformly low.”

1.13.6 “One localised area with very high concentrations of total petroleum hydrocarbons was identified on the eastern part of the site in an area where localised black staining of soil was observed at several locations. The oil stains were considered to be generally surface stains possibly due to equipment being parked on the site.”

1.13.7 “Based on the results of the assessment carried out we do not consider the contamination found will adversely impact on the groundwater in particular or the environment in general.”

1.13.8 “Based on the results of the assessment work and the considerations discussed previously in this report, we make the following recommendations regarding this site:

- A Statement of Environmental Audit can be issued for the site for the purposes of commercial, industrial or related use.
- Although no underground tanks are known to have been present on the site or found during the course of assessment of the site, it is still possible that such tanks or similar sub-surface features or localised undiscovered areas of contamination could exist on the site. In the event that there are found during development works on the site, they should be removed and validation sampling and analysis of remaining soil should be undertaken to demonstrate that contamination levels are suitably low.
- In areas that are not covered (e.g. by buildings or pavements) a thickness of 300mm of topsoil should be placed over existing materials to provide a suitable growing medium for grass and planted areas and to provide separate between site users and contaminated materials. Potential underground tanks to be removed, validated and analysis of remaining soil should be undertaken to demonstrate that contamination levels are suitably low.”

1.14 EPA reviewed the report prepared by R A Graham from Sinclair Knight dated February 1994 identified at 1.8.1 above. The report included review of the Golder Associates contamination assessment reports from 1991, 1992 and 1993 (the reports identified at 1.9.1, 1.9.2 and 1.9.3). The report included the following information:

1.14.1 “The area containing petroleum hydrocarbon contamination in the form of surface oil staining was removed following the assessment. However, no validation samples were taken from the soil surface remaining after the excavation so the effectiveness of the remediation was not conclusively demonstrated.”

1.14.2 “Furthermore, the occurrence of highly contaminated fill in one part of this remediated area suggests a high probability that similar “hot spots” of contamination in the fill occur elsewhere and have not been detected by the assessment conducted to date.”

1.14.3 “...I am of the opinion that the condition of land at the site is potentially detrimental to sensitive beneficial uses of the site. Redevelopment of the site for feasible sensitive uses, including residential, may not proceed without unacceptably high risk of detriment to human health.”

1.14.4 “... some areas of the site in their present condition may pose unacceptable risks to various user groups unless remediation or some other form of site contamination management to limit exposures is limited”.

1.14.5 “that contamination is unlikely to have significant adverse environmental effects under feasible future site uses, with the exception of low or medium density residential use where surface fill material would be aesthetically objectionable and may be unacceptable in quality for domestic vegetable and garden growing”.

1.15 EPA reviewed the report prepared by Golder Associates dated April 1995 that was identified at 1.9.5 above. The report included the following information:

1.15.1 “The previous investigations undertaken by Golder Associates were reviewed by Sinclair Knight Merz (SKM) with a view to developing a scope of work for further assessment in order for the site to be subjected to an Environmental Audit.”

1.15.2 “Infill sampling at two depths at 30 locations not previously tested. Samples to be analysed for total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAH) and selected heavy metals (As, Cd, Cr, Cu, Pb, Ni and Zn).”

1.15.3 “The inclusion of the additional area to the west, resulted in a further 20 infill sampling locations behind added to match the sample location density for the original area of the site. Also, a further 7 targeted locations were identified for which 4 additional locations were to be sampled (i.e. 28 additional targeted sampling locations). Hence for the total site being assessed, 50 infill sample locations and 68 targeted sampling locations were proposed.”

1.15.4 “Each of the infill locations was sampled at a minimum of two depths. Over the majority of the site these sample depths were nominally 0.0-0.2m and 0.4-0.6m.”

1.15.5 “Significant metals and petroleum contamination in the sediment samples from the open drain. It was recommended that the sediment is removed as part of the redevelopment of the site.”

1.15.6 “The contamination found at the site is primarily restricted to the fill. The results of the present investigation found that of the 18 infill samples and 21 target samples of natural soil analysed, seven contained metals contaminants in excess of the ANZECC/NHMRC Level B. Chromium was found in excess of this criteria in six samples. It occurred in maximum concentration of 76mg/kg compared with the ANZECC/NHMRC Level B of 50mg/kg. Nickel exceeded ANZECC/NHMRC in one sample which had a concentration of 79mg/kg. Total petroleum hydrocarbons exceeded Dutch Level B in one sample and Dutch Level C in a further sample for the test pits around TP97.”

1.15.7 “The fill contains a range of contaminants. Those which exceed ANZECC/NHMRC Level were in the current investigation:

- Infill Samples – nickel, chromium, copper, lead, zinc, cadmium, arsenic
- Target Samples – nickel, chromium, copper, lead, zinc, cadmium, arsenic.”

1.15.8 “The concentration of total PAHs exceeded the ANZECC/NHMRC Level B criterion of 20mg/kg in four of the analysed samples. Only sample 246 collected from TP 168 had a concentration of total PAH (740mg/kg) that exceeded the Dutch Level C criterion of 200mg/kg. The concentrations of fluoranthene, pyrene and the carcinogen benzo(a)pyrene also exceeded Dutch Level C criteria in sample 246.”

