Stolthaven Australia Pty Ltd

Stolthaven Annual Review 2020

February 2021

Glossary

Abbreviation	Description
AHD	Australian Height Datum
ALS	Australian Laboratory Services
ANZECC	Australian and New Zealand Environment and Conservation Council
AST	Above ground storage tank
BTEX	Benzene, toluene, ethylbenzene and xylenes
BTEXN	Benzene, toluene, ethylbenzene, xylenes and naphthalene
COC	Chain of custody
COPC	Contaminants of potential concern
CRC CARE	Cooperative Research Centre for Contamination Assessment and Remediation of the Environment
CSM	Conceptual site model
CSMP	Contaminated Site Management Plan
DBYD	Dial Before You Dig
DNAPL	Dense non-aqueous phase liquid
DO	Dissolved oxygen
DPIE	Department of Planning, Industry and Environment
DQI	Data quality indicator
DQO	Data quality objective
DTW	Depth to water
EC	Electrical conductivity
EIL	Ecological Investigation Level
EIS	Environmental Impact Statement
EPA	NSW Environment Protection Authority
EPL	Environment Protection License
ESA	Environmental Site Assessment
ESL	Ecological Screening Level
GAC	Groundwater assessment criteria
GIL	Groundwater Investigation Level
GME	Groundwater monitoring event
GPR	Ground penetrating radar
HCCDC	Hunter and Central Coast Development Corporation
HIL	Health Investigation Level
HSL	Health Screening Level
JSEA	Job Safety Environmental Analysis
LNAPL	Light non-aqueous phase liquid
LOR	Limit of reporting
m AHD	metres Australian Height Datum
m bgl	Metres below ground level
M bTOC	Metres below top of casing
MCP	Mayfield Concept Plan
MGA	Map Grid Australia
mg/L	Milligrams per litre
mg/m^3	Milligrams per $metre^3$
ML	Mega litre
MNA	Monitored Natural Attenuation

Abbreviation	Description
NAPL	Non-aqueous phase liquid
NATA	National Association of Testing Authorities
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
NHMRC	National Health and Medical Research Council
PID	Photo-ionisation detector
PON	Port of Newcastle
ppm	Parts per million
PSD	Particle size distribution
QA/ QC	Quality assurance/quality control
REDOX	Oxidation-reduction potential
RPD	Relative Percent Difference
SFOP	Standard field operating procedures
SPR	Source pathway receptor
SSD	State significant development
SWL	Standing water level
SWMP	Stormwater Management Plan
TIA	Traffic Impact Assessment
TDS	Total dissolved solids
TOC	Top of casing
TPH	Total petroleum hydrocarbons
TRH	Total recoverable hydrocarbons
TSS	Total suspended solids
µg/L	Micrograms per litre
µS/cm	Micro siemens per centimetre
UPSS	Underground Petroleum Storage System
USCS	Unified Soil Classification System
UST	Underground storage tank
VOC	Volatile organic compound
WMP	Waste Management Plan
WHS	Work health and safety
WPCG	Work Place Clearance Group

Table of contents

Table index

Figure index

Appendices

1. Introduction

GHD Pty Ltd (GHD) was engaged by Stolthaven Australia Pty Ltd (Stolthaven) to prepare the 2020 Annual Review to assess the environmental performance of the fuel import storage and dispatch facility located at the former BHP Steelworks, approximately 5 km north west of the Newcastle CBD (the site). The site is operated under the State Significant Development (SSD) development consent SSD_7065 issued on 15 December 2016 to expand the existing operations under SSD_6664 (now surrendered). The Site was originally approved under the now superseded Part 3A of the EP&A Act, under Project Approval MP08_130 and SSD_6664, which have now been relinquished.

This Annual Review has been prepared in accordance with Condition D9 of SSD_7065 and the letter addressed to Stolthaven from Department of Planning, Industry and Environment (DPIE) dated 23 February 2017. The 2020 Annual Review includes the reporting period from 1 January to 31 December 2020.

The site location and approved terminal layout are presented in Figure 1 and Figure 2 respectively in Appendix A.

1.1 Objective

The objective was to assess the environmental performance to the satisfaction of the Director General of DPIE to comply with Condition D9 of SSD_7065 and present results in the 2020 Annual Review:

1.2 Scope of works

The scope of work comprised:

- An overview of the site.
- A description of the operations undertaken throughout 2020 which represents the reporting period.
- Analysis of the environmental monitoring results for the reporting period with comparison to the relevant performance criteria and historical data.
- Analysis of trends in monitoring data over the life of the site (as reported by AECOM 2020a, 2020b, 2020c and 2020d).
- A summary of recommendations to improve the environmental performance of the site.

It is noted that GHD have not independently performed the trend analysis and have relied on data presented in AECOM. This report has been based on the previous 2018 Annual Environmental Management Report (AEMR) (AECOM 2019)) and for consistency with previous year reporting we have maintained a similar format level of content for ease of DPIE review.

1.3 Consultation

A copy of this draft report was provided to the Port of Newcastle (PON) in February 2021 for review. Stolthaven met with PON representatives (Brigid Kelly, Patricia Daufenback and Jennifer Anderson) on 25 February to discuss the draft report. At the meeting PON confirmed the report was suitable to issue to DPIE.

1.4 Limitations

This report: has been prepared by GHD for Stolthaven Australia Pty Ltd and may only be used and relied on by Stolthaven Australia Pty Ltd for the purpose agreed between GHD and the Stolthaven Australia Pty Ltd as set out in Section 1.1 of this report.

GHD otherwise disclaims responsibility to any person other than Stolthaven Australia Pty Ltd arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report (refer section(s) 14 of this report). GHD disclaims liability arising from any of the assumptions being incorrect.

GHD has prepared this report on the basis of information provided by Stolthaven Australia Pty Ltd and others who provided information to GHD (including Government authorities)], which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

GHD has not been involved in the preparation of the AECOM monitoring reports and has had no contribution to, or review of the AECOM monitoring reports. GHD shall not be liable to any person for any error in, omission from, or false or misleading statement in, any other part of the AECOM monitoring reports.

2. Site description

The site is located on part of the former BHP Steelworks Site, within the Port of Newcastle. The site and surrounding area is characterised by a mixture of commercial/industrial uses, residential uses and port related activities.

2.1 Site identification

The site identification details are summarised in Table 2-1.

Table 2-1 Site identification details

Item	Description
Site Name	Stolthaven bulk fuel storage facility
Street Address	BHP Steelworks site - Steel Works Road and Iron Ore Road
Certificate of Title Details (Vol/Folio) and Parcel/Lot Number	Lot 2, DP 1177466 (operational area) Lots 36, 37 and 38, DP 1191723 (expansion area)
Owner	Port of Newcastle
Property Occupier	Stolthaven Australia Pty Ltd
Current Use	Bulk fuel storage facility
Site Zoning	SP1 – Special Activities

2.2 Surrounding land use and zoning

The surrounding land uses are summarised below in Table 2-2.

Table 2-2 Description of surrounding land use and respective zonings

Orientation	Description of Surrounding Land Use	Zoning (Three Ports SEPP 2013)
North	The Hunter River (South Arm) NCIG and Port Waratah Coal Services Coal Loaders	SP1 (Special Activities)
South	Industrial land (including land that has been remediated as part of the BHP Steelworks remediation) followed by the South Channel Hunter River and Kooragang Island beyond	SP1 (Special Activities)
East	Former BHP Steelworks Site, currently remediated vacant land and Koppers Australia pipeline and pumping station	SP1 (Special Activities)
West	Iron Ore Road followed by industrial properties.(One Steel operations)	SP1 (Special Activities)

2.3 Site layout

The approved terminal layout as presented in Figure 2, Appendix A consists of the following:

- Ship unloading facilities at the Mayfield Berth 7 (M7) wharf facility
- A delivery pipeline from M4 (removed 2019) and M7 to the terminal
- Nine storage tanks from 535 m^3 to 18,003 m^3
- A four bay automated truck loading and unloading facility
- Pumping capacity for bulk tanker (truck loading)
- Appropriate drainage and spill containment systems
- Fire protection systems

2.4 Identified aboveground storage tanks

The site plan indicates nine storage tanks predominantly located in the eastern portion of the site, adjacent to the truck loading gantry. Tank details are provided in Table 2-3.

Table 2-3 Tank details

Tank ID No	Product	Tank Diameter (m)	Shell Height (m)	Capacity (m^3)
1	Diesel	36.6	17.1	17,703
2	Diesel	36.6	17.1	17,695
3	Diesel	36.6	17.1	17,691
4	Biodiesel	7.6	12.0	535
5	Diesel	36.6	17.1	17,584
6	Diesel	36.6	17.1	17,611
7	Biodiesel	18.0	17.0	4,242
8	Diesel	36.6	17.1	17,998
9	Diesel	36.6	17.1	18,003

2.5 Site history

The site is located part of the former BHP Steelworks site. A summary of the site history has been summarised from GHD (2020) in Table 2-4.

Table 2-4 Site history

Date	Ownership/operation
1915 – 1999	BHP Steelworks
1999	Closure of the steelworks operations. The site area was referred to as the Closure Area.
14 June 2001	The Environment Protection Authority (EPA) declared the Closure Area Site to be a remediation site under former Section 21 of the *Contaminated Land Management Act 1997* (CLM Act)
2002	Ownership transferred to the State Government
30 August 2005	APE issued a Voluntary Remediation Agreement (VRA No 26025) for the remediation of the site.
2007	The State Government created the Hunter and Central Coast Development Corporation (HCCDC) (formerly the Regional Land Management Corporation Pty Ltd) to manage the daily operations of the site. HCCDC have committed to undertake the requirements of the VRA.
March 2008	A Contaminated Site Management Plan (CSMP) for the Closure Area Site was prepared by HCCDC.
Mid 2008	HCCDC completed Stage 1 of the remediation works
2012	State government handed over ownership to Port of Newcastle (PON). A concept plan application for the future strategic development of the former BHP Steelworks Site was approved by the Minister for Planning in July 2012. The Concept Plan approval made provision for the future development of part of the former BHP site for bulk liquid related industries.
June 2012	Stolthaven received initial approval for the site and became the first operation active on the former BHP Steelworks Site. Currently there is one other operation currently active on the former BHP Steelworks site, being the Cargo Storage Facility (DA 8137). PON also operates Mayfield No.4 berth (M4) within the Concept Plan area, which is a general purposes berth used by Stolthaven for the import of fuels until October 2018, when Mayfield 7 berth was commissioned.
2013	Stage 2 of the remediation works were completed.

2.6 Operations and approval

Operations and approval for the site as reported by GHD 2020 are as follows:

- The site operated in accordance with SSD_6664 (issued on 16 April 2015 under Part 4 of the EP&A Act) until 8 May 2020 when it was surrendered. The site and Mayfield No. 7 Berth pipeline now operate in accordance with SSD_7065.
- The site was originally approved under Project Approval MP 08_0130, issued on 8 June 2012 under the former Part 3A (repealed) of the EP&A Act. Site operations are described in Table 2-5.

Table 2-5 Approvals

Approvals	Section	Expiry Date
Original Project Approval MP08_0130	Section 2.6.1	NA
Development Consent SSD_6664	Section 2.6.2	SSD_6664 was surrendered on 8 May 2020 as per letter from DPIE in Appendix B.
Current Development Consent SSD_7065	Section 2.6.3	As per Condition B5 of the SSD_7065, this consent lapses five years from the date of approval (i.e. 15 December 2021)[1]
Environment Protection Licence (EPL) 20193	Section 2.6.4	NA
Concept Plan MP09_0096	Section 2.6.5	NA

[1]Letter "Approval of Progressive Submission of Environmental Management Strategy and stage 1 Environmental Management Strategy signed on 24/10/18 from delegate of the Planning Secretary which has been provided to GHD by Stolthaven to demonstrate that the consent has been activated.

2.6.1 Original Project Approval MP08_0130

The original Project Approval MP08_0130 was approved by the Minister for Planning on 8 June 2012 under Part 3A (repealed) of the EP&A Act and was subsequently modified three times. The project approval was surrendered on 3 December 2015. The original project comprised the following elements:

- Use of an existing ship berthing facility via M4 to deliver fuels from bulk tankers. Fuel to be pumped along a 300 mm diameter steel pipeline from M4 to the Site.
- Storage of bulk fuels in above ground tanks (3 x 18 ML diesel and 0.5 ML biodiesel) with a total permitted annual throughput of 300 ML combined.
- Distribution of fuels by road tankers.
- Ancillary components including site office, car parking and truck loading gantry.

Construction of the Site as approved under the original Project Approval was completed in late 2013, with the first shipment of fuels commencing 19 November 2013.

Subsequent modification to the original Project Approval included the following:

- MOD 1 (Approved 26 July 2013) – Two additional 18 ML diesel tanks, one additional 4.2 ML biodiesel tank and an additional 100 ML pa throughput.
- MOD 2 (Approved 15 November 2013) – Paper modification to the wording of Condition 6 to remove reference to the Department of Health. i.e. no changes to the composition of the approved facility.
- MOD 3 (Approved 10 July 2014) – Increase throughput from 400 ML pa to a total of 500 ML pa. No additional tanks or infrastructure.

2.6.2 Development consent SSD_6664

Stolthaven operated under SSD development consent 6664 (SSD_6664) which was issued under Part 4 of the EP&A Act following a request for increase to the throughput of the facility and to construct two additional storage tanks. The SSD_6664 consent transferred the site from the MP08_0130 Part 3A approval to an SSD approval. One of the conditions of SSD_6664 included the requirement to surrender Project Approval MP08_0130. The SSD_6664 consent permitted the facility's capacity to be increased through an additional:

- Two 18 ML diesel storage tanks.
- Throughput to total 1,010 ML pa.

Following the approval of SSD_6664, a modification to SSD_6664 was approved to increase the annual throughput from 1,010 ML to 1,300 ML per year. SSD_6664 Modification 1 did not require an increase in storage capacity at the site nor did it require construction of additional fuel storage tanks or associated infrastructure. This modification was approved on 28 September 2015. SSD_6664 was surrendered on 8 May 2020 as per the letter from DPIE in Appendix B.

2.6.3 Development consent SSD_7065 (current approval)

Development consent SSD_7065 was issued on 15 December 2016 to expand the existing operations under SSD_6664.

Stolthaven applied to expand its existing fuel storage at Mayfield. This expansion involved:

- Increasing the throughput of the facility from 1,300 ML to 3,500 ML per year.
- Importing flammable fuels (petroleum, ethanol and jet fuel), in addition to combustibles (diesel and biodiesel) already imported.
- 17 new fuel storage tanks and bunds, in addition to the 10 existing tanks.
- A marine loading arm, pumps and dual pipeline to transfer fuels to the terminal from ships docking at the new Mayfield No.7 berth.
- A new six bay truck loading gantry, vapour control system, office and firefighting systems.

DPIE approved the application on 15 December 2016, which allows for an increase in throughput of 3,500 ML per year and the ability to store flammable liquids. SSD_7065 was partly triggered during the 2018 reporting period for the construction and operation of the new combustible pipeline following the completion of the Mayfield No. 7 Berth construction. The total allowable throughput of the facility currently remains at 1,300 ML. This has not changed during this reporting period.

Accordingly, the site EPL 20193 was amended in September 2018 to support the change in development consent and is discussed further below in Section 2.6.4.

Correspondence from DPIE regarding a progressive submission of the Stage 1 Construction Environmental Management Plan (CEMP) and Stage 1 Pre-Construction Hazard Studies (PCHS) for the works involved with SSD_7065 is provided in Appendix B. It is noted that approval was received from DPIE for the CEMP and PCHS for Construction Stage 1 only.

2.6.4 Environmental Protection Licence

The site operates under EPL 20193, which is administered by the NSW EPA under the *Protection of the Environment Operations Act 1997* (POEO Act). A variation to EPL 20193 was approved on 2 October 2015 to incorporate the modifications made under SSD_6664 Modification 1.

Up until mid-2018, EPL 20193 permitted the scheduled activities of Chemical Storage, Shipping in Bulk and Extractive Activities on the site. The Extractive Activities approved under EPL 20193 related to the dredging operations being undertaken for construction of the Mayfield Berth No. 7, which is complying development.

EPL 20193 has most recently been amended on 31 January 2020 (Variation number 1587230). This variation included the following changes:

- Removal of the now non-existent M4 pipeline from the premises mapping. The M4 pipeline is no longer in existence and any associated infrastructure at Mayfield No. 4 Berth is no longer in control or operation of Stolthaven.
- Inclusion of the infrastructure within the "Koppers Pipeline Corridor" that is under the management and control of Stolthaven.

2.6.5 Other relevant approvals

Mayfield concept plan approval

Concept Plan (MP09_0096) was approved by the Minister under Section 75M of the EP&A Act on 16 July 2012 to enable development of the former BHP Steelworks site (known as the Closure Area or Concept Plan area), a 90 hectare portside portion of land on the South Arm of the Hunter River within which the site sits. The approval under which the site now operates (SSD_7065) demonstrated that it was consistent with the Concept Plan approval in order for the Minister to approve SSD_7065.

Mayfield Berth No. 4 DA-293-08-00

Development Consent DA-293-08-00 MOD 9, dated 29 August 2013, is applicable to the M4 berth, and ships loading or unloading at this berth must comply with relevant conditions of this consent.

It is noted that, as of the variation approval on 31 January 2020, any associated infrastructure at Mayfield No. 4 Berth is no longer in control or operation of Stolthaven. In addition the pipeline that previously connected the terminal to M4 has since been decommissioned and removed and all fuel imports now occur through M7 as described below.

Mayfield Berth No. 7 – Complying development certificate

Stolthaven constructed a dedicated bulk liquids berth to service both the site and other bulk liquid operators in mid-2018. Under the provisions of *State Environmental Planning Policy (Three Ports) 2013* (Three Ports SEPP) the construction of the berth is complying development. A complying development certificate was obtained from Newcastle City Council. The berth became operational during the 2018 reporting period and began accepting fuels in late October 2018.

3. Site operations

3.1 Description of operations

Operations undertaken at the site include the receipt, storage and dispatch of bulk diesel and biodiesel, as well as bulk tanker loading at Mayfield No. 7 Berth (M7). The site operates 24 hours a day, seven days a week. The site is partially automated and manned with Stolthaven personnel undertaking daily inspections on business days. Primary operations include:

- The bulk storage of diesel and biodiesel at the site in the storage tanks listed in Table 2-3**.**
- The bulk transfer of diesel fuel or bio-diesel fuel (as required) from berthed ships to the site's above ground storage tanks.
- The filling of road tankers with diesel and biodiesel products for transfer to customers.

3.2 Major operational changes in 2020

3.2.1 EPL

As reported in GHD 2020, the most recent variation to EPL 20193 was issued on 31 January 2020 to remove reference to the now decommissioned M4 pipeline from the premises and removal of all references to Mayfield No. 4 Berth. The M4 pipeline has been decommissioned and any associated infrastructure at Mayfield No. 4 Berth is no longer in control or operation of Stolthaven. The variation also included the infrastructure within the "Koppers Pipeline Corridor" that is under the management and control of Stolthaven.

No other major EPL changes were reported in 2020.

3.3 Site management plans and strategies

An Independent Environmental Audit (IEA) is required to be undertaken every three years. The last review was undertaken during 2019 (as reported in GHD 2020). A recommendation of the IEA was that Stolthaven review applicable management plans and strategies as required by their development consent and resubmit to DPIE for review. Email between R, Duckmanton (Stolthaven) and S, Munk (DPIE) provided DPIE with copies of Stolthaven's revised management plans and strategies. Copies of this correspondence can be provided on request.

An additional recommendation was in regards to fire pump testing which was found to be non-compliant. Stolthaven reviewed the recommendation, however the SSD 6664 was surrendered on 8 May 2020 and, therefore, this recommendation is no longer applicable.

Further details outlining the outcomes and follow-up actions from the IEA are provided in Section 13.

4. Groundwater

Groundwater quality at the Site is managed in accordance with a groundwater monitoring program (GMP) (AECOM 2019) and the conditions of EPL 20193.

The details of the groundwater wells and scheduled monitoring events are presented in Table 4-1. Groundwater wells MW05 to MW09 were installed in the Expansion Area in 2017. Temporary groundwater wells MW08A and MW08B were installed in 2018 following recorded exceedances of the criteria in MW08.

Table 4-1 Groundwater monitoring points at the site

EPA Identification Number	Monitoring Well Reference (AECOM 2019)	Installation date	Sampling Frequency
1	MW01	October 2013	Quarterly
2	MW02	October 2013	Quarterly
3	MW03	October 2013	Quarterly
4	MW04	October 2013	Quarterly
16	MW05	July 2017	Quarterly
17	MW06	July 2017	Quarterly
18	MW07	July 2017	Quarterly
19	MW08	July 2017	Quarterly
n/a	MW08A	2018	Temporary
n/a	MW08B	2018	Temporary
20	MW09	July 2017	Quarterly

Background monitoring was conducted prior to commencement of operations in 2013 to assess the condition of groundwater entering and leaving the site (particularly for the presence of petroleum hydrocarbons) in order to establish baseline groundwater quality within the site. Background monitoring was conducted in the proposed Expansion Area during the fourth quarter of 2017 to provide groundwater conditions at the site prior to operations within this area. Background concentration ranges are presented in the summary tables in Section 6.

Groundwater monitoring well locations are shown on Figure 4-1.

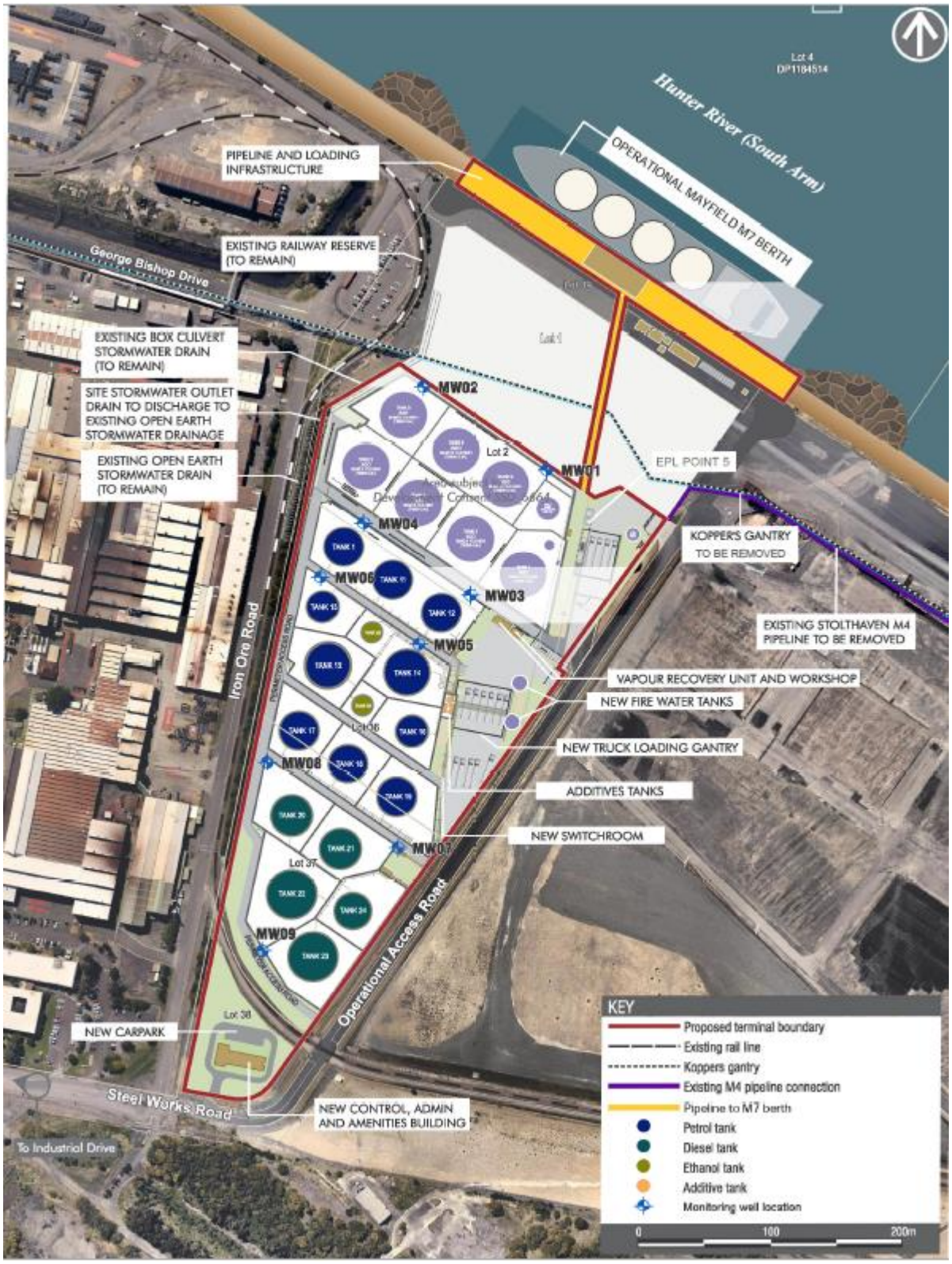


Figure 4-1 Groundwater monitoring well locations

5. Assessment criteria

AECOM assessed groundwater against the site Groundwater Assessment Criteria (GAC) as part of the GMP, and the background concentrations established in 2013. The thresholds that form the GAC are sourced from the ANZG (2018) *Australia New Zealand Water Quality Guidelines for Fresh and Marine Waters,* 95% Species Protection for Marine Waters Criterion. Where trigger values have not been published, ANZECC (2000) low reliability trigger values were adopted.

There are no groundwater quality requirements under the Site's EPL. The GAC is set out in Table 5-1.

Table 5-1 Groundwater assessment criteria

Compound	Unit	ANZG (2018) 95% Trigger Values	ANZG (2018) 99% Trigger Values
BTEXN			
Benzene	(µg/L)	-	600
Ethylbenzene	(µg/L)	80	-
Toluene	(µg/L)	180	-
o-xylene	(µg/L)	350	-
p-xylene	(µg/L)	200	-
m-xylene	(µg/L)	75	-
Total Xylene	(µg/L)	-	-
Total Recoverable Hydrocarbons			
C6-C10 Fraction	(µg/L)	-	-
C6-C10 - BTEX	(µg/L)	-	-
>C10-C16 Fraction	(µg/L)	-	-
>C16-C34 Fraction	(µg/L)	-	-
>C34-C40 Fraction	(µg/L)	-	-

Samples are analysed for contaminants of concern (CoC) by a NATA accredited laboratory. Indicators of groundwater contamination or adverse quality impact include (but are not limited to) the following:

- Evidence of non-aqueous phase liquid (NAPL) (e.g. a separate hydrocarbon layer)
- Changes in clarity, colour and odour of groundwater
- Increases in concentrations of dissolved hydrocarbons

6. Results

Groundwater results for the 2020 monitoring period are presented in Table 6-1 to Table 6-9.

Table 6-1 Groundwater monitoring results - MW01

Analyte	Background range	GAC	Laboratory limit of reporting	Q1 2020	Q2 2020	Q3 2020	Q4 2020
pH	7.0 - 9.79		0.01	9.00	8.92	9.06	8.93
BTEX (µg/L)							
Benzene	<1 to 5	600	1	<1	<1	<1	<1
Ethylbenzene	<2	80	2	<2	<2	<2	<2
Toluene	<2	180	2	<2	<2	<2	<2
Xylene (o)	<2	350	2	<2	<2	<2	<2
Xylene (m &p)	<2	75[1]	2	<2	<2	<2	<2
Total Recoverable Hydrocarbons (µg/L)							
C6-C10 Fraction	<20	-	20	<20	<20	<20	<20
C6-C10 minus BTEX	<20	-	20	<20	<20	<20	<20
>C10-C16 Fraction	<100	-	100	<100	<100	<100	<100
>C10-C16 Fraction minus naphthalene	<100 to 380	-	100	<100	<100	<100	<100
>C16-C34 Fraction	<100	-	100	<100	<100	<100	<100
>C34-C40 Fraction	<100	-	100	<100	<100	<100	<100

[1] Value for m- xylene adopted

BOLD denotes exceedance of GAC

Table 6-2 Groundwater monitoring results - MW02

Analyte	Background range	GAC	Laboratory limit of reporting	Q1 2020	Q2 2020	Q3 2020	Q4 2020
pH	7.0 - 9.79		0.01	7.42	7.37	7.47	7.38
BTEX (µg/L)							
Benzene	<1 to 5	600	1	<1	<1	<1	<1
Ethylbenzene	<2	80	2	<2	<2	<2	<2
Toluene	<2	180	2	<2	<2	<2	<2
Xylene (o)	<2	350	2	<2	<2	<2	<2
Xylene (m & p)	<2	75[1]	2	<2	<2	<2	<2
Total Recoverable Hydrocarbons (µg/L)							
C6-C10 Fraction	<20	-	20	<20	<20	<20	<20
C6-C10 minus BTEX	<20	-	20	<20	<20	<20	<20
>C10-C16 Fraction	<100	-	100	<100	<100	<100	<100
>C10-C16 Fraction minus naphthalene	<100 to 380	-	100	<100	<100	<100	<100
>C16-C34 Fraction	<100	-	100	<100	<100	<100	<100
>C34-C40 Fraction	<100	-	100	<100	<100	<100	<100

[1] Value for m- xylene adopted

BOLD denotes exceedance of GAC

Table 6-3 Groundwater monitoring results – MW03

Analyte	Background range	GAC	Laboratory limit of reporting	Q1 2020	Q2 2020	Q3 2020	Q4 2020
pH	7.0 - 9.79		0.01	7.79	7.62	7.74	7.54
BTEX (µg/L)							
Benzene	<1 to 5	600	1	<1	<1	<1	<1
Ethylbenzene	<2	80	2	<2	<2	<2	<2
Toluene	<2	180	2	<2	<2	<2	<2
Xylene (o)	<2	350	2	<2	<2	<2	<2
Xylene (m & p)	<2	75[1]	2	<2	<2	<2	<2
Total Recoverable Hydrocarbons (µg/L)							
C6-C10 Fraction	<20	-	20	<20	<20	<20	<20
C6-C10 minus BTEX	<20	-	20	<20	<20	<20	<20
>C10-C16 Fraction	<100	-	100	<100	<100	<100	<100
>C10-C16 Fraction minus naphthalene	<100 to 380	-	100	<100	<100	<100	<100
>C16-C34 Fraction	<100	-	100	<100	<100	<100	<100
>C34-C40 Fraction	<100	-	100	<100	<100	<100	<100

[1] Value for m- xylene adopted

BOLD denotes exceedance of GAC

Table 6-4 Groundwater monitoring results – MW04

Analyte	Background range	GAC	Laboratory limit of reporting	Q1 2020	Q2 2020	Q3 2020	Q4 2020
pH	7.0 - 9.79		0.01	7.71	7.64	7.73	7.78
BTEX (µg/L)							
Benzene	<1 to 5	600	1	<1	<1	<1	<1
Ethylbenzene	<2	80	2	<2	<2	<2	<2
Toluene	<2	180	2	<2	<2	<2	<2
Xylene (o)	<2	350	2	<2	<2	<2	<2
Xylene (m & p)	<2	75[1]	2	<2	<2	<2	<2
Total Recoverable Hydrocarbons (µg/L)							
C6-C10 Fraction	<20	-	20	<20	<20	<20	<20
C6-C10 minus BTEX	<20	-	20	<20	<20	<20	<20
>C10-C16 Fraction	<100	-	100	<100	<100	<100	<100
>C10-C16 Fraction minus naphthalene	<100 to 380	-	100	<100	<100	<100	<100
>C16-C34 Fraction	<100	-	100	<100	<100	<100	<100
>C34-C40 Fraction	<100	-	100	<100	<100	<100	<100

[1] Value for m- xylene adopted

BOLD denotes exceedance of GAC

Table 6-5 Groundwater monitoring results – MW05

Analyte	Background range	GAC	Laboratory limit of reporting	Q1 2020	Q2 2020	Q3 2020	Q4 2020
pH	7.0 - 9.79		0.01	8.25	8.97	8.86	8.31
BTEX (µg/L)							
Benzene	<1 to 5	600	1	<1	<1	<1	<1
Ethylbenzene	<2	80	2	<2	<2	<2	<2
Toluene	<2	180	2	<2	<2	<2	<2
Xylene (o)	<2	350	2	<2	<2	<2	<2
Xylene (m & p)	<2	75[1]	2	<2	<2	<2	<2
Total Recoverable Hydrocarbons (µg/L)							
C6-C10 Fraction	<20	-	20	<20	<20	<20	<20
C6-C10 minus BTEX	<20	-	20	<20	<20	<20	<20
>C10-C16 Fraction	<100	-	100	<100	<100	<100	<100
>C10-C16 Fraction minus naphthalene	<100 to 380	-	100	<100	<100	<100	<100
>C16-C34 Fraction	<100	-	100	<100	<100	<100	<100
>C34-C40 Fraction	<100	-	100	<100	<100	<100	<100

[1] Value for m- xylene adopted

BOLD denotes exceedance of GAC

Table 6-6 Groundwater monitoring results - MW06

Analyte	Background range	GAC	Laboratory limit of reporting	Q1 2020	Q2 2020	Q3 2020	Q4 2020
pH	7.0 - 9.79		0.01	8.06	7.41	7.61	7.42
BTEX (µg/L)							
Benzene	<1 to 5	600	1	<1	<1	<1	<1
Ethylbenzene	<2	80	2	<2	<2	<2	<2
Toluene	<2	180	2	<2	<2	<2	<2
Xylene (o)	<2	350	2	<2	<2	<2	<2
Xylene (m & p)	<2	75[1]	2	<2	<2	<2	<2
Total Recoverable Hydrocarbons (µg/L)							
C6-C10 Fraction	<20	-	20	<20	<20	<20	<20
C6-C10 minus BTEX	<20	-	20	<20	<20	<20	<20
>C10-C16 Fraction	<100	-	100	<100	<100	<100	<100
>C10-C16 Fraction minus naphthalene	<100 to 380	-	100	<100	<100	<100	<100
>C16-C34 Fraction	<100	-	100	<100	<100	150	<100
>C34-C40 Fraction	<100	-	100	<100	<100	<100	<100

[1] Value for m- xylene adopted

BOLD denotes exceedance of GAC

Table 6-7 Groundwater monitoring results – MW07

Analyte	Background range	GAC	Laboratory limit of reporting	Q1 2020	Q2 2020	Q3 2020	Q4 2020
pH	7.0 - 9.79		0.01	8.70	9.02	9.11	9.11
BTEX (µg/L)							
Benzene	<1 to 5	600	1	<1	<1	<1	<1
Ethylbenzene	<2	80	2	<2	<2	<2	<2
Toluene	<2	180	2	<2	<2	<2	<2
Xylene (o)	<2	350	2	<2	<2	<2	<2
Xylene (m & p)	<2	75[1]	2	<2	<2	<2	<2
Total Recoverable Hydrocarbons (µg/L)							
C6-C10 Fraction	<20	-	20	<20	<20	<20	<20
C6-C10 minus BTEX	<20	-	20	<20	<20	<20	<20
>C10-C16 Fraction	<100	-	100	<100	<100	<100	<100
>C10-C16 Fraction minus naphthalene	<100 to 380	-	100	<100	<100	<100	<100
>C16-C34 Fraction	<100	-	100	<100	<100	<100	<100
>C34-C40 Fraction	<100	-	100	<100	<100	<100	<100

[1] Value for m- xylene adopted

BOLD denotes exceedance of GAC

Table 6-8 Groundwater monitoring results – MW08

Analyte	Background range	GAC	Laboratory limit of reporting	Q1 2020	Q2 2020	Q3 2020	Q4 2020
pH	7.0 - 9.79		0.01	6.68	6.73	7.02	6.79
BTEX (µg/L)							
Benzene	<1 to 5	600	1	**18,600**	**14,000**	**6,880**	**7,050**
Ethylbenzene	<2	80	2	<50	<50	<20	<20
Toluene	<2	180	2	**1,010**	**710**	**393**	**391**
Xylene (o)	<2	350	2	116	85	67	61
Xylene (m & p)	<2	75[1]	2	**286**	**223**	**135**	**144**
Total Recoverable Hydrocarbons (µg/L)							
C6-C10 Fraction	<20	-	20	22,300	13,000	7,270	8,060
C6-C10 minus BTEX	<20	-	20	2,290	<1,000	<400	410
>C10-C16 Fraction	<100	-	100	20,200	15,600	11,200	8,420
>C10-C16 Fraction minus naphthalene	<100 to 380	-	100	10,300	6,530	3,730	1,670
>C16-C34 Fraction	<100	-	100	5,910	5,340	4,100	3,000
>C34-C40 Fraction	<100	-	100	<100	<100	<100	<100

[1] Value for m- xylene adopted

BOLD denotes exceedance of GAC

Table 6-9 Groundwater monitoring results – MW09

Analyte	Background range	GAC	Laboratory limit of reporting	Q1 2020	Q2 2020	Q3 2020	Q4 2020
pH	7.0 - 9.79		0.01	7.01	7.49	7.96	7.42
BTEX (µg/L)							
Benzene	<1 to 5	600	1	<1	<1	2	1
Ethylbenzene	<2	80	2	<2	<2	<2	<2
Toluene	<2	180	2	<2	<2	<2	<2
Xylene (o)	<2	350	2	<2	<2	<2	<2
Xylene (m & p)	<2	75[1]	2	<2	<2	<2	<2
Total Recoverable Hydrocarbons (µg/L)							
C6-C10 Fraction	<20	-	20	<20	<20	<20	<20
C6-C10 minus BTEX	<20	-	20	<20	<20	<20	<20
>C10-C16 Fraction	<100	-	100	<100	<100	<100	<100
>C10-C16 Fraction minus naphthalene	<100 to 380	-	100	<100	<100	<100	<100
>C16-C34 Fraction	<100	-	100	150	180	<100	100
>C34-C40 Fraction	<100	-	100	<100	<100	<100	<100

[1] Value for m- xylene adopted

BOLD denotes exceedance of GAC

6.1 Analysis of results

A statistical trend analysis was undertaken by AECOM for selected analytes at nine monitoring locations (MW01 to MW09) to determine if any statistically significant trends were apparent in the dataset. An upper confidence level of 95% was set in order to determine if any trends identified were statistically significant.

