

H3 LEVEL HYDROGEOLOGICAL ASSESSMENT

DWERVT4967

M70/1389 & M70/1392

ARROWSMITH NORTH & CENTRAL

For

Ventnor Mining Pty Ltd

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1. INTRODUCTION

VRX Silica Limited (VRX) through its wholly owned subsidiary Ventnor Mining Pty Ltd is planning to construct and operate the Arrowsmith North silica sand project at M70/1389 and the Arrowsmith Central silica sand project at M70/1392, 28km southeast and 50km southeast respectively of Dongara, Western Australia (Figure 1).

These properties are on vacant crown land and are covered by native vegetation. The Eneabba to Geraldton railway line crosses M70/1392.

Each project was originally planned to operate a 2.2 million tonnes per annum silica sands washing operation. To provide a sustainable water supply for each project, Ventnor Mining Pty Ltd applied for a 900,000 kL/annum allocation at each site. The details are outlined below:

Table 1 - Applications

Project Area	Mining Lease	Allocation (kL/annum)	Sub-Area	Aquifer
North	70/1389	900,000	Dongara	Yarragadee-North
Central	70/1392	400,000	Eneabba Plains	Yarragadee-North
Central	70/1392	500,000	Eneabba Plains	Superficial

Over the last two years a challenging export environment have seen freight costs rise significantly and Ventnor Mining Pty Ltd have revised their plans at the Central project and reduced the size of the operation to 1.0 million tonnes per annum reducing the water requirement to 0.4GL per annum.

The North and Central areas are largely in the Eneabba Plains Sub-Area with a thin section of the Dongara Sub-Area on the west side of the M70/1389, and located in the Arrowsmith Groundwater Area in the Shire of Irwin.

In April 2021, the available Yarragadee-North allocation available in the Dongara Sub-Area was 3,262,890kL per annum and an allocation of 900,000kL was applied for by Ventnor Mining Pty Ltd for M70/1389. At the time Ventnor Mining Pty Ltd also applied for 400,000kL from the Yarragadee North and 500,000kL per annum from the Superficial formations in the Eneabba Plains Sub-Area for the Arrowsmith Central silica sand project located on M70/1392.

This H3 level Hydrogeological Assessment report has been prepared to document the activities undertaken to identify and determine the hydraulic parameters of the Yarragadee

North aquifer beneath North and Central project areas and for the Superficial aquifer below the Central area and to provide estimates of the available groundwater.

The Arrowsmith North project is the more advanced of the 2 proposed projects, and is progressing through the EPA PER process. The Project plan for Arrowsmith North has progressed to detail design of the process flow and engineering design for a 2.2Mtpa Operation. The water requirements for Arrowsmith North have been determined and are presented in Appendix G, being 0.9GL/a. The Arrowsmith Central Project is at an early stage in the EPA Referral process and as a result the Project does not have the same level of process flow and engineering study's. The current anticipated production from Central is projected to be 1Mtpa and therefore the water requirements are estimated pro rata from Arrowsmith North at 0.4GL/a. Ventnor Mining will therefore be withdrawing the GWL application 41387 for 500,000KL/a from the Superficial Swan.

The report requested by the Department of Water and Environmental Regulation for the 1,800,000kL per annum of groundwater allocation is a H3 Hydrogeological Assessment which includes a computer model of the groundwater system. Although the requested allocation has been reduced the reporting remains the same. The computer modelling was carried out by Cymod Systems and the full modelling report is attached as Appendix A.

2. CLIMATE / RAINFALL & GEOMORPHOLOGY

2.1 Climate/Rainfall

The Arrowsmith area experiences a Mediterranean climate, characterised by mild, wet winters and hot, dry summers. The nearest Bureau of Meteorology meteorological station is at Eneabba, for which a rainfall record since 1964 to 1969 and 1972 to March 2017 is available. The station was closed in 2017.

The long-term average annual rainfall at Eneabba is approximately 489.6 mm with most rainfall being recorded during the months of May through to August. Rainfall exceeds potential evaporation only during May to September. The monthly rainfall averages for the above sites are presented in Table 2.

Table 2 - Average Rainfall Data

Month	Eneabba BoM Average Rainfall (mm)
January	7.5
February	13.5
March	13.7
April	27.6
May	69.3
June	99.0
July	93.6
August	75.4
September	45.7
October	23.1
November	14.8
December	8.9
Total	489.6

2.2 Geomorphology

The North and Central project areas are located on the Swan Coastal Plain at elevations varying between 24 and 50m AHD for the North area and 48 and 66m AHD for the Central project area which is very gently undulating (Figure 2). The Swan Coastal Plain is bounded to the east by the Gingin Scarp which is approximately 8 kilometres from the eastern

tenement boundary of the North project area and 3.7km from the eastern tenement boundary of the Central project area.

The Swan Coastal Plain is divided into two physiographic units; the Eneabba Plain and the Coastal Belt (Nidigal, 1995) and both project areas are on the Eneabba Plain.

The Arrowsmith River is the only significant drainage in the area, an intermittent drainage that passes east to west between the project areas. The northern part of the river system terminates in Arrowsmith Lake and a southern part terminates on the Eneabba Plain. When the Arrowsmith Lake is full water overflows into the superficial formations.

Much of the Arrowsmith area is covered with native vegetation with only small areas along the Brand Highway and some farms cleared for grazing.

3. HYDROGEOLOGY

3.1 *Regional Hydrogeology*

The Project is located in the northern portion of the onshore Perth Basin some 28 km to 50km southeast of Dongara. The Perth Basin is a deep linear trough of sedimentary rocks covered by a thin veneer of coastal plain sediments. It extends north-south for some 1,000 km in the southwest of Western Australia onshore beneath the coastal areas and offshore beneath the continental shelf and continental slope. The basin covers an area of 45,000 km² onshore and 55,000 km² offshore. The Perth Basin is essentially a half-graben (down faulted block) bounded on the east by the north trending Darling Fault, some 1,000 km long, which separates the Basin from Archaean crystalline rocks of the Yilgarn Block.

In the Arrowsmith area, the total thickness of sediments in the Perth Basin exceeds 4,000 m with exploration oil wells at the Beharra Springs wellfield exceeding 3,700m. Exposure of rock outcrop is poor throughout the Perth Basin with much of the geological information based on interpretation of exploratory drilling, boreholes and geophysical data. There is extensive Quaternary sand cover (sand, laterite and alluvium) over the Basin, which masks much of the underlying geology. For a detailed description of the geology of the Perth Basin the reader is directed to Playford, et al (1976).

3.1.1 *Structure*

Structurally the North and Central project areas are separated by the Abrolhos Transfer.

The North project area straddles the Dongara, Beharra Springs and Donkey Creek Terraces which are located to the west of the Dandaragan Trough and to the east of the Beagle Ridge (Figure 3). The Dongara Terrace is located to the west of the Mountain Bridge Fault. The Beharra Terrace lies between the Beharra Springs Fault and the Mountain Bridge Fault. The Donkey Creek Terrace lies to the east of the Beharra Springs Fault to the Eneabba Fault.

The North project area is located mainly between the Beharra Springs Fault to the east and the Mountain Bridge Fault which passes through the western tenement boundary. Both faults are east side down with the oldest lithologies to the west.

The Central project area straddles the Cadda Terrace which is bounded by the Beagle and Coomaloo Faults (Figure 3) and is located just south of the Abrolhos Transfer Fault and to the west of the Beagle and Peron Faults.

3.1.2 Geology

In the Arrowsmith area a veneer of Quaternary aged superficial formations aquifer sediments mainly consisting of Tamala Limestone, Bassendean Sands and Guildford Formation unconformably overlie the Jurassic aged Yarragadee Formation. The superficial formations can be up to 60m thick.

The Yarragadee Formation is generally flat lying and is fault bounded.

The Yarragadee Formation is split into four units of which the uppermost and youngest unit, Unit D, is predominantly fine-grained sediments with minor sand. The next unit is Unit C which is predominantly sands, followed by Unit B which contains about 50% siltstone and shale and underlain by Unit A which is predominantly sands. Units B and D can act as confining layers with Units C and A being the better aquifers.

Table 3 - Yarragadee Units

Unit ID	Lithology	Max. Onshore Thickness (m)
D	Shale, siltstone and clayey sandstone	1,741
C	Sandstone and clayey sandstone	719
B	Siltstone, shale and sandstone	967
A	Sandstone, siltstone and shale	1,095

In the North project area to the east of the Mountain Bridge Fault, on the Beharra Springs Terrace, the Yarragadee consists of Unit D to about 200m and underlain by Unit C to a depth of in excess of 1,000m below ground level. To the north of the mineral tenement in the Leeman Shallow LS31 drill hole, the lithology of Unit D was described as interbedded grey-back siltstone, black clay and shale with coarse-grained sand.

To the west of the Mountain Bridge Fault, on the Dongara Terrace, the superficial sediments are underlain by Unit B to a depth of approximately 300m and then the sands of Unit A. The depth of the Yarragadee Formation in the Dongara Terrace is considered to be in the order of 600 – 800m. Geophysical interpretation of seismic work has indicated that the throw of the Mountain Bridge Fault could be in the order of 500m with the east side down.

In the Central project area on the Cadda Terrace petroleum drilling of Arrowsmith No.1 and Beekeeper No.1 indicates that the Yarragadee consists of Unit B to a depth of approximately 120m underlain by Unit A. To the north, at Arrowsmith No.1, the sands of Unit A were encountered to a depth of 753m and to the south at Beekeeper No.1 the Unit A sands were encountered to a depth of 477m. The Yarragadee is underlain by the Cadda Formation

3.1.3 Recharge

Recharge to the Yarragadee Formation aquifer in the Arrowsmith region is mainly via direct infiltration of rainfall to the overlying superficial aquifer where present. Rainfall that reaches the ground is mainly used by native vegetation with only that water passing the root zone deemed as recharge. The Water and Rivers Commission in their report *Managing the Water Resources of the Arrowsmith Groundwater Area, WA, 2002* have determined the rainfall recharge rate to the superficial aquifer at 6 to 8% of rainfall and to the Yarragadee aquifer as 5% of rainfall.

Areas directly underlain by Yarragadee Units A and C are considered to have the greater recharge due to their sandy nature whereas Yarragadee Units B and D are considered to have lower recharge due to their shaley and silty nature.

Occasionally when winter rainfall is significant, recharge can also be obtained from the Arrowsmith River. In 2021, the river flowed for the first time in many years overflowing the Arrowsmith Lake and discharging into the Central project area.

3.1.4 Groundwater Levels, Flow Directions and Discharge

The groundwater levels in the Arrowsmith Region of the superficial aquifers and the underlying Yarragadee aquifers are similar, indicating hydraulic connection of the aquifers near the surface. Available regional water levels are limited to those monitored by the Leeman Shallow bores and two Dongara Line bores. The Leeman Shallow bores were drilled to a maximum depth of 100m with a shallow bore, designated the B bore, generally screened in the superficial aquifer and a deeper bore designated the A bore, screened near the base of the 100m hole mainly in the Yarragadee aquifer.

In the Arrowsmith area the superficial aquifer groundwater movement is westwards to the Indian Ocean. The Yarragadee aquifer flow is constrained by the older lithologies to the west of the Beagle Fault System although there is a lack of information as to the extent of the flow. The older units are the Triassic aged Lesueur Sandstone and the Jurassic aged Cadda Formation, Cattamarra Coal Measures and the Eneabba Formation.

Groundwater discharge from the Yarragadee aquifer is either upwards into overlying aquifers or offshore into the Indian Ocean. Nidigal, (1995) noted that "The groundwater salinity and upward hydraulic heads in the Leeman Shallow bores to the west of the Beagle Fault indicate that there is also groundwater discharge across the fault into the Cattamarra Coal Measures".

3.1.5 Groundwater Quality

Groundwater quality in the superficial aquifer varies from fresh (460mg/L total dissolved salts (TDS)) to marginal (4,560mg/L TDS). The fresher groundwater is in the east and the more saline nearer the coast. There is a saline water interface beneath and to the east of the coastline.

Groundwater quality in the Yarragadee aquifer varies from fresh (520mg/L TDS) to saline (27,600mg/L TDS). Water bore drilling has identified an increase in salinity with depth in some areas. The high salinity recorded in Leeman Shallow 30A is due to proximity to the ocean and a saline interface that is located to the east of the coastline. The two highest salinity bores are located to the west of the Mountain Bridge Fault.

3.2 Site Hydrogeology

3.2.1 North Project Area

The location for the proposed groundwater abstraction is mainly on the Beharra Springs Terrace and partially on the Dongara Terrace. The Mountain Bridge Fault is the boundary between these two terraces and crosses the western boundary of the mining tenement (M70/1389). The majority of the mining tenement is also covered by the Eneabba Plains Sub-area. A thin, <20m width of the Dongara Sub-area occurs in the southwestern portion of the tenement. At the time of application for 900,000kL/annum from the Yarragadee Formation the Department of Water and Environmental Regulation informed Ventnor Mining Pty Ltd of a lack of allocation in the Eneabba Plains Sub-area but pointed out the sliver of Dongara Sub-area and the abundant allocation in this sub-area. The southwestern portion of the mining tenement was therefore targeted as the site for an exploratory water bore into the Yarragadee Formation targeting Unit A below Unit B.

The lithologies identified during exploratory drilling at the tenement are shown below in Table 4. The interpreted geology is mainly taken from the geophysical log. Chip samples of the drill cuttings were logged by the drilling contractor.

Table 4 - Summary of Lithologies Encountered - North

From (m bgl)	To (m bgl)	Formation	Unit	Description
0	30	Superficial – Bassendean Sands Tamala Sands	-	Fine to very coarse-grained quartz sands
30	303	Yarragadee	B	Fine to coarse grained clayey sands over interbedded sands and swelling grey shales
303	404	Yarragadee	A	Medium to coarse grained sands with minor grey shale

The target aquifer was the Unit A of the Yarragadee Formation which extensively underlies the area to the west of the Mountain Bridge Fault. Unit A was intersected in drilling from 303m to 404m and was interpreted from seismic and petroleum exploration drill holes (Beharra No1 - 726m and Beharra No2 - 636m) to extend to a depth in the order 600m to 800m.

The north-south trending Mountain Bridge Fault cuts through the western edge of the tenement. The hydraulic connectivity between the eastern side and western side of the fault are unknown. The Unit A sands to the west of the Mountain Bridge Fault should coincide with the Unit C sands but information on the connectivity is currently limited to the test production bore. The elevated salinity of the test production bore Unit A groundwater from the western side of the fault is higher than would be expected from the Unit C groundwater from the eastern side of the fault. This may indicate a low level of connectivity.

3.2.2 Central Project Area

The location for the proposed groundwater abstraction is on the Cadda Terrace. The Abrolhos Transfer Fault is the northern boundary and the western boundary is the Peron Fault and Beagle Fault System with eastern boundary being the Coomallo Fault. The mining tenement is located in the Eneabba Plains Sub-area. At the time of application for the Licence to Take Water only 400,000kL/annum of allocation was available from the Department of Water and Environmental Regulation. With this amount being less than the desired 900,000kL/annum for this project a further 500,000kL/annum was applied for in the Superficial Formation aquifer.

The target aquifer in the superficial formations was the Guildford Formation with a possibility of minor Yoganup Formation at the base. The Guildford Formation was intersected from 4m to 36m and was found to be clayey than expected and therefore less transmissive. The basal 6m of the Guildford Formation was cream to orange coarse-grained to very coarse-grained quartz sands.

The target unit in the Yarragadee Formation was the A unit and in the superficial is the Guildford Formation.

The lithologies identified during exploratory drilling at the tenement are shown below in Table 5. The interpreted geology is mainly taken from the geophysical log. Chip samples of the drill cuttings were logged by the drilling contractor.

Table 5 - Summary of Lithologies Encountered - Central

From (m bgl)	To (m bgl)	Formation	Unit	Description
0	36	Superficial – Bassendean Sands and Guildford Formation	-	White, cream and pink sandy clays. Sand is fine grained quartz except 30 – 33m where the lithology is cream coarse grained quartz sands and gravels and 33 – 36m where the lithology is orange coarse grained quartz sands and gravels.
36	117	Yarragadee	B	Pink, cream and white fine to medium sandy clays with minor coarse grained sand and minor dark clays
117	200	Yarragadee	A	Medium to coarse grained sands with minor clay layers.

The target aquifer was the Unit A of the Yarragadee Formation which extensively underlies the area. Unit A was intersected in production bore drilling from 117m to 200m and was interpreted from petroleum exploration drill hole Beekeeper No.1 to extend to a depth of 562m and from Arrowsmith No.1 to extend to a depth 753m.

Other drilling to the east indicates that the Unit B thickens to the east and on the eastern side of the Brand Highway is Unit C from the surface.

The hydraulic connectivity between the northern side and southern sides of northwest-southeast trending Abrolhos Transfer is unknown.

4. EXISTING GROUNDWATER USE

4.1 North Project Area

Within an approximate radius of 10km of the North project area there are eleven groundwater licences. Table 6 below summarises the details.

Table 6 - Summary of Licensed Groundwater Users within 10km of the North Project Area

GWL No.	Name	Location No.	Aquifer	Sub-Area	Allocation (kL)
155141	Beach Energy (Operations) Limited	Lot 11945 on Plan 21873 V/F LR3099/798	Perth - Yarragadee North	Eneabba Plains	20,600
158260	Triangle Energy (Operations) Pty Ltd	12 Brand Highway, Arrowsmith	Perth – Superficial Swan	Dongara	12,280
162324	Tronox Management Pty Ltd	M70/1200, M70/1197, M70/1196, M70/1199, M70/1198, M70/1195	Perth – Yarragadee North	Eneabba Plains	3,500,000
162349	Tronox Management Pty Ltd	M70/1195, M70/1196, M70/1197, M70/1198, M70/1199, M70/1200, M70/1203, M70/1204, M70/1205, M70/1207, M70/1208, M70/1209, M70/1210, M70/1211, M70/1212, M70/1213, M70/1214, M70/1215, M70/1218, M70/1219	Perth – Superficial Swan	Eneabba Plains	1,000,000
173287	Norwest Energy NL	Lot 12455 on Plan 221092 V/F Lr3118/262	Perth – Superficial Swan	Eneabba Plains	1,000
174989	Tronox Management Pty Ltd	M70/1195, M70/1196, M70/1197, M70/1198, M70/1199, M70/1200, M70/1203, M70/1204, M70/1205, M70/1207, M70/1208, M70/1209, M70/1210, M70/1211, M70/1212, M70/1213, M70/1214, M70/1215, M70/1218, M70/1219	Perth – Yarragadee North	Twin Hills	2,000,000
177384	Main Roads	Lot 11954 on Plan 191198 V/F Lr3061/917, Lot 500 on Plan 401118 V/F LR3025/70 etc	Perth – Superficial Swan	Dongara	78,000
181528	Main Roads	Lot 7051 on Dep Plan 202299 V/F 1300/828	Perth - Yarragadee North	Dongara	15,000
202619	RCMA Australia Pty Ltd	L14	Perth – Superficial Swan	Dongara	12,800
202801	RCMA Australia Pty Ltd	L14	Peth – Yarragadee North	Dongara	450,000
206523	AWE Perth Pty Ltd	Lot 4 on Plan 13178 V/F 1560/863	Perth – Yarragadee North	Eneabba Plains	60,000
		Total Yarragadee			5,595,600
		Total Superficial			1,104,080

4.2 Central Project Area

Within an approximate radius of 10km of the Central project area there are eleven groundwater licences. Table 7 below summarises the details.

Table 7 - Summary of Licensed Groundwater Users within 10km of the Central Project Area

GWL No.	Name	Location No.	Aquifer	Sub-Area	Allocation (kL)
104700	Iluka Resources Limited	M70/821, M70/879, AM70/267	Perth - Yarragadee North	Eneabba Plains	8,000,000
104709	Iluka Resources Limited	AM70/267, M70/821, M70/879, AM70/267	Perth - Yarragadee North	Twin Hills	3,000,000
155141	Beach Energy (Operations) Limited	Lot 11945 on Plan 218173 V/F LR3099/798, Lot 12453 on Plan 221090 V/F LR3118/260	Perth-Yarragadee North	Eneabba Plains	20,600
160288	Australian Executor Trustees Limited	Lot 10214 on Plan 206722 V/F 1560/134, Lot 10215 on Plan 206722 V/F 1890/459	Perth – Yarragadee North	Eneabba Plains	3,080,000
162349	Tronox Management Pty Ltd	M70/1195, M70/1196, M70/1197, M70/1198, M70/1199, M70/1200, M70/1203, M70/1204, M70/1205, M70/1207, M70/1208, M70/1209, M70/1210, M70/1211, M70/1212, M70/1213, M70/1214, M70/1215, M70/1218, M70/1219	Perth – Superficial Swan	Eneabba Plains	1,000,000
173287	Norwest Energy NL	Lot 12455 on Plan 221092 V/F Lr3118/262	Perth – Superficial Swan	Eneabba Plains	1,000
174989	Tronox Management Pty Ltd	M70/1195, M70/1196, M70/1197, M70/1198, M70/1199, M70/1200, M70/1203, M70/1204, M70/1205, M70/1207, M70/1208, M70/1209, M70/1210, M70/1211, M70/1212, M70/1213, M70/1214, M70/1215, M70/1218, M70/1219	Perth – Yarragadee North	Twin Hills	2,000,000
		Total Yarragadee			16,100,600
		Total Superficial			1,001,000

In addition to the licensed groundwater users there are several pastoral properties that utilise superficial groundwater to water stock and for domestic purposes.

4.3 Groundwater Dependent Ecosystems

There are no groundwater dependent ecosystems (GDE) on either M70/1389 or M70/1392 (Figure 1). The depth to water of any vegetation on these tenements is generally in excess of 15m.

There are some possible GDE's to the west and north west of M70/1389, associated with Arramall Lake and the superficial aquifer. These are in excess of 4km from the Yarragadee production bore YPB1 and therefore unlikely to be affected by abstraction.

Ngunkakara Well has been identified as a GDE and is located on the western boundary of M70/1389 about 2.2km north of the Yarragadee production bore YPB1. The superficial

aquifer water level at this site would be in the order of 6m RL AHD with the surface level being in the order of 25m AHD resulting in a depth to water in the order of 19m.

Between the North and Central project areas the Department of Water and Environmental Regulation has identified the Arrowsmith River and Arrowsmith Lake areas as requiring consideration. These areas also have depths to water exceeding 15m indicating and therefore do not contain GDE's. Any vegetation in these areas would be reliant on perched water coming from surface flow events for the Arrowsmith River.

Near the Central area the Department of Water and Environmental Regulation have identified Casuarina Well, located on private property just over 2km west of the superficial production bore (SPB2) and the superficial monitoring bore (SMB2) as a potential GDE. The surface RL of the neighbouring lake is 44m AHD and the superficial aquifer standing water level at SMB2 is in the order of 27m AHD resulting in a depth to water of approximately 17m.

5. GROUNDWATER INVESTIGATIONS

5.1 North Project Area

5.1.1 Drilling

The aim of the exploratory drilling was to identify Unit A of the Yarragadee Formation to the west of the Mountain Bridge Fault.

Test production bore, YPB1, and monitoring bore YMB1 were drilled and constructed during this investigation by Western Drilling and Table 8 summarises the construction details.

Table 8 - Summary of Bore Details – North Yarragadee

Bore ID	YPB1	YMB1
Date Completed	10 January 2022	31 January 2022
GPS Location	313924E 6733521N - GDA94	313923E 6733518N - GDA94
Drilled By	Western Drilling	Western Drilling
Method	Mud Rotary	Mud Rotary
Aquifer	Yarragadee Formation Unit A	Yarragadee Formation Unit A
Surface Casing		
Hole Diameter	533mm	317mm
Hole Depth	30m	30m
Casing Diameter	406mm	250mm
Casing Depth	30m	30m
Casing Type	ERW Steel	ERW Steel
Centralised	Yes	Yes
Cemented	Yes	Yes
Pump Chamber		
Hole Diameter	381mm	218mm
Hole Depth	300m	320m
Casing Depth	300m	320m
Casing Diameter & Type	250mm ID Fibreglass Reinforced Plastic	125mm ID Fibreglass Reinforced Plastic
Centralised	Yes	Yes
Cemented	Yes	Yes
Screens		
Hole Diameter	212mm	100mm
Top Screen	320m	326m, 362m
Base Screen	392m	332m, 374m
Diameter	168mm OD	80mm OD
Type	304 Stainless Steel	304 Stainless Steel
Aperture	0.5mm	0.5mm
Placed	Telescopic	Telescopic
Development	Airlift/jetting/surging – 72 hours	Airlifting/jetting/surging - 24 hours
Water Level	7.63m below top of casing (10-Mar-22)	8.34m below top of casing (10-Mar-22)
Electrical Conductivity	11,400uS/cm at 25 degrees C (12-Mar-22)	NA

A pilot hole was drilled by Western Drilling to 404m below ground level to obtain samples of the lithologies and to enable geophysical logging. The drilling indicated that the surficial formations extended from the surface to approximately 30m below ground level. The pilot hole below 30m intersected the Unit B of the Yarragadee Formation to approximately 303m

below ground level and then Unit A of the Yarragadee Formation to 404m below ground level.

At the completion of the pilot hole it was geophysically logged by Westlog Wireline Services for natural gamma and long and short normal resistivity (Appendix B). The natural gamma logging was undertaken to determine the position of the Unit A sands so they could be accurately screened. The long and short normal log confirmed that the target section with a geophysically estimated salinity of 4,000mg/L was located from 320 to 392m.

The pilot hole was then re-entered and reamed to a depth of 30m at a diameter of 550mm. Steel casing (406mm OD) was installed to a depth of 30m and then cement grouted in place.

The next phase of drilling involved reaming the pilot hole from 30 to 300m at a diameter of 406mm. Centralised 250mm NB fibreglass reinforced plastic (FRP) was then installed to a depth of 300m. The base of the casing string was equipped with a cement/casing shoe assembly and a landing ring. Cement was then pressure installed in the annulus, via the cementing shoe at 300m, between the hole and the outside of the casing to seal the upper part of the hole above 300m. The pilot hole was then cleaned from 300 to 392m and 72m of 168mm stainless steel wire wound screens with 20m of stainless steel casing on the top containing an M Packer with anti-rotation devices were installed and hung on the landing ring incorporated in the cement/casing shoe. The bore screens were then developed using jetting, surging and airlift methods for approximately 72 hours. The final airlift yield was estimated at 20L/s.

A Yarragadee aquifer monitoring bore (YMB1) was drilled 15.1m south of the test production bore and screened over a similar interval. A second monitoring bore (SMB1) was drilled into the superficial aquifer to initially supply drilling water and to act as a superficial monitoring bore. It was located 27m east of the test production bore.

The water levels in the Yarragadee bores were in the order of 7.7m below the top of the casing and the superficial water level was 17.5m below the top of the casing indicating 10m of confining effect by the Unit B layer acting as an aquitard.

5.1.2 Test Pumping

Test pumping was undertaken on the test production bore YPB1 by Western Irrigation Pty Ltd from 9 to 12 March 2022. Water level measurements were logged and recorded manually and via water level loggers in the pumping bore YPB1, the Yarragadee aquifer monitoring bore YMB1 and the superficial aquifer monitoring bore SMB1. The test pumping consisted of a step test of four 100-minute steps followed by a 33 hour constant rate test and 6 hours of recovery. All raw data taken during the test pumping is presented in Appendix C.

The test pumping program is summarised in Table 9.

Table 9 - Summary of Test Pumping – YPB1

Date	Static Water Level (m btoc)	Maximum Available Drawdown (m)	Test Type	Test Duration (minutes)	Pumping Rate (L/s)	Maximum Drawdown (m)
9-Mar-22	7.68	60	Multi-Rate	100	22	3.40
				100	26	4.67
				100	29	5.45
				100	32	6.12
10-Mar-22	7.68	60	Constant	1990	30	6.12
11-Mar-22	-	-	Recovery	320	-	-

5.1.3 Step Test

Four steps, each step of 100 minutes duration, were carried out consecutively on test bore YPB1 on 9 March 2022. The rates for each 100-minute step were 22, 26, 29 and 32 L/s.

The semi-log plot of observed drawdown in the bore against time for the step rate test of YPB1 is presented in Figure 4. The raw data is included in Appendix C.

Figure 4 shows that in the first five minutes of pumping that the bore further developed even after 72 hours of jetting, surging and airlift development by the drilling contractor. From about eight minutes the bore water levels exhibited normal drawdown characteristics until the end of the step when the rate was increased from 22 to 26L/s. The second step indicated a steep drop for the first twenty minutes whilst the bore adjusted to the higher pumping rate and normal drawdown until the end of the step. The third step also demonstrated a normal drawdown trend after an initial steep drop. The fourth step responded to the pumping rate change and then quickly settled into a normal drawdown trend.

Analysis of the step rate test data using the Hantush-Bierschenk's method and the Jacob's equation allows the drawdown equation for the bore YPB1 to be determined as

$$s_w = (3.641 \times 10^{-7})Q + (1.184 \times 10^{-3})Q^2 \text{ (for } t = 100 \text{ minutes)}$$

The parameters for this equation can be in turn utilised to determine apparent bore efficiency. The analysis of this parameter for YPB1 indicates the bore efficiency was around 63.1% at 22L/s decreasing to about 54.0% at 32L/s. The apparent low efficiency indicates a larger proportion of drawdown is due to the aquifer properties rather than the well construction.

5.1.4 Constant Rate Test

Following a period of recovery after the step rate testing, a constant rate test was commenced on bore YPB1 on the 10 March 2022 and was pumped at a constant discharge rate of 30L/s (2,592kL/d) for 1,990 minutes. The final drawdown after 1,990 minutes in YPB1 was 6.12m.

A semi-log plot of drawdown of the constant rate test for bores YPB1 and YMB1 is presented in Figure 5. The raw data is included in Appendix C. The principal observations of the data from the constant rate test for bore YPB1 were:

- The first minute resulted in 5m of drawdown which is largely due to well losses.
- From the start to 7 minutes the yield mainly came from casing storage.
- From 7 minutes and out to 700 minutes the drawdown curve indicated minor delayed yield.
- After 700 minutes and up to the end of the test the slope of the curve established a relatively straight-line trend.

The constant rate and recovery test pumping data was analysed using the Schlumberger AquiferTest Pro 10.0 software.

5.1.5 Recovery Test

Recovery water level data was collected in the test production bore for a period of 320 minutes.

In Figure 6 the logger recovery data (drawdown versus $\log t/t'$) of the test bores YPB1 and YMB1 is plotted. The recovery data shows a straight-line trend until monitoring ceased after 320 minutes. Extrapolating the late stage data back to 0m residual drawdown indicates that the recovery would have been completed at a t/t' figure of 2.2.

5.1.6 Test Pumping Analysis

The general shape of the curve suggests a confined aquifer. Correspondingly, Cooper and Jacob straight line analysis was conducted on the section of the curve from 100 minutes to the end resulting in an aquifer transmissivity of 1,140m²/d. for the test production bore. This straight line analysis was also conducted on the section of the curve after 100 minutes resulting in an aquifer transmissivity of 1,070m²/d. for the test production bore. Therefore, the average hydraulic conductivity over the 55m sand section of the aquifer is 19.4 to 20.7m/d.

The aquifer storage coefficient ranged from 1.05×10^{-4} (Cooper & Jacob) to 2.74×10^{-4} (Theis).

Analysis of the recovery data using the Theis recovery method for the straight-line portion of the recovery curve indicates an aquifer transmissivity of approximately $750 \text{m}^2/\text{d}$ and therefore hydraulic conductivity of the 55m screened interval is about $13.6 \text{m}/\text{d}$.

Table 10 - Results of Test Pumping Data Analyses – YPB1

Cooper & Jacob		Theis Curve Matching		Theis and Jacob Recovery
Transmissivity (m^2/d)	Storage Coefficient	Transmissivity ($\text{m}^2/\text{d}/\text{m}$)	Storage Coefficient	T (m^2/d)
1,140	1.05×10^{-4}	1,070	2.74×10^{-4}	749

Note: T = Transmissivity.

The transmissivity figures derived from the recovery test data differ from those determined from the pumping part of the constant rate test. The difference is due to well or bore effects induced by the electric submersible pump reducing the transmissivity in the pumping bore. The use of the recovery data removes most of the well effects, especially after the first 10 minutes of the recovery test when some leakage of water from the pump column back into the bore can affect results.

5.1.7 Groundwater Chemistry

A water sample was taken from the production bore during the constant rate test pumping 1 hour after the test commenced and 24 hours after the test commenced and submitted to Agrifood Technology for major component analysis. The laboratory report detailing the analysis is presented in Appendix E. A summary of the assay data is presented in Table 11.

The analytical data indicates that the groundwater is a sodium-chloride water with a slightly acidic pH that would be fit for purpose. The data in Table 11 below indicates that the water is not potable with salinity, sodium, calcium, magnesium, manganese, chloride and sulphate exceeding the ANZECC potability guidelines. The water quality is otherwise fit for purpose.

Table 11 - Groundwater Chemistry YPB1

Bore No	1 hours	24 hours	Potability Standard
Colour	Iron	Iron	
Odour	Odourless	Odourless	
pH	6.8	6.8	6.5 – 8.5 (2)
Electrical Conductivity @ 25°C (uS/cm)	11,900	11,400	<850 (2)
Total Dissolved Salts	6,610	6,670	500 (2)
Sodium	1,900	1,900	<180 (2)
Potassium	110	110	
Calcium	240	240	<200 (1)
Magnesium	290	280	<150 (1)
Bicarbonate	120	120	
Chloride	3,700	3,800	<250 (2)
Sulphate	290	280	<250 (2)
Nitrate	19	7.7	<50 (1,2)
Phosphate-P	<0.01	<0.01	<5 (3)
Ammonia	1.4	1.3	
Iron	5.8	5.5	<0.3 (2)
Manganese	0.79	0.83	<0.1 (2)
Silica	17	16	
Hardness (as CaCO ₃)	1,770	1,755	
Alkalinity (as CaCO ₃)	100	100	
Dissolved Carbon Dioxide	30	30	

Concentrations reported as ppm (mg/L) unless otherwise stated. (1) = World Health Authority (2) = NHMRC/NRMMC Aust Drinking Water Guidelines 2004.

5.2 Central Project Area – Yarragadee Formation Aquifer Testing

5.2.1 Drilling

The aim of the exploratory drilling was to identify Unit A of the Yarragadee Formation.

Test production bore, YPB2, and monitoring bore YMB2 were drilled and constructed during this investigation by Darling Downs Drilling and Table 12 summarises the construction details.

Table 12 - Summary of Bore Details – Central Yarragadee

Bore ID	YPB2	YMB2
Date Completed	September 2022	August 2022
GPS Location	322872E 6716280N - GDA94	322883E 6716247N - GDA94
Drilled By	Darling Downs Drilling	Darling Downs Drilling
Method	Mud Rotary	Mud Rotary
Aquifer	Yarragadee Formation Unit A	Yarragadee Formation Unit A
Surface Casing		
Hole Diameter	533mm	317mm
Hole Depth	12m	12m
Casing Diameter	406mm	250mm
Casing Depth	12m	30m
Casing Type	FRP	PVC
Centralised	Yes	Yes
Cemented	Yes	Yes
Pump Chamber		
Hole Diameter	381mm	218mm
Hole Depth	140m	122m
Casing Depth	140m + 5m of stainless steel at base	122m
Casing Diameter & Type	250mm ID Fibreglass Reinforced Plastic	100mm Class 12 PVC
Centralised	Yes	Yes
Cemented	Yes	Yes
Screens		
Hole Diameter	212mm	100mm
Top Screen	146m	122m
Base Screen	200m	152m
Diameter	168mm OD	100mm OD Class 18 PVC
Type	304 Stainless Steel	Class 18 PVC Slotted
Aperture	0.5mm	0.5mm
Placed	Telescopic	Telescopic
Development	Airlift/jetting/surging – 23 hours	Airlifting/jetting/surging - 8 hours
Water Level	29.71m below top of casing (27-Oct-22)	29.72m below top of casing (16-Nov-22)
Electrical Conductivity	870uS/cm at 25 degrees C (2-Nov-22)	NA

A pilot hole was drilled by Darling Downs Drilling to 200m below ground level to obtain samples of the lithologies and to enable geophysical logging. The drilling indicated that the surficial formations extended from the surface to approximately 36m below ground level. The pilot hole below 30m intersected the Unit B of the Yarragadee Formation to approximately 105m below ground level and then Unit A of the Yarragadee Formation to 200m below ground level.

At the completion of the pilot hole it was geophysically logged by Westlog Wireline Services for natural gamma and long and short normal resistivity (Appendix B). The natural gamma logging was undertaken to determine the position of the Unit A sands so they could be accurately screened. The long and short normal log confirmed that the target section with a geophysically estimated salinity of 600mg/L was located from 130 to 200m.

The pilot hole was then re-entered and reamed to a depth of 12m at a diameter of 550mm. Steel casing (406mm OD) was installed to a depth of 12m and then cement grouted in place.

The next phase of drilling involved reaming the pilot hole from 12 to 140m at a diameter of 406mm. Centralised 250mm NB fibreglass reinforced plastic (FRP) was then installed to a depth of 140m. The base of the casing string was equipped with a cement/casing shoe assembly and a landing ring. Cement was then pressure installed in the annulus, via the cementing shoe at 140m, between the hole and the outside of the casing to seal the upper part of the hole above 152m. The pilot hole was then cleaned from 140 to 200m and 54m of 168mm stainless steel wire wound screens and 5m of stainless steel riser containing an M Packer with anti-rotation devices were installed and hung on the landing ring incorporated in the cement/casing shoe. The bore screens were then developed using jetting, surging and airlift methods for approximately 23 hours. The final airlift yield was estimated at 20L/s.

A Yarragadee aquifer monitoring bore (YMB2) was drilled 37.62m south of the test production bore and slotted casing installed between 122 and 152m.

5.2.2 Test Pumping

Test pumping was undertaken on the test production bore YPB2 by Western Irrigation Pty Ltd from 26 to 29 October 2022. Water level measurements were taken and recorded manually and via water level loggers in the pumping bore YPB2, the Yarragadee aquifer monitoring bore YMB2 and the superficial aquifer monitoring bore SMB2. The test pumping consisted of a step test of four 100-minute steps followed by a 57.8 hour constant rate test and 6 hours of recovery. All raw data taken during the test pumping is presented in Appendix C.

The test pumping program is summarised in Table 13.

Table 13 - Summary of Test Pumping YPB2

Date	Static Water Level (m btoc)	Maximum Available Drawdown (m)	Test Type	Test Duration (minutes)	Pumping Rate (L/s)	Maximum Drawdown (m)
26-Oct-22	29.70	60	Multi-Rate	100	10	1.74
				100	20	3.84
				100	30	6.27
				100	40	8.73
27-Oct-22	7.68	60	Constant	3,468	40	10.01
30-Oct-22	-	-	Recovery	818	-	-

5.2.3 Step Test

Four steps, each step of 100 minutes duration, were carried out consecutively on test bore YPB2 on 26 March 2022. The rates for each 100-minute step were 10, 20, 30 and 40 L/s.

The semi-log plot of observed drawdown in the bore against time for the step rate test of YPB2 is presented in Figure 7.

Figure 7 shows that in the first 100 minutes the bore water levels exhibited normal drawdown characteristics until the end of the step when the rate was increased from 10 to 20L/s. The second step indicated a 2m drop for the first twenty minutes whilst the bore adjusted to the higher pumping rate and normal drawdown until the end of the step. The third step at 30L/s also demonstrated a normal drawdown trend after an initial steep drop. The fourth step responded to the pumping rate change and then quickly settled into a normal drawdown trend.

Analysis of the step rate test data using the Hantush-Bierschenk's method and the Jacob's equation allows the drawdown equation for the bore YPB2 to be determined as

$$s_w = (1.650 \times 10^{-7})Q + (1.895 \times 10^{-3})Q^2 \text{ (for } t = 100 \text{ minutes)}$$

The parameters for this equation can be in turn utilised to determine apparent bore efficiency. The analysis of this parameter for YPB1 indicates the bore efficiency was around 93.0% at 10L/s decreasing to about 76.9% at 40L/s. The apparent efficiency indicates a lesser proportion of drawdown is due to the aquifer properties rather than the well construction.

5.2.4 Constant Rate Test

Following a period of recovery after the step rate testing, a constant rate test was commenced on bore YPB2 on the 27 October 2022 and was pumped at a constant discharge rate of 40L/s (3,456kL/d) for 3,468 minutes. The final drawdown after 3,468 minutes in YPB2 was 9.99m.

A semi-log plot of drawdown of the constant rate test for bores YPB2, YMB2 and SMB2 is presented in Figure 8. The principal observations of the data from the constant rate test for bore YPB2 were:

- The first minute resulted in 7.63m of drawdown which is largely due to well losses.
- From the start to 10 minutes the drawdown was reduced by casing storage.
- From 10 minutes and out to 3,468 minutes the curve established a relatively straight-line trend.

5.2.5 Recovery Test

Recovery water level data was collected in the test production bore for a period of 818 minutes.

In Figure 9 the logger recovery data (drawdown versus log t/t') of the test bores YPB2 and YMB2 is plotted. The YPB2 recovery data shows a shallower trend to that YMB2 possibly due to leakage of water from the rising main into the bore in the first few minutes of the recovery test. Extrapolating the late stage YMB2 data back to 0m residual drawdown indicates that the recovery would have been completed at a t/t' figure of 1.8.

5.2.6 Test Pumping Analysis

The constant rate and recovery test pumping data was analysed using the Schlumberger AquiferTest Pro 10.0 software. The general shape of the curve suggests a confined aquifer. The following table shows the results of the analyses:

Table 14 - Results of Test Pumping Analysis – YPB2

Bore	Method	Transmissivity (m ³ /d/m)	Storativity	Comments
YMB2	Cooper & Jacob 1	878	5.64×10^{-3}	Excludes recovery
YMB2	Recovery	953	-	
YMB2	Cooper and Jacob 2	416	7.05×10^{-2}	At 3,000 minutes
YMB2	Theis	130	8.94×10^{-2}	Excludes recovery
YPB2	Cooper and Jacob 1	764	4.47×10^{-7}	Excludes recovery
YPB2	Recovery	1030	-	0 – 80 t/t'
YPB2	Theis	769	4.47×10^{-7}	Excludes recovery

The transmissivity figures derived from the recovery test data differ from than those determined from the pumping part of the constant rate test. The difference is due to well or bore effects induced by the electric submersible pump reducing the transmissivity in the pumping bore. The use of the recovery data removes most of the well effects, especially after the first 10 minutes of the recovery test when some leakage of water from the pump column back into the bore can affect results.

Analysis of the recovery data using the Theis recovery method for the straight-line portion of the recovery curve indicates an aquifer transmissivity of approximately 950m²/d and therefore hydraulic conductivity of the 48m screened interval is about 19.8m/d.

Therefore, in the vicinity of the pumping bore YPB2 the Yarragadee Formation aquifer hydraulic parameters are considered to be in the order of 900m²/d with a storativity in the order of 5 x 10⁻³. With a 48m screened length this yields a hydraulic conductivity of 18.75m/d.

5.2.7 Groundwater Chemistry

A water sample was taken from the production bore during the constant rate test pumping 1 hour after the test commenced and submitted to Agrifood Technology for major component analysis. The laboratory report detailing the analysis is presented in Appendix E. The assay data is presented in Table 15.

The analytical data indicates that the groundwater is a sodium-chloride water with a slightly alkaline pH that would be fit for purpose. The data in Table 15 below indicates that the water is nearly potable. The water quality is otherwise fit for purpose.

Table 15 - Groundwater Chemistry - YPB2

Bore No	Result	Potability Standard
Colour	Pale yellow	
Odour	Odourless	
pH	7.2	6.5 – 8.5 (2)
Electrical Conductivity @ 25°C (uS/cm)	870	<850 (2)
Total Dissolved Salts	480	500 (2)
Sodium	140	<180 (2)
Potassium	28	
Calcium	5.6	<200 (1)
Magnesium	12	<150 (1)
Bicarbonate	130	
Chloride	200	<250 (2)
Sulphate	17	<250 (2)
Nitrate	<0.5	<50 (1,2)
Phosphate-P	<0.01	<5 (3)
Ammonia	0.1	
Iron	1.3	<0.3 (2)
Manganese	0.08	<0.1 (2)
Silica	17	
Hardness (as CaCO ₃)	65	
Alkalinity (as CaCO ₃)	105	
Dissolved Carbon Dioxide	13	

Concentrations reported as ppm (mg/L) unless otherwise stated. (1) = World Health Authority (2) = NHMRC/NRMMC Aust Drinking Water Guidelines 2004.

5.3 Central Project Area – Superficial Aquifer Testing

5.3.1 Drilling

The aim of the exploratory drilling was to identify the superficial formations aquifer to develop a sustainable supply and to determine hydraulic parameters for the modelling.

Test production bore, SPB2, and monitoring bore SMB2 were drilled and constructed during this investigation by Darling Downs Drilling and Table 16 summarises the construction details.

Table 16 - Summary of Bore Details – Central Superficial

Bore ID	SPB2	SMB2
Date Completed	October 2022	September 2022
GPS Location	322883E 6716268N - GDA94	322891E 6716256N - GDA94
Drilled By	Darling Downs Drilling	Darling Downs Drilling
Method	Mud Rotary	Mud Rotary
Aquifer	superficial formations – Guildford Formation	superficial formations – Guildford Formation
Surface Casing		
Hole Diameter	533mm	250mm
Hole Depth	6m	6m
Casing Diameter	406mm	250mm
Casing Depth	6m	6m
Casing Type	ERW Steel	PVC
Centralised	Yes	Yes
Cemented	Yes	Yes
Pump Chamber		
Hole Diameter	350mm	219mm
Hole Depth	30m	30m
Casing Depth	30m	30m
Casing Diameter & Type	250mm ID Fibreglass Reinforced Plastic	104.6mm ID PVC
Centralised	Yes	Yes
Cemented	No	No
Screens		
Hole Diameter	212mm	100mm
Top Slotted	30m	30m
Base Slotted	36m	36m
Diameter	168mm OD	104.6mm ID
Type	304 Stainless Steel	PVC Class 18
Aperture	0.5mm	0.5mm
Placed	In-line	In-line
Development	Airlift/jetting/surging – 18 hours	Airlifting/jetting/surging - 4 hours
Water Level	25.70m below top of casing (2-Nov-22)	25.73m below top of casing (2-Nov-22)
Electrical Conductivity	1,490uS/cm at 25 degrees C (6-Nov-22)	NA

A pilot hole was drilled by Darling Downs Drilling to 40m below ground level to obtain samples of the lithologies. The drilling indicated that the superficial formations aquifer extended from the surface to approximately 36m below ground level. The pilot hole below 36m intersected the Unit B of the Yarragadee.

The pilot hole was then re-entered and reamed to a depth of 36m at a diameter of 533mm. Steel casing (406mm OD) was installed to a depth of 6m and then cement grouted in place.

The next phase of drilling involved reaming the pilot hole from 6 to 36m at a diameter of 350mm. Centralised 250mm NB Permaglass casing was then installed to a depth of 30m. The basal 6m was slotted 168mm OD stainless steel screens which were then developed using jetting, surging and airlift method for approximately 18 hours.

A superficial formations aquifer monitoring bore (SMB2) was drilled 17.75m south of the test production bore and slotted over a similar interval.

The water levels in the superficial aquifer bores were in the order of 25.7m below the top of the casing.

5.3.2 Test Pumping

Test pumping was undertaken on the test production bore SPB2 by Western Irrigation Pty Ltd from 2 to 4 November 2022. Water level measurements were logged and recorded manually and via water level loggers in the pumping bore SPB2 and the superficial aquifer monitoring bore SMB2. The test pumping consisted of a step test of three 100-minute steps followed by a 24 hour constant rate test and 100 minutes of recovery. All raw data taken during the test pumping is presented in Appendix C.

The test pumping program is summarised in Table 17.

Table 17 - Summary of Test Pumping SPB2

Date	Static Water Level (m btoc)	Maximum Available Drawdown (m)	Test Type	Test Duration (minutes)	Pumping Rate (L/s)	Maximum Drawdown (m)
2-Nov-22	25.73	5	Multi-Rate	100	0.5	1.97
				100	1.0	4.43
				100	1.5	8.10
3-Nov-22	25.70	5	Constant	1440	0.87	4.63
4-Nov-22	-	-	Recovery	100	-	-

5.3.3 Step Test

Three steps, each step of 100 minutes duration, were carried out consecutively on test bore SPB2 on 2 November 2022. The rates for each 100-minute step were 0.5, 1.0 and 1.5 L/s.

The semi-log plot of observed drawdown in the bore against time for the step rate test of SPB2 is presented in Figure 10.

Figure 10 shows that in the first ten minutes of pumping that the bore further developed after 18 hours of jetting, surging and airlift development by the drilling contractor. From about 10 minutes the bore water levels exhibited normal drawdown characteristics until the end of the step when the rate was increased from 0.5 to 1.0L/s. The second step indicated a steep drop for the first thirty minutes whilst the bore adjusted to the higher pumping rate and normal drawdown until the end of the step. The third step also demonstrated a normal drawdown trend after an initial steep drop.

Analysis of the step rate test data using the Hantush-Bierschenk's method and the Jacob's equation allows the drawdown equation for the bore SPB2 to be determined as

$$s_w = (3.641 \times 10^{-7})Q + (1.184 \times 10^{-3})Q^2 \text{ (for } t = 100 \text{ minutes)}$$

The parameters for this equation can be in turn utilised to determine apparent bore efficiency. The analysis of this parameter for SPB2 indicates the bore efficiency was around 85.3% at 0.5L/s decreasing to about 65.9% at 1.5L/s. The apparent low efficiency indicates a larger proportion of drawdown is due to the aquifer properties rather than the well construction.

5.3.4 Constant Rate Test

Following a period of recovery after the step rate testing, a constant rate test was commenced on bore SPB2 on 3 November 2022 and was pumped at a constant discharge rate of 0.87L/s (75.2kL/d) for 1,440 minutes. The final drawdown after 1,440 minutes in SPB2 was 4.63m.

A semi-log plot of drawdown of the constant rate test for bores SPB2 and SMB2 is presented in Figure 11. The principal observations of the data from the constant rate test for bore YPB1 were:

- The first minute resulted in 0.86m of drawdown.
- From the start to 480 minutes the drawdown curve indicated no delayed yield and some possible further development of the bore.
- After 480 minutes and up to the end of the test the slope of the curve established a relatively flat straight-line trend due to delayed yield.

5.3.5 Recovery Test

Recovery water level data was collected in the test production bore for a period of 100 minutes.

In Figure 12 the log-log recovery data (drawdown versus $\log t/t'$) of the test bores SPB2 and SMB2 is plotted. The SMB2 recovery data shows a straight-line trend until monitoring ceased after 100 minutes. Extrapolating the late stage data back to 0m residual drawdown indicates that the recovery would have been completed at a t/t' figure of 6.

5.3.6 Test Pumping Analysis

The constant rate and recovery test pumping data was analysed using the Schlumberger AquiferTest Pro 10.0 software.

The general shape of the drawdown curve suggests an unconfined aquifer.

Analysis of the data was done using Cooper and Jacob 2 (distance-drawdown-time) method just before the end of pumping resulting in a transmissivity of $25.1\text{m}^2/\text{d}$ and an unconfined storativity of 5.21×10^{-3} . The recovery method resulted in a transmissivity of $21.8\text{m}^2/\text{d}$ for the pumping bore and $27.4\text{m}^2/\text{d}$ for the monitoring bore. An average transmissivity would be in the order of $25\text{m}^2/\text{d}$ and the average hydraulic conductivity over the 10m sand section of the aquifer is 2.5.

5.3.7 Groundwater Chemistry

A water sample was taken from the production bore at the end of the constant rate test and submitted to Agrifood Technology for major component analysis. The laboratory report detailing the analysis is presented in Appendix E. The assay data is presented in Table 18.

The analytical data indicates that the groundwater is a sodium-chloride water with a slightly acidic pH that would be fit for purpose. The data in Table 18 below indicates that the water is not potable with pH, salinity, sodium and chloride exceeding the ANZECC potability guidelines. The water quality is otherwise fit for purpose.

Table 18 - Groundwater Chemistry SPB2

Bore No	24 Hours	Potability Standard
Colour	Colourless	
Odour	Odourless	
pH	6.3	6.5 – 8.5 (2)
Electrical Conductivity @ 25°C (uS/cm)	1,490	<850 (2)
Total Dissolved Salts	820	500 (2)
Sodium	210	<180 (2)
Potassium	16	
Calcium	5.7	<200 (1)
Magnesium	23	<150 (1)
Bicarbonate	70	
Chloride	390	<250 (2)
Sulphate	56	<250 (2)
Nitrate	<0.5	<50 (1,2)
Phosphate-P	0.16	<5 (3)
Ammonia	<0.1	
Iron	<0.05	<0.3 (2)
Manganese	<0.01	<0.1 (2)
Silica	45	
Hardness (as CaCO ₃)	110	
Alkalinity (as CaCO ₃)	55	
Dissolved Carbon Dioxide	54	

Concentrations reported as ppm (mg/L) unless otherwise stated. (1) = World Health Authority (2) = NHMRC/NRMMC Aust Drinking Water Guidelines 2004.

6. GROUNDWATER MODELLING

6.1 Introduction

At the request of The Department of Water and Environmental Regulation a sub-regional numerical groundwater model of the superficial formations aquifer and the Yarragadee aquifer was developed to assess the feasibility and impacts of the proposed abstraction. The model was constructed and calibrated by Cymod Systems and the full report is attached as Appendix A).

The model incorporates the hydraulic parameters determined during testing of two Yarragadee Unit A production bores and one superficial formations production bore as described above. Other hydraulic parameters were derived from sparse data contained in Appendices B and E of DoW 2017.

6.2 Model Conclusions

The model was calibrated in steady state and against transient water level data. The resulting calibration statistics show a 3.25% normalised average absolute average error in the Yarragadee and the superficial aquifers. Given the paucity of water level data in the model area, this calibration error is considered consistent with an adequately calibrated model.

Calibrated aquifer parameters in the Arrowsmith North Aquifer Model (ANAMS) are consistent with conceptual hydrogeological model as described in DoW (2017).

The calibrated model was used to simulate four forward abstraction scenarios:

1. Zero abstraction,
2. Existing licensed abstraction,
3. Existing and VRX proposed abstraction; and
4. Existing and VRX abstraction, subject to climate change as modelled by a 16% reduction in rainfall.

Based on the results of the forward scenarios, it is concluded from Scenario 3:

- The proposed abstraction of 1.3GL/annum from the Yarragadee Unit A will result in water levels declining in the superficial and Yarragadee aquifers.
- The decline in the water levels at the VRX North and Central production is estimated to be 1.5 and 1.0m respectively after 30 years. Elsewhere, the decline in the Yarragadee Unit A aquifer is less than 0.5m.

- The only likely impact the proposed VRX abstraction will have on the superficial aquifer is in the vicinity of VRX's Central Bore, where water levels decline less than 0.5m over 30 years.

Results from Scenario 4 indicate that climate change impacts on the Yarragadee Unit A aquifer are less than 0.25m after 30 years. Simulation of the climate change impacts on the superficial aquifer indicated that water levels in the superficial aquifer will decline by up to 2m in areas along the base of the Dandaragan Scarp. In the vicinity of the VRX production bores, water levels are indicated to decline be less than 1m over 30 years, due to reduced regional rainfall attributable to climate change.

6.3 Discussion of Results

Scenario 3 – VRX Abstraction of 1.3GL/yr

Figures 12 and 15 from the modelling report are repeated below.

Figure 12: Scenario 3 for the superficial aquifer shows 0 – 0.25m drawdown after 30 years (0 - 8mm/yr) at the VRX North Bore location and drawdown of 0.25 to 0.5m after 30 years (8 – 17mm/yr) at the VRX Central Bore location.

The lack of drawdown at the VRX North Bore location is due to the upward flow between the superficial aquifer and Yarragadee Unit A and the thickness of the Yarragadee Unit B aquitard (260m) restricting connection. The water level in the Yarragadee Unit A was determined to be nearly 10m higher than the water level in the superficial aquifer.

The drawdown at the VRX Central location is considered to be mainly due to downward heads of up to 4m between the superficial aquifer and the Yarragadee Unit A aquifer. The Yarragadee Unit B which is located between the aquifers is an aquitard and restricts the downward recharge of the Yarragadee Unit A but is not very thick (70m) and contains a significant proportion of sand layers.

Figure 13: Scenario 3 for the Yarragadee A aquifer shows up to 1.25m of drawdown after 30 years (42mm/yr) at the VRX North Bore location and up to 1m of drawdown after 30 years (33mm/yr) at the VRX Central Bore location.

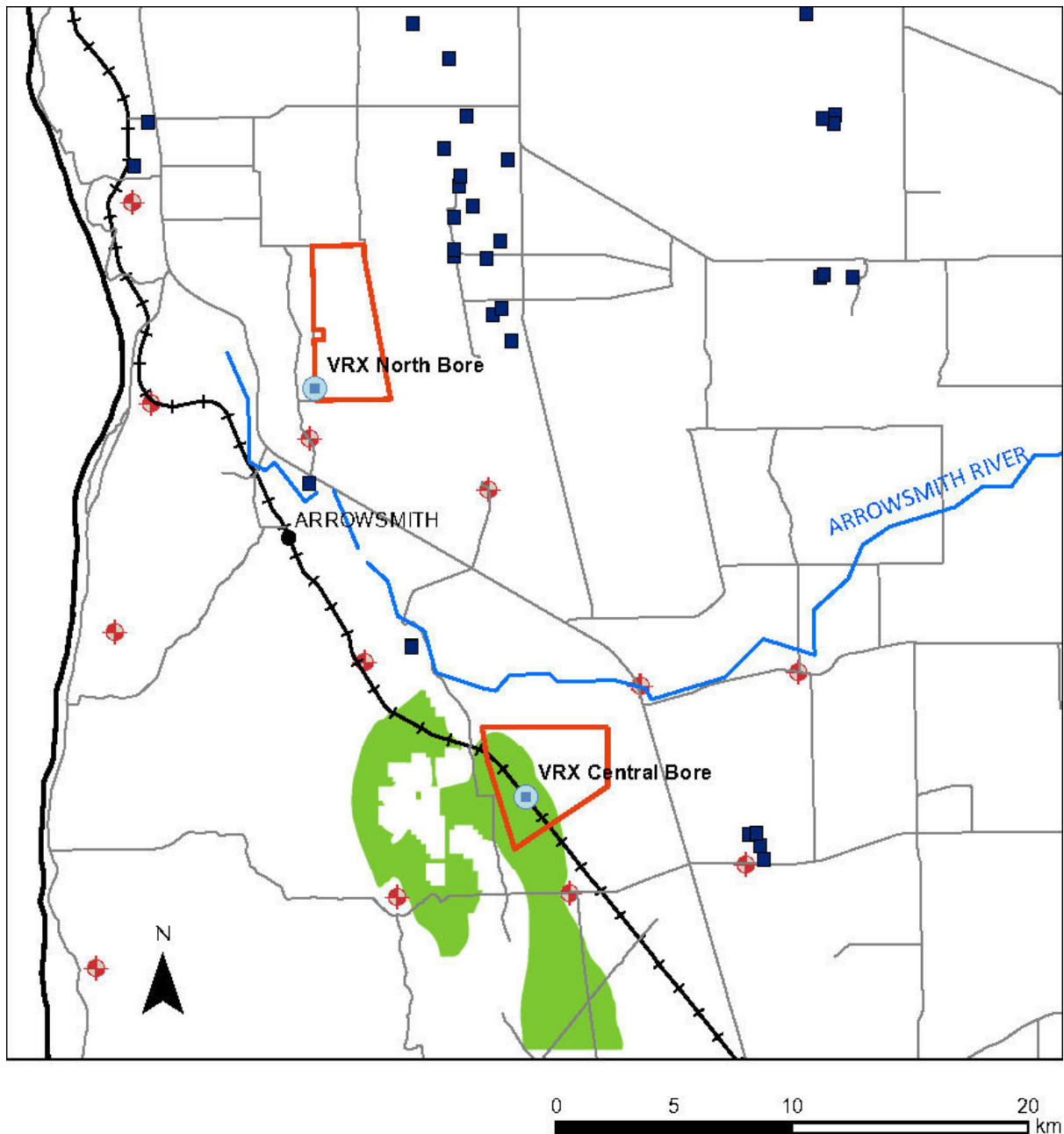
In both of these locations this would result in depressurising of the aquifer and have minimal or no effect on the superficial aquifer.

Scenario 4 – Assessment Of Climate Change Impact

Figure 14 shows that the consequences of a drying climate will potentially result in a lowering of the water table in the superficial aquifer by up several metres in the eastern portions of the model area near the Arrowsmith River.

The VRX North area and the VRX Central will potentially result in lowering of the water table by up to 1.25m on the eastern boundary and between 0.5 and 0.75m near the western boundary, after 30 years.

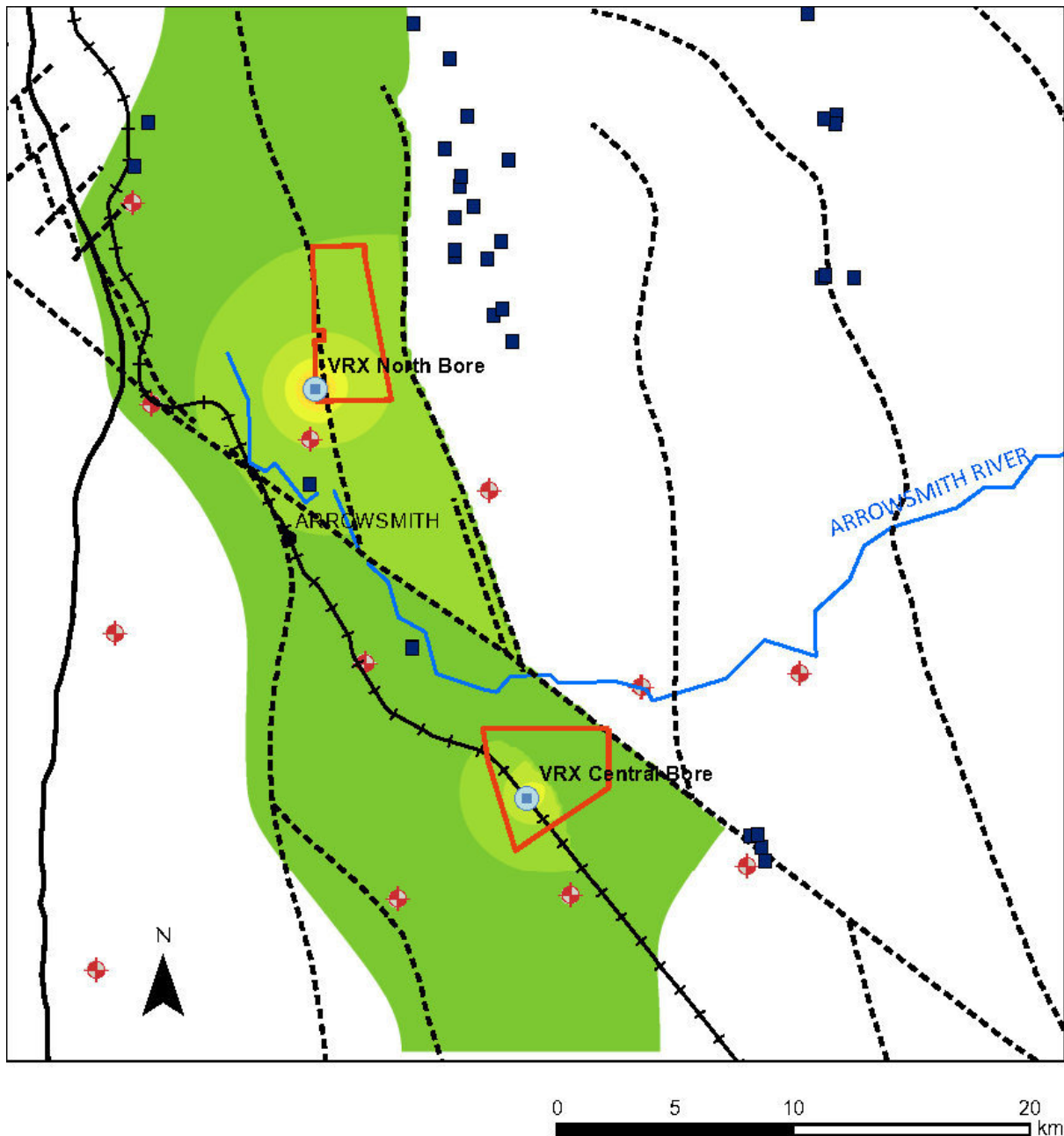
Figure 15 shows that the consequences of a drying climate will potentially result in a lowering of the water table in the Yarragadee aquifer by less than 0.25m after 30 years.



Legend

VRX North Bore	Scenario 3 superficial Impacts m	1.0 - 1.25
VRX Central Bore		1.25 - 1.5
Allocations Drawpoints	<0.25	1.6 - 1.75
VRX M70/1389	0.25 - 0.5	1.75 - 2
VRXM70/1392	0.50- 0.75	2. - 2.25
	0.75 - 1	> 2.25

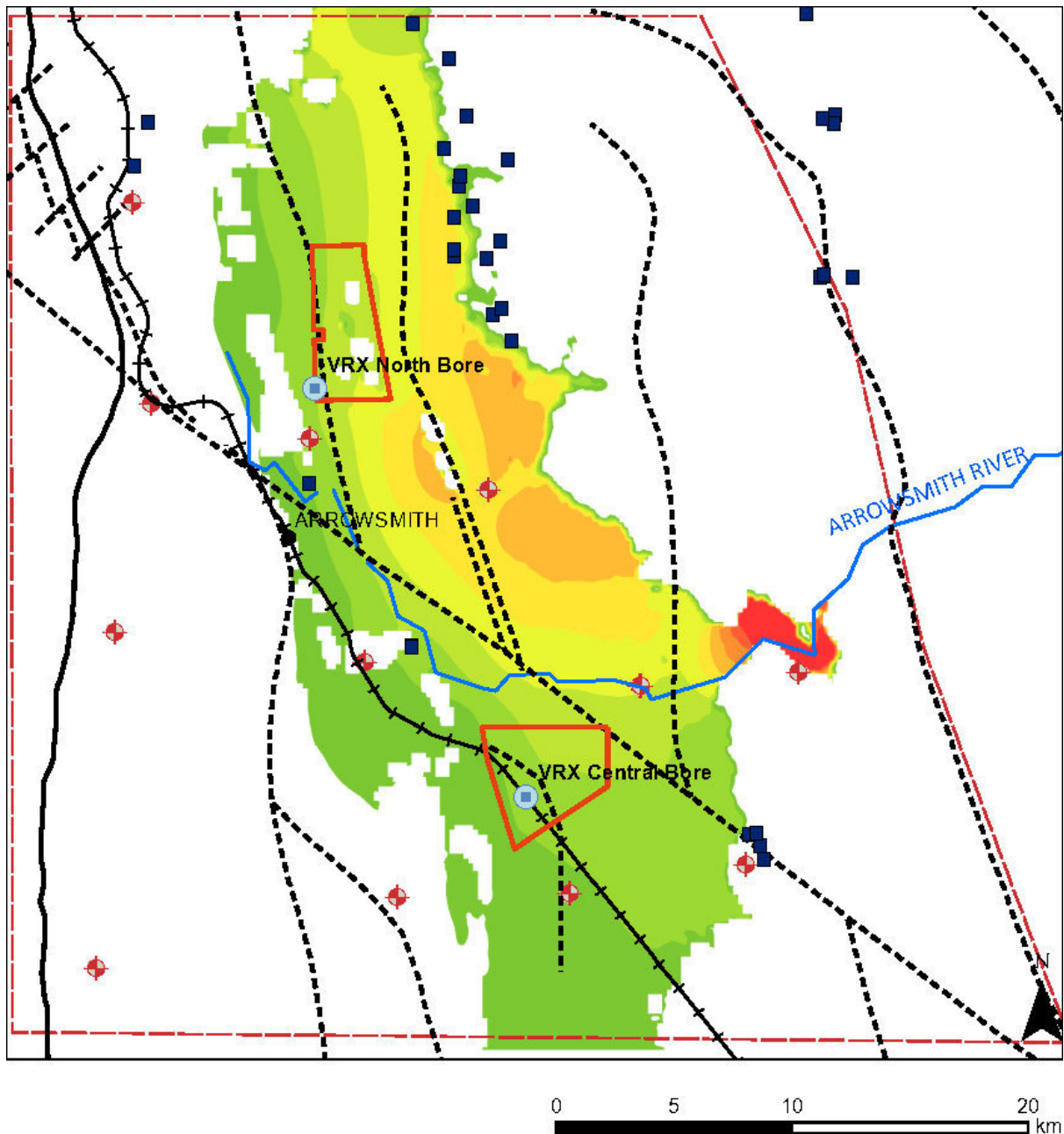
Figure 12: Scenario 3 – Superficial Impact from VRX Allocation after 30 years



Legend

VRX North Bore	Scenario 3 Impact Yarragadee	1.0 - 1.25
VRX Central Bore	m	1.25 - 1.5
Allocations Drawpoints	<0.25	1.6 - 1.75
VRX M70/1389	0.25 - 0.5	1.75 - 2
VRXM70/1392	0.50 - 0.75	2. - 2.25
Faults	0.75 - 1	> 2.25

Figure 13: Scenario 3 – Yarragadee Impact from VRX Allocation after 30 years



Legend

■ Allocations Drawpoints	Scenario 4 superficial Impacts	■ 1.0 - 1.25
● VRX North Bore	m	■ 1.25 - 1.5
● VRX Central Bore	□ <0.25	■ 1.6 - 1.75
— VRX M70/1389	■ 0.25 - 0.5	■ 1.75 - 2
— VRXM70/1392	■ 0.50- 0.75	■ 2. - 2.25
- - - Faults	■ 0.75 - 1	■ > 2.25

Figure 14: Scenario 4 – superficial impact due to Climate Change

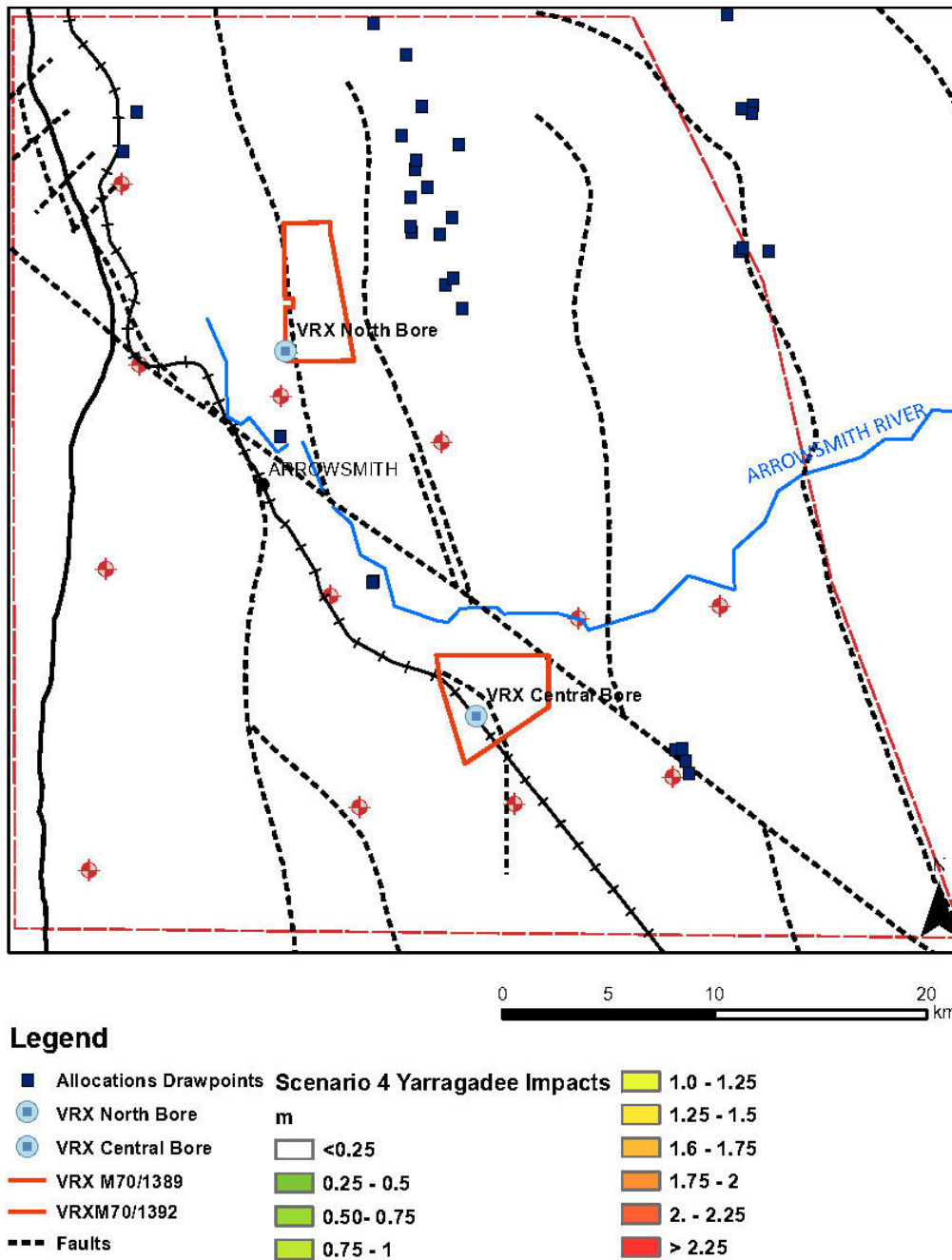


Figure 15: Scenario 4 – Yarragadee Unit A impact due to Climate Change

7. WATER USAGE, EFFICIENCY & PLANNED BOREFIELD

The Arrowsmith North project is the more advanced of the 2 proposed projects, and is progressing through the EPA PER process. The Project plan for Arrowsmith North has progressed to detailed design of the process flow and engineering design for a 2.2Mtpa Operation. The water requirements for Arrowsmith North have been determined and are presented in Appendix F, being 0.9GL/a.

The Arrowsmith Central Project is at an early stage in the EPA Referral process and as a result the Project does not have the same level of process flow and engineering study's. The current anticipated production from Central is projected to be 1Mtpa and therefore the water requirements are estimated pro rata from Arrowsmith North at 0.4GL/a. Ventnor Mining Pty Ltd have therefore be withdrawing the GWL application 41387 for 500,000KL/a from the Superficial Swan.

At a 2.2Mtpa ore processing rate, the annual project demand at the North site is about 900,000kL, with the following major water use categories:

- Ore processing – 703,630kL.
- Stockpile dust suppression – 140,160kL
- Dust suppression – 54,750kL.
- Potable Water – 1,460kL.

The Central Project will have a smaller footprint and require less process and dust suppression water.

The estimated dust suppression water volume is based on use at other sand mining sites that project personnel have worked at similar projects.

8. ASSESSMENT OF IMPACTS

The drilling and test pumping have indicated that the Yarragadee Unit A aquifer is in the North area confined and in the Central area confined but to a lesser extent. The limited test pumping of the Yarragadee production bores has shown no reaction of the water table in the superficial monitoring bores. The individual production bore yields are sufficient for the proposed silica sand operation and should result in single bore borefields.

The modelling has indicated that the abstraction from the production bores for up to 30 years will not adversely affect the superficial water levels with drawdowns of less than 0.5m in the Central area and less than 0.25m in the northern area.

The modelling has indicated that climate change could potentially lower the water table to a greater extent than abstraction.

Groundwater quality has shown that the salinity of the Yarragadee Unit A groundwater at the Central bore is in the order of 480mg/L TDS. The salinity at the North bore is in the order of 6,600mg/L TDS and although more saline suitable for the purpose of washing clays from the silica sands and dust suppression.

The proposed use of the confined Yarragadee Unit A will result in no adverse effects on other licensed and unlicensed users, including the environment.

The test pumping and modelling have indicated that the proposed abstraction should not have any adverse effects on the aquifer.

9. GROUNDWATER MONITORING

A detailed operating strategy has been compiled for the submission of this report. In summary it is recommended that Ventnor Mining Pty Ltd, as a condition of a License to Take Water, monitor the following items;

- The monthly abstraction from the existing and any proposed production bores using Department of Water and Environmental Regulation approved well head, water sampling and flow meter installations (Strategic Policy 5.03).
- The monthly water levels of the Yarragadee Formation aquifer production bores (YPB1 and YPB2) and monitoring bores (YMB1 and YMB2), at least 4 hours after the cessation of pumping. The monthly water levels of the superficial aquifer monitoring bores (SMB1 and SMB2).
- The annual abstraction of a water sample from the production bores for major component analysis (page 46, Operational Policy No. 5.12) at a laboratory using NATA approved methods. The sampling should be carried out each April.
- That the recorded monitoring data should be assessed by a groundwater professional annually for the period 1 July to 30 June, 12 months later, in association with the existing groundwater monitoring summary of the Yarragadee Formation aquifer abstraction and chemistry and a report complying with the requirements of Operational Policy No. 5.12 submitted to the Department of Water and Environmental Regulation by the end of September each year.

There will also be some monitoring of vegetation in the two areas although this program has not yet been finalised.

10. MANAGEMENT APPROACH / CONCLUSIONS

Ventnor Mining Pty Ltd has requested a 0.9GL per annum allocation of groundwater from the Yarragadee Formation aquifer on mining tenement M70/1389 located 28km southeast of Dongara and a further 0.4GL per annum allocation of groundwater from the Yarragadee Formation aquifer on mining tenement M70/1392 located some 50km southeast of Dongara. The water is to be used for mining and processing silica sands.

Initially a further 0.5GL per annum of superficial aquifer allocation was requested on mining tenement M70/1392, but investigations indicated that it could not be abstracted from the aquifer and the request has been withdrawn.

Investigations undertaken have included drilling, geophysical and geological logging, construction and test pumping of Yarragadee and superficial aquifer production and monitoring bores.

The hydraulic parameters from the test pumping were then used in the development of a sub-regional computer numerical model. The model was run for 30 years to determine potential impacts on the aquifer, other users and the environment and the results indicated minimal impacts.

Modelling of climate change was undertaken using the CSIRO/BOM rainfall database to determine future recharge. The results indicate that reduced rainfall associated with climate change may result in widespread reduction of water level in the superficial aquifer ranging from less than 0.25m to more than 2m after 30 years. The results in the mining tenements are between 0.25 and 1m after 30 years. The modelling of the climate change in the Yarragadee Unit A aquifer indicates impacts of less than 0.25m after 30 years.

In conclusion this assessment concludes that proposed abstraction of 1.4GL per annum from the Yarragadee Unit A aquifer will have no unacceptable impacts on the environment, other users or the aquifer.

Therefore, it would be recommended that a Licence to Take Water be issued to Ventnor Mining Pty Ltd to allow abstraction of up to 0.9GL per annum from the Yarragadee Formation aquifer on M70/1389 and up to 0.4GL per annum from the Yarragadee Formation aquifer on M70/1392. The licence should be issued conditional to ongoing monitoring, assessment and reporting as set out in the water supply Operating Strategy, indicating an adequate aquifer performance without any adverse effects on the aquifer or on other existing Yarragadee Formation aquifer users.

11. REFERENCES

- Department of Water, 2017, *Northern Perth Basin: Geology, hydrogeology and groundwater resources*, Hydrogeological bulletin series, report no. HB1, Department of Water Government of Western Australia, Perth.**
- Mory, A.J., and Iasky, R.P., 1996, *Pre-Cainozoic geology, onshore northern Perth Basin*: Western Australia Geological Survey, Report 46**
- Nidigal, V., 1995, *Hydrogeology of the coastal plain between Leeman and Dongara, Perth Basin*: Western Australian Geological Survey, Record 1994/10.**
- Playford, P.E., Cockbain, A.E., and Low, G.H., 1976, *Geology of the Perth Basin, Western Australia*: West. Australia Geol. Survey Bull. 124.**
- Water and Rivers Commission, 2002, *Managing the Water Resources of the Arrowsmith Groundwater Area, WA*, Water and Rivers Commission**

12. LIMITATIONS OF REPORT

LIMITATIONS ON INTERPRETATION, USE AND LIABILITY OF THIS REPORT

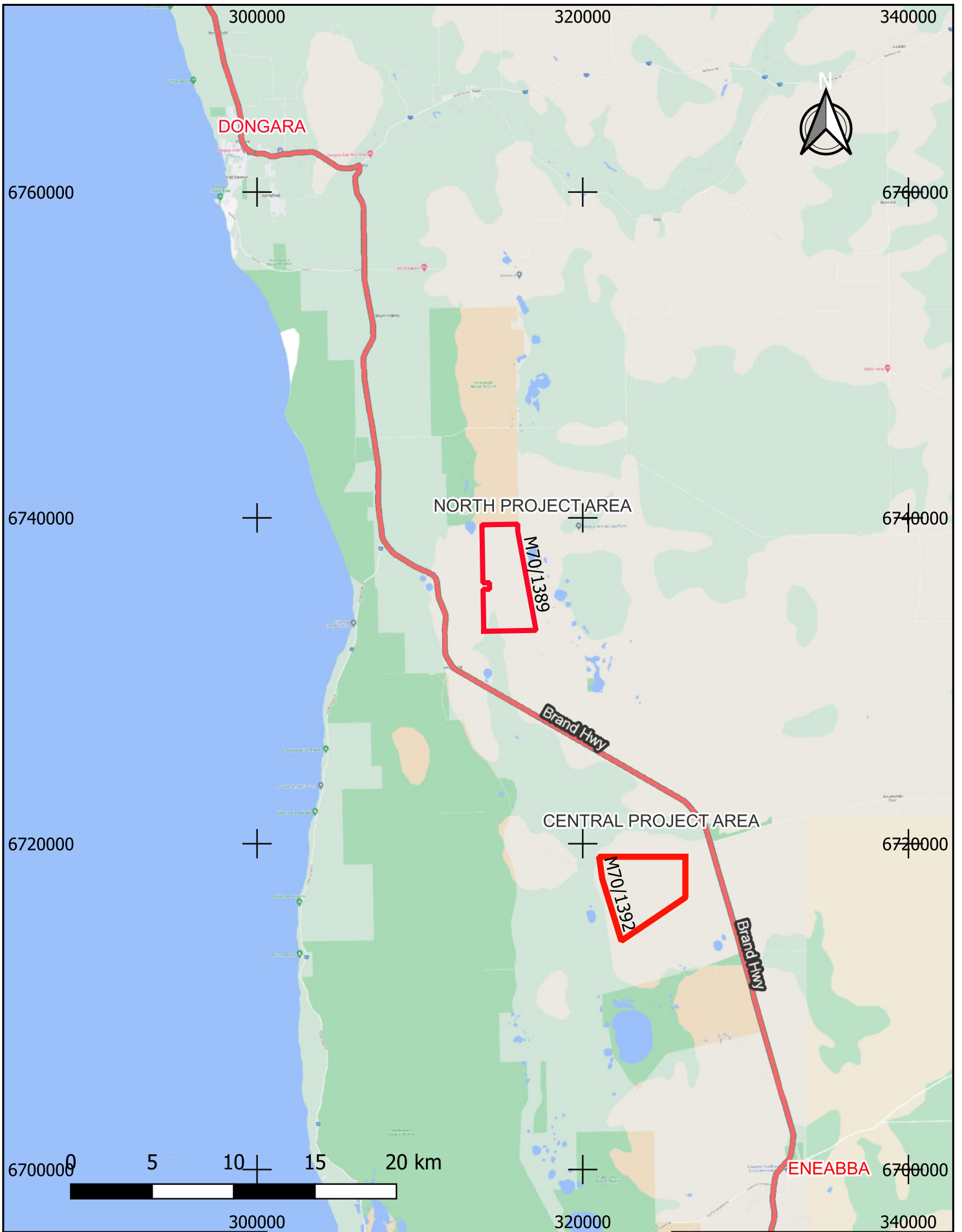
Water Direct Pty Ltd has prepared this report exclusively for Ventnor Mining Pty Ltd, in accordance with generally accepted consulting practice. The work has been undertaken for the client and for review by regulatory agencies.

Aquifer materials and groundwater flow systems are a product of continuing natural and manmade processes and thus exhibit a variety of characteristics and properties that vary from place to place and can change with time. Geology/hydrogeology involves gathering and assimilating limited facts about these characteristics and properties in order to understand and predict the behaviour of the ground on a particular site under certain conditions. This report may contain such facts obtained by inspection, drilling, excavation, probing, sampling, testing or other means of investigation, particularly pumping and drawdown data. If so, they are directly relevant only to the groundwater system at the place where, and the time when the investigation was carried out. Any groundwater modelling predictions presented should not be regarded as matters of fact.

This report and other reports referred to may contain comments on works being carried out by others. The Company cannot and will not take responsibility for works carried out by others on site to date. We do not guarantee the performance of the project in any respect, only that our work and judgement meet the standard of care of our profession at this time.

Any interpretation or recommendation given in this report shall be understood to be based on judgement and experience, not on greater knowledge of facts other than those reported.

FIGURES



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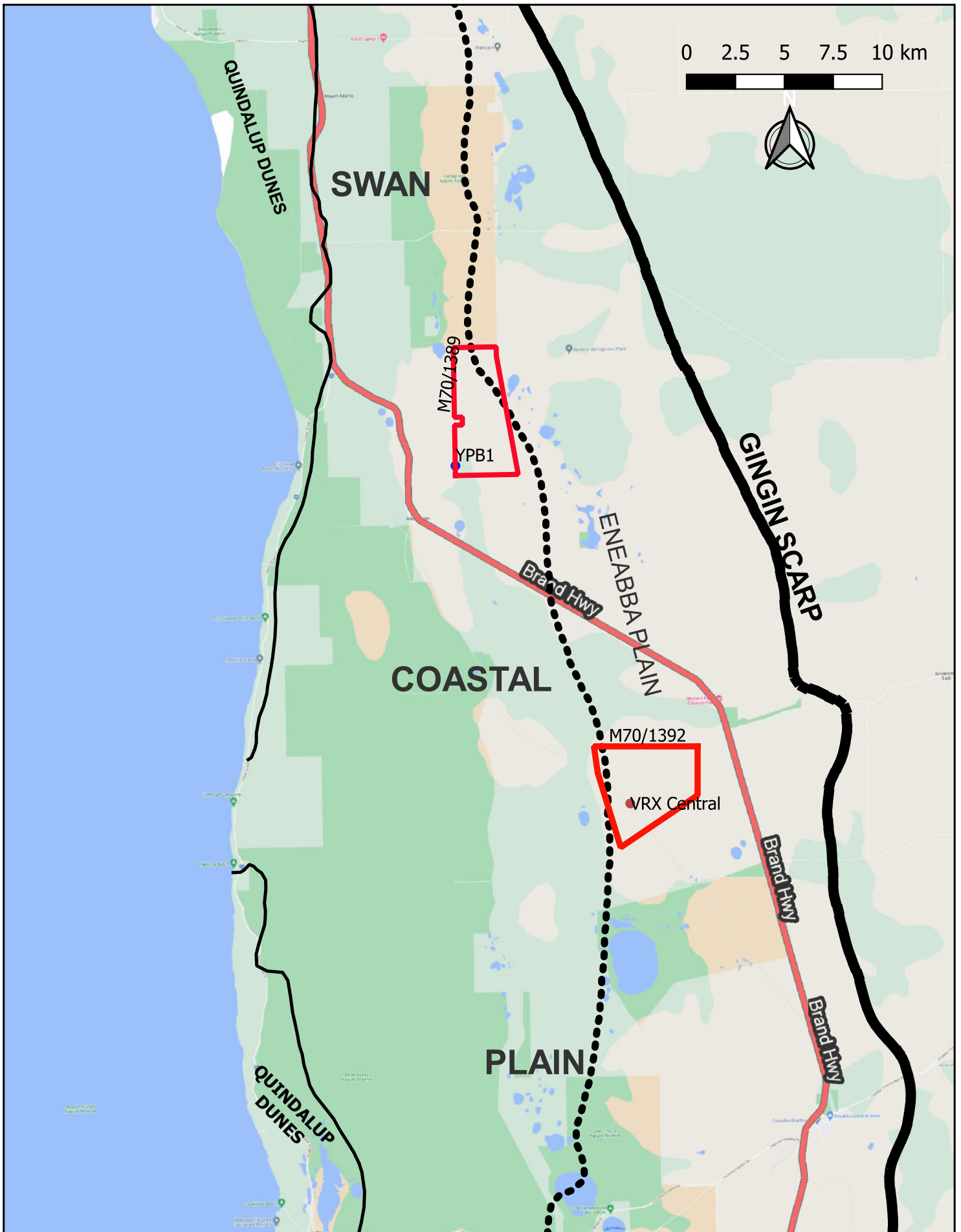
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TITLE: Project Location Plan



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FIGURE:1



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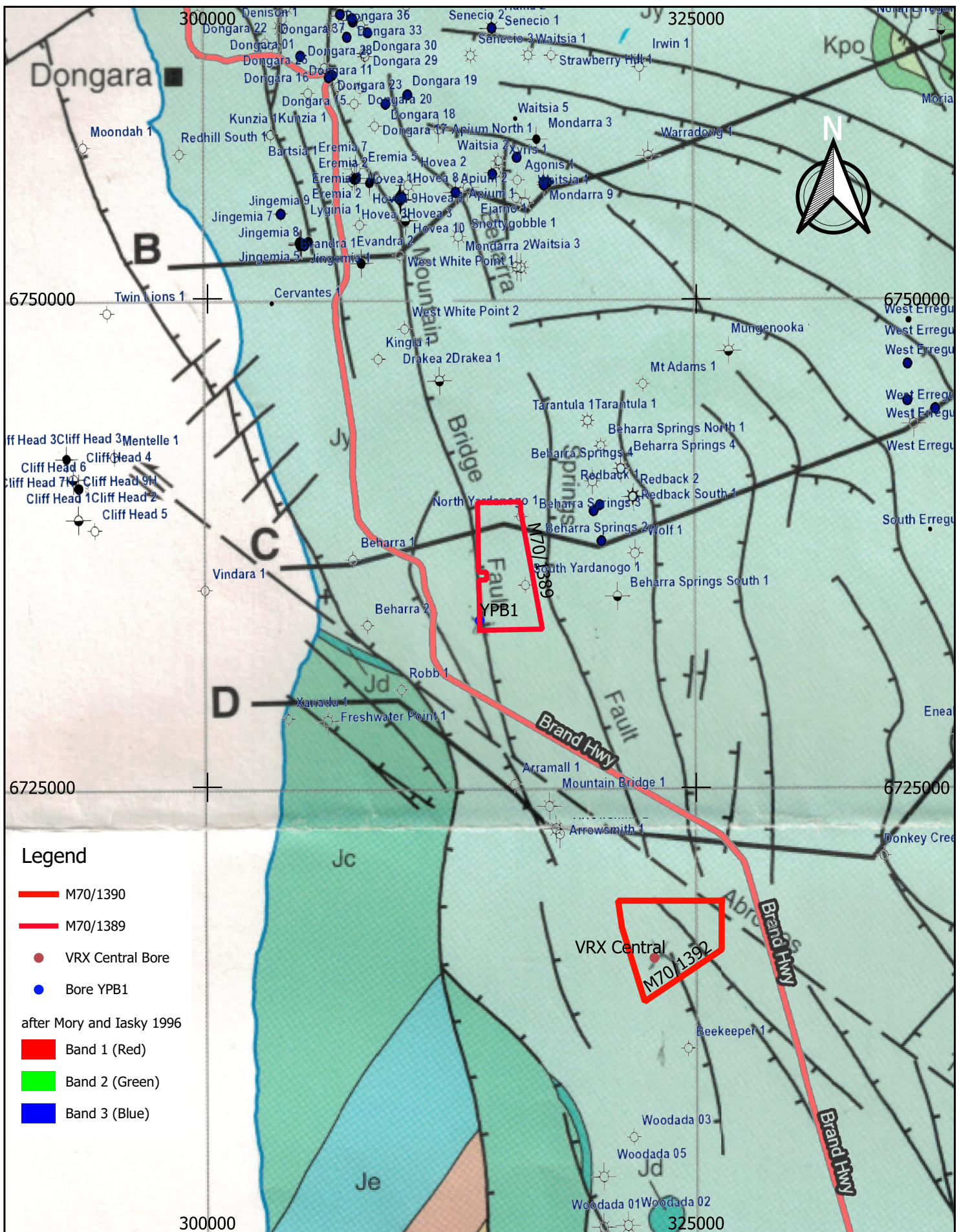
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 SOURCE:

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 Project: Arrpwsmith Silica Sands
 TITLE: Geomorphology



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FIGURE: 2



Legend

- M70/1390
 - M70/1389
 - VRX Central Bore
 - Bore YPB1
- after Mory and Iasky 1996
- Band 1 (Red)
 - Band 2 (Green)
 - Band 3 (Blue)

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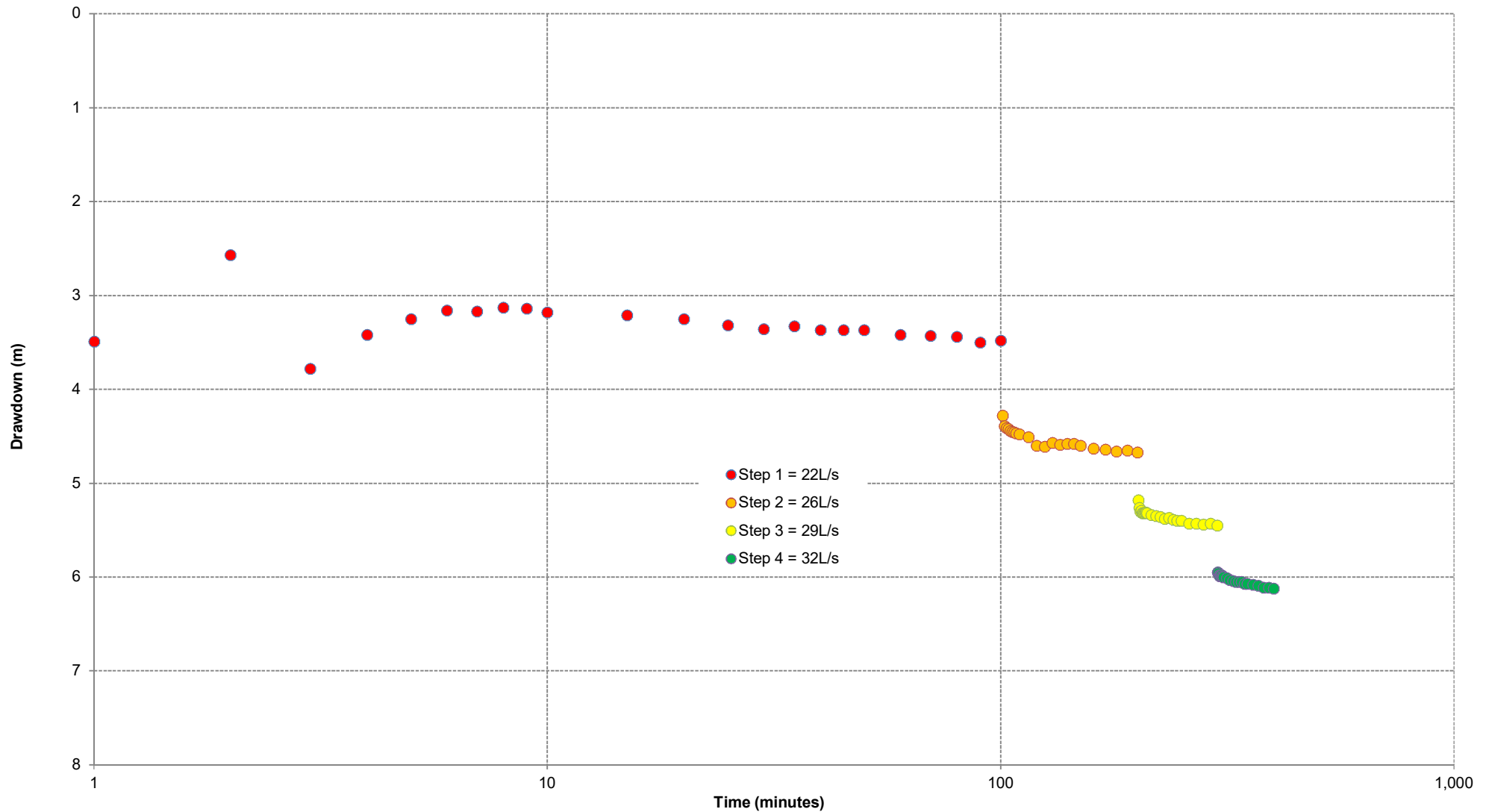
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TITLE: Structural Geology Map after Mory & Iasky 1996



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FIGURE: 3



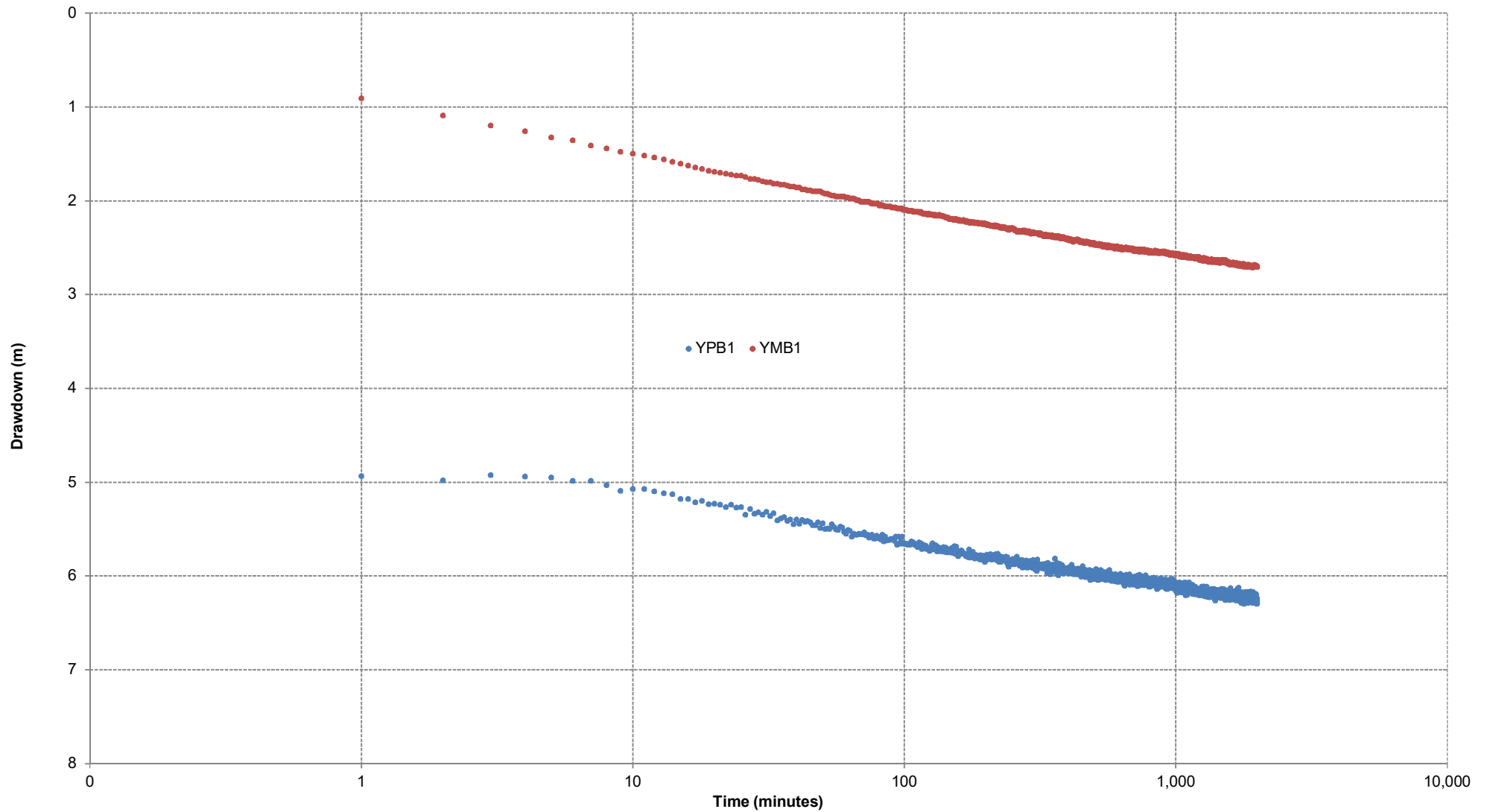
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DATE:	05-May-22	STATUS:	Final

Ventnor Mining Pty Ltd
PROJECT:
M70/1389
TITLE:
YPB1 Step Test



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FIGURE 4

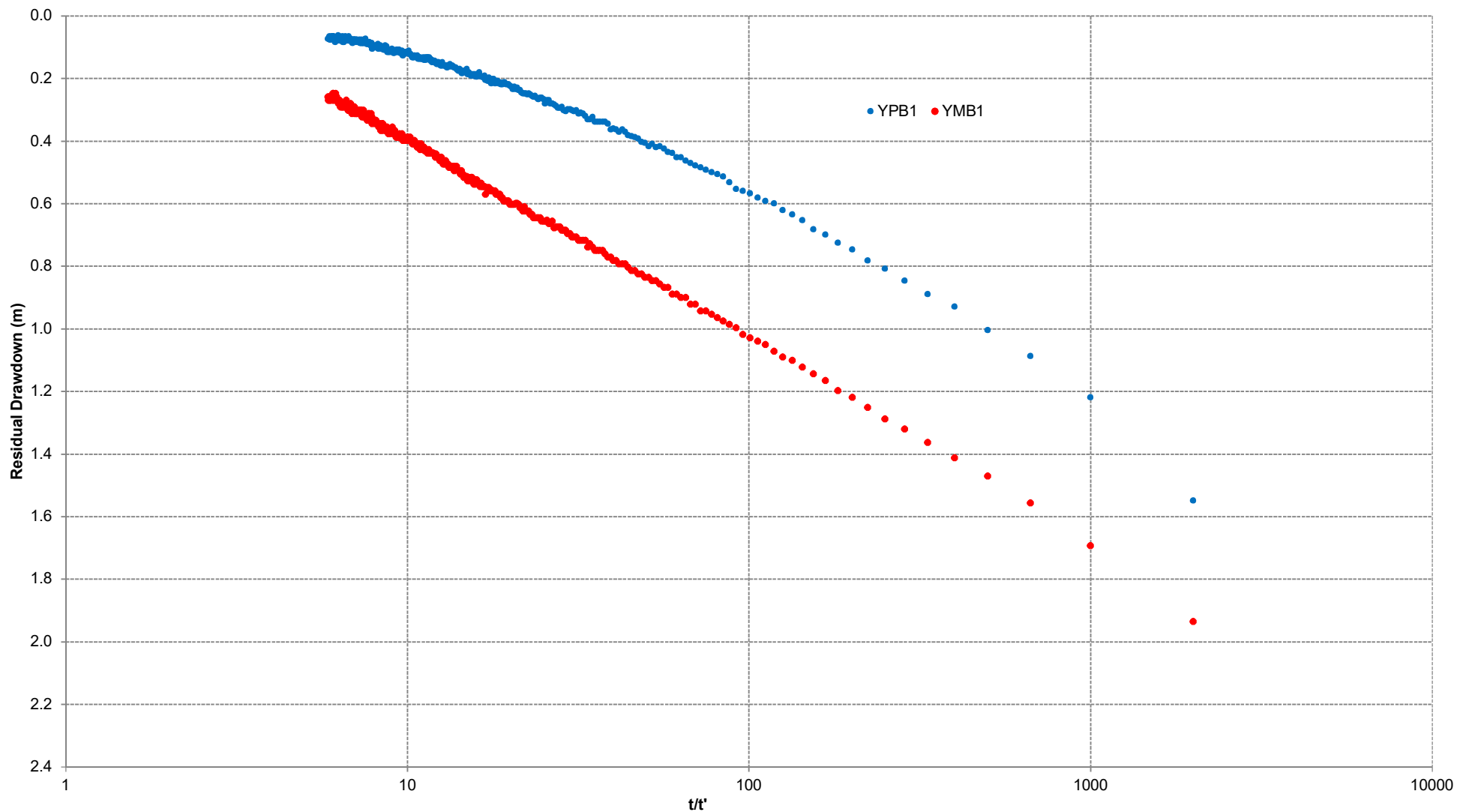


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Ventnor Mining Pty Ltd
 PROJECT:
M70/1389
 TITLE:
YPB1 Constant Rate Test


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FIGURE 5

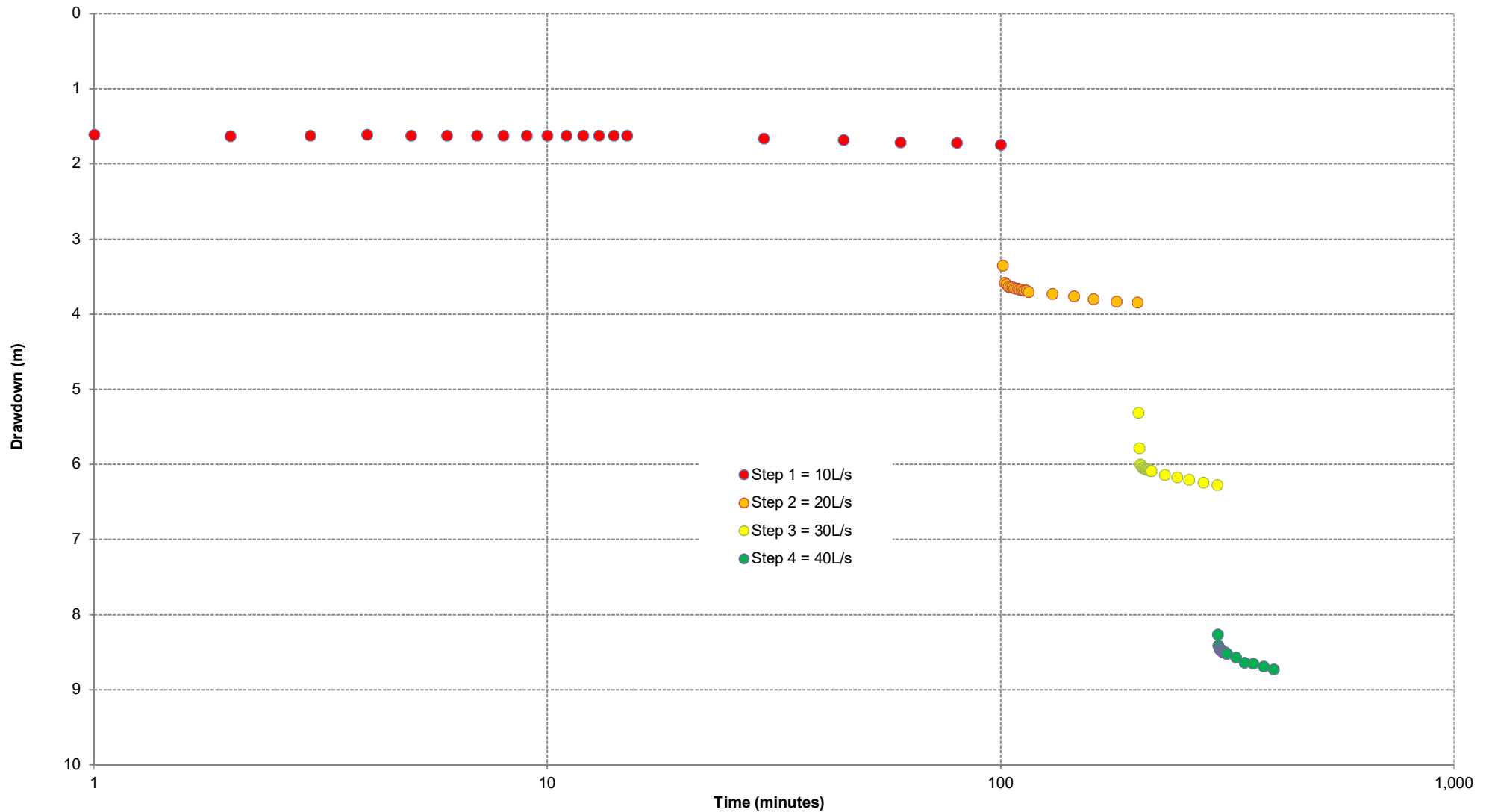


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DATE:	05-May-22	STATUS:	Final

Ventnor Mining Pty Ltd
PROJECT:
M70/1389
TITLE:
YPB1 Recovery Test


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FIGURE 6



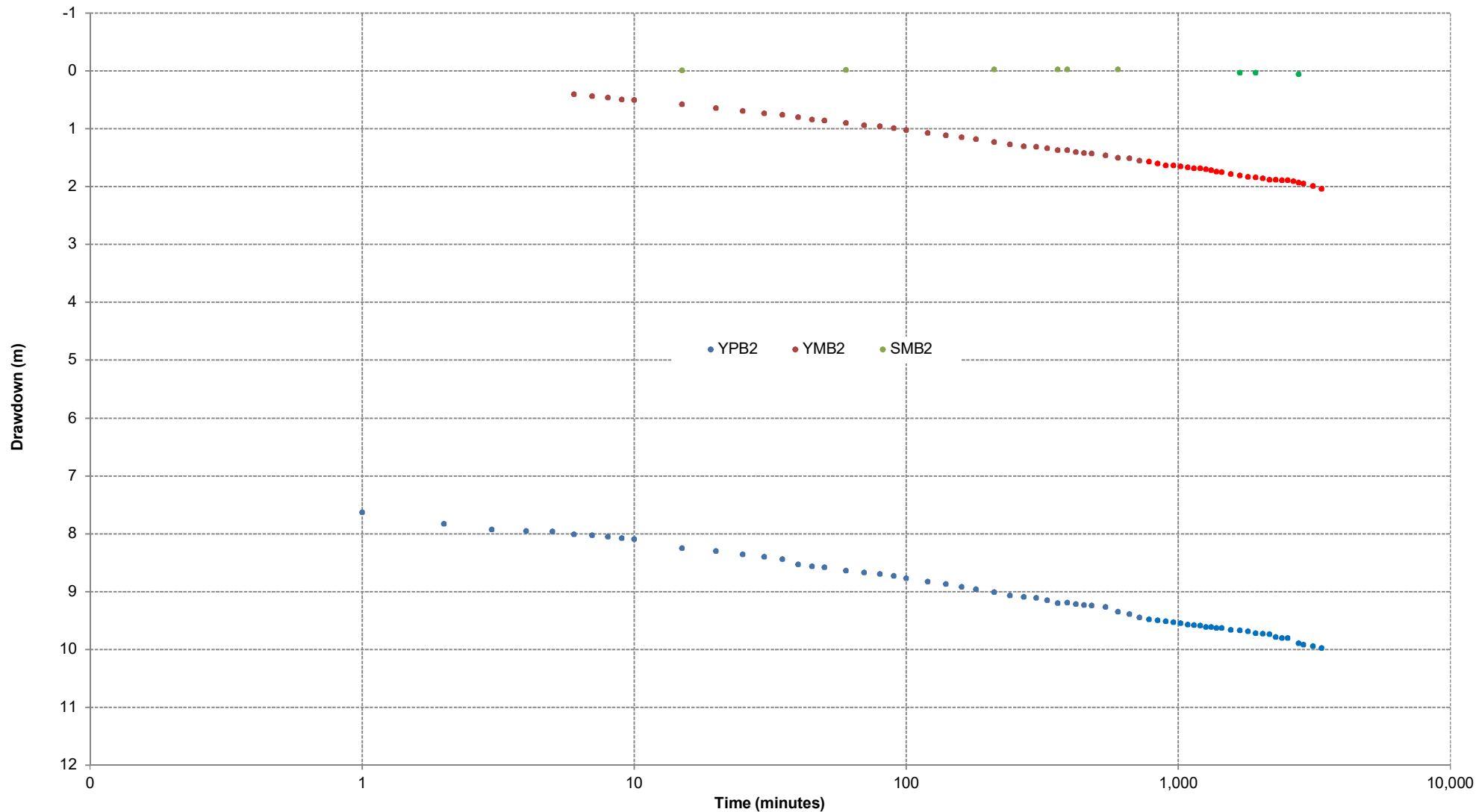
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PROJECT:
M70/1392
TITLE:
YPB2 Step Test



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FIGURE 7

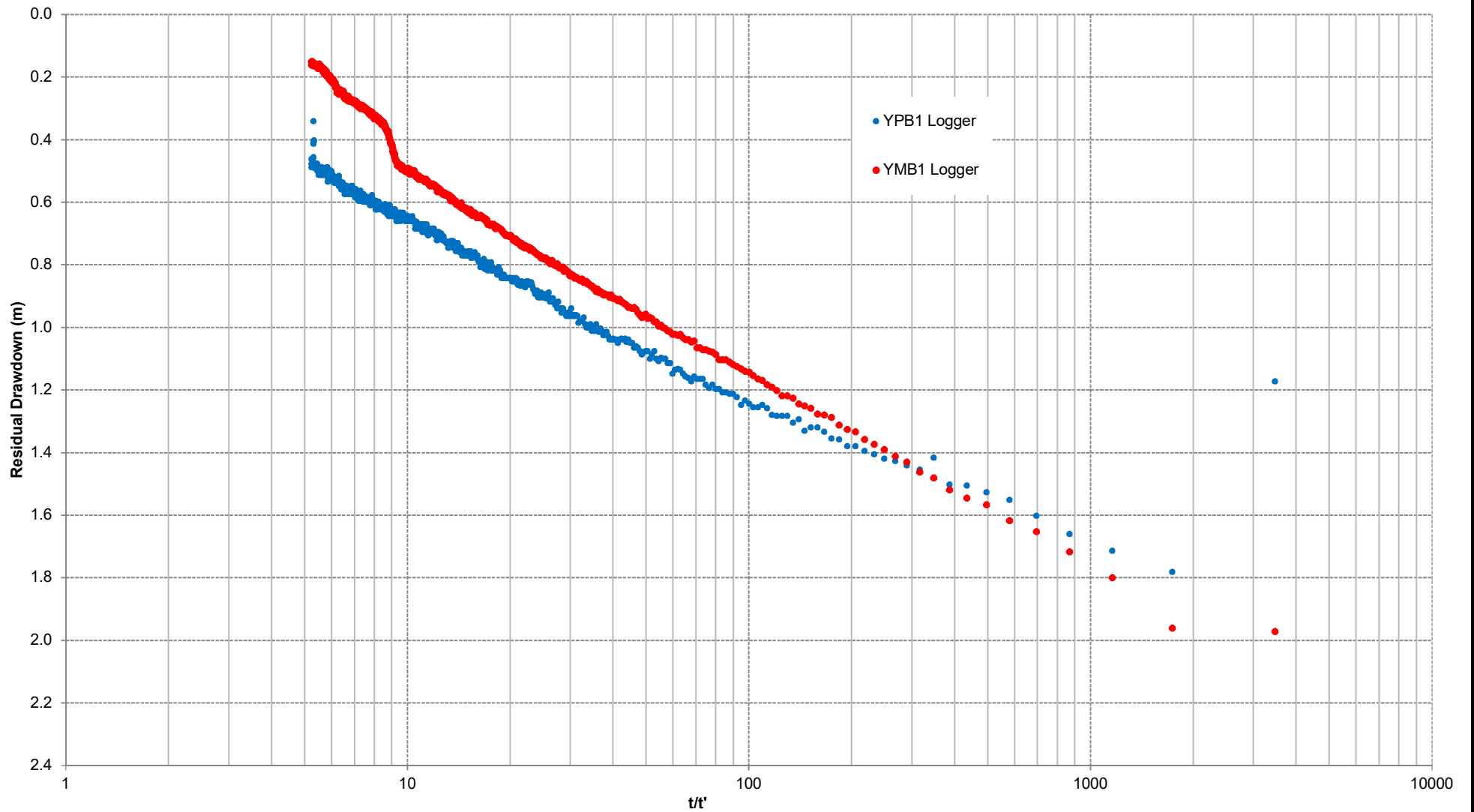


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Ventnor Mining Pty Ltd
PROJECT:
M70/1392
TITLE:
YPB2 Constant Rate Test
40L/s


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FIGURE 6

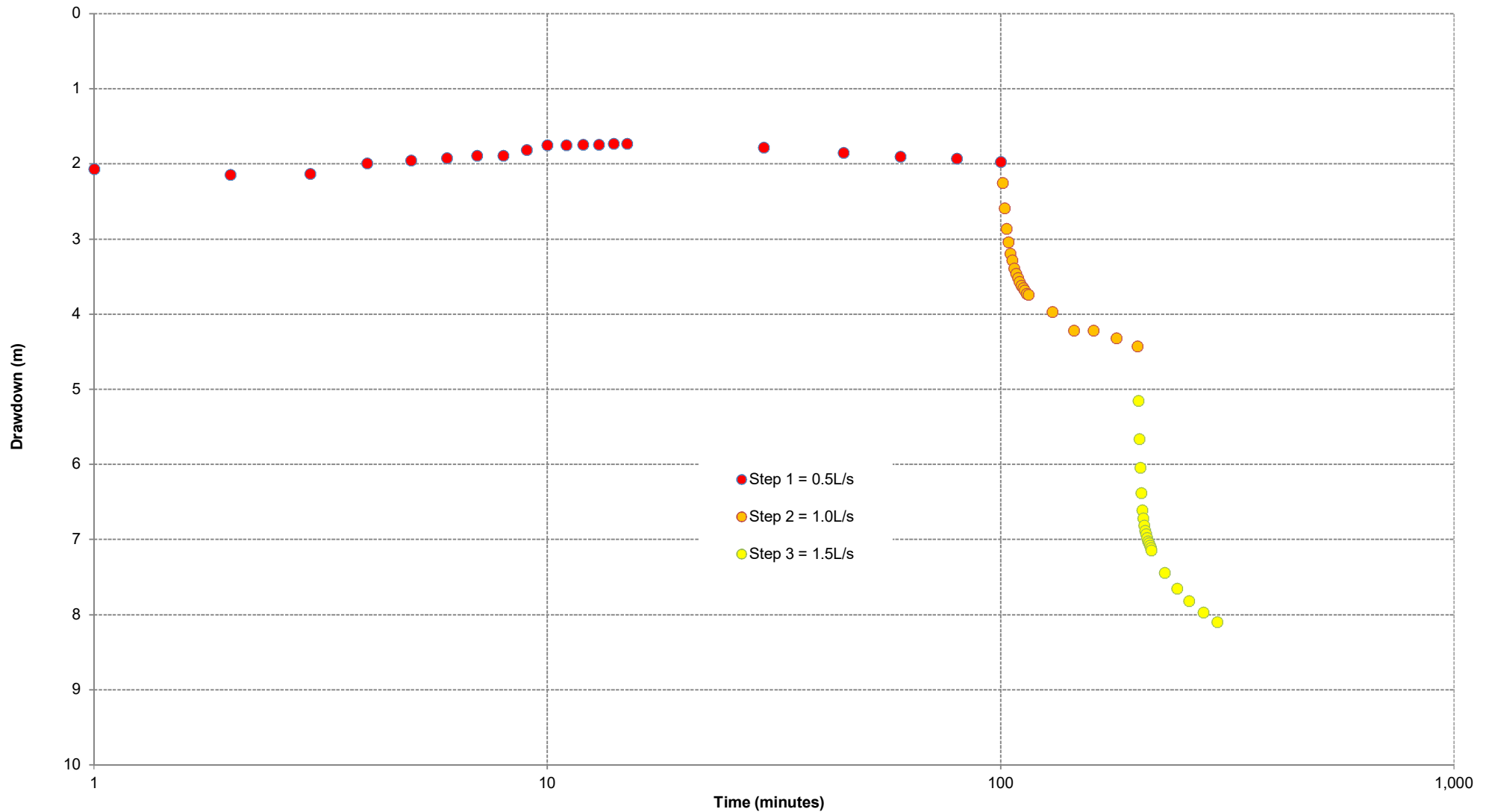


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 PROJECT:
M70/1392
 TITLE:
YPB2 Recovery Test


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FIGURE 9

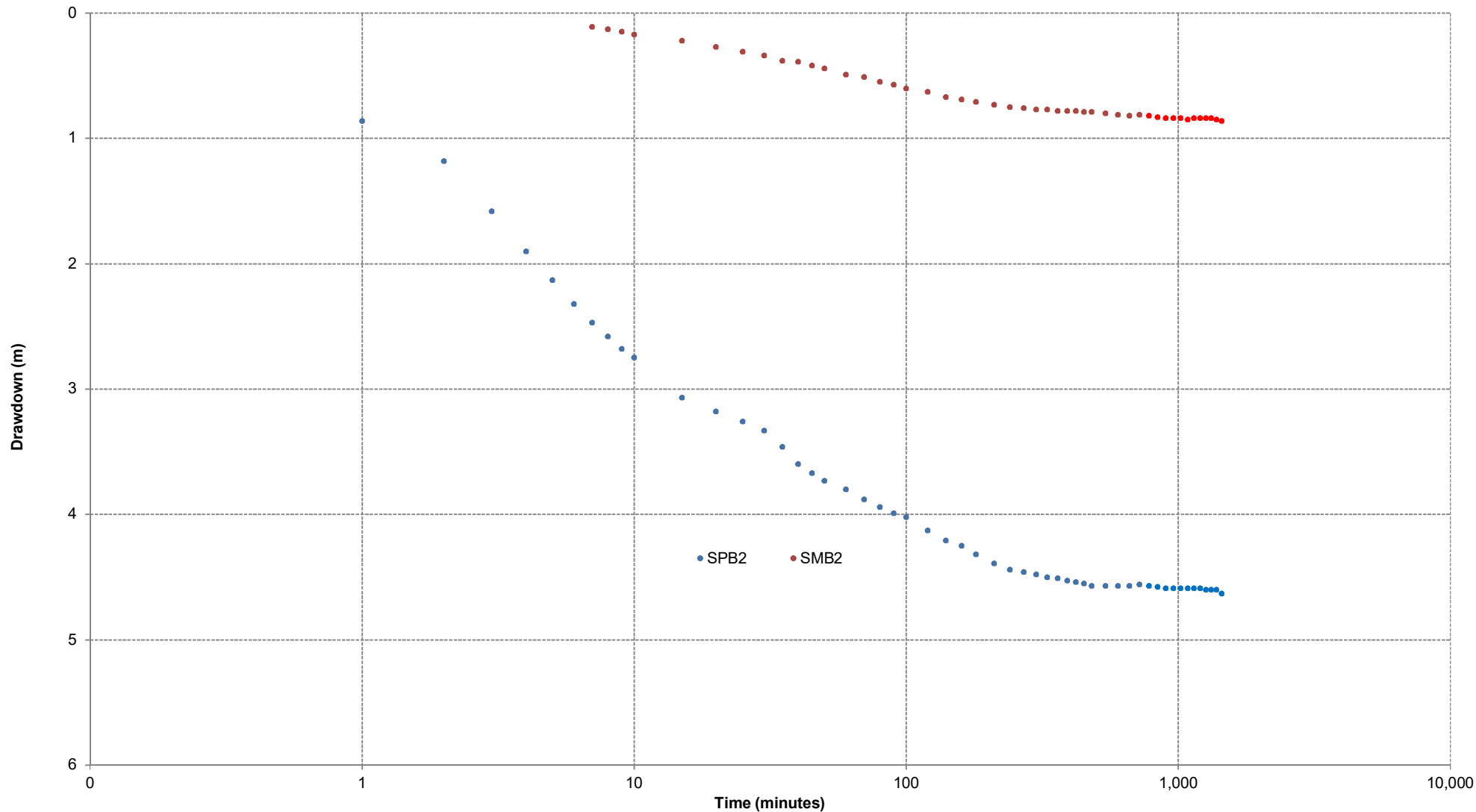


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 PROJECT:
M70/1392
 TITLE:
SPB2 Step Test

FIGURE **10**

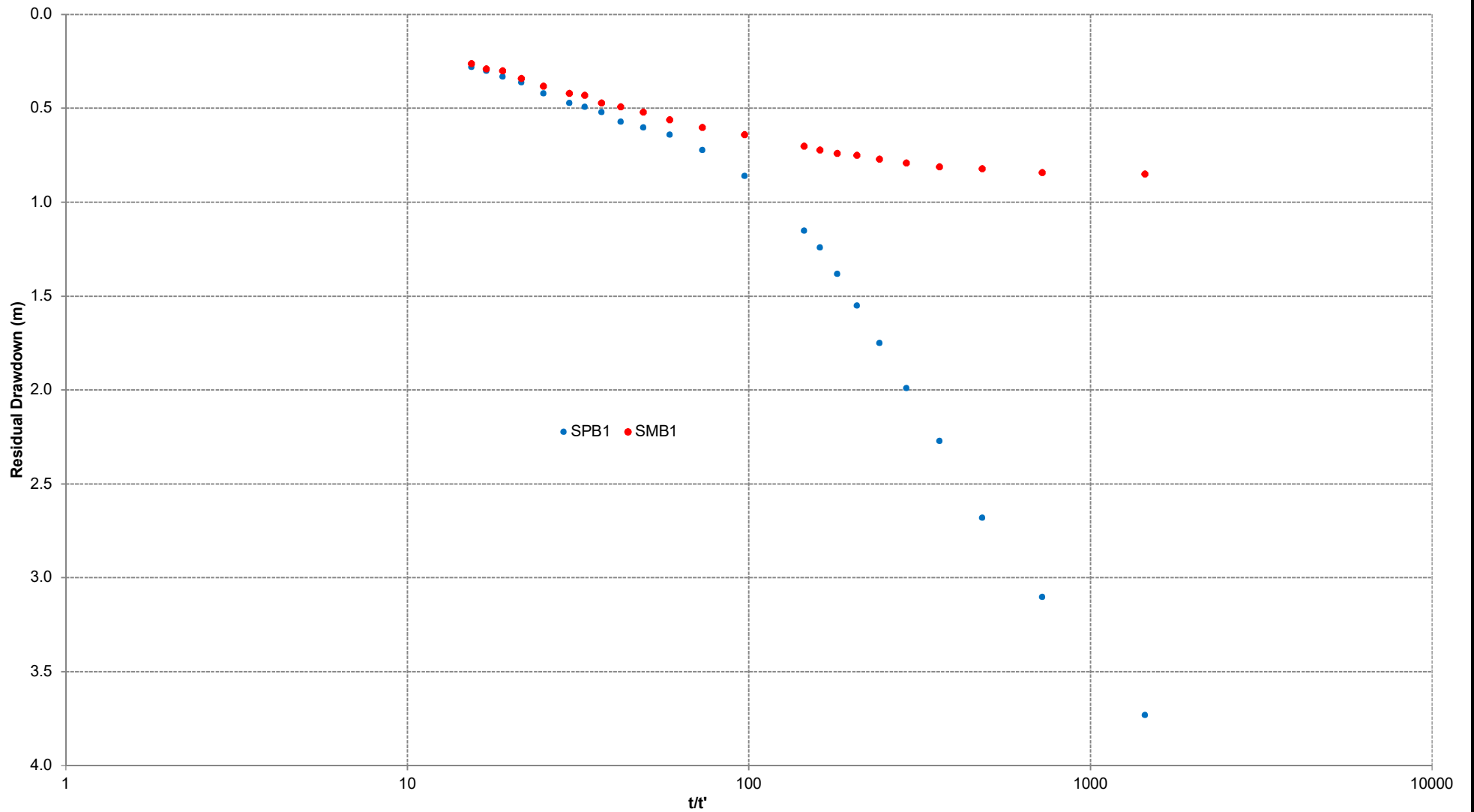
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DATE:	28-Oct-22	STATUS:	Final

Ventnor Mining Pty Ltd
PROJECT:
M70/1392
TITLE:
SPB2 Constant Rate Test
Test Rate = 0.85L/s


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FIGURE 11



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JOB NO:	340	APPROVED:	RRM
DATE:	05-May-22	STATUS:	Final

Ventnor Mining Pty Ltd

PROJECT: **M70/1392**

TITLE: **SPB2 Recovery Test**



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FIGURE 12

APPENDICES

APPENDIX A
GROUNDWATER MODELLING REPORT

Construction and Calibration of a Sub-Regional Groundwater Model of Arrowsmith North ANAMS V1

Prepared for

Water Direct Pty Ltd

January 2023

By

CyMod Systems Pty Ltd

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PO Box 917

Armadale WA, 6992

EXECUTIVE SUMMARY

The Department Water and Environmental Regulation (DWER), as part of their groundwater resource management and planning role, have previously and continue to use groundwater flow modelling of the North Perth Basin (NPB). In response to increasing demand for irrigation and process water sourced from the Yarragadee aquifer in the area, the DWER are requesting groundwater models to simulate the allocation of groundwater resources and subsequent impacts on water levels both in the Yarragadee and superficial aquifer.