1.15.9 “The concentrations of the C10-C36 fraction exceeded the ANZECC/NHMRC Level B criterion of 1000mg/kg in Sample 25 and Sample 26, both collected from TP 127, containing 27,000mg/kg and 1,200mg/kg, respectively. The concentration of the C10-C36 fraction also exceeded the Dutch Level C criterion of 5,000mg/kg in Sample 25.”

1.15.10 “Groundwater was observed at 7 of the 122 sampling locations at depths ranging from 0.5m to 2.1m.”

1.15.11 “The groundwater observed was generally in the deepest test pits in the area of the backfilled creek

that crosses the site. It is considered likely to be perched water trapped in this former low lying part of the site.”

1.16 EPA reviewed the report prepared by Golder Associates dated October 1997 that was identified at 1.9.6 above. This report included a review of the 1991 report by Golder Associates (the report identified at 1.9.1 above). The report included the following information:

1.16.1 Lot 10 covers ... ”approximately 1.97 ha and is currently vacant.”

1.16.2 “Uses of parts of the property included foundries, metal and wood manufacturing and processing areas, agricultural and equipment assembly areas, paint dips, paint shops, warehouses and both open and undercover storage areas.”

1.16.3 “The buildings and features in Lot 10 generally remained as shown in Figure 2. These included a large storage building covering much of the northern portion of Lot 10, two railway lines entering Lot 10 from the west and general open and covered storage areas covering the remainder of the lot. The railway lines were used to transport in the raw materials and transport the finished machinery products from the site. Review of the aerial photographs indicates such stockpiles along the railway in Lot 10.”

1.16.4 “The preliminary assessment of Lot 10 carried out by Golder Associates in 1991 (reference 1) indicated that variable fill containing factory wastes overlies natural soil. The only exceedances of ANZECC/ NHMRC Level B criteria were for the metals arsenic, chromium, copper, nickel and zinc in the fill and chromium and zinc in the natural soil.”

1.16.5 “The review found based on the results of the 1991 assessment, Lot 10 was considered suitable for general commercial or industrial uses and more specifically for a police station and courts complex providing a contaminant management plan is put in place. In general, it was considered that this would require that a minimum thickness of 300mm of soil should be placed over the existing materials in areas that were not to be covered by buildings or pavements. This was to provide a separation layer between site users and potentially contaminated materials.”

1.16.6 “Although no underground tanks were believed to be present, it is possible that such tanks or similar sub-surface features or localised undiscovered areas of contamination could exist on the site.”

1.16.7 “Following redevelopment, in areas where potentially contaminated fill may be present in areas not covered by roadway, pavement or buildings, a layer of clean soil will need to be placed. These areas are typically areas where landscaping is to occur. The Auditor has indicated that it will be acceptable to cover these areas with a 0.3 m layer of clean soil. “

1.17 EPA reviewed the report prepared by Golder Associates dated June 1997 identified at 1.9.9 above. The report:

1.17.1 outlined the soil and fill management works associated with the construction of Harvester Road, this was undertaken to the north of the site between Foundry and Ballarat Roads.

1.17.2 references the Golder Associates reports 1991, 1992 and 1995 which found the site “is underlain fill comprising mainly soil, foundry waste and metal. The fill is variable in depth and is excess of 2m deep in places... Sampling and analysis carried out on the overall site indicated there was metal, petroleum hydrocarbons and polycyclic aromatic hydrocarbons contamination of the fill in particular. Odorous soil and fill and, in particular, material with a "diesel" odour were noted at a number of locations.”

1.17.3 Stated that in relation to site development, “.... the remedial works were not completed prior to the commencement of these earthworks, therefore site issues arising during site development had to be dealt with and documented to the satisfaction of the Auditor prior to the completion of the Audit.”

1.17.4 Stated that, "Initial excavation works involved the excavation and off site disposal of 80 m³ of fill to remove to elevated concentrations of lead and polycyclic aromatic hydrocarbons. Following initial excavation works further works was considered necessary to remove major areas of ash located in the walls of the excavation. However, this work could not be undertaken as the Location 168 excavation was buried during the Brimbank City Council stockpiling operations by approximately one metre of material derived from road excavations. Correspondence with the Auditor indicated that as the excavation had been covered over by approximately one metre of fill that was understood to remain on site beneath a future sealed car park area, he considered no further actions were necessary. The fill excavated from Location 168 was disposed off site as Prescribed Waste."

1.17.5 Stated that, "Construction of Harvester Road and Foundry Road potentially involved the off site disposal of a total of 27,000 m³ of soil and fill to allow the preparation of a suitable subgrade."

1.17.6 Stated that, "Approximately 15,000 m³ of sorted on site fill has been stockpiled on the site of the proposed Leisure Centre carpark. At this stage it is anticipated that this will remain on site and form the base of the proposed carpark which will eventually be covered in asphalt."

1.17.7 Stated that "the material that remained on site was sorted to remove excess metal and material that was odorous, petroleum hydrocarbon contaminated and contained paint or asbestos. Some of this sorted material was used to form the sub base for the roads. The remaining material was stored on site in the area proposed for use as the Leisure Centre car park. This material produced an elevation in the level of this area by approximately 1.5m."