Published guidance states that a minimum of six data points are required to perform statistical trend analysis, with greater sample sizes resulting in greater confidence in any trends that are identified. As of this Annual Review, 31 data points are available for trend analysis for MW01 – MW04, with monitoring having commenced in October 2013 and 14 data points are available for trend analysis for MW05 – MW09 with monitoring having commenced in August 2017.

6.1.1 MW01

Recorded pH levels at MW01 for this reporting period ranged from 8.92 to 9.06 and were within background concentrations. Mann Kendall trend analysis reported a statistically significant decreasing trend in pH levels, however the time series graph shows pH has remained relatively stable and within background concentrations throughout the monitoring program.

BTEX concentrations remained below the LOR throughout the 2020 monitoring period, consistent with previous concentrations. Statistical analysis reported a stable trend of BTEX concentrations.

Total Recoverable Hydrocarbons (TRH) concentrations remained below the LOR throughout the 2020 monitoring period, consistent with previous concentrations. Statistical analysis reported a stable trend of TRH C_6-C_{10} and no trends for the remaining TRH fractions.

The statistical trend analyses for MW01 are presented in Figure 6-1 and Figure 6-2.

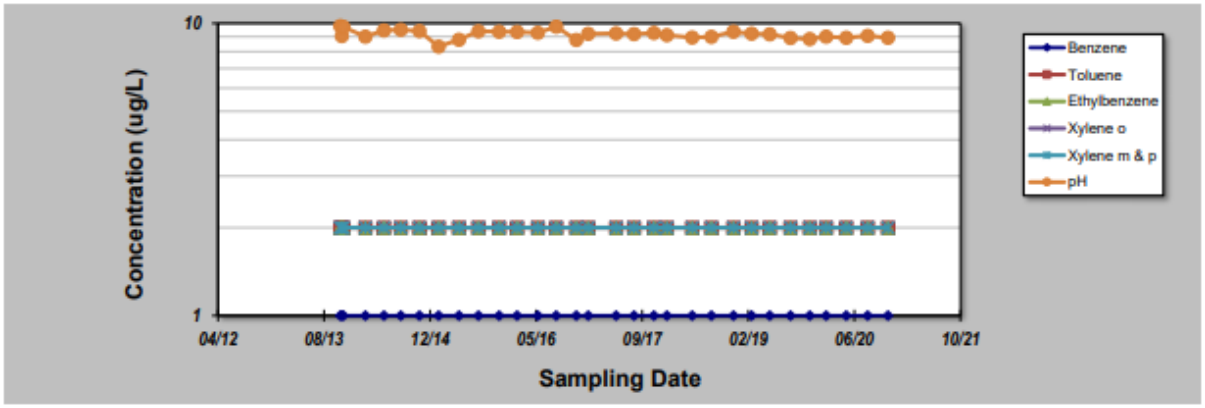


Figure 6-1 Statistical trend analysis of MW01 – BTEX and pH (reference AECOM 2020d)

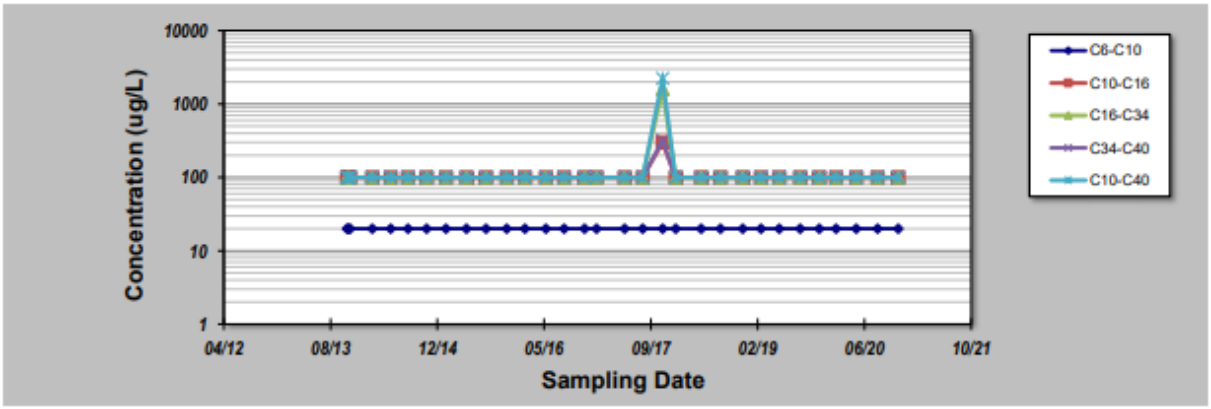


Figure 6-2 Statistical trend analysis of MW01 – TRH (reference AECOM 2020d)

6.1.2 MW02

Recorded pH levels at MW02 for this reporting period ranged from 7.37 to 7.47 and were within background concentrations. Mann Kendall trend analysis reported a statistically significant decreasing trend in pH levels, however the time series graph shows pH has remained relatively stable and within background concentrations throughout the monitoring program.

BTEX concentrations remained below the LOR throughout the 2020 monitoring period, consistent with previous concentrations. BTEX concentrations have been reported below the LOR in all groundwater monitoring rounds with the exception of minor benzene concentrations reported between October 2013 and November 2014. Statistical analysis supported a stable or decreasing trend of BTEX concentrations.

TRH concentrations remained below the LOR throughout the 2020 monitoring period, consistent with previous concentrations. The only TRH detection throughout the monitoring program has been TRH C_{16}-C_{34} concentrations in October 2013. Statistical analysis reported a stable trend for all TRH fractions.

The statistical trend analyses for MW02 are presented in Figure 6-3 and Figure 6-4.

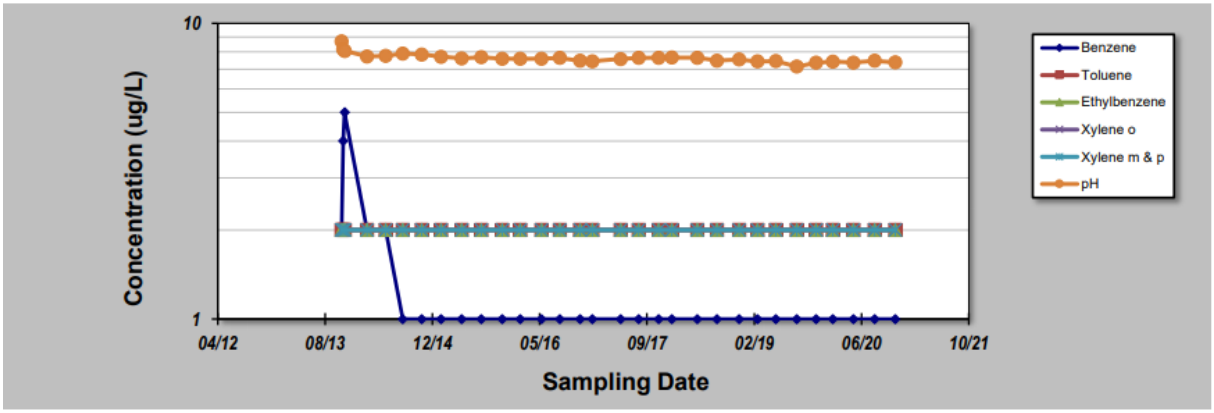


Figure 6-3 Statistical trend analysis of MW02 – BTEX and pH (reference AECOM 2020d)

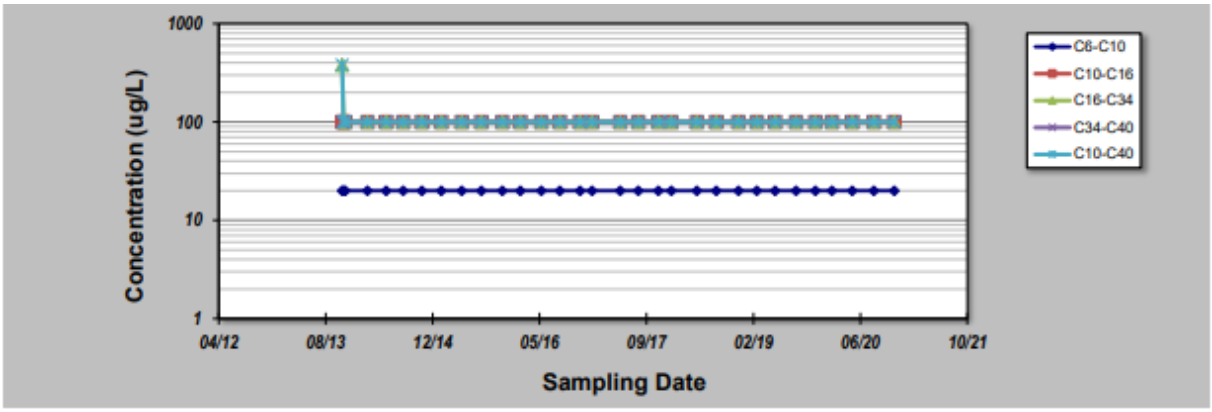


Figure 6-4 Statistical trend analysis of MW02 – TRH (reference AECOM 2020d)

6.1.3 MW03

Recorded pH levels at MW03 for this reporting period ranged from 7.54 to 7.79 and were within background concentrations. Mann Kendall trend analysis reported decreasing trends in pH levels, however the time series graph shows pH has remained relatively stable and within background concentrations throughout the monitoring program.

BTEX concentrations remained below the LOR throughout the 2020 monitoring period, consistent with previous concentrations. Statistical analysis reported a stable trend of BTEX concentrations.

TRH concentrations remained below the LOR throughout the 2020 monitoring period, consistent with previous concentrations. The only TRH detection throughout the monitoring program has been TRH C_{16}-C_{34} concentrations in October 2013. Statistical analysis reported a stable trend for all TRH fractions.

The statistical trend analyses for MW03 are presented in Figure 6-5 and Figure 6-6.

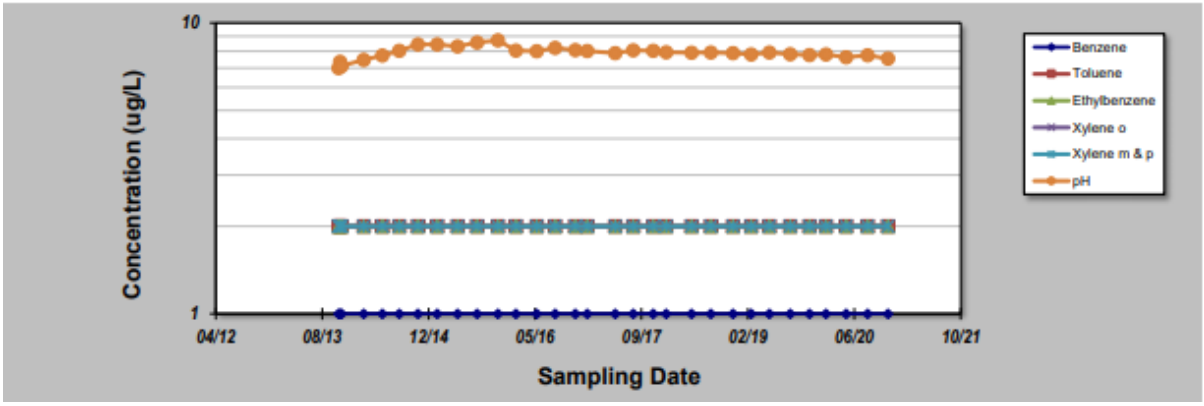


Figure 6-5 Statistical trend analysis of MW03 – BTEX and pH (reference AECOM 2020d)

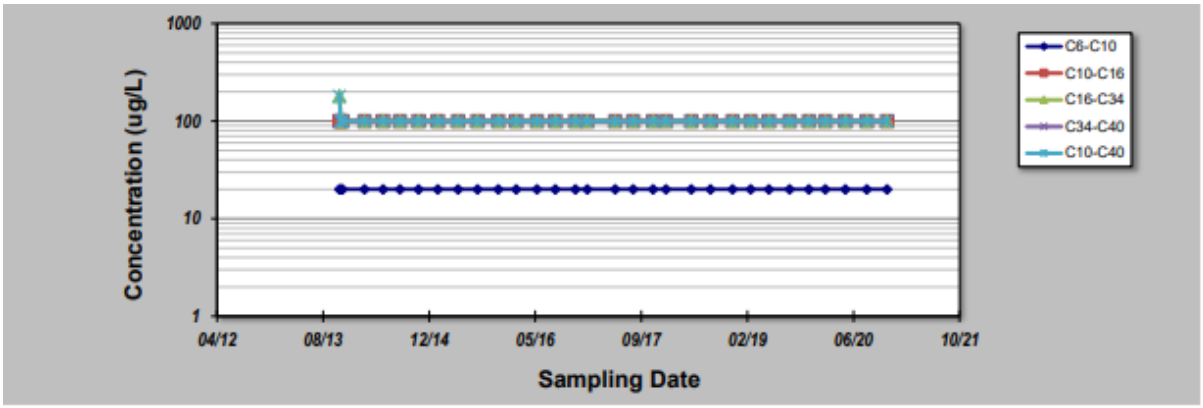


Figure 6-6 Statistical trend analysis of MW03 – TRH (reference AECOM 2020d)

6.1.4 MW04

Recorded pH levels at MW04 for this reporting period ranged from 7.64 to 7.78 and were within background concentrations. Mann Kendall trend analysis reported a statistically significant decreasing trend in pH levels, however the time series graph shows pH has remained relatively stable and within background concentrations throughout the monitoring program.

BTEX concentrations remained below the LOR throughout the 2020 monitoring period, consistent with previous concentrations. Statistical analysis reported a stable trend of BTEX concentrations.

TRH concentrations remained below the LOR throughout the 2020 monitoring period, consistent with all previous concentrations. Statistical analysis reported a stable trend for all TRH fractions.

The statistical trend analyses for MW04 are presented in Figure 6-7 and Figure 6-8.

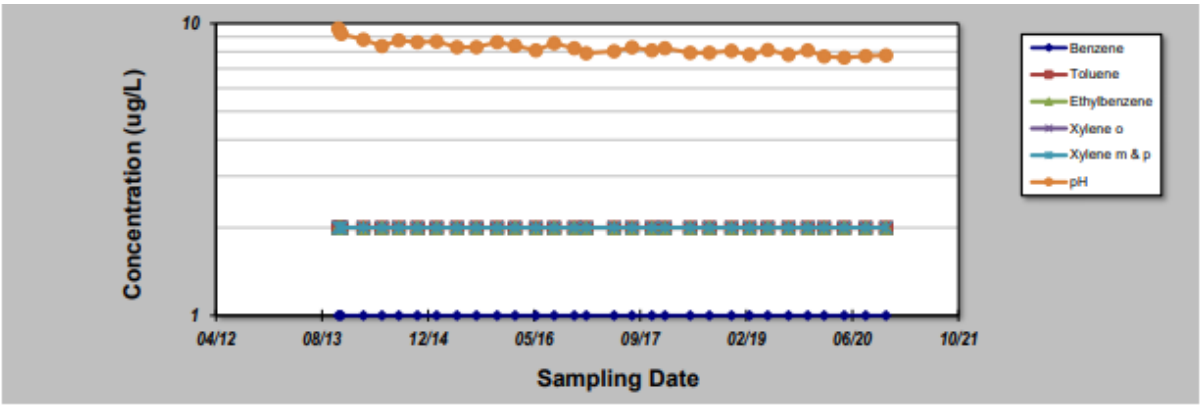


Figure 6-7 Statistical trend analysis of MW04 – BTEX and pH (reference AECOM 2020d)

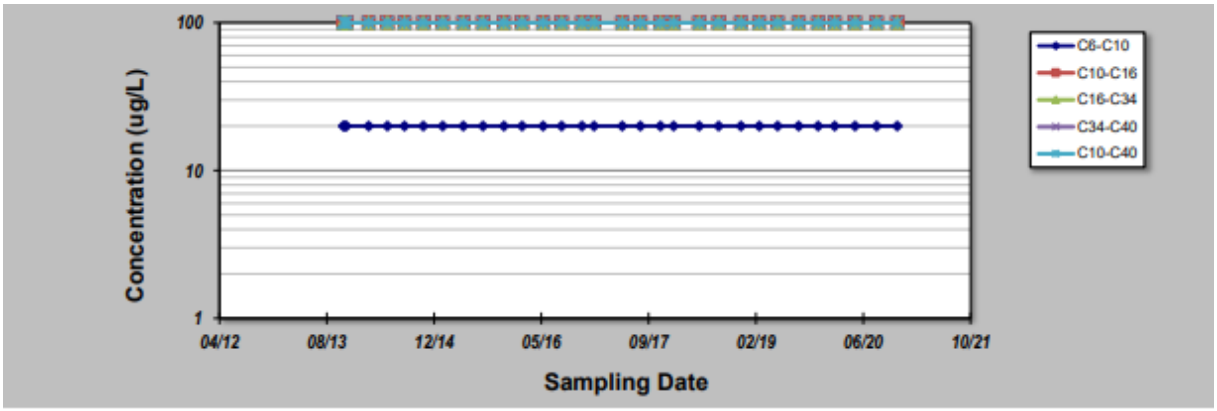


Figure 6-8 Statistical trend analysis of MW04 – TRH (reference AECOM 2020d)

6.1.5 MW05

Recorded pH levels at MW05 for this reporting period ranged from 8.25 to 8.97 and were slightly below the previously detected range for this location. Mann Kendall trend analysis reported stable trends for pH levels.

BTEX concentrations remained below the LOR throughout the 2020 monitoring period, consistent with previous concentrations. Statistical analysis reported a stable trend of BTEX concentrations.

TRH concentrations remained below the LOR throughout the 2020 monitoring period, consistent with all previous concentrations. Statistical analysis reported a stable trend for all TRH fractions.

The statistical trend analyses for MW05 are presented in Figure 6-9 and Figure 6-10.

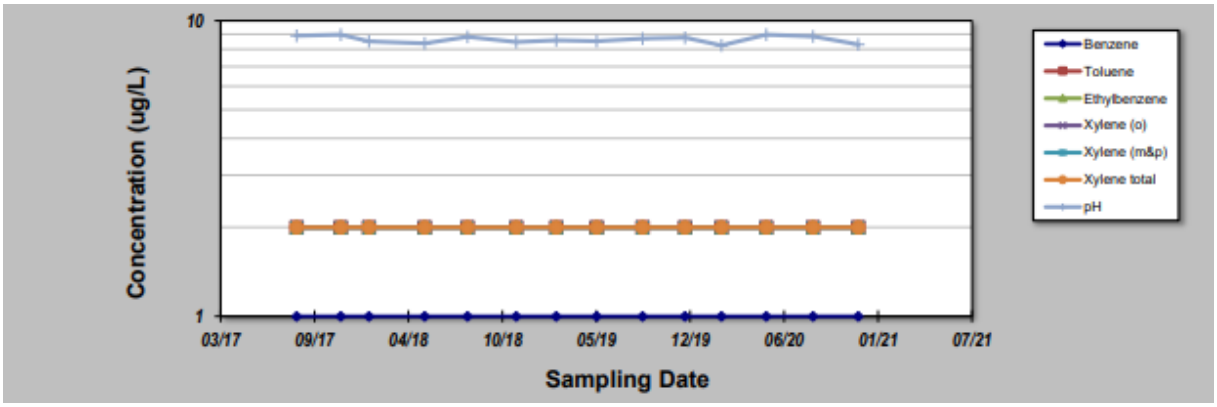


Figure 6-9 Statistical trend analysis of MW05 – BTEX and pH (reference AECOM 2020d)

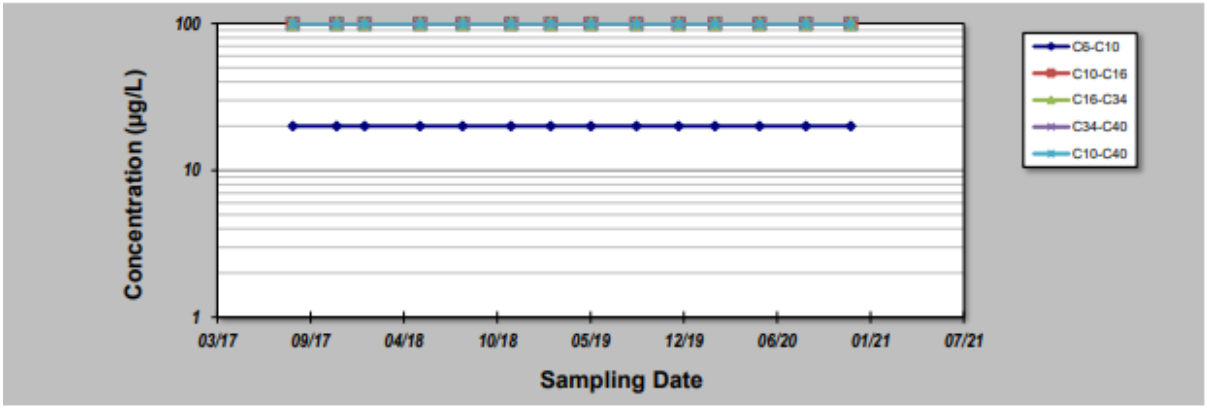


Figure 6-10 Statistical trend analysis of MW05 – TRH (reference AECOM 2020d)

6.1.6 MW06

Recorded pH levels at MW06 for this reporting period ranged from 7.41 to 8.06 and were below the previously detected range for this location. Mann Kendall trend analysis reported decreasing trends for pH levels. The time series graph supports the overall decreasing trend at this location which may require further assessment.

BTEX concentrations remained below the LOR throughout the 2020 monitoring period, consistent with previous concentrations. Statistical analysis reported a stable trend of BTEX concentrations.

TRH concentrations remained below the LOR throughout the 2020 monitoring period, consistent with all previous concentrations. The only exception was minor concentrations of TRH C_{16}-C_{34} during the Q3 monitoring round. Statistical analysis reported a stable or no trend for all TRH fractions.

The statistical trend analyses for MW06 are presented in Figure 6-11 and Figure 6-12.

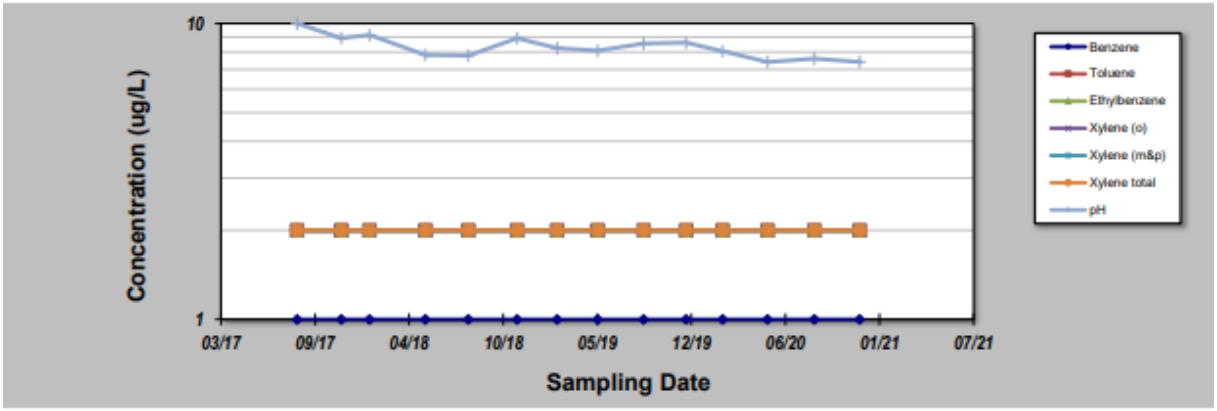


Figure 6-11 Statistical trend analysis of MW06 – BTEX and pH (reference AECOM 2020d)

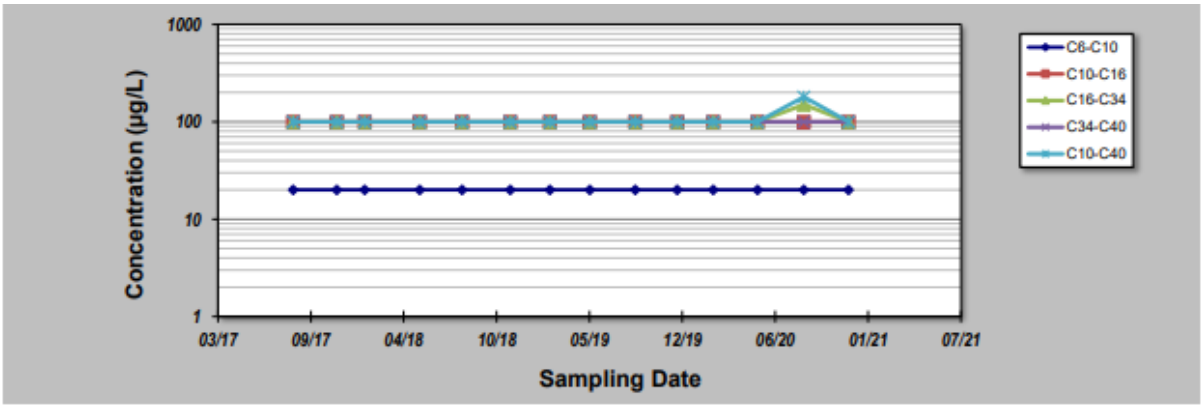


Figure 6-12 Statistical trend analysis of MW06 – TRH (reference AECOM 2020d)

6.1.7 MW07

Recorded pH levels at MW07 for this reporting period ranged from 8.7 to 9.11 and were within or slightly below the previously detected range at this location. Mann Kendall trend analysis reported no trends for pH levels.

BTEX concentrations remained below the LOR throughout the 2020 monitoring period, consistent with previous concentrations. Statistical analysis reported a stable trend of BTEX concentrations.

TRH concentrations remained below the LOR throughout the 2020 monitoring period, consistent with all previous concentrations. Statistical analysis reported a stable trend for all TRH fractions.

The statistical trend analyses for MW07 are presented in Figure 6-13 and Figure 6-14.

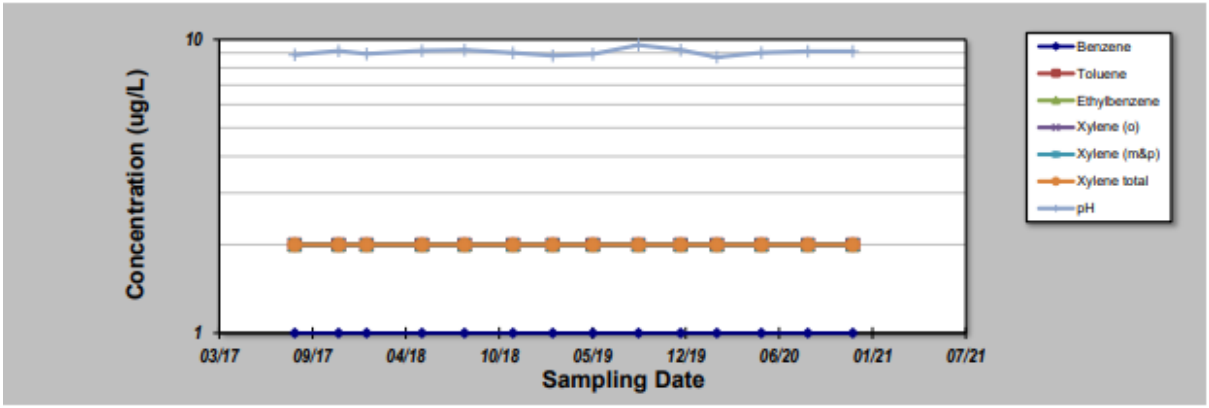


Figure 6-13 Statistical trend analysis of MW07 – BTEX and pH (reference AECOM 2020d)

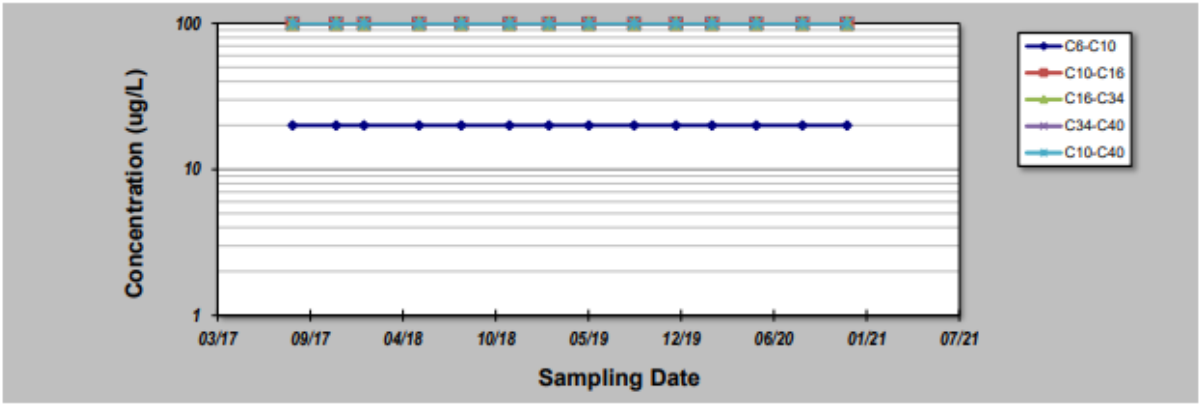


Figure 6-14 Statistical trend analysis of MW07 – TRH (reference AECOM 2020d)

6.1.8 MW08

Recorded pH levels at MW08 for this reporting period ranged from 6.68 to 7.02 and were within or slightly below the previously detected range at this location. Mann Kendall trend analysis reported probably decreasing trend for pH levels, however the time series graph shows that pH levels have been consistent across the monitoring rounds. pH levels have continued to indicate groundwater quality uncharacteristic of background concentrations.

BTEX concentrations were all above the previously detected range at MW08 during the 2020 monitoring period with the following exceedances of the GAC recorded:

- Benzene in all four quarters ranging between 6,880 µg/L and 18,600 µg/L
- Toluene in all four quarters ranging between 391 µg/L and 1,010 µg/L
- Xylene (m & p) in all four quarters ranging between 135 µg/L and 286 µg/L

Increasing trends were reported for xylene (o) and xylene (m & p) while stable trends or no trends were reported for benzene, toluene and ethylbenzene.

TRH concentrations were reported above the previously detected range at MW08 during the 2020 monitoring period. Concentrations were within the range of concentrations reported between 2017 and 2018 with the exception of TRH C_6-C_{10} (22,300 µg/L) and TRH C_{34}-C_{40} (100 µg/L) in December 2020. Concentrations of TRH C_{34}-C_{40} were at the limit of reporting which is within the laboratory margin of error and not considered to be an issue. Mann Kendall trend analysis reported stable trends or no trends for TRH concentrations.

Stolthaven (in conjunction with PON) installed two additional groundwater monitoring wells upgradient and downgradient of MW08 to investigate the extent of the contamination plume. Investigations in 2018 at MW08A and MW08B found that contamination impacts are limited to the area of MW08 and were sufficiently delineated to the north-east (MW08A) and south (MW08B). These additional wells were not monitored during the 2020 monitoring period and are expected to be decommissioned during development of the Proposed Expansion Area which is currently vacant land. Increasing trends continue to be reported for xylene concentrations at MW08, however the trend plots show that the concentrations may be stabilising. If increasing trends continue to be reported at MW08 in future rounds, further investigations may be required.

The statistical trend analyses for MW08 are presented in Figure 6-15 and Figure 6-16.

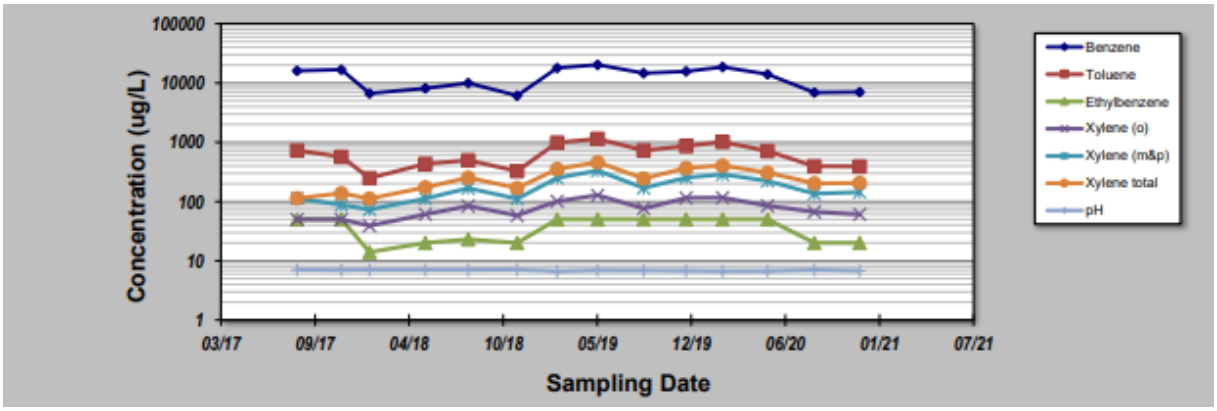


Figure 6-15 Statistical trend analysis of MW08 – BTEX and pH (reference AECOM 2020d)

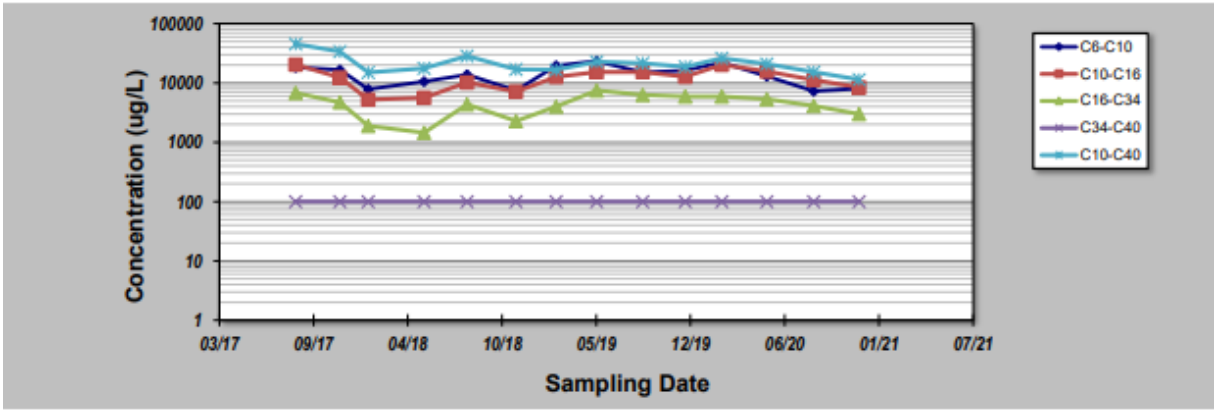


Figure 6-16 Statistical trend analysis of MW08 – TRH (reference AECOM 2020d)

6.1.9 MW09

Recorded pH levels at MW09 for this reporting period ranged from 7.01 to 7.96 and were slightly outside the previously detected range at this location. Mann Kendall trend analysis reported probably decreasing trends for pH levels, however, as previously discussed in GHD 2020, this is potentially incorrect due to an outlier reported in January 2018 (9.11). As pH levels were within background concentrations, this is not considered to be an issue.