Water Direct (WD) contracted CyMod Systems to develop a sub-regional groundwater flow model of the Arrowsmith North area of the NPB that can be used to assess the licence application for 1.3 GL/annum of water to support Ventnor Mining Pty Ltd, a wholly owned subsidiary of VRX Silica Limited (ASX:VRX). This report describes the construction and calibration of the Arrowsmith North Aquifer Model (ANAMS).

The calibrated ANAMS model is used to simulate three forward scenarios of abstraction from the Yarragadee aquifer, for silica sand mining and processing and a fourth scenario using the CSIRO and Bureau of Metrology (BOM) forecasted rainfall model to model the effects of Climate Change.

Conclusions

The model was calibrated in steady state and against transient water level data. The resulting calibration statistics show a 3.25% normalised average absolute average error in the Yarragadee and the superficial aquifers. Given the paucity of water level data in the model area, this calibration error is considered consistent with an adequately calibrated model.

Calibrated aquifer parameters in ANAMS are consistent with the conceptual hydrogeological model as described in DWER (2017).

The calibrated model was used to simulate four forward abstraction scenarios:

1. Zero abstraction,
2. Existing licensed abstraction,
3. Existing and VRX licensed abstraction; and
4. Existing and VRX abstraction, subject to climate change as modelled by a 16% reduction in rainfall.

Based on the results of the forward scenarios, it is concluded from Scenario 3:

- The additional VRX allocation of 1.3 GL/annum will result in water levels declining in the superficial and Yarragadee aquifers.
- The decline in the water levels at the VRX production bores is estimated to be 1.0 m in the vicinity of VRX's Northern Bore and 1.5 m at VRX's Central Bore, after 30 years, in the Yarragadee A aquifer. Away from the bores, the decline in water levels in the Yarragadee A aquifer is less than 0.5 m.
- The only likely impact the allocation will have on the superficial aquifer is in the vicinity of VRX's Central Bore, where water levels decline less than 0.5 m over 30 years.

Results from Scenario 4 indicate that climate change impacts on the Yarragadee A aquifer are less than 0.25 m after 30 years. Simulation of the climate impact on the superficial aquifer indicated that water levels in the superficial aquifer will decline by up to 2 m in areas along the base of the Dandaragan Scarp. In the vicinity of the VRX production bores, water levels are indicated to decline by less than 1 m over 30 years, due to reduced regional rainfall attributable to climate change, not by the proposed VRX abstraction.

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1 INTRODUCTION

VRX Silica Limited (VRX) through its wholly owned subsidiary Ventnor Mining Pty Ltd is planning to construct and operate the Arrowsmith North and Arrowsmith Central silica sand projects (The Project) at M70/1389 and M70/1392, Arrowsmith, 28km and 50km, respectively, south-east of Dongara, Western Australia (Figure 1). VRX contracted Water Direct Pty Ltd (Water Direct) to drill and construct two bores into the Yarragadee aquifer to supply 1.3 GL/year of water in support of sand mining in the Arrowsmith area. Water Direct subsequently contracted CyMod Systems to construct and calibrate a sub-regional groundwater model of the Arrowsmith North area in support of a groundwater licence application. This report describes the construction and calibration of the Arrowsmith North Aquifer Modelling System Version 1.0 (ANAMS).

The calibrated ANAMS model is used to simulate forward scenarios of proposed groundwater abstraction from the Yarragadee aquifer by VRX, for silica sand mining and processing, in support of obtaining a groundwater license.

2 MODELLING APPROACH

The objective of the ANAMS groundwater flow model is to provide a quantitative tool that can be used to assess impacts of abstraction from two wells drilled on VRX leases, as shown in Figure 1. The model is required to simulate the response of the Yarragadee aquifer to changes in abstraction and climate in the context of:

- Estimating the impact of VRX abstraction on water levels in all aquifers,
- Provide quantitative estimates of the water resource in the Yarragadee aquifers,
- Aid in the design and management of the mining project at the borefield level.

This report has been written to conform to client requested guidelines (Barnett et al., 2012). These guidelines should be consulted for the application of and use of definitions specific to meeting those guidelines.

2.1 Modelling System

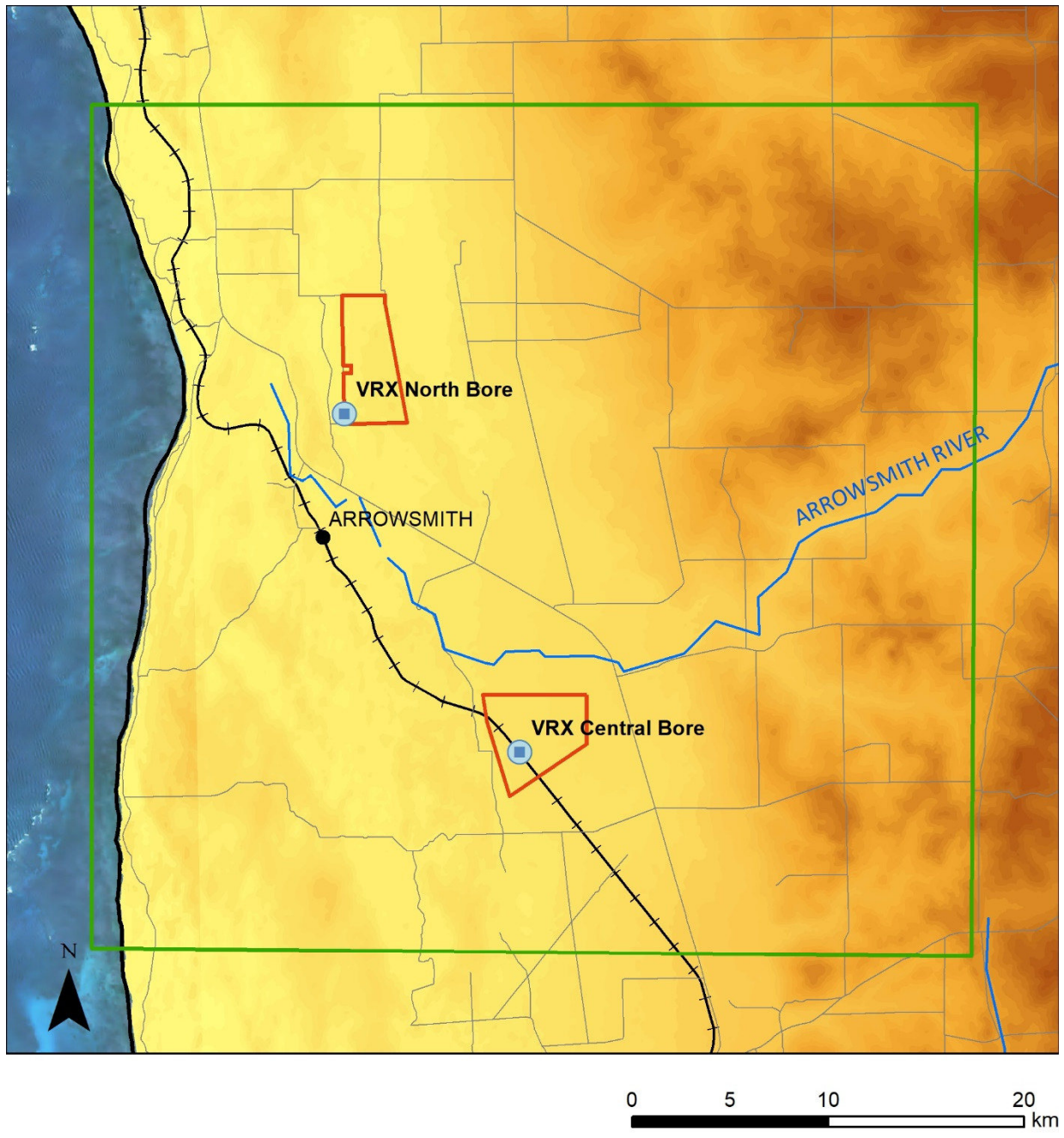
The ANAMS modelling system consists of a database containing abstraction, monitoring and environmental data, and a MODFLOW NWT (USGS 2015) groundwater model. The construction, validation and updating of the database is based on publicly available data from the Department of Water and Environmental Regulation (DWER) and Water Direct investigations, and previous published reports and datasets. The database contains abstraction, monitoring, and climate data for the Arrowsmith North area. The monitoring data was updated to July 2022 using data supplied from the DWER's Water Information Reporting system (WIR).

2.2 System of Units.

The system of units used in ANAMS is shown in Table 1, by model component.

Model	Length	Time	Mass	Energy	Temperature
MODFLOW NWT	metres (m)	Day (d)	-	-	-

Table 1: Systems of Units



Legend






-  VRX North Bore
-  VRX Central Bore
-  VRX M70/1389
-  VRXM70/1392
-  VRX Model Area

Figure 1: VRX Project Areas

3 MODEL CONSTRUCTION

The geology and hydrogeology of the Arrowsmith North Basin has been extensively described in the literature by Department of Water (now DWER), Nidigal (1995), and others. This information has subsequently been synthesized into a conceptual hydrogeological model that is described in DoW (2017), and which forms the basis for the conceptual model used to construct the numerical model described in this report.

Figure 2 shows the model domain for AMAMS, as accepted by DWER. The model active area is defined by faulting in the Yarragadee aquifer, which results in a change in geological both to the east and west. However, after reviewing the geology and water levels, the model active area was extended to include the area from the original boundary to the ocean, as this allowed the Indian Ocean to be used as the western boundary condition for the model.

3.1 Spatial Discretisation

3.1.1 Horizontal Discretisation

ANAMS model area (finite difference grid) extends approximately 43 kilometres north-south and 43 kilometres east-west, as shown in Figure 2. The active model area, which includes only active cells is about 1640 square kilometres. Horizontally, the finite-difference grid consists of a non-uniform grid having 270 rectangular elements ranging in size from 50 x 50 to 200 x 200 metres, which provides sufficient resolution to model the drawdown from the two proposed production bores as well impacts at a regional scale. The model grid is shown in Figure 3.

This grid design allows for:

- including important environmental sensitive areas,
- isolating the hydrogeological model boundaries from the area of interest, and
- providing sufficient resolution in the borefield areas to model the effects of abstraction.

3.1.2 Vertical Discretisation

Table 2 lists the geological formations and corresponding layers that make up AMAMS. In total the model has 10 layers of varying thickness that define the superficial and Yarragadee aquifers in the model area. The hydrogeological basis for the layers is from surfaces developed by DWER as part of their North Perth Basin (NPB) modelling project (DoW, 2017), then locally refined in the vicinity of the VRX bores. The model layers are defined by digital terrain models (DTMs) of the upper surface of each aquifer or aquitard and isopachs for the aquifer/aquitard represented by each layer, as taken from DoW 2017. The interpolation of the DTMs onto the model grid was performed using ArcGIS.

While the model layering is based on the occurrence of aquifers and aquitards, in areas where a formation is absent, the hydrogeological properties of the layer are changed to reflect the formation occupying the layer above. In the event that over or underlying formations subcrop or outcrop, layer thicknesses are adjusted to a minimum thickness of 2-6 metres and the layers assigned the properties of the subcropping formation. This modified layering of aquifers, based on formations is required, as MODFLOW does not allow the pinching out or the absence of a layer.

Note that as per modelling guidelines three layers have been used to model the Yarragadee D. This is done for numerical reasons, as the Yarragadee D is a low hydraulic conductivity aquiclude, that may have large vertical hydraulic gradients across it. The Yarragadee A aquifer is modelled as three layers to account for extensive thickness of the aquifer, and to provide a

more accurate vertical location (i.e., depth) of bore screens at the VRX bores. Appendix A and top surfaces and isopachs for the five geological formations in the model.

3.1.3 Temporal Discretisation

The model uses two temporal variables:

- Stress periods, and
- Time steps

Stress periods define the resolution of changes in time varying boundary conditions (i.e., abstraction and recharge) and is set as calendar months. A calendar month is used as it provides sufficient resolution for simulating seasonal recharge and changes in abstraction.

Time steps define the length of periods used in the numerical solution of the model and varies from 1-8 days. The number of time steps is also defined by the error criteria used in solving the model.

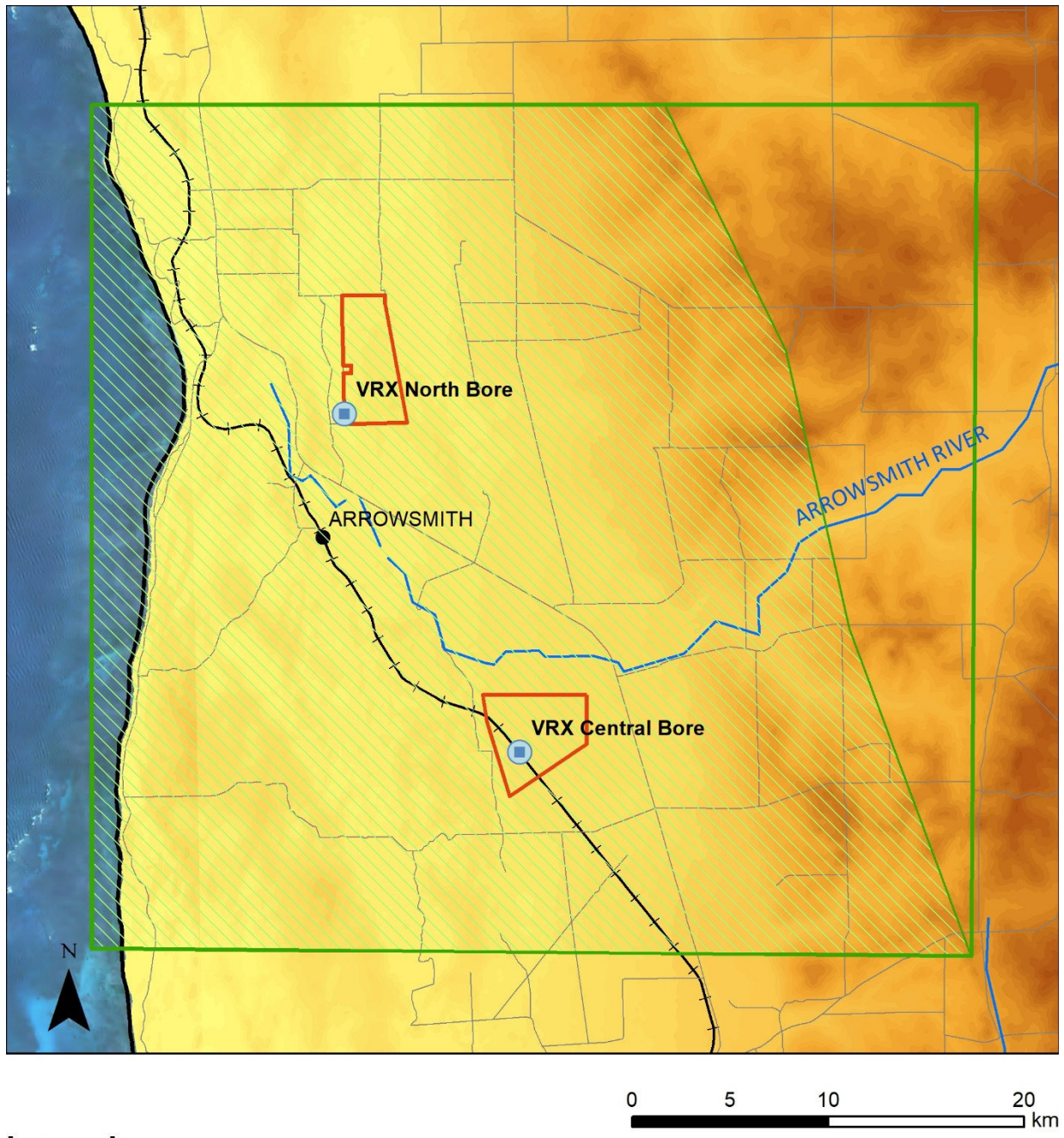
3.1.4 Ground Surface

The ground surface for the model domain was constructed using elevations from the STRM 1 sec data as developed by Geoscience Australia (Gallant, et al, 2011). The topographic DEM based on the STRM 1 data has a spatial resolution of 30 metres and a vertical resolution/accuracy of 1-10 metres.

The accuracy of the interpolated upper model surface is not the same as the digital elevation data. The interpolated model surface is based on bilinear interpolation of the digital data onto the centroid of grid nodes, which are rectangular flat planes. This interpolation results in elevations that are not necessarily representative of the predominant ground elevation within an element, particularly when the element size is large. Any variables that depend on this topographic elevation may introduce errors into the model on the same order of magnitude as the error in interpolated elevation. However, in the case of the ANAMS model, there are no boundary conditions dependent on surface topography; consequently, the model will have limited sensitivity to topographic accuracy.

Layer	Formation		Comments
1	Quaternary (sand, laterite, and alluvium)		Where present
2	Yarragadee D	Aquitard (confining layer) Isopach divided into 3 identical layers	Where present
3	Yarragadee D		
4	Yarragadee D		
5	Yarragadee C	aquifer	Where present
6	Yarragadee B	aquitard that is modelled as two layers	
7	Yarragadee B		
8	Yarragadee A	Major aquifer modelled with 3 layers to account for screened interval	
9	Yarragadee A		
10	Yarragadee A		

Table 2: Summary of Model Layering



Legend







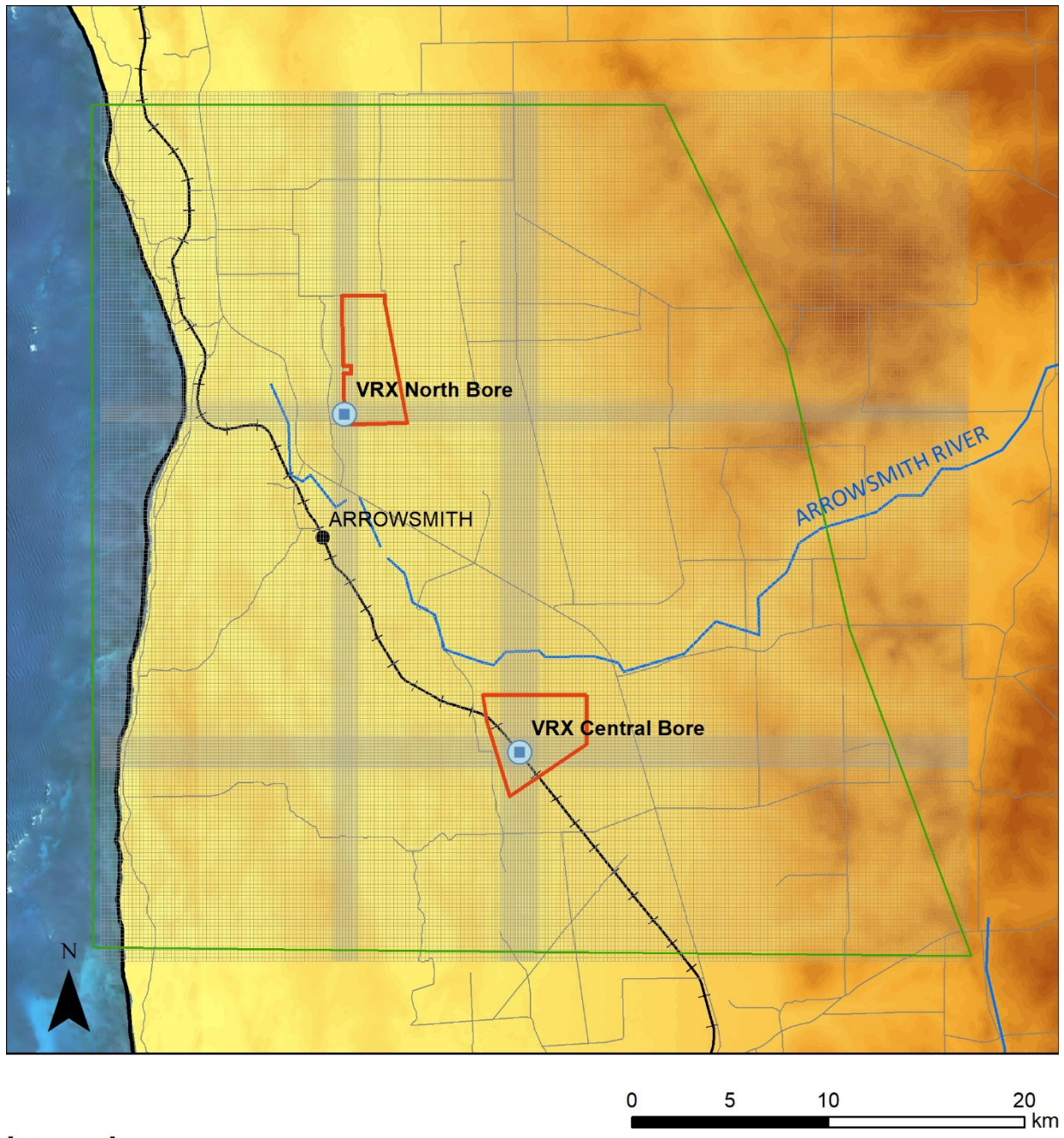
-  VRX North Bore
-  VRX Central Bore
-  VRX M70/1389
-  VRXM70/1392
-  VRX Model Area
-  VRX Active Area

Figure 2: Model Domain



Legend







-  VRX North Bore
-  VRX Central Bore
-  VRX M70/1389
-  VRXM70/1392
-  VRX Active Area
-  VRX Model Grid

Figure 3: ANAMS Model Grid

3.2 Aquifer Parameters

Initial estimates of hydraulic conductivity of the aquifers/aquitards are taken from DWER (2017), and pumping tests conducted by VRX, and are shown in Table 3. In the case of the Cattamarra Coal Measures (Cattamarra), the aquifer is not modelled as a layer, but as changes in aquifer properties for layers 2-10. The estimated properties are based on a comparison of the available lithological data to the Yarragadee aquifer, as described in DWER (2017). This comparison indicates the hydraulic conductivity in the Cattamarra is less than Yarragadee aquifer, and consequently has been modelled based the Yarragadee D formation.

Calibrated aquifer parameters, by layer/aquifer are given in Appendix B.

Aquifer	Hydraulic Conductivity (horizontal) (m/day)	Hydraulic Conductivity (vertical) Ratio	Specific Storage (1/m)	Specific Yield ()
Superficial	1 – 200 Average 10	1/10		0.20
Yarragadee D	0.1-0.5	1/100-1/250	1×10^{-5}	0.05-0.75
Yarragadee C	1	1/100	1×10^{-5}	0.1
Yarragadee B	0.5	1/100-1/400	1×10^{-5}	0.05-0.075
Yarragadee A	5-10	1/100	5×10^{-6}	0.10
Cattamarra Coal Measures	0.5-1.0	1/100	1×10^{-5} -5×10^{-6}	0.075

Table 3: Estimated Aquifer Parameters

3.2.1 Pumping Test Result

VRX conducted three pumping tests, one at the North Bore, and two at Central bore (Water Direct, 2022). The results of those pumping tests are shown in Table 4.

Bore	Aquifer	Flowrate (m ³ /day)	Transmissivity m ² /day	Storativity (-)	Model Hydraulic Conductivity (m/day)
Central Bore	Superficial	70	25	-	1
Central Bore	Yarragadee	3450	900	5×10^{-3}	5
North Bore	Yarragadee	2450	1000	$1-2 \times 10^{-4}$	5

Table 4: Pumping Test Results

The pumping test results have been used to refine the aquifer properties as shown in Table 3.

3.3 Faults

The North Perth Basin is extensively faulted in the Arrowsmith area, which affects groundwater flow. Figure 4 show the faults that are modelled in ANAMS. These faults effectively act to attenuate groundwater flow and are also used to account for the effects of vertical displacement of formations across the faults. The east boundary of the model is defined by the Eneabba fault, which is simulated as being leaky. The Abrolhos transfer fault effectively defines the southern limit of the Yarragadee C and D formations. Smaller, north/south running faults are included based on their impact on the measured hydraulic gradient in the Yarragadee aquifer. The northwest boundary is defined by a series of smaller faults defined as no flow boundaries, where groundwater in all layers leaves the model as vertical leakage to the ocean. The southwest fault at the interface of the Cattamarra Coal Measures is considered leaky. Consequently, the western boundary with the Cattamarra Coal Measures acts as a low hydraulic conductivity aquifer which allows groundwater to flow to the west and discharge to the ocean.

Faults included in the model slightly leaky barriers to flow and are used to replicate observed changes in hydraulic gradients in the Yarragadee aquifer.

3.4 Boundary Conditions

3.4.1 No-flow Boundaries

ANAMS uses two time-invariant boundary condition,

- a constant head boundary representing the Indian Ocean,
- general head boundary representing leakage across the Eneabba Fault.

The constant head boundary effectively models discharge from the superficial and Yarragadee aquifers from the western boundary of the model (ocean).

The eastern boundary of the model for all layers is the Eneabba Fault and is represented as a general head boundary condition, with a specified head of 80 mAHD and a conductance of 100 m²/day for aquifers. The conductance term is difficult to estimate, and consequently the parameter is subject to calibration. The general head boundary condition accounts for any flow from areas east of the model boundary across the Eneabba Fault under changing head conditions in the model domain.

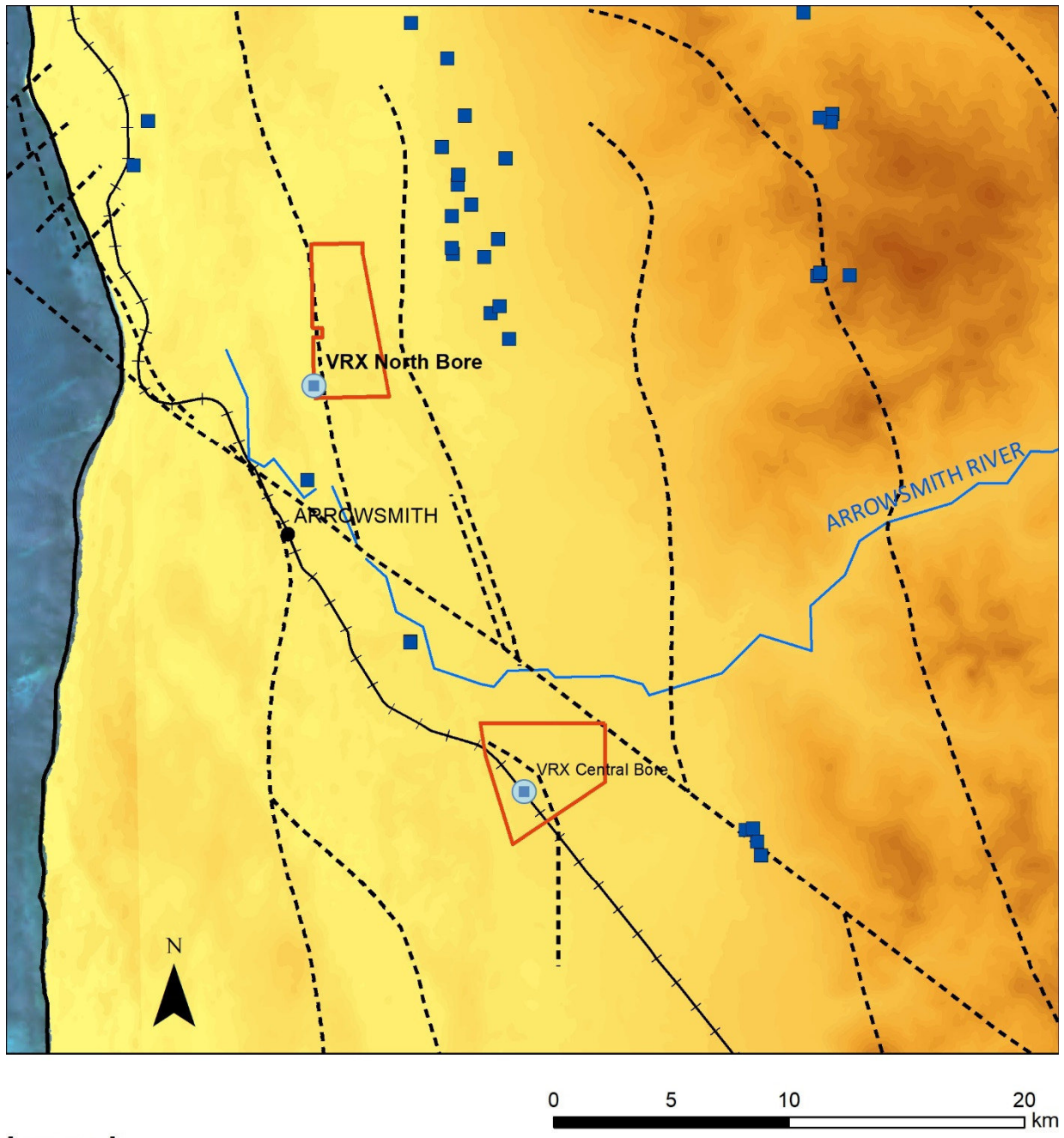
The northern and southern model boundaries are coincident with streamlines in the superficial aquifer and considered to be no-flow boundary for all layers. These boundary conditions are applicable when the effects due to abstraction do not interact with the no-flow boundaries.

3.4.2 Abstraction

Abstraction from the ANAMS model area occurs from the superficial and Yarragadee aquifers (primarily the Yarragadee A). There are two major types of abstraction from these aquifers:

1. Unlicensed abstraction by private users, and
2. Licensed abstraction by private users (private allocations).

Unlicensed abstraction is restricted to volumes less than 1500 kL/annum, and typically is used by landowners to meet domestic and garden water demands. Given the limited urban and rural development in the model area, and limited data on actual usage, this abstraction is ignored.



Legend

- VRX North Bore
 Allocation Drawpoints
- VRX Central Bore
 Modelled Faults
- VRX M70/1389
- VRXM70/1392

Figure 4: Inferred Hydrogeological Faulting

The licensed abstraction by private users is based on an annual allocation assigned to a legal property, after a successful application by the landowner for a licence from DWER. The allocation promulgated by DWER specifies the volume of water that may be extracted via specified wells during a twelve-month period.

DWER provided a database containing existing licensed allocations for private users for 2015 to 2022. This database contains 52 license that are active in 2022. The database records annual allocation, the location of the property and the number of bores (draw points) that have been assigned the allocation, the aquifer to which abstraction is licensed, and the use to which the groundwater is applied. Table 5 shows a summary of active DWER groundwater licenses.

In the absence of actual usage, the following assumptions have been used in modelling abstraction during calibration and for forward scenarios. For calibration, historical abstraction is assumed to be similar to licensed abstraction after 2015. Prior to 2015, abstraction is assumed to be negligible (bores were not pumped).

Hence, for:

- steady state initial conditions, abstraction is set to zero (this case is also used to determine cumulative impacts),
- the scenario 1 abstraction is set as the licensed allocation from 2015 to 2022, which is at total of 9.45 GL/annum of which 7.1 GL/annum is removed from the active model area, and
- forward scenarios use the scenario abstraction plus the 1.30 GL/annum allocation to VRX, from their two productions bores.

Area	Sub Area	Aquifer	Licenses	Total Allocation m ³ /annum
Arrowsmith	Eneabba Plains	Perth - Superficial Swan	7	1,000,000
Arrowsmith	Dongara	Perth - Superficial Swan	4	105,000
Arrowsmith	Twin Hills	Perth - Yarragadee North	12	1,730,000
Arrowsmith	Eneabba Plains	Perth - Yarragadee North	24	6,603,300
Arrowsmith	Dongara	Perth - Yarragadee North	6	15,000

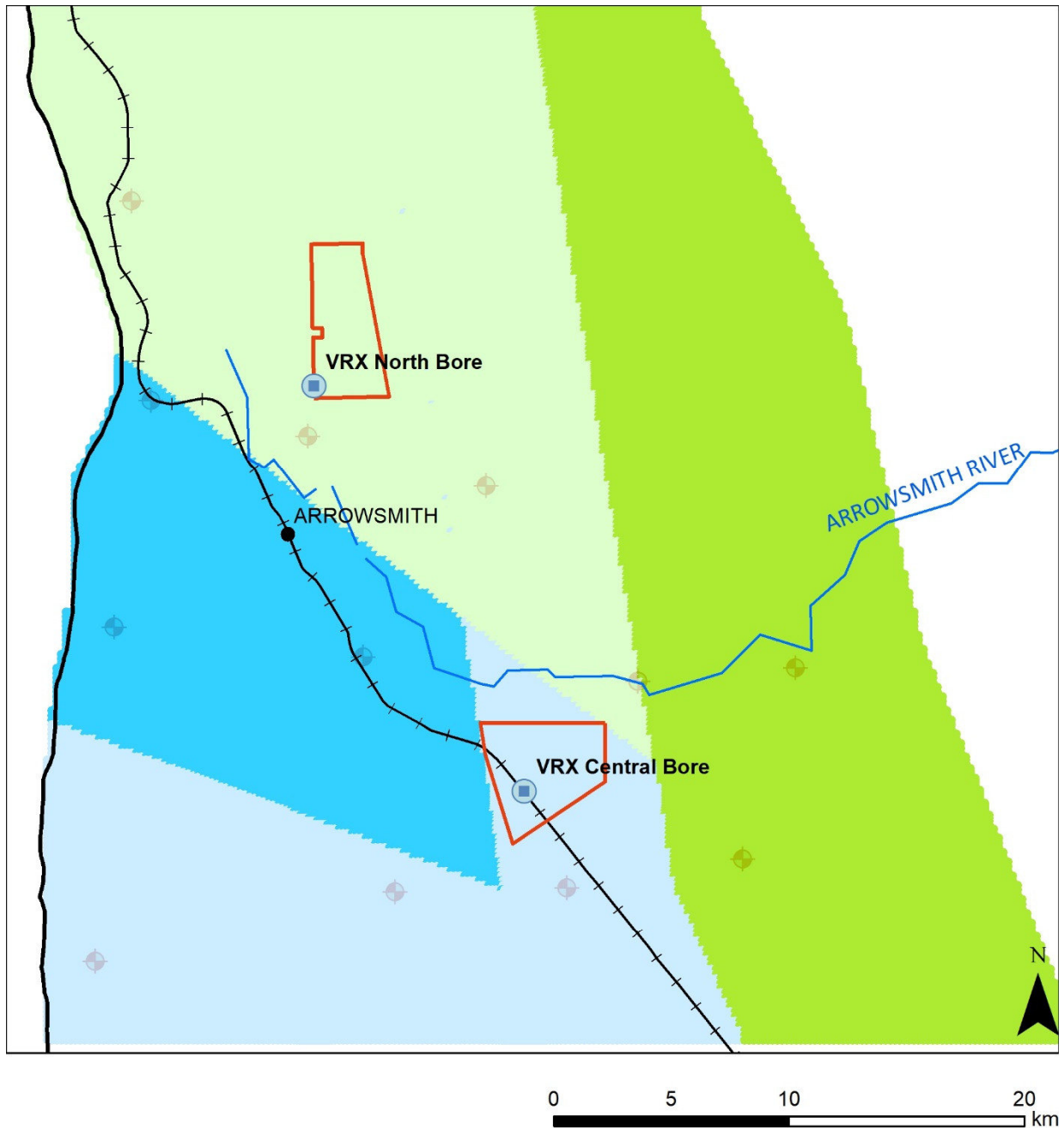
Table 5: Groundwater Allocations by Sub-Area

Abstraction from the superficial aquifer is taken from the layer 1, while abstraction from the Yarragadee aquifer is taken from the top layer of the Yarragadee A formation, which is layer 8.

3.5 Recharge

Recharge to the Yarragadee Formation aquifer in the Arrowsmith region is via direct infiltration of rainfall to the overlying superficial aquifer where present. Areas directly underlain by Yarragadee Units A and C are considered to have the greater recharge due to their sandy native. Yarragadee Units B and D are considered to have lower recharge due to their shaley and silty nature.

Figure 5 shows the net recharge distribution as a fraction of rainfall. Net rainfall has been subject to calibration to establish a calibrated steady state water table in stress period 1 of the simulation. For the transient calibration (stress period 2 through 360) monthly rainfall as predicted from gridded SILO data is used. The monthly rainfall is scaled by the average model recharge of 0.5%. The annual average recharge for the area ranges from 2-5 mm/annum.



Legend





-  VRX North Bore Recharge
-  VRX Central Bore m/day
-  VRX M70/1389
-  VRXM70/1392
-  0.000005
-  0.0000075
-  0.00001
-  0.0000125

Figure 5: Rainfall Recharge Distribution - Steady State

4 MODEL CALIBRATION AND VERIFICATION

The calibration of a groundwater model involves the iterative adjustment of selected aquifer parameters to minimise the error between measured and simulated heads in all aquifers. Two types of calibration can be undertaken; steady state (or quasi steady state) where input variables and boundary conditions are constant with time (or periodic); and transient where predicted hydrographs are compared to measured hydrographs over a selected period, and input variables vary with time. ANAMS is calibrated under both steady-state and transient conditions. Given the lack of calibration data, no validation of the model is presented.

4.1 Calibration Approach

The approach to the calibration of ANAMS is based on the model guidelines Guiding Principle 5.2:

The calibration process should be used to find model parameters that prepare a model for use during predictions of future behaviour, rather than finding model parameters that explain past behaviour.

Using this guideline implied using data from a recent period (i.e., 1990 to 2020), and applying a simple model parameterisation, given the paucity of measured data in the area to establish initial conditions and allow transient calibration.

4.2 Steady State

In the case of ANAMS there is no single spatially variable dataset that can be used to calibrate the model in steady state. However, a review of the available monitoring data shows little variation in water levels in the superficial or shallow Yarragadee aquifer, suggesting calibrating to an average water level using all available data from 1990 to 2020. This approach is viable as available data shows the water levels in the superficial aquifer have not changed significantly during the period (generally less than a 2m change in the measured water level).

Figure 6 shows the indicative steady state water level in the superficial aquifer. Figure 7 shows the steady state water level, as generated by the model in stress period 1 that is used as the steady state water level initial condition for all simulations.

Note that there are only two measured water levels in the Yarragadee A formation, which is the main aquifer in the area. Pumping test data suggest there is an upward gradient from the Yarragadee A aquifer to the superficial aquifer of about 10 m at VRX North Bore.

4.2.1 Transient Calibration

The model was manually iteratively calibrated by adjusting selected parameters in MODFLOW NWT for the period January 1990 to January 2020. Typically, the following process was used:

- Adjust net recharge and hydraulic conductivity in the superficial and Yarragadee aquifer;
- Run the model to get estimated heads;
- Review the error in predicted water levels and adjust recharge and hydraulic conductivity;
- Re-run the simulation and compare new predicted heads to begin another iteration.

This procedure was augmented with qualitative sensitivity analysis and localised improvements in the conceptual hydrogeological model to address areas of apparent intractable error (i.e., adding faults and reparametrizing hydraulic conductivity distribution).

4.3 Run Parameters

The Newtonian solver was used with a setting of high complexity. The convergence criteria for all model runs were a head difference of 0.01m and a flux tolerance of 2500 m³/day.

A review of the calibration runs showed that the maximum water balance error for the saturated model was less than 0.5% in all time step and less than 0.01% for the cumulative model run.

4.4 Monitor Bores

ANAMS has been calibrated to a monitor bore dataset as obtained from DWER's WIR (Water Information Reporting) and from data collected from pumping tests as conducted by Water Direct. These datasets have limited spatial distribution but do contain extensive measured water levels for bores in the superficial and Yarragadee D aquifer. Figure 7 shows the location of the monitor bores that are used in the calibration of the model. Appendix C shows the transient calibration hydrographs for the superficial and Yarragadee aquifers.

4.5 Calibrated Model Parameters

The ranges of the calibrated aquifer parameters are consistent with those suggested in the conceptual hydrogeological model (Table 4) and with other models of the area. The distribution of calibrated aquifer parameters is like that proposed for this area of the North Perth Basin by DWER (2017), and are presented in Appendix B.

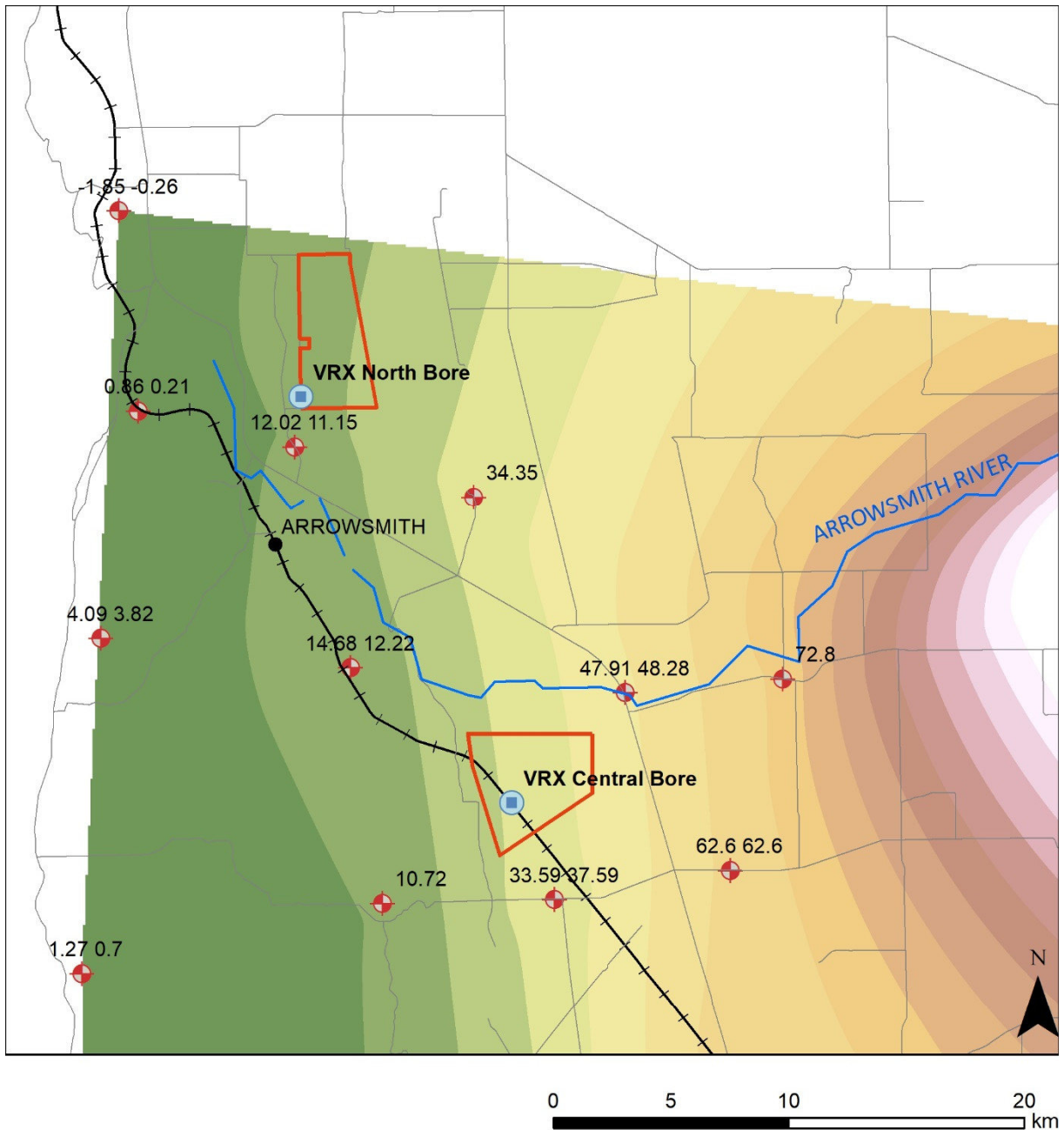
4.6 ANAMS Calibration – Discussion

The evaluation of calibration error provides a basis on which to modify the conceptual hydrogeological model, improve data fidelity and optimise available resources to efficiently minimise model error.

Figure 8 shows a comparison of predicted and measured water levels for the calibration bores completed in the superficial and Yarragadee formations. Appendix C shows the calibration hydrographs for all monitor bores used in the calibration of the ANAMS model. From Figure 8, the model predicted water levels are well correlated to measured data. The normalized average absolute error is 3.25%, which is within the accepted 5%, and is consistent with an adequately calibrated model.

Note that most of the available water level data are from the superficial and Yarragadee D formations, while the VRX abstraction is from the Yarragadee A aquifer. Consequently, the lack of measured data from the Yarragadee A aquifer increases the uncertainty in the calibrated model predictions.

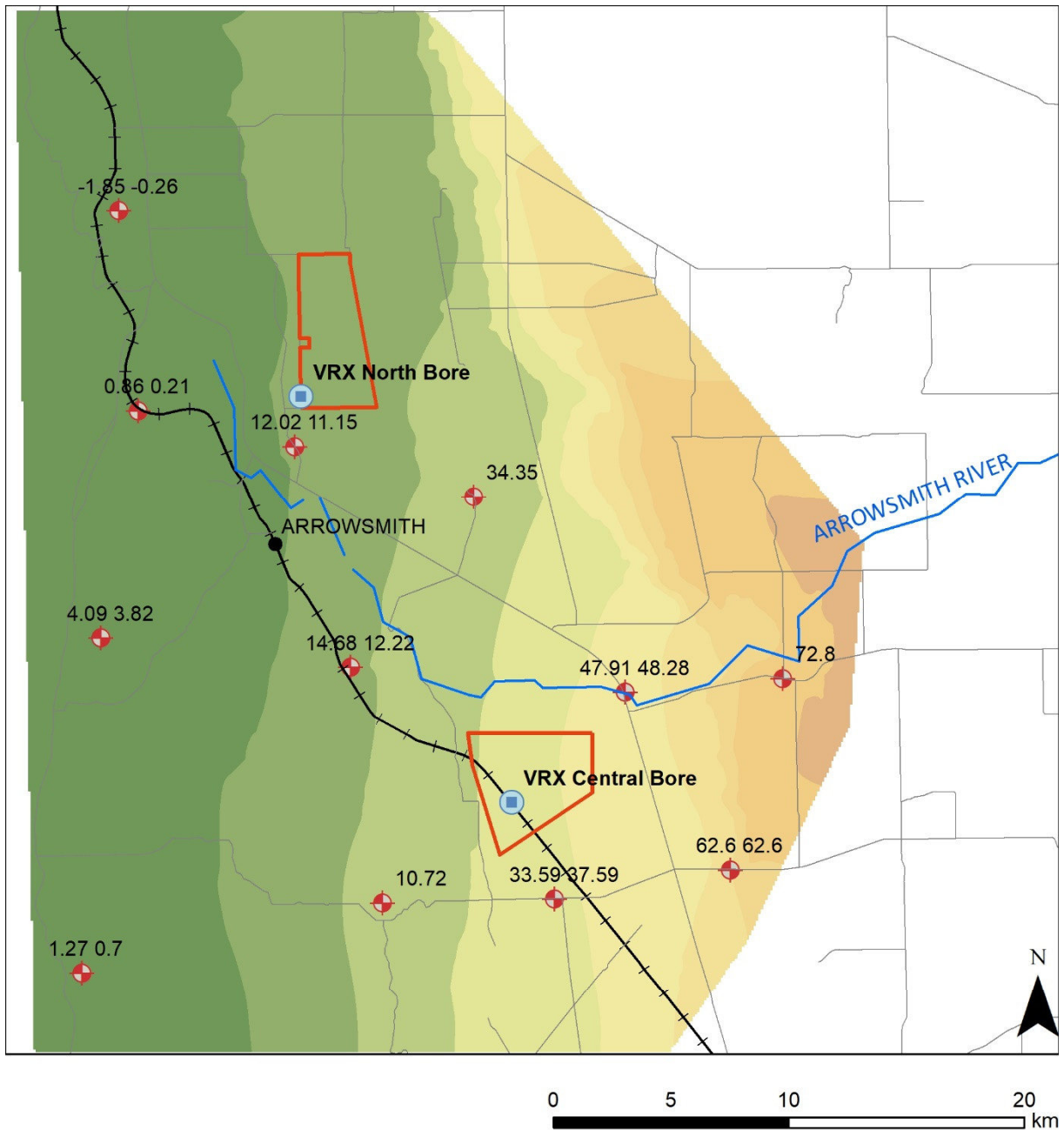
The model area is also faulted, with most faults being modelled as relatively impermeable. These impermeable faults will act to impede groundwater flow in the Yarragadee aquifer and compartmentalise drawdown and impacts due to abstraction. Given the limited water level data it is difficult to further characterize the nature of these faults, resulting in an increase in the uncertainty of the forward predictions of impacts due to abstraction



Legend

	VRX North Bore	Water Level 1990		70.1 - 80
	VRX Central Bore	mAHd		80.1 - 90
	VRX M70/1389			90.1 - 100
	VRXM70/1392			101 - 110
	Monitor Wells			111 - 120
				121 - 130
				131 - 140
				141 - 150

Figure 6: Indicative Measured 1990 Water Table in the Superficial Aquifer



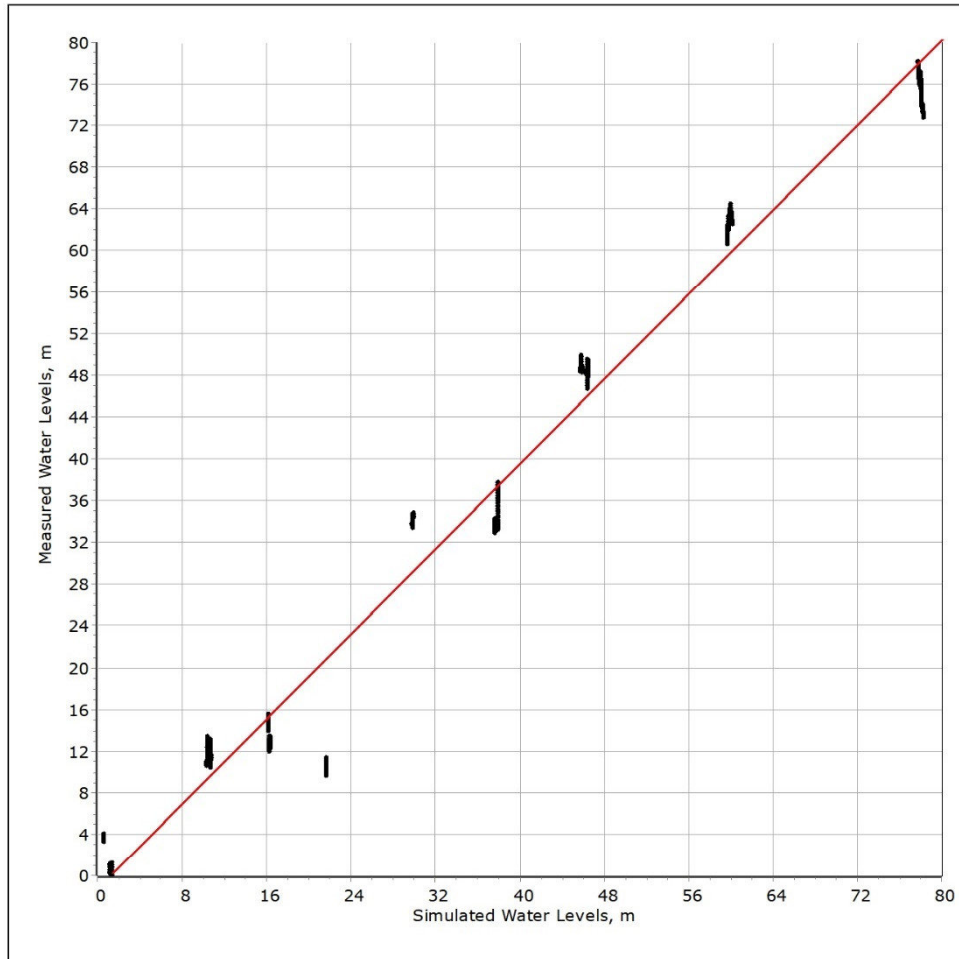
Legend

	VRX North Bore	Model Initial Water Level mAHD		60.1 - 70	
	VRX Central Bore			70.1 - 80	
	VRX M70/1389		3.42 - 10		80.1 - 90
	VRXM70/1392		10.1 - 20		90.1 - 100
	Monitor Wells		20.1 - 30		101 - 110
			30.1 - 40		111 - 120
			40.1 - 50		121 - 130
			50.1 - 60		131 - 140
					141 - 150

Figure 7: Model Generated Initial Steady State Water Table - Superficial Aquifer

Superficial

Version: VRX V2

Calibration Error


Absolute Average Error, m: 2.5413

RMS Error, m: 3.5601

Normalized Absolute Average Error: 0.0325

CyMod Systems

Figure 8: Calibration Error– Yarragadee/superficial Aquifers

5 MODEL LIMITATIONS

The calibration of a groundwater model does not ensure that it is an accurate representation of the aquifer system. The appropriateness and correctness of the conceptual hydrogeological model is typically more important than achieving a small error between simulated and observed heads and flows. Consequently, the application of the model should be constrained by the assumptions and limitations inherent in the underlying conceptual model.

Based on the qualitative assessment of model sensitivity during calibration, the most important limitations of the model are:

- Lack of spatially varying estimates of hydraulic conductivity;
- Characterization of the Yarragadee D aquitard with respect to vertical hydraulic conductivity;
- Inadequate water level measurements to discern subregional hydrogeological properties, and in particular in the Yarragadee A aquifer;
- The major aquifer (Yarragadee A) simulated in the model has not been subject to sufficient stress for sufficient time to assess aquifer performance or develop an adequate calibration dataset.
- The sensitivity of the model to recharge, faulting, and the use of a general head boundary conditions on the eastern boundary which is the source of much of the groundwater in the model implies some uncertainty in the model.

5.1 Model Assumptions

The following model assumptions have been made for this study:

1. Flow through all of the modelled formations conforms to Darcy's Law, which explicitly assumes flow through a porous medium. These conditions are expected to be applicable in the superficial and Yarragadee Aquifer.
2. The unsaturated zone is not important and consequently, recharge will be instantaneously directed to the water table. This assumption is consistent with the large vertical hydraulic conductivity in most areas of the model in the superficial aquifer.

Model Applicability is shown in Table 6.

Objective	Achieved	Comments
Simulate groundwater flow within and between all hydrogeological units on the site.	Yes	
Establish water budgets for each geological / hydrogeological unit.	Yes	Subject to non-uniqueness of recharge/ hydraulic conductivity distributions.
Under a range of scenarios, predict the scale of changes in groundwater potentiometric heads/water.	Yes	Flow model can predict changes in water levels due to changes in aquifer stresses.
Provide results that will support the assessment of groundwater management strategies.	Yes	Only for the Yarragadee Aquifer
Estimate the likely range and uncertainty of groundwater level changes as a result of abstraction.	Yes	

Table 6: Model Applicability

Based on modelling guides lines (Barnett, 2012) ANAMS is a Class 2 model. A Class 2 model has the characteristics shown in Table 7.

Data	Calibration	Prediction	Key indicator
<ul style="list-style-type: none"> • Groundwater head observations and bore logs are available but may not provide adequate coverage throughout the model domain. • Metered groundwater-extraction data may be available but spatial and temporal coverage may not be extensive. • Streamflow data and baseflow estimates available at a few points. • Reliable irrigation-application data available in part of the area or for part of the model duration. 	<ul style="list-style-type: none"> • Validation* is either not undertaken or is not demonstrated for the full model domain. • Calibration statistics are generally reasonable but may suggest significant errors in parts of the model domain(s). • Long-term trends not replicated in all parts of the model domain. • Transient calibration to historic data but not extending to the present day. • Seasonal fluctuations not adequately replicated in all parts of the model domain. • Observations of the key modelling outcome data set are not used in calibration. 	<ul style="list-style-type: none"> • Transient calibration over a short time frame compared to that of prediction. • Temporal discretisation used in the predictive model is different from that used in transient calibration. • Level and type of stresses included in the predictive model are outside the range of those used in the transient calibration. • Validation* suggests relatively poor match to observations when calibration data is extended in time and/or space. 	<ul style="list-style-type: none"> • Key calibration statistics suggest poor calibration in parts of the model domain. • Model predictive time frame is between 3 and 10 times the duration of transient calibration. • Stresses are between 2 and 5 times greater than those included in calibration. • Temporal discretisation in predictive model is not the same as that used in calibration. • Mass balance closure error is less than 1% of total. • Not all model parameters consistent with conceptualisation. • Spatial refinement too coarse in key parts of the model domain. • The model has been reviewed and deemed fit for purpose by an independent hydrogeologist.

Table 7: Model Classification

6 SCENARIO MODELLING

The ANAMS model was used to simulate groundwater levels for four abstraction scenarios from the superficial and Yarragadee aquifers, as described below.

6.1 Scenarios

6.1.1 Scenario 1: No Abstraction

Scenario 1 simulates the case where there is no abstraction from the model area. This scenario is designed as a base case, and is used as a reference, in conjunction with other scenarios, to delineate the impacts due to abstraction from existing allocations and VRX's proposed allocation.

6.1.2 Scenario 2: Existing Allocations Abstraction

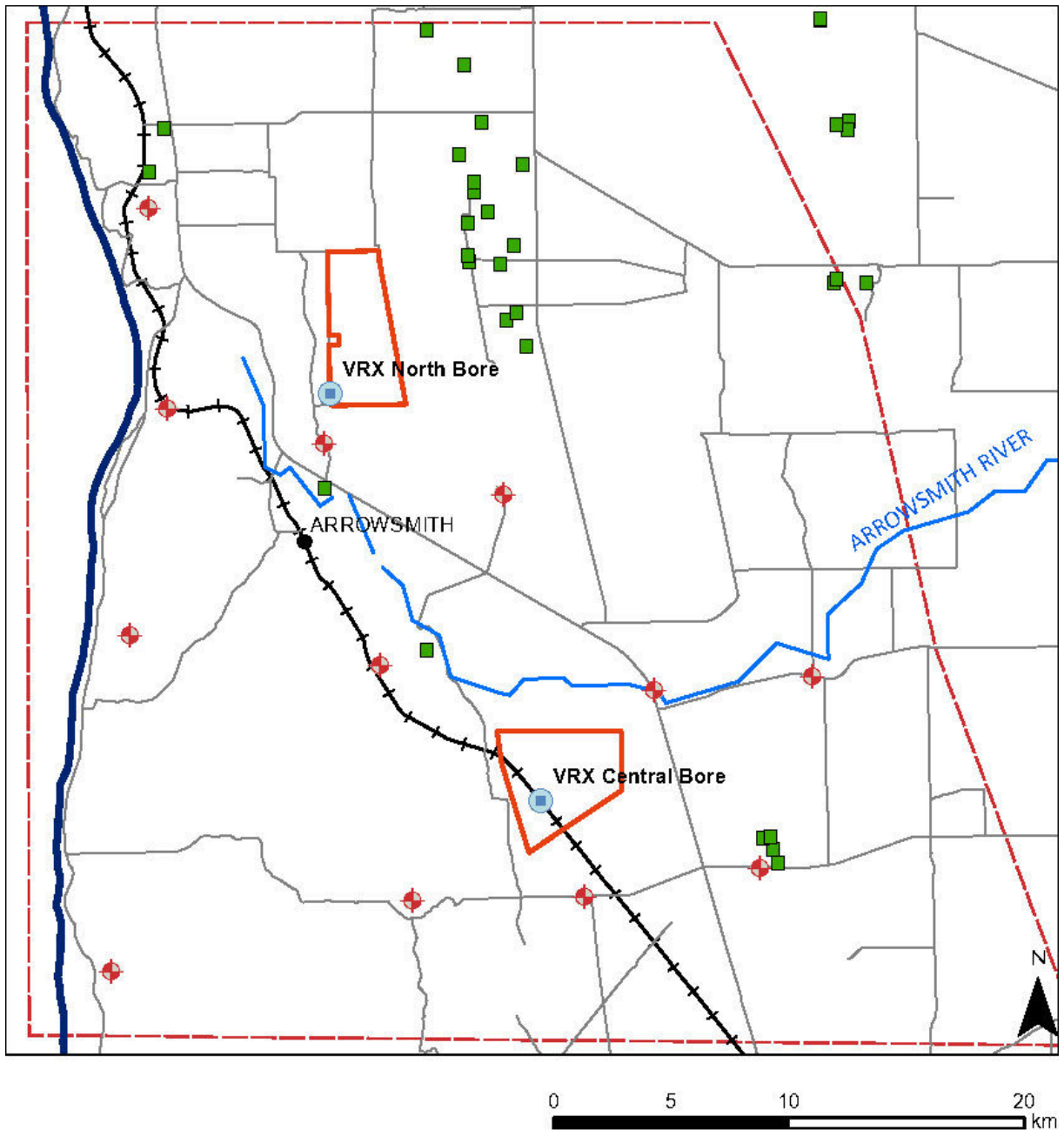
Scenario 2 is the same as Scenario 1, except for the inclusion of all license abstraction, as of 2022, as shown in Table 5. The estimated abstraction due to the existing allocations is 7.0 GL/annum, assuming 100% utilization by the license holder. Flowrates from all drawpoints/bores is constant at the daily average volume, as determined from licensed annual allocation and the number of licensed drawpoints.

The location of existing or proposed draw points are shown in Figure 9. All of the production bores and allocation drawpoints are simulated using the standard MODFLOW Well Package, with abstraction from bores/drawpoints completed in the Yarragadee A aquifer (layer 8) and the superficial (layer 1). Note that in MODFLOW NWT well abstractions are reduced if the drawdown causes the water levels to fall below the bottom of the layer (rather than the well going dry as in standard MODFLOW). This scenario is designed, in conjunction with Scenario 1, to define the impacts due to existing allocations.

As shown in Figure 10, the results from this scenario suggest that if all existing allocations are exploited, the impact on the superficial aquifer is generally less than 1.25 m. The major area of impact is on the northern boundary of the model, due to a single allocation, with impacts exceeding 2.5 m. Note that the northern boundary of the model has been simulated as no flow, resulting in an overestimate of impacts in this area. In practice, groundwater, both in the superficial and Yarragadee aquifers would be drawn in from the north across this boundary due to abstraction, resulting in less impact in this area, than shown in Figure 10.

As shown in Figure 11, the results from this scenario suggest that if all existing allocations are exploited, the impact on the Yarragadee A aquifer is generally less than 1.25 m. However, due to faulting, some areas show impacts greater than 2.5 m. The major area of impact is in the central part of the model, due to a multiple drawpoints drawing water from an area bounded by faults. Note that the northern boundary of the model has been simulated as no flow, resulting in an overestimate of impacts in this area.

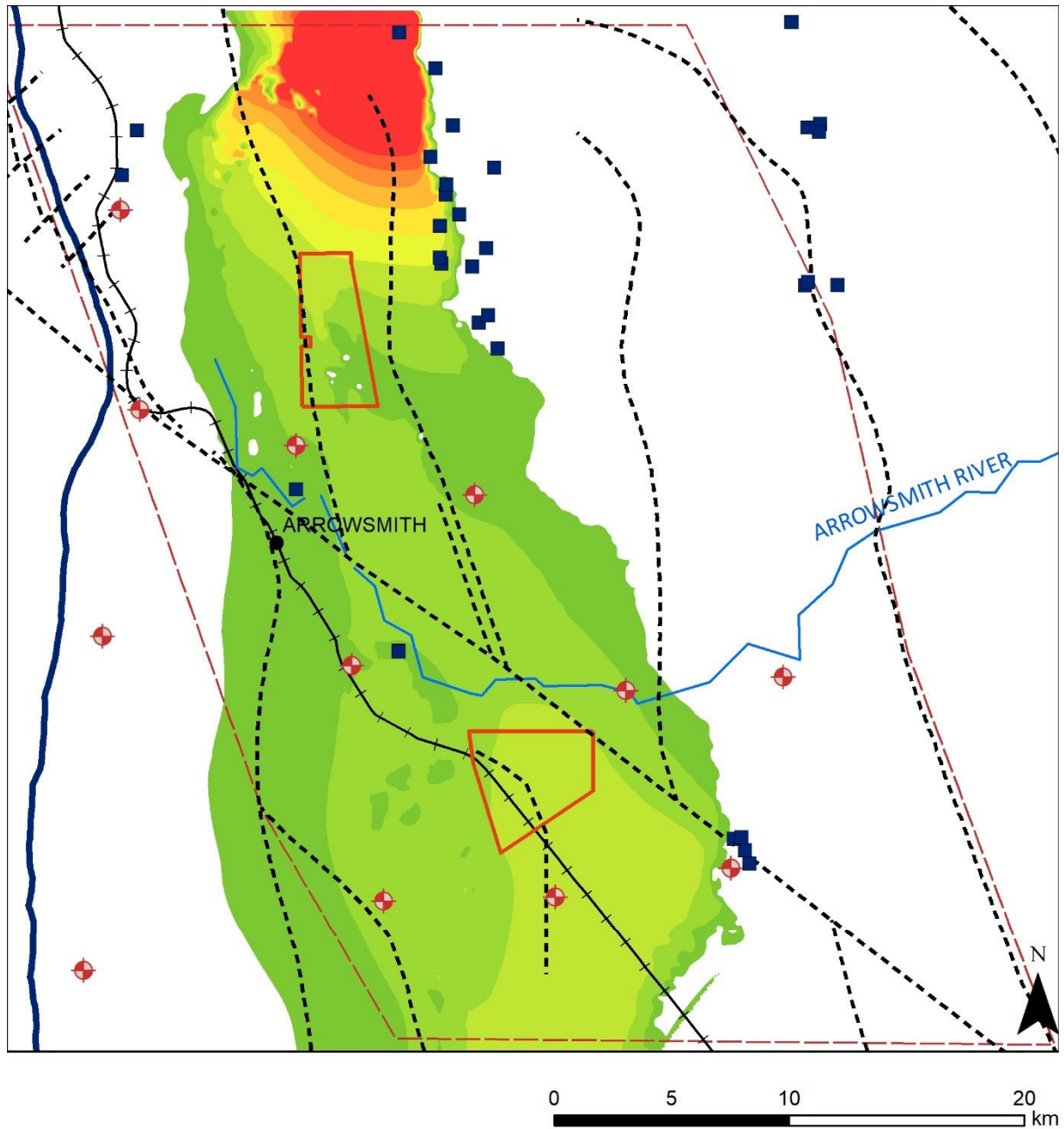
The impacts of existing allocations on VRX's two leases are less than 1.0 metre after thirty years of abstraction, for both the superficial and Yarragadee aquifers.



Legend

- VRX North Bore
- VRX Central Bore
- Allocations Drawpoints
- VRX M70/1389
- VRXM70/1392

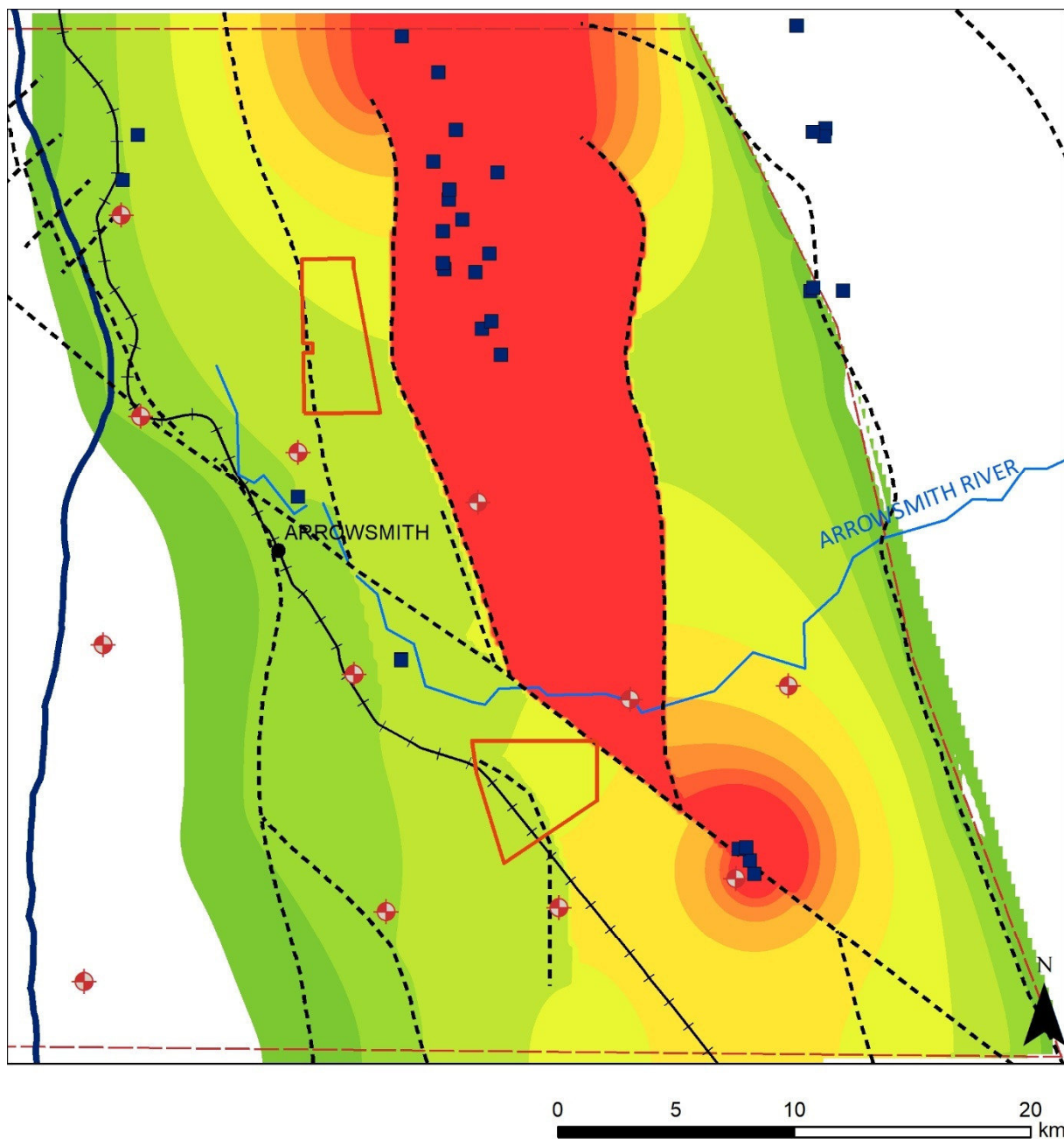
Figure 9: Existing Allocation Draw Points



Legend

- Allocations Drawpoints
 - Faults
 - VRX L70198
 - VRX L70199
- Scenario 2 Superficial Impacts**
- | | |
|-----------------------|------------|
| m | 1.0 - 1.25 |
| □ <math>< 0.25</math> | 1.25 - 1.5 |
| ■ 0.25 - 0.5 | 1.6 - 1.75 |
| ■ 0.50 - 0.75 | 1.75 - 2 |
| ■ 0.75 - 1 | 2. - 2.25 |
| | > 2.25 |

Figure 10: Scenario 2 – Superficial Impact from Existing Allocations after 30 years



Legend

- | | | |
|--------------------------|--------------------------------------|--------------|
| ■ Allocations Drawpoints | Scenario 2 Yarragadee impacts | ■ 1.0 - 1.25 |
| — VRX M70/1389 | m | ■ 1.25 - 1.5 |
| — VRXM70/1392 | □ <0.25 | ■ 1.6 - 1.75 |
| - - - Faults | ■ 0.25 - 0.5 | ■ 1.75 - 2 |
| | ■ 0.50 - 0.75 | ■ 2. - 2.25 |
| | ■ 0.75 - 1 | ■ > 2.25 |

Figure 11: Scenario 2 – Yarragadee A Impact from Existing Allocations after 30 years

6.1.3 Scenario 3: VRX Proposed Abstraction

Scenario 3 simulates the increased abstraction from the Arrowsmith North area due to VRX's proposed abstraction of 1.3 GL/annum from two bores completed in the Yarragadee aquifer, as shown in Figure 9. This scenario is designed, in conjunction with Scenario 2, to separate the impacts due to this abstraction by VRX, relative to the existing licensed abstraction. The total maximum simulated abstraction in this scenario is 8.4 GL/a.

As shown in Figure 12, the additional VRX allocation of 1.3 GL/annum, results in localized impacts (i.e., reduction in average water level) in the superficial aquifer generally less than 0.25 m. The only area of impact larger than 0.25m is in the vicinity of VRX Central Bore, where the absence of the Yarragadee D confining layer results in the vertical propagation of well drawdown upwards into the superficial aquifer, resulting in impacts of 0.25 to 0.5 m.

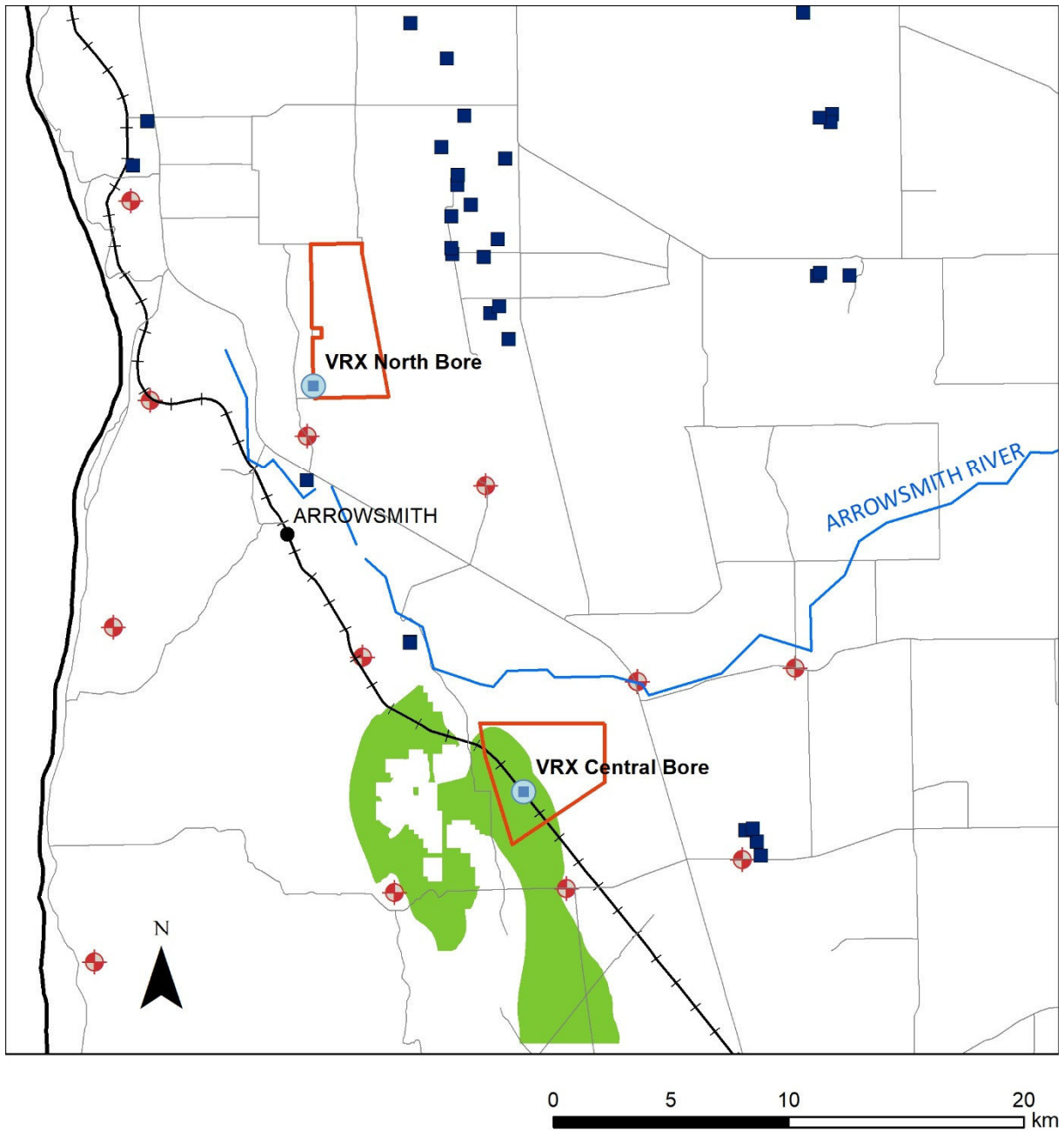
Figure 13 show the distribution of impacts in the Yarragadee aquifer, after 30 years. The abstraction of 1.3 GL/annum for 30 years from the two VRX bores results in impacts in the vicinity of Central and North Bore of less than 1.0 m and 1.5 m, respectively. The impact of VRX abstraction elsewhere in the Yarragadee A aquifer is generally less than 0.5 m. Note that impacts due to VRX abstraction are influenced by the occurrence of faults in close proximity to the pumping bores that may restrict groundwater flow locally, thereby changing the distribution of impacts.

6.1.4 Model Water Balance

The average annual water balance for Scenario 3 is presented below and is representative of the volumes of water entering and leaving the model area over the 30-year run.

Flow Component	In GL/annum	Out GL/annum
STORAGE	2.59	1.25
CONSTANT	0	41.4
WELLS	0.00	8.38
HEAD Dependent Boundary	45.13	0.55
RECHARGE	3.89	0.00
TOTAL In	52.61	51.58

Table 8: Average Annual Water Balance – Scenario 3



Legend





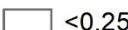


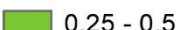


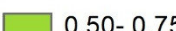

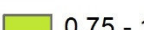

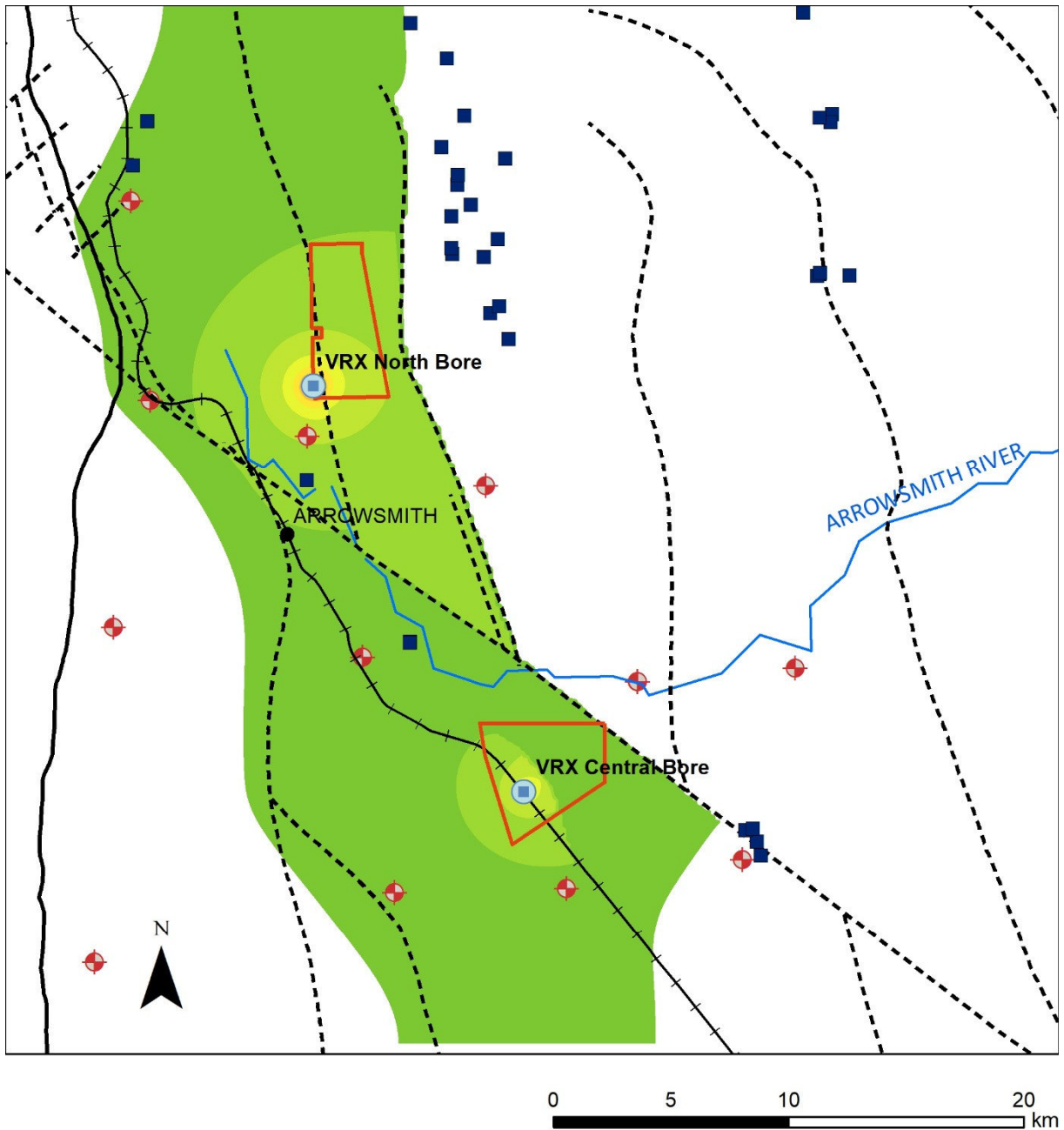
	VRX North Bore	Scenario 3 superficial Impacts m		1.0 - 1.25	
	VRX Central Bore			1.25 - 1.5	
	Allocations Drawpoints		<0.25		1.6 - 1.75
	VRX M70/1389		0.25 - 0.5		1.75 - 2
	VRXM70/1392		0.50- 0.75		2. - 2.25
			0.75 - 1		> 2.25

Figure 12: Scenario 3 – Superficial Impact from VRX Allocation after 30 years



Legend

	VRX North Bore			1.0 - 1.25
	VRX Central Bore			1.25 - 1.5
	Allocations Drawpoints			1.6 - 1.75
	VRX M70/1389			1.75 - 2
	VRXM70/1392			2. - 2.25
	Faults			> 2.25

Figure 13: Scenario 3 – Yarragadee Impact from VRX Allocation after 30 years

6.2 Scenario 4: Assessment of Climate Change Impact

Scenario 4 simulates the impact of decreased rainfall to the Arrowsmith North area due to possible climate change in Western Australia. This scenario is designed, in conjunction with Scenario 3, to estimate the impact due to reduced future rainfall, relative to the rainfall conditions from 1990 to 2020, on water levels in the superficial and Yarragadee aquifers.

Scenario 4 includes all abstraction from the Arrowsmith North area, and is the same as used in Scenario 3, as shown in Figure 9. The total maximum simulated abstraction in this scenario is 8.3 GL/a.

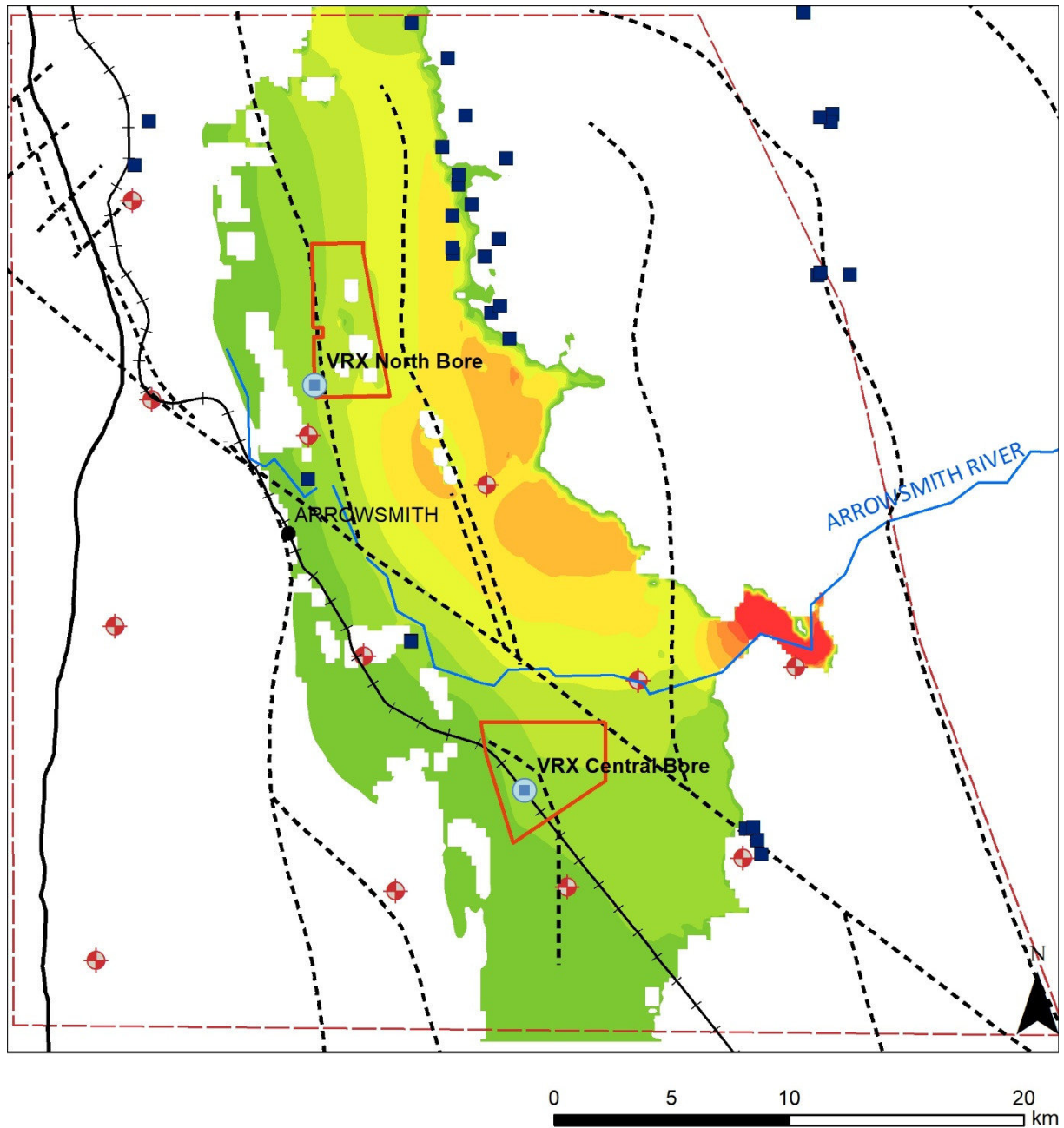
The modelling of the effects of climate change, for the purpose of this scenario are defined as the change in superficial aquifer water levels due to changes in rainfall over the period from 2035 to 2065. Estimating the likely change in rainfall over this period is based on studies done by CSIRO and Bureau of Metrology (BOM) in 2015, using the results of large-scale weather models for both world and Australia. Specifically, rainfall data was obtained from application-ready datasets that consists of projected climate changes applied to a 30-year observational data set (1981-2010). This data is supplied for all of Australia, for eight individual climate models that are representative of the range of results for Australia from the full suite of about 40 global climate models reviewed. In this case the following application ready dataset was used to estimate climate impacts:

- **Model:** Access 1.0 (CSIRO-BOM, Australia) provides a maximum consensus for many regions and exhibits a high skill score with regard to historical climate.
- **Location:** 115.1E, -29.6N, gridded modelled rainfall data.
- **Carbon Dioxide model:** RPC.85 (pessimistic forecast, assumes high emission future), resulting in more atmospheric heating than the alternative RPC.45.
- **Area:** Southwest and Southwest Flatlands sub cluster which includes south-western Western Australia.

A comparison of SILO interpolated historical data from 1990-2015, for Arrowsmith, and climate model data from 1990-2015 showed the Access 1.0 model rainfall time series is about 3% wetter than the SILO data. Conversely, the Access 1.0 model data for 2036 to 2065 was about 16% drier than the historical SILO data. Consequently, the Access 1.0 model results for 2035 to 2065 are used as a reasonable indicator of possible climate change (i.e., reduced rainfall) in the Arrowsmith area from 2022 to 2052.

As shown in Figure 14, the results from Scenario 4 indicate that reduced rainfall associated with climate change may result in widespread impacts (i.e., reduction in average water level) in the superficial aquifer ranging from less than 0.25 m to more than 2 m, after 30 years.

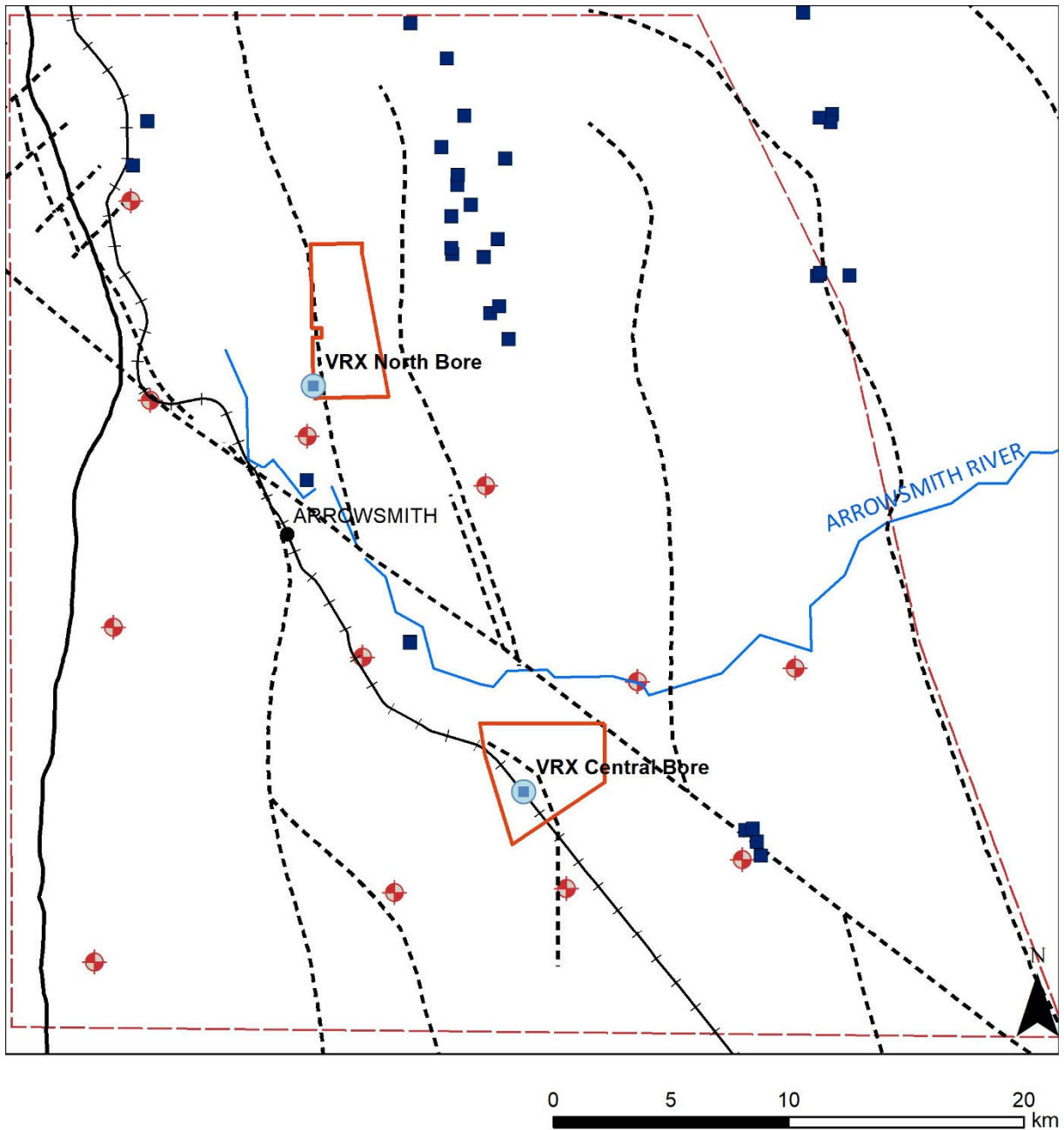
Figure 15 show the Yarragadee A aquifer has impacts of less than 0.25 m, after 30 years.



Legend

■ Allocations Drawpoints	Scenario 4 superficial Impacts	■ 1.0 - 1.25
● VRX North Bore	m	■ 1.25 - 1.5
● VRX Central Bore	□ <0.25	■ 1.6 - 1.75
— VRX M70/1389	■ 0.25 - 0.5	■ 1.75 - 2
— VRXM70/1392	■ 0.50- 0.75	■ 2. - 2.25
- - - Faults	■ 0.75 - 1	■ > 2.25

Figure 14: Scenario 4 - superficial Impact due to Climate Change



Legend

■ Allocations Drawpoints	Scenario 4 Yarragadee Impacts	■ 1.0 - 1.25
● VRX North Bore	m	■ 1.25 - 1.5
● VRX Central Bore	□ <0.25	■ 1.6 - 1.75
— VRX M70/1389	■ 0.25 - 0.5	■ 1.75 - 2
— VRXM70/1392	■ 0.50 - 0.75	■ 2. - 2.25
- - - Faults	■ 0.75 - 1	■ > 2.25

Figure 15: Scenario 4 – Yarragadee A Impact due to Climate Change

7 CONCLUSIONS

The ANAMS model was calibrated in steady state and against available measured water level data. The resulting calibration statistics show a 3.25% normalized average absolute average error which is consistent with an adequately calibrated model.

Based on the results of the four forward scenarios, it is concluded VRX abstraction may result in the following impacts:

- The additional VRX allocation of 1.3 GL/annum will result in water levels declining in the superficial and Yarragadee aquifers.
- The decline in the water levels at the VRX production bores is between 0.75 and 1.0 m (Central Bore) and 1.25 -1.5 m (North Bore), after 30 years, in the Yarragadee A aquifer. Elsewhere, the decline in water levels in the Yarragadee A aquifer is less than 0.5 m.
- The only impact the allocation will have on the superficial aquifer is in the vicinity of VRX's Central Bore, where water level declines of between 0.25 and 0.5 m over 30 years may occur.

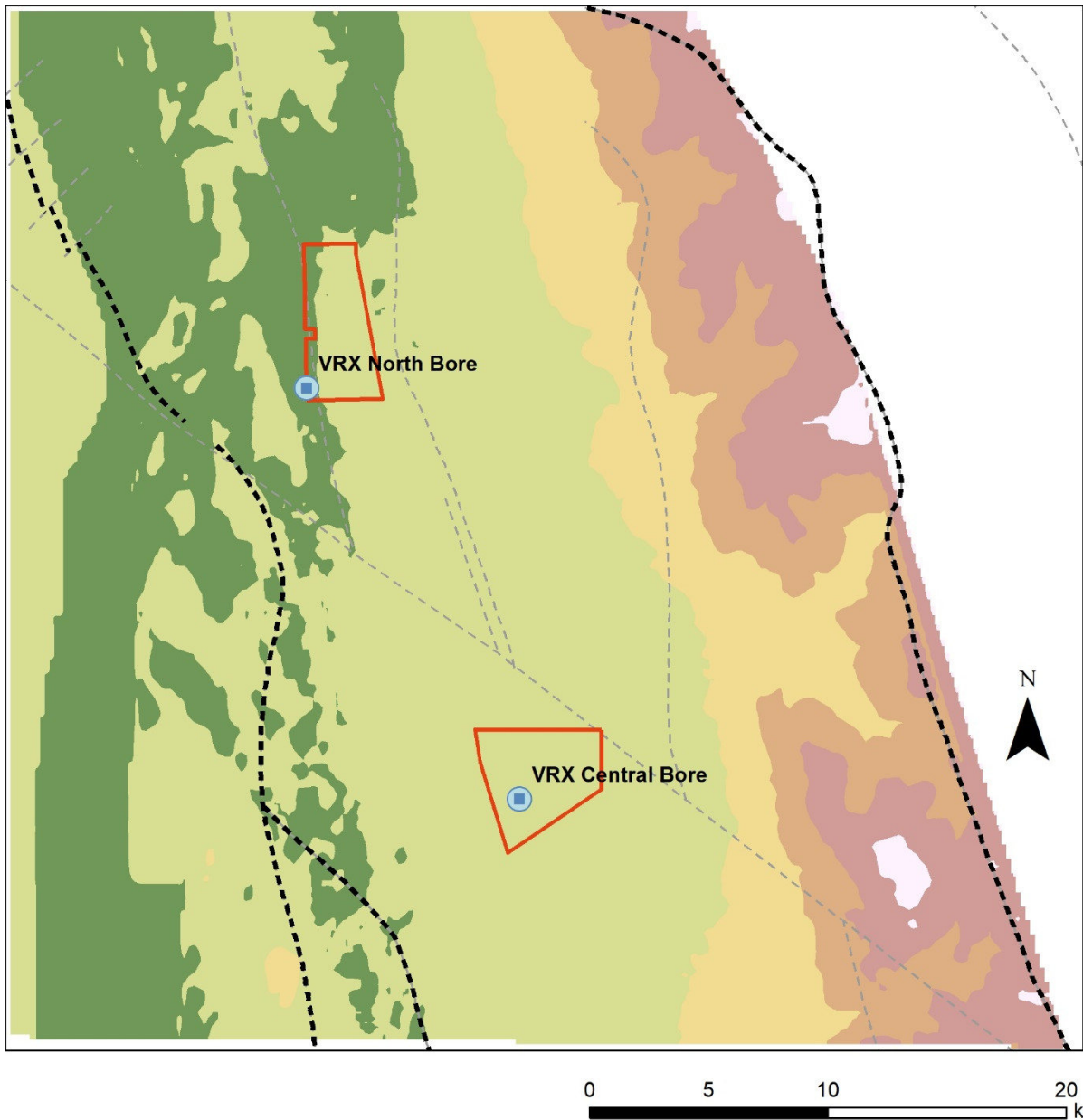
The results from Scenario 4 indicate that climate change impacts on the Yarragadee A aquifer are less than 0.25 m after 30 years. Simulation of the climate impact on the superficial aquifer indicates that water levels in the superficial aquifer may decline by up to 2 m in areas along the base of the Dandaragan Scarp. In the vicinity of the VRX production bores, water levels are indicated to decline by less than 1 m over 30 years, due to reduced regional rainfall attributable to climate change.

8 REFERENCES

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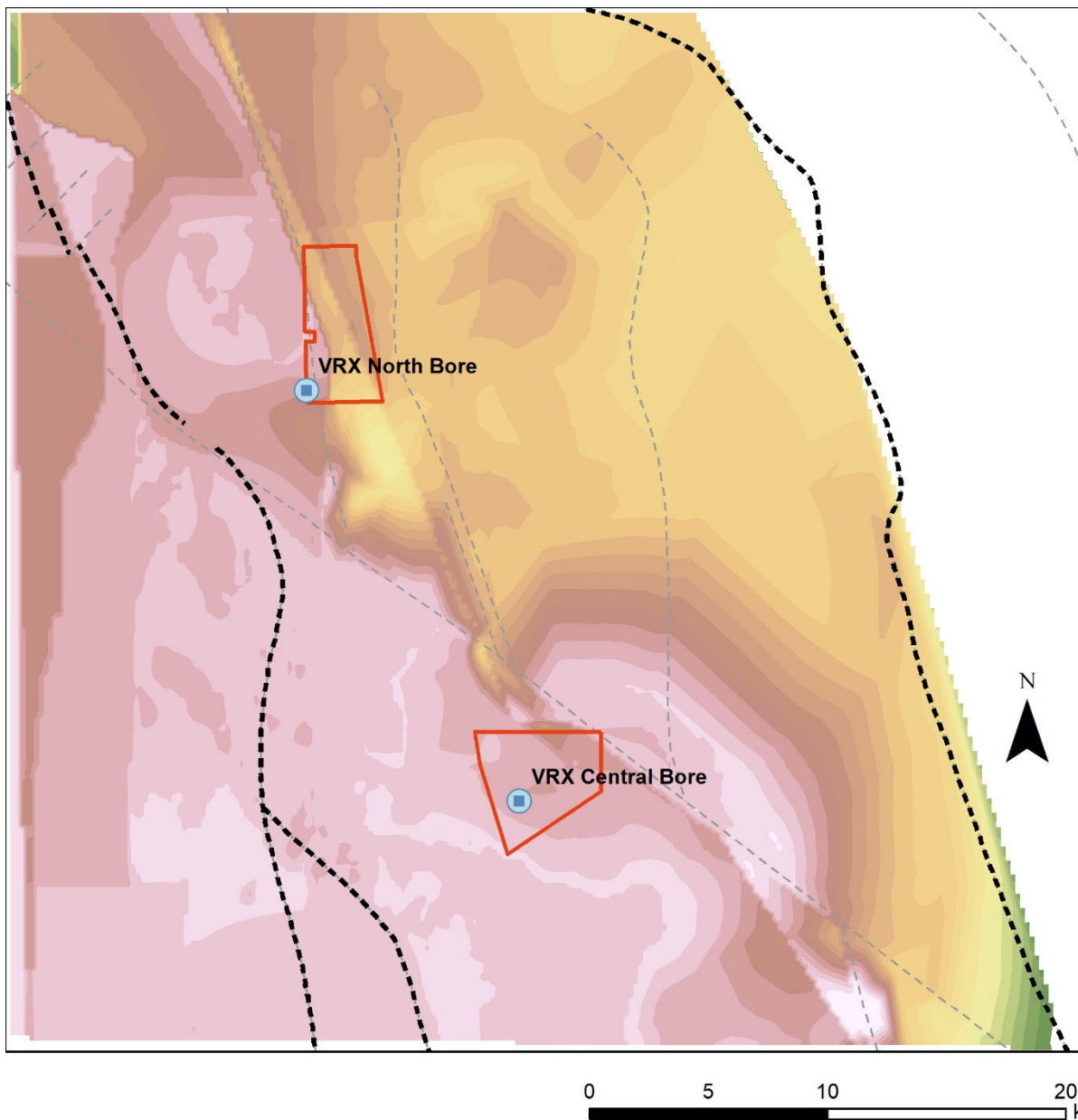
APPENDIX A: MODEL SURFACES

A.1 Layer Top Surface



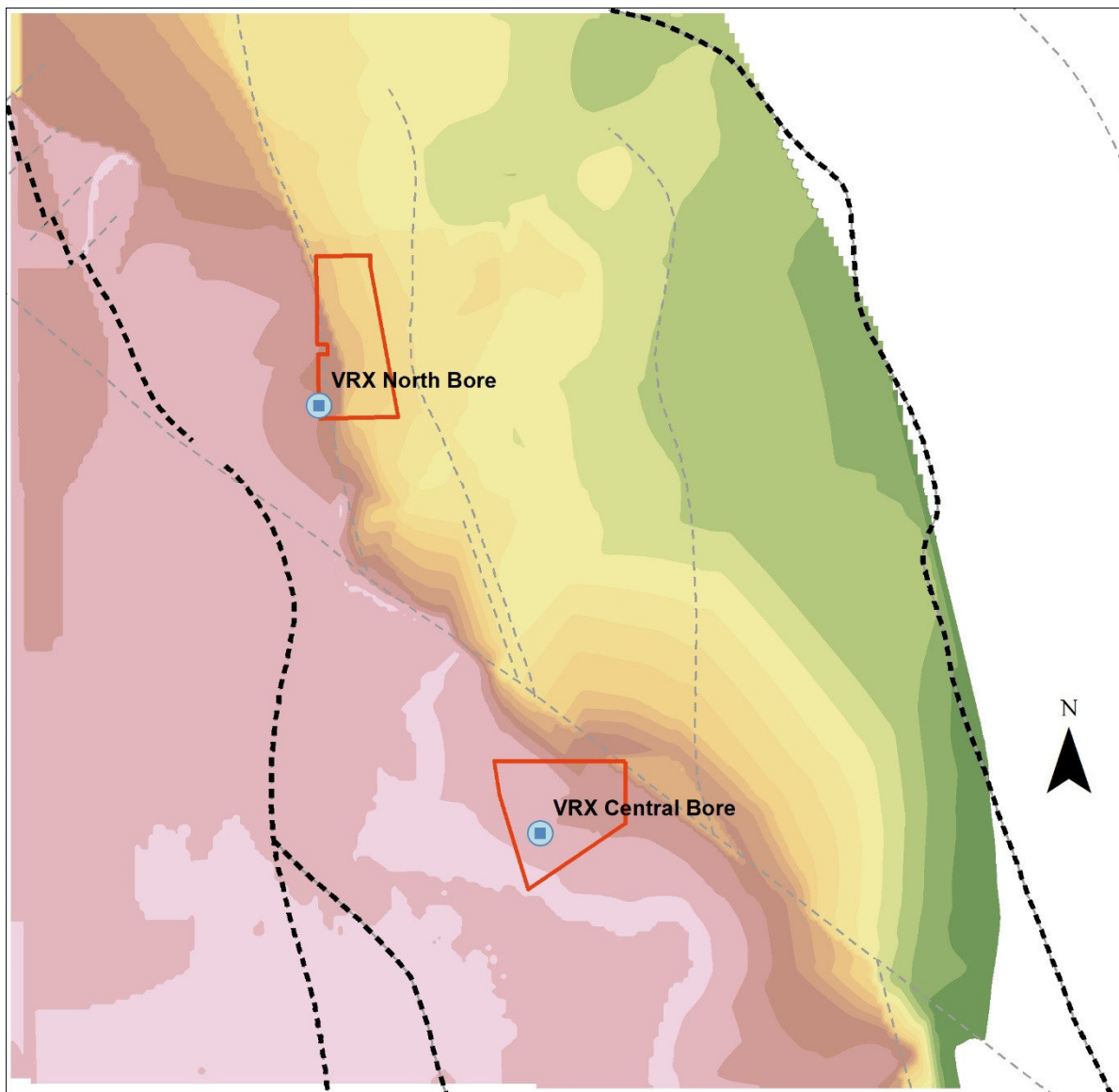
Legend

- | | | | | | |
|--|------------------|--------------------|-----------|-----------|---------|
| | VRX North Bore | Top Layer 2 | | 100 - 150 | |
| | VRX Central Bore | mAHD | | 50 - 100 | |
| | VRX M70/1389 | | 200 - 250 | | 0 - 50 |
| | VRXM70/1392 | | 150 - 200 | | -33 - 0 |
| | Major Faults | | | | |

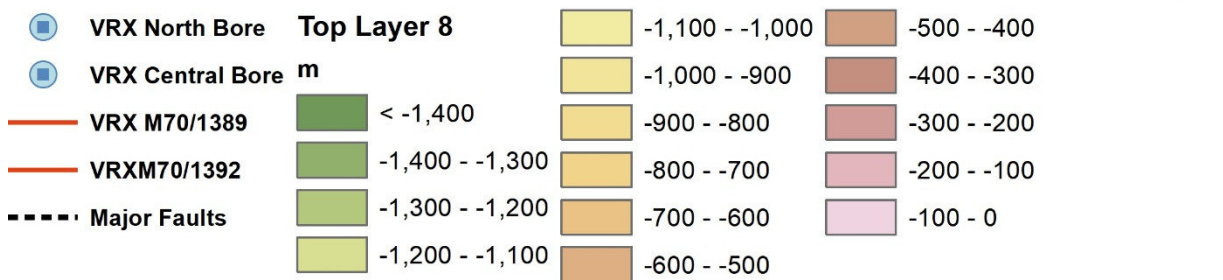


Legend

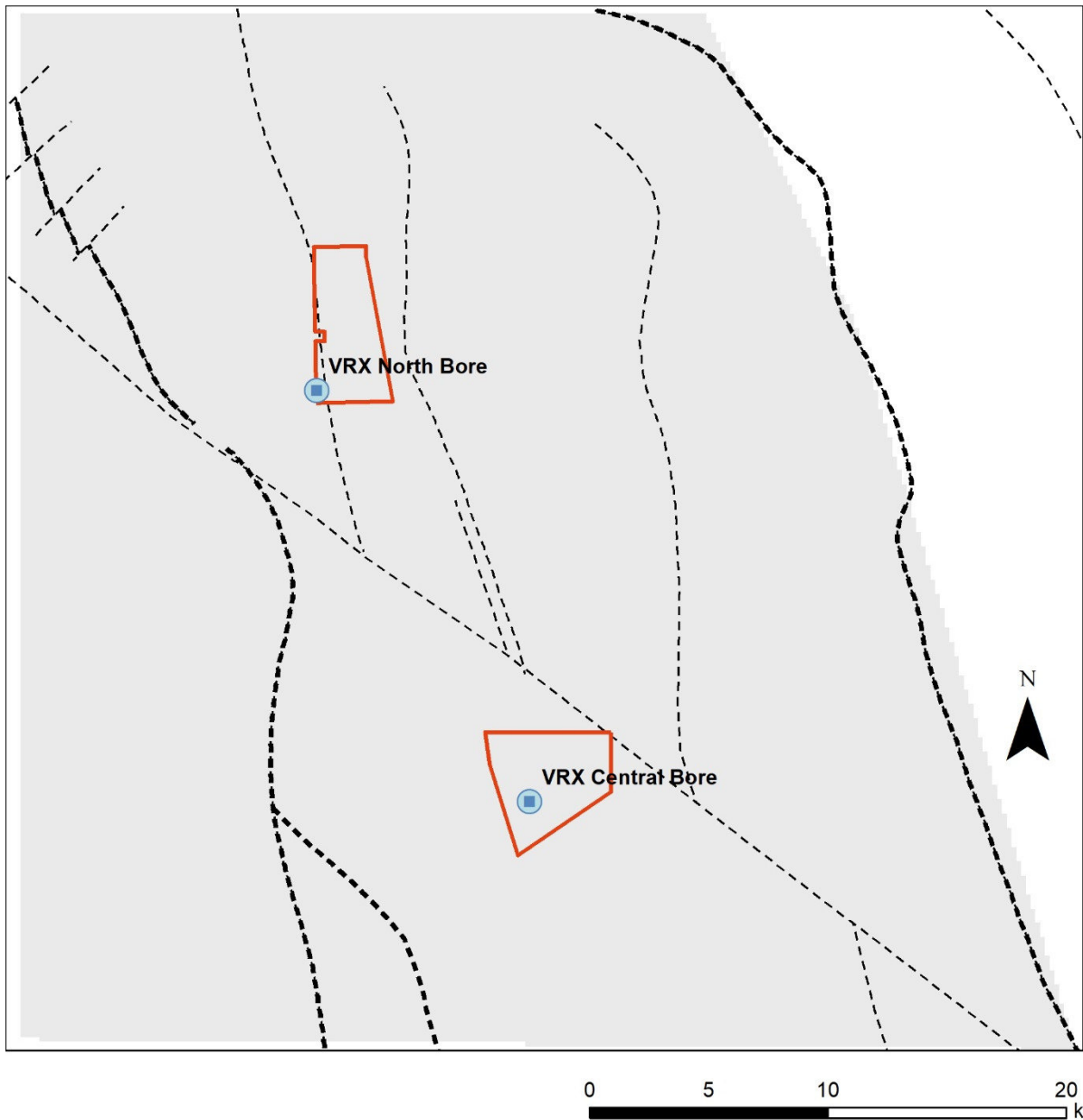
	VRX North Bore	Top Layer 5		-650 - -600		-250 - -200	
	VRX Central Bore		< -950		-600 - -550		-200 - -150
	VRX M70/1389		-950 - -900		-550 - -500		-150 - -100
	VRXM70/1392		-900 - -850		-500 - -450		-100 - -50
	Major Faults		-850 - -800		-450 - -400		-50 - 0
			-800 - -750		-400 - -350		0 - 50
			-750 - -700		-350 - -300		50 - 100
			-700 - -650		-300 - -250		









Legend

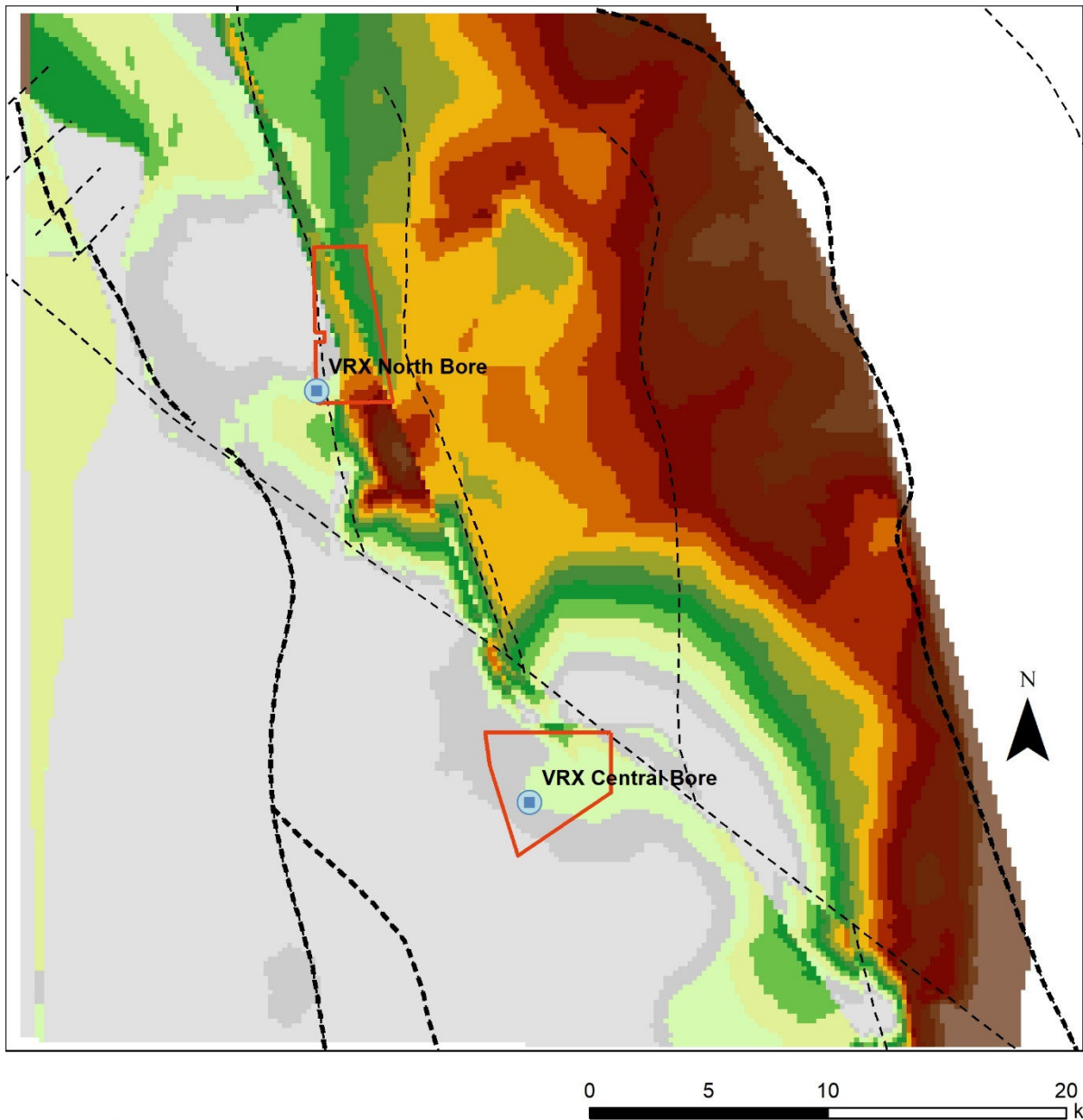


A.2 Layer Thicknesses



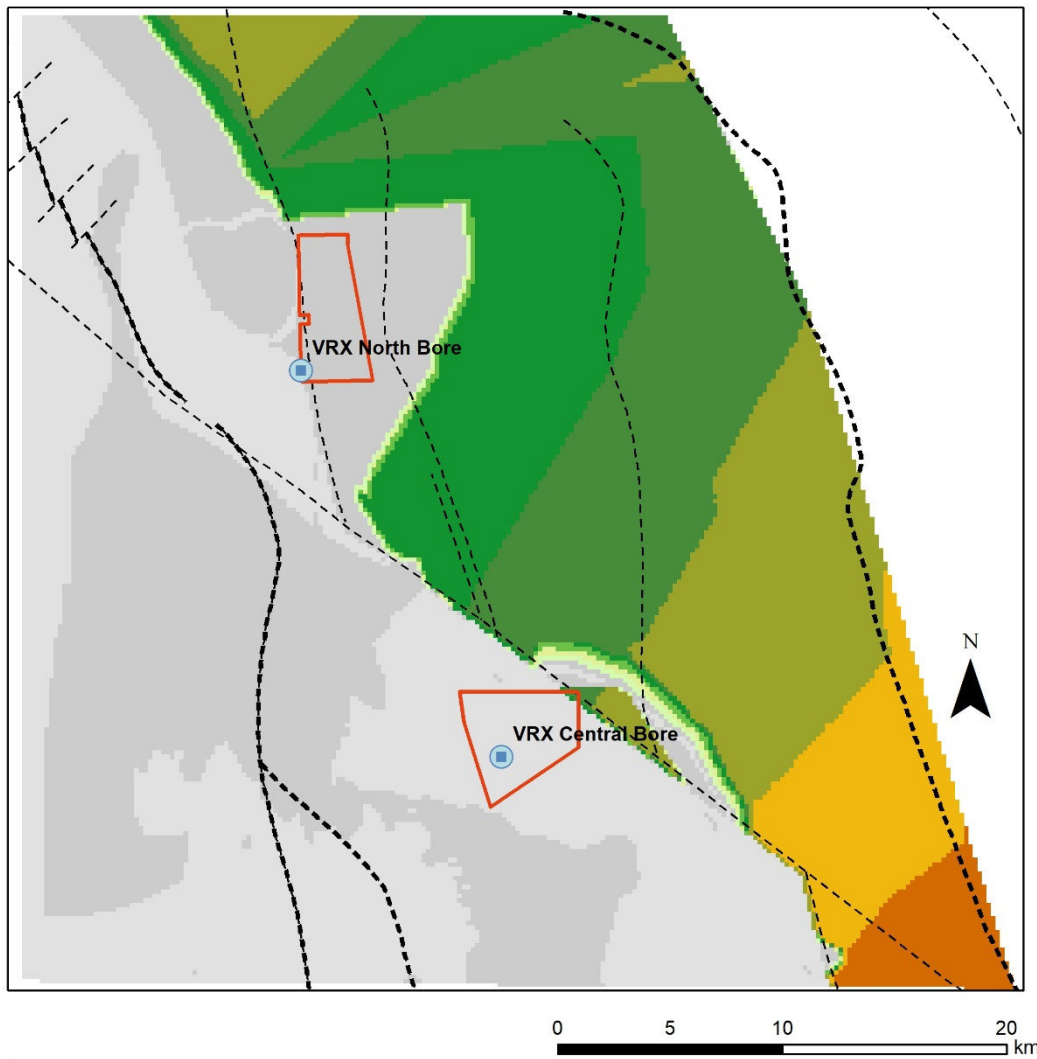
Legend

-  VRX North Bore
 -  VRX Central Bore
 -  VRX M70/1389
 -  VRXM70/1392
 -  Major Faults
 -  35
- Layer 1: Thickness
m



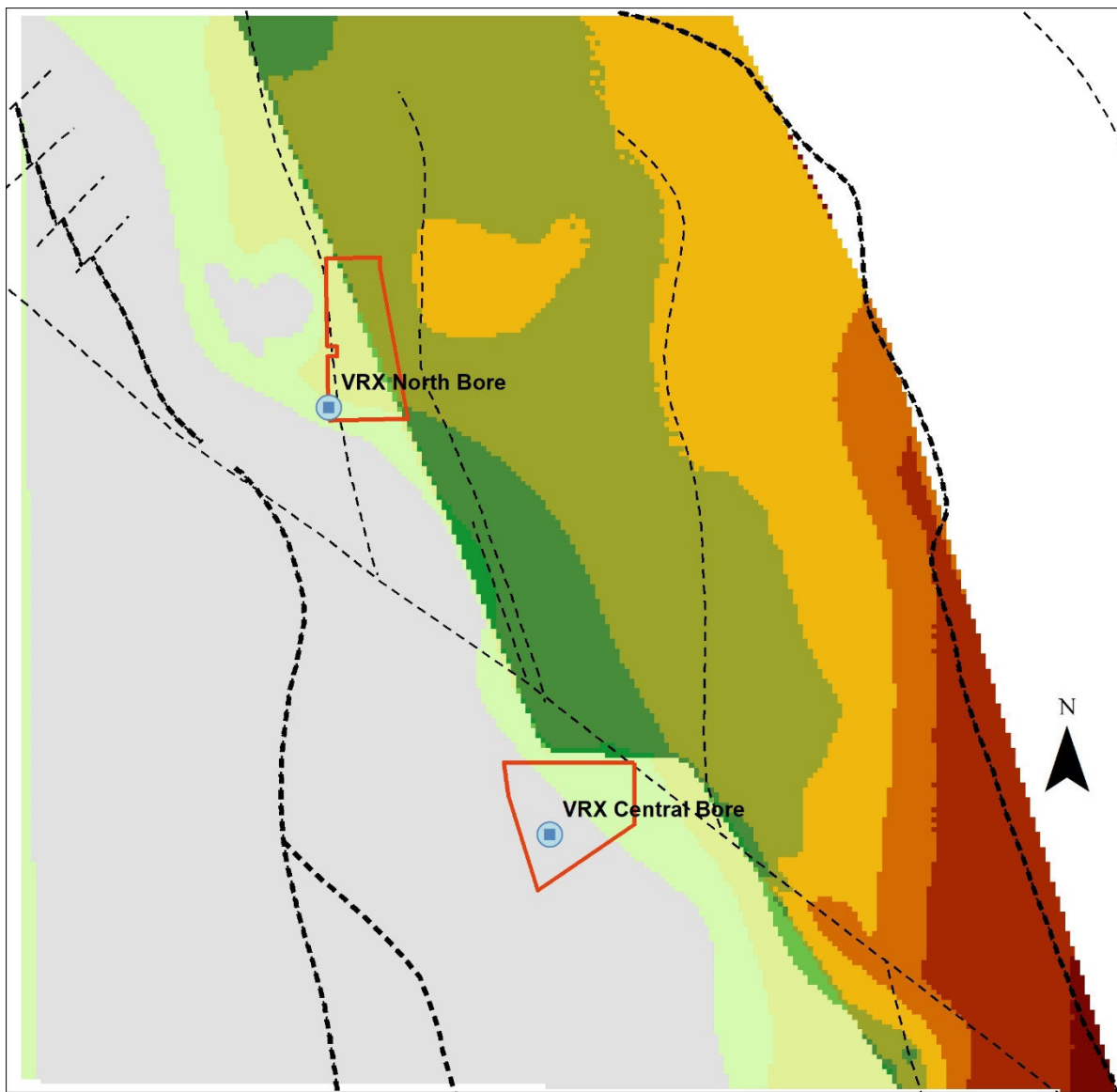
Legend

	VRX North Bore	Layer 2-4: Thickness		200 - 250		500 - 550
	VRX Central Bore			250 - 300		550 - 600
	VRX M70/1389		< 50			600 - 650
	VRXM70/1392		50 - 100			650 - 700
	Major Faults		100 - 150			700 - 750
			150 - 200			750 - 1,000