1.18 EPA reviewed the report prepared by Golder Associates dated December 1997 identified at 1.9.8 above. The report included the following information:

1.18.1 "Site development involving bulk excavation earthworks at Market Place, Sunshine are essentially complete. Works have involved the clean up of a number of areas including:

- 14 'hotspots' identified as part of earlier assessment works;
- The former sediment pond;
- Decommissioning eight underground storage tanks (USTs) from four areas;
- The Oily Seam;
- The area to the South West of the Standard Roads site sheds;
- Hydrocarbon contaminated material from the Building Pad; and
- Other areas where small pockets of paint or petroleum hydrocarbon contaminated soil was encountered during site development works."

1.18.2 "During the course of site development works a total of eight underground storage tanks (USTs) have been found on site."

1.18.3 "Decommissioning involved:

- Removal of any product/water contained within each UST;
- Removal of the UST;
- Removal of any contaminated soil and associated pipework;
- Validation testing of the resultant excavation involving sampling and analysis of samples to ensure contaminated material that did not meet the Auditor's site specific criteria had been removed; and
- Backfilling the excavation once the analytical results showed that sufficient material had been excavated."

1.18.4 "Approximately 2,250m³ of sediment and soil was excavated from the sediment pond during January and February 1997. Treatment of the sediment and soil involved stockpiling excavated material along the edges of the sediment pond excavation to allow it to dry out so that is as spadable, as required by the landfill."

1.18.5 “Approximately 246m³ of additional soil was excavated for the base of the eastern end of the sediment pond and a second round of validation sampling was undertaken on February 13. A further three validation samples were recovered from the eastern end of the sediment pond and two of these samples were analysed by WSL for metals arsenic, cadmium, chromium, copper, lead, mercury and zinc and for total petroleum hydrocarbons.”

1.18.6 “During investigation associated with site development works (Reference 1) an area beneath the building pad (figure 3) had been identified where petroleum contaminated, odorous soil had been identified. Approximately 800m³ of fill and soil was excavated from this area... Twenty validation samples were recovered (G98BPV1 to G97BPV20) from the resultant excavation of which 17 met the Auditor’s criteria for petroleum hydrocarbon fractions total C10-C36 of 1,000 mg/kg within 1.0m of the finished surface. Three samples recovered within the top 1.0m of the excavation exceeded this criterion (G98BPV14, G97BPV18 and G97BPV19) but were below the criterion for concentrations of total C10-C36 at depths below 1m of finished surface of 5,000mg/kg. As at least 1.0m of fill was to be placed over this area once the excavation had been backfilled, it was considered that the Auditor’s criteria had been met and that adequate validation of this area had been completed.”

1.18.7 “The PID readings and analytical results of validation samples recovered from UST Excavation 1 were compared to site specific criteria for petroleum hydrocarbons development by the Auditor. As there were a number of exceedances of the Auditor’s then criterion of 1,000mg/kg for the petroleum hydrocarbon fractions total C10-C36 and indicated further material required excavation. However, as a significant volume of soil had already been removed from both excavations and as the Auditor recognised his criterion was conservative and subsequently amended the site specific criterion for the petroleum hydrocarbon fractions C10-C36 to a criterion of 1,000mg/kg for soils within 1.0m of the finished surface and at depths below 1.0m the criterion for petroleum hydrocarbon fractions C10-C36 to 5,000mg/kg.”

1.18.8 “Additionally, the Auditor required that any soil and fill encountered at any depth must be aesthetically acceptable for it to remain on site. In particular, no visible contamination with hydrocarbon residues or odours to the extent that the soil would be considered unacceptable or offensive to persons who may potentially encounter the soil or fill in the future, is to remain on site.”

1.18.9 “A number of small areas where either paint or petroleum hydrocarbons were identified during site development works. Additionally, material that was geotechnically unsuitable for use on site had to be disposed off site, for example the material removed from the wet sludgy excavation (Figure 3). This material was stockpiled at the northern end of the site and disposed off site either as Prescribed Waste to Cleanaway’s Prescribed Waste Landfill at Tullamarine or as Low Level Contaminated Soil to Brooklyn Landfill & Recycling Pty Ltd landfill.”

1.18.10 “All fill used to backfill excavation has been sourced from the site. It has been a combination of fill and the natural silty clay. Both fill and natural soil sourced from the site was visually inspected to ensure that there was no evidence of hydrocarbon contamination and no odours associated with it prior to use.”

1.19 EPA reviewed the report prepared by Golder Associates dated May 1997 identified at 1.9.7 above. The report included the following information:

1.19.1 “Golder Associates Pty Ltd has developed a management plan for contaminated soil at the Market Place development in Sunshine. The area assessed is shown on Figure 1. This Soil Management Plan was developed by:

- (i) Characterising soil that had been stockpiled on site as a result of initial earthworks and stripping,
- (ii) Investigating the locations the locations where further excavation was planned for major services and other significant excavations.”

1.19.2 “It must be accepted that the actual extent of soil requiring off-site disposal will not be known until all excavations are completed. The aim of developing a Soil Management Plan has been to manage risks of

finding major areas of material requiring off-site disposal at a later stage of development. However, there may be minor services that have not been investigated and a contingency amount must be allowed for potential pockets of unacceptably contaminated material.”