BTEX concentrations remained below the LOR throughout the 2019 monitoring period, with the exception of benzene with minor concentrations detected in all four quarters, consistent with previous concentrations. Statistical analysis reported stable to decreasing trends of BTEX concentrations.

TRH concentrations remained low or below the LOR throughout the 2020 monitoring period, consistent with previous concentrations. Minor detections of TRH C_{16}-C_{34} were reported in quarters 1, 2 and 4, slightly above concentrations that have previously been reported at this location. Statistical analysis reported a stable trend for all TRH fractions.

The statistical trend analyses for MW09 are presented in Figure 6-17 and Figure 6-18.

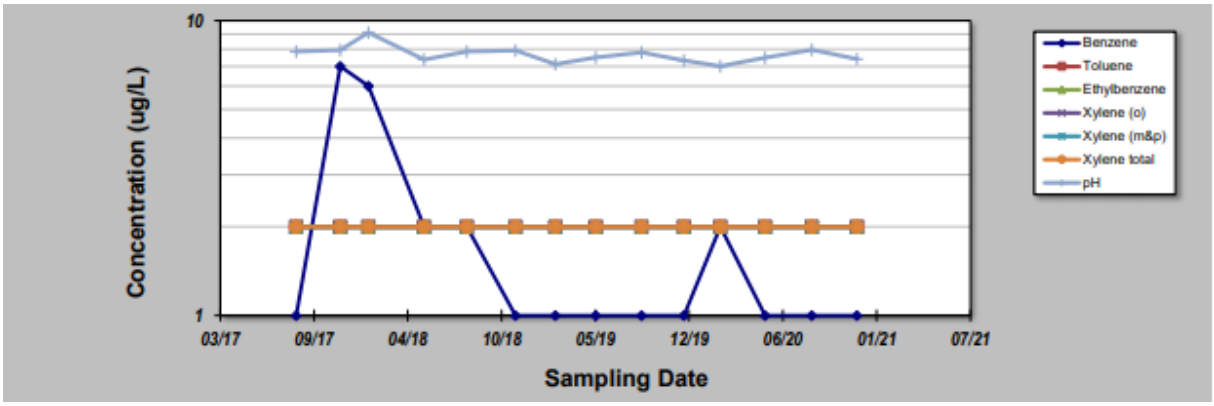


Figure 6-17 Statistical trend analysis of MW09 – BTEX and pH (reference AECOM 2020d)

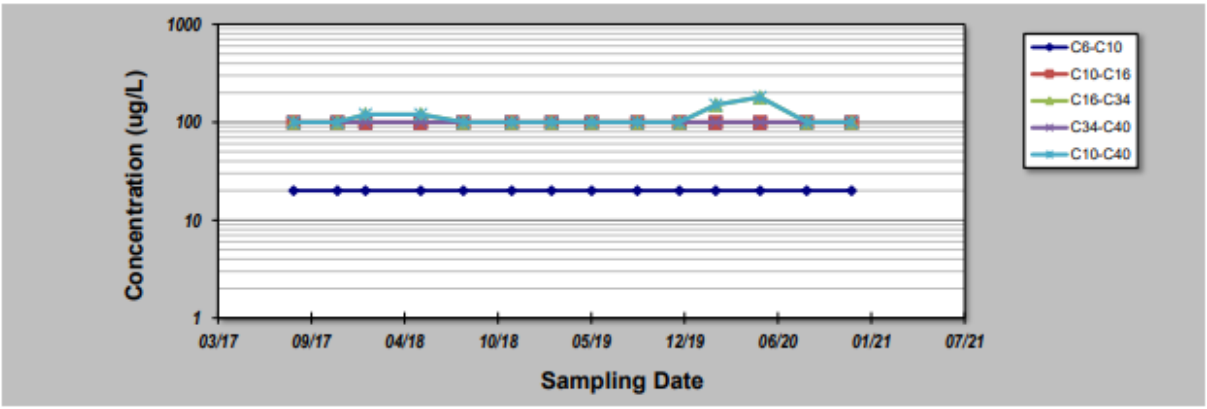


Figure 6-18 Statistical trend analysis of MW09 – TRH (reference AECOM 2020d)

6.1.10 Summary of groundwater results

Statistical trend analysis was undertaken by AECOM on individual analytes at all monitoring wells (MW01 to MW09) using an upper confidence level of 95%.

As with the 2019 monitoring period, decreasing trends were reported for pH at MW01, MW02 and MW04. In addition, a further decreasing trend was reported for pH at MW03. pH levels remain within background concentrations at these locations and time series graphs show that levels have been generally stable so this is not considered to be an issue at this stage. Trends in BTEX and TRH concentrations were stable or decreasing at locations MW01 to MW04.

As at the Q4 2019 groundwater monitoring event (GME), fourteen rounds of baseline groundwater monitoring have been undertaken on monitoring wells MW05 to MW09 at the Proposed Expansion Area. Statistical trend analysis in these wells identified decreasing trend in pH for MW06 and a probably decreasing trend in pH for MW08 and MW09 with stable or no trends at MW05 and MW07. The decreasing trend at MW09 is considered to be erroneous due to the outlier reported in January 2018, however decreasing trends at MW06 and MW08, along with the decreasing trends in wells MW01 to MW04 provide evidence that groundwater is becoming more acidic at the site. Future monitoring at the site will be required to confirm these trends.

Concentrations of benzene, toluene, meta & para xylenes and TRH have consistently exceeded background concentrations with concentrations of BTEX also exceeding the adopted GAC at MW08. Further, as with 2019, statistically significant increasing trends were reported for xylene concentrations. Following additional investigations in 2018, AECOM considered residual hydrocarbon impacts identified at MW08 to be localised within fill deposits immediately surrounding MW08, and effectively laterally delineated to the north-east and south by MW08A and MW08B. This may need to be confirmed in further investigations due to the increasing trends reported for xylene concentrations.

AECOM 2020d reported that to date, no infrastructure related to storage and transfer of hydrocarbons is in place at the Proposed Expansion Area. It was considered that the elevated results related to residual historical contamination from the former BHP Steelworks (which previously occupied areas of the Current Site Area and Proposed Expansion Area) and are unrelated to current operations at the Site. AECOM reported that DNAPL was observed at MW08 which comprised coal tar like material and had a strong naphthalene/hydrocarbon odour, further supporting this suggestion.

It is noted that concentrations at MW05 to MW09 were compared with the previously detected range rather than the background concentrations developed at MW01-MW04. These background ranges were developed from analytical results collected in previous monitoring rounds at the site and may be further refined from results reported the current reporting period and future monitoring events before any site operations occur in the proposed Expansion Area.

7. Stormwater

7.1 Stormwater monitoring

Monitoring of stormwater discharges is undertaken as part of the Site's Stormwater Management Plan (SWMP) to assess the effectiveness of stormwater runoff quality controls implemented at the Site. Monitoring of stormwater at the Site consists of:

- Visual inspection of the site and areas receiving runoff from the Site
- Monitoring water quality following rainfall events

Indicators of potential adverse water quality impacts include:

- Evidence of erosion and scouring around the stormwater pipe discharge outlets
- Changes in clarity, colour and odour of receiving waters
- Presence of debris and rubbish
- Evidence of stress on flora or fauna
- Presence of an oily film on water surfaces
- Orange/brown coating on banks, water surfaces or substrate

There are currently eight concrete bund walls around the site's bulk storage area designed to contain any spills onsite and prevent environmental harm. The bunds are referred to as Bund 1, Bund 2, Bund 3, Bund 5, Bund 6, Bund 7, Bund 8 and Bund 9. After every rainfall event all bunds are sampled and tested before release through the Puraceptor on Site according to the SWMP. In order to ensure the quality of stormwater collected from the bunds, the outlet from the bunds is kept closed at all times.

The Puraceptor is a water quality and hydrocarbon detector located prior to the discharge point at the Hunter River. In order to confirm that stormwater measures implemented at the site do not adversely impact on the Hunter River, samples are collected following rainfall events that result in sufficient stormwater discharge to collect surface water samples.

The water samples at Point 5 are analysed prior to discharge for the pollutants as shown in Table 7-1. Concentration limits are taken from EPL 20193. Once water quality results are obtained for the water in the Point 5 pit, water is discharged into the Hunter River via the Puraceptor. If water quality is found to be noncompliant with the parameters prescribed in the Site's EPL it is retested and if the results are above prescribed limits again a licenced trade waste contractor is engaged to dispose of the waste water. Further details of waste water removed from site by the licenced waste contractor is presented in Section 10.1. It is noted that Biological Oxygen Demand (BOD) was removed from the EPL criteria on 27 August 2015 and was not sampled between the 2017 and 2020 reporting periods.

Table 7-1 Water quality criteria (EPL 20193)

Pollutant	Units of measure	Frequency	Method	100 percentile concentration limit
Dissolved oxygen	mg/L	Weekly during any discharge	Grab sample	>2
Oil and grease	mg/L	Weekly during any discharge	Grab sample	10
pH	pH units	Weekly during any discharge	Grab sample	6.5-8.5
Total suspended solids	mg/L	Weekly during any discharge	Grab sample	30

7.2 Stormwater monitoring results

Stolthaven conducted stormwater sampling onsite and provided the 2020 water quality results from the site's licenced discharge point which are presented in Table 7-2 below. Water quality results from bund water sampling are presented in Table 7-3. A full copy of the data from stormwater monitoring is provided in Appendix C.

Table 7-2 Discharged water quality results (EPA Point 5)

Sample Date	Dissolved oxygen (mg/L)	Oil and Grease (mg/L)	pH	Total Suspended Solids (TSS) (mg/L)	Volume discharged (L)
20/01/2020	6.95	< 2	7.50	1	15,000
29/01/2020	7.27	< 2	7.39	22	35,000
12/02/2020	6.44	< 2	7.29	21	15,000
19/02/2020	7.70	< 2	7.46	21	20,000
27/02/2020	7.95	< 2	7.19	8	35,000
27/03/2020	8.25	3	7.57	6	35,000
28/04/2020	8.35	< 2	7.27	12	30,000
19/05/2020	8.88	3	7.44	23	25,000
27/05/2020	9.01	< 2	7.47	14	35,000
3/06/2020	7.59	< 2	7.45	8	30,000
10/06/2020	8.74	< 2	7.54	28	39,000
11/06/2020	8.58	< 2	7.38	5	30,000
22/06/2020	9.24	< 2	7.44	**62**	0
25/06/2020	8.99	< 2	7.66	20	35,000
2/07/2020	8.29	< 2	7.59	6	38,500
4/07/2020	8.55	2	7.65	1	25,000
8/07/2020	8.62	4	7.57	10	25,000
12/07/2020	7.60	< 2	7.32	5	25,000
15/07/2020	9.91	< 2	7.57	18	39,000
27/07/2020	8.96	< 2	7.80	8	39,000
12/08/2020	8.99	5	7.48	**35**	0
14/08/2020	9.29	5	7.44	24	15,000
10/09/2020	8.63	< 2	8.02	18	20,000
22/09/2020	8.34	< 2	7.68	28	15,000
19/10/2020	8.41	< 2	7.53	22	20,000
26/10/2020	8.68	4	7.48	8	35,000
14/12/2020	6.57	< 2	**8.70**[1]	13	0

Sample Date	Dissolved oxygen (mg/L)	Oil and Grease (mg/L)	pH	Total Suspended Solids (TSS) (mg/L)	Volume discharged (L)
16/12/2020	6.67	< 2	7.50	5	35,000
22/12/2020	6.57	< 2	8.05	5	35,000
Minimum	**6.44**	**2**	**7.19**	**1**	**-**
Maximum	**9.91**	**5**	**8.70**	**62**	**-**
Average	**8.15**	**3.71**	**7.57**	**15.57**	**-**

BOLD denotes an exceedance of the criteria

[1]Indicates a resample and retest was subsequently taken

Where exceedances occurred (bold items in Table 7-2), bund water was re-tested, the results of the retest are indicated in the row below the bold results. All retested results met the EPA's criteria for discharge from site. This process is undertaken in accordance with the sites Stormwater Management Plan.

Table 7-3 Bund water quality results

Parameter	Minimum	Maximum	Average
pH	6.04	8.9	7.74
Total dissolved solids (ppm)	20.3	85.8	50.55
Dissolved oxygen (mg/L)	30.9	103.6	69.12
Conductivity (µS/cm)	30.7	298	80.68

7.3 Analysis of results

7.3.1 Discharged water quality results

While the water sampling identified three exceedances of the EPA criteria, any water which exceeded EPA criteria (22 June 2020, 12 August 2020 and 14 December 2020) was not discharged & subsequently resampled. Further sampling & testing provided acceptable results and discharges are then permitted. The site's Stormwater Management Plan states "*If laboratory analysis of the water samples failed against EPL limits, a resample will be taken and tested. If the second analysis fails, then effluent will be disposed off-site by approved waste disposal contractor & reported through the sites Incident management system."* It was noted that water tested on 14 December 2020 was taken at very low level. The subsequent downpour filled the pit and water was recirculated and re-sampled following this event.

During the 2020 monitoring period, all water discharged from the site was compliant with all conditions of the Site's EPL. The following sections discusses each analyte further, with reference to trends identified in AECOM 2019.

Dissolved Oxygen (DO)

The DO concentrations reported at Monitoring Point 5 complied with the Site's EPL criteria, with all results above the prescribed minimum concentration limit of 2 mg/L. No exceedances of the criteria were recorded during the reporting period. The average dissolved oxygen level recorded during the 2020 reporting year was 8.15 mg/L, with a minimum level of 6.44 mg/L and a maximum of 9.91 mg/L. AECOM 2019 presented a trend plot of dissolved oxygen data between 2014 and 2018 which showed DO concentrations have been variable at Monitoring Point 5 with no obvious trend. Data reported during 2020 confirmed the variability of DO with no obvious trends.

Oil and grease

The oil and grease levels recorded at Monitoring Point 5 during the reporting period were compliant with the EPL concentration limit of 10 mg/L. There were no exceedances of the criterion recorded during the 2020 reporting period. The average level of oil and grease recorded during the reporting period was 3.71 mg/L, with a maximum of 5 mg/L. AECOM 2019 presented a trend plot of oil and grease data between 2014 and 2018 which showed concentrations generally below the LOR (2 mg/L), consistent with 2020 results.

pH

The pH levels recorded at Monitoring Point 5 complied with the site's EPL criteria, remaining within the prescribed pH range of 6.5 – 8.5 with the exception of one exceedance reported in December 2020. As discussed above, the water sample was taken at very low levels. The subsequent downpour filled the pit and water was recirculated and re-sampled following this event. During the reporting period, the average pH level was 7.57 with a minimum of 7.19 and a maximum of 8.70. AECOM 2019 presented a trend plot of pH results between 2014 and 2018 which, along with results from 2019 and 2020, indicate that pH levels at Monitoring Point 5 generally remain within the range of 6.5 to 8.5.

Total Suspended Solids (TSS)

Concentrations of TSS recorded at Monitoring Point 5 varied throughout the reporting period. There were two occurrences where TSS were recorded to be above the maximum criteria in June and August 2020. Water was resampled/tested with acceptable results and permitted for release.

During the reporting period, the average level of total suspended solids was 15.57 mg/L, with a minimum of 1 mg/L and a maximum recording of 62 mg/L. AECOM 2019 presented a trend plot of TSS results between 2014 and 2018. The historical and current results indicate that the level of TSS at Monitoring Point 5 is variable, with no obvious trends identified.

7.3.2 Bund water quality results

There are no specific limits set for bund water quality. Bund water is sampled following rainfall and then released according to the site's Stormwater Water Management procedure through the site's Puraceptor to the Western channel.

The following sections discusses each analyte further, with reference to trends identified in AECOM 2019. In future reporting periods, the data series will grow in accuracy and bund water quality trend analysis can be undertaken. Appropriate management measures can be recommended to address any issues identified.

pH

The pH levels recorded in the bund water during the reporting period ranged from 6.04 to 8.9 with an average of 7.74. The pH levels during the reporting period were generally within the pH range of 6.5 – 8.5 prescribed in EPL criteria for the licensed discharge point (Monitoring Point 5), however there were periods of upper and lower criteria exceedances. The pH of the bund water was lower than 6.5 on the following occasion:

- 10 June 2020 within Bunds 2, 3 and 7
- 2 July 2020 within Bund 1
- 15 December 2020 within Bunds 2, 3, 6 and 7
- 21 December 2020 within Bunds 1, 5 and 8
- 29 December 2020 within Bunds 7 and 8

The pH of the bund water was higher than 8.5 on the following occasions:

- 28 April 2020 within Bund 8
- 15 July 2020 within Bunds 2, 3 and 7
- 28 July 2020 within Bunds 1, 3 and 5
- 26 October 2020 within Bunds 1, 2 and 5

AECOM 2019 included a trend plot of concentrations between 2014 and 2018 which showed pH trends at the site were stable. Results from 2020 were within historical concentrations and indicative of any obvious trends.

Total Dissolved Solids (TDS)

TDS levels in bund water during the reporting period ranged from 20.3 to 85.8 ppm, with an average of 50.55 ppm. TDS levels at the Site during the reporting period were consistent with historical concentrations which have been relatively stable between 0 and 100 ppm. During the reporting period, there were no samples recorded at a higher level than 100 ppm. AECOM 2019 presented a trend analysis of TDS concentrations between 2014 2018 indicating that there could be a decreasing trend. Results from 2019 and 2020 confirm this observation.

Dissolved Oxygen (DO)

DO Concentrations ranged from 30.9 mg/L to 103.6 mg/L, with an average concentration of 69.12 mg/L. AECOM 2019 presented a DO trend plot of concentrations between 2014 and 2018 which showed an increasing linear trend throughout the 2018 period. DO concentrations during the 2019 and 2020 monitoring periods did not confirm this trend with concentrations appearing to be variable.

Conductivity

Conductivity levels in bund water during the reporting period ranged from 30.7 to 298 µS/cm, with an average conductivity of 80.68 µS/cm. AECOM 2019 presented a conductivity trend plot of concentrations between 2014 and 2018 which indicated a decreasing linear trend was identified. Concentrations reported in 2020 confirm the possibility of a decreasing trend, however reported concentrations were similar to those reported in 2019. This decreasing trend is not a concern and possibly attributed to periods of heavy rainfall introducing fresh water into the system.

7.4 Summary of stormwater results

Stormwater management and monitoring measures implemented at the Site have been successful in preventing environmental damage in this reporting period. Sampling identified three exceedances of the EPL criteria (two exceedances of TSS and one exceedances of pH. The TSS exceedances may be attributed to rain events and the pH exceedance is thought to be attributed to the low levels during sampling.

Other potential sources previously reported could be airborne material which have been blown onto the Stolthaven site, or tracked in from tyres of trucks moving through the site. Management measures implemented by Stolthaven, such as investing in a sweeper unit to manage materials on the sites driveway areas, appear to be successfully ensuring that all stormwater discharged from the site is compliant with the requirements of EPL 20193.

Consistent future monitoring of bund water after rainfall events will improve the site's available baseline data and ability to identify trends and issues as well as to identify necessary environmental management measures to improve the environmental performance of the site.

8. Noise

8.1 Operational noise

Operational noise generation is managed and monitored according to the Site's Noise Management Plan. Up until 2018, ships would dock at M4 and pump fuel into the storage tanks. Mayfield No. 7 Berth was commissioned within the 2018 reporting period and now services the facility for the import and export of petroleum products. Discussions between Stolthaven and NSW EPA (email dated 20 December 2018) confirmed that shipping activities associated with Mayfield No. 7 Berth are not required to be included as part of the facility's operational noise compliance assessments. Further, as per Condition 1.6 of the MCP, noise emissions associated with the berths, berthing or harbour operations (i.e. shipping activities) are excluded from contributing to the overall MCP noise emissions.

The main noise sources from AECOM 2021 at the site are summarised in Table 8-1.

Table 8-1 Noise emitters at the site

Operational Activity	Noise Source
Internal private access roads	Moving trucks, idling trucks
Industrial Noise Sources*	Fuel pumps
	Haulage tanker trucks filling

**Ships in berth and transferring fuel fall under the provisions of DA-293-08-00 as modified.*

AECOM 2019 reported that Stolthaven received correspondence from NSW EPA, PON and DPIE that noise generated from Steelworks Road operational activities (i.e. fuel truck movements) do not form part of the facility's operational activities. Therefore, fuel truck movements are no longer considered as part of the operational noise compliance assessments.

The nearest residential areas to the site are located to the south-west of the facility at Mayfield, with the closest receivers in Crebert Street, approximately 900 m away. To the south east there are residential receivers located in Carrington, approximately 2 km away, and residential receivers located in Stockton, approximately 3 km away.

Operational noise levels at the Site are required to be within limits set out in Condition L5.1 of EPL 20193 and Condition 30 of SSD_7065. The operational noise criteria that have to be met as prescribed by the EPL are shown in Table 8-2.

Table 8-2 Operational noise criteria

Receiver	Location	Operational noise limits, db(A)			
		Day	Evening	Night	
		$L_{Aeq,\ 15\ min}$	$L_{Aeq,\ 15\ min}$	$L_{Aeq,\ 15\ min}$	$L_{Aeq,\ 1\ min}$
R1	1 Arthur St, Mayfield	35	35	35	45
R2	52 Arthur St, Mayfield	35	35	35	48
R3	2 Crebert St, Mayfield	41	41	41	49
R4	21 Crebert St, Mayfield	40	40	40	47
R5	24 Crebert St, Mayfield	42	42	42	51
R6	30 Crebert St, Mayfield	41	41	41	50
R7	50 Crebert St, Mayfield	35	35	35	50
R8	2 McNeil Cl, Mayfield	35	35	35	48

The SSD_7065 consent requires operational noise levels at the Site to comply with the relevant noise goals contained in the Mayfield Concept Plan MP09_0096, or any noise quota established by the PON for the development. A methodology to deal with cumulative noise from the entire Mayfield Concept Plan (MCP) was developed by PON.

The MCP overall noise goals are presented in Table 8-3.

Table 8-3 MCP overall noise goals

Receiver	MCP Project specific noise goals, $L_{Aeq, period}$ dB(A)		
	Day (7:00 am to 6:00 pm)	Evening (6:00 pm to 10:00 pm)	Night (10:00 pm to 7:00 am)
A – 1 Arthur St, Mayfield	60	49	43
B – 2 Crebert St, Mayfield	60	50	43
C – 32 Elizabeth St, Carrington	57	44	45
D – 186 Fullerton Rd, Stockton	55	37	37

The SSD_7065 consent requires operational noise levels at the Site to comply with the relevant noise goals in Conditions C30 and C31. The noise limits under C30 and C31 are the same as the noise limits in Condition L5 of EPL 20193. Noise quotas have been allocated to the site as part of Stolthaven Stage 3 SSD 7065 Environmental Impact Statement. As part of SSD 7065, two key conditions are relevant to this noise compliance assessment, these include Conditions 32 and C35, which specify:

- Condition 32: The Applicant shall:
    a. Ensure noise from the Site does not exceed the noise quotas provided by the PON in accordance with the Site Noise Mode; and
    b. Comply with the directions of the PON in relation to the management of noise from the Site.
- Condition 35: The Applicant shall monitor noise from the Site. The monitoring shall:
    a. Be undertaken annually, or to address genuine noise complaints related to the Site as determined by the Secretary, EPA or the PON;
    b. Be undertaken in accordance with the NSW Industrial Noise Policy and the Noise Verification Monitoring Plan, October 2015 or its latest version;
    c. Demonstrate compliance with the noise limits in this consent and the noise quotas provided by PON in accordance with the Mayfield Concept Plan;
    d. Be reported annually to the Secretary, EPA and the PON.

Stolthaven Stage 3 SSD 7065 specific cumulative amenity noise quotas are presented in Table 8-4.

Table 8-4 MCP overall noise goals – SSD 7065

Receiver	MCP Project specific noise goals, $L_{Aeq, period\ dB(A)}$		
	Day (7:00 am to 6:00 pm)	Evening (6:00 pm to 10:00 pm)	Night (10:00 pm to 7:00 am)
A – 1 Arthur St, Mayfield	47	36	30
B – 2 Crebert St, Mayfield	51	40	34
C – 32 Elizabeth St, Carrington	42	30	25
D – 186 Fullerton Rd, Stockton	39	28	22

8.2 Noise monitoring results

Attended noise measurements were undertaken between 13 and 14 January 2021 at the closest nearby residential receiver locations as per the EPL 20193, SSD 7065 and MCP. Attended noise measurements were conducted using Brüel and Kjaer Type 2250 noise monitors. Attempts were made to undertake noise monitoring prior to the end of 2020 however adverse weather conditions combined with COVID-19 travel restriction (for the noise consultant traveling from Sydney) meant testing had to be postponed until January 2021.

At all measurement locations, the measured noise levels exceeded the noise limits. However, it was noted by AECOM (2021) that noise from the Stolthaven facility was not clearly distinguishable or quantifiable at any of the attended receiver locations.

During the attended measurements it was not possible to measurably distinguish the noise contribution from the facility from other industrial sources in the surrounding area at all receiver locations. Thus, it was not possible to determine the noise contribution through direct measurement.

The results of this assessment are provided in Table 8-5.

Table 8-5 Attended measurements at Assessment Receiver Locations between 13 and 14 January 2021

Location		Time of Measurement	Monitored noise levels		
			L_{A1} dB(A)	L_{Aeq} dB(A)	L_{A90} dB(A)
R1/A	1 Arthur St, Mayfield	13/01/2021 10:00:01 PM	59	52	49
R2	52 Arthur St, Mayfield	14/01/2021 12:20:56 AM	60	51	47
R3/B	2 Crebert St, Mayfield	13/01/2021 10:39:48 PM	67	58	50
R4/R5[1]	21 Crebert St, Mayfield	13/01/2021 10:56:28 PM	75	63	51
R6/R7[2]	30 Crebert St, Mayfield	13/01/2021 10:18:35 PM	56	49	47
R8	2 McNeil Cl, Mayfield	14/01/2021 12:38:33 AM	54	49	43
C	32 Elizabeth St, Carrington	13/01/2021 11:17:28 PM	51	46	44
D	186 Fullerton Rd, Stockton	13/01/2021 11:49:53 PM	72	59	46
-	Mayfield East Public School (west side, Ingall St)	14/01/2021 9:43:13 AM	73	64	55

[1] Attended noise measurements at Location R4 (21 Crebert Street, Mayfield), are representative of ambient noise conditions at locations R4 (21 Crebert Street, Mayfield) and R5 (24 Crebert Street, Mayfield).
[2] Attended noise measurements at Location R6 (30 Crebert Street, Mayfield), are representative of ambient noise conditions at locations R6 (30 Crebert Street, Mayfield) and R7 (50 Crebert Street, Mayfield).

Due to the existing noise level at the site, on-site measurements of individual plant items and typical operations were undertaken on 13 and 14 January 2021 at the facility and during previous compliance inspections. It was noted during all measurements that the specific noise source being measured was the dominant noise source throughout the measurement period.

Observations were made of the onsite operations, which have then been reviewed in conjunction with the facility operational data to model 'reasonable' worst case operational scenarios over the assessment periods. Key on-site attended measurement results are summarised in Table 8-6.

Table 8-6 On-site attended measurements at the facility between 13 and 14 January 2021

Operation	Time of measurement	Monitored noise levels			
		$L_{A1(t)}$, dB(A)	$L_{A10(t)}$, dB(A)	$L_{Aeq(t)}$, dB(A)	$L_{A90(t)}$, dB(A)
Truck idling	15.10 PM	78	77	77	77
Truck leaving site	15:40 PM	78	74	72	67
Gate siren	15:40 PM	76	73	72	69
Pump operations	15:10 PM	86	84	83	82
Fire pump testing	14:54 PM	106	105	104	104

Table 8-7 presents predicted noise level results for the reasonable worst case intrusiveness scenario (15 minute period) for neutral and adverse weather conditions.

Table 8-7 Predicted intrusive noise levels

Receiver	EPL 20193 and SSD 7065 Noise Limits, $L_{Aeq, 15\ min}$, dB(A) [1]	Predicted noise level, $L_{Aeq, 15\ min}$, dB(A)	
		Neutral weather	Adverse weather[2]
R1	35	18	23
R2	35	18	23
R3	41	25	30
R4	40	25	30
R5	42	25	30
R6	41	24	28
R7	35	19	24
R8	35	19	23

1. Operational noise limits are based on the most stringent operational noise limits (i.e. night-time period).

2. Adverse weather considers the worst case of 3 m/s source to receiver wind and temperature inversions.

The facility's predicted noise levels in Table 8-7 indicate that under neutral and adverse weather conditions, the facility complies with EPL 20193 and SSD_7065 noise limits at all locations.

AECOM (2021) also prepared predicted modelled results to determine noise compliance against the EPL 20193 and SSD_7065 sleep disturbance noise limits. The sound power levels for the maximum noise events at the facility are included in Table 8-8**.**

Table 8-8 Predicted Noise Levels – Sleep Disturbance Assessment, Night-time Period

Receiver	EPL 20193 and SSD 7065 Noise Limits, $L_{Aeq, 15\ min}$ dB(A)	Predicted noise level, $L_{A1, 1\ min}$, dB(A)		Compliance
		Neutral weather	Adverse weather[1]	
R1	45	35	40	Yes
R2	48	34	39	Yes
R3	49	42	45	Yes
R4	47	42	46	Yes
R5	51	43	46	Yes
R6	50	42	45	Yes
R7	50	36	40	Yes
R8	48	35	40	Yes

[1] Adverse weather considers the worst case of 3 m/s source to receiver wind and temperature inversions.

The $L_{A1, 1min}$ night-time site operation assessment indicates that the predicted noise levels at all receiver locations comply with the EPL 20193 and SSD 7065 sleep disturbance noise limits during both neutral and adverse weather conditions.

Fire pump testing

Condition L5.2 of EPL 20193 requires:

> Fire pumps at the premises must be designed and operated so that noise from routine testing or maintenance is not more than LAeq (15min) 53 dB(A) at the most affected residential or sensitive receiver. Routine testing or maintenance must only occur during the day time.

Fire pump testing results out outlined in Table 8-9.

Table 8-9 Predicted Noise Levels – Fire pumps

Receiver	EPL 20193 and SSD 7065 Noise Limits, $L_{Aeq, 15\ min}$ dB(A)	Predicted noise level, $L_{A1, 1\ min}$, dB(A)		Compliance
		Neutral weather	Adverse weather[1]	
R1	53	19	24	Yes
R2	53	19	24	Yes
R3	53	29	34	Yes
R4	53	35	40	Yes
R5	53	26	31	Yes
R6	53	24	29	Yes
R7	53	20	25	Yes
R8	53	19	24	Yes

The fire pump testing operational noise assessment indicates that the predicted noise levels at all receiver locations comply with the EPL 20193 and SSD 7065 noise limits during both neutral and adverse weather conditions.

8.3 Analysis of results

The AECOM 2021 noise assessment reported that during the attended measurements, it was not possible to directly quantify the impacts of noise arising from operations at the facility due to the influence from extraneous noise sources. As such, an alternative method was required in order to demonstrate compliance with the project approval requirements. Compliance was found against the requirements of all site approval documents, at all receiver locations, during all assessment periods under all prevailing meteorological conditions.

A Noise and Vibration Impacts Assessment was prepared as part of the Environmental Impact Statement (EIS) for the SSD_7065 development consent application to increase throughput to 3,500 ML per year. Noise modelling was undertaken to examine the noise and vibration impacts of the construction and operational phases of the Project, as well as the cumulative impacts which may result from each phase of the proposed facility. The assessment concluded that there would be no exceedance of the noise criteria under all operational scenarios, for day and night activities. The results of noise modelling undertaken during this reporting period indicate that the Site is operating in accordance with the predictions made in the EIS.

Results of the noise compliance modelling showed that the operation of the facility complies with the noise limits stated in EPL 20193 and SSD_7065, in addition to the project specific noise goals in the MCP for all outlined receivers.

9. Fuel storage and transport

9.1 Fuel storage

Approximately 691 ML of fuel (including additive) was received on site and 690 ML of fuel (including additive) was transported off site during the reporting period. A breakdown of fuel stored, received, and dispatched is provided in Table 9-1. The combined volume of fuel initially stored at the start of the reporting period plus the volume of fuel received during the reporting period should approximately equal the combined volume of fuel dispatched throughout the reporting period plus the volume of fuel stored at the end of the reporting period. It should be noted however that Site measurement equipment has a tolerance of 0.3% which over the course of a year can lead to these amounts not matching. Other factors that contribute to the discrepancy include:

- Product volume onsite is accounted for by a daily and monthly reconciliation process.
- Some variation is caused by the heating and cooling of products being received and the temperature and therefore density at the different times of measurement/pumping.
- Bulk tanks are manually dipped by a third party Surveyor before and after every shipping receipt.
- Gantry meters are calibrated on a 6 monthly schedule to minimise potential for measurement errors.

Table 9-1 Volume of fuel stored, received and dispatched

Fuel type	Volume stored (at start of reporting period)	Volume received (during reporting period)	Volume dispatched (during reporting period)	Volume stored (at end of reporting period)
Diesel (L)	21,607,159	722,630,017	689,868,498	54,922,276
Biodiesel (L)	0	0	0	0
Additive (L)	3,095	5,140	Note 2	3,853
Slops (L)	10,647	Note 1	129,905	12,394
TOTAL (L)	**21,620,901**	**722,635,157**	**689,998,403**	**54,938,523**

Note 1 – Slops are generated onsite and not imported

Note 2 – Additives are mixed with dieses for export and note exported separately.

**Includes additives*

The annual throughput approved under SSD_6664 was increased via modification from 1,010 ML to 1,300 ML on 28 September 2015. The annual throughput approved under the EPL was amended on 2 October 2015 with the current annual throughput limit approved under Condition A1.4 of the EPL being 1,300 ML. The annual throughput will not be increased up to 3,500 ML until the remaining features approved under SSD_7065 have been constructed and are operational.

No exceedances of throughput limits occurred during the reporting period.

9.2 Truck movements

Over the reporting period there were a total of 27,950 trucks at an average of approximately 2,329 each month. This equates to approximately 77 truck movements per day. A breakdown of hourly truck movements is provided at Appendix D. Note these are recorded as one truck only, so figures need to be doubled for total number of truck movements as one truck entering the site equals one movement and the same truck leaving the site is counted as one movement.

A Traffic Impact Assessment (TIA) was conducted as part of the EIS for the SSD_7065 application to increase throughput to 3,500 ML per year. The TIA assessed a worst case potential operational traffic scenario of 200 truck movements per day. Although there are no specific traffic movement requirements in either the Project approval or EPL, assessment of average daily truck movements at the site for this reporting period indicates compliance with this predicted traffic volume for all months.