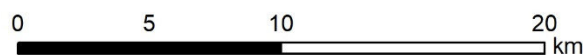
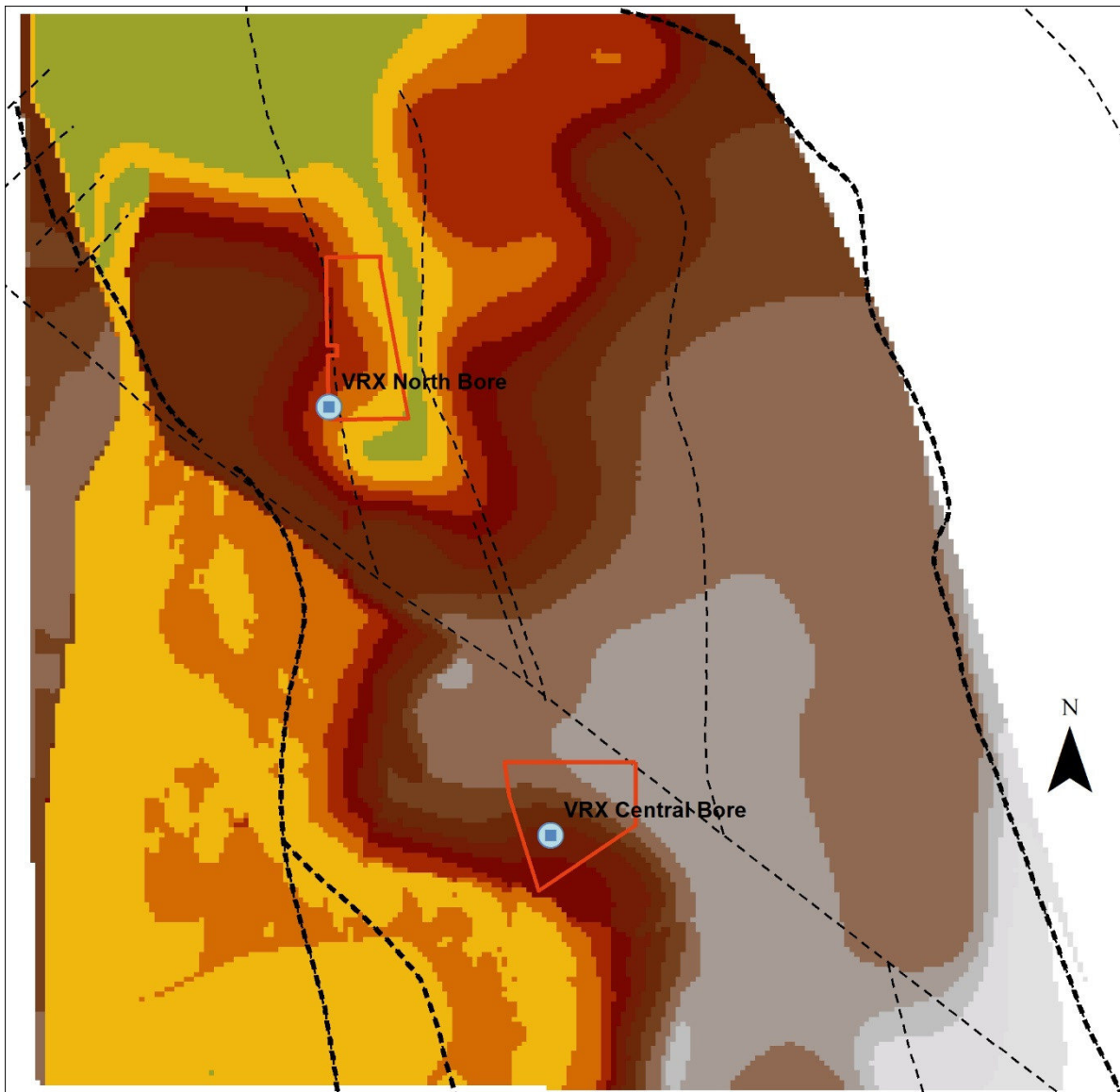
Legend

- | | | |
|--|---|---|
| <ul style="list-style-type: none"> ■ VRX North Bore ■ VRX Central Bore — VRX M70/1389 — VRXM70/1392 - - - Major Faults | <p>Layer 5: Thickness m</p> <ul style="list-style-type: none"> < 50 50 - 100 100 - 150 | <p>Layer 5: Thickness m</p> <ul style="list-style-type: none"> 150 - 200 200 - 250 250 - 300 300 - 350 350 - 400 400 - 450 450 - 500 500 - 1,000 |
|--|---|---|



Legend

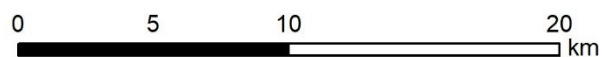
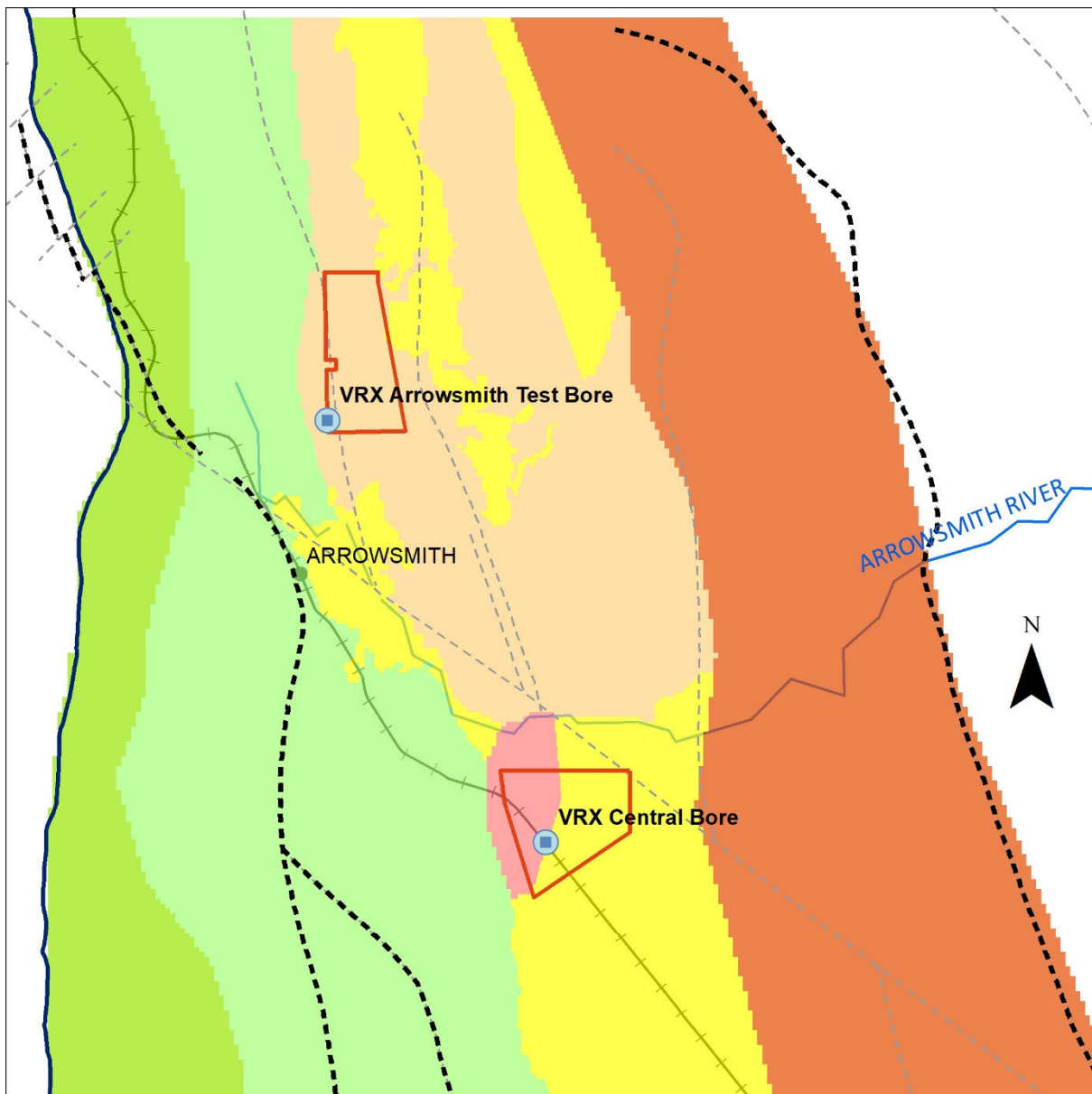




Legend

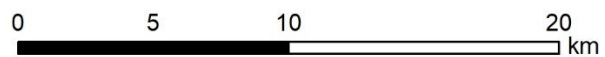
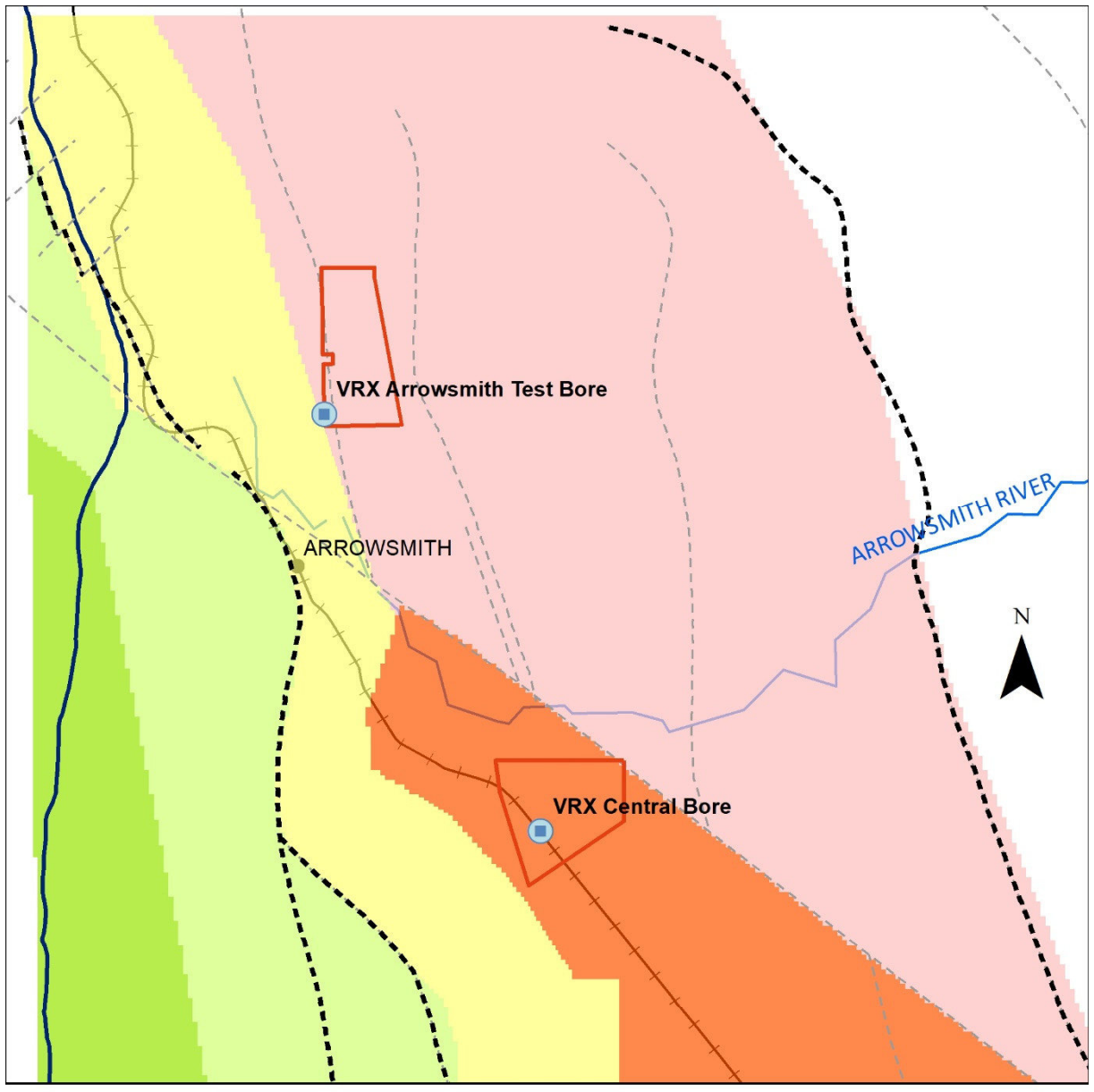
	VRX North Bore	Layer 8-10: Thickness m		300 - 350		650 - 700
	VRX Central Bore			350 - 400		700 - 750
	VRX M70/1389		< 50			750 - 800
	VRXM70/1392		50 - 100			800 - 850
	Major Faults		100 - 150			850 - 900
			150 - 200			900 - 950
			200 - 250			950 - 1,000
			250 - 300			

APPENDIX B: MODEL PARAMETERS



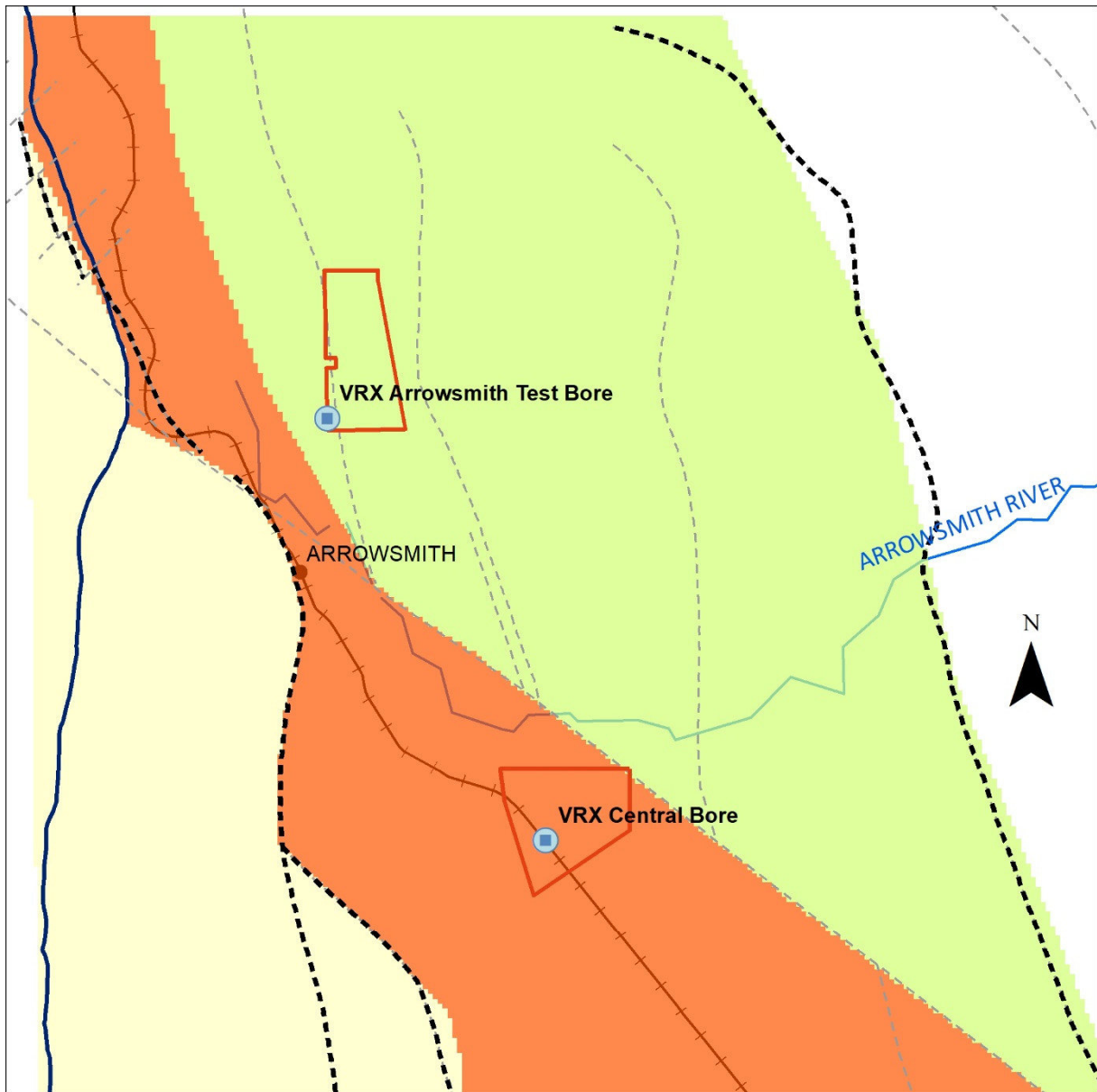
Legend

- | | | | | | |
|--|------------------|--------------------|-----|----|-----|
| | VRX Central Bore | Layer 1: kh | | 10 | |
| | VRX Test Bore | m/day | | 15 | |
| | VRX M70/1389 | | 1 | | 30 |
| | VRXM70/1392 | | 7.5 | | 200 |



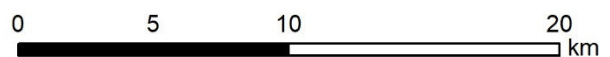
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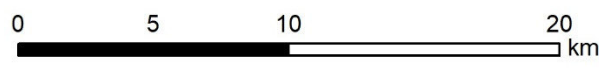
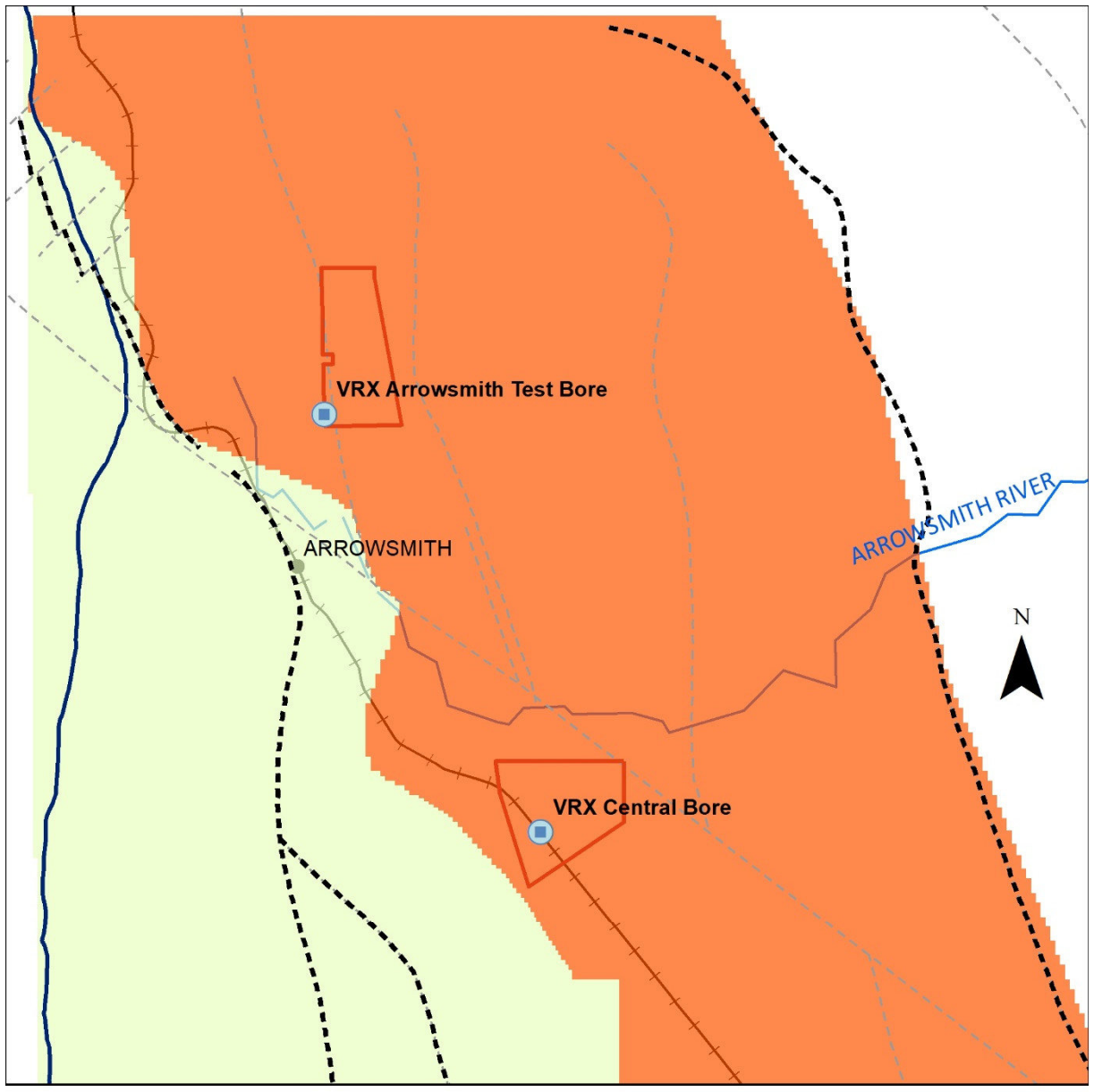
- VRX Central Bore **Layer 2-4: kh**
- VRX Test Bore **m/day**
- VRX M70/1389
- VRXM70/1392
- 0.05
- 0.25
- 2
- 30
- 200



Legend

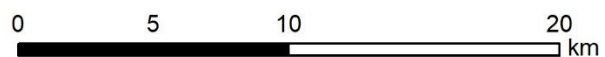
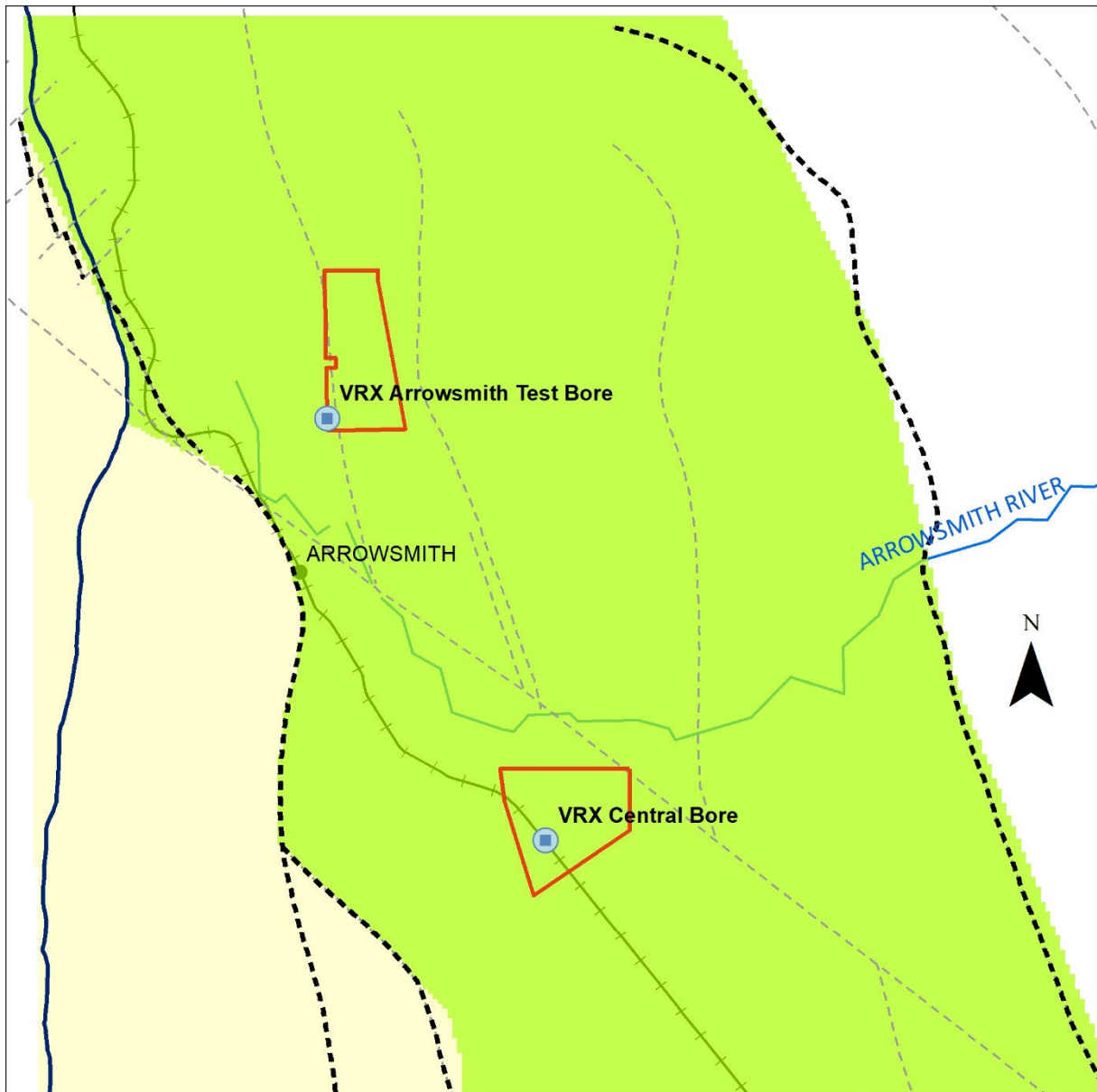
- VRX Central Bore **Layer 5: kh**
- VRX Test Bore **m/day**
- VRX M70/1389 ■ 0.25
- VRXM70/1392 ■ 0.75
- 2





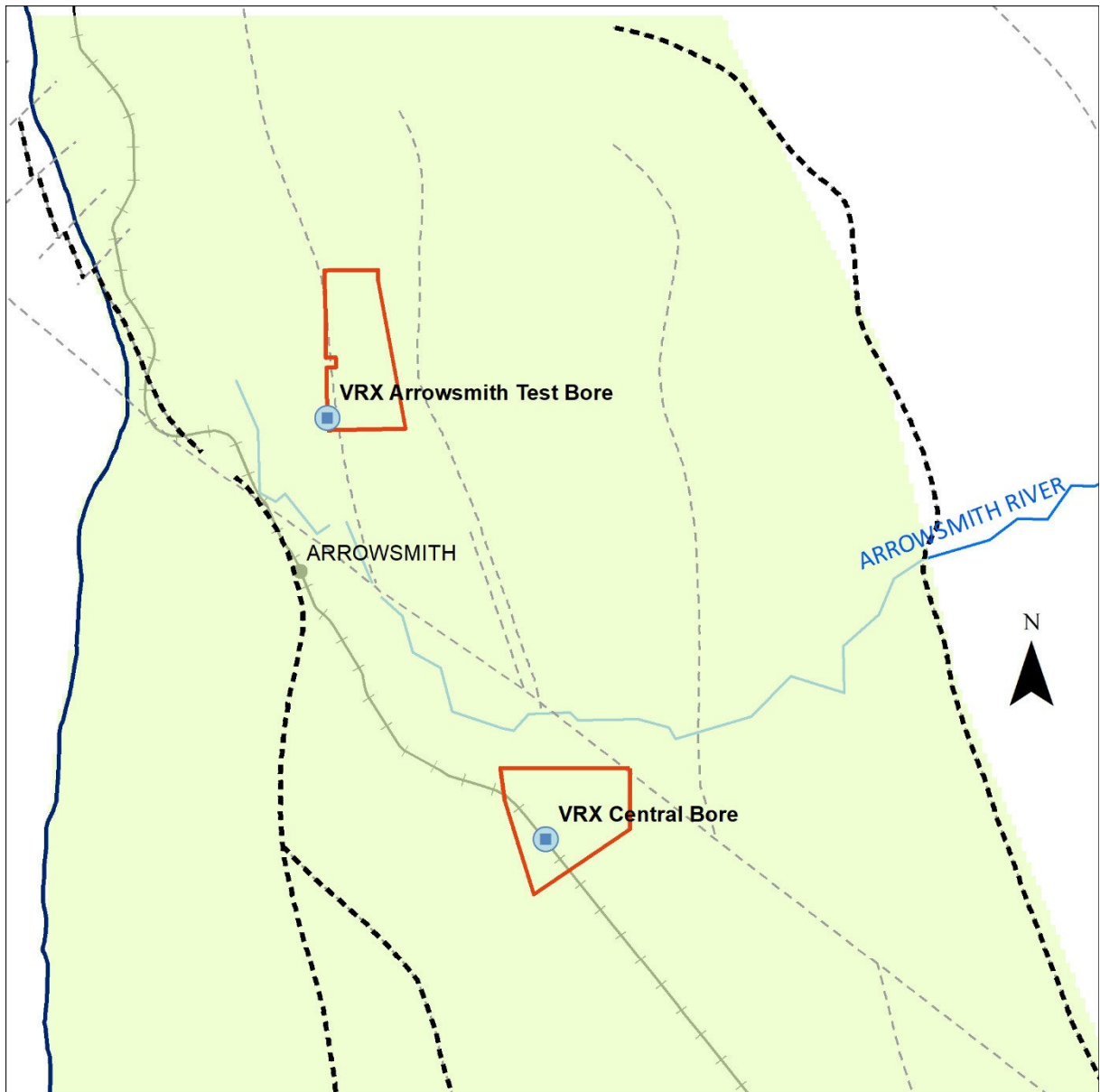
Legend

- VRX Central Bore **Layer 6-7: kh**
- VRX Test Bore **m/day**
- VRX M70/1389 ■ 0.25
- VRXM70/1392 ■ 0.75








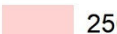


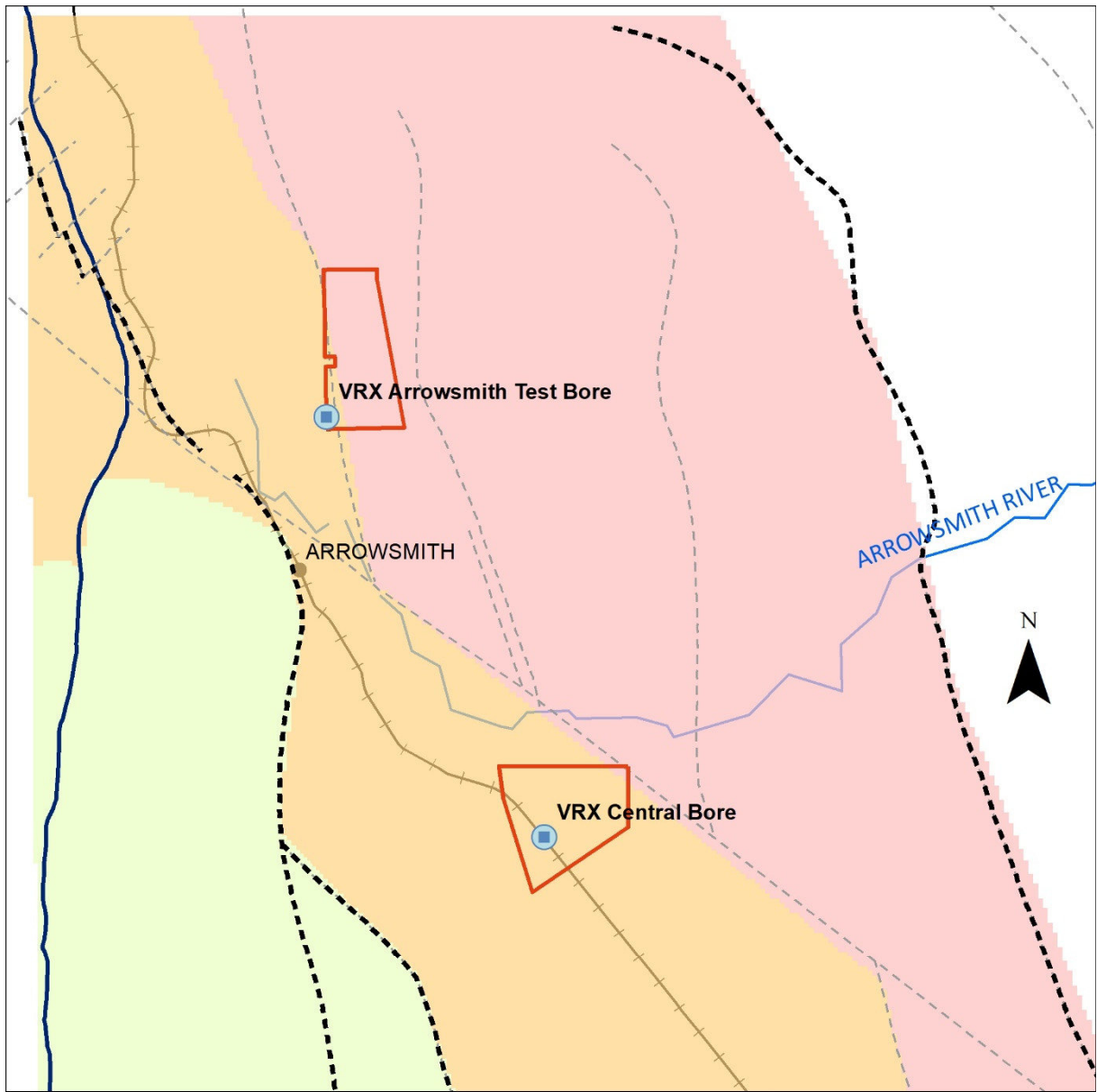
Legend

- VRX Central Bore **Layer 8-10: kh**
- VRX Test Bore **m/day**
- VRX M70/1389 0.75
- VRXM70/1392 5



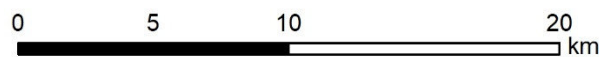
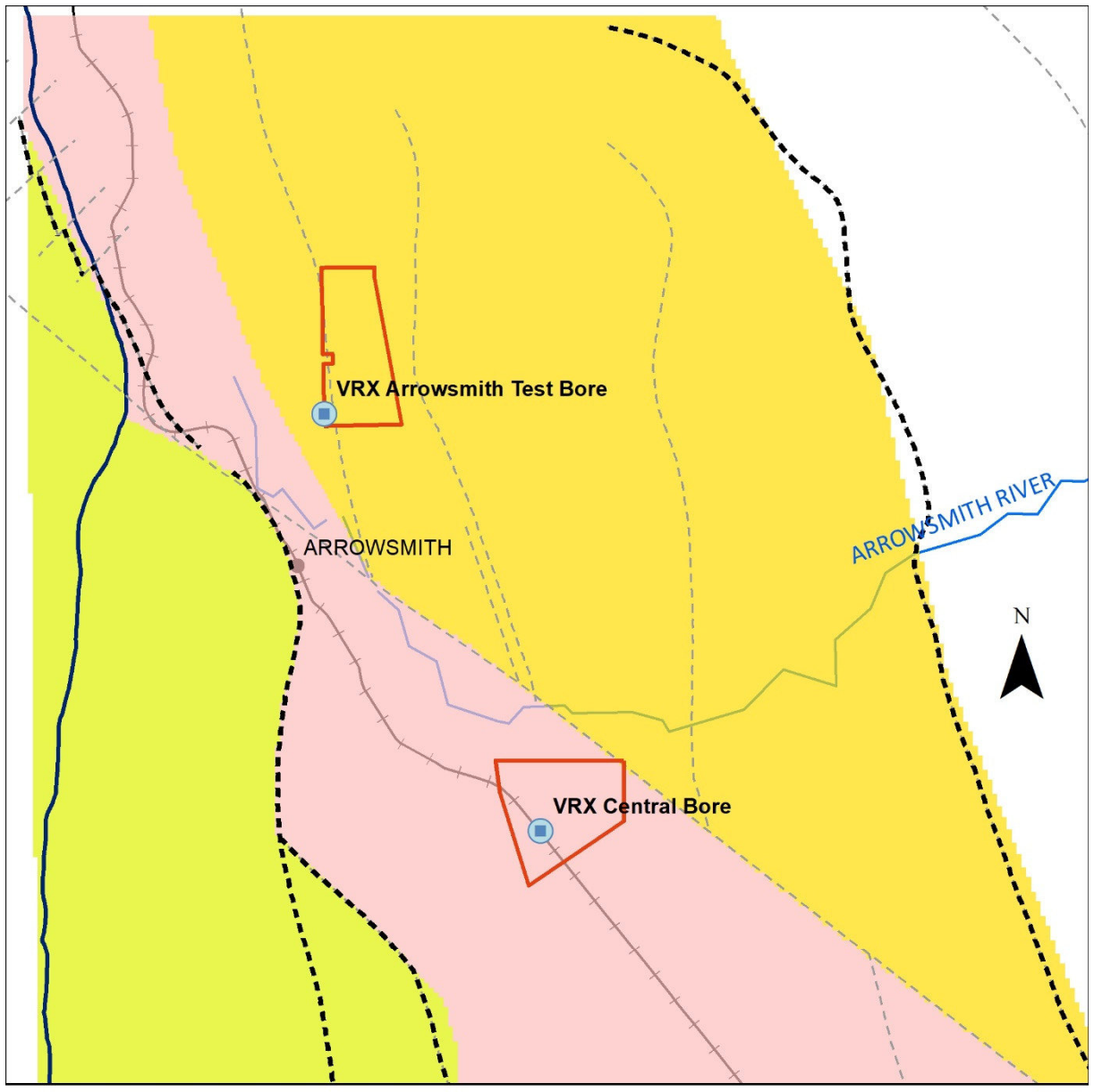
Legend

-  VRX Central Bore **Layer 1: kh:kv**
-  VRX Test Bore **kh:kv**
-  VRX M70/1389  10
-  VRXM70/1392  200
-   250



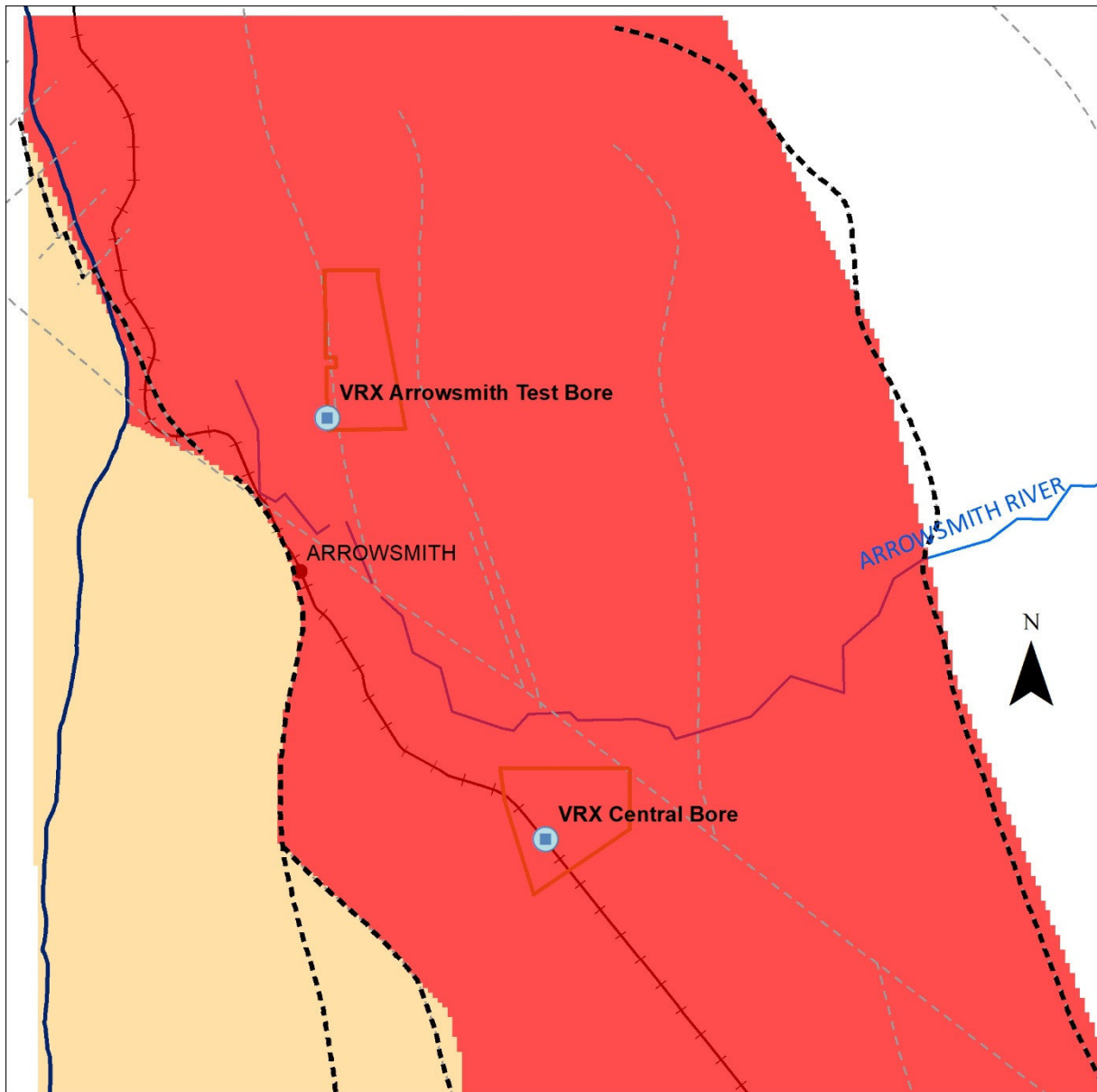
Legend

- VRX Central Bore **Layer 2-4: kh:kv**
- VRX Test Bore **kh:kv**
- VRX M70/1389
- VRXM70/1392
- 10
- 200
- 250

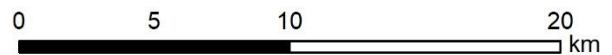


Legend

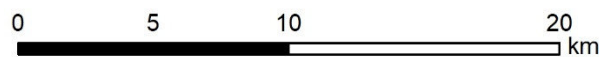
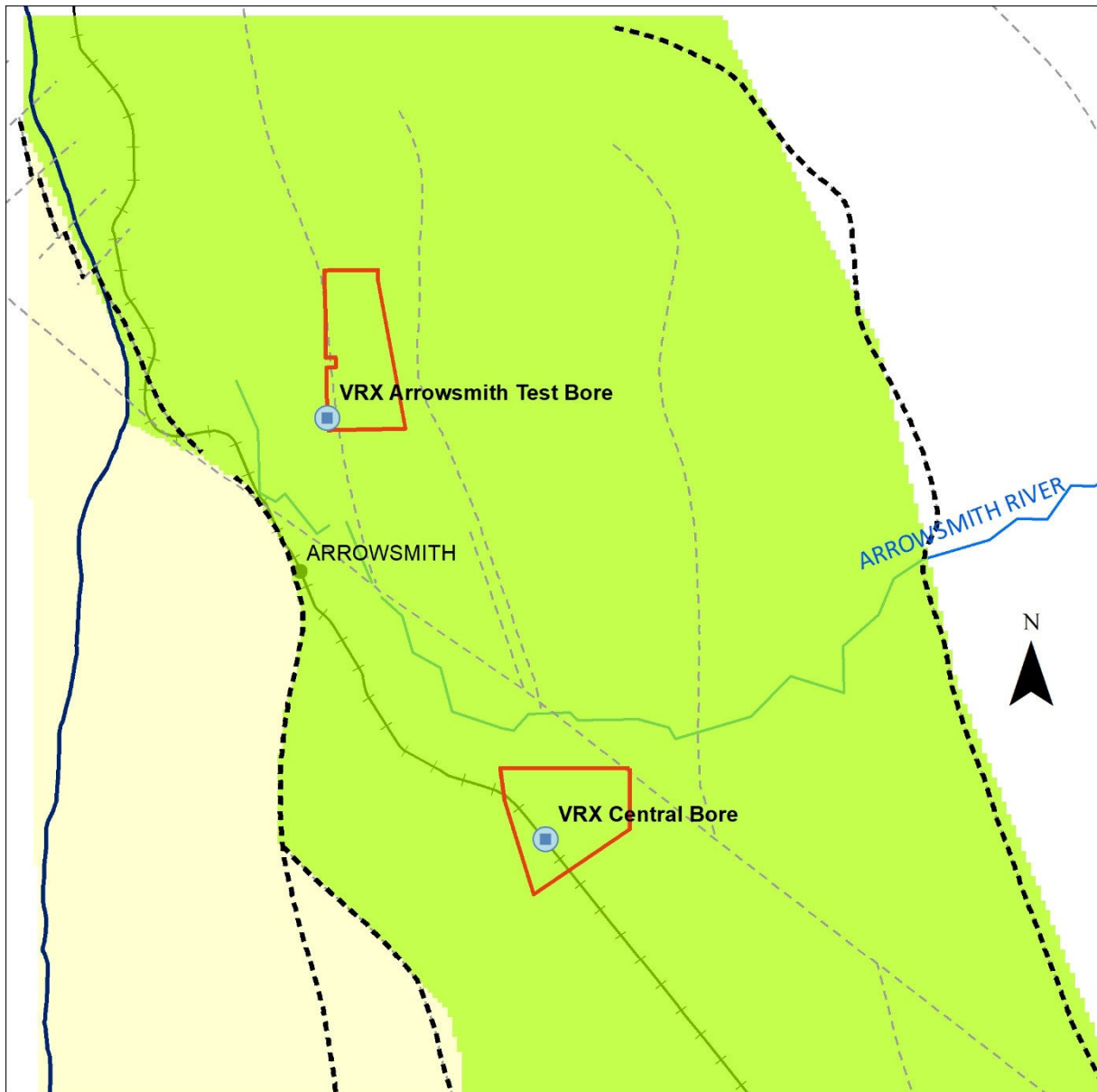
- VRX Central Bore **Layer 5: kh:kv**
- VRX Test Bore **kv**
- VRX M70/1389 50
- VRXM70/1392 100
- 250



Legend



- VRX Central Bore **Layer 6-7: kh:kv**
- VRX Test Bore **kh:kv**
- 10
- 200
- 250
- 400
- VRX M70/1389
- VRXM70/1392



Legend

- VRX Central Bore **Layer 8-10: kh:kv**
- VRX Test Bore **kh:kv**
- VRX M70/1389
- VRXM70/1392

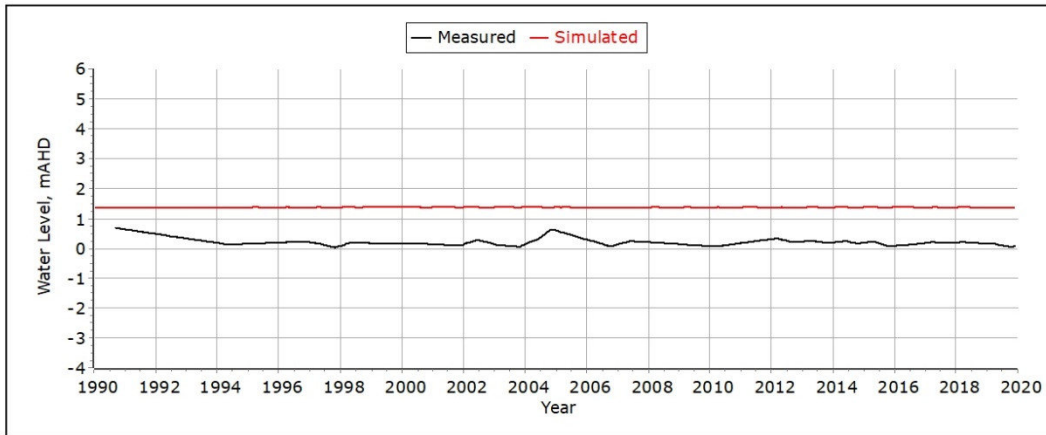


APPENDIX C: CALIBRATION HYDROGRAPHS

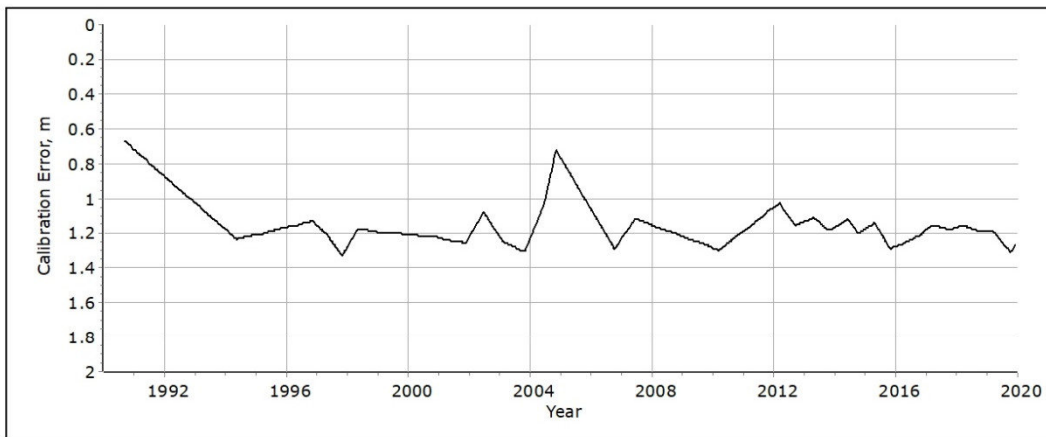
Bore Name: LS18B
Superficial/Yarragadee

Version: VRX V2

Calibration Hydrograph



Calibration Error



Absolute Average Error, m: 1.1462

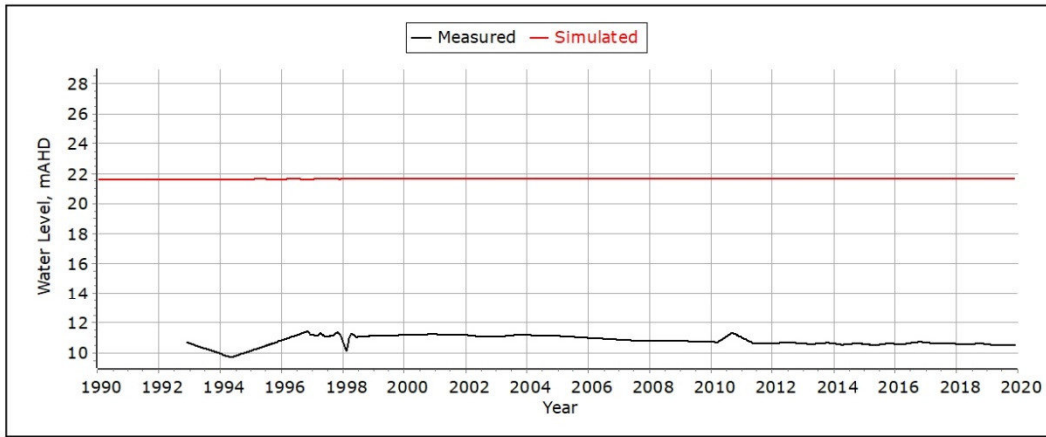
RMS Error, m: 1.1535



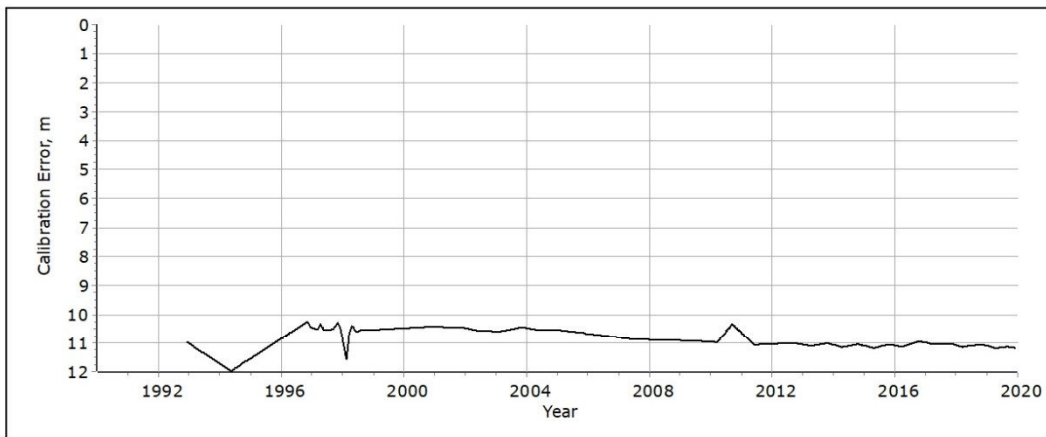
Bore Name: LS19B
Superficial/Yarragadee

Version: VRX V2

Calibration Hydrograph



Calibration Error



Absolute Average Error, m: 10.8645

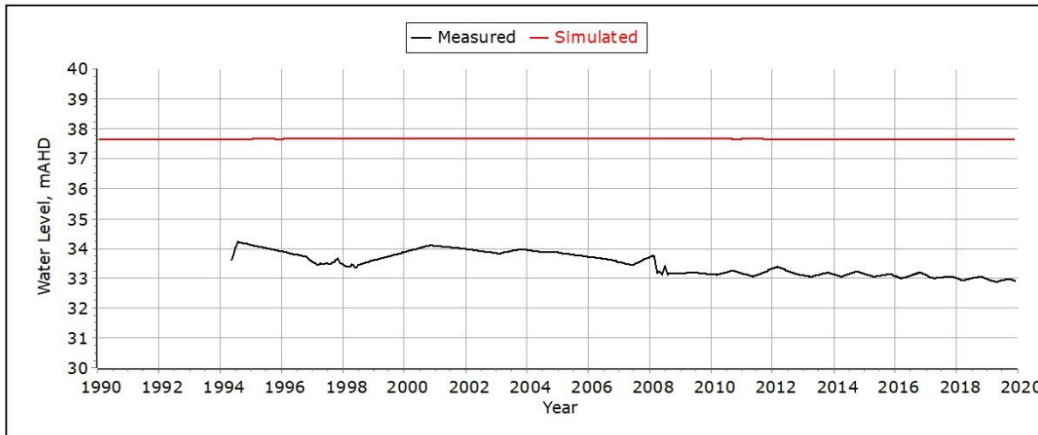
RMS Error, m: 10.8697



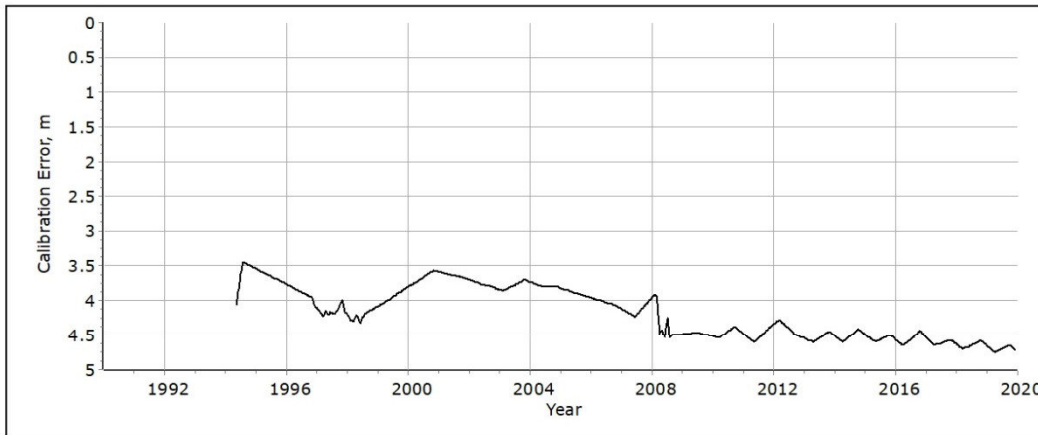
Bore Name: LS20A
Superficial/Yarragadee

Version: VRX V2

Calibration Hydrograph



Calibration Error



Absolute Average Error, m: 4.1599

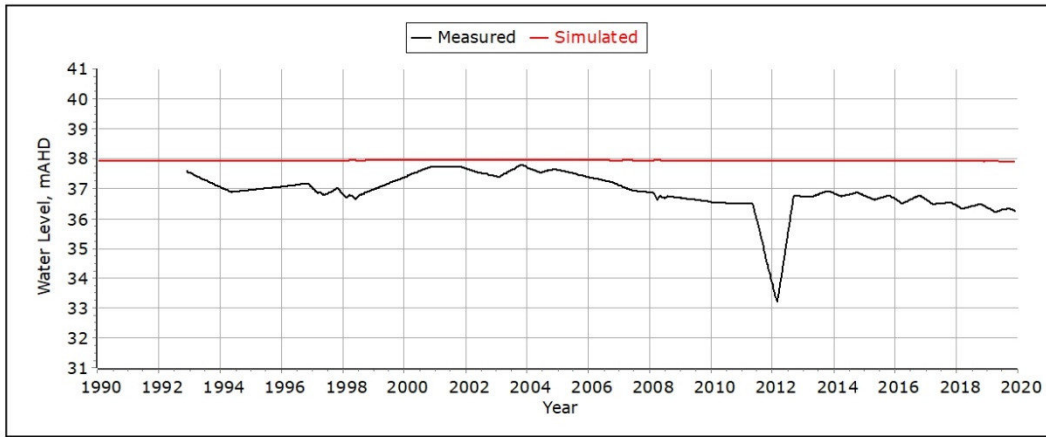
RMS Error, m: 4.1756



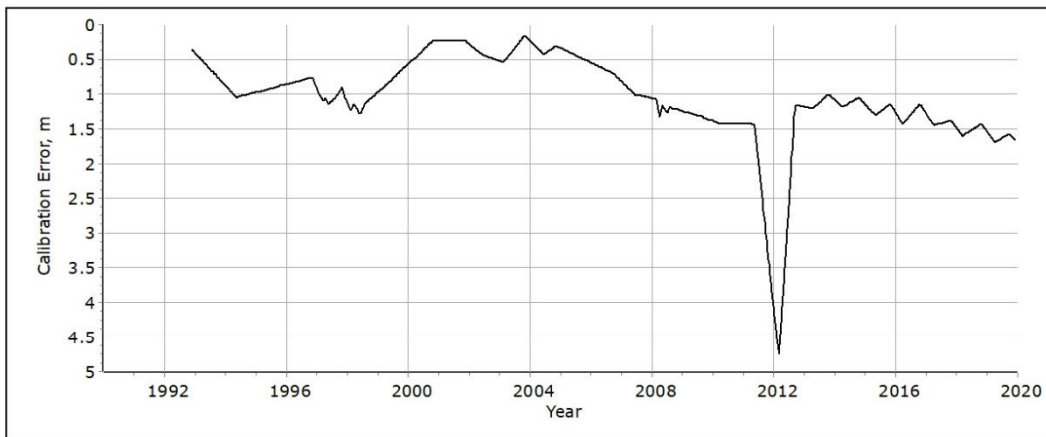
Bore Name: LS20B
Superficial/Yarragadee

Version: VRX V2

Calibration Hydrograph



Calibration Error



Absolute Average Error, m: 1.0293

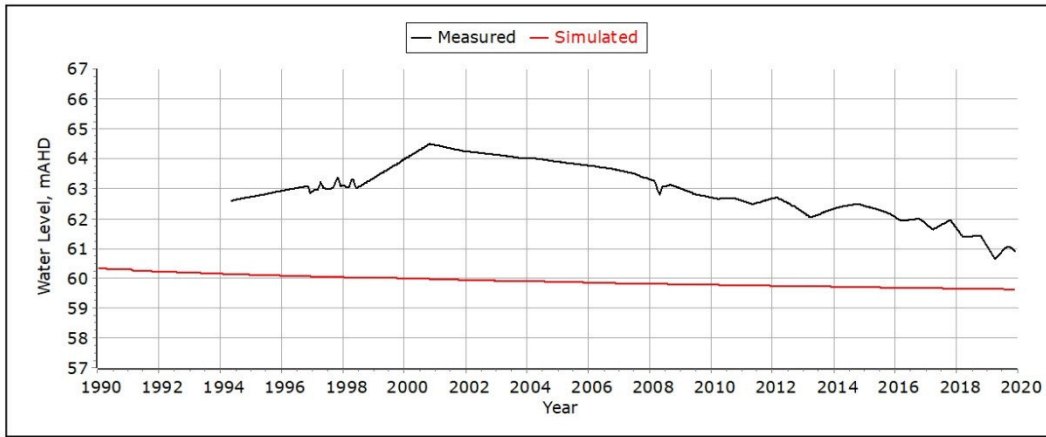
RMS Error, m: 1.2151



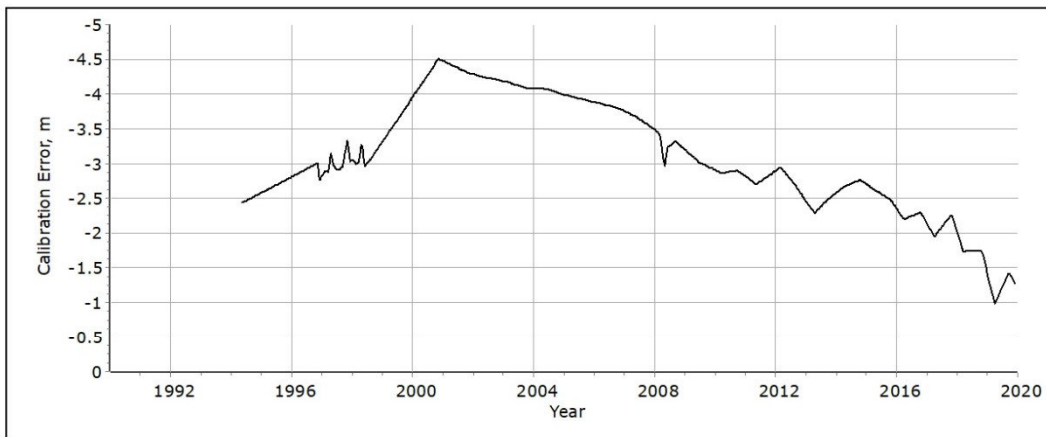
Bore Name: LS21A
Superficial/Yarragadee

Version: VRX V2

Calibration Hydrograph



Calibration Error



Absolute Average Error, m: 3.1368

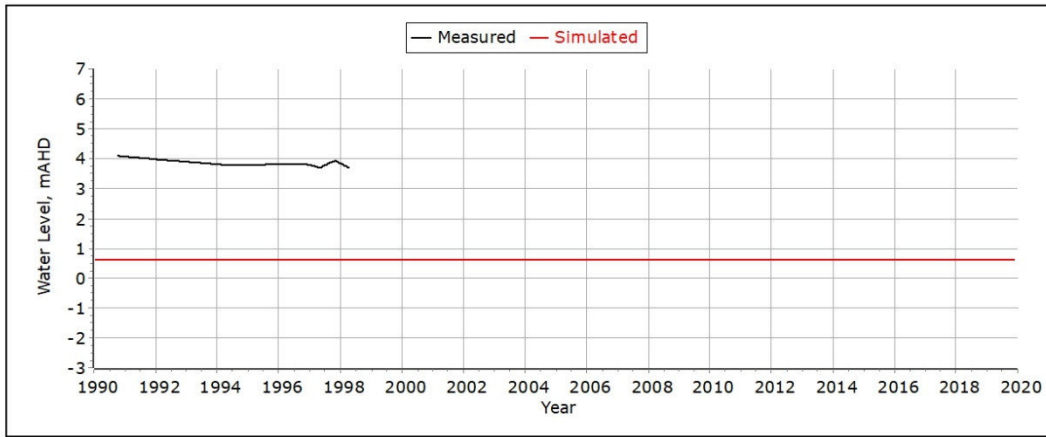
RMS Error, m: 3.2284



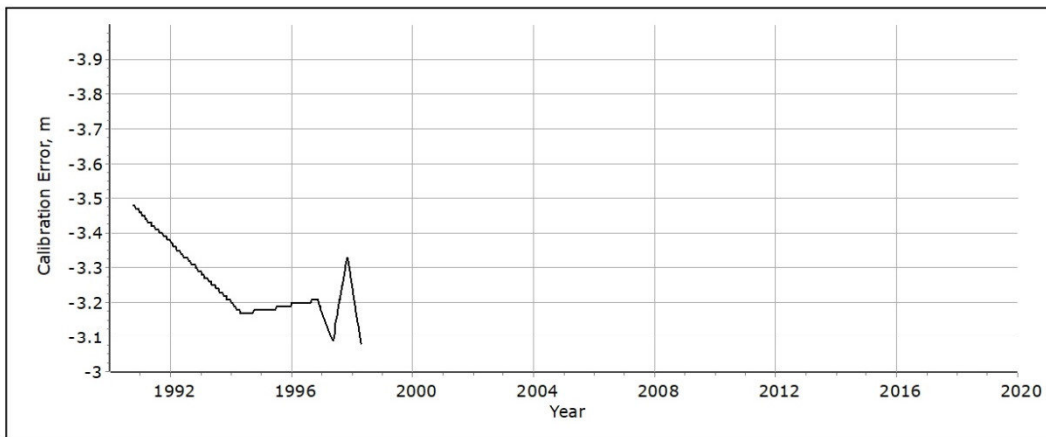
Bore Name: LS22A
Superficial/Yarragadee

Version: VRX V2

Calibration Hydrograph



Calibration Error



Absolute Average Error, m: 3.2531

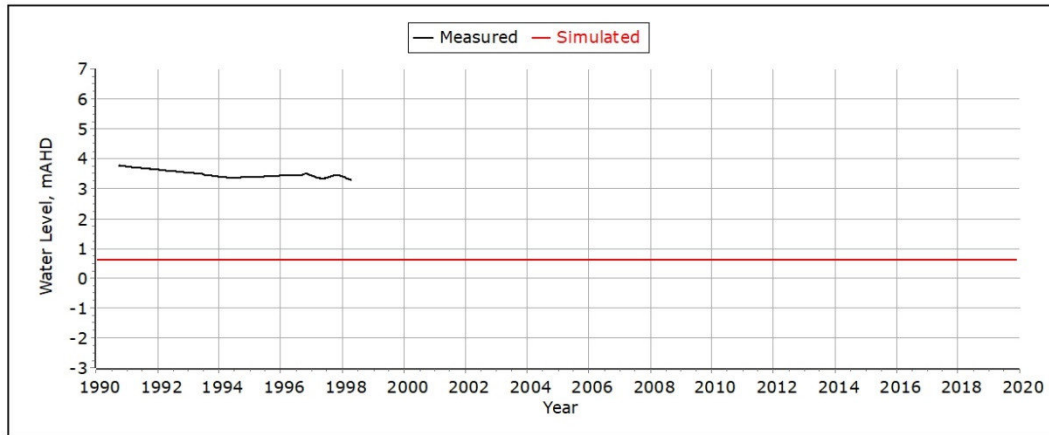
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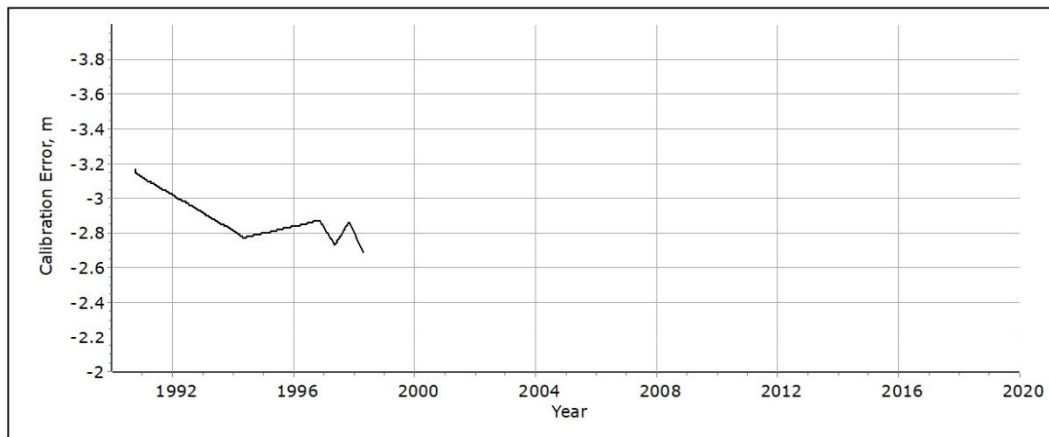
Bore Name: LS22B
Superficial/Yarragadee

Version: VRX V2

Calibration Hydrograph



Calibration Error



Absolute Average Error, m: 2.8837

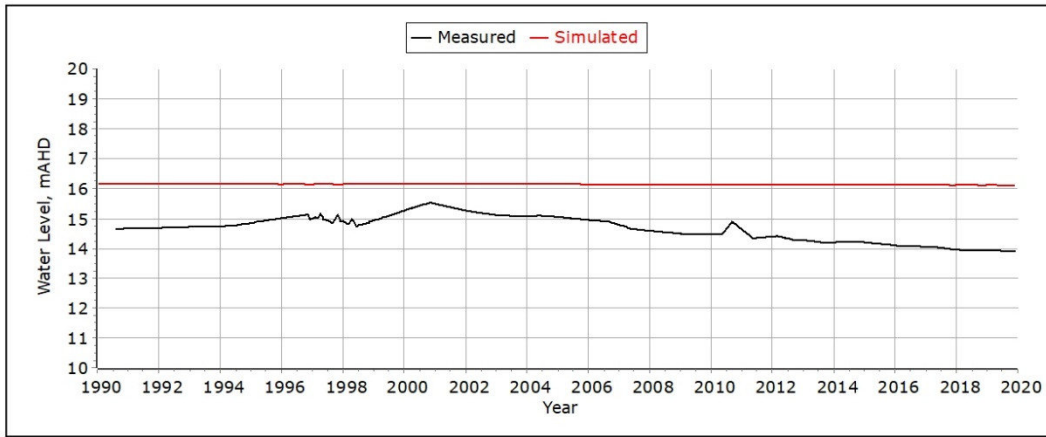
RMS Error, m: 2.8858



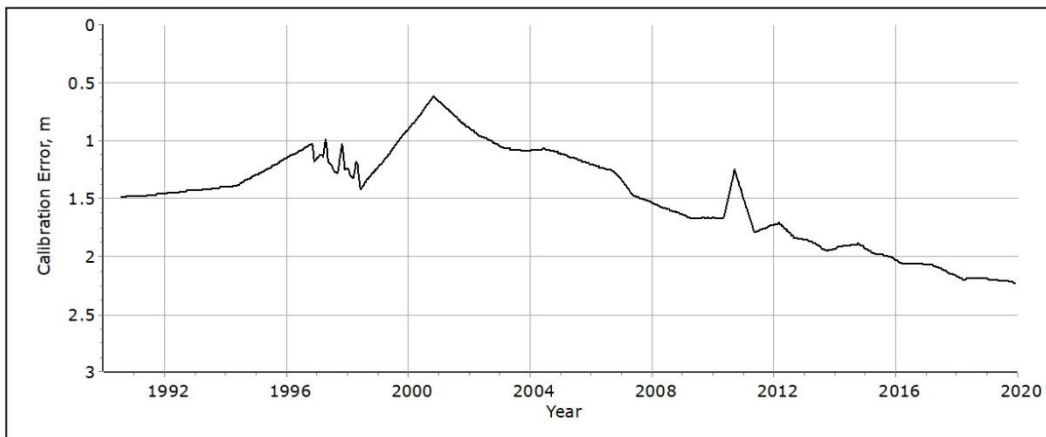
Bore Name: LS23A
Superficial/Yarragadee

Version: VRX V2

Calibration Hydrograph



Calibration Error



Absolute Average Error, m: 1.4564

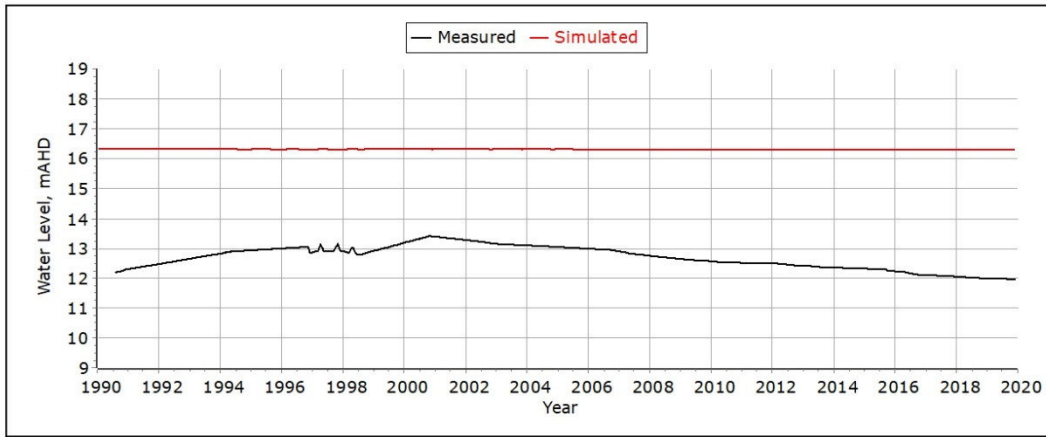
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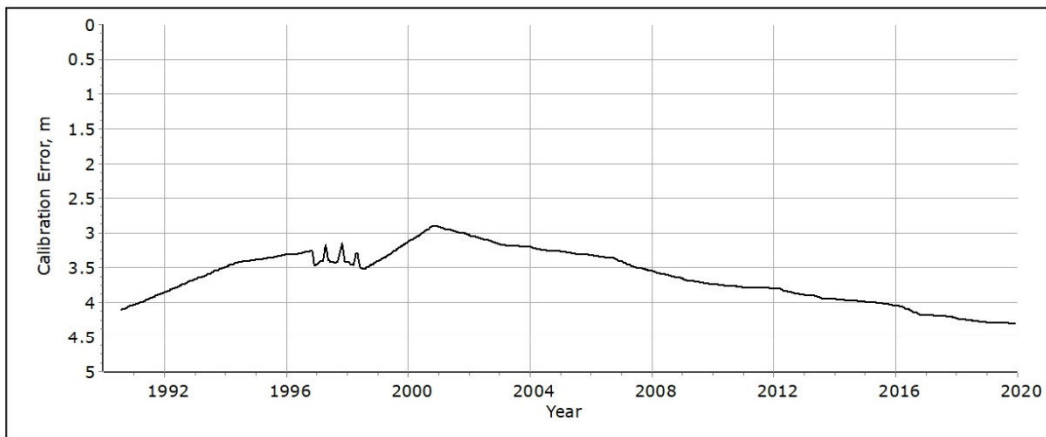
Bore Name: LS23B
Superficial/Yarragadee

Version: VRX V2

Calibration Hydrograph



Calibration Error



Absolute Average Error, m: 3.5896

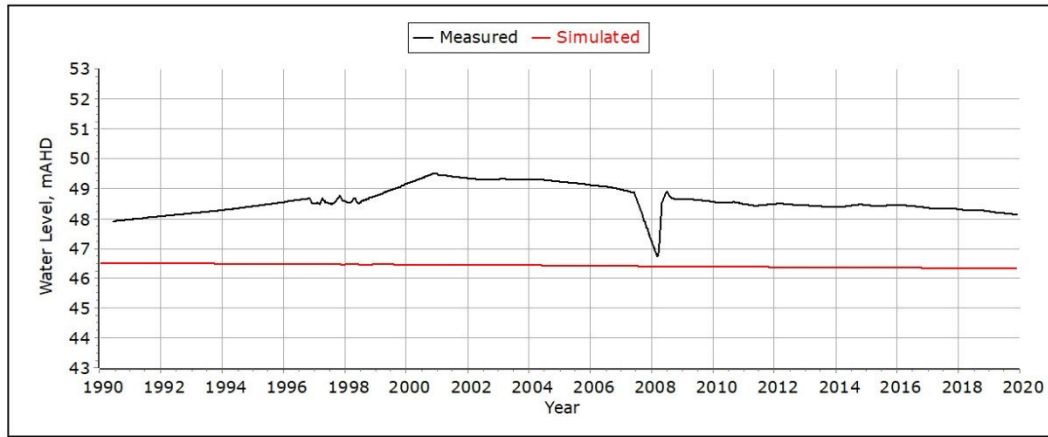
RMS Error, m: 3.6084



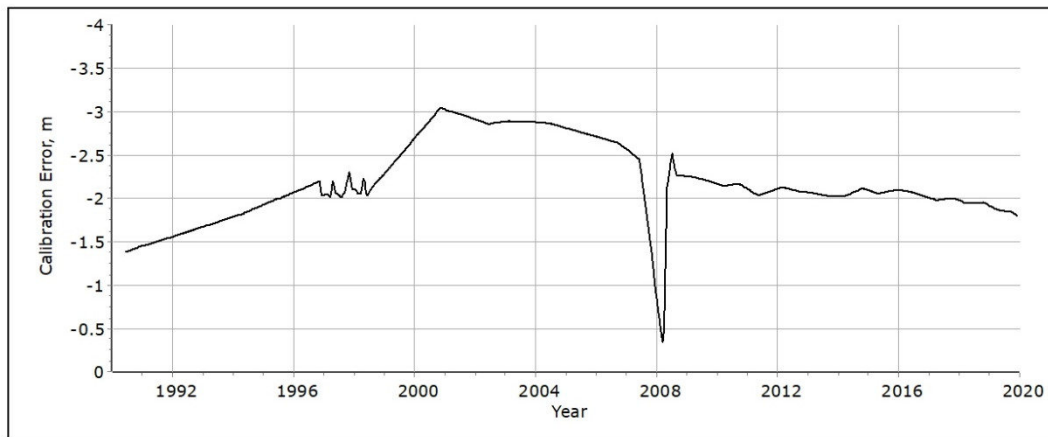
Bore Name: LS24A
Superficial/Yarragadee

Version: VRX V2

Calibration Hydrograph



Calibration Error



Absolute Average Error, m: 2.1969

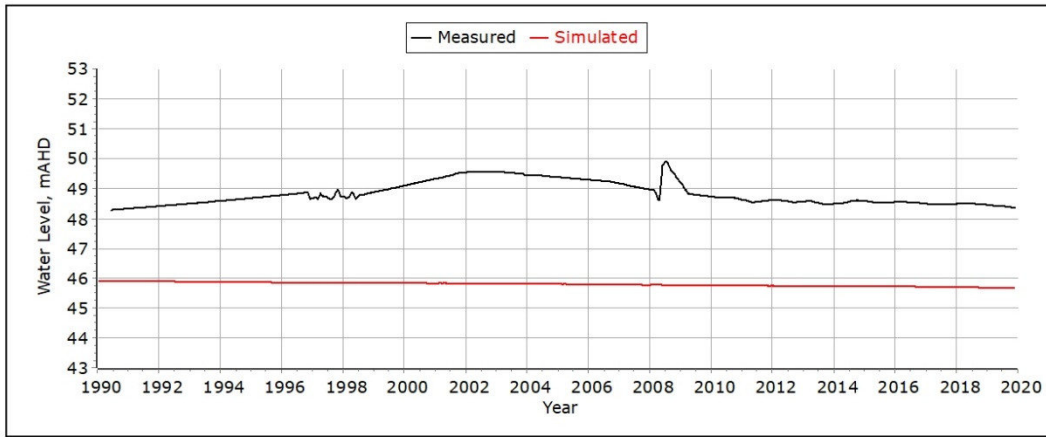
RMS Error, m: 2.2441



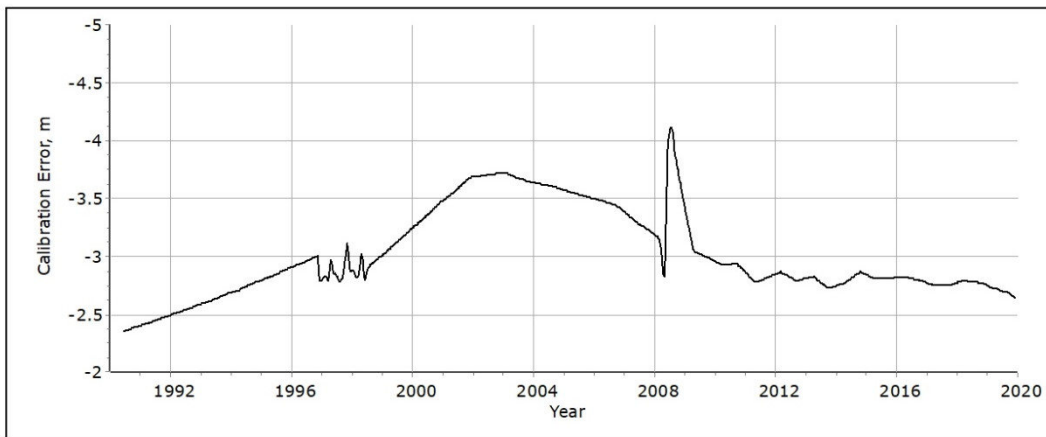
Bore Name: LS24B
Superficial/Yarragadee

Version: VRX V2

Calibration Hydrograph



Calibration Error



Absolute Average Error, m: 3.0264

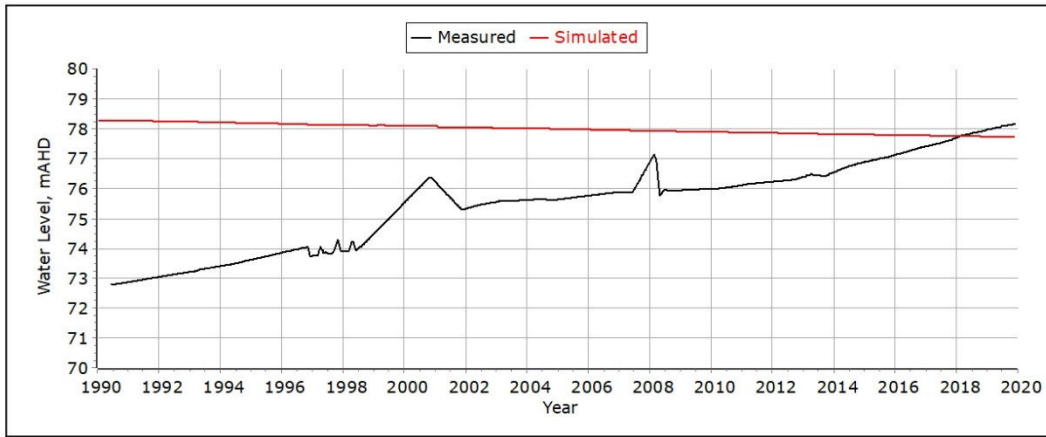
RMS Error, m: 3.0505



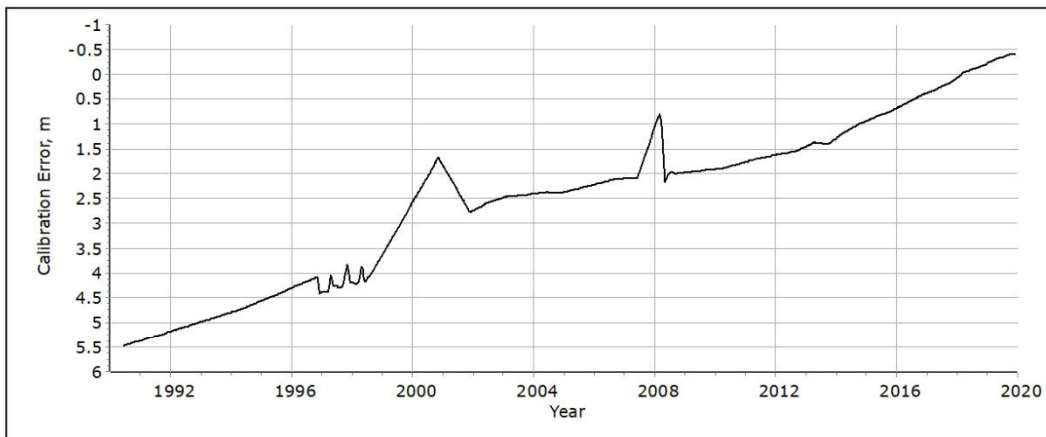
Bore Name: LS25A
Superficial/Yarragadee

Version: VRX V2

Calibration Hydrograph



Calibration Error



Absolute Average Error, m: 2.5601

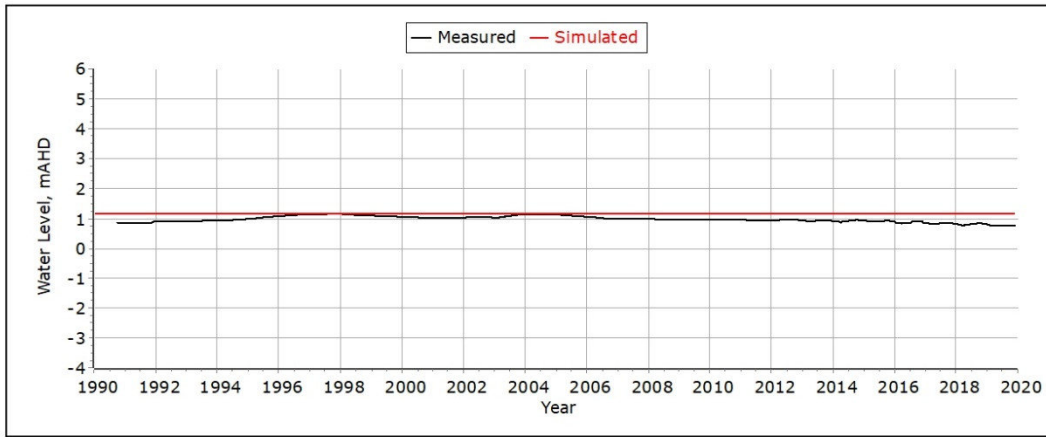
RMS Error, m: 2.9872



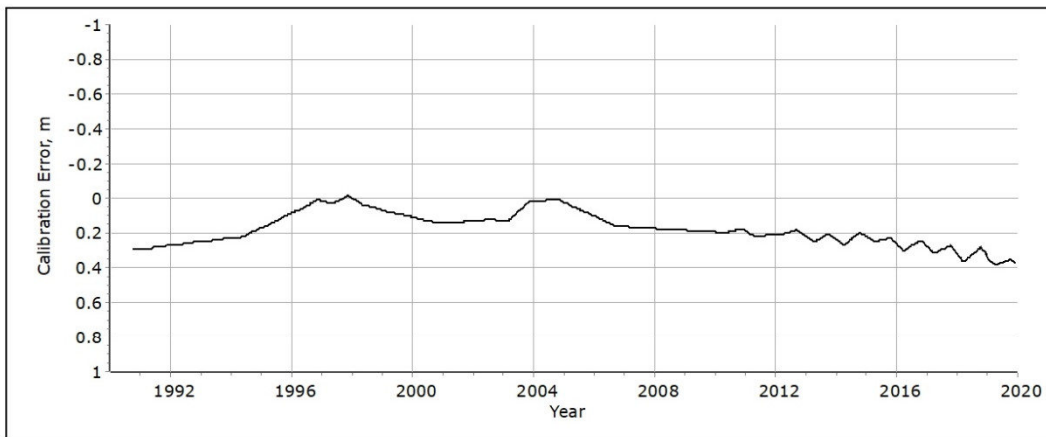
Bore Name: LS26C
Superficial/Yarragadee

Version: VRX V2

Calibration Hydrograph



Calibration Error



Absolute Average Error, m: 0.1725

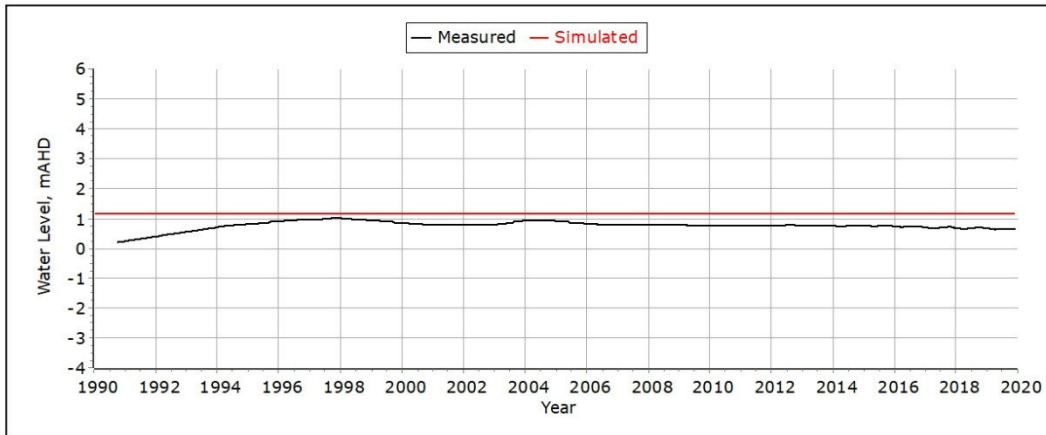
RMS Error, m: 0.1945



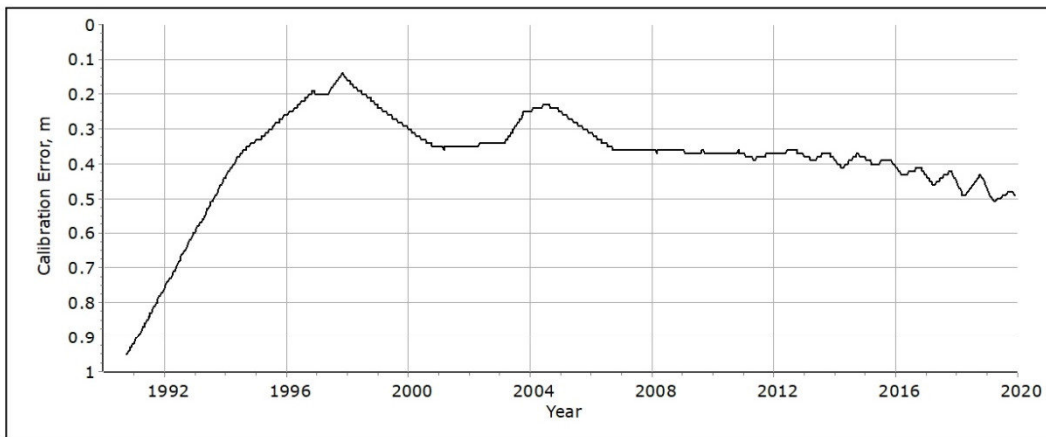
Bore Name: LS26D
Superficial/Yarragadee

Version: VRX V2

Calibration Hydrograph



Calibration Error



Absolute Average Error, m: 0.3796

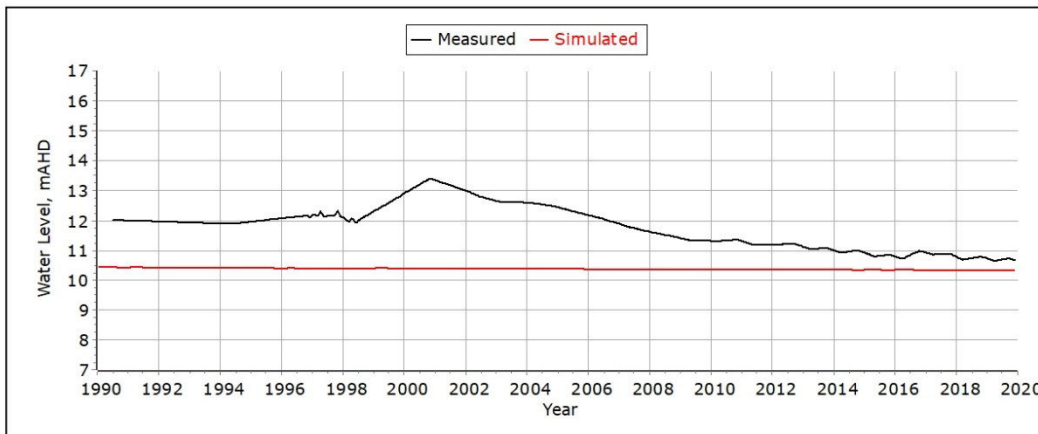
RMS Error, m: 0.4061



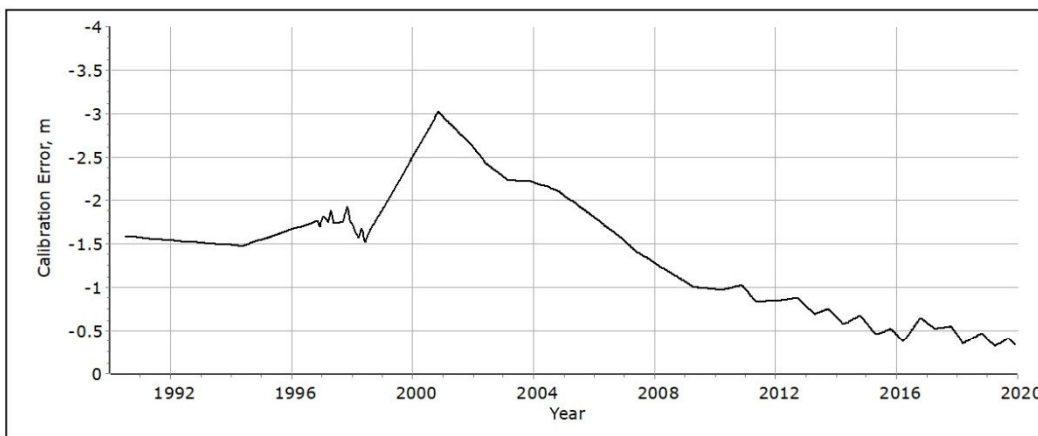
Bore Name: LS27A
Superficial/Yarragadee

Version: VRX V2

Calibration Hydrograph



Calibration Error



Absolute Average Error, m: 1.4412

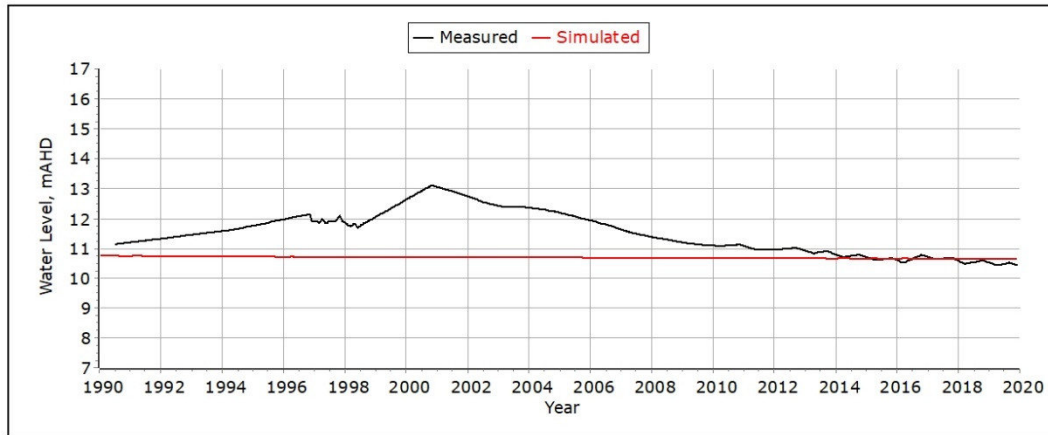
RMS Error, m: 1.5946



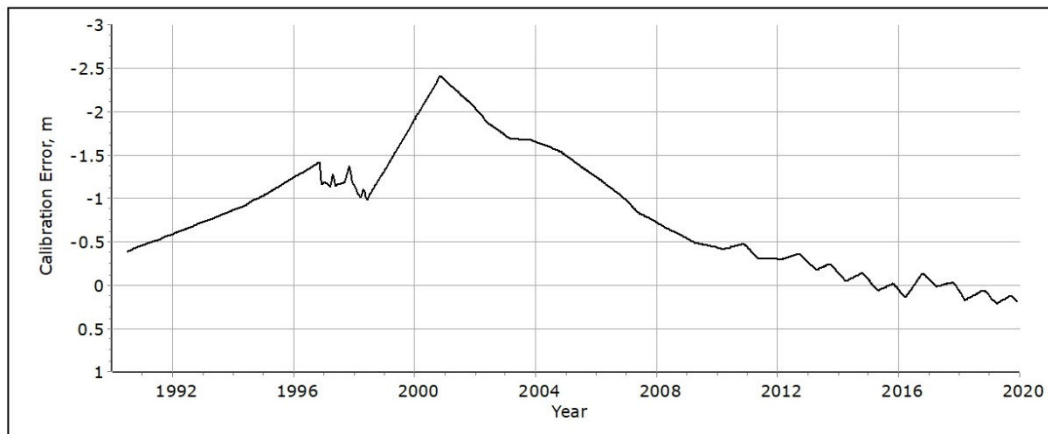
Bore Name: LS27B
Superficial/Yarragadee

Version: VRX V2

Calibration Hydrograph



Calibration Error



Absolute Average Error, m: 0.8730

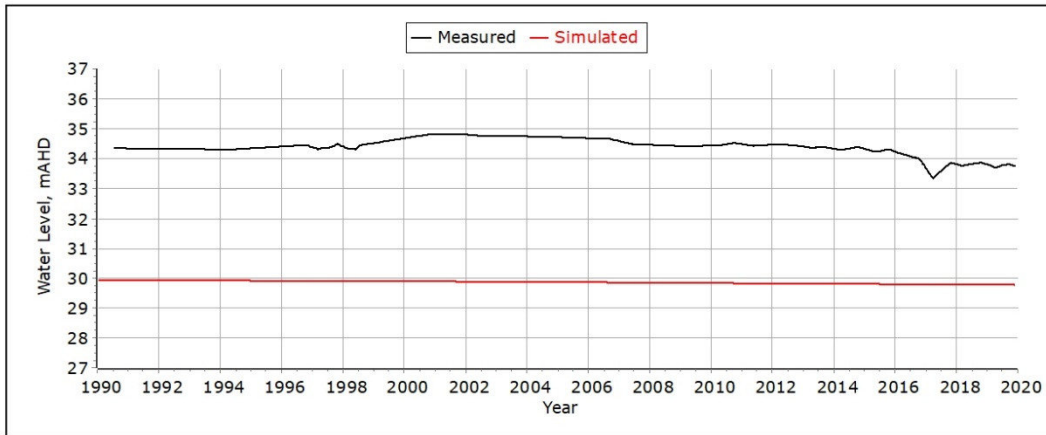
RMS Error, m: 1.0896



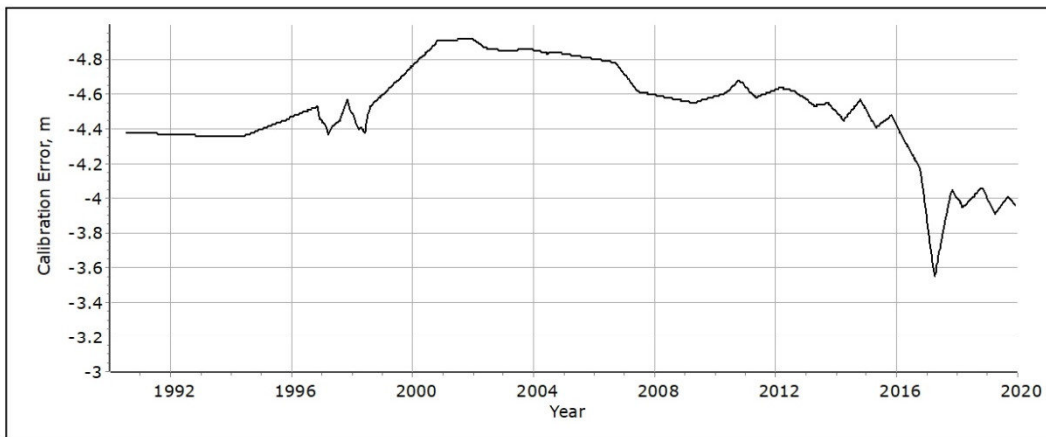
Bore Name: LS28A
Superficial/Yarragadee

Version: VRX V2

Calibration Hydrograph



Calibration Error



Absolute Average Error, m: 4.5313

RMS Error, m: 4.5387



APPENDIX B
FORM 2's



Information to be provided on completion of a non-artesian well

Information to be provided to the Department of Water under the *Water Agencies (Powers) Act 1984* and Section 26E of the *Rights in Water and Irrigation Act 1914* and Regulation 39 of the *Rights in Water and Irrigation Regulations 2000*

Please note:

- All information is to be written clearly and in block letters.
- If insufficient room please use a separate piece of paper.
- It is the responsibility of the person carrying out the works to fill out this form.

Part 1: Details of any licence granted for the work under the *Rights in Water And Irrigation Act 1914* section 26D

Licence number

Individual Company

Licensee's full name

Part 2: Details of person carrying out the works

Company

Driller

Driller licence number (non-mandatory) Driller classification (non-mandatory)

Postal address

Telephone Facsimile

Email

Part 3: Location of well

A 26D licence will list the premises on which well construction is to occur.

If the physical address of the well is different from the property address listed on the licence, contact the Department of Water prior to the commencement of construction.

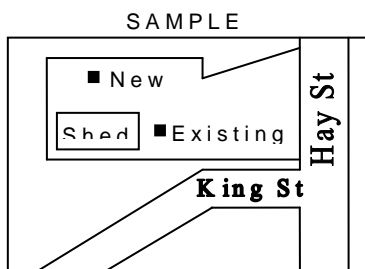
Property address of well or other tenure details

Well coordinates GPS reading Estimate

Zone Easting/latitude Northing/longitude

Datum (e.g. GDA94/WGS84) GPS reliability

Location plan – in the box below please sketch a plan showing position of well in relation to building, boundaries, road, nearest cross road and any additional information to assist in locating the well.



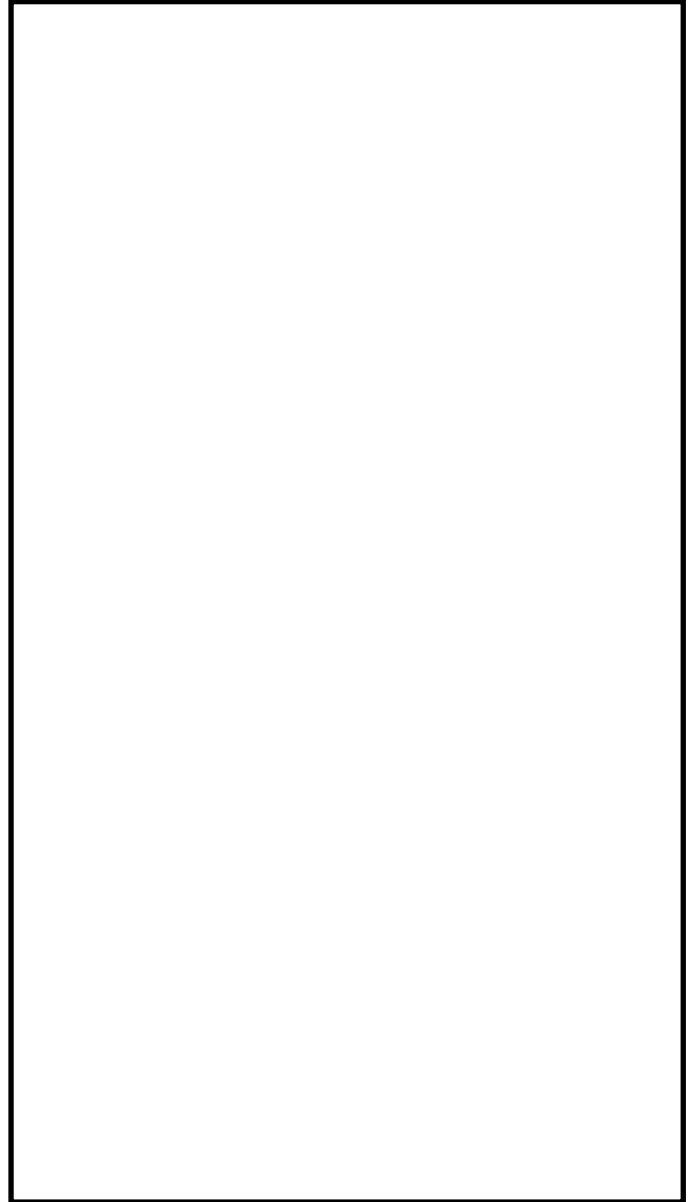
In the box to the right, please sketch a plan showing:

- location of all wetlands / watercourses / wells / soaks (existing and proposed).
- major improvements (house, large sheds etc).
- shaded sections to indicate areas under development.

Part 4: Construction details (All measurements are to be taken from ground level)

Production casing detail					
Material	Nominal bore	Diameter O.D (mm)	Wall thickness (mm)	Depth	
				From (m)	To (m)

Please complete well construction diagram in box provided below. If insufficient room please attach on separate piece of paper.



Screens/slots				
Screens/slot (type)	Diameter O.D (mm)	Aperture (mm)	Top of screen (m)	Bottom of screen (m)

Gravel pack details		
Gravel size (mm)	From (m)	To (m)

Annular fill		
Material type	From (m)	To (m)

Cementing detail		
<input type="checkbox"/> Pressure cement grouted <input type="checkbox"/> Tremmie		
Casing diameter (mm O.D)	Depth	
	From (m)	To (m)

Total depth drilled (from ground level)

Geophysical log required as condition of licence? Yes No

Geophysical log taken? (attach log and contractor details) Yes No

From (m)	To (m)	Strata description (If insufficient room attach on separate page)

Part 5: Particulars of well

Drilling start date refers to the date drilling begins. Do not include set up date.

Drilling completion date includes well development and testing.

Well name / number

Drilling start Drilling completion

Drilling method used

Rotary air Cable tool Auger Rotary mud

Sludge Other (specify) _____

Final status of well

Ready to operate Decommissioned

Other (specify) _____

Purpose (use) of well

Production Investigation Monitoring

Other (specify) _____

Part 6: Well development

Date (dd/mm/yy) Duration of development hours

Method Airlift Pump Jetting Surging

Development pump rate (e.g. L/s, m³/day)

Part 7: Pump testing (If applicable)

Date start (dd/mm/yy) Date end (dd/mm/yy) Duration of test hours

Step test Constant rate Other

Constant rate - pump rate (e.g. m³/day)

Pump type (e.g. submersible)

Water rest level prior to test (m)

Measurements taken from top of casing (TOC) ground level (GL)

other (specify) _____

Elevation of measurement reference point if known (metres AHD)

GPS Estimate

other (specify) _____

Final drawdown m Recommended supply (e.g. m³/day)

Final drawdown is the distance between the static water level measured prior to the test and the water level measured at the end of the pumping test.

Comments.....

Part 8: Field samples

Specify unit measurements.

Collection method (e.g. pump test, airlift)

Conductivity (e.g. mS/m)

Water temperature at test

Temperature compensated pH

Temperature uncompensated

Comments.....

Part 9: Lab samples

Lab samples taken (Please attach) Yes No

TDS (e.g. mg/l)

Please submit samples separately to form if not received before the 1 month submission deadline.

Part 10: Water levels

SWL (Static water level)	m	Water cut at	m
Measurements taken from	<input type="checkbox"/> top of casing (TOC) <input type="checkbox"/> ground level (GL) <input type="checkbox"/> other (specify) _____		
Date of reading (dd/mm/yy)			

Comments.....

Part 11: Declaration and signature

Capacity of person making declaration:

- An individual who carried out the work
- An officer who is a director or secretary of a corporation that carried out the work.
- Other (describe).....

I, _____ (name of person making declaration) declare that the information provided on this form is true and correct.

Important information

- All information must be completed on the form unless otherwise indicated as optional for example; provision of the drillers licence number and classification fields are not mandatory and can be filled in at the drillers discretion. Provision of non-mandatory details would greatly assist the department in completion of its data set.
- Failure to complete all mandatory details and to submit the form to the department is an offence under the *Rights in Water and Irrigation Act 1914*.
- Under section 26E and regulation 39 within 1 month of completion of the construction of or deepening of the well, the person carrying out the work for a 26D licence must submit this form.
- Non-artesian wells in proclaimed areas require a licence unless exempted under the *Rights in Water and Irrigation Exemption (S26C) Order 2007*.

Where and how to submit this form

This form can be submitted by fax, post or in person to the appropriate Department of Water regional office. For assistance in completing this form contact your regional office.

Kimberley Region

Kununurra Regional Office
27 Victoria Hwy
Kununurra WA 6743
Tel: 08 9166 4100
Fax: 08 9168 3174
PO Box 625
Kununurra WA 6743

Midwest Gascoyne Region

Geraldton Regional Office
94 Sandford Street
Geraldton WA 6531
Tel: 08 9965 7400
Fax: 08 9964 5983
Po Box 81
Geraldton WA 6531

Carnarvon

Carnarvon District Office
211 Robinson Street
Carnarvon WA 6701
Tel: 08 9941 6100
Fax: 08 9941 4931
PO Box 81
Carnarvon WA 6701

Kwinana Peel Region

Mandurah Regional Office
107 Breakwater Parade
Mandurah WA 6210
Tel: 08 9550 4222
Fax: 08 9581 4560
PO Box 332
Mandurah WA 6210

South West Region

Bunbury Regional Office
35-39 McCombe Road
Bunbury WA 6230
Tel: 08 9726 4111
Fax: 08 9726 4100
PO Box 261
Bunbury WA 6231

Busselton

Busselton District Office
Suite 2, 72 Duchess Street
Busselton WA 6280
Tel: 08 9781 0188
Fax: 08 9754 4335
PO Box 269
Busselton WA 6280

South Coast Region

Albany Regional Office
5 Bevan Street
Albany WA 6330
Tel: 08 9842 5760
Fax: 08 9842 1204
PO Box 525
Albany WA 6331

Pilbara Region

Karratha Regional Office
Lot 4608 Cherratta Road
Karratha Industrial Estate
Karratha WA 6714
Tel: 08 9144 2000
Fax: 08 9144 2610
PO Box 836
Karratha WA 6714

Swan Avon Region

Victoria Park Regional Office
7 Ellam Street
Victoria Park WA 6100
Tel: 08 6250 8000
Fax: 08 6250 8050

Warren Blackwood District

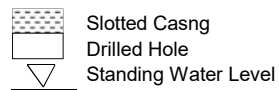
Manjimup Regional Office
52 Bath Street
Manjimup WA 6528
Tel: 08 9771 1878
Fax: 08 9771 4335

Please retain a copy of this form for your records

Depth (m)	Lithology	Construction Log	
3	Yellow clayey sand fine grained	Surface Casing	3
6			6
9			9
12	Cemeted clay and soft limestone layers with grey medium grained sand from 17 to 28m		12
15		100mm Class 9 PVC	15
18			18
21			21
24		100mm Class 9 PVC Slotted	24
27			27
30	Fine yellow silty sand and minor clay layers		30
33			33
36			36
39			39
42			42
45			45

Drilled by: Western Drilling
 Commenced: July 2021
 Completed: July 2021
 Total Drilled Depth: 30m
 Total Cased Depth: 30m
 Screened Interval: 18 - 30m
 Reduced Level (top of steel collar):

Easting 313920
 Northing 6733540
 RL 24m AHD



24m approx

Date	Rev.	Description	Dwn	Chk'd

Ventnor Mining Pty Ltd

L70/199

Arrowsmith

SMB1 Bore Construction

Project:

Drawing:

Figure:



Information to be provided on completion of a non-artesian well

Information to be provided to the Department of Water under the *Water Agencies (Powers) Act 1984* and Section 26E of the *Rights in Water and Irrigation Act 1914* and Regulation 39 of the *Rights in Water and Irrigation Regulations 2000*

Please note:

- All information is to be written clearly and in block letters.
- If insufficient room please use a separate piece of paper.
- It is the responsibility of the person carrying out the works to fill out this form.

Part 1: Details of any licence granted for the work under the *Rights in Water And Irrigation Act 1914* section 26D

Licence number

Individual Company

Licensee's full name

Part 2: Details of person carrying out the works

Company

Driller

Driller licence number (non-mandatory) Driller classification (non-mandatory)

Postal address

Telephone Facsimile

Email

Part 3: Location of well

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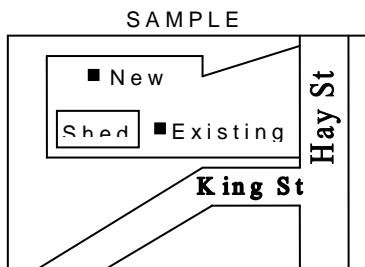
Property address of well or other tenure details

Well coordinates GPS reading Estimate

Zone Easting/latitude Northing/longitude

Datum (e.g. GDA94/WGS84) GPS reliability

Location plan – in the box below please sketch a plan showing position of well in relation to building, boundaries, road, nearest cross road and any additional information to assist in locating the well.

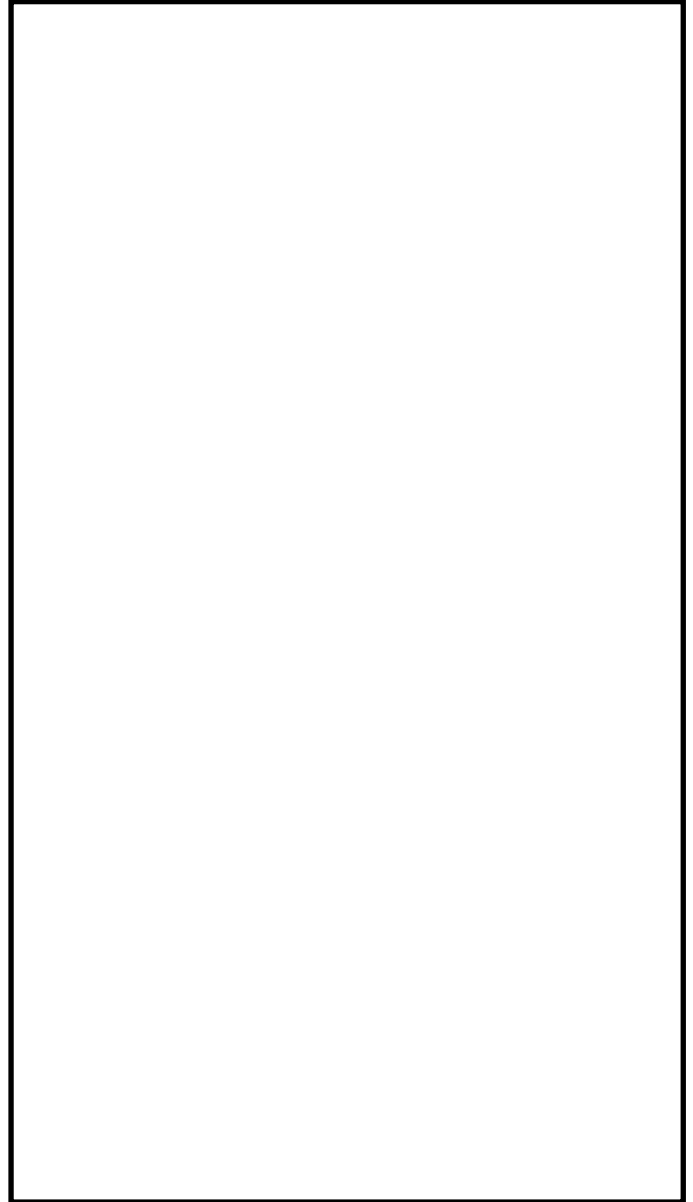


In the box to the right, please sketch a plan showing:
- location of all wetlands / watercourses / wells / soaks (existing and proposed).
- major improvements (house, large sheds etc).
- shaded sections to indicate areas under development.

Part 4: Construction details (All measurements are to be taken from ground level)

Production casing detail					
Material	Nominal bore	Diameter O.D (mm)	Wall thickness (mm)	Depth	
				From (m)	To (m)

Please complete well construction diagram in box provided below. If insufficient room please attach on separate piece of paper.



Screens/slots				
Screens/slot (type)	Diameter O.D (mm)	Aperture (mm)	Top of screen (m)	Bottom of screen (m)

Gravel pack details		
Gravel size (mm)	From (m)	To (m)

Annular fill		
Material type	From (m)	To (m)

Cementing detail		
<input type="checkbox"/> Pressure cement grouted <input type="checkbox"/> Tremmie		
Casing diameter (mm O.D)	Depth	
	From (m)	To (m)

Total depth drilled (from ground level)

Geophysical log required as condition of licence? Yes No

Geophysical log taken? (attach log and contractor details) Yes No

From (m)	To (m)	Strata description (If insufficient room attach on separate page)

Part 5: Particulars of well

Drilling start date refers to the date drilling begins. Do not include set up date.

Drilling completion date includes well development and testing.

Well name / number

Drilling start Drilling completion

Drilling method used

Rotary air Cable tool Auger Rotary mud

Sludge Other (specify) _____

Final status of well

Ready to operate Decommissioned

Other (specify) _____

Purpose (use) of well

Production Investigation Monitoring

Other (specify) _____

Part 6: Well development

Date (dd/mm/yy) Duration of development hours

Method Airlift Pump Jetting Surging

Development pump rate (e.g. L/s, m³/day)

Part 7: Pump testing (If applicable)

Date start (dd/mm/yy) Date end (dd/mm/yy) Duration of test hours

Step test Constant rate Other

Constant rate - pump rate (e.g. m³/day)

Pump type (e.g. submersible)

Water rest level prior to test (m)

Measurements taken from top of casing (TOC) ground level (GL)

other (specify) _____

Elevation of measurement reference point if known (metres AHD) GPS Estimate

other (specify) _____

Final drawdown m Recommended supply (e.g. m³/day)

Final drawdown is the distance between the static water level measured prior to the test and the water level measured at the end of the pumping test.

Comments.....

Part 8: Field samples

Specify unit measurements.

Collection method (e.g. pump test, airlift)

Conductivity (e.g. mS/m)

Water temperature at test

Temperature compensated Temperature uncompensated

pH

Comments.....

Part 9: Lab samples

Lab samples taken (Please attach) Yes No

TDS (e.g. mg/l)

Please submit samples separately to form if not received before the 1 month submission deadline.

Part 10: Water levels

SWL (Static water level)	m	Water cut at	m
Measurements taken from	<input type="checkbox"/> top of casing (TOC) <input type="checkbox"/> ground level (GL) <input type="checkbox"/> other (specify) _____		
Date of reading (dd/mm/yy)			

Comments.....

Part 11: Declaration and signature

Capacity of person making declaration:

- An individual who carried out the work
- An officer who is a director or secretary of a corporation that carried out the work.
- Other (describe).....

I, _____ (name of person making declaration) declare that the information provided on this form is true and correct.

Important information

- All information must be completed on the form unless otherwise indicated as optional for example; provision of the drillers licence number and classification fields are not mandatory and can be filled in at the drillers discretion. Provision of non-mandatory details would greatly assist the department in completion of its data set.
- Failure to complete all mandatory details and to submit the form to the department is an offence under the *Rights in Water and Irrigation Act 1914*.
- Under section 26E and regulation 39 within 1 month of completion of the construction of or deepening of the well, the person carrying out the work for a 26D licence must submit this form.
- Non-artesian wells in proclaimed areas require a licence unless exempted under the *Rights in Water and Irrigation Exemption (S26C) Order 2007*.

Where and how to submit this form

This form can be submitted by fax, post or in person to the appropriate Department of Water regional office. For assistance in completing this form contact your regional office.

Kimberley Region

Kununurra Regional Office
27 Victoria Hwy
Kununurra WA 6743
Tel: 08 9166 4100
Fax: 08 9168 3174
PO Box 625
Kununurra WA 6743

Midwest Gascoyne Region

Geraldton Regional Office
94 Sandford Street
Geraldton WA 6531
Tel: 08 9965 7400
Fax: 08 9964 5983
Po Box 81
Geraldton WA 6531

Carnarvon

Carnarvon District Office
211 Robinson Street
Carnarvon WA 6701
Tel: 08 9941 6100
Fax: 08 9941 4931
PO Box 81
Carnarvon WA 6701

Kwinana Peel Region

Mandurah Regional Office
107 Breakwater Parade
Mandurah WA 6210
Tel: 08 9550 4222
Fax: 08 9581 4560
PO Box 332
Mandurah WA 6210

South West Region

Bunbury Regional Office
35-39 McCombe Road
Bunbury WA 6230
Tel: 08 9726 4111
Fax: 08 9726 4100
PO Box 261
Bunbury WA 6231

Busselton

Busselton District Office
Suite 2, 72 Duchess Street
Busselton WA 6280
Tel: 08 9781 0188
Fax: 08 9754 4335
PO Box 269
Busselton WA 6280

South Coast Region

Albany Regional Office
5 Bevan Street
Albany WA 6330
Tel: 08 9842 5760
Fax: 08 9842 1204
PO Box 525
Albany WA 6331

Pilbara Region

Karratha Regional Office
Lot 4608 Cherratta Road
Karratha Industrial Estate
Karratha WA 6714
Tel: 08 9144 2000
Fax: 08 9144 2610
PO Box 836
Karratha WA 6714

Swan Avon Region

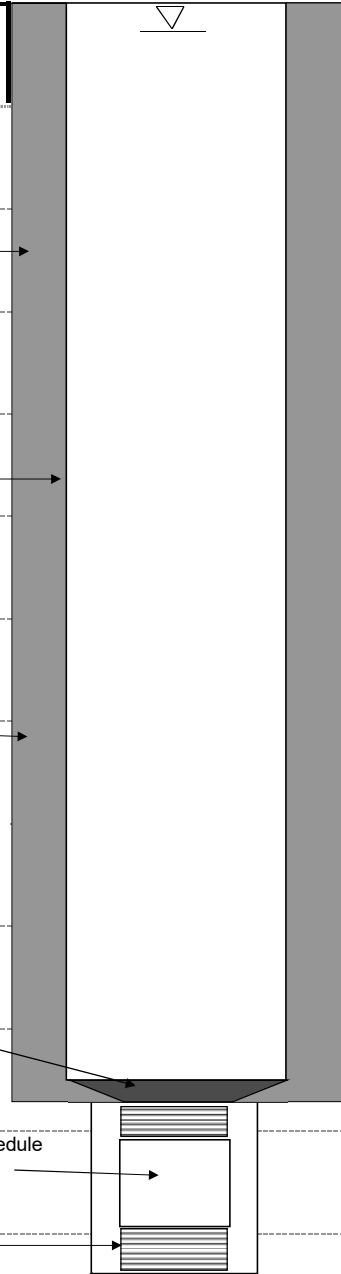
Victoria Park Regional Office
7 Ellam Street
Victoria Park WA 6100
Tel: 08 6250 8000
Fax: 08 6250 8050

Warren Blackwood District

Manjimup Regional Office
52 Bath Street
Manjimup WA 6528
Tel: 08 9771 1878
Fax: 08 9771 4335

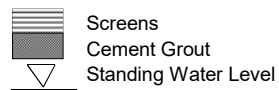
Please retain a copy of this form for your records

Depth (m)	Lithology	Construction Log
30	Yellow clayey sand fine grained	254mm Surface Casing Cement Grouted
	Cemented clay and soft limestone layers with grey medium grained sand	
60	Fine yellow silty sand and minor clay	Pressure Cement Grouted
	Coarse sand and some gravel with minor clay	
90	Yellow fine to medium clayey sand	125mm NB SS Schedule 40 Steel
120		
150		
180	Yellow medium to coarse clayey sands	Pressure Cemented Annulus
210	Black sandy shale - swelling	
240	Interbedded medium to coarse sand and grey shale - swelling	Hanger Ring Assembly and Packer
270	Grey medium to coarse sand with minor grey shale	
300	Grey coarse to medium sand with minor grey shale	
	Dense grey shale and swelling	
330	Medium to coarse grey sand	80mm ID Schedule 40 S/S Blank
	Grey shale with minor sand	
360	Medium to coarse grey sand	80mm OD Screens 0.5mm Aperture
	Grey shale	
390	Medium to coarse loose grey sand	374m TD
420	Coarse grained cemented sandstone and shale	
450		



Drilled by: Western Drilling
 Commenced: January 2022
 Completed: January 2022
 Total Drilled Depth: 374m
 Total Cased Depth: 374m
 Screened Interval: 326 - 332m 362 - 374m
 Reduced Level (top of steel collar): 24m approx

Easting 313920
 Northing 6733540
 RL 24m AHD



Date	Rev.	Description	Dwn	Chk'd

Ventnor Mining Pty Ltd		
L70/199		
Arrowsmith		
YMB1 Bore Construction		
Project:	Drawing:	Figure:



Information to be provided on completion of a non-artesian well

Information to be provided to the Department of Water under the *Water Agencies (Powers) Act 1984* and Section 26E of the *Rights in Water and Irrigation Act 1914* and Regulation 39 of the *Rights in Water and Irrigation Regulations 2000*

Please note:

- All information is to be written clearly and in block letters.
- If insufficient room please use a separate piece of paper.
- It is the responsibility of the person carrying out the works to fill out this form.

Part 1: Details of any licence granted for the work under the *Rights in Water And Irrigation Act 1914* section 26D

Licence number

Individual Company

Licensee's full name

Part 2: Details of person carrying out the works

Company

Driller

Driller licence number (non-mandatory) Driller classification (non-mandatory)

Postal address

Telephone Facsimile

Email

Part 3: Location of well

A 26D licence will list the premises on which well construction is to occur.

If the physical address of the well is different from the property address listed on the licence, contact the Department of Water prior to the commencement of construction.

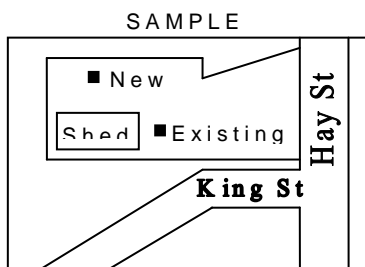
Property address of well or other tenure details

Well coordinates GPS reading Estimate

Zone Easting/latitude Northing/longitude

Datum (e.g. GDA94/WGS84) GPS reliability

Location plan – in the box below please sketch a plan showing position of well in relation to building, boundaries, road, nearest cross road and any additional information to assist in locating the well.

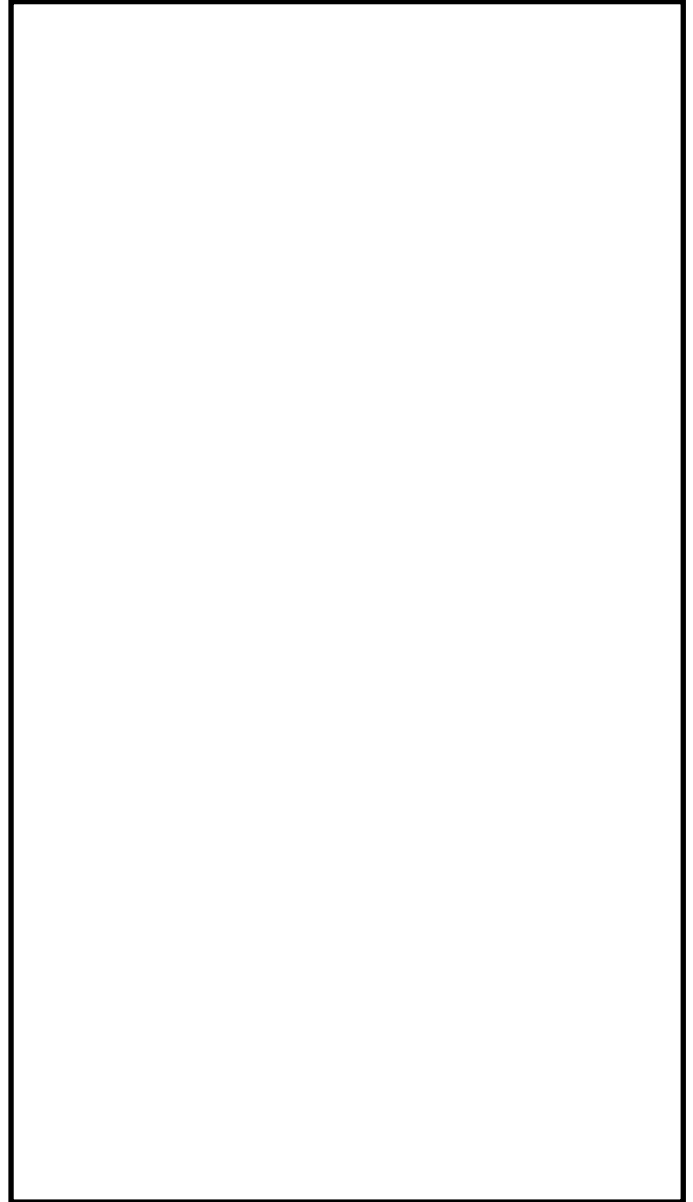


In the box to the right, please sketch a plan showing:
- location of all wetlands / watercourses / wells / soaks (existing and proposed).
- major improvements (house, large sheds etc).
- shaded sections to indicate areas under development.