1.19.3 “Individual footing locations for Stages 2 and 3 have not been investigated (buildings for these areas have not been designed). However, some trenching has been completed in Stage 2 to assess possible areas of contamination based on review of previous investigations and also to assess possible contamination at locations of major services. The risk associated with finding unacceptable material in the footing excavations cannot be quantified. An option is to consider the use of footings which will not require excavation.”

1.20 EPA reviewed the report prepared by R A Graham from Sinclair Knight Merz dated October 1997 identified at 1.8.2 above. The report included a review of the Golder Associates contamination assessment reports from 1991, 1993 and 1997. The report included the following information:

1.20.1 “advised that he would use site-specific criteria in evaluation of site contamination conditions. These criteria were based on NEHF health investigation levels for open space use (metals and PAH) and modified NSW EPA guidelines (for hydrocarbons). These criteria were conservative, as the actual land use (and potential for exposure to future receptors) will be less sensitive than those for which these guidelines are normally recommended”.

1.20.2 “reviewed the documents and confirmed that they provide a sound basis for management of known potential contamination during construction and on-going site use”.

1.20.3 Two groundwater monitoring bores on the southern part of the site were installed in late 1993 and recorded the water table at a depth of 4.5m in one well and no water was recorded at 4.7m in the other well. “It was concluded that the water encountered was likely to be a local perched aquifer. No groundwater was observed in any of the 30 test pits on the audit site at depths of 1-2m.”

1.20.4 “A high proportion of surface fill samples and underlying natural soil samples were analysed for the contaminants of main concern, that is the major metals (As, Cd, Cr, Cu, Pb, Hg and Zn), total petroleum hydrocarbon and PAHs. Relatively fewer but an adequate number of samples were analysed for monocyclic aromatic hydrocarbons, cyanide, phenolics, volatile halogenated organics, chlorinated hydrocarbons, PCB and organochlorine pesticides. The analytical strategy is considered adequate in view of the absence of site history evidence of potential for contamination with contaminants other than those extensively tested for”.

1.20.5 “no off-site control (background) samples were collected for analysis in this program. The on-site data, however, indicate that natural soils on the site are relatively uncontaminated and that localised elevated contaminant concentrations on the audit site are therefore due to on-site activities...”

1.21 EPA reviewed the report prepared by R A Graham from Sinclair Knight Merz dated January 1999 that was identified at 1.8.3 above. The report included review of the Golder Associates contamination assessment reports from 1991, 1992, 1993, 1995 and 1997. The report included the following information:

1.21.1 The “auditor was given the opportunity to review and comment on work plan for the stages of assessment and remediation from 1995 onwards”.

1.21.2 The “regional groundwater table at this location is likely to be at about 10-15m below ground surface, i.e. significantly below depths which would normally be accessed during site development or use activities. Localised perched groundwater occurs at shallower depths at some limited locations. It is considered that there is negligible risk of groundwater contamination resulting from present site conditions”. The report states that this is because significant metal contaminations present at elevated concentrations at some locations in the near-surface fill material are typically relatively immobile. Also that the significant depth of relatively impermeable clayey soil and rock between the near-surface fill potentially containing contamination and the

inferred groundwater table at 10-15m in depth. It also reported that a high proportion of the site surface area will be covered with buildings and impermeable paving, which will prevent potential leaching of contaminants.

1.21.3 “the site is suitable for redevelopment for less sensitive uses, in particular commercial, industrial, parkland/open space or passive recreation use, where exposure of site users to soils is less direct or frequent”.

1.21.4 There were a “number of locations where contaminant concentrations exceeded the site-specific criteria proposed by the auditor or where aesthetic conditions were unacceptable. The Auditor considered that the significant potential remains for the discovery of additional contaminated locations as site development proceeds”.

1.22 EPA observed that the area of the premises that has been assessed by environmental auditors appointed under the Environment Protection Act 1970 (Vic) (the three audit reports identified at 1.8.1, 1.8.2 and 1.8.3, above) to be approximately 50% of the total area of the premises.

1.23 EPA reviewed Australian Standard AS 4482.1-2005 Guide to the investigation and sampling of sites with potentially contaminated soil - Appendix J Chemical Contaminants Listed by Industry Type. This document included the following contaminants of concern by industry type:

1.23.1 “Engine works – Type of chemical – Hydrocarbons, Metals, Solvents, Acids/alkalis, Refrigerant, Antifreeze”.

1.23.2 “Foundries – Metals, Particularly aluminium, manganese, iron, copper, nickel, chromium, zinc, cadmium and lead and oxides, chlorides, fluorides and sulfates of these metals. Sulfuric and phosphoric acids, Phenolics and amines, and coke/graphite dust.”

1.23.3 “Iron and steel works – BTEX, phenolics, PAH, Metals and oxides of Iron, nickel, copper, chromium, magnesium, manganese and graphite.”

1.23.4 “Metal treatment – Electroplating Metals – Nickel, chromium, zinc, aluminium, copper, lead, cadmium, tin”.

1.23.5 “Metal treatment – General – Sodium hydroxide, 1,1,1 –trichloroethane, tetrachloroethylene, toluene, ethylene glycol, cyanide compounds”.

1.23.6 “Railway yards – Hydrocarbons, arsenic, phenolics (creosote), heavy metals, nitrates and ammonia”.