9.2.1 Mayfield concept plan traffic movements

Condition 2.3 of the Mayfield Concept Plan Approval provides that the following truck numbers should not be exceeded prior to additional traffic monitoring being undertaken and any potential impacts to the road networks operation of infrastructure requirements identified:

- Total Mayfield Concept Plan Truck Movements per day – 1,268
- Total Mayfield Concept Plan Truck Movements per hour – 95

During the busiest month of operations throughout the review period (June 2020), movements from Stolthaven averaged up to 105 movements per day which is within the Concept Plan's limits listed above. Stolthaven truck movements have shown a general decline since 2015 which recorded the highest number of truck movements to date. Activities which have the potential to generate additional heavy vehicle movement from the wider Mayfield Concept Plan site include Mayfield Berth 4 operations. These have remained at similar levels of operation since the facility began operation and there has been no other new additional land uses in the Concept Plan area which have the potential to generate cumulative heavy vehicle movements above the daily or hourly thresholds in the Concept Plan approval.

10. Waste

Waste is managed according to the Site's Waste Management Plan (WMP) and is minimised or recycled where possible. Solid waste is disposed of in appropriate receptacles and removed by local waste contractors.

Liquid waste generated on Site is stored in the tanks listed in Table 2-3. Waste is discharged from the Site once it has been treated to an acceptable quality or is disposed of by an appropriately licenced waste collector. Waste removed from the Site in the current reporting period is presented in Appendix H with the following amounts disposed:

Effluent Waste (disposed at ToxFree/Cleanaway)

- Terminal quantity: 159,000 L
- Mayfield No. 7 Berth quantity: 31,800 L

Liquid Waste

- Quantity (ToxFree/Cleanaway): 0L
- Transfers (JLP or IOR Transfer): 129,905 L

Solid Waste

- 660 L Bins: 6
- 20 L Drums: 15
- 220 L Drums: 2

General – Recycled and Green Waste

- General Waste: 76.5 m^3
- Recycling: 25 m^3

Minor reductions in waste were reported in 2020 compared with 2019. Some restrictions to onsite works were noted in 2020 due to COVID which may have impacted the waste quantities.

10.1 Spills and site contamination

Records of reportable spills and site contamination are described in the incident register provided in Appendix E. Following incidents, Stolthaven prepares an Incident Report in accordance with their internal Incident Investigation procedure. These reports are saved against the incident in the Incident Register.

No non-compliances or reportable incidents in relation to spills and site contamination occurred during the reporting period. All incidents relating to potential spills and site contamination were minor and effectively managed on the Site.

11. Aesthetic

Weed control and vegetation management activities are conducted monthly according to the Site's maintenance checklist and in accordance with the Site's Landscape Management Plan. These controls ensure fire and safety risks are managed effectively at the Site through the prevention of any vegetation build-up. No complaints were received by Stolthaven regarding aesthetic issues at the Site during the 2020 monitoring period.

12. Community engagement and complaints

12.1 Community engagement

Stolthaven undertook ongoing community engagement through attendance and active engagement in the Port of Newcastle Community Liaison group meetings on the following dates during the reporting period:

- 17 February
- 18 May
- 17 August
- 23 November

Stolthaven was not the subject of any issues from community engagement activities during 2020.

12.2 Complaints

No complaints were received by Stolthaven during the reporting period.

13. Compliance

No non-compliances or reportable incidents were identified during the reporting period.

13.1 Statement of compliance

The statement of compliance against the conditions specified in SSD_7065 is presented in Appendix F. There are no non-compliances to report for the reporting period.

13.2 Complaint trending

The historical complaints received by Stolthaven due to their operations are presented in Table 13-1. Since site operations began in November 2013, Stolthaven have not received any complaints.

Table 13-1 Complaints received

Reporting period	Number of complaints
2014	0
2015	0
2016	0
2017	0
2018	0
2019	0
2020	0

13.3 Pipeline integrity

An Annual Pipeline Pressure Test was conducted at the Stolthaven Terminal on the wharf pipeline on 10 October 2020 by Hancock & Owen Services Pty Ltd. The test confirmed the integrity of the pipeline. A copy of the test report is included in Appendix G.

In addition, leak testing is performance prior to each ship discharge operation in accordance with EPL condition O7.2. No leaks where identified as a result of leak testing during the monitoring period. Independent environmental audit.

In accordance with the facilities auditing schedule under the development consent an IEA was undertaken for the facility during the 2019 reporting period. A summary of the outcomes and recommendation from the IEA are provided in Table 13-2. It is noted that most of the outstanding items were completed in the 2019 reporting period.

Table 13-2 IEA Recommendations

Condition	Recommendation	Response	Update
SSD 6664 2-2c, SSD 6664 2-2e, SSD 7065 B2a	It is recommended all actions arising from this IEA are completed to avoid future non-compliances with the development consents and commitments.	Recommendation accepted	All recommendations are being actioned.
SSD 6664 4-2a, SSD 7065 D7a	Update management plans to include detailed baseline data at the next review.	Now the site has 5 years of operational data, the Management plans can be updated with baseline data, where applicable, upon the next review. Action added to site's action register.	Completed Oct 2019. Advice of completion submitted to DPIE.
SSD 6664 4-2g, SSD 7065 D7g	Include a section in the TMP, USMP and LMP with protocols to receive, handle and respond to complaints in each management plan at next update or reference to the procedure in the OEMP.	Plans to be updated at next review. Action added to the site's action register.	Completed Oct 2019 Advice of completion submitted to DPIE.
SSD 6664 4-2g, SSD 7065 D7g	Although not required under SSD 7065, it is recommended that the TMP for SSD 7065 is updated to include expected traffic numbers as a result of the Project to inform any management and mitigation measures that may be required.	Plan to be updated at next review. Action added to the site's action register.	Completed Oct 2019. Advice of completion submitted to DPIE.
SSD 6664 AMMM 26	Monthly testing of the fire pumps is undertaken and weekly testing is required in this condition, and therefore this is a non-compliance. It should be noted, however, that the Hazard Audit assessment states "Testing of the fire system is done monthly by an accredited 3rd party provide This was found to be in order"; and it is not a requirement under SSD 7065.	Fire pump testing is managed monthly. Applicants Management & Mitigation Measures should be amended to correct this however Stolthaven intent is to surrender SSD 6664.	Stolthaven has surrendered SSD 6664 as at 8 May 2020. Copy of surrender letter is included in Appendix B.

14. Conclusion and recommendations

The Annual Review has shown that the data collected and reviewed for the 2020 monitoring period is acceptable and in accordance with the SSD_7065 consent and the Site Operational Environmental Management Plan. This level of environmental performance can be attributed to the design and operation of the facility as well as to the environmental management plans and measures undertaken at the Site.

Monitoring data collected and analysed during this reporting period has been analysed against baseline monitoring data for the Site. The dataset for groundwater wells in the initial area (MW01 to MW04) have a dataset from seven years of quarterly monitoring, however the dataset for the wells in the expansion area is still relatively small (3 years of quarterly monitoring). In future reporting periods as the amount of monitoring data available for analysis increases, trends in monitoring data will be able to be identified with greater confidence. Trends identified in the expansion area will need to be further reviewed in future in order to confirm the trends and determine the potential environmental management actions from Stolthaven for the Site.

Some decreasing trends were identified for pH levels, including a decreasing trend at MW01, MW02, MW03 and MW04, however pH concentrations remained within background concentrations. These decreasing trends are not considered to be an issue at this stage, but will be reviewed in the next monitoring period. A decreasing trend for pH was reported for MW06 and the graphs support the trend. This may require further assessment.

The groundwater monitoring network was expanded in the fourth quarter of 2017 to provide monitoring of the proposed Expansion Area as described in SSD_7065. At present the additional wells (MW05-MW09) have been assessed against background concentrations for the site, however background concentrations for the Expansion Area will be generated for future comparison. Elevated concentrations of TRH and BTEX (i.e. exceedances of the assessment criteria or background concentrations) were reported at MW08, consistent with previous monitoring rounds. Concentrations at MW08 will be closely monitored by future GME's, particularly given the continued significantly increasing trend of xylene concentrations. It should be noted that the elevated results in the proposed Expansion Area were not considered to be caused by Site operations, and are considered to be BHP legacy contamination. This was supported by the evidence of possible coal tar and DNAPL within MW08.

Additional investigations undertaken during the 2018 monitoring period in the areas upgradient and downgradient of MW08 (MW08A and MW08B) indicated that the hydrocarbon impacts at MW08 are localised within fill deposits immediately surrounding MW08 and have been effectively delineated to the north-east and south. Results of groundwater monitoring at this location will continue to be analysed quarterly to assess the development of the trends.

Stormwater management and monitoring measures implemented at the Site have been successful in preventing environmental damage in this reporting period. All stormwater discharged from the Site was compliant with the requirements of EPL 20193. Consistent future monitoring of bund water after rainfall events will improve the Site's available baseline data and ability to identify trends and issues as well as to identify necessary environmental management measures to improve the environmental performance of the Site.

Noise monitoring identified compliance with all site approval documents at all receiver locations. Truck movements during the reporting period remain well below the MCP limits and have shown a decrease since 2015.

As part of Stolthaven's management system and continuous improvement procedures opportunities for not only meeting but exceeding environmental performance outcomes of the facility are constantly reviewed. In addition to those items identified for actioning out of the IEA process Stolthaven is currently, or is planning to undertake the following during the next reporting period:

- Energy efficiency improvement - Site part completed an LED lighting replacement in 2020, with 42 x 400W flood lights replacement with 120W LED lightings reducing the Site demand on Electricity. A further 22 LED replacements are planned for 2021 which will complete the project.
- Solar panels are still under consideration in 2021. These new measures would introduce additional energy efficiency measures to those already in place such as the use of variable speed drive (VSD) pumps. Due to contractual power purchasing arrangements in place between Stolthaven and PON it has been identified that Stolthaven cannot easily install panels and receive the resulting grid feed-in benefits. Stolthaven is in ongoing consultation with PON with the aim of resolving these issues to allow solar panel installations to be progressed.
- Capping integrity and erosion control - Stolthaven's vacant lease land (located to the immediate North & South of the terminal) is under constant monitoring with the long term aim to protect the land capping integrity. Further minor draining management works were completed in 2020 to prevent scoring of land during heavy rain fall events. The ongoing quarterly groundwater monitoring of wells in the vacant land would also continue over the next reporting period to monitor any changes to background groundwater conditions.

15. References

AECOM (2019), *Annual Review – 2018, Stolthaven Bulk Fuel Storage Facility, Mayfield, Rev 1,* dated 26 February 2019

AECOM (2020a), *Quarterly Groundwater Monitoring Report, Mayfield Bulk Fuel Storage Facility, Q1 February 2020,* dated 20 February 2020

AECOM (2020b), *Quarterly Groundwater Monitoring Report, Mayfield Bulk Fuel Storage Facility, Q2 May 2020,* dated 25 May 2020

AECOM (2020c), *Quarterly Groundwater Monitoring Report, Mayfield Bulk Fuel Storage Facility, Q3 August 2020,* dated 29 October 2020

AECOM (2020d), *Quarterly Groundwater Monitoring Report, Mayfield Bulk Fuel Storage Facility, Q4 November 2020,* dated 8 December 2020

AECOM (2021), *Stolthaven Bulk Liquids Fuel Storage Facility, Mayfield, Operational Noise Compliance Assessment (2020),* doc no. 60326869-RPNV-09_A, dated 03 February 2021

ANZG 2018, *Australian and New Zealand Guidelines for Fresh and Marine Water Quality.* Australian and New Zealand Governments and Australian state and territory governments, Canberra ACT, Australia

Australian and New Zealand Environmental Conservation Council (ANZECC & ARMCANZ 2000) *Australian and New Zealand Guidelines for Fresh and Marine Water Quality*

GHD (2020), *Stolthaven Bulk Fuel Storage Facility, Mayfield, Annual Review 2019,* dated April 2020

NEPC (2013) National *Environment Protection (Assessment of Site Contamination) Amended Measure (NEPM) No. 1 – Schedule B1, Guideline on Investigation Levels for Soil and Groundwater*

Appendices

Appendix A – Figures

Paper Size ISO A4

0 2 4 6 8 10

Kilometers

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56

N

GHD

Stolthaven Australia Pty Ltd
Stolthaven Bulk Fuel Storage Facility
Annual Report 2020

Project No. **12545253**
Revision No. **0**
Date **02/02/2021**

Site location

FIGURE 1

\\ghdnet\ghd\AU\Newcastle\Projects\22\12524848\GIS\Maps\12524848_ProjectData\AnnualReport_2020_0.aprx
Print date: 02 Feb 2021 - 12:43

Data source: AECOM: Background images, 20200225. . Created by: pkiem

Paper Size ISO A4

0 0.02 0.04 0.06 0.08 0.1

Kilometers

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56

N

Stolthaven Australia Pty Ltd
Stolthaven Bulk Fuel Storage Facility
Annual Report 2020

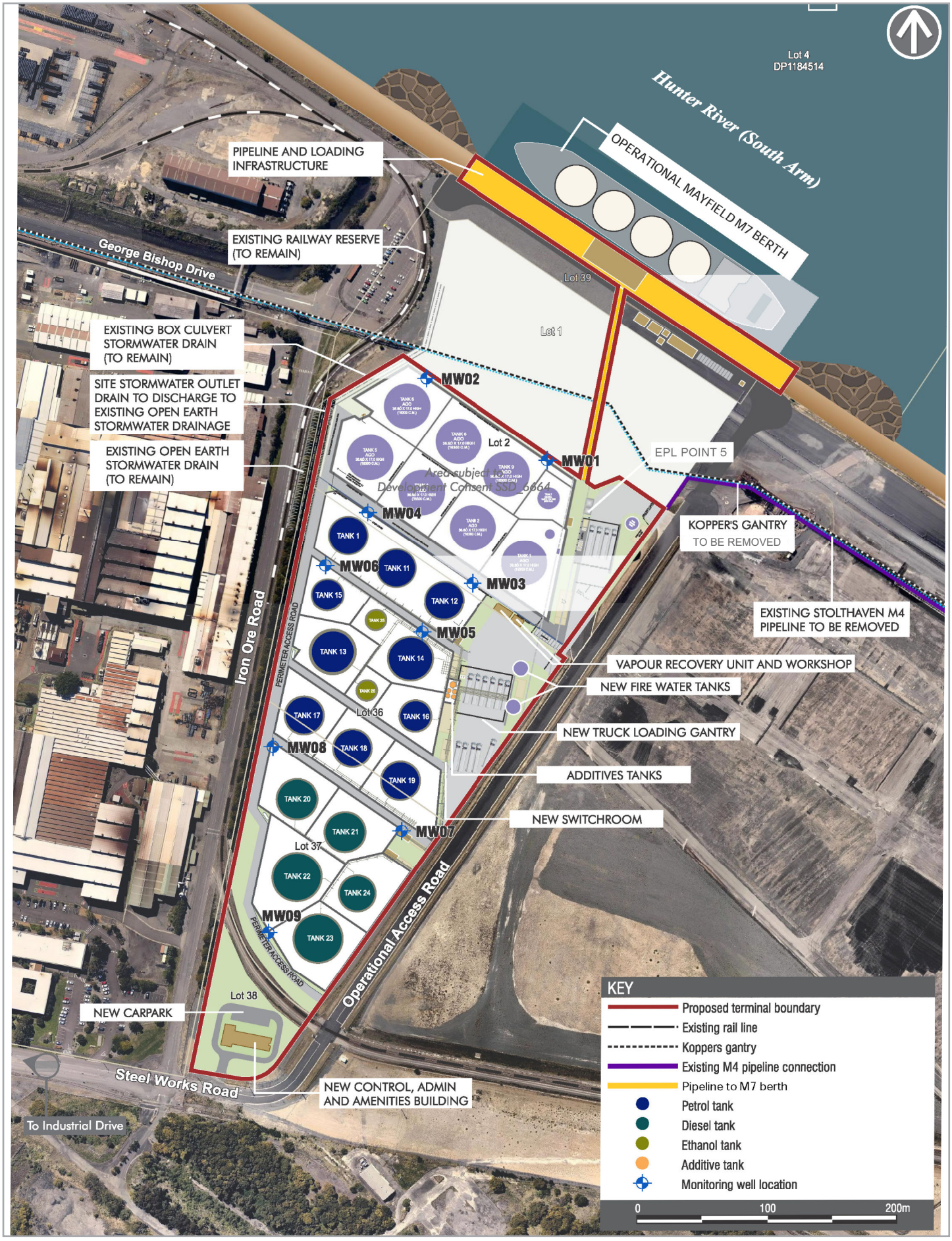
Project No. **12545253**
Revision No. **0**
Date **02/02/2021**

Approved terminal layout

FIGURE 2

\\ghdnet\ghd\AU\Newcastle\Projects\22\12524848\GIS\Maps\12524848_ProjectData\AnnualReport_2020_0.aprx
Print date: 02 Feb 2021 - 12:43

Data source: AECOM: Background images, 20200225. . Created by: pkiem



Paper Size ISO A4

0 0.025 0.05 0.075 0.1 0.125

Kilometers

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 56

N

Stolthaven Australia Pty Ltd
Stolthaven Bulk Fuel Storage Facility
Annual Report 2020

Project No. **12545253**
Revision No. **0**
Date **10/02/2021**

Proposed terminal layout

FIGURE 3

G:\22\12524848\GIS\Maps\12524848_ProjectData\AnnualReport_2020_0.aprx
Print date: 10 Feb 2021 - 11:06

Data source: AECOM: Background images, 20200225. . Created by: kpsroba

Appendix B – DPIE Correspondence Letters

Mr Gaetan Amodeo
Compliance & Risk Manager
Stolthaven Australia Pty Ltd
Level 6, 60 Albert Road
South Melbourne, Victoria 3205

Dear Mr Amodeo

Stolthaven Fuel Terminal – Stage 3 (SSD 7065)
Surrender of Development Consent

I refer to your letter dated 23 April 2020 providing formal notice of Stolthaven Australia Pty Ltd's surrender of State significant development (SSD) consent 6664 (as modified), as required by Condition B11 of Schedule B of SSD 7065.

The Department has reviewed the notice of surrender of development consent and is satisfied the information provided addresses the relevant requirements pursuant to clause 97(1) of the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation).

Pursuant to clause 97(2) of the EP&A Regulation, the notice of surrender of development consent takes effect on the date it is received by the consent authority, as such, development consent SSD 6664 is surrendered effective 23 April 2020.

The requirement of Condition B11 of Schedule B of SSD 7065 has now been satisfied.

Should you have any queries, please do not hesitate to contact Olivia Hirst, Environmental Assessment Officer, on (02) 9274 6583 or via Olivia.hirst@planning.nsw.gov.au.

Yours sincerely

8 May 2020

Chris Ritchie
Director
Industry Assessments
as delegate of the Planning Secretary

Appendix C – Stormwater Monitoring

Bund Water Results 2020

Samples Collected:	Samples Tested:	Location	Temp (°C)	pH	Total Dissolved Solids (ppm)	Dissolved Oxygen (mg/L)	Conductivity (uS/cm)	Appearance	Volume (L) Approx.	Comments
2020										
20/01/2020	20/01/2020	Bund 1	27.6	8.43	59.7	62.4	195.8	clear	5000	
		Bund 2	27.0	8.49	58.4	103.6	190.3	clear	5000	
		Bund 3	27.1	8.32	59.2	93.2	164.1	clear	5000	
		Bund 5	26.7	7.86	64.3	82.1	195.8	clear	8000	
		Bund 6	26.5	7.76	66.7	87.3	188.7	clear	5000	
		Bund 7	26.9	7.33	70.1	87.8	298	clear	3000	
		Bund 8	26.7	7.4	76.2	72.1	246	clear	3000	
		Bund 9	26.6	7.26	78.3	68.3	245	clear	3000	
12/02/2020	12/02/2020	Bund 1	21.3	7.85	46.4	63.0	59.2	clear	10,000	
		Bund 2	21.0	7.9	41.8	68.4	64.5	clear	10,000	
		Bund 3	20.4	7.92	40.1	72.0	69.0	clear	10,000	
		Bund 5	19.8	8.1	41.9	78.9	65.7	clear	20,000	
		Bund 6	19.6	8.3	49.2	75.6	60.1	clear	20,000	
		Bund 7	19.2	8.1	49.0	77.0	62.3	clear	10,000	
		Bund 8	20.4	8.3	53.2	72.4	73.8	clear	10,000	
		Bund 9	20.2	8.2	50.3	73.0	74.1	clear	10,000	
27/02/2020	27/02/2020	Bund 1	24.2	7.91	47.9	78.2	73.4	clear	30,000	
		Bund 2	24.6	7.83	58.4	67.7	74.4	clear	30,000	
		Bund 3	24.1	8.42	57.6	58.8	76.6	clear	30,000	
		Bund 5	24.9	7.68	42.7	67.9	71.2	clear	30,000	
		Bund 6	23.9	8.1	45.9	53.6	79.8	clear	30,000	
		Bund 7	24.2	8.14	49.6	58.2	70.3	clear	30,000	
		Bund 8	24.7	7.96	44.2	61.2	68.2	clear	30,000	
		Bund 9	24.2	7.17	41.3	69.4	69.8	clear	30,000	
26/03/2020	26/03/2020	Bund 1	22.3	7.98	49.8	67.2	89.2	clear	30,000	
		Bund 2	21.6	7.62	47.2	79.3	84.3	clear	30,000	
		Bund 3	22.9	7.14	50.6	61.4	81.2	clear	30,000	
		Bund 5	21.7	7.84	51.3	58.8	88.8	clear	30,000	
		Bund 6	21.9	7.96	41.4	51.1	92.6	clear	30,000	
		Bund 7	22.4	8.2	47.6	53.6	89.7	clear	30,000	
		Bund 8	22.0	7.03	47	67.9	91.4	clear	30,000	
		Bund 9	22.6	7.19	50.9	71.6	90.6	clear	30,000	
28/04/2020	28/04/2020	Bund 1	23.4	7.85	67.9	74.2	89.5	clear	30,000	
		Bund 2	24.0	8.14	78.2	69.7	81.2	clear	30,000	
		Bund 3	23.2	7.96	85.8	61.6	83.7	clear	30,000	
		Bund 5	23.7	8.68	67.3	63.8	91.4	clear	30,000	
		Bund 6	24.1	8.36	74.6	71.2	79.6	clear	30,000	
		Bund 7	23.9	8.12	71.2	73.6	83.8	clear	30,000	
		Bund 8	23.2	7.78	63.4	69.4	90.7	clear	30,000	
		Bund 9	23.2	7.13	61.7	64.6	92.6	clear	30,000	
18/05/2020	18/05/2020	Bund 1	21.6	7.85	58.4	53.7	79.6	clear	10,000	
		Bund 2	21.9	7.1	68.2	61.8	71.4	clear	10,000	
		Bund 3	21.0	6.96	67.9	76.4	62.6	clear	10,000	
		Bund 5	21.0	7.78	54.6	58.4	81.3	clear	10,000	
		Bund 6	22.3	8.12	72.3	59.7	84.2	clear	10,000	
		Bund 7	20.9	8.45	61	63.3	74.8	clear	10,000	
		Bund 8	20.8	7.67	79.3	69.2	89.3	clear	10,000	
		Bund 9	20.4	6.78	48.9	55.1	82.6	clear	10,000	

Samples Collected:	Samples Tested:	Location	Temp (°C)	pH	Total Dissolved Solids (ppm)	Dissolved Oxygen (mg/L)	Conductivity (uS/cm)	Appearance	Volume (L) Approx.	Comments
10/06/2020	10/06/2020	Bund 1	22.3	6.86	59.3	78.2	73.5	clear	25,000	
		Bund 2	23.0	6.07	48.7	81.6	76.2	clear	25,000	
		Bund 3	22.7	6.48	42.6	71.4	89.3	clear	25,000	
		Bund 5	27.0	7.03	67.8	76.6	84.2	clear	25,000	
		Bund 6	23.1	7.71	57.2	64.3	88.7	clear	25,000	
		Bund 7	22.9	6.14	60.3	86.7	80.1	clear	25,000	
		Bund 8	22.4	6.92	62.5	68.7	71.4	clear	25,000	
		Bund 9	22.3	7.83	58.2	82.5	81.0	clear	25,000	
11/06/2020	11/06/2020	Bund 1	19.5	8.3	43.4	64.9	67.2	clear	20,000	
		Bund 2	19.0	8.0	39.5	75.0	72.0	clear	20,000	
		Bund 3	19.1	8.4	43.0	81.0	75.0	clear	20,000	
		Bund 5	18.4	7.9	41.3	80.0	67.7	clear	40,000	
		Bund 6	18.9	8.0	54.0	79.9	61.2	clear	40,000	
		Bund 7	19.5	8.1	48.4	75.1	65.0	clear	20,000	
		Bund 8	19.0	8.5	54.0	73.9	83.0	clear	20,000	
		Bund 9	18.9	8.2	54.1	74.0	81.9	clear	20,000	
2/07/2020	2/07/2020	Bund 1	23.0	6.20	24.0	55.6	47.6	clear	10,000	
		Bund 2	23.7	7.14	22.6	44.8	30.7	clear	10,000	
		Bund 3	23.4	6.98	21.7	49.6	38.2	clear	10,000	
		Bund 5	24.6	7.10	26.4	43.2	31.3	clear	10,000	
		Bund 6	23.9	7.09	20.3	41.7	44.1	clear	10,000	
		Bund 7	24.9	6.88	23.7	56.4	45.6	clear	10,000	
		Bund 8	25.6	6.82	29.8	55.2	40.1	clear	10,000	
		Bund 9	25.2	7.36	22.7	55.0	31.2	clear	10,000	
15/07/2020	15/07/2020	Bund 1	16.5	8.44	49.3	77.4	75.5	clear	25,000	
		Bund 2	16.2	8.87	39.7	84.6	71.2	clear	25,000	
		Bund 3	16.2	8.62	43.5	84.2	66.5	clear	25,000	
		Bund 5	16.0	8.4	40.2	82.4	62.8	clear	25,000	
		Bund 6	15.9	8.47	54.6	82.1	83.6	clear	25,000	
		Bund 7	15.7	8.54	45.4	75.6	70.2	clear	25,000	
		Bund 8	15.9	8.24	55.1	73.3	84.5	clear	25,000	
		Bund 9	15.9	8.11	55.6	74.5	85.8	clear	25,000	
28/07/2020	28/07/2020	Bund 1	14.9	8.8	48.3	75.6	75.0	clear	100,000	
		Bund 2	15.1	7.92	39.6	82.3	72.2	clear	100,000	
		Bund 3	15.0	8.88	43.4	84.0	67.7	clear	100,000	
		Bund 5	14.8	8.9	41.2	81.9	61.8	clear	100,000	
		Bund 6	15.2	8.2	54.2	82.9	80.0	clear	100,000	
		Bund 7	15.4	8.46	48.6	76.0	72.0	clear	100,000	
		Bund 8	14.9	8.25	54.4	74.1	83.5	clear	100,000	
		Bund 9	15.0	8.2	55.0	74.4	85.3	clear	100,000	
23/09/2020	23/09/2020	Bund 1	14.9	6.9	38.0	69.9	59.9	clear	10,000	
		Bund 2	14.8	7.1	42.8	53.1	64.4	clear	10,000	
		Bund 3	14.8	6.5	67.9	54.6	57.8	clear	10,000	
		Bund 5	15.2	7.3	57.4	69.3	51.7	clear	10,000	
		Bund 6	14.9	7.4	54.2	57.8	50.8	clear	10,000	
		Bund 7	15.3	6.9	45.3	61.7	43.0	clear	10,000	
		Bund 8	15.1	6.9	53.2	63.5	59.2	clear	10,000	
		Bund 9	15.3	8.3	50.1	67.4	62.7	clear	10,000	

Samples Collected:	Samples Tested:	Location	Temp (°C)	pH	Total Dissolved Solids (ppm)	Dissolved Oxygen (mg/L)	Conductivity (uS/cm)	Appearance	Volume (L) Approx.	Comments
9/10/2020	9/10/2020	Bund 1	15.5	7.9	38.9	66.8	67.2	clear	15,000	
		Bund 2	15.0	8.0	33.8	75.0	72.6	clear	15,000	
		Bund 3	14.9	8.3	40.1	79.8	74.3	clear	15,000	
		Bund 5	15.1	7.9	41.3	80.0	67.7	clear	20,000	
		Bund 6	14.8	8.0	53.4	79.9	62.7	clear	20,000	
		Bund 7	14.9	8.1	48.7	75.1	65.2	clear	5,000	
		Bund 8	15.3	8.1	52.7	73.9	82.3	clear	10,000	
		Bund 9	15.0	8.2	54.1	72.5	79.9	clear	10,000	
19/10/2020	19/10/2020	Bund 1	16.5	8.5	37.4	30.9	80.2	clear	20,000	
		Bund 2	16.6	8.3	38.1	31.6	69.2	clear	20,000	
		Bund 3	16.0	8.2	38.1	31.0	71.9	clear	20,000	
		Bund 5	15.9	7.6	34.7	41.4	90.1	clear	20,000	
		Bund 6	15.8	8.5	36.8	40.1	84.8	clear	20,000	
		Bund 7	15.9	7.9	49.9	36.2	95.5	clear	10,000	
		Bund 8	16.2	8.0	43.8	32.6	73.6	clear	10,000	
		Bund 9	16.2	7.4	46.5	39.8	80.7	clear	10,000	
26/10/2020	26/10/2020	Bund 1	16.2	8.8	38.6	76.2	75.0	clear	100,000	
		Bund 2	16.0	8.7	37.2	85.8	71.8	clear	100,000	
		Bund 3	16.1	8.4	45.0	78.1	75.0	clear	100,000	
		Bund 5	15.9	8.6	48.6	56.8	67.9	clear	100,000	
		Bund 6	15.8	8.2	51.2	85.4	86.2	clear	100,000	
		Bund 7	15.9	8.5	47.9	75.6	64.5	clear	100,000	
		Bund 8	15.8	8.2	52.8	68.6	77.9	clear	100,000	
		Bund 9	15.8	7.6	51.1	80.3	80.1	clear	100,000	
16/11/2020	16/11/2020	Bund 1	20.0	8.1	44.0	62.8	65.1	clear	20,000	
		Bund 2	20.2	8.0	40.5	72.5	70.2	clear	20,000	
		Bund 3	19.8	8.3	43.2	80.0	74.6	clear	20,000	
		Bund 5	19.0	8.5	42.3	81.1	68.7	clear	40,000	
		Bund 6	19.5	8.2	50.0	78.9	62.4	clear	40,000	
		Bund 7	19.0	8.0	49.8	79.8	66.8	clear	20,000	
		Bund 8	18.9	8.4	52.0	74.0	80.1	clear	20,000	
		Bund 9	19.2	8.3	53.8	73.8	80.0	clear	20,000	
12/08/2020	12/08/2020	Bund 1	24.6	7.83	47.9	67.7	73.3	clear	10,000	
		Bund 2	24.3	8.24	58.4	58.8	92.4	clear	10,000	
		Bund 3	24.1	8.1	49.5	78.2	89.5	clear	10,000	
		Bund 5	24.2	7.97	60.6	51.1	76.6	clear	20,000	
		Bund 6	24.2	7.99	62.5	53.6	88.3	clear	20,000	
		Bund 7	24.4	8.12	52.3	69.3	80.2	clear	10,000	
		Bund 8	24.3	8.07	51.4	74.8	91.3	clear	10,000	
		Bund 9						clear	10,000	
		Recalibration fluid for pH - reset to 1 decimal place								
8/12/2020	8/12/2020	Bund 1	15.2	7.8	47.0	58.2	75.8	clear	20,000	
		Bund 2	15.1	8.0	45.2	68.5	59.2	clear	20,000	
		Bund 3	14.9	8.2	39.8	76.3	62.0	clear	20,000	
		Bund 5	14.8	7.3	43.5	76.7	67.1	clear	40,000	
		Bund 6	14.9	7.6	39.8	77.3	71.5	clear	40,000	
		Bund 7	15.1	8.1	46.0	70.4	81.5	clear	20,000	
		Bund 8	15.1	8.2	56.2	72.5	93.3	clear	20,000	
		Bund 9	Nil	Nil	Nil	Nil	Nil	clear	20,000	

Samples Collected:	Samples Tested:	Location	Temp (°C)	pH	Total Dissolved Solids (ppm)	Dissolved Oxygen (mg/L)	Conductivity (uS/cm)	Appearance	Volume (L) Approx.	Comments
15/12/2020	15/12/2020	Bund 1	22.6	7.86	46.4	67.9	74.4	clear	20,000	
		Bund 2	22.0	6.24	52.8	82.3	90.1	clear	20,000	
		Bund 3	23.4	6.17	52.4	82.3	74.5	clear	20,000	
		Bund 5	22.9	7.2	60.6	81.7	70.2	clear	40,000	
		Bund 6	22.9	6.13	49.8	80.3	68.7	clear	40,000	
		Bund 7	23.1	6.09	54.2	58.1	71.3	clear	20,000	
		Bund 8	22.4	7.18	62.8	62.4	76.7	clear	20,000	
		Bund 9	22.7	7.23	50.4	69.7	84.3	clear	20,000	
21/12/2020	21/12/2020	Bund 1	24.2	6.24	60.2	67.6	76.7	clear	20,000	
		Bund 2	24.0	7.28	47.9	75.8	71.2	clear	10,000	
		Bund 3	24.3	7.14	44.3	70.7	79.3	clear	10,000	
		Bund 5	24.2	6.19	61.7	71.2	84.6	clear	20,000	
		Bund 6	24.7	7.83	55.2	81.6	71.3	clear	10,000	
		Bund 7	24.3	8.10	50.6	61.4	70.6	clear	5,000	
		Bund 8	24.1	6.26	62.7	67.2	81.2	clear	10,000	
		Bund 9	24.0	7.45	70.1	69.8	80.7	clear	10,000	
29/12/2020	29/12/2020	Bund 1	20.2	7.23	47.2	78.7	89.5	clear	10,000	
		Bund 2	21.0	7.1	51.2	69.3	76.3	clear	10,000	
		Bund 3	20.4	8.14	49.3	71.3	70.1	clear	10,000	
		Bund 5	20.1	7.06	53.8	70.6	72.8	clear	20,000	
		Bund 6	20.2	6.82	59.7	79.3	81.4	clear	10,000	
		Bund 7	20.9	6.04	51.6	72.8	88.6	clear	5,000	
		Bund 8	20.5	6.17	42.2	68.8	83.4	clear	5,000	
		Bund 9	20.9	6.89	56.7	76.3	84	clear	5,000	