Part 4: Construction details (All measurements are to be taken from ground level)

Production casing detail					
Material	Nominal bore	Diameter O.D (mm)	Wall thickness (mm)	Depth	
				From (m)	To (m)

Please complete well construction diagram in box provided below. If insufficient room please attach on separate piece of paper.



Screens/slots				
Screens/slot (type)	Diameter O.D (mm)	Aperture (mm)	Top of screen (m)	Bottom of screen (m)

Gravel pack details		
Gravel size (mm)	From (m)	To (m)

Annular fill		
Material type	From (m)	To (m)

Cementing detail		
<input type="checkbox"/> Pressure cement grouted <input type="checkbox"/> Tremmie		
Casing diameter (mm O.D)	Depth	
	From (m)	To (m)

Total depth drilled (from ground level)

Geophysical log required as condition of licence? Yes No

Geophysical log taken? (attach log and contractor details) Yes No

From (m)	To (m)	Strata description (If insufficient room attach on separate page)

Part 5: Particulars of well

Drilling start date refers to the date drilling begins. Do not include set up date.

Drilling completion date includes well development and testing.

Well name / number

Drilling start Drilling completion

Drilling method used

Rotary air Cable tool Auger Rotary mud

Sludge Other (specify) _____

Final status of well

Ready to operate Decommissioned

Other (specify) _____

Purpose (use) of well

Production Investigation Monitoring

Other (specify) _____

Part 6: Well development

Date (dd/mm/yy) Duration of development hours

Method Airlift Pump Jetting Surging

Development pump rate (e.g. L/s, m³/day)

Part 7: Pump testing (If applicable)

Date start (dd/mm/yy) Date end (dd/mm/yy) Duration of test hours

Step test Constant rate Other

Constant rate - pump rate (e.g. m³/day)

Pump type (e.g. submersible)

Water rest level prior to test (m)

Measurements taken from top of casing (TOC) ground level (GL)

other (specify) _____

Elevation of measurement reference point if known (metres AHD)

GPS Estimate

other (specify) _____

Final drawdown m Recommended supply (e.g. m³/day)

Final drawdown is the distance between the static water level measured prior to the test and the water level measured at the end of the pumping test.

Comments.....

Part 8: Field samples

Specify unit measurements.

Collection method (e.g. pump test, airlift)

Conductivity (e.g. mS/m)

Water temperature at test

Temperature compensated Temperature uncompensated

pH

Comments.....

Part 9: Lab samples

Lab samples taken (Please attach) Yes No

TDS (e.g. mg/l)

Please submit samples separately to form if not received before the 1 month submission deadline.

Part 10: Water levels

SWL (Static water level) m Water cut at m

Measurements taken from top of casing (TOC) ground level (GL)
 other (specify) _____

Date of reading (dd/mm/yy)

Comments.....

Part 11: Declaration and signature

Capacity of person making declaration:

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- Other (describe).....

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 Karratha WA 6714

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 Tel: 08 6250 8000
 Fax: 08 6250 8050

Warren Blackwood District

Manjimup Regional Office
 52 Bath Street
 Manjimup WA 6528
 Tel: 08 9771 1878
 Fax: 08 9771 4335

Please retain a copy of this form for your records

WESTLOG WIRELINE SERVICES

COMPANY WESTERN DRILLING

WELL NAME VRX

DATE 12th November 2021

LOGTYPE Resistivity Gamma

AREA Arrowsmith WA

DEPTH DRILLER 400M DEPTH LOGGER 400M

MEASURED FROM GL HOLE DIA 6.5 INCH

CASING DEPTH STEEL CASING TYPE STEEL

CASING SIZE 16 INCH

FLUID TYPE MUD FLUID LEVEL 0 M

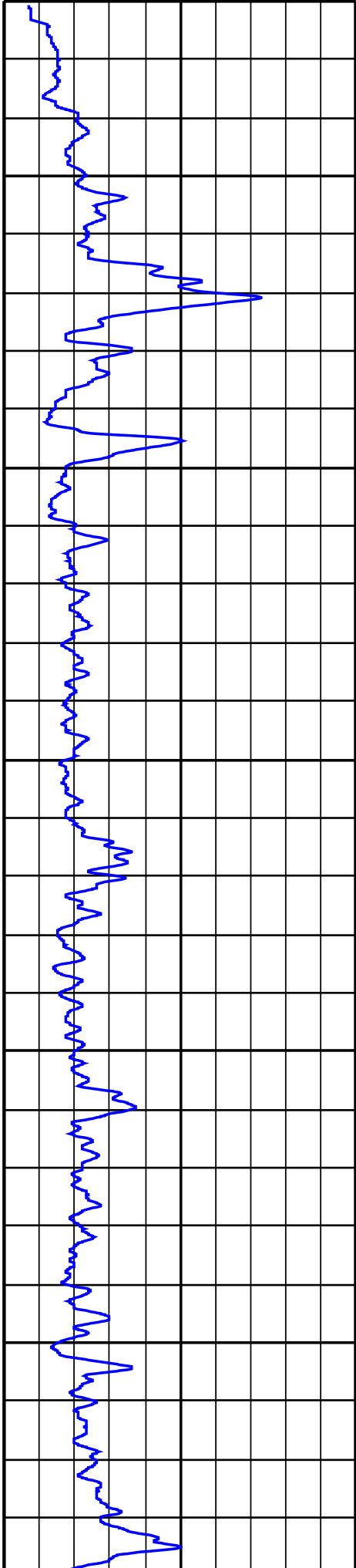
Logged by Tony Roberts

Witnessed by Steve Chitty

4 GAMMA

API

150



3 64in NORMAL

OHM-M

200

2 16in NORMAL

OHM-M

200

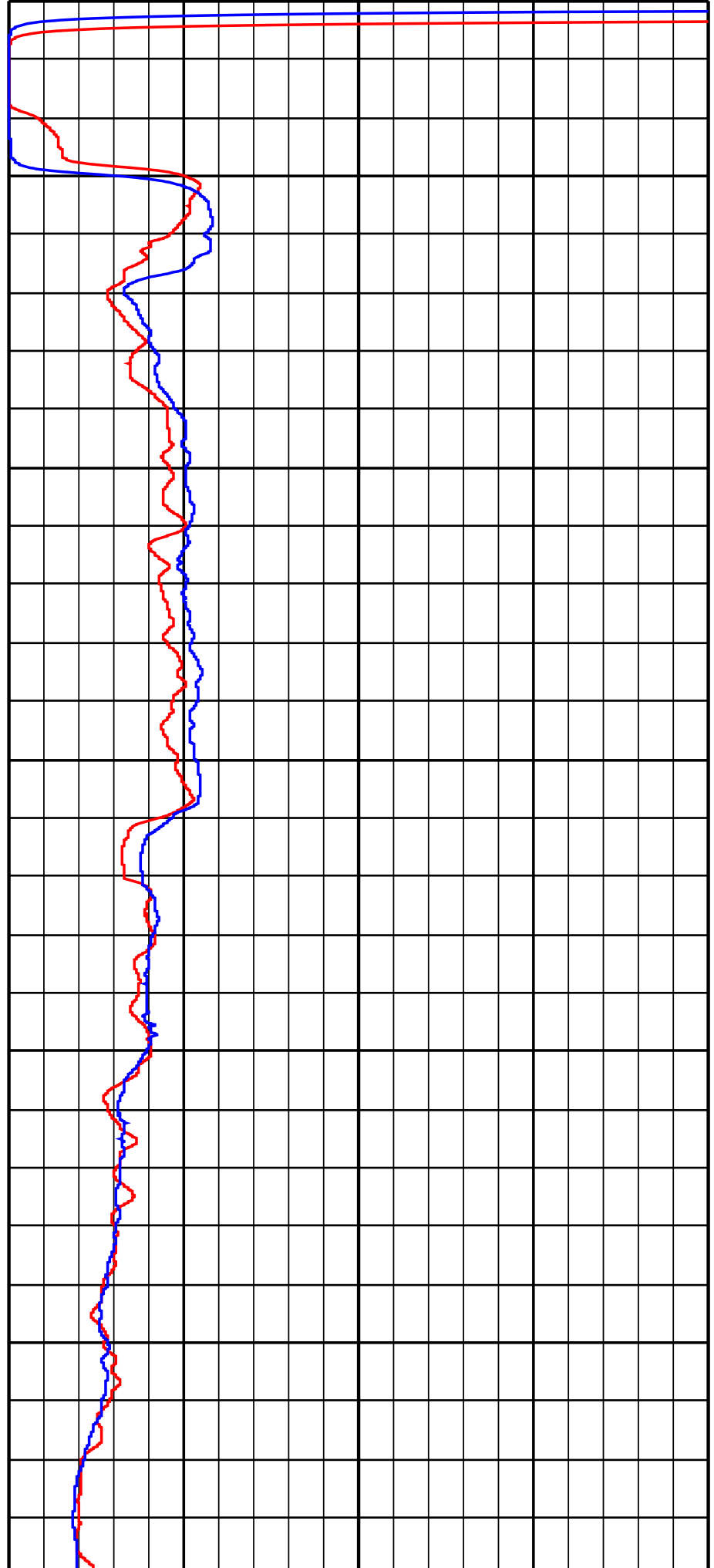
25m

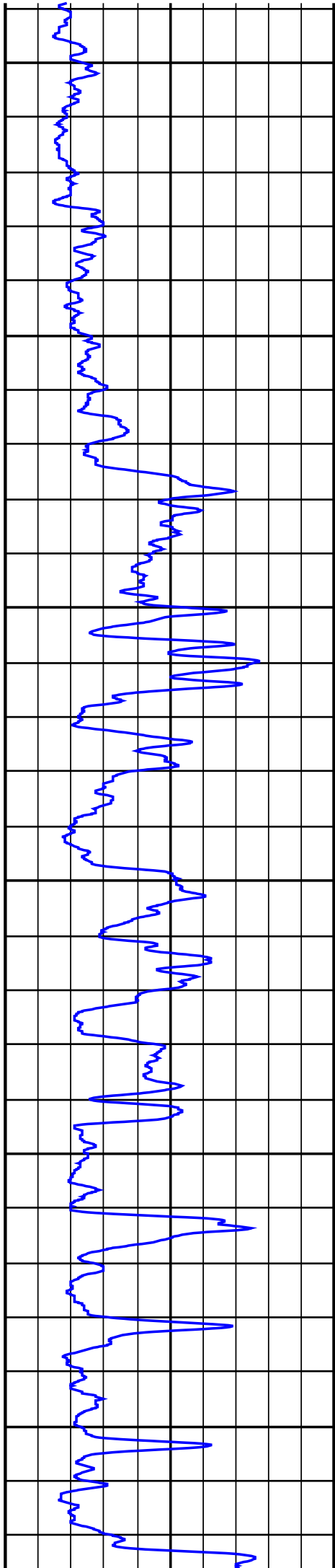
50m

75m

100m

125m





150m

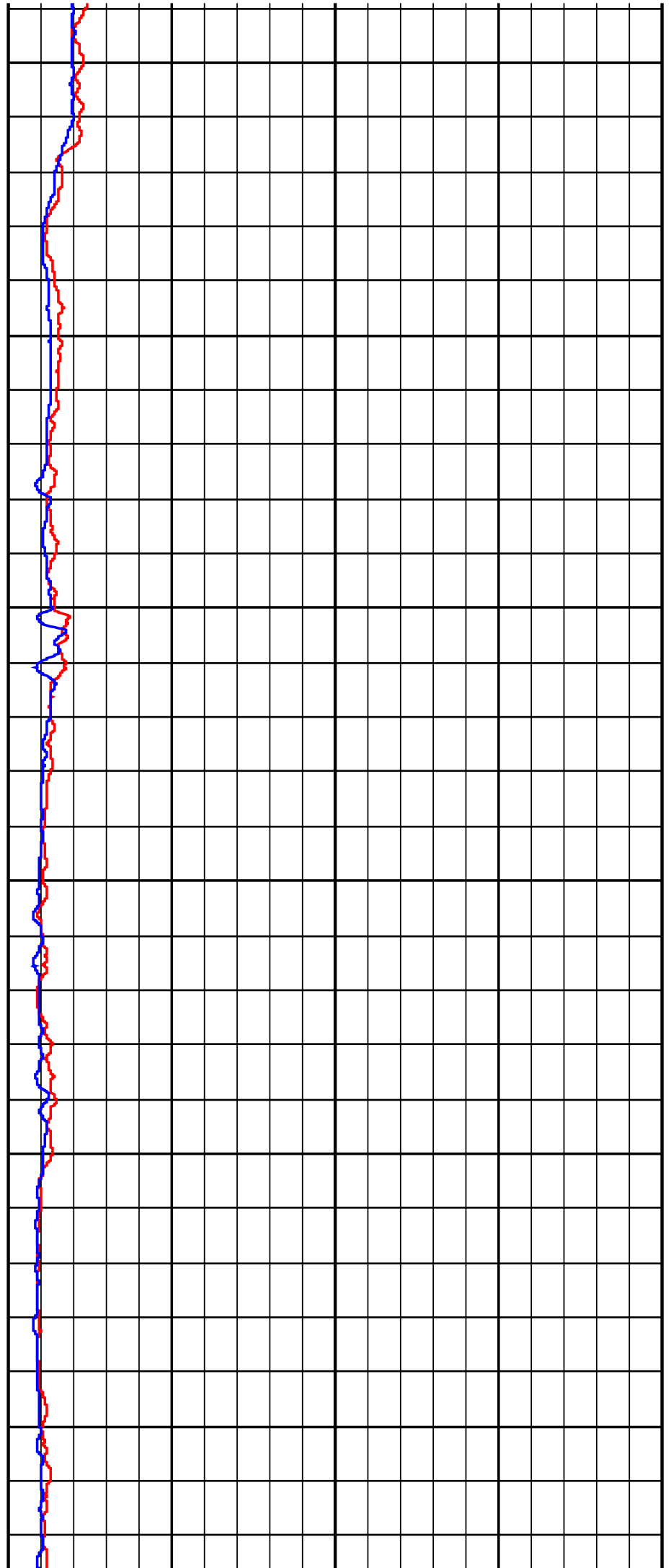
175m

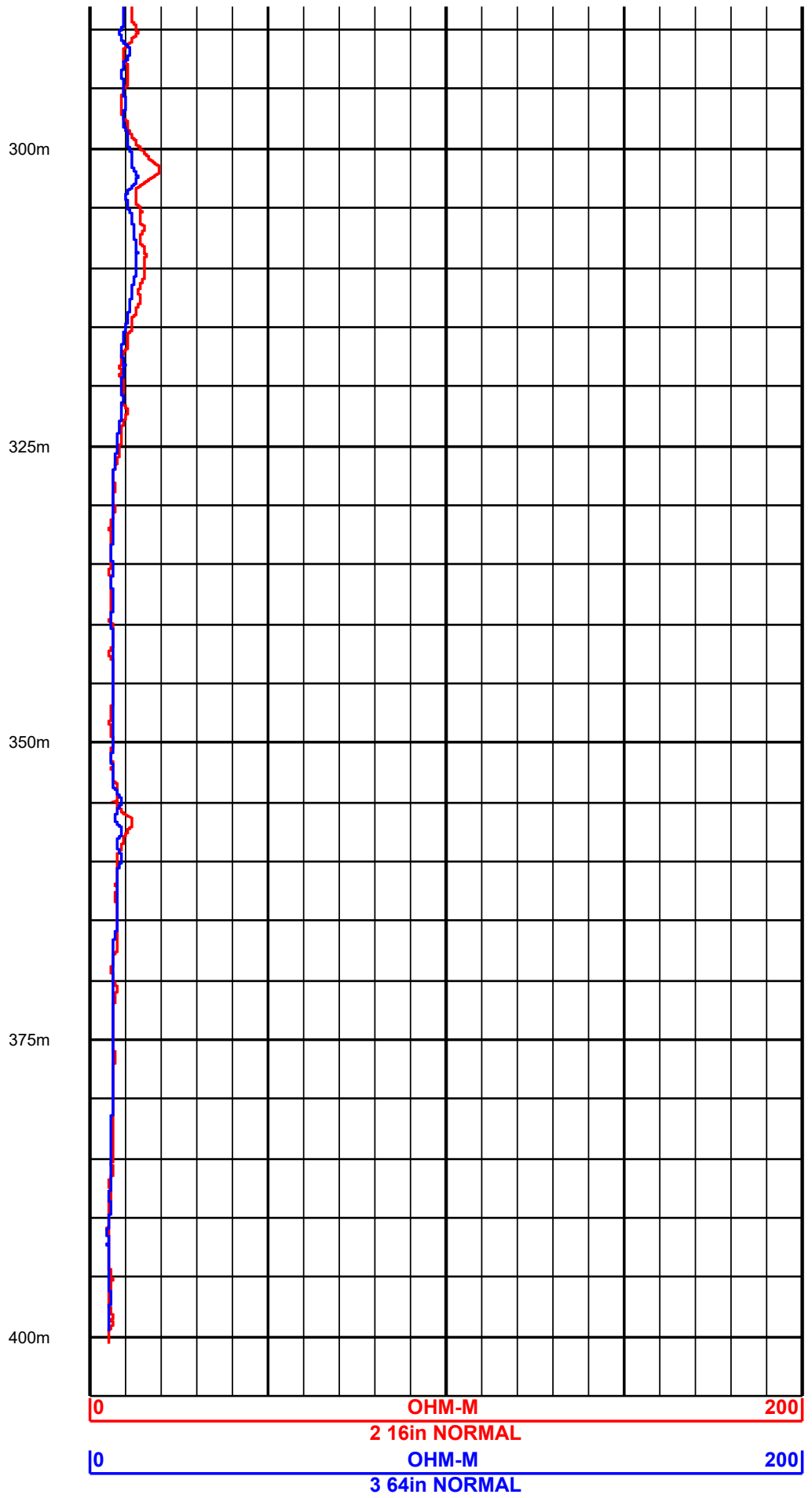
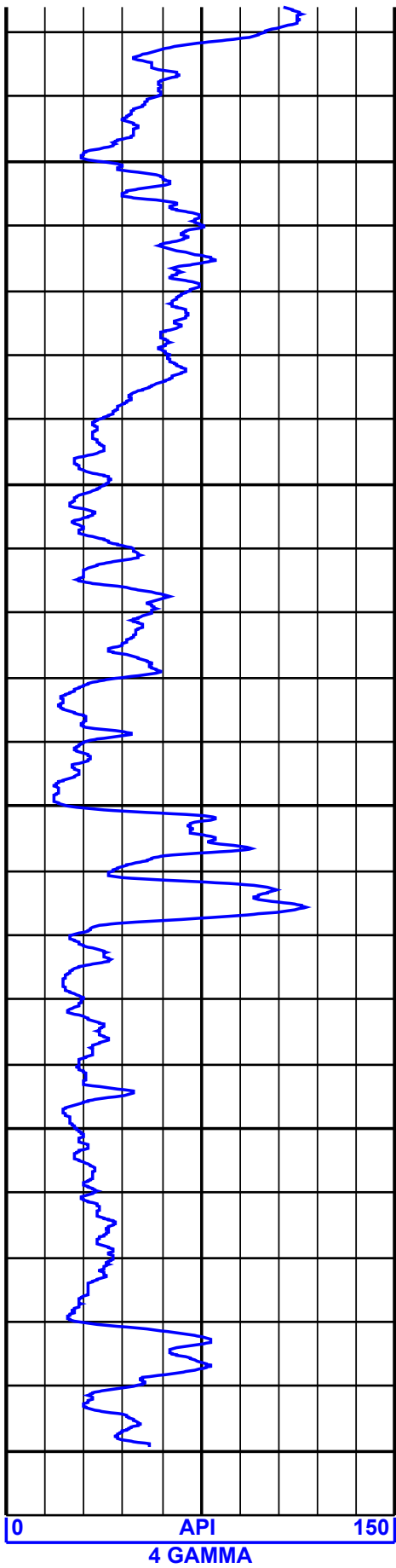
200m

225m

250m

275m

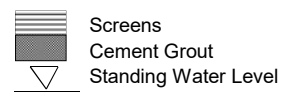




Depth (m)	Lithology	Construction Log	
30	Yellow clayey sand fine grained	406mm Surface Casing Cement Grouted	30
	Cemented clay and soft limestone layers with grey medium grained sand		
60	Fine yellow silty sand and minor clay	Grouted	60
	Coarse sand and some gravel with minor clay		
90	Yellow fine to medium clayey sand	Pressure Cement Grouted	90
120			120
150		250mm NB FRP Casing	150
180	Yellow medium to coarse clayey sands		180
210	Black sandy shale - swelling	Pressure Cemented Annulus	210
240	Interbedded medium to coarse sand and grey shale - swelling		240
270	Grey medium to coarse sand with minor grey shale		270
300	Grey coarse to medium sand with minor grey shale	Hanger Ring Assembly and Packer	300
	Dense grey shale and swelling		
	Medium to coarse grey sand		
330	Grey shale with minor sand	154mm ID Schedule 40 S/S Blank	330
	Medium to coarse grey sand		
	Grey shale		
360	Medium to coarse loose grey sand	168mm OD Screens 0.5mm Aperture	360
390			390
420	Coarse grained cemented sandstone and shale	200mm Pilot Hole TD = 404m	420
450			450

Drilled by: Western Drilling
 Commenced: July 2021
 Completed: January 2022
 Total Drilled Depth: 404m
 Total Cased Depth: 392m
 Screened Interval: 320 - 392m
 Reduced Level (top of steel collar):

Easting 313920
 Northing 6733540
 RL 24m AHD



Date	Rev.	Description	Dwn	Chk'd

Ventnor Mining Pty Ltd

L70/199
Arrowsmith
YPB1 Bore Construction

Project:	Drawing:	Figure:
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ANALYSIS REPORT

Final Report

Job No: B2203-0168
Date Issued: 24-Mar-2022
Report Number: 146794

Attention: Mr Rian Moore
Client: Water Direct
Address: PO Box 3135
 PERTH WA 6832

Purchase Order: received 14/03/22
Date Sampled:
Date Received: 14-Mar-2022

The following sample was analysed:

Sample ID	Your Reference	VRX Silica - 83797 - 1 hour
B22-0022588	Product	Water
	Arrival Temp (°C)	12.4

Analysis of this sample conducted between 14-Mar-2022 and 18-Mar-2022

Analysis Results

Determinant	Result Value
Ammonium (NH4) (none) ^	
B22-0022588 Ammonium (NH4)	1.4 mg/L
General Appearance (N/A) ^	
B22-0022588 Appearance	Iron
B22-0022588 Odour	Odourless
Total Alkalinity (TP_WA/007)	
B22-0022588 Alkalinity (to pH 4.5@25degC)	100 mg CaCO3/L
B22-0022588 Bicarbonate	120 mg/L
Ionic Balance (1030 E - APHA methods) ^	
B22-0022588 Cations	122.42 meq/L
B22-0022588 Anions	111.43 meq/L
B22-0022588 Balance	109.9 %
Fluoride (TP_WA_014) ^	
B22-0022588 Fluoride	2.60 mg/L
Chloride (TP_WA_014) ^	
B22-0022588 Chloride	3700 mg/L
Electrical Conductivity (TP_WA/009)	
B22-0022588 Electrical Conductivity	11.9 mS/cm
Dissolved Carbon dioxide (Calculated)	
B22-0022588 Dissolved Carbon Dioxide	30 mg/L
Filterable Reactive P (TP_WA/017) ^	
B22-0022588 PO4 - P	<0.01 mg/L
Hardness (TP_WA/008)	
B22-0022588 Hardness	1770 mg CaCO3/L
Metals - ICP (TP_WA/015)	
B22-0022588 Boron	0.16 mg/L
B22-0022588 Calcium	240 mg/L

ANALYSIS REPORT

Final Report

Job No: B2203-0168
Date Issued: 24-Mar-2022
Report Number: 146794

Attention: Mr Rian Moore
Client: Water Direct
Address: PO Box 3135
 PERTH WA 6832

Purchase Order: received 14/03/22
Date Sampled:
Date Received: 14-Mar-2022

B22-0022588	Potassium	110 mg/L
B22-0022588	Iron	5.8 mg/L
B22-0022588	Manganese	0.79 mg/L
B22-0022588	Magnesium	290 mg/L
B22-0022588	Sodium	1900 mg/L
B22-0022588	Silicon	7.8 mg/L
B22-0022588	SiO2^	17 mg/L

Nitrate (TP_WA_014) ^

B22-0022588	Nitrate - as NO3	19 mg/L
-------------	------------------	---------

pH (TP_WA/010)

B22-0022588	pH	6.8
-------------	----	-----

Sulphate (TP_WA_014) ^

B22-0022588	Sulphate SO4	290 mg/L
-------------	--------------	----------

TDS (calculation) (Calculated) ^

B22-0022588	Total Dissolved Salts	6610 mg/L
-------------	-----------------------	-----------

Note: All samples are analysed on an as received basis.
 This report is not to be reproduced except in full.

Please refer to the following link for the measurement of uncertainty values for all NATA accredited analysis

<https://services.awta.com.au/AFTMeasurementUncertainty/index.php>

Please Note: If this sample was taken greater than 24 hours prior to the commencement of testing; the integrity of the sample may have been affected which may have influenced the final results.

^ - NATA Accreditation does not cover the performance of this test/Component.

ANALYSIS REPORT

Final Report

Job No: B2203-0168
Date Issued: 24-Mar-2022
Report Number: 146794

Attention: Mr Rian Moore
Client: Water Direct
Address: PO Box 3135
 PERTH WA 6832

Purchase Order: received 14/03/22
Date Sampled:
Date Received: 14-Mar-2022

The sample(s) referred to in this report were analysed for the following determinant(s):

Analysis		Laboratory
Ammonium (NH4)		Agro Nutritional Laboratory
General Appearance	N/A	Agro Nutritional Laboratory
Total Alkalinity	TP_WA/007	Agro Nutritional Laboratory
Ionic Balance		Agro Nutritional Laboratory
Fluoride	TP_WA/014	Agro Nutritional Laboratory
Chloride	TP_WA/014	Agro Nutritional Laboratory
Electrical Conductivity	TP_WA/009	Agro Nutritional Laboratory
Dissolved Carbon dioxide	Calculated	Agro Nutritional Laboratory
Filterable Reactive P	TP_WA/017	Agro Nutritional Laboratory
Hardness	TP_WA_008	Agro Nutritional Laboratory
Metals - ICP	TP_WA/015	Agro Nutritional Laboratory
Nitrate	TP_WA/014	Agro Nutritional Laboratory
pH	TP_WA/010	Agro Nutritional Laboratory
Sulphate	TP_WA/014	Agro Nutritional Laboratory
TDS (calculation)	Calculated	Agro Nutritional Laboratory

The results in this report were authorised by:

Name	Title
Prashubha Bhandari	Laboratory Controller, WA



ANALYSIS REPORT

Final Report

Job No: B2203-0168
Date Issued: 24-Mar-2022
Report Number: 146794

Attention: Mr Rian Moore
Client: Water Direct
Address: PO Box 3135
 PERTH WA 6832

Purchase Order: received 14/03/22
Date Sampled:
Date Received: 14-Mar-2022

The following sample was analysed:

Sample ID	Your Reference	VRX Silica - 83797 - 24 hour
B22-0022589	Product	Water
	Arrival Temp (°C)	12.4

Analysis of this sample conducted between 14-Mar-2022 and 18-Mar-2022

Analysis Results

Determinant	Result Value
Ammonium (NH4) (none) ^	
B22-0022589 Ammonium (NH4)	1.3 mg/L
General Appearance (N/A) ^	
B22-0022589 Appearance	Iron
B22-0022589 Odour	Odourless
Total Alkalinity (TP_WA/007)	
B22-0022589 Alkalinity (to pH 4.5@25degC)	100 mg CaCO3/L
B22-0022589 Bicarbonate	120 mg/L
Ionic Balance (1030 E - APHA methods) ^	
B22-0022589 Cations	120.48 meq/L
B22-0022589 Anions	114.44 meq/L
B22-0022589 Balance	105.3 %
Fluoride (TP_WA_014) ^	
B22-0022589 Fluoride	<0.1 mg/L
Chloride (TP_WA_014) ^	
B22-0022589 Chloride	3800 mg/L
Electrical Conductivity (TP_WA/009)	
B22-0022589 Electrical Conductivity	11.4 mS/cm
Dissolved Carbon dioxide (Calculated)	
B22-0022589 Dissolved Carbon Dioxide	30 mg/L
Filterable Reactive P (TP_WA/017) ^	
B22-0022589 PO4 - P	<0.01 mg/L
Hardness (TP_WA/008)	
B22-0022589 Hardness	1755 mg CaCO3/L
Metals - ICP (TP_WA/015)	
B22-0022589 Boron	0.16 mg/L
B22-0022589 Calcium	240 mg/L

ANALYSIS REPORT

Final Report

Job No: B2203-0168
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Purchase Order: received 14/03/22
Date Sampled:
Date Received: 14-Mar-2022

B22-0022589	Potassium	110 mg/L
B22-0022589	Iron	5.5 mg/L
B22-0022589	Manganese	0.83 mg/L
B22-0022589	Magnesium	280 mg/L
B22-0022589	Sodium	1900 mg/L
B22-0022589	Silicon	7.5 mg/L
B22-0022589	SiO2^	16 mg/L

Nitrate (TP_WA_014) ^

B22-0022589	Nitrate - as NO3	7.7 mg/L
-------------	------------------	----------

pH (TP_WA/010)

B22-0022589	pH	6.8
-------------	----	-----

Sulphate (TP_WA_014) ^

B22-0022589	Sulphate SO4	280 mg/L
-------------	--------------	----------

TDS (calculation) (Calculated) ^

B22-0022589	Total Dissolved Salts	6670 mg/L
-------------	-----------------------	-----------

Note: All samples are analysed on an as received basis.
 This report is not to be reproduced except in full.

Please refer to the following link for the measurement of uncertainty values for all NATA accredited analysis

<https://services.awta.com.au/AFTMeasurementUncertainty/index.php>

Please Note: If this sample was taken greater than 24 hours prior to the commencement of testing; the integrity of the sample may have been affected which may have influenced the final results.

^ - NATA Accreditation does not cover the performance of this test/Component.

ANALYSIS REPORT

Final Report

Job No: B2203-0168
Date Issued: 24-Mar-2022
Report Number: 146794

Attention: Mr Rian Moore
Client: Water Direct
Address: PO Box 3135
 PERTH WA 6832

Purchase Order: received 14/03/22
Date Sampled:
Date Received: 14-Mar-2022

The sample(s) referred to in this report were analysed for the following determinant(s):

Analysis		Laboratory
Ammonium (NH4)		Agro Nutritional Laboratory
General Appearance	N/A	Agro Nutritional Laboratory
Total Alkalinity	TP_WA/007	Agro Nutritional Laboratory
Ionic Balance		Agro Nutritional Laboratory
Fluoride	TP_WA/014	Agro Nutritional Laboratory
Chloride	TP_WA/014	Agro Nutritional Laboratory
Electrical Conductivity	TP_WA/009	Agro Nutritional Laboratory
Dissolved Carbon dioxide	Calculated	Agro Nutritional Laboratory
Filterable Reactive P	TP_WA/017	Agro Nutritional Laboratory
Hardness	TP_WA_008	Agro Nutritional Laboratory
Metals - ICP	TP_WA/015	Agro Nutritional Laboratory
Nitrate	TP_WA/014	Agro Nutritional Laboratory
pH	TP_WA/010	Agro Nutritional Laboratory
Sulphate	TP_WA/014	Agro Nutritional Laboratory
TDS (calculation)	Calculated	Agro Nutritional Laboratory

The results in this report were authorised by:

Name	Title
Prashubha Bhandari	Laboratory Controller, WA





Information to be provided on completion of a non-artesian well

Information to be provided to the Department of Water under the *Water Agencies (Powers) Act 1984* and Section 26E of the *Rights in Water and Irrigation Act 1914* and Regulation 39 of the *Rights in Water and Irrigation Regulations 2000*

Please note:

- All information is to be written clearly and in block letters.
- If insufficient room please use a separate piece of paper.
- It is the responsibility of the person carrying out the works to fill out this form.

Part 1: Details of any licence granted for the work under the *Rights in Water And Irrigation Act 1914* section 26D

Licence number

Individual Company

Licensee's full name

Part 2: Details of person carrying out the works

Company

Driller

Driller licence number (non-mandatory) Driller classification (non-mandatory)

Postal address

Telephone Facsimile

Email

Part 3: Location of well

A 26D licence will list the premises on which well construction is to occur.

If the physical address of the well is different from the property address listed on the licence, contact the Department of Water prior to the commencement of construction.

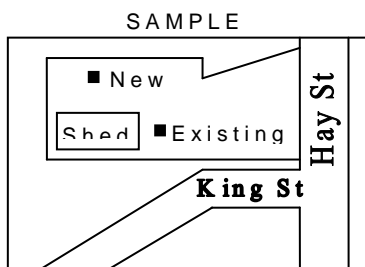
Property address of well or other tenure details

Well coordinates GPS reading Estimate

Zone Easting/latitude Northing/longitude

Datum (e.g. GDA94/WGS84) GPS reliability

Location plan – in the box below please sketch a plan showing position of well in relation to building, boundaries, road, nearest cross road and any additional information to assist in locating the well.

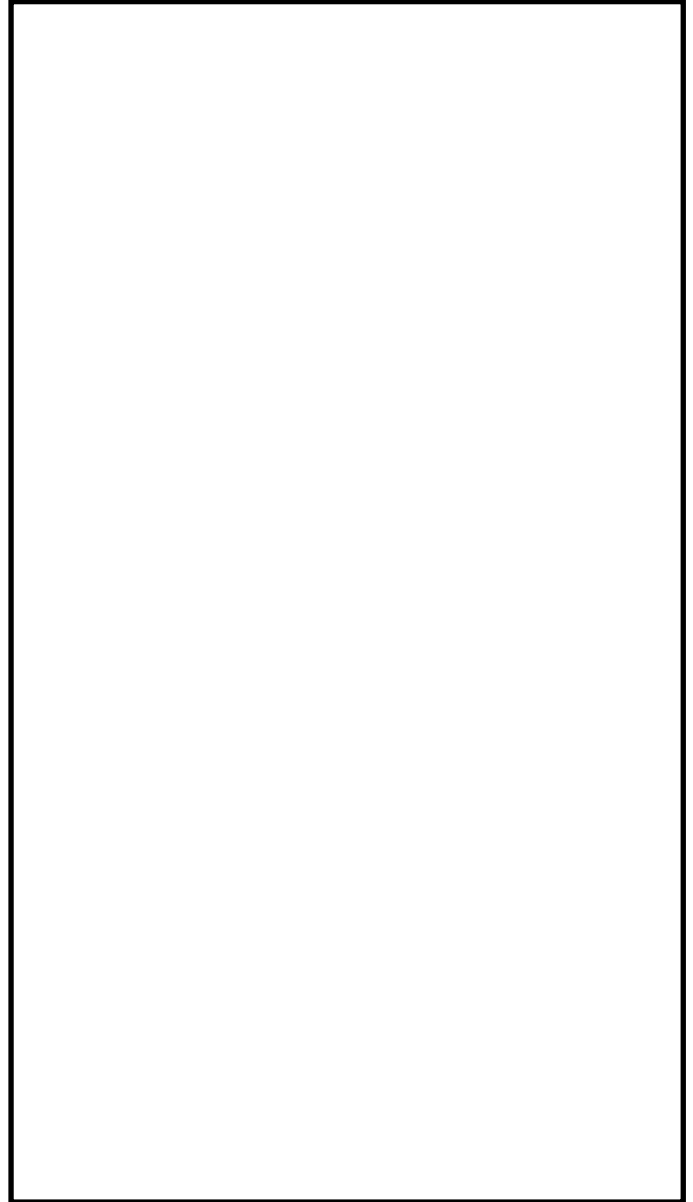


In the box to the right, please sketch a plan showing:
- location of all wetlands / watercourses / wells / soaks (existing and proposed).
- major improvements (house, large sheds etc).
- shaded sections to indicate areas under development.

Part 4: Construction details (All measurements are to be taken from ground level)

Production casing detail					
Material	Nominal bore	Diameter O.D (mm)	Wall thickness (mm)	Depth	
				From (m)	To (m)

Please complete well construction diagram in box provided below. If insufficient room please attach on separate piece of paper.



Screens/slots				
Screens/slot (type)	Diameter O.D (mm)	Aperture (mm)	Top of screen (m)	Bottom of screen (m)

Gravel pack details		
Gravel size (mm)	From (m)	To (m)

Annular fill		
Material type	From (m)	To (m)

Cementing detail		
<input type="checkbox"/> Pressure cement grouted <input type="checkbox"/> Tremmie		
Casing diameter (mm O.D)	Depth	
	From (m)	To (m)

Total depth drilled (from ground level)

Geophysical log required as condition of licence? Yes No

Geophysical log taken? (attach log and contractor details) Yes No

From (m)	To (m)	Strata description (If insufficient room attach on separate page)

Part 5: Particulars of well

Well name / number

Drilling start **Drilling completion**

Drilling method used
 Rotary air Cable tool Auger Rotary mud
 Sludge Other (specify) _____

Final status of well
 Ready to operate Decommissioned
 Other (specify) _____

Purpose (use) of well
 Production Investigation Monitoring
 Other (specify) _____

Part 6: Well development

Date (dd/mm/yy) **Duration of development** **hours**

Method Airlift Pump Jetting Surging

Development pump rate (e.g. L/s, m³/day)

Part 7: Pump testing (If applicable)

Date start (dd/mm/yy) Date end (dd/mm/yy) **Duration of test** **hours**

Step test Constant rate Other

Constant rate - pump rate (e.g. m³/day) **Pump type (e.g. submersible)**

Water rest level prior to test (m)

Measurements taken from top of casing (TOC) ground level (GL)
 other (specify) _____

Elevation of measurement reference point if known (metres AHD) GPS Estimate
 other (specify) _____

Final drawdown **m** **Recommended supply (e.g. m³/day)**

Comments.....

Part 8: Field samples

Specify unit measurements.

Collection method (e.g. pump test, airlift)

Conductivity (e.g. mS/m) Temperature compensated **pH**
 Temperature uncompensated

Water temperature at test

Comments.....

Part 9: Lab samples

Lab samples taken (Please attach) Yes No

TDS (e.g. mg/l) **Please submit samples separately to form if not received before the 1 month submission deadline.**

Part 10: Water levels

SWL (Static water level) m Water cut at m

Measurements taken from top of casing (TOC) ground level (GL)
 other (specify) _____

Date of reading (dd/mm/yy)

Comments.....

Part 11: Declaration and signature

- Capacity of person making declaration:
- An individual who carried out the work
 - An officer who is a director or secretary of a corporation that carried out the work.
 - Other (describe).....

I, _____ (name of person making declaration) declare that the information provided on this form is true and correct.

Important information

- All information must be completed on the form unless otherwise indicated as optional for example; provision of the drillers licence number and classification fields are not mandatory and can be filled in at the drillers discretion. Provision of non-mandatory details would greatly assist the department in completion of its data set.
- Failure to complete all mandatory details and to submit the form to the department is an offence under the *Rights in Water and Irrigation Act 1914*.
- Under section 26E and regulation 39 within 1 month of completion of the construction of or deepening of the well, the person carrying out the work for a 26D licence must submit this form.
- Non-artesian wells in proclaimed areas require a licence unless exempted under the *Rights in Water and Irrigation Exemption (S26C) Order 2007*.

Where and how to submit this form

This form can be submitted by fax, post or in person to the appropriate Department of Water regional office. For assistance in completing this form contact your regional office.

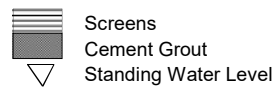
<p>Kimberley Region</p> <p>Kununurra Regional Office 27 Victoria Hwy Kununurra WA 6743 Tel: 08 9166 4100 Fax: 08 9168 3174 PO Box 625 Kununurra WA 6743</p> <p>Midwest Gascoyne Region</p> <p>Geraldton Regional Office 94 Sandford Street Geraldton WA 6531 Tel: 08 9965 7400 Fax: 08 9964 5983 Po Box 81 Geraldton WA 6531</p> <p>Carnarvon</p> <p>Carnarvon District Office 211 Robinson Street Carnarvon WA 6701 Tel: 08 9941 6100 Fax: 08 9941 4931 PO Box 81 Carnarvon WA 6701</p>	<p>Kwinana Peel Region</p> <p>Mandurah Regional Office 107 Breakwater Parade Mandurah WA 6210 Tel: 08 9550 4222 Fax: 08 9581 4560 PO Box 332 Mandurah WA 6210</p> <p>South West Region</p> <p>Bunbury Regional Office 35-39 McCombe Road Bunbury WA 6230 Tel: 08 9726 4111 Fax: 08 9726 4100 PO Box 261 Bunbury WA 6231</p> <p>Busselton</p> <p>Busselton District Office Suite 2, 72 Duchess Street Busselton WA 6280 Tel: 08 9781 0188 Fax: 08 9754 4335 PO Box 269 Busselton WA 6280</p>	<p>South Coast Region</p> <p>Albany Regional Office 5 Bevan Street Albany WA 6330 Tel: 08 9842 5760 Fax: 08 9842 1204 PO Box 525 Albany WA 6331</p> <p>Pilbara Region</p> <p>Karratha Regional Office Lot 4608 Cherratta Road Karratha Industrial Estate Karratha WA 6714 Tel: 08 9144 2000 Fax: 08 9144 2610 PO Box 836 Karratha WA 6714</p> <p>Swan Avon Region</p> <p>Victoria Park Regional Office 7 Ellam Street Victoria Park WA 6100 Tel: 08 6250 8000 Fax: 08 6250 8050</p>	<p>Warren Blackwood District</p> <p>Manjimup Regional Office 52 Bath Street Manjimup WA 6528 Tel: 08 9771 1878 Fax: 08 9771 4335</p>
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Please retain a copy of this form for your records

Depth (m)	Lithology	Construction Log	
4	Guildford Formation Medium and coarse grained sand	Surface Casing Cement Grouted	4
8			8
12		Cement Grout	12
16	Guildford Formation White, cream and pink clays with minor fine grained sand		16
20		250mm NB Permaglass Casing	20
24			24
28		Gravel Pack	28
32	Guildford Formation Cream coarse sands and gravels	168mm OD SS Screens	32
36	Guildford Formation Orange coarse grained sands and gravels	0.5mm Aperture	36
40	Yarragadee Formation Unit B Fine to medium sands and grey clay	Back filled hole	40
44			44
48			48
52			52
56			56
60			60

Drilled by: Western Drilling
 Commenced: 10-Oct-22
 Completed: 14-Oct-22
 Total Drilled Depth: 36m
 Total Cased Depth: 36m
 Screened Interval: 30-36m
 Reduced Level (top of steel collar): approx. 53m AHD

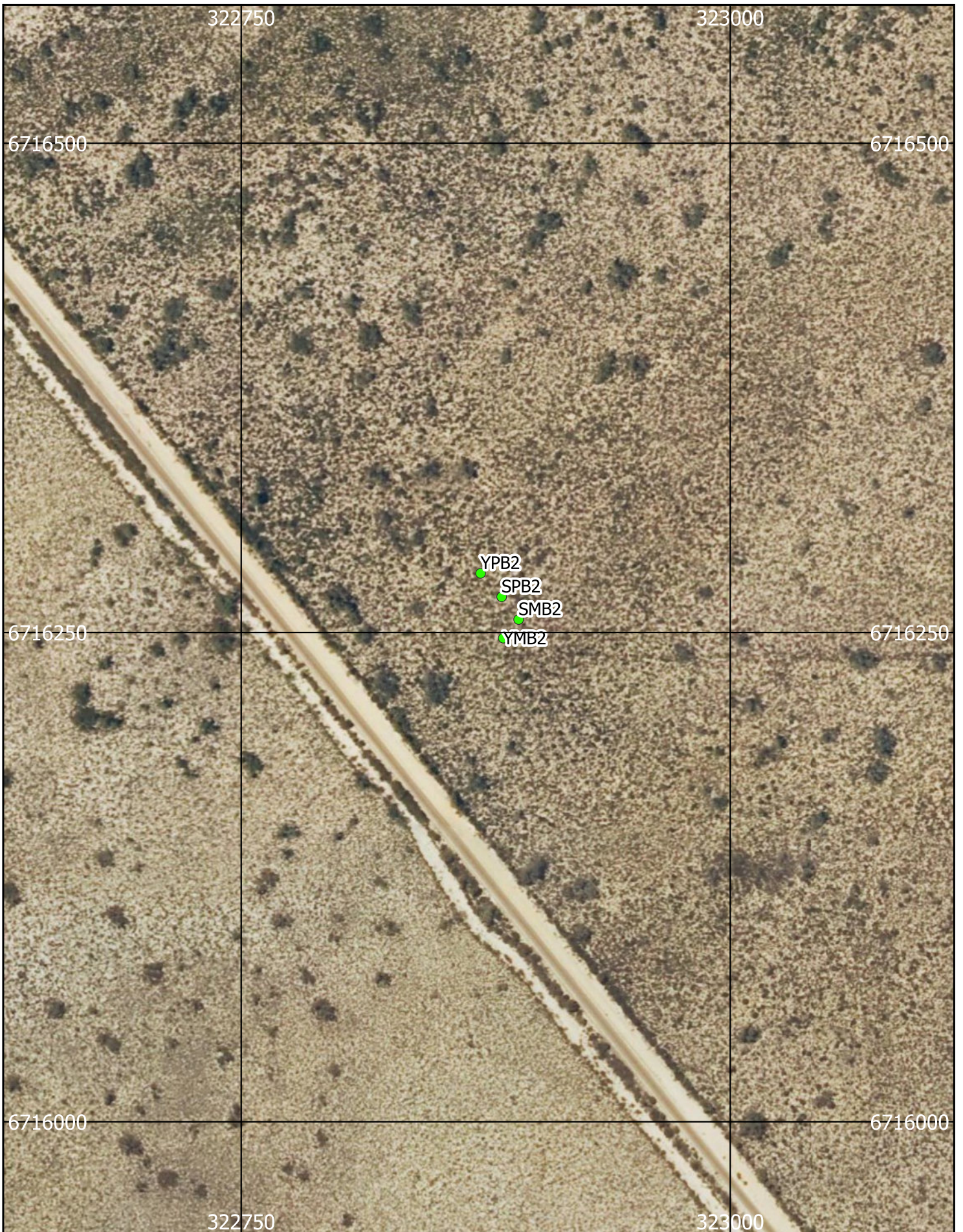
Easting 322883
 Northing 6716268
 CAW 207406



Date	Rev.	Description	Dwn	Chk'd



Ventnor Mining Pty Ltd		
M70/1392		
Arrowsmith		
SPB2 Bore Construction		
Project:	Drawing:	Figure:
340		



REVISION:	DRAWN:
SCALE: 1:2,500	STATUS:
DRAW NO:	SOURCE:
JOB NO:340	
DATE: 12-Dec-22	
DESIGNED: RRM	

CLIENT: Ventnor Mining Pty Ltd
Project:Arrowsmith Silica Sands
TITLE: Central Project Area Bore Locations

 Waterdirect Pty Ltd
FIGURE:



Information to be provided on completion of a non-artesian well

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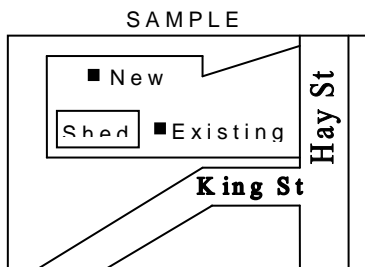
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Zone Easting/latitude Northing/longitude

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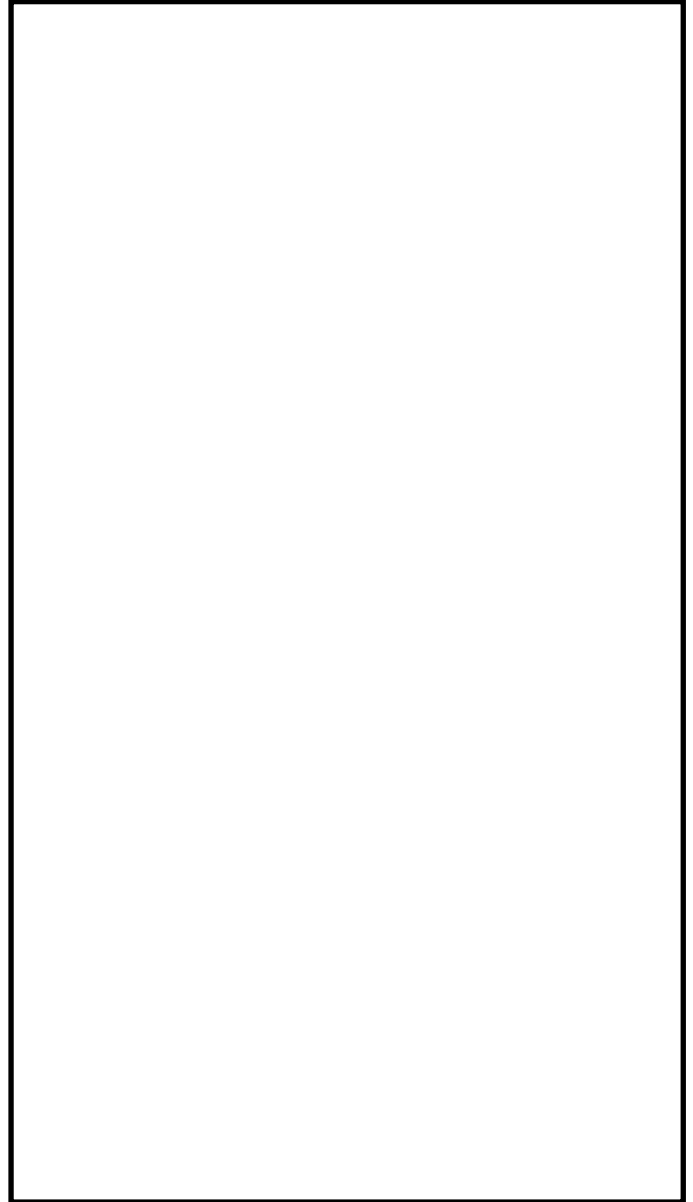
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Comments.....

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
<p>Kimberley Region</p> <p>Kununurra Regional Office 27 Victoria Hwy Kununurra WA 6743 Tel: 08 9166 4100 Fax: 08 9168 3174 PO Box 625 Kununurra WA 6743</p> <p>Midwest Gascoyne Region</p> <p>Geraldton Regional Office 94 Sandford Street Geraldton WA 6531 Tel: 08 9965 7400 Fax: 08 9964 5983 Po Box 81 Geraldton WA 6531</p> <p>Carnarvon</p> <p>Carnarvon District Office 211 Robinson Street Carnarvon WA 6701 Tel: 08 9941 6100 Fax: 08 9941 4931 PO Box 81 Carnarvon WA 6701</p>	<p>Kwinana Peel Region</p> <p>Mandurah Regional Office 107 Breakwater Parade Mandurah WA 6210 Tel: 08 9550 4222 Fax: 08 9581 4560 PO Box 332 Mandurah WA 6210</p> <p>South West Region</p> <p>Bunbury Regional Office 35-39 McCombe Road Bunbury WA 6230 Tel: 08 9726 4111 Fax: 08 9726 4100 PO Box 261 Bunbury WA 6231</p> <p>Busselton</p> <p>Busselton District Office Suite 2, 72 Duchess Street Busselton WA 6280 Tel: 08 9781 0188 Fax: 08 9754 4335 PO Box 269 Busselton WA 6280</p>	<p>South Coast Region</p> <p>Albany Regional Office 5 Bevan Street Albany WA 6330 Tel: 08 9842 5760 Fax: 08 9842 1204 PO Box 525 Albany WA 6331</p> <p>Pilbara Region</p> <p>Karratha Regional Office Lot 4608 Cherratta Road Karratha Industrial Estate Karratha WA 6714 Tel: 08 9144 2000 Fax: 08 9144 2610 PO Box 836 Karratha WA 6714</p> <p>Swan Avon Region</p> <p>Victoria Park Regional Office 7 Ellam Street Victoria Park WA 6100 Tel: 08 6250 8000 Fax: 08 6250 8050</p>	<p>Warren Blackwood District</p> <p>Manjimup Regional Office 52 Bath Street Manjimup WA 6528 Tel: 08 9771 1878 Fax: 08 9771 4335</p>
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Please retain a copy of this form for your records

Depth (m)	Lithology	Construction Log	
20	Medium and coarse sand Guidlford Formation White, cream and pink clays and minor fine sand	Surface Casing	20
40	Cream and orange coarse sands and gravels Yarragadee Formation - Unit B	Pressure Cement Grouted	40
60	Grey clay and medium to coarse sands White clay Medium to coarse sand and gravels		60
80	White clays with minor sands		80
100	Medium to coarse sands over pink and cream clays Medium sands Dark clays with minor sands	250mm NB FRP Casing	100
120	Yarragadee Formation Unit A		120
140	Coarse sands and gravels		140
160	Light clay with with medium to fine grained sands Medium to coarse grained sands and gravel	Hanger Ring Assembly and Packer	160
180		168mm OD Screens 0.5mm Aperture	180
200			200
220			220
240			240
260			260
280			280
300			300

Drilled by: Darling Downs Drilling
 Commenced: 13-Sep-22
 Completed: 23-Sep-22
 Total Drilled Depth: 200m
 Total Cased Depth: 152m
 Screened Interval: 152-200m
 Reduced Level (top of steel collar): approx. 53m AHD

Easting 322872
 Northing 67162801
 CAW 207418

 Screens
 Cement Grout
 Standing Water Level

Date	Rev.	Description	Dwn	Chk'd



Ventnor Mining Pty Ltd		
M70/1392		
Arrowsmith		
YPB2 Bore Construction		
Project:	Drawing:	Figure:
340		

WESTLOG WIRELINE SERVICES

COMPANY DARLING DOWNS DRILLING

LOGTYPE Resistivity / Gamma

AREA BEEKEEPER RD WEST

HOLE NUMBER VRX PB2

DATE 16th September 2022

DEPTH DRILLER 200M DEPTH LOGGER 200M

MEASURED FROM GL HOLE DIA 6 .75 INCH

CASING DEPTH NIL CASING TYPE NIL

CASING SIZE

FLUID TYPE MUD FLUID LEVEL 0 M

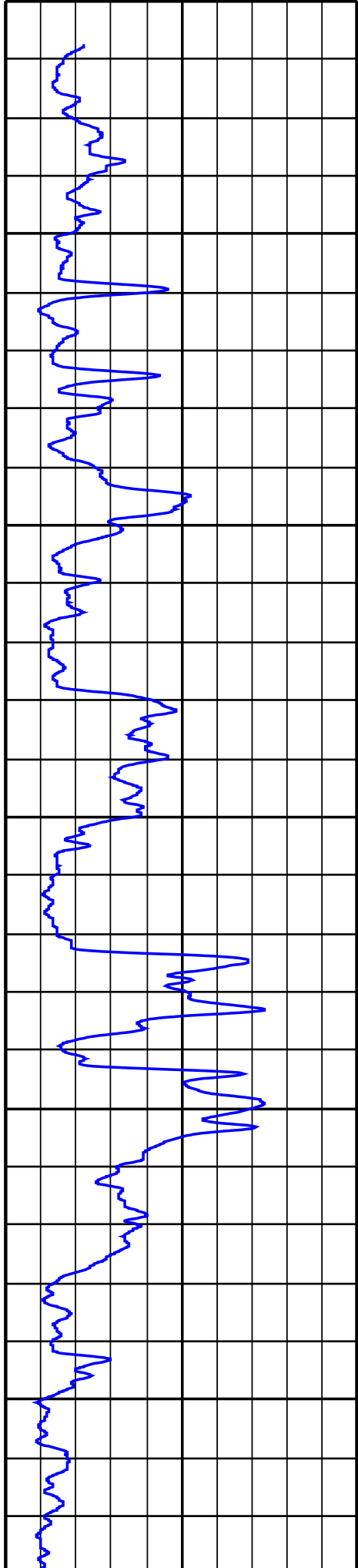
Logged by TIM ROBERTS

Witnessed by

4 GAMMA

API

0 200



3 64in NORMAL

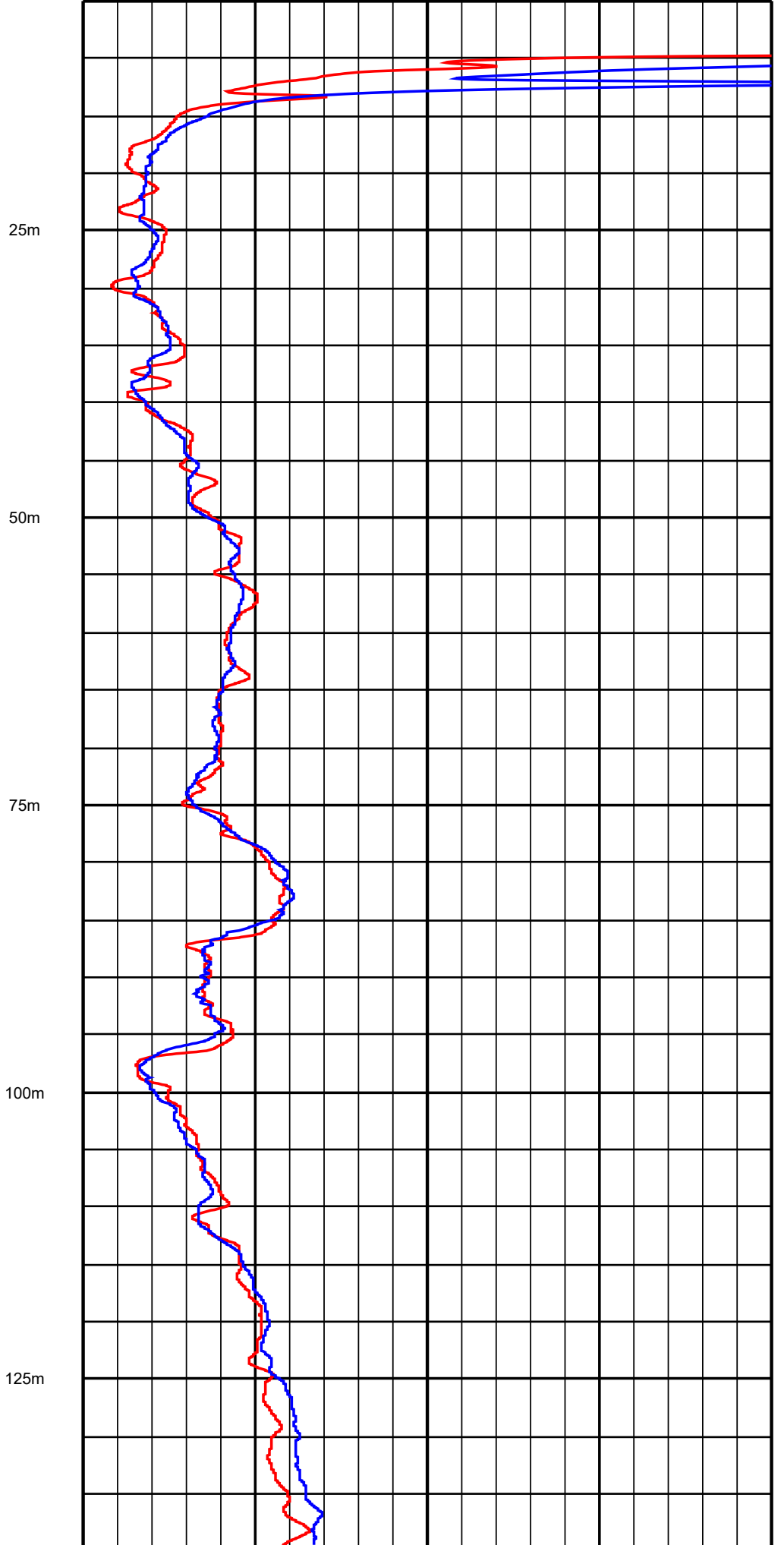
OHM-M

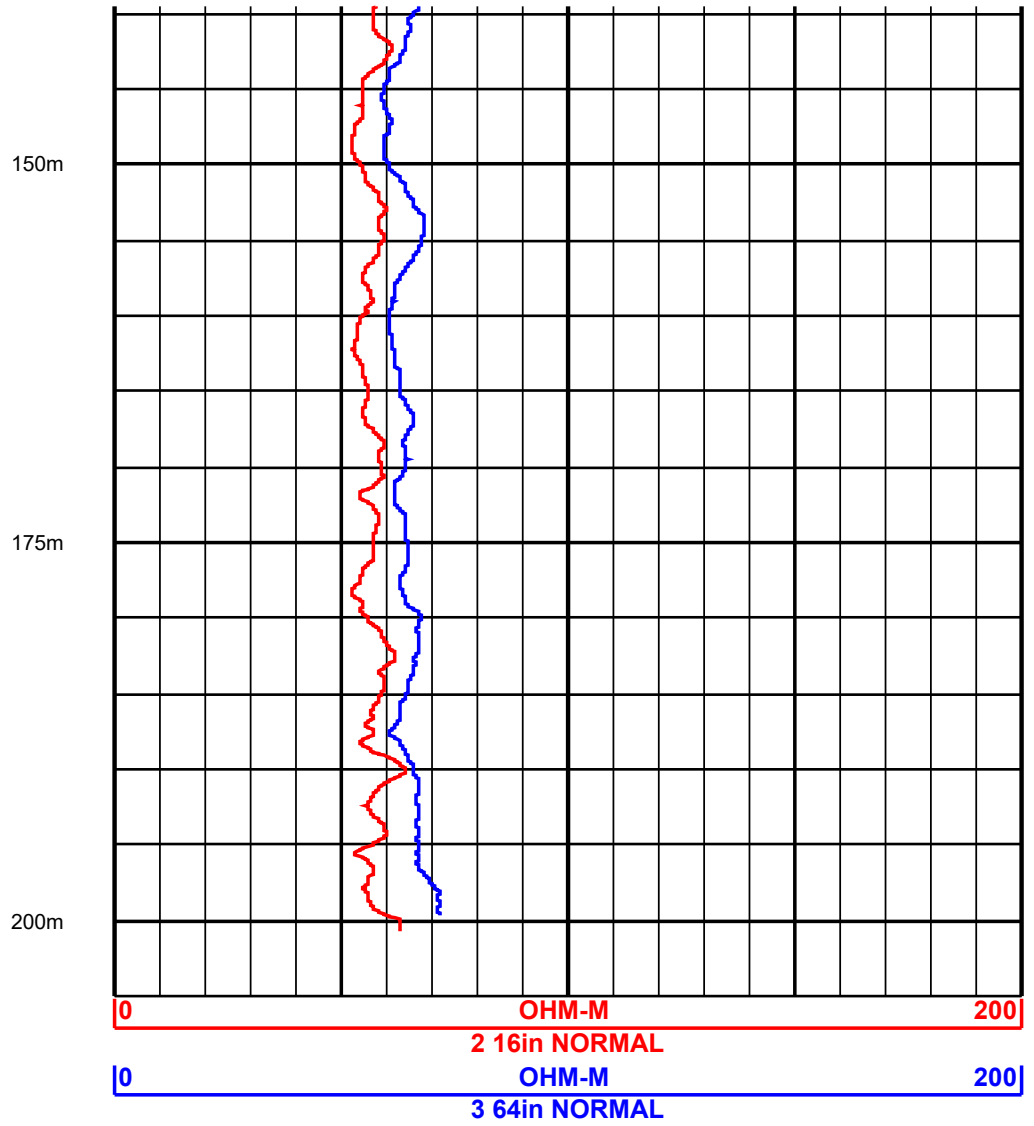
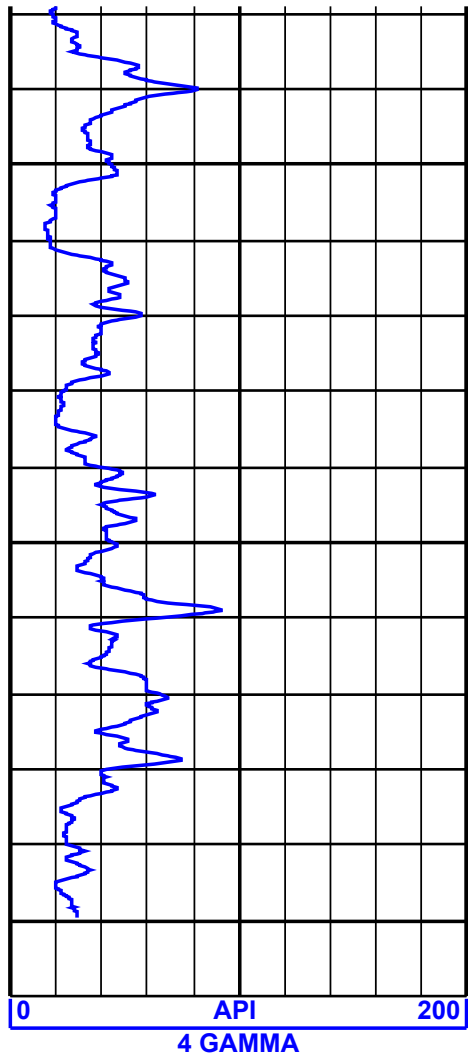
0 200

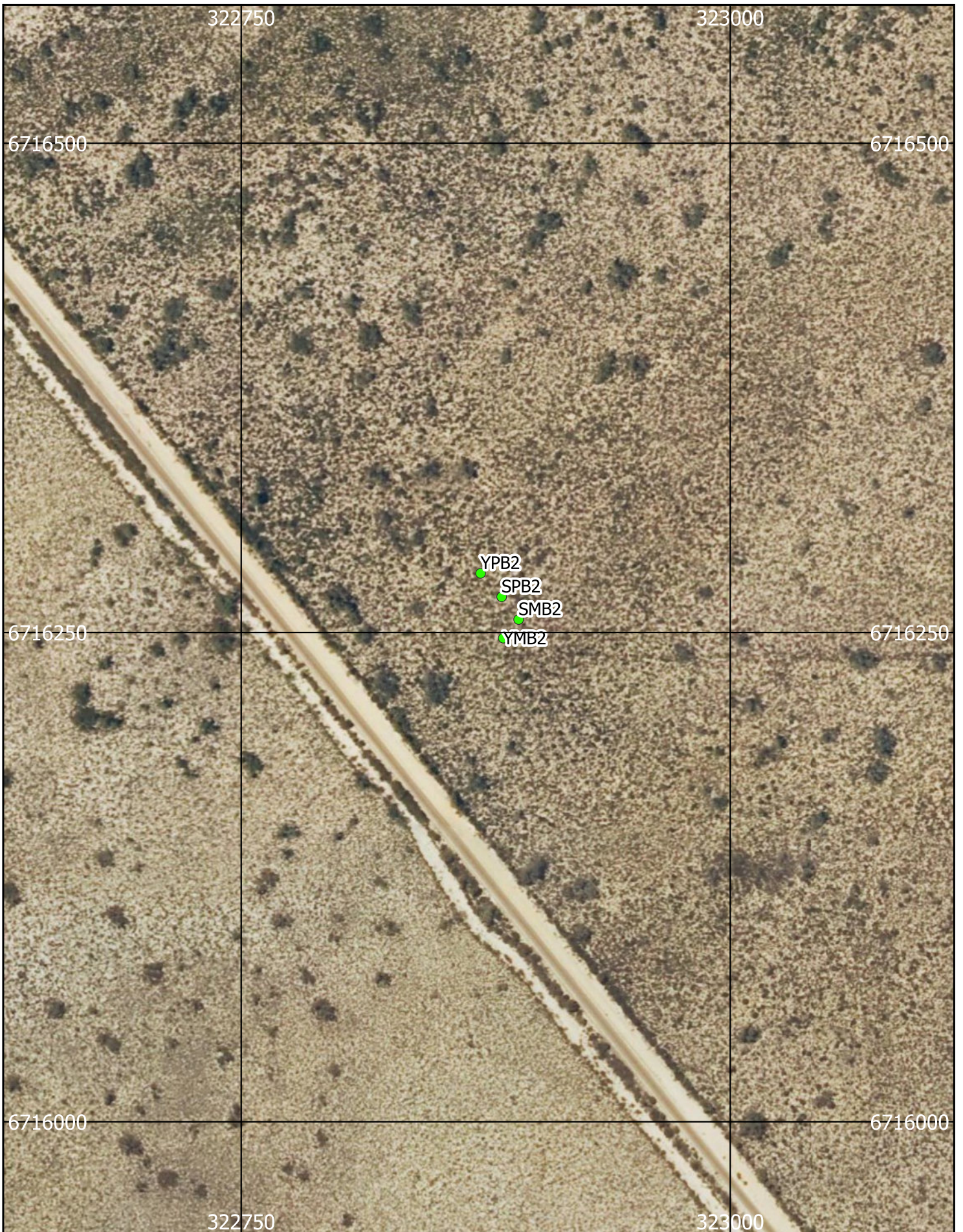
2 16in NORMAL

OHM-M

0 200







REVISION:	DRAWN:
SCALE: 1:2,500	STATUS:
DRAW NO:	SOURCE:
JOB NO:340	
DATE: 12-Dec-22	
DESIGNED: RRM	

CLIENT: Ventnor Mining Pty Ltd

Project:Arrowsmith Silica Sands

TITLE: Central Project Area Bore Locations



Waterdirect
Pty Ltd

FIGURE:

APPENDIX C
TEST PUMPING RAW DATA



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX Central Superficial

Number: 340

Client: VRX Silica

Location: Arrowsmith Central	Pumping Test: SPB1	Pumping Well: SPB2
Test Conducted by: Western Irrigation	Test Date: 03-Nov-22	Discharge: variable, average rate 0.85 [l/s]
Observation Well: SPB2	Static Water Level [m]: 25.70	Radial Distance to PW [m]: -

	Time [min]	Water Level [m]	Drawdown [m]
1	1	26.56	0.86
2	2	26.88	1.18
3	3	27.28	1.58
4	4	27.60	1.90
5	5	27.83	2.13
6	6	28.02	2.32
7	7	28.17	2.47
8	8	28.28	2.58
9	9	28.38	2.68
10	10	28.45	2.75
11	15	28.77	3.07
12	20	28.88	3.18
13	25	28.96	3.26
14	30	29.03	3.33
15	35	29.16	3.46
16	40	29.30	3.60
17	45	29.37	3.67
18	50	29.43	3.73
19	60	29.50	3.80
20	70	29.58	3.88
21	80	29.64	3.94
22	90	29.69	3.99
23	100	29.72	4.02
24	120	29.83	4.13
25	140	29.91	4.21
26	160	29.95	4.25
27	180	30.02	4.32
28	210	30.09	4.39
29	240	30.14	4.44
30	270	30.16	4.46
31	300	30.18	4.48
32	330	30.20	4.50
33	360	30.21	4.51
34	390	30.23	4.53
35	420	30.24	4.54
36	450	30.25	4.55
37	480	30.27	4.57
38	540	30.27	4.57
39	600	30.27	4.57
40	660	30.27	4.57
41	720	30.26	4.56
42	780	30.27	4.57
43	840	30.28	4.58
44	900	30.29	4.59
45	960	30.29	4.59
46	1020	30.29	4.59
47	1080	30.29	4.59
48	1140	30.29	4.59
49	1200	30.29	4.59
50	1260	30.30	4.60
51	1320	30.30	4.60
52	1380	30.30	4.60



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX Central Superficial

Number: 340

Client: VRX Silica

	Time [min]	Water Level [m]	Drawdown [m]
53	1440	30.33	4.63
54	1441	29.43	3.73
55	1442	28.80	3.10
56	1443	28.38	2.68
57	1444	27.97	2.27
58	1445	27.69	1.99
59	1446	27.45	1.75
60	1447	27.25	1.55
61	1448	27.08	1.38
62	1449	26.94	1.24
63	1450	26.85	1.15
64	1455	26.56	0.86
65	1460	26.42	0.72
66	1465	26.34	0.64
67	1470	26.30	0.60
68	1475	26.27	0.57
69	1480	26.22	0.52
70	1485	26.19	0.49
71	1490	26.17	0.47
72	1500	26.12	0.42
73	1510	26.06	0.36
74	1520	26.03	0.33
75	1530	26.00	0.30
76	1540	25.98	0.28



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Pumping Test - Water Level Data

Project: VRX Central Superficial

Number: 340

Client: VRX Silica

Location: Arrowsmith Central	Pumping Test: SPB1	Pumping Well: SPB2
Test Conducted by: Western Irrigation	Test Date: 03-Nov-22	Discharge: variable, average rate 0.85 [l/s]
Observation Well: SMB2	Static Water Level [m]: 25.71	Radial Distance to PW [m]: 17.8

	Time [min]	Water Level [m]	Drawdown [m]
1	7	25.82	0.11
2	8	25.84	0.13
3	9	25.86	0.15
4	10	25.88	0.17
5	15	25.93	0.22
6	20	25.98	0.27
7	25	26.02	0.31
8	30	26.05	0.34
9	35	26.09	0.38
10	40	26.10	0.39
11	45	26.13	0.42
12	50	26.15	0.44
13	60	26.20	0.49
14	70	26.22	0.51
15	80	26.26	0.55
16	90	26.28	0.57
17	100	26.31	0.60
18	120	26.34	0.63
19	140	26.38	0.67
20	160	26.40	0.69
21	180	26.42	0.71
22	210	26.44	0.73
23	240	26.46	0.75
24	270	26.47	0.76
25	300	26.48	0.77
26	330	26.48	0.77
27	360	26.49	0.78
28	390	26.49	0.78
29	420	26.49	0.78
30	450	26.50	0.79
31	480	26.50	0.79
32	540	26.51	0.80
33	600	26.52	0.81
34	660	26.53	0.82
35	720	26.52	0.81
36	780	26.53	0.82
37	840	26.54	0.83
38	900	26.55	0.84
39	960	26.55	0.84
40	1020	26.55	0.84
41	1080	26.56	0.85
42	1140	26.55	0.84
43	1200	26.55	0.84
44	1260	26.55	0.84
45	1320	26.55	0.84
46	1380	26.56	0.85
47	1440	26.57	0.86
48	1441	26.56	0.85
49	1442	26.55	0.84
50	1443	26.53	0.82
51	1444	26.52	0.81
52	1445	26.50	0.79



Waterdirect
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Pumping Test - Water Level Data

Project: VRX Central Superficial

Number: 340

Client: VRX Silica

	Time [min]	Water Level [m]	Drawdown [m]
53	1446	26.48	0.77
54	1447	26.46	0.75
55	1448	26.45	0.74
56	1449	26.43	0.72
57	1450	26.41	0.70
58	1455	26.35	0.64
59	1460	26.31	0.60
60	1465	26.27	0.56
61	1470	26.23	0.52
62	1475	26.20	0.49
63	1480	26.18	0.47
64	1485	26.14	0.43
65	1490	26.13	0.42
66	1500	26.09	0.38
67	1510	26.05	0.34
68	1520	26.01	0.30
69	1530	26.00	0.29
70	1540	25.97	0.26



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Pumping Test - Discharge Data

Project: VRX Central Superficial

Number: 340

Client: VRX Silica

Location: Arrowsmith Central	Pumping Test: SPB1	Pumping Well: SPB2
Test Conducted by: Western Irrigation	Test Date: 03-Nov-22	Discharge: variable, average rate 0.85 [l/s]
Observation Well: SPB2		Radial Distance to PW [m]: -

	Time [min]	Discharge [l/s]
1	1440	0.85



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

Location: Arrowsmith	Pumping Test: YPB1	Pumping Well: YPB1
Test Conducted by: Western Irrigation	Test Date: 10-Mar-22	Discharge: variable, average rate 30 [l/s]
Observation Well: YMB1	Static Water Level [m]: 8.34	Radial Distance to PW [m]: 3.16

	Time [min]	Water Level [m]	Drawdown [m]
1	1	9.25	0.91
2	2	9.43	1.09
3	3	9.54	1.20
4	4	9.60	1.26
5	5	9.67	1.33
6	6	9.70	1.36
7	7	9.75	1.41
8	8	9.78	1.44
9	9	9.82	1.48
10	10	9.84	1.50
11	11	9.86	1.52
12	12	9.88	1.54
13	13	9.90	1.56
14	14	9.92	1.58
15	15	9.95	1.61
16	16	9.97	1.63
17	17	9.99	1.65
18	18	10.00	1.66
19	19	10.02	1.68
20	20	10.03	1.69
21	21	10.04	1.70
22	22	10.05	1.71
23	23	10.06	1.72
24	24	10.07	1.73
25	25	10.07	1.73
26	26	10.09	1.75
27	27	10.11	1.77
28	28	10.11	1.77
29	29	10.12	1.78
30	30	10.13	1.79
31	31	10.15	1.81
32	32	10.15	1.81
33	33	10.16	1.82
34	34	10.16	1.82
35	35	10.17	1.83
36	36	10.17	1.83
37	37	10.18	1.84
38	38	10.19	1.85
39	39	10.19	1.85
40	40	10.20	1.86
41	41	10.20	1.86
42	42	10.22	1.88
43	43	10.22	1.88
44	44	10.23	1.89
45	45	10.23	1.89
46	46	10.24	1.90
47	47	10.24	1.90
48	48	10.24	1.90
49	49	10.24	1.90
50	50	10.25	1.91
51	51	10.26	1.92
52	52	10.26	1.92



Waterdirect
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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
53	53	10.28	1.94
54	54	10.29	1.95
55	55	10.29	1.95
56	56	10.30	1.96
57	57	10.30	1.96
58	58	10.30	1.96
59	59	10.30	1.96
60	60	10.30	1.96
61	61	10.31	1.97
62	62	10.31	1.97
63	63	10.32	1.98
64	64	10.32	1.98
65	65	10.32	1.98
66	66	10.33	1.99
67	67	10.34	2.00
68	68	10.34	2.00
69	69	10.35	2.01
70	70	10.35	2.01
71	71	10.35	2.01
72	72	10.35	2.01
73	73	10.35	2.01
74	74	10.35	2.01
75	75	10.36	2.02
76	76	10.37	2.03
77	77	10.37	2.03
78	78	10.37	2.03
79	79	10.37	2.03
80	80	10.37	2.03
81	81	10.39	2.05
82	82	10.38	2.04
83	83	10.39	2.05
84	84	10.39	2.05
85	85	10.40	2.06
86	86	10.40	2.06
87	87	10.40	2.06
88	88	10.40	2.06
89	89	10.40	2.06
90	90	10.41	2.07
91	91	10.41	2.07
92	92	10.41	2.07
93	93	10.41	2.07
94	94	10.43	2.09
95	95	10.43	2.09
96	96	10.43	2.09
97	97	10.43	2.09
98	98	10.43	2.09
99	99	10.44	2.10
100	100	10.44	2.10
101	101	10.44	2.10
102	102	10.44	2.10
103	103	10.45	2.11
104	104	10.45	2.11
105	105	10.45	2.11
106	106	10.45	2.11
107	107	10.45	2.11
108	108	10.46	2.12
109	109	10.46	2.12



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
110	110	10.46	2.12
111	111	10.46	2.12
112	112	10.46	2.12
113	113	10.46	2.12
114	114	10.47	2.13
115	115	10.46	2.12
116	116	10.47	2.13
117	117	10.48	2.14
118	118	10.48	2.14
119	119	10.48	2.14
120	120	10.48	2.14
121	121	10.48	2.14
122	122	10.49	2.15
123	123	10.48	2.14
124	124	10.48	2.14
125	125	10.49	2.15
126	126	10.49	2.15
127	127	10.49	2.15
128	128	10.49	2.15
129	129	10.50	2.16
130	130	10.49	2.15
131	131	10.50	2.16
132	132	10.50	2.16
133	133	10.50	2.16
134	134	10.49	2.15
135	135	10.50	2.16
136	136	10.50	2.16
137	137	10.50	2.16
138	138	10.50	2.16
139	139	10.50	2.16
140	140	10.51	2.17
141	141	10.51	2.17
142	142	10.52	2.18
143	143	10.52	2.18
144	144	10.52	2.18
145	145	10.52	2.18
146	146	10.53	2.19
147	147	10.53	2.19
148	148	10.53	2.19
149	149	10.53	2.19
150	150	10.53	2.19
151	151	10.53	2.19
152	152	10.54	2.20
153	153	10.54	2.20
154	154	10.53	2.19
155	155	10.53	2.19
156	156	10.54	2.20
157	157	10.54	2.20
158	158	10.54	2.20
159	159	10.55	2.21
160	160	10.54	2.20
161	161	10.55	2.21
162	162	10.55	2.21
163	163	10.55	2.21
164	164	10.55	2.21
165	165	10.55	2.21
166	166	10.56	2.22



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
167	167	10.56	2.22
168	168	10.57	2.23
169	169	10.57	2.23
170	170	10.55	2.21
171	171	10.57	2.23
172	172	10.57	2.23
173	173	10.57	2.23
174	174	10.58	2.24
175	175	10.58	2.24
176	176	10.57	2.23
177	177	10.57	2.23
178	178	10.57	2.23
179	179	10.57	2.23
180	180	10.57	2.23
181	181	10.57	2.23
182	182	10.58	2.24
183	183	10.58	2.24
184	184	10.58	2.24
185	185	10.58	2.24
186	186	10.58	2.24
187	187	10.58	2.24
188	188	10.59	2.25
189	189	10.58	2.24
190	190	10.58	2.24
191	191	10.58	2.24
192	192	10.58	2.24
193	193	10.58	2.24
194	194	10.58	2.24
195	195	10.59	2.25
196	196	10.58	2.24
197	197	10.59	2.25
198	198	10.58	2.24
199	199	10.59	2.25
200	200	10.59	2.25
201	201	10.59	2.25
202	202	10.60	2.26
203	203	10.59	2.25
204	204	10.60	2.26
205	205	10.60	2.26
206	206	10.60	2.26
207	207	10.61	2.27
208	208	10.61	2.27
209	209	10.61	2.27
210	210	10.61	2.27
211	211	10.61	2.27
212	212	10.61	2.27
213	213	10.61	2.27
214	214	10.61	2.27
215	215	10.60	2.26
216	216	10.62	2.28
217	217	10.62	2.28
218	218	10.61	2.27
219	219	10.61	2.27
220	220	10.61	2.27
221	221	10.61	2.27
222	222	10.61	2.27
223	223	10.62	2.28



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
224	224	10.62	2.28
225	225	10.62	2.28
226	226	10.62	2.28
227	227	10.63	2.29
228	228	10.62	2.28
229	229	10.62	2.28
230	230	10.62	2.28
231	231	10.62	2.28
232	232	10.63	2.29
233	233	10.63	2.29
234	234	10.62	2.28
235	235	10.63	2.29
236	236	10.63	2.29
237	237	10.63	2.29
238	238	10.64	2.30
239	239	10.64	2.30
240	240	10.64	2.30
241	241	10.64	2.30
242	242	10.65	2.31
243	243	10.63	2.29
244	244	10.64	2.30
245	245	10.64	2.30
246	246	10.64	2.30
247	247	10.64	2.30
248	248	10.63	2.29
249	249	10.64	2.30
250	250	10.63	2.29
251	251	10.64	2.30
252	252	10.64	2.30
253	253	10.64	2.30
254	254	10.64	2.30
255	255	10.65	2.31
256	256	10.65	2.31
257	257	10.65	2.31
258	258	10.65	2.31
259	259	10.66	2.32
260	260	10.67	2.33
261	261	10.67	2.33
262	262	10.66	2.32
263	263	10.66	2.32
264	264	10.66	2.32
265	265	10.66	2.32
266	266	10.66	2.32
267	267	10.67	2.33
268	268	10.66	2.32
269	269	10.66	2.32
270	270	10.67	2.33
271	271	10.66	2.32
272	272	10.67	2.33
273	273	10.65	2.31
274	274	10.67	2.33
275	275	10.67	2.33
276	276	10.67	2.33
277	277	10.67	2.33
278	278	10.65	2.31
279	279	10.67	2.33
280	280	10.67	2.33



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
281	281	10.68	2.34
282	282	10.68	2.34
283	283	10.67	2.33
284	284	10.68	2.34
285	285	10.68	2.34
286	286	10.67	2.33
287	287	10.67	2.33
288	288	10.67	2.33
289	289	10.68	2.34
290	290	10.68	2.34
291	291	10.69	2.35
292	292	10.68	2.34
293	293	10.69	2.35
294	294	10.68	2.34
295	295	10.68	2.34
296	296	10.68	2.34
297	297	10.68	2.34
298	298	10.68	2.34
299	299	10.68	2.34
300	300	10.68	2.34
301	301	10.69	2.35
302	302	10.69	2.35
303	303	10.69	2.35
304	304	10.69	2.35
305	305	10.69	2.35
306	306	10.69	2.35
307	307	10.69	2.35
308	308	10.69	2.35
309	309	10.69	2.35
310	310	10.69	2.35
311	311	10.69	2.35
312	312	10.69	2.35
313	313	10.69	2.35
314	314	10.71	2.37
315	315	10.70	2.36
316	316	10.69	2.35
317	317	10.69	2.35
318	318	10.70	2.36
319	319	10.71	2.37
320	320	10.71	2.37
321	321	10.71	2.37
322	322	10.71	2.37
323	323	10.71	2.37
324	324	10.71	2.37
325	325	10.72	2.38
326	326	10.71	2.37
327	327	10.72	2.38
328	328	10.72	2.38
329	329	10.71	2.37
330	330	10.71	2.37
331	331	10.71	2.37
332	332	10.72	2.38
333	333	10.71	2.37
334	334	10.72	2.38
335	335	10.72	2.38
336	336	10.72	2.38
337	337	10.72	2.38



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
338	338	10.71	2.37
339	339	10.72	2.38
340	340	10.71	2.37
341	341	10.72	2.38
342	342	10.71	2.37
343	343	10.72	2.38
344	344	10.72	2.38
345	345	10.72	2.38
346	346	10.72	2.38
347	347	10.72	2.38
348	348	10.72	2.38
349	349	10.72	2.38
350	350	10.71	2.37
351	351	10.72	2.38
352	352	10.72	2.38
353	353	10.72	2.38
354	354	10.72	2.38
355	355	10.72	2.38
356	356	10.72	2.38
357	357	10.72	2.38
358	358	10.73	2.39
359	359	10.72	2.38
360	360	10.72	2.38
361	361	10.72	2.38
362	362	10.72	2.38
363	363	10.72	2.38
364	364	10.73	2.39
365	365	10.72	2.38
366	366	10.72	2.38
367	367	10.73	2.39
368	368	10.73	2.39
369	369	10.73	2.39
370	370	10.72	2.38
371	371	10.73	2.39
372	372	10.73	2.39
373	373	10.72	2.38
374	374	10.73	2.39
375	375	10.73	2.39
376	376	10.73	2.39
377	377	10.74	2.40
378	378	10.74	2.40
379	379	10.74	2.40
380	380	10.73	2.39
381	381	10.73	2.39
382	382	10.74	2.40
383	383	10.74	2.40
384	384	10.74	2.40
385	385	10.74	2.40
386	386	10.73	2.39
387	387	10.74	2.40
388	388	10.74	2.40
389	389	10.74	2.40
390	390	10.74	2.40
391	391	10.74	2.40
392	392	10.74	2.40
393	393	10.74	2.40
394	394	10.74	2.40



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
395	395	10.76	2.42
396	396	10.76	2.42
397	397	10.76	2.42
398	398	10.74	2.40
399	399	10.75	2.41
400	400	10.75	2.41
401	401	10.74	2.40
402	402	10.76	2.42
403	403	10.76	2.42
404	404	10.76	2.42
405	405	10.77	2.43
406	406	10.76	2.42
407	407	10.76	2.42
408	408	10.75	2.41
409	409	10.75	2.41
410	410	10.75	2.41
411	411	10.75	2.41
412	412	10.75	2.41
413	413	10.75	2.41
414	414	10.76	2.42
415	415	10.76	2.42
416	416	10.77	2.43
417	417	10.77	2.43
418	418	10.78	2.44
419	419	10.77	2.43
420	420	10.77	2.43
421	421	10.76	2.42
422	422	10.76	2.42
423	423	10.76	2.42
424	424	10.76	2.42
425	425	10.76	2.42
426	426	10.76	2.42
427	427	10.76	2.42
428	428	10.76	2.42
429	429	10.76	2.42
430	430	10.75	2.41
431	431	10.76	2.42
432	432	10.75	2.41
433	433	10.76	2.42
434	434	10.77	2.43
435	435	10.75	2.41
436	436	10.76	2.42
437	437	10.76	2.42
438	438	10.77	2.43
439	439	10.76	2.42
440	440	10.76	2.42
441	441	10.76	2.42
442	442	10.76	2.42
443	443	10.78	2.44
444	444	10.78	2.44
445	445	10.78	2.44
446	446	10.78	2.44
447	447	10.77	2.43
448	448	10.78	2.44
449	449	10.77	2.43
450	450	10.77	2.43
451	451	10.77	2.43



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Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
452	452	10.77	2.43
453	453	10.77	2.43
454	454	10.78	2.44
455	455	10.77	2.43
456	456	10.78	2.44
457	457	10.78	2.44
458	458	10.79	2.45
459	459	10.78	2.44
460	460	10.78	2.44
461	461	10.79	2.45
462	462	10.79	2.45
463	463	10.79	2.45
464	464	10.79	2.45
465	465	10.79	2.45
466	466	10.78	2.44
467	467	10.78	2.44
468	468	10.77	2.43
469	469	10.78	2.44
470	470	10.78	2.44
471	471	10.78	2.44
472	472	10.78	2.44
473	473	10.78	2.44
474	474	10.78	2.44
475	475	10.78	2.44
476	476	10.78	2.44
477	477	10.78	2.44
478	478	10.78	2.44
479	479	10.78	2.44
480	480	10.79	2.45
481	481	10.79	2.45
482	482	10.79	2.45
483	483	10.79	2.45
484	484	10.79	2.45
485	485	10.81	2.47
486	486	10.79	2.45
487	487	10.79	2.45
488	488	10.79	2.45
489	489	10.80	2.46
490	490	10.79	2.45
491	491	10.79	2.45
492	492	10.79	2.45
493	493	10.81	2.47
494	494	10.79	2.45
495	495	10.79	2.45
496	496	10.79	2.45
497	497	10.81	2.47
498	498	10.80	2.46
499	499	10.79	2.45
500	500	10.80	2.46
501	501	10.81	2.47
502	502	10.81	2.47
503	503	10.81	2.47
504	504	10.81	2.47
505	505	10.81	2.47
506	506	10.81	2.47
507	507	10.81	2.47
508	508	10.81	2.47



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
509	509	10.81	2.47
510	510	10.81	2.47
511	511	10.81	2.47
512	512	10.81	2.47
513	513	10.81	2.47
514	514	10.81	2.47
515	515	10.81	2.47
516	516	10.81	2.47
517	517	10.81	2.47
518	518	10.81	2.47
519	519	10.81	2.47
520	520	10.80	2.46
521	521	10.81	2.47
522	522	10.81	2.47
523	523	10.81	2.47
524	524	10.82	2.48
525	525	10.81	2.47
526	526	10.81	2.47
527	527	10.82	2.48
528	528	10.82	2.48
529	529	10.82	2.48
530	530	10.81	2.47
531	531	10.82	2.48
532	532	10.82	2.48
533	533	10.82	2.48
534	534	10.82	2.48
535	535	10.82	2.48
536	536	10.82	2.48
537	537	10.82	2.48
538	538	10.82	2.48
539	539	10.83	2.49
540	540	10.83	2.49
541	541	10.83	2.49
542	542	10.82	2.48
543	543	10.82	2.48
544	544	10.83	2.49
545	545	10.83	2.49
546	546	10.82	2.48
547	547	10.83	2.49
548	548	10.83	2.49
549	549	10.83	2.49
550	550	10.82	2.48
551	551	10.82	2.48
552	552	10.83	2.49
553	553	10.82	2.48
554	554	10.82	2.48
555	555	10.83	2.49
556	556	10.82	2.48
557	557	10.83	2.49
558	558	10.82	2.48
559	559	10.83	2.49
560	560	10.84	2.50
561	561	10.83	2.49
562	562	10.83	2.49
563	563	10.83	2.49
564	564	10.82	2.48
565	565	10.83	2.49



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
566	566	10.83	2.49
567	567	10.83	2.49
568	568	10.83	2.49
569	569	10.83	2.49
570	570	10.83	2.49
571	571	10.84	2.50
572	572	10.83	2.49
573	573	10.83	2.49
574	574	10.83	2.49
575	575	10.83	2.49
576	576	10.83	2.49
577	577	10.84	2.50
578	578	10.84	2.50
579	579	10.84	2.50
580	580	10.83	2.49
581	581	10.84	2.50
582	582	10.83	2.49
583	583	10.83	2.49
584	584	10.84	2.50
585	585	10.84	2.50
586	586	10.84	2.50
587	587	10.84	2.50
588	588	10.83	2.49
589	589	10.84	2.50
590	590	10.84	2.50
591	591	10.84	2.50
592	592	10.83	2.49
593	593	10.84	2.50
594	594	10.85	2.51
595	595	10.85	2.51
596	596	10.85	2.51
597	597	10.84	2.50
598	598	10.84	2.50
599	599	10.84	2.50
600	600	10.84	2.50
601	601	10.84	2.50
602	602	10.84	2.50
603	603	10.84	2.50
604	604	10.84	2.50
605	605	10.84	2.50
606	606	10.83	2.49
607	607	10.83	2.49
608	608	10.83	2.49
609	609	10.84	2.50
610	610	10.84	2.50
611	611	10.84	2.50
612	612	10.84	2.50
613	613	10.84	2.50
614	614	10.85	2.51
615	615	10.84	2.50
616	616	10.86	2.52
617	617	10.84	2.50
618	618	10.84	2.50
619	619	10.85	2.51
620	620	10.84	2.50
621	621	10.84	2.50
622	622	10.85	2.51



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
623	623	10.85	2.51
624	624	10.84	2.50
625	625	10.85	2.51
626	626	10.85	2.51
627	627	10.85	2.51
628	628	10.85	2.51
629	629	10.84	2.50
630	630	10.85	2.51
631	631	10.86	2.52
632	632	10.85	2.51
633	633	10.86	2.52
634	634	10.85	2.51
635	635	10.86	2.52
636	636	10.85	2.51
637	637	10.86	2.52
638	638	10.85	2.51
639	639	10.85	2.51
640	640	10.85	2.51
641	641	10.85	2.51
642	642	10.85	2.51
643	643	10.85	2.51
644	644	10.85	2.51
645	645	10.85	2.51
646	646	10.85	2.51
647	647	10.85	2.51
648	648	10.85	2.51
649	649	10.85	2.51
650	650	10.85	2.51
651	651	10.85	2.51
652	652	10.84	2.50
653	653	10.84	2.50
654	654	10.85	2.51
655	655	10.85	2.51
656	656	10.84	2.50
657	657	10.86	2.52
658	658	10.85	2.51
659	659	10.84	2.50
660	660	10.85	2.51
661	661	10.85	2.51
662	662	10.85	2.51
663	663	10.85	2.51
664	664	10.85	2.51
665	665	10.85	2.51
666	666	10.85	2.51
667	667	10.85	2.51
668	668	10.86	2.52
669	669	10.85	2.51
670	670	10.85	2.51
671	671	10.85	2.51
672	672	10.85	2.51
673	673	10.85	2.51
674	674	10.85	2.51
675	675	10.85	2.51
676	676	10.86	2.52
677	677	10.85	2.51
678	678	10.85	2.51
679	679	10.86	2.52



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
680	680	10.85	2.51
681	681	10.86	2.52
682	682	10.86	2.52
683	683	10.86	2.52
684	684	10.86	2.52
685	685	10.86	2.52
686	686	10.85	2.51
687	687	10.86	2.52
688	688	10.85	2.51
689	689	10.86	2.52
690	690	10.86	2.52
691	691	10.86	2.52
692	692	10.85	2.51
693	693	10.86	2.52
694	694	10.85	2.51
695	695	10.86	2.52
696	696	10.86	2.52
697	697	10.87	2.53
698	698	10.86	2.52
699	699	10.86	2.52
700	700	10.87	2.53
701	701	10.87	2.53
702	702	10.86	2.52
703	703	10.86	2.52
704	704	10.86	2.52
705	705	10.87	2.53
706	706	10.86	2.52
707	707	10.86	2.52
708	708	10.87	2.53
709	709	10.86	2.52
710	710	10.87	2.53
711	711	10.86	2.52
712	712	10.86	2.52
713	713	10.86	2.52
714	714	10.87	2.53
715	715	10.86	2.52
716	716	10.86	2.52
717	717	10.87	2.53
718	718	10.86	2.52
719	719	10.87	2.53
720	720	10.87	2.53
721	721	10.87	2.53
722	722	10.86	2.52
723	723	10.86	2.52
724	724	10.86	2.52
725	725	10.87	2.53
726	726	10.87	2.53
727	727	10.86	2.52
728	728	10.87	2.53
729	729	10.87	2.53
730	730	10.87	2.53
731	731	10.87	2.53
732	732	10.87	2.53
733	733	10.88	2.54
734	734	10.86	2.52
735	735	10.86	2.52
736	736	10.86	2.52



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
737	737	10.86	2.52
738	738	10.86	2.52
739	739	10.86	2.52
740	740	10.87	2.53
741	741	10.87	2.53
742	742	10.87	2.53
743	743	10.88	2.54
744	744	10.86	2.52
745	745	10.87	2.53
746	746	10.87	2.53
747	747	10.87	2.53
748	748	10.88	2.54
749	749	10.88	2.54
750	750	10.87	2.53
751	751	10.87	2.53
752	752	10.87	2.53
753	753	10.87	2.53
754	754	10.86	2.52
755	755	10.87	2.53
756	756	10.88	2.54
757	757	10.87	2.53
758	758	10.87	2.53
759	759	10.87	2.53
760	760	10.87	2.53
761	761	10.87	2.53
762	762	10.87	2.53
763	763	10.88	2.54
764	764	10.87	2.53
765	765	10.87	2.53
766	766	10.86	2.52
767	767	10.87	2.53
768	768	10.88	2.54
769	769	10.88	2.54
770	770	10.88	2.54
771	771	10.87	2.53
772	772	10.88	2.54
773	773	10.87	2.53
774	774	10.87	2.53
775	775	10.88	2.54
776	776	10.88	2.54
777	777	10.88	2.54
778	778	10.87	2.53
779	779	10.88	2.54
780	780	10.88	2.54
781	781	10.87	2.53
782	782	10.88	2.54
783	783	10.88	2.54
784	784	10.87	2.53
785	785	10.87	2.53
786	786	10.87	2.53
787	787	10.87	2.53
788	788	10.88	2.54
789	789	10.87	2.53
790	790	10.88	2.54
791	791	10.88	2.54
792	792	10.87	2.53
793	793	10.88	2.54



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Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
794	794	10.88	2.54
795	795	10.88	2.54
796	796	10.89	2.55
797	797	10.88	2.54
798	798	10.88	2.54
799	799	10.89	2.55
800	800	10.88	2.54
801	801	10.89	2.55
802	802	10.88	2.54
803	803	10.88	2.54
804	804	10.88	2.54
805	805	10.89	2.55
806	806	10.89	2.55
807	807	10.89	2.55
808	808	10.88	2.54
809	809	10.88	2.54
810	810	10.88	2.54
811	811	10.88	2.54
812	812	10.89	2.55
813	813	10.88	2.54
814	814	10.88	2.54
815	815	10.88	2.54
816	816	10.88	2.54
817	817	10.89	2.55
818	818	10.89	2.55
819	819	10.89	2.55
820	820	10.88	2.54
821	821	10.88	2.54
822	822	10.88	2.54
823	823	10.89	2.55
824	824	10.88	2.54
825	825	10.89	2.55
826	826	10.88	2.54
827	827	10.88	2.54
828	828	10.88	2.54
829	829	10.88	2.54
830	830	10.88	2.54
831	831	10.88	2.54
832	832	10.88	2.54
833	833	10.88	2.54
834	834	10.88	2.54
835	835	10.88	2.54
836	836	10.88	2.54
837	837	10.88	2.54
838	838	10.87	2.53
839	839	10.88	2.54
840	840	10.88	2.54
841	841	10.89	2.55
842	842	10.89	2.55
843	843	10.90	2.56
844	844	10.90	2.56
845	845	10.90	2.56
846	846	10.88	2.54
847	847	10.88	2.54
848	848	10.88	2.54
849	849	10.89	2.55
850	850	10.89	2.55



Waterdirect
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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
851	851	10.89	2.55
852	852	10.89	2.55
853	853	10.88	2.54
854	854	10.89	2.55
855	855	10.89	2.55
856	856	10.89	2.55
857	857	10.89	2.55
858	858	10.88	2.54
859	859	10.88	2.54
860	860	10.88	2.54
861	861	10.88	2.54
862	862	10.88	2.54
863	863	10.88	2.54
864	864	10.89	2.55
865	865	10.89	2.55
866	866	10.90	2.56
867	867	10.89	2.55
868	868	10.89	2.55
869	869	10.88	2.54
870	870	10.88	2.54
871	871	10.89	2.55
872	872	10.89	2.55
873	873	10.89	2.55
874	874	10.89	2.55
875	875	10.89	2.55
876	876	10.89	2.55
877	877	10.88	2.54
878	878	10.88	2.54
879	879	10.88	2.54
880	880	10.88	2.54
881	881	10.88	2.54
882	882	10.89	2.55
883	883	10.89	2.55
884	884	10.89	2.55
885	885	10.89	2.55
886	886	10.89	2.55
887	887	10.88	2.54
888	888	10.89	2.55
889	889	10.89	2.55
890	890	10.89	2.55
891	891	10.89	2.55
892	892	10.89	2.55
893	893	10.88	2.54
894	894	10.89	2.55
895	895	10.89	2.55
896	896	10.89	2.55
897	897	10.89	2.55
898	898	10.89	2.55
899	899	10.88	2.54
900	900	10.89	2.55
901	901	10.89	2.55
902	902	10.89	2.55
903	903	10.89	2.55
904	904	10.89	2.55
905	905	10.89	2.55
906	906	10.89	2.55
907	907	10.89	2.55



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
908	908	10.89	2.55
909	909	10.88	2.54
910	910	10.89	2.55
911	911	10.88	2.54
912	912	10.89	2.55
913	913	10.89	2.55
914	914	10.89	2.55
915	915	10.90	2.56
916	916	10.90	2.56
917	917	10.89	2.55
918	918	10.90	2.56
919	919	10.90	2.56
920	920	10.90	2.56
921	921	10.90	2.56
922	922	10.89	2.55
923	923	10.90	2.56
924	924	10.91	2.57
925	925	10.91	2.57
926	926	10.90	2.56
927	927	10.89	2.55
928	928	10.90	2.56
929	929	10.90	2.56
930	930	10.90	2.56
931	931	10.90	2.56
932	932	10.90	2.56
933	933	10.90	2.56
934	934	10.90	2.56
935	935	10.89	2.55
936	936	10.90	2.56
937	937	10.90	2.56
938	938	10.90	2.56
939	939	10.89	2.55
940	940	10.90	2.56
941	941	10.91	2.57
942	942	10.91	2.57
943	943	10.91	2.57
944	944	10.91	2.57
945	945	10.90	2.56
946	946	10.90	2.56
947	947	10.92	2.58
948	948	10.90	2.56
949	949	10.92	2.58
950	950	10.91	2.57
951	951	10.91	2.57
952	952	10.91	2.57
953	953	10.91	2.57
954	954	10.91	2.57
955	955	10.91	2.57
956	956	10.91	2.57
957	957	10.91	2.57
958	958	10.91	2.57
959	959	10.91	2.57
960	960	10.91	2.57
961	961	10.91	2.57
962	962	10.92	2.58
963	963	10.92	2.58
964	964	10.90	2.56



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
965	965	10.91	2.57
966	966	10.90	2.56
967	967	10.90	2.56
968	968	10.90	2.56
969	969	10.90	2.56
970	970	10.90	2.56
971	971	10.91	2.57
972	972	10.90	2.56
973	973	10.91	2.57
974	974	10.90	2.56
975	975	10.91	2.57
976	976	10.92	2.58
977	977	10.91	2.57
978	978	10.92	2.58
979	979	10.91	2.57
980	980	10.91	2.57
981	981	10.92	2.58
982	982	10.91	2.57
983	983	10.91	2.57
984	984	10.91	2.57
985	985	10.92	2.58
986	986	10.92	2.58
987	987	10.91	2.57
988	988	10.91	2.57
989	989	10.92	2.58
990	990	10.92	2.58
991	991	10.92	2.58
992	992	10.91	2.57
993	993	10.92	2.58
994	994	10.91	2.57
995	995	10.93	2.59
996	996	10.91	2.57
997	997	10.91	2.57
998	998	10.91	2.57
999	999	10.91	2.57
1000	1000	10.91	2.57
1001	1001	10.92	2.58
1002	1002	10.92	2.58
1003	1003	10.92	2.58
1004	1004	10.92	2.58
1005	1005	10.92	2.58
1006	1006	10.91	2.57
1007	1007	10.92	2.58
1008	1008	10.93	2.59
1009	1009	10.93	2.59
1010	1010	10.92	2.58
1011	1011	10.92	2.58
1012	1012	10.93	2.59
1013	1013	10.93	2.59
1014	1014	10.92	2.58
1015	1015	10.93	2.59
1016	1016	10.92	2.58
1017	1017	10.93	2.59
1018	1018	10.93	2.59
1019	1019	10.93	2.59
1020	1020	10.93	2.59
1021	1021	10.93	2.59



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1022	1022	10.91	2.57
1023	1023	10.93	2.59
1024	1024	10.92	2.58
1025	1025	10.93	2.59
1026	1026	10.91	2.57
1027	1027	10.92	2.58
1028	1028	10.93	2.59
1029	1029	10.92	2.58
1030	1030	10.91	2.57
1031	1031	10.93	2.59
1032	1032	10.92	2.58
1033	1033	10.92	2.58
1034	1034	10.92	2.58
1035	1035	10.92	2.58
1036	1036	10.92	2.58
1037	1037	10.93	2.59
1038	1038	10.93	2.59
1039	1039	10.92	2.58
1040	1040	10.93	2.59
1041	1041	10.92	2.58
1042	1042	10.92	2.58
1043	1043	10.92	2.58
1044	1044	10.93	2.59
1045	1045	10.92	2.58
1046	1046	10.92	2.58
1047	1047	10.93	2.59
1048	1048	10.92	2.58
1049	1049	10.92	2.58
1050	1050	10.92	2.58
1051	1051	10.94	2.60
1052	1052	10.94	2.60
1053	1053	10.93	2.59
1054	1054	10.94	2.60
1055	1055	10.93	2.59
1056	1056	10.93	2.59
1057	1057	10.93	2.59
1058	1058	10.93	2.59
1059	1059	10.92	2.58
1060	1060	10.92	2.58
1061	1061	10.93	2.59
1062	1062	10.93	2.59
1063	1063	10.93	2.59
1064	1064	10.92	2.58
1065	1065	10.93	2.59
1066	1066	10.92	2.58
1067	1067	10.92	2.58
1068	1068	10.92	2.58
1069	1069	10.92	2.58
1070	1070	10.93	2.59
1071	1071	10.93	2.59
1072	1072	10.93	2.59
1073	1073	10.93	2.59
1074	1074	10.92	2.58
1075	1075	10.94	2.60
1076	1076	10.93	2.59
1077	1077	10.92	2.58
1078	1078	10.94	2.60



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1079	1079	10.93	2.59
1080	1080	10.93	2.59
1081	1081	10.93	2.59
1082	1082	10.94	2.60
1083	1083	10.93	2.59
1084	1084	10.93	2.59
1085	1085	10.94	2.60
1086	1086	10.94	2.60
1087	1087	10.93	2.59
1088	1088	10.94	2.60
1089	1089	10.92	2.58
1090	1090	10.93	2.59
1091	1091	10.94	2.60
1092	1092	10.94	2.60
1093	1093	10.93	2.59
1094	1094	10.94	2.60
1095	1095	10.94	2.60
1096	1096	10.94	2.60
1097	1097	10.94	2.60
1098	1098	10.94	2.60
1099	1099	10.94	2.60
1100	1100	10.94	2.60
1101	1101	10.95	2.61
1102	1102	10.94	2.60
1103	1103	10.94	2.60
1104	1104	10.94	2.60
1105	1105	10.93	2.59
1106	1106	10.93	2.59
1107	1107	10.93	2.59
1108	1108	10.94	2.60
1109	1109	10.95	2.61
1110	1110	10.94	2.60
1111	1111	10.94	2.60
1112	1112	10.93	2.59
1113	1113	10.94	2.60
1114	1114	10.94	2.60
1115	1115	10.93	2.59
1116	1116	10.93	2.59
1117	1117	10.94	2.60
1118	1118	10.93	2.59
1119	1119	10.94	2.60
1120	1120	10.93	2.59
1121	1121	10.94	2.60
1122	1122	10.94	2.60
1123	1123	10.95	2.61
1124	1124	10.94	2.60
1125	1125	10.95	2.61
1126	1126	10.95	2.61
1127	1127	10.95	2.61
1128	1128	10.94	2.60
1129	1129	10.94	2.60
1130	1130	10.94	2.60
1131	1131	10.94	2.60
1132	1132	10.94	2.60
1133	1133	10.94	2.60
1134	1134	10.94	2.60
1135	1135	10.94	2.60



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1136	1136	10.93	2.59
1137	1137	10.93	2.59
1138	1138	10.93	2.59
1139	1139	10.93	2.59
1140	1140	10.94	2.60
1141	1141	10.95	2.61
1142	1142	10.95	2.61
1143	1143	10.95	2.61
1144	1144	10.95	2.61
1145	1145	10.95	2.61
1146	1146	10.95	2.61
1147	1147	10.95	2.61
1148	1148	10.94	2.60
1149	1149	10.94	2.60
1150	1150	10.94	2.60
1151	1151	10.94	2.60
1152	1152	10.94	2.60
1153	1153	10.94	2.60
1154	1154	10.94	2.60
1155	1155	10.94	2.60
1156	1156	10.95	2.61
1157	1157	10.94	2.60
1158	1158	10.95	2.61
1159	1159	10.95	2.61
1160	1160	10.95	2.61
1161	1161	10.95	2.61
1162	1162	10.95	2.61
1163	1163	10.94	2.60
1164	1164	10.95	2.61
1165	1165	10.95	2.61
1166	1166	10.95	2.61
1167	1167	10.95	2.61
1168	1168	10.95	2.61
1169	1169	10.95	2.61
1170	1170	10.95	2.61
1171	1171	10.95	2.61
1172	1172	10.95	2.61
1173	1173	10.95	2.61
1174	1174	10.95	2.61
1175	1175	10.95	2.61
1176	1176	10.95	2.61
1177	1177	10.95	2.61
1178	1178	10.96	2.62
1179	1179	10.96	2.62
1180	1180	10.96	2.62
1181	1181	10.96	2.62
1182	1182	10.96	2.62
1183	1183	10.95	2.61
1184	1184	10.96	2.62
1185	1185	10.95	2.61
1186	1186	10.95	2.61
1187	1187	10.95	2.61
1188	1188	10.95	2.61
1189	1189	10.96	2.62
1190	1190	10.95	2.61
1191	1191	10.95	2.61
1192	1192	10.96	2.62



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1193	1193	10.95	2.61
1194	1194	10.94	2.60
1195	1195	10.94	2.60
1196	1196	10.94	2.60
1197	1197	10.95	2.61
1198	1198	10.96	2.62
1199	1199	10.96	2.62
1200	1200	10.95	2.61
1201	1201	10.96	2.62
1202	1202	10.96	2.62
1203	1203	10.95	2.61
1204	1204	10.96	2.62
1205	1205	10.96	2.62
1206	1206	10.94	2.60
1207	1207	10.94	2.60
1208	1208	10.94	2.60
1209	1209	10.95	2.61
1210	1210	10.96	2.62
1211	1211	10.95	2.61
1212	1212	10.94	2.60
1213	1213	10.95	2.61
1214	1214	10.95	2.61
1215	1215	10.94	2.60
1216	1216	10.94	2.60
1217	1217	10.96	2.62
1218	1218	10.96	2.62
1219	1219	10.96	2.62
1220	1220	10.95	2.61
1221	1221	10.97	2.63
1222	1222	10.96	2.62
1223	1223	10.96	2.62
1224	1224	10.96	2.62
1225	1225	10.96	2.62
1226	1226	10.95	2.61
1227	1227	10.96	2.62
1228	1228	10.96	2.62
1229	1229	10.95	2.61
1230	1230	10.96	2.62
1231	1231	10.97	2.63
1232	1232	10.96	2.62
1233	1233	10.96	2.62
1234	1234	10.97	2.63
1235	1235	10.97	2.63
1236	1236	10.96	2.62
1237	1237	10.96	2.62
1238	1238	10.97	2.63
1239	1239	10.96	2.62
1240	1240	10.96	2.62
1241	1241	10.96	2.62
1242	1242	10.97	2.63
1243	1243	10.96	2.62
1244	1244	10.96	2.62
1245	1245	10.96	2.62
1246	1246	10.96	2.62
1247	1247	10.97	2.63
1248	1248	10.97	2.63
1249	1249	10.96	2.62



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1250	1250	10.97	2.63
1251	1251	10.97	2.63
1252	1252	10.97	2.63
1253	1253	10.97	2.63
1254	1254	10.97	2.63
1255	1255	10.97	2.63
1256	1256	10.97	2.63
1257	1257	10.98	2.64
1258	1258	10.97	2.63
1259	1259	10.96	2.62
1260	1260	10.95	2.61
1261	1261	10.95	2.61
1262	1262	10.96	2.62
1263	1263	10.95	2.61
1264	1264	10.97	2.63
1265	1265	10.97	2.63
1266	1266	10.96	2.62
1267	1267	10.96	2.62
1268	1268	10.96	2.62
1269	1269	10.97	2.63
1270	1270	10.95	2.61
1271	1271	10.96	2.62
1272	1272	10.96	2.62
1273	1273	10.95	2.61
1274	1274	10.96	2.62
1275	1275	10.96	2.62
1276	1276	10.98	2.64
1277	1277	10.98	2.64
1278	1278	10.97	2.63
1279	1279	10.98	2.64
1280	1280	10.97	2.63
1281	1281	10.97	2.63
1282	1282	10.97	2.63
1283	1283	10.97	2.63
1284	1284	10.97	2.63
1285	1285	10.98	2.64
1286	1286	10.97	2.63
1287	1287	10.96	2.62
1288	1288	10.96	2.62
1289	1289	10.96	2.62
1290	1290	10.97	2.63
1291	1291	10.97	2.63
1292	1292	10.97	2.63
1293	1293	10.97	2.63
1294	1294	10.98	2.64
1295	1295	10.96	2.62
1296	1296	10.96	2.62
1297	1297	10.96	2.62
1298	1298	10.96	2.62
1299	1299	10.96	2.62
1300	1300	10.96	2.62
1301	1301	10.96	2.62
1302	1302	10.96	2.62
1303	1303	10.97	2.63
1304	1304	10.97	2.63
1305	1305	10.97	2.63
1306	1306	10.98	2.64



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1307	1307	10.98	2.64
1308	1308	10.97	2.63
1309	1309	10.98	2.64
1310	1310	10.98	2.64
1311	1311	10.97	2.63
1312	1312	10.98	2.64
1313	1313	10.98	2.64
1314	1314	10.98	2.64
1315	1315	10.98	2.64
1316	1316	10.98	2.64
1317	1317	10.97	2.63
1318	1318	10.99	2.65
1319	1319	10.98	2.64
1320	1320	10.99	2.65
1321	1321	10.98	2.64
1322	1322	10.98	2.64
1323	1323	10.98	2.64
1324	1324	10.98	2.64
1325	1325	10.97	2.63
1326	1326	10.98	2.64
1327	1327	10.98	2.64
1328	1328	10.98	2.64
1329	1329	10.98	2.64
1330	1330	10.97	2.63
1331	1331	10.97	2.63
1332	1332	10.97	2.63
1333	1333	10.97	2.63
1334	1334	10.97	2.63
1335	1335	10.97	2.63
1336	1336	10.97	2.63
1337	1337	10.97	2.63
1338	1338	10.98	2.64
1339	1339	10.98	2.64
1340	1340	10.98	2.64
1341	1341	10.98	2.64
1342	1342	10.98	2.64
1343	1343	10.98	2.64
1344	1344	10.98	2.64
1345	1345	10.99	2.65
1346	1346	10.97	2.63
1347	1347	10.98	2.64
1348	1348	10.98	2.64
1349	1349	10.98	2.64
1350	1350	10.96	2.62
1351	1351	10.97	2.63
1352	1352	10.98	2.64
1353	1353	10.98	2.64
1354	1354	10.98	2.64
1355	1355	10.98	2.64
1356	1356	10.98	2.64
1357	1357	10.97	2.63
1358	1358	10.98	2.64
1359	1359	10.98	2.64
1360	1360	10.98	2.64
1361	1361	10.99	2.65
1362	1362	10.98	2.64
1363	1363	10.99	2.65



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1364	1364	10.98	2.64
1365	1365	10.98	2.64
1366	1366	10.98	2.64
1367	1367	10.98	2.64
1368	1368	10.99	2.65
1369	1369	10.98	2.64
1370	1370	10.98	2.64
1371	1371	10.98	2.64
1372	1372	10.99	2.65
1373	1373	10.98	2.64
1374	1374	10.97	2.63
1375	1375	10.98	2.64
1376	1376	10.98	2.64
1377	1377	10.98	2.64
1378	1378	10.98	2.64
1379	1379	10.97	2.63
1380	1380	10.98	2.64
1381	1381	10.97	2.63
1382	1382	10.97	2.63
1383	1383	10.97	2.63
1384	1384	10.97	2.63
1385	1385	10.97	2.63
1386	1386	10.97	2.63
1387	1387	10.97	2.63
1388	1388	10.97	2.63
1389	1389	10.97	2.63
1390	1390	10.97	2.63
1391	1391	10.98	2.64
1392	1392	10.97	2.63
1393	1393	10.97	2.63
1394	1394	10.98	2.64
1395	1395	10.98	2.64
1396	1396	10.98	2.64
1397	1397	10.99	2.65
1398	1398	10.98	2.64
1399	1399	10.98	2.64
1400	1400	10.98	2.64
1401	1401	10.98	2.64
1402	1402	10.98	2.64
1403	1403	10.99	2.65
1404	1404	10.99	2.65
1405	1405	10.98	2.64
1406	1406	10.99	2.65
1407	1407	10.99	2.65
1408	1408	10.99	2.65
1409	1409	10.99	2.65
1410	1410	10.98	2.64
1411	1411	10.98	2.64
1412	1412	10.99	2.65
1413	1413	10.98	2.64
1414	1414	10.98	2.64
1415	1415	10.98	2.64
1416	1416	10.98	2.64
1417	1417	10.99	2.65
1418	1418	10.98	2.64
1419	1419	10.98	2.64
1420	1420	10.98	2.64



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1421	1421	10.98	2.64
1422	1422	10.97	2.63
1423	1423	10.98	2.64
1424	1424	10.97	2.63
1425	1425	10.98	2.64
1426	1426	10.97	2.63
1427	1427	10.97	2.63
1428	1428	10.99	2.65
1429	1429	10.98	2.64
1430	1430	10.97	2.63
1431	1431	10.98	2.64
1432	1432	10.98	2.64
1433	1433	10.98	2.64
1434	1434	10.99	2.65
1435	1435	10.99	2.65
1436	1436	10.99	2.65
1437	1437	10.99	2.65
1438	1438	10.99	2.65
1439	1439	10.99	2.65
1440	1440	10.98	2.64
1441	1441	10.99	2.65
1442	1442	10.99	2.65
1443	1443	10.99	2.65
1444	1444	10.99	2.65
1445	1445	11.00	2.66
1446	1446	10.98	2.64
1447	1447	10.99	2.65
1448	1448	10.99	2.65
1449	1449	10.99	2.65
1450	1450	10.98	2.64
1451	1451	11.00	2.66
1452	1452	10.99	2.65
1453	1453	10.99	2.65
1454	1454	10.99	2.65
1455	1455	10.98	2.64
1456	1456	10.99	2.65
1457	1457	10.99	2.65
1458	1458	10.99	2.65
1459	1459	10.98	2.64
1460	1460	10.98	2.64
1461	1461	10.98	2.64
1462	1462	10.99	2.65
1463	1463	10.99	2.65
1464	1464	10.99	2.65
1465	1465	10.98	2.64
1466	1466	10.98	2.64
1467	1467	10.97	2.63
1468	1468	10.98	2.64
1469	1469	10.97	2.63
1470	1470	10.98	2.64
1471	1471	10.99	2.65
1472	1472	10.99	2.65
1473	1473	10.99	2.65
1474	1474	10.99	2.65
1475	1475	10.98	2.64
1476	1476	10.98	2.64
1477	1477	10.99	2.65



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1478	1478	10.99	2.65
1479	1479	10.98	2.64
1480	1480	10.99	2.65
1481	1481	10.99	2.65
1482	1482	10.98	2.64
1483	1483	10.99	2.65
1484	1484	10.99	2.65
1485	1485	10.99	2.65
1486	1486	10.99	2.65
1487	1487	10.98	2.64
1488	1488	10.99	2.65
1489	1489	10.97	2.63
1490	1490	10.97	2.63
1491	1491	10.97	2.63
1492	1492	10.99	2.65
1493	1493	10.99	2.65
1494	1494	10.98	2.64
1495	1495	10.99	2.65
1496	1496	10.99	2.65
1497	1497	10.99	2.65
1498	1498	10.99	2.65
1499	1499	10.99	2.65
1500	1500	10.99	2.65
1501	1501	10.97	2.63
1502	1502	10.98	2.64
1503	1503	10.99	2.65
1504	1504	10.98	2.64
1505	1505	10.98	2.64
1506	1506	10.99	2.65
1507	1507	10.98	2.64
1508	1508	10.99	2.65
1509	1509	10.98	2.64
1510	1510	10.98	2.64
1511	1511	10.98	2.64
1512	1512	10.99	2.65
1513	1513	10.99	2.65
1514	1514	10.99	2.65
1515	1515	10.99	2.65
1516	1516	10.99	2.65
1517	1517	10.99	2.65
1518	1518	10.99	2.65
1519	1519	10.99	2.65
1520	1520	10.99	2.65
1521	1521	10.99	2.65
1522	1522	10.99	2.65
1523	1523	10.99	2.65
1524	1524	11.00	2.66
1525	1525	10.97	2.63
1526	1526	10.98	2.64
1527	1527	10.98	2.64
1528	1528	10.98	2.64
1529	1529	10.98	2.64
1530	1530	10.98	2.64
1531	1531	10.98	2.64
1532	1532	10.98	2.64
1533	1533	10.99	2.65
1534	1534	10.99	2.65



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1535	1535	10.99	2.65
1536	1536	10.99	2.65
1537	1537	10.99	2.65
1538	1538	10.99	2.65
1539	1539	10.99	2.65
1540	1540	10.99	2.65
1541	1541	10.99	2.65
1542	1542	10.99	2.65
1543	1543	11.00	2.66
1544	1544	10.99	2.65
1545	1545	10.99	2.65
1546	1546	11.00	2.66
1547	1547	11.00	2.66
1548	1548	10.99	2.65
1549	1549	10.99	2.65
1550	1550	10.99	2.65
1551	1551	10.99	2.65
1552	1552	10.99	2.65
1553	1553	10.99	2.65
1554	1554	10.99	2.65
1555	1555	11.00	2.66
1556	1556	10.99	2.65
1557	1557	11.00	2.66
1558	1558	11.00	2.66
1559	1559	11.00	2.66
1560	1560	11.01	2.67
1561	1561	11.00	2.66
1562	1562	11.00	2.66
1563	1563	11.00	2.66
1564	1564	11.00	2.66
1565	1565	11.00	2.66
1566	1566	11.00	2.66
1567	1567	11.00	2.66
1568	1568	11.00	2.66
1569	1569	11.00	2.66
1570	1570	11.00	2.66
1571	1571	11.00	2.66
1572	1572	11.01	2.67
1573	1573	11.00	2.66
1574	1574	11.01	2.67
1575	1575	11.00	2.66
1576	1576	11.00	2.66
1577	1577	11.00	2.66
1578	1578	11.01	2.67
1579	1579	11.00	2.66
1580	1580	11.01	2.67
1581	1581	11.02	2.68
1582	1582	11.01	2.67
1583	1583	11.01	2.67
1584	1584	11.01	2.67
1585	1585	11.01	2.67
1586	1586	11.01	2.67
1587	1587	11.01	2.67
1588	1588	11.01	2.67
1589	1589	11.01	2.67
1590	1590	11.01	2.67
1591	1591	11.01	2.67



