

SUB-SURFACE CONDITION ASSESSMENT OF LAND PARCEL LCK 114A AT LIM CHU KANG

ASSESSMENT REPORT



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1.0 INTRODUCTION

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This report covers the soil sub-surface condition assessment of state land parcel LCK 114A at Lim Chu Kang. This sub-surface soil inspection is carried out to assess soil condition and possibility of other material dumping. The inspection was carried out on 3rd January 2020 as required by the Singapore Land Authority (SLA).

1.1 LAYOUT PLAN

Land Parcel : LCK 114A MK12-01938T

Location : Lim Chu Kang

Area : 16468.7 sq m

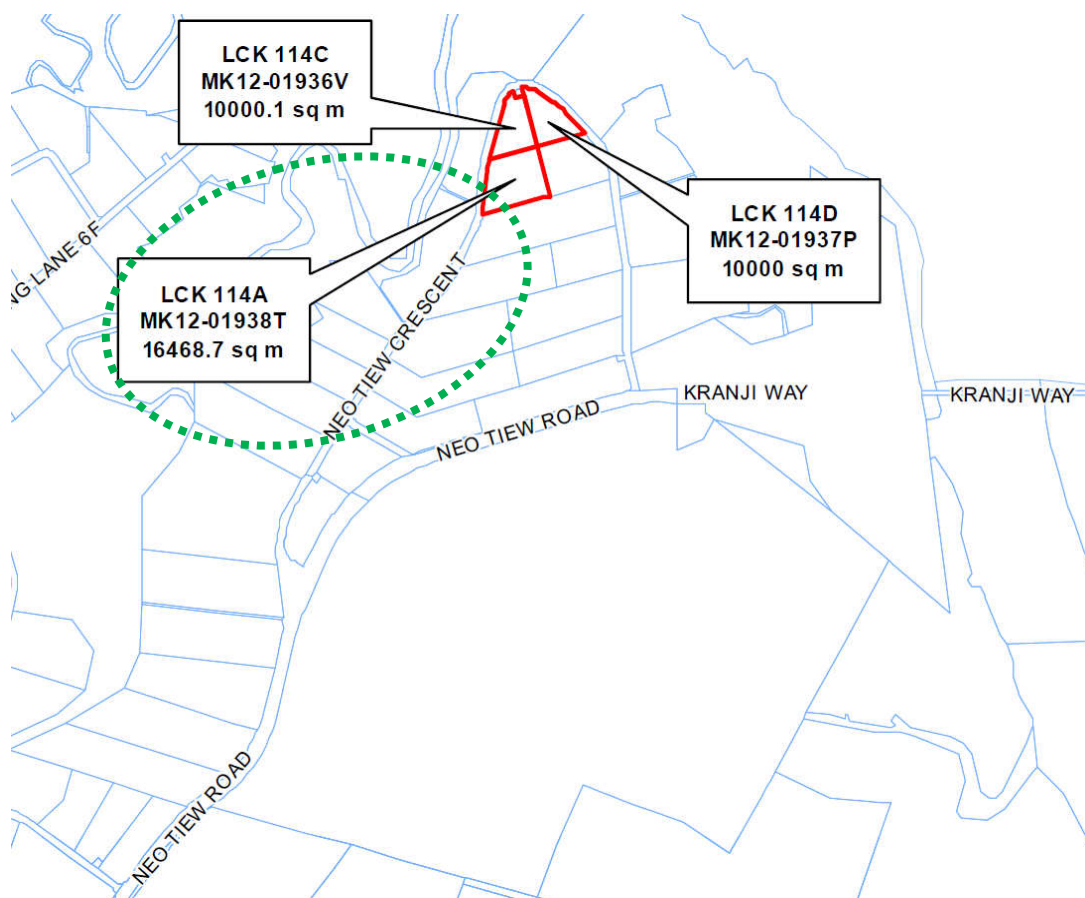