2020 First Flush Results

Samples Collected:	Samples Tested:	Dissolved Oxygen (mg/L)	Oil and Grease (mg/L)	pH	Total Suspended Solids (TSS)	Volume (L)	Comments
20/01/2020	21.01.2020	6.95	< 2	7.50	1	15,000	
29/01/2020	30.01.2020	7.27	< 2	7.39	22	35,000	Late results PM 30 Jan. Discharge AM 31 Jan
12/02/2020	12/03/2020	6.44	< 2	7.29	21	15,000	Torm Kansas alongside, discharge of FFP scheduled for 04/12
19/02/2020	20.02.2020	7.70	< 2	7.46	21	20,000	
27/02/2020	28.02.2020	7.95	< 2	7.19	8	35,000	Results not released by ALS until 10:30hrs 02 Mar
27/03/2020	30.03.2020	8.25	3	7.57	6	35,000	
28/04/2020	29.04.2020	8.35	< 2	7.27	12	30,000	Released 04/05 due shipping events
19/05/2020	20.05.2020	8.88	3	7.44	23	25,000	Late receipt of results
27/05/2020	28.05.2020	9.01	< 2	7.47	14	35,000	
3/06/2020	3/07/2020	7.59	< 2	7.45	8	30,000	
10/06/2020	11.06.20	8.74	< 2	7.54	28	39,000	Released 11-12th June - completed 15th June
11/06/2020	11/09/2020	8.58	< 2	7.38	5	30,000	Late issue of results 09/11 - release post shipping event 12/11
22/06/2020	23.06.20	9.24	< 2	7.44	62	0	No release - recirculate 24th and 25th June
25/06/2020	26.06.20	8.99	< 2	7.66	20	35,000	FFP schedued for wash down / clean and pump out post
2/07/2020	2/10/2020	8.29	< 2	7.59	6	38,500	Released 10th Feb
4/07/2020	4/08/2020	8.55	2	7.65	1	25,000	
8/07/2020	09.07.20	8.62	4	7.57	10	25,000	Ship discharging to Terminal. Release delayed until 10/07.
12/07/2020	12/08/2020	7.60	< 2	7.32	5	25,000	Late PM issue of results, release delayed due ITT 09 Dec
15/07/2020	16.07.20	9.91	< 2	7.57	18	39,000	
27/07/2020	27.07.20	8.96	< 2	7.80	8	39,000	
12/08/2020	12.08.20	8.99	5	7.48	35	0	No release - recirc and retest.
14/08/2020	17.08.20	9.29	5	7.44	24	15,000	
10/09/2020	11.09.20	8.63	< 2	8.02	18	20,000	
22/09/2020	23.09.20	8.34	< 2	7.68	28	15,000	Recirc'd for 2 days prior testing. Late release of rsults by ALS 24/09
19/10/2020	20.10.20	8.41	< 2	7.53	22	20,000	Partial release 20/10 - result released PM
26/10/2020	27.10.20	8.68	4	7.48	8	35,000	Late issue of results 27/10 - release 28/10
14/12/2020	15.12.2020	6.57	< 2	8.70	13	0	Original sample taken at very low level. Subsequent down pour filled pit, recirculated and resampled
16/12/2020	17.12.2020	6.67	< 2	7.50	5	35,000	
22/12/2020	23.12.2020	6.57	< 2	8.05	5	35,000	
29/12/2020	30.12.2020	6.51	< 2	7.78	10	35,000	Partial release 31/12 and continuation 02/01
MINIMUM		**6.44**	**2.00**	**7.19**	**1.00**		
MAXIMUM		**9.91**	**5.00**	**8.70**	**62.00**		
AVERAGE		**8.15**	**3.71**	**7.57**	**15.57**		

Appendix D – Hourly Truck Movements

REPORTING PERIOD: January 2020

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	13	14	23	23	17	21	8	15	20	6	7	23
Bay 2	3	7	24	19	17	20	8	8	8	9	8	10
Bay 3	5	12	20	17	11	16	19	15	13	6	15	14
Bay 4	7	3	10	8	8	9	7	4	8	5	11	8
Total	**28**	**36**	**77**	**67**	**53**	**66**	**42**	**42**	**49**	**26**	**41**	**55**

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	20	20	27	17	22	16	10	12	8	4	6	2
Bay 2	12	18	20	16	16	10	7	3	2	0	4	1
Bay 3	13	11	13	11	15	12	3	5	7	8	7	4
Bay 4	7	7	5	6	5	6	2	3	1	2	5	0
Total	**52**	**56**	**65**	**50**	**58**	**44**	**22**	**23**	**18**	**14**	**22**	**7**

Traffic Movement Assessment Data

	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
1/01/2020	0	0	1	2	1	2	0	1	1	0	0	1
2/01/2020	0	0	3	1	4	1	0	0	2	0	0	1
3/01/2020	1	0	1	1	2	1	2	4	0	0	0	1
4/01/2020	0	0	3	0	0	0	0	0	0	0	0	0
5/01/2020	0	2	1	0	1	0	0	1	0	0	4	1
6/01/2020	1	2	3	4	0	1	0	2	2	0	0	1
7/01/2020	0	0	3	2	2	1	0	2	1	1	1	2
8/01/2020	0	0	4	2	0	0	3	3	2	1	2	1
9/01/2020	0	1	1	2	3	4	4	0	0	1	3	0
10/01/2020	0	0	5	1	2	1	0	1	1	1	1	1
11/01/2020	0	0	1	1	0	1	0	0	0	0	0	0
12/01/2020	0	0	1	1	0	0	0	0	0	0	0	1
13/01/2020	1	1	2	2	3	1	0	2	1	1	1	0
14/01/2020	0	3	1	3	1	1	0	1	1	1	0	0
15/01/2020	1	3	1	3	2	0	1	1	0	3	1	1
16/01/2020	1	3	3	2	3	6	2	1	2	0	2	3
17/01/2020	1	2	3	3	1	4	2	1	2	2	1	6
18/01/2020	0	1	0	1	2	1	1	1	1	1	2	2
19/01/2020	1	0	0	3	1	1	1	1	1	0	1	2
20/01/2020	1	2	3	3	1	3	1	3	2	2	1	2
21/01/2020	1	3	5	2	0	3	1	2	0	1	3	2
22/01/2020	0	1	6	3	2	2	2	2	3	0	1	5
23/01/2020	1	2	3	3	0	5	2	1	4	2	0	1
24/01/2020	3	2	4	2	5	4	3	2	1	1	5	2
25/01/2020	4	1	4	1	2	2	1	2	4	1	2	0
26/01/2020	0	0	1	4	1	2	1	2	3	1	0	3
27/01/2020	1	1	2	3	2	3	3	2	3	1	2	5
28/01/2020	6	0	3	4	4	4	4	0	4	0	2	3
29/01/2020	2	2	4	1	4	3	1	1	3	2	3	2
30/01/2020	1	2	1	6	2	3	2	1	4	1	1	3
31/01/2020	1	2	4	1	2	6	5	2	1	2	2	3
Total	**28**	**36**	**77**	**67**	**53**	**66**	**42**	**42**	**49**	**26**	**41**	**55**

	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
1/01/2020	0	2	1	2	1	0	0	0	0	0	0	0
2/01/2020	0	1	1	0	1	3	0	1	0	0	0	0
3/01/2020	0	4	1	1	2	1	0	1	0	0	0	0
4/01/2020	1	0	1	0	0	0	0	1	0	0	0	0
5/01/2020	2	1	1	0	0	0	0	0	0	0	0	0
6/01/2020	0	2	4	1	2	1	1	0	0	0	1	0
7/01/2020	0	2	1	2	0	0	0	0	0	0	0	0
8/01/2020	2	0	0	2	2	1	0	0	0	0	0	0
9/01/2020	0	2	2	1	4	2	4	0	0	1	0	0
10/01/2020	1	1	1	4	3	0	0	1	1	0	0	0
11/01/2020	1	0	3	1	0	0	1	0	0	0	0	0
12/01/2020	2	0	1	0	3	0	0	1	1	0	0	0
13/01/2020	2	1	4	2	1	1	0	1	0	0	0	0
14/01/2020	1	3	3	0	1	2	0	0	1	0	0	0
15/01/2020	2	2	4	1	1	4	1	2	1	1	0	0
16/01/2020	2	0	1	3	2	2	0	1	0	1	0	0
17/01/2020	1	2	1	1	6	1	1	1	0	0	0	0
18/01/2020	0	2	1	1	0	1	0	0	0	0	1	0
19/01/2020	2	1	1	0	3	0	0	0	0	1	1	0
20/01/2020	1	3	2	2	3	2	3	1	1	0	1	1
21/01/2020	2	2	2	6	1	0	2	2	0	1	3	0
22/01/2020	0	5	2	3	2	4	0	1	0	2	2	0
23/01/2020	5	3	5	2	3	2	0	0	1	2	0	0
24/01/2020	5	1	3	0	3	3	1	0	4	1	1	2
25/01/2020	2	3	3	3	1	1	1	3	0	2	0	1
26/01/2020	6	1	3	0	0	3	2	0	1	0	2	0
27/01/2020	1	3	2	1	3	2	1	1	2	0	2	0
28/01/2020	4	1	1	3	0	3	1	2	0	1	0	2
29/01/2020	2	2	3	2	5	2	0	1	2	1	2	0
30/01/2020	1	3	6	3	2	0	2	1	2	0	3	0
31/01/2020	4	3	1	3	3	3	1	1	1	0	3	1
Total	**52**	**56**	**65**	**50**	**58**	**44**	**22**	**23**	**18**	**14**	**22**	**7**

REPORTING PERIOD: February 2020

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	11	11	30	16	18	20	11	4	11	13	12	17
Bay 2	4	11	22	18	21	15	7	8	8	12	8	5
Bay 3	4	6	18	10	8	11	8	9	8	5	6	7
Bay 4	1	2	10	5	6	1	7	3	3	1	1	3
Total	**20**	**30**	**80**	**49**	**53**	**47**	**33**	**24**	**30**	**31**	**27**	**32**

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	17	18	20	18	13	10	6	7	3	5	6	1
Bay 2	8	13	17	17	10	1	3	1	2	1	0	1
Bay 3	4	8	9	11	8	7	8	6	4	3	5	1
Bay 4	4	5	3	4	1	3	0	0	1	0	0	0
Total	**33**	**44**	**49**	**50**	**32**	**21**	**17**	**14**	**10**	**9**	**11**	**3**

Traffic Movement Assessment Data

	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
1/02/2020	2	1	2	1	3	1	1	0	2	1	1	2
2/02/2020	0	0	1	2	2	2	4	0	1	1	4	2
3/02/2020	1	3	7	2	3	1	2	1	4	0	4	3
4/02/2020	1	5	7	3	4	2	3	2	2	3	0	2
5/02/2020	2	1	4	4	6	5	4	5	2	2	1	2
6/02/2020	2	1	5	2	0	1	4	3	0	2	1	0
7/02/2020	3	0	1	1	3	3	0	2	0	0	1	0
8/02/2020	0	0	1	2	0	1	0	0	1	1	0	1
9/02/2020	0	0	1	0	0	0	0	0	0	0	0	1
10/02/2020	1	1	3	2	2	1	0	1	1	1	0	1
11/02/2020	0	0	3	0	2	1	0	2	1	0	1	2
12/02/2020	2	1	3	1	3	3	2	2	2	1	0	0
13/02/2020	0	0	5	1	0	2	2	0	0	1	2	1
14/02/2020	0	1	2	1	2	1	1	0	1	0	0	1
15/02/2020	1	1	0	0	2	1	0	0	0	0	1	1
16/02/2020	1	0	0	0	0	1	1	0	1	0	0	3
17/02/2020	1	1	4	1	2	2	1	1	1	0	3	1
18/02/2020	0	1	3	0	2	1	2	0	0	2	1	0
19/02/2020	0	2	3	3	2	1	0	1	1	0	0	1
20/02/2020	0	1	1	6	1	4	0	0	0	2	2	0
21/02/2020	1	1	3	2	3	3	0	1	4	2	1	2
22/02/2020	0	1	2	1	1	0	0	0	0	0	0	1
23/02/2020	0	0	1	0	0	1	2	0	0	0	0	1
24/02/2020	2	2	3	1	2	1	2	1	0	3	2	0
25/02/2020	0	3	3	2	3	1	0	2	0	2	0	1
26/02/2020	0	2	5	3	1	1	1	0	1	4	2	0
27/02/2020	0	0	4	2	2	3	1	0	1	1	0	2
28/02/2020	0	1	2	4	2	2	0	0	2	2	0	0
29/02/2020	0	0	1	2	0	1	0	0	2	0	0	1
1/03/2020	0	0	0	0	0	0	0	0	0	0	0	0
2/03/2020	0	0	0	0	0	0	0	0	0	0	0	0
Total	**20**	**30**	**80**	**49**	**53**	**47**	**33**	**24**	**30**	**31**	**27**	**32**

	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
1/02/2020	1	2	2	1	3	2	1	0	0	1	0	0
2/02/2020	4	0	2	3	0	0	1	1	1	0	0	1
3/02/2020	2	3	3	3	0	2	1	0	1	0	1	0
4/02/2020	3	2	3	2	1	1	2	1	0	1	3	0
5/02/2020	4	2	2	1	2	1	2	0	0	1	0	0
6/02/2020	1	4	1	1	1	1	1	1	0	1	0	0
7/02/2020	0	0	3	3	1	0	1	1	0	0	0	1
8/02/2020	0	1	1	0	0	0	0	1	0	0	0	0
9/02/2020	0	1	1	1	0	0	0	0	0	0	0	0
10/02/2020	0	4	0	2	0	1	0	0	0	0	0	0
11/02/2020	0	4	2	2	1	2	0	1	2	0	1	0
12/02/2020	2	0	1	2	2	0	0	0	0	0	0	0
13/02/2020	0	0	1	0	0	1	0	0	0	0	0	0
14/02/2020	0	0	2	1	1	1	0	0	0	0	0	0
15/02/2020	1	1	1	0	2	0	0	0	0	0	0	0
16/02/2020	1	0	1	0	0	3	0	1	0	0	0	0
17/02/2020	0	4	1	2	1	0	0	1	0	1	0	0
18/02/2020	0	1	0	1	0	2	0	1	0	0	0	0
19/02/2020	4	1	1	2	3	0	0	0	1	1	0	0
20/02/2020	1	2	2	2	0	0	2	0	0	0	0	1
21/02/2020	0	1	4	3	3	0	0	1	2	2	2	0
22/02/2020	1	2	1	1	0	0	1	1	0	0	0	0
23/02/2020	2	1	0	1	0	1	1	0	1	0	0	0
24/02/2020	2	1	0	5	2	0	2	1	1	0	1	0
25/02/2020	1	0	5	1	3	0	0	0	1	0	1	0
26/02/2020	1	3	4	4	3	1	1	1	0	0	1	0
27/02/2020	1	2	2	3	1	0	0	1	0	1	0	0
28/02/2020	1	2	2	2	2	1	1	0	0	0	0	0
29/02/2020	0	0	1	1	0	1	0	0	0	0	1	0
1/03/2020	0	0	0	0	0	0	0	0	0	0	0	0
2/03/2020	0	0	0	0	0	0	0	0	0	0	0	0
Total	**33**	**44**	**49**	**50**	**32**	**21**	**17**	**14**	**10**	**9**	**11**	**3**

REPORTING PERIOD: March 2020

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	17	19	27	17	25	23	9	21	15	20	22	15
Bay 2	9	12	24	18	13	19	12	9	10	14	11	15
Bay 3	9	12	19	20	11	13	10	12	9	17	12	17
Bay 4	1	2	4	5	2	5	2	6	0	1	3	2
Total	**36**	**45**	**74**	**60**	**51**	**60**	**33**	**48**	**34**	**52**	**48**	**49**

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	20	27	30	28	20	16	9	10	6	4	11	4
Bay 2	16	17	22	23	14	13	9	5	6	3	4	0
Bay 3	12	21	19	18	13	9	8	13	5	7	6	3
Bay 4	7	5	5	2	6	5	5	5	0	1	1	0
Total	**55**	**70**	**76**	**71**	**53**	**43**	**31**	**33**	**17**	**15**	**22**	**7**

Traffic Movement Assessment Data

	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
1/03/2020	0	1	1	0	1	0	0	0	1	0	2	2
2/03/2020	2	2	3	2	2	1	1	0	3	2	1	2
3/03/2020	3	1	3	1	3	2	1	0	0	3	2	1
4/03/2020	1	1	4	2	2	4	3	2	1	1	2	3
5/03/2020	1	1	2	3	4	2	3	4	1	3	4	0
6/03/2020	2	3	3	1	1	5	0	1	2	1	2	1
7/03/2020	0	0	2	0	0	3	0	0	1	1	0	1
8/03/2020	2	1	1	2	0	0	0	0	1	1	2	2
9/03/2020	1	3	3	2	2	0	0	1	3	3	2	0
10/03/2020	1	3	5	1	3	3	0	1	3	3	1	3
11/03/2020	2	3	3	1	2	2	2	2	0	3	1	2
12/03/2020	2	1	0	7	2	0	2	1	1	0	1	2
13/03/2020	2	2	2	2	3	1	0	2	0	4	2	0
14/03/2020	0	0	2	1	0	1	0	1	0	0	0	2
15/03/2020	3	0	0	0	0	1	1	0	1	1	0	0
16/03/2020	1	1	5	1	1	0	1	2	2	1	0	0
17/03/2020	0	1	3	3	0	1	0	1	2	2	1	3
18/03/2020	1	1	1	4	4	0	0	3	1	3	1	4
19/03/2020	0	1	2	1	2	3	0	0	1	1	2	0
20/03/2020	0	2	2	1	2	2	0	2	1	2	0	1
21/03/2020	1	0	0	0	0	0	1	1	0	0	1	0
22/03/2020	0	0	0	0	1	0	1	0	0	0	1	3
23/03/2020	0	3	4	1	3	3	1	1	0	3	2	1
24/03/2020	1	3	1	4	1	4	1	3	1	1	2	2
25/03/2020	0	0	4	5	3	4	4	4	1	1	2	4
26/03/2020	0	2	3	4	1	6	4	1	1	2	4	1
27/03/2020	3	1	3	2	1	2	2	2	1	1	3	5
28/03/2020	1	1	2	2	1	2	1	2	2	1	1	2
29/03/2020	3	1	2	1	0	2	0	2	0	1	4	1
30/03/2020	3	4	5	4	2	1	2	5	2	2	1	1
31/03/2020	0	2	3	2	4	5	2	4	1	5	1	0
Total	**36**	**45**	**74**	**60**	**51**	**60**	**33**	**48**	**34**	**52**	**48**	**49**

	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
1/03/2020	1	0	1	1	0	0	0	0	0	0	1	0
2/03/2020	1	1	2	2	2	0	1	0	0	0	1	0
3/03/2020	2	1	2	1	3	0	0	1	0	0	0	0
4/03/2020	1	1	3	5	3	2	3	2	0	2	1	1
5/03/2020	1	0	5	6	0	0	1	2	0	0	0	0
6/03/2020	0	4	4	3	1	2	1	1	1	0	0	1
7/03/2020	3	0	2	2	1	1	1	0	0	0	1	0
8/03/2020	2	2	3	0	1	0	2	1	1	0	0	0
9/03/2020	3	4	2	4	4	2	1	1	3	1	1	1
10/03/2020	1	0	3	4	3	0	2	0	2	1	1	0
11/03/2020	1	3	2	5	1	2	0	2	2	1	0	0
12/03/2020	0	4	5	0	3	1	1	1	0	0	0	0
13/03/2020	0	3	3	3	0	3	1	0	0	0	0	0
14/03/2020	1	2	1	1	0	2	0	0	0	0	1	0
15/03/2020	1	2	1	0	0	0	0	0	0	0	0	0
16/03/2020	3	3	3	1	0	1	1	0	0	0	0	0
17/03/2020	3	1	2	1	2	1	0	0	0	0	0	0
18/03/2020	0	1	3	1	2	0	1	2	0	0	0	0
19/03/2020	2	4	0	3	2	1	0	0	0	0	0	0
20/03/2020	0	1	2	1	1	3	0	0	0	0	1	0
21/03/2020	2	4	0	2	0	0	1	0	0	0	0	0
22/03/2020	1	3	0	0	1	0	0	2	1	0	0	0
23/03/2020	3	4	2	5	4	1	0	2	1	1	2	0
24/03/2020	2	2	4	4	4	2	2	2	1	3	3	0
25/03/2020	3	1	2	2	4	7	0	1	0	0	4	1
26/03/2020	2	5	3	2	3	3	4	3	0	0	3	1
27/03/2020	4	3	5	1	2	3	1	4	1	1	0	1
28/03/2020	6	2	1	1	2	1	1	1	0	1	2	0
29/03/2020	3	2	0	2	1	3	1	0	2	1	0	0
30/03/2020	2	6	6	4	0	0	4	3	2	1	0	1
31/03/2020	1	1	4	4	3	2	1	2	0	2	0	0
Total	**55**	**70**	**76**	**71**	**53**	**43**	**31**	**33**	**17**	**15**	**22**	**7**

REPORTING PERIOD: April 2020

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	17	11	29	32	32	27	18	7	19	19	18	15
Bay 2	15	14	22	27	22	22	20	15	11	19	12	12
Bay 3	9	8	20	19	21	16	13	10	12	16	9	14
Bay 4	8	3	9	10	12	12	6	2	11	13	3	5
Total	**49**	**36**	**80**	**88**	**87**	**77**	**57**	**34**	**53**	**67**	**42**	**46**

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	15	22	30	29	20	12	11	10	11	9	6	3
Bay 2	16	17	22	27	16	9	17	11	14	7	2	5
Bay 3	12	14	23	18	16	7	10	4	11	11	4	3
Bay 4	5	6	14	16	12	4	5	2	7	1	1	0
Total	**48**	**59**	**89**	**90**	**64**	**32**	**43**	**27**	**43**	**28**	**13**	**11**

Traffic Movement Assessment Data

	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
1/04/2020	0	0	3	2	3	4	1	1	1	1	1	0
2/04/2020	2	0	1	5	1	1	2	0	3	0	3	0
3/04/2020	0	0	2	3	2	2	0	0	2	1	0	0
4/04/2020	3	0	2	0	2	0	3	2	0	0	2	2
5/04/2020	0	1	0	0	0	0	0	1	0	1	0	2
6/04/2020	1	1	3	1	5	2	1	2	3	2	3	1
7/04/2020	1	1	2	5	3	4	2	2	2	3	1	0
8/04/2020	0	1	4	3	4	5	3	0	1	4	2	3
9/04/2020	0	2	3	5	3	3	0	1	3	4	3	1
10/04/2020	0	1	4	2	5	4	1	0	2	1	3	1
11/04/2020	1	1	2	1	1	2	2	0	0	3	0	0
12/04/2020	2	1	2	0	1	3	1	0	4	1	3	1
13/04/2020	1	2	3	3	5	3	0	3	1	1	1	1
14/04/2020	5	0	3	4	3	1	3	1	2	2	0	0
15/04/2020	2	3	4	1	3	0	2	2	0	2	1	1
16/04/2020	3	2	3	3	3	2	2	1	1	2	0	1
17/04/2020	2	1	4	3	5	2	2	0	4	0	3	2
18/04/2020	0	2	1	3	2	1	1	1	1	2	2	0
19/04/2020	1	2	1	3	0	1	1	0	0	4	2	3
20/04/2020	2	0	4	4	2	3	4	2	2	1	1	3
21/04/2020	1	0	4	4	8	2	3	1	1	2	3	5
22/04/2020	3	0	3	4	1	5	5	1	3	4	2	4
23/04/2020	3	0	3	2	2	1	3	1	4	1	1	1
24/04/2020	2	3	2	4	4	1	1	2	3	2	2	3
25/04/2020	2	1	1	3	2	3	1	2	0	2	1	1
26/04/2020	1	2	2	3	1	2	4	0	2	4	0	2
27/04/2020	3	4	3	2	5	4	1	2	2	4	0	2
28/04/2020	1	3	3	6	4	7	2	0	3	6	1	2
29/04/2020	4	1	5	4	5	3	4	1	3	6	1	2
30/04/2020	3	1	3	5	2	6	2	5	0	1	0	2
1/05/2020	0	0	0	0	0	0	0	0	0	0	0	0
Total	**49**	**36**	**80**	**88**	**87**	**77**	**57**	**34**	**53**	**67**	**42**	**46**

	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
1/04/2020	1	3	4	4	4	0	2	2	1	1	0	0
2/04/2020	0	1	1	3	2	0	0	0	0	0	0	0
3/04/2020	0	2	3	3	0	0	3	2	0	0	0	0
4/04/2020	1	1	2	0	2	0	1	0	1	0	1	0
5/04/2020	2	2	1	3	2	1	0	0	1	1	1	0
6/04/2020	0	0	2	6	3	1	2	0	2	2	0	0
7/04/2020	1	5	2	4	1	1	2	0	4	1	1	0
8/04/2020	1	1	5	3	3	0	1	1	2	0	0	2
9/04/2020	1	0	5	3	3	0	1	0	0	3	1	0
10/04/2020	2	3	1	4	1	0	1	2	2	2	0	0
11/04/2020	2	3	1	1	1	1	1	1	1	0	0	0
12/04/2020	2	0	2	0	0	1	1	0	1	1	0	0
13/04/2020	2	2	2	2	0	2	2	1	0	1	1	0
14/04/2020	3	3	2	3	0	2	2	0	2	2	0	1
15/04/2020	2	0	4	2	2	1	2	1	2	2	1	0
16/04/2020	2	2	2	2	1	0	2	1	1	1	0	0
17/04/2020	3	3	4	1	5	1	0	0	3	1	2	1
18/04/2020	2	3	3	1	2	1	0	1	2	0	0	0
19/04/2020	1	1	1	4	1	1	1	0	1	0	0	2
20/04/2020	1	2	1	7	2	1	2	3	0	3	0	1
21/04/2020	0	2	6	4	3	3	3	1	1	0	1	2
22/04/2020	0	1	2	7	5	1	2	0	2	2	1	0
23/04/2020	3	4	2	4	2	2	0	2	4	0	0	0
24/04/2020	0	1	8	3	1	4	0	2	4	1	0	0
25/04/2020	6	1	6	2	1	1	3	0	1	1	1	1
26/04/2020	2	5	3	1	3	0	2	2	1	0	1	1
27/04/2020	3	2	6	4	4	2	3	3	2	0	0	0
28/04/2020	1	3	4	5	4	0	0	0	0	0	0	0
29/04/2020	1	2	2	4	2	3	3	2	1	3	1	0
30/04/2020	3	1	2	0	4	2	1	0	1	0	0	0
1/05/2020	0	0	0	0	0	0	0	0	0	0	0	0
Total	**48**	**59**	**89**	**90**	**64**	**32**	**43**	**27**	**43**	**28**	**13**	**11**

REPORTING PERIOD: May 2020

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	25	18	24	23	37	26	27	25	17	21	26	27
Bay 2	13	8	25	21	29	23	18	16	18	15	9	18
Bay 3	13	6	16	18	25	20	21	15	20	14	17	27
Bay 4	5	4	8	4	23	14	11	7	12	14	9	16
Total	**56**	**36**	**73**	**66**	**114**	**83**	**77**	**63**	**67**	**64**	**61**	**88**

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	26	27	26	25	23	18	25	12	14	10	17	3
Bay 2	20	18	18	26	17	14	18	6	7	4	5	3
Bay 3	25	18	19	20	19	16	13	5	10	11	11	6
Bay 4	11	18	13	12	10	8	6	4	9	6	4	0
Total	**82**	**81**	**76**	**83**	**69**	**56**	**62**	**27**	**40**	**31**	**37**	**12**

Traffic Movement Assessment Data

	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
1/05/2020	0	1	3	2	2	0	2	1	2	1	0	0
2/05/2020	3	0	1	3	2	1	1	2	1	2	3	2
3/05/2020	3	0	2	1	1	1	2	2	3	0	2	3
4/05/2020	4	1	3	1	6	6	3	1	3	2	0	5
5/05/2020	0	2	4	3	5	1	5	3	3	2	3	3
6/05/2020	2	0	4	3	7	1	4	3	3	1	2	1
7/05/2020	3	1	3	2	5	2	4	3	3	4	4	3
8/05/2020	1	2	5	1	3	3	3	3	1	1	4	3
9/05/2020	1	0	1	2	4	4	5	2	4	3	3	7
10/05/2020	3	1	3	1	3	2	2	1	3	1	4	5
11/05/2020	1	1	5	5	6	2	0	1	3	6	5	1
12/05/2020	3	2	3	2	6	2	1	2	4	4	1	2
13/05/2020	1	1	4	4	1	7	3	0	3	3	2	4
14/05/2020	1	5	3	2	4	4	4	1	1	2	1	2
15/05/2020	2	1	1	6	6	1	4	3	1	3	2	2
16/05/2020	2	1	0	1	3	1	4	2	2	0	1	3
17/05/2020	2	1	2	2	1	1	0	3	1	3	2	2
18/05/2020	2	1	4	4	5	3	3	4	2	1	2	3
19/05/2020	3	1	4	6	2	4	3	2	3	0	0	2
20/05/2020	2	2	2	3	2	3	5	2	2	3	3	3
21/05/2020	1	0	0	1	5	4	2	3	1	5	1	3
22/05/2020	3	0	2	0	6	6	3	1	1	4	1	2
23/05/2020	1	1	2	0	6	1	1	1	1	2	2	1
24/05/2020	3	0	1	1	4	1	0	4	2	1	2	3
25/05/2020	3	3	3	2	4	2	0	1	3	1	3	3
26/05/2020	1	1	0	0	6	2	0	1	2	1	1	2
27/05/2020	1	1	0	2	2	4	3	2	3	3	3	5
28/05/2020	2	4	2	3	4	6	4	2	3	2	1	5
29/05/2020	1	1	3	2	3	5	3	2	3	2	2	4
30/05/2020	0	1	1	1	0	1	1	4	0	1	0	1
31/05/2020	1	0	2	0	0	2	2	1	0	0	1	3
Total	**56**	**36**	**73**	**66**	**114**	**83**	**77**	**63**	**67**	**64**	**61**	**88**

	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
1/05/2020	0	0	0	2	1	0	1	0	0	0	0	0
2/05/2020	2	5	1	2	2	0	2	2	1	2	1	0
3/05/2020	4	3	2	0	1	2	3	0	1	0	2	1
4/05/2020	4	5	2	6	3	3	1	0	4	1	3	0
5/05/2020	3	4	5	3	0	1	3	0	1	0	0	0
6/05/2020	1	2	4	2	3	2	3	1	0	1	2	0
7/05/2020	2	2	5	4	3	2	1	0	2	0	1	2
8/05/2020	2	2	3	2	5	0	3	2	3	2	0	1
9/05/2020	2	8	3	1	3	3	2	0	2	2	0	0
10/05/2020	6	2	1	1	1	3	0	1	1	1	4	0
11/05/2020	2	5	2	4	4	1	2	3	1	1	2	0
12/05/2020	2	1	2	3	1	1	4	1	1	1	0	1
13/05/2020	1	2	4	3	4	1	1	0	0	1	1	0
14/05/2020	2	3	4	4	2	4	4	1	1	2	1	2
15/05/2020	5	5	1	3	2	5	3	2	0	0	4	0
16/05/2020	3	5	1	2	0	3	1	2	0	3	1	0
17/05/2020	5	2	3	1	1	1	1	3	1	2	0	0
18/05/2020	2	2	3	6	6	1	1	1	4	1	0	0
19/05/2020	3	3	3	5	7	0	2	0	4	1	0	0
20/05/2020	1	0	1	3	3	3	1	1	1	1	3	0
21/05/2020	4	1	2	3	3	3	4	0	1	1	2	0
22/05/2020	1	1	3	5	1	2	4	2	0	0	3	0
23/05/2020	4	3	3	0	3	2	3	1	1	1	2	1
24/05/2020	5	2	1	0	2	2	3	1	1	0	0	1
25/05/2020	2	2	4	3	1	2	1	1	3	0	0	0
26/05/2020	3	1	3	3	3	1	1	1	2	0	0	0
27/05/2020	0	4	3	3	0	3	1	1	4	1	0	1
28/05/2020	1	2	5	3	2	2	1	0	0	4	0	2
29/05/2020	1	2	0	2	2	1	2	0	0	2	1	0
30/05/2020	6	1	2	3	0	0	1	0	0	0	2	0
31/05/2020	3	1	0	1	0	2	2	0	0	0	2	0
Total	**82**	**81**	**76**	**83**	**69**	**56**	**62**	**27**	**40**	**31**	**37**	**12**

REPORTING PERIOD: June 2020

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	23	9	29	28	32	22	25	23	18	23	23	17
Bay 2	18	11	25	19	26	23	22	19	19	12	12	21
Bay 3	12	9	14	19	30	19	23	13	18	15	18	28
Bay 4	3	4	7	12	16	10	12	15	12	3	9	16
Total	**56**	**33**	**75**	**78**	**104**	**74**	**82**	**70**	**67**	**53**	**62**	**82**

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	30	27	26	24	24	26	17	17	8	16	15	3
Bay 2	24	22	26	24	16	14	18	10	10	12	7	3
Bay 3	29	20	26	22	18	18	20	9	13	10	14	4
Bay 4	20	18	16	15	10	11	10	6	9	4	5	0
Total	**103**	**87**	**94**	**85**	**68**	**69**	**65**	**42**	**40**	**42**	**41**	**10**

Traffic Movement Assessment Data

	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
1/06/2020	2	0	6	4	6	1	2	1	3	2	0	5
2/06/2020	0	2	2	1	5	4	2	2	2	3	4	2
3/06/2020	0	1	3	2	2	5	2	5	4	3	1	4
4/06/2020	1	1	2	6	5	2	3	5	1	3	3	2
5/06/2020	0	2	2	1	6	1	4	0	3	2	5	0
6/06/2020	1	1	1	1	2	3	0	2	1	2	2	1
7/06/2020	1	1	1	2	6	1	2	1	4	0	1	5
8/06/2020	3	1	5	2	6	1	2	2	2	1	2	1
9/06/2020	2	3	3	5	4	2	3	2	3	3	2	2
10/06/2020	2	1	3	3	2	3	3	1	3	1	2	2
11/06/2020	2	1	2	3	1	7	3	2	2	2	1	3
12/06/2020	3	0	5	1	4	3	4	4	1	3	2	2
13/06/2020	1	0	4	3	2	3	0	6	2	3	5	2
14/06/2020	2	0	1	2	2	1	3	2	2	0	1	3
15/06/2020	3	3	1	1	6	1	3	3	3	2	2	3
16/06/2020	1	1	3	5	2	3	6	1	3	2	2	2
17/06/2020	3	2	3	5	4	0	1	5	4	3	1	2
18/06/2020	3	1	3	4	2	3	0	5	2	2	2	1
19/06/2020	1	0	6	3	5	2	3	0	3	2	1	1
20/06/2020	1	0	1	3	1	0	3	4	3	1	0	2
21/06/2020	2	2	2	2	1	3	1	1	3	0	1	1
22/06/2020	1	3	3	3	5	2	2	3	2	2	3	5
23/06/2020	3	2	1	2	4	4	3	3	1	2	3	3
24/06/2020	4	0	2	3	5	5	2	2	0	1	2	5
25/06/2020	3	1	3	1	6	1	5	1	3	4	3	3
26/06/2020	3	1	3	4	1	2	4	0	1	1	2	1
27/06/2020	1	0	0	3	1	4	4	1	2	0	3	1
28/06/2020	1	0	0	0	3	0	3	2	0	2	2	4
29/06/2020	4	1	2	1	2	4	5	2	1	0	3	9
30/06/2020	2	2	2	2	3	3	4	2	3	1	1	5
1/07/2020	0	0	0	0	0	0	0	0	0	0	0	0
Total	**56**	**33**	**75**	**78**	**104**	**74**	**82**	**70**	**67**	**53**	**62**	**82**

	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
1/06/2020	2	3	6	2	2	1	2	1	3	2	0	1
2/06/2020	1	3	3	2	4	2	1	3	0	1	2	1
3/06/2020	2	2	2	4	3	2	3	2	2	2	3	1
4/06/2020	3	2	2	2	2	4	0	1	4	2	2	1
5/06/2020	2	5	4	2	7	3	3	0	1	1	4	1
6/06/2020	2	1	6	2	0	2	1	0	1	3	0	0
7/06/2020	4	1	2	0	1	0	1	2	0	1	0	2
8/06/2020	4	3	4	3	2	2	3	0	1	2	1	0
9/06/2020	7	3	2	5	1	1	4	0	3	1	2	0
10/06/2020	2	2	0	3	2	2	0	0	1	2	1	0
11/06/2020	1	2	1	5	1	4	1	3	0	4	0	0
12/06/2020	8	3	3	5	1	5	7	2	2	3	1	1
13/06/2020	8	3	2	2	2	5	2	2	1	0	2	1
14/06/2020	1	7	1	0	2	2	2	4	2	0	2	0
15/06/2020	2	3	4	1	2	3	3	0	0	1	4	0
16/06/2020	1	5	4	5	2	1	3	1	2	0	1	0
17/06/2020	3	4	6	4	3	0	0	4	2	3	0	0
18/06/2020	4	2	5	4	0	4	1	3	2	3	1	0
19/06/2020	3	3	1	5	4	4	3	1	1	2	2	0
20/06/2020	5	4	3	0	1	2	1	0	1	1	0	0
21/06/2020	8	1	2	0	2	1	2	1	1	0	2	0
22/06/2020	3	2	4	5	1	3	2	0	3	2	0	0
23/06/2020	6	4	8	4	2	1	4	1	2	1	2	0
24/06/2020	3	4	3	4	6	2	4	3	0	1	3	0
25/06/2020	5	2	5	4	2	3	3	0	2	1	1	1
26/06/2020	4	5	2	5	3	4	5	1	1	2	0	0
27/06/2020	1	1	3	1	1	1	2	1	0	0	0	0
28/06/2020	2	2	0	0	1	0	0	0	0	1	1	0
29/06/2020	3	1	4	4	3	2	0	4	2	0	1	0
30/06/2020	3	4	2	2	5	3	2	2	0	0	3	0
1/07/2020	0	0	0	0	0	0	0	0	0	0	0	0
Total	**103**	**87**	**94**	**85**	**68**	**69**	**65**	**42**	**40**	**42**	**41**	**10**