1.24 EPA observed that the range of contaminants identified in the report titled, ‘Preliminary Contamination Assessment Massey Ferguson Site Sunshine, Victoria’ by Golder Associates, October 1991, and in subsequent Golder reports between 1992 – 1997 are consistent with the range of contaminants identified for the relevant industry types in Australian Standard AS 4482.1 Guide to the investigation and sampling of sites with potentially contaminated soil - Appendix J Chemical Contaminants Listed by Industry Type.

1.25 EPA researched contamination assessments of other agricultural manufacturing premises. This research identified two other similar sites: a site in Brantford, Ontario, Canada and a site in Banner Lane, Coventry, UK.

1.26 EPA reviewed two reports relating to the plant in Brantford, Ontario, Canada:

- ESG International Inc. Phase II Environmental Site Assessment, Former Massey Ferguson Implement Manufacturing Plant, Brantford Ontario, prepared for City of Brantford, May 2000, and
- CH2MHILL Canada Limited, Phase Two Environmental Site Assessment, 347 Greenwich Street, Brantford, Ontario (Draft Report) prepared for the City of Brantford, 2014.

1.27 The Phase II Environmental Site Assessment (ESG International Inc., 2000) investigated the fill layer and the underlying native sand and gravel units, and to a smaller degree, the native underlying clayey silt unit. Wells were generally installed in the sand or across the fill and sand to assess the groundwater hydraulic properties and provide vertical delineation of the impacted groundwater. The report included the following information:

1.27.1 The document reports the findings of the environmental screening and Phase II ESA for the former Massey Ferguson implement manufacturing plant located at 347 Greenwich Street in the City of Brantford.

1.27.2 "Petroleum-like contamination of soils and groundwater were observed and detected by odour in several boreholes (BH's 5, 6, 7, 9, 10, 12 and 15). Free phase petroleum product was observed floating on top of the groundwater in boreholes 5, 9, 10 and a trace in BH 15."

1.27.3 "The investigation reported herein did not find contamination types or levels that are unexpected for a manufacturing facility of the age and scale of the former Massey Ferguson operation."

1.28 The 2014 report (CH2MHILL, 2014) found the Brantford site was occupied by agricultural equipment manufacturers (Verity Plow and Massey Harris Co. Ltd. and Massey Ferguson Limited) from approximately 1898 to 1987. The report included the following information:

1.28.1 Regarding impacts in the fill, "One hundred and four soil samples were collected from 34 locations across the Phase Two Property. The upper layer of fill materials or soil were found to be generally impacted, with elevated concentrations of polycyclic aromatic hydrocarbons (PAHs) and metals. These types of impacts are consistent with the historical, industrial nature of the Phase Two Property, and materials in the fill. Metal exceedances occurred in approximately half of the samples collected in the fill and were not found in the underlying sand and gravel."

1.28.2 Regarding the underlying soil, "The sand and gravel unit was generally impacted with petroleum hydrocarbons (PHCs) and benzene, toluene, ethylbenzene, and xylene (BTEX), with exceedances occurring in approximately three quarters of the samples collected." Furthermore, the report found, "Four localized areas in the sand and gravel were found impacted with chlorinated volatile organic compounds (VOCs), including: 1,1 dichloroethane (1,1 DCA), cis 1,2 dichloroethene (cis 1,2 DCE), trans 1,2 dichloroethene (trans 1,2 DCE), tetrachloroethylene (PCE), 1,1,1 trichloroethane (TCA), trichloroethylene (TCE), vinyl chloride".

1.28.3 Regarding groundwater impacts, "Groundwater environmental conditions were characterized from the 15 monitoring wells installed during the Phase Two ESA investigations and 14 selected existing wells onsite...Groundwater was generally found to be impacted with PHCs, BTEX, and chlorinated VOCs."

1.28.4 That the metals that exceeded screening levels in soil included, Antimony, Arsenic, Barium, Boron, Cadmium, Chromium, Cobalt, Copper, Lead, Mercury, Molybdenum, Nickel, Silver and Zinc.

1.29 EPA reviewed contamination documents and reports for the former Massey Ferguson factory at Banner Lane, Coventry, UK, including a report: WSP Environmental UK, Remediation of the Former AGCO Works, Banner Lane, Coventry – Remediation Strategy Document prepared for Persimmon Homes (South Midlands) Limited, 2005, which included the following information:

1.29.1 The Banner Lane site was occupied by Massey Ferguson from 1946 until its closure in 2003. The factory was used to manufacture tractors.

1.29.2 The types of activities likely to result in ground contamination as engine testing, heat treatment, machining, production of steel components, shot blasting, producing and cleaning of cast and forged iron components, metal hardening processes, metallurgical testing, spray painting, solvent degreasing and construction and disassembly of transmissions and gearboxes.

1.29.3 In regards to soil contamination, "Hydrocarbon contamination has been encountered at elevated concentrations at various locations across the site associated with areas of fuel storage, machine shops, swarf storage and vehicle maintenance."

1.29.4 In regards to groundwater contamination, "Sources of solvent contamination were identified as possible solvent degreasing tanks (no longer in use) within the paint shop and possibly the assembly building and the scrap salvage area, which had a reported pollution incident in the past." Furthermore, the report noted free phase contamination in areas and states, "Perched free phase contamination was encountered around tanks in the area of the crownwheel and pinion house, FP Stores (old swarf house), oil stores and within the sites surface water drainage system."