Fig 1.1: Overall location plan

1.2 TRIAL PIT LOCATION

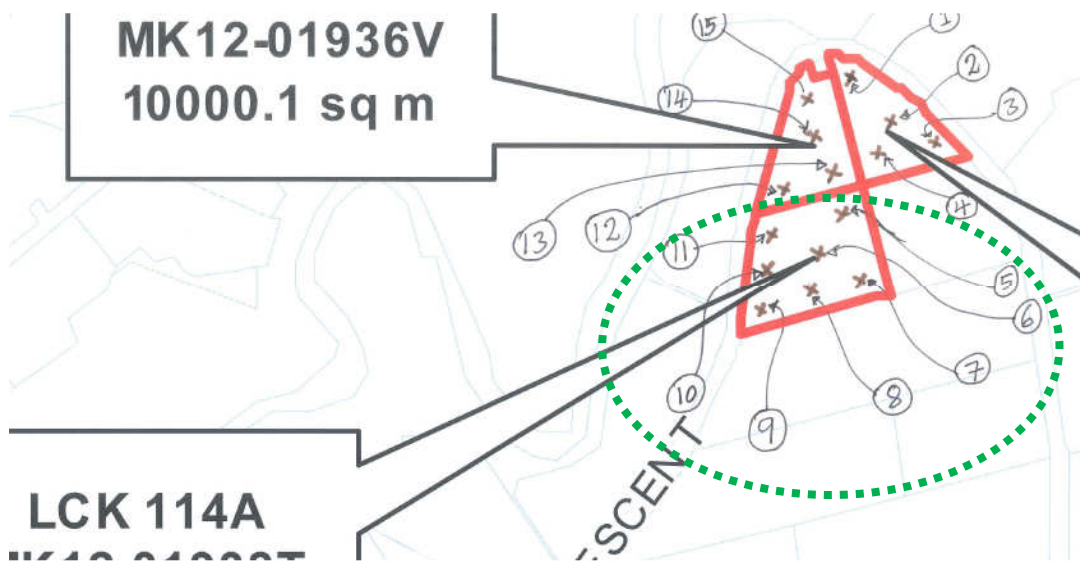


Fig 1.2: Trial pits ID and location plan

State Land Plot LCK 114A consist of 7-Trial pits; TP No. 5 to 11 as shown on above trial pit ID and location plan.

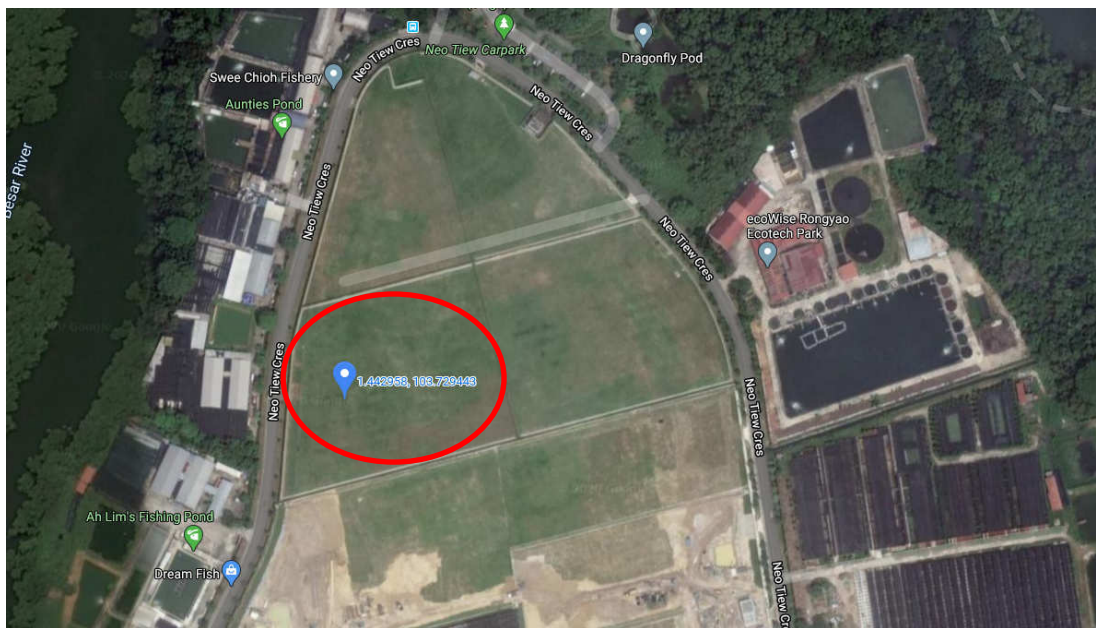


Fig 1.2: Aerial view of location

2.0 SCOPE OF WORK

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2.1 The Purpose of the report

- To assess the sub-surface condition of the proposed Land Parcel and provide general soil data from visual inspection.
- To determine the existence of any other findings / material dumping found on site.
- To observe the water table where as possible.