REPORTING PERIOD: July 2020

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	19	12	18	23	26	24	16	17	13	14	22	17
Bay 2	9	4	18	18	28	19	13	11	9	14	13	14
Bay 3	15	5	8	13	22	14	16	13	11	10	19	12
Bay 4	5	5	4	8	18	10	8	4	10	4	10	11
Total	**48**	**26**	**48**	**62**	**94**	**67**	**53**	**45**	**43**	**42**	**64**	**54**

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	23	20	24	25	19	19	20	7	6	10	15	3
Bay 2	17	16	16	19	15	12	12	6	3	2	8	5
Bay 3	13	12	18	9	18	9	16	9	8	11	10	2
Bay 4	6	8	10	10	7	3	6	10	7	3	2	0
Total	**59**	**56**	**68**	**63**	**59**	**43**	**54**	**32**	**24**	**26**	**35**	**10**

Traffic Movement Assessment Data

	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
1/07/2020	4	0	2	4	4	7	4	2	1	3	4	2
2/07/2020	0	0	2	4	4	0	1	2	2	1	2	0
3/07/2020	0	0	1	4	3	0	1	0	1	1	1	3
4/07/2020	0	0	0	0	1	2	0	1	0	2	2	0
5/07/2020	0	0	0	1	3	0	1	0	1	0	1	2
6/07/2020	1	0	3	2	4	4	1	1	2	1	1	0
7/07/2020	0	1	2	4	3	0	0	1	0	3	0	0
8/07/2020	0	1	2	3	2	0	0	1	0	1	0	1
9/07/2020	1	2	3	2	3	0	1	1	1	1	0	2
10/07/2020	0	1	0	5	2	1	0	2	0	0	0	0
11/07/2020	0	0	0	0	0	2	1	0	0	0	1	0
12/07/2020	0	0	1	0	0	0	0	0	0	0	1	2
13/07/2020	0	0	1	3	4	4	0	0	4	1	0	0
14/07/2020	3	0	0	5	5	2	4	4	1	1	3	1
15/07/2020	2	0	1	0	4	4	2	2	3	2	2	2
16/07/2020	5	2	4	0	6	1	2	2	3	1	3	1
17/07/2020	2	1	4	0	3	4	2	1	0	4	4	1
18/07/2020	1	3	1	0	2	2	1	1	1	1	2	3
19/07/2020	3	2	0	1	0	4	2	0	2	1	2	6
20/07/2020	5	0	2	2	4	3	1	3	1	2	6	2
21/07/2020	5	2	3	2	4	3	2	2	2	2	0	5
22/07/2020	1	0	3	3	4	4	4	0	3	1	1	7
23/07/2020	3	2	2	1	7	2	4	5	1	3	1	0
24/07/2020	3	1	0	2	5	0	7	3	1	2	3	1
25/07/2020	1	1	0	3	2	3	3	0	0	1	4	2
26/07/2020	2	0	1	2	2	2	3	0	1	1	5	2
27/07/2020	4	1	3	2	3	1	3	3	1	2	4	1
28/07/2020	0	4	1	1	4	0	0	1	2	1	1	0
29/07/2020	1	0	1	3	2	5	1	1	5	0	3	1
30/07/2020	0	1	2	2	2	4	2	1	1	2	2	3
31/07/2020	1	1	3	1	2	3	0	5	3	1	5	4
Total	**48**	**26**	**48**	**62**	**94**	**67**	**53**	**45**	**43**	**42**	**64**	**54**

	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
1/07/2020	3	0	3	2	4	1	2	3	2	2	0	0
2/07/2020	0	2	6	1	2	4	1	1	0	1	0	0
3/07/2020	0	1	0	3	5	2	0	0	0	1	0	0
4/07/2020	3	0	0	2	0	0	0	0	1	0	0	0
5/07/2020	1	0	2	1	0	0	0	0	0	0	0	0
6/07/2020	3	2	3	2	1	1	1	0	0	0	0	0
7/07/2020	1	0	1	6	1	2	0	0	0	1	0	0
8/07/2020	0	0	2	2	2	1	1	1	0	0	1	1
9/07/2020	1	2	0	3	2	0	4	1	0	2	0	0
10/07/2020	0	5	0	0	3	1	4	1	0	0	2	0
11/07/2020	0	2	3	0	1	0	1	1	0	0	0	1
12/07/2020	2	4	0	0	1	0	2	0	0	0	0	0
13/07/2020	2	0	1	1	3	1	0	2	0	1	0	0
14/07/2020	4	2	2	4	2	3	2	0	0	1	2	1
15/07/2020	2	1	6	2	3	0	4	0	1	0	0	1
16/07/2020	2	2	3	5	2	2	1	3	0	3	2	0
17/07/2020	1	1	5	3	4	1	3	2	1	1	3	0
18/07/2020	4	1	1	1	1	3	4	1	0	2	0	0
19/07/2020	1	2	2	0	0	0	3	1	1	1	0	1
20/07/2020	2	1	4	4	1	1	1	0	4	1	1	1
21/07/2020	2	3	1	3	3	4	4	0	2	1	2	1
22/07/2020	2	3	3	4	4	1	4	0	4	2	3	0
23/07/2020	4	4	4	2	2	4	1	3	2	2	6	0
24/07/2020	3	4	3	0	1	1	2	4	1	0	3	1
25/07/2020	3	1	1	1	2	5	0	1	0	2	2	0
26/07/2020	2	3	0	0	2	0	1	1	1	0	1	0
27/07/2020	2	3	4	2	1	1	4	4	0	0	1	1
28/07/2020	4	2	0	1	1	2	0	0	0	1	0	0
29/07/2020	2	2	2	4	1	1	1	0	1	1	2	0
30/07/2020	1	2	4	1	2	0	2	0	2	0	2	0
31/07/2020	2	1	2	3	2	1	1	2	1	0	2	1
Total	**59**	**56**	**68**	**63**	**59**	**43**	**54**	**32**	**24**	**26**	**35**	**10**

REPORTING PERIOD: August 2020

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	23	13	30	28	32	23	24	18	11	16	19	25
Bay 2	9	11	24	21	24	23	8	17	14	13	13	23
Bay 3	16	6	12	17	18	21	19	12	19	8	14	26
Bay 4	9	2	10	7	19	14	10	13	11	10	7	12
Total	**57**	**32**	**76**	**73**	**93**	**81**	**61**	**60**	**55**	**47**	**53**	**86**

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	22	27	18	29	19	24	15	21	9	8	21	5
Bay 2	15	20	21	19	17	13	11	10	5	2	7	3
Bay 3	17	16	13	11	18	18	12	14	10	11	10	6
Bay 4	12	17	5	7	12	6	10	3	11	3	5	3
Total	**66**	**80**	**57**	**66**	**66**	**61**	**48**	**48**	**35**	**24**	**43**	**17**

Traffic Movement Assessment Data

	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
1/08/2020	2	1	0	0	2	4	4	0	3	0	2	4
2/08/2020	1	0	2	1	2	1	3	1	0	1	3	3
3/08/2020	3	3	2	6	1	2	2	3	2	4	1	4
4/08/2020	0	2	5	1	2	3	1	2	2	3	1	3
5/08/2020	6	0	3	5	5	2	2	4	1	1	3	0
6/08/2020	4	0	4	4	2	3	3	2	2	2	1	1
7/08/2020	3	1	2	3	5	2	0	3	0	1	1	5
8/08/2020	3	2	1	0	1	4	2	0	0	0	0	3
9/08/2020	1	0	1	2	2	0	3	1	2	1	2	3
10/08/2020	2	2	2	3	4	3	2	2	2	2	0	7
11/08/2020	1	1	2	1	3	2	1	1	1	1	0	4
12/08/2020	2	2	2	2	6	3	1	2	2	3	2	1
13/08/2020	4	0	2	1	5	3	2	1	1	0	2	3
14/08/2020	0	1	5	2	4	2	3	0	2	2	2	3
15/08/2020	0	0	1	1	3	1	1	3	0	2	2	3
16/08/2020	0	0	2	1	2	0	2	3	1	1	3	3
17/08/2020	2	3	4	5	4	3	2	6	0	1	3	2
18/08/2020	0	2	2	3	4	3	2	2	2	5	1	3
19/08/2020	1	0	4	3	5	2	2	4	5	3	3	1
20/08/2020	3	1	4	2	5	5	3	1	3	3	0	2
21/08/2020	4	0	6	3	3	5	1	1	4	3	1	2
22/08/2020	2	2	3	0	0	4	3	3	3	0	4	1
23/08/2020	3	1	1	2	0	2	1	2	1	0	3	5
24/08/2020	1	2	2	3	3	6	2	2	1	1	0	5
25/08/2020	3	0	2	3	2	5	1	3	4	2	1	5
26/08/2020	3	2	1	3	5	5	3	4	2	2	2	2
27/08/2020	0	2	2	4	6	3	6	1	3	1	5	2
28/08/2020	2	0	2	5	3	3	2	3	3	1	1	3
29/08/2020	0	0	0	1	1	0	0	0	0	0	1	0
30/08/2020	0	0	1	1	2	0	0	0	0	0	1	2
31/08/2020	1	2	6	2	1	0	1	0	3	1	2	1
Total	**57**	**32**	**76**	**73**	**93**	**81**	**61**	**60**	**55**	**47**	**53**	**86**

	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
1/08/2020	4	3	3	0	2	3	1	0	3	1	1	2
2/08/2020	3	0	3	2	0	4	0	2	2	1	1	0
3/08/2020	1	4	2	3	0	3	2	1	0	1	2	0
4/08/2020	2	2	2	4	3	1	0	2	0	1	1	0
5/08/2020	5	2	2	1	1	3	2	2	1	1	1	0
6/08/2020	2	5	3	1	3	1	3	0	1	0	1	1
7/08/2020	1	2	0	2	2	3	1	1	2	0	1	1
8/08/2020	3	1	2	2	1	3	0	1	2	0	2	1
9/08/2020	3	4	0	0	1	1	1	2	1	1	1	0
10/08/2020	0	2	4	0	1	2	0	1	0	1	0	0
11/08/2020	2	2	4	2	2	1	2	2	2	0	0	0
12/08/2020	2	5	1	3	4	2	1	0	2	0	1	0
13/08/2020	2	4	3	2	3	2	3	2	0	1	1	2
14/08/2020	1	1	3	2	4	2	1	2	1	2	1	2
15/08/2020	2	3	2	1	3	1	3	1	1	0	2	1
16/08/2020	4	3	0	1	2	1	3	1	1	2	0	1
17/08/2020	5	3	1	5	4	3	3	2	0	1	3	2
18/08/2020	3	2	4	3	2	4	1	1	0	2	4	0
19/08/2020	3	2	1	5	2	1	1	2	3	0	0	0
20/08/2020	2	1	3	4	2	0	2	3	3	1	1	1
21/08/2020	0	4	2	3	1	1	0	3	4	0	2	0
22/08/2020	3	3	0	2	2	3	2	1	1	0	1	0
23/08/2020	2	2	0	1	1	4	1	0	1	2	1	2
24/08/2020	2	4	1	0	6	2	2	3	0	1	3	1
25/08/2020	1	5	0	3	0	4	5	2	2	2	4	0
26/08/2020	2	3	2	1	5	1	3	4	1	1	5	0
27/08/2020	2	2	0	4	3	2	2	4	0	2	2	0
28/08/2020	1	4	4	2	3	2	1	1	1	0	1	0
29/08/2020	2	2	2	1	1	0	1	0	0	0	0	0
30/08/2020	1	0	0	3	1	0	1	1	0	0	0	0
31/08/2020	0	0	3	3	1	1	0	1	0	0	0	0
Total	**66**	**80**	**57**	**66**	**66**	**61**	**48**	**48**	**35**	**24**	**43**	**17**

REPORTING PERIOD: September 2020

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	17	13	16	14	22	19	17	6	12	9	12	14
Bay 2	14	11	25	23	31	23	15	17	17	7	16	13
Bay 3	16	8	16	23	24	21	21	14	10	8	15	22
Bay 4	10	6	6	5	20	16	9	14	11	12	5	7
Total	**57**	**38**	**63**	**65**	**97**	**79**	**62**	**51**	**50**	**36**	**48**	**56**

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	16	14	19	19	12	17	17	8	9	5	8	1
Bay 2	24	19	21	21	21	11	12	8	9	9	6	2
Bay 3	12	12	16	18	20	11	11	15	10	9	8	3
Bay 4	15	9	10	11	10	9	8	8	3	2	4	3
Total	**67**	**54**	**66**	**69**	**63**	**48**	**48**	**39**	**31**	**25**	**26**	**9**

Traffic Movement Assessment Data

	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
1/09/2020	0	1	2	2	3	1	2	0	2	2	2	1
2/09/2020	0	1	3	2	2	1	2	1	3	0	3	1
3/09/2020	0	0	2	1	3	3	0	2	0	0	1	0
4/09/2020	2	2	1	0	6	5	1	1	6	0	3	1
5/09/2020	3	2	1	0	6	1	1	2	1	3	1	1
6/09/2020	3	0	0	1	2	0	2	2	0	1	1	3
7/09/2020	3	3	4	5	2	2	5	2	0	3	2	1
8/09/2020	2	1	3	5	0	4	3	2	1	1	1	3
9/09/2020	3	1	3	3	5	4	2	4	0	2	1	2
10/09/2020	5	1	1	5	4	3	1	0	2	1	0	2
11/09/2020	2	1	2	2	3	3	2	3	1	1	2	1
12/09/2020	3	1	1	0	3	0	4	1	1	0	3	1
13/09/2020	1	1	2	3	4	1	1	0	1	2	2	2
14/09/2020	1	2	4	3	1	5	1	1	5	2	3	3
15/09/2020	3	3	1	3	6	5	5	1	2	2	0	3
16/09/2020	1	1	2	1	4	6	5	1	2	4	0	3
17/09/2020	1	5	2	3	3	3	3	2	2	0	2	2
18/09/2020	2	0	5	3	2	4	4	0	1	0	3	0
19/09/2020	2	0	3	3	1	2	1	3	2	3	1	1
20/09/2020	2	1	3	0	1	2	2	0	4	1	1	3
21/09/2020	5	1	3	2	2	6	1	2	1	2	1	3
22/09/2020	1	1	2	3	3	3	4	3	1	0	0	4
23/09/2020	3	3	4	2	4	3	3	2	2	1	2	3
24/09/2020	2	0	5	2	5	3	2	5	0	3	0	1
25/09/2020	1	1	1	2	5	1	1	5	1	1	2	2
26/09/2020	3	2	0	2	1	0	1	3	1	0	1	1
27/09/2020	1	1	0	0	4	1	0	0	3	0	2	4
28/09/2020	1	1	1	2	4	2	1	2	2	0	1	1
29/09/2020	1	0	1	3	4	2	2	0	1	0	1	2
30/09/2020	0	1	1	2	4	3	0	1	2	1	6	1
1/10/2020	0	0	0	0	0	0	0	0	0	0	0	0
Total	**57**	**38**	**63**	**65**	**97**	**79**	**62**	**51**	**50**	**36**	**48**	**56**

	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
1/09/2020	0	0	2	2	2	2	1	0	0	1	1	0
2/09/2020	1	1	2	3	3	1	1	0	1	0	0	0
3/09/2020	1	0	3	4	2	1	2	1	0	1	0	0
4/09/2020	1	1	1	2	2	1	5	2	1	1	1	0
5/09/2020	4	0	1	0	3	5	1	1	0	0	3	1
6/09/2020	4	2	1	1	0	2	2	1	0	0	1	0
7/09/2020	2	2	3	2	2	5	2	1	2	3	0	0
8/09/2020	1	4	0	1	4	2	1	3	2	1	0	0
9/09/2020	3	3	1	7	4	0	2	3	1	2	0	0
10/09/2020	2	1	0	3	1	1	1	3	1	0	1	0
11/09/2020	1	2	2	2	1	0	4	0	1	0	0	0
12/09/2020	3	3	2	2	1	2	1	0	1	0	2	0
13/09/2020	3	0	2	1	4	0	1	1	1	3	1	0
14/09/2020	3	2	1	1	3	1	2	2	2	0	2	0
15/09/2020	2	2	3	3	3	1	2	2	0	1	1	1
16/09/2020	3	3	3	4	1	1	3	1	3	2	1	0
17/09/2020	2	2	3	5	1	2	1	2	1	0	1	0
18/09/2020	0	2	5	3	0	3	1	1	2	2	0	0
19/09/2020	1	3	1	4	3	0	1	2	1	0	0	0
20/09/2020	2	0	3	1	2	0	2	0	0	1	0	0
21/09/2020	7	3	2	2	4	2	1	1	1	1	0	2
22/09/2020	4	2	3	1	2	2	0	2	1	1	0	0
23/09/2020	2	1	3	5	2	2	0	2	3	1	2	0
24/09/2020	2	1	5	3	0	2	3	0	2	0	1	1
25/09/2020	0	2	1	0	3	4	0	2	1	0	1	1
26/09/2020	3	3	2	0	5	0	3	1	1	1	1	1
27/09/2020	2	3	1	0	1	2	2	0	1	1	2	0
28/09/2020	3	3	3	1	1	0	2	2	0	1	1	1
29/09/2020	4	2	3	2	1	2	1	2	1	0	1	1
30/09/2020	1	1	4	4	2	2	0	1	0	1	2	0
1/10/2020	0	0	0	0	0	0	0	0	0	0	0	0
Total	**67**	**54**	**66**	**69**	**63**	**48**	**48**	**39**	**31**	**25**	**26**	**9**

REPORTING PERIOD: October 2020

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	6	9	16	17	18	15	7	8	8	12	11	9
Bay 2	10	12	19	23	19	15	14	13	9	6	14	15
Bay 3	7	2	9	12	11	6	5	6	8	5	8	7
Bay 4	2	0	5	9	11	4	5	9	4	5	3	4
Total	**25**	**23**	**49**	**61**	**59**	**40**	**31**	**36**	**29**	**28**	**36**	**35**

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	9	18	15	17	18	10	7	5	8	11	4	2
Bay 2	10	12	19	15	19	9	6	5	6	3	2	3
Bay 3	9	7	6	9	6	5	3	1	4	4	5	0
Bay 4	4	3	3	4	8	2	5	1	4	2	0	1
Total	**32**	**40**	**43**	**45**	**51**	**26**	**21**	**12**	**22**	**20**	**11**	**6**

Traffic Movement Assessment Data

	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
1/10/2020	0	1	2	4	5	2	1	3	0	0	2	5
2/10/2020	4	1	1	1	2	2	2	0	0	0	0	0
3/10/2020	2	2	1	0	1	3	1	1	0	1	1	0
4/10/2020	0	0	0	3	0	0	0	1	0	2	4	1
5/10/2020	2	1	5	2	2	0	0	4	0	1	1	1
6/10/2020	2	1	2	3	1	1	2	1	1	2	1	1
7/10/2020	1	1	2	2	2	1	0	2	4	0	2	1
8/10/2020	0	2	3	2	3	0	1	1	2	3	2	0
9/10/2020	0	1	2	5	1	2	0	0	0	0	2	0
10/10/2020	0	0	1	0	0	3	0	0	1	0	0	2
11/10/2020	2	0	1	0	0	1	1	0	0	0	2	1
12/10/2020	1	1	3	3	2	1	2	1	1	0	0	2
13/10/2020	0	2	0	4	5	2	1	1	1	1	0	2
14/10/2020	0	0	2	3	1	2	0	1	2	0	0	0
15/10/2020	0	0	1	2	5	0	1	2	0	1	0	3
16/10/2020	0	1	2	3	2	1	1	1	0	0	2	0
17/10/2020	0	2	1	1	0	3	0	0	0	0	0	0
18/10/2020	0	0	1	0	2	2	0	0	0	0	2	1
19/10/2020	2	0	2	1	4	0	2	0	5	0	0	1
20/10/2020	1	0	0	2	1	1	0	0	1	2	0	0
21/10/2020	0	1	2	1	1	1	1	0	1	1	1	3
22/10/2020	0	0	1	4	2	4	4	0	2	0	2	4
23/10/2020	4	0	3	3	1	0	3	2	3	3	0	2
24/10/2020	1	1	2	1	0	3	1	3	3	1	2	2
25/10/2020	2	1	0	1	3	1	4	3	1	0	3	2
26/10/2020	0	2	4	3	5	0	0	2	0	3	2	0
27/10/2020	1	0	2	2	3	1	1	2	0	1	3	1
28/10/2020	0	0	0	0	0	0	0	0	0	0	0	0
29/10/2020	0	1	2	4	2	2	1	4	0	2	1	0
30/10/2020	0	1	1	0	3	0	0	1	1	3	0	0
31/10/2020	0	0	0	1	0	1	1	0	0	1	1	0
Total	**25**	**23**	**49**	**61**	**59**	**40**	**31**	**36**	**29**	**28**	**36**	**35**

	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
1/10/2020	0	0	3	0	2	0	1	1	2	1	1	0
2/10/2020	0	0	2	1	2	1	0	2	0	1	1	1
3/10/2020	2	4	1	1	1	1	1	1	2	0	0	0
4/10/2020	2	2	2	2	2	0	0	1	2	0	1	0
5/10/2020	1	4	1	2	2	0	3	1	1	0	1	0
6/10/2020	2	2	2	2	5	0	2	1	2	0	0	0
7/10/2020	2	1	0	4	2	0	0	1	1	0	1	0
8/10/2020	0	0	3	3	3	1	0	0	0	1	0	1
9/10/2020	0	1	1	1	2	1	1	0	1	2	0	0
10/10/2020	1	1	1	1	1	1	1	0	0	0	0	0
11/10/2020	0	0	1	0	0	1	0	0	0	0	2	1
12/10/2020	3	2	0	1	1	2	0	0	0	1	2	1
13/10/2020	0	1	2	1	1	1	0	0	0	1	0	0
14/10/2020	0	0	0	5	3	0	1	0	1	1	0	0
15/10/2020	0	1	0	3	2	3	0	0	0	1	0	0
16/10/2020	0	0	1	0	3	0	1	0	1	0	0	0
17/10/2020	1	2	2	1	0	0	0	0	1	0	0	0
18/10/2020	0	0	0	0	0	0	0	0	0	0	0	0
19/10/2020	2	0	1	1	2	2	0	0	1	1	0	0
20/10/2020	1	4	1	0	2	1	0	0	0	0	0	0
21/10/2020	0	2	1	2	0	2	0	1	0	0	1	0
22/10/2020	1	2	2	3	2	1	2	0	2	3	0	0
23/10/2020	5	2	4	2	3	1	4	1	2	1	0	0
24/10/2020	5	2	2	0	2	1	1	1	1	2	0	2
25/10/2020	1	1	2	0	1	4	1	0	0	0	0	0
26/10/2020	0	1	1	2	2	1	0	0	1	0	0	0
27/10/2020	1	0	1	1	0	0	0	0	0	0	0	0
28/10/2020	0	0	0	0	0	0	0	0	0	3	1	0
29/10/2020	1	3	3	1	2	0	1	0	0	0	0	0
30/10/2020	0	1	2	4	2	0	1	1	1	0	0	0
31/10/2020	1	1	1	1	1	1	0	0	0	1	0	0
Total	**32**	**40**	**43**	**45**	**51**	**26**	**21**	**12**	**22**	**20**	**11**	**6**

REPORTING PERIOD: November 2020

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	11	14	16	24	26	25	15	10	15	19	15	19
Bay 2	7	5	17	20	23	20	15	11	10	13	21	10
Bay 3	6	2	4	4	10	10	7	7	3	2	7	9
Bay 4	4	7	11	4	10	13	14	6	5	10	10	8
Total	**28**	**28**	**48**	**52**	**69**	**68**	**51**	**34**	**33**	**44**	**53**	**46**

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	22	27	22	25	23	22	13	14	10	12	14	5
Bay 2	18	20	18	19	18	15	8	14	8	5	15	2
Bay 3	9	8	7	9	11	10	5	7	2	3	6	1
Bay 4	7	9	7	11	13	7	6	3	5	6	10	2
Total	**56**	**64**	**54**	**64**	**65**	**54**	**32**	**38**	**25**	**26**	**45**	**10**

Traffic Movement Assessment Data

	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
1/11/2020	0	0	0	1	0	0	0	0	0	1	2	2
2/11/2020	0	1	3	1	2	0	0	2	1	0	3	1
3/11/2020	0	1	4	1	2	2	0	1	1	0	2	0
4/11/2020	0	0	0	3	3	1	0	0	3	0	3	1
5/11/2020	1	0	1	4	3	2	0	1	1	2	2	0
6/11/2020	1	0	3	1	2	3	1	2	0	0	2	0
7/11/2020	0	0	0	1	0	2	3	0	0	1	1	1
8/11/2020	0	0	0	1	1	0	2	0	0	0	4	1
9/11/2020	1	0	1	1	0	2	0	2	1	0	1	0
10/11/2020	0	0	3	1	3	1	1	0	3	1	0	1
11/11/2020	0	1	1	1	4	4	2	2	2	2	4	1
12/11/2020	1	0	1	0	2	4	1	0	2	2	1	0
13/11/2020	0	0	1	1	2	2	0	0	0	0	0	1
14/11/2020	0	0	0	0	1	2	2	2	1	0	0	2
15/11/2020	0	2	1	0	1	0	1	0	1	0	2	1
16/11/2020	1	3	2	1	2	3	0	1	0	1	0	1
17/11/2020	1	1	3	2	6	2	4	1	2	3	4	2
18/11/2020	0	1	4	3	2	2	3	1	1	3	2	2
19/11/2020	0	1	4	5	6	2	2	0	3	3	2	2
20/11/2020	2	1	3	1	1	5	5	3	2	2	3	0
21/11/2020	0	1	0	3	1	1	3	0	0	6	0	3
22/11/2020	0	5	4	3	0	1	4	3	1	1	3	2
23/11/2020	0	2	3	3	3	3	4	2	2	6	0	1
24/11/2020	5	3	0	2	4	3	2	0	1	1	2	5
25/11/2020	3	1	0	4	3	2	4	5	0	1	1	4
26/11/2020	0	1	4	0	4	6	2	3	1	2	3	1
27/11/2020	4	2	1	3	5	3	1	1	1	0	2	2
28/11/2020	3	0	0	1	2	7	3	0	1	0	1	3
29/11/2020	2	0	0	1	1	1	1	0	0	1	1	4
30/11/2020	3	1	1	3	3	2	0	2	2	5	2	2
1/12/2020	0	0	0	0	0	0	0	0	0	0	0	0
Total	**28**	**28**	**48**	**52**	**69**	**68**	**51**	**34**	**33**	**44**	**53**	**46**

	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
1/11/2020	2	1	1	0	0	1	0	1	1	0	2	0
2/11/2020	2	3	2	3	2	0	1	1	0	2	0	0
3/11/2020	0	2	1	2	1	2	0	1	0	0	1	0
4/11/2020	0	1	1	3	2	0	1	0	0	0	0	0
5/11/2020	1	1	2	0	3	4	0	0	0	0	0	0
6/11/2020	0	1	2	2	2	1	0	0	0	0	0	1
7/11/2020	0	3	2	1	1	0	1	0	0	0	0	0
8/11/2020	1	2	1	0	1	1	0	0	1	0	2	0
9/11/2020	3	2	0	4	1	1	2	2	0	0	0	0
10/11/2020	3	2	1	2	6	3	1	4	2	0	5	0
11/11/2020	2	2	1	2	5	2	1	2	2	1	5	0
12/11/2020	1	4	2	3	3	3	1	1	0	0	1	1
13/11/2020	0	1	2	4	2	3	0	4	1	0	0	0
14/11/2020	0	1	0	0	2	0	0	2	0	0	0	0
15/11/2020	1	1	3	0	0	0	2	1	1	1	0	1
16/11/2020	4	3	3	1	1	5	0	3	0	0	2	1
17/11/2020	2	4	3	5	1	1	1	1	3	1	0	2
18/11/2020	2	2	3	4	2	5	2	1	3	0	4	0
19/11/2020	0	4	3	4	4	4	6	2	0	2	2	0
20/11/2020	4	1	1	2	3	2	2	2	3	2	0	1
21/11/2020	2	1	2	4	0	3	1	0	3	4	0	0
22/11/2020	3	4	0	1	1	2	1	0	1	2	4	0
23/11/2020	5	2	2	4	4	2	1	4	1	1	4	2
24/11/2020	4	3	5	4	2	1	0	1	1	1	2	0
25/11/2020	3	4	3	1	3	3	2	3	1	3	3	1
26/11/2020	1	1	4	3	5	3	1	2	0	1	1	0
27/11/2020	2	3	0	1	3	2	1	0	1	1	1	0
28/11/2020	3	1	2	0	2	0	0	0	0	0	3	0
29/11/2020	1	1	2	2	0	0	2	0	0	3	4	0
30/11/2020	4	4	0	2	3	0	2	0	0	1	0	0
1/12/2020	0	0	0	0	0	0	0	0	0	0	0	0
Total	**56**	**65**	**54**	**64**	**65**	**54**	**32**	**38**	**25**	**26**	**46**	**10**

REPORTING PERIOD: December 2020

Bay Occupancy Data

Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
Bay 1	15	15	21	20	26	16	13	18	22	16	16	16
Bay 2	10	9	24	14	28	13	9	12	13	15	14	13
Bay 3	14	9	17	10	18	10	17	9	14	10	11	16
Bay 4	8	8	6	6	14	7	14	10	9	14	9	5
Total	**47**	**41**	**68**	**50**	**86**	**46**	**53**	**49**	**58**	**55**	**50**	**50**

Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
Bay 1	20	22	20	19	17	12	15	10	11	9	12	4
Bay 2	15	14	15	16	11	10	3	3	7	4	3	3
Bay 3	14	10	12	14	11	7	9	10	7	6	8	1
Bay 4	5	8	9	8	8	3	3	4	4	8	7	2
Total	**54**	**54**	**56**	**57**	**47**	**32**	**30**	**27**	**29**	**27**	**30**	**10**

Traffic Movement Assessment Data

	00:00 to 01:00	01:00 to 02:00	02:00 to 03:00	03:00 to 04:00	04:00 to 05:00	05:00 to 06:00	06:00 to 07:00	07:00 to 08:00	08:00 to 09:00	09:00 to 10:00	10:00 to 11:00	11:00 to 12:00
Start	12:00:00 AM	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM
Finish	1:00:00 AM	2:00:00 AM	3:00:00 AM	4:00:00 AM	5:00:00 AM	6:00:00 AM	7:00:00 AM	8:00:00 AM	9:00:00 AM	10:00:00 AM	11:00:00 AM	12:00:00 PM
1/12/2020	2	4	5	1	6	5	3	1	2	4	4	1
2/12/2020	0	0	3	2	3	0	2	3	5	4	2	3
3/12/2020	2	2	4	3	5	4	3	1	4	3	2	3
4/12/2020	5	4	0	1	5	1	4	2	1	1	2	3
5/12/2020	0	0	2	0	1	1	2	1	1	1	1	1
6/12/2020	1	1	0	1	2	0	0	0	0	0	2	1
7/12/2020	1	4	4	1	3	0	3	0	1	1	2	0
8/12/2020	1	0	1	1	1	0	1	2	2	1	0	2
9/12/2020	3	2	3	1	4	2	3	5	1	4	1	4
10/12/2020	3	1	3	1	8	4	1	0	2	2	1	1
11/12/2020	0	2	2	5	7	3	2	1	4	6	4	3
12/12/2020	2	1	3	2	4	2	1	4	0	2	4	2
13/12/2020	1	0	3	0	1	3	0	1	2	3	5	2
14/12/2020	2	0	6	5	1	2	0	3	6	3	0	2
15/12/2020	3	2	2	2	3	0	4	2	3	1	3	1
16/12/2020	4	0	3	4	4	2	3	4	4	1	3	2
17/12/2020	2	2	4	1	2	3	2	2	3	0	1	2
18/12/2020	2	0	1	2	4	2	4	1	2	1	4	0
19/12/2020	1	0	2	1	4	1	1	2	2	3	0	1
20/12/2020	3	1	1	1	0	0	2	1	1	2	2	4
21/12/2020	3	4	0	4	3	1	3	0	5	2	2	1
22/12/2020	2	3	3	2	3	2	4	4	1	4	1	2
23/12/2020	2	2	2	4	3	2	2	2	2	1	1	1
24/12/2020	1	0	2	2	3	2	0	1	1	1	1	0
25/12/2020	0	0	0	0	0	0	0	0	0	0	0	0
26/12/2020	0	0	0	0	1	0	0	1	0	1	0	1
27/12/2020	0	0	1	0	0	0	1	0	0	2	1	3
28/12/2020	0	0	1	1	1	1	0	1	1	0	1	1
29/12/2020	1	3	2	1	1	1	0	2	1	1	0	1
30/12/2020	0	0	3	1	1	2	0	2	0	0	0	2
31/12/2020	0	3	2	0	2	0	2	0	1	0	0	0
Total	**47**	**41**	**68**	**50**	**86**	**46**	**53**	**49**	**58**	**55**	**50**	**50**

	12:00 to 13:00	13:00 to 14:00	14:00 to 15:00	15:00 to 16:00	16:00 to 17:00	17:00 to 18:00	18:00 to 19:00	19:00 to 20:00	20:00 to 21:00	21:00 to 22:00	22:00 to 23:00	23:00 to 24:00
Start	12:00:00 PM	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM
Finish	1:00:00 PM	2:00:00 PM	3:00:00 PM	4:00:00 PM	5:00:00 PM	6:00:00 PM	7:00:00 PM	8:00:00 PM	9:00:00 PM	10:00:00 PM	11:00:00 PM	12:00:00 AM
1/12/2020	0	1	4	4	3	3	1	1	3	2	2	1
2/12/2020	1	2	0	5	4	4	2	1	0	2	2	3
3/12/2020	2	2	5	7	2	1	1	1	3	2	0	0
4/12/2020	2	1	1	6	0	0	1	0	1	1	0	0
5/12/2020	3	1	0	0	0	0	0	0	1	0	0	0
6/12/2020	1	3	0	0	0	1	0	0	0	0	1	0
7/12/2020	1	1	2	2	0	0	1	0	0	2	1	0
8/12/2020	3	4	1	0	0	0	1	0	2	0	1	0
9/12/2020	3	3	3	1	3	3	0	2	0	2	2	1
10/12/2020	1	1	8	0	3	2	2	2	1	0	2	0
11/12/2020	3	0	3	2	3	2	0	1	2	1	2	0
12/12/2020	1	1	1	2	1	2	1	2	1	2	0	0
13/12/2020	2	2	1	0	0	2	1	2	2	1	2	0
14/12/2020	4	3	4	5	4	0	2	3	0	0	2	1
15/12/2020	1	5	6	3	1	1	4	2	1	3	0	0
16/12/2020	2	5	1	3	3	1	3	2	1	0	1	1
17/12/2020	1	1	0	1	0	1	1	1	1	1	2	0
18/12/2020	0	2	2	3	2	4	2	0	1	3	2	1
19/12/2020	3	0	2	2	3	1	0	1	4	1	2	0
20/12/2020	2	4	1	1	3	1	0	3	2	2	1	1
21/12/2020	4	2	2	2	5	1	2	1	1	1	2	0
22/12/2020	0	3	2	1	2	0	1	0	1	1	0	0
23/12/2020	5	2	0	2	2	2	2	1	1	0	2	1
24/12/2020	0	0	0	1	1	0	1	0	0	0	0	0
25/12/2020	0	0	0	0	0	0	0	0	0	0	0	0
26/12/2020	0	0	1	2	0	0	0	0	0	0	0	0
27/12/2020	1	0	0	0	0	0	0	0	0	0	0	0
28/12/2020	2	1	0	0	0	0	0	1	0	0	0	0
29/12/2020	1	2	3	1	0	0	1	0	0	0	0	0
30/12/2020	2	1	2	1	2	0	0	0	0	0	1	0
31/12/2020	3	1	1	0	0	0	0	0	0	0	0	0
Total	**54**	**54**	**56**	**57**	**47**	**32**	**30**	**27**	**29**	**27**	**30**	**10**