1.30 EPA reviewed the additional report, WSP Environmental UK, AGCO Limited, Coventry. Geo-Environmental Assessment Report, Report for Persimmon Homes (South Midlands) 2004. This report summarises the key soil contaminants at the site. The report identifies the key metal contamination to consist of arsenic, cadmium, chromium, copper, nickel and zinc.

1.31 EPA observed that soil contaminants identified in 'Preliminary Contamination Assessment Massey Ferguson Site Sunshine, Victoria' by Golder Associates, October 1991, and in subsequent Golder reports between 1992 – 1997, are consistent with the contaminants identified at the former Massey Ferguson manufacturing sites in Brantford, Ontario, Canada and Banner Lane, Coventry, UK.

1.32 EPA observed that groundwater contaminants detected at the former Massey Ferguson manufacturing sites in Brantford, Ontario, Canada and Banner Lane, Coventry, UK are consistent with the known contaminants associated with the types of manufacturing activities that were conducted at these sites, including chlorinated hydrocarbons.

1.33 Following a report that a residential development had been constructed on a section of the premises, on 6 May 2015 EPA inspected the section of the premises where the Foundry Apartments were constructed in 2014. This part of the premises was assessed as part of the 'Report of Environmental Audit (Contaminated Land): Sunshine Market Place Development Site, January 1999' by R A Graham, Environmental Auditor, identified at 1.8.3, above. This report found the area was "suitable for redevelopment for less sensitive uses, in particular commercial, industrial, parkland/open space or passive recreation use, where exposure of site users to soils is less direct or frequent", which does not support residential development.

1.34 On 25 May 2015 EPA was provided with a copy of a letter by Brimbank City Council about the Foundry Apartments site. The letter was dated 11 February 2006 and was from Rick Graham, Environmental Auditor (Contaminated Land) to Mr John Lascaris, Lascaris Designs Pty Ltd.

1.34.1 EPA was informed by Brimbank City Council that this letter was provided to Brimbank City Council as part of the development approval for the Foundry Apartment.

1.34.2 The letter stated: "The environmental audit report and Statement remain relevant to the proposed development, on the understanding that the environmental condition of the proposed development site remains essentially unchanged from that at the date of audit completion in 1999. It may be reasonably concluded that the environmental condition of the site is as it was in 1999, provided that (as I understand to be the case) no potentially contaminating use, importation of potentially contaminated soil, waste disposal or other activity has occurred on the site which may have significantly altered the environmental condition of the site."

1.35 On 25 May 2015 EPA was provided with a document by Brimbank City Council about the Foundry Apartment site titled Meinhardt 2014, Preliminary Environmental Site Assessment, 401A Hampshire Road, Sunshine, November 2014.

1.35.1 EPA was informed by Brimbank City Council that this document was provided to Brimbank City Council as part of the development approval for the Foundry Apartment.

1.35.2 The report stated: "The objective of this report was to provide an assessment of potentially contaminating site activities since the 2006 update letter to the Statement of Environmental Audit. In the 8 year interim period since the updated Auditor letter the site has remained predominantly vacant and has been fenced off to the public since 2009. The aerial photography assessment found that there were no indications of potentially contaminating activities occurring at the site since 2006.

Construction activities, such as stockpiling of overburden on the site, which were noted in aerial photographs can be attributed to development works on the adjacent site to the east, which was formally part of the same lot prior to sub-division.

While the stockpiling activities are considered to be low risk, Meinhardt conducted soil sampling to confirm this. The 13 soil sampling locations returned concentrations for all analytes below the required HILs, which confirmed the findings of the desktop assessment.

Therefore, considering the results of both the desktop and soil investigation the potential for contamination occurring at the site since 2006 is considered low. Therefore the Auditor's updated letter of Audit Assessment from 15 February 2006 is considered still suitable to be considered valid for the site."

1.36 On 25 September 2015 Meinhardt provided EPA with soil and groundwater testing results that showed a range of contaminants at the site that exceed various National Environment Protection Measure assessment criteria.

Contaminants detected in groundwater included Trichloroethene as well as a range of metals including chromium, copper, nickel, selenium and zinc.

1.37 EPA observed that the contaminants detected by Meinhardt in soil at the Foundry Apartment site are consistent with the contaminants reported for the premises in the report titled, 'Preliminary Contamination Assessment Massey Ferguson Site Sunshine, Victoria' by Golder Associates, October 1991, and reported in subsequent Golder reports between 1992 – 1997.

1.38 EPA observed that the range of contaminants found in soil and groundwater at the premises are consistent with the range of contaminants identified for similar industry types in Australian Standard AS 4482.1 Guide to the investigation and sampling of sites with potentially contaminated soil - Appendix J Chemical Contaminants Listed by Industry Type.

1.39 EPA observed that the range of contaminants found in soil and groundwater at the premises are consistent with the range of contaminants identified at other former Massey Ferguson sites in Brantford, Ontario, Canada and Banner Lane, Coventry, UK. This includes the detection of metals and chlorinated hydrocarbons in groundwater.