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	Time [min]	Water Level [m]	Drawdown [m]
1592	1592	11.01	2.67
1593	1593	11.01	2.67
1594	1594	11.01	2.67
1595	1595	11.02	2.68
1596	1596	11.01	2.67
1597	1597	11.01	2.67
1598	1598	11.01	2.67
1599	1599	11.01	2.67
1600	1600	11.01	2.67
1601	1601	11.01	2.67
1602	1602	11.01	2.67
1603	1603	11.01	2.67
1604	1604	11.00	2.66
1605	1605	11.01	2.67
1606	1606	11.01	2.67
1607	1607	11.01	2.67
1608	1608	11.01	2.67
1609	1609	11.01	2.67
1610	1610	11.01	2.67
1611	1611	11.02	2.68
1612	1612	11.01	2.67
1613	1613	11.01	2.67
1614	1614	11.01	2.67
1615	1615	11.01	2.67
1616	1616	11.01	2.67
1617	1617	11.01	2.67
1618	1618	11.01	2.67
1619	1619	11.00	2.66
1620	1620	11.01	2.67
1621	1621	11.00	2.66
1622	1622	11.01	2.67
1623	1623	11.01	2.67
1624	1624	11.01	2.67
1625	1625	11.01	2.67
1626	1626	11.00	2.66
1627	1627	11.00	2.66
1628	1628	11.01	2.67
1629	1629	11.01	2.67
1630	1630	11.01	2.67
1631	1631	11.01	2.67
1632	1632	11.01	2.67
1633	1633	11.01	2.67
1634	1634	11.01	2.67
1635	1635	11.01	2.67
1636	1636	11.01	2.67
1637	1637	11.01	2.67
1638	1638	11.01	2.67
1639	1639	11.01	2.67
1640	1640	11.01	2.67
1641	1641	11.01	2.67
1642	1642	11.02	2.68
1643	1643	11.01	2.67
1644	1644	11.01	2.67
1645	1645	11.01	2.67
1646	1646	11.01	2.67
1647	1647	11.00	2.66
1648	1648	11.01	2.67



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	Time [min]	Water Level [m]	Drawdown [m]
1649	1649	11.01	2.67
1650	1650	11.02	2.68
1651	1651	11.02	2.68
1652	1652	11.02	2.68
1653	1653	11.02	2.68
1654	1654	11.02	2.68
1655	1655	11.02	2.68
1656	1656	11.02	2.68
1657	1657	11.01	2.67
1658	1658	11.01	2.67
1659	1659	11.01	2.67
1660	1660	11.01	2.67
1661	1661	11.01	2.67
1662	1662	11.01	2.67
1663	1663	11.01	2.67
1664	1664	11.01	2.67
1665	1665	11.02	2.68
1666	1666	11.01	2.67
1667	1667	11.01	2.67
1668	1668	11.01	2.67
1669	1669	11.01	2.67
1670	1670	11.00	2.66
1671	1671	11.01	2.67
1672	1672	11.01	2.67
1673	1673	11.01	2.67
1674	1674	11.01	2.67
1675	1675	11.02	2.68
1676	1676	11.01	2.67
1677	1677	11.01	2.67
1678	1678	11.02	2.68
1679	1679	11.01	2.67
1680	1680	11.02	2.68
1681	1681	11.01	2.67
1682	1682	11.02	2.68
1683	1683	11.02	2.68
1684	1684	11.01	2.67
1685	1685	11.02	2.68
1686	1686	11.02	2.68
1687	1687	11.02	2.68
1688	1688	11.02	2.68
1689	1689	11.02	2.68
1690	1690	11.03	2.69
1691	1691	11.01	2.67
1692	1692	11.02	2.68
1693	1693	11.02	2.68
1694	1694	11.02	2.68
1695	1695	11.02	2.68
1696	1696	11.02	2.68
1697	1697	11.02	2.68
1698	1698	11.02	2.68
1699	1699	11.02	2.68
1700	1700	11.02	2.68
1701	1701	11.02	2.68
1702	1702	11.02	2.68
1703	1703	11.03	2.69
1704	1704	11.02	2.68
1705	1705	11.02	2.68



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	Time [min]	Water Level [m]	Drawdown [m]
1706	1706	11.02	2.68
1707	1707	11.01	2.67
1708	1708	11.02	2.68
1709	1709	11.02	2.68
1710	1710	11.02	2.68
1711	1711	11.02	2.68
1712	1712	11.02	2.68
1713	1713	11.02	2.68
1714	1714	11.02	2.68
1715	1715	11.02	2.68
1716	1716	11.01	2.67
1717	1717	11.02	2.68
1718	1718	11.02	2.68
1719	1719	11.02	2.68
1720	1720	11.01	2.67
1721	1721	11.02	2.68
1722	1722	11.02	2.68
1723	1723	11.02	2.68
1724	1724	11.02	2.68
1725	1725	11.02	2.68
1726	1726	11.03	2.69
1727	1727	11.02	2.68
1728	1728	11.02	2.68
1729	1729	11.02	2.68
1730	1730	11.02	2.68
1731	1731	11.02	2.68
1732	1732	11.03	2.69
1733	1733	11.03	2.69
1734	1734	11.02	2.68
1735	1735	11.03	2.69
1736	1736	11.02	2.68
1737	1737	11.03	2.69
1738	1738	11.02	2.68
1739	1739	11.02	2.68
1740	1740	11.02	2.68
1741	1741	11.03	2.69
1742	1742	11.02	2.68
1743	1743	11.02	2.68
1744	1744	11.02	2.68
1745	1745	11.02	2.68
1746	1746	11.02	2.68
1747	1747	11.02	2.68
1748	1748	11.02	2.68
1749	1749	11.03	2.69
1750	1750	11.02	2.68
1751	1751	11.02	2.68
1752	1752	11.02	2.68
1753	1753	11.03	2.69
1754	1754	11.02	2.68
1755	1755	11.03	2.69
1756	1756	11.02	2.68
1757	1757	11.02	2.68
1758	1758	11.02	2.68
1759	1759	11.02	2.68
1760	1760	11.02	2.68
1761	1761	11.03	2.69
1762	1762	11.05	2.71



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	Time [min]	Water Level [m]	Drawdown [m]
1763	1763	11.02	2.68
1764	1764	11.02	2.68
1765	1765	11.02	2.68
1766	1766	11.02	2.68
1767	1767	11.01	2.67
1768	1768	11.02	2.68
1769	1769	11.02	2.68
1770	1770	11.02	2.68
1771	1771	11.03	2.69
1772	1772	11.02	2.68
1773	1773	11.03	2.69
1774	1774	11.02	2.68
1775	1775	11.01	2.67
1776	1776	11.02	2.68
1777	1777	11.03	2.69
1778	1778	11.03	2.69
1779	1779	11.03	2.69
1780	1780	11.02	2.68
1781	1781	11.03	2.69
1782	1782	11.03	2.69
1783	1783	11.03	2.69
1784	1784	11.03	2.69
1785	1785	11.03	2.69
1786	1786	11.03	2.69
1787	1787	11.03	2.69
1788	1788	11.03	2.69
1789	1789	11.03	2.69
1790	1790	11.03	2.69
1791	1791	11.03	2.69
1792	1792	11.03	2.69
1793	1793	11.02	2.68
1794	1794	11.04	2.70
1795	1795	11.03	2.69
1796	1796	11.03	2.69
1797	1797	11.03	2.69
1798	1798	11.05	2.71
1799	1799	11.03	2.69
1800	1800	11.03	2.69
1801	1801	11.02	2.68
1802	1802	11.03	2.69
1803	1803	11.03	2.69
1804	1804	11.02	2.68
1805	1805	11.03	2.69
1806	1806	11.05	2.71
1807	1807	11.05	2.71
1808	1808	11.03	2.69
1809	1809	11.03	2.69
1810	1810	11.02	2.68
1811	1811	11.03	2.69
1812	1812	11.03	2.69
1813	1813	11.03	2.69
1814	1814	11.03	2.69
1815	1815	11.05	2.71
1816	1816	11.03	2.69
1817	1817	11.05	2.71
1818	1818	11.03	2.69
1819	1819	11.03	2.69



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	Time [min]	Water Level [m]	Drawdown [m]
1820	1820	11.03	2.69
1821	1821	11.03	2.69
1822	1822	11.03	2.69
1823	1823	11.03	2.69
1824	1824	11.03	2.69
1825	1825	11.03	2.69
1826	1826	11.03	2.69
1827	1827	11.03	2.69
1828	1828	11.03	2.69
1829	1829	11.03	2.69
1830	1830	11.03	2.69
1831	1831	11.03	2.69
1832	1832	11.03	2.69
1833	1833	11.03	2.69
1834	1834	11.03	2.69
1835	1835	11.03	2.69
1836	1836	11.03	2.69
1837	1837	11.03	2.69
1838	1838	11.03	2.69
1839	1839	11.03	2.69
1840	1840	11.03	2.69
1841	1841	11.03	2.69
1842	1842	11.03	2.69
1843	1843	11.02	2.68
1844	1844	11.02	2.68
1845	1845	11.02	2.68
1846	1846	11.03	2.69
1847	1847	11.03	2.69
1848	1848	11.03	2.69
1849	1849	11.03	2.69
1850	1850	11.03	2.69
1851	1851	11.05	2.71
1852	1852	11.05	2.71
1853	1853	11.03	2.69
1854	1854	11.03	2.69
1855	1855	11.03	2.69
1856	1856	11.03	2.69
1857	1857	11.03	2.69
1858	1858	11.03	2.69
1859	1859	11.03	2.69
1860	1860	11.03	2.69
1861	1861	11.03	2.69
1862	1862	11.03	2.69
1863	1863	11.03	2.69
1864	1864	11.03	2.69
1865	1865	11.03	2.69
1866	1866	11.03	2.69
1867	1867	11.03	2.69
1868	1868	11.03	2.69
1869	1869	11.03	2.69
1870	1870	11.03	2.69
1871	1871	11.03	2.69
1872	1872	11.03	2.69
1873	1873	11.03	2.69
1874	1874	11.03	2.69
1875	1875	11.03	2.69
1876	1876	11.03	2.69



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	Time [min]	Water Level [m]	Drawdown [m]
1877	1877	11.03	2.69
1878	1878	11.03	2.69
1879	1879	11.03	2.69
1880	1880	11.03	2.69
1881	1881	11.03	2.69
1882	1882	11.03	2.69
1883	1883	11.05	2.71
1884	1884	11.03	2.69
1885	1885	11.03	2.69
1886	1886	11.05	2.71
1887	1887	11.05	2.71
1888	1888	11.05	2.71
1889	1889	11.05	2.71
1890	1890	11.05	2.71
1891	1891	11.05	2.71
1892	1892	11.05	2.71
1893	1893	11.05	2.71
1894	1894	11.05	2.71
1895	1895	11.05	2.71
1896	1896	11.05	2.71
1897	1897	11.05	2.71
1898	1898	11.05	2.71
1899	1899	11.05	2.71
1900	1900	11.05	2.71
1901	1901	11.05	2.71
1902	1902	11.03	2.69
1903	1903	11.05	2.71
1904	1904	11.05	2.71
1905	1905	11.05	2.71
1906	1906	11.05	2.71
1907	1907	11.05	2.71
1908	1908	11.05	2.71
1909	1909	11.05	2.71
1910	1910	11.05	2.71
1911	1911	11.06	2.72
1912	1912	11.05	2.71
1913	1913	11.05	2.71
1914	1914	11.05	2.71
1915	1915	11.05	2.71
1916	1916	11.05	2.71
1917	1917	11.05	2.71
1918	1918	11.05	2.71
1919	1919	11.05	2.71
1920	1920	11.05	2.71
1921	1921	11.05	2.71
1922	1922	11.05	2.71
1923	1923	11.05	2.71
1924	1924	11.05	2.71
1925	1925	11.03	2.69
1926	1926	11.03	2.69
1927	1927	11.03	2.69
1928	1928	11.03	2.69
1929	1929	11.03	2.69
1930	1930	11.03	2.69
1931	1931	11.03	2.69
1932	1932	11.03	2.69
1933	1933	11.03	2.69



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	Time [min]	Water Level [m]	Drawdown [m]
1934	1934	11.03	2.69
1935	1935	11.03	2.69
1936	1936	11.03	2.69
1937	1937	11.05	2.71
1938	1938	11.03	2.69
1939	1939	11.05	2.71
1940	1940	11.03	2.69
1941	1941	11.03	2.69
1942	1942	11.03	2.69
1943	1943	11.03	2.69
1944	1944	11.03	2.69
1945	1945	11.03	2.69
1946	1946	11.03	2.69
1947	1947	11.02	2.68
1948	1948	11.03	2.69
1949	1949	11.03	2.69
1950	1950	11.03	2.69
1951	1951	11.03	2.69
1952	1952	11.03	2.69
1953	1953	11.03	2.69
1954	1954	11.03	2.69
1955	1955	11.05	2.71
1956	1956	11.03	2.69
1957	1957	11.03	2.69
1958	1958	11.03	2.69
1959	1959	11.05	2.71
1960	1960	11.05	2.71
1961	1961	11.05	2.71
1962	1962	11.03	2.69
1963	1963	11.03	2.69
1964	1964	11.05	2.71
1965	1965	11.03	2.69
1966	1966	11.03	2.69
1967	1967	11.05	2.71
1968	1968	11.03	2.69
1969	1969	11.03	2.69
1970	1970	11.03	2.69
1971	1971	11.03	2.69
1972	1972	11.03	2.69
1973	1973	11.05	2.71
1974	1974	11.05	2.71
1975	1975	11.05	2.71
1976	1976	11.05	2.71
1977	1977	11.03	2.69
1978	1978	11.03	2.69
1979	1979	11.05	2.71
1980	1980	11.03	2.69
1981	1981	11.05	2.71
1982	1982	11.05	2.71
1983	1983	11.05	2.71
1984	1984	11.05	2.71
1985	1985	11.05	2.71
1986	1986	11.05	2.71
1987	1987	11.05	2.71
1988	1988	11.05	2.71
1989	1989	11.05	2.71
1990	1990	11.05	2.71



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	Time [min]	Water Level [m]	Drawdown [m]
1991	1991	10.28	1.94
1992	1992	10.03	1.69
1993	1993	9.90	1.56
1994	1994	9.81	1.47
1995	1995	9.75	1.41
1996	1996	9.70	1.36
1997	1997	9.66	1.32
1998	1998	9.63	1.29
1999	1999	9.59	1.25
2000	2000	9.56	1.22
2001	2001	9.54	1.20
2002	2002	9.50	1.16
2003	2003	9.48	1.14
2004	2004	9.46	1.12
2005	2005	9.44	1.10
2006	2006	9.43	1.09
2007	2007	9.41	1.07
2008	2008	9.39	1.05
2009	2009	9.38	1.04
2010	2010	9.37	1.03
2011	2011	9.36	1.02
2012	2012	9.34	1.00
2013	2013	9.33	0.99
2014	2014	9.31	0.97
2015	2015	9.30	0.96
2016	2016	9.29	0.95
2017	2017	9.28	0.94
2018	2018	9.28	0.94
2019	2019	9.26	0.92
2020	2020	9.26	0.92
2021	2021	9.24	0.90
2022	2022	9.24	0.90
2023	2023	9.23	0.89
2024	2024	9.23	0.89
2025	2025	9.21	0.87
2026	2026	9.21	0.87
2027	2027	9.20	0.86
2028	2028	9.19	0.85
2029	2029	9.19	0.85
2030	2030	9.17	0.83
2031	2031	9.17	0.83
2032	2032	9.16	0.82
2033	2033	9.16	0.82
2034	2034	9.15	0.81
2035	2035	9.15	0.81
2036	2036	9.14	0.80
2037	2037	9.13	0.79
2038	2038	9.13	0.79
2039	2039	9.13	0.79
2040	2040	9.12	0.78
2041	2041	9.12	0.78
2042	2042	9.11	0.77
2043	2043	9.11	0.77
2044	2044	9.10	0.76
2045	2045	9.09	0.75
2046	2046	9.09	0.75
2047	2047	9.09	0.75



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	Time [min]	Water Level [m]	Drawdown [m]
2048	2048	9.09	0.75
2049	2049	9.08	0.74
2050	2050	9.07	0.73
2051	2051	9.08	0.74
2052	2052	9.06	0.72
2053	2053	9.06	0.72
2054	2054	9.06	0.72
2055	2055	9.06	0.72
2056	2056	9.05	0.71
2057	2057	9.05	0.71
2058	2058	9.05	0.71
2059	2059	9.04	0.70
2060	2060	9.04	0.70
2061	2061	9.02	0.68
2062	2062	9.02	0.68
2063	2063	9.02	0.68
2064	2064	9.01	0.67
2065	2065	9.01	0.67
2066	2066	9.01	0.67
2067	2067	9.02	0.68
2068	2068	9.00	0.66
2069	2069	9.00	0.66
2070	2070	9.00	0.66
2071	2071	8.99	0.65
2072	2072	9.00	0.66
2073	2073	9.00	0.66
2074	2074	9.00	0.66
2075	2075	8.99	0.65
2076	2076	8.99	0.65
2077	2077	8.99	0.65
2078	2078	8.99	0.65
2079	2079	8.99	0.65
2080	2080	8.97	0.63
2081	2081	8.97	0.63
2082	2082	8.96	0.62
2083	2083	8.96	0.62
2084	2084	8.96	0.62
2085	2085	8.95	0.61
2086	2086	8.96	0.62
2087	2087	8.95	0.61
2088	2088	8.95	0.61
2089	2089	8.94	0.60
2090	2090	8.94	0.60
2091	2091	8.94	0.60
2092	2092	8.94	0.60
2093	2093	8.94	0.60
2094	2094	8.94	0.60
2095	2095	8.94	0.60
2096	2096	8.93	0.59
2097	2097	8.93	0.59
2098	2098	8.93	0.59
2099	2099	8.93	0.59
2100	2100	8.93	0.59
2101	2101	8.92	0.58
2102	2102	8.92	0.58
2103	2103	8.91	0.57
2104	2104	8.91	0.57



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2105	2105	8.91	0.57
2106	2106	8.91	0.57
2107	2107	8.90	0.56
2108	2108	8.90	0.56
2109	2109	8.90	0.56
2110	2110	8.90	0.56
2111	2111	8.90	0.56
2112	2112	8.89	0.55
2113	2113	8.90	0.56
2114	2114	8.89	0.55
2115	2115	8.91	0.57
2116	2116	8.88	0.54
2117	2117	8.88	0.54
2118	2118	8.88	0.54
2119	2119	8.87	0.53
2120	2120	8.88	0.54
2121	2121	8.87	0.53
2122	2122	8.87	0.53
2123	2123	8.86	0.52
2124	2124	8.86	0.52
2125	2125	8.88	0.54
2126	2126	8.88	0.54
2127	2127	8.87	0.53
2128	2128	8.86	0.52
2129	2129	8.86	0.52
2130	2130	8.87	0.53
2131	2131	8.86	0.52
2132	2132	8.87	0.53
2133	2133	8.85	0.51
2134	2134	8.86	0.52
2135	2135	8.85	0.51
2136	2136	8.86	0.52
2137	2137	8.85	0.51
2138	2138	8.85	0.51
2139	2139	8.83	0.49
2140	2140	8.85	0.51
2141	2141	8.83	0.49
2142	2142	8.83	0.49
2143	2143	8.83	0.49
2144	2144	8.82	0.48
2145	2145	8.83	0.49
2146	2146	8.82	0.48
2147	2147	8.83	0.49
2148	2148	8.82	0.48
2149	2149	8.82	0.48
2150	2150	8.82	0.48
2151	2151	8.82	0.48
2152	2152	8.82	0.48
2153	2153	8.82	0.48
2154	2154	8.81	0.47
2155	2155	8.81	0.47
2156	2156	8.81	0.47
2157	2157	8.80	0.46
2158	2158	8.81	0.47
2159	2159	8.81	0.47
2160	2160	8.81	0.47
2161	2161	8.80	0.46



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2162	2162	8.79	0.45
2163	2163	8.79	0.45
2164	2164	8.80	0.46
2165	2165	8.79	0.45
2166	2166	8.79	0.45
2167	2167	8.79	0.45
2168	2168	8.79	0.45
2169	2169	8.78	0.44
2170	2170	8.79	0.45
2171	2171	8.78	0.44
2172	2172	8.78	0.44
2173	2173	8.78	0.44
2174	2174	8.78	0.44
2175	2175	8.78	0.44
2176	2176	8.78	0.44
2177	2177	8.78	0.44
2178	2178	8.78	0.44
2179	2179	8.77	0.43
2180	2180	8.78	0.44
2181	2181	8.78	0.44
2182	2182	8.77	0.43
2183	2183	8.77	0.43
2184	2184	8.77	0.43
2185	2185	8.77	0.43
2186	2186	8.76	0.42
2187	2187	8.76	0.42
2188	2188	8.76	0.42
2189	2189	8.76	0.42
2190	2190	8.75	0.41
2191	2191	8.77	0.43
2192	2192	8.76	0.42
2193	2193	8.75	0.41
2194	2194	8.75	0.41
2195	2195	8.75	0.41
2196	2196	8.76	0.42
2197	2197	8.75	0.41
2198	2198	8.75	0.41
2199	2199	8.75	0.41
2200	2200	8.74	0.40
2201	2201	8.75	0.41
2202	2202	8.75	0.41
2203	2203	8.75	0.41
2204	2204	8.74	0.40
2205	2205	8.74	0.40
2206	2206	8.74	0.40
2207	2207	8.73	0.39
2208	2208	8.74	0.40
2209	2209	8.74	0.40
2210	2210	8.74	0.40
2211	2211	8.73	0.39
2212	2212	8.74	0.40
2213	2213	8.74	0.40
2214	2214	8.74	0.40
2215	2215	8.74	0.40
2216	2216	8.73	0.39
2217	2217	8.74	0.40
2218	2218	8.73	0.39



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2219	2219	8.74	0.40
2220	2220	8.73	0.39
2221	2221	8.72	0.38
2222	2222	8.73	0.39
2223	2223	8.73	0.39
2224	2224	8.73	0.39
2225	2225	8.72	0.38
2226	2226	8.73	0.39
2227	2227	8.73	0.39
2228	2228	8.73	0.39
2229	2229	8.73	0.39
2230	2230	8.73	0.39
2231	2231	8.73	0.39
2232	2232	8.72	0.38
2233	2233	8.72	0.38
2234	2234	8.71	0.37
2235	2235	8.72	0.38
2236	2236	8.72	0.38
2237	2237	8.71	0.37
2238	2238	8.69	0.35
2239	2239	8.71	0.37
2240	2240	8.71	0.37
2241	2241	8.71	0.37
2242	2242	8.71	0.37
2243	2243	8.71	0.37
2244	2244	8.72	0.38
2245	2245	8.72	0.38
2246	2246	8.71	0.37
2247	2247	8.71	0.37
2248	2248	8.69	0.35
2249	2249	8.71	0.37
2250	2250	8.69	0.35
2251	2251	8.71	0.37
2252	2252	8.71	0.37
2253	2253	8.69	0.35
2254	2254	8.69	0.35
2255	2255	8.69	0.35
2256	2256	8.71	0.37
2257	2257	8.68	0.34
2258	2258	8.68	0.34
2259	2259	8.69	0.35
2260	2260	8.71	0.37
2261	2261	8.71	0.37
2262	2262	8.68	0.34
2263	2263	8.69	0.35
2264	2264	8.69	0.35
2265	2265	8.69	0.35
2266	2266	8.68	0.34
2267	2267	8.68	0.34
2268	2268	8.68	0.34
2269	2269	8.68	0.34
2270	2270	8.68	0.34
2271	2271	8.67	0.33
2272	2272	8.68	0.34
2273	2273	8.67	0.33
2274	2274	8.67	0.33
2275	2275	8.67	0.33



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2276	2276	8.67	0.33
2277	2277	8.67	0.33
2278	2278	8.67	0.33
2279	2279	8.68	0.34
2280	2280	8.66	0.32
2281	2281	8.66	0.32
2282	2282	8.65	0.31
2283	2283	8.66	0.32
2284	2284	8.66	0.32
2285	2285	8.66	0.32
2286	2286	8.65	0.31
2287	2287	8.66	0.32
2288	2288	8.65	0.31
2289	2289	8.66	0.32
2290	2290	8.67	0.33
2291	2291	8.66	0.32
2292	2292	8.66	0.32
2293	2293	8.66	0.32
2294	2294	8.66	0.32
2295	2295	8.66	0.32
2296	2296	8.65	0.31
2297	2297	8.66	0.32
2298	2298	8.66	0.32
2299	2299	8.66	0.32
2300	2300	8.64	0.30
2301	2301	8.65	0.31
2302	2302	8.65	0.31
2303	2303	8.66	0.32
2304	2304	8.64	0.30
2305	2305	8.65	0.31
2306	2306	8.64	0.30
2307	2307	8.64	0.30
2308	2308	8.64	0.30
2309	2309	8.64	0.30
2310	2310	8.65	0.31
2311	2311	8.64	0.30
2312	2312	8.64	0.30
2313	2313	8.64	0.30
2314	2314	8.65	0.31
2315	2315	8.64	0.30
2316	2316	8.64	0.30
2317	2317	8.64	0.30
2318	2318	8.64	0.30
2319	2319	8.65	0.31
2320	2320	8.65	0.31
2321	2321	8.64	0.30
2322	2322	8.63	0.29
2323	2323	8.64	0.30
2324	2324	8.63	0.29
2325	2325	8.64	0.30
2326	2326	8.64	0.30
2327	2327	8.63	0.29
2328	2328	8.64	0.30
2329	2329	8.65	0.31
2330	2330	8.64	0.30
2331	2331	8.63	0.29
2332	2332	8.62	0.28



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2333	2333	8.63	0.29
2334	2334	8.64	0.30
2335	2335	8.64	0.30
2336	2336	8.64	0.30
2337	2337	8.64	0.30
2338	2338	8.64	0.30
2339	2339	8.64	0.30
2340	2340	8.63	0.29
2341	2341	8.63	0.29
2342	2342	8.63	0.29
2343	2343	8.62	0.28
2344	2344	8.62	0.28
2345	2345	8.61	0.27
2346	2346	8.63	0.29
2347	2347	8.62	0.28
2348	2348	8.62	0.28
2349	2349	8.62	0.28
2350	2350	8.63	0.29
2351	2351	8.63	0.29
2352	2352	8.63	0.29
2353	2353	8.63	0.29
2354	2354	8.63	0.29
2355	2355	8.62	0.28
2356	2356	8.63	0.29
2357	2357	8.63	0.29
2358	2358	8.63	0.29
2359	2359	8.63	0.29
2360	2360	8.63	0.29
2361	2361	8.63	0.29
2362	2362	8.62	0.28
2363	2363	8.62	0.28
2364	2364	8.61	0.27
2365	2365	8.61	0.27
2366	2366	8.61	0.27
2367	2367	8.62	0.28
2368	2368	8.61	0.27
2369	2369	8.61	0.27
2370	2370	8.61	0.27
2371	2371	8.61	0.27
2372	2372	8.61	0.27
2373	2373	8.60	0.26
2374	2374	8.60	0.26
2375	2375	8.60	0.26
2376	2376	8.59	0.25
2377	2377	8.60	0.26
2378	2378	8.60	0.26
2379	2379	8.60	0.26
2380	2380	8.61	0.27
2381	2381	8.61	0.27
2382	2382	8.61	0.27
2383	2383	8.59	0.25
2384	2384	8.60	0.26
2385	2385	8.59	0.25
2386	2386	8.60	0.26
2387	2387	8.60	0.26
2388	2388	8.61	0.27
2389	2389	8.60	0.26



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2390	2390	8.61	0.27
2391	2391	8.60	0.26
2392	2392	8.60	0.26
2393	2393	8.60	0.26
2394	2394	8.61	0.27
2395	2395	8.60	0.26
2396	2396	8.61	0.27
2397	2397	8.61	0.27
2398	2398	8.61	0.27
2399	2399	8.61	0.27
2400	2400	8.60	0.26



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

Location: Arrowsmith	Pumping Test: YPB1	Pumping Well: YPB1
Test Conducted by: Western Irrigation	Test Date: 10-Mar-22	Discharge: variable, average rate 30 [l/s]
Observation Well: YPB1	Static Water Level [m]: 7.63	Radial Distance to PW [m]: -

	Time [min]	Water Level [m]	Drawdown [m]
1	1	12.56	4.93
2	2	12.61	4.98
3	3	12.56	4.93
4	4	12.57	4.94
5	5	12.58	4.95
6	6	12.61	4.98
7	7	12.61	4.98
8	8	12.66	5.03
9	9	12.72	5.09
10	10	12.70	5.07
11	11	12.70	5.07
12	12	12.73	5.10
13	13	12.75	5.12
14	14	12.76	5.13
15	15	12.81	5.18
16	16	12.81	5.18
17	17	12.84	5.21
18	18	12.83	5.20
19	19	12.87	5.24
20	20	12.86	5.23
21	21	12.87	5.24
22	22	12.90	5.27
23	23	12.87	5.24
24	24	12.90	5.27
25	25	12.89	5.26
26	26	12.98	5.35
27	27	12.92	5.29
28	28	12.97	5.34
29	29	12.95	5.32
30	30	12.98	5.35
31	31	12.95	5.32
32	32	12.99	5.36
33	33	12.96	5.33
34	34	13.04	5.41
35	35	13.02	5.39
36	36	13.00	5.37
37	37	13.04	5.41
38	38	13.03	5.40
39	39	13.08	5.45
40	40	13.03	5.40
41	41	13.07	5.44
42	42	13.03	5.40
43	43	13.05	5.42
44	44	13.04	5.41
45	45	13.06	5.43
46	46	13.09	5.46
47	47	13.09	5.46
48	48	13.06	5.43
49	49	13.12	5.49
50	50	13.07	5.44
51	51	13.13	5.50
52	52	13.12	5.49



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
53	53	13.13	5.50
54	54	13.08	5.45
55	55	13.11	5.48
56	56	13.13	5.50
57	57	13.14	5.51
58	58	13.10	5.47
59	59	13.11	5.48
60	60	13.16	5.53
61	61	13.18	5.55
62	62	13.14	5.51
63	63	13.15	5.52
64	64	13.21	5.58
65	65	13.18	5.55
66	66	13.19	5.56
67	67	13.19	5.56
68	68	13.18	5.55
69	69	13.18	5.55
70	70	13.18	5.55
71	71	13.16	5.53
72	72	13.19	5.56
73	73	13.19	5.56
74	74	13.22	5.59
75	75	13.20	5.57
76	76	13.19	5.56
77	77	13.23	5.60
78	78	13.23	5.60
79	79	13.20	5.57
80	80	13.23	5.60
81	81	13.22	5.59
82	82	13.24	5.61
83	83	13.19	5.56
84	84	13.26	5.63
85	85	13.21	5.58
86	86	13.25	5.62
87	87	13.25	5.62
88	88	13.25	5.62
89	89	13.23	5.60
90	90	13.24	5.61
91	91	13.24	5.61
92	92	13.26	5.63
93	93	13.21	5.58
94	94	13.30	5.67
95	95	13.21	5.58
96	96	13.28	5.65
97	97	13.26	5.63
98	98	13.21	5.58
99	99	13.29	5.66
100	100	13.28	5.65
101	101	13.29	5.66
102	102	13.29	5.66
103	103	13.30	5.67
104	104	13.28	5.65
105	105	13.30	5.67
106	106	13.26	5.63
107	107	13.27	5.64
108	108	13.27	5.64
109	109	13.30	5.67



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
110	110	13.30	5.67
111	111	13.30	5.67
112	112	13.32	5.69
113	113	13.27	5.64
114	114	13.32	5.69
115	115	13.28	5.65
116	116	13.34	5.71
117	117	13.30	5.67
118	118	13.33	5.70
119	119	13.31	5.68
120	120	13.31	5.68
121	121	13.34	5.71
122	122	13.33	5.70
123	123	13.34	5.71
124	124	13.36	5.73
125	125	13.35	5.72
126	126	13.31	5.68
127	127	13.28	5.65
128	128	13.35	5.72
129	129	13.34	5.71
130	130	13.30	5.67
131	131	13.31	5.68
132	132	13.37	5.74
133	133	13.32	5.69
134	134	13.36	5.73
135	135	13.33	5.70
136	136	13.34	5.71
137	137	13.37	5.74
138	138	13.36	5.73
139	139	13.32	5.69
140	140	13.33	5.70
141	141	13.37	5.74
142	142	13.33	5.70
143	143	13.38	5.75
144	144	13.34	5.71
145	145	13.35	5.72
146	146	13.38	5.75
147	147	13.37	5.74
148	148	13.37	5.74
149	149	13.33	5.70
150	150	13.38	5.75
151	151	13.33	5.70
152	152	13.33	5.70
153	153	13.31	5.68
154	154	13.39	5.76
155	155	13.32	5.69
156	156	13.35	5.72
157	157	13.41	5.78
158	158	13.42	5.79
159	159	13.37	5.74
160	160	13.40	5.77
161	161	13.36	5.73
162	162	13.36	5.73
163	163	13.37	5.74
164	164	13.38	5.75
165	165	13.39	5.76
166	166	13.39	5.76



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
167	167	13.40	5.77
168	168	13.41	5.78
169	169	13.42	5.79
170	170	13.41	5.78
171	171	13.39	5.76
172	172	13.43	5.80
173	173	13.35	5.72
174	174	13.44	5.81
175	175	13.39	5.76
176	176	13.41	5.78
177	177	13.38	5.75
178	178	13.43	5.80
179	179	13.37	5.74
180	180	13.40	5.77
181	181	13.41	5.78
182	182	13.45	5.82
183	183	13.41	5.78
184	184	13.41	5.78
185	185	13.41	5.78
186	186	13.42	5.79
187	187	13.42	5.79
188	188	13.41	5.78
189	189	13.45	5.82
190	190	13.45	5.82
191	191	13.41	5.78
192	192	13.41	5.78
193	193	13.43	5.80
194	194	13.46	5.83
195	195	13.44	5.81
196	196	13.41	5.78
197	197	13.45	5.82
198	198	13.48	5.85
199	199	13.45	5.82
200	200	13.46	5.83
201	201	13.40	5.77
202	202	13.45	5.82
203	203	13.44	5.81
204	204	13.41	5.78
205	205	13.44	5.81
206	206	13.44	5.81
207	207	13.40	5.77
208	208	13.40	5.77
209	209	13.45	5.82
210	210	13.45	5.82
211	211	13.44	5.81
212	212	13.42	5.79
213	213	13.43	5.80
214	214	13.41	5.78
215	215	13.42	5.79
216	216	13.40	5.77
217	217	13.45	5.82
218	218	13.42	5.79
219	219	13.46	5.83
220	220	13.46	5.83
221	221	13.40	5.77
222	222	13.46	5.83
223	223	13.48	5.85



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
224	224	13.46	5.83
225	225	13.42	5.79
226	226	13.48	5.85
227	227	13.44	5.81
228	228	13.43	5.80
229	229	13.44	5.81
230	230	13.43	5.80
231	231	13.45	5.82
232	232	13.45	5.82
233	233	13.46	5.83
234	234	13.45	5.82
235	235	13.46	5.83
236	236	13.42	5.79
237	237	13.48	5.85
238	238	13.48	5.85
239	239	13.43	5.80
240	240	13.50	5.87
241	241	13.50	5.87
242	242	13.53	5.90
243	243	13.49	5.86
244	244	13.46	5.83
245	245	13.47	5.84
246	246	13.50	5.87
247	247	13.51	5.88
248	248	13.48	5.85
249	249	13.50	5.87
250	250	13.45	5.82
251	251	13.47	5.84
252	252	13.46	5.83
253	253	13.46	5.83
254	254	13.50	5.87
255	255	13.48	5.85
256	256	13.47	5.84
257	257	13.44	5.81
258	258	13.49	5.86
259	259	13.42	5.79
260	260	13.47	5.84
261	261	13.48	5.85
262	262	13.45	5.82
263	263	13.47	5.84
264	264	13.46	5.83
265	265	13.47	5.84
266	266	13.52	5.89
267	267	13.50	5.87
268	268	13.50	5.87
269	269	13.48	5.85
270	270	13.46	5.83
271	271	13.49	5.86
272	272	13.54	5.91
273	273	13.49	5.86
274	274	13.46	5.83
275	275	13.50	5.87
276	276	13.54	5.91
277	277	13.48	5.85
278	278	13.48	5.85
279	279	13.51	5.88
280	280	13.52	5.89



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
281	281	13.47	5.84
282	282	13.49	5.86
283	283	13.53	5.90
284	284	13.54	5.91
285	285	13.53	5.90
286	286	13.50	5.87
287	287	13.51	5.88
288	288	13.50	5.87
289	289	13.49	5.86
290	290	13.47	5.84
291	291	13.50	5.87
292	292	13.54	5.91
293	293	13.49	5.86
294	294	13.52	5.89
295	295	13.54	5.91
296	296	13.50	5.87
297	297	13.48	5.85
298	298	13.46	5.83
299	299	13.55	5.92
300	300	13.54	5.91
301	301	13.51	5.88
302	302	13.51	5.88
303	303	13.52	5.89
304	304	13.56	5.93
305	305	13.56	5.93
306	306	13.51	5.88
307	307	13.52	5.89
308	308	13.58	5.95
309	309	13.45	5.82
310	310	13.55	5.92
311	311	13.50	5.87
312	312	13.52	5.89
313	313	13.53	5.90
314	314	13.51	5.88
315	315	13.53	5.90
316	316	13.52	5.89
317	317	13.51	5.88
318	318	13.54	5.91
319	319	13.54	5.91
320	320	13.55	5.92
321	321	13.51	5.88
322	322	13.50	5.87
323	323	13.51	5.88
324	324	13.52	5.89
325	325	13.51	5.88
326	326	13.55	5.92
327	327	13.54	5.91
328	328	13.51	5.88
329	329	13.50	5.87
330	330	13.53	5.90
331	331	13.53	5.90
332	332	13.55	5.92
333	333	13.54	5.91
334	334	13.56	5.93
335	335	13.52	5.89
336	336	13.60	5.97
337	337	13.49	5.86



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
338	338	13.53	5.90
339	339	13.54	5.91
340	340	13.53	5.90
341	341	13.52	5.89
342	342	13.54	5.91
343	343	13.56	5.93
344	344	13.52	5.89
345	345	13.61	5.98
346	346	13.55	5.92
347	347	13.53	5.90
348	348	13.54	5.91
349	349	13.55	5.92
350	350	13.51	5.88
351	351	13.52	5.89
352	352	13.57	5.94
353	353	13.51	5.88
354	354	13.53	5.90
355	355	13.56	5.93
356	356	13.55	5.92
357	357	13.59	5.96
358	358	13.44	5.81
359	359	13.57	5.94
360	360	13.54	5.91
361	361	13.59	5.96
362	362	13.56	5.93
363	363	13.55	5.92
364	364	13.49	5.86
365	365	13.57	5.94
366	366	13.61	5.98
367	367	13.52	5.89
368	368	13.56	5.93
369	369	13.62	5.99
370	370	13.57	5.94
371	371	13.57	5.94
372	372	13.56	5.93
373	373	13.50	5.87
374	374	13.56	5.93
375	375	13.54	5.91
376	376	13.58	5.95
377	377	13.59	5.96
378	378	13.59	5.96
379	379	13.53	5.90
380	380	13.53	5.90
381	381	13.51	5.88
382	382	13.55	5.92
383	383	13.57	5.94
384	384	13.60	5.97
385	385	13.56	5.93
386	386	13.59	5.96
387	387	13.54	5.91
388	388	13.58	5.95
389	389	13.56	5.93
390	390	13.56	5.93
391	391	13.55	5.92
392	392	13.57	5.94
393	393	13.56	5.93
394	394	13.59	5.96



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
395	395	13.56	5.93
396	396	13.56	5.93
397	397	13.59	5.96
398	398	13.56	5.93
399	399	13.57	5.94
400	400	13.60	5.97
401	401	13.56	5.93
402	402	13.59	5.96
403	403	13.54	5.91
404	404	13.56	5.93
405	405	13.54	5.91
406	406	13.56	5.93
407	407	13.56	5.93
408	408	13.58	5.95
409	409	13.60	5.97
410	410	13.60	5.97
411	411	13.56	5.93
412	412	13.58	5.95
413	413	13.51	5.88
414	414	13.58	5.95
415	415	13.58	5.95
416	416	13.60	5.97
417	417	13.55	5.92
418	418	13.61	5.98
419	419	13.60	5.97
420	420	13.56	5.93
421	421	13.59	5.96
422	422	13.61	5.98
423	423	13.55	5.92
424	424	13.57	5.94
425	425	13.60	5.97
426	426	13.60	5.97
427	427	13.60	5.97
428	428	13.58	5.95
429	429	13.60	5.97
430	430	13.57	5.94
431	431	13.60	5.97
432	432	13.61	5.98
433	433	13.57	5.94
434	434	13.57	5.94
435	435	13.55	5.92
436	436	13.57	5.94
437	437	13.59	5.96
438	438	13.56	5.93
439	439	13.59	5.96
440	440	13.61	5.98
441	441	13.57	5.94
442	442	13.61	5.98
443	443	13.57	5.94
444	444	13.57	5.94
445	445	13.59	5.96
446	446	13.57	5.94
447	447	13.61	5.98
448	448	13.64	6.01
449	449	13.59	5.96
450	450	13.55	5.92
451	451	13.62	5.99



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
452	452	13.58	5.95
453	453	13.52	5.89
454	454	13.56	5.93
455	455	13.61	5.98
456	456	13.59	5.96
457	457	13.59	5.96
458	458	13.60	5.97
459	459	13.61	5.98
460	460	13.60	5.97
461	461	13.63	6.00
462	462	13.61	5.98
463	463	13.56	5.93
464	464	13.64	6.01
465	465	13.61	5.98
466	466	13.56	5.93
467	467	13.62	5.99
468	468	13.64	6.01
469	469	13.59	5.96
470	470	13.62	5.99
471	471	13.62	5.99
472	472	13.61	5.98
473	473	13.58	5.95
474	474	13.61	5.98
475	475	13.61	5.98
476	476	13.61	5.98
477	477	13.58	5.95
478	478	13.63	6.00
479	479	13.62	5.99
480	480	13.57	5.94
481	481	13.64	6.01
482	482	13.58	5.95
483	483	13.65	6.02
484	484	13.67	6.04
485	485	13.63	6.00
486	486	13.58	5.95
487	487	13.62	5.99
488	488	13.59	5.96
489	489	13.61	5.98
490	490	13.58	5.95
491	491	13.62	5.99
492	492	13.61	5.98
493	493	13.59	5.96
494	494	13.61	5.98
495	495	13.61	5.98
496	496	13.59	5.96
497	497	13.59	5.96
498	498	13.62	5.99
499	499	13.66	6.03
500	500	13.60	5.97
501	501	13.61	5.98
502	502	13.64	6.01
503	503	13.61	5.98
504	504	13.61	5.98
505	505	13.60	5.97
506	506	13.62	5.99
507	507	13.56	5.93
508	508	13.61	5.98



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
509	509	13.61	5.98
510	510	13.64	6.01
511	511	13.61	5.98
512	512	13.60	5.97
513	513	13.61	5.98
514	514	13.60	5.97
515	515	13.63	6.00
516	516	13.68	6.05
517	517	13.64	6.01
518	518	13.63	6.00
519	519	13.62	5.99
520	520	13.58	5.95
521	521	13.62	5.99
522	522	13.61	5.98
523	523	13.67	6.04
524	524	13.62	5.99
525	525	13.62	5.99
526	526	13.65	6.02
527	527	13.65	6.02
528	528	13.56	5.93
529	529	13.61	5.98
530	530	13.61	5.98
531	531	13.61	5.98
532	532	13.63	6.00
533	533	13.59	5.96
534	534	13.62	5.99
535	535	13.63	6.00
536	536	13.61	5.98
537	537	13.66	6.03
538	538	13.59	5.96
539	539	13.64	6.01
540	540	13.59	5.96
541	541	13.62	5.99
542	542	13.63	6.00
543	543	13.64	6.01
544	544	13.62	5.99
545	545	13.63	6.00
546	546	13.61	5.98
547	547	13.64	6.01
548	548	13.63	6.00
549	549	13.65	6.02
550	550	13.67	6.04
551	551	13.66	6.03
552	552	13.60	5.97
553	553	13.60	5.97
554	554	13.66	6.03
555	555	13.64	6.01
556	556	13.59	5.96
557	557	13.65	6.02
558	558	13.63	6.00
559	559	13.63	6.00
560	560	13.66	6.03
561	561	13.64	6.01
562	562	13.66	6.03
563	563	13.61	5.98
564	564	13.63	6.00
565	565	13.60	5.97



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
566	566	13.62	5.99
567	567	13.61	5.98
568	568	13.56	5.93
569	569	13.60	5.97
570	570	13.65	6.02
571	571	13.64	6.01
572	572	13.68	6.05
573	573	13.64	6.01
574	574	13.62	5.99
575	575	13.65	6.02
576	576	13.61	5.98
577	577	13.67	6.04
578	578	13.61	5.98
579	579	13.66	6.03
580	580	13.64	6.01
581	581	13.69	6.06
582	582	13.64	6.01
583	583	13.62	5.99
584	584	13.64	6.01
585	585	13.63	6.00
586	586	13.68	6.05
587	587	13.65	6.02
588	588	13.65	6.02
589	589	13.64	6.01
590	590	13.63	6.00
591	591	13.67	6.04
592	592	13.62	5.99
593	593	13.63	6.00
594	594	13.63	6.00
595	595	13.65	6.02
596	596	13.68	6.05
597	597	13.61	5.98
598	598	13.66	6.03
599	599	13.61	5.98
600	600	13.69	6.06
601	601	13.64	6.01
602	602	13.68	6.05
603	603	13.66	6.03
604	604	13.64	6.01
605	605	13.66	6.03
606	606	13.64	6.01
607	607	13.64	6.01
608	608	13.64	6.01
609	609	13.67	6.04
610	610	13.66	6.03
611	611	13.69	6.06
612	612	13.66	6.03
613	613	13.65	6.02
614	614	13.67	6.04
615	615	13.67	6.04
616	616	13.64	6.01
617	617	13.64	6.01
618	618	13.65	6.02
619	619	13.66	6.03
620	620	13.62	5.99
621	621	13.68	6.05
622	622	13.66	6.03



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
623	623	13.65	6.02
624	624	13.61	5.98
625	625	13.67	6.04
626	626	13.62	5.99
627	627	13.68	6.05
628	628	13.68	6.05
629	629	13.67	6.04
630	630	13.69	6.06
631	631	13.63	6.00
632	632	13.64	6.01
633	633	13.64	6.01
634	634	13.64	6.01
635	635	13.65	6.02
636	636	13.69	6.06
637	637	13.67	6.04
638	638	13.65	6.02
639	639	13.69	6.06
640	640	13.65	6.02
641	641	13.63	6.00
642	642	13.71	6.08
643	643	13.66	6.03
644	644	13.64	6.01
645	645	13.70	6.07
646	646	13.67	6.04
647	647	13.74	6.11
648	648	13.68	6.05
649	649	13.67	6.04
650	650	13.67	6.04
651	651	13.65	6.02
652	652	13.65	6.02
653	653	13.64	6.01
654	654	13.62	5.99
655	655	13.71	6.08
656	656	13.67	6.04
657	657	13.65	6.02
658	658	13.67	6.04
659	659	13.64	6.01
660	660	13.65	6.02
661	661	13.70	6.07
662	662	13.68	6.05
663	663	13.66	6.03
664	664	13.62	5.99
665	665	13.68	6.05
666	666	13.67	6.04
667	667	13.66	6.03
668	668	13.66	6.03
669	669	13.68	6.05
670	670	13.68	6.05
671	671	13.70	6.07
672	672	13.70	6.07
673	673	13.69	6.06
674	674	13.61	5.98
675	675	13.65	6.02
676	676	13.69	6.06
677	677	13.72	6.09
678	678	13.63	6.00
679	679	13.68	6.05



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
680	680	13.69	6.06
681	681	13.70	6.07
682	682	13.68	6.05
683	683	13.66	6.03
684	684	13.70	6.07
685	685	13.64	6.01
686	686	13.71	6.08
687	687	13.70	6.07
688	688	13.68	6.05
689	689	13.68	6.05
690	690	13.70	6.07
691	691	13.68	6.05
692	692	13.68	6.05
693	693	13.70	6.07
694	694	13.66	6.03
695	695	13.67	6.04
696	696	13.71	6.08
697	697	13.69	6.06
698	698	13.64	6.01
699	699	13.66	6.03
700	700	13.69	6.06
701	701	13.64	6.01
702	702	13.68	6.05
703	703	13.73	6.10
704	704	13.70	6.07
705	705	13.66	6.03
706	706	13.68	6.05
707	707	13.67	6.04
708	708	13.68	6.05
709	709	13.68	6.05
710	710	13.72	6.09
711	711	13.69	6.06
712	712	13.67	6.04
713	713	13.64	6.01
714	714	13.68	6.05
715	715	13.66	6.03
716	716	13.69	6.06
717	717	13.67	6.04
718	718	13.63	6.00
719	719	13.68	6.05
720	720	13.71	6.08
721	721	13.69	6.06
722	722	13.66	6.03
723	723	13.74	6.11
724	724	13.70	6.07
725	725	13.68	6.05
726	726	13.68	6.05
727	727	13.67	6.04
728	728	13.70	6.07
729	729	13.69	6.06
730	730	13.67	6.04
731	731	13.67	6.04
732	732	13.70	6.07
733	733	13.69	6.06
734	734	13.62	5.99
735	735	13.70	6.07
736	736	13.73	6.10



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
737	737	13.69	6.06
738	738	13.73	6.10
739	739	13.68	6.05
740	740	13.68	6.05
741	741	13.69	6.06
742	742	13.69	6.06
743	743	13.71	6.08
744	744	13.67	6.04
745	745	13.69	6.06
746	746	13.63	6.00
747	747	13.69	6.06
748	748	13.68	6.05
749	749	13.68	6.05
750	750	13.70	6.07
751	751	13.65	6.02
752	752	13.70	6.07
753	753	13.66	6.03
754	754	13.66	6.03
755	755	13.67	6.04
756	756	13.70	6.07
757	757	13.70	6.07
758	758	13.73	6.10
759	759	13.69	6.06
760	760	13.69	6.06
761	761	13.67	6.04
762	762	13.73	6.10
763	763	13.71	6.08
764	764	13.72	6.09
765	765	13.67	6.04
766	766	13.72	6.09
767	767	13.70	6.07
768	768	13.70	6.07
769	769	13.70	6.07
770	770	13.71	6.08
771	771	13.67	6.04
772	772	13.70	6.07
773	773	13.69	6.06
774	774	13.62	5.99
775	775	13.65	6.02
776	776	13.72	6.09
777	777	13.66	6.03
778	778	13.66	6.03
779	779	13.68	6.05
780	780	13.72	6.09
781	781	13.72	6.09
782	782	13.66	6.03
783	783	13.71	6.08
784	784	13.70	6.07
785	785	13.71	6.08
786	786	13.73	6.10
787	787	13.68	6.05
788	788	13.69	6.06
789	789	13.71	6.08
790	790	13.66	6.03
791	791	13.68	6.05
792	792	13.70	6.07
793	793	13.66	6.03



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
794	794	13.69	6.06
795	795	13.74	6.11
796	796	13.72	6.09
797	797	13.66	6.03
798	798	13.70	6.07
799	799	13.68	6.05
800	800	13.70	6.07
801	801	13.71	6.08
802	802	13.75	6.12
803	803	13.67	6.04
804	804	13.68	6.05
805	805	13.73	6.10
806	806	13.72	6.09
807	807	13.69	6.06
808	808	13.71	6.08
809	809	13.72	6.09
810	810	13.67	6.04
811	811	13.71	6.08
812	812	13.72	6.09
813	813	13.66	6.03
814	814	13.69	6.06
815	815	13.69	6.06
816	816	13.73	6.10
817	817	13.70	6.07
818	818	13.72	6.09
819	819	13.70	6.07
820	820	13.72	6.09
821	821	13.71	6.08
822	822	13.70	6.07
823	823	13.70	6.07
824	824	13.71	6.08
825	825	13.71	6.08
826	826	13.67	6.04
827	827	13.67	6.04
828	828	13.69	6.06
829	829	13.68	6.05
830	830	13.65	6.02
831	831	13.70	6.07
832	832	13.71	6.08
833	833	13.69	6.06
834	834	13.67	6.04
835	835	13.71	6.08
836	836	13.67	6.04
837	837	13.70	6.07
838	838	13.69	6.06
839	839	13.67	6.04
840	840	13.71	6.08
841	841	13.72	6.09
842	842	13.70	6.07
843	843	13.69	6.06
844	844	13.70	6.07
845	845	13.70	6.07
846	846	13.66	6.03
847	847	13.69	6.06
848	848	13.69	6.06
849	849	13.70	6.07
850	850	13.75	6.12



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
851	851	13.72	6.09
852	852	13.77	6.14
853	853	13.71	6.08
854	854	13.72	6.09
855	855	13.73	6.10
856	856	13.69	6.06
857	857	13.69	6.06
858	858	13.73	6.10
859	859	13.73	6.10
860	860	13.71	6.08
861	861	13.71	6.08
862	862	13.67	6.04
863	863	13.70	6.07
864	864	13.75	6.12
865	865	13.71	6.08
866	866	13.72	6.09
867	867	13.74	6.11
868	868	13.70	6.07
869	869	13.73	6.10
870	870	13.68	6.05
871	871	13.68	6.05
872	872	13.71	6.08
873	873	13.74	6.11
874	874	13.71	6.08
875	875	13.71	6.08
876	876	13.68	6.05
877	877	13.71	6.08
878	878	13.70	6.07
879	879	13.71	6.08
880	880	13.69	6.06
881	881	13.65	6.02
882	882	13.68	6.05
883	883	13.70	6.07
884	884	13.68	6.05
885	885	13.74	6.11
886	886	13.70	6.07
887	887	13.72	6.09
888	888	13.69	6.06
889	889	13.71	6.08
890	890	13.70	6.07
891	891	13.70	6.07
892	892	13.73	6.10
893	893	13.70	6.07
894	894	13.72	6.09
895	895	13.69	6.06
896	896	13.70	6.07
897	897	13.70	6.07
898	898	13.69	6.06
899	899	13.73	6.10
900	900	13.69	6.06
901	901	13.72	6.09
902	902	13.69	6.06
903	903	13.74	6.11
904	904	13.74	6.11
905	905	13.75	6.12
906	906	13.74	6.11
907	907	13.69	6.06



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
908	908	13.71	6.08
909	909	13.71	6.08
910	910	13.72	6.09
911	911	13.72	6.09
912	912	13.73	6.10
913	913	13.67	6.04
914	914	13.72	6.09
915	915	13.76	6.13
916	916	13.68	6.05
917	917	13.68	6.05
918	918	13.70	6.07
919	919	13.74	6.11
920	920	13.76	6.13
921	921	13.68	6.05
922	922	13.76	6.13
923	923	13.75	6.12
924	924	13.68	6.05
925	925	13.72	6.09
926	926	13.72	6.09
927	927	13.75	6.12
928	928	13.77	6.14
929	929	13.71	6.08
930	930	13.71	6.08
931	931	13.74	6.11
932	932	13.70	6.07
933	933	13.71	6.08
934	934	13.74	6.11
935	935	13.71	6.08
936	936	13.69	6.06
937	937	13.72	6.09
938	938	13.71	6.08
939	939	13.72	6.09
940	940	13.72	6.09
941	941	13.73	6.10
942	942	13.70	6.07
943	943	13.76	6.13
944	944	13.73	6.10
945	945	13.69	6.06
946	946	13.71	6.08
947	947	13.69	6.06
948	948	13.68	6.05
949	949	13.70	6.07
950	950	13.75	6.12
951	951	13.70	6.07
952	952	13.67	6.04
953	953	13.68	6.05
954	954	13.71	6.08
955	955	13.70	6.07
956	956	13.72	6.09
957	957	13.73	6.10
958	958	13.71	6.08
959	959	13.74	6.11
960	960	13.73	6.10
961	961	13.74	6.11
962	962	13.70	6.07
963	963	13.74	6.11
964	964	13.76	6.13



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
965	965	13.72	6.09
966	966	13.72	6.09
967	967	13.72	6.09
968	968	13.71	6.08
969	969	13.66	6.03
970	970	13.73	6.10
971	971	13.72	6.09
972	972	13.74	6.11
973	973	13.75	6.12
974	974	13.75	6.12
975	975	13.73	6.10
976	976	13.74	6.11
977	977	13.69	6.06
978	978	13.74	6.11
979	979	13.75	6.12
980	980	13.74	6.11
981	981	13.73	6.10
982	982	13.73	6.10
983	983	13.71	6.08
984	984	13.73	6.10
985	985	13.72	6.09
986	986	13.74	6.11
987	987	13.73	6.10
988	988	13.73	6.10
989	989	13.73	6.10
990	990	13.72	6.09
991	991	13.77	6.14
992	992	13.75	6.12
993	993	13.72	6.09
994	994	13.76	6.13
995	995	13.69	6.06
996	996	13.72	6.09
997	997	13.79	6.16
998	998	13.72	6.09
999	999	13.72	6.09
1000	1000	13.71	6.08
1001	1001	13.72	6.09
1002	1002	13.76	6.13
1003	1003	13.73	6.10
1004	1004	13.76	6.13
1005	1005	13.74	6.11
1006	1006	13.77	6.14
1007	1007	13.75	6.12
1008	1008	13.75	6.12
1009	1009	13.79	6.16
1010	1010	13.81	6.18
1011	1011	13.73	6.10
1012	1012	13.71	6.08
1013	1013	13.73	6.10
1014	1014	13.76	6.13
1015	1015	13.77	6.14
1016	1016	13.77	6.14
1017	1017	13.71	6.08
1018	1018	13.75	6.12
1019	1019	13.71	6.08
1020	1020	13.72	6.09
1021	1021	13.74	6.11



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1022	1022	13.72	6.09
1023	1023	13.75	6.12
1024	1024	13.74	6.11
1025	1025	13.74	6.11
1026	1026	13.75	6.12
1027	1027	13.73	6.10
1028	1028	13.75	6.12
1029	1029	13.74	6.11
1030	1030	13.70	6.07
1031	1031	13.71	6.08
1032	1032	13.75	6.12
1033	1033	13.74	6.11
1034	1034	13.76	6.13
1035	1035	13.70	6.07
1036	1036	13.80	6.17
1037	1037	13.78	6.15
1038	1038	13.79	6.16
1039	1039	13.79	6.16
1040	1040	13.74	6.11
1041	1041	13.71	6.08
1042	1042	13.74	6.11
1043	1043	13.73	6.10
1044	1044	13.72	6.09
1045	1045	13.74	6.11
1046	1046	13.81	6.18
1047	1047	13.74	6.11
1048	1048	13.73	6.10
1049	1049	13.73	6.10
1050	1050	13.73	6.10
1051	1051	13.77	6.14
1052	1052	13.79	6.16
1053	1053	13.73	6.10
1054	1054	13.72	6.09
1055	1055	13.79	6.16
1056	1056	13.72	6.09
1057	1057	13.75	6.12
1058	1058	13.78	6.15
1059	1059	13.76	6.13
1060	1060	13.78	6.15
1061	1061	13.79	6.16
1062	1062	13.76	6.13
1063	1063	13.76	6.13
1064	1064	13.70	6.07
1065	1065	13.76	6.13
1066	1066	13.76	6.13
1067	1067	13.78	6.15
1068	1068	13.79	6.16
1069	1069	13.76	6.13
1070	1070	13.79	6.16
1071	1071	13.76	6.13
1072	1072	13.75	6.12
1073	1073	13.74	6.11
1074	1074	13.76	6.13
1075	1075	13.75	6.12
1076	1076	13.77	6.14
1077	1077	13.72	6.09
1078	1078	13.76	6.13



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1079	1079	13.79	6.16
1080	1080	13.75	6.12
1081	1081	13.80	6.17
1082	1082	13.70	6.07
1083	1083	13.78	6.15
1084	1084	13.72	6.09
1085	1085	13.84	6.21
1086	1086	13.76	6.13
1087	1087	13.80	6.17
1088	1088	13.76	6.13
1089	1089	13.76	6.13
1090	1090	13.82	6.19
1091	1091	13.75	6.12
1092	1092	13.80	6.17
1093	1093	13.74	6.11
1094	1094	13.75	6.12
1095	1095	13.74	6.11
1096	1096	13.79	6.16
1097	1097	13.71	6.08
1098	1098	13.83	6.20
1099	1099	13.76	6.13
1100	1100	13.78	6.15
1101	1101	13.73	6.10
1102	1102	13.75	6.12
1103	1103	13.80	6.17
1104	1104	13.79	6.16
1105	1105	13.77	6.14
1106	1106	13.75	6.12
1107	1107	13.76	6.13
1108	1108	13.75	6.12
1109	1109	13.81	6.18
1110	1110	13.77	6.14
1111	1111	13.71	6.08
1112	1112	13.71	6.08
1113	1113	13.79	6.16
1114	1114	13.76	6.13
1115	1115	13.79	6.16
1116	1116	13.70	6.07
1117	1117	13.77	6.14
1118	1118	13.78	6.15
1119	1119	13.75	6.12
1120	1120	13.75	6.12
1121	1121	13.73	6.10
1122	1122	13.78	6.15
1123	1123	13.74	6.11
1124	1124	13.75	6.12
1125	1125	13.80	6.17
1126	1126	13.75	6.12
1127	1127	13.79	6.16
1128	1128	13.78	6.15
1129	1129	13.75	6.12
1130	1130	13.78	6.15
1131	1131	13.76	6.13
1132	1132	13.76	6.13
1133	1133	13.75	6.12
1134	1134	13.76	6.13
1135	1135	13.75	6.12



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1136	1136	13.81	6.18
1137	1137	13.73	6.10
1138	1138	13.72	6.09
1139	1139	13.77	6.14
1140	1140	13.79	6.16
1141	1141	13.74	6.11
1142	1142	13.73	6.10
1143	1143	13.79	6.16
1144	1144	13.76	6.13
1145	1145	13.76	6.13
1146	1146	13.78	6.15
1147	1147	13.77	6.14
1148	1148	13.77	6.14
1149	1149	13.74	6.11
1150	1150	13.82	6.19
1151	1151	13.72	6.09
1152	1152	13.75	6.12
1153	1153	13.79	6.16
1154	1154	13.77	6.14
1155	1155	13.75	6.12
1156	1156	13.76	6.13
1157	1157	13.77	6.14
1158	1158	13.78	6.15
1159	1159	13.80	6.17
1160	1160	13.76	6.13
1161	1161	13.78	6.15
1162	1162	13.75	6.12
1163	1163	13.76	6.13
1164	1164	13.82	6.19
1165	1165	13.77	6.14
1166	1166	13.74	6.11
1167	1167	13.75	6.12
1168	1168	13.77	6.14
1169	1169	13.77	6.14
1170	1170	13.74	6.11
1171	1171	13.76	6.13
1172	1172	13.83	6.20
1173	1173	13.80	6.17
1174	1174	13.78	6.15
1175	1175	13.76	6.13
1176	1176	13.74	6.11
1177	1177	13.80	6.17
1178	1178	13.80	6.17
1179	1179	13.76	6.13
1180	1180	13.76	6.13
1181	1181	13.75	6.12
1182	1182	13.78	6.15
1183	1183	13.81	6.18
1184	1184	13.79	6.16
1185	1185	13.79	6.16
1186	1186	13.80	6.17
1187	1187	13.77	6.14
1188	1188	13.78	6.15
1189	1189	13.77	6.14
1190	1190	13.76	6.13
1191	1191	13.80	6.17
1192	1192	13.82	6.19



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1193	1193	13.77	6.14
1194	1194	13.82	6.19
1195	1195	13.82	6.19
1196	1196	13.77	6.14
1197	1197	13.79	6.16
1198	1198	13.79	6.16
1199	1199	13.77	6.14
1200	1200	13.81	6.18
1201	1201	13.82	6.19
1202	1202	13.80	6.17
1203	1203	13.78	6.15
1204	1204	13.78	6.15
1205	1205	13.78	6.15
1206	1206	13.83	6.20
1207	1207	13.79	6.16
1208	1208	13.81	6.18
1209	1209	13.79	6.16
1210	1210	13.79	6.16
1211	1211	13.83	6.20
1212	1212	13.77	6.14
1213	1213	13.83	6.20
1214	1214	13.82	6.19
1215	1215	13.78	6.15
1216	1216	13.81	6.18
1217	1217	13.83	6.20
1218	1218	13.83	6.20
1219	1219	13.78	6.15
1220	1220	13.79	6.16
1221	1221	13.80	6.17
1222	1222	13.78	6.15
1223	1223	13.81	6.18
1224	1224	13.82	6.19
1225	1225	13.84	6.21
1226	1226	13.80	6.17
1227	1227	13.80	6.17
1228	1228	13.78	6.15
1229	1229	13.81	6.18
1230	1230	13.79	6.16
1231	1231	13.79	6.16
1232	1232	13.84	6.21
1233	1233	13.79	6.16
1234	1234	13.78	6.15
1235	1235	13.77	6.14
1236	1236	13.79	6.16
1237	1237	13.76	6.13
1238	1238	13.83	6.20
1239	1239	13.77	6.14
1240	1240	13.80	6.17
1241	1241	13.80	6.17
1242	1242	13.82	6.19
1243	1243	13.77	6.14
1244	1244	13.74	6.11
1245	1245	13.81	6.18
1246	1246	13.83	6.20
1247	1247	13.80	6.17
1248	1248	13.75	6.12
1249	1249	13.82	6.19



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1250	1250	13.82	6.19
1251	1251	13.78	6.15
1252	1252	13.81	6.18
1253	1253	13.78	6.15
1254	1254	13.83	6.20
1255	1255	13.79	6.16
1256	1256	13.79	6.16
1257	1257	13.83	6.20
1258	1258	13.78	6.15
1259	1259	13.83	6.20
1260	1260	13.77	6.14
1261	1261	13.82	6.19
1262	1262	13.80	6.17
1263	1263	13.76	6.13
1264	1264	13.80	6.17
1265	1265	13.80	6.17
1266	1266	13.79	6.16
1267	1267	13.74	6.11
1268	1268	13.81	6.18
1269	1269	13.74	6.11
1270	1270	13.75	6.12
1271	1271	13.78	6.15
1272	1272	13.77	6.14
1273	1273	13.83	6.20
1274	1274	13.83	6.20
1275	1275	13.77	6.14
1276	1276	13.79	6.16
1277	1277	13.79	6.16
1278	1278	13.76	6.13
1279	1279	13.84	6.21
1280	1280	13.79	6.16
1281	1281	13.80	6.17
1282	1282	13.81	6.18
1283	1283	13.80	6.17
1284	1284	13.77	6.14
1285	1285	13.83	6.20
1286	1286	13.81	6.18
1287	1287	13.76	6.13
1288	1288	13.78	6.15
1289	1289	13.84	6.21
1290	1290	13.84	6.21
1291	1291	13.79	6.16
1292	1292	13.81	6.18
1293	1293	13.81	6.18
1294	1294	13.83	6.20
1295	1295	13.81	6.18
1296	1296	13.78	6.15
1297	1297	13.75	6.12
1298	1298	13.80	6.17
1299	1299	13.80	6.17
1300	1300	13.85	6.22
1301	1301	13.79	6.16
1302	1302	13.80	6.17
1303	1303	13.80	6.17
1304	1304	13.81	6.18
1305	1305	13.81	6.18
1306	1306	13.83	6.20



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1307	1307	13.80	6.17
1308	1308	13.79	6.16
1309	1309	13.80	6.17
1310	1310	13.80	6.17
1311	1311	13.82	6.19
1312	1312	13.82	6.19
1313	1313	13.80	6.17
1314	1314	13.80	6.17
1315	1315	13.84	6.21
1316	1316	13.84	6.21
1317	1317	13.80	6.17
1318	1318	13.78	6.15
1319	1319	13.79	6.16
1320	1320	13.81	6.18
1321	1321	13.85	6.22
1322	1322	13.81	6.18
1323	1323	13.81	6.18
1324	1324	13.82	6.19
1325	1325	13.80	6.17
1326	1326	13.78	6.15
1327	1327	13.83	6.20
1328	1328	13.79	6.16
1329	1329	13.81	6.18
1330	1330	13.84	6.21
1331	1331	13.79	6.16
1332	1332	13.78	6.15
1333	1333	13.85	6.22
1334	1334	13.82	6.19
1335	1335	13.79	6.16
1336	1336	13.78	6.15
1337	1337	13.80	6.17
1338	1338	13.81	6.18
1339	1339	13.80	6.17
1340	1340	13.83	6.20
1341	1341	13.80	6.17
1342	1342	13.80	6.17
1343	1343	13.84	6.21
1344	1344	13.77	6.14
1345	1345	13.80	6.17
1346	1346	13.83	6.20
1347	1347	13.85	6.22
1348	1348	13.84	6.21
1349	1349	13.79	6.16
1350	1350	13.77	6.14
1351	1351	13.78	6.15
1352	1352	13.84	6.21
1353	1353	13.78	6.15
1354	1354	13.84	6.21
1355	1355	13.82	6.19
1356	1356	13.83	6.20
1357	1357	13.83	6.20
1358	1358	13.79	6.16
1359	1359	13.81	6.18
1360	1360	13.81	6.18
1361	1361	13.82	6.19
1362	1362	13.80	6.17
1363	1363	13.81	6.18



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1364	1364	13.80	6.17
1365	1365	13.82	6.19
1366	1366	13.82	6.19
1367	1367	13.81	6.18
1368	1368	13.83	6.20
1369	1369	13.80	6.17
1370	1370	13.80	6.17
1371	1371	13.81	6.18
1372	1372	13.82	6.19
1373	1373	13.80	6.17
1374	1374	13.77	6.14
1375	1375	13.80	6.17
1376	1376	13.81	6.18
1377	1377	13.80	6.17
1378	1378	13.78	6.15
1379	1379	13.79	6.16
1380	1380	13.78	6.15
1381	1381	13.81	6.18
1382	1382	13.79	6.16
1383	1383	13.79	6.16
1384	1384	13.77	6.14
1385	1385	13.82	6.19
1386	1386	13.84	6.21
1387	1387	13.79	6.16
1388	1388	13.78	6.15
1389	1389	13.82	6.19
1390	1390	13.84	6.21
1391	1391	13.80	6.17
1392	1392	13.87	6.24
1393	1393	13.83	6.20
1394	1394	13.84	6.21
1395	1395	13.82	6.19
1396	1396	13.79	6.16
1397	1397	13.89	6.26
1398	1398	13.80	6.17
1399	1399	13.81	6.18
1400	1400	13.83	6.20
1401	1401	13.83	6.20
1402	1402	13.81	6.18
1403	1403	13.81	6.18
1404	1404	13.81	6.18
1405	1405	13.86	6.23
1406	1406	13.86	6.23
1407	1407	13.79	6.16
1408	1408	13.83	6.20
1409	1409	13.79	6.16
1410	1410	13.83	6.20
1411	1411	13.81	6.18
1412	1412	13.78	6.15
1413	1413	13.82	6.19
1414	1414	13.85	6.22
1415	1415	13.82	6.19
1416	1416	13.79	6.16
1417	1417	13.80	6.17
1418	1418	13.80	6.17
1419	1419	13.84	6.21
1420	1420	13.80	6.17



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1421	1421	13.84	6.21
1422	1422	13.80	6.17
1423	1423	13.79	6.16
1424	1424	13.85	6.22
1425	1425	13.86	6.23
1426	1426	13.78	6.15
1427	1427	13.84	6.21
1428	1428	13.81	6.18
1429	1429	13.82	6.19
1430	1430	13.80	6.17
1431	1431	13.85	6.22
1432	1432	13.81	6.18
1433	1433	13.86	6.23
1434	1434	13.84	6.21
1435	1435	13.85	6.22
1436	1436	13.81	6.18
1437	1437	13.83	6.20
1438	1438	13.83	6.20
1439	1439	13.81	6.18
1440	1440	13.81	6.18
1441	1441	13.81	6.18
1442	1442	13.84	6.21
1443	1443	13.82	6.19
1444	1444	13.85	6.22
1445	1445	13.82	6.19
1446	1446	13.83	6.20
1447	1447	13.84	6.21
1448	1448	13.83	6.20
1449	1449	13.86	6.23
1450	1450	13.84	6.21
1451	1451	13.85	6.22
1452	1452	13.86	6.23
1453	1453	13.78	6.15
1454	1454	13.84	6.21
1455	1455	13.81	6.18
1456	1456	13.86	6.23
1457	1457	13.83	6.20
1458	1458	13.84	6.21
1459	1459	13.82	6.19
1460	1460	13.84	6.21
1461	1461	13.84	6.21
1462	1462	13.79	6.16
1463	1463	13.80	6.17
1464	1464	13.77	6.14
1465	1465	13.83	6.20
1466	1466	13.87	6.24
1467	1467	13.86	6.23
1468	1468	13.84	6.21
1469	1469	13.79	6.16
1470	1470	13.86	6.23
1471	1471	13.77	6.14
1472	1472	13.82	6.19
1473	1473	13.78	6.15
1474	1474	13.79	6.16
1475	1475	13.77	6.14
1476	1476	13.79	6.16
1477	1477	13.83	6.20



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1478	1478	13.83	6.20
1479	1479	13.83	6.20
1480	1480	13.81	6.18
1481	1481	13.83	6.20
1482	1482	13.78	6.15
1483	1483	13.79	6.16
1484	1484	13.82	6.19
1485	1485	13.85	6.22
1486	1486	13.81	6.18
1487	1487	13.81	6.18
1488	1488	13.81	6.18
1489	1489	13.78	6.15
1490	1490	13.79	6.16
1491	1491	13.81	6.18
1492	1492	13.79	6.16
1493	1493	13.83	6.20
1494	1494	13.83	6.20
1495	1495	13.82	6.19
1496	1496	13.78	6.15
1497	1497	13.84	6.21
1498	1498	13.79	6.16
1499	1499	13.86	6.23
1500	1500	13.77	6.14
1501	1501	13.85	6.22
1502	1502	13.81	6.18
1503	1503	13.82	6.19
1504	1504	13.81	6.18
1505	1505	13.82	6.19
1506	1506	13.81	6.18
1507	1507	13.78	6.15
1508	1508	13.84	6.21
1509	1509	13.85	6.22
1510	1510	13.81	6.18
1511	1511	13.81	6.18
1512	1512	13.84	6.21
1513	1513	13.84	6.21
1514	1514	13.83	6.20
1515	1515	13.85	6.22
1516	1516	13.83	6.20
1517	1517	13.78	6.15
1518	1518	13.79	6.16
1519	1519	13.85	6.22
1520	1520	13.83	6.20
1521	1521	13.80	6.17
1522	1522	13.89	6.26
1523	1523	13.80	6.17
1524	1524	13.79	6.16
1525	1525	13.83	6.20
1526	1526	13.83	6.20
1527	1527	13.86	6.23
1528	1528	13.83	6.20
1529	1529	13.85	6.22
1530	1530	13.86	6.23
1531	1531	13.83	6.20
1532	1532	13.80	6.17
1533	1533	13.81	6.18
1534	1534	13.81	6.18



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1535	1535	13.80	6.17
1536	1536	13.84	6.21
1537	1537	13.85	6.22
1538	1538	13.80	6.17
1539	1539	13.80	6.17
1540	1540	13.85	6.22
1541	1541	13.81	6.18
1542	1542	13.83	6.20
1543	1543	13.85	6.22
1544	1544	13.82	6.19
1545	1545	13.83	6.20
1546	1546	13.80	6.17
1547	1547	13.84	6.21
1548	1548	13.83	6.20
1549	1549	13.81	6.18
1550	1550	13.87	6.24
1551	1551	13.79	6.16
1552	1552	13.81	6.18
1553	1553	13.78	6.15
1554	1554	13.80	6.17
1555	1555	13.81	6.18
1556	1556	13.83	6.20
1557	1557	13.83	6.20
1558	1558	13.80	6.17
1559	1559	13.87	6.24
1560	1560	13.78	6.15
1561	1561	13.80	6.17
1562	1562	13.86	6.23
1563	1563	13.81	6.18
1564	1564	13.82	6.19
1565	1565	13.87	6.24
1566	1566	13.81	6.18
1567	1567	13.83	6.20
1568	1568	13.86	6.23
1569	1569	13.84	6.21
1570	1570	13.84	6.21
1571	1571	13.83	6.20
1572	1572	13.85	6.22
1573	1573	13.83	6.20
1574	1574	13.85	6.22
1575	1575	13.84	6.21
1576	1576	13.83	6.20
1577	1577	13.89	6.26
1578	1578	13.86	6.23
1579	1579	13.87	6.24
1580	1580	13.80	6.17
1581	1581	13.83	6.20
1582	1582	13.86	6.23
1583	1583	13.84	6.21
1584	1584	13.80	6.17
1585	1585	13.82	6.19
1586	1586	13.87	6.24
1587	1587	13.87	6.24
1588	1588	13.83	6.20
1589	1589	13.83	6.20
1590	1590	13.85	6.22
1591	1591	13.83	6.20



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1592	1592	13.76	6.13
1593	1593	13.87	6.24
1594	1594	13.82	6.19
1595	1595	13.86	6.23
1596	1596	13.88	6.25
1597	1597	13.81	6.18
1598	1598	13.84	6.21
1599	1599	13.84	6.21
1600	1600	13.87	6.24
1601	1601	13.85	6.22
1602	1602	13.83	6.20
1603	1603	13.83	6.20
1604	1604	13.84	6.21
1605	1605	13.81	6.18
1606	1606	13.84	6.21
1607	1607	13.85	6.22
1608	1608	13.84	6.21
1609	1609	13.79	6.16
1610	1610	13.88	6.25
1611	1611	13.82	6.19
1612	1612	13.82	6.19
1613	1613	13.83	6.20
1614	1614	13.83	6.20
1615	1615	13.80	6.17
1616	1616	13.82	6.19
1617	1617	13.81	6.18
1618	1618	13.85	6.22
1619	1619	13.81	6.18
1620	1620	13.81	6.18
1621	1621	13.81	6.18
1622	1622	13.85	6.22
1623	1623	13.86	6.23
1624	1624	13.81	6.18
1625	1625	13.88	6.25
1626	1626	13.86	6.23
1627	1627	13.82	6.19
1628	1628	13.86	6.23
1629	1629	13.85	6.22
1630	1630	13.85	6.22
1631	1631	13.82	6.19
1632	1632	13.84	6.21
1633	1633	13.80	6.17
1634	1634	13.82	6.19
1635	1635	13.81	6.18
1636	1636	13.83	6.20
1637	1637	13.85	6.22
1638	1638	13.87	6.24
1639	1639	13.87	6.24
1640	1640	13.84	6.21
1641	1641	13.85	6.22
1642	1642	13.86	6.23
1643	1643	13.84	6.21
1644	1644	13.82	6.19
1645	1645	13.82	6.19
1646	1646	13.86	6.23
1647	1647	13.82	6.19
1648	1648	13.86	6.23



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1649	1649	13.83	6.20
1650	1650	13.87	6.24
1651	1651	13.86	6.23
1652	1652	13.83	6.20
1653	1653	13.87	6.24
1654	1654	13.84	6.21
1655	1655	13.86	6.23
1656	1656	13.79	6.16
1657	1657	13.88	6.25
1658	1658	13.85	6.22
1659	1659	13.83	6.20
1660	1660	13.83	6.20
1661	1661	13.85	6.22
1662	1662	13.84	6.21
1663	1663	13.84	6.21
1664	1664	13.83	6.20
1665	1665	13.89	6.26
1666	1666	13.81	6.18
1667	1667	13.83	6.20
1668	1668	13.81	6.18
1669	1669	13.78	6.15
1670	1670	13.85	6.22
1671	1671	13.87	6.24
1672	1672	13.79	6.16
1673	1673	13.84	6.21
1674	1674	13.85	6.22
1675	1675	13.84	6.21
1676	1676	13.83	6.20
1677	1677	13.87	6.24
1678	1678	13.87	6.24
1679	1679	13.85	6.22
1680	1680	13.88	6.25
1681	1681	13.83	6.20
1682	1682	13.87	6.24
1683	1683	13.86	6.23
1684	1684	13.84	6.21
1685	1685	13.78	6.15
1686	1686	13.87	6.24
1687	1687	13.84	6.21
1688	1688	13.76	6.13
1689	1689	13.84	6.21
1690	1690	13.84	6.21
1691	1691	13.85	6.22
1692	1692	13.85	6.22
1693	1693	13.83	6.20
1694	1694	13.85	6.22
1695	1695	13.89	6.26
1696	1696	13.87	6.24
1697	1697	13.87	6.24
1698	1698	13.84	6.21
1699	1699	13.83	6.20
1700	1700	13.75	6.12
1701	1701	13.87	6.24
1702	1702	13.88	6.25
1703	1703	13.87	6.24
1704	1704	13.80	6.17
1705	1705	13.82	6.19



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1706	1706	13.86	6.23
1707	1707	13.84	6.21
1708	1708	13.83	6.20
1709	1709	13.85	6.22
1710	1710	13.86	6.23
1711	1711	13.84	6.21
1712	1712	13.88	6.25
1713	1713	13.83	6.20
1714	1714	13.90	6.27
1715	1715	13.81	6.18
1716	1716	13.86	6.23
1717	1717	13.85	6.22
1718	1718	13.85	6.22
1719	1719	13.87	6.24
1720	1720	13.82	6.19
1721	1721	13.86	6.23
1722	1722	13.82	6.19
1723	1723	13.84	6.21
1724	1724	13.86	6.23
1725	1725	13.83	6.20
1726	1726	13.86	6.23
1727	1727	13.83	6.20
1728	1728	13.80	6.17
1729	1729	13.87	6.24
1730	1730	13.88	6.25
1731	1731	13.87	6.24
1732	1732	13.88	6.25
1733	1733	13.87	6.24
1734	1734	13.85	6.22
1735	1735	13.86	6.23
1736	1736	13.84	6.21
1737	1737	13.88	6.25
1738	1738	13.81	6.18
1739	1739	13.87	6.24
1740	1740	13.89	6.26
1741	1741	13.85	6.22
1742	1742	13.86	6.23
1743	1743	13.92	6.29
1744	1744	13.92	6.29
1745	1745	13.86	6.23
1746	1746	13.81	6.18
1747	1747	13.83	6.20
1748	1748	13.85	6.22
1749	1749	13.82	6.19
1750	1750	13.88	6.25
1751	1751	13.87	6.24
1752	1752	13.84	6.21
1753	1753	13.83	6.20
1754	1754	13.88	6.25
1755	1755	13.85	6.22
1756	1756	13.88	6.25
1757	1757	13.85	6.22
1758	1758	13.84	6.21
1759	1759	13.87	6.24
1760	1760	13.87	6.24
1761	1761	13.85	6.22
1762	1762	13.81	6.18



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1763	1763	13.92	6.29
1764	1764	13.87	6.24
1765	1765	13.86	6.23
1766	1766	13.80	6.17
1767	1767	13.83	6.20
1768	1768	13.90	6.27
1769	1769	13.84	6.21
1770	1770	13.82	6.19
1771	1771	13.92	6.29
1772	1772	13.87	6.24
1773	1773	13.87	6.24
1774	1774	13.89	6.26
1775	1775	13.87	6.24
1776	1776	13.85	6.22
1777	1777	13.84	6.21
1778	1778	13.88	6.25
1779	1779	13.89	6.26
1780	1780	13.87	6.24
1781	1781	13.82	6.19
1782	1782	13.93	6.30
1783	1783	13.86	6.23
1784	1784	13.87	6.24
1785	1785	13.83	6.20
1786	1786	13.87	6.24
1787	1787	13.91	6.28
1788	1788	13.84	6.21
1789	1789	13.84	6.21
1790	1790	13.85	6.22
1791	1791	13.86	6.23
1792	1792	13.84	6.21
1793	1793	13.87	6.24
1794	1794	13.87	6.24
1795	1795	13.82	6.19
1796	1796	13.85	6.22
1797	1797	13.88	6.25
1798	1798	13.88	6.25
1799	1799	13.83	6.20
1800	1800	13.84	6.21
1801	1801	13.88	6.25
1802	1802	13.80	6.17
1803	1803	13.88	6.25
1804	1804	13.86	6.23
1805	1805	13.86	6.23
1806	1806	13.87	6.24
1807	1807	13.87	6.24
1808	1808	13.90	6.27
1809	1809	13.87	6.24
1810	1810	13.85	6.22
1811	1811	13.81	6.18
1812	1812	13.87	6.24
1813	1813	13.83	6.20
1814	1814	13.83	6.20
1815	1815	13.84	6.21
1816	1816	13.81	6.18
1817	1817	13.84	6.21
1818	1818	13.84	6.21
1819	1819	13.85	6.22



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1820	1820	13.86	6.23
1821	1821	13.89	6.26
1822	1822	13.85	6.22
1823	1823	13.87	6.24
1824	1824	13.84	6.21
1825	1825	13.89	6.26
1826	1826	13.87	6.24
1827	1827	13.81	6.18
1828	1828	13.87	6.24
1829	1829	13.86	6.23
1830	1830	13.89	6.26
1831	1831	13.88	6.25
1832	1832	13.87	6.24
1833	1833	13.84	6.21
1834	1834	13.85	6.22
1835	1835	13.83	6.20
1836	1836	13.86	6.23
1837	1837	13.92	6.29
1838	1838	13.80	6.17
1839	1839	13.84	6.21
1840	1840	13.86	6.23
1841	1841	13.81	6.18
1842	1842	13.88	6.25
1843	1843	13.87	6.24
1844	1844	13.88	6.25
1845	1845	13.86	6.23
1846	1846	13.81	6.18
1847	1847	13.85	6.22
1848	1848	13.87	6.24
1849	1849	13.86	6.23
1850	1850	13.87	6.24
1851	1851	13.84	6.21
1852	1852	13.87	6.24
1853	1853	13.86	6.23
1854	1854	13.85	6.22
1855	1855	13.87	6.24
1856	1856	13.82	6.19
1857	1857	13.84	6.21
1858	1858	13.83	6.20
1859	1859	13.87	6.24
1860	1860	13.84	6.21
1861	1861	13.91	6.28
1862	1862	13.87	6.24
1863	1863	13.83	6.20
1864	1864	13.87	6.24
1865	1865	13.88	6.25
1866	1866	13.84	6.21
1867	1867	13.88	6.25
1868	1868	13.85	6.22
1869	1869	13.86	6.23
1870	1870	13.88	6.25
1871	1871	13.89	6.26
1872	1872	13.87	6.24
1873	1873	13.87	6.24
1874	1874	13.89	6.26
1875	1875	13.87	6.24
1876	1876	13.87	6.24



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1877	1877	13.83	6.20
1878	1878	13.87	6.24
1879	1879	13.86	6.23
1880	1880	13.84	6.21
1881	1881	13.80	6.17
1882	1882	13.88	6.25
1883	1883	13.87	6.24
1884	1884	13.80	6.17
1885	1885	13.85	6.22
1886	1886	13.82	6.19
1887	1887	13.90	6.27
1888	1888	13.86	6.23
1889	1889	13.89	6.26
1890	1890	13.85	6.22
1891	1891	13.86	6.23
1892	1892	13.88	6.25
1893	1893	13.91	6.28
1894	1894	13.83	6.20
1895	1895	13.88	6.25
1896	1896	13.84	6.21
1897	1897	13.86	6.23
1898	1898	13.85	6.22
1899	1899	13.84	6.21
1900	1900	13.84	6.21
1901	1901	13.89	6.26
1902	1902	13.84	6.21
1903	1903	13.88	6.25
1904	1904	13.84	6.21
1905	1905	13.87	6.24
1906	1906	13.80	6.17
1907	1907	13.88	6.25
1908	1908	13.88	6.25
1909	1909	13.88	6.25
1910	1910	13.86	6.23
1911	1911	13.82	6.19
1912	1912	13.86	6.23
1913	1913	13.83	6.20
1914	1914	13.86	6.23
1915	1915	13.88	6.25
1916	1916	13.90	6.27
1917	1917	13.84	6.21
1918	1918	13.80	6.17
1919	1919	13.85	6.22
1920	1920	13.83	6.20
1921	1921	13.92	6.29
1922	1922	13.88	6.25
1923	1923	13.86	6.23
1924	1924	13.86	6.23
1925	1925	13.89	6.26
1926	1926	13.83	6.20
1927	1927	13.83	6.20
1928	1928	13.87	6.24
1929	1929	13.87	6.24
1930	1930	13.81	6.18
1931	1931	13.84	6.21
1932	1932	13.87	6.24
1933	1933	13.85	6.22



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1934	1934	13.86	6.23
1935	1935	13.87	6.24
1936	1936	13.86	6.23
1937	1937	13.83	6.20
1938	1938	13.87	6.24
1939	1939	13.87	6.24
1940	1940	13.86	6.23
1941	1941	13.85	6.22
1942	1942	13.85	6.22
1943	1943	13.91	6.28
1944	1944	13.88	6.25
1945	1945	13.85	6.22
1946	1946	13.87	6.24
1947	1947	13.87	6.24
1948	1948	13.87	6.24
1949	1949	13.91	6.28
1950	1950	13.90	6.27
1951	1951	13.89	6.26
1952	1952	13.87	6.24
1953	1953	13.87	6.24
1954	1954	13.88	6.25
1955	1955	13.89	6.26
1956	1956	13.86	6.23
1957	1957	13.89	6.26
1958	1958	13.90	6.27
1959	1959	13.89	6.26
1960	1960	13.87	6.24
1961	1961	13.85	6.22
1962	1962	13.84	6.21
1963	1963	13.86	6.23
1964	1964	13.87	6.24
1965	1965	13.88	6.25
1966	1966	13.82	6.19
1967	1967	13.87	6.24
1968	1968	13.83	6.20
1969	1969	13.90	6.27
1970	1970	13.89	6.26
1971	1971	13.90	6.27
1972	1972	13.89	6.26
1973	1973	13.83	6.20
1974	1974	13.89	6.26
1975	1975	13.87	6.24
1976	1976	13.89	6.26
1977	1977	13.90	6.27
1978	1978	13.88	6.25
1979	1979	13.85	6.22
1980	1980	13.92	6.29
1981	1981	13.87	6.24
1982	1982	13.91	6.28
1983	1983	13.93	6.30
1984	1984	13.88	6.25
1985	1985	13.87	6.24
1986	1986	13.88	6.25
1987	1987	13.87	6.24
1988	1988	13.90	6.27
1989	1989	13.92	6.29
1990	1990	13.89	6.26



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1991	1991	9.18	1.55
1992	1992	8.85	1.22
1993	1993	8.72	1.09
1994	1994	8.63	1.00
1995	1995	8.56	0.93
1996	1996	8.52	0.89
1997	1997	8.48	0.85
1998	1998	8.44	0.81
1999	1999	8.41	0.78
2000	2000	8.38	0.75
2001	2001	8.35	0.72
2002	2002	8.33	0.70
2003	2003	8.31	0.68
2004	2004	8.28	0.65
2005	2005	8.26	0.63
2006	2006	8.25	0.62
2007	2007	8.23	0.60
2008	2008	8.22	0.59
2009	2009	8.21	0.58
2010	2010	8.20	0.57
2011	2011	8.19	0.56
2012	2012	8.18	0.55
2013	2013	8.16	0.53
2014	2014	8.14	0.51
2015	2015	8.14	0.51
2016	2016	8.13	0.50
2017	2017	8.12	0.49
2018	2018	8.11	0.48
2019	2019	8.11	0.48
2020	2020	8.10	0.47
2021	2021	8.09	0.46
2022	2022	8.08	0.45
2023	2023	8.08	0.45
2024	2024	8.07	0.44
2025	2025	8.06	0.43
2026	2026	8.05	0.42
2027	2027	8.05	0.42
2028	2028	8.05	0.42
2029	2029	8.04	0.41
2030	2030	8.05	0.42
2031	2031	8.03	0.40
2032	2032	8.03	0.40
2033	2033	8.02	0.39
2034	2034	8.02	0.39
2035	2035	8.01	0.38
2036	2036	8.01	0.38
2037	2037	8.00	0.37
2038	2038	7.99	0.36
2039	2039	8.00	0.37
2040	2040	7.99	0.36
2041	2041	7.99	0.36
2042	2042	7.99	0.36
2043	2043	7.97	0.34
2044	2044	7.97	0.34
2045	2045	7.97	0.34
2046	2046	7.97	0.34
2047	2047	7.97	0.34



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2048	2048	7.97	0.34
2049	2049	7.95	0.32
2050	2050	7.96	0.33
2051	2051	7.96	0.33
2052	2052	7.95	0.32
2053	2053	7.94	0.31
2054	2054	7.94	0.31
2055	2055	7.94	0.31
2056	2056	7.93	0.30
2057	2057	7.93	0.30
2058	2058	7.93	0.30
2059	2059	7.93	0.30
2060	2060	7.93	0.30
2061	2061	7.93	0.30
2062	2062	7.93	0.30
2063	2063	7.92	0.29
2064	2064	7.92	0.29
2065	2065	7.92	0.29
2066	2066	7.92	0.29
2067	2067	7.91	0.28
2068	2068	7.91	0.28
2069	2069	7.91	0.28
2070	2070	7.90	0.27
2071	2071	7.90	0.27
2072	2072	7.91	0.28
2073	2073	7.90	0.27
2074	2074	7.89	0.26
2075	2075	7.89	0.26
2076	2076	7.90	0.27
2077	2077	7.89	0.26
2078	2078	7.88	0.25
2079	2079	7.89	0.26
2080	2080	7.88	0.25
2081	2081	7.88	0.25
2082	2082	7.88	0.25
2083	2083	7.88	0.25
2084	2084	7.88	0.25
2085	2085	7.88	0.25
2086	2086	7.88	0.25
2087	2087	7.87	0.24
2088	2088	7.87	0.24
2089	2089	7.87	0.24
2090	2090	7.86	0.23
2091	2091	7.86	0.23
2092	2092	7.86	0.23
2093	2093	7.86	0.23
2094	2094	7.86	0.23
2095	2095	7.85	0.22
2096	2096	7.85	0.22
2097	2097	7.85	0.22
2098	2098	7.85	0.22
2099	2099	7.84	0.21
2100	2100	7.84	0.21
2101	2101	7.85	0.22
2102	2102	7.85	0.22
2103	2103	7.84	0.21
2104	2104	7.85	0.22



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2105	2105	7.84	0.21
2106	2106	7.84	0.21
2107	2107	7.85	0.22
2108	2108	7.83	0.20
2109	2109	7.83	0.20
2110	2110	7.85	0.22
2111	2111	7.83	0.20
2112	2112	7.83	0.20
2113	2113	7.84	0.21
2114	2114	7.83	0.20
2115	2115	7.83	0.20
2116	2116	7.82	0.19
2117	2117	7.83	0.20
2118	2118	7.82	0.19
2119	2119	7.82	0.19
2120	2120	7.82	0.19
2121	2121	7.81	0.18
2122	2122	7.82	0.19
2123	2123	7.82	0.19
2124	2124	7.82	0.19
2125	2125	7.82	0.19
2126	2126	7.82	0.19
2127	2127	7.82	0.19
2128	2128	7.82	0.19
2129	2129	7.82	0.19
2130	2130	7.81	0.18
2131	2131	7.81	0.18
2132	2132	7.82	0.19
2133	2133	7.80	0.17
2134	2134	7.81	0.18
2135	2135	7.81	0.18
2136	2136	7.81	0.18
2137	2137	7.81	0.18
2138	2138	7.81	0.18
2139	2139	7.81	0.18
2140	2140	7.80	0.17
2141	2141	7.80	0.17
2142	2142	7.81	0.18
2143	2143	7.80	0.17
2144	2144	7.80	0.17
2145	2145	7.79	0.16
2146	2146	7.79	0.16
2147	2147	7.79	0.16
2148	2148	7.79	0.16
2149	2149	7.79	0.16
2150	2150	7.79	0.16
2151	2151	7.79	0.16
2152	2152	7.78	0.15
2153	2153	7.79	0.16
2154	2154	7.79	0.16
2155	2155	7.79	0.16
2156	2156	7.79	0.16
2157	2157	7.79	0.16
2158	2158	7.79	0.16
2159	2159	7.79	0.16
2160	2160	7.79	0.16
2161	2161	7.78	0.15



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Project: VRX North

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Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2162	2162	7.79	0.16
2163	2163	7.79	0.16
2164	2164	7.78	0.15
2165	2165	7.78	0.15
2166	2166	7.78	0.15
2167	2167	7.78	0.15
2168	2168	7.78	0.15
2169	2169	7.78	0.15
2170	2170	7.78	0.15
2171	2171	7.77	0.14
2172	2172	7.78	0.15
2173	2173	7.78	0.15
2174	2174	7.78	0.15
2175	2175	7.77	0.14
2176	2176	7.77	0.14
2177	2177	7.77	0.14
2178	2178	7.76	0.13
2179	2179	7.77	0.14
2180	2180	7.76	0.13
2181	2181	7.76	0.13
2182	2182	7.76	0.13
2183	2183	7.77	0.14
2184	2184	7.76	0.13
2185	2185	7.77	0.14
2186	2186	7.77	0.14
2187	2187	7.76	0.13
2188	2188	7.77	0.14
2189	2189	7.77	0.14
2190	2190	7.77	0.14
2191	2191	7.76	0.13
2192	2192	7.77	0.14
2193	2193	7.76	0.13
2194	2194	7.77	0.14
2195	2195	7.76	0.13
2196	2196	7.76	0.13
2197	2197	7.76	0.13
2198	2198	7.76	0.13
2199	2199	7.76	0.13
2200	2200	7.76	0.13
2201	2201	7.76	0.13
2202	2202	7.76	0.13
2203	2203	7.76	0.13
2204	2204	7.76	0.13
2205	2205	7.76	0.13
2206	2206	7.75	0.12
2207	2207	7.75	0.12
2208	2208	7.75	0.12
2209	2209	7.74	0.11
2210	2210	7.74	0.11
2211	2211	7.75	0.12
2212	2212	7.74	0.11
2213	2213	7.75	0.12
2214	2214	7.74	0.11
2215	2215	7.74	0.11
2216	2216	7.74	0.11
2217	2217	7.75	0.12
2218	2218	7.75	0.12



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Pumping Test - Water Level Data

Project: VRX North

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Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2219	2219	7.76	0.13
2220	2220	7.75	0.12
2221	2221	7.74	0.11
2222	2222	7.74	0.11
2223	2223	7.75	0.12
2224	2224	7.74	0.11
2225	2225	7.74	0.11
2226	2226	7.74	0.11
2227	2227	7.74	0.11
2228	2228	7.74	0.11
2229	2229	7.74	0.11
2230	2230	7.74	0.11
2231	2231	7.74	0.11
2232	2232	7.74	0.11
2233	2233	7.74	0.11
2234	2234	7.74	0.11
2235	2235	7.75	0.12
2236	2236	7.74	0.11
2237	2237	7.74	0.11
2238	2238	7.74	0.11
2239	2239	7.73	0.10
2240	2240	7.74	0.11
2241	2241	7.74	0.11
2242	2242	7.74	0.11
2243	2243	7.74	0.11
2244	2244	7.74	0.11
2245	2245	7.74	0.11
2246	2246	7.74	0.11
2247	2247	7.74	0.11
2248	2248	7.73	0.10
2249	2249	7.73	0.10
2250	2250	7.73	0.10
2251	2251	7.73	0.10
2252	2252	7.72	0.09
2253	2253	7.73	0.10
2254	2254	7.74	0.11
2255	2255	7.74	0.11
2256	2256	7.73	0.10
2257	2257	7.73	0.10
2258	2258	7.73	0.10
2259	2259	7.73	0.10
2260	2260	7.73	0.10
2261	2261	7.73	0.10
2262	2262	7.72	0.09
2263	2263	7.73	0.10
2264	2264	7.73	0.10
2265	2265	7.73	0.10
2266	2266	7.73	0.10
2267	2267	7.72	0.09
2268	2268	7.73	0.10
2269	2269	7.72	0.09
2270	2270	7.73	0.10
2271	2271	7.73	0.10
2272	2272	7.73	0.10
2273	2273	7.73	0.10
2274	2274	7.72	0.09
2275	2275	7.73	0.10



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Project: VRX North

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Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2276	2276	7.73	0.10
2277	2277	7.73	0.10
2278	2278	7.73	0.10
2279	2279	7.73	0.10
2280	2280	7.72	0.09
2281	2281	7.72	0.09
2282	2282	7.72	0.09
2283	2283	7.72	0.09
2284	2284	7.72	0.09
2285	2285	7.72	0.09
2286	2286	7.71	0.08
2287	2287	7.72	0.09
2288	2288	7.72	0.09
2289	2289	7.71	0.08
2290	2290	7.72	0.09
2291	2291	7.72	0.09
2292	2292	7.72	0.09
2293	2293	7.72	0.09
2294	2294	7.72	0.09
2295	2295	7.70	0.07
2296	2296	7.71	0.08
2297	2297	7.71	0.08
2298	2298	7.71	0.08
2299	2299	7.72	0.09
2300	2300	7.71	0.08
2301	2301	7.72	0.09
2302	2302	7.72	0.09
2303	2303	7.71	0.08
2304	2304	7.72	0.09
2305	2305	7.71	0.08
2306	2306	7.71	0.08
2307	2307	7.72	0.09
2308	2308	7.72	0.09
2309	2309	7.71	0.08
2310	2310	7.71	0.08
2311	2311	7.71	0.08
2312	2312	7.71	0.08
2313	2313	7.71	0.08
2314	2314	7.71	0.08
2315	2315	7.71	0.08
2316	2316	7.71	0.08
2317	2317	7.71	0.08
2318	2318	7.71	0.08
2319	2319	7.71	0.08
2320	2320	7.71	0.08
2321	2321	7.71	0.08
2322	2322	7.71	0.08
2323	2323	7.71	0.08
2324	2324	7.71	0.08
2325	2325	7.71	0.08
2326	2326	7.71	0.08
2327	2327	7.71	0.08
2328	2328	7.72	0.09
2329	2329	7.71	0.08
2330	2330	7.71	0.08
2331	2331	7.71	0.08
2332	2332	7.71	0.08



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2333	2333	7.70	0.07
2334	2334	7.70	0.07
2335	2335	7.71	0.08
2336	2336	7.71	0.08
2337	2337	7.70	0.07
2338	2338	7.69	0.06
2339	2339	7.70	0.07
2340	2340	7.71	0.08
2341	2341	7.71	0.08
2342	2342	7.70	0.07
2343	2343	7.70	0.07
2344	2344	7.70	0.07
2345	2345	7.70	0.07
2346	2346	7.70	0.07
2347	2347	7.69	0.06
2348	2348	7.71	0.08
2349	2349	7.70	0.07
2350	2350	7.70	0.07
2351	2351	7.71	0.08
2352	2352	7.71	0.08
2353	2353	7.71	0.08
2354	2354	7.71	0.08
2355	2355	7.69	0.06
2356	2356	7.70	0.07
2357	2357	7.71	0.08
2358	2358	7.71	0.08
2359	2359	7.70	0.07
2360	2360	7.70	0.07
2361	2361	7.70	0.07
2362	2362	7.71	0.08
2363	2363	7.71	0.08
2364	2364	7.69	0.06
2365	2365	7.70	0.07
2366	2366	7.70	0.07
2367	2367	7.70	0.07
2368	2368	7.70	0.07
2369	2369	7.69	0.06
2370	2370	7.71	0.08
2371	2371	7.71	0.08
2372	2372	7.70	0.07
2373	2373	7.70	0.07
2374	2374	7.71	0.08
2375	2375	7.70	0.07
2376	2376	7.70	0.07
2377	2377	7.71	0.08
2378	2378	7.70	0.07
2379	2379	7.70	0.07
2380	2380	7.70	0.07
2381	2381	7.70	0.07
2382	2382	7.71	0.08
2383	2383	7.69	0.06
2384	2384	7.69	0.06
2385	2385	7.70	0.07
2386	2386	7.69	0.06
2387	2387	7.70	0.07
2388	2388	7.69	0.06
2389	2389	7.70	0.07



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Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2390	2390	7.70	0.07
2391	2391	7.70	0.07
2392	2392	7.71	0.08
2393	2393	7.70	0.07
2394	2394	7.71	0.08
2395	2395	7.69	0.06
2396	2396	7.70	0.07
2397	2397	7.70	0.07
2398	2398	7.70	0.07
2399	2399	7.70	0.07
2400	2400	7.70	0.07



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Pumping Test - Discharge Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

Location: Arrowsmith	Pumping Test: YPB1	Pumping Well: YPB1
Test Conducted by: Western Irrigation	Test Date: 10-Mar-22	Discharge: variable, average rate 30 [l/s]
Observation Well: YPB1		Radial Distance to PW [m]: -

	Time [min]	Discharge [l/s]
1	1990	30.00



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

Location: VRX North	Pumping Test: YPB1	Pumping Well: YPB1
Test Conducted by: Western Irrigations	Test Date: 10-Mar-22	Discharge Rate: 32 [l/s]
Observation Well: YPB1	Static Water Level [m]: 7.63	Radial Distance to PW [m]: -

	Time [min]	Water Level [m]	Drawdown [m]
1	1	12.56	4.93
2	2	12.61	4.98
3	3	12.56	4.93
4	4	12.57	4.94
5	5	12.58	4.95
6	6	12.61	4.98
7	7	12.61	4.98
8	8	12.66	5.03
9	9	12.72	5.09
10	10	12.70	5.07
11	11	12.70	5.07
12	12	12.73	5.10
13	13	12.75	5.12
14	14	12.76	5.13
15	15	12.81	5.18
16	16	12.81	5.18
17	17	12.84	5.21
18	18	12.83	5.20
19	19	12.87	5.24
20	20	12.86	5.23
21	21	12.87	5.24
22	22	12.90	5.27
23	23	12.87	5.24
24	24	12.90	5.27
25	25	12.89	5.26
26	26	12.98	5.35
27	27	12.92	5.29
28	28	12.97	5.34
29	29	12.95	5.32
30	30	12.98	5.35
31	31	12.95	5.32
32	32	12.99	5.36
33	33	12.96	5.33
34	34	13.04	5.41
35	35	13.02	5.39
36	36	13.00	5.37
37	37	13.04	5.41
38	38	13.03	5.40
39	39	13.08	5.45
40	40	13.03	5.40
41	41	13.07	5.44
42	42	13.03	5.40
43	43	13.05	5.42
44	44	13.04	5.41
45	45	13.06	5.43
46	46	13.09	5.46
47	47	13.09	5.46
48	48	13.06	5.43
49	49	13.12	5.49
50	50	13.07	5.44
51	51	13.13	5.50
52	52	13.12	5.49



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
53	53	13.13	5.50
54	54	13.08	5.45
55	55	13.11	5.48
56	56	13.13	5.50
57	57	13.14	5.51
58	58	13.10	5.47
59	59	13.11	5.48
60	60	13.16	5.53
61	61	13.18	5.55
62	62	13.14	5.51
63	63	13.15	5.52
64	64	13.21	5.58
65	65	13.18	5.55
66	66	13.19	5.56
67	67	13.19	5.56
68	68	13.18	5.55
69	69	13.18	5.55
70	70	13.18	5.55
71	71	13.16	5.53
72	72	13.19	5.56
73	73	13.19	5.56
74	74	13.22	5.59
75	75	13.20	5.57
76	76	13.19	5.56
77	77	13.23	5.60
78	78	13.23	5.60
79	79	13.20	5.57
80	80	13.23	5.60
81	81	13.22	5.59
82	82	13.24	5.61
83	83	13.19	5.56
84	84	13.26	5.63
85	85	13.21	5.58
86	86	13.25	5.62
87	87	13.25	5.62
88	88	13.25	5.62
89	89	13.23	5.60
90	90	13.24	5.61
91	91	13.24	5.61
92	92	13.26	5.63
93	93	13.21	5.58
94	94	13.30	5.67
95	95	13.21	5.58
96	96	13.28	5.65
97	97	13.26	5.63
98	98	13.21	5.58
99	99	13.29	5.66
100	100	13.28	5.65
101	101	13.29	5.66
102	102	13.29	5.66
103	103	13.30	5.67
104	104	13.28	5.65
105	105	13.30	5.67
106	106	13.26	5.63
107	107	13.27	5.64
108	108	13.27	5.64
109	109	13.30	5.67



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
110	110	13.30	5.67
111	111	13.30	5.67
112	112	13.32	5.69
113	113	13.27	5.64
114	114	13.32	5.69
115	115	13.28	5.65
116	116	13.34	5.71
117	117	13.30	5.67
118	118	13.33	5.70
119	119	13.31	5.68
120	120	13.31	5.68
121	121	13.34	5.71
122	122	13.33	5.70
123	123	13.34	5.71
124	124	13.36	5.73
125	125	13.35	5.72
126	126	13.31	5.68
127	127	13.28	5.65
128	128	13.35	5.72
129	129	13.34	5.71
130	130	13.30	5.67
131	131	13.31	5.68
132	132	13.37	5.74
133	133	13.32	5.69
134	134	13.36	5.73
135	135	13.33	5.70
136	136	13.34	5.71
137	137	13.37	5.74
138	138	13.36	5.73
139	139	13.32	5.69
140	140	13.33	5.70
141	141	13.37	5.74
142	142	13.33	5.70
143	143	13.38	5.75
144	144	13.34	5.71
145	145	13.35	5.72
146	146	13.38	5.75
147	147	13.37	5.74
148	148	13.37	5.74
149	149	13.33	5.70
150	150	13.38	5.75
151	151	13.33	5.70
152	152	13.33	5.70
153	153	13.31	5.68
154	154	13.39	5.76
155	155	13.32	5.69
156	156	13.35	5.72
157	157	13.41	5.78
158	158	13.42	5.79
159	159	13.37	5.74
160	160	13.40	5.77
161	161	13.36	5.73
162	162	13.36	5.73
163	163	13.37	5.74
164	164	13.38	5.75
165	165	13.39	5.76
166	166	13.39	5.76



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
167	167	13.40	5.77
168	168	13.41	5.78
169	169	13.42	5.79
170	170	13.41	5.78
171	171	13.39	5.76
172	172	13.43	5.80
173	173	13.35	5.72
174	174	13.44	5.81
175	175	13.39	5.76
176	176	13.41	5.78
177	177	13.38	5.75
178	178	13.43	5.80
179	179	13.37	5.74
180	180	13.40	5.77
181	181	13.41	5.78
182	182	13.45	5.82
183	183	13.41	5.78
184	184	13.41	5.78
185	185	13.41	5.78
186	186	13.42	5.79
187	187	13.42	5.79
188	188	13.41	5.78
189	189	13.45	5.82
190	190	13.45	5.82
191	191	13.41	5.78
192	192	13.41	5.78
193	193	13.43	5.80
194	194	13.46	5.83
195	195	13.44	5.81
196	196	13.41	5.78
197	197	13.45	5.82
198	198	13.48	5.85
199	199	13.45	5.82
200	200	13.46	5.83
201	201	13.40	5.77
202	202	13.45	5.82
203	203	13.44	5.81
204	204	13.41	5.78
205	205	13.44	5.81
206	206	13.44	5.81
207	207	13.40	5.77
208	208	13.40	5.77
209	209	13.45	5.82
210	210	13.45	5.82
211	211	13.44	5.81
212	212	13.42	5.79
213	213	13.43	5.80
214	214	13.41	5.78
215	215	13.42	5.79
216	216	13.40	5.77
217	217	13.45	5.82
218	218	13.42	5.79
219	219	13.46	5.83
220	220	13.46	5.83
221	221	13.40	5.77
222	222	13.46	5.83
223	223	13.48	5.85



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Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
224	224	13.46	5.83
225	225	13.42	5.79
226	226	13.48	5.85
227	227	13.44	5.81
228	228	13.43	5.80
229	229	13.44	5.81
230	230	13.43	5.80
231	231	13.45	5.82
232	232	13.45	5.82
233	233	13.46	5.83
234	234	13.45	5.82
235	235	13.46	5.83
236	236	13.42	5.79
237	237	13.48	5.85
238	238	13.48	5.85
239	239	13.43	5.80
240	240	13.50	5.87
241	241	13.50	5.87
242	242	13.53	5.90
243	243	13.49	5.86
244	244	13.46	5.83
245	245	13.47	5.84
246	246	13.50	5.87
247	247	13.51	5.88
248	248	13.48	5.85
249	249	13.50	5.87
250	250	13.45	5.82
251	251	13.47	5.84
252	252	13.46	5.83
253	253	13.46	5.83
254	254	13.50	5.87
255	255	13.48	5.85
256	256	13.47	5.84
257	257	13.44	5.81
258	258	13.49	5.86
259	259	13.42	5.79
260	260	13.47	5.84
261	261	13.48	5.85
262	262	13.45	5.82
263	263	13.47	5.84
264	264	13.46	5.83
265	265	13.47	5.84
266	266	13.52	5.89
267	267	13.50	5.87
268	268	13.50	5.87
269	269	13.48	5.85
270	270	13.46	5.83
271	271	13.49	5.86
272	272	13.54	5.91
273	273	13.49	5.86
274	274	13.46	5.83
275	275	13.50	5.87
276	276	13.54	5.91
277	277	13.48	5.85
278	278	13.48	5.85
279	279	13.51	5.88
280	280	13.52	5.89



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
281	281	13.47	5.84
282	282	13.49	5.86
283	283	13.53	5.90
284	284	13.54	5.91
285	285	13.53	5.90
286	286	13.50	5.87
287	287	13.51	5.88
288	288	13.50	5.87
289	289	13.49	5.86
290	290	13.47	5.84
291	291	13.50	5.87
292	292	13.54	5.91
293	293	13.49	5.86
294	294	13.52	5.89
295	295	13.54	5.91
296	296	13.50	5.87
297	297	13.48	5.85
298	298	13.46	5.83
299	299	13.55	5.92
300	300	13.54	5.91
301	301	13.51	5.88
302	302	13.51	5.88
303	303	13.52	5.89
304	304	13.56	5.93
305	305	13.56	5.93
306	306	13.51	5.88
307	307	13.52	5.89
308	308	13.58	5.95
309	309	13.45	5.82
310	310	13.55	5.92
311	311	13.50	5.87
312	312	13.52	5.89
313	313	13.53	5.90
314	314	13.51	5.88
315	315	13.53	5.90
316	316	13.52	5.89
317	317	13.51	5.88
318	318	13.54	5.91
319	319	13.54	5.91
320	320	13.55	5.92
321	321	13.51	5.88
322	322	13.50	5.87
323	323	13.51	5.88
324	324	13.52	5.89
325	325	13.51	5.88
326	326	13.55	5.92
327	327	13.54	5.91
328	328	13.51	5.88
329	329	13.50	5.87
330	330	13.53	5.90
331	331	13.53	5.90
332	332	13.55	5.92
333	333	13.54	5.91
334	334	13.56	5.93
335	335	13.52	5.89
336	336	13.60	5.97
337	337	13.49	5.86



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
338	338	13.53	5.90
339	339	13.54	5.91
340	340	13.53	5.90
341	341	13.52	5.89
342	342	13.54	5.91
343	343	13.56	5.93
344	344	13.52	5.89
345	345	13.61	5.98
346	346	13.55	5.92
347	347	13.53	5.90
348	348	13.54	5.91
349	349	13.55	5.92
350	350	13.51	5.88
351	351	13.52	5.89
352	352	13.57	5.94
353	353	13.51	5.88
354	354	13.53	5.90
355	355	13.56	5.93
356	356	13.55	5.92
357	357	13.59	5.96
358	358	13.44	5.81
359	359	13.57	5.94
360	360	13.54	5.91
361	361	13.59	5.96
362	362	13.56	5.93
363	363	13.55	5.92
364	364	13.49	5.86
365	365	13.57	5.94
366	366	13.61	5.98
367	367	13.52	5.89
368	368	13.56	5.93
369	369	13.62	5.99
370	370	13.57	5.94
371	371	13.57	5.94
372	372	13.56	5.93
373	373	13.50	5.87
374	374	13.56	5.93
375	375	13.54	5.91
376	376	13.58	5.95
377	377	13.59	5.96
378	378	13.59	5.96
379	379	13.53	5.90
380	380	13.53	5.90
381	381	13.51	5.88
382	382	13.55	5.92
383	383	13.57	5.94
384	384	13.60	5.97
385	385	13.56	5.93
386	386	13.59	5.96
387	387	13.54	5.91
388	388	13.58	5.95
389	389	13.56	5.93
390	390	13.56	5.93
391	391	13.55	5.92
392	392	13.57	5.94
393	393	13.56	5.93
394	394	13.59	5.96



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
395	395	13.56	5.93
396	396	13.56	5.93
397	397	13.59	5.96
398	398	13.56	5.93
399	399	13.57	5.94
400	400	13.60	5.97
401	401	13.56	5.93
402	402	13.59	5.96
403	403	13.54	5.91
404	404	13.56	5.93
405	405	13.54	5.91
406	406	13.56	5.93
407	407	13.56	5.93
408	408	13.58	5.95
409	409	13.60	5.97
410	410	13.60	5.97
411	411	13.56	5.93
412	412	13.58	5.95
413	413	13.51	5.88
414	414	13.58	5.95
415	415	13.58	5.95
416	416	13.60	5.97
417	417	13.55	5.92
418	418	13.61	5.98
419	419	13.60	5.97
420	420	13.56	5.93
421	421	13.59	5.96
422	422	13.61	5.98
423	423	13.55	5.92
424	424	13.57	5.94
425	425	13.60	5.97
426	426	13.60	5.97
427	427	13.60	5.97
428	428	13.58	5.95
429	429	13.60	5.97
430	430	13.57	5.94
431	431	13.60	5.97
432	432	13.61	5.98
433	433	13.57	5.94
434	434	13.57	5.94
435	435	13.55	5.92
436	436	13.57	5.94
437	437	13.59	5.96
438	438	13.56	5.93
439	439	13.59	5.96
440	440	13.61	5.98
441	441	13.57	5.94
442	442	13.61	5.98
443	443	13.57	5.94
444	444	13.57	5.94
445	445	13.59	5.96
446	446	13.57	5.94
447	447	13.61	5.98
448	448	13.64	6.01
449	449	13.59	5.96
450	450	13.55	5.92
451	451	13.62	5.99



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
452	452	13.58	5.95
453	453	13.52	5.89
454	454	13.56	5.93
455	455	13.61	5.98
456	456	13.59	5.96
457	457	13.59	5.96
458	458	13.60	5.97
459	459	13.61	5.98
460	460	13.60	5.97
461	461	13.63	6.00
462	462	13.61	5.98
463	463	13.56	5.93
464	464	13.64	6.01
465	465	13.61	5.98
466	466	13.56	5.93
467	467	13.62	5.99
468	468	13.64	6.01
469	469	13.59	5.96
470	470	13.62	5.99
471	471	13.62	5.99
472	472	13.61	5.98
473	473	13.58	5.95
474	474	13.61	5.98
475	475	13.61	5.98
476	476	13.61	5.98
477	477	13.58	5.95
478	478	13.63	6.00
479	479	13.62	5.99
480	480	13.57	5.94
481	481	13.64	6.01
482	482	13.58	5.95
483	483	13.65	6.02
484	484	13.67	6.04
485	485	13.63	6.00
486	486	13.58	5.95
487	487	13.62	5.99
488	488	13.59	5.96
489	489	13.61	5.98
490	490	13.58	5.95
491	491	13.62	5.99
492	492	13.61	5.98
493	493	13.59	5.96
494	494	13.61	5.98
495	495	13.61	5.98
496	496	13.59	5.96
497	497	13.59	5.96
498	498	13.62	5.99
499	499	13.66	6.03
500	500	13.60	5.97
501	501	13.61	5.98
502	502	13.64	6.01
503	503	13.61	5.98
504	504	13.61	5.98
505	505	13.60	5.97
506	506	13.62	5.99
507	507	13.56	5.93
508	508	13.61	5.98



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
509	509	13.61	5.98
510	510	13.64	6.01
511	511	13.61	5.98
512	512	13.60	5.97
513	513	13.61	5.98
514	514	13.60	5.97
515	515	13.63	6.00
516	516	13.68	6.05
517	517	13.64	6.01
518	518	13.63	6.00
519	519	13.62	5.99
520	520	13.58	5.95
521	521	13.62	5.99
522	522	13.61	5.98
523	523	13.67	6.04
524	524	13.62	5.99
525	525	13.62	5.99
526	526	13.65	6.02
527	527	13.65	6.02
528	528	13.56	5.93
529	529	13.61	5.98
530	530	13.61	5.98
531	531	13.61	5.98
532	532	13.63	6.00
533	533	13.59	5.96
534	534	13.62	5.99
535	535	13.63	6.00
536	536	13.61	5.98
537	537	13.66	6.03
538	538	13.59	5.96
539	539	13.64	6.01
540	540	13.59	5.96
541	541	13.62	5.99
542	542	13.63	6.00
543	543	13.64	6.01
544	544	13.62	5.99
545	545	13.63	6.00
546	546	13.61	5.98
547	547	13.64	6.01
548	548	13.63	6.00
549	549	13.65	6.02
550	550	13.67	6.04
551	551	13.66	6.03
552	552	13.60	5.97
553	553	13.60	5.97
554	554	13.66	6.03
555	555	13.64	6.01
556	556	13.59	5.96
557	557	13.65	6.02
558	558	13.63	6.00
559	559	13.63	6.00
560	560	13.66	6.03
561	561	13.64	6.01
562	562	13.66	6.03
563	563	13.61	5.98
564	564	13.63	6.00
565	565	13.60	5.97



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
566	566	13.62	5.99
567	567	13.61	5.98
568	568	13.56	5.93
569	569	13.60	5.97
570	570	13.65	6.02
571	571	13.64	6.01
572	572	13.68	6.05
573	573	13.64	6.01
574	574	13.62	5.99
575	575	13.65	6.02
576	576	13.61	5.98
577	577	13.67	6.04
578	578	13.61	5.98
579	579	13.66	6.03
580	580	13.64	6.01
581	581	13.69	6.06
582	582	13.64	6.01
583	583	13.62	5.99
584	584	13.64	6.01
585	585	13.63	6.00
586	586	13.68	6.05
587	587	13.65	6.02
588	588	13.65	6.02
589	589	13.64	6.01
590	590	13.63	6.00
591	591	13.67	6.04
592	592	13.62	5.99
593	593	13.63	6.00
594	594	13.63	6.00
595	595	13.65	6.02
596	596	13.68	6.05
597	597	13.61	5.98
598	598	13.66	6.03
599	599	13.61	5.98
600	600	13.69	6.06
601	601	13.64	6.01
602	602	13.68	6.05
603	603	13.66	6.03
604	604	13.64	6.01
605	605	13.66	6.03
606	606	13.64	6.01
607	607	13.64	6.01
608	608	13.64	6.01
609	609	13.67	6.04
610	610	13.66	6.03
611	611	13.69	6.06
612	612	13.66	6.03
613	613	13.65	6.02
614	614	13.67	6.04
615	615	13.67	6.04
616	616	13.64	6.01
617	617	13.64	6.01
618	618	13.65	6.02
619	619	13.66	6.03
620	620	13.62	5.99
621	621	13.68	6.05
622	622	13.66	6.03



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
623	623	13.65	6.02
624	624	13.61	5.98
625	625	13.67	6.04
626	626	13.62	5.99
627	627	13.68	6.05
628	628	13.68	6.05
629	629	13.67	6.04
630	630	13.69	6.06
631	631	13.63	6.00
632	632	13.64	6.01
633	633	13.64	6.01
634	634	13.64	6.01
635	635	13.65	6.02
636	636	13.69	6.06
637	637	13.67	6.04
638	638	13.65	6.02
639	639	13.69	6.06
640	640	13.65	6.02
641	641	13.63	6.00
642	642	13.71	6.08
643	643	13.66	6.03
644	644	13.64	6.01
645	645	13.70	6.07
646	646	13.67	6.04
647	647	13.74	6.11
648	648	13.68	6.05
649	649	13.67	6.04
650	650	13.67	6.04
651	651	13.65	6.02
652	652	13.65	6.02
653	653	13.64	6.01
654	654	13.62	5.99
655	655	13.71	6.08
656	656	13.67	6.04
657	657	13.65	6.02
658	658	13.67	6.04
659	659	13.64	6.01
660	660	13.65	6.02
661	661	13.70	6.07
662	662	13.68	6.05
663	663	13.66	6.03
664	664	13.62	5.99
665	665	13.68	6.05
666	666	13.67	6.04
667	667	13.66	6.03
668	668	13.66	6.03
669	669	13.68	6.05
670	670	13.68	6.05
671	671	13.70	6.07
672	672	13.70	6.07
673	673	13.69	6.06
674	674	13.61	5.98
675	675	13.65	6.02
676	676	13.69	6.06
677	677	13.72	6.09
678	678	13.63	6.00
679	679	13.68	6.05



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
680	680	13.69	6.06
681	681	13.70	6.07
682	682	13.68	6.05
683	683	13.66	6.03
684	684	13.70	6.07
685	685	13.64	6.01
686	686	13.71	6.08
687	687	13.70	6.07
688	688	13.68	6.05
689	689	13.68	6.05
690	690	13.70	6.07
691	691	13.68	6.05
692	692	13.68	6.05
693	693	13.70	6.07
694	694	13.66	6.03
695	695	13.67	6.04
696	696	13.71	6.08
697	697	13.69	6.06
698	698	13.64	6.01
699	699	13.66	6.03
700	700	13.69	6.06
701	701	13.64	6.01
702	702	13.68	6.05
703	703	13.73	6.10
704	704	13.70	6.07
705	705	13.66	6.03
706	706	13.68	6.05
707	707	13.67	6.04
708	708	13.68	6.05
709	709	13.68	6.05
710	710	13.72	6.09
711	711	13.69	6.06
712	712	13.67	6.04
713	713	13.64	6.01
714	714	13.68	6.05
715	715	13.66	6.03
716	716	13.69	6.06
717	717	13.67	6.04
718	718	13.63	6.00
719	719	13.68	6.05
720	720	13.71	6.08
721	721	13.69	6.06
722	722	13.66	6.03
723	723	13.74	6.11
724	724	13.70	6.07
725	725	13.68	6.05
726	726	13.68	6.05
727	727	13.67	6.04
728	728	13.70	6.07
729	729	13.69	6.06
730	730	13.67	6.04
731	731	13.67	6.04
732	732	13.70	6.07
733	733	13.69	6.06
734	734	13.62	5.99
735	735	13.70	6.07
736	736	13.73	6.10