Appendix E – Incident Register

Incidents

State	Name	Date and time of the...	Severity gauge	Type of incident:	What happened (please, explain briefly):	Last Update
	01300 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - First Flush Pit Pump Gearbox Failure AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Jan 15, 2020	0	Plant & Equipment Damage/Failure	Gearbox seal failure	Jan 17, 2020
	01301 Australia, Newcastle - Safety, Deviation/Non-Conformance - Not significant - Driver crossed active Railway AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Jan 17, 2020	0	Safety Deviation/Non-Conformance	Driver drove over active railway crossing - boom down, no train.	Jan 21, 2020
	01307 Australia, Newcastle - Deviation/Non-Conformance - Not significant - Driver activated loadbay stop AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Jan 24, 2020	0	Deviation/Non-Conformance	Driver mistakenly, and repeatly activated the local Bay Stop button instead of the (3) Three Minute Button (Deadman) in the Loading Gantry.	Jan 29, 2020
	01317 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Extreme Weather Event AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Feb 3, 2020	0	Plant & Equipment Damage/Failure	Over weekend of 8th Feb to 9th Feb adverse weather tripped out several items of equipment	Feb 17, 2020
	01318 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Driver reported issue B1A1 AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Feb 10, 2020	0	Plant & Equipment Damage/Failure	Driver advised Terminal staff that API on load arm was failing and leaking at low flow rates but ok at full pressure. Investigation undertaken.	Feb 17, 2020
	01321 Australia, Newcastle - Quality - Not significant - Fuels Manager Printing issue AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Feb 15, 2020	0	Quality	Drivers unable to obtain loading paperwork	Feb 17, 2020
	01322 Australia, Newcastle - Near miss - Not significant - Inaccurate ship RoB figures AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Feb 16, 2020	0	Near miss	During discharge of Alpine Confidence became evident that ship was failing to report RoB figures in net as requested and glaring inaccuracies in volumes were being quoted. Original DA from customer had accurate MT quoted but Net figure appeared to hav...	Feb 26, 2020

01324 Australia, Newcastle - Quality - Not significant - Site ESD - Storm activity AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Feb 19, 2020	0	Quality	Site went into ESD, suspected brown out	Feb 19, 2020
01337 Australia, Newcastle - Deviation/Non-Conformance - Not significant - SHNC - 003 Senior Management Audit Newcastle February 2020 AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Feb 19, 2020	0	Deviation/Non-Conformance	Ryan Duckmanton, Andy McCormick and Brett Holmes have expired First Aid and CPR training. Training has been scheduled for late March	Mar 3, 2020
01325 Australia, Newcastle - Plant & Equipment Damage/Failure - Minor - Failed Detector Head AUSTRALIA MINOR NEWCASTLE	Feb 19, 2020	1	Plant & Equipment Damage/Failure	Fire Panel indicated intermittent fault on detector head D26	Feb 26, 2020
01328 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - VSD Fault Pump 21 AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Feb 21, 2020	0	Plant & Equipment Damage/Failure	Whilst loading in two bays from tank NN8 Control Room indicated speed alarm on P21.	Feb 21, 2020
01330 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Truck flattens drip trays AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Feb 23, 2020	0	Plant & Equipment Damage/Failure	Approx 03:00hrs driver completed loading A trailer and failed to remove drip trays from underneath his API's, moved truck forward to align his B trailer and crushed two bonded drip trays. Carrier paying for replacements.	Feb 27, 2020
01334 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Gantry Scully RM140 Failure AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Feb 25, 2020	0	Plant & Equipment Damage/Failure	Drivers unable to get permissive to start loading	Mar 14, 2020
01332 Australia, Newcastle - Near miss - Not significant - Crane Lift Cancelled due Storm AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Feb 26, 2020	0	Near miss	Crane booked to lift knuckle boom from bund NN1 arrived ahead of storm cell with heavy lightening - lift cancelled	Feb 28, 2020
01333 Australia, Newcastle - Near miss - Not significant - Storm front causes flooding AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Feb 26, 2020	0	Near miss	Violent short lived storm front passage over 45 mins caused multiple brown outs, alarms and flooding	Feb 28, 2020
01341 Australia, Newcastle - Deviation/Non-Conformance - Not significant - Driver Activates	Mar 4,	0	Deviation/Non-	Approx 23:00hrs alerted to Bay Stop in Bay 3	Mar 9, 2020

	Bay Stop in Error AUSTRALIA NEWCASTLE NOT NOTIFIABLE	2020	0	Conformance	Approx 23.00hrs alerted to Bay Stop in Bay 3	Mar 9, 2020
	01345 Australia, Newcastle - Near miss, Plant & Equipment Damage/Failure - Not significant - Weeping Load Arm B2 A3 AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Mar 9, 2020	0	Near miss Plant & Equipment Damage/Failure	Monitoring a reported weep on Bay 1 Arm 1, Bay 2 Arm 3 was also noted to be weeping (and of similar age to Bay 1). Two replacements held in stock were fitted to both arms and replacement stock ordered (next day delivery)	Apr 7, 2020
	01344 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Loss of Bay 3 Comms AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Mar 10, 2020	0	Plant & Equipment Damage/Failure	Approx 10:30hrs SCADA started picking up comms issue from Bay 3	Apr 7, 2020
	01349 Australia, Newcastle - Plant & Equipment Damage/Failure - Minor - Unable to Isolate A.S.E AUSTRALIA MINOR NEWCASTLE	Mar 17, 2020	1	Plant & Equipment Damage/Failure	Fire System maintenance contractor unable to isolate A.S.E prior to completing monthly Fire System tests and checks.	Apr 7, 2020
	01350 Australia, Newcastle - Near miss - Not significant - International Shore Connection Hose U/S AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Mar 20, 2020	0	Near miss	Found wear/tear on the fire hose used as part of two hose string for Int'l Shore Connection - removed from service	Apr 7, 2020
	01351 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Tankfarm Dewater Line Weeping AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Mar 20, 2020	0	Plant & Equipment Damage/Failure	During site walkaround discovered Tank Dewatering line was weeping.	Apr 7, 2020
	01355 Australia, Newcastle - Safety - Not significant - Drivers Room Flooded AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Mar 26, 2020	0	Safety	Extreme rain event caused water ingress under drivers room door	Apr 7, 2020
	01356 Australia, Newcastle - Quality - Not significant - NTL Big Air Down AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Mar 24, 2020	0	Quality	Big Air & NBN connection outages	Mar 26, 2020
	01361 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Weeping Wharf Hose AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Apr 8, 2020	0	Plant & Equipment Damage/Failure	Weeping wharf hose noted at ships manifold #4. Precautionary stoppage, inspected and hose isolated for remainder of discharge (two hose connection)	Oct 28, 2020

01363 Australia, Newcastle - Near miss - Not significant - Unannounced technician accesses vessel AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Apr 8, 2020	0	Near miss	Technician with appropriate essential services approvals accessed vessel at Mayfield 7. His visit wasn't advised by vessel or agent.	Jun 11, 2020
01362 Australia, Newcastle - Injury - Not significant - Wharf attendant grazes elbow AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Apr 7, 2020	0	Injury	Whilst landing gangway onto M7 ships rope from gangway snapped causing two attendants to fall over	May 11, 2020
01364 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Compressor damage minor AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Apr 12, 2020	0	Plant & Equipment Damage/Failure	Compressor damaged from falling ladder	Apr 14, 2020
01366 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Pipe fitting weep AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Apr 14, 2020	0	Plant & Equipment Damage/Failure	Pipe fitting weeping at Pressure gauge - Pump 7	Jun 2, 2020
01367 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - VSD issues Pump 05 AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Apr 17, 2020	0	Plant & Equipment Damage/Failure	Pump 5 failed to start on command	Apr 20, 2020
01368 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Flange weep NN8 AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Apr 17, 2020	0	Plant & Equipment Damage/Failure	Weep found on NN8 flangle	Apr 20, 2020
01371 Australia, Newcastle - Quality - Not significant - Bird rescue AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Apr 23, 2020	0	Quality	Injured bird found	Apr 23, 2020
01378 Australia, Newcastle - Near miss - Not significant - Compressor #2 Leaking Oil AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Apr 27, 2020	0	Near miss	As part fo daily inspection noted oil pooling below compressor #2	Oct 28, 2020
01380 Australia, Newcastle - Quality - Minor - Ships cargo below Australian Standards minimum spec AUSTRALIA MINOR NEWCASTLE	Apr 30, 2020	1	Quality	Vessel Lafayette Bay arrived at Mayfield 7 with parcel of Diesel mixed with Jet A1 (declared as Gasoil 10ppm), 7 ships tanks failed on flash	May 20, 2020

01388 Australia, Newcastle - Quality - Not significant - PQ issue - BW Cheetah AUSTRALIA NEWCASTLE NOT NOTIFIABLE	May 13, 2020	0	Quality	Hazy Diesel ex 5W	May 14, 2020
01393 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Bay 1 Arm 3 butterfly valve passing AUSTRALIA NEWCASTLE NOT NOTIFIABLE	May 14, 2020	0	Plant & Equipment Damage/Failure	Whilst carrying out scheduled maintenance on the strainer baskets with two valve isolation valve was passing product	Jun 11, 2020
01389 Australia, Newcastle - Near miss, Deviation/Non-Conformance - Not significant - Unannounced Stores Delivery during Quarantine Order AUSTRALIA NEWCASTLE NOT NOTIFIABLE	May 13, 2020	0	Near miss Deviation/Non-Conformance	During start of cargo operations (hook up / safety meeting)marine parts supplier arrived at wharf to deliver 'urgent ships spares'	Jun 2, 2020
01390 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Bay 2 Vapour Hose Connection Issue AUSTRALIA NEWCASTLE NOT NOTIFIABLE	May 16, 2020	0	Plant & Equipment Damage/Failure	Over weekend noted that Bay 2 had been coned out by a driver, note in book around vapour hose issues. No noted alarms in log.	Jun 2, 2020
01392 Australia, Newcastle - Near miss - Not significant - PigSig failure AUSTRALIA NEWCASTLE NOT NOTIFIABLE	May 13, 2020	0	Near miss	Pigging line post discharge pig receiver indicator prematurely activated	May 20, 2020
01398 Australia, Newcastle - Quality - Not significant - M7 CCTV connection lost AUSTRALIA NEWCASTLE NOT NOTIFIABLE	May 28, 2020	0	Quality	4G data depleted by unknown activity	Jun 2, 2020
01399 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Bay 3 Arm 1 - limit switch failure AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Jun 3, 2020	0	Plant & Equipment Damage/Failure	Bay 3 Arm 1 Valve ZS-4801 actuated valve kept having intermittent valve fault alarms. Suspected limit switch issue.	Jun 11, 2020
01400 Australia, Newcastle - Plant & Equipment Damage/Failure - Minor - Gantry Pump Knocking AUSTRALIA MINOR NEWCASTLE	Jun 9, 2020	1	Plant & Equipment Damage/Failure	Pump making unusual sound	Nov 30, 2020
01405 Australia, Newcastle - Plant &	Jun 12		Plant &	The Switch Room Fire Alarm was tripped under test conditions but failed to	

	Equipment Damage/Failure - Not significant - Fire Alarm Main Switchroom Failure AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Jun 12, 2020	0	Equipment Damage/Failure	The Switch Room Fire Alarm was tripped under test conditions but failed to trigger any PLC outputs	Jun 16, 2020
	01406 Australia, Newcastle - Near miss, Plant & Equipment Damage/Failure - Not significant - Pump 23 external leak AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Jun 16, 2020	0	Near miss Plant & Equipment Damage/Failure	During inspection of pumps a leak (possibly shaft seal failure) was noted. Removal of shroud required to inspect.	Jun 16, 2020
	01407 Australia, Newcastle - Plant & Equipment Damage/Failure - Air Dryer Failure AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Jun 17, 2020		Plant & Equipment Damage/Failure	Air Dryer tripping out / faulty	Jul 10, 2020
	01408 Australia, Newcastle - Near miss, Quality - Minor - Additive delivery contaminated AUSTRALIA MINOR NEWCASTLE	Jun 18, 2020	1	Near miss Quality	Contaminant found in newly delivered product (Nemo 2016 Diesel Additive)	Jul 10, 2020
	01412 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - P20 pump failure AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Jun 26, 2020	0	Plant & Equipment Damage/Failure	Pump P20 failure	Jul 10, 2020
	01422 Australia, Newcastle - Deviation/Non-Conformance - Not significant - Pedestrian Gate alarm activated AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Jul 11, 2020	0	Deviation/Non-Conformance	Driver activated emergency gate release button to leave site. Call-out to attend and reset alarm.	Nov 30, 2020
	01423 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Truck Breakdown Bay 3 AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Jul 11, 2020	0	Plant & Equipment Damage/Failure	Driver unable to start truck after loading A trailer in Bay 3	Nov 30, 2020
	01424 Australia, Newcastle - Injury - Not significant - Driver injury AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Jul 11, 2020	0	Injury	Driver hurts himself entering cab	Nov 30, 2020
	01432 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - First Flush Pit Pump Failure AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Jul 22, 2020	0	Plant & Equipment Damage/Failure	Whilst running the First Flush Pit (FFP) the diaphragm on the pump started to leak, suspected tear or loose diaphragm	Aug 4, 2020
	01443 Australia, Newcastle - Environmental					

01442 Australia, Newcastle - Environmental - Minor - Koppers equipment leaking product AUSTRALIA MINOR NEWCASTLE	Jul 22, 2020	1	Environmental	Prior discharge of the Energy Panther	Aug 4, 2020
01431 Australia, Newcastle - Quality - Minor - Ships cargo fails FBT AUSTRALIA MINOR NEWCASTLE	Jul 22, 2020	1	Quality	Ships samples from Energy Panther failed FBT testing prior start of discharge. Approx 5hr delay	Aug 4, 2020
01433 Australia, Newcastle - Near miss, Plant & Equipment Damage/Failure - Minor - Weeping Wharf Hose AUSTRALIA MINOR NEWCASTLE	Jul 23, 2020	1	Near miss Plant & Equipment Damage/Failure	Weeping wharf hose connected to ships #3 manifold (Energy Panther). Precautionary stoppage, inspected and hose isolated for remainder of discharge (two hose connection)	Aug 4, 2020
01434 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Sightglass Bulb Failure AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Jul 25, 2020	0	Plant & Equipment Damage/Failure	Pre start of discharge STI San Antonio the sightglass bulb blew within seconds of being switched on.	Aug 4, 2020
01435 Australia, Newcastle - Near miss, Plant & Equipment Damage/Failure - Not significant - ESD Activation AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Jul 26, 2020	0	Near miss Plant & Equipment Damage/Failure	ESD activated at 11:16hrs as truck loading in Bay 3	Aug 4, 2020
01436 Australia, Newcastle - Near miss - Minor - Extreme Weather Event Flooding AUSTRALIA MINOR NEWCASTLE	Jul 26, 2020	1	Near miss	Septic Alarm Hi Level tripped and sent auto text alert. On call staff attended site	Aug 18, 2020
01438 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - ESD Activation and Site Evacuation AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Jul 27, 2020	0	Plant & Equipment Damage/Failure	Unexplained ESD activation - site evacuated as precaution whilst issue investigated	Aug 4, 2020
01439 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Damage to site lease vehicle AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Jul 29, 2020	0	Plant & Equipment Damage/Failure	During daily inspections noted damage to front kerbside of site ute (lease vehicle) - Mazda BT50	Aug 4, 2020
01452 Australia, Newcastle - Quality - Not significant - Staff/Drivers delayed at Railway crossing AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Aug 19, 2020	0	Quality	40 min delay at Steelworks Railway crossing.	Aug 24, 2020

01454 Australia, Newcastle - Safety, Plant & Equipment Damage/Failure - Not significant - Drive Away Scully Damage AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Aug 21, 2020	0	Safety Plant & Equipment Damage/Failure	After loading 'A' trailer driver moved vehicle forward with scully plug still attached (red light)	Sep 7, 2020
01457 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Gantry valve passing AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Aug 18, 2020	0	Plant & Equipment Damage/Failure	New replacement valve not holding	Oct 30, 2020
01458 Australia, Newcastle - Safety, Illness / Disease - Not significant - Vessel denied port entry AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Aug 28, 2020	0	Safety Illness / Disease	Vessel with sick crewman (heart trouble / hypertension) declared that crewman had cough sparking multi agency response and ultimately denied vessel berthing due COVID concerns	Aug 31, 2020
01472 Australia, Newcastle - Deviation/Non-Conformance - Not significant - Trailer unit failed inspection AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Oct 2, 2020	0	Deviation/Non-Conformance	Hills trailer 957QNY failed drive away test with overfill connected	Oct 6, 2020
01473 Australia, Newcastle - Near miss, Safety - Not significant - Lifebuoy degradation by UV AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Oct 7, 2020	0	Near miss Safety	Lifebuoy at QRH #02 was found to have split	Oct 8, 2020
01474 Australia, Newcastle - Safety - Not significant - Two Platfrom ladders removed from service AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Oct 8, 2020	0	Safety	During quarterly ladder inspection one mobile order picking platform ladder and one fibreglass platform ladder were found to be unsuitable and removed from service	Oct 8, 2020
01481 Australia, Newcastle - Environmental - Not significant - Weather event - flooding AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Oct 26, 2020	0	Environmental	During extreme weather event flooding to drivers room, 1 x Office and Terminal Test Room	Oct 26, 2020
01482 Australia, Newcastle - Deviation/Non-Conformance - Not significant - Trailer Unit Failed Inspection AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Oct 20, 2020	0	Deviation/Non-Conformance	Hills Trailer (650QYA) Failed - Drive away test with Overfill Connected	Oct 30, 2020
01483 Australia, Newcastle - Deviation/Non-					

Conformance - Not significant - Trailer Unit Failed Inspection AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Oct 23, 2020	0	Deviation/Non-Conformance	Claridge / Woodhams trailer TB28FD failed drive away test with overfill connected	Oct 30, 2020
01484 Australia, Newcastle - Injury - Minor - Contractor health issue AUSTRALIA MINOR NEWCASTLE	Oct 29, 2020	1	Injury	Security guard calls ambulance for chest pains and shortness of breath	Nov 5, 2020
01489 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Pressure Sensor Failure FirePump AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Nov 6, 2020	0	Plant & Equipment Damage/Failure	During inspection and servicing of Fire Pumps a fault was found stopping Pump #03 Auto Start function on pressure drop	Nov 13, 2020
01488 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Mayfield 7 CCTV UPS Failure AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Nov 11, 2020	0	Plant & Equipment Damage/Failure	During discharge of Doric Breeze UPS failure caused CCTV system to drop out	Dec 3, 2020
01490 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Driver BOL print failure AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Nov 14, 2020	0	Plant & Equipment Damage/Failure	Bay 1 BOL failed to print	Nov 16, 2020
01491 Australia, Newcastle - Deviation/Non-Conformance - Not significant - Driver not wearing hardhat AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Nov 15, 2020	0	Deviation/Non-Conformance	Noted via CCTV that a driver had failed to wear his hard hat onsite.	Nov 16, 2020
01493 Australia, Newcastle - Plant & Equipment Damage/Failure - Minor - Extreme weather event AUSTRALIA MINOR NEWCASTLE	Nov 16, 2020	1	Plant & Equipment Damage/Failure	Approx 20:30hrs a storm front from the west passed through the Greater Newcastle area causing substantial local damage and flooding. Terminal is still operational but has sustained some localised damage as a result of high winds and airborne debris....	Jan 5, 2021
01496 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Fire Pump #01 Leak AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Nov 23, 2020	0	Plant & Equipment Damage/Failure	During monthly testing noted that fire pump #01 leaking excessively from shaft seal area	Jan 5, 2021
01495 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Extinguisher Loss of Pressure	Nov 23, 2020	0	Plant & Equipment Damage/Failure	75Kg wheeled fire extinguisher at Mayfield 7 was found to have lost holding pressure during routine maintenance inspection. Pins and discharge handles intact	Dec 3, 2020

	AUSTRALIA NEWCASTLE NOT NOTIFIABLE					
	01507 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - Bay 3 Safety Shower Leak AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Dec 4, 2020	0	Plant & Equipment Damage/Failure	Driver reported leak from safety shower head in Bay 3	Dec 4, 2020
	01511 Australia, Newcastle - Plant & Equipment Damage/Failure - Not significant - PigSig failure at Terminal Manifold AUSTRALIA NEWCASTLE NOT NOTIFIABLE	Dec 24, 2020	0	Plant & Equipment Damage/Failure	During pigging of line post discharge the PigSig failed to indicate 'Pig Home' on passage of pig into receiver	Jan 5, 2021

Appendix F – Conditions of Consent SSD_7065

Schedule B – General Administrative Conditions – Compliance Requirements		
No	Description	Statement of Compliance
B1.	**Obligation to Minimise Harm to the Environment** In addition to meeting the specific performance criteria established under this consent, the Applicant shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the Development.	Noted
B2.	**Terms of Consent** The Applicant shall carry out the Development in accordance with the: a) State Significant Development Application SSD 7065; b) EIS and RTS; c) the plans and drawings at Appendix 1; and **a)** d) the Management and Mitigation Measures at Appendix 2.	Noted
B3.	If there is any inconsistency between the plans and documentation referred to in Condition B2 above, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this consent shall prevail to the extent of any inconsistency.	Noted
B4.	The Applicant shall comply with any reasonable requirement(s) of the Secretary arising from the Department's assessment of: a) any reports, plans or correspondence submitted in accordance with this consent; and b) the implementation of any actions or measures contained in these documents.	Noted
B5.	**Limits of Consent** This consent lapses five years after the date from which it operates, unless the Development has physically commenced on the land to which the consent applies before the date on which the consent would otherwise lapse under Section 95 of the EP&A Act.	Noted, Physical commencement has been triggered.
B6	The Applicant shall not increase the throughput of combustible liquids above 1,300 million litres (ML) per year until SSD 6664 has been surrendered in accordance with Condition B11, and an amended EPL has been issued for the Development. The Applicant shall provide a copy of the amended EPL to the Secretary prior to increasing throughput above 1,300 ML per year.	No exceedance of annual throughput limits (refer to **Section 9.0** of this Annual Review)
B7	Following the receipt of an amended EPL for the Development and the surrender of SSD 6664 in accordance with Condition B11, the Applicant shall: a) not receive, store and dispatch more than 3,500ML of flammable and combustible liquids on the Site per year; and b) ensure the storage capacity at the Site does not exceed 355.7 ML of flammable and combustible liquids at any one time.	Noted (refer to **Table 2-3** of this Annual Review)
B8	The Applicant shall not receive flammable liquids from the M4 berth at any time.	No flammable liquids other than those specified in this condition were stored in bulk at the Site (refer to **Section 9.0** of this Annual Review)

Schedule B – General Administrative Conditions – Compliance Requirements		
No	Description	Statement of Compliance
B9	Following the receipt of an amended EPL for the storage of additives on the Site, the Applicant may receive, store and use additives on Site in Intermediate Bulk Containers (IBCs) as described in the RTS, subject to implementation of the following measures, to the satisfaction of the Secretary: a) storage of additives in IBCs within a bund constructed in accordance with Australian Standard 1940-2004: The storage and handling of flammable and combustible liquids; and b) implementation of relevant safety procedures for fire safety and protection of personnel as required by Condition C4b). Note: If an amended EPL is not required for the storage of additives in IBCs on the Site, the Applicant may store and used additives in IBCs on the Site from the date of this consent, subject to satisfactory implementation of Conditions B9a) and B9b) above.	MP 08_0130 has been surrendered.
B10	The Applicant shall not use more than 30,000 litres of additives from IBCs on the Site per year, until the vapour recovery unit is installed and commissioned in accordance with Conditions C15 and C16.	EPL last updated 31 January 2020
B11	**Other Consents and Approvals** Prior to operation of the Development, or as otherwise agreed with the Secretary, the Applicant shall surrender development consent SSD 6664 for the Site in accordance with the EP&A Regulation. Note: This requirement does not extend to the surrender of construction and occupation certificates for existing and proposed building works under Part 4A of the EP&A Act. Surrender of a consent should not be understood as implying that works legally constructed under a valid consent can no longer be legally maintained or used.	Noted
B12	Prior to the commencement of operation, the Applicant shall provide written evidence to the satisfaction of the Secretary, demonstrating the M7 berth has all relevant approvals and licenses to receive flammable and combustible liquids by ship.	A new pipeline connecting the terminal to Mayfield Berth No. 7 was built during the 2018 reporting period as per the requirements of SSD_7065. The pipeline is not subject to the requirements of the BCA. No new buildings were built during this reporting period. No other elements of the project as approved under SSD_7065 have subsequently been initiated.
B13	Nothing in this consent impacts on the following consents/approvals: a) PA 12/001 issued under Section 111 of the EP&A Act dated 20 February 2012; and b) DA 293-08-00 as modified issued under Section 80 of the EP&A Act dated 6 April 2001.	Noted
B14	**Mayfield Concept Plan** The Applicant shall carry out the Development generally in accordance with the requirements of the Mayfield Concept Plan approval (09_0096), as modified.	There was no construction of utility works during the reporting period.

Schedule B – General Administrative Conditions – Compliance Requirements		
No	Description	Statement of Compliance
B15	Within six months of the commencement of operation, or as otherwise agreed with the PON, the Applicant shall decommission and remove the existing pipeline connection and associated infrastructure between the Site and the M4 berth, to the satisfaction of the PON. The Applicant shall provide a copy of the approval to undertake the demolition works and provide evidence of completion of the works, to the satisfaction of the Secretary.	The M4 pipeline has been removed in consultation with PON.
B16	**Statutory requirements** The Applicant shall ensure that all necessary licences, permits and approvals are obtained and kept up-to-date as required throughout the life of the Development. No condition of this consent removes the obligation for the Applicant to obtain, renew or comply with such licences, permits or approvals.	A set of the sites operational environmental management plans were submitted and approval by DPIE prior to the installation of the Mayfield Berth No. 7 pipeline.
B17	**Structural adequacy** The Applicant shall ensure new buildings and structures, and alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.	Consent previously received.
B18	Under Part 4A of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works. Part 8 of the EP&A Regulation sets out the requirements for the certification of the Development.	Paid
B19	**Protection of Public Infrastructure** The Applicant shall: a) repair, or pay the full costs associated with repairing public infrastructure that is damaged by the Development; and b) relocate, or pay the full costs associated with relocating public infrastructure that needs to be relocated as a result of the Development.	Noted
B20	**Utilities and services** Utilities, services and other infrastructure potentially affected by the construction and operation of the Development shall be identified prior to construction, to determine requirements for access to, diversion, protection, and/or support. Consultation with the relevant owner and/or provider of services that are likely to be affected by the Development shall be undertaken to make suitable arrangements for access to, diversion, protection, and/or support of the affected infrastructure as required. The cost of any such arrangements shall be borne by the Applicant.	Hazard audit was not required during the reporting period.
B21	**Operation of Plant and Equipment** The Applicant shall ensure plant and equipment used for the Development is: a) maintained in a proper and efficient condition; and b) operated in a proper and efficient manner.	Noted
B22	**Staged Submission of Plans or Programs** With the approval of the Secretary, the Applicant may: a) submit any strategy, plan or program required by this consent on a progressive basis; and/or b) combine any strategy, plan or program required by this consent.	Noted

Schedule B – General Administrative Conditions – Compliance Requirements		
No	Description	Statement of Compliance
B23	**Development Contribution** Prior to operation of the Development, the Applicant shall pay Council $228,600 in development contributions. Note: This contribution is subject to indexation to reflect quarterly variations in the Consumer Price Index All Group Index Number for Sydney, as published by the Australian Bureau of Statistics.	A partial development contribution was paid to council during the previous reporting period for the operation of the new M7 pipeline where it falls within the consent area. The balance of constitutions would be paid when the remainder of the consent (additional tankage and truck loading gantry) is constructed.
B24	**Dispute Resolution** In the event that a dispute arises between the Applicant and Council, PON or a public authority, in relation to a requirement under this consent, or relevant matter relating to the Development, either party may refer the matter to the Secretary for resolution. The Secretary's determination of the dispute shall be final and binding on the parties.	Noted
B25	**Compliance** The Applicant shall ensure that employees, contractors and sub-contractors are aware of, and comply with, the conditions of this consent relevant to their respective activities.	Noted
B26	The Applicant shall be responsible for environmental impacts resulting from the actions of all persons that it invites onto the Site, including contractors, sub-contractors and visitors.	Noted

Schedule C – Specific Environmental Conditions Conditions – Compliance Requirements		
No	Description	Statement of Compliance
C1.	**Hazards** The Applicant shall implement: a) all control measures proposed in the PHA; b) all relevant actions, as listed in Appendix C of the PHA, in response to the recommendations from the Buncefield incident investigation report; and c) all recommendations of the PHA.	Copy of site auditor correspondence previously provided.
C2.	Prior to completion of detailed design of the Development, or within such further period as the Secretary may agree, the Applicant shall prepare a Surge Study for the Development. The Study shall: a) be prepared in consultation with SafeWork NSW; b) consider scenarios including, but not limited to, pump trips and operation of the dry break coupling on marine loading arms; c) take into account the maximum pumping and tank filling rates when evaluating the pressures that can occur in the pipeline in a surge scenario; and d) evaluate the controls such as valve closing times and pressure rating of pipes and related equipment. The findings of the Surge Study shall be included in the Final Hazard Analysis required under Condition C4d).	No construction works took place during the reporting period.
C3.	Prior to finalising the detailed design of the Development, the Applicant shall consult with SafeWork NSW regarding any requirements under the Work Health and Safety Act 2011 and Work Health and Safety Regulation 2011.	No construction works took place during the reporting period.
C4	**Pre-construction** At least one month prior to the commencement of construction of the Development (except for construction of those preliminary works that are outside the scope of the hazard studies), or within such further period as the Secretary may agree, the Applicant shall prepare and submit for the approval of the Secretary the studies set out under subsections a) to d) (the pre-construction studies). Construction, other than of preliminary works, shall not commence until approval has been given by the Secretary and, with respect to the Fire Safety Study, approval has also been given by Fire and Rescue NSW (FRNSW). a) CONSTRUCTION SAFETY STUDY A Construction Safety Study prepared in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 7, 'Construction Safety Study Guidelines'. For developments in which the construction period exceeds six (6) months, the commissioning portion of the Construction Safety Study may be submitted two months prior to the commencement of commissioning. b) FIRE SAFETY STUDY The Applicant's Fire safety Study (FSS) shall be updated to incorporate any changes due to the Development. This Fire Safety Study shall be prepared with consultation with the FRNSW. This study shall cover the relevant aspects of the Department's Hazardous Industry Planning Advisory Paper No. 2, 'Fire Safety Study Guidelines' and the New South Wales Government's 'Best Practice Guidelines for Contaminated Water Retention and Treatment Systems'.	Copy of site auditor correspondence previously provided.

Schedule C – Specific Environmental Conditions Conditions – Compliance Requirements		
No	Description	Statement of Compliance
	Any outstanding issues from FRNSW shall be resolved and reported on in the FSS. c) HAZARD AND OPERABILITY STUDY A Hazard and Operability Study (HAZOP) for the Development chaired by an independent qualified person approved by the Secretary prior to the commencement of the study. In addition, the following shall be covered in the HAZOP: • surge issues for the various operating scenarios; • the ullage (in the tanks) above the high high alarm/emergency shutdown level, taking into account the slow closing time assigned to the emergency shutdown valves by the surge study required under Condition C2 above; and • the study shall be carried out in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 8, 'HAZOP Guidelines'. The study report must be accompanied by a program for the implementation of all recommendations made in the study. Safety related recommendations must be included in the final design of the Development. If the Applicant intends to defer the implementation of a recommendation, justification must be included. NSW Government Department of Planning and Environment 5 d) FINAL HAZARD ANALYSIS A Final Hazard Analysis of the overall Site, consistent with the Department's Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis'. The FHA shall report on the implementation of the recommendations of the PHA. The FHA shall: • demonstrate that the tank overfill protection system (for all tanks) reduces the risk so far as reasonably practicable, and it achieves as a minimum safety integrity level (SIL) 2 rating. A SIL allocation and verification report for the Development shall be undertaken and enclosed in the FHA; • re-evaluate and confirm all relevant data and assumptions from the PHA, in particular, the outcomes of the surge analysis that may result in changes in the risk assessment and impact on the overall risk from the facility; • re-evaluate and confirm all control measures proposed for prevention and mitigation of incidents; and • report on implementation of the recommendations of the PHA.	

Schedule C – Specific Environmental Conditions Conditions – Compliance Requirements		
No	Description	Statement of Compliance
C5.	**Pre-commissioning** The Applicant shall develop and implement the plans and systems set out under subsections a) to c). No later than two months prior to the commencement of commissioning of the Development, or within such further period as the Secretary may agree, the Applicant shall submit, for the approval of the Secretary, documentation describing those plans and systems. Commissioning shall not commence until approval has been given by the Secretary. a) TRANSPORT OF HAZARDOUS MATERIALS Arrangements covering the transport of hazardous materials including details of routes to be used for the movement of vehicles carrying hazardous materials to or from the Site. The routes selected shall be consistent with the Department's Hazardous Industry Planning Advisory Paper No. 11, 'Route Selection'. Suitable routes identified in the study shall be used except where departures are necessary for local deliveries or emergencies. b) EMERGENCY PLAN The Applicant's Emergency Plan and detailed emergency procedures shall be updated to incorporate any changes due to the Development. The plan shall include detailed procedures for the safety of all people outside of the Site who may be at risk from the Site. The plan shall be in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 1, 'Industry Emergency Planning Guidelines'. c) SAFETY MANAGEMENT SYSTEM The Applicant's Safety Management System shall be updated to include any changes due to the Development. The document shall clearly specify all safety related procedures, responsibilities and policies, along with details of mechanisms for ensuring adherence to the procedures. Records shall be kept on Site and shall be available for inspection by the Secretary upon request. The Safety Management System shall be developed in accordance with the Department's Hazardous Industry Planning Advisory Paper No. 9, 'Safety Management'. An inspection, testing and preventive maintenance program should be developed, implemented and maintained to ensure the reliability and availability of the key safety critical equipment is, at a minimum, consistent with the data estimated in the PHA.	No soil imported during the reporting period.
C6.	**Pre-startup Compliance Report** One month prior to the commencement of operation of the Development, the Applicant shall submit to the Secretary, a report detailing compliance with Conditions C4 and C5, including: a) dates of study/plan/system submission, approval, commencement of construction and commissioning; b) actions taken or proposed, to implement the recommendations and safety-related control measures in the studies/plans/systems; c) a pre-startup safety review/checklist; and d) responses to each requirement imposed by the Secretary under Condition C9 of this Schedule.	Existing Groundwater Monitoring bores installed pursuant to the Water Management Act 2000.