1.40 On 6 May 2015 EPA inspected the section of the premises that is now being developed for the Brimbank Civic Centre, Sunshine. During the inspection, EPA observed the construction of vapour intrusion barriers on the Brimbank Civic Centre and was informed that these barriers are designed to minimise the impacts associated with contaminated groundwater and soil vapour encountered during construction at the Brimbank Civic Centre.

1.41 On 3 and 5 June 2015, EPA was provided with documents by Brimbank City Council regarding groundwater contamination assessment undertaken as part of the Brimbank Civic Centre development at 301 Hampshire Road, Sunshine that is part of the premises.

1.41.1 EPA reviewed the groundwater contamination results, which show the presence of total petroleum hydrocarbons, metals and chlorinated hydrocarbons in groundwater at the premises.

1.41.2 EPA was informed by Brimbank City Council that chlorinated hydrocarbons have also been detected in soil vapour at a level that exceeds NEPM Health Investigation Levels and that these results required the

installation of a soil vapour barrier to reduce risks to occupants of that section of the premises.

1.42 On 29 June 2016 EPA issued a Notice pursuant to section 55 (3)(a) of the Environment Protection Act 1970 to Brimbank City Council requiring it to produce all contamination assessment reports relating to the Brimbank Civic Centre located on the premises.

1.43 On 6 July 2016 EPA was provided with the report , 'Environmental Site Assessment & Risk Assessment, 301 Hampshire Road Sunshine, VIC, 8 May 2015 by URS Australia Pty Ltd' by Brimbank City Council. The report includes the following information:

1.43.1 "The presence of hydrocarbons, including some levels of chlorinated solvents, was discovered during the initial construction of foundations on the site. Stockpiles of soil were found by Atma Environmental to contain some contamination, including low concentrations of trichloroethene (TCE), and an aromatic odour was noticed by the contractor's staff on the site. This led to an investigation of the presence of these chemicals in the soils and vapour analysis using passive samplers.

1.43.2 "From review of the 1999 audit report for the former Harvester site, it has been identified that numerous potential sources of pollution existed during and after the occupation of the area, on and to the west of the site by the Sunshine Harvester Factory that was demolished in the late 1980s. This included at least 7 groups of underground storage tanks; numerous paint dip pits; and two small oil filled pits just to the west of the Council property."

1.43.3 "Groundwater monitoring data from the Groundwater Monitoring Event (GME) indicates that the standing water levels (SWL) across the site ranged between 8.42 and 9.81 m BTOC. Site specific total dissolved solids (TDS) serves to define the groundwater beneath the site area as Segment B of the State Environment Protection Policy (SEPP) Groundwaters of Victoria (1997). The inferred groundwater flow direction at the site is to the south, towards the Kororoit Creek located approximately 600 m to the southwest and 1 kilometre to the south of the site."

1.43.4 "Light non-aqueous phase liquids (LNAPL) was identified in one monitoring well, GW01, with a measured thickness of 2 mm. TPH fingerprint analysis indicated that the LNAPL consists of a light and middle weight petroleum product such as weathered diesel. Further laboratory testing of the sample indicated that it also contained concentrations of vinyl chloride, cis-1,2-Dichloroethene and trans-1,2-Dichloroethene."

1.43.5 "Dissolved phase chlorinated hydrocarbon impacts (including 1,1-Dichloroethene, cis-1,2-Dichloroethene, trichloroethene and vinyl chloride) in groundwater have been recorded in groundwater at two monitoring well locations GW02/GW03 at the site. LNAPL was also detected at GW01 in the south-western corner of the site with a measured thickness of 2 mm, with significant co-dissolved concentrations of vinyl chloride and cis-1,2-Dichloroethene in the LNAPL."

1.44 The soil and groundwater sampling results in the URS Australia Pty Ltd Report of 8 May 2015 (identified in 1.43 above) for the Brimbank Civic Centre are consistent with the range of contaminants identified for similar industry types in Australian Standard AS 4482.1 Guide to the investigation and sampling of sites with potentially contaminated soil - Appendix J Chemical Contaminants Listed by Industry Type.

1.45 The soil and groundwater sampling results in the URS Australia Pty Ltd Report of 8 May 2015 for the Brimbank Civic Centre identified a range of contaminants, including chlorinated hydrocarbons that are consistent with the range of soil and groundwater contaminants detected at the former Massey Ferguson manufacturing sites in Brantford, Ontario, Canada and Banner Lane, Coventry, UK.

1.46 EPA reviewed literature on the history and use of trichloroethylene (TCE) in industry, including the use of the chemical in metal works and manufacturing of metal parts because TCE is one of a number of contaminants that have been detected in groundwater at the premises. In Trichloroethylene: Toxicity and

Health Risks, Gilbert and Blossom (eds), 2014, Humana Press, New York, the history of TCE use is documented. Gilbert and Blossom state that the chemical was used to clean metals from the 1920s with its use increasing greatly in the 1940s and 1950s and decreasing in the 1970's when TCE was replaced with other chlorinated hydrocarbons.

2 REASONS FOR VIEW FORMED

2.1. EPA has identified that AGCO AUSTRALIA LIMITED was the occupier of the premises from 1921 to 1986.

2.2 AGCO AUSTRALIA LIMITED used the premises to manufacture agricultural machinery from 1921 to 1986, which included chemical storage, foundry activities, metal works, metal treatment, painting, timber works, black smithing, fuel storage, machine manufacturing and assembly and waste storage and disposal.