2.2 Description of Trial Pit Excavation

- 1.5m x 1.5m x 1.5m (depth) trial pit is excavated as required.
- Up to 1.5m depth sub-surface soil strata is assessed.
- Excavated soil material is inspected and recorded as photograph.

2.3 Trial pit “METHOD AND SCOPE OF WORK”

1. Carry out the cable detection within the state land using LCDW.
2. Mark down the utilities on plans and submit to PE for proposal of trial trench location.
3. Receive the proposed trial pit locations from PE and mark down the trial pit location by pegging on site.
4. Carry out excavation of trial pit with size of 1.5m x 1.5m x 1.5m (d) pit.
5. Mark down the soil type, colour, physical & mechanical character of layers of soil with depth while carry out excavation.
6. Take photograph in each stage of excavation to illustrate insitue soil exposure condition.
7. If any other finding object or non-residual filling layers found, then report with detail description with photos.

8. Mark down the water table (WT) level from surface if water table is found during the excavation of depth of 1.5m.
9. Request for Photographs and visual inspections to carry out by PE.
10. Unattended trial pit to be covered and barricaded.
11. After the completion of PE inspection, trial pit to be covered back with the same material and reinstate the grass topping layer as original or equivalent.

3.0 INSPECTION PHOTOGRAPHS AND ASSESSMENT

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Trial pits are excavated one by one. Excavated materials stockpiled beside the trial pit for inspection and assessment as required. Inspection of sub-soil carried out with the verification of trial pit depth on site.



Trial pit No. 5:

Original State : Topped with natural grass and crops

Type of Soil : Slightly hard whitish sandy SILT to reddish firm sandy SILT at 1.5m depth

Other Material : Not found

Water Table : Not found



Trial pit No. 6:

Original State : Topped natural short grass

Type of Soil : Greyed sandy SILT to firm reddish sandy SILT at 1.5m depth

Other Material : Not found

Water Table : Not found



Trial pit No. 7:

Original State : Topped natural short grass and crops

Type of Soil : Slightly hard grey & whitish sandy SILT to reddish sandy SILT at 1.5m depth. Top layer is masonry crush materials.

Other Material : Masonry crush pieces.

Water Table : Not found



Trial pit No. 8:

Original State : Topped with natural short grass

Type of Soil : Firm greyed sandy SILT to firm reddish sandy SILT at 1.5m depth. Crushed clay brick & masonry at 0.5m depth.

Other Material : Layer of crushed clay brick and masonry at 0.5m depth

Water Table : Not found



Trial pit No. 9:

Original State : Topped with natural short grass

Type of Soil : Firm greyed sandy SILT to firm reddish sandy SILT at 1.5m depth. Crushed clay brick & masonry at 0.5m depth.

Other Material : Layer of crushed clay brick and masonry at 0.5m depth

Water Table : Not found



Trial pit No. 10:

Original State : Topped with natural short grass

Type of Soil : Reddish loose sandy SILT to firm reddish sandy SILT at 1.5m depth

Other Material : Not Found

Water Table : Not found



Trial pit No. 11:

Original State : Topped with natural short grass

Type of Soil : Reddish loose sandy SILT to firm reddish sandy SILT at 1.5m depth

Other Material : Not Found

Water Table : Not Found



4.0 CONCLUSION

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Overall state land plot is covered by natural short grass topping. Seven number of trial pits with 1.5m depth are carried out for assessment. Water table is not found within 1.5m depth. Southern one third portion of state land consist layer of crushed clay-brick & masonry material layer approximately at 0.5m depth (TP No. 7, 8 & 9). Generally, top most layer is grey/reddish soil and reddish firm soil when it reaches 1.5m depth.



Mr. Jeevanath Surendranath

05th Mar 2020