Waterdirect
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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
737	737	13.69	6.06
738	738	13.73	6.10
739	739	13.68	6.05
740	740	13.68	6.05
741	741	13.69	6.06
742	742	13.69	6.06
743	743	13.71	6.08
744	744	13.67	6.04
745	745	13.69	6.06
746	746	13.63	6.00
747	747	13.69	6.06
748	748	13.68	6.05
749	749	13.68	6.05
750	750	13.70	6.07
751	751	13.65	6.02
752	752	13.70	6.07
753	753	13.66	6.03
754	754	13.66	6.03
755	755	13.67	6.04
756	756	13.70	6.07
757	757	13.70	6.07
758	758	13.73	6.10
759	759	13.69	6.06
760	760	13.69	6.06
761	761	13.67	6.04
762	762	13.73	6.10
763	763	13.71	6.08
764	764	13.72	6.09
765	765	13.67	6.04
766	766	13.72	6.09
767	767	13.70	6.07
768	768	13.70	6.07
769	769	13.70	6.07
770	770	13.71	6.08
771	771	13.67	6.04
772	772	13.70	6.07
773	773	13.69	6.06
774	774	13.62	5.99
775	775	13.65	6.02
776	776	13.72	6.09
777	777	13.66	6.03
778	778	13.66	6.03
779	779	13.68	6.05
780	780	13.72	6.09
781	781	13.72	6.09
782	782	13.66	6.03
783	783	13.71	6.08
784	784	13.70	6.07
785	785	13.71	6.08
786	786	13.73	6.10
787	787	13.68	6.05
788	788	13.69	6.06
789	789	13.71	6.08
790	790	13.66	6.03
791	791	13.68	6.05
792	792	13.70	6.07
793	793	13.66	6.03



Waterdirect
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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
794	794	13.69	6.06
795	795	13.74	6.11
796	796	13.72	6.09
797	797	13.66	6.03
798	798	13.70	6.07
799	799	13.68	6.05
800	800	13.70	6.07
801	801	13.71	6.08
802	802	13.75	6.12
803	803	13.67	6.04
804	804	13.68	6.05
805	805	13.73	6.10
806	806	13.72	6.09
807	807	13.69	6.06
808	808	13.71	6.08
809	809	13.72	6.09
810	810	13.67	6.04
811	811	13.71	6.08
812	812	13.72	6.09
813	813	13.66	6.03
814	814	13.69	6.06
815	815	13.69	6.06
816	816	13.73	6.10
817	817	13.70	6.07
818	818	13.72	6.09
819	819	13.70	6.07
820	820	13.72	6.09
821	821	13.71	6.08
822	822	13.70	6.07
823	823	13.70	6.07
824	824	13.71	6.08
825	825	13.71	6.08
826	826	13.67	6.04
827	827	13.67	6.04
828	828	13.69	6.06
829	829	13.68	6.05
830	830	13.65	6.02
831	831	13.70	6.07
832	832	13.71	6.08
833	833	13.69	6.06
834	834	13.67	6.04
835	835	13.71	6.08
836	836	13.67	6.04
837	837	13.70	6.07
838	838	13.69	6.06
839	839	13.67	6.04
840	840	13.71	6.08
841	841	13.72	6.09
842	842	13.70	6.07
843	843	13.69	6.06
844	844	13.70	6.07
845	845	13.70	6.07
846	846	13.66	6.03
847	847	13.69	6.06
848	848	13.69	6.06
849	849	13.70	6.07
850	850	13.75	6.12



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
851	851	13.72	6.09
852	852	13.77	6.14
853	853	13.71	6.08
854	854	13.72	6.09
855	855	13.73	6.10
856	856	13.69	6.06
857	857	13.69	6.06
858	858	13.73	6.10
859	859	13.73	6.10
860	860	13.71	6.08
861	861	13.71	6.08
862	862	13.67	6.04
863	863	13.70	6.07
864	864	13.75	6.12
865	865	13.71	6.08
866	866	13.72	6.09
867	867	13.74	6.11
868	868	13.70	6.07
869	869	13.73	6.10
870	870	13.68	6.05
871	871	13.68	6.05
872	872	13.71	6.08
873	873	13.74	6.11
874	874	13.71	6.08
875	875	13.71	6.08
876	876	13.68	6.05
877	877	13.71	6.08
878	878	13.70	6.07
879	879	13.71	6.08
880	880	13.69	6.06
881	881	13.65	6.02
882	882	13.68	6.05
883	883	13.70	6.07
884	884	13.68	6.05
885	885	13.74	6.11
886	886	13.70	6.07
887	887	13.72	6.09
888	888	13.69	6.06
889	889	13.71	6.08
890	890	13.70	6.07
891	891	13.70	6.07
892	892	13.73	6.10
893	893	13.70	6.07
894	894	13.72	6.09
895	895	13.69	6.06
896	896	13.70	6.07
897	897	13.70	6.07
898	898	13.69	6.06
899	899	13.73	6.10
900	900	13.69	6.06
901	901	13.72	6.09
902	902	13.69	6.06
903	903	13.74	6.11
904	904	13.74	6.11
905	905	13.75	6.12
906	906	13.74	6.11
907	907	13.69	6.06



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
908	908	13.71	6.08
909	909	13.71	6.08
910	910	13.72	6.09
911	911	13.72	6.09
912	912	13.73	6.10
913	913	13.67	6.04
914	914	13.72	6.09
915	915	13.76	6.13
916	916	13.68	6.05
917	917	13.68	6.05
918	918	13.70	6.07
919	919	13.74	6.11
920	920	13.76	6.13
921	921	13.68	6.05
922	922	13.76	6.13
923	923	13.75	6.12
924	924	13.68	6.05
925	925	13.72	6.09
926	926	13.72	6.09
927	927	13.75	6.12
928	928	13.77	6.14
929	929	13.71	6.08
930	930	13.71	6.08
931	931	13.74	6.11
932	932	13.70	6.07
933	933	13.71	6.08
934	934	13.74	6.11
935	935	13.71	6.08
936	936	13.69	6.06
937	937	13.72	6.09
938	938	13.71	6.08
939	939	13.72	6.09
940	940	13.72	6.09
941	941	13.73	6.10
942	942	13.70	6.07
943	943	13.76	6.13
944	944	13.73	6.10
945	945	13.69	6.06
946	946	13.71	6.08
947	947	13.69	6.06
948	948	13.68	6.05
949	949	13.70	6.07
950	950	13.75	6.12
951	951	13.70	6.07
952	952	13.67	6.04
953	953	13.68	6.05
954	954	13.71	6.08
955	955	13.70	6.07
956	956	13.72	6.09
957	957	13.73	6.10
958	958	13.71	6.08
959	959	13.74	6.11
960	960	13.73	6.10
961	961	13.74	6.11
962	962	13.70	6.07
963	963	13.74	6.11
964	964	13.76	6.13



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
965	965	13.72	6.09
966	966	13.72	6.09
967	967	13.72	6.09
968	968	13.71	6.08
969	969	13.66	6.03
970	970	13.73	6.10
971	971	13.72	6.09
972	972	13.74	6.11
973	973	13.75	6.12
974	974	13.75	6.12
975	975	13.73	6.10
976	976	13.74	6.11
977	977	13.69	6.06
978	978	13.74	6.11
979	979	13.75	6.12
980	980	13.74	6.11
981	981	13.73	6.10
982	982	13.73	6.10
983	983	13.71	6.08
984	984	13.73	6.10
985	985	13.72	6.09
986	986	13.74	6.11
987	987	13.73	6.10
988	988	13.73	6.10
989	989	13.73	6.10
990	990	13.72	6.09
991	991	13.77	6.14
992	992	13.75	6.12
993	993	13.72	6.09
994	994	13.76	6.13
995	995	13.69	6.06
996	996	13.72	6.09
997	997	13.79	6.16
998	998	13.72	6.09
999	999	13.72	6.09
1000	1000	13.71	6.08
1001	1001	13.72	6.09
1002	1002	13.76	6.13
1003	1003	13.73	6.10
1004	1004	13.76	6.13
1005	1005	13.74	6.11
1006	1006	13.77	6.14
1007	1007	13.75	6.12
1008	1008	13.75	6.12
1009	1009	13.79	6.16
1010	1010	13.81	6.18
1011	1011	13.73	6.10
1012	1012	13.71	6.08
1013	1013	13.73	6.10
1014	1014	13.76	6.13
1015	1015	13.77	6.14
1016	1016	13.77	6.14
1017	1017	13.71	6.08
1018	1018	13.75	6.12
1019	1019	13.71	6.08
1020	1020	13.72	6.09
1021	1021	13.74	6.11



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1022	1022	13.72	6.09
1023	1023	13.75	6.12
1024	1024	13.74	6.11
1025	1025	13.74	6.11
1026	1026	13.75	6.12
1027	1027	13.73	6.10
1028	1028	13.75	6.12
1029	1029	13.74	6.11
1030	1030	13.70	6.07
1031	1031	13.71	6.08
1032	1032	13.75	6.12
1033	1033	13.74	6.11
1034	1034	13.76	6.13
1035	1035	13.70	6.07
1036	1036	13.80	6.17
1037	1037	13.78	6.15
1038	1038	13.79	6.16
1039	1039	13.79	6.16
1040	1040	13.74	6.11
1041	1041	13.71	6.08
1042	1042	13.74	6.11
1043	1043	13.73	6.10
1044	1044	13.72	6.09
1045	1045	13.74	6.11
1046	1046	13.81	6.18
1047	1047	13.74	6.11
1048	1048	13.73	6.10
1049	1049	13.73	6.10
1050	1050	13.73	6.10
1051	1051	13.77	6.14
1052	1052	13.79	6.16
1053	1053	13.73	6.10
1054	1054	13.72	6.09
1055	1055	13.79	6.16
1056	1056	13.72	6.09
1057	1057	13.75	6.12
1058	1058	13.78	6.15
1059	1059	13.76	6.13
1060	1060	13.78	6.15
1061	1061	13.79	6.16
1062	1062	13.76	6.13
1063	1063	13.76	6.13
1064	1064	13.70	6.07
1065	1065	13.76	6.13
1066	1066	13.76	6.13
1067	1067	13.78	6.15
1068	1068	13.79	6.16
1069	1069	13.76	6.13
1070	1070	13.79	6.16
1071	1071	13.76	6.13
1072	1072	13.75	6.12
1073	1073	13.74	6.11
1074	1074	13.76	6.13
1075	1075	13.75	6.12
1076	1076	13.77	6.14
1077	1077	13.72	6.09
1078	1078	13.76	6.13



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1079	1079	13.79	6.16
1080	1080	13.75	6.12
1081	1081	13.80	6.17
1082	1082	13.70	6.07
1083	1083	13.78	6.15
1084	1084	13.72	6.09
1085	1085	13.84	6.21
1086	1086	13.76	6.13
1087	1087	13.80	6.17
1088	1088	13.76	6.13
1089	1089	13.76	6.13
1090	1090	13.82	6.19
1091	1091	13.75	6.12
1092	1092	13.80	6.17
1093	1093	13.74	6.11
1094	1094	13.75	6.12
1095	1095	13.74	6.11
1096	1096	13.79	6.16
1097	1097	13.71	6.08
1098	1098	13.83	6.20
1099	1099	13.76	6.13
1100	1100	13.78	6.15
1101	1101	13.73	6.10
1102	1102	13.75	6.12
1103	1103	13.80	6.17
1104	1104	13.79	6.16
1105	1105	13.77	6.14
1106	1106	13.75	6.12
1107	1107	13.76	6.13
1108	1108	13.75	6.12
1109	1109	13.81	6.18
1110	1110	13.77	6.14
1111	1111	13.71	6.08
1112	1112	13.71	6.08
1113	1113	13.79	6.16
1114	1114	13.76	6.13
1115	1115	13.79	6.16
1116	1116	13.70	6.07
1117	1117	13.77	6.14
1118	1118	13.78	6.15
1119	1119	13.75	6.12
1120	1120	13.75	6.12
1121	1121	13.73	6.10
1122	1122	13.78	6.15
1123	1123	13.74	6.11
1124	1124	13.75	6.12
1125	1125	13.80	6.17
1126	1126	13.75	6.12
1127	1127	13.79	6.16
1128	1128	13.78	6.15
1129	1129	13.75	6.12
1130	1130	13.78	6.15
1131	1131	13.76	6.13
1132	1132	13.76	6.13
1133	1133	13.75	6.12
1134	1134	13.76	6.13
1135	1135	13.75	6.12



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1136	1136	13.81	6.18
1137	1137	13.73	6.10
1138	1138	13.72	6.09
1139	1139	13.77	6.14
1140	1140	13.79	6.16
1141	1141	13.74	6.11
1142	1142	13.73	6.10
1143	1143	13.79	6.16
1144	1144	13.76	6.13
1145	1145	13.76	6.13
1146	1146	13.78	6.15
1147	1147	13.77	6.14
1148	1148	13.77	6.14
1149	1149	13.74	6.11
1150	1150	13.82	6.19
1151	1151	13.72	6.09
1152	1152	13.75	6.12
1153	1153	13.79	6.16
1154	1154	13.77	6.14
1155	1155	13.75	6.12
1156	1156	13.76	6.13
1157	1157	13.77	6.14
1158	1158	13.78	6.15
1159	1159	13.80	6.17
1160	1160	13.76	6.13
1161	1161	13.78	6.15
1162	1162	13.75	6.12
1163	1163	13.76	6.13
1164	1164	13.82	6.19
1165	1165	13.77	6.14
1166	1166	13.74	6.11
1167	1167	13.75	6.12
1168	1168	13.77	6.14
1169	1169	13.77	6.14
1170	1170	13.74	6.11
1171	1171	13.76	6.13
1172	1172	13.83	6.20
1173	1173	13.80	6.17
1174	1174	13.78	6.15
1175	1175	13.76	6.13
1176	1176	13.74	6.11
1177	1177	13.80	6.17
1178	1178	13.80	6.17
1179	1179	13.76	6.13
1180	1180	13.76	6.13
1181	1181	13.75	6.12
1182	1182	13.78	6.15
1183	1183	13.81	6.18
1184	1184	13.79	6.16
1185	1185	13.79	6.16
1186	1186	13.80	6.17
1187	1187	13.77	6.14
1188	1188	13.78	6.15
1189	1189	13.77	6.14
1190	1190	13.76	6.13
1191	1191	13.80	6.17
1192	1192	13.82	6.19



Waterdirect
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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1193	1193	13.77	6.14
1194	1194	13.82	6.19
1195	1195	13.82	6.19
1196	1196	13.77	6.14
1197	1197	13.79	6.16
1198	1198	13.79	6.16
1199	1199	13.77	6.14
1200	1200	13.81	6.18
1201	1201	13.82	6.19
1202	1202	13.80	6.17
1203	1203	13.78	6.15
1204	1204	13.78	6.15
1205	1205	13.78	6.15
1206	1206	13.83	6.20
1207	1207	13.79	6.16
1208	1208	13.81	6.18
1209	1209	13.79	6.16
1210	1210	13.79	6.16
1211	1211	13.83	6.20
1212	1212	13.77	6.14
1213	1213	13.83	6.20
1214	1214	13.82	6.19
1215	1215	13.78	6.15
1216	1216	13.81	6.18
1217	1217	13.83	6.20
1218	1218	13.83	6.20
1219	1219	13.78	6.15
1220	1220	13.79	6.16
1221	1221	13.80	6.17
1222	1222	13.78	6.15
1223	1223	13.81	6.18
1224	1224	13.82	6.19
1225	1225	13.84	6.21
1226	1226	13.80	6.17
1227	1227	13.80	6.17
1228	1228	13.78	6.15
1229	1229	13.81	6.18
1230	1230	13.79	6.16
1231	1231	13.79	6.16
1232	1232	13.84	6.21
1233	1233	13.79	6.16
1234	1234	13.78	6.15
1235	1235	13.77	6.14
1236	1236	13.79	6.16
1237	1237	13.76	6.13
1238	1238	13.83	6.20
1239	1239	13.77	6.14
1240	1240	13.80	6.17
1241	1241	13.80	6.17
1242	1242	13.82	6.19
1243	1243	13.77	6.14
1244	1244	13.74	6.11
1245	1245	13.81	6.18
1246	1246	13.83	6.20
1247	1247	13.80	6.17
1248	1248	13.75	6.12
1249	1249	13.82	6.19



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1250	1250	13.82	6.19
1251	1251	13.78	6.15
1252	1252	13.81	6.18
1253	1253	13.78	6.15
1254	1254	13.83	6.20
1255	1255	13.79	6.16
1256	1256	13.79	6.16
1257	1257	13.83	6.20
1258	1258	13.78	6.15
1259	1259	13.83	6.20
1260	1260	13.77	6.14
1261	1261	13.82	6.19
1262	1262	13.80	6.17
1263	1263	13.76	6.13
1264	1264	13.80	6.17
1265	1265	13.80	6.17
1266	1266	13.79	6.16
1267	1267	13.74	6.11
1268	1268	13.81	6.18
1269	1269	13.74	6.11
1270	1270	13.75	6.12
1271	1271	13.78	6.15
1272	1272	13.77	6.14
1273	1273	13.83	6.20
1274	1274	13.83	6.20
1275	1275	13.77	6.14
1276	1276	13.79	6.16
1277	1277	13.79	6.16
1278	1278	13.76	6.13
1279	1279	13.84	6.21
1280	1280	13.79	6.16
1281	1281	13.80	6.17
1282	1282	13.81	6.18
1283	1283	13.80	6.17
1284	1284	13.77	6.14
1285	1285	13.83	6.20
1286	1286	13.81	6.18
1287	1287	13.76	6.13
1288	1288	13.78	6.15
1289	1289	13.84	6.21
1290	1290	13.84	6.21
1291	1291	13.79	6.16
1292	1292	13.81	6.18
1293	1293	13.81	6.18
1294	1294	13.83	6.20
1295	1295	13.81	6.18
1296	1296	13.78	6.15
1297	1297	13.75	6.12
1298	1298	13.80	6.17
1299	1299	13.80	6.17
1300	1300	13.85	6.22
1301	1301	13.79	6.16
1302	1302	13.80	6.17
1303	1303	13.80	6.17
1304	1304	13.81	6.18
1305	1305	13.81	6.18
1306	1306	13.83	6.20



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1307	1307	13.80	6.17
1308	1308	13.79	6.16
1309	1309	13.80	6.17
1310	1310	13.80	6.17
1311	1311	13.82	6.19
1312	1312	13.82	6.19
1313	1313	13.80	6.17
1314	1314	13.80	6.17
1315	1315	13.84	6.21
1316	1316	13.84	6.21
1317	1317	13.80	6.17
1318	1318	13.78	6.15
1319	1319	13.79	6.16
1320	1320	13.81	6.18
1321	1321	13.85	6.22
1322	1322	13.81	6.18
1323	1323	13.81	6.18
1324	1324	13.82	6.19
1325	1325	13.80	6.17
1326	1326	13.78	6.15
1327	1327	13.83	6.20
1328	1328	13.79	6.16
1329	1329	13.81	6.18
1330	1330	13.84	6.21
1331	1331	13.79	6.16
1332	1332	13.78	6.15
1333	1333	13.85	6.22
1334	1334	13.82	6.19
1335	1335	13.79	6.16
1336	1336	13.78	6.15
1337	1337	13.80	6.17
1338	1338	13.81	6.18
1339	1339	13.80	6.17
1340	1340	13.83	6.20
1341	1341	13.80	6.17
1342	1342	13.80	6.17
1343	1343	13.84	6.21
1344	1344	13.77	6.14
1345	1345	13.80	6.17
1346	1346	13.83	6.20
1347	1347	13.85	6.22
1348	1348	13.84	6.21
1349	1349	13.79	6.16
1350	1350	13.77	6.14
1351	1351	13.78	6.15
1352	1352	13.84	6.21
1353	1353	13.78	6.15
1354	1354	13.84	6.21
1355	1355	13.82	6.19
1356	1356	13.83	6.20
1357	1357	13.83	6.20
1358	1358	13.79	6.16
1359	1359	13.81	6.18
1360	1360	13.81	6.18
1361	1361	13.82	6.19
1362	1362	13.80	6.17
1363	1363	13.81	6.18



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1364	1364	13.80	6.17
1365	1365	13.82	6.19
1366	1366	13.82	6.19
1367	1367	13.81	6.18
1368	1368	13.83	6.20
1369	1369	13.80	6.17
1370	1370	13.80	6.17
1371	1371	13.81	6.18
1372	1372	13.82	6.19
1373	1373	13.80	6.17
1374	1374	13.77	6.14
1375	1375	13.80	6.17
1376	1376	13.81	6.18
1377	1377	13.80	6.17
1378	1378	13.78	6.15
1379	1379	13.79	6.16
1380	1380	13.78	6.15
1381	1381	13.81	6.18
1382	1382	13.79	6.16
1383	1383	13.79	6.16
1384	1384	13.77	6.14
1385	1385	13.82	6.19
1386	1386	13.84	6.21
1387	1387	13.79	6.16
1388	1388	13.78	6.15
1389	1389	13.82	6.19
1390	1390	13.84	6.21
1391	1391	13.80	6.17
1392	1392	13.87	6.24
1393	1393	13.83	6.20
1394	1394	13.84	6.21
1395	1395	13.82	6.19
1396	1396	13.79	6.16
1397	1397	13.89	6.26
1398	1398	13.80	6.17
1399	1399	13.81	6.18
1400	1400	13.83	6.20
1401	1401	13.83	6.20
1402	1402	13.81	6.18
1403	1403	13.81	6.18
1404	1404	13.81	6.18
1405	1405	13.86	6.23
1406	1406	13.86	6.23
1407	1407	13.79	6.16
1408	1408	13.83	6.20
1409	1409	13.79	6.16
1410	1410	13.83	6.20
1411	1411	13.81	6.18
1412	1412	13.78	6.15
1413	1413	13.82	6.19
1414	1414	13.85	6.22
1415	1415	13.82	6.19
1416	1416	13.79	6.16
1417	1417	13.80	6.17
1418	1418	13.80	6.17
1419	1419	13.84	6.21
1420	1420	13.80	6.17



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1421	1421	13.84	6.21
1422	1422	13.80	6.17
1423	1423	13.79	6.16
1424	1424	13.85	6.22
1425	1425	13.86	6.23
1426	1426	13.78	6.15
1427	1427	13.84	6.21
1428	1428	13.81	6.18
1429	1429	13.82	6.19
1430	1430	13.80	6.17
1431	1431	13.85	6.22
1432	1432	13.81	6.18
1433	1433	13.86	6.23
1434	1434	13.84	6.21
1435	1435	13.85	6.22
1436	1436	13.81	6.18
1437	1437	13.83	6.20
1438	1438	13.83	6.20
1439	1439	13.81	6.18
1440	1440	13.81	6.18
1441	1441	13.81	6.18
1442	1442	13.84	6.21
1443	1443	13.82	6.19
1444	1444	13.85	6.22
1445	1445	13.82	6.19
1446	1446	13.83	6.20
1447	1447	13.84	6.21
1448	1448	13.83	6.20
1449	1449	13.86	6.23
1450	1450	13.84	6.21
1451	1451	13.85	6.22
1452	1452	13.86	6.23
1453	1453	13.78	6.15
1454	1454	13.84	6.21
1455	1455	13.81	6.18
1456	1456	13.86	6.23
1457	1457	13.83	6.20
1458	1458	13.84	6.21
1459	1459	13.82	6.19
1460	1460	13.84	6.21
1461	1461	13.84	6.21
1462	1462	13.79	6.16
1463	1463	13.80	6.17
1464	1464	13.77	6.14
1465	1465	13.83	6.20
1466	1466	13.87	6.24
1467	1467	13.86	6.23
1468	1468	13.84	6.21
1469	1469	13.79	6.16
1470	1470	13.86	6.23
1471	1471	13.77	6.14
1472	1472	13.82	6.19
1473	1473	13.78	6.15
1474	1474	13.79	6.16
1475	1475	13.77	6.14
1476	1476	13.79	6.16
1477	1477	13.83	6.20



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1478	1478	13.83	6.20
1479	1479	13.83	6.20
1480	1480	13.81	6.18
1481	1481	13.83	6.20
1482	1482	13.78	6.15
1483	1483	13.79	6.16
1484	1484	13.82	6.19
1485	1485	13.85	6.22
1486	1486	13.81	6.18
1487	1487	13.81	6.18
1488	1488	13.81	6.18
1489	1489	13.78	6.15
1490	1490	13.79	6.16
1491	1491	13.81	6.18
1492	1492	13.79	6.16
1493	1493	13.83	6.20
1494	1494	13.83	6.20
1495	1495	13.82	6.19
1496	1496	13.78	6.15
1497	1497	13.84	6.21
1498	1498	13.79	6.16
1499	1499	13.86	6.23
1500	1500	13.77	6.14
1501	1501	13.85	6.22
1502	1502	13.81	6.18
1503	1503	13.82	6.19
1504	1504	13.81	6.18
1505	1505	13.82	6.19
1506	1506	13.81	6.18
1507	1507	13.78	6.15
1508	1508	13.84	6.21
1509	1509	13.85	6.22
1510	1510	13.81	6.18
1511	1511	13.81	6.18
1512	1512	13.84	6.21
1513	1513	13.84	6.21
1514	1514	13.83	6.20
1515	1515	13.85	6.22
1516	1516	13.83	6.20
1517	1517	13.78	6.15
1518	1518	13.79	6.16
1519	1519	13.85	6.22
1520	1520	13.83	6.20
1521	1521	13.80	6.17
1522	1522	13.89	6.26
1523	1523	13.80	6.17
1524	1524	13.79	6.16
1525	1525	13.83	6.20
1526	1526	13.83	6.20
1527	1527	13.86	6.23
1528	1528	13.83	6.20
1529	1529	13.85	6.22
1530	1530	13.86	6.23
1531	1531	13.83	6.20
1532	1532	13.80	6.17
1533	1533	13.81	6.18
1534	1534	13.81	6.18



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Pumping Test - Water Level Data

Project: VRX North

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Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1535	1535	13.80	6.17
1536	1536	13.84	6.21
1537	1537	13.85	6.22
1538	1538	13.80	6.17
1539	1539	13.80	6.17
1540	1540	13.85	6.22
1541	1541	13.81	6.18
1542	1542	13.83	6.20
1543	1543	13.85	6.22
1544	1544	13.82	6.19
1545	1545	13.83	6.20
1546	1546	13.80	6.17
1547	1547	13.84	6.21
1548	1548	13.83	6.20
1549	1549	13.81	6.18
1550	1550	13.87	6.24
1551	1551	13.79	6.16
1552	1552	13.81	6.18
1553	1553	13.78	6.15
1554	1554	13.80	6.17
1555	1555	13.81	6.18
1556	1556	13.83	6.20
1557	1557	13.83	6.20
1558	1558	13.80	6.17
1559	1559	13.87	6.24
1560	1560	13.78	6.15
1561	1561	13.80	6.17
1562	1562	13.86	6.23
1563	1563	13.81	6.18
1564	1564	13.82	6.19
1565	1565	13.87	6.24
1566	1566	13.81	6.18
1567	1567	13.83	6.20
1568	1568	13.86	6.23
1569	1569	13.84	6.21
1570	1570	13.84	6.21
1571	1571	13.83	6.20
1572	1572	13.85	6.22
1573	1573	13.83	6.20
1574	1574	13.85	6.22
1575	1575	13.84	6.21
1576	1576	13.83	6.20
1577	1577	13.89	6.26
1578	1578	13.86	6.23
1579	1579	13.87	6.24
1580	1580	13.80	6.17
1581	1581	13.83	6.20
1582	1582	13.86	6.23
1583	1583	13.84	6.21
1584	1584	13.80	6.17
1585	1585	13.82	6.19
1586	1586	13.87	6.24
1587	1587	13.87	6.24
1588	1588	13.83	6.20
1589	1589	13.83	6.20
1590	1590	13.85	6.22
1591	1591	13.83	6.20



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Project: VRX North

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Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1592	1592	13.76	6.13
1593	1593	13.87	6.24
1594	1594	13.82	6.19
1595	1595	13.86	6.23
1596	1596	13.88	6.25
1597	1597	13.81	6.18
1598	1598	13.84	6.21
1599	1599	13.84	6.21
1600	1600	13.87	6.24
1601	1601	13.85	6.22
1602	1602	13.83	6.20
1603	1603	13.83	6.20
1604	1604	13.84	6.21
1605	1605	13.81	6.18
1606	1606	13.84	6.21
1607	1607	13.85	6.22
1608	1608	13.84	6.21
1609	1609	13.79	6.16
1610	1610	13.88	6.25
1611	1611	13.82	6.19
1612	1612	13.82	6.19
1613	1613	13.83	6.20
1614	1614	13.83	6.20
1615	1615	13.80	6.17
1616	1616	13.82	6.19
1617	1617	13.81	6.18
1618	1618	13.85	6.22
1619	1619	13.81	6.18
1620	1620	13.81	6.18
1621	1621	13.81	6.18
1622	1622	13.85	6.22
1623	1623	13.86	6.23
1624	1624	13.81	6.18
1625	1625	13.88	6.25
1626	1626	13.86	6.23
1627	1627	13.82	6.19
1628	1628	13.86	6.23
1629	1629	13.85	6.22
1630	1630	13.85	6.22
1631	1631	13.82	6.19
1632	1632	13.84	6.21
1633	1633	13.80	6.17
1634	1634	13.82	6.19
1635	1635	13.81	6.18
1636	1636	13.83	6.20
1637	1637	13.85	6.22
1638	1638	13.87	6.24
1639	1639	13.87	6.24
1640	1640	13.84	6.21
1641	1641	13.85	6.22
1642	1642	13.86	6.23
1643	1643	13.84	6.21
1644	1644	13.82	6.19
1645	1645	13.82	6.19
1646	1646	13.86	6.23
1647	1647	13.82	6.19
1648	1648	13.86	6.23



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Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1649	1649	13.83	6.20
1650	1650	13.87	6.24
1651	1651	13.86	6.23
1652	1652	13.83	6.20
1653	1653	13.87	6.24
1654	1654	13.84	6.21
1655	1655	13.86	6.23
1656	1656	13.79	6.16
1657	1657	13.88	6.25
1658	1658	13.85	6.22
1659	1659	13.83	6.20
1660	1660	13.83	6.20
1661	1661	13.85	6.22
1662	1662	13.84	6.21
1663	1663	13.84	6.21
1664	1664	13.83	6.20
1665	1665	13.89	6.26
1666	1666	13.81	6.18
1667	1667	13.83	6.20
1668	1668	13.81	6.18
1669	1669	13.78	6.15
1670	1670	13.85	6.22
1671	1671	13.87	6.24
1672	1672	13.79	6.16
1673	1673	13.84	6.21
1674	1674	13.85	6.22
1675	1675	13.84	6.21
1676	1676	13.83	6.20
1677	1677	13.87	6.24
1678	1678	13.87	6.24
1679	1679	13.85	6.22
1680	1680	13.88	6.25
1681	1681	13.83	6.20
1682	1682	13.87	6.24
1683	1683	13.86	6.23
1684	1684	13.84	6.21
1685	1685	13.78	6.15
1686	1686	13.87	6.24
1687	1687	13.84	6.21
1688	1688	13.76	6.13
1689	1689	13.84	6.21
1690	1690	13.84	6.21
1691	1691	13.85	6.22
1692	1692	13.85	6.22
1693	1693	13.83	6.20
1694	1694	13.85	6.22
1695	1695	13.89	6.26
1696	1696	13.87	6.24
1697	1697	13.87	6.24
1698	1698	13.84	6.21
1699	1699	13.83	6.20
1700	1700	13.75	6.12
1701	1701	13.87	6.24
1702	1702	13.88	6.25
1703	1703	13.87	6.24
1704	1704	13.80	6.17
1705	1705	13.82	6.19



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	Time [min]	Water Level [m]	Drawdown [m]
1706	1706	13.86	6.23
1707	1707	13.84	6.21
1708	1708	13.83	6.20
1709	1709	13.85	6.22
1710	1710	13.86	6.23
1711	1711	13.84	6.21
1712	1712	13.88	6.25
1713	1713	13.83	6.20
1714	1714	13.90	6.27
1715	1715	13.81	6.18
1716	1716	13.86	6.23
1717	1717	13.85	6.22
1718	1718	13.85	6.22
1719	1719	13.87	6.24
1720	1720	13.82	6.19
1721	1721	13.86	6.23
1722	1722	13.82	6.19
1723	1723	13.84	6.21
1724	1724	13.86	6.23
1725	1725	13.83	6.20
1726	1726	13.86	6.23
1727	1727	13.83	6.20
1728	1728	13.80	6.17
1729	1729	13.87	6.24
1730	1730	13.88	6.25
1731	1731	13.87	6.24
1732	1732	13.88	6.25
1733	1733	13.87	6.24
1734	1734	13.85	6.22
1735	1735	13.86	6.23
1736	1736	13.84	6.21
1737	1737	13.88	6.25
1738	1738	13.81	6.18
1739	1739	13.87	6.24
1740	1740	13.89	6.26
1741	1741	13.85	6.22
1742	1742	13.86	6.23
1743	1743	13.92	6.29
1744	1744	13.92	6.29
1745	1745	13.86	6.23
1746	1746	13.81	6.18
1747	1747	13.83	6.20
1748	1748	13.85	6.22
1749	1749	13.82	6.19
1750	1750	13.88	6.25
1751	1751	13.87	6.24
1752	1752	13.84	6.21
1753	1753	13.83	6.20
1754	1754	13.88	6.25
1755	1755	13.85	6.22
1756	1756	13.88	6.25
1757	1757	13.85	6.22
1758	1758	13.84	6.21
1759	1759	13.87	6.24
1760	1760	13.87	6.24
1761	1761	13.85	6.22
1762	1762	13.81	6.18



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Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1763	1763	13.92	6.29
1764	1764	13.87	6.24
1765	1765	13.86	6.23
1766	1766	13.80	6.17
1767	1767	13.83	6.20
1768	1768	13.90	6.27
1769	1769	13.84	6.21
1770	1770	13.82	6.19
1771	1771	13.92	6.29
1772	1772	13.87	6.24
1773	1773	13.87	6.24
1774	1774	13.89	6.26
1775	1775	13.87	6.24
1776	1776	13.85	6.22
1777	1777	13.84	6.21
1778	1778	13.88	6.25
1779	1779	13.89	6.26
1780	1780	13.87	6.24
1781	1781	13.82	6.19
1782	1782	13.93	6.30
1783	1783	13.86	6.23
1784	1784	13.87	6.24
1785	1785	13.83	6.20
1786	1786	13.87	6.24
1787	1787	13.91	6.28
1788	1788	13.84	6.21
1789	1789	13.84	6.21
1790	1790	13.85	6.22
1791	1791	13.86	6.23
1792	1792	13.84	6.21
1793	1793	13.87	6.24
1794	1794	13.87	6.24
1795	1795	13.82	6.19
1796	1796	13.85	6.22
1797	1797	13.88	6.25
1798	1798	13.88	6.25
1799	1799	13.83	6.20
1800	1800	13.84	6.21
1801	1801	13.88	6.25
1802	1802	13.80	6.17
1803	1803	13.88	6.25
1804	1804	13.86	6.23
1805	1805	13.86	6.23
1806	1806	13.87	6.24
1807	1807	13.87	6.24
1808	1808	13.90	6.27
1809	1809	13.87	6.24
1810	1810	13.85	6.22
1811	1811	13.81	6.18
1812	1812	13.87	6.24
1813	1813	13.83	6.20
1814	1814	13.83	6.20
1815	1815	13.84	6.21
1816	1816	13.81	6.18
1817	1817	13.84	6.21
1818	1818	13.84	6.21
1819	1819	13.85	6.22



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	Time [min]	Water Level [m]	Drawdown [m]
1820	1820	13.86	6.23
1821	1821	13.89	6.26
1822	1822	13.85	6.22
1823	1823	13.87	6.24
1824	1824	13.84	6.21
1825	1825	13.89	6.26
1826	1826	13.87	6.24
1827	1827	13.81	6.18
1828	1828	13.87	6.24
1829	1829	13.86	6.23
1830	1830	13.89	6.26
1831	1831	13.88	6.25
1832	1832	13.87	6.24
1833	1833	13.84	6.21
1834	1834	13.85	6.22
1835	1835	13.83	6.20
1836	1836	13.86	6.23
1837	1837	13.92	6.29
1838	1838	13.80	6.17
1839	1839	13.84	6.21
1840	1840	13.86	6.23
1841	1841	13.81	6.18
1842	1842	13.88	6.25
1843	1843	13.87	6.24
1844	1844	13.88	6.25
1845	1845	13.86	6.23
1846	1846	13.81	6.18
1847	1847	13.85	6.22
1848	1848	13.87	6.24
1849	1849	13.86	6.23
1850	1850	13.87	6.24
1851	1851	13.84	6.21
1852	1852	13.87	6.24
1853	1853	13.86	6.23
1854	1854	13.85	6.22
1855	1855	13.87	6.24
1856	1856	13.82	6.19
1857	1857	13.84	6.21
1858	1858	13.83	6.20
1859	1859	13.87	6.24
1860	1860	13.84	6.21
1861	1861	13.91	6.28
1862	1862	13.87	6.24
1863	1863	13.83	6.20
1864	1864	13.87	6.24
1865	1865	13.88	6.25
1866	1866	13.84	6.21
1867	1867	13.88	6.25
1868	1868	13.85	6.22
1869	1869	13.86	6.23
1870	1870	13.88	6.25
1871	1871	13.89	6.26
1872	1872	13.87	6.24
1873	1873	13.87	6.24
1874	1874	13.89	6.26
1875	1875	13.87	6.24
1876	1876	13.87	6.24



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	Time [min]	Water Level [m]	Drawdown [m]
1877	1877	13.83	6.20
1878	1878	13.87	6.24
1879	1879	13.86	6.23
1880	1880	13.84	6.21
1881	1881	13.80	6.17
1882	1882	13.88	6.25
1883	1883	13.87	6.24
1884	1884	13.80	6.17
1885	1885	13.85	6.22
1886	1886	13.82	6.19
1887	1887	13.90	6.27
1888	1888	13.86	6.23
1889	1889	13.89	6.26
1890	1890	13.85	6.22
1891	1891	13.86	6.23
1892	1892	13.88	6.25
1893	1893	13.91	6.28
1894	1894	13.83	6.20
1895	1895	13.88	6.25
1896	1896	13.84	6.21
1897	1897	13.86	6.23
1898	1898	13.85	6.22
1899	1899	13.84	6.21
1900	1900	13.84	6.21
1901	1901	13.89	6.26
1902	1902	13.84	6.21
1903	1903	13.88	6.25
1904	1904	13.84	6.21
1905	1905	13.87	6.24
1906	1906	13.80	6.17
1907	1907	13.88	6.25
1908	1908	13.88	6.25
1909	1909	13.88	6.25
1910	1910	13.86	6.23
1911	1911	13.82	6.19
1912	1912	13.86	6.23
1913	1913	13.83	6.20
1914	1914	13.86	6.23
1915	1915	13.88	6.25
1916	1916	13.90	6.27
1917	1917	13.84	6.21
1918	1918	13.80	6.17
1919	1919	13.85	6.22
1920	1920	13.83	6.20
1921	1921	13.92	6.29
1922	1922	13.88	6.25
1923	1923	13.86	6.23
1924	1924	13.86	6.23
1925	1925	13.89	6.26
1926	1926	13.83	6.20
1927	1927	13.83	6.20
1928	1928	13.87	6.24
1929	1929	13.87	6.24
1930	1930	13.81	6.18
1931	1931	13.84	6.21
1932	1932	13.87	6.24
1933	1933	13.85	6.22



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	Time [min]	Water Level [m]	Drawdown [m]
1934	1934	13.86	6.23
1935	1935	13.87	6.24
1936	1936	13.86	6.23
1937	1937	13.83	6.20
1938	1938	13.87	6.24
1939	1939	13.87	6.24
1940	1940	13.86	6.23
1941	1941	13.85	6.22
1942	1942	13.85	6.22
1943	1943	13.91	6.28
1944	1944	13.88	6.25
1945	1945	13.85	6.22
1946	1946	13.87	6.24
1947	1947	13.87	6.24
1948	1948	13.87	6.24
1949	1949	13.91	6.28
1950	1950	13.90	6.27
1951	1951	13.89	6.26
1952	1952	13.87	6.24
1953	1953	13.87	6.24
1954	1954	13.88	6.25
1955	1955	13.89	6.26
1956	1956	13.86	6.23
1957	1957	13.89	6.26
1958	1958	13.90	6.27
1959	1959	13.89	6.26
1960	1960	13.87	6.24
1961	1961	13.85	6.22
1962	1962	13.84	6.21
1963	1963	13.86	6.23
1964	1964	13.87	6.24
1965	1965	13.88	6.25
1966	1966	13.82	6.19
1967	1967	13.87	6.24
1968	1968	13.83	6.20
1969	1969	13.90	6.27
1970	1970	13.89	6.26
1971	1971	13.90	6.27
1972	1972	13.89	6.26
1973	1973	13.83	6.20
1974	1974	13.89	6.26
1975	1975	13.87	6.24
1976	1976	13.89	6.26
1977	1977	13.90	6.27
1978	1978	13.88	6.25
1979	1979	13.85	6.22
1980	1980	13.92	6.29
1981	1981	13.87	6.24
1982	1982	13.91	6.28
1983	1983	13.93	6.30
1984	1984	13.88	6.25
1985	1985	13.87	6.24
1986	1986	13.88	6.25
1987	1987	13.87	6.24
1988	1988	13.90	6.27
1989	1989	13.92	6.29
1990	1990	13.89	6.26



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	Time [min]	Water Level [m]	Drawdown [m]
1991	1991	9.18	1.55
1992	1992	8.85	1.22
1993	1993	8.72	1.09
1994	1994	8.63	1.00
1995	1995	8.56	0.93
1996	1996	8.52	0.89
1997	1997	8.48	0.85
1998	1998	8.44	0.81
1999	1999	8.41	0.78
2000	2000	8.38	0.75
2001	2001	8.35	0.72
2002	2002	8.33	0.70
2003	2003	8.31	0.68
2004	2004	8.28	0.65
2005	2005	8.26	0.63
2006	2006	8.25	0.62
2007	2007	8.23	0.60
2008	2008	8.22	0.59
2009	2009	8.21	0.58
2010	2010	8.20	0.57
2011	2011	8.19	0.56
2012	2012	8.18	0.55
2013	2013	8.16	0.53
2014	2014	8.14	0.51
2015	2015	8.14	0.51
2016	2016	8.13	0.50
2017	2017	8.12	0.49
2018	2018	8.11	0.48
2019	2019	8.11	0.48
2020	2020	8.10	0.47
2021	2021	8.09	0.46
2022	2022	8.08	0.45
2023	2023	8.08	0.45
2024	2024	8.07	0.44
2025	2025	8.06	0.43
2026	2026	8.05	0.42
2027	2027	8.05	0.42
2028	2028	8.05	0.42
2029	2029	8.04	0.41
2030	2030	8.05	0.42
2031	2031	8.03	0.40
2032	2032	8.03	0.40
2033	2033	8.02	0.39
2034	2034	8.02	0.39
2035	2035	8.01	0.38
2036	2036	8.01	0.38
2037	2037	8.00	0.37
2038	2038	7.99	0.36
2039	2039	8.00	0.37
2040	2040	7.99	0.36
2041	2041	7.99	0.36
2042	2042	7.99	0.36
2043	2043	7.97	0.34
2044	2044	7.97	0.34
2045	2045	7.97	0.34
2046	2046	7.97	0.34
2047	2047	7.97	0.34



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	Time [min]	Water Level [m]	Drawdown [m]
2048	2048	7.97	0.34
2049	2049	7.95	0.32
2050	2050	7.96	0.33
2051	2051	7.96	0.33
2052	2052	7.95	0.32
2053	2053	7.94	0.31
2054	2054	7.94	0.31
2055	2055	7.94	0.31
2056	2056	7.93	0.30
2057	2057	7.93	0.30
2058	2058	7.93	0.30
2059	2059	7.93	0.30
2060	2060	7.93	0.30
2061	2061	7.93	0.30
2062	2062	7.93	0.30
2063	2063	7.92	0.29
2064	2064	7.92	0.29
2065	2065	7.92	0.29
2066	2066	7.92	0.29
2067	2067	7.91	0.28
2068	2068	7.91	0.28
2069	2069	7.91	0.28
2070	2070	7.90	0.27
2071	2071	7.90	0.27
2072	2072	7.91	0.28
2073	2073	7.90	0.27
2074	2074	7.89	0.26
2075	2075	7.89	0.26
2076	2076	7.90	0.27
2077	2077	7.89	0.26
2078	2078	7.88	0.25
2079	2079	7.89	0.26
2080	2080	7.88	0.25
2081	2081	7.88	0.25
2082	2082	7.88	0.25
2083	2083	7.88	0.25
2084	2084	7.88	0.25
2085	2085	7.88	0.25
2086	2086	7.88	0.25
2087	2087	7.87	0.24
2088	2088	7.87	0.24
2089	2089	7.87	0.24
2090	2090	7.86	0.23
2091	2091	7.86	0.23
2092	2092	7.86	0.23
2093	2093	7.86	0.23
2094	2094	7.86	0.23
2095	2095	7.85	0.22
2096	2096	7.85	0.22
2097	2097	7.85	0.22
2098	2098	7.85	0.22
2099	2099	7.84	0.21
2100	2100	7.84	0.21
2101	2101	7.85	0.22
2102	2102	7.85	0.22
2103	2103	7.84	0.21
2104	2104	7.85	0.22



Waterdirect
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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2105	2105	7.84	0.21
2106	2106	7.84	0.21
2107	2107	7.85	0.22
2108	2108	7.83	0.20
2109	2109	7.83	0.20
2110	2110	7.85	0.22
2111	2111	7.83	0.20
2112	2112	7.83	0.20
2113	2113	7.84	0.21
2114	2114	7.83	0.20
2115	2115	7.83	0.20
2116	2116	7.82	0.19
2117	2117	7.83	0.20
2118	2118	7.82	0.19
2119	2119	7.82	0.19
2120	2120	7.82	0.19
2121	2121	7.81	0.18
2122	2122	7.82	0.19
2123	2123	7.82	0.19
2124	2124	7.82	0.19
2125	2125	7.82	0.19
2126	2126	7.82	0.19
2127	2127	7.82	0.19
2128	2128	7.82	0.19
2129	2129	7.82	0.19
2130	2130	7.81	0.18
2131	2131	7.81	0.18
2132	2132	7.82	0.19
2133	2133	7.80	0.17
2134	2134	7.81	0.18
2135	2135	7.81	0.18
2136	2136	7.81	0.18
2137	2137	7.81	0.18
2138	2138	7.81	0.18
2139	2139	7.81	0.18
2140	2140	7.80	0.17
2141	2141	7.80	0.17
2142	2142	7.81	0.18
2143	2143	7.80	0.17
2144	2144	7.80	0.17
2145	2145	7.79	0.16
2146	2146	7.79	0.16
2147	2147	7.79	0.16
2148	2148	7.79	0.16
2149	2149	7.79	0.16
2150	2150	7.79	0.16
2151	2151	7.79	0.16
2152	2152	7.78	0.15
2153	2153	7.79	0.16
2154	2154	7.79	0.16
2155	2155	7.79	0.16
2156	2156	7.79	0.16
2157	2157	7.79	0.16
2158	2158	7.79	0.16
2159	2159	7.79	0.16
2160	2160	7.79	0.16
2161	2161	7.78	0.15



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Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2162	2162	7.79	0.16
2163	2163	7.79	0.16
2164	2164	7.78	0.15
2165	2165	7.78	0.15
2166	2166	7.78	0.15
2167	2167	7.78	0.15
2168	2168	7.78	0.15
2169	2169	7.78	0.15
2170	2170	7.78	0.15
2171	2171	7.77	0.14
2172	2172	7.78	0.15
2173	2173	7.78	0.15
2174	2174	7.78	0.15
2175	2175	7.77	0.14
2176	2176	7.77	0.14
2177	2177	7.77	0.14
2178	2178	7.76	0.13
2179	2179	7.77	0.14
2180	2180	7.76	0.13
2181	2181	7.76	0.13
2182	2182	7.76	0.13
2183	2183	7.77	0.14
2184	2184	7.76	0.13
2185	2185	7.77	0.14
2186	2186	7.77	0.14
2187	2187	7.76	0.13
2188	2188	7.77	0.14
2189	2189	7.77	0.14
2190	2190	7.77	0.14
2191	2191	7.76	0.13
2192	2192	7.77	0.14
2193	2193	7.76	0.13
2194	2194	7.77	0.14
2195	2195	7.76	0.13
2196	2196	7.76	0.13
2197	2197	7.76	0.13
2198	2198	7.76	0.13
2199	2199	7.76	0.13
2200	2200	7.76	0.13
2201	2201	7.76	0.13
2202	2202	7.76	0.13
2203	2203	7.76	0.13
2204	2204	7.76	0.13
2205	2205	7.76	0.13
2206	2206	7.75	0.12
2207	2207	7.75	0.12
2208	2208	7.75	0.12
2209	2209	7.74	0.11
2210	2210	7.74	0.11
2211	2211	7.75	0.12
2212	2212	7.74	0.11
2213	2213	7.75	0.12
2214	2214	7.74	0.11
2215	2215	7.74	0.11
2216	2216	7.74	0.11
2217	2217	7.75	0.12
2218	2218	7.75	0.12



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2219	2219	7.76	0.13
2220	2220	7.75	0.12
2221	2221	7.74	0.11
2222	2222	7.74	0.11
2223	2223	7.75	0.12
2224	2224	7.74	0.11
2225	2225	7.74	0.11
2226	2226	7.74	0.11
2227	2227	7.74	0.11
2228	2228	7.74	0.11
2229	2229	7.74	0.11
2230	2230	7.74	0.11
2231	2231	7.74	0.11
2232	2232	7.74	0.11
2233	2233	7.74	0.11
2234	2234	7.74	0.11
2235	2235	7.75	0.12
2236	2236	7.74	0.11
2237	2237	7.74	0.11
2238	2238	7.74	0.11
2239	2239	7.73	0.10
2240	2240	7.74	0.11
2241	2241	7.74	0.11
2242	2242	7.74	0.11
2243	2243	7.74	0.11
2244	2244	7.74	0.11
2245	2245	7.74	0.11
2246	2246	7.74	0.11
2247	2247	7.74	0.11
2248	2248	7.73	0.10
2249	2249	7.73	0.10
2250	2250	7.73	0.10
2251	2251	7.73	0.10
2252	2252	7.72	0.09
2253	2253	7.73	0.10
2254	2254	7.74	0.11
2255	2255	7.74	0.11
2256	2256	7.73	0.10
2257	2257	7.73	0.10
2258	2258	7.73	0.10
2259	2259	7.73	0.10
2260	2260	7.73	0.10
2261	2261	7.73	0.10
2262	2262	7.72	0.09
2263	2263	7.73	0.10
2264	2264	7.73	0.10
2265	2265	7.73	0.10
2266	2266	7.73	0.10
2267	2267	7.72	0.09
2268	2268	7.73	0.10
2269	2269	7.72	0.09
2270	2270	7.73	0.10
2271	2271	7.73	0.10
2272	2272	7.73	0.10
2273	2273	7.73	0.10
2274	2274	7.72	0.09
2275	2275	7.73	0.10



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2276	2276	7.73	0.10
2277	2277	7.73	0.10
2278	2278	7.73	0.10
2279	2279	7.73	0.10
2280	2280	7.72	0.09
2281	2281	7.72	0.09
2282	2282	7.72	0.09
2283	2283	7.72	0.09
2284	2284	7.72	0.09
2285	2285	7.72	0.09
2286	2286	7.71	0.08
2287	2287	7.72	0.09
2288	2288	7.72	0.09
2289	2289	7.71	0.08
2290	2290	7.72	0.09
2291	2291	7.72	0.09
2292	2292	7.72	0.09
2293	2293	7.72	0.09
2294	2294	7.72	0.09
2295	2295	7.70	0.07
2296	2296	7.71	0.08
2297	2297	7.71	0.08
2298	2298	7.71	0.08
2299	2299	7.72	0.09
2300	2300	7.71	0.08
2301	2301	7.72	0.09
2302	2302	7.72	0.09
2303	2303	7.71	0.08
2304	2304	7.72	0.09
2305	2305	7.71	0.08
2306	2306	7.71	0.08
2307	2307	7.72	0.09
2308	2308	7.72	0.09
2309	2309	7.71	0.08
2310	2310	7.71	0.08
2311	2311	7.71	0.08
2312	2312	7.71	0.08
2313	2313	7.71	0.08
2314	2314	7.71	0.08
2315	2315	7.71	0.08
2316	2316	7.71	0.08
2317	2317	7.71	0.08
2318	2318	7.71	0.08
2319	2319	7.71	0.08
2320	2320	7.71	0.08
2321	2321	7.71	0.08
2322	2322	7.71	0.08
2323	2323	7.71	0.08
2324	2324	7.71	0.08
2325	2325	7.71	0.08
2326	2326	7.71	0.08
2327	2327	7.71	0.08
2328	2328	7.72	0.09
2329	2329	7.71	0.08
2330	2330	7.71	0.08
2331	2331	7.71	0.08
2332	2332	7.71	0.08



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2333	2333	7.70	0.07
2334	2334	7.70	0.07
2335	2335	7.71	0.08
2336	2336	7.71	0.08
2337	2337	7.70	0.07
2338	2338	7.69	0.06
2339	2339	7.70	0.07
2340	2340	7.71	0.08
2341	2341	7.71	0.08
2342	2342	7.70	0.07
2343	2343	7.70	0.07
2344	2344	7.70	0.07
2345	2345	7.70	0.07
2346	2346	7.70	0.07
2347	2347	7.69	0.06
2348	2348	7.71	0.08
2349	2349	7.70	0.07
2350	2350	7.70	0.07
2351	2351	7.71	0.08
2352	2352	7.71	0.08
2353	2353	7.71	0.08
2354	2354	7.71	0.08
2355	2355	7.69	0.06
2356	2356	7.70	0.07
2357	2357	7.71	0.08
2358	2358	7.71	0.08
2359	2359	7.70	0.07
2360	2360	7.70	0.07
2361	2361	7.70	0.07
2362	2362	7.71	0.08
2363	2363	7.71	0.08
2364	2364	7.69	0.06
2365	2365	7.70	0.07
2366	2366	7.70	0.07
2367	2367	7.70	0.07
2368	2368	7.70	0.07
2369	2369	7.69	0.06
2370	2370	7.71	0.08
2371	2371	7.71	0.08
2372	2372	7.70	0.07
2373	2373	7.70	0.07
2374	2374	7.71	0.08
2375	2375	7.70	0.07
2376	2376	7.70	0.07
2377	2377	7.71	0.08
2378	2378	7.70	0.07
2379	2379	7.70	0.07
2380	2380	7.70	0.07
2381	2381	7.70	0.07
2382	2382	7.71	0.08
2383	2383	7.69	0.06
2384	2384	7.69	0.06
2385	2385	7.70	0.07
2386	2386	7.69	0.06
2387	2387	7.70	0.07
2388	2388	7.69	0.06
2389	2389	7.70	0.07



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2390	2390	7.70	0.07
2391	2391	7.70	0.07
2392	2392	7.71	0.08
2393	2393	7.70	0.07
2394	2394	7.71	0.08
2395	2395	7.69	0.06
2396	2396	7.70	0.07
2397	2397	7.70	0.07
2398	2398	7.70	0.07
2399	2399	7.70	0.07
2400	2400	7.70	0.07



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

Location: VRX North	Pumping Test: YPB1	Pumping Well: YPB1
Test Conducted by: Western Irrigations	Test Date: 10-Mar-22	Discharge Rate: 32 [l/s]
Observation Well: YMB1	Static Water Level [m]: 8.34	Radial Distance to PW [m]: 6000.02

	Time [min]	Water Level [m]	Drawdown [m]
1	1	9.25	0.91
2	2	9.43	1.09
3	3	9.54	1.20
4	4	9.60	1.26
5	5	9.67	1.33
6	6	9.70	1.36
7	7	9.75	1.41
8	8	9.78	1.44
9	9	9.82	1.48
10	10	9.84	1.50
11	11	9.86	1.52
12	12	9.88	1.54
13	13	9.90	1.56
14	14	9.92	1.58
15	15	9.95	1.61
16	16	9.97	1.63
17	17	9.99	1.65
18	18	10.00	1.66
19	19	10.02	1.68
20	20	10.03	1.69
21	21	10.04	1.70
22	22	10.05	1.71
23	23	10.06	1.72
24	24	10.07	1.73
25	25	10.07	1.73
26	26	10.09	1.75
27	27	10.11	1.77
28	28	10.11	1.77
29	29	10.12	1.78
30	30	10.13	1.79
31	31	10.15	1.81
32	32	10.15	1.81
33	33	10.16	1.82
34	34	10.16	1.82
35	35	10.17	1.83
36	36	10.17	1.83
37	37	10.18	1.84
38	38	10.19	1.85
39	39	10.19	1.85
40	40	10.20	1.86
41	41	10.20	1.86
42	42	10.22	1.88
43	43	10.22	1.88
44	44	10.23	1.89
45	45	10.23	1.89
46	46	10.24	1.90
47	47	10.24	1.90
48	48	10.24	1.90
49	49	10.24	1.90
50	50	10.25	1.91
51	51	10.26	1.92
52	52	10.26	1.92



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
53	53	10.28	1.94
54	54	10.29	1.95
55	55	10.29	1.95
56	56	10.30	1.96
57	57	10.30	1.96
58	58	10.30	1.96
59	59	10.30	1.96
60	60	10.30	1.96
61	61	10.31	1.97
62	62	10.31	1.97
63	63	10.32	1.98
64	64	10.32	1.98
65	65	10.32	1.98
66	66	10.33	1.99
67	67	10.34	2.00
68	68	10.34	2.00
69	69	10.35	2.01
70	70	10.35	2.01
71	71	10.35	2.01
72	72	10.35	2.01
73	73	10.35	2.01
74	74	10.35	2.01
75	75	10.36	2.02
76	76	10.37	2.03
77	77	10.37	2.03
78	78	10.37	2.03
79	79	10.37	2.03
80	80	10.37	2.03
81	81	10.39	2.05
82	82	10.38	2.04
83	83	10.39	2.05
84	84	10.39	2.05
85	85	10.40	2.06
86	86	10.40	2.06
87	87	10.40	2.06
88	88	10.40	2.06
89	89	10.40	2.06
90	90	10.41	2.07
91	91	10.41	2.07
92	92	10.41	2.07
93	93	10.41	2.07
94	94	10.43	2.09
95	95	10.43	2.09
96	96	10.43	2.09
97	97	10.43	2.09
98	98	10.43	2.09
99	99	10.44	2.10
100	100	10.44	2.10
101	101	10.44	2.10
102	102	10.44	2.10
103	103	10.45	2.11
104	104	10.45	2.11
105	105	10.45	2.11
106	106	10.45	2.11
107	107	10.45	2.11
108	108	10.46	2.12
109	109	10.46	2.12



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
110	110	10.46	2.12
111	111	10.46	2.12
112	112	10.46	2.12
113	113	10.46	2.12
114	114	10.47	2.13
115	115	10.46	2.12
116	116	10.47	2.13
117	117	10.48	2.14
118	118	10.48	2.14
119	119	10.48	2.14
120	120	10.48	2.14
121	121	10.48	2.14
122	122	10.49	2.15
123	123	10.48	2.14
124	124	10.48	2.14
125	125	10.49	2.15
126	126	10.49	2.15
127	127	10.49	2.15
128	128	10.49	2.15
129	129	10.50	2.16
130	130	10.49	2.15
131	131	10.50	2.16
132	132	10.50	2.16
133	133	10.50	2.16
134	134	10.49	2.15
135	135	10.50	2.16
136	136	10.50	2.16
137	137	10.50	2.16
138	138	10.50	2.16
139	139	10.50	2.16
140	140	10.51	2.17
141	141	10.51	2.17
142	142	10.52	2.18
143	143	10.52	2.18
144	144	10.52	2.18
145	145	10.52	2.18
146	146	10.53	2.19
147	147	10.53	2.19
148	148	10.53	2.19
149	149	10.53	2.19
150	150	10.53	2.19
151	151	10.53	2.19
152	152	10.54	2.20
153	153	10.54	2.20
154	154	10.53	2.19
155	155	10.53	2.19
156	156	10.54	2.20
157	157	10.54	2.20
158	158	10.54	2.20
159	159	10.55	2.21
160	160	10.54	2.20
161	161	10.55	2.21
162	162	10.55	2.21
163	163	10.55	2.21
164	164	10.55	2.21
165	165	10.55	2.21
166	166	10.56	2.22



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
167	167	10.56	2.22
168	168	10.57	2.23
169	169	10.57	2.23
170	170	10.55	2.21
171	171	10.57	2.23
172	172	10.57	2.23
173	173	10.57	2.23
174	174	10.58	2.24
175	175	10.58	2.24
176	176	10.57	2.23
177	177	10.57	2.23
178	178	10.57	2.23
179	179	10.57	2.23
180	180	10.57	2.23
181	181	10.57	2.23
182	182	10.58	2.24
183	183	10.58	2.24
184	184	10.58	2.24
185	185	10.58	2.24
186	186	10.58	2.24
187	187	10.58	2.24
188	188	10.59	2.25
189	189	10.58	2.24
190	190	10.58	2.24
191	191	10.58	2.24
192	192	10.58	2.24
193	193	10.58	2.24
194	194	10.58	2.24
195	195	10.59	2.25
196	196	10.58	2.24
197	197	10.59	2.25
198	198	10.58	2.24
199	199	10.59	2.25
200	200	10.59	2.25
201	201	10.59	2.25
202	202	10.60	2.26
203	203	10.59	2.25
204	204	10.60	2.26
205	205	10.60	2.26
206	206	10.60	2.26
207	207	10.61	2.27
208	208	10.61	2.27
209	209	10.61	2.27
210	210	10.61	2.27
211	211	10.61	2.27
212	212	10.61	2.27
213	213	10.61	2.27
214	214	10.61	2.27
215	215	10.60	2.26
216	216	10.62	2.28
217	217	10.62	2.28
218	218	10.61	2.27
219	219	10.61	2.27
220	220	10.61	2.27
221	221	10.61	2.27
222	222	10.61	2.27
223	223	10.62	2.28



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
224	224	10.62	2.28
225	225	10.62	2.28
226	226	10.62	2.28
227	227	10.63	2.29
228	228	10.62	2.28
229	229	10.62	2.28
230	230	10.62	2.28
231	231	10.62	2.28
232	232	10.63	2.29
233	233	10.63	2.29
234	234	10.62	2.28
235	235	10.63	2.29
236	236	10.63	2.29
237	237	10.63	2.29
238	238	10.64	2.30
239	239	10.64	2.30
240	240	10.64	2.30
241	241	10.64	2.30
242	242	10.65	2.31
243	243	10.63	2.29
244	244	10.64	2.30
245	245	10.64	2.30
246	246	10.64	2.30
247	247	10.64	2.30
248	248	10.63	2.29
249	249	10.64	2.30
250	250	10.63	2.29
251	251	10.64	2.30
252	252	10.64	2.30
253	253	10.64	2.30
254	254	10.64	2.30
255	255	10.65	2.31
256	256	10.65	2.31
257	257	10.65	2.31
258	258	10.65	2.31
259	259	10.66	2.32
260	260	10.67	2.33
261	261	10.67	2.33
262	262	10.66	2.32
263	263	10.66	2.32
264	264	10.66	2.32
265	265	10.66	2.32
266	266	10.66	2.32
267	267	10.67	2.33
268	268	10.66	2.32
269	269	10.66	2.32
270	270	10.67	2.33
271	271	10.66	2.32
272	272	10.67	2.33
273	273	10.65	2.31
274	274	10.67	2.33
275	275	10.67	2.33
276	276	10.67	2.33
277	277	10.67	2.33
278	278	10.65	2.31
279	279	10.67	2.33
280	280	10.67	2.33



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
281	281	10.68	2.34
282	282	10.68	2.34
283	283	10.67	2.33
284	284	10.68	2.34
285	285	10.68	2.34
286	286	10.67	2.33
287	287	10.67	2.33
288	288	10.67	2.33
289	289	10.68	2.34
290	290	10.68	2.34
291	291	10.69	2.35
292	292	10.68	2.34
293	293	10.69	2.35
294	294	10.68	2.34
295	295	10.68	2.34
296	296	10.68	2.34
297	297	10.68	2.34
298	298	10.68	2.34
299	299	10.68	2.34
300	300	10.68	2.34
301	301	10.69	2.35
302	302	10.69	2.35
303	303	10.69	2.35
304	304	10.69	2.35
305	305	10.69	2.35
306	306	10.69	2.35
307	307	10.69	2.35
308	308	10.69	2.35
309	309	10.69	2.35
310	310	10.69	2.35
311	311	10.69	2.35
312	312	10.69	2.35
313	313	10.69	2.35
314	314	10.71	2.37
315	315	10.70	2.36
316	316	10.69	2.35
317	317	10.69	2.35
318	318	10.70	2.36
319	319	10.71	2.37
320	320	10.71	2.37
321	321	10.71	2.37
322	322	10.71	2.37
323	323	10.71	2.37
324	324	10.71	2.37
325	325	10.72	2.38
326	326	10.71	2.37
327	327	10.72	2.38
328	328	10.72	2.38
329	329	10.71	2.37
330	330	10.71	2.37
331	331	10.71	2.37
332	332	10.72	2.38
333	333	10.71	2.37
334	334	10.72	2.38
335	335	10.72	2.38
336	336	10.72	2.38
337	337	10.72	2.38



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
338	338	10.71	2.37
339	339	10.72	2.38
340	340	10.71	2.37
341	341	10.72	2.38
342	342	10.71	2.37
343	343	10.72	2.38
344	344	10.72	2.38
345	345	10.72	2.38
346	346	10.72	2.38
347	347	10.72	2.38
348	348	10.72	2.38
349	349	10.72	2.38
350	350	10.71	2.37
351	351	10.72	2.38
352	352	10.72	2.38
353	353	10.72	2.38
354	354	10.72	2.38
355	355	10.72	2.38
356	356	10.72	2.38
357	357	10.72	2.38
358	358	10.73	2.39
359	359	10.72	2.38
360	360	10.72	2.38
361	361	10.72	2.38
362	362	10.72	2.38
363	363	10.72	2.38
364	364	10.73	2.39
365	365	10.72	2.38
366	366	10.72	2.38
367	367	10.73	2.39
368	368	10.73	2.39
369	369	10.73	2.39
370	370	10.72	2.38
371	371	10.73	2.39
372	372	10.73	2.39
373	373	10.72	2.38
374	374	10.73	2.39
375	375	10.73	2.39
376	376	10.73	2.39
377	377	10.74	2.40
378	378	10.74	2.40
379	379	10.74	2.40
380	380	10.73	2.39
381	381	10.73	2.39
382	382	10.74	2.40
383	383	10.74	2.40
384	384	10.74	2.40
385	385	10.74	2.40
386	386	10.73	2.39
387	387	10.74	2.40
388	388	10.74	2.40
389	389	10.74	2.40
390	390	10.74	2.40
391	391	10.74	2.40
392	392	10.74	2.40
393	393	10.74	2.40
394	394	10.74	2.40



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
395	395	10.76	2.42
396	396	10.76	2.42
397	397	10.76	2.42
398	398	10.74	2.40
399	399	10.75	2.41
400	400	10.75	2.41
401	401	10.74	2.40
402	402	10.76	2.42
403	403	10.76	2.42
404	404	10.76	2.42
405	405	10.77	2.43
406	406	10.76	2.42
407	407	10.76	2.42
408	408	10.75	2.41
409	409	10.75	2.41
410	410	10.75	2.41
411	411	10.75	2.41
412	412	10.75	2.41
413	413	10.75	2.41
414	414	10.76	2.42
415	415	10.76	2.42
416	416	10.77	2.43
417	417	10.77	2.43
418	418	10.78	2.44
419	419	10.77	2.43
420	420	10.77	2.43
421	421	10.76	2.42
422	422	10.76	2.42
423	423	10.76	2.42
424	424	10.76	2.42
425	425	10.76	2.42
426	426	10.76	2.42
427	427	10.76	2.42
428	428	10.76	2.42
429	429	10.76	2.42
430	430	10.75	2.41
431	431	10.76	2.42
432	432	10.75	2.41
433	433	10.76	2.42
434	434	10.77	2.43
435	435	10.75	2.41
436	436	10.76	2.42
437	437	10.76	2.42
438	438	10.77	2.43
439	439	10.76	2.42
440	440	10.76	2.42
441	441	10.76	2.42
442	442	10.76	2.42
443	443	10.78	2.44
444	444	10.78	2.44
445	445	10.78	2.44
446	446	10.78	2.44
447	447	10.77	2.43
448	448	10.78	2.44
449	449	10.77	2.43
450	450	10.77	2.43
451	451	10.77	2.43



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Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
452	452	10.77	2.43
453	453	10.77	2.43
454	454	10.78	2.44
455	455	10.77	2.43
456	456	10.78	2.44
457	457	10.78	2.44
458	458	10.79	2.45
459	459	10.78	2.44
460	460	10.78	2.44
461	461	10.79	2.45
462	462	10.79	2.45
463	463	10.79	2.45
464	464	10.79	2.45
465	465	10.79	2.45
466	466	10.78	2.44
467	467	10.78	2.44
468	468	10.77	2.43
469	469	10.78	2.44
470	470	10.78	2.44
471	471	10.78	2.44
472	472	10.78	2.44
473	473	10.78	2.44
474	474	10.78	2.44
475	475	10.78	2.44
476	476	10.78	2.44
477	477	10.78	2.44
478	478	10.78	2.44
479	479	10.78	2.44
480	480	10.79	2.45
481	481	10.79	2.45
482	482	10.79	2.45
483	483	10.79	2.45
484	484	10.79	2.45
485	485	10.81	2.47
486	486	10.79	2.45
487	487	10.79	2.45
488	488	10.79	2.45
489	489	10.80	2.46
490	490	10.79	2.45
491	491	10.79	2.45
492	492	10.79	2.45
493	493	10.81	2.47
494	494	10.79	2.45
495	495	10.79	2.45
496	496	10.79	2.45
497	497	10.81	2.47
498	498	10.80	2.46
499	499	10.79	2.45
500	500	10.80	2.46
501	501	10.81	2.47
502	502	10.81	2.47
503	503	10.81	2.47
504	504	10.81	2.47
505	505	10.81	2.47
506	506	10.81	2.47
507	507	10.81	2.47
508	508	10.81	2.47



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
509	509	10.81	2.47
510	510	10.81	2.47
511	511	10.81	2.47
512	512	10.81	2.47
513	513	10.81	2.47
514	514	10.81	2.47
515	515	10.81	2.47
516	516	10.81	2.47
517	517	10.81	2.47
518	518	10.81	2.47
519	519	10.81	2.47
520	520	10.80	2.46
521	521	10.81	2.47
522	522	10.81	2.47
523	523	10.81	2.47
524	524	10.82	2.48
525	525	10.81	2.47
526	526	10.81	2.47
527	527	10.82	2.48
528	528	10.82	2.48
529	529	10.82	2.48
530	530	10.81	2.47
531	531	10.82	2.48
532	532	10.82	2.48
533	533	10.82	2.48
534	534	10.82	2.48
535	535	10.82	2.48
536	536	10.82	2.48
537	537	10.82	2.48
538	538	10.82	2.48
539	539	10.83	2.49
540	540	10.83	2.49
541	541	10.83	2.49
542	542	10.82	2.48
543	543	10.82	2.48
544	544	10.83	2.49
545	545	10.83	2.49
546	546	10.82	2.48
547	547	10.83	2.49
548	548	10.83	2.49
549	549	10.83	2.49
550	550	10.82	2.48
551	551	10.82	2.48
552	552	10.83	2.49
553	553	10.82	2.48
554	554	10.82	2.48
555	555	10.83	2.49
556	556	10.82	2.48
557	557	10.83	2.49
558	558	10.82	2.48
559	559	10.83	2.49
560	560	10.84	2.50
561	561	10.83	2.49
562	562	10.83	2.49
563	563	10.83	2.49
564	564	10.82	2.48
565	565	10.83	2.49



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
566	566	10.83	2.49
567	567	10.83	2.49
568	568	10.83	2.49
569	569	10.83	2.49
570	570	10.83	2.49
571	571	10.84	2.50
572	572	10.83	2.49
573	573	10.83	2.49
574	574	10.83	2.49
575	575	10.83	2.49
576	576	10.83	2.49
577	577	10.84	2.50
578	578	10.84	2.50
579	579	10.84	2.50
580	580	10.83	2.49
581	581	10.84	2.50
582	582	10.83	2.49
583	583	10.83	2.49
584	584	10.84	2.50
585	585	10.84	2.50
586	586	10.84	2.50
587	587	10.84	2.50
588	588	10.83	2.49
589	589	10.84	2.50
590	590	10.84	2.50
591	591	10.84	2.50
592	592	10.83	2.49
593	593	10.84	2.50
594	594	10.85	2.51
595	595	10.85	2.51
596	596	10.85	2.51
597	597	10.84	2.50
598	598	10.84	2.50
599	599	10.84	2.50
600	600	10.84	2.50
601	601	10.84	2.50
602	602	10.84	2.50
603	603	10.84	2.50
604	604	10.84	2.50
605	605	10.84	2.50
606	606	10.83	2.49
607	607	10.83	2.49
608	608	10.83	2.49
609	609	10.84	2.50
610	610	10.84	2.50
611	611	10.84	2.50
612	612	10.84	2.50
613	613	10.84	2.50
614	614	10.85	2.51
615	615	10.84	2.50
616	616	10.86	2.52
617	617	10.84	2.50
618	618	10.84	2.50
619	619	10.85	2.51
620	620	10.84	2.50
621	621	10.84	2.50
622	622	10.85	2.51



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
623	623	10.85	2.51
624	624	10.84	2.50
625	625	10.85	2.51
626	626	10.85	2.51
627	627	10.85	2.51
628	628	10.85	2.51
629	629	10.84	2.50
630	630	10.85	2.51
631	631	10.86	2.52
632	632	10.85	2.51
633	633	10.86	2.52
634	634	10.85	2.51
635	635	10.86	2.52
636	636	10.85	2.51
637	637	10.86	2.52
638	638	10.85	2.51
639	639	10.85	2.51
640	640	10.85	2.51
641	641	10.85	2.51
642	642	10.85	2.51
643	643	10.85	2.51
644	644	10.85	2.51
645	645	10.85	2.51
646	646	10.85	2.51
647	647	10.85	2.51
648	648	10.85	2.51
649	649	10.85	2.51
650	650	10.85	2.51
651	651	10.85	2.51
652	652	10.84	2.50
653	653	10.84	2.50
654	654	10.85	2.51
655	655	10.85	2.51
656	656	10.84	2.50
657	657	10.86	2.52
658	658	10.85	2.51
659	659	10.84	2.50
660	660	10.85	2.51
661	661	10.85	2.51
662	662	10.85	2.51
663	663	10.85	2.51
664	664	10.85	2.51
665	665	10.85	2.51
666	666	10.85	2.51
667	667	10.85	2.51
668	668	10.86	2.52
669	669	10.85	2.51
670	670	10.85	2.51
671	671	10.85	2.51
672	672	10.85	2.51
673	673	10.85	2.51
674	674	10.85	2.51
675	675	10.85	2.51
676	676	10.86	2.52
677	677	10.85	2.51
678	678	10.85	2.51
679	679	10.86	2.52



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
680	680	10.85	2.51
681	681	10.86	2.52
682	682	10.86	2.52
683	683	10.86	2.52
684	684	10.86	2.52
685	685	10.86	2.52
686	686	10.85	2.51
687	687	10.86	2.52
688	688	10.85	2.51
689	689	10.86	2.52
690	690	10.86	2.52
691	691	10.86	2.52
692	692	10.85	2.51
693	693	10.86	2.52
694	694	10.85	2.51
695	695	10.86	2.52
696	696	10.86	2.52
697	697	10.87	2.53
698	698	10.86	2.52
699	699	10.86	2.52
700	700	10.87	2.53
701	701	10.87	2.53
702	702	10.86	2.52
703	703	10.86	2.52
704	704	10.86	2.52
705	705	10.87	2.53
706	706	10.86	2.52
707	707	10.86	2.52
708	708	10.87	2.53
709	709	10.86	2.52
710	710	10.87	2.53
711	711	10.86	2.52
712	712	10.86	2.52
713	713	10.86	2.52
714	714	10.87	2.53
715	715	10.86	2.52
716	716	10.86	2.52
717	717	10.87	2.53
718	718	10.86	2.52
719	719	10.87	2.53
720	720	10.87	2.53
721	721	10.87	2.53
722	722	10.86	2.52
723	723	10.86	2.52
724	724	10.86	2.52
725	725	10.87	2.53
726	726	10.87	2.53
727	727	10.86	2.52
728	728	10.87	2.53
729	729	10.87	2.53
730	730	10.87	2.53
731	731	10.87	2.53
732	732	10.87	2.53
733	733	10.88	2.54
734	734	10.86	2.52
735	735	10.86	2.52
736	736	10.86	2.52



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
737	737	10.86	2.52
738	738	10.86	2.52
739	739	10.86	2.52
740	740	10.87	2.53
741	741	10.87	2.53
742	742	10.87	2.53
743	743	10.88	2.54
744	744	10.86	2.52
745	745	10.87	2.53
746	746	10.87	2.53
747	747	10.87	2.53
748	748	10.88	2.54
749	749	10.88	2.54
750	750	10.87	2.53
751	751	10.87	2.53
752	752	10.87	2.53
753	753	10.87	2.53
754	754	10.86	2.52
755	755	10.87	2.53
756	756	10.88	2.54
757	757	10.87	2.53
758	758	10.87	2.53
759	759	10.87	2.53
760	760	10.87	2.53
761	761	10.87	2.53
762	762	10.87	2.53
763	763	10.88	2.54
764	764	10.87	2.53
765	765	10.87	2.53
766	766	10.86	2.52
767	767	10.87	2.53
768	768	10.88	2.54
769	769	10.88	2.54
770	770	10.88	2.54
771	771	10.87	2.53
772	772	10.88	2.54
773	773	10.87	2.53
774	774	10.87	2.53
775	775	10.88	2.54
776	776	10.88	2.54
777	777	10.88	2.54
778	778	10.87	2.53
779	779	10.88	2.54
780	780	10.88	2.54
781	781	10.87	2.53
782	782	10.88	2.54
783	783	10.88	2.54
784	784	10.87	2.53
785	785	10.87	2.53
786	786	10.87	2.53
787	787	10.87	2.53
788	788	10.88	2.54
789	789	10.87	2.53
790	790	10.88	2.54
791	791	10.88	2.54
792	792	10.87	2.53
793	793	10.88	2.54



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
794	794	10.88	2.54
795	795	10.88	2.54
796	796	10.89	2.55
797	797	10.88	2.54
798	798	10.88	2.54
799	799	10.89	2.55
800	800	10.88	2.54
801	801	10.89	2.55
802	802	10.88	2.54
803	803	10.88	2.54
804	804	10.88	2.54
805	805	10.89	2.55
806	806	10.89	2.55
807	807	10.89	2.55
808	808	10.88	2.54
809	809	10.88	2.54
810	810	10.88	2.54
811	811	10.88	2.54
812	812	10.89	2.55
813	813	10.88	2.54
814	814	10.88	2.54
815	815	10.88	2.54
816	816	10.88	2.54
817	817	10.89	2.55
818	818	10.89	2.55
819	819	10.89	2.55
820	820	10.88	2.54
821	821	10.88	2.54
822	822	10.88	2.54
823	823	10.89	2.55
824	824	10.88	2.54
825	825	10.89	2.55
826	826	10.88	2.54
827	827	10.88	2.54
828	828	10.88	2.54
829	829	10.88	2.54
830	830	10.88	2.54
831	831	10.88	2.54
832	832	10.88	2.54
833	833	10.88	2.54
834	834	10.88	2.54
835	835	10.88	2.54
836	836	10.88	2.54
837	837	10.88	2.54
838	838	10.87	2.53
839	839	10.88	2.54
840	840	10.88	2.54
841	841	10.89	2.55
842	842	10.89	2.55
843	843	10.90	2.56
844	844	10.90	2.56
845	845	10.90	2.56
846	846	10.88	2.54
847	847	10.88	2.54
848	848	10.88	2.54
849	849	10.89	2.55
850	850	10.89	2.55



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
851	851	10.89	2.55
852	852	10.89	2.55
853	853	10.88	2.54
854	854	10.89	2.55
855	855	10.89	2.55
856	856	10.89	2.55
857	857	10.89	2.55
858	858	10.88	2.54
859	859	10.88	2.54
860	860	10.88	2.54
861	861	10.88	2.54
862	862	10.88	2.54
863	863	10.88	2.54
864	864	10.89	2.55
865	865	10.89	2.55
866	866	10.90	2.56
867	867	10.89	2.55
868	868	10.89	2.55
869	869	10.88	2.54
870	870	10.88	2.54
871	871	10.89	2.55
872	872	10.89	2.55
873	873	10.89	2.55
874	874	10.89	2.55
875	875	10.89	2.55
876	876	10.89	2.55
877	877	10.88	2.54
878	878	10.88	2.54
879	879	10.88	2.54
880	880	10.88	2.54
881	881	10.88	2.54
882	882	10.89	2.55
883	883	10.89	2.55
884	884	10.89	2.55
885	885	10.89	2.55
886	886	10.89	2.55
887	887	10.88	2.54
888	888	10.89	2.55
889	889	10.89	2.55
890	890	10.89	2.55
891	891	10.89	2.55
892	892	10.89	2.55
893	893	10.88	2.54
894	894	10.89	2.55
895	895	10.89	2.55
896	896	10.89	2.55
897	897	10.89	2.55
898	898	10.89	2.55
899	899	10.88	2.54
900	900	10.89	2.55
901	901	10.89	2.55
902	902	10.89	2.55
903	903	10.89	2.55
904	904	10.89	2.55
905	905	10.89	2.55
906	906	10.89	2.55
907	907	10.89	2.55



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
908	908	10.89	2.55
909	909	10.88	2.54
910	910	10.89	2.55
911	911	10.88	2.54
912	912	10.89	2.55
913	913	10.89	2.55
914	914	10.89	2.55
915	915	10.90	2.56
916	916	10.90	2.56
917	917	10.89	2.55
918	918	10.90	2.56
919	919	10.90	2.56
920	920	10.90	2.56
921	921	10.90	2.56
922	922	10.89	2.55
923	923	10.90	2.56
924	924	10.91	2.57
925	925	10.91	2.57
926	926	10.90	2.56
927	927	10.89	2.55
928	928	10.90	2.56
929	929	10.90	2.56
930	930	10.90	2.56
931	931	10.90	2.56
932	932	10.90	2.56
933	933	10.90	2.56
934	934	10.90	2.56
935	935	10.89	2.55
936	936	10.90	2.56
937	937	10.90	2.56
938	938	10.90	2.56
939	939	10.89	2.55
940	940	10.90	2.56
941	941	10.91	2.57
942	942	10.91	2.57
943	943	10.91	2.57
944	944	10.91	2.57
945	945	10.90	2.56
946	946	10.90	2.56
947	947	10.92	2.58
948	948	10.90	2.56
949	949	10.92	2.58
950	950	10.91	2.57
951	951	10.91	2.57
952	952	10.91	2.57
953	953	10.91	2.57
954	954	10.91	2.57
955	955	10.91	2.57
956	956	10.91	2.57
957	957	10.91	2.57
958	958	10.91	2.57
959	959	10.91	2.57
960	960	10.91	2.57
961	961	10.91	2.57
962	962	10.92	2.58
963	963	10.92	2.58
964	964	10.90	2.56



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
965	965	10.91	2.57
966	966	10.90	2.56
967	967	10.90	2.56
968	968	10.90	2.56
969	969	10.90	2.56
970	970	10.90	2.56
971	971	10.91	2.57
972	972	10.90	2.56
973	973	10.91	2.57
974	974	10.90	2.56
975	975	10.91	2.57
976	976	10.92	2.58
977	977	10.91	2.57
978	978	10.92	2.58
979	979	10.91	2.57
980	980	10.91	2.57
981	981	10.92	2.58
982	982	10.91	2.57
983	983	10.91	2.57
984	984	10.91	2.57
985	985	10.92	2.58
986	986	10.92	2.58
987	987	10.91	2.57
988	988	10.91	2.57
989	989	10.92	2.58
990	990	10.92	2.58
991	991	10.92	2.58
992	992	10.91	2.57
993	993	10.92	2.58
994	994	10.91	2.57
995	995	10.93	2.59
996	996	10.91	2.57
997	997	10.91	2.57
998	998	10.91	2.57
999	999	10.91	2.57
1000	1000	10.91	2.57
1001	1001	10.92	2.58
1002	1002	10.92	2.58
1003	1003	10.92	2.58
1004	1004	10.92	2.58
1005	1005	10.92	2.58
1006	1006	10.91	2.57
1007	1007	10.92	2.58
1008	1008	10.93	2.59
1009	1009	10.93	2.59
1010	1010	10.92	2.58
1011	1011	10.92	2.58
1012	1012	10.93	2.59
1013	1013	10.93	2.59
1014	1014	10.92	2.58
1015	1015	10.93	2.59
1016	1016	10.92	2.58
1017	1017	10.93	2.59
1018	1018	10.93	2.59
1019	1019	10.93	2.59
1020	1020	10.93	2.59
1021	1021	10.93	2.59



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1022	1022	10.91	2.57
1023	1023	10.93	2.59
1024	1024	10.92	2.58
1025	1025	10.93	2.59
1026	1026	10.91	2.57
1027	1027	10.92	2.58
1028	1028	10.93	2.59
1029	1029	10.92	2.58
1030	1030	10.91	2.57
1031	1031	10.93	2.59
1032	1032	10.92	2.58
1033	1033	10.92	2.58
1034	1034	10.92	2.58
1035	1035	10.92	2.58
1036	1036	10.92	2.58
1037	1037	10.93	2.59
1038	1038	10.93	2.59
1039	1039	10.92	2.58
1040	1040	10.93	2.59
1041	1041	10.92	2.58
1042	1042	10.92	2.58
1043	1043	10.92	2.58
1044	1044	10.93	2.59
1045	1045	10.92	2.58
1046	1046	10.92	2.58
1047	1047	10.93	2.59
1048	1048	10.92	2.58
1049	1049	10.92	2.58
1050	1050	10.92	2.58
1051	1051	10.94	2.60
1052	1052	10.94	2.60
1053	1053	10.93	2.59
1054	1054	10.94	2.60
1055	1055	10.93	2.59
1056	1056	10.93	2.59
1057	1057	10.93	2.59
1058	1058	10.93	2.59
1059	1059	10.92	2.58
1060	1060	10.92	2.58
1061	1061	10.93	2.59
1062	1062	10.93	2.59
1063	1063	10.93	2.59
1064	1064	10.92	2.58
1065	1065	10.93	2.59
1066	1066	10.92	2.58
1067	1067	10.92	2.58
1068	1068	10.92	2.58
1069	1069	10.92	2.58
1070	1070	10.93	2.59
1071	1071	10.93	2.59
1072	1072	10.93	2.59
1073	1073	10.93	2.59
1074	1074	10.92	2.58
1075	1075	10.94	2.60
1076	1076	10.93	2.59
1077	1077	10.92	2.58
1078	1078	10.94	2.60



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1079	1079	10.93	2.59
1080	1080	10.93	2.59
1081	1081	10.93	2.59
1082	1082	10.94	2.60
1083	1083	10.93	2.59
1084	1084	10.93	2.59
1085	1085	10.94	2.60
1086	1086	10.94	2.60
1087	1087	10.93	2.59
1088	1088	10.94	2.60
1089	1089	10.92	2.58
1090	1090	10.93	2.59
1091	1091	10.94	2.60
1092	1092	10.94	2.60
1093	1093	10.93	2.59
1094	1094	10.94	2.60
1095	1095	10.94	2.60
1096	1096	10.94	2.60
1097	1097	10.94	2.60
1098	1098	10.94	2.60
1099	1099	10.94	2.60
1100	1100	10.94	2.60
1101	1101	10.95	2.61
1102	1102	10.94	2.60
1103	1103	10.94	2.60
1104	1104	10.94	2.60
1105	1105	10.93	2.59
1106	1106	10.93	2.59
1107	1107	10.93	2.59
1108	1108	10.94	2.60
1109	1109	10.95	2.61
1110	1110	10.94	2.60
1111	1111	10.94	2.60
1112	1112	10.93	2.59
1113	1113	10.94	2.60
1114	1114	10.94	2.60
1115	1115	10.93	2.59
1116	1116	10.93	2.59
1117	1117	10.94	2.60
1118	1118	10.93	2.59
1119	1119	10.94	2.60
1120	1120	10.93	2.59
1121	1121	10.94	2.60
1122	1122	10.94	2.60
1123	1123	10.95	2.61
1124	1124	10.94	2.60
1125	1125	10.95	2.61
1126	1126	10.95	2.61
1127	1127	10.95	2.61
1128	1128	10.94	2.60
1129	1129	10.94	2.60
1130	1130	10.94	2.60
1131	1131	10.94	2.60
1132	1132	10.94	2.60
1133	1133	10.94	2.60
1134	1134	10.94	2.60
1135	1135	10.94	2.60



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1136	1136	10.93	2.59
1137	1137	10.93	2.59
1138	1138	10.93	2.59
1139	1139	10.93	2.59
1140	1140	10.94	2.60
1141	1141	10.95	2.61
1142	1142	10.95	2.61
1143	1143	10.95	2.61
1144	1144	10.95	2.61
1145	1145	10.95	2.61
1146	1146	10.95	2.61
1147	1147	10.95	2.61
1148	1148	10.94	2.60
1149	1149	10.94	2.60
1150	1150	10.94	2.60
1151	1151	10.94	2.60
1152	1152	10.94	2.60
1153	1153	10.94	2.60
1154	1154	10.94	2.60
1155	1155	10.94	2.60
1156	1156	10.95	2.61
1157	1157	10.94	2.60
1158	1158	10.95	2.61
1159	1159	10.95	2.61
1160	1160	10.95	2.61
1161	1161	10.95	2.61
1162	1162	10.95	2.61
1163	1163	10.94	2.60
1164	1164	10.95	2.61
1165	1165	10.95	2.61
1166	1166	10.95	2.61
1167	1167	10.95	2.61
1168	1168	10.95	2.61
1169	1169	10.95	2.61
1170	1170	10.95	2.61
1171	1171	10.95	2.61
1172	1172	10.95	2.61
1173	1173	10.95	2.61
1174	1174	10.95	2.61
1175	1175	10.95	2.61
1176	1176	10.95	2.61
1177	1177	10.95	2.61
1178	1178	10.96	2.62
1179	1179	10.96	2.62
1180	1180	10.96	2.62
1181	1181	10.96	2.62
1182	1182	10.96	2.62
1183	1183	10.95	2.61
1184	1184	10.96	2.62
1185	1185	10.95	2.61
1186	1186	10.95	2.61
1187	1187	10.95	2.61
1188	1188	10.95	2.61
1189	1189	10.96	2.62
1190	1190	10.95	2.61
1191	1191	10.95	2.61
1192	1192	10.96	2.62



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1193	1193	10.95	2.61
1194	1194	10.94	2.60
1195	1195	10.94	2.60
1196	1196	10.94	2.60
1197	1197	10.95	2.61
1198	1198	10.96	2.62
1199	1199	10.96	2.62
1200	1200	10.95	2.61
1201	1201	10.96	2.62
1202	1202	10.96	2.62
1203	1203	10.95	2.61
1204	1204	10.96	2.62
1205	1205	10.96	2.62
1206	1206	10.94	2.60
1207	1207	10.94	2.60
1208	1208	10.94	2.60
1209	1209	10.95	2.61
1210	1210	10.96	2.62
1211	1211	10.95	2.61
1212	1212	10.94	2.60
1213	1213	10.95	2.61
1214	1214	10.95	2.61
1215	1215	10.94	2.60
1216	1216	10.94	2.60
1217	1217	10.96	2.62
1218	1218	10.96	2.62
1219	1219	10.96	2.62
1220	1220	10.95	2.61
1221	1221	10.97	2.63
1222	1222	10.96	2.62
1223	1223	10.96	2.62
1224	1224	10.96	2.62
1225	1225	10.96	2.62
1226	1226	10.95	2.61
1227	1227	10.96	2.62
1228	1228	10.96	2.62
1229	1229	10.95	2.61
1230	1230	10.96	2.62
1231	1231	10.97	2.63
1232	1232	10.96	2.62
1233	1233	10.96	2.62
1234	1234	10.97	2.63
1235	1235	10.97	2.63
1236	1236	10.96	2.62
1237	1237	10.96	2.62
1238	1238	10.97	2.63
1239	1239	10.96	2.62
1240	1240	10.96	2.62
1241	1241	10.96	2.62
1242	1242	10.97	2.63
1243	1243	10.96	2.62
1244	1244	10.96	2.62
1245	1245	10.96	2.62
1246	1246	10.96	2.62
1247	1247	10.97	2.63
1248	1248	10.97	2.63
1249	1249	10.96	2.62



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1250	1250	10.97	2.63
1251	1251	10.97	2.63
1252	1252	10.97	2.63
1253	1253	10.97	2.63
1254	1254	10.97	2.63
1255	1255	10.97	2.63
1256	1256	10.97	2.63
1257	1257	10.98	2.64
1258	1258	10.97	2.63
1259	1259	10.96	2.62
1260	1260	10.95	2.61
1261	1261	10.95	2.61
1262	1262	10.96	2.62
1263	1263	10.95	2.61
1264	1264	10.97	2.63
1265	1265	10.97	2.63
1266	1266	10.96	2.62
1267	1267	10.96	2.62
1268	1268	10.96	2.62
1269	1269	10.97	2.63
1270	1270	10.95	2.61
1271	1271	10.96	2.62
1272	1272	10.96	2.62
1273	1273	10.95	2.61
1274	1274	10.96	2.62
1275	1275	10.96	2.62
1276	1276	10.98	2.64
1277	1277	10.98	2.64
1278	1278	10.97	2.63
1279	1279	10.98	2.64
1280	1280	10.97	2.63
1281	1281	10.97	2.63
1282	1282	10.97	2.63
1283	1283	10.97	2.63
1284	1284	10.97	2.63
1285	1285	10.98	2.64
1286	1286	10.97	2.63
1287	1287	10.96	2.62
1288	1288	10.96	2.62
1289	1289	10.96	2.62
1290	1290	10.97	2.63
1291	1291	10.97	2.63
1292	1292	10.97	2.63
1293	1293	10.97	2.63
1294	1294	10.98	2.64
1295	1295	10.96	2.62
1296	1296	10.96	2.62
1297	1297	10.96	2.62
1298	1298	10.96	2.62
1299	1299	10.96	2.62
1300	1300	10.96	2.62
1301	1301	10.96	2.62
1302	1302	10.96	2.62
1303	1303	10.97	2.63
1304	1304	10.97	2.63
1305	1305	10.97	2.63
1306	1306	10.98	2.64



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1307	1307	10.98	2.64
1308	1308	10.97	2.63
1309	1309	10.98	2.64
1310	1310	10.98	2.64
1311	1311	10.97	2.63
1312	1312	10.98	2.64
1313	1313	10.98	2.64
1314	1314	10.98	2.64
1315	1315	10.98	2.64
1316	1316	10.98	2.64
1317	1317	10.97	2.63
1318	1318	10.99	2.65
1319	1319	10.98	2.64
1320	1320	10.99	2.65
1321	1321	10.98	2.64
1322	1322	10.98	2.64
1323	1323	10.98	2.64
1324	1324	10.98	2.64
1325	1325	10.97	2.63
1326	1326	10.98	2.64
1327	1327	10.98	2.64
1328	1328	10.98	2.64
1329	1329	10.98	2.64
1330	1330	10.97	2.63
1331	1331	10.97	2.63
1332	1332	10.97	2.63
1333	1333	10.97	2.63
1334	1334	10.97	2.63
1335	1335	10.97	2.63
1336	1336	10.97	2.63
1337	1337	10.97	2.63
1338	1338	10.98	2.64
1339	1339	10.98	2.64
1340	1340	10.98	2.64
1341	1341	10.98	2.64
1342	1342	10.98	2.64
1343	1343	10.98	2.64
1344	1344	10.98	2.64
1345	1345	10.99	2.65
1346	1346	10.97	2.63
1347	1347	10.98	2.64
1348	1348	10.98	2.64
1349	1349	10.98	2.64
1350	1350	10.96	2.62
1351	1351	10.97	2.63
1352	1352	10.98	2.64
1353	1353	10.98	2.64
1354	1354	10.98	2.64
1355	1355	10.98	2.64
1356	1356	10.98	2.64
1357	1357	10.97	2.63
1358	1358	10.98	2.64
1359	1359	10.98	2.64
1360	1360	10.98	2.64
1361	1361	10.99	2.65
1362	1362	10.98	2.64
1363	1363	10.99	2.65



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1364	1364	10.98	2.64
1365	1365	10.98	2.64
1366	1366	10.98	2.64
1367	1367	10.98	2.64
1368	1368	10.99	2.65
1369	1369	10.98	2.64
1370	1370	10.98	2.64
1371	1371	10.98	2.64
1372	1372	10.99	2.65
1373	1373	10.98	2.64
1374	1374	10.97	2.63
1375	1375	10.98	2.64
1376	1376	10.98	2.64
1377	1377	10.98	2.64
1378	1378	10.98	2.64
1379	1379	10.97	2.63
1380	1380	10.98	2.64
1381	1381	10.97	2.63
1382	1382	10.97	2.63
1383	1383	10.97	2.63
1384	1384	10.97	2.63
1385	1385	10.97	2.63
1386	1386	10.97	2.63
1387	1387	10.97	2.63
1388	1388	10.97	2.63
1389	1389	10.97	2.63
1390	1390	10.97	2.63
1391	1391	10.98	2.64
1392	1392	10.97	2.63
1393	1393	10.97	2.63
1394	1394	10.98	2.64
1395	1395	10.98	2.64
1396	1396	10.98	2.64
1397	1397	10.99	2.65
1398	1398	10.98	2.64
1399	1399	10.98	2.64
1400	1400	10.98	2.64
1401	1401	10.98	2.64
1402	1402	10.98	2.64
1403	1403	10.99	2.65
1404	1404	10.99	2.65
1405	1405	10.98	2.64
1406	1406	10.99	2.65
1407	1407	10.99	2.65
1408	1408	10.99	2.65
1409	1409	10.99	2.65
1410	1410	10.98	2.64
1411	1411	10.98	2.64
1412	1412	10.99	2.65
1413	1413	10.98	2.64
1414	1414	10.98	2.64
1415	1415	10.98	2.64
1416	1416	10.98	2.64
1417	1417	10.99	2.65
1418	1418	10.98	2.64
1419	1419	10.98	2.64
1420	1420	10.98	2.64



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1421	1421	10.98	2.64
1422	1422	10.97	2.63
1423	1423	10.98	2.64
1424	1424	10.97	2.63
1425	1425	10.98	2.64
1426	1426	10.97	2.63
1427	1427	10.97	2.63
1428	1428	10.99	2.65
1429	1429	10.98	2.64
1430	1430	10.97	2.63
1431	1431	10.98	2.64
1432	1432	10.98	2.64
1433	1433	10.98	2.64
1434	1434	10.99	2.65
1435	1435	10.99	2.65
1436	1436	10.99	2.65
1437	1437	10.99	2.65
1438	1438	10.99	2.65
1439	1439	10.99	2.65
1440	1440	10.98	2.64
1441	1441	10.99	2.65
1442	1442	10.99	2.65
1443	1443	10.99	2.65
1444	1444	10.99	2.65
1445	1445	11.00	2.66
1446	1446	10.98	2.64
1447	1447	10.99	2.65
1448	1448	10.99	2.65
1449	1449	10.99	2.65
1450	1450	10.98	2.64
1451	1451	11.00	2.66
1452	1452	10.99	2.65
1453	1453	10.99	2.65
1454	1454	10.99	2.65
1455	1455	10.98	2.64
1456	1456	10.99	2.65
1457	1457	10.99	2.65
1458	1458	10.99	2.65
1459	1459	10.98	2.64
1460	1460	10.98	2.64
1461	1461	10.98	2.64
1462	1462	10.99	2.65
1463	1463	10.99	2.65
1464	1464	10.99	2.65
1465	1465	10.98	2.64
1466	1466	10.98	2.64
1467	1467	10.97	2.63
1468	1468	10.98	2.64
1469	1469	10.97	2.63
1470	1470	10.98	2.64
1471	1471	10.99	2.65
1472	1472	10.99	2.65
1473	1473	10.99	2.65
1474	1474	10.99	2.65
1475	1475	10.98	2.64
1476	1476	10.98	2.64
1477	1477	10.99	2.65



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1478	1478	10.99	2.65
1479	1479	10.98	2.64
1480	1480	10.99	2.65
1481	1481	10.99	2.65
1482	1482	10.98	2.64
1483	1483	10.99	2.65
1484	1484	10.99	2.65
1485	1485	10.99	2.65
1486	1486	10.99	2.65
1487	1487	10.98	2.64
1488	1488	10.99	2.65
1489	1489	10.97	2.63
1490	1490	10.97	2.63
1491	1491	10.97	2.63
1492	1492	10.99	2.65
1493	1493	10.99	2.65
1494	1494	10.98	2.64
1495	1495	10.99	2.65
1496	1496	10.99	2.65
1497	1497	10.99	2.65
1498	1498	10.99	2.65
1499	1499	10.99	2.65
1500	1500	10.99	2.65
1501	1501	10.97	2.63
1502	1502	10.98	2.64
1503	1503	10.99	2.65
1504	1504	10.98	2.64
1505	1505	10.98	2.64
1506	1506	10.99	2.65
1507	1507	10.98	2.64
1508	1508	10.99	2.65
1509	1509	10.98	2.64
1510	1510	10.98	2.64
1511	1511	10.98	2.64
1512	1512	10.99	2.65
1513	1513	10.99	2.65
1514	1514	10.99	2.65
1515	1515	10.99	2.65
1516	1516	10.99	2.65
1517	1517	10.99	2.65
1518	1518	10.99	2.65
1519	1519	10.99	2.65
1520	1520	10.99	2.65
1521	1521	10.99	2.65
1522	1522	10.99	2.65
1523	1523	10.99	2.65
1524	1524	11.00	2.66
1525	1525	10.97	2.63
1526	1526	10.98	2.64
1527	1527	10.98	2.64
1528	1528	10.98	2.64
1529	1529	10.98	2.64
1530	1530	10.98	2.64
1531	1531	10.98	2.64
1532	1532	10.98	2.64
1533	1533	10.99	2.65
1534	1534	10.99	2.65



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1535	1535	10.99	2.65
1536	1536	10.99	2.65
1537	1537	10.99	2.65
1538	1538	10.99	2.65
1539	1539	10.99	2.65
1540	1540	10.99	2.65
1541	1541	10.99	2.65
1542	1542	10.99	2.65
1543	1543	11.00	2.66
1544	1544	10.99	2.65
1545	1545	10.99	2.65
1546	1546	11.00	2.66
1547	1547	11.00	2.66
1548	1548	10.99	2.65
1549	1549	10.99	2.65
1550	1550	10.99	2.65
1551	1551	10.99	2.65
1552	1552	10.99	2.65
1553	1553	10.99	2.65
1554	1554	10.99	2.65
1555	1555	11.00	2.66
1556	1556	10.99	2.65
1557	1557	11.00	2.66
1558	1558	11.00	2.66
1559	1559	11.00	2.66
1560	1560	11.01	2.67
1561	1561	11.00	2.66
1562	1562	11.00	2.66
1563	1563	11.00	2.66
1564	1564	11.00	2.66
1565	1565	11.00	2.66
1566	1566	11.00	2.66
1567	1567	11.00	2.66
1568	1568	11.00	2.66
1569	1569	11.00	2.66
1570	1570	11.00	2.66
1571	1571	11.00	2.66
1572	1572	11.01	2.67
1573	1573	11.00	2.66
1574	1574	11.01	2.67
1575	1575	11.00	2.66
1576	1576	11.00	2.66
1577	1577	11.00	2.66
1578	1578	11.01	2.67
1579	1579	11.00	2.66
1580	1580	11.01	2.67
1581	1581	11.02	2.68
1582	1582	11.01	2.67
1583	1583	11.01	2.67
1584	1584	11.01	2.67
1585	1585	11.01	2.67
1586	1586	11.01	2.67
1587	1587	11.01	2.67
1588	1588	11.01	2.67
1589	1589	11.01	2.67
1590	1590	11.01	2.67
1591	1591	11.01	2.67



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1592	1592	11.01	2.67
1593	1593	11.01	2.67
1594	1594	11.01	2.67
1595	1595	11.02	2.68
1596	1596	11.01	2.67
1597	1597	11.01	2.67
1598	1598	11.01	2.67
1599	1599	11.01	2.67
1600	1600	11.01	2.67
1601	1601	11.01	2.67
1602	1602	11.01	2.67
1603	1603	11.01	2.67
1604	1604	11.00	2.66
1605	1605	11.01	2.67
1606	1606	11.01	2.67
1607	1607	11.01	2.67
1608	1608	11.01	2.67
1609	1609	11.01	2.67
1610	1610	11.01	2.67
1611	1611	11.02	2.68
1612	1612	11.01	2.67
1613	1613	11.01	2.67
1614	1614	11.01	2.67
1615	1615	11.01	2.67
1616	1616	11.01	2.67
1617	1617	11.01	2.67
1618	1618	11.01	2.67
1619	1619	11.00	2.66
1620	1620	11.01	2.67
1621	1621	11.00	2.66
1622	1622	11.01	2.67
1623	1623	11.01	2.67
1624	1624	11.01	2.67
1625	1625	11.01	2.67
1626	1626	11.00	2.66
1627	1627	11.00	2.66
1628	1628	11.01	2.67
1629	1629	11.01	2.67
1630	1630	11.01	2.67
1631	1631	11.01	2.67
1632	1632	11.01	2.67
1633	1633	11.01	2.67
1634	1634	11.01	2.67
1635	1635	11.01	2.67
1636	1636	11.01	2.67
1637	1637	11.01	2.67
1638	1638	11.01	2.67
1639	1639	11.01	2.67
1640	1640	11.01	2.67
1641	1641	11.01	2.67
1642	1642	11.02	2.68
1643	1643	11.01	2.67
1644	1644	11.01	2.67
1645	1645	11.01	2.67
1646	1646	11.01	2.67
1647	1647	11.00	2.66
1648	1648	11.01	2.67



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1649	1649	11.01	2.67
1650	1650	11.02	2.68
1651	1651	11.02	2.68
1652	1652	11.02	2.68
1653	1653	11.02	2.68
1654	1654	11.02	2.68
1655	1655	11.02	2.68
1656	1656	11.02	2.68
1657	1657	11.01	2.67
1658	1658	11.01	2.67
1659	1659	11.01	2.67
1660	1660	11.01	2.67
1661	1661	11.01	2.67
1662	1662	11.01	2.67
1663	1663	11.01	2.67
1664	1664	11.01	2.67
1665	1665	11.02	2.68
1666	1666	11.01	2.67
1667	1667	11.01	2.67
1668	1668	11.01	2.67
1669	1669	11.01	2.67
1670	1670	11.00	2.66
1671	1671	11.01	2.67
1672	1672	11.01	2.67
1673	1673	11.01	2.67
1674	1674	11.01	2.67
1675	1675	11.02	2.68
1676	1676	11.01	2.67
1677	1677	11.01	2.67
1678	1678	11.02	2.68
1679	1679	11.01	2.67
1680	1680	11.02	2.68
1681	1681	11.01	2.67
1682	1682	11.02	2.68
1683	1683	11.02	2.68
1684	1684	11.01	2.67
1685	1685	11.02	2.68
1686	1686	11.02	2.68
1687	1687	11.02	2.68
1688	1688	11.02	2.68
1689	1689	11.02	2.68
1690	1690	11.03	2.69
1691	1691	11.01	2.67
1692	1692	11.02	2.68
1693	1693	11.02	2.68
1694	1694	11.02	2.68
1695	1695	11.02	2.68
1696	1696	11.02	2.68
1697	1697	11.02	2.68
1698	1698	11.02	2.68
1699	1699	11.02	2.68
1700	1700	11.02	2.68
1701	1701	11.02	2.68
1702	1702	11.02	2.68
1703	1703	11.03	2.69
1704	1704	11.02	2.68
1705	1705	11.02	2.68



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1706	1706	11.02	2.68
1707	1707	11.01	2.67
1708	1708	11.02	2.68
1709	1709	11.02	2.68
1710	1710	11.02	2.68
1711	1711	11.02	2.68
1712	1712	11.02	2.68
1713	1713	11.02	2.68
1714	1714	11.02	2.68
1715	1715	11.02	2.68
1716	1716	11.01	2.67
1717	1717	11.02	2.68
1718	1718	11.02	2.68
1719	1719	11.02	2.68
1720	1720	11.01	2.67
1721	1721	11.02	2.68
1722	1722	11.02	2.68
1723	1723	11.02	2.68
1724	1724	11.02	2.68
1725	1725	11.02	2.68
1726	1726	11.03	2.69
1727	1727	11.02	2.68
1728	1728	11.02	2.68
1729	1729	11.02	2.68
1730	1730	11.02	2.68
1731	1731	11.02	2.68
1732	1732	11.03	2.69
1733	1733	11.03	2.69
1734	1734	11.02	2.68
1735	1735	11.03	2.69
1736	1736	11.02	2.68
1737	1737	11.03	2.69
1738	1738	11.02	2.68
1739	1739	11.02	2.68
1740	1740	11.02	2.68
1741	1741	11.03	2.69
1742	1742	11.02	2.68
1743	1743	11.02	2.68
1744	1744	11.02	2.68
1745	1745	11.02	2.68
1746	1746	11.02	2.68
1747	1747	11.02	2.68
1748	1748	11.02	2.68
1749	1749	11.03	2.69
1750	1750	11.02	2.68
1751	1751	11.02	2.68
1752	1752	11.02	2.68
1753	1753	11.03	2.69
1754	1754	11.02	2.68
1755	1755	11.03	2.69
1756	1756	11.02	2.68
1757	1757	11.02	2.68
1758	1758	11.02	2.68
1759	1759	11.02	2.68
1760	1760	11.02	2.68
1761	1761	11.03	2.69
1762	1762	11.05	2.71



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1763	1763	11.02	2.68
1764	1764	11.02	2.68
1765	1765	11.02	2.68
1766	1766	11.02	2.68
1767	1767	11.01	2.67
1768	1768	11.02	2.68
1769	1769	11.02	2.68
1770	1770	11.02	2.68
1771	1771	11.03	2.69
1772	1772	11.02	2.68
1773	1773	11.03	2.69
1774	1774	11.02	2.68
1775	1775	11.01	2.67
1776	1776	11.02	2.68
1777	1777	11.03	2.69
1778	1778	11.03	2.69
1779	1779	11.03	2.69
1780	1780	11.02	2.68
1781	1781	11.03	2.69
1782	1782	11.03	2.69
1783	1783	11.03	2.69
1784	1784	11.03	2.69
1785	1785	11.03	2.69
1786	1786	11.03	2.69
1787	1787	11.03	2.69
1788	1788	11.03	2.69
1789	1789	11.03	2.69
1790	1790	11.03	2.69
1791	1791	11.03	2.69
1792	1792	11.03	2.69
1793	1793	11.02	2.68
1794	1794	11.04	2.70
1795	1795	11.03	2.69
1796	1796	11.03	2.69
1797	1797	11.03	2.69
1798	1798	11.05	2.71
1799	1799	11.03	2.69
1800	1800	11.03	2.69
1801	1801	11.02	2.68
1802	1802	11.03	2.69
1803	1803	11.03	2.69
1804	1804	11.02	2.68
1805	1805	11.03	2.69
1806	1806	11.05	2.71
1807	1807	11.05	2.71
1808	1808	11.03	2.69
1809	1809	11.03	2.69
1810	1810	11.02	2.68
1811	1811	11.03	2.69
1812	1812	11.03	2.69
1813	1813	11.03	2.69
1814	1814	11.03	2.69
1815	1815	11.05	2.71
1816	1816	11.03	2.69
1817	1817	11.05	2.71
1818	1818	11.03	2.69
1819	1819	11.03	2.69



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1820	1820	11.03	2.69
1821	1821	11.03	2.69
1822	1822	11.03	2.69
1823	1823	11.03	2.69
1824	1824	11.03	2.69
1825	1825	11.03	2.69
1826	1826	11.03	2.69
1827	1827	11.03	2.69
1828	1828	11.03	2.69
1829	1829	11.03	2.69
1830	1830	11.03	2.69
1831	1831	11.03	2.69
1832	1832	11.03	2.69
1833	1833	11.03	2.69
1834	1834	11.03	2.69
1835	1835	11.03	2.69
1836	1836	11.03	2.69
1837	1837	11.03	2.69
1838	1838	11.03	2.69
1839	1839	11.03	2.69
1840	1840	11.03	2.69
1841	1841	11.03	2.69
1842	1842	11.03	2.69
1843	1843	11.02	2.68
1844	1844	11.02	2.68
1845	1845	11.02	2.68
1846	1846	11.03	2.69
1847	1847	11.03	2.69
1848	1848	11.03	2.69
1849	1849	11.03	2.69
1850	1850	11.03	2.69
1851	1851	11.05	2.71
1852	1852	11.05	2.71
1853	1853	11.03	2.69
1854	1854	11.03	2.69
1855	1855	11.03	2.69
1856	1856	11.03	2.69
1857	1857	11.03	2.69
1858	1858	11.03	2.69
1859	1859	11.03	2.69
1860	1860	11.03	2.69
1861	1861	11.03	2.69
1862	1862	11.03	2.69
1863	1863	11.03	2.69
1864	1864	11.03	2.69
1865	1865	11.03	2.69
1866	1866	11.03	2.69
1867	1867	11.03	2.69
1868	1868	11.03	2.69
1869	1869	11.03	2.69
1870	1870	11.03	2.69
1871	1871	11.03	2.69
1872	1872	11.03	2.69
1873	1873	11.03	2.69
1874	1874	11.03	2.69
1875	1875	11.03	2.69
1876	1876	11.03	2.69



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1877	1877	11.03	2.69
1878	1878	11.03	2.69
1879	1879	11.03	2.69
1880	1880	11.03	2.69
1881	1881	11.03	2.69
1882	1882	11.03	2.69
1883	1883	11.05	2.71
1884	1884	11.03	2.69
1885	1885	11.03	2.69
1886	1886	11.05	2.71
1887	1887	11.05	2.71
1888	1888	11.05	2.71
1889	1889	11.05	2.71
1890	1890	11.05	2.71
1891	1891	11.05	2.71
1892	1892	11.05	2.71
1893	1893	11.05	2.71
1894	1894	11.05	2.71
1895	1895	11.05	2.71
1896	1896	11.05	2.71
1897	1897	11.05	2.71
1898	1898	11.05	2.71
1899	1899	11.05	2.71
1900	1900	11.05	2.71
1901	1901	11.05	2.71
1902	1902	11.03	2.69
1903	1903	11.05	2.71
1904	1904	11.05	2.71
1905	1905	11.05	2.71
1906	1906	11.05	2.71
1907	1907	11.05	2.71
1908	1908	11.05	2.71
1909	1909	11.05	2.71
1910	1910	11.05	2.71
1911	1911	11.06	2.72
1912	1912	11.05	2.71
1913	1913	11.05	2.71
1914	1914	11.05	2.71
1915	1915	11.05	2.71
1916	1916	11.05	2.71
1917	1917	11.05	2.71
1918	1918	11.05	2.71
1919	1919	11.05	2.71
1920	1920	11.05	2.71
1921	1921	11.05	2.71
1922	1922	11.05	2.71
1923	1923	11.05	2.71
1924	1924	11.05	2.71
1925	1925	11.03	2.69
1926	1926	11.03	2.69
1927	1927	11.03	2.69
1928	1928	11.03	2.69
1929	1929	11.03	2.69
1930	1930	11.03	2.69
1931	1931	11.03	2.69
1932	1932	11.03	2.69
1933	1933	11.03	2.69



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Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1934	1934	11.03	2.69
1935	1935	11.03	2.69
1936	1936	11.03	2.69
1937	1937	11.05	2.71
1938	1938	11.03	2.69
1939	1939	11.05	2.71
1940	1940	11.03	2.69
1941	1941	11.03	2.69
1942	1942	11.03	2.69
1943	1943	11.03	2.69
1944	1944	11.03	2.69
1945	1945	11.03	2.69
1946	1946	11.03	2.69
1947	1947	11.02	2.68
1948	1948	11.03	2.69
1949	1949	11.03	2.69
1950	1950	11.03	2.69
1951	1951	11.03	2.69
1952	1952	11.03	2.69
1953	1953	11.03	2.69
1954	1954	11.03	2.69
1955	1955	11.05	2.71
1956	1956	11.03	2.69
1957	1957	11.03	2.69
1958	1958	11.03	2.69
1959	1959	11.05	2.71
1960	1960	11.05	2.71
1961	1961	11.05	2.71
1962	1962	11.03	2.69
1963	1963	11.03	2.69
1964	1964	11.05	2.71
1965	1965	11.03	2.69
1966	1966	11.03	2.69
1967	1967	11.05	2.71
1968	1968	11.03	2.69
1969	1969	11.03	2.69
1970	1970	11.03	2.69
1971	1971	11.03	2.69
1972	1972	11.03	2.69
1973	1973	11.05	2.71
1974	1974	11.05	2.71
1975	1975	11.05	2.71
1976	1976	11.05	2.71
1977	1977	11.03	2.69
1978	1978	11.03	2.69
1979	1979	11.05	2.71
1980	1980	11.03	2.69
1981	1981	11.05	2.71
1982	1982	11.05	2.71
1983	1983	11.05	2.71
1984	1984	11.05	2.71
1985	1985	11.05	2.71
1986	1986	11.05	2.71
1987	1987	11.05	2.71
1988	1988	11.05	2.71
1989	1989	11.05	2.71
1990	1990	11.05	2.71



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Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
1991	1991	10.28	1.94
1992	1992	10.03	1.69
1993	1993	9.90	1.56
1994	1994	9.81	1.47
1995	1995	9.75	1.41
1996	1996	9.70	1.36
1997	1997	9.66	1.32
1998	1998	9.63	1.29
1999	1999	9.59	1.25
2000	2000	9.56	1.22
2001	2001	9.54	1.20
2002	2002	9.50	1.16
2003	2003	9.48	1.14
2004	2004	9.46	1.12
2005	2005	9.44	1.10
2006	2006	9.43	1.09
2007	2007	9.41	1.07
2008	2008	9.39	1.05
2009	2009	9.38	1.04
2010	2010	9.37	1.03
2011	2011	9.36	1.02
2012	2012	9.34	1.00
2013	2013	9.33	0.99
2014	2014	9.31	0.97
2015	2015	9.30	0.96
2016	2016	9.29	0.95
2017	2017	9.28	0.94
2018	2018	9.28	0.94
2019	2019	9.26	0.92
2020	2020	9.26	0.92
2021	2021	9.24	0.90
2022	2022	9.24	0.90
2023	2023	9.23	0.89
2024	2024	9.23	0.89
2025	2025	9.21	0.87
2026	2026	9.21	0.87
2027	2027	9.20	0.86
2028	2028	9.19	0.85
2029	2029	9.19	0.85
2030	2030	9.17	0.83
2031	2031	9.17	0.83
2032	2032	9.16	0.82
2033	2033	9.16	0.82
2034	2034	9.15	0.81
2035	2035	9.15	0.81
2036	2036	9.14	0.80
2037	2037	9.13	0.79
2038	2038	9.13	0.79
2039	2039	9.13	0.79
2040	2040	9.12	0.78
2041	2041	9.12	0.78
2042	2042	9.11	0.77
2043	2043	9.11	0.77
2044	2044	9.10	0.76
2045	2045	9.09	0.75
2046	2046	9.09	0.75
2047	2047	9.09	0.75



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Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2048	2048	9.09	0.75
2049	2049	9.08	0.74
2050	2050	9.07	0.73
2051	2051	9.08	0.74
2052	2052	9.06	0.72
2053	2053	9.06	0.72
2054	2054	9.06	0.72
2055	2055	9.06	0.72
2056	2056	9.05	0.71
2057	2057	9.05	0.71
2058	2058	9.05	0.71
2059	2059	9.04	0.70
2060	2060	9.04	0.70
2061	2061	9.02	0.68
2062	2062	9.02	0.68
2063	2063	9.02	0.68
2064	2064	9.01	0.67
2065	2065	9.01	0.67
2066	2066	9.01	0.67
2067	2067	9.02	0.68
2068	2068	9.00	0.66
2069	2069	9.00	0.66
2070	2070	9.00	0.66
2071	2071	8.99	0.65
2072	2072	9.00	0.66
2073	2073	9.00	0.66
2074	2074	9.00	0.66
2075	2075	8.99	0.65
2076	2076	8.99	0.65
2077	2077	8.99	0.65
2078	2078	8.99	0.65
2079	2079	8.99	0.65
2080	2080	8.97	0.63
2081	2081	8.97	0.63
2082	2082	8.96	0.62
2083	2083	8.96	0.62
2084	2084	8.96	0.62
2085	2085	8.95	0.61
2086	2086	8.96	0.62
2087	2087	8.95	0.61
2088	2088	8.95	0.61
2089	2089	8.94	0.60
2090	2090	8.94	0.60
2091	2091	8.94	0.60
2092	2092	8.94	0.60
2093	2093	8.94	0.60
2094	2094	8.94	0.60
2095	2095	8.94	0.60
2096	2096	8.93	0.59
2097	2097	8.93	0.59
2098	2098	8.93	0.59
2099	2099	8.93	0.59
2100	2100	8.93	0.59
2101	2101	8.92	0.58
2102	2102	8.92	0.58
2103	2103	8.91	0.57
2104	2104	8.91	0.57



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Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2105	2105	8.91	0.57
2106	2106	8.91	0.57
2107	2107	8.90	0.56
2108	2108	8.90	0.56
2109	2109	8.90	0.56
2110	2110	8.90	0.56
2111	2111	8.90	0.56
2112	2112	8.89	0.55
2113	2113	8.90	0.56
2114	2114	8.89	0.55
2115	2115	8.91	0.57
2116	2116	8.88	0.54
2117	2117	8.88	0.54
2118	2118	8.88	0.54
2119	2119	8.87	0.53
2120	2120	8.88	0.54
2121	2121	8.87	0.53
2122	2122	8.87	0.53
2123	2123	8.86	0.52
2124	2124	8.86	0.52
2125	2125	8.88	0.54
2126	2126	8.88	0.54
2127	2127	8.87	0.53
2128	2128	8.86	0.52
2129	2129	8.86	0.52
2130	2130	8.87	0.53
2131	2131	8.86	0.52
2132	2132	8.87	0.53
2133	2133	8.85	0.51
2134	2134	8.86	0.52
2135	2135	8.85	0.51
2136	2136	8.86	0.52
2137	2137	8.85	0.51
2138	2138	8.85	0.51
2139	2139	8.83	0.49
2140	2140	8.85	0.51
2141	2141	8.83	0.49
2142	2142	8.83	0.49
2143	2143	8.83	0.49
2144	2144	8.82	0.48
2145	2145	8.83	0.49
2146	2146	8.82	0.48
2147	2147	8.83	0.49
2148	2148	8.82	0.48
2149	2149	8.82	0.48
2150	2150	8.82	0.48
2151	2151	8.82	0.48
2152	2152	8.82	0.48
2153	2153	8.82	0.48
2154	2154	8.81	0.47
2155	2155	8.81	0.47
2156	2156	8.81	0.47
2157	2157	8.80	0.46
2158	2158	8.81	0.47
2159	2159	8.81	0.47
2160	2160	8.81	0.47
2161	2161	8.80	0.46



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	Time [min]	Water Level [m]	Drawdown [m]
2162	2162	8.79	0.45
2163	2163	8.79	0.45
2164	2164	8.80	0.46
2165	2165	8.79	0.45
2166	2166	8.79	0.45
2167	2167	8.79	0.45
2168	2168	8.79	0.45
2169	2169	8.78	0.44
2170	2170	8.79	0.45
2171	2171	8.78	0.44
2172	2172	8.78	0.44
2173	2173	8.78	0.44
2174	2174	8.78	0.44
2175	2175	8.78	0.44
2176	2176	8.78	0.44
2177	2177	8.78	0.44
2178	2178	8.78	0.44
2179	2179	8.77	0.43
2180	2180	8.78	0.44
2181	2181	8.78	0.44
2182	2182	8.77	0.43
2183	2183	8.77	0.43
2184	2184	8.77	0.43
2185	2185	8.77	0.43
2186	2186	8.76	0.42
2187	2187	8.76	0.42
2188	2188	8.76	0.42
2189	2189	8.76	0.42
2190	2190	8.75	0.41
2191	2191	8.77	0.43
2192	2192	8.76	0.42
2193	2193	8.75	0.41
2194	2194	8.75	0.41
2195	2195	8.75	0.41
2196	2196	8.76	0.42
2197	2197	8.75	0.41
2198	2198	8.75	0.41
2199	2199	8.75	0.41
2200	2200	8.74	0.40
2201	2201	8.75	0.41
2202	2202	8.75	0.41
2203	2203	8.75	0.41
2204	2204	8.74	0.40
2205	2205	8.74	0.40
2206	2206	8.74	0.40
2207	2207	8.73	0.39
2208	2208	8.74	0.40
2209	2209	8.74	0.40
2210	2210	8.74	0.40
2211	2211	8.73	0.39
2212	2212	8.74	0.40
2213	2213	8.74	0.40
2214	2214	8.74	0.40
2215	2215	8.74	0.40
2216	2216	8.73	0.39
2217	2217	8.74	0.40
2218	2218	8.73	0.39