2.3 These activities are known to result in contamination of soil and groundwater, including contamination with aluminium, manganese, iron, copper, nickel, chromium, zinc, cadmium and lead as well as oxides, chlorides, fluorides and sulfates of these metals, hydrocarbons, arsenic, Sodium hydroxide, 1,1,1 – trichloroethane, tetrachloroethylene, toluene, ethylene glycol, cyanide compounds.

2.4 Following AGCO AUSTRALIA LIMITED ceasing operations at the premises, a range of pollutants were found in soil at the premises including nickel, copper, zinc, chromium and lead and hydrocarbons.

2.5 Groundwater contamination has been detected at the premises, including contamination consisting of metals, Chromium, Copper, Nickel, Zinc, total petroleum hydrocarbons and chlorinated hydrocarbons and trichloroethene.

2.6 Soil vapour contamination has been detected at the premises, in particular chlorinated hydrocarbons have been detected in soil vapour at a concentration that may pose a risk to humans without additional controls in certain land use scenarios.

2.7 Recent soil, soil vapour and groundwater testing undertaken at the premises show contamination is still present in soil, soil vapour and groundwater at the premises. The pollutants detected in soil, soil vapour and groundwater are consistent with the range of pollutants associated with the manufacturing activities that occurred at the premises and with pollutants identified in environmental assessments and audit reports conducted after AGCO AUSTRALIA LIMITED ceased operations at the premises.

On this basis, and considering the observations previously stated, I have formed a view and I am satisfied that you have caused or permitted pollution to occur, as per section 62A(1)(b) of the EP Act.

In order to address this, you must take the clean up and ongoing management measures listed in this notice.



.....
Tim Turnbull
AUTHORISED OFFICER
EPA Metro
EPA Victoria
DATE OF ISSUE: 19/06/2017

3

REQUIREMENTS - WHAT OUTCOMES ARE REQUIRED TO COMPLY?

General Requirements

S53X AUDIT

3.1 By 4 August 2017, you must have (a) engaged the services of an EPA-appointed Environmental Auditor to prepare an environmental audit report on the premises in accordance with section 53X of the Environment Protection Act 1970 and (b) confirmed that engagement in writing to EPA.

AUDITOR-VERIFIED ENVIRONMENTAL SITE ASSESSMENT SAMPLING PLAN

3.2 By 22 September 2017, you must submit to EPA in writing a Sampling Analytical and Quality Plan, verified by an EPA-appointed Environmental Auditor, that details the staging of environmental investigation and assessment activities for soil, soil vapour and groundwater at and from the premises, including timelines.

AUDITOR-VERIFIED HUMAN HEALTH AND ECOLOGICAL RISK ASSESSMENT

3.3 By 25 January 2019 you must submit to EPA in writing, verified by an EPA-appointed Environmental Auditor, a human health and ecological risk assessment for those areas that have been impacted by soil, soil vapour and/or groundwater contamination at and from the premises.

AUDITOR-VERIFIED CLEAN UP PLAN

3.4 By 31 May 2019 you must submit to EPA a Clean Up Plan for the premises, verified by an EPA-appointed Environmental Auditor, with time bound milestones to restore beneficial use to the extent practicable, which includes:

- a) delineation of the level, extent and quantity of soil, soil vapour and groundwater contamination at and from the premises;
- b) details of mitigation measures and associated monitoring programs and reporting dates;
- c) details of any pilot trials;
- d) details of clean up measures required to support the section 53X audit;
- e) recommendations for the removal of waste and removal or remediation of contaminants on and extending beyond the boundary of the premises;
- f) timelines for final audit report/s, and
- g) the date(s) by which all actions will be completed.

Reporting Requirements

3.5 By 29 December 2017, and by the last day of each quarter thereafter, you must submit in writing to EPA a report detailing the progress against all requirements of this notice, including the results of any assessment, remediation and/or monitoring.

4

AN EXAMPLE OF HOW YOU CAN COMPLY

One way of achieving compliance with this notice would be to:

4.1 Engage an EPA-appointed Environmental Auditor with expertise in contamination assessments to undertake an environmental audit assessment of the premises in accordance with section 53X of the Environment Protection Act and confirm this engagement to EPA in writing by 4 August 2017.

4.2 Submit a report in writing to EPA by 22 September 2017 that provides a site assessment sampling plan with timelines, verified by an EPA-appointed Environmental Auditor, to assess soil, soil vapour and groundwater at the premises.

4.3 Submit a report in writing to EPA by 25 January 2019 that includes a Human health and ecological risk assessment, verified by an EPA-appointed Environmental Auditor, for those areas impacted by soil, soil vapour and groundwater contamination at and from the premises.

4.4 Submit a report in writing to EPA by 31 May 2019, verified by an EPA-appointed Environmental Auditor, that outlines the plan with details and timelines to fully assess contamination at the premises and details the stages and measures to mitigate risks and clean up contamination.

4.5 Submit a quarterly progress report to EPA by 29 December 2017 and continue to provide an update on a quarterly basis until the completion of all notice requirements.