CAVVANBA consulting

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Tony Jackman
Woollam Constructions

Ref: 18084 L03 31 January 2019

Dear Tony,

Response to EPA Questions
771 Cudgen Creek Road, Cudgen NSW

1.0 Introduction

Cavvanba Consulting has acted as the contaminated land consultant for the demolition stage of a residential house, and a farm shed at the above-mentioned site. It is understood that NSW EPA has prepared an email requesting information regarding contaminated land and hazardous building materials. This letter should be read in full, including Cavvanba's attached *General limitations to environmental information* (Attachment 1).

1.1 Background

As part of the new Tweed Valley Hospital development the residential house and garage were demolished in order for preliminary works to continue at the site. Cavvanba prepared the following documents:

- Cavvanba Consulting (2018), *Residential house – soil investigation report, 771 Cudgen Road, Cudgen, NSW* (Ref.: 18084 R01).
- Cavvanba Consulting (2018), *Residential house – remedial action plan addendum, 771 Cudgen Road, Cudgen, NSW* (Ref.: 18084 R02).
- Cavvanba Consulting (2019), *Farm Shed – soil investigation report, 771 Cudgen Road, Cudgen, NSW* (Ref.: 18084 R03).
- Cavvanba Consulting (2019), *Farm Shed – remedial action plan addendum, 771 Cudgen Road, Cudgen, NSW* (Ref.: 18084 R04).

Cavvanba also prepared a hazardous building materials register for the residential house, and issued clearance certificates in regard to removal of lead paint materials from the residential house, asbestos removal from the farm shed, and asbestos testing of farm dump materials.

2.0 EPA information request

An email from Christina Low of EPA (Thursday, 24 January 2019 7:37 am) outlined a variety of information requests. Two items have been requested for a response from Cavvanba:

b) Some asbestos was reported to be present near an on site chemical and storage shed. The EPA recommends the extent of any on-site contamination should be confirmed to inform remediation.

Response: Cavvanba prepared a Farm Shed soil investigation report and remedial action plan addendum to address the asbestos contamination identified.

c) A small farm dump was reported to be located on the edge of a vegetated area in the northwest corner of the site. A visual inspection of the dump identified only inert building materials such as fencing posts, and paving bricks, however due to extensive coverage by vegetation the full extent of the dump could not be clearly determined. Furthermore, farm dams on site were reported as having restricted access and as such have not been fully investigated for contamination. The EPA considers therefore that there are several locations on this site that should to be further investigated for contamination.

Response: The farm dump was inspected by Cavvanba staff, and fibrous cement sheeting was observed to be mixed with the waste. Samples of the fibrous cement were collected and analysed by a laboratory for presence/absence of asbestos. No asbestos was detected. This was reported in Cavvanba clearance certificate 18084-CC04, inspection dated 13 December 2018. Cavvanba did not determine the full extent of the farm dump, and the sampling was limited to the area and materials observed at the time of inspection. Cavvanba did not inspect farm dams.

3.0 Other EPA recommendations

- Item 5 - use of "certified consultants":

Response: Cavvanba is a specialist contaminated land consultancy and is suitably qualified to conduct the works. Cavvanba is a full member of the Australian Contaminated Land Consultants Association (ACLCA) in NSW and Queensland. ACLCA is an association that "represents the major environmental consulting firms involved in the assessment and management of contaminated sites in Australia".

Ben Wackett is a WorkCover NSW licensed asbestos assessor (LAA 000132), and an associated member of the Australian Institute of Occupational Hygienists (AIOH). Ben is also a NSW EPA accredited Site Auditor, under the Contaminated Land Management Act 1997 as well as a certified environmental practitioner, site contamination specialist (CEnvP SC specialist).

- Item 6 – hazardous building materials survey prior to demolition

Response: Prior to demolition, Cavvanba prepared a hazardous building materials register, which reported on the inspection and sampling of building materials in the residential house. This was reported to Woollam 26 November 2018.

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Thank you for your time in regard to this matter. Please do not hesitate to contact the undersigned on (02) 6685 7811 if you require additional information or clarification.

Yours sincerely
Cavvanba Consulting Pty Ltd

Ben Wackett
Principal Environmental Scientist

General limitations to environmental information

The findings of this reporting are based on the objectives and scope of the services provided. Cavvanba Consulting performed the services in a manner consistent with the normal level of care and expertise exercised by members of the environmental assessment profession. No warranties or guarantees, expressed or implied, are made.

Cavvanba's review/assessment is strictly limited to identifying the environmental conditions associated with the subject property in regard to site contamination, and does not seek to provide an opinion regarding other aspects of the environment not related to site contamination, or to the suitability of the site in regard to: landuse planning and legal use of the land; and/or regulatory responsibilities or obligations (for which a legal opinion should be sought); and/or the occupational health and safety legislation; and/or the suitability of any engineering design. Reviews of such information are only in relation to the contaminated land aspects of any project or site. If specialist technical review of such documents is required, these should be obtained by an appropriate specialist.

The reporting and conclusions are based on the information obtained at the time of the assessments. Changes to the subsurface conditions may occur subsequent to the investigation described, through natural processes or through the intentional or accidental addition of contaminants, and these conditions may change with space and time.

Field monitoring, sampling and chemical analysis of environmental media and structures are based on appropriate guidance documents made and approved by the relevant regulatory authorities. Conclusions arising from the review and assessment of environmental data are based on the sampling and analysis considered appropriate, based on regulatory requirements, site history, and the proposed landuse, not on sampling and analysis of all media, at all locations, for all potential contaminants.

Limited field monitoring, and environmental sampling and laboratory analyses, were undertaken as part of the investigations reviewed or conducted by Cavvanba, as described. Ground conditions, contaminants, and material types/composition can vary between sampling locations, and this should be considered when extrapolating between sampling locations. Except at each sampling location, the nature, extent and concentration of contamination is inferred only.

Furthermore, the test methods used to characterise the contamination at each sampling location are subject to limitations and provide only an approximation of the contaminant concentrations. Monitoring and chemical analytes are based on the information detailed in the site history. Further chemicals or categories of chemicals may exist at the site, which were not identified in the site history and which may not be expected at the site.

The absence of any identified hazardous or toxic materials at the site should not be interpreted as a warranty or guarantee that such materials do not exist at the site. Therefore, future work at the site which involves subsurface excavation or removal of structures or parts thereof, should be conducted based on appropriate management plans. These should include, *inter alia*, environmental management plans, including unexpected findings protocols, hazardous building materials management plans, and occupational health and safety plans.

If additional certainty is required, then additional site history information should be obtained, or additional exploration and sampling and analysis should be conducted. This decision should be made by the user of this information based on an appropriate risk management process, and the user should commission additional services if required.