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	Time [min]	Water Level [m]	Drawdown [m]
2219	2219	8.74	0.40
2220	2220	8.73	0.39
2221	2221	8.72	0.38
2222	2222	8.73	0.39
2223	2223	8.73	0.39
2224	2224	8.73	0.39
2225	2225	8.72	0.38
2226	2226	8.73	0.39
2227	2227	8.73	0.39
2228	2228	8.73	0.39
2229	2229	8.73	0.39
2230	2230	8.73	0.39
2231	2231	8.73	0.39
2232	2232	8.72	0.38
2233	2233	8.72	0.38
2234	2234	8.71	0.37
2235	2235	8.72	0.38
2236	2236	8.72	0.38
2237	2237	8.71	0.37
2238	2238	8.69	0.35
2239	2239	8.71	0.37
2240	2240	8.71	0.37
2241	2241	8.71	0.37
2242	2242	8.71	0.37
2243	2243	8.71	0.37
2244	2244	8.72	0.38
2245	2245	8.72	0.38
2246	2246	8.71	0.37
2247	2247	8.71	0.37
2248	2248	8.69	0.35
2249	2249	8.71	0.37
2250	2250	8.69	0.35
2251	2251	8.71	0.37
2252	2252	8.71	0.37
2253	2253	8.69	0.35
2254	2254	8.69	0.35
2255	2255	8.69	0.35
2256	2256	8.71	0.37
2257	2257	8.68	0.34
2258	2258	8.68	0.34
2259	2259	8.69	0.35
2260	2260	8.71	0.37
2261	2261	8.71	0.37
2262	2262	8.68	0.34
2263	2263	8.69	0.35
2264	2264	8.69	0.35
2265	2265	8.69	0.35
2266	2266	8.68	0.34
2267	2267	8.68	0.34
2268	2268	8.68	0.34
2269	2269	8.68	0.34
2270	2270	8.68	0.34
2271	2271	8.67	0.33
2272	2272	8.68	0.34
2273	2273	8.67	0.33
2274	2274	8.67	0.33
2275	2275	8.67	0.33



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	Time [min]	Water Level [m]	Drawdown [m]
2276	2276	8.67	0.33
2277	2277	8.67	0.33
2278	2278	8.67	0.33
2279	2279	8.68	0.34
2280	2280	8.66	0.32
2281	2281	8.66	0.32
2282	2282	8.65	0.31
2283	2283	8.66	0.32
2284	2284	8.66	0.32
2285	2285	8.66	0.32
2286	2286	8.65	0.31
2287	2287	8.66	0.32
2288	2288	8.65	0.31
2289	2289	8.66	0.32
2290	2290	8.67	0.33
2291	2291	8.66	0.32
2292	2292	8.66	0.32
2293	2293	8.66	0.32
2294	2294	8.66	0.32
2295	2295	8.66	0.32
2296	2296	8.65	0.31
2297	2297	8.66	0.32
2298	2298	8.66	0.32
2299	2299	8.66	0.32
2300	2300	8.64	0.30
2301	2301	8.65	0.31
2302	2302	8.65	0.31
2303	2303	8.66	0.32
2304	2304	8.64	0.30
2305	2305	8.65	0.31
2306	2306	8.64	0.30
2307	2307	8.64	0.30
2308	2308	8.64	0.30
2309	2309	8.64	0.30
2310	2310	8.65	0.31
2311	2311	8.64	0.30
2312	2312	8.64	0.30
2313	2313	8.64	0.30
2314	2314	8.65	0.31
2315	2315	8.64	0.30
2316	2316	8.64	0.30
2317	2317	8.64	0.30
2318	2318	8.64	0.30
2319	2319	8.65	0.31
2320	2320	8.65	0.31
2321	2321	8.64	0.30
2322	2322	8.63	0.29
2323	2323	8.64	0.30
2324	2324	8.63	0.29
2325	2325	8.64	0.30
2326	2326	8.64	0.30
2327	2327	8.63	0.29
2328	2328	8.64	0.30
2329	2329	8.65	0.31
2330	2330	8.64	0.30
2331	2331	8.63	0.29
2332	2332	8.62	0.28



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2333	2333	8.63	0.29
2334	2334	8.64	0.30
2335	2335	8.64	0.30
2336	2336	8.64	0.30
2337	2337	8.64	0.30
2338	2338	8.64	0.30
2339	2339	8.64	0.30
2340	2340	8.63	0.29
2341	2341	8.63	0.29
2342	2342	8.63	0.29
2343	2343	8.62	0.28
2344	2344	8.62	0.28
2345	2345	8.61	0.27
2346	2346	8.63	0.29
2347	2347	8.62	0.28
2348	2348	8.62	0.28
2349	2349	8.62	0.28
2350	2350	8.63	0.29
2351	2351	8.63	0.29
2352	2352	8.63	0.29
2353	2353	8.63	0.29
2354	2354	8.63	0.29
2355	2355	8.62	0.28
2356	2356	8.63	0.29
2357	2357	8.63	0.29
2358	2358	8.63	0.29
2359	2359	8.63	0.29
2360	2360	8.63	0.29
2361	2361	8.63	0.29
2362	2362	8.62	0.28
2363	2363	8.62	0.28
2364	2364	8.61	0.27
2365	2365	8.61	0.27
2366	2366	8.61	0.27
2367	2367	8.62	0.28
2368	2368	8.61	0.27
2369	2369	8.61	0.27
2370	2370	8.61	0.27
2371	2371	8.61	0.27
2372	2372	8.61	0.27
2373	2373	8.60	0.26
2374	2374	8.60	0.26
2375	2375	8.60	0.26
2376	2376	8.59	0.25
2377	2377	8.60	0.26
2378	2378	8.60	0.26
2379	2379	8.60	0.26
2380	2380	8.61	0.27
2381	2381	8.61	0.27
2382	2382	8.61	0.27
2383	2383	8.59	0.25
2384	2384	8.60	0.26
2385	2385	8.59	0.25
2386	2386	8.60	0.26
2387	2387	8.60	0.26
2388	2388	8.61	0.27
2389	2389	8.60	0.26



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

	Time [min]	Water Level [m]	Drawdown [m]
2390	2390	8.61	0.27
2391	2391	8.60	0.26
2392	2392	8.60	0.26
2393	2393	8.60	0.26
2394	2394	8.61	0.27
2395	2395	8.60	0.26
2396	2396	8.61	0.27
2397	2397	8.61	0.27
2398	2398	8.61	0.27
2399	2399	8.61	0.27
2400	2400	8.60	0.26



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

Location: Arrowsmith Central	Pumping Test: YPB2	Pumping Well: YPB2
Test Conducted by: Western Irrigation	Test Date: 27-Oct-22	Discharge: variable, average rate 40 [l/s]
Observation Well: YPB2	Static Water Level [m]: 29.71	Radial Distance to PW [m]: -

	Time [min]	Water Level [m]	Drawdown [m]
1	1	37.49	7.78
2	2	37.54	7.83
3	3	37.60	7.89
4	4	37.62	7.91
5	5	37.62	7.91
6	6	37.66	7.95
7	7	37.69	7.98
8	8	37.73	8.02
9	9	37.73	8.02
10	10	37.74	8.03
11	11	37.79	8.08
12	12	37.88	8.17
13	13	37.88	8.17
14	14	37.89	8.18
15	15	37.92	8.21
16	16	37.88	8.17
17	17	37.88	8.17
18	18	37.92	8.21
19	19	37.94	8.23
20	20	37.96	8.25
21	21	37.97	8.26
22	22	37.98	8.27
23	23	37.98	8.27
24	24	37.98	8.27
25	25	38.00	8.29
26	26	38.03	8.32
27	27	38.03	8.32
28	28	38.03	8.32
29	29	38.02	8.31
30	30	38.04	8.33
31	31	38.06	8.35
32	32	38.08	8.37
33	33	38.06	8.35
34	34	38.08	8.37
35	35	38.10	8.39
36	36	38.10	8.39
37	37	38.16	8.45
38	38	38.17	8.46
39	39	38.18	8.47
40	40	38.20	8.49
41	41	38.17	8.46
42	42	38.21	8.50
43	43	38.19	8.48
44	44	38.20	8.49
45	45	38.20	8.49
46	46	38.22	8.51
47	47	38.20	8.49
48	48	38.23	8.52
49	49	38.22	8.51
50	50	38.23	8.52
51	51	38.26	8.55
52	52	38.26	8.55



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
53	53	38.23	8.52
54	54	38.28	8.57
55	55	38.28	8.57
56	56	38.27	8.56
57	57	38.27	8.56
58	58	38.27	8.56
59	59	38.28	8.57
60	60	38.27	8.56
61	61	38.28	8.57
62	62	38.28	8.57
63	63	38.31	8.60
64	64	38.31	8.60
65	65	38.35	8.64
66	66	38.31	8.60
67	67	38.31	8.60
68	68	38.32	8.61
69	69	38.32	8.61
70	70	38.30	8.59
71	71	38.35	8.64
72	72	38.34	8.63
73	73	38.34	8.63
74	74	38.31	8.60
75	75	38.31	8.60
76	76	38.36	8.65
77	77	38.34	8.63
78	78	38.36	8.65
79	79	38.36	8.65
80	80	38.36	8.65
81	81	38.35	8.64
82	82	38.35	8.64
83	83	38.36	8.65
84	84	38.37	8.66
85	85	38.37	8.66
86	86	38.39	8.68
87	87	38.39	8.68
88	88	38.39	8.68
89	89	38.37	8.66
90	90	38.38	8.67
91	91	38.37	8.66
92	92	38.39	8.68
93	93	38.41	8.70
94	94	38.42	8.71
95	95	38.40	8.69
96	96	38.39	8.68
97	97	38.41	8.70
98	98	38.39	8.68
99	99	38.41	8.70
100	100	38.41	8.70
101	101	38.43	8.72
102	102	38.41	8.70
103	103	38.44	8.73
104	104	38.43	8.72
105	105	38.43	8.72
106	106	38.42	8.71
107	107	38.45	8.74
108	108	38.43	8.72
109	109	38.44	8.73



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
110	110	38.48	8.77
111	111	38.47	8.76
112	112	38.46	8.75
113	113	38.46	8.75
114	114	38.46	8.75
115	115	38.49	8.78
116	116	38.49	8.78
117	117	38.47	8.76
118	118	38.47	8.76
119	119	38.49	8.78
120	120	38.46	8.75
121	121	38.48	8.77
122	122	38.47	8.76
123	123	38.47	8.76
124	124	38.47	8.76
125	125	38.51	8.80
126	126	38.51	8.80
127	127	38.51	8.80
128	128	38.49	8.78
129	129	38.52	8.81
130	130	38.47	8.76
131	131	38.49	8.78
132	132	38.51	8.80
133	133	38.53	8.82
134	134	38.50	8.79
135	135	38.54	8.83
136	136	38.50	8.79
137	137	38.51	8.80
138	138	38.54	8.83
139	139	38.52	8.81
140	140	38.52	8.81
141	141	38.54	8.83
142	142	38.53	8.82
143	143	38.54	8.83
144	144	38.51	8.80
145	145	38.52	8.81
146	146	38.52	8.81
147	147	38.52	8.81
148	148	38.53	8.82
149	149	38.53	8.82
150	150	38.53	8.82
151	151	38.54	8.83
152	152	38.54	8.83
153	153	38.55	8.84
154	154	38.55	8.84
155	155	38.56	8.85
156	156	38.58	8.87
157	157	38.55	8.84
158	158	38.56	8.85
159	159	38.59	8.88
160	160	38.59	8.88
161	161	38.57	8.86
162	162	38.60	8.89
163	163	38.57	8.86
164	164	38.60	8.89
165	165	38.58	8.87
166	166	38.60	8.89



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
167	167	38.57	8.86
168	168	38.57	8.86
169	169	38.58	8.87
170	170	38.60	8.89
171	171	38.61	8.90
172	172	38.59	8.88
173	173	38.63	8.92
174	174	38.61	8.90
175	175	38.61	8.90
176	176	38.61	8.90
177	177	38.63	8.92
178	178	38.60	8.89
179	179	38.63	8.92
180	180	38.61	8.90
181	181	38.60	8.89
182	182	38.64	8.93
183	183	38.64	8.93
184	184	38.63	8.92
185	185	38.64	8.93
186	186	38.64	8.93
187	187	38.63	8.92
188	188	38.65	8.94
189	189	38.63	8.92
190	190	38.66	8.95
191	191	38.66	8.95
192	192	38.64	8.93
193	193	38.65	8.94
194	194	38.65	8.94
195	195	38.65	8.94
196	196	38.65	8.94
197	197	38.65	8.94
198	198	38.65	8.94
199	199	38.66	8.95
200	200	38.66	8.95
201	201	38.66	8.95
202	202	38.68	8.97
203	203	38.66	8.95
204	204	38.68	8.97
205	205	38.69	8.98
206	206	38.68	8.97
207	207	38.65	8.94
208	208	38.68	8.97
209	209	38.68	8.97
210	210	38.68	8.97
211	211	38.69	8.98
212	212	38.70	8.99
213	213	38.67	8.96
214	214	38.70	8.99
215	215	38.68	8.97
216	216	38.69	8.98
217	217	38.70	8.99
218	218	38.69	8.98
219	219	38.67	8.96
220	220	38.69	8.98
221	221	38.70	8.99
222	222	38.70	8.99
223	223	38.70	8.99



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
224	224	38.71	9.00
225	225	38.70	8.99
226	226	38.74	9.03
227	227	38.71	9.00
228	228	38.74	9.03
229	229	38.74	9.03
230	230	38.71	9.00
231	231	38.73	9.02
232	232	38.73	9.02
233	233	38.74	9.03
234	234	38.71	9.00
235	235	38.75	9.04
236	236	38.71	9.00
237	237	38.71	9.00
238	238	38.74	9.03
239	239	38.73	9.02
240	240	38.74	9.03
241	241	38.75	9.04
242	242	38.75	9.04
243	243	38.77	9.06
244	244	38.74	9.03
245	245	38.74	9.03
246	246	38.73	9.02
247	247	38.73	9.02
248	248	38.73	9.02
249	249	38.73	9.02
250	250	38.75	9.04
251	251	38.75	9.04
252	252	38.73	9.02
253	253	38.76	9.05
254	254	38.74	9.03
255	255	38.78	9.07
256	256	38.75	9.04
257	257	38.77	9.06
258	258	38.75	9.04
259	259	38.75	9.04
260	260	38.79	9.08
261	261	38.75	9.04
262	262	38.78	9.07
263	263	38.75	9.04
264	264	38.79	9.08
265	265	38.75	9.04
266	266	38.79	9.08
267	267	38.78	9.07
268	268	38.79	9.08
269	269	38.79	9.08
270	270	38.80	9.09
271	271	38.80	9.09
272	272	38.77	9.06
273	273	38.78	9.07
274	274	38.81	9.10
275	275	38.77	9.06
276	276	38.78	9.07
277	277	38.79	9.08
278	278	38.77	9.06
279	279	38.81	9.10
280	280	38.78	9.07



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
281	281	38.79	9.08
282	282	38.80	9.09
283	283	38.79	9.08
284	284	38.78	9.07
285	285	38.79	9.08
286	286	38.79	9.08
287	287	38.80	9.09
288	288	38.80	9.09
289	289	38.80	9.09
290	290	38.78	9.07
291	291	38.82	9.11
292	292	38.77	9.06
293	293	38.80	9.09
294	294	38.80	9.09
295	295	38.79	9.08
296	296	38.79	9.08
297	297	38.80	9.09
298	298	38.80	9.09
299	299	38.83	9.12
300	300	38.79	9.08
301	301	38.81	9.10
302	302	38.81	9.10
303	303	38.81	9.10
304	304	38.83	9.12
305	305	38.82	9.11
306	306	38.83	9.12
307	307	38.85	9.14
308	308	38.83	9.12
309	309	38.83	9.12
310	310	38.83	9.12
311	311	38.83	9.12
312	312	38.85	9.14
313	313	38.84	9.13
314	314	38.84	9.13
315	315	38.83	9.12
316	316	38.84	9.13
317	317	38.84	9.13
318	318	38.83	9.12
319	319	38.85	9.14
320	320	38.84	9.13
321	321	38.83	9.12
322	322	38.86	9.15
323	323	38.86	9.15
324	324	38.84	9.13
325	325	38.84	9.13
326	326	38.86	9.15
327	327	38.84	9.13
328	328	38.85	9.14
329	329	38.86	9.15
330	330	38.83	9.12
331	331	38.84	9.13
332	332	38.86	9.15
333	333	38.83	9.12
334	334	38.82	9.11
335	335	38.87	9.16
336	336	38.85	9.14
337	337	38.86	9.15



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
338	338	38.87	9.16
339	339	38.85	9.14
340	340	38.89	9.18
341	341	38.87	9.16
342	342	38.84	9.13
343	343	38.85	9.14
344	344	38.86	9.15
345	345	38.89	9.18
346	346	38.89	9.18
347	347	38.86	9.15
348	348	38.88	9.17
349	349	38.88	9.17
350	350	38.89	9.18
351	351	38.86	9.15
352	352	38.89	9.18
353	353	38.91	9.20
354	354	38.86	9.15
355	355	38.89	9.18
356	356	38.88	9.17
357	357	38.87	9.16
358	358	38.88	9.17
359	359	38.89	9.18
360	360	38.89	9.18
361	361	38.89	9.18
362	362	38.91	9.20
363	363	38.88	9.17
364	364	38.89	9.18
365	365	38.89	9.18
366	366	38.91	9.20
367	367	38.90	9.19
368	368	38.88	9.17
369	369	38.89	9.18
370	370	38.86	9.15
371	371	38.90	9.19
372	372	38.89	9.18
373	373	38.90	9.19
374	374	38.89	9.18
375	375	38.91	9.20
376	376	38.86	9.15
377	377	38.87	9.16
378	378	38.89	9.18
379	379	38.90	9.19
380	380	38.90	9.19
381	381	38.87	9.16
382	382	38.90	9.19
383	383	38.89	9.18
384	384	38.89	9.18
385	385	38.91	9.20
386	386	38.90	9.19
387	387	38.90	9.19
388	388	38.87	9.16
389	389	38.90	9.19
390	390	38.90	9.19
391	391	38.90	9.19
392	392	38.92	9.21
393	393	38.90	9.19
394	394	38.90	9.19



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
395	395	38.89	9.18
396	396	38.90	9.19
397	397	38.91	9.20
398	398	38.89	9.18
399	399	38.90	9.19
400	400	38.91	9.20
401	401	38.92	9.21
402	402	38.91	9.20
403	403	38.91	9.20
404	404	38.91	9.20
405	405	38.93	9.22
406	406	38.91	9.20
407	407	38.90	9.19
408	408	38.91	9.20
409	409	38.92	9.21
410	410	38.90	9.19
411	411	38.92	9.21
412	412	38.91	9.20
413	413	38.88	9.17
414	414	38.91	9.20
415	415	38.91	9.20
416	416	38.90	9.19
417	417	38.91	9.20
418	418	38.89	9.18
419	419	38.90	9.19
420	420	38.89	9.18
421	421	38.92	9.21
422	422	38.92	9.21
423	423	38.91	9.20
424	424	38.91	9.20
425	425	38.91	9.20
426	426	38.93	9.22
427	427	38.92	9.21
428	428	38.91	9.20
429	429	38.90	9.19
430	430	38.91	9.20
431	431	38.92	9.21
432	432	38.93	9.22
433	433	38.92	9.21
434	434	38.94	9.23
435	435	38.93	9.22
436	436	38.95	9.24
437	437	38.95	9.24
438	438	38.91	9.20
439	439	38.91	9.20
440	440	38.93	9.22
441	441	38.93	9.22
442	442	38.96	9.25
443	443	38.93	9.22
444	444	38.93	9.22
445	445	38.93	9.22
446	446	38.92	9.21
447	447	38.94	9.23
448	448	38.92	9.21
449	449	38.94	9.23
450	450	38.93	9.22
451	451	38.97	9.26



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
452	452	38.96	9.25
453	453	38.98	9.27
454	454	38.96	9.25
455	455	38.97	9.26
456	456	38.96	9.25
457	457	38.95	9.24
458	458	38.96	9.25
459	459	38.96	9.25
460	460	38.95	9.24
461	461	38.94	9.23
462	462	38.94	9.23
463	463	38.94	9.23
464	464	38.97	9.26
465	465	38.93	9.22
466	466	38.96	9.25
467	467	38.96	9.25
468	468	38.96	9.25
469	469	38.97	9.26
470	470	38.97	9.26
471	471	38.96	9.25
472	472	38.95	9.24
473	473	38.93	9.22
474	474	38.93	9.22
475	475	38.95	9.24
476	476	38.93	9.22
477	477	38.94	9.23
478	478	38.96	9.25
479	479	38.94	9.23
480	480	38.96	9.25
481	481	38.95	9.24
482	482	38.94	9.23
483	483	38.97	9.26
484	484	38.94	9.23
485	485	38.95	9.24
486	486	38.95	9.24
487	487	38.97	9.26
488	488	38.97	9.26
489	489	38.96	9.25
490	490	38.95	9.24
491	491	38.94	9.23
492	492	38.98	9.27
493	493	38.96	9.25
494	494	38.97	9.26
495	495	38.97	9.26
496	496	38.95	9.24
497	497	38.96	9.25
498	498	38.94	9.23
499	499	38.97	9.26
500	500	38.94	9.23
501	501	38.97	9.26
502	502	38.94	9.23
503	503	38.95	9.24
504	504	38.96	9.25
505	505	38.99	9.28
506	506	38.96	9.25
507	507	38.98	9.27
508	508	38.96	9.25



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
509	509	38.96	9.25
510	510	38.96	9.25
511	511	38.96	9.25
512	512	38.98	9.27
513	513	38.99	9.28
514	514	38.97	9.26
515	515	38.96	9.25
516	516	38.95	9.24
517	517	38.98	9.27
518	518	38.95	9.24
519	519	38.98	9.27
520	520	38.99	9.28
521	521	38.96	9.25
522	522	38.98	9.27
523	523	38.98	9.27
524	524	38.97	9.26
525	525	38.99	9.28
526	526	38.99	9.28
527	527	38.99	9.28
528	528	38.98	9.27
529	529	38.98	9.27
530	530	38.97	9.26
531	531	38.97	9.26
532	532	38.97	9.26
533	533	38.97	9.26
534	534	38.98	9.27
535	535	38.98	9.27
536	536	38.98	9.27
537	537	38.97	9.26
538	538	38.96	9.25
539	539	38.98	9.27
540	540	38.99	9.28
541	541	38.98	9.27
542	542	38.99	9.28
543	543	39.01	9.30
544	544	38.99	9.28
545	545	38.99	9.28
546	546	39.01	9.30
547	547	39.02	9.31
548	548	39.01	9.30
549	549	39.03	9.32
550	550	39.03	9.32
551	551	39.02	9.31
552	552	39.02	9.31
553	553	39.01	9.30
554	554	39.02	9.31
555	555	39.03	9.32
556	556	39.01	9.30
557	557	39.01	9.30
558	558	39.03	9.32
559	559	39.03	9.32
560	560	39.03	9.32
561	561	39.04	9.33
562	562	39.02	9.31
563	563	39.03	9.32
564	564	39.03	9.32
565	565	39.04	9.33



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
566	566	39.02	9.31
567	567	39.03	9.32
568	568	39.04	9.33
569	569	39.02	9.31
570	570	39.02	9.31
571	571	39.06	9.35
572	572	39.03	9.32
573	573	39.08	9.37
574	574	39.06	9.35
575	575	39.05	9.34
576	576	39.01	9.30
577	577	39.05	9.34
578	578	39.02	9.31
579	579	39.02	9.31
580	580	39.04	9.33
581	581	39.07	9.36
582	582	39.06	9.35
583	583	39.04	9.33
584	584	39.02	9.31
585	585	39.04	9.33
586	586	39.08	9.37
587	587	39.07	9.36
588	588	39.03	9.32
589	589	39.07	9.36
590	590	39.04	9.33
591	591	39.07	9.36
592	592	39.08	9.37
593	593	39.06	9.35
594	594	39.03	9.32
595	595	39.08	9.37
596	596	39.06	9.35
597	597	39.08	9.37
598	598	39.07	9.36
599	599	39.04	9.33
600	600	39.06	9.35
601	601	39.04	9.33
602	602	39.04	9.33
603	603	39.04	9.33
604	604	39.06	9.35
605	605	39.07	9.36
606	606	39.04	9.33
607	607	39.06	9.35
608	608	39.08	9.37
609	609	39.06	9.35
610	610	39.06	9.35
611	611	39.07	9.36
612	612	39.08	9.37
613	613	39.08	9.37
614	614	39.08	9.37
615	615	39.06	9.35
616	616	39.07	9.36
617	617	39.08	9.37
618	618	39.07	9.36
619	619	39.08	9.37
620	620	39.07	9.36
621	621	39.07	9.36
622	622	39.08	9.37



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
623	623	39.08	9.37
624	624	39.09	9.38
625	625	39.07	9.36
626	626	39.06	9.35
627	627	39.08	9.37
628	628	39.07	9.36
629	629	39.09	9.38
630	630	39.07	9.36
631	631	39.09	9.38
632	632	39.07	9.36
633	633	39.07	9.36
634	634	39.06	9.35
635	635	39.08	9.37
636	636	39.07	9.36
637	637	39.09	9.38
638	638	39.07	9.36
639	639	39.07	9.36
640	640	39.08	9.37
641	641	39.07	9.36
642	642	39.09	9.38
643	643	39.07	9.36
644	644	39.09	9.38
645	645	39.09	9.38
646	646	39.09	9.38
647	647	39.09	9.38
648	648	39.11	9.40
649	649	39.08	9.37
650	650	39.08	9.37
651	651	39.07	9.36
652	652	39.09	9.38
653	653	39.07	9.36
654	654	39.09	9.38
655	655	39.09	9.38
656	656	39.07	9.36
657	657	39.07	9.36
658	658	39.11	9.40
659	659	39.08	9.37
660	660	39.11	9.40
661	661	39.09	9.38
662	662	39.08	9.37
663	663	39.07	9.36
664	664	39.11	9.40
665	665	39.08	9.37
666	666	39.07	9.36
667	667	39.07	9.36
668	668	39.07	9.36
669	669	39.06	9.35
670	670	39.07	9.36
671	671	39.07	9.36
672	672	39.09	9.38
673	673	39.11	9.40
674	674	39.13	9.42
675	675	39.13	9.42
676	676	39.09	9.38
677	677	39.11	9.40
678	678	39.12	9.41
679	679	39.08	9.37



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
680	680	39.08	9.37
681	681	39.09	9.38
682	682	39.11	9.40
683	683	39.08	9.37
684	684	39.14	9.43
685	685	39.12	9.41
686	686	39.11	9.40
687	687	39.08	9.37
688	688	39.08	9.37
689	689	39.08	9.37
690	690	39.12	9.41
691	691	39.12	9.41
692	692	39.11	9.40
693	693	39.11	9.40
694	694	39.09	9.38
695	695	39.12	9.41
696	696	39.12	9.41
697	697	39.09	9.38
698	698	39.11	9.40
699	699	39.11	9.40
700	700	39.12	9.41
701	701	39.11	9.40
702	702	39.12	9.41
703	703	39.13	9.42
704	704	39.09	9.38
705	705	39.13	9.42
706	706	39.11	9.40
707	707	39.13	9.42
708	708	39.13	9.42
709	709	39.11	9.40
710	710	39.12	9.41
711	711	39.09	9.38
712	712	39.11	9.40
713	713	39.11	9.40
714	714	39.12	9.41
715	715	39.11	9.40
716	716	39.14	9.43
717	717	39.13	9.42
718	718	39.13	9.42
719	719	39.12	9.41
720	720	39.12	9.41
721	721	39.13	9.42
722	722	39.14	9.43
723	723	39.13	9.42
724	724	39.13	9.42
725	725	39.17	9.46
726	726	39.13	9.42
727	727	39.12	9.41
728	728	39.14	9.43
729	729	39.15	9.44
730	730	39.14	9.43
731	731	39.15	9.44
732	732	39.16	9.45
733	733	39.16	9.45
734	734	39.17	9.46
735	735	39.14	9.43
736	736	39.15	9.44



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
737	737	39.17	9.46
738	738	39.13	9.42
739	739	39.13	9.42
740	740	39.15	9.44
741	741	39.13	9.42
742	742	39.15	9.44
743	743	39.13	9.42
744	744	39.16	9.45
745	745	39.17	9.46
746	746	39.14	9.43
747	747	39.16	9.45
748	748	39.14	9.43
749	749	39.13	9.42
750	750	39.16	9.45
751	751	39.16	9.45
752	752	39.13	9.42
753	753	39.13	9.42
754	754	39.13	9.42
755	755	39.13	9.42
756	756	39.15	9.44
757	757	39.14	9.43
758	758	39.14	9.43
759	759	39.15	9.44
760	760	39.17	9.46
761	761	39.14	9.43
762	762	39.12	9.41
763	763	39.11	9.40
764	764	39.12	9.41
765	765	39.13	9.42
766	766	39.12	9.41
767	767	39.15	9.44
768	768	39.14	9.43
769	769	39.11	9.40
770	770	39.14	9.43
771	771	39.16	9.45
772	772	39.12	9.41
773	773	39.12	9.41
774	774	39.13	9.42
775	775	39.16	9.45
776	776	39.12	9.41
777	777	39.16	9.45
778	778	39.17	9.46
779	779	39.14	9.43
780	780	39.18	9.47
781	781	39.14	9.43
782	782	39.14	9.43
783	783	39.16	9.45
784	784	39.17	9.46
785	785	39.14	9.43
786	786	39.16	9.45
787	787	39.16	9.45
788	788	39.15	9.44
789	789	39.18	9.47
790	790	39.17	9.46
791	791	39.16	9.45
792	792	39.18	9.47
793	793	39.16	9.45



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
794	794	39.17	9.46
795	795	39.18	9.47
796	796	39.18	9.47
797	797	39.16	9.45
798	798	39.14	9.43
799	799	39.18	9.47
800	800	39.18	9.47
801	801	39.16	9.45
802	802	39.18	9.47
803	803	39.14	9.43
804	804	39.13	9.42
805	805	39.16	9.45
806	806	39.15	9.44
807	807	39.15	9.44
808	808	39.15	9.44
809	809	39.17	9.46
810	810	39.17	9.46
811	811	39.17	9.46
812	812	39.17	9.46
813	813	39.19	9.48
814	814	39.16	9.45
815	815	39.16	9.45
816	816	39.19	9.48
817	817	39.17	9.46
818	818	39.18	9.47
819	819	39.19	9.48
820	820	39.15	9.44
821	821	39.19	9.48
822	822	39.17	9.46
823	823	39.20	9.49
824	824	39.17	9.46
825	825	39.19	9.48
826	826	39.18	9.47
827	827	39.18	9.47
828	828	39.18	9.47
829	829	39.18	9.47
830	830	39.17	9.46
831	831	39.18	9.47
832	832	39.18	9.47
833	833	39.17	9.46
834	834	39.19	9.48
835	835	39.17	9.46
836	836	39.19	9.48
837	837	39.19	9.48
838	838	39.17	9.46
839	839	39.14	9.43
840	840	39.18	9.47
841	841	39.17	9.46
842	842	39.16	9.45
843	843	39.19	9.48
844	844	39.16	9.45
845	845	39.18	9.47
846	846	39.20	9.49
847	847	39.17	9.46
848	848	39.21	9.50
849	849	39.18	9.47
850	850	39.20	9.49



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
851	851	39.20	9.49
852	852	39.18	9.47
853	853	39.21	9.50
854	854	39.21	9.50
855	855	39.18	9.47
856	856	39.18	9.47
857	857	39.17	9.46
858	858	39.21	9.50
859	859	39.21	9.50
860	860	39.20	9.49
861	861	39.21	9.50
862	862	39.20	9.49
863	863	39.19	9.48
864	864	39.20	9.49
865	865	39.19	9.48
866	866	39.19	9.48
867	867	39.19	9.48
868	868	39.22	9.51
869	869	39.21	9.50
870	870	39.19	9.48
871	871	39.18	9.47
872	872	39.17	9.46
873	873	39.19	9.48
874	874	39.18	9.47
875	875	39.19	9.48
876	876	39.19	9.48
877	877	39.20	9.49
878	878	39.19	9.48
879	879	39.21	9.50
880	880	39.22	9.51
881	881	39.19	9.48
882	882	39.20	9.49
883	883	39.20	9.49
884	884	39.22	9.51
885	885	39.21	9.50
886	886	39.21	9.50
887	887	39.19	9.48
888	888	39.21	9.50
889	889	39.19	9.48
890	890	39.22	9.51
891	891	39.19	9.48
892	892	39.19	9.48
893	893	39.19	9.48
894	894	39.21	9.50
895	895	39.18	9.47
896	896	39.20	9.49
897	897	39.22	9.51
898	898	39.23	9.52
899	899	39.18	9.47
900	900	39.19	9.48
901	901	39.21	9.50
902	902	39.18	9.47
903	903	39.18	9.47
904	904	39.18	9.47
905	905	39.18	9.47
906	906	39.23	9.52
907	907	39.22	9.51



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Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
908	908	39.22	9.51
909	909	39.19	9.48
910	910	39.20	9.49
911	911	39.22	9.51
912	912	39.22	9.51
913	913	39.18	9.47
914	914	39.21	9.50
915	915	39.21	9.50
916	916	39.22	9.51
917	917	39.22	9.51
918	918	39.22	9.51
919	919	39.23	9.52
920	920	39.21	9.50
921	921	39.18	9.47
922	922	39.22	9.51
923	923	39.21	9.50
924	924	39.21	9.50
925	925	39.23	9.52
926	926	39.21	9.50
927	927	39.23	9.52
928	928	39.22	9.51
929	929	39.23	9.52
930	930	39.21	9.50
931	931	39.22	9.51
932	932	39.20	9.49
933	933	39.23	9.52
934	934	39.22	9.51
935	935	39.21	9.50
936	936	39.24	9.53
937	937	39.22	9.51
938	938	39.22	9.51
939	939	39.22	9.51
940	940	39.22	9.51
941	941	39.23	9.52
942	942	39.20	9.49
943	943	39.23	9.52
944	944	39.22	9.51
945	945	39.23	9.52
946	946	39.22	9.51
947	947	39.22	9.51
948	948	39.23	9.52
949	949	39.23	9.52
950	950	39.20	9.49
951	951	39.22	9.51
952	952	39.23	9.52
953	953	39.24	9.53
954	954	39.20	9.49
955	955	39.24	9.53
956	956	39.21	9.50
957	957	39.23	9.52
958	958	39.23	9.52
959	959	39.22	9.51
960	960	39.22	9.51
961	961	39.23	9.52
962	962	39.23	9.52
963	963	39.25	9.54
964	964	39.23	9.52



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
965	965	39.27	9.56
966	966	39.23	9.52
967	967	39.21	9.50
968	968	39.24	9.53
969	969	39.24	9.53
970	970	39.27	9.56
971	971	39.23	9.52
972	972	39.22	9.51
973	973	39.21	9.50
974	974	39.20	9.49
975	975	39.20	9.49
976	976	39.24	9.53
977	977	39.22	9.51
978	978	39.22	9.51
979	979	39.22	9.51
980	980	39.25	9.54
981	981	39.21	9.50
982	982	39.21	9.50
983	983	39.25	9.54
984	984	39.21	9.50
985	985	39.22	9.51
986	986	39.24	9.53
987	987	39.25	9.54
988	988	39.22	9.51
989	989	39.23	9.52
990	990	39.23	9.52
991	991	39.24	9.53
992	992	39.23	9.52
993	993	39.22	9.51
994	994	39.24	9.53
995	995	39.22	9.51
996	996	39.21	9.50
997	997	39.25	9.54
998	998	39.24	9.53
999	999	39.23	9.52
1000	1000	39.22	9.51
1001	1001	39.26	9.55
1002	1002	39.23	9.52
1003	1003	39.22	9.51
1004	1004	39.26	9.55
1005	1005	39.25	9.54
1006	1006	39.23	9.52
1007	1007	39.23	9.52
1008	1008	39.24	9.53
1009	1009	39.23	9.52
1010	1010	39.25	9.54
1011	1011	39.24	9.53
1012	1012	39.24	9.53
1013	1013	39.25	9.54
1014	1014	39.23	9.52
1015	1015	39.24	9.53
1016	1016	39.20	9.49
1017	1017	39.23	9.52
1018	1018	39.24	9.53
1019	1019	39.23	9.52
1020	1020	39.23	9.52
1021	1021	39.23	9.52



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1022	1022	39.25	9.54
1023	1023	39.23	9.52
1024	1024	39.25	9.54
1025	1025	39.23	9.52
1026	1026	39.25	9.54
1027	1027	39.24	9.53
1028	1028	39.25	9.54
1029	1029	39.23	9.52
1030	1030	39.23	9.52
1031	1031	39.25	9.54
1032	1032	39.26	9.55
1033	1033	39.24	9.53
1034	1034	39.24	9.53
1035	1035	39.25	9.54
1036	1036	39.27	9.56
1037	1037	39.26	9.55
1038	1038	39.25	9.54
1039	1039	39.26	9.55
1040	1040	39.25	9.54
1041	1041	39.25	9.54
1042	1042	39.25	9.54
1043	1043	39.29	9.58
1044	1044	39.25	9.54
1045	1045	39.23	9.52
1046	1046	39.24	9.53
1047	1047	39.25	9.54
1048	1048	39.27	9.56
1049	1049	39.26	9.55
1050	1050	39.25	9.54
1051	1051	39.25	9.54
1052	1052	39.25	9.54
1053	1053	39.26	9.55
1054	1054	39.26	9.55
1055	1055	39.25	9.54
1056	1056	39.26	9.55
1057	1057	39.27	9.56
1058	1058	39.27	9.56
1059	1059	39.21	9.50
1060	1060	39.23	9.52
1061	1061	39.24	9.53
1062	1062	39.24	9.53
1063	1063	39.27	9.56
1064	1064	39.24	9.53
1065	1065	39.27	9.56
1066	1066	39.27	9.56
1067	1067	39.27	9.56
1068	1068	39.29	9.58
1069	1069	39.26	9.55
1070	1070	39.26	9.55
1071	1071	39.27	9.56
1072	1072	39.25	9.54
1073	1073	39.28	9.57
1074	1074	39.25	9.54
1075	1075	39.27	9.56
1076	1076	39.29	9.58
1077	1077	39.25	9.54
1078	1078	39.26	9.55



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1079	1079	39.27	9.56
1080	1080	39.27	9.56
1081	1081	39.27	9.56
1082	1082	39.30	9.59
1083	1083	39.26	9.55
1084	1084	39.26	9.55
1085	1085	39.27	9.56
1086	1086	39.27	9.56
1087	1087	39.25	9.54
1088	1088	39.27	9.56
1089	1089	39.25	9.54
1090	1090	39.28	9.57
1091	1091	39.25	9.54
1092	1092	39.27	9.56
1093	1093	39.29	9.58
1094	1094	39.28	9.57
1095	1095	39.28	9.57
1096	1096	39.29	9.58
1097	1097	39.28	9.57
1098	1098	39.28	9.57
1099	1099	39.27	9.56
1100	1100	39.27	9.56
1101	1101	39.25	9.54
1102	1102	39.27	9.56
1103	1103	39.28	9.57
1104	1104	39.25	9.54
1105	1105	39.28	9.57
1106	1106	39.26	9.55
1107	1107	39.28	9.57
1108	1108	39.26	9.55
1109	1109	39.31	9.60
1110	1110	39.28	9.57
1111	1111	39.30	9.59
1112	1112	39.29	9.58
1113	1113	39.29	9.58
1114	1114	39.29	9.58
1115	1115	39.29	9.58
1116	1116	39.29	9.58
1117	1117	39.29	9.58
1118	1118	39.28	9.57
1119	1119	39.28	9.57
1120	1120	39.29	9.58
1121	1121	39.29	9.58
1122	1122	39.28	9.57
1123	1123	39.28	9.57
1124	1124	39.28	9.57
1125	1125	39.28	9.57
1126	1126	39.28	9.57
1127	1127	39.28	9.57
1128	1128	39.28	9.57
1129	1129	39.29	9.58
1130	1130	39.28	9.57
1131	1131	39.30	9.59
1132	1132	39.29	9.58
1133	1133	39.30	9.59
1134	1134	39.30	9.59
1135	1135	39.29	9.58



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1136	1136	39.26	9.55
1137	1137	39.29	9.58
1138	1138	39.28	9.57
1139	1139	39.29	9.58
1140	1140	39.28	9.57
1141	1141	39.29	9.58
1142	1142	39.28	9.57
1143	1143	39.29	9.58
1144	1144	39.31	9.60
1145	1145	39.27	9.56
1146	1146	39.28	9.57
1147	1147	39.28	9.57
1148	1148	39.29	9.58
1149	1149	39.31	9.60
1150	1150	39.29	9.58
1151	1151	39.25	9.54
1152	1152	39.30	9.59
1153	1153	39.31	9.60
1154	1154	39.30	9.59
1155	1155	39.27	9.56
1156	1156	39.29	9.58
1157	1157	39.28	9.57
1158	1158	39.26	9.55
1159	1159	39.30	9.59
1160	1160	39.30	9.59
1161	1161	39.29	9.58
1162	1162	39.31	9.60
1163	1163	39.29	9.58
1164	1164	39.27	9.56
1165	1165	39.31	9.60
1166	1166	39.28	9.57
1167	1167	39.29	9.58
1168	1168	39.31	9.60
1169	1169	39.29	9.58
1170	1170	39.29	9.58
1171	1171	39.30	9.59
1172	1172	39.29	9.58
1173	1173	39.30	9.59
1174	1174	39.29	9.58
1175	1175	39.29	9.58
1176	1176	39.29	9.58
1177	1177	39.30	9.59
1178	1178	39.34	9.63
1179	1179	39.30	9.59
1180	1180	39.32	9.61
1181	1181	39.32	9.61
1182	1182	39.30	9.59
1183	1183	39.31	9.60
1184	1184	39.32	9.61
1185	1185	39.31	9.60
1186	1186	39.29	9.58
1187	1187	39.30	9.59
1188	1188	39.30	9.59
1189	1189	39.30	9.59
1190	1190	39.29	9.58
1191	1191	39.29	9.58
1192	1192	39.32	9.61



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1193	1193	39.31	9.60
1194	1194	39.30	9.59
1195	1195	39.29	9.58
1196	1196	39.30	9.59
1197	1197	39.32	9.61
1198	1198	39.30	9.59
1199	1199	39.30	9.59
1200	1200	39.34	9.63
1201	1201	39.31	9.60
1202	1202	39.28	9.57
1203	1203	39.33	9.62
1204	1204	39.30	9.59
1205	1205	39.31	9.60
1206	1206	39.29	9.58
1207	1207	39.29	9.58
1208	1208	39.31	9.60
1209	1209	39.33	9.62
1210	1210	39.33	9.62
1211	1211	39.32	9.61
1212	1212	39.33	9.62
1213	1213	39.32	9.61
1214	1214	39.29	9.58
1215	1215	39.33	9.62
1216	1216	39.29	9.58
1217	1217	39.33	9.62
1218	1218	39.32	9.61
1219	1219	39.32	9.61
1220	1220	39.30	9.59
1221	1221	39.33	9.62
1222	1222	39.30	9.59
1223	1223	39.33	9.62
1224	1224	39.32	9.61
1225	1225	39.32	9.61
1226	1226	39.29	9.58
1227	1227	39.33	9.62
1228	1228	39.32	9.61
1229	1229	39.32	9.61
1230	1230	39.32	9.61
1231	1231	39.32	9.61
1232	1232	39.31	9.60
1233	1233	39.31	9.60
1234	1234	39.33	9.62
1235	1235	39.33	9.62
1236	1236	39.30	9.59
1237	1237	39.32	9.61
1238	1238	39.30	9.59
1239	1239	39.33	9.62
1240	1240	39.28	9.57
1241	1241	39.29	9.58
1242	1242	39.33	9.62
1243	1243	39.34	9.63
1244	1244	39.32	9.61
1245	1245	39.31	9.60
1246	1246	39.29	9.58
1247	1247	39.29	9.58
1248	1248	39.31	9.60
1249	1249	39.32	9.61



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1250	1250	39.33	9.62
1251	1251	39.32	9.61
1252	1252	39.32	9.61
1253	1253	39.33	9.62
1254	1254	39.32	9.61
1255	1255	39.33	9.62
1256	1256	39.33	9.62
1257	1257	39.33	9.62
1258	1258	39.30	9.59
1259	1259	39.32	9.61
1260	1260	39.32	9.61
1261	1261	39.32	9.61
1262	1262	39.31	9.60
1263	1263	39.32	9.61
1264	1264	39.31	9.60
1265	1265	39.32	9.61
1266	1266	39.29	9.58
1267	1267	39.29	9.58
1268	1268	39.32	9.61
1269	1269	39.32	9.61
1270	1270	39.32	9.61
1271	1271	39.29	9.58
1272	1272	39.32	9.61
1273	1273	39.34	9.63
1274	1274	39.28	9.57
1275	1275	39.32	9.61
1276	1276	39.31	9.60
1277	1277	39.30	9.59
1278	1278	39.31	9.60
1279	1279	39.32	9.61
1280	1280	39.30	9.59
1281	1281	39.30	9.59
1282	1282	39.32	9.61
1283	1283	39.29	9.58
1284	1284	39.32	9.61
1285	1285	39.30	9.59
1286	1286	39.32	9.61
1287	1287	39.31	9.60
1288	1288	39.31	9.60
1289	1289	39.32	9.61
1290	1290	39.32	9.61
1291	1291	39.29	9.58
1292	1292	39.34	9.63
1293	1293	39.32	9.61
1294	1294	39.33	9.62
1295	1295	39.33	9.62
1296	1296	39.32	9.61
1297	1297	39.33	9.62
1298	1298	39.31	9.60
1299	1299	39.33	9.62
1300	1300	39.32	9.61
1301	1301	39.32	9.61
1302	1302	39.31	9.60
1303	1303	39.32	9.61
1304	1304	39.35	9.64
1305	1305	39.31	9.60
1306	1306	39.29	9.58



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1307	1307	39.33	9.62
1308	1308	39.31	9.60
1309	1309	39.33	9.62
1310	1310	39.33	9.62
1311	1311	39.34	9.63
1312	1312	39.34	9.63
1313	1313	39.34	9.63
1314	1314	39.34	9.63
1315	1315	39.32	9.61
1316	1316	39.33	9.62
1317	1317	39.30	9.59
1318	1318	39.33	9.62
1319	1319	39.33	9.62
1320	1320	39.33	9.62
1321	1321	39.34	9.63
1322	1322	39.36	9.65
1323	1323	39.34	9.63
1324	1324	39.36	9.65
1325	1325	39.35	9.64
1326	1326	39.33	9.62
1327	1327	39.34	9.63
1328	1328	39.34	9.63
1329	1329	39.36	9.65
1330	1330	39.35	9.64
1331	1331	39.32	9.61
1332	1332	39.32	9.61
1333	1333	39.33	9.62
1334	1334	39.34	9.63
1335	1335	39.34	9.63
1336	1336	39.36	9.65
1337	1337	39.33	9.62
1338	1338	39.34	9.63
1339	1339	39.35	9.64
1340	1340	39.34	9.63
1341	1341	39.35	9.64
1342	1342	39.36	9.65
1343	1343	39.39	9.68
1344	1344	39.34	9.63
1345	1345	39.33	9.62
1346	1346	39.35	9.64
1347	1347	39.34	9.63
1348	1348	39.33	9.62
1349	1349	39.32	9.61
1350	1350	39.32	9.61
1351	1351	39.34	9.63
1352	1352	39.35	9.64
1353	1353	39.33	9.62
1354	1354	39.30	9.59
1355	1355	39.31	9.60
1356	1356	39.34	9.63
1357	1357	39.34	9.63
1358	1358	39.35	9.64
1359	1359	39.34	9.63
1360	1360	39.33	9.62
1361	1361	39.34	9.63
1362	1362	39.33	9.62
1363	1363	39.37	9.66



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1364	1364	39.32	9.61
1365	1365	39.34	9.63
1366	1366	39.33	9.62
1367	1367	39.34	9.63
1368	1368	39.33	9.62
1369	1369	39.34	9.63
1370	1370	39.33	9.62
1371	1371	39.34	9.63
1372	1372	39.33	9.62
1373	1373	39.33	9.62
1374	1374	39.33	9.62
1375	1375	39.35	9.64
1376	1376	39.34	9.63
1377	1377	39.35	9.64
1378	1378	39.34	9.63
1379	1379	39.32	9.61
1380	1380	39.33	9.62
1381	1381	39.33	9.62
1382	1382	39.32	9.61
1383	1383	39.34	9.63
1384	1384	39.35	9.64
1385	1385	39.34	9.63
1386	1386	39.33	9.62
1387	1387	39.32	9.61
1388	1388	39.34	9.63
1389	1389	39.34	9.63
1390	1390	39.32	9.61
1391	1391	39.34	9.63
1392	1392	39.31	9.60
1393	1393	39.34	9.63
1394	1394	39.33	9.62
1395	1395	39.35	9.64
1396	1396	39.34	9.63
1397	1397	39.35	9.64
1398	1398	39.34	9.63
1399	1399	39.32	9.61
1400	1400	39.32	9.61
1401	1401	39.32	9.61
1402	1402	39.31	9.60
1403	1403	39.32	9.61
1404	1404	39.34	9.63
1405	1405	39.33	9.62
1406	1406	39.32	9.61
1407	1407	39.32	9.61
1408	1408	39.36	9.65
1409	1409	39.33	9.62
1410	1410	39.35	9.64
1411	1411	39.34	9.63
1412	1412	39.34	9.63
1413	1413	39.34	9.63
1414	1414	39.35	9.64
1415	1415	39.30	9.59
1416	1416	39.32	9.61
1417	1417	39.33	9.62
1418	1418	39.29	9.58
1419	1419	39.31	9.60
1420	1420	39.35	9.64



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1421	1421	39.32	9.61
1422	1422	39.33	9.62
1423	1423	39.35	9.64
1424	1424	39.35	9.64
1425	1425	39.35	9.64
1426	1426	39.34	9.63
1427	1427	39.35	9.64
1428	1428	39.33	9.62
1429	1429	39.32	9.61
1430	1430	39.34	9.63
1431	1431	39.32	9.61
1432	1432	39.34	9.63
1433	1433	39.33	9.62
1434	1434	39.34	9.63
1435	1435	39.33	9.62
1436	1436	39.33	9.62
1437	1437	39.32	9.61
1438	1438	39.32	9.61
1439	1439	39.32	9.61
1440	1440	39.33	9.62
1441	1441	39.32	9.61
1442	1442	39.34	9.63
1443	1443	39.34	9.63
1444	1444	39.35	9.64
1445	1445	39.35	9.64
1446	1446	39.33	9.62
1447	1447	39.34	9.63
1448	1448	39.35	9.64
1449	1449	39.34	9.63
1450	1450	39.34	9.63
1451	1451	39.34	9.63
1452	1452	39.33	9.62
1453	1453	39.36	9.65
1454	1454	39.33	9.62
1455	1455	39.36	9.65
1456	1456	39.35	9.64
1457	1457	39.35	9.64
1458	1458	39.36	9.65
1459	1459	39.35	9.64
1460	1460	39.33	9.62
1461	1461	39.33	9.62
1462	1462	39.37	9.66
1463	1463	39.35	9.64
1464	1464	39.37	9.66
1465	1465	39.34	9.63
1466	1466	39.35	9.64
1467	1467	39.35	9.64
1468	1468	39.35	9.64
1469	1469	39.37	9.66
1470	1470	39.32	9.61
1471	1471	39.35	9.64
1472	1472	39.35	9.64
1473	1473	39.35	9.64
1474	1474	39.36	9.65
1475	1475	39.34	9.63
1476	1476	39.38	9.67
1477	1477	39.36	9.65



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1478	1478	39.33	9.62
1479	1479	39.35	9.64
1480	1480	39.35	9.64
1481	1481	39.34	9.63
1482	1482	39.34	9.63
1483	1483	39.35	9.64
1484	1484	39.34	9.63
1485	1485	39.38	9.67
1486	1486	39.35	9.64
1487	1487	39.37	9.66
1488	1488	39.39	9.68
1489	1489	39.35	9.64
1490	1490	39.38	9.67
1491	1491	39.35	9.64
1492	1492	39.34	9.63
1493	1493	39.34	9.63
1494	1494	39.36	9.65
1495	1495	39.36	9.65
1496	1496	39.38	9.67
1497	1497	39.36	9.65
1498	1498	39.32	9.61
1499	1499	39.34	9.63
1500	1500	39.35	9.64
1501	1501	39.34	9.63
1502	1502	39.36	9.65
1503	1503	39.38	9.67
1504	1504	39.35	9.64
1505	1505	39.35	9.64
1506	1506	39.33	9.62
1507	1507	39.34	9.63
1508	1508	39.36	9.65
1509	1509	39.35	9.64
1510	1510	39.34	9.63
1511	1511	39.34	9.63
1512	1512	39.35	9.64
1513	1513	39.35	9.64
1514	1514	39.34	9.63
1515	1515	39.34	9.63
1516	1516	39.34	9.63
1517	1517	39.38	9.67
1518	1518	39.35	9.64
1519	1519	39.34	9.63
1520	1520	39.36	9.65
1521	1521	39.35	9.64
1522	1522	39.33	9.62
1523	1523	39.34	9.63
1524	1524	39.35	9.64
1525	1525	39.33	9.62
1526	1526	39.34	9.63
1527	1527	39.34	9.63
1528	1528	39.34	9.63
1529	1529	39.36	9.65
1530	1530	39.35	9.64
1531	1531	39.39	9.68
1532	1532	39.33	9.62
1533	1533	39.30	9.59
1534	1534	39.34	9.63



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1535	1535	39.34	9.63
1536	1536	39.35	9.64
1537	1537	39.34	9.63
1538	1538	39.34	9.63
1539	1539	39.35	9.64
1540	1540	39.35	9.64
1541	1541	39.35	9.64
1542	1542	39.36	9.65
1543	1543	39.34	9.63
1544	1544	39.36	9.65
1545	1545	39.33	9.62
1546	1546	39.34	9.63
1547	1547	39.32	9.61
1548	1548	39.35	9.64
1549	1549	39.34	9.63
1550	1550	39.35	9.64
1551	1551	39.36	9.65
1552	1552	39.38	9.67
1553	1553	39.35	9.64
1554	1554	39.35	9.64
1555	1555	39.38	9.67
1556	1556	39.33	9.62
1557	1557	39.34	9.63
1558	1558	39.35	9.64
1559	1559	39.37	9.66
1560	1560	39.34	9.63
1561	1561	39.35	9.64
1562	1562	39.38	9.67
1563	1563	39.38	9.67
1564	1564	39.38	9.67
1565	1565	39.35	9.64
1566	1566	39.35	9.64
1567	1567	39.36	9.65
1568	1568	39.36	9.65
1569	1569	39.35	9.64
1570	1570	39.36	9.65
1571	1571	39.38	9.67
1572	1572	39.34	9.63
1573	1573	39.38	9.67
1574	1574	39.36	9.65
1575	1575	39.32	9.61
1576	1576	39.33	9.62
1577	1577	39.38	9.67
1578	1578	39.35	9.64
1579	1579	39.38	9.67
1580	1580	39.38	9.67
1581	1581	39.37	9.66
1582	1582	39.39	9.68
1583	1583	39.36	9.65
1584	1584	39.35	9.64
1585	1585	39.39	9.68
1586	1586	39.34	9.63
1587	1587	39.35	9.64
1588	1588	39.34	9.63
1589	1589	39.35	9.64
1590	1590	39.35	9.64
1591	1591	39.35	9.64



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1592	1592	39.35	9.64
1593	1593	39.40	9.69
1594	1594	39.36	9.65
1595	1595	39.36	9.65
1596	1596	39.36	9.65
1597	1597	39.36	9.65
1598	1598	39.38	9.67
1599	1599	39.35	9.64
1600	1600	39.34	9.63
1601	1601	39.37	9.66
1602	1602	39.36	9.65
1603	1603	39.38	9.67
1604	1604	39.35	9.64
1605	1605	39.38	9.67
1606	1606	39.36	9.65
1607	1607	39.37	9.66
1608	1608	39.37	9.66
1609	1609	39.37	9.66
1610	1610	39.39	9.68
1611	1611	39.36	9.65
1612	1612	39.39	9.68
1613	1613	39.36	9.65
1614	1614	39.37	9.66
1615	1615	39.40	9.69
1616	1616	39.39	9.68
1617	1617	39.38	9.67
1618	1618	39.41	9.70
1619	1619	39.39	9.68
1620	1620	39.38	9.67
1621	1621	39.37	9.66
1622	1622	39.39	9.68
1623	1623	39.38	9.67
1624	1624	39.38	9.67
1625	1625	39.38	9.67
1626	1626	39.37	9.66
1627	1627	39.37	9.66
1628	1628	39.36	9.65
1629	1629	39.36	9.65
1630	1630	39.40	9.69
1631	1631	39.39	9.68
1632	1632	39.36	9.65
1633	1633	39.40	9.69
1634	1634	39.35	9.64
1635	1635	39.36	9.65
1636	1636	39.40	9.69
1637	1637	39.37	9.66
1638	1638	39.39	9.68
1639	1639	39.40	9.69
1640	1640	39.38	9.67
1641	1641	39.35	9.64
1642	1642	39.39	9.68
1643	1643	39.36	9.65
1644	1644	39.36	9.65
1645	1645	39.38	9.67
1646	1646	39.39	9.68
1647	1647	39.37	9.66
1648	1648	39.40	9.69



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1649	1649	39.39	9.68
1650	1650	39.40	9.69
1651	1651	39.40	9.69
1652	1652	39.39	9.68
1653	1653	39.38	9.67
1654	1654	39.35	9.64
1655	1655	39.40	9.69
1656	1656	39.40	9.69
1657	1657	39.41	9.70
1658	1658	39.41	9.70
1659	1659	39.42	9.71
1660	1660	39.40	9.69
1661	1661	39.39	9.68
1662	1662	39.40	9.69
1663	1663	39.41	9.70
1664	1664	39.40	9.69
1665	1665	39.40	9.69
1666	1666	39.40	9.69
1667	1667	39.39	9.68
1668	1668	39.40	9.69
1669	1669	39.41	9.70
1670	1670	39.40	9.69
1671	1671	39.39	9.68
1672	1672	39.42	9.71
1673	1673	39.40	9.69
1674	1674	39.40	9.69
1675	1675	39.40	9.69
1676	1676	39.41	9.70
1677	1677	39.39	9.68
1678	1678	39.41	9.70
1679	1679	39.39	9.68
1680	1680	39.42	9.71
1681	1681	39.42	9.71
1682	1682	39.44	9.73
1683	1683	39.41	9.70
1684	1684	39.39	9.68
1685	1685	39.39	9.68
1686	1686	39.39	9.68
1687	1687	39.41	9.70
1688	1688	39.43	9.72
1689	1689	39.41	9.70
1690	1690	39.41	9.70
1691	1691	39.39	9.68
1692	1692	39.40	9.69
1693	1693	39.40	9.69
1694	1694	39.38	9.67
1695	1695	39.40	9.69
1696	1696	39.42	9.71
1697	1697	39.41	9.70
1698	1698	39.42	9.71
1699	1699	39.42	9.71
1700	1700	39.44	9.73
1701	1701	39.38	9.67
1702	1702	39.39	9.68
1703	1703	39.39	9.68
1704	1704	39.39	9.68
1705	1705	39.39	9.68



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1706	1706	39.42	9.71
1707	1707	39.38	9.67
1708	1708	39.39	9.68
1709	1709	39.39	9.68
1710	1710	39.39	9.68
1711	1711	39.41	9.70
1712	1712	39.41	9.70
1713	1713	39.42	9.71
1714	1714	39.42	9.71
1715	1715	39.42	9.71
1716	1716	39.42	9.71
1717	1717	39.40	9.69
1718	1718	39.41	9.70
1719	1719	39.39	9.68
1720	1720	39.39	9.68
1721	1721	39.42	9.71
1722	1722	39.44	9.73
1723	1723	39.41	9.70
1724	1724	39.39	9.68
1725	1725	39.38	9.67
1726	1726	39.40	9.69
1727	1727	39.40	9.69
1728	1728	39.41	9.70
1729	1729	39.42	9.71
1730	1730	39.44	9.73
1731	1731	39.42	9.71
1732	1732	39.42	9.71
1733	1733	39.43	9.72
1734	1734	39.42	9.71
1735	1735	39.41	9.70
1736	1736	39.42	9.71
1737	1737	39.41	9.70
1738	1738	39.42	9.71
1739	1739	39.44	9.73
1740	1740	39.42	9.71
1741	1741	39.44	9.73
1742	1742	39.42	9.71
1743	1743	39.44	9.73
1744	1744	39.40	9.69
1745	1745	39.42	9.71
1746	1746	39.41	9.70
1747	1747	39.41	9.70
1748	1748	39.42	9.71
1749	1749	39.40	9.69
1750	1750	39.42	9.71
1751	1751	39.40	9.69
1752	1752	39.42	9.71
1753	1753	39.42	9.71
1754	1754	39.45	9.74
1755	1755	39.42	9.71
1756	1756	39.41	9.70
1757	1757	39.41	9.70
1758	1758	39.41	9.70
1759	1759	39.46	9.75
1760	1760	39.45	9.74
1761	1761	39.44	9.73
1762	1762	39.46	9.75



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1763	1763	39.42	9.71
1764	1764	39.44	9.73
1765	1765	39.42	9.71
1766	1766	39.41	9.70
1767	1767	39.45	9.74
1768	1768	39.44	9.73
1769	1769	39.42	9.71
1770	1770	39.41	9.70
1771	1771	39.44	9.73
1772	1772	39.42	9.71
1773	1773	39.40	9.69
1774	1774	39.42	9.71
1775	1775	39.42	9.71
1776	1776	39.42	9.71
1777	1777	39.42	9.71
1778	1778	39.42	9.71
1779	1779	39.43	9.72
1780	1780	39.43	9.72
1781	1781	39.44	9.73
1782	1782	39.42	9.71
1783	1783	39.40	9.69
1784	1784	39.45	9.74
1785	1785	39.42	9.71
1786	1786	39.41	9.70
1787	1787	39.43	9.72
1788	1788	39.43	9.72
1789	1789	39.46	9.75
1790	1790	39.42	9.71
1791	1791	39.44	9.73
1792	1792	39.44	9.73
1793	1793	39.44	9.73
1794	1794	39.42	9.71
1795	1795	39.44	9.73
1796	1796	39.45	9.74
1797	1797	39.44	9.73
1798	1798	39.42	9.71
1799	1799	39.45	9.74
1800	1800	39.42	9.71
1801	1801	39.42	9.71
1802	1802	39.42	9.71
1803	1803	39.44	9.73
1804	1804	39.44	9.73
1805	1805	39.44	9.73
1806	1806	39.40	9.69
1807	1807	39.40	9.69
1808	1808	39.45	9.74
1809	1809	39.44	9.73
1810	1810	39.42	9.71
1811	1811	39.44	9.73
1812	1812	39.46	9.75
1813	1813	39.42	9.71
1814	1814	39.44	9.73
1815	1815	39.42	9.71
1816	1816	39.42	9.71
1817	1817	39.45	9.74
1818	1818	39.44	9.73
1819	1819	39.46	9.75



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1820	1820	39.44	9.73
1821	1821	39.42	9.71
1822	1822	39.44	9.73
1823	1823	39.44	9.73
1824	1824	39.45	9.74
1825	1825	39.46	9.75
1826	1826	39.45	9.74
1827	1827	39.42	9.71
1828	1828	39.44	9.73
1829	1829	39.44	9.73
1830	1830	39.42	9.71
1831	1831	39.44	9.73
1832	1832	39.45	9.74
1833	1833	39.46	9.75
1834	1834	39.45	9.74
1835	1835	39.46	9.75
1836	1836	39.45	9.74
1837	1837	39.46	9.75
1838	1838	39.42	9.71
1839	1839	39.44	9.73
1840	1840	39.43	9.72
1841	1841	39.46	9.75
1842	1842	39.44	9.73
1843	1843	39.45	9.74
1844	1844	39.45	9.74
1845	1845	39.45	9.74
1846	1846	39.49	9.78
1847	1847	39.48	9.77
1848	1848	39.43	9.72
1849	1849	39.44	9.73
1850	1850	39.45	9.74
1851	1851	39.43	9.72
1852	1852	39.44	9.73
1853	1853	39.45	9.74
1854	1854	39.45	9.74
1855	1855	39.45	9.74
1856	1856	39.47	9.76
1857	1857	39.44	9.73
1858	1858	39.46	9.75
1859	1859	39.45	9.74
1860	1860	39.44	9.73
1861	1861	39.45	9.74
1862	1862	39.45	9.74
1863	1863	39.45	9.74
1864	1864	39.47	9.76
1865	1865	39.47	9.76
1866	1866	39.44	9.73
1867	1867	39.49	9.78
1868	1868	39.45	9.74
1869	1869	39.45	9.74
1870	1870	39.46	9.75
1871	1871	39.42	9.71
1872	1872	39.46	9.75
1873	1873	39.44	9.73
1874	1874	39.45	9.74
1875	1875	39.43	9.72
1876	1876	39.45	9.74



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1877	1877	39.44	9.73
1878	1878	39.43	9.72
1879	1879	39.46	9.75
1880	1880	39.46	9.75
1881	1881	39.45	9.74
1882	1882	39.44	9.73
1883	1883	39.46	9.75
1884	1884	39.49	9.78
1885	1885	39.45	9.74
1886	1886	39.46	9.75
1887	1887	39.50	9.79
1888	1888	39.49	9.78
1889	1889	39.46	9.75
1890	1890	39.47	9.76
1891	1891	39.46	9.75
1892	1892	39.47	9.76
1893	1893	39.46	9.75
1894	1894	39.48	9.77
1895	1895	39.46	9.75
1896	1896	39.47	9.76
1897	1897	39.49	9.78
1898	1898	39.49	9.78
1899	1899	39.46	9.75
1900	1900	39.45	9.74
1901	1901	39.47	9.76
1902	1902	39.47	9.76
1903	1903	39.45	9.74
1904	1904	39.46	9.75
1905	1905	39.46	9.75
1906	1906	39.43	9.72
1907	1907	39.47	9.76
1908	1908	39.45	9.74
1909	1909	39.48	9.77
1910	1910	39.45	9.74
1911	1911	39.50	9.79
1912	1912	39.47	9.76
1913	1913	39.50	9.79
1914	1914	39.47	9.76
1915	1915	39.45	9.74
1916	1916	39.50	9.79
1917	1917	39.50	9.79
1918	1918	39.49	9.78
1919	1919	39.45	9.74
1920	1920	39.51	9.80
1921	1921	39.47	9.76
1922	1922	39.50	9.79
1923	1923	39.46	9.75
1924	1924	39.46	9.75
1925	1925	39.48	9.77
1926	1926	39.48	9.77
1927	1927	39.46	9.75
1928	1928	39.47	9.76
1929	1929	39.46	9.75
1930	1930	39.47	9.76
1931	1931	39.49	9.78
1932	1932	39.48	9.77
1933	1933	39.50	9.79



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1934	1934	39.51	9.80
1935	1935	39.47	9.76
1936	1936	39.47	9.76
1937	1937	39.49	9.78
1938	1938	39.48	9.77
1939	1939	39.49	9.78
1940	1940	39.48	9.77
1941	1941	39.49	9.78
1942	1942	39.48	9.77
1943	1943	39.47	9.76
1944	1944	39.51	9.80
1945	1945	39.49	9.78
1946	1946	39.46	9.75
1947	1947	39.48	9.77
1948	1948	39.49	9.78
1949	1949	39.45	9.74
1950	1950	39.48	9.77
1951	1951	39.46	9.75
1952	1952	39.49	9.78
1953	1953	39.51	9.80
1954	1954	39.47	9.76
1955	1955	39.48	9.77
1956	1956	39.49	9.78
1957	1957	39.45	9.74
1958	1958	39.46	9.75
1959	1959	39.49	9.78
1960	1960	39.47	9.76
1961	1961	39.47	9.76
1962	1962	39.45	9.74
1963	1963	39.46	9.75
1964	1964	39.46	9.75
1965	1965	39.46	9.75
1966	1966	39.48	9.77
1967	1967	39.46	9.75
1968	1968	39.45	9.74
1969	1969	39.49	9.78
1970	1970	39.46	9.75
1971	1971	39.46	9.75
1972	1972	39.49	9.78
1973	1973	39.50	9.79
1974	1974	39.49	9.78
1975	1975	39.49	9.78
1976	1976	39.49	9.78
1977	1977	39.46	9.75
1978	1978	39.48	9.77
1979	1979	39.45	9.74
1980	1980	39.46	9.75
1981	1981	39.47	9.76
1982	1982	39.49	9.78
1983	1983	39.48	9.77
1984	1984	39.47	9.76
1985	1985	39.50	9.79
1986	1986	39.46	9.75
1987	1987	39.47	9.76
1988	1988	39.47	9.76
1989	1989	39.45	9.74
1990	1990	39.46	9.75



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1991	1991	39.47	9.76
1992	1992	39.49	9.78
1993	1993	39.46	9.75
1994	1994	39.46	9.75
1995	1995	39.45	9.74
1996	1996	39.50	9.79
1997	1997	39.45	9.74
1998	1998	39.48	9.77
1999	1999	39.49	9.78
2000	2000	39.49	9.78
2001	2001	39.46	9.75
2002	2002	39.48	9.77
2003	2003	39.46	9.75
2004	2004	39.46	9.75
2005	2005	39.49	9.78
2006	2006	39.49	9.78
2007	2007	39.47	9.76
2008	2008	39.47	9.76
2009	2009	39.47	9.76
2010	2010	39.46	9.75
2011	2011	39.49	9.78
2012	2012	39.47	9.76
2013	2013	39.47	9.76
2014	2014	39.49	9.78
2015	2015	39.50	9.79
2016	2016	39.46	9.75
2017	2017	39.47	9.76
2018	2018	39.47	9.76
2019	2019	39.46	9.75
2020	2020	39.49	9.78
2021	2021	39.49	9.78
2022	2022	39.47	9.76
2023	2023	39.49	9.78
2024	2024	39.46	9.75
2025	2025	39.49	9.78
2026	2026	39.49	9.78
2027	2027	39.47	9.76
2028	2028	39.45	9.74
2029	2029	39.46	9.75
2030	2030	39.45	9.74
2031	2031	39.46	9.75
2032	2032	39.46	9.75
2033	2033	39.49	9.78
2034	2034	39.49	9.78
2035	2035	39.47	9.76
2036	2036	39.49	9.78
2037	2037	39.47	9.76
2038	2038	39.46	9.75
2039	2039	39.46	9.75
2040	2040	39.46	9.75
2041	2041	39.49	9.78
2042	2042	39.47	9.76
2043	2043	39.46	9.75
2044	2044	39.46	9.75
2045	2045	39.45	9.74
2046	2046	39.45	9.74
2047	2047	39.45	9.74



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2048	2048	39.45	9.74
2049	2049	39.45	9.74
2050	2050	39.46	9.75
2051	2051	39.45	9.74
2052	2052	39.47	9.76
2053	2053	39.45	9.74
2054	2054	39.47	9.76
2055	2055	39.46	9.75
2056	2056	39.47	9.76
2057	2057	39.46	9.75
2058	2058	39.46	9.75
2059	2059	39.46	9.75
2060	2060	39.47	9.76
2061	2061	39.47	9.76
2062	2062	39.45	9.74
2063	2063	39.49	9.78
2064	2064	39.49	9.78
2065	2065	39.49	9.78
2066	2066	39.47	9.76
2067	2067	39.49	9.78
2068	2068	39.46	9.75
2069	2069	39.47	9.76
2070	2070	39.47	9.76
2071	2071	39.49	9.78
2072	2072	39.47	9.76
2073	2073	39.47	9.76
2074	2074	39.47	9.76
2075	2075	39.47	9.76
2076	2076	39.46	9.75
2077	2077	39.46	9.75
2078	2078	39.46	9.75
2079	2079	39.45	9.74
2080	2080	39.45	9.74
2081	2081	39.45	9.74
2082	2082	39.47	9.76
2083	2083	39.49	9.78
2084	2084	39.46	9.75
2085	2085	39.45	9.74
2086	2086	39.49	9.78
2087	2087	39.46	9.75
2088	2088	39.48	9.77
2089	2089	39.45	9.74
2090	2090	39.46	9.75
2091	2091	39.46	9.75
2092	2092	39.46	9.75
2093	2093	39.44	9.73
2094	2094	39.44	9.73
2095	2095	39.45	9.74
2096	2096	39.46	9.75
2097	2097	39.46	9.75
2098	2098	39.44	9.73
2099	2099	39.45	9.74
2100	2100	39.46	9.75
2101	2101	39.46	9.75
2102	2102	39.49	9.78
2103	2103	39.46	9.75
2104	2104	39.49	9.78



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2105	2105	39.46	9.75
2106	2106	39.44	9.73
2107	2107	39.45	9.74
2108	2108	39.45	9.74
2109	2109	39.43	9.72
2110	2110	39.44	9.73
2111	2111	39.46	9.75
2112	2112	39.46	9.75
2113	2113	39.46	9.75
2114	2114	39.46	9.75
2115	2115	39.46	9.75
2116	2116	39.46	9.75
2117	2117	39.47	9.76
2118	2118	39.46	9.75
2119	2119	39.46	9.75
2120	2120	39.49	9.78
2121	2121	39.48	9.77
2122	2122	39.47	9.76
2123	2123	39.49	9.78
2124	2124	39.50	9.79
2125	2125	39.44	9.73
2126	2126	39.47	9.76
2127	2127	39.45	9.74
2128	2128	39.46	9.75
2129	2129	39.46	9.75
2130	2130	39.46	9.75
2131	2131	39.47	9.76
2132	2132	39.46	9.75
2133	2133	39.46	9.75
2134	2134	39.49	9.78
2135	2135	39.47	9.76
2136	2136	39.46	9.75
2137	2137	39.49	9.78
2138	2138	39.47	9.76
2139	2139	39.49	9.78
2140	2140	39.47	9.76
2141	2141	39.50	9.79
2142	2142	39.48	9.77
2143	2143	39.47	9.76
2144	2144	39.49	9.78
2145	2145	39.49	9.78
2146	2146	39.46	9.75
2147	2147	39.45	9.74
2148	2148	39.50	9.79
2149	2149	39.49	9.78
2150	2150	39.50	9.79
2151	2151	39.49	9.78
2152	2152	39.49	9.78
2153	2153	39.47	9.76
2154	2154	39.45	9.74
2155	2155	39.46	9.75
2156	2156	39.48	9.77
2157	2157	39.50	9.79
2158	2158	39.46	9.75
2159	2159	39.44	9.73
2160	2160	39.46	9.75
2161	2161	39.46	9.75



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2162	2162	39.46	9.75
2163	2163	39.47	9.76
2164	2164	39.51	9.80
2165	2165	39.46	9.75
2166	2166	39.48	9.77
2167	2167	39.44	9.73
2168	2168	39.48	9.77
2169	2169	39.47	9.76
2170	2170	39.46	9.75
2171	2171	39.47	9.76
2172	2172	39.49	9.78
2173	2173	39.47	9.76
2174	2174	39.47	9.76
2175	2175	39.49	9.78
2176	2176	39.49	9.78
2177	2177	39.49	9.78
2178	2178	39.47	9.76
2179	2179	39.44	9.73
2180	2180	39.49	9.78
2181	2181	39.44	9.73
2182	2182	39.49	9.78
2183	2183	39.46	9.75
2184	2184	39.48	9.77
2185	2185	39.49	9.78
2186	2186	39.46	9.75
2187	2187	39.48	9.77
2188	2188	39.45	9.74
2189	2189	39.50	9.79
2190	2190	39.50	9.79
2191	2191	39.47	9.76
2192	2192	39.46	9.75
2193	2193	39.46	9.75
2194	2194	39.49	9.78
2195	2195	39.49	9.78
2196	2196	39.47	9.76
2197	2197	39.45	9.74
2198	2198	39.49	9.78
2199	2199	39.49	9.78
2200	2200	39.50	9.79
2201	2201	39.49	9.78
2202	2202	39.46	9.75
2203	2203	39.49	9.78
2204	2204	39.47	9.76
2205	2205	39.47	9.76
2206	2206	39.49	9.78
2207	2207	39.46	9.75
2208	2208	39.47	9.76
2209	2209	39.46	9.75
2210	2210	39.46	9.75
2211	2211	39.49	9.78
2212	2212	39.49	9.78
2213	2213	39.47	9.76
2214	2214	39.50	9.79
2215	2215	39.47	9.76
2216	2216	39.47	9.76
2217	2217	39.49	9.78
2218	2218	39.46	9.75



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2219	2219	39.49	9.78
2220	2220	39.48	9.77
2221	2221	39.50	9.79
2222	2222	39.49	9.78
2223	2223	39.50	9.79
2224	2224	39.50	9.79
2225	2225	39.50	9.79
2226	2226	39.47	9.76
2227	2227	39.49	9.78
2228	2228	39.49	9.78
2229	2229	39.51	9.80
2230	2230	39.49	9.78
2231	2231	39.45	9.74
2232	2232	39.50	9.79
2233	2233	39.48	9.77
2234	2234	39.49	9.78
2235	2235	39.49	9.78
2236	2236	39.49	9.78
2237	2237	39.50	9.79
2238	2238	39.48	9.77
2239	2239	39.48	9.77
2240	2240	39.50	9.79
2241	2241	39.52	9.81
2242	2242	39.50	9.79
2243	2243	39.49	9.78
2244	2244	39.52	9.81
2245	2245	39.52	9.81
2246	2246	39.54	9.83
2247	2247	39.50	9.79
2248	2248	39.52	9.81
2249	2249	39.51	9.80
2250	2250	39.52	9.81
2251	2251	39.52	9.81
2252	2252	39.51	9.80
2253	2253	39.51	9.80
2254	2254	39.51	9.80
2255	2255	39.52	9.81
2256	2256	39.54	9.83
2257	2257	39.51	9.80
2258	2258	39.54	9.83
2259	2259	39.51	9.80
2260	2260	39.51	9.80
2261	2261	39.54	9.83
2262	2262	39.52	9.81
2263	2263	39.51	9.80
2264	2264	39.51	9.80
2265	2265	39.52	9.81
2266	2266	39.52	9.81
2267	2267	39.56	9.85
2268	2268	39.54	9.83
2269	2269	39.54	9.83
2270	2270	39.55	9.84
2271	2271	39.54	9.83
2272	2272	39.50	9.79
2273	2273	39.51	9.80
2274	2274	39.55	9.84
2275	2275	39.52	9.81



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2276	2276	39.51	9.80
2277	2277	39.54	9.83
2278	2278	39.55	9.84
2279	2279	39.55	9.84
2280	2280	39.52	9.81
2281	2281	39.52	9.81
2282	2282	39.50	9.79
2283	2283	39.56	9.85
2284	2284	39.52	9.81
2285	2285	39.51	9.80
2286	2286	39.50	9.79
2287	2287	39.52	9.81
2288	2288	39.51	9.80
2289	2289	39.52	9.81
2290	2290	39.52	9.81
2291	2291	39.49	9.78
2292	2292	39.51	9.80
2293	2293	39.50	9.79
2294	2294	39.52	9.81
2295	2295	39.51	9.80
2296	2296	39.52	9.81
2297	2297	39.56	9.85
2298	2298	39.52	9.81
2299	2299	39.52	9.81
2300	2300	39.51	9.80
2301	2301	39.52	9.81
2302	2302	39.55	9.84
2303	2303	39.54	9.83
2304	2304	39.52	9.81
2305	2305	39.52	9.81
2306	2306	39.54	9.83
2307	2307	39.55	9.84
2308	2308	39.54	9.83
2309	2309	39.55	9.84
2310	2310	39.54	9.83
2311	2311	39.51	9.80
2312	2312	39.52	9.81
2313	2313	39.51	9.80
2314	2314	39.51	9.80
2315	2315	39.51	9.80
2316	2316	39.51	9.80
2317	2317	39.51	9.80
2318	2318	39.52	9.81
2319	2319	39.52	9.81
2320	2320	39.54	9.83
2321	2321	39.52	9.81
2322	2322	39.52	9.81
2323	2323	39.54	9.83
2324	2324	39.52	9.81
2325	2325	39.51	9.80
2326	2326	39.52	9.81
2327	2327	39.50	9.79
2328	2328	39.54	9.83
2329	2329	39.54	9.83
2330	2330	39.52	9.81
2331	2331	39.54	9.83
2332	2332	39.52	9.81



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2333	2333	39.52	9.81
2334	2334	39.52	9.81
2335	2335	39.55	9.84
2336	2336	39.51	9.80
2337	2337	39.52	9.81
2338	2338	39.51	9.80
2339	2339	39.54	9.83
2340	2340	39.54	9.83
2341	2341	39.51	9.80
2342	2342	39.52	9.81
2343	2343	39.55	9.84
2344	2344	39.52	9.81
2345	2345	39.52	9.81
2346	2346	39.55	9.84
2347	2347	39.54	9.83
2348	2348	39.49	9.78
2349	2349	39.54	9.83
2350	2350	39.54	9.83
2351	2351	39.55	9.84
2352	2352	39.55	9.84
2353	2353	39.54	9.83
2354	2354	39.54	9.83
2355	2355	39.54	9.83
2356	2356	39.54	9.83
2357	2357	39.56	9.85
2358	2358	39.52	9.81
2359	2359	39.51	9.80
2360	2360	39.51	9.80
2361	2361	39.52	9.81
2362	2362	39.54	9.83
2363	2363	39.52	9.81
2364	2364	39.52	9.81
2365	2365	39.54	9.83
2366	2366	39.51	9.80
2367	2367	39.51	9.80
2368	2368	39.52	9.81
2369	2369	39.51	9.80
2370	2370	39.52	9.81
2371	2371	39.52	9.81
2372	2372	39.51	9.80
2373	2373	39.50	9.79
2374	2374	39.52	9.81
2375	2375	39.56	9.85
2376	2376	39.54	9.83
2377	2377	39.55	9.84
2378	2378	39.54	9.83
2379	2379	39.56	9.85
2380	2380	39.55	9.84
2381	2381	39.49	9.78
2382	2382	39.51	9.80
2383	2383	39.55	9.84
2384	2384	39.54	9.83
2385	2385	39.54	9.83
2386	2386	39.52	9.81
2387	2387	39.56	9.85
2388	2388	39.52	9.81
2389	2389	39.54	9.83



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2390	2390	39.52	9.81
2391	2391	39.54	9.83
2392	2392	39.55	9.84
2393	2393	39.54	9.83
2394	2394	39.56	9.85
2395	2395	39.51	9.80
2396	2396	39.55	9.84
2397	2397	39.56	9.85
2398	2398	39.56	9.85
2399	2399	39.54	9.83
2400	2400	39.55	9.84
2401	2401	39.54	9.83
2402	2402	39.55	9.84
2403	2403	39.55	9.84
2404	2404	39.56	9.85
2405	2405	39.52	9.81
2406	2406	39.54	9.83
2407	2407	39.56	9.85
2408	2408	39.54	9.83
2409	2409	39.52	9.81
2410	2410	39.55	9.84
2411	2411	39.52	9.81
2412	2412	39.54	9.83
2413	2413	39.55	9.84
2414	2414	39.54	9.83
2415	2415	39.55	9.84
2416	2416	39.52	9.81
2417	2417	39.52	9.81
2418	2418	39.56	9.85
2419	2419	39.54	9.83
2420	2420	39.55	9.84
2421	2421	39.52	9.81
2422	2422	39.54	9.83
2423	2423	39.56	9.85
2424	2424	39.57	9.86
2425	2425	39.56	9.85
2426	2426	39.55	9.84
2427	2427	39.54	9.83
2428	2428	39.55	9.84
2429	2429	39.54	9.83
2430	2430	39.55	9.84
2431	2431	39.54	9.83
2432	2432	39.52	9.81
2433	2433	39.57	9.86
2434	2434	39.54	9.83
2435	2435	39.55	9.84
2436	2436	39.55	9.84
2437	2437	39.52	9.81
2438	2438	39.51	9.80
2439	2439	39.55	9.84
2440	2440	39.55	9.84
2441	2441	39.55	9.84
2442	2442	39.56	9.85
2443	2443	39.56	9.85
2444	2444	39.55	9.84
2445	2445	39.55	9.84
2446	2446	39.57	9.86



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2447	2447	39.52	9.81
2448	2448	39.56	9.85
2449	2449	39.56	9.85
2450	2450	39.56	9.85
2451	2451	39.54	9.83
2452	2452	39.57	9.86
2453	2453	39.56	9.85
2454	2454	39.56	9.85
2455	2455	39.56	9.85
2456	2456	39.56	9.85
2457	2457	39.56	9.85
2458	2458	39.55	9.84
2459	2459	39.54	9.83
2460	2460	39.56	9.85
2461	2461	39.57	9.86
2462	2462	39.56	9.85
2463	2463	39.60	9.89
2464	2464	39.55	9.84
2465	2465	39.59	9.88
2466	2466	39.59	9.88
2467	2467	39.57	9.86
2468	2468	39.57	9.86
2469	2469	39.56	9.85
2470	2470	39.57	9.86
2471	2471	39.59	9.88
2472	2472	39.56	9.85
2473	2473	39.55	9.84
2474	2474	39.55	9.84
2475	2475	39.57	9.86
2476	2476	39.57	9.86
2477	2477	39.56	9.85
2478	2478	39.59	9.88
2479	2479	39.60	9.89
2480	2480	39.56	9.85
2481	2481	39.57	9.86
2482	2482	39.57	9.86
2483	2483	39.57	9.86
2484	2484	39.56	9.85
2485	2485	39.55	9.84
2486	2486	39.57	9.86
2487	2487	39.56	9.85
2488	2488	39.57	9.86
2489	2489	39.56	9.85
2490	2490	39.57	9.86
2491	2491	39.51	9.80
2492	2492	39.52	9.81
2493	2493	39.54	9.83
2494	2494	39.57	9.86
2495	2495	39.55	9.84
2496	2496	39.55	9.84
2497	2497	39.55	9.84
2498	2498	39.56	9.85
2499	2499	39.57	9.86
2500	2500	39.57	9.86
2501	2501	39.56	9.85
2502	2502	39.54	9.83
2503	2503	39.56	9.85



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2504	2504	39.57	9.86
2505	2505	39.56	9.85
2506	2506	39.57	9.86
2507	2507	39.56	9.85
2508	2508	39.57	9.86
2509	2509	39.55	9.84
2510	2510	39.56	9.85
2511	2511	39.60	9.89
2512	2512	39.59	9.88
2513	2513	39.56	9.85
2514	2514	39.55	9.84
2515	2515	39.55	9.84
2516	2516	39.56	9.85
2517	2517	39.60	9.89
2518	2518	39.57	9.86
2519	2519	39.60	9.89
2520	2520	39.59	9.88
2521	2521	39.57	9.86
2522	2522	39.56	9.85
2523	2523	39.60	9.89
2524	2524	39.57	9.86
2525	2525	39.60	9.89
2526	2526	39.56	9.85
2527	2527	39.57	9.86
2528	2528	39.59	9.88
2529	2529	39.57	9.86
2530	2530	39.57	9.86
2531	2531	39.57	9.86
2532	2532	39.57	9.86
2533	2533	39.54	9.83
2534	2534	39.60	9.89
2535	2535	39.56	9.85
2536	2536	39.55	9.84
2537	2537	39.56	9.85
2538	2538	39.55	9.84
2539	2539	39.54	9.83
2540	2540	39.56	9.85
2541	2541	39.57	9.86
2542	2542	39.57	9.86
2543	2543	39.57	9.86
2544	2544	39.56	9.85
2545	2545	39.57	9.86
2546	2546	39.57	9.86
2547	2547	39.57	9.86
2548	2548	39.57	9.86
2549	2549	39.56	9.85
2550	2550	39.57	9.86
2551	2551	39.57	9.86
2552	2552	39.55	9.84
2553	2553	39.60	9.89
2554	2554	39.55	9.84
2555	2555	39.57	9.86
2556	2556	39.56	9.85
2557	2557	39.57	9.86
2558	2558	39.56	9.85
2559	2559	39.60	9.89
2560	2560	39.56	9.85



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2561	2561	39.56	9.85
2562	2562	39.61	9.90
2563	2563	39.57	9.86
2564	2564	39.59	9.88
2565	2565	39.60	9.89
2566	2566	39.57	9.86
2567	2567	39.59	9.88
2568	2568	39.60	9.89
2569	2569	39.56	9.85
2570	2570	39.60	9.89
2571	2571	39.57	9.86
2572	2572	39.57	9.86
2573	2573	39.59	9.88
2574	2574	39.56	9.85
2575	2575	39.56	9.85
2576	2576	39.56	9.85
2577	2577	39.55	9.84
2578	2578	39.59	9.88
2579	2579	39.59	9.88
2580	2580	39.59	9.88
2581	2581	39.57	9.86
2582	2582	39.60	9.89
2583	2583	39.57	9.86
2584	2584	39.59	9.88
2585	2585	39.59	9.88
2586	2586	39.57	9.86
2587	2587	39.57	9.86
2588	2588	39.57	9.86
2589	2589	39.59	9.88
2590	2590	39.56	9.85
2591	2591	39.60	9.89
2592	2592	39.59	9.88
2593	2593	39.56	9.85
2594	2594	39.57	9.86
2595	2595	39.56	9.85
2596	2596	39.56	9.85
2597	2597	39.57	9.86
2598	2598	39.57	9.86
2599	2599	39.57	9.86
2600	2600	39.56	9.85
2601	2601	39.59	9.88
2602	2602	39.59	9.88
2603	2603	39.59	9.88
2604	2604	39.57	9.86
2605	2605	39.59	9.88
2606	2606	39.59	9.88
2607	2607	39.57	9.86
2608	2608	39.56	9.85
2609	2609	39.55	9.84
2610	2610	39.56	9.85
2611	2611	39.56	9.85
2612	2612	39.56	9.85
2613	2613	39.56	9.85
2614	2614	39.59	9.88
2615	2615	39.61	9.90
2616	2616	39.60	9.89
2617	2617	39.60	9.89



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2618	2618	39.61	9.90
2619	2619	39.61	9.90
2620	2620	39.61	9.90
2621	2621	39.62	9.91
2622	2622	39.64	9.93
2623	2623	39.64	9.93
2624	2624	39.64	9.93
2625	2625	39.64	9.93
2626	2626	39.62	9.91
2627	2627	39.65	9.94
2628	2628	39.66	9.95
2629	2629	39.67	9.96
2630	2630	39.67	9.96
2631	2631	39.64	9.93
2632	2632	39.65	9.94
2633	2633	39.66	9.95
2634	2634	39.64	9.93
2635	2635	39.66	9.95
2636	2636	39.66	9.95
2637	2637	39.65	9.94
2638	2638	39.66	9.95
2639	2639	39.67	9.96
2640	2640	39.67	9.96
2641	2641	39.66	9.95
2642	2642	39.66	9.95
2643	2643	39.65	9.94
2644	2644	39.65	9.94
2645	2645	39.63	9.92
2646	2646	39.68	9.97
2647	2647	39.64	9.93
2648	2648	39.65	9.94
2649	2649	39.64	9.93
2650	2650	39.66	9.95
2651	2651	39.67	9.96
2652	2652	39.64	9.93
2653	2653	39.65	9.94
2654	2654	39.64	9.93
2655	2655	39.64	9.93
2656	2656	39.66	9.95
2657	2657	39.67	9.96
2658	2658	39.64	9.93
2659	2659	39.66	9.95
2660	2660	39.64	9.93
2661	2661	39.70	9.99
2662	2662	39.67	9.96
2663	2663	39.65	9.94
2664	2664	39.68	9.97
2665	2665	39.67	9.96
2666	2666	39.68	9.97
2667	2667	39.66	9.95
2668	2668	39.66	9.95
2669	2669	39.67	9.96
2670	2670	39.68	9.97
2671	2671	39.67	9.96
2672	2672	39.66	9.95
2673	2673	39.68	9.97
2674	2674	39.65	9.94



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2675	2675	39.66	9.95
2676	2676	39.67	9.96
2677	2677	39.67	9.96
2678	2678	39.67	9.96
2679	2679	39.66	9.95
2680	2680	39.68	9.97
2681	2681	39.68	9.97
2682	2682	39.68	9.97
2683	2683	39.67	9.96
2684	2684	39.66	9.95
2685	2685	39.67	9.96
2686	2686	39.67	9.96
2687	2687	39.66	9.95
2688	2688	39.67	9.96
2689	2689	39.68	9.97
2690	2690	39.67	9.96
2691	2691	39.68	9.97
2692	2692	39.67	9.96
2693	2693	39.70	9.99
2694	2694	39.66	9.95
2695	2695	39.67	9.96
2696	2696	39.67	9.96
2697	2697	39.66	9.95
2698	2698	39.66	9.95
2699	2699	39.66	9.95
2700	2700	39.66	9.95
2701	2701	39.66	9.95
2702	2702	39.67	9.96
2703	2703	39.66	9.95
2704	2704	39.66	9.95
2705	2705	39.66	9.95
2706	2706	39.67	9.96
2707	2707	39.66	9.95
2708	2708	39.67	9.96
2709	2709	39.66	9.95
2710	2710	39.64	9.93
2711	2711	39.68	9.97
2712	2712	39.67	9.96
2713	2713	39.66	9.95
2714	2714	39.67	9.96
2715	2715	39.67	9.96
2716	2716	39.66	9.95
2717	2717	39.67	9.96
2718	2718	39.66	9.95
2719	2719	39.66	9.95
2720	2720	39.67	9.96
2721	2721	39.70	9.99
2722	2722	39.64	9.93
2723	2723	39.67	9.96
2724	2724	39.67	9.96
2725	2725	39.65	9.94
2726	2726	39.66	9.95
2727	2727	39.67	9.96
2728	2728	39.68	9.97
2729	2729	39.67	9.96
2730	2730	39.66	9.95
2731	2731	39.67	9.96



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2732	2732	39.67	9.96
2733	2733	39.68	9.97
2734	2734	39.66	9.95
2735	2735	39.67	9.96
2736	2736	39.70	9.99
2737	2737	39.67	9.96
2738	2738	39.67	9.96
2739	2739	39.67	9.96
2740	2740	39.67	9.96
2741	2741	39.68	9.97
2742	2742	39.67	9.96
2743	2743	39.65	9.94
2744	2744	39.68	9.97
2745	2745	39.66	9.95
2746	2746	39.65	9.94
2747	2747	39.67	9.96
2748	2748	39.67	9.96
2749	2749	39.66	9.95
2750	2750	39.67	9.96
2751	2751	39.65	9.94
2752	2752	39.66	9.95
2753	2753	39.66	9.95
2754	2754	39.66	9.95
2755	2755	39.66	9.95
2756	2756	39.67	9.96
2757	2757	39.65	9.94
2758	2758	39.65	9.94
2759	2759	39.65	9.94
2760	2760	39.67	9.96
2761	2761	39.66	9.95
2762	2762	39.66	9.95
2763	2763	39.66	9.95
2764	2764	39.66	9.95
2765	2765	39.67	9.96
2766	2766	39.66	9.95
2767	2767	39.68	9.97
2768	2768	39.66	9.95
2769	2769	39.66	9.95
2770	2770	39.68	9.97
2771	2771	39.66	9.95
2772	2772	39.65	9.94
2773	2773	39.66	9.95
2774	2774	39.68	9.97
2775	2775	39.65	9.94
2776	2776	39.68	9.97
2777	2777	39.66	9.95
2778	2778	39.64	9.93
2779	2779	39.68	9.97
2780	2780	39.68	9.97
2781	2781	39.65	9.94
2782	2782	39.69	9.98
2783	2783	39.65	9.94
2784	2784	39.66	9.95
2785	2785	39.67	9.96
2786	2786	39.68	9.97
2787	2787	39.68	9.97
2788	2788	39.67	9.96



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2789	2789	39.67	9.96
2790	2790	39.68	9.97
2791	2791	39.67	9.96
2792	2792	39.68	9.97
2793	2793	39.68	9.97
2794	2794	39.67	9.96
2795	2795	39.65	9.94
2796	2796	39.66	9.95
2797	2797	39.66	9.95
2798	2798	39.67	9.96
2799	2799	39.65	9.94
2800	2800	39.68	9.97
2801	2801	39.68	9.97
2802	2802	39.68	9.97
2803	2803	39.68	9.97
2804	2804	39.70	9.99
2805	2805	39.70	9.99
2806	2806	39.67	9.96
2807	2807	39.67	9.96
2808	2808	39.66	9.95
2809	2809	39.66	9.95
2810	2810	39.67	9.96
2811	2811	39.68	9.97
2812	2812	39.68	9.97
2813	2813	39.66	9.95
2814	2814	39.67	9.96
2815	2815	39.68	9.97
2816	2816	39.65	9.94
2817	2817	39.66	9.95
2818	2818	39.68	9.97
2819	2819	39.70	9.99
2820	2820	39.68	9.97
2821	2821	39.69	9.98
2822	2822	39.70	9.99
2823	2823	39.70	9.99
2824	2824	39.68	9.97
2825	2825	39.69	9.98
2826	2826	39.70	9.99
2827	2827	39.70	9.99
2828	2828	39.68	9.97
2829	2829	39.70	9.99
2830	2830	39.71	10.00
2831	2831	39.68	9.97
2832	2832	39.68	9.97
2833	2833	39.67	9.96
2834	2834	39.66	9.95
2835	2835	39.66	9.95
2836	2836	39.70	9.99
2837	2837	39.70	9.99
2838	2838	39.67	9.96
2839	2839	39.68	9.97
2840	2840	39.70	9.99
2841	2841	39.68	9.97
2842	2842	39.70	9.99
2843	2843	39.68	9.97
2844	2844	39.68	9.97
2845	2845	39.68	9.97



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2846	2846	39.66	9.95
2847	2847	39.67	9.96
2848	2848	39.67	9.96
2849	2849	39.68	9.97
2850	2850	39.68	9.97
2851	2851	39.67	9.96
2852	2852	39.68	9.97
2853	2853	39.69	9.98
2854	2854	39.69	9.98
2855	2855	39.68	9.97
2856	2856	39.67	9.96
2857	2857	39.70	9.99
2858	2858	39.68	9.97
2859	2859	39.67	9.96
2860	2860	39.70	9.99
2861	2861	39.70	9.99
2862	2862	39.68	9.97
2863	2863	39.68	9.97
2864	2864	39.69	9.98
2865	2865	39.76	10.05
2866	2866	39.72	10.01
2867	2867	39.69	9.98
2868	2868	39.65	9.94
2869	2869	39.72	10.01
2870	2870	39.76	10.05
2871	2871	39.64	9.93
2872	2872	39.69	9.98
2873	2873	39.62	9.91
2874	2874	39.69	9.98
2875	2875	39.69	9.98
2876	2876	39.64	9.93
2877	2877	39.70	9.99
2878	2878	39.66	9.95
2879	2879	39.72	10.01
2880	2880	39.63	9.92
2881	2881	39.62	9.91
2882	2882	39.71	10.00
2883	2883	39.71	10.00
2884	2884	39.68	9.97
2885	2885	39.68	9.97
2886	2886	39.71	10.00
2887	2887	39.68	9.97
2888	2888	39.68	9.97
2889	2889	39.69	9.98
2890	2890	39.68	9.97
2891	2891	39.70	9.99
2892	2892	39.66	9.95
2893	2893	39.66	9.95
2894	2894	39.68	9.97
2895	2895	39.67	9.96
2896	2896	39.70	9.99
2897	2897	39.68	9.97
2898	2898	39.66	9.95
2899	2899	39.70	9.99
2900	2900	39.66	9.95
2901	2901	39.68	9.97
2902	2902	39.68	9.97



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2903	2903	39.72	10.01
2904	2904	39.69	9.98
2905	2905	39.69	9.98
2906	2906	39.69	9.98
2907	2907	39.67	9.96
2908	2908	39.67	9.96
2909	2909	39.70	9.99
2910	2910	39.67	9.96
2911	2911	39.67	9.96
2912	2912	39.68	9.97
2913	2913	39.70	9.99
2914	2914	39.72	10.01
2915	2915	39.70	9.99
2916	2916	39.68	9.97
2917	2917	39.70	9.99
2918	2918	39.70	9.99
2919	2919	39.68	9.97
2920	2920	39.71	10.00
2921	2921	39.70	9.99
2922	2922	39.72	10.01
2923	2923	39.69	9.98
2924	2924	39.68	9.97
2925	2925	39.70	9.99
2926	2926	39.69	9.98
2927	2927	39.70	9.99
2928	2928	39.71	10.00
2929	2929	39.68	9.97
2930	2930	39.71	10.00
2931	2931	39.68	9.97
2932	2932	39.70	9.99
2933	2933	39.66	9.95
2934	2934	39.69	9.98
2935	2935	39.71	10.00
2936	2936	39.71	10.00
2937	2937	39.71	10.00
2938	2938	39.70	9.99
2939	2939	39.68	9.97
2940	2940	39.70	9.99
2941	2941	39.70	9.99
2942	2942	39.70	9.99
2943	2943	39.71	10.00
2944	2944	39.71	10.00
2945	2945	39.68	9.97
2946	2946	39.71	10.00
2947	2947	39.67	9.96
2948	2948	39.68	9.97
2949	2949	39.68	9.97
2950	2950	39.70	9.99
2951	2951	39.70	9.99
2952	2952	39.70	9.99
2953	2953	39.70	9.99
2954	2954	39.71	10.00
2955	2955	39.73	10.02
2956	2956	39.71	10.00
2957	2957	39.72	10.01
2958	2958	39.70	9.99
2959	2959	39.68	9.97



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2960	2960	39.71	10.00
2961	2961	39.71	10.00
2962	2962	39.71	10.00
2963	2963	39.72	10.01
2964	2964	39.71	10.00
2965	2965	39.72	10.01
2966	2966	39.71	10.00
2967	2967	39.71	10.00
2968	2968	39.68	9.97
2969	2969	39.73	10.02
2970	2970	39.71	10.00
2971	2971	39.68	9.97
2972	2972	39.71	10.00
2973	2973	39.71	10.00
2974	2974	39.74	10.03
2975	2975	39.71	10.00
2976	2976	39.71	10.00
2977	2977	39.70	9.99
2978	2978	39.71	10.00
2979	2979	39.70	9.99
2980	2980	39.67	9.96
2981	2981	39.71	10.00
2982	2982	39.71	10.00
2983	2983	39.70	9.99
2984	2984	39.68	9.97
2985	2985	39.70	9.99
2986	2986	39.71	10.00
2987	2987	39.73	10.02
2988	2988	39.72	10.01
2989	2989	39.70	9.99
2990	2990	39.73	10.02
2991	2991	39.70	9.99
2992	2992	39.70	9.99
2993	2993	39.73	10.02
2994	2994	39.73	10.02
2995	2995	39.71	10.00
2996	2996	39.72	10.01
2997	2997	39.71	10.00
2998	2998	39.74	10.03
2999	2999	39.71	10.00
3000	3000	39.72	10.01
3001	3001	39.71	10.00
3002	3002	39.72	10.01
3003	3003	39.72	10.01
3004	3004	39.72	10.01
3005	3005	39.71	10.00
3006	3006	39.71	10.00
3007	3007	39.70	9.99
3008	3008	39.72	10.01
3009	3009	39.69	9.98
3010	3010	39.71	10.00
3011	3011	39.71	10.00
3012	3012	39.68	9.97
3013	3013	39.71	10.00
3014	3014	39.72	10.01
3015	3015	39.70	9.99
3016	3016	39.72	10.01



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
3017	3017	39.70	9.99
3018	3018	39.70	9.99
3019	3019	39.68	9.97
3020	3020	39.73	10.02
3021	3021	39.70	9.99
3022	3022	39.70	9.99
3023	3023	39.72	10.01
3024	3024	39.70	9.99
3025	3025	39.70	9.99
3026	3026	39.68	9.97
3027	3027	39.71	10.00
3028	3028	39.68	9.97
3029	3029	39.70	9.99
3030	3030	39.72	10.01
3031	3031	39.68	9.97
3032	3032	39.68	9.97
3033	3033	39.72	10.01
3034	3034	39.71	10.00
3035	3035	39.72	10.01
3036	3036	39.71	10.00
3037	3037	39.71	10.00
3038	3038	39.73	10.02
3039	3039	39.72	10.01
3040	3040	39.73	10.02
3041	3041	39.72	10.01
3042	3042	39.76	10.05
3043	3043	39.70	9.99
3044	3044	39.70	9.99
3045	3045	39.72	10.01
3046	3046	39.72	10.01
3047	3047	39.70	9.99
3048	3048	39.71	10.00
3049	3049	39.71	10.00
3050	3050	39.71	10.00
3051	3051	39.73	10.02
3052	3052	39.70	9.99
3053	3053	39.72	10.01
3054	3054	39.73	10.02
3055	3055	39.73	10.02
3056	3056	39.74	10.03
3057	3057	39.73	10.02
3058	3058	39.72	10.01
3059	3059	39.72	10.01
3060	3060	39.74	10.03
3061	3061	39.72	10.01
3062	3062	39.72	10.01
3063	3063	39.70	9.99
3064	3064	39.72	10.01
3065	3065	39.70	9.99
3066	3066	39.74	10.03
3067	3067	39.74	10.03
3068	3068	39.69	9.98
3069	3069	39.70	9.99
3070	3070	39.70	9.99
3071	3071	39.71	10.00
3072	3072	39.70	9.99
3073	3073	39.74	10.03



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
3074	3074	39.71	10.00
3075	3075	39.72	10.01
3076	3076	39.70	9.99
3077	3077	39.69	9.98
3078	3078	39.72	10.01
3079	3079	39.73	10.02
3080	3080	39.74	10.03
3081	3081	39.72	10.01
3082	3082	39.72	10.01
3083	3083	39.71	10.00
3084	3084	39.72	10.01
3085	3085	39.71	10.00
3086	3086	39.74	10.03
3087	3087	39.74	10.03
3088	3088	39.74	10.03
3089	3089	39.72	10.01
3090	3090	39.74	10.03
3091	3091	39.71	10.00
3092	3092	39.76	10.05
3093	3093	39.70	9.99
3094	3094	39.74	10.03
3095	3095	39.74	10.03
3096	3096	39.72	10.01
3097	3097	39.74	10.03
3098	3098	39.73	10.02
3099	3099	39.72	10.01
3100	3100	39.73	10.02
3101	3101	39.73	10.02
3102	3102	39.77	10.06
3103	3103	39.73	10.02
3104	3104	39.73	10.02
3105	3105	39.74	10.03
3106	3106	39.73	10.02
3107	3107	39.72	10.01
3108	3108	39.73	10.02
3109	3109	39.73	10.02
3110	3110	39.73	10.02
3111	3111	39.71	10.00
3112	3112	39.74	10.03
3113	3113	39.74	10.03
3114	3114	39.74	10.03
3115	3115	39.72	10.01
3116	3116	39.71	10.00
3117	3117	39.72	10.01
3118	3118	39.72	10.01
3119	3119	39.73	10.02
3120	3120	39.72	10.01
3121	3121	39.73	10.02
3122	3122	39.72	10.01
3123	3123	39.71	10.00
3124	3124	39.71	10.00
3125	3125	39.69	9.98
3126	3126	39.71	10.00
3127	3127	39.71	10.00
3128	3128	39.72	10.01
3129	3129	39.72	10.01
3130	3130	39.72	10.01



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
3131	3131	39.73	10.02
3132	3132	39.72	10.01
3133	3133	39.72	10.01
3134	3134	39.74	10.03
3135	3135	39.76	10.05
3136	3136	39.76	10.05
3137	3137	39.72	10.01
3138	3138	39.72	10.01
3139	3139	39.71	10.00
3140	3140	39.72	10.01
3141	3141	39.72	10.01
3142	3142	39.74	10.03
3143	3143	39.73	10.02
3144	3144	39.70	9.99
3145	3145	39.74	10.03
3146	3146	39.71	10.00
3147	3147	39.71	10.00
3148	3148	39.70	9.99
3149	3149	39.73	10.02
3150	3150	39.71	10.00
3151	3151	39.72	10.01
3152	3152	39.74	10.03
3153	3153	39.73	10.02
3154	3154	39.68	9.97
3155	3155	39.72	10.01
3156	3156	39.72	10.01
3157	3157	39.70	9.99
3158	3158	39.72	10.01
3159	3159	39.72	10.01
3160	3160	39.74	10.03
3161	3161	39.72	10.01
3162	3162	39.71	10.00
3163	3163	39.72	10.01
3164	3164	39.73	10.02
3165	3165	39.73	10.02
3166	3166	39.72	10.01
3167	3167	39.72	10.01
3168	3168	39.74	10.03
3169	3169	39.72	10.01
3170	3170	39.72	10.01
3171	3171	39.71	10.00
3172	3172	39.73	10.02
3173	3173	39.74	10.03
3174	3174	39.72	10.01
3175	3175	39.76	10.05
3176	3176	39.72	10.01
3177	3177	39.72	10.01
3178	3178	39.74	10.03
3179	3179	39.74	10.03
3180	3180	39.72	10.01
3181	3181	39.72	10.01
3182	3182	39.71	10.00
3183	3183	39.75	10.04
3184	3184	39.70	9.99
3185	3185	39.72	10.01
3186	3186	39.71	10.00
3187	3187	39.73	10.02



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
3188	3188	39.76	10.05
3189	3189	39.73	10.02
3190	3190	39.71	10.00
3191	3191	39.74	10.03
3192	3192	39.73	10.02
3193	3193	39.74	10.03
3194	3194	39.73	10.02
3195	3195	39.72	10.01
3196	3196	39.75	10.04
3197	3197	39.73	10.02
3198	3198	39.72	10.01
3199	3199	39.75	10.04
3200	3200	39.73	10.02
3201	3201	39.74	10.03
3202	3202	39.74	10.03
3203	3203	39.72	10.01
3204	3204	39.76	10.05
3205	3205	39.70	9.99
3206	3206	39.73	10.02
3207	3207	39.72	10.01
3208	3208	39.74	10.03
3209	3209	39.72	10.01
3210	3210	39.72	10.01
3211	3211	39.74	10.03
3212	3212	39.72	10.01
3213	3213	39.73	10.02
3214	3214	39.73	10.02
3215	3215	39.76	10.05
3216	3216	39.72	10.01
3217	3217	39.74	10.03
3218	3218	39.69	9.98
3219	3219	39.76	10.05
3220	3220	39.70	9.99
3221	3221	39.68	9.97
3222	3222	39.76	10.05
3223	3223	39.78	10.07
3224	3224	39.78	10.07
3225	3225	39.70	9.99
3226	3226	39.70	9.99
3227	3227	39.66	9.95
3228	3228	39.75	10.04
3229	3229	39.65	9.94
3230	3230	39.68	9.97
3231	3231	39.80	10.09
3232	3232	39.68	9.97
3233	3233	39.78	10.07
3234	3234	39.76	10.05
3235	3235	39.80	10.09
3236	3236	39.77	10.06
3237	3237	39.71	10.00
3238	3238	39.73	10.02
3239	3239	39.71	10.00
3240	3240	39.65	9.94
3241	3241	39.74	10.03
3242	3242	39.70	9.99
3243	3243	39.78	10.07
3244	3244	39.76	10.05



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
3245	3245	39.78	10.07
3246	3246	39.67	9.96
3247	3247	39.73	10.02
3248	3248	39.72	10.01
3249	3249	39.71	10.00
3250	3250	39.72	10.01
3251	3251	39.70	9.99
3252	3252	39.67	9.96
3253	3253	39.67	9.96
3254	3254	39.74	10.03
3255	3255	39.73	10.02
3256	3256	39.79	10.08
3257	3257	39.77	10.06
3258	3258	39.74	10.03
3259	3259	39.74	10.03
3260	3260	39.68	9.97
3261	3261	39.77	10.06
3262	3262	39.72	10.01
3263	3263	39.76	10.05
3264	3264	39.71	10.00
3265	3265	39.70	9.99
3266	3266	39.79	10.08
3267	3267	39.67	9.96
3268	3268	39.72	10.01
3269	3269	39.80	10.09
3270	3270	39.72	10.01
3271	3271	39.73	10.02
3272	3272	39.74	10.03
3273	3273	39.76	10.05
3274	3274	39.74	10.03
3275	3275	39.70	9.99
3276	3276	39.74	10.03
3277	3277	39.74	10.03
3278	3278	39.73	10.02
3279	3279	39.72	10.01
3280	3280	39.71	10.00
3281	3281	39.72	10.01
3282	3282	39.74	10.03
3283	3283	39.71	10.00
3284	3284	39.73	10.02
3285	3285	39.74	10.03
3286	3286	39.74	10.03
3287	3287	39.71	10.00
3288	3288	39.73	10.02
3289	3289	39.72	10.01
3290	3290	39.73	10.02
3291	3291	39.72	10.01
3292	3292	39.72	10.01
3293	3293	39.71	10.00
3294	3294	39.73	10.02
3295	3295	39.73	10.02
3296	3296	39.72	10.01
3297	3297	39.74	10.03
3298	3298	39.73	10.02
3299	3299	39.76	10.05
3300	3300	39.73	10.02
3301	3301	39.73	10.02



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
3302	3302	39.72	10.01
3303	3303	39.71	10.00
3304	3304	39.72	10.01
3305	3305	39.68	9.97
3306	3306	39.73	10.02
3307	3307	39.71	10.00
3308	3308	39.73	10.02
3309	3309	39.73	10.02
3310	3310	39.73	10.02
3311	3311	39.73	10.02
3312	3312	39.72	10.01
3313	3313	39.73	10.02
3314	3314	39.70	9.99
3315	3315	39.72	10.01
3316	3316	39.74	10.03
3317	3317	39.74	10.03
3318	3318	39.71	10.00
3319	3319	39.74	10.03
3320	3320	39.72	10.01
3321	3321	39.71	10.00
3322	3322	39.71	10.00
3323	3323	39.73	10.02
3324	3324	39.72	10.01
3325	3325	39.71	10.00
3326	3326	39.71	10.00
3327	3327	39.70	9.99
3328	3328	39.71	10.00
3329	3329	39.71	10.00
3330	3330	39.71	10.00
3331	3331	39.72	10.01
3332	3332	39.73	10.02
3333	3333	39.70	9.99
3334	3334	39.72	10.01
3335	3335	39.72	10.01
3336	3336	39.70	9.99
3337	3337	39.70	9.99
3338	3338	39.70	9.99
3339	3339	39.70	9.99
3340	3340	39.70	9.99
3341	3341	39.73	10.02
3342	3342	39.70	9.99
3343	3343	39.72	10.01
3344	3344	39.73	10.02
3345	3345	39.72	10.01
3346	3346	39.71	10.00
3347	3347	39.70	9.99
3348	3348	39.71	10.00
3349	3349	39.73	10.02
3350	3350	39.70	9.99
3351	3351	39.71	10.00
3352	3352	39.70	9.99
3353	3353	39.72	10.01
3354	3354	39.74	10.03
3355	3355	39.72	10.01
3356	3356	39.70	9.99
3357	3357	39.70	9.99
3358	3358	39.73	10.02



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
3359	3359	39.72	10.01
3360	3360	39.72	10.01
3361	3361	39.71	10.00
3362	3362	39.72	10.01
3363	3363	39.73	10.02
3364	3364	39.72	10.01
3365	3365	39.73	10.02
3366	3366	39.70	9.99
3367	3367	39.73	10.02
3368	3368	39.72	10.01
3369	3369	39.74	10.03
3370	3370	39.73	10.02
3371	3371	39.72	10.01
3372	3372	39.70	9.99
3373	3373	39.74	10.03
3374	3374	39.74	10.03
3375	3375	39.70	9.99
3376	3376	39.71	10.00
3377	3377	39.70	9.99
3378	3378	39.71	10.00
3379	3379	39.72	10.01
3380	3380	39.72	10.01
3381	3381	39.70	9.99
3382	3382	39.70	9.99
3383	3383	39.71	10.00
3384	3384	39.71	10.00
3385	3385	39.73	10.02
3386	3386	39.71	10.00
3387	3387	39.72	10.01
3388	3388	39.72	10.01
3389	3389	39.71	10.00
3390	3390	39.71	10.00
3391	3391	39.70	9.99
3392	3392	39.71	10.00
3393	3393	39.70	9.99
3394	3394	39.74	10.03
3395	3395	39.72	10.01
3396	3396	39.71	10.00
3397	3397	39.74	10.03
3398	3398	39.71	10.00
3399	3399	39.73	10.02
3400	3400	39.70	9.99
3401	3401	39.71	10.00
3402	3402	39.72	10.01
3403	3403	39.73	10.02
3404	3404	39.71	10.00
3405	3405	39.71	10.00
3406	3406	39.72	10.01
3407	3407	39.71	10.00
3408	3408	39.72	10.01
3409	3409	39.71	10.00
3410	3410	39.72	10.01
3411	3411	39.70	9.99
3412	3412	39.70	9.99
3413	3413	39.71	10.00
3414	3414	39.68	9.97
3415	3415	39.70	9.99



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
3416	3416	39.71	10.00
3417	3417	39.72	10.01
3418	3418	39.71	10.00
3419	3419	39.72	10.01
3420	3420	39.70	9.99
3421	3421	39.69	9.98
3422	3422	39.70	9.99
3423	3423	39.70	9.99
3424	3424	39.70	9.99
3425	3425	39.71	10.00
3426	3426	39.71	10.00
3427	3427	39.71	10.00
3428	3428	39.71	10.00
3429	3429	39.73	10.02
3430	3430	39.71	10.00
3431	3431	39.71	10.00
3432	3432	39.72	10.01
3433	3433	39.70	9.99
3434	3434	39.71	10.00
3435	3435	39.72	10.01
3436	3436	39.68	9.97
3437	3437	39.73	10.02
3438	3438	39.71	10.00
3439	3439	39.71	10.00
3440	3440	39.71	10.00
3441	3441	39.70	9.99
3442	3442	39.70	9.99
3443	3443	39.69	9.98
3444	3444	39.72	10.01
3445	3445	39.68	9.97
3446	3446	39.70	9.99
3447	3447	39.70	9.99
3448	3448	39.70	9.99
3449	3449	39.70	9.99
3450	3450	39.71	10.00
3451	3451	39.71	10.00
3452	3452	39.71	10.00
3453	3453	39.71	10.00
3454	3454	39.70	9.99
3455	3455	39.71	10.00
3456	3456	39.70	9.99
3457	3457	39.71	10.00
3458	3458	39.70	9.99
3459	3459	39.68	9.97
3460	3460	39.70	9.99
3461	3461	39.68	9.97
3462	3462	39.72	10.01
3463	3463	39.72	10.01
3464	3464	39.68	9.97
3465	3465	39.71	10.00
3466	3466	39.71	10.00
3467	3467	39.70	9.99
3468	3468	30.88	1.17
3469	3469	31.49	1.78
3470	3470	31.42	1.71
3471	3471	31.37	1.66
3472	3472	31.31	1.60



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
3473	3473	31.26	1.55
3474	3474	31.24	1.53
3475	3475	31.22	1.51
3476	3476	31.21	1.50
3477	3477	31.13	1.42
3478	3478	31.16	1.45
3479	3479	31.15	1.44
3480	3480	31.14	1.43
3481	3481	31.13	1.42
3482	3482	31.11	1.40
3483	3483	31.10	1.39
3484	3484	31.09	1.38
3485	3485	31.09	1.38
3486	3486	31.07	1.36
3487	3487	31.06	1.35
3488	3488	31.04	1.33
3489	3489	31.03	1.32
3490	3490	31.03	1.32
3491	3491	31.04	1.33
3492	3492	31.00	1.29
3493	3493	31.01	1.30
3494	3494	30.99	1.28
3495	3495	30.99	1.28
3496	3496	30.99	1.28
3497	3497	30.99	1.28
3498	3498	30.97	1.26
3499	3499	30.96	1.25
3500	3500	30.96	1.25
3501	3501	30.96	1.25
3502	3502	30.95	1.24
3503	3503	30.94	1.23
3504	3504	30.96	1.25
3505	3505	30.93	1.22
3506	3506	30.92	1.21
3507	3507	30.92	1.21
3508	3508	30.92	1.21
3509	3509	30.92	1.21
3510	3510	30.91	1.20
3511	3511	30.91	1.20
3512	3512	30.89	1.18
3513	3513	30.90	1.19
3514	3514	30.89	1.18
3515	3515	30.87	1.16
3516	3516	30.87	1.16
3517	3517	30.87	1.16
3518	3518	30.87	1.16
3519	3519	30.88	1.17
3520	3520	30.87	1.16
3521	3521	30.87	1.16
3522	3522	30.86	1.15
3523	3523	30.85	1.14
3524	3524	30.84	1.13
3525	3525	30.85	1.14
3526	3526	30.86	1.15
3527	3527	30.82	1.11
3528	3528	30.82	1.11
3529	3529	30.81	1.10



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
3530	3530	30.81	1.10
3531	3531	30.81	1.10
3532	3532	30.82	1.11
3533	3533	30.81	1.10
3534	3534	30.79	1.08
3535	3535	30.80	1.09
3536	3536	30.81	1.10
3537	3537	30.79	1.08
3538	3538	30.79	1.08
3539	3539	30.79	1.08
3540	3540	30.80	1.09
3541	3541	30.79	1.08
3542	3542	30.77	1.06
3543	3543	30.77	1.06
3544	3544	30.77	1.06
3545	3545	30.76	1.05
3546	3546	30.76	1.05
3547	3547	30.75	1.04
3548	3548	30.76	1.05
3549	3549	30.75	1.04
3550	3550	30.75	1.04
3551	3551	30.75	1.04
3552	3552	30.75	1.04
3553	3553	30.76	1.05
3554	3554	30.75	1.04
3555	3555	30.75	1.04
3556	3556	30.75	1.04
3557	3557	30.75	1.04
3558	3558	30.75	1.04
3559	3559	30.74	1.03
3560	3560	30.72	1.01
3561	3561	30.73	1.02
3562	3562	30.73	1.02
3563	3563	30.72	1.01
3564	3564	30.71	1.00
3565	3565	30.72	1.01
3566	3566	30.72	1.01
3567	3567	30.70	0.99
3568	3568	30.72	1.01
3569	3569	30.71	1.00
3570	3570	30.72	1.01
3571	3571	30.70	0.99
3572	3572	30.71	1.00
3573	3573	30.70	0.99
3574	3574	30.71	1.00
3575	3575	30.70	0.99
3576	3576	30.68	0.97
3577	3577	30.69	0.98
3578	3578	30.69	0.98
3579	3579	30.69	0.98
3580	3580	30.70	0.99
3581	3581	30.67	0.96
3582	3582	30.67	0.96
3583	3583	30.67	0.96
3584	3584	30.67	0.96
3585	3585	30.67	0.96
3586	3586	30.65	0.94



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
3587	3587	30.66	0.95
3588	3588	30.67	0.96
3589	3589	30.66	0.95
3590	3590	30.67	0.96
3591	3591	30.66	0.95
3592	3592	30.66	0.95
3593	3593	30.65	0.94
3594	3594	30.66	0.95
3595	3595	30.65	0.94
3596	3596	30.65	0.94
3597	3597	30.63	0.92
3598	3598	30.65	0.94
3599	3599	30.64	0.93
3600	3600	30.64	0.93
3601	3601	30.63	0.92
3602	3602	30.62	0.91
3603	3603	30.63	0.92
3604	3604	30.62	0.91
3605	3605	30.63	0.92
3606	3606	30.60	0.89
3607	3607	30.60	0.89
3608	3608	30.60	0.89
3609	3609	30.62	0.91
3610	3610	30.61	0.90
3611	3611	30.61	0.90
3612	3612	30.60	0.89
3613	3613	30.61	0.90
3614	3614	30.60	0.89
3615	3615	30.61	0.90
3616	3616	30.61	0.90
3617	3617	30.61	0.90
3618	3618	30.59	0.88
3619	3619	30.60	0.89
3620	3620	30.60	0.89
3621	3621	30.59	0.88
3622	3622	30.59	0.88
3623	3623	30.58	0.87
3624	3624	30.57	0.86
3625	3625	30.57	0.86
3626	3626	30.57	0.86
3627	3627	30.57	0.86
3628	3628	30.56	0.85
3629	3629	30.56	0.85
3630	3630	30.56	0.85
3631	3631	30.58	0.87
3632	3632	30.57	0.86
3633	3633	30.58	0.87
3634	3634	30.58	0.87
3635	3635	30.56	0.85
3636	3636	30.56	0.85
3637	3637	30.58	0.87
3638	3638	30.56	0.85
3639	3639	30.56	0.85
3640	3640	30.57	0.86
3641	3641	30.56	0.85
3642	3642	30.55	0.84
3643	3643	30.56	0.85



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	Time [min]	Water Level [m]	Drawdown [m]
3644	3644	30.56	0.85
3645	3645	30.56	0.85
3646	3646	30.55	0.84
3647	3647	30.56	0.85
3648	3648	30.55	0.84
3649	3649	30.55	0.84
3650	3650	30.55	0.84
3651	3651	30.55	0.84
3652	3652	30.55	0.84
3653	3653	30.55	0.84
3654	3654	30.55	0.84
3655	3655	30.55	0.84
3656	3656	30.55	0.84
3657	3657	30.55	0.84
3658	3658	30.54	0.83
3659	3659	30.55	0.84
3660	3660	30.54	0.83
3661	3661	30.55	0.84
3662	3662	30.54	0.83
3663	3663	30.53	0.82
3664	3664	30.54	0.83
3665	3665	30.52	0.81
3666	3666	30.52	0.81
3667	3667	30.54	0.83
3668	3668	30.52	0.81
3669	3669	30.52	0.81
3670	3670	30.52	0.81
3671	3671	30.52	0.81
3672	3672	30.53	0.82
3673	3673	30.53	0.82
3674	3674	30.52	0.81
3675	3675	30.53	0.82
3676	3676	30.50	0.79
3677	3677	30.53	0.82
3678	3678	30.52	0.81
3679	3679	30.52	0.81
3680	3680	30.51	0.80
3681	3681	30.53	0.82
3682	3682	30.50	0.79
3683	3683	30.52	0.81
3684	3684	30.52	0.81
3685	3685	30.52	0.81
3686	3686	30.52	0.81
3687	3687	30.49	0.78
3688	3688	30.51	0.80
3689	3689	30.50	0.79
3690	3690	30.49	0.78
3691	3691	30.51	0.80
3692	3692	30.51	0.80
3693	3693	30.52	0.81
3694	3694	30.50	0.79
3695	3695	30.50	0.79
3696	3696	30.49	0.78
3697	3697	30.48	0.77
3698	3698	30.49	0.78
3699	3699	30.48	0.77
3700	3700	30.48	0.77



