19 May 2022

Attention: Chris Bignell
Company: FDC Construction (NSW) Pty Ltd
Fax/email: chrisbi@fdcbuilding.com.au
Address: 22-24 Junction Street, Forest Lodge, NSW, 2037

UST SECONDARY POST-REMOVAL SAMPLING LETTER REPORT:
UF07 - SYD-09, 57 Station Street, Seven Hills, NSW, 2147, (Lot B, DP404669).

1 INTRODUCTION

This letter report presents the findings of a soil investigation subsequent to the removal of an underground storage tank and hydrocarbon impacted soils (herein referred to as "the assessment") performed by Safe Work and Environments Pty Ltd (SWE) at SYD-09, 57 Station Street, Seven Hills, NSW, 2147 (Lot B, DP404669) (herein referred to as "The Site"). Mr Alex Mitevski (Senior WHS&E Consultant) of Safe Work SWE carried out the assessment on the 17th of May 2022 at the request of Chris Bignell of FDC Construction (NSW) Pty Ltd (FDC).

The purpose of the inspection was to attempt to validate the decommissioning and removal of an underground petroleum storage tank (UPST) unexpectedly encountered by FDC during site works.

2 BACKGROUND

The presence of underground petroleum storage tanks (UPSTs) was initially identified during a Detailed Site Assessment (DSI) conducted by RCA Australia, as described in their February 2021 report to John M Fraser Pty Ltd, then the owner of the site. Three (3) UPSTs were identified during this assessment located in the south-central portion of site, and confirmed removed in the March 2021 UPST Validation Report, also issued by RCA Australia. During these investigations, low-level hydrocarbon contamination was also noted in areas across the Site, though judged to not be in exceedance of the site assessment criteria (SAC).

During SWE's March 2022 asbestos in soil quantification assessment, visual and/or olfactory indications of hydrocarbon contamination were encountered by SWE staff during shallow excavations (approximately 200 millimetres (mm) below ground level) in the northeast corner of SYD-09 for an asbestos in soil quantification assessment at the Site. At the client request, SWE returned to site to further investigate the potential hydrocarbon contamination, which resulted in the confirmation of the presence of another UPST onsite. An area of approximately 10 metres (m) radius was cordoned off and deemed an exclusion zone around the UPST, with arrangements made for a licensed UPST removal contractor to remove the unit.

The tank remediation and validation sampling was initially carried out on the 9 May 2022, however the sampling results obtained from the base of the tank pull did not conform to the SAC and hence further remediation and sampling was undertaken on the 17 May 2022.

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3 FINDINGS, OBSERVATIONS & RESULTS

3.1 General

The assessment was carried out to the north-east portion of SYD-09 site designated as Grid 39.

SWE's Scope of Work included the following:

1. Completion of a Safety, Health & Environment and Safe Work Method Statement (SHE&SMWS) prior to undertaking works.
2. Mobilisation of a suitability qualified environmental consultant (SQEC) to supervise licensed UPST contractor's removal of UPST and affected soils.
3. Soil sampling from base and walls of excavation subsequent to removal of UPST and surrounding fill material in order to positively confirm removal of all hydrocarbon impacted soils.
4. Use of a handheld photo-ionisation detector (PID) to identify possible areas of hydrocarbon contamination and/or inform sampling of soils.
5. Analysis the collected soil samples for total recoverable hydrocarbons (TRH), Benzene Toluene, Ethyl benzene and Xylene (BTEX), Polyaromatic Hydrocarbons (PAHs) and lead
6. If possible, validate proper removal of UPST and associated hydrocarbon contaminated soils

3.2 Observations

The UPST was observed to be successfully decommissioned and removed by licensed UPST removal contractor Australian Enviro Solutions (AES Pty Ltd). Subsequent to the removal of the UPST, the walls and base of the pit were excavated a further 0.5 m, until fill materials (predominantly grey clay) were observed by SWE's SQEC to no longer display visual or olfactory indications of hydrocarbon contamination to the soil. At this point on the 9 May 2022, validation samples were taken from the base and walls of the excavation, in order to validate the removal of all hydrocarbon impacted soils. As the results from collected from the base of the remediation pit did not pass on the first attempt, secondary validation samples were collected on the 17 May 2022.