Schedule C – Specific Environmental Conditions Conditions – Compliance Requirements		
No	Description	Statement of Compliance
C7.	**Post-startup Compliance Report** Three months after the commencement of operation of the Development, the Applicant shall submit to the Secretary, a report verifying that: a) the Emergency Plan required under Condition C5b) is effectively in place and that at least one emergency exercise has been conducted; and NSW Government Department of Planning and Environment 6 b) the Safety Management System required under Condition C5c) has been fully implemented and that records required by the system are being kept.	All water discharged from the Site complied with the relevant EPL conditions (refer to **Section 7.3** of this Annual Review)
C8.	**Ongoing** HAZARD AUDIT Twelve months after the commencement of operation of the Development and every three years thereafter, or at such intervals as the Secretary may agree, the Applicant shall carry out a comprehensive Hazard Audit of the Site and within one month of each audit submit a report to the Secretary. The audits shall be carried out at the Applicant's expense by a qualified person or team, independent of the Site, approved by the Secretary prior to commencement of each audit. Hazard Audits shall be consistent with the Department's Hazardous Industry Planning Advisory Paper No. 5, 'Hazard Audit Guidelines' (HIPAP No. 5). The audit reports shall, in addition to the requirements provided in HIPAP No 5: a) verify implementation of all actions proposed by the Applicant in response to the recommendations from the Buncefield incident investigation report as contained in Appendix C of the PHA; b) verify that an inspection, testing and preventative maintenance program has been developed, implemented and maintained to ensure the reliability and availability of key safety critical equipment; c) confirm the throughput and storage quantities of potentially hazardous materials are consistent with the PHA; and d) verify implementation of any measures arising from the reports submitted in respect of Conditions C1 to C5 of this Schedule. The audit report must be accompanied by a program for the implementation of all recommendations made in the audit report. If the Applicant intends to defer the implementation of a recommendation, reasons must be documented. This audit report must also be submitted to SafeWork NSW.	Refer Aurecon Design Compliance Statement previously provided to DPIE.
C9.	**Further requirements** The Applicant shall comply with all reasonable requirements of the Secretary in respect of the implementation of any measures arising from the reports submitted in respect of Conditions C1 to C8, within such time as the Secretary may agree.	No changes occurred to the stormwater management system previously approved by PON.

Schedule C – Specific Environmental Conditions Conditions – Compliance Requirements		
No	Description	Statement of Compliance
C10.	The Applicant shall contribute to, in so far as it relates to the Site, preparation of or updates to the following plans and audits for the Mayfield Concept Plan, in consultation with the PON: a) the Mayfield Site Precinct Emergency Management Plan, February 2016 consistent with the Department's Hazardous Industry Advisory Paper No. 1 – Emergency Planning; b) a Safety Management System, consistent with the Department's Hazardous Industry Advisory Paper No. 9 – Safety Management; and c) hazard audits, consistent with the Department's Hazardous Industry Advisory Paper No. 5 – Hazard Audit Guidelines. Notes: • The intent of the condition is to ensure any cumulative hazard issues across the Mayfield Concept Plan area are identified and managed; and • The relative contribution by the Applicant and timing shall be determined in consultation with the PON, to the satisfaction of the Secretary.	Updated. See letter from DPIE
C11	**Air Quality Limits** The Applicant shall install and operate equipment to ensure the Site complies with all load limits, air quality criteria and air quality monitoring requirements as specified in an EPL for the Site.	Noted
C12	**Offensive Odour** The Applicant shall not cause or permit the emission of offensive odours beyond the boundary of the Site, as defined under Section 129 of the POEO Act.	Noted
C13	**Dust Minimisation** The Applicant shall carry out all reasonable and feasible measures to minimise dust generated by the Site	Noted
C14	During construction and operation of the Development, the Applicant shall ensure: a) all vehicles on Site do not exceed the designated on Site speed limit; b) all loaded vehicles entering or leaving the Site have their loads covered; and c) all vehicles leaving the Site are cleaned of dirt, sand and other materials before they leave the Site, to avoid tracking these materials on to public roads.	Noted
C15	**Vapour Recovery Unit** The Applicant shall install and commission a vapour recovery unit on the six bay truck loading gantry prior to: a) annual throughput of petroleum products exceeding 1,300 ML; or b) bulk storage of any Class 3 Flammable Liquid Dangerous Goods, described in the EIS.	No flammable products or products in excess of 1,300ML have been through thre site during the reporting period therefore the need for Vapour Recovery Unit (VRU) has not yet been triggers.
C16	The vapour recovery unit shall be designed, constructed and operated in accordance with the requirements of the EPL.	Noted

Schedule C – Specific Environmental Conditions Conditions – Compliance Requirements		
No	Description	Statement of Compliance
C17	The Applicant shall monitor emissions from the vapour recovery unit stack in accordance with the requirements of the EPL. The monitoring data shall be reported to the PON on a quarterly basis, or in accordance with the monitoring frequency required in the EPL	Noted. The VRU is not yet required and therefore hasn't been installed.
C18	If the results of monitoring show any impact greater than that predicted by the air quality modelling in the EIS, the Applicant shall investigate and implement further air quality mitigation measures as directed by the Secretary or the EPA.	Noted.
C19	**Air Quality Management Plan** The Applicant shall update the existing Air Quality Management Plan for the Site to include the Development, to the satisfaction of the Secretary. This plan shall: a) be approved by the Secretary prior to operation of the Development; b) describe the measures that would be implemented to ensure compliance with the relevant conditions of this consent and the EPL; c) describe the air quality monitoring to measure the performance of the Development against the conditions of this consent and the EPL; and d) demonstrate the air quality measures for the Development are consistent with the PON's Mayfield Air Quality Monitoring Plan, October 2015, or its latest version	Plan has been previously updated
C20	**Greenhouse Gas** The Applicant shall implement all reasonable and feasible measures to minimise energy use on Site and greenhouse gas emissions produced on Site.	Noted
C21	**Meteorological Monitoring** The Applicant shall install, operate and maintain a meteorological weather station on the Site that complies with the requirements of an EPL for the Site.	
C22	**Traffic Movements** The Applicant shall: a) keep accurate records of truck movements including: • total hourly truck movements in peak periods; • total truck movements per day; • total truck movements per annum; • the volume of flammable and combustible liquids received, stored and dispatched; b) report these records in the Annual Review; and c) provide these records to PON on a bi-monthly basis.	Records are maintained and reported in accordance with this condition (Refer to **Section 9.2, 9.2.1** and **Appendix D** of this Annual Review)
C23	The Applicant shall ensure: a) all internal roads and parking (including driveways, grades, lighting, aisle widths, aisle lengths, turning paths, sight distance requirements and parking bay dimensions) associated with the Development are designed and constructed in accordance with the latest versions of the Australian Standards 2890.1:2004 and 2890.2:2002;	Noted

Schedule C – Specific Environmental Conditions Conditions – Compliance Requirements		
No	Description	Statement of Compliance
	b) internal roads accessed by heavy vehicles are designed to ensure the swept paths of the longest vehicle and maneuverability through the site is in accordance with AUSTROADS – Guide to Road Design; and NSW Government Department of Planning and Environment 8 c) car, motorbike and bicycle parking spaces are provided on site in accordance with the requirements of the Newcastle Development Control Plan, 2012, where relevant.	
C24	The Applicant shall ensure: a) all heavy vehicle movements to and from the Site are made in a forward direction; and b) vehicles associated with the Site do not park or queue on the public road network outside the Mayfield Concept Plan area.	Noted
C25	The Applicant shall update the existing operational Traffic Management Plan for the Site to include the Development. The plan shall: a) be approved by RMS and the Secretary prior to operation of the Development; b) be prepared in consultation with PON, PNSW, Council, RMS, adjoining land owners and the local community; c) detail vehicle routes, access arrangements and coordination with other developments in the Mayfield Concept Plan area; d) include details of driver training awareness to minimise noise, in particular from reversing alarms and compression braking; e) detail procedures for assessing the effectiveness of measures to minimise heavy vehicles accessing residential streets; f) detail procedures for managing operational traffic, including adherence to the Australian Code for Transport of Dangerous Goods by Road and Rail, January 1998 or its latest version; and g) be updated to be consistent with the PON's Traffic Management Plan, Mayfield Concept Plan, November 2015 or its latest version.	Updated. See letter from DPIE
C26	The Applicant shall comply with the hours of work in Table 1: **Construction:** Monday to Friday - 7 am – 6 pm Saturday 8 am – 1 pm Sunday & Public Holidays – nil **Operation** Monday – Sunday – 24 hours	Noted

Schedule C – Specific Environmental Conditions Conditions – Compliance Requirements		
No	Description	Statement of Compliance
C27	The Applicant shall implement all reasonable and feasible management and mitigation measures to ensure noise generated during construction of the Development does not exceed the construction noise goals in Table 2 of the consent conditions.	Noted
C28	Construction outside of the hours identified in Condition C26 may be undertaken in the following circumstances: a) works that are inaudible at the nearest sensitive receivers; b) works agreed to in writing by the Secretary; c) for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or d) where it is required in an emergency to avoid the loss of lives, property and/or to prevent environmental harm	Noted
C29	**Mayfield Concept Plan Site Noise Model** Prior to the commencement of construction of the Development, the Applicant shall provide the Noise and Vibration Impact Assessment, prepared by AECOM dated 19 February 2016, including all modelling data, to the PON for the purposes of updating the Site Noise Mode	Previously provided to PON
C30	The Applicant shall ensure noise from the Site does not exceed the noise limits in Table 3	Noise limits comply with this consent condition (Refer to **Section 8.0** of this Annual Review)
C31	The Applicant shall ensure fire pumps on the Site are designed and operated so that noise from routine testing or maintenance is not more than $L_{eq(15min)}$ 53 dB(A) at sensitive receivers. Routine testing or maintenance must only occur during the day time	Noise limits comply with this consent condition (Refer to **Section 8.0** of this Annual Review)
C32	The Applicant shall: a) ensure noise from the Site does not exceed the noise quotas provided by the PON in accordance with the Site Noise Model; and b) comply with the directions of the PON in relation to the management of noise from the Site.	Noise limits comply with this consent condition (Refer to **Section 8.0** of this Annual Review)
C33	The Applicant shall: a) implement all reasonable and feasible noise management and mitigation measures to prevent and minimise noise from the Site; b) implement, where possible, a safe system of work so that tonal movement alarms, such as reversing beepers, are not needed on the Site; c) maintain the effectiveness of any noise suppression equipment or plant at all times and ensure defective plant that may generate offensive noise is not used operationally until fully repaired; and d) regularly assess noise monitoring data and relocate, modify and/or stop operations to ensure compliance with the relevant conditions of this consent	Noted

Schedule C – Specific Environmental Conditions Conditions – Compliance Requirements		
No	Description	Statement of Compliance
C34	**Noise Management Plan** The Applicant shall update the existing Noise Management Plan for the Site to include the Development. The plan shall: a) be prepared by a suitably qualified expert, in accordance with EPA Guidelines; b) be approved by the Secretary prior to operation of the Development; c) describe the measures that would be implemented to ensure compliance with the: i. noise limits in Condition C30; and ii. noise quotas provided by PON, to maintain compliance with the noise goals in the Mayfield Concept Plan; d) include a procedure for implementing noise mitigation measures, should the Applicant be directed to by the EPA, PON or the Secretary, or should non-compliances be detected; and e) include procedures to receive, record and respond to complaints.	Previously updated
C35	The Applicant shall monitor noise from the Site. The monitoring shall: a) be undertaken annually, or to address genuine noise complaints related to the Site as determined by the Secretary, EPA or the PON; b) be undertaken in accordance with the NSW Industrial Noise Policy and the Noise Verification Monitoring Plan, October 2015 or its latest version; c) demonstrate compliance with the noise limits in this consent and the noise quotas provided by PON in accordance with the Mayfield Concept Plan; and d) be reported annually to the Secretary, EPA and the PON. Note: The monitoring requirements could be satisfied by the monitoring network required for the Mayfield Concept Plan once established.	Noise monitoring reports prepared and included in **Section 8.0** of this Annual Review
C36	**Statutory Requirements** The Applicant shall carry out the Development in accordance with the requirements of the: a) Remediation Notice; and b) CSMP	Copy of site auditor correspondence previously provided.
C37	Prior to commencement of construction, the Applicant shall provide written evidence to the Secretary from the Site Auditor confirming that all construction works associated with the Development meet the requirements of the documents listed in Condition C36 above	Copy of site auditor correspondence previously provided.
C38	Prior to commencement of operation, the Applicant shall provide written evidence to the Secretary from the Site Auditor confirming that all works associated with the Development have been constructed in accordance with the requirements of the documents listed in Condition C36 above.	Copy of site auditor correspondence previously provided.
C39	**Human Health Risk** The Applicant shall provide written advice from the Site Auditor confirming that all works associated with the Development would be constructed to address any risk of harm to human health posed by the potential ingress of volatile vapours into buildings and confined spaces	Copy of site auditor correspondence previously provided.

Schedule C – Specific Environmental Conditions Conditions – Compliance Requirements		
No	Description	Statement of Compliance
C40	**Imported Soil** The Applicant shall: a) ensure that only VENM or ENM or other material approved in writing by the EPA or the Site Auditor is used as fill on the Site; b) keep accurate records of the volume and type of fill to be used on Site; and c) make these records available to PON and the Secretary upon request.	No soil imported to site during this reporting period
C41	**Water licences** The Applicant is required to obtain the necessary water licences for the Development under the Water Act 1912 and/or the Water Management Act 2000. Note: Licences are required for groundwater bores, excavations that may intercept groundwater, dewatering activities and extraction or interception of surface water.	Groundwater monitoring bores installed pursuant to the *Water Management Act 2000*
C42	**Discharge Limits** The Applicant shall ensure all water discharges from the Site comply with the requirements specified in an EPL for the Site	All water discharged from the Site complied with the relevant EPL conditions (refer to **Section 7.3** of this Annual Review)
C43	**Stormwater and Drainage System** The Applicant shall maintain the stormwater and drainage system for the Site to the satisfaction of PON	No changes occurred to the stormwater management system previously approved by PON.
C44	**Stormwater and Drainage Management Plan** The Applicant shall update the existing Stormwater and Drainage Management Plan for the Site to include the Development, to the satisfaction of the Secretary. The plan shall: a) be updated prior to operation of the Development; b) be prepared in accordance with OEH's Managing Urban Stormwater and other relevant guidelines; c) detail the stormwater infrastructure to be installed for the Development and detail how it integrates with the existing stormwater system on the Site; d) describe the measures to be implemented to maintain this infrastructure over time; e) include a program to monitor stormwater quality and quantity; and f) detail how the stormwater infrastructure integrates and is consistent with the PON's Concept Stormwater Management Strategy dated 9 July 2015 or its latest version.	This plan was reviewed and updated to be consistent with SSD_7065 during the 2018 reporting period. DPIE subsequently approved the updated plan.
C45	**Water Management Plan** The Applicant shall update the existing Water Management Plan for the Site to include the Development, to the satisfaction of the Secretary. The plan shall: a) be updated prior to operation of the Development; b) include procedures for the prevention and management of spills and leaks from the Development, including the terminal, M7 berth and pipeline; c) include a surface water monitoring program to measure the quality and quantity of water discharges from the Site in accordance with an EPL for the Site; d) include a groundwater monitoring program to evaluate the integrity of the surface capping in minimising groundwater contamination and monitor in accordance with the requirements of an EPL for the Site; and	This plan was reviewed and updated to be consistent with SSD_7065 during the 2018 reporting period. DPIE subsequently approved the updated plan.

Schedule C – Specific Environmental Conditions Conditions – Compliance Requirements		
No	Description	Statement of Compliance
	e) include a surface and groundwater response plan, including remedial actions and procedures to be followed in the event of an incident.	
C46	**Bunding and Storage of Liquids** The Applicant shall store all chemicals, fuels and oils used on the Site in appropriately bunded areas in accordance with the requirements of all relevant Australian Standards, and/or the EPA's Storing and Handling of Liquids: Environmental Protection – Participants Handbook.	Noted
C47	The Applicant shall ensure all bunds: a) have impervious walls and floors; b) are of sufficient capacity to contain 110% of the volume of the tank (or 110% of the volume of the largest tank where a group of tanks are installed); c) have floors graded to a collection sump; and d) do not have a drain valve incorporated in the bund structure, or are constructed and operated in a manner that achieves the same environmental outcome.	Refer Aurecon Design Compliance Statement previously provided to DPIE
C48	**Leak Prevention** The Applicant shall: a) conduct annual integrity testing on the petroleum product pipeline extending between the terminal and the M7 berth; b) conduct leak testing of the petroleum products pipeline extending between the terminal and the M7 berth prior to each transfer of product; c) conduct surveillance checks on the pipeline prior to the commencement of and during transfer operations of any petroleum products; and d) maintain a register for all integrity and pressure tests conducted on the pipeline extending between the terminal and the M7 berth	Annual pipeline integrity testing undertaken (Refer **Section 13.3** and **Appendix G** of this Annual Review
C49	**UTILITIES AND SERVICES** The Applicant shall update the existing Utilities and Services Plan for the Site to include the Development. The plan must: a) be updated prior to operation of the Development; b) be prepared in consultation with relevant utility and service providers and adjacent landowners, where relevant; c) include an implementation schedule which shows how all essential utilities and services are to be provided to the Site; d) provide a copy of all necessary consents from relevant utility and service providers showing that access to these utilities and services is available and secured; and e) include a strategy to integrate all utilities and services with the broader system to be provided by PON for the Mayfield Concept Plan, and be consistent with the Utilities Infrastructure Plan, July 2015, or its latest version.	This plan was reviewed and updated to be consistent with SSD_7065 during the reporting period. DPIE subsequently approved the updated plan
C50	**Landscaping** The Applicant shall update the existing Landscape Management Plan for the Site to include the Development, to the satisfaction of the Secretary. The Plan must: a) be prepared in consultation with PON and in accordance with the relevant requirements of the Newcastle Development Control Plan, 2012; b) be updated and implemented prior to operation of the Development;	Plan has been previously updated

Schedule C – Specific Environmental Conditions Conditions – Compliance Requirements		
No	Description	Statement of Compliance
	c) demonstrate the building treatments are of sufficient design quality to minimise the visual impacts of the Site, and include a variety of materials and external finishes; d) illustrate the location, species and mature heights of plants to be established on Site; e) provide for the maintenance of the landscaping on Site; and f) ensure the administration building and landscaping is consistent with the requirements of the PON acknowledging the Site's location at the entrance to the Mayfield Concept Plan area.	
C51	**Building Materials** Where possible the Applicant shall utilise building materials that minimise the potential visibility of the Development, including non-reflective materials	Noted
C52	**Lighting** The Applicant shall ensure any lighting associated with the Site: a) complies with the latest version of Australian Standard AS 4282 (INT)-Control of Obtrusive Effects of Outdoor Lighting, where relevant; and b) is mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network.	Complete
C53	**Signage** The petroleum product pipeline extending between the terminal and the M7 berth must: a) be identified in accordance with Australian Standard AS1345-2008: Identification of the contents of pipes, conduits and ducts; and b) include pipe markers including the name of the Applicant and emergency contact details.	Noted
C54	The Applicant shall not install any advertising signs on the Site without consultation with the PON and the written consent of the Secretary.	Noted
C55	**Site Security** The Applicant shall: a) install and maintain a perimeter fence and security gates on the Site; b) ensure the security gates on Site are locked whenever the Site is unattended; and c) consult with the PON with regards to minimum fencing specifications.	Noted
C56	**WASTE** The Applicant shall ensure any waste generated on the Site is classified in accordance with the EPA's Waste Classification Guidelines (DECCW, 2009), or any superseding document and disposed of to a facility that may lawfully accept the waste.	Noted
C57	Waste generated outside the Site shall not be received at the Site for storage, treatment, processing, reprocessing, or disposal on the Site, except as expressly permitted by an EPL, if such a licence is required in relation to that waste	Noted
C58	The Applicant shall: a) implement all reasonable and feasible measures to minimise waste generated on Site; and b) ensure any waste generated on Site is appropriately stored, handled and disposed of.	Noted

Schedule C – Specific Environmental Conditions Conditions – Compliance Requirements		
No	Description	Statement of Compliance
F59	**AVIATION SAFETY** Prior to the commencement of construction, the Applicant shall provide the Secretary with a copy of all necessary approvals from the Air Base Command Post of RAAF Base Williamstown and the Directorate of External Land Planning within the Defence Support Group of the Department of Defence for the erection of all structures that constitute transient/temporary or permanent obstructions in accordance with the Operation of cranes and tall structures in the vicinity of Newcastle Airport (Department of Defence, 2013).	Complete

Schedule D – Environmental Management Reporting – Compliance Requirements		
No	Description	Statement of Compliance
D1	**Construction Environmental Management Plan** The Applicant shall prepare a Construction Environmental Management Plan (CEMP) for the Development, to the satisfaction of the Secretary. The Plan must: a) be approved by the Secretary prior to construction of the Development; b) identify the statutory approvals that apply to the Site; c) outline all environmental management practices and procedures to be followed during construction; d) describe all activities to be undertaken on the Site during construction, including a clear indication of construction stages; e) detail how the environmental performance of the construction works will be monitored, and what actions will be taken to address identified adverse environmental impacts; f) describe the roles and responsibilities for all relevant employees involved in construction works; and g) include the management plans under Condition D2 of this consent.	Noted
D2	As part of the CEMP for the Development, required under Condition D1 of this consent, the Applicant shall include the following: a) a soil and water management plan; b) a contaminated materials management plan, prepared in consultation with the PON; c) a traffic management plan; d) a noise and vibration management plan; e) an air quality (dust) management plan; f) a utilities and services provision plan; and g) a waste management plan.	Noted
D3	The Applicant shall carry out construction of the Development in accordance with the CEMP approved by the Secretary (and as revised and approved by the Secretary from time to time), unless otherwise agreed by the Secretary.	Noted
D4	**Environmental Management Strategy** The Applicant shall update the existing Environmental Management Strategy (EMS) for the Site to include the Development, to the satisfaction of the Secretary. The EMS shall: a) be submitted to the Secretary for approval prior to operation of the Development;	Previously updated

Schedule D – Environmental Management Reporting – Compliance Requirements		
No	Description	Statement of Compliance
	b) be prepared by a suitably qualified and experienced expert; c) provide the strategic framework for environmental management of the Site; d) identify the statutory requirements that apply to the Site; e) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the Site; f) describe in general how the environmental performance of the Site would be monitored and managed; g) describe the procedures that would be implemented to: • keep the local community and relevant agencies informed about the operation and environmental performance of the Site; • receive, handle, respond to, and record complaints; • resolve any disputes that may arise in relation to operations at the Site; • respond to any non-compliance; • manage cumulative impacts; • respond to emergencies; h) include the management plans under Condition D5 of this consent; and i) be provided to the PON once approved by the Secretary, including any approved amendments to the EMS.	
D5	As part of the EMS for the Site, required under Condition D4 of this consent, the Applicant shall include the following: a) air quality; b) traffic; c) noise; d) stormwater and drainage; e) water; f) utilities and services; and g) landscape.	Noted
D6	The Applicant shall operate the Site in accordance with the EMS approved by the Secretary (and as revised and approved by the Secretary from time to time), unless otherwise agreed by the Secretary	Noted
D7	**Management Plan Requirements** The Applicant shall ensure the management plans required under this consent are prepared in accordance with any relevant guidelines, and include: a) detailed baseline data; b) a description of: • the relevant statutory requirements (including any relevant consent, licence or lease conditions); • any relevant limits or performance measures/criteria; and • the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the Site or any management measures; c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria; d) a program to monitor and report on the: • impacts and environmental performance of the Site; and • effectiveness of any management measures (see c) above); e) a contingency plan to manage any unpredicted impacts and their consequences; f) a program to investigate and implement ways to improve the environmental performance of the Site over time; g) a protocol for managing and reporting any: • incidents; • complaints; • non-compliances with statutory requirements; and • exceedances of the relevant limits and/or performance measures / criteria; and h) a protocol for periodic review of the plan.	Previously complete

Schedule D – Environmental Management Reporting – Compliance Requirements		
No	Description	Statement of Compliance
D8	**Revisions to Strategies, Plans and Programs** Within three months of the submission of an: a) audit submitted under Condition D12; b) incident report under Conditions D10 and D11; c) annual review under Condition D9; and/or d) a modification to this consent, the Applicant shall review, and if necessary, revise the strategies, plans, and programs required under this consent to the satisfaction of the Secretary.	Noted
D9	**Annual Review** By the end of December each year, and annually thereafter, the Applicant shall review the environmental performance of the Site, to the satisfaction of the Secretary. This review must: a) be prepared in consultation with PON; b) describe the operations that were carried out in the past year; c) analyse the monitoring results and complaints records of the Site over the past year, including a comparison of these results against the: • relevant statutory requirements, limits or performance measures/criteria; • monitoring results of previous years; and • predictions in the EIS; d) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance; e) identify any trends in the monitoring data; f) identify any discrepancies between the impacts predicted in the EIS and the actual impacts of the Site and analyse the potential cause of any significant discrepancies; and g) describe what measure will be implemented over the next year to improve the environmental performance of the Site.	This Annual Review is prepared in accordance with this condition.
D10	**Incident Reporting** Upon detecting an exceedance of the limits/performance criteria in this consent or the occurrence of an incident that causes (or may cause) material harm to the environment, the Applicant shall immediately (or as soon as practical thereafter) notify the Secretary, PON and any other relevant agencies of the exceedance/incident.	Noted
D11	Within seven days of the date of the incident, the Applicant shall provide the Secretary, PON and any relevant agencies with a detailed report on the incident, and such further reports as may be requested	Noted
D12	**INDEPENDENT ENVIRONMENTAL AUDIT** Within one year of the date of this consent, and every three years thereafter, unless the Secretary directs otherwise, the Applicant shall commission and pay the full cost of an Independent Environmental Audit of the Site. The audit must: a) be carried out by a suitably qualified, experienced and independent audit team whose appointment has been endorsed by the Secretary; b) include consultation with PON; c) assess the environmental performance of the Site, and its effects on the surrounding environment; d) determine whether the Site is complying with the relevant standards, performance measures and statutory requirements, including the Mayfield Concept Plan;	NA Independent Environmental Audit was undertaken during the reporting period. A copy of the IEA was has been previously provided to DPIE compliance.

Schedule D – Environmental Management Reporting – Compliance Requirements		
No	Description	Statement of Compliance
	e) review the adequacy of the EMS for the Site, compliance with this consent, and any other licences and consents; and, if necessary; f) recommend measures or actions to improve the environmental performance of the Site, and/or any plan/program required under this consent.	
D13	Within three months of commissioning the audit, or as otherwise agreed by the Secretary, the Applicant shall submit a copy of the audit report to the Secretary, EPA and PON with a response to all recommendations contained in the audit report	Noted
D14	**COMMUNITY CONSULTATION** The Applicant shall contribute to the Community Communication Strategy required for the Mayfield Concept Plan. The level and timing of the contribution by the Applicant shall be determined in consultation with the PON	Community consultation has been undertaken as described in **Section 12.0** of this Annual Review
D15	**ACCESS TO INFORMATION** The Applicant shall make the following information publicly available on its website and keep the information up to date: a) the EIS; b) current statutory consents for the Site; c) approved strategies, plans and programs; d) a summary of all monitoring data for the Site as required under this consent and the Mayfield Concept Plan; e) a complaints register, updated on an annual basis; f) Annual Reviews, Independent Environmental Audits and the Applicant's response to the recommendations; and g) any other matter required by the Secretary. Note: This condition does not require any confidential information to be made available to the public.	This information is available on Stolthaven's website: https://www.stolt-nielsen.com/en/our-businesses/stolthaven-terminals/terminal-network/stolthaven-newcastle

Appendix G – Pipeline Integrity Test Report

Hancock & Owen Services Pty Ltd

PIPELINE PRESSURE TEST CERTIFICATE

Customer Site: Stolthaven	**Certificate No. HO 101010**

Project Name: Wharfline	**System:** Diesel
Flow Medium: Diesel	**Location:** Newcastle
Site Drawing No. (s) : N/A	

Piping Code: ASME B31.3	**Design Temp.:** 0-40 deg C

Test Medium: Diesel	**Test Pressure:** 1500 kPa		
Test Duration: 1 hour	**Start** 10.15am	**Finish**	11.15am
Test Date: 10/10/20	**Testing Officer: Russell Hancock**		
ISO No.	**LINE No.**		
	Wharfline		

	Completed By	**Approved By**	**Accepted By**
Company	H&O	H&O	Stolthaven Terminals
Name	Russell Hancock	Tom Relf	Andy McCormick
Signature			
Date	11/10/20	11/10/20	11/10/20

Appendix H – 2020 Waste Management

Environmental - Waste Management

Effluent

Date	Terminal Quantity	Mayfield 7 Quantity	Company
2/01/20	1,500	500	Cleanaway
9/01/20	2,000	1,000	Cleanaway
16/01/20	2,500	1,000	Cleanaway
23/01/20	3,000	500	Cleanaway
29/01/20	3,000	0	Cleanaway
6/02/20	3,000	100	Cleanaway
14/02/20	3,000	1,000	Cleanaway
20/02/20	3,000	500	Cleanaway
27/02/20	3,000	0	Cleanaway
5/02/20	3,000	500	Cleanaway
12/03/20	3,000	500	Cleanaway
19/03/20	3,000	500	Cleanaway
26/03/20	3,000	1,000	Cleanaway
2/04/20	3,000	100	Cleanaway
9/04/20	3,000	1,000	Cleanaway
16/04/20	3,000	500	Cleanaway
23/04/20	3,000	1,000	Cleanaway
30/04/20	3,000	500	Cleanaway
7/05/20	3,000	1,000	Cleanaway
14/05/20	3,000	500	Cleanaway
21/05/20	3,000	1,000	Cleanaway
28/05/20	3,000	500	Cleanaway
4/06/20	3,000	1,000	Cleanaway
11/06/20	3,000	1,000	Cleanaway
18/06/20	3,000	500	Cleanaway
25/06/20	3,000	0	Cleanaway
2/07/20	3,000	1,000	Cleanaway
9/07/20	3,000	500	Cleanaway
16/07/20	3,000	1,000	Cleanaway
23/07/20	3,000	1,000	Cleanaway
27/07/20	4,000	0	Cleanaway
30/07/20	3,000	1,000	Cleanaway
6/08/20	3,000	500	Cleanaway
13/08/20	3,000	0	Cleanaway
20/08/20	3,000	500	Cleanaway
27/08/20	3,000	1,000	Cleanaway
3/09/20	3,000	1,000	Cleanaway
10/09/20	3,000	500	Cleanaway
17/09/20	3,000	500	Cleanaway
24/09/20	3,000	500	Cleanaway
1/10/20	3,000	500	Cleanaway
8/10/20	3,000	0	Cleanaway
15/10/20	3,000	500	Cleanaway
22/10/20	3,000	500	Cleanaway
29/10/20	3,000	500	Cleanaway
5/11/20	2,500	500	Cleanaway
12/11/20	3,000	1,500	Cleanaway
19/11/20	3,000	0	Cleanaway
26/11/20	3,000	500	Cleanaway
3/12/20	3,000	500	Cleanaway
10/12/20	3,000	500	Cleanaway
17/12/20	2,500	500	Cleanaway
24/12/20	3,000	1,000	Cleanaway
31/12/20	3,000	100	Cleanaway

Hazardous Waste (Liquid)

Date	Quantity	Transfers	Company
29/01/20	0	16,260	JLP Transfer
11/03/20	0	16,485	JLP Transfer
29/04/20	0	21,370	JLP Transfer
26/05/20	0	16,485	JLP Transfer
25/06/20	0	21,535	JLP Transfer
11/08/20	0	19,320	JLP Transfer
4/09/20	0	18,450	Toll Transport

Hazardous Waste (Solid)

Date	Bin 660lt	Drums (Empty) 20lt	Drums (Empty) 200lt	Soil (Removed from Site - kg)	Other	Company
12/03/20	1	0	0	0	0	A.E.S
1/05/20	1	0	0	0	0	A.E.S
12/06/20	1	0	0	0	0	A.E.S
13/08/20	1	0	0	0	0	A.E.S
10/09/20	1	15	2	0	0	A.E.S
23/10/20	1	0	0	0	0	A.E.S

2020

General - Recycled & Green Waste (Non Hazardous)

Date	General Waste Bin (1.5 M3)	Recycled Bin Co-Mingled 1,000 lt	Printer Cartridge Recycle (83 lts)	Vegetation (kg)	Other	Company	Recycling Review Period - Annually
10/01/20	0	**1**	0	0	0	Cleanaway	
14/01/20	**1**	0	0	0	0	Cleanaway	
24/01/20	0	**1**	0	0	0	Cleanaway	
28/01/20	**1**	0	0	0	0	Cleanaway	
7/02/20	0	**1**	0	0	0	Cleanaway	
11/02/20	**1**	0	0	0	0	Cleanaway	
21/02/20	0	**1**	0	0	0	Cleanaway	
25/02/20	**1**	0	0	0	0	Cleanaway	
6/03/20	0	**1**	0	0	0	Cleanaway	
10/03/20	**1**	0	0	0	0	Cleanaway	
20/03/20	0	**1**	0	0	0	Cleanaway	
24/03/20	**1**	0	0	0	0	Cleanaway	
3/04/20	0	**1**	0	0	0	Cleanaway	
7/04/20	**1**	0	0	0	0	Cleanaway	
17/04/20	0	**1**	0	0	0	Cleanaway	
21/04/20	**1**	0	0	0	0	Cleanaway	
1/05/20	0	**1**	0	0	0	Cleanaway	
5/05/20	**1**	0	0	0	0	Cleanaway	
15/05/20	0	**1**	0	0	0	Cleanaway	
19/05/20	**1**	0	0	0	0	Cleanaway	
29/05/20	0	**1**	0	0	0	Cleanaway	
2/06/20	**1**	0	0	0	0	Cleanaway	
12/06/20	0	**1**	0	0	0	Cleanaway	
16/06/20	**1**	0	0	0	0	Cleanaway	
26/06/20	0	**1**	0	0	0	Cleanaway	
30/06/20	**1**	0	0	0	0	Cleanaway	
10/07/20	0	**1**	0	0	0	Cleanaway	
14/07/20	**1**	0	0	0	0	Cleanaway	
24/07/20	0	**1**	0	0	0	Cleanaway	
28/07/20	**1**	0	0	0	0	Cleanaway	
7/08/20	0	**1**	0	0	0	Cleanaway	
11/08/20	**1**	0	0	0	0	Cleanaway	
22/08/20	0	**1**	0	0	0	Cleanaway	
25/08/20	**1**	0	0	0	0	Cleanaway	
4/09/20	0	**1**	0	0	0	Cleanaway	
8/09/20	**1**	0	0	0	0	Cleanaway	
18/09/20	0	**1**	0	0	0	Cleanaway	
22/09/20	**1**	0	0	0	0	Cleanaway	
2/10/20	0	**1**	0	0	0	Cleanaway	
6/10/20	**1**	0	0	0	0	Cleanaway	
17/10/20	0	**1**	0	0	0	Cleanaway	
20/10/20	**1**	0	0	0	0	Cleanaway	
31/10/20	0	**1**	0	0	0	Cleanaway	
3/11/20	**1**	0	0	0	0	Cleanaway	
14/11/20	0	1	0	0	0	Cleanaway	
17/11/20	**1**	0	0	0	0	Cleanaway	
28/11/20	0	**1**	0	0	0	Cleanaway	
1/12/20	**1**	0	0	0	0	Cleanaway	
12/12/20	0	**1**	0	0	0	Cleanaway	
15/12/20	**1**	0	0	0	0	Cleanaway	
29/12/20	**1**	0	0	0	0	Cleanaway	RDK Reviewed - see comments

GHD

Level 3, GHD Tower
24 Honeysuckle Drive
NEWCASTLE NSW 2300
T: 61 2 4979 9999 F: 61 2 9475 0725 E: ntlmail@ghd.com

12545253-1321-5/https://projectsportal.ghd.com/sites/pp01_05/stolthavenannualrevi/ProjectDocs/12545253-REP_B_2020 Annual Review.docx

Document Status

Revision	Author	Reviewer		Approved for Issue		
		Name	Signature	Name	Signature	Date
0	R. Madden	S. Murphy		S. Pearce		25/02/2021

www.ghd.com