3.3 Results

Results of judgemental soil sampling in comparison to site assessment criteria (SAC) derived from Schedule B1 of the *'National Environmental Protection Council (NEPC) (1999) 'National Environment Protection (Assessment of Site Contamination) Measure 1999'* (amended 2013), and herein referred to as (ASC NEPM (2013)) are presented in **Tables 1, 2 & 3** overleaf.

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Table 1: Soil sampling results compared to ASC NEPM (2013) Health Screening Levels for clay for Commercial/Industrial (HSL-D) use to 2m of depth.

Sample No.	Sample Location	Toluene	Ethyl-benzene	Xylene	Naphthalene	Benzene	TRH C6-C10	TRH >C10-C16
NEPM HSL D		NL	NL	NL	NL	6	480	NL
First Validation Event								
S01	Base West	4	12	82	9	0.3	**490**	140
S02	Base West (duplicate)	4	8	57	5	0.4	360	160
S03	Base East	14	36	230	17	1	**1,400**	380
S04	East wall	0.5	1	1	1	0.2	25	50
S05	North wall	0.5	1	1	1	0.2	25	50
S06	South wall	0.5	1	1	1	0.2	25	50
S07	West wall	0.5	1	1	1	0.2	25	50
Second Validation Event								
S01 (170522)	Base West	0.5	1	1	1	0.2	25	50
S01.1 (170522)	Base West (duplicate)	0.5	1	1	1	0.2	25	50
S02 (170522)	Base East	0.5	1	1	1	0.2	25	50

Table 2: Soil sampling results compared to ASC NEPM (2013) Health Investigation Levels for Commercial/Industrial (ESL-D).

Sample No.	Sample Location	Lead	B(a)P TEQ	Total +PAHs
NEPM HIL D		1500	40	4000
First Validation Event				
S01	Base West	4	0.05	4.9
S02	Base West (duplicate)	8	0.05	5.5
S03	Base East	9	0.05	14
S04	East wall	7	0.05	0.05
S05	North wall	11	0.05	0.05
S06	South wall	10	0.05	0.05
S07	West wall	9	0.05	0.05

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Second Validation Event				
S01 (170522)	Base West	8	0.05	0.05
S01.1 (170522)	Base West (duplicate)	15	0.05	0.05
S02 (170522)	Base East	18	0.05	0.05

Table 3: Soil sampling results compared to ASC NEPM (2013) Overall Management Limits for TPH Fractions for fine soils for Commercial/Industrial use.

Sample No.	Sample Location	TRH C6-C10	TRH >C10-C16	TRH >C16-C34	TRH >C34
NEPM ML		800	1000	5000	10000
First Validation Event					
S01	Base West	490	140	100	100
S02	Base West (duplicate)	360	160	100	100
S03	Base East	**1,400**	380	100	100
S04	East wall	25	50	100	100
S05	North wall	25	50	100	100
S06	South wall	25	50	100	100
S07	West wall	25	50	100	100
Second Validation Event					
S01 (170522)	Base West	25	50	100	100
S01.1 (170522)	Base West (duplicate)	25	50	100	100
S02 (170522)	Base East	25	50	100	100

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4 CONCLUSIONS

Chemical analysis of fill material sampled by SWE's SQEC subsequent to the removal of the UPST indicate that the horizontal extent of hydrocarbon affected soils has successfully been removed from the area surrounding the former UPST. The samples taken from the base of the excavation on the 9th of May 2022 indicated that the presence of hydrocarbon contamination was above of the Site Acceptance Criteria (SAC), however sampling carried out at the base following the second stage of remediation on 17th May returned results within the SAC. Hence, the UPST remediation have now been completely validated.

5 RECOMMEDATIONS

Any further work on site should be carried out under the RAP prepared by SWE and should any suspected UPST or hydrocarbon contamination be encountered, then the procedure provided within the RAP for unexpected finds should be followed (Refer RAP Section 7.3.4: *Unexpected Finds Procedure [UPST and Hydrocarbons*]).

6 CLOSE

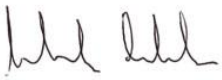
If you have any further questions, please do not hesitate to contact us for any further information or assistance.

Written by:

Rune Knoph

Principal WHS&E Consultant

Reviewed by:



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Attachments

S110506-UPST Validation Sampling -R01.2-17052022

Attachment A – Figure 1: Site Map & Sampling Locations

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Figure 1: **Site Map**: Approximate location of unexpected UPST find onsite

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