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	Time [min]	Water Level [m]	Drawdown [m]
3701	3701	30.48	0.77
3702	3702	30.47	0.76
3703	3703	30.48	0.77
3704	3704	30.48	0.77
3705	3705	30.48	0.77
3706	3706	30.48	0.77
3707	3707	30.48	0.77
3708	3708	30.49	0.78
3709	3709	30.48	0.77
3710	3710	30.47	0.76
3711	3711	30.48	0.77
3712	3712	30.48	0.77
3713	3713	30.48	0.77
3714	3714	30.47	0.76
3715	3715	30.48	0.77
3716	3716	30.48	0.77
3717	3717	30.48	0.77
3718	3718	30.47	0.76
3719	3719	30.48	0.77
3720	3720	30.47	0.76
3721	3721	30.47	0.76
3722	3722	30.48	0.77
3723	3723	30.47	0.76
3724	3724	30.48	0.77
3725	3725	30.47	0.76
3726	3726	30.46	0.75
3727	3727	30.47	0.76
3728	3728	30.46	0.75
3729	3729	30.47	0.76
3730	3730	30.46	0.75
3731	3731	30.46	0.75
3732	3732	30.47	0.76
3733	3733	30.44	0.73
3734	3734	30.44	0.73
3735	3735	30.46	0.75
3736	3736	30.47	0.76
3737	3737	30.46	0.75
3738	3738	30.46	0.75
3739	3739	30.46	0.75
3740	3740	30.46	0.75
3741	3741	30.46	0.75
3742	3742	30.43	0.72
3743	3743	30.43	0.72
3744	3744	30.44	0.73
3745	3745	30.43	0.72
3746	3746	30.44	0.73
3747	3747	30.44	0.73
3748	3748	30.43	0.72
3749	3749	30.44	0.73
3750	3750	30.44	0.73
3751	3751	30.44	0.73
3752	3752	30.46	0.75
3753	3753	30.44	0.73
3754	3754	30.44	0.73
3755	3755	30.44	0.73
3756	3756	30.44	0.73
3757	3757	30.44	0.73



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	Time [min]	Water Level [m]	Drawdown [m]
3758	3758	30.43	0.72
3759	3759	30.43	0.72
3760	3760	30.43	0.72
3761	3761	30.43	0.72
3762	3762	30.42	0.71
3763	3763	30.43	0.72
3764	3764	30.43	0.72
3765	3765	30.42	0.71
3766	3766	30.43	0.72
3767	3767	30.41	0.70
3768	3768	30.42	0.71
3769	3769	30.41	0.70
3770	3770	30.43	0.72
3771	3771	30.43	0.72
3772	3772	30.41	0.70
3773	3773	30.41	0.70
3774	3774	30.42	0.71
3775	3775	30.42	0.71
3776	3776	30.43	0.72
3777	3777	30.43	0.72
3778	3778	30.41	0.70
3779	3779	30.41	0.70
3780	3780	30.42	0.71
3781	3781	30.41	0.70
3782	3782	30.41	0.70
3783	3783	30.41	0.70
3784	3784	30.39	0.68
3785	3785	30.41	0.70
3786	3786	30.39	0.68
3787	3787	30.39	0.68
3788	3788	30.41	0.70
3789	3789	30.41	0.70
3790	3790	30.41	0.70
3791	3791	30.41	0.70
3792	3792	30.41	0.70
3793	3793	30.41	0.70
3794	3794	30.39	0.68
3795	3795	30.41	0.70
3796	3796	30.41	0.70
3797	3797	30.42	0.71
3798	3798	30.40	0.69
3799	3799	30.41	0.70
3800	3800	30.39	0.68
3801	3801	30.38	0.67
3802	3802	30.38	0.67
3803	3803	30.38	0.67
3804	3804	30.39	0.68
3805	3805	30.39	0.68
3806	3806	30.41	0.70
3807	3807	30.39	0.68
3808	3808	30.38	0.67
3809	3809	30.38	0.67
3810	3810	30.38	0.67
3811	3811	30.39	0.68
3812	3812	30.41	0.70
3813	3813	30.38	0.67
3814	3814	30.38	0.67



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	Time [min]	Water Level [m]	Drawdown [m]
3815	3815	30.38	0.67
3816	3816	30.38	0.67
3817	3817	30.39	0.68
3818	3818	30.39	0.68
3819	3819	30.38	0.67
3820	3820	30.38	0.67
3821	3821	30.38	0.67
3822	3822	30.39	0.68
3823	3823	30.38	0.67
3824	3824	30.38	0.67
3825	3825	30.39	0.68
3826	3826	30.37	0.66
3827	3827	30.39	0.68
3828	3828	30.39	0.68
3829	3829	30.38	0.67
3830	3830	30.39	0.68
3831	3831	30.38	0.67
3832	3832	30.37	0.66
3833	3833	30.37	0.66
3834	3834	30.37	0.66
3835	3835	30.37	0.66
3836	3836	30.37	0.66
3837	3837	30.37	0.66
3838	3838	30.37	0.66
3839	3839	30.36	0.65
3840	3840	30.37	0.66
3841	3841	30.37	0.66
3842	3842	30.37	0.66
3843	3843	30.37	0.66
3844	3844	30.37	0.66
3845	3845	30.37	0.66
3846	3846	30.36	0.65
3847	3847	30.37	0.66
3848	3848	30.37	0.66
3849	3849	30.37	0.66
3850	3850	30.37	0.66
3851	3851	30.36	0.65
3852	3852	30.36	0.65
3853	3853	30.36	0.65
3854	3854	30.37	0.66
3855	3855	30.37	0.66
3856	3856	30.36	0.65
3857	3857	30.37	0.66
3858	3858	30.37	0.66
3859	3859	30.36	0.65
3860	3860	30.36	0.65
3861	3861	30.37	0.66
3862	3862	30.36	0.65
3863	3863	30.35	0.64
3864	3864	30.34	0.63
3865	3865	30.36	0.65
3866	3866	30.36	0.65
3867	3867	30.36	0.65
3868	3868	30.36	0.65
3869	3869	30.34	0.63
3870	3870	30.37	0.66
3871	3871	30.36	0.65



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	Time [min]	Water Level [m]	Drawdown [m]
3872	3872	30.37	0.66
3873	3873	30.36	0.65
3874	3874	30.34	0.63
3875	3875	30.34	0.63
3876	3876	30.34	0.63
3877	3877	30.35	0.64
3878	3878	30.35	0.64
3879	3879	30.34	0.63
3880	3880	30.36	0.65
3881	3881	30.37	0.66
3882	3882	30.36	0.65
3883	3883	30.36	0.65
3884	3884	30.37	0.66
3885	3885	30.36	0.65
3886	3886	30.37	0.66
3887	3887	30.36	0.65
3888	3888	30.36	0.65
3889	3889	30.36	0.65
3890	3890	30.33	0.62
3891	3891	30.34	0.63
3892	3892	30.33	0.62
3893	3893	30.34	0.63
3894	3894	30.36	0.65
3895	3895	30.33	0.62
3896	3896	30.33	0.62
3897	3897	30.33	0.62
3898	3898	30.36	0.65
3899	3899	30.34	0.63
3900	3900	30.34	0.63
3901	3901	30.33	0.62
3902	3902	30.33	0.62
3903	3903	30.33	0.62
3904	3904	30.33	0.62
3905	3905	30.33	0.62
3906	3906	30.33	0.62
3907	3907	30.32	0.61
3908	3908	30.32	0.61
3909	3909	30.34	0.63
3910	3910	30.36	0.65
3911	3911	30.32	0.61
3912	3912	30.32	0.61
3913	3913	30.33	0.62
3914	3914	30.33	0.62
3915	3915	30.35	0.64
3916	3916	30.32	0.61
3917	3917	30.32	0.61
3918	3918	30.33	0.62
3919	3919	30.32	0.61
3920	3920	30.32	0.61
3921	3921	30.33	0.62
3922	3922	30.33	0.62
3923	3923	30.32	0.61
3924	3924	30.32	0.61
3925	3925	30.33	0.62
3926	3926	30.34	0.63
3927	3927	30.32	0.61
3928	3928	30.32	0.61



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	Time [min]	Water Level [m]	Drawdown [m]
3929	3929	30.33	0.62
3930	3930	30.33	0.62
3931	3931	30.32	0.61
3932	3932	30.32	0.61
3933	3933	30.33	0.62
3934	3934	30.33	0.62
3935	3935	30.32	0.61
3936	3936	30.32	0.61
3937	3937	30.32	0.61
3938	3938	30.32	0.61
3939	3939	30.32	0.61
3940	3940	30.33	0.62
3941	3941	30.32	0.61
3942	3942	30.32	0.61
3943	3943	30.32	0.61
3944	3944	30.32	0.61
3945	3945	30.32	0.61
3946	3946	30.31	0.60
3947	3947	30.31	0.60
3948	3948	30.32	0.61
3949	3949	30.32	0.61
3950	3950	30.32	0.61
3951	3951	30.32	0.61
3952	3952	30.31	0.60
3953	3953	30.32	0.61
3954	3954	30.32	0.61
3955	3955	30.33	0.62
3956	3956	30.33	0.62
3957	3957	30.30	0.59
3958	3958	30.32	0.61
3959	3959	30.32	0.61
3960	3960	30.32	0.61
3961	3961	30.30	0.59
3962	3962	30.32	0.61
3963	3963	30.31	0.60
3964	3964	30.31	0.60
3965	3965	30.32	0.61
3966	3966	30.31	0.60
3967	3967	30.31	0.60
3968	3968	30.31	0.60
3969	3969	30.30	0.59
3970	3970	30.30	0.59
3971	3971	30.29	0.58
3972	3972	30.31	0.60
3973	3973	30.30	0.59
3974	3974	30.30	0.59
3975	3975	30.30	0.59
3976	3976	30.32	0.61
3977	3977	30.31	0.60
3978	3978	30.32	0.61
3979	3979	30.30	0.59
3980	3980	30.31	0.60
3981	3981	30.29	0.58
3982	3982	30.31	0.60
3983	3983	30.29	0.58
3984	3984	30.31	0.60
3985	3985	30.30	0.59



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	Time [min]	Water Level [m]	Drawdown [m]
3986	3986	30.31	0.60
3987	3987	30.30	0.59
3988	3988	30.29	0.58
3989	3989	30.30	0.59
3990	3990	30.30	0.59
3991	3991	30.30	0.59
3992	3992	30.29	0.58
3993	3993	30.31	0.60
3994	3994	30.31	0.60
3995	3995	30.30	0.59
3996	3996	30.31	0.60
3997	3997	30.30	0.59
3998	3998	30.30	0.59
3999	3999	30.29	0.58
4000	4000	30.30	0.59
4001	4001	30.29	0.58
4002	4002	30.30	0.59
4003	4003	30.29	0.58
4004	4004	30.31	0.60
4005	4005	30.29	0.58
4006	4006	30.31	0.60
4007	4007	30.28	0.57
4008	4008	30.29	0.58
4009	4009	30.29	0.58
4010	4010	30.29	0.58
4011	4011	30.29	0.58
4012	4012	30.29	0.58
4013	4013	30.28	0.57
4014	4014	30.29	0.58
4015	4015	30.28	0.57
4016	4016	30.29	0.58
4017	4017	30.29	0.58
4018	4018	30.27	0.56
4019	4019	30.29	0.58
4020	4020	30.29	0.58
4021	4021	30.28	0.57
4022	4022	30.30	0.59
4023	4023	30.30	0.59
4024	4024	30.29	0.58
4025	4025	30.29	0.58
4026	4026	30.30	0.59
4027	4027	30.29	0.58
4028	4028	30.29	0.58
4029	4029	30.29	0.58
4030	4030	30.29	0.58
4031	4031	30.29	0.58
4032	4032	30.29	0.58
4033	4033	30.27	0.56
4034	4034	30.29	0.58
4035	4035	30.27	0.56
4036	4036	30.27	0.56
4037	4037	30.27	0.56
4038	4038	30.29	0.58
4039	4039	30.27	0.56
4040	4040	30.27	0.56
4041	4041	30.29	0.58
4042	4042	30.29	0.58



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	Time [min]	Water Level [m]	Drawdown [m]
4043	4043	30.27	0.56
4044	4044	30.28	0.57
4045	4045	30.28	0.57
4046	4046	30.27	0.56
4047	4047	30.28	0.57
4048	4048	30.27	0.56
4049	4049	30.28	0.57
4050	4050	30.28	0.57
4051	4051	30.27	0.56
4052	4052	30.27	0.56
4053	4053	30.27	0.56
4054	4054	30.27	0.56
4055	4055	30.26	0.55
4056	4056	30.28	0.57
4057	4057	30.27	0.56
4058	4058	30.28	0.57
4059	4059	30.27	0.56
4060	4060	30.26	0.55
4061	4061	30.27	0.56
4062	4062	30.28	0.57
4063	4063	30.27	0.56
4064	4064	30.28	0.57
4065	4065	30.27	0.56
4066	4066	30.27	0.56
4067	4067	30.27	0.56
4068	4068	30.28	0.57
4069	4069	30.27	0.56
4070	4070	30.28	0.57
4071	4071	30.27	0.56
4072	4072	30.27	0.56
4073	4073	30.28	0.57
4074	4074	30.27	0.56
4075	4075	30.27	0.56
4076	4076	30.27	0.56
4077	4077	30.27	0.56
4078	4078	30.27	0.56
4079	4079	30.27	0.56
4080	4080	30.26	0.55
4081	4081	30.26	0.55
4082	4082	30.27	0.56
4083	4083	30.26	0.55
4084	4084	30.26	0.55
4085	4085	30.26	0.55
4086	4086	30.26	0.55
4087	4087	30.27	0.56
4088	4088	30.27	0.56
4089	4089	30.28	0.57
4090	4090	30.27	0.56
4091	4091	30.28	0.57
4092	4092	30.26	0.55
4093	4093	30.27	0.56
4094	4094	30.26	0.55
4095	4095	30.27	0.56
4096	4096	30.26	0.55
4097	4097	30.27	0.56
4098	4098	30.27	0.56
4099	4099	30.26	0.55



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	Time [min]	Water Level [m]	Drawdown [m]
4100	4100	30.27	0.56
4101	4101	30.26	0.55
4102	4102	30.25	0.54
4103	4103	30.26	0.55
4104	4104	30.26	0.55
4105	4105	30.27	0.56
4106	4106	30.25	0.54
4107	4107	30.27	0.56
4108	4108	30.27	0.56
4109	4109	30.26	0.55
4110	4110	30.25	0.54
4111	4111	30.25	0.54
4112	4112	30.26	0.55
4113	4113	30.25	0.54
4114	4114	30.26	0.55
4115	4115	30.25	0.54
4116	4116	30.25	0.54
4117	4117	30.25	0.54
4118	4118	30.25	0.54
4119	4119	30.26	0.55
4120	4120	30.26	0.55
4121	4121	30.24	0.53
4122	4122	30.23	0.52
4123	4123	30.24	0.53
4124	4124	30.25	0.54
4125	4125	30.25	0.54
4126	4126	30.24	0.53
4127	4127	30.24	0.53
4128	4128	30.23	0.52
4129	4129	30.25	0.54
4130	4130	30.25	0.54
4131	4131	30.25	0.54
4132	4132	30.23	0.52
4133	4133	30.23	0.52
4134	4134	30.24	0.53
4135	4135	30.23	0.52
4136	4136	30.25	0.54
4137	4137	30.25	0.54
4138	4138	30.23	0.52
4139	4139	30.25	0.54
4140	4140	30.23	0.52
4141	4141	30.25	0.54
4142	4142	30.25	0.54
4143	4143	30.25	0.54
4144	4144	30.24	0.53
4145	4145	30.23	0.52
4146	4146	30.25	0.54
4147	4147	30.23	0.52
4148	4148	30.25	0.54
4149	4149	30.23	0.52
4150	4150	30.24	0.53
4151	4151	30.23	0.52
4152	4152	30.23	0.52
4153	4153	30.24	0.53
4154	4154	30.23	0.52
4155	4155	30.23	0.52
4156	4156	30.22	0.51



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
4157	4157	30.23	0.52
4158	4158	30.23	0.52
4159	4159	30.21	0.50
4160	4160	30.23	0.52
4161	4161	30.22	0.51
4162	4162	30.22	0.51
4163	4163	30.22	0.51
4164	4164	30.24	0.53
4165	4165	30.21	0.50
4166	4166	30.21	0.50
4167	4167	30.23	0.52
4168	4168	30.23	0.52
4169	4169	30.23	0.52
4170	4170	30.23	0.52
4171	4171	30.23	0.52
4172	4172	30.21	0.50
4173	4173	30.22	0.51
4174	4174	30.23	0.52
4175	4175	30.23	0.52
4176	4176	30.23	0.52
4177	4177	30.22	0.51
4178	4178	30.23	0.52
4179	4179	30.23	0.52
4180	4180	30.23	0.52
4181	4181	30.23	0.52
4182	4182	30.24	0.53
4183	4183	30.21	0.50
4184	4184	30.21	0.50
4185	4185	30.21	0.50
4186	4186	30.20	0.49
4187	4187	30.20	0.49
4188	4188	30.21	0.50
4189	4189	30.21	0.50
4190	4190	30.22	0.51
4191	4191	30.21	0.50
4192	4192	30.21	0.50
4193	4193	30.21	0.50
4194	4194	30.22	0.51
4195	4195	30.21	0.50
4196	4196	30.21	0.50
4197	4197	30.21	0.50
4198	4198	30.22	0.51
4199	4199	30.22	0.51
4200	4200	30.21	0.50
4201	4201	30.21	0.50
4202	4202	30.21	0.50
4203	4203	30.21	0.50
4204	4204	30.21	0.50
4205	4205	30.22	0.51
4206	4206	30.21	0.50
4207	4207	30.20	0.49
4208	4208	30.21	0.50
4209	4209	30.21	0.50
4210	4210	30.21	0.50
4211	4211	30.22	0.51
4212	4212	30.21	0.50
4213	4213	30.22	0.51



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
4214	4214	30.21	0.50
4215	4215	30.21	0.50
4216	4216	30.21	0.50
4217	4217	30.21	0.50
4218	4218	30.20	0.49
4219	4219	30.21	0.50
4220	4220	30.20	0.49
4221	4221	30.21	0.50
4222	4222	30.22	0.51
4223	4223	30.21	0.50
4224	4224	30.20	0.49
4225	4225	30.21	0.50
4226	4226	30.21	0.50
4227	4227	30.21	0.50
4228	4228	30.21	0.50
4229	4229	30.21	0.50
4230	4230	30.22	0.51
4231	4231	30.21	0.50
4232	4232	30.21	0.50
4233	4233	30.20	0.49
4234	4234	30.21	0.50
4235	4235	30.21	0.50
4236	4236	30.21	0.50
4237	4237	30.20	0.49
4238	4238	30.22	0.51
4239	4239	30.21	0.50
4240	4240	30.20	0.49
4241	4241	30.21	0.50
4242	4242	30.21	0.50
4243	4243	30.20	0.49
4244	4244	30.20	0.49
4245	4245	30.20	0.49
4246	4246	30.20	0.49
4247	4247	30.21	0.50
4248	4248	30.19	0.48
4249	4249	30.19	0.48
4250	4250	30.19	0.48
4251	4251	30.20	0.49
4252	4252	30.20	0.49
4253	4253	30.20	0.49
4254	4254	30.20	0.49
4255	4255	30.20	0.49
4256	4256	30.19	0.48
4257	4257	30.20	0.49
4258	4258	30.19	0.48
4259	4259	30.19	0.48
4260	4260	30.19	0.48
4261	4261	30.20	0.49
4262	4262	30.20	0.49
4263	4263	30.20	0.49
4264	4264	30.19	0.48
4265	4265	30.19	0.48
4266	4266	30.20	0.49
4267	4267	30.20	0.49
4268	4268	30.20	0.49



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

Location: Arrowsmith Central	Pumping Test: YPB2	Pumping Well: YPB2
Test Conducted by: Western Irrigation	Test Date: 27-Oct-22	Discharge: variable, average rate 40 [l/s]
Observation Well: YMB2	Static Water Level [m]: 29.83	Radial Distance to PW [m]: 38

	Time [min]	Water Level [m]	Drawdown [m]
1	1	29.83	0.00
2	2	29.93	0.10
3	3	29.99	0.16
4	4	30.04	0.21
5	5	30.08	0.25
6	6	30.11	0.28
7	7	30.15	0.32
8	8	30.17	0.34
9	9	30.19	0.36
10	10	30.21	0.38
11	11	30.22	0.39
12	12	30.24	0.41
13	13	30.26	0.43
14	14	30.28	0.45
15	15	30.30	0.47
16	16	30.30	0.47
17	17	30.31	0.48
18	18	30.32	0.49
19	19	30.33	0.50
20	20	30.34	0.51
21	21	30.35	0.52
22	22	30.36	0.53
23	23	30.36	0.53
24	24	30.38	0.55
25	25	30.39	0.56
26	26	30.39	0.56
27	27	30.41	0.58
28	28	30.41	0.58
29	29	30.42	0.59
30	30	30.42	0.59
31	31	30.43	0.60
32	32	30.44	0.61
33	33	30.45	0.62
34	34	30.45	0.62
35	35	30.46	0.63
36	36	30.47	0.64
37	37	30.47	0.64
38	38	30.47	0.64
39	39	30.48	0.65
40	40	30.49	0.66
41	41	30.49	0.66
42	42	30.50	0.67
43	43	30.51	0.68
44	44	30.51	0.68
45	45	30.52	0.69
46	46	30.52	0.69
47	47	30.53	0.70
48	48	30.54	0.71
49	49	30.54	0.71
50	50	30.55	0.72
51	51	30.56	0.73
52	52	30.55	0.72



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
53	53	30.56	0.73
54	54	30.56	0.73
55	55	30.57	0.74
56	56	30.58	0.75
57	57	30.58	0.75
58	58	30.58	0.75
59	59	30.58	0.75
60	60	30.59	0.76
61	61	30.60	0.77
62	62	30.59	0.76
63	63	30.59	0.76
64	64	30.59	0.76
65	65	30.59	0.76
66	66	30.60	0.77
67	67	30.60	0.77
68	68	30.60	0.77
69	69	30.60	0.77
70	70	30.60	0.77
71	71	30.61	0.78
72	72	30.61	0.78
73	73	30.61	0.78
74	74	30.62	0.79
75	75	30.63	0.80
76	76	30.63	0.80
77	77	30.63	0.80
78	78	30.64	0.81
79	79	30.63	0.80
80	80	30.64	0.81
81	81	30.65	0.82
82	82	30.65	0.82
83	83	30.65	0.82
84	84	30.66	0.83
85	85	30.66	0.83
86	86	30.66	0.83
87	87	30.66	0.83
88	88	30.67	0.84
89	89	30.67	0.84
90	90	30.67	0.84
91	91	30.67	0.84
92	92	30.68	0.85
93	93	30.68	0.85
94	94	30.69	0.86
95	95	30.68	0.85
96	96	30.69	0.86
97	97	30.69	0.86
98	98	30.70	0.87
99	99	30.70	0.87
100	100	30.70	0.87
101	101	30.70	0.87
102	102	30.71	0.88
103	103	30.72	0.89
104	104	30.71	0.88
105	105	30.72	0.89
106	106	30.72	0.89
107	107	30.72	0.89
108	108	30.72	0.89
109	109	30.73	0.90



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
110	110	30.73	0.90
111	111	30.73	0.90
112	112	30.73	0.90
113	113	30.74	0.91
114	114	30.73	0.90
115	115	30.74	0.91
116	116	30.74	0.91
117	117	30.74	0.91
118	118	30.74	0.91
119	119	30.74	0.91
120	120	30.75	0.92
121	121	30.75	0.92
122	122	30.75	0.92
123	123	30.76	0.93
124	124	30.75	0.92
125	125	30.76	0.93
126	126	30.76	0.93
127	127	30.76	0.93
128	128	30.77	0.94
129	129	30.77	0.94
130	130	30.78	0.95
131	131	30.78	0.95
132	132	30.78	0.95
133	133	30.78	0.95
134	134	30.79	0.96
135	135	30.78	0.95
136	136	30.79	0.96
137	137	30.79	0.96
138	138	30.80	0.97
139	139	30.79	0.96
140	140	30.80	0.97
141	141	30.81	0.98
142	142	30.81	0.98
143	143	30.81	0.98
144	144	30.81	0.98
145	145	30.81	0.98
146	146	30.81	0.98
147	147	30.81	0.98
148	148	30.82	0.99
149	149	30.83	1.00
150	150	30.82	0.99
151	151	30.83	1.00
152	152	30.83	1.00
153	153	30.83	1.00
154	154	30.84	1.01
155	155	30.84	1.01
156	156	30.84	1.01
157	157	30.84	1.01
158	158	30.83	1.00
159	159	30.84	1.01
160	160	30.84	1.01
161	161	30.85	1.02
162	162	30.85	1.02
163	163	30.85	1.02
164	164	30.85	1.02
165	165	30.85	1.02
166	166	30.85	1.02



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
167	167	30.85	1.02
168	168	30.86	1.03
169	169	30.85	1.02
170	170	30.85	1.02
171	171	30.87	1.04
172	172	30.86	1.03
173	173	30.87	1.04
174	174	30.87	1.04
175	175	30.86	1.03
176	176	30.86	1.03
177	177	30.87	1.04
178	178	30.87	1.04
179	179	30.87	1.04
180	180	30.87	1.04
181	181	30.87	1.04
182	182	30.87	1.04
183	183	30.88	1.05
184	184	30.89	1.06
185	185	30.89	1.06
186	186	30.89	1.06
187	187	30.89	1.06
188	188	30.90	1.07
189	189	30.89	1.06
190	190	30.89	1.06
191	191	30.89	1.06
192	192	30.91	1.08
193	193	30.89	1.06
194	194	30.90	1.07
195	195	30.91	1.08
196	196	30.90	1.07
197	197	30.91	1.08
198	198	30.91	1.08
199	199	30.90	1.07
200	200	30.92	1.09
201	201	30.91	1.08
202	202	30.92	1.09
203	203	30.91	1.08
204	204	30.91	1.08
205	205	30.92	1.09
206	206	30.92	1.09
207	207	30.92	1.09
208	208	30.92	1.09
209	209	30.92	1.09
210	210	30.92	1.09
211	211	30.92	1.09
212	212	30.93	1.10
213	213	30.93	1.10
214	214	30.93	1.10
215	215	30.93	1.10
216	216	30.93	1.10
217	217	30.93	1.10
218	218	30.93	1.10
219	219	30.94	1.11
220	220	30.94	1.11
221	221	30.94	1.11
222	222	30.94	1.11
223	223	30.95	1.12



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
224	224	30.94	1.11
225	225	30.94	1.11
226	226	30.94	1.11
227	227	30.94	1.11
228	228	30.94	1.11
229	229	30.95	1.12
230	230	30.96	1.13
231	231	30.96	1.13
232	232	30.96	1.13
233	233	30.96	1.13
234	234	30.96	1.13
235	235	30.96	1.13
236	236	30.96	1.13
237	237	30.97	1.14
238	238	30.96	1.13
239	239	30.97	1.14
240	240	30.96	1.13
241	241	30.97	1.14
242	242	30.98	1.15
243	243	30.97	1.14
244	244	30.98	1.15
245	245	30.98	1.15
246	246	30.98	1.15
247	247	30.97	1.14
248	248	30.98	1.15
249	249	30.98	1.15
250	250	30.98	1.15
251	251	30.98	1.15
252	252	30.98	1.15
253	253	30.98	1.15
254	254	30.98	1.15
255	255	30.98	1.15
256	256	30.99	1.16
257	257	30.99	1.16
258	258	30.98	1.15
259	259	30.99	1.16
260	260	30.98	1.15
261	261	30.99	1.16
262	262	31.00	1.17
263	263	30.99	1.16
264	264	31.00	1.17
265	265	31.00	1.17
266	266	31.00	1.17
267	267	30.99	1.16
268	268	31.01	1.18
269	269	31.01	1.18
270	270	31.01	1.18
271	271	31.01	1.18
272	272	31.01	1.18
273	273	31.02	1.19
274	274	31.01	1.18
275	275	31.02	1.19
276	276	31.01	1.18
277	277	31.02	1.19
278	278	31.02	1.19
279	279	31.02	1.19
280	280	31.02	1.19



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
281	281	31.02	1.19
282	282	31.02	1.19
283	283	31.03	1.20
284	284	31.03	1.20
285	285	31.03	1.20
286	286	31.03	1.20
287	287	31.04	1.21
288	288	31.03	1.20
289	289	31.03	1.20
290	290	31.03	1.20
291	291	31.03	1.20
292	292	31.03	1.20
293	293	31.03	1.20
294	294	31.03	1.20
295	295	31.04	1.21
296	296	31.04	1.21
297	297	31.04	1.21
298	298	31.05	1.22
299	299	31.04	1.21
300	300	31.05	1.22
301	301	31.06	1.23
302	302	31.05	1.22
303	303	31.06	1.23
304	304	31.05	1.22
305	305	31.06	1.23
306	306	31.05	1.22
307	307	31.06	1.23
308	308	31.06	1.23
309	309	31.06	1.23
310	310	31.06	1.23
311	311	31.06	1.23
312	312	31.06	1.23
313	313	31.07	1.24
314	314	31.07	1.24
315	315	31.08	1.25
316	316	31.06	1.23
317	317	31.07	1.24
318	318	31.07	1.24
319	319	31.07	1.24
320	320	31.07	1.24
321	321	31.07	1.24
322	322	31.07	1.24
323	323	31.07	1.24
324	324	31.08	1.25
325	325	31.07	1.24
326	326	31.08	1.25
327	327	31.07	1.24
328	328	31.07	1.24
329	329	31.08	1.25
330	330	31.08	1.25
331	331	31.08	1.25
332	332	31.08	1.25
333	333	31.08	1.25
334	334	31.08	1.25
335	335	31.09	1.26
336	336	31.09	1.26
337	337	31.09	1.26



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
338	338	31.08	1.25
339	339	31.09	1.26
340	340	31.09	1.26
341	341	31.09	1.26
342	342	31.09	1.26
343	343	31.10	1.27
344	344	31.09	1.26
345	345	31.08	1.25
346	346	31.10	1.27
347	347	31.09	1.26
348	348	31.10	1.27
349	349	31.10	1.27
350	350	31.10	1.27
351	351	31.10	1.27
352	352	31.10	1.27
353	353	31.10	1.27
354	354	31.10	1.27
355	355	31.10	1.27
356	356	31.10	1.27
357	357	31.11	1.28
358	358	31.11	1.28
359	359	31.11	1.28
360	360	31.11	1.28
361	361	31.11	1.28
362	362	31.12	1.29
363	363	31.11	1.28
364	364	31.11	1.28
365	365	31.11	1.28
366	366	31.11	1.28
367	367	31.10	1.27
368	368	31.11	1.28
369	369	31.11	1.28
370	370	31.10	1.27
371	371	31.12	1.29
372	372	31.11	1.28
373	373	31.11	1.28
374	374	31.11	1.28
375	375	31.11	1.28
376	376	31.11	1.28
377	377	31.11	1.28
378	378	31.11	1.28
379	379	31.11	1.28
380	380	31.12	1.29
381	381	31.12	1.29
382	382	31.12	1.29
383	383	31.12	1.29
384	384	31.12	1.29
385	385	31.13	1.30
386	386	31.13	1.30
387	387	31.12	1.29
388	388	31.12	1.29
389	389	31.13	1.30
390	390	31.13	1.30
391	391	31.13	1.30
392	392	31.13	1.30
393	393	31.13	1.30
394	394	31.13	1.30



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
395	395	31.13	1.30
396	396	31.13	1.30
397	397	31.13	1.30
398	398	31.13	1.30
399	399	31.13	1.30
400	400	31.13	1.30
401	401	31.14	1.31
402	402	31.13	1.30
403	403	31.13	1.30
404	404	31.14	1.31
405	405	31.13	1.30
406	406	31.14	1.31
407	407	31.14	1.31
408	408	31.15	1.32
409	409	31.15	1.32
410	410	31.14	1.31
411	411	31.15	1.32
412	412	31.15	1.32
413	413	31.15	1.32
414	414	31.15	1.32
415	415	31.14	1.31
416	416	31.14	1.31
417	417	31.15	1.32
418	418	31.14	1.31
419	419	31.15	1.32
420	420	31.15	1.32
421	421	31.15	1.32
422	422	31.16	1.33
423	423	31.15	1.32
424	424	31.16	1.33
425	425	31.15	1.32
426	426	31.16	1.33
427	427	31.16	1.33
428	428	31.16	1.33
429	429	31.16	1.33
430	430	31.16	1.33
431	431	31.16	1.33
432	432	31.16	1.33
433	433	31.16	1.33
434	434	31.16	1.33
435	435	31.17	1.34
436	436	31.16	1.33
437	437	31.16	1.33
438	438	31.17	1.34
439	439	31.17	1.34
440	440	31.17	1.34
441	441	31.17	1.34
442	442	31.17	1.34
443	443	31.17	1.34
444	444	31.16	1.33
445	445	31.16	1.33
446	446	31.17	1.34
447	447	31.17	1.34
448	448	31.18	1.35
449	449	31.17	1.34
450	450	31.17	1.34
451	451	31.17	1.34



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
452	452	31.18	1.35
453	453	31.17	1.34
454	454	31.17	1.34
455	455	31.17	1.34
456	456	31.17	1.34
457	457	31.17	1.34
458	458	31.18	1.35
459	459	31.18	1.35
460	460	31.18	1.35
461	461	31.18	1.35
462	462	31.18	1.35
463	463	31.18	1.35
464	464	31.19	1.36
465	465	31.18	1.35
466	466	31.18	1.35
467	467	31.18	1.35
468	468	31.18	1.35
469	469	31.18	1.35
470	470	31.19	1.36
471	471	31.18	1.35
472	472	31.18	1.35
473	473	31.19	1.36
474	474	31.19	1.36
475	475	31.19	1.36
476	476	31.19	1.36
477	477	31.19	1.36
478	478	31.19	1.36
479	479	31.19	1.36
480	480	31.19	1.36
481	481	31.19	1.36
482	482	31.20	1.37
483	483	31.18	1.35
484	484	31.18	1.35
485	485	31.19	1.36
486	486	31.19	1.36
487	487	31.19	1.36
488	488	31.19	1.36
489	489	31.20	1.37
490	490	31.19	1.36
491	491	31.19	1.36
492	492	31.20	1.37
493	493	31.19	1.36
494	494	31.19	1.36
495	495	31.20	1.37
496	496	31.20	1.37
497	497	31.20	1.37
498	498	31.21	1.38
499	499	31.21	1.38
500	500	31.20	1.37
501	501	31.21	1.38
502	502	31.21	1.38
503	503	31.20	1.37
504	504	31.20	1.37
505	505	31.20	1.37
506	506	31.20	1.37
507	507	31.20	1.37
508	508	31.20	1.37



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
509	509	31.21	1.38
510	510	31.20	1.37
511	511	31.20	1.37
512	512	31.20	1.37
513	513	31.21	1.38
514	514	31.20	1.37
515	515	31.21	1.38
516	516	31.22	1.39
517	517	31.21	1.38
518	518	31.21	1.38
519	519	31.21	1.38
520	520	31.21	1.38
521	521	31.22	1.39
522	522	31.22	1.39
523	523	31.21	1.38
524	524	31.22	1.39
525	525	31.22	1.39
526	526	31.22	1.39
527	527	31.22	1.39
528	528	31.22	1.39
529	529	31.22	1.39
530	530	31.22	1.39
531	531	31.22	1.39
532	532	31.22	1.39
533	533	31.22	1.39
534	534	31.22	1.39
535	535	31.22	1.39
536	536	31.22	1.39
537	537	31.22	1.39
538	538	31.22	1.39
539	539	31.22	1.39
540	540	31.21	1.38
541	541	31.22	1.39
542	542	31.22	1.39
543	543	31.23	1.40
544	544	31.23	1.40
545	545	31.22	1.39
546	546	31.23	1.40
547	547	31.22	1.39
548	548	31.22	1.39
549	549	31.22	1.39
550	550	31.23	1.40
551	551	31.22	1.39
552	552	31.22	1.39
553	553	31.22	1.39
554	554	31.22	1.39
555	555	31.23	1.40
556	556	31.23	1.40
557	557	31.23	1.40
558	558	31.23	1.40
559	559	31.23	1.40
560	560	31.24	1.41
561	561	31.24	1.41
562	562	31.23	1.40
563	563	31.23	1.40
564	564	31.23	1.40
565	565	31.23	1.40



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
566	566	31.23	1.40
567	567	31.24	1.41
568	568	31.23	1.40
569	569	31.24	1.41
570	570	31.23	1.40
571	571	31.24	1.41
572	572	31.24	1.41
573	573	31.24	1.41
574	574	31.23	1.40
575	575	31.24	1.41
576	576	31.25	1.42
577	577	31.24	1.41
578	578	31.24	1.41
579	579	31.25	1.42
580	580	31.25	1.42
581	581	31.25	1.42
582	582	31.25	1.42
583	583	31.24	1.41
584	584	31.25	1.42
585	585	31.25	1.42
586	586	31.25	1.42
587	587	31.25	1.42
588	588	31.24	1.41
589	589	31.25	1.42
590	590	31.25	1.42
591	591	31.25	1.42
592	592	31.24	1.41
593	593	31.25	1.42
594	594	31.25	1.42
595	595	31.25	1.42
596	596	31.25	1.42
597	597	31.25	1.42
598	598	31.25	1.42
599	599	31.25	1.42
600	600	31.25	1.42
601	601	31.25	1.42
602	602	31.25	1.42
603	603	31.25	1.42
604	604	31.25	1.42
605	605	31.25	1.42
606	606	31.25	1.42
607	607	31.24	1.41
608	608	31.24	1.41
609	609	31.24	1.41
610	610	31.24	1.41
611	611	31.25	1.42
612	612	31.25	1.42
613	613	31.25	1.42
614	614	31.24	1.41
615	615	31.25	1.42
616	616	31.25	1.42
617	617	31.24	1.41
618	618	31.25	1.42
619	619	31.24	1.41
620	620	31.24	1.41
621	621	31.25	1.42
622	622	31.24	1.41



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
623	623	31.24	1.41
624	624	31.25	1.42
625	625	31.25	1.42
626	626	31.24	1.41
627	627	31.25	1.42
628	628	31.24	1.41
629	629	31.24	1.41
630	630	31.24	1.41
631	631	31.24	1.41
632	632	31.24	1.41
633	633	31.26	1.43
634	634	31.25	1.42
635	635	31.25	1.42
636	636	31.26	1.43
637	637	31.25	1.42
638	638	31.25	1.42
639	639	31.26	1.43
640	640	31.25	1.42
641	641	31.25	1.42
642	642	31.26	1.43
643	643	31.25	1.42
644	644	31.26	1.43
645	645	31.25	1.42
646	646	31.26	1.43
647	647	31.26	1.43
648	648	31.26	1.43
649	649	31.26	1.43
650	650	31.27	1.44
651	651	31.26	1.43
652	652	31.26	1.43
653	653	31.26	1.43
654	654	31.26	1.43
655	655	31.26	1.43
656	656	31.26	1.43
657	657	31.26	1.43
658	658	31.26	1.43
659	659	31.26	1.43
660	660	31.26	1.43
661	661	31.27	1.44
662	662	31.27	1.44
663	663	31.26	1.43
664	664	31.27	1.44
665	665	31.27	1.44
666	666	31.27	1.44
667	667	31.27	1.44
668	668	31.27	1.44
669	669	31.27	1.44
670	670	31.27	1.44
671	671	31.27	1.44
672	672	31.27	1.44
673	673	31.27	1.44
674	674	31.27	1.44
675	675	31.27	1.44
676	676	31.28	1.45
677	677	31.27	1.44
678	678	31.27	1.44
679	679	31.27	1.44



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
680	680	31.28	1.45
681	681	31.28	1.45
682	682	31.28	1.45
683	683	31.27	1.44
684	684	31.27	1.44
685	685	31.27	1.44
686	686	31.27	1.44
687	687	31.27	1.44
688	688	31.27	1.44
689	689	31.28	1.45
690	690	31.27	1.44
691	691	31.28	1.45
692	692	31.27	1.44
693	693	31.28	1.45
694	694	31.27	1.44
695	695	31.27	1.44
696	696	31.28	1.45
697	697	31.28	1.45
698	698	31.28	1.45
699	699	31.28	1.45
700	700	31.28	1.45
701	701	31.29	1.46
702	702	31.28	1.45
703	703	31.28	1.45
704	704	31.29	1.46
705	705	31.29	1.46
706	706	31.28	1.45
707	707	31.28	1.45
708	708	31.28	1.45
709	709	31.29	1.46
710	710	31.28	1.45
711	711	31.29	1.46
712	712	31.28	1.45
713	713	31.28	1.45
714	714	31.29	1.46
715	715	31.29	1.46
716	716	31.28	1.45
717	717	31.30	1.47
718	718	31.29	1.46
719	719	31.28	1.45
720	720	31.29	1.46
721	721	31.29	1.46
722	722	31.28	1.45
723	723	31.29	1.46
724	724	31.29	1.46
725	725	31.28	1.45
726	726	31.28	1.45
727	727	31.29	1.46
728	728	31.29	1.46
729	729	31.29	1.46
730	730	31.28	1.45
731	731	31.29	1.46
732	732	31.30	1.47
733	733	31.29	1.46
734	734	31.29	1.46
735	735	31.29	1.46
736	736	31.29	1.46



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
737	737	31.30	1.47
738	738	31.30	1.47
739	739	31.30	1.47
740	740	31.29	1.46
741	741	31.30	1.47
742	742	31.30	1.47
743	743	31.29	1.46
744	744	31.30	1.47
745	745	31.30	1.47
746	746	31.30	1.47
747	747	31.30	1.47
748	748	31.30	1.47
749	749	31.30	1.47
750	750	31.30	1.47
751	751	31.30	1.47
752	752	31.30	1.47
753	753	31.30	1.47
754	754	31.30	1.47
755	755	31.31	1.48
756	756	31.31	1.48
757	757	31.31	1.48
758	758	31.31	1.48
759	759	31.31	1.48
760	760	31.30	1.47
761	761	31.31	1.48
762	762	31.31	1.48
763	763	31.31	1.48
764	764	31.30	1.47
765	765	31.31	1.48
766	766	31.31	1.48
767	767	31.31	1.48
768	768	31.31	1.48
769	769	31.31	1.48
770	770	31.32	1.49
771	771	31.31	1.48
772	772	31.31	1.48
773	773	31.31	1.48
774	774	31.32	1.49
775	775	31.32	1.49
776	776	31.31	1.48
777	777	31.31	1.48
778	778	31.32	1.49
779	779	31.31	1.48
780	780	31.31	1.48
781	781	31.32	1.49
782	782	31.32	1.49
783	783	31.32	1.49
784	784	31.32	1.49
785	785	31.32	1.49
786	786	31.31	1.48
787	787	31.31	1.48
788	788	31.31	1.48
789	789	31.32	1.49
790	790	31.32	1.49
791	791	31.32	1.49
792	792	31.32	1.49
793	793	31.32	1.49



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Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
794	794	31.33	1.50
795	795	31.32	1.49
796	796	31.32	1.49
797	797	31.32	1.49
798	798	31.32	1.49
799	799	31.32	1.49
800	800	31.32	1.49
801	801	31.32	1.49
802	802	31.33	1.50
803	803	31.33	1.50
804	804	31.33	1.50
805	805	31.32	1.49
806	806	31.33	1.50
807	807	31.33	1.50
808	808	31.33	1.50
809	809	31.34	1.51
810	810	31.32	1.49
811	811	31.33	1.50
812	812	31.33	1.50
813	813	31.34	1.51
814	814	31.34	1.51
815	815	31.33	1.50
816	816	31.33	1.50
817	817	31.33	1.50
818	818	31.34	1.51
819	819	31.33	1.50
820	820	31.34	1.51
821	821	31.34	1.51
822	822	31.34	1.51
823	823	31.34	1.51
824	824	31.34	1.51
825	825	31.33	1.50
826	826	31.35	1.52
827	827	31.34	1.51
828	828	31.34	1.51
829	829	31.34	1.51
830	830	31.34	1.51
831	831	31.34	1.51
832	832	31.34	1.51
833	833	31.34	1.51
834	834	31.34	1.51
835	835	31.34	1.51
836	836	31.34	1.51
837	837	31.34	1.51
838	838	31.34	1.51
839	839	31.34	1.51
840	840	31.35	1.52
841	841	31.34	1.51
842	842	31.35	1.52
843	843	31.34	1.51
844	844	31.35	1.52
845	845	31.34	1.51
846	846	31.34	1.51
847	847	31.35	1.52
848	848	31.34	1.51
849	849	31.34	1.51
850	850	31.35	1.52



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
851	851	31.34	1.51
852	852	31.34	1.51
853	853	31.35	1.52
854	854	31.34	1.51
855	855	31.35	1.52
856	856	31.35	1.52
857	857	31.35	1.52
858	858	31.35	1.52
859	859	31.35	1.52
860	860	31.35	1.52
861	861	31.35	1.52
862	862	31.35	1.52
863	863	31.36	1.53
864	864	31.35	1.52
865	865	31.36	1.53
866	866	31.35	1.52
867	867	31.36	1.53
868	868	31.35	1.52
869	869	31.35	1.52
870	870	31.35	1.52
871	871	31.35	1.52
872	872	31.36	1.53
873	873	31.35	1.52
874	874	31.35	1.52
875	875	31.35	1.52
876	876	31.35	1.52
877	877	31.35	1.52
878	878	31.36	1.53
879	879	31.36	1.53
880	880	31.36	1.53
881	881	31.36	1.53
882	882	31.36	1.53
883	883	31.36	1.53
884	884	31.36	1.53
885	885	31.36	1.53
886	886	31.36	1.53
887	887	31.36	1.53
888	888	31.36	1.53
889	889	31.37	1.54
890	890	31.37	1.54
891	891	31.37	1.54
892	892	31.37	1.54
893	893	31.37	1.54
894	894	31.37	1.54
895	895	31.36	1.53
896	896	31.37	1.54
897	897	31.37	1.54
898	898	31.37	1.54
899	899	31.37	1.54
900	900	31.37	1.54
901	901	31.37	1.54
902	902	31.38	1.55
903	903	31.37	1.54
904	904	31.37	1.54
905	905	31.37	1.54
906	906	31.38	1.55
907	907	31.37	1.54



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
908	908	31.37	1.54
909	909	31.37	1.54
910	910	31.37	1.54
911	911	31.37	1.54
912	912	31.37	1.54
913	913	31.38	1.55
914	914	31.38	1.55
915	915	31.37	1.54
916	916	31.37	1.54
917	917	31.38	1.55
918	918	31.37	1.54
919	919	31.38	1.55
920	920	31.38	1.55
921	921	31.38	1.55
922	922	31.38	1.55
923	923	31.37	1.54
924	924	31.38	1.55
925	925	31.37	1.54
926	926	31.38	1.55
927	927	31.38	1.55
928	928	31.38	1.55
929	929	31.38	1.55
930	930	31.38	1.55
931	931	31.37	1.54
932	932	31.37	1.54
933	933	31.38	1.55
934	934	31.37	1.54
935	935	31.38	1.55
936	936	31.38	1.55
937	937	31.38	1.55
938	938	31.38	1.55
939	939	31.38	1.55
940	940	31.38	1.55
941	941	31.39	1.56
942	942	31.39	1.56
943	943	31.38	1.55
944	944	31.38	1.55
945	945	31.38	1.55
946	946	31.38	1.55
947	947	31.38	1.55
948	948	31.39	1.56
949	949	31.39	1.56
950	950	31.39	1.56
951	951	31.39	1.56
952	952	31.39	1.56
953	953	31.39	1.56
954	954	31.39	1.56
955	955	31.39	1.56
956	956	31.39	1.56
957	957	31.39	1.56
958	958	31.39	1.56
959	959	31.40	1.57
960	960	31.39	1.56
961	961	31.39	1.56
962	962	31.40	1.57
963	963	31.39	1.56
964	964	31.39	1.56



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
965	965	31.39	1.56
966	966	31.39	1.56
967	967	31.39	1.56
968	968	31.40	1.57
969	969	31.40	1.57
970	970	31.40	1.57
971	971	31.39	1.56
972	972	31.40	1.57
973	973	31.40	1.57
974	974	31.40	1.57
975	975	31.39	1.56
976	976	31.40	1.57
977	977	31.39	1.56
978	978	31.40	1.57
979	979	31.40	1.57
980	980	31.41	1.58
981	981	31.40	1.57
982	982	31.40	1.57
983	983	31.39	1.56
984	984	31.40	1.57
985	985	31.40	1.57
986	986	31.40	1.57
987	987	31.40	1.57
988	988	31.40	1.57
989	989	31.40	1.57
990	990	31.40	1.57
991	991	31.41	1.58
992	992	31.40	1.57
993	993	31.40	1.57
994	994	31.41	1.58
995	995	31.40	1.57
996	996	31.40	1.57
997	997	31.41	1.58
998	998	31.41	1.58
999	999	31.41	1.58
1000	1000	31.41	1.58
1001	1001	31.41	1.58
1002	1002	31.42	1.59
1003	1003	31.41	1.58
1004	1004	31.41	1.58
1005	1005	31.41	1.58
1006	1006	31.41	1.58
1007	1007	31.41	1.58
1008	1008	31.41	1.58
1009	1009	31.41	1.58
1010	1010	31.41	1.58
1011	1011	31.41	1.58
1012	1012	31.41	1.58
1013	1013	31.41	1.58
1014	1014	31.42	1.59
1015	1015	31.41	1.58
1016	1016	31.41	1.58
1017	1017	31.42	1.59
1018	1018	31.41	1.58
1019	1019	31.41	1.58
1020	1020	31.42	1.59
1021	1021	31.42	1.59



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1022	1022	31.41	1.58
1023	1023	31.42	1.59
1024	1024	31.42	1.59
1025	1025	31.41	1.58
1026	1026	31.42	1.59
1027	1027	31.42	1.59
1028	1028	31.42	1.59
1029	1029	31.42	1.59
1030	1030	31.43	1.60
1031	1031	31.42	1.59
1032	1032	31.42	1.59
1033	1033	31.42	1.59
1034	1034	31.42	1.59
1035	1035	31.41	1.58
1036	1036	31.42	1.59
1037	1037	31.43	1.60
1038	1038	31.42	1.59
1039	1039	31.42	1.59
1040	1040	31.42	1.59
1041	1041	31.43	1.60
1042	1042	31.42	1.59
1043	1043	31.42	1.59
1044	1044	31.42	1.59
1045	1045	31.42	1.59
1046	1046	31.43	1.60
1047	1047	31.43	1.60
1048	1048	31.43	1.60
1049	1049	31.42	1.59
1050	1050	31.43	1.60
1051	1051	31.43	1.60
1052	1052	31.43	1.60
1053	1053	31.43	1.60
1054	1054	31.43	1.60
1055	1055	31.44	1.61
1056	1056	31.42	1.59
1057	1057	31.43	1.60
1058	1058	31.44	1.61
1059	1059	31.44	1.61
1060	1060	31.44	1.61
1061	1061	31.43	1.60
1062	1062	31.43	1.60
1063	1063	31.44	1.61
1064	1064	31.44	1.61
1065	1065	31.45	1.62
1066	1066	31.43	1.60
1067	1067	31.44	1.61
1068	1068	31.44	1.61
1069	1069	31.44	1.61
1070	1070	31.44	1.61
1071	1071	31.45	1.62
1072	1072	31.44	1.61
1073	1073	31.44	1.61
1074	1074	31.45	1.62
1075	1075	31.44	1.61
1076	1076	31.45	1.62
1077	1077	31.44	1.61
1078	1078	31.44	1.61



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1079	1079	31.45	1.62
1080	1080	31.44	1.61
1081	1081	31.45	1.62
1082	1082	31.44	1.61
1083	1083	31.44	1.61
1084	1084	31.44	1.61
1085	1085	31.45	1.62
1086	1086	31.45	1.62
1087	1087	31.45	1.62
1088	1088	31.44	1.61
1089	1089	31.45	1.62
1090	1090	31.45	1.62
1091	1091	31.44	1.61
1092	1092	31.45	1.62
1093	1093	31.45	1.62
1094	1094	31.45	1.62
1095	1095	31.45	1.62
1096	1096	31.45	1.62
1097	1097	31.45	1.62
1098	1098	31.45	1.62
1099	1099	31.45	1.62
1100	1100	31.45	1.62
1101	1101	31.45	1.62
1102	1102	31.45	1.62
1103	1103	31.45	1.62
1104	1104	31.45	1.62
1105	1105	31.45	1.62
1106	1106	31.45	1.62
1107	1107	31.46	1.63
1108	1108	31.45	1.62
1109	1109	31.45	1.62
1110	1110	31.45	1.62
1111	1111	31.44	1.61
1112	1112	31.45	1.62
1113	1113	31.45	1.62
1114	1114	31.45	1.62
1115	1115	31.45	1.62
1116	1116	31.46	1.63
1117	1117	31.45	1.62
1118	1118	31.45	1.62
1119	1119	31.45	1.62
1120	1120	31.45	1.62
1121	1121	31.45	1.62
1122	1122	31.46	1.63
1123	1123	31.46	1.63
1124	1124	31.46	1.63
1125	1125	31.46	1.63
1126	1126	31.45	1.62
1127	1127	31.47	1.64
1128	1128	31.46	1.63
1129	1129	31.46	1.63
1130	1130	31.46	1.63
1131	1131	31.47	1.64
1132	1132	31.46	1.63
1133	1133	31.46	1.63
1134	1134	31.47	1.64
1135	1135	31.46	1.63



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1136	1136	31.46	1.63
1137	1137	31.46	1.63
1138	1138	31.46	1.63
1139	1139	31.46	1.63
1140	1140	31.46	1.63
1141	1141	31.46	1.63
1142	1142	31.46	1.63
1143	1143	31.46	1.63
1144	1144	31.45	1.62
1145	1145	31.47	1.64
1146	1146	31.46	1.63
1147	1147	31.47	1.64
1148	1148	31.46	1.63
1149	1149	31.46	1.63
1150	1150	31.47	1.64
1151	1151	31.46	1.63
1152	1152	31.46	1.63
1153	1153	31.46	1.63
1154	1154	31.46	1.63
1155	1155	31.46	1.63
1156	1156	31.46	1.63
1157	1157	31.46	1.63
1158	1158	31.46	1.63
1159	1159	31.46	1.63
1160	1160	31.46	1.63
1161	1161	31.47	1.64
1162	1162	31.47	1.64
1163	1163	31.47	1.64
1164	1164	31.47	1.64
1165	1165	31.47	1.64
1166	1166	31.47	1.64
1167	1167	31.47	1.64
1168	1168	31.46	1.63
1169	1169	31.47	1.64
1170	1170	31.47	1.64
1171	1171	31.47	1.64
1172	1172	31.47	1.64
1173	1173	31.47	1.64
1174	1174	31.47	1.64
1175	1175	31.46	1.63
1176	1176	31.46	1.63
1177	1177	31.46	1.63
1178	1178	31.47	1.64
1179	1179	31.47	1.64
1180	1180	31.47	1.64
1181	1181	31.47	1.64
1182	1182	31.47	1.64
1183	1183	31.47	1.64
1184	1184	31.47	1.64
1185	1185	31.47	1.64
1186	1186	31.48	1.65
1187	1187	31.47	1.64
1188	1188	31.47	1.64
1189	1189	31.47	1.64
1190	1190	31.48	1.65
1191	1191	31.47	1.64
1192	1192	31.47	1.64



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1193	1193	31.47	1.64
1194	1194	31.47	1.64
1195	1195	31.48	1.65
1196	1196	31.48	1.65
1197	1197	31.48	1.65
1198	1198	31.47	1.64
1199	1199	31.48	1.65
1200	1200	31.47	1.64
1201	1201	31.48	1.65
1202	1202	31.47	1.64
1203	1203	31.48	1.65
1204	1204	31.48	1.65
1205	1205	31.48	1.65
1206	1206	31.48	1.65
1207	1207	31.48	1.65
1208	1208	31.48	1.65
1209	1209	31.49	1.66
1210	1210	31.48	1.65
1211	1211	31.48	1.65
1212	1212	31.48	1.65
1213	1213	31.47	1.64
1214	1214	31.48	1.65
1215	1215	31.47	1.64
1216	1216	31.48	1.65
1217	1217	31.48	1.65
1218	1218	31.48	1.65
1219	1219	31.47	1.64
1220	1220	31.48	1.65
1221	1221	31.48	1.65
1222	1222	31.48	1.65
1223	1223	31.47	1.64
1224	1224	31.48	1.65
1225	1225	31.48	1.65
1226	1226	31.48	1.65
1227	1227	31.48	1.65
1228	1228	31.48	1.65
1229	1229	31.48	1.65
1230	1230	31.48	1.65
1231	1231	31.48	1.65
1232	1232	31.49	1.66
1233	1233	31.49	1.66
1234	1234	31.48	1.65
1235	1235	31.49	1.66
1236	1236	31.48	1.65
1237	1237	31.49	1.66
1238	1238	31.48	1.65
1239	1239	31.49	1.66
1240	1240	31.49	1.66
1241	1241	31.48	1.65
1242	1242	31.49	1.66
1243	1243	31.49	1.66
1244	1244	31.49	1.66
1245	1245	31.48	1.65
1246	1246	31.50	1.67
1247	1247	31.49	1.66
1248	1248	31.49	1.66
1249	1249	31.49	1.66



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1250	1250	31.50	1.67
1251	1251	31.50	1.67
1252	1252	31.49	1.66
1253	1253	31.50	1.67
1254	1254	31.49	1.66
1255	1255	31.50	1.67
1256	1256	31.50	1.67
1257	1257	31.49	1.66
1258	1258	31.49	1.66
1259	1259	31.50	1.67
1260	1260	31.50	1.67
1261	1261	31.49	1.66
1262	1262	31.49	1.66
1263	1263	31.49	1.66
1264	1264	31.50	1.67
1265	1265	31.49	1.66
1266	1266	31.50	1.67
1267	1267	31.49	1.66
1268	1268	31.49	1.66
1269	1269	31.48	1.65
1270	1270	31.49	1.66
1271	1271	31.49	1.66
1272	1272	31.49	1.66
1273	1273	31.49	1.66
1274	1274	31.49	1.66
1275	1275	31.49	1.66
1276	1276	31.50	1.67
1277	1277	31.49	1.66
1278	1278	31.49	1.66
1279	1279	31.50	1.67
1280	1280	31.50	1.67
1281	1281	31.50	1.67
1282	1282	31.50	1.67
1283	1283	31.50	1.67
1284	1284	31.50	1.67
1285	1285	31.50	1.67
1286	1286	31.50	1.67
1287	1287	31.50	1.67
1288	1288	31.50	1.67
1289	1289	31.50	1.67
1290	1290	31.51	1.68
1291	1291	31.50	1.67
1292	1292	31.50	1.67
1293	1293	31.50	1.67
1294	1294	31.50	1.67
1295	1295	31.50	1.67
1296	1296	31.50	1.67
1297	1297	31.50	1.67
1298	1298	31.50	1.67
1299	1299	31.50	1.67
1300	1300	31.50	1.67
1301	1301	31.51	1.68
1302	1302	31.50	1.67
1303	1303	31.50	1.67
1304	1304	31.50	1.67
1305	1305	31.50	1.67
1306	1306	31.51	1.68



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1307	1307	31.50	1.67
1308	1308	31.51	1.68
1309	1309	31.50	1.67
1310	1310	31.52	1.69
1311	1311	31.51	1.68
1312	1312	31.51	1.68
1313	1313	31.51	1.68
1314	1314	31.51	1.68
1315	1315	31.51	1.68
1316	1316	31.51	1.68
1317	1317	31.51	1.68
1318	1318	31.51	1.68
1319	1319	31.51	1.68
1320	1320	31.51	1.68
1321	1321	31.52	1.69
1322	1322	31.51	1.68
1323	1323	31.51	1.68
1324	1324	31.51	1.68
1325	1325	31.51	1.68
1326	1326	31.51	1.68
1327	1327	31.52	1.69
1328	1328	31.51	1.68
1329	1329	31.51	1.68
1330	1330	31.51	1.68
1331	1331	31.51	1.68
1332	1332	31.51	1.68
1333	1333	31.52	1.69
1334	1334	31.51	1.68
1335	1335	31.51	1.68
1336	1336	31.52	1.69
1337	1337	31.51	1.68
1338	1338	31.51	1.68
1339	1339	31.52	1.69
1340	1340	31.52	1.69
1341	1341	31.51	1.68
1342	1342	31.52	1.69
1343	1343	31.52	1.69
1344	1344	31.52	1.69
1345	1345	31.51	1.68
1346	1346	31.52	1.69
1347	1347	31.52	1.69
1348	1348	31.52	1.69
1349	1349	31.52	1.69
1350	1350	31.52	1.69
1351	1351	31.51	1.68
1352	1352	31.51	1.68
1353	1353	31.52	1.69
1354	1354	31.51	1.68
1355	1355	31.51	1.68
1356	1356	31.52	1.69
1357	1357	31.52	1.69
1358	1358	31.52	1.69
1359	1359	31.52	1.69
1360	1360	31.52	1.69
1361	1361	31.51	1.68
1362	1362	31.51	1.68
1363	1363	31.52	1.69



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1364	1364	31.52	1.69
1365	1365	31.52	1.69
1366	1366	31.52	1.69
1367	1367	31.53	1.70
1368	1368	31.53	1.70
1369	1369	31.53	1.70
1370	1370	31.53	1.70
1371	1371	31.53	1.70
1372	1372	31.53	1.70
1373	1373	31.53	1.70
1374	1374	31.53	1.70
1375	1375	31.53	1.70
1376	1376	31.52	1.69
1377	1377	31.53	1.70
1378	1378	31.52	1.69
1379	1379	31.52	1.69
1380	1380	31.53	1.70
1381	1381	31.53	1.70
1382	1382	31.53	1.70
1383	1383	31.53	1.70
1384	1384	31.52	1.69
1385	1385	31.52	1.69
1386	1386	31.52	1.69
1387	1387	31.51	1.68
1388	1388	31.52	1.69
1389	1389	31.51	1.68
1390	1390	31.51	1.68
1391	1391	31.52	1.69
1392	1392	31.52	1.69
1393	1393	31.51	1.68
1394	1394	31.51	1.68
1395	1395	31.52	1.69
1396	1396	31.52	1.69
1397	1397	31.52	1.69
1398	1398	31.52	1.69
1399	1399	31.51	1.68
1400	1400	31.52	1.69
1401	1401	31.52	1.69
1402	1402	31.52	1.69
1403	1403	31.51	1.68
1404	1404	31.52	1.69
1405	1405	31.52	1.69
1406	1406	31.53	1.70
1407	1407	31.53	1.70
1408	1408	31.53	1.70
1409	1409	31.52	1.69
1410	1410	31.52	1.69
1411	1411	31.52	1.69
1412	1412	31.52	1.69
1413	1413	31.52	1.69
1414	1414	31.52	1.69
1415	1415	31.53	1.70
1416	1416	31.53	1.70
1417	1417	31.53	1.70
1418	1418	31.53	1.70
1419	1419	31.53	1.70
1420	1420	31.53	1.70



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1421	1421	31.53	1.70
1422	1422	31.54	1.71
1423	1423	31.52	1.69
1424	1424	31.53	1.70
1425	1425	31.53	1.70
1426	1426	31.53	1.70
1427	1427	31.53	1.70
1428	1428	31.53	1.70
1429	1429	31.54	1.71
1430	1430	31.54	1.71
1431	1431	31.53	1.70
1432	1432	31.53	1.70
1433	1433	31.53	1.70
1434	1434	31.53	1.70
1435	1435	31.53	1.70
1436	1436	31.53	1.70
1437	1437	31.54	1.71
1438	1438	31.53	1.70
1439	1439	31.54	1.71
1440	1440	31.54	1.71
1441	1441	31.54	1.71
1442	1442	31.54	1.71
1443	1443	31.54	1.71
1444	1444	31.53	1.70
1445	1445	31.53	1.70
1446	1446	31.54	1.71
1447	1447	31.54	1.71
1448	1448	31.54	1.71
1449	1449	31.54	1.71
1450	1450	31.54	1.71
1451	1451	31.54	1.71
1452	1452	31.54	1.71
1453	1453	31.54	1.71
1454	1454	31.55	1.72
1455	1455	31.55	1.72
1456	1456	31.54	1.71
1457	1457	31.55	1.72
1458	1458	31.54	1.71
1459	1459	31.54	1.71
1460	1460	31.54	1.71
1461	1461	31.55	1.72
1462	1462	31.54	1.71
1463	1463	31.54	1.71
1464	1464	31.54	1.71
1465	1465	31.54	1.71
1466	1466	31.55	1.72
1467	1467	31.54	1.71
1468	1468	31.54	1.71
1469	1469	31.54	1.71
1470	1470	31.55	1.72
1471	1471	31.54	1.71
1472	1472	31.55	1.72
1473	1473	31.55	1.72
1474	1474	31.54	1.71
1475	1475	31.54	1.71
1476	1476	31.54	1.71
1477	1477	31.54	1.71



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1478	1478	31.55	1.72
1479	1479	31.55	1.72
1480	1480	31.55	1.72
1481	1481	31.55	1.72
1482	1482	31.54	1.71
1483	1483	31.55	1.72
1484	1484	31.56	1.73
1485	1485	31.56	1.73
1486	1486	31.55	1.72
1487	1487	31.56	1.73
1488	1488	31.56	1.73
1489	1489	31.55	1.72
1490	1490	31.55	1.72
1491	1491	31.55	1.72
1492	1492	31.55	1.72
1493	1493	31.55	1.72
1494	1494	31.56	1.73
1495	1495	31.56	1.73
1496	1496	31.55	1.72
1497	1497	31.55	1.72
1498	1498	31.55	1.72
1499	1499	31.55	1.72
1500	1500	31.56	1.73
1501	1501	31.55	1.72
1502	1502	31.56	1.73
1503	1503	31.55	1.72
1504	1504	31.55	1.72
1505	1505	31.55	1.72
1506	1506	31.55	1.72
1507	1507	31.55	1.72
1508	1508	31.56	1.73
1509	1509	31.56	1.73
1510	1510	31.55	1.72
1511	1511	31.55	1.72
1512	1512	31.56	1.73
1513	1513	31.56	1.73
1514	1514	31.56	1.73
1515	1515	31.56	1.73
1516	1516	31.55	1.72
1517	1517	31.56	1.73
1518	1518	31.56	1.73
1519	1519	31.56	1.73
1520	1520	31.56	1.73
1521	1521	31.56	1.73
1522	1522	31.56	1.73
1523	1523	31.56	1.73
1524	1524	31.56	1.73
1525	1525	31.56	1.73
1526	1526	31.56	1.73
1527	1527	31.56	1.73
1528	1528	31.56	1.73
1529	1529	31.57	1.74
1530	1530	31.56	1.73
1531	1531	31.56	1.73
1532	1532	31.56	1.73
1533	1533	31.57	1.74
1534	1534	31.57	1.74



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1535	1535	31.57	1.74
1536	1536	31.57	1.74
1537	1537	31.57	1.74
1538	1538	31.58	1.75
1539	1539	31.57	1.74
1540	1540	31.58	1.75
1541	1541	31.57	1.74
1542	1542	31.57	1.74
1543	1543	31.56	1.73
1544	1544	31.57	1.74
1545	1545	31.58	1.75
1546	1546	31.57	1.74
1547	1547	31.58	1.75
1548	1548	31.57	1.74
1549	1549	31.58	1.75
1550	1550	31.58	1.75
1551	1551	31.57	1.74
1552	1552	31.58	1.75
1553	1553	31.57	1.74
1554	1554	31.58	1.75
1555	1555	31.58	1.75
1556	1556	31.58	1.75
1557	1557	31.57	1.74
1558	1558	31.58	1.75
1559	1559	31.57	1.74
1560	1560	31.58	1.75
1561	1561	31.58	1.75
1562	1562	31.58	1.75
1563	1563	31.58	1.75
1564	1564	31.58	1.75
1565	1565	31.58	1.75
1566	1566	31.57	1.74
1567	1567	31.58	1.75
1568	1568	31.57	1.74
1569	1569	31.58	1.75
1570	1570	31.58	1.75
1571	1571	31.58	1.75
1572	1572	31.58	1.75
1573	1573	31.58	1.75
1574	1574	31.58	1.75
1575	1575	31.58	1.75
1576	1576	31.58	1.75
1577	1577	31.58	1.75
1578	1578	31.58	1.75
1579	1579	31.58	1.75
1580	1580	31.59	1.76
1581	1581	31.58	1.75
1582	1582	31.59	1.76
1583	1583	31.59	1.76
1584	1584	31.59	1.76
1585	1585	31.59	1.76
1586	1586	31.59	1.76
1587	1587	31.59	1.76
1588	1588	31.58	1.75
1589	1589	31.58	1.75
1590	1590	31.58	1.75
1591	1591	31.59	1.76



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1592	1592	31.58	1.75
1593	1593	31.58	1.75
1594	1594	31.58	1.75
1595	1595	31.58	1.75
1596	1596	31.59	1.76
1597	1597	31.59	1.76
1598	1598	31.59	1.76
1599	1599	31.59	1.76
1600	1600	31.59	1.76
1601	1601	31.59	1.76
1602	1602	31.59	1.76
1603	1603	31.59	1.76
1604	1604	31.59	1.76
1605	1605	31.59	1.76
1606	1606	31.59	1.76
1607	1607	31.59	1.76
1608	1608	31.60	1.77
1609	1609	31.59	1.76
1610	1610	31.60	1.77
1611	1611	31.60	1.77
1612	1612	31.60	1.77
1613	1613	31.60	1.77
1614	1614	31.60	1.77
1615	1615	31.59	1.76
1616	1616	31.60	1.77
1617	1617	31.60	1.77
1618	1618	31.60	1.77
1619	1619	31.60	1.77
1620	1620	31.60	1.77
1621	1621	31.61	1.78
1622	1622	31.60	1.77
1623	1623	31.60	1.77
1624	1624	31.60	1.77
1625	1625	31.60	1.77
1626	1626	31.60	1.77
1627	1627	31.60	1.77
1628	1628	31.60	1.77
1629	1629	31.60	1.77
1630	1630	31.60	1.77
1631	1631	31.60	1.77
1632	1632	31.60	1.77
1633	1633	31.61	1.78
1634	1634	31.60	1.77
1635	1635	31.61	1.78
1636	1636	31.60	1.77
1637	1637	31.60	1.77
1638	1638	31.60	1.77
1639	1639	31.61	1.78
1640	1640	31.61	1.78
1641	1641	31.60	1.77
1642	1642	31.60	1.77
1643	1643	31.60	1.77
1644	1644	31.61	1.78
1645	1645	31.60	1.77
1646	1646	31.60	1.77
1647	1647	31.60	1.77
1648	1648	31.60	1.77



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1649	1649	31.60	1.77
1650	1650	31.60	1.77
1651	1651	31.61	1.78
1652	1652	31.61	1.78
1653	1653	31.61	1.78
1654	1654	31.61	1.78
1655	1655	31.61	1.78
1656	1656	31.61	1.78
1657	1657	31.61	1.78
1658	1658	31.61	1.78
1659	1659	31.61	1.78
1660	1660	31.61	1.78
1661	1661	31.61	1.78
1662	1662	31.61	1.78
1663	1663	31.61	1.78
1664	1664	31.61	1.78
1665	1665	31.61	1.78
1666	1666	31.61	1.78
1667	1667	31.61	1.78
1668	1668	31.61	1.78
1669	1669	31.62	1.79
1670	1670	31.61	1.78
1671	1671	31.61	1.78
1672	1672	31.61	1.78
1673	1673	31.62	1.79
1674	1674	31.61	1.78
1675	1675	31.61	1.78
1676	1676	31.61	1.78
1677	1677	31.61	1.78
1678	1678	31.61	1.78
1679	1679	31.62	1.79
1680	1680	31.63	1.80
1681	1681	31.61	1.78
1682	1682	31.61	1.78
1683	1683	31.61	1.78
1684	1684	31.60	1.77
1685	1685	31.61	1.78
1686	1686	31.61	1.78
1687	1687	31.60	1.77
1688	1688	31.61	1.78
1689	1689	31.60	1.77
1690	1690	31.60	1.77
1691	1691	31.60	1.77
1692	1692	31.60	1.77
1693	1693	31.60	1.77
1694	1694	31.60	1.77
1695	1695	31.61	1.78
1696	1696	31.61	1.78
1697	1697	31.61	1.78
1698	1698	31.61	1.78
1699	1699	31.61	1.78
1700	1700	31.60	1.77
1701	1701	31.60	1.77
1702	1702	31.60	1.77
1703	1703	31.61	1.78
1704	1704	31.60	1.77
1705	1705	31.61	1.78



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1706	1706	31.60	1.77
1707	1707	31.60	1.77
1708	1708	31.61	1.78
1709	1709	31.61	1.78
1710	1710	31.61	1.78
1711	1711	31.61	1.78
1712	1712	31.61	1.78
1713	1713	31.61	1.78
1714	1714	31.61	1.78
1715	1715	31.61	1.78
1716	1716	31.61	1.78
1717	1717	31.61	1.78
1718	1718	31.61	1.78
1719	1719	31.61	1.78
1720	1720	31.61	1.78
1721	1721	31.61	1.78
1722	1722	31.61	1.78
1723	1723	31.61	1.78
1724	1724	31.61	1.78
1725	1725	31.61	1.78
1726	1726	31.61	1.78
1727	1727	31.61	1.78
1728	1728	31.62	1.79
1729	1729	31.61	1.78
1730	1730	31.61	1.78
1731	1731	31.62	1.79
1732	1732	31.61	1.78
1733	1733	31.61	1.78
1734	1734	31.62	1.79
1735	1735	31.61	1.78
1736	1736	31.62	1.79
1737	1737	31.61	1.78
1738	1738	31.61	1.78
1739	1739	31.62	1.79
1740	1740	31.62	1.79
1741	1741	31.62	1.79
1742	1742	31.62	1.79
1743	1743	31.61	1.78
1744	1744	31.62	1.79
1745	1745	31.62	1.79
1746	1746	31.62	1.79
1747	1747	31.62	1.79
1748	1748	31.62	1.79
1749	1749	31.63	1.80
1750	1750	31.62	1.79
1751	1751	31.63	1.80
1752	1752	31.62	1.79
1753	1753	31.61	1.78
1754	1754	31.62	1.79
1755	1755	31.62	1.79
1756	1756	31.61	1.78
1757	1757	31.62	1.79
1758	1758	31.63	1.80
1759	1759	31.63	1.80
1760	1760	31.63	1.80
1761	1761	31.64	1.81
1762	1762	31.63	1.80



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1763	1763	31.63	1.80
1764	1764	31.63	1.80
1765	1765	31.62	1.79
1766	1766	31.63	1.80
1767	1767	31.63	1.80
1768	1768	31.64	1.81
1769	1769	31.63	1.80
1770	1770	31.63	1.80
1771	1771	31.64	1.81
1772	1772	31.63	1.80
1773	1773	31.64	1.81
1774	1774	31.62	1.79
1775	1775	31.63	1.80
1776	1776	31.63	1.80
1777	1777	31.63	1.80
1778	1778	31.64	1.81
1779	1779	31.63	1.80
1780	1780	31.64	1.81
1781	1781	31.63	1.80
1782	1782	31.63	1.80
1783	1783	31.63	1.80
1784	1784	31.63	1.80
1785	1785	31.63	1.80
1786	1786	31.64	1.81
1787	1787	31.63	1.80
1788	1788	31.63	1.80
1789	1789	31.64	1.81
1790	1790	31.63	1.80
1791	1791	31.64	1.81
1792	1792	31.64	1.81
1793	1793	31.63	1.80
1794	1794	31.64	1.81
1795	1795	31.63	1.80
1796	1796	31.64	1.81
1797	1797	31.64	1.81
1798	1798	31.63	1.80
1799	1799	31.64	1.81
1800	1800	31.64	1.81
1801	1801	31.64	1.81
1802	1802	31.64	1.81
1803	1803	31.64	1.81
1804	1804	31.64	1.81
1805	1805	31.64	1.81
1806	1806	31.64	1.81
1807	1807	31.64	1.81
1808	1808	31.64	1.81
1809	1809	31.65	1.82
1810	1810	31.65	1.82
1811	1811	31.64	1.81
1812	1812	31.64	1.81
1813	1813	31.65	1.82
1814	1814	31.65	1.82
1815	1815	31.65	1.82
1816	1816	31.64	1.81
1817	1817	31.65	1.82
1818	1818	31.65	1.82
1819	1819	31.65	1.82



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1820	1820	31.65	1.82
1821	1821	31.65	1.82
1822	1822	31.65	1.82
1823	1823	31.65	1.82
1824	1824	31.65	1.82
1825	1825	31.65	1.82
1826	1826	31.66	1.83
1827	1827	31.65	1.82
1828	1828	31.64	1.81
1829	1829	31.65	1.82
1830	1830	31.65	1.82
1831	1831	31.64	1.81
1832	1832	31.65	1.82
1833	1833	31.65	1.82
1834	1834	31.65	1.82
1835	1835	31.65	1.82
1836	1836	31.64	1.81
1837	1837	31.65	1.82
1838	1838	31.65	1.82
1839	1839	31.65	1.82
1840	1840	31.65	1.82
1841	1841	31.65	1.82
1842	1842	31.65	1.82
1843	1843	31.65	1.82
1844	1844	31.65	1.82
1845	1845	31.64	1.81
1846	1846	31.65	1.82
1847	1847	31.65	1.82
1848	1848	31.65	1.82
1849	1849	31.65	1.82
1850	1850	31.66	1.83
1851	1851	31.65	1.82
1852	1852	31.65	1.82
1853	1853	31.65	1.82
1854	1854	31.65	1.82
1855	1855	31.65	1.82
1856	1856	31.65	1.82
1857	1857	31.66	1.83
1858	1858	31.65	1.82
1859	1859	31.65	1.82
1860	1860	31.66	1.83
1861	1861	31.65	1.82
1862	1862	31.67	1.84
1863	1863	31.66	1.83
1864	1864	31.65	1.82
1865	1865	31.66	1.83
1866	1866	31.66	1.83
1867	1867	31.66	1.83
1868	1868	31.66	1.83
1869	1869	31.67	1.84
1870	1870	31.67	1.84
1871	1871	31.66	1.83
1872	1872	31.66	1.83
1873	1873	31.66	1.83
1874	1874	31.66	1.83
1875	1875	31.67	1.84
1876	1876	31.66	1.83



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1877	1877	31.66	1.83
1878	1878	31.66	1.83
1879	1879	31.66	1.83
1880	1880	31.67	1.84
1881	1881	31.66	1.83
1882	1882	31.66	1.83
1883	1883	31.66	1.83
1884	1884	31.66	1.83
1885	1885	31.66	1.83
1886	1886	31.66	1.83
1887	1887	31.66	1.83
1888	1888	31.66	1.83
1889	1889	31.66	1.83
1890	1890	31.66	1.83
1891	1891	31.66	1.83
1892	1892	31.66	1.83
1893	1893	31.66	1.83
1894	1894	31.66	1.83
1895	1895	31.66	1.83
1896	1896	31.66	1.83
1897	1897	31.66	1.83
1898	1898	31.67	1.84
1899	1899	31.66	1.83
1900	1900	31.66	1.83
1901	1901	31.66	1.83
1902	1902	31.66	1.83
1903	1903	31.66	1.83
1904	1904	31.67	1.84
1905	1905	31.67	1.84
1906	1906	31.66	1.83
1907	1907	31.66	1.83
1908	1908	31.67	1.84
1909	1909	31.66	1.83
1910	1910	31.67	1.84
1911	1911	31.67	1.84
1912	1912	31.66	1.83
1913	1913	31.66	1.83
1914	1914	31.67	1.84
1915	1915	31.67	1.84
1916	1916	31.67	1.84
1917	1917	31.66	1.83
1918	1918	31.67	1.84
1919	1919	31.67	1.84
1920	1920	31.67	1.84
1921	1921	31.66	1.83
1922	1922	31.66	1.83
1923	1923	31.67	1.84
1924	1924	31.66	1.83
1925	1925	31.66	1.83
1926	1926	31.67	1.84
1927	1927	31.67	1.84
1928	1928	31.67	1.84
1929	1929	31.67	1.84
1930	1930	31.67	1.84
1931	1931	31.67	1.84
1932	1932	31.67	1.84
1933	1933	31.67	1.84



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1934	1934	31.67	1.84
1935	1935	31.67	1.84
1936	1936	31.67	1.84
1937	1937	31.67	1.84
1938	1938	31.68	1.85
1939	1939	31.67	1.84
1940	1940	31.68	1.85
1941	1941	31.67	1.84
1942	1942	31.68	1.85
1943	1943	31.68	1.85
1944	1944	31.67	1.84
1945	1945	31.68	1.85
1946	1946	31.67	1.84
1947	1947	31.68	1.85
1948	1948	31.67	1.84
1949	1949	31.68	1.85
1950	1950	31.68	1.85
1951	1951	31.68	1.85
1952	1952	31.68	1.85
1953	1953	31.67	1.84
1954	1954	31.68	1.85
1955	1955	31.67	1.84
1956	1956	31.68	1.85
1957	1957	31.68	1.85
1958	1958	31.67	1.84
1959	1959	31.67	1.84
1960	1960	31.68	1.85
1961	1961	31.68	1.85
1962	1962	31.67	1.84
1963	1963	31.67	1.84
1964	1964	31.67	1.84
1965	1965	31.67	1.84
1966	1966	31.68	1.85
1967	1967	31.68	1.85
1968	1968	31.67	1.84
1969	1969	31.67	1.84
1970	1970	31.67	1.84
1971	1971	31.68	1.85
1972	1972	31.67	1.84
1973	1973	31.67	1.84
1974	1974	31.67	1.84
1975	1975	31.67	1.84
1976	1976	31.68	1.85
1977	1977	31.68	1.85
1978	1978	31.68	1.85
1979	1979	31.68	1.85
1980	1980	31.68	1.85
1981	1981	31.68	1.85
1982	1982	31.68	1.85
1983	1983	31.68	1.85
1984	1984	31.68	1.85
1985	1985	31.68	1.85
1986	1986	31.68	1.85
1987	1987	31.68	1.85
1988	1988	31.69	1.86
1989	1989	31.68	1.85
1990	1990	31.68	1.85



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
1991	1991	31.68	1.85
1992	1992	31.68	1.85
1993	1993	31.68	1.85
1994	1994	31.67	1.84
1995	1995	31.67	1.84
1996	1996	31.68	1.85
1997	1997	31.68	1.85
1998	1998	31.66	1.83
1999	1999	31.67	1.84
2000	2000	31.67	1.84
2001	2001	31.67	1.84
2002	2002	31.67	1.84
2003	2003	31.67	1.84
2004	2004	31.67	1.84
2005	2005	31.68	1.85
2006	2006	31.68	1.85
2007	2007	31.67	1.84
2008	2008	31.67	1.84
2009	2009	31.66	1.83
2010	2010	31.68	1.85
2011	2011	31.67	1.84
2012	2012	31.67	1.84
2013	2013	31.67	1.84
2014	2014	31.68	1.85
2015	2015	31.67	1.84
2016	2016	31.67	1.84
2017	2017	31.67	1.84
2018	2018	31.67	1.84
2019	2019	31.67	1.84
2020	2020	31.67	1.84
2021	2021	31.68	1.85
2022	2022	31.67	1.84
2023	2023	31.68	1.85
2024	2024	31.68	1.85
2025	2025	31.68	1.85
2026	2026	31.68	1.85
2027	2027	31.68	1.85
2028	2028	31.68	1.85
2029	2029	31.67	1.84
2030	2030	31.68	1.85
2031	2031	31.68	1.85
2032	2032	31.68	1.85
2033	2033	31.68	1.85
2034	2034	31.67	1.84
2035	2035	31.67	1.84
2036	2036	31.68	1.85
2037	2037	31.68	1.85
2038	2038	31.68	1.85
2039	2039	31.67	1.84
2040	2040	31.68	1.85
2041	2041	31.68	1.85
2042	2042	31.68	1.85
2043	2043	31.68	1.85
2044	2044	31.68	1.85
2045	2045	31.68	1.85
2046	2046	31.68	1.85
2047	2047	31.67	1.84



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2048	2048	31.67	1.84
2049	2049	31.68	1.85
2050	2050	31.67	1.84
2051	2051	31.67	1.84
2052	2052	31.67	1.84
2053	2053	31.68	1.85
2054	2054	31.68	1.85
2055	2055	31.69	1.86
2056	2056	31.67	1.84
2057	2057	31.67	1.84
2058	2058	31.68	1.85
2059	2059	31.68	1.85
2060	2060	31.69	1.86
2061	2061	31.67	1.84
2062	2062	31.68	1.85
2063	2063	31.68	1.85
2064	2064	31.68	1.85
2065	2065	31.68	1.85
2066	2066	31.68	1.85
2067	2067	31.68	1.85
2068	2068	31.68	1.85
2069	2069	31.68	1.85
2070	2070	31.68	1.85
2071	2071	31.68	1.85
2072	2072	31.68	1.85
2073	2073	31.68	1.85
2074	2074	31.68	1.85
2075	2075	31.68	1.85
2076	2076	31.69	1.86
2077	2077	31.67	1.84
2078	2078	31.67	1.84
2079	2079	31.68	1.85
2080	2080	31.68	1.85
2081	2081	31.67	1.84
2082	2082	31.68	1.85
2083	2083	31.68	1.85
2084	2084	31.68	1.85
2085	2085	31.68	1.85
2086	2086	31.68	1.85
2087	2087	31.68	1.85
2088	2088	31.68	1.85
2089	2089	31.68	1.85
2090	2090	31.69	1.86
2091	2091	31.68	1.85
2092	2092	31.68	1.85
2093	2093	31.68	1.85
2094	2094	31.68	1.85
2095	2095	31.67	1.84
2096	2096	31.68	1.85
2097	2097	31.68	1.85
2098	2098	31.67	1.84
2099	2099	31.68	1.85
2100	2100	31.67	1.84
2101	2101	31.68	1.85
2102	2102	31.68	1.85
2103	2103	31.68	1.85
2104	2104	31.68	1.85



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2105	2105	31.68	1.85
2106	2106	31.68	1.85
2107	2107	31.68	1.85
2108	2108	31.67	1.84
2109	2109	31.68	1.85
2110	2110	31.68	1.85
2111	2111	31.68	1.85
2112	2112	31.67	1.84
2113	2113	31.68	1.85
2114	2114	31.68	1.85
2115	2115	31.68	1.85
2116	2116	31.67	1.84
2117	2117	31.67	1.84
2118	2118	31.68	1.85
2119	2119	31.68	1.85
2120	2120	31.68	1.85
2121	2121	31.67	1.84
2122	2122	31.68	1.85
2123	2123	31.68	1.85
2124	2124	31.68	1.85
2125	2125	31.67	1.84
2126	2126	31.68	1.85
2127	2127	31.68	1.85
2128	2128	31.68	1.85
2129	2129	31.68	1.85
2130	2130	31.69	1.86
2131	2131	31.68	1.85
2132	2132	31.69	1.86
2133	2133	31.68	1.85
2134	2134	31.68	1.85
2135	2135	31.68	1.85
2136	2136	31.68	1.85
2137	2137	31.67	1.84
2138	2138	31.68	1.85
2139	2139	31.68	1.85
2140	2140	31.68	1.85
2141	2141	31.68	1.85
2142	2142	31.67	1.84
2143	2143	31.68	1.85
2144	2144	31.68	1.85
2145	2145	31.68	1.85
2146	2146	31.68	1.85
2147	2147	31.68	1.85
2148	2148	31.67	1.84
2149	2149	31.68	1.85
2150	2150	31.68	1.85
2151	2151	31.68	1.85
2152	2152	31.67	1.84
2153	2153	31.68	1.85
2154	2154	31.68	1.85
2155	2155	31.68	1.85
2156	2156	31.67	1.84
2157	2157	31.68	1.85
2158	2158	31.68	1.85
2159	2159	31.68	1.85
2160	2160	31.68	1.85
2161	2161	31.67	1.84



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2162	2162	31.67	1.84
2163	2163	31.68	1.85
2164	2164	31.68	1.85
2165	2165	31.68	1.85
2166	2166	31.68	1.85
2167	2167	31.68	1.85
2168	2168	31.68	1.85
2169	2169	31.68	1.85
2170	2170	31.68	1.85
2171	2171	31.67	1.84
2172	2172	31.68	1.85
2173	2173	31.68	1.85
2174	2174	31.68	1.85
2175	2175	31.68	1.85
2176	2176	31.68	1.85
2177	2177	31.68	1.85
2178	2178	31.68	1.85
2179	2179	31.68	1.85
2180	2180	31.68	1.85
2181	2181	31.68	1.85
2182	2182	31.68	1.85
2183	2183	31.67	1.84
2184	2184	31.68	1.85
2185	2185	31.68	1.85
2186	2186	31.68	1.85
2187	2187	31.68	1.85
2188	2188	31.68	1.85
2189	2189	31.68	1.85
2190	2190	31.68	1.85
2191	2191	31.68	1.85
2192	2192	31.68	1.85
2193	2193	31.68	1.85
2194	2194	31.68	1.85
2195	2195	31.68	1.85
2196	2196	31.68	1.85
2197	2197	31.68	1.85
2198	2198	31.67	1.84
2199	2199	31.68	1.85
2200	2200	31.67	1.84
2201	2201	31.69	1.86
2202	2202	31.68	1.85
2203	2203	31.68	1.85
2204	2204	31.68	1.85
2205	2205	31.68	1.85
2206	2206	31.67	1.84
2207	2207	31.68	1.85
2208	2208	31.68	1.85
2209	2209	31.67	1.84
2210	2210	31.68	1.85
2211	2211	31.68	1.85
2212	2212	31.68	1.85
2213	2213	31.68	1.85
2214	2214	31.68	1.85
2215	2215	31.68	1.85
2216	2216	31.68	1.85
2217	2217	31.68	1.85
2218	2218	31.68	1.85



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2219	2219	31.68	1.85
2220	2220	31.68	1.85
2221	2221	31.68	1.85
2222	2222	31.68	1.85
2223	2223	31.68	1.85
2224	2224	31.68	1.85
2225	2225	31.68	1.85
2226	2226	31.68	1.85
2227	2227	31.68	1.85
2228	2228	31.68	1.85
2229	2229	31.68	1.85
2230	2230	31.68	1.85
2231	2231	31.68	1.85
2232	2232	31.68	1.85
2233	2233	31.68	1.85
2234	2234	31.69	1.86
2235	2235	31.69	1.86
2236	2236	31.69	1.86
2237	2237	31.69	1.86
2238	2238	31.68	1.85
2239	2239	31.69	1.86
2240	2240	31.68	1.85
2241	2241	31.69	1.86
2242	2242	31.69	1.86
2243	2243	31.68	1.85
2244	2244	31.68	1.85
2245	2245	31.68	1.85
2246	2246	31.68	1.85
2247	2247	31.68	1.85
2248	2248	31.68	1.85
2249	2249	31.68	1.85
2250	2250	31.68	1.85
2251	2251	31.68	1.85
2252	2252	31.69	1.86
2253	2253	31.68	1.85
2254	2254	31.69	1.86
2255	2255	31.69	1.86
2256	2256	31.69	1.86
2257	2257	31.69	1.86
2258	2258	31.69	1.86
2259	2259	31.69	1.86
2260	2260	31.68	1.85
2261	2261	31.69	1.86
2262	2262	31.69	1.86
2263	2263	31.69	1.86
2264	2264	31.68	1.85
2265	2265	31.69	1.86
2266	2266	31.68	1.85
2267	2267	31.69	1.86
2268	2268	31.68	1.85
2269	2269	31.68	1.85
2270	2270	31.69	1.86
2271	2271	31.69	1.86
2272	2272	31.69	1.86
2273	2273	31.69	1.86
2274	2274	31.69	1.86
2275	2275	31.69	1.86



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2276	2276	31.69	1.86
2277	2277	31.68	1.85
2278	2278	31.69	1.86
2279	2279	31.69	1.86
2280	2280	31.69	1.86
2281	2281	31.69	1.86
2282	2282	31.69	1.86
2283	2283	31.69	1.86
2284	2284	31.69	1.86
2285	2285	31.69	1.86
2286	2286	31.69	1.86
2287	2287	31.69	1.86
2288	2288	31.69	1.86
2289	2289	31.69	1.86
2290	2290	31.69	1.86
2291	2291	31.69	1.86
2292	2292	31.69	1.86
2293	2293	31.69	1.86
2294	2294	31.70	1.87
2295	2295	31.69	1.86
2296	2296	31.70	1.87
2297	2297	31.70	1.87
2298	2298	31.69	1.86
2299	2299	31.69	1.86
2300	2300	31.69	1.86
2301	2301	31.69	1.86
2302	2302	31.69	1.86
2303	2303	31.70	1.87
2304	2304	31.69	1.86
2305	2305	31.69	1.86
2306	2306	31.69	1.86
2307	2307	31.69	1.86
2308	2308	31.70	1.87
2309	2309	31.70	1.87
2310	2310	31.70	1.87
2311	2311	31.70	1.87
2312	2312	31.69	1.86
2313	2313	31.69	1.86
2314	2314	31.69	1.86
2315	2315	31.70	1.87
2316	2316	31.70	1.87
2317	2317	31.70	1.87
2318	2318	31.69	1.86
2319	2319	31.70	1.87
2320	2320	31.70	1.87
2321	2321	31.70	1.87
2322	2322	31.70	1.87
2323	2323	31.70	1.87
2324	2324	31.69	1.86
2325	2325	31.69	1.86
2326	2326	31.69	1.86
2327	2327	31.70	1.87
2328	2328	31.69	1.86
2329	2329	31.69	1.86
2330	2330	31.69	1.86
2331	2331	31.70	1.87
2332	2332	31.69	1.86



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2333	2333	31.70	1.87
2334	2334	31.70	1.87
2335	2335	31.70	1.87
2336	2336	31.70	1.87
2337	2337	31.69	1.86
2338	2338	31.69	1.86
2339	2339	31.69	1.86
2340	2340	31.70	1.87
2341	2341	31.70	1.87
2342	2342	31.70	1.87
2343	2343	31.70	1.87
2344	2344	31.71	1.88
2345	2345	31.70	1.87
2346	2346	31.71	1.88
2347	2347	31.70	1.87
2348	2348	31.70	1.87
2349	2349	31.70	1.87
2350	2350	31.70	1.87
2351	2351	31.71	1.88
2352	2352	31.70	1.87
2353	2353	31.70	1.87
2354	2354	31.70	1.87
2355	2355	31.71	1.88
2356	2356	31.71	1.88
2357	2357	31.70	1.87
2358	2358	31.70	1.87
2359	2359	31.71	1.88
2360	2360	31.71	1.88
2361	2361	31.70	1.87
2362	2362	31.71	1.88
2363	2363	31.71	1.88
2364	2364	31.70	1.87
2365	2365	31.70	1.87
2366	2366	31.71	1.88
2367	2367	31.71	1.88
2368	2368	31.71	1.88
2369	2369	31.70	1.87
2370	2370	31.70	1.87
2371	2371	31.70	1.87
2372	2372	31.70	1.87
2373	2373	31.70	1.87
2374	2374	31.70	1.87
2375	2375	31.71	1.88
2376	2376	31.70	1.87
2377	2377	31.70	1.87
2378	2378	31.70	1.87
2379	2379	31.71	1.88
2380	2380	31.71	1.88
2381	2381	31.71	1.88
2382	2382	31.71	1.88
2383	2383	31.70	1.87
2384	2384	31.70	1.87
2385	2385	31.71	1.88
2386	2386	31.71	1.88
2387	2387	31.71	1.88
2388	2388	31.72	1.89
2389	2389	31.72	1.89



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2390	2390	31.71	1.88
2391	2391	31.72	1.89
2392	2392	31.71	1.88
2393	2393	31.71	1.88
2394	2394	31.71	1.88
2395	2395	31.71	1.88
2396	2396	31.71	1.88
2397	2397	31.71	1.88
2398	2398	31.71	1.88
2399	2399	31.72	1.89
2400	2400	31.71	1.88
2401	2401	31.71	1.88
2402	2402	31.71	1.88
2403	2403	31.71	1.88
2404	2404	31.71	1.88
2405	2405	31.71	1.88
2406	2406	31.71	1.88
2407	2407	31.70	1.87
2408	2408	31.71	1.88
2409	2409	31.72	1.89
2410	2410	31.72	1.89
2411	2411	31.71	1.88
2412	2412	31.72	1.89
2413	2413	31.71	1.88
2414	2414	31.71	1.88
2415	2415	31.72	1.89
2416	2416	31.72	1.89
2417	2417	31.71	1.88
2418	2418	31.71	1.88
2419	2419	31.72	1.89
2420	2420	31.71	1.88
2421	2421	31.71	1.88
2422	2422	31.72	1.89
2423	2423	31.72	1.89
2424	2424	31.72	1.89
2425	2425	31.72	1.89
2426	2426	31.71	1.88
2427	2427	31.73	1.90
2428	2428	31.72	1.89
2429	2429	31.71	1.88
2430	2430	31.71	1.88
2431	2431	31.72	1.89
2432	2432	31.72	1.89
2433	2433	31.72	1.89
2434	2434	31.73	1.90
2435	2435	31.72	1.89
2436	2436	31.72	1.89
2437	2437	31.71	1.88
2438	2438	31.71	1.88
2439	2439	31.72	1.89
2440	2440	31.72	1.89
2441	2441	31.72	1.89
2442	2442	31.72	1.89
2443	2443	31.72	1.89
2444	2444	31.73	1.90
2445	2445	31.73	1.90
2446	2446	31.73	1.90



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2447	2447	31.73	1.90
2448	2448	31.73	1.90
2449	2449	31.73	1.90
2450	2450	31.73	1.90
2451	2451	31.73	1.90
2452	2452	31.73	1.90
2453	2453	31.73	1.90
2454	2454	31.72	1.89
2455	2455	31.73	1.90
2456	2456	31.73	1.90
2457	2457	31.73	1.90
2458	2458	31.73	1.90
2459	2459	31.73	1.90
2460	2460	31.74	1.91
2461	2461	31.73	1.90
2462	2462	31.72	1.89
2463	2463	31.73	1.90
2464	2464	31.72	1.89
2465	2465	31.73	1.90
2466	2466	31.74	1.91
2467	2467	31.72	1.89
2468	2468	31.73	1.90
2469	2469	31.73	1.90
2470	2470	31.73	1.90
2471	2471	31.74	1.91
2472	2472	31.73	1.90
2473	2473	31.74	1.91
2474	2474	31.73	1.90
2475	2475	31.73	1.90
2476	2476	31.74	1.91
2477	2477	31.73	1.90
2478	2478	31.74	1.91
2479	2479	31.74	1.91
2480	2480	31.74	1.91
2481	2481	31.74	1.91
2482	2482	31.74	1.91
2483	2483	31.74	1.91
2484	2484	31.74	1.91
2485	2485	31.74	1.91
2486	2486	31.74	1.91
2487	2487	31.74	1.91
2488	2488	31.74	1.91
2489	2489	31.73	1.90
2490	2490	31.74	1.91
2491	2491	31.74	1.91
2492	2492	31.74	1.91
2493	2493	31.74	1.91
2494	2494	31.74	1.91
2495	2495	31.73	1.90
2496	2496	31.74	1.91
2497	2497	31.74	1.91
2498	2498	31.74	1.91
2499	2499	31.74	1.91
2500	2500	31.73	1.90
2501	2501	31.74	1.91
2502	2502	31.75	1.92
2503	2503	31.74	1.91



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2504	2504	31.74	1.91
2505	2505	31.73	1.90
2506	2506	31.74	1.91
2507	2507	31.74	1.91
2508	2508	31.73	1.90
2509	2509	31.74	1.91
2510	2510	31.74	1.91
2511	2511	31.74	1.91
2512	2512	31.74	1.91
2513	2513	31.74	1.91
2514	2514	31.73	1.90
2515	2515	31.74	1.91
2516	2516	31.74	1.91
2517	2517	31.74	1.91
2518	2518	31.74	1.91
2519	2519	31.74	1.91
2520	2520	31.74	1.91
2521	2521	31.74	1.91
2522	2522	31.75	1.92
2523	2523	31.74	1.91
2524	2524	31.74	1.91
2525	2525	31.74	1.91
2526	2526	31.74	1.91
2527	2527	31.74	1.91
2528	2528	31.74	1.91
2529	2529	31.74	1.91
2530	2530	31.74	1.91
2531	2531	31.74	1.91
2532	2532	31.75	1.92
2533	2533	31.75	1.92
2534	2534	31.75	1.92
2535	2535	31.74	1.91
2536	2536	31.75	1.92
2537	2537	31.74	1.91
2538	2538	31.74	1.91
2539	2539	31.75	1.92
2540	2540	31.75	1.92
2541	2541	31.74	1.91
2542	2542	31.74	1.91
2543	2543	31.74	1.91
2544	2544	31.75	1.92
2545	2545	31.75	1.92
2546	2546	31.74	1.91
2547	2547	31.75	1.92
2548	2548	31.74	1.91
2549	2549	31.74	1.91
2550	2550	31.75	1.92
2551	2551	31.75	1.92
2552	2552	31.74	1.91
2553	2553	31.75	1.92
2554	2554	31.75	1.92
2555	2555	31.75	1.92
2556	2556	31.75	1.92
2557	2557	31.75	1.92
2558	2558	31.75	1.92
2559	2559	31.74	1.91
2560	2560	31.75	1.92



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2561	2561	31.75	1.92
2562	2562	31.75	1.92
2563	2563	31.75	1.92
2564	2564	31.75	1.92
2565	2565	31.76	1.93
2566	2566	31.75	1.92
2567	2567	31.75	1.92
2568	2568	31.75	1.92
2569	2569	31.75	1.92
2570	2570	31.75	1.92
2571	2571	31.75	1.92
2572	2572	31.76	1.93
2573	2573	31.75	1.92
2574	2574	31.75	1.92
2575	2575	31.76	1.93
2576	2576	31.76	1.93
2577	2577	31.76	1.93
2578	2578	31.75	1.92
2579	2579	31.76	1.93
2580	2580	31.77	1.94
2581	2581	31.76	1.93
2582	2582	31.77	1.94
2583	2583	31.76	1.93
2584	2584	31.76	1.93
2585	2585	31.76	1.93
2586	2586	31.75	1.92
2587	2587	31.76	1.93
2588	2588	31.75	1.92
2589	2589	31.77	1.94
2590	2590	31.75	1.92
2591	2591	31.75	1.92
2592	2592	31.76	1.93
2593	2593	31.76	1.93
2594	2594	31.76	1.93
2595	2595	31.76	1.93
2596	2596	31.75	1.92
2597	2597	31.75	1.92
2598	2598	31.76	1.93
2599	2599	31.76	1.93
2600	2600	31.75	1.92
2601	2601	31.75	1.92
2602	2602	31.75	1.92
2603	2603	31.76	1.93
2604	2604	31.76	1.93
2605	2605	31.76	1.93
2606	2606	31.76	1.93
2607	2607	31.76	1.93
2608	2608	31.75	1.92
2609	2609	31.75	1.92
2610	2610	31.75	1.92
2611	2611	31.75	1.92
2612	2612	31.75	1.92
2613	2613	31.76	1.93
2614	2614	31.76	1.93
2615	2615	31.76	1.93
2616	2616	31.77	1.94
2617	2617	31.76	1.93



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2618	2618	31.77	1.94
2619	2619	31.76	1.93
2620	2620	31.75	1.92
2621	2621	31.76	1.93
2622	2622	31.76	1.93
2623	2623	31.77	1.94
2624	2624	31.76	1.93
2625	2625	31.77	1.94
2626	2626	31.77	1.94
2627	2627	31.76	1.93
2628	2628	31.76	1.93
2629	2629	31.77	1.94
2630	2630	31.76	1.93
2631	2631	31.76	1.93
2632	2632	31.77	1.94
2633	2633	31.76	1.93
2634	2634	31.76	1.93
2635	2635	31.77	1.94
2636	2636	31.77	1.94
2637	2637	31.77	1.94
2638	2638	31.77	1.94
2639	2639	31.77	1.94
2640	2640	31.77	1.94
2641	2641	31.76	1.93
2642	2642	31.76	1.93
2643	2643	31.76	1.93
2644	2644	31.77	1.94
2645	2645	31.77	1.94
2646	2646	31.77	1.94
2647	2647	31.77	1.94
2648	2648	31.76	1.93
2649	2649	31.77	1.94
2650	2650	31.77	1.94
2651	2651	31.77	1.94
2652	2652	31.77	1.94
2653	2653	31.77	1.94
2654	2654	31.77	1.94
2655	2655	31.77	1.94
2656	2656	31.77	1.94
2657	2657	31.77	1.94
2658	2658	31.77	1.94
2659	2659	31.77	1.94
2660	2660	31.77	1.94
2661	2661	31.77	1.94
2662	2662	31.77	1.94
2663	2663	31.78	1.95
2664	2664	31.77	1.94
2665	2665	31.77	1.94
2666	2666	31.77	1.94
2667	2667	31.77	1.94
2668	2668	31.78	1.95
2669	2669	31.77	1.94
2670	2670	31.77	1.94
2671	2671	31.77	1.94
2672	2672	31.77	1.94
2673	2673	31.77	1.94
2674	2674	31.77	1.94



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2675	2675	31.77	1.94
2676	2676	31.77	1.94
2677	2677	31.77	1.94
2678	2678	31.77	1.94
2679	2679	31.77	1.94
2680	2680	31.78	1.95
2681	2681	31.77	1.94
2682	2682	31.77	1.94
2683	2683	31.77	1.94
2684	2684	31.77	1.94
2685	2685	31.77	1.94
2686	2686	31.76	1.93
2687	2687	31.77	1.94
2688	2688	31.77	1.94
2689	2689	31.77	1.94
2690	2690	31.78	1.95
2691	2691	31.77	1.94
2692	2692	31.77	1.94
2693	2693	31.78	1.95
2694	2694	31.78	1.95
2695	2695	31.76	1.93
2696	2696	31.77	1.94
2697	2697	31.76	1.93
2698	2698	31.77	1.94
2699	2699	31.77	1.94
2700	2700	31.77	1.94
2701	2701	31.78	1.95
2702	2702	31.77	1.94
2703	2703	31.77	1.94
2704	2704	31.77	1.94
2705	2705	31.77	1.94
2706	2706	31.77	1.94
2707	2707	31.77	1.94
2708	2708	31.77	1.94
2709	2709	31.77	1.94
2710	2710	31.77	1.94
2711	2711	31.77	1.94
2712	2712	31.77	1.94
2713	2713	31.76	1.93
2714	2714	31.77	1.94
2715	2715	31.77	1.94
2716	2716	31.77	1.94
2717	2717	31.77	1.94
2718	2718	31.77	1.94
2719	2719	31.77	1.94
2720	2720	31.77	1.94
2721	2721	31.77	1.94
2722	2722	31.77	1.94
2723	2723	31.77	1.94
2724	2724	31.77	1.94
2725	2725	31.77	1.94
2726	2726	31.78	1.95
2727	2727	31.78	1.95
2728	2728	31.77	1.94
2729	2729	31.77	1.94
2730	2730	31.77	1.94
2731	2731	31.77	1.94



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2732	2732	31.78	1.95
2733	2733	31.78	1.95
2734	2734	31.77	1.94
2735	2735	31.78	1.95
2736	2736	31.77	1.94
2737	2737	31.76	1.93
2738	2738	31.77	1.94
2739	2739	31.77	1.94
2740	2740	31.77	1.94
2741	2741	31.78	1.95
2742	2742	31.78	1.95
2743	2743	31.78	1.95
2744	2744	31.78	1.95
2745	2745	31.78	1.95
2746	2746	31.77	1.94
2747	2747	31.77	1.94
2748	2748	31.78	1.95
2749	2749	31.76	1.93
2750	2750	31.77	1.94
2751	2751	31.77	1.94
2752	2752	31.77	1.94
2753	2753	31.77	1.94
2754	2754	31.77	1.94
2755	2755	31.78	1.95
2756	2756	31.76	1.93
2757	2757	31.77	1.94
2758	2758	31.77	1.94
2759	2759	31.78	1.95
2760	2760	31.77	1.94
2761	2761	31.77	1.94
2762	2762	31.78	1.95
2763	2763	31.77	1.94
2764	2764	31.76	1.93
2765	2765	31.77	1.94
2766	2766	31.77	1.94
2767	2767	31.77	1.94
2768	2768	31.77	1.94
2769	2769	31.77	1.94
2770	2770	31.78	1.95
2771	2771	31.78	1.95
2772	2772	31.78	1.95
2773	2773	31.77	1.94
2774	2774	31.77	1.94
2775	2775	31.78	1.95
2776	2776	31.77	1.94
2777	2777	31.78	1.95
2778	2778	31.77	1.94
2779	2779	31.77	1.94
2780	2780	31.77	1.94
2781	2781	31.77	1.94
2782	2782	31.78	1.95
2783	2783	31.77	1.94
2784	2784	31.77	1.94
2785	2785	31.77	1.94
2786	2786	31.77	1.94
2787	2787	31.77	1.94
2788	2788	31.77	1.94



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2789	2789	31.77	1.94
2790	2790	31.77	1.94
2791	2791	31.78	1.95
2792	2792	31.77	1.94
2793	2793	31.77	1.94
2794	2794	31.77	1.94
2795	2795	31.77	1.94
2796	2796	31.77	1.94
2797	2797	31.78	1.95
2798	2798	31.77	1.94
2799	2799	31.78	1.95
2800	2800	31.77	1.94
2801	2801	31.77	1.94
2802	2802	31.77	1.94
2803	2803	31.76	1.93
2804	2804	31.77	1.94
2805	2805	31.77	1.94
2806	2806	31.77	1.94
2807	2807	31.78	1.95
2808	2808	31.77	1.94
2809	2809	31.77	1.94
2810	2810	31.76	1.93
2811	2811	31.77	1.94
2812	2812	31.77	1.94
2813	2813	31.77	1.94
2814	2814	31.77	1.94
2815	2815	31.77	1.94
2816	2816	31.77	1.94
2817	2817	31.77	1.94
2818	2818	31.77	1.94
2819	2819	31.77	1.94
2820	2820	31.77	1.94
2821	2821	31.77	1.94
2822	2822	31.77	1.94
2823	2823	31.77	1.94
2824	2824	31.77	1.94
2825	2825	31.77	1.94
2826	2826	31.77	1.94
2827	2827	31.77	1.94
2828	2828	31.77	1.94
2829	2829	31.77	1.94
2830	2830	31.78	1.95
2831	2831	31.77	1.94
2832	2832	31.76	1.93
2833	2833	31.77	1.94
2834	2834	31.77	1.94
2835	2835	31.77	1.94
2836	2836	31.78	1.95
2837	2837	31.78	1.95
2838	2838	31.78	1.95
2839	2839	31.78	1.95
2840	2840	31.78	1.95
2841	2841	31.77	1.94
2842	2842	31.78	1.95
2843	2843	31.78	1.95
2844	2844	31.78	1.95
2845	2845	31.77	1.94



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2846	2846	31.78	1.95
2847	2847	31.78	1.95
2848	2848	31.78	1.95
2849	2849	31.78	1.95
2850	2850	31.78	1.95
2851	2851	31.77	1.94
2852	2852	31.77	1.94
2853	2853	31.78	1.95
2854	2854	31.78	1.95
2855	2855	31.78	1.95
2856	2856	31.77	1.94
2857	2857	31.78	1.95
2858	2858	31.78	1.95
2859	2859	31.78	1.95
2860	2860	31.78	1.95
2861	2861	31.78	1.95
2862	2862	31.78	1.95
2863	2863	31.78	1.95
2864	2864	31.78	1.95
2865	2865	31.78	1.95
2866	2866	31.78	1.95
2867	2867	31.78	1.95
2868	2868	31.78	1.95
2869	2869	31.78	1.95
2870	2870	31.78	1.95
2871	2871	31.78	1.95
2872	2872	31.78	1.95
2873	2873	31.78	1.95
2874	2874	31.78	1.95
2875	2875	31.78	1.95
2876	2876	31.78	1.95
2877	2877	31.78	1.95
2878	2878	31.79	1.96
2879	2879	31.78	1.95
2880	2880	31.78	1.95
2881	2881	31.79	1.96
2882	2882	31.78	1.95
2883	2883	31.78	1.95
2884	2884	31.77	1.94
2885	2885	31.77	1.94
2886	2886	31.77	1.94
2887	2887	31.76	1.93
2888	2888	31.77	1.94
2889	2889	31.75	1.92
2890	2890	31.76	1.93
2891	2891	31.75	1.92
2892	2892	31.75	1.92
2893	2893	31.75	1.92
2894	2894	31.75	1.92
2895	2895	31.76	1.93
2896	2896	31.75	1.92
2897	2897	31.75	1.92
2898	2898	31.75	1.92
2899	2899	31.76	1.93
2900	2900	31.75	1.92
2901	2901	31.76	1.93
2902	2902	31.75	1.92



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2903	2903	31.76	1.93
2904	2904	31.75	1.92
2905	2905	31.76	1.93
2906	2906	31.77	1.94
2907	2907	31.76	1.93
2908	2908	31.76	1.93
2909	2909	31.75	1.92
2910	2910	31.75	1.92
2911	2911	31.76	1.93
2912	2912	31.75	1.92
2913	2913	31.76	1.93
2914	2914	31.76	1.93
2915	2915	31.76	1.93
2916	2916	31.75	1.92
2917	2917	31.75	1.92
2918	2918	31.75	1.92
2919	2919	31.76	1.93
2920	2920	31.76	1.93
2921	2921	31.76	1.93
2922	2922	31.76	1.93
2923	2923	31.75	1.92
2924	2924	31.76	1.93
2925	2925	31.76	1.93
2926	2926	31.75	1.92
2927	2927	31.76	1.93
2928	2928	31.76	1.93
2929	2929	31.75	1.92
2930	2930	31.76	1.93
2931	2931	31.76	1.93
2932	2932	31.76	1.93
2933	2933	31.76	1.93
2934	2934	31.76	1.93
2935	2935	31.77	1.94
2936	2936	31.77	1.94
2937	2937	31.76	1.93
2938	2938	31.76	1.93
2939	2939	31.77	1.94
2940	2940	31.77	1.94
2941	2941	31.75	1.92
2942	2942	31.76	1.93
2943	2943	31.77	1.94
2944	2944	31.77	1.94
2945	2945	31.76	1.93
2946	2946	31.76	1.93
2947	2947	31.77	1.94
2948	2948	31.77	1.94
2949	2949	31.77	1.94
2950	2950	31.77	1.94
2951	2951	31.76	1.93
2952	2952	31.76	1.93
2953	2953	31.76	1.93
2954	2954	31.77	1.94
2955	2955	31.77	1.94
2956	2956	31.76	1.93
2957	2957	31.77	1.94
2958	2958	31.77	1.94
2959	2959	31.78	1.95



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
2960	2960	31.77	1.94
2961	2961	31.76	1.93
2962	2962	31.77	1.94
2963	2963	31.76	1.93
2964	2964	31.76	1.93
2965	2965	31.76	1.93
2966	2966	31.76	1.93
2967	2967	31.76	1.93
2968	2968	31.77	1.94
2969	2969	31.77	1.94
2970	2970	31.77	1.94
2971	2971	31.77	1.94
2972	2972	31.77	1.94
2973	2973	31.77	1.94
2974	2974	31.77	1.94
2975	2975	31.77	1.94
2976	2976	31.76	1.93
2977	2977	31.77	1.94
2978	2978	31.76	1.93
2979	2979	31.77	1.94
2980	2980	31.77	1.94
2981	2981	31.77	1.94
2982	2982	31.77	1.94
2983	2983	31.77	1.94
2984	2984	31.77	1.94
2985	2985	31.77	1.94
2986	2986	31.78	1.95
2987	2987	31.77	1.94
2988	2988	31.77	1.94
2989	2989	31.77	1.94
2990	2990	31.77	1.94
2991	2991	31.77	1.94
2992	2992	31.77	1.94
2993	2993	31.77	1.94
2994	2994	31.77	1.94
2995	2995	31.77	1.94
2996	2996	31.78	1.95
2997	2997	31.77	1.94
2998	2998	31.77	1.94
2999	2999	31.77	1.94
3000	3000	31.77	1.94
3001	3001	31.77	1.94
3002	3002	31.77	1.94
3003	3003	31.77	1.94
3004	3004	31.77	1.94
3005	3005	31.77	1.94
3006	3006	31.77	1.94
3007	3007	31.77	1.94
3008	3008	31.77	1.94
3009	3009	31.77	1.94
3010	3010	31.77	1.94
3011	3011	31.77	1.94
3012	3012	31.77	1.94
3013	3013	31.77	1.94
3014	3014	31.77	1.94
3015	3015	31.78	1.95
3016	3016	31.77	1.94



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
3017	3017	31.77	1.94
3018	3018	31.77	1.94
3019	3019	31.77	1.94
3020	3020	31.78	1.95
3021	3021	31.78	1.95
3022	3022	31.78	1.95
3023	3023	31.76	1.93
3024	3024	31.77	1.94
3025	3025	31.77	1.94
3026	3026	31.78	1.95
3027	3027	31.77	1.94
3028	3028	31.78	1.95
3029	3029	31.78	1.95
3030	3030	31.77	1.94
3031	3031	31.78	1.95
3032	3032	31.78	1.95
3033	3033	31.77	1.94
3034	3034	31.78	1.95
3035	3035	31.78	1.95
3036	3036	31.78	1.95
3037	3037	31.78	1.95
3038	3038	31.78	1.95
3039	3039	31.78	1.95
3040	3040	31.78	1.95
3041	3041	31.78	1.95
3042	3042	31.78	1.95
3043	3043	31.78	1.95
3044	3044	31.78	1.95
3045	3045	31.78	1.95
3046	3046	31.78	1.95
3047	3047	31.78	1.95
3048	3048	31.79	1.96
3049	3049	31.78	1.95
3050	3050	31.78	1.95
3051	3051	31.78	1.95
3052	3052	31.78	1.95
3053	3053	31.79	1.96
3054	3054	31.79	1.96
3055	3055	31.79	1.96
3056	3056	31.78	1.95
3057	3057	31.78	1.95
3058	3058	31.78	1.95
3059	3059	31.79	1.96
3060	3060	31.78	1.95
3061	3061	31.78	1.95
3062	3062	31.79	1.96
3063	3063	31.79	1.96
3064	3064	31.78	1.95
3065	3065	31.79	1.96
3066	3066	31.78	1.95
3067	3067	31.79	1.96
3068	3068	31.79	1.96
3069	3069	31.80	1.97
3070	3070	31.79	1.96
3071	3071	31.79	1.96
3072	3072	31.79	1.96
3073	3073	31.79	1.96



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
3074	3074	31.79	1.96
3075	3075	31.79	1.96
3076	3076	31.79	1.96
3077	3077	31.79	1.96
3078	3078	31.79	1.96
3079	3079	31.78	1.95
3080	3080	31.79	1.96
3081	3081	31.78	1.95
3082	3082	31.79	1.96
3083	3083	31.79	1.96
3084	3084	31.79	1.96
3085	3085	31.79	1.96
3086	3086	31.79	1.96
3087	3087	31.79	1.96
3088	3088	31.79	1.96
3089	3089	31.80	1.97
3090	3090	31.80	1.97
3091	3091	31.80	1.97
3092	3092	31.80	1.97
3093	3093	31.80	1.97
3094	3094	31.81	1.98
3095	3095	31.80	1.97
3096	3096	31.80	1.97
3097	3097	31.80	1.97
3098	3098	31.80	1.97
3099	3099	31.80	1.97
3100	3100	31.80	1.97
3101	3101	31.80	1.97
3102	3102	31.81	1.98
3103	3103	31.80	1.97
3104	3104	31.79	1.96
3105	3105	31.80	1.97
3106	3106	31.80	1.97
3107	3107	31.79	1.96
3108	3108	31.80	1.97
3109	3109	31.80	1.97
3110	3110	31.80	1.97
3111	3111	31.80	1.97
3112	3112	31.79	1.96
3113	3113	31.79	1.96
3114	3114	31.78	1.95
3115	3115	31.80	1.97
3116	3116	31.80	1.97
3117	3117	31.79	1.96
3118	3118	31.80	1.97
3119	3119	31.80	1.97
3120	3120	31.80	1.97
3121	3121	31.80	1.97
3122	3122	31.80	1.97
3123	3123	31.80	1.97
3124	3124	31.80	1.97
3125	3125	31.81	1.98
3126	3126	31.80	1.97
3127	3127	31.80	1.97
3128	3128	31.80	1.97
3129	3129	31.80	1.97
3130	3130	31.80	1.97



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
3131	3131	31.80	1.97
3132	3132	31.80	1.97
3133	3133	31.80	1.97
3134	3134	31.80	1.97
3135	3135	31.80	1.97
3136	3136	31.81	1.98
3137	3137	31.80	1.97
3138	3138	31.81	1.98
3139	3139	31.81	1.98
3140	3140	31.81	1.98
3141	3141	31.81	1.98
3142	3142	31.80	1.97
3143	3143	31.80	1.97
3144	3144	31.82	1.99
3145	3145	31.81	1.98
3146	3146	31.81	1.98
3147	3147	31.80	1.97
3148	3148	31.80	1.97
3149	3149	31.82	1.99
3150	3150	31.80	1.97
3151	3151	31.81	1.98
3152	3152	31.81	1.98
3153	3153	31.81	1.98
3154	3154	31.81	1.98
3155	3155	31.80	1.97
3156	3156	31.81	1.98
3157	3157	31.81	1.98
3158	3158	31.82	1.99
3159	3159	31.81	1.98
3160	3160	31.80	1.97
3161	3161	31.81	1.98
3162	3162	31.81	1.98
3163	3163	31.81	1.98
3164	3164	31.81	1.98
3165	3165	31.81	1.98
3166	3166	31.82	1.99
3167	3167	31.81	1.98
3168	3168	31.81	1.98
3169	3169	31.81	1.98
3170	3170	31.81	1.98
3171	3171	31.81	1.98
3172	3172	31.82	1.99
3173	3173	31.81	1.98
3174	3174	31.80	1.97
3175	3175	31.80	1.97
3176	3176	31.80	1.97
3177	3177	31.80	1.97
3178	3178	31.80	1.97
3179	3179	31.80	1.97
3180	3180	31.81	1.98
3181	3181	31.81	1.98
3182	3182	31.81	1.98
3183	3183	31.81	1.98
3184	3184	31.82	1.99
3185	3185	31.81	1.98
3186	3186	31.81	1.98
3187	3187	31.82	1.99



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
3188	3188	31.82	1.99
3189	3189	31.81	1.98
3190	3190	31.81	1.98
3191	3191	31.81	1.98
3192	3192	31.81	1.98
3193	3193	31.81	1.98
3194	3194	31.81	1.98
3195	3195	31.81	1.98
3196	3196	31.81	1.98
3197	3197	31.81	1.98
3198	3198	31.82	1.99
3199	3199	31.81	1.98
3200	3200	31.82	1.99
3201	3201	31.82	1.99
3202	3202	31.82	1.99
3203	3203	31.82	1.99
3204	3204	31.82	1.99
3205	3205	31.82	1.99
3206	3206	31.83	2.00
3207	3207	31.82	1.99
3208	3208	31.82	1.99
3209	3209	31.83	2.00
3210	3210	31.82	1.99
3211	3211	31.82	1.99
3212	3212	31.82	1.99
3213	3213	31.82	1.99
3214	3214	31.82	1.99
3215	3215	31.82	1.99
3216	3216	31.82	1.99
3217	3217	31.83	2.00
3218	3218	31.82	1.99
3219	3219	31.82	1.99
3220	3220	31.82	1.99
3221	3221	31.82	1.99
3222	3222	31.83	2.00
3223	3223	31.82	1.99
3224	3224	31.83	2.00
3225	3225	31.82	1.99
3226	3226	31.82	1.99
3227	3227	31.82	1.99
3228	3228	31.82	1.99
3229	3229	31.82	1.99
3230	3230	31.81	1.98
3231	3231	31.82	1.99
3232	3232	31.82	1.99
3233	3233	31.80	1.97
3234	3234	31.82	1.99
3235	3235	31.82	1.99
3236	3236	31.83	2.00
3237	3237	31.82	1.99
3238	3238	31.82	1.99
3239	3239	31.82	1.99
3240	3240	31.81	1.98
3241	3241	31.82	1.99
3242	3242	31.83	2.00
3243	3243	31.82	1.99
3244	3244	31.81	1.98



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
3245	3245	31.82	1.99
3246	3246	31.82	1.99
3247	3247	31.82	1.99
3248	3248	31.83	2.00
3249	3249	31.82	1.99
3250	3250	31.82	1.99
3251	3251	31.82	1.99
3252	3252	31.82	1.99
3253	3253	31.83	2.00
3254	3254	31.82	1.99
3255	3255	31.82	1.99
3256	3256	31.82	1.99
3257	3257	31.83	2.00
3258	3258	31.83	2.00
3259	3259	31.83	2.00
3260	3260	31.82	1.99
3261	3261	31.83	2.00
3262	3262	31.83	2.00
3263	3263	31.83	2.00
3264	3264	31.82	1.99
3265	3265	31.83	2.00
3266	3266	31.82	1.99
3267	3267	31.82	1.99
3268	3268	31.82	1.99
3269	3269	31.82	1.99
3270	3270	31.83	2.00
3271	3271	31.83	2.00
3272	3272	31.83	2.00
3273	3273	31.82	1.99
3274	3274	31.82	1.99
3275	3275	31.82	1.99
3276	3276	31.82	1.99
3277	3277	31.83	2.00
3278	3278	31.82	1.99
3279	3279	31.82	1.99
3280	3280	31.83	2.00
3281	3281	31.82	1.99
3282	3282	31.83	2.00
3283	3283	31.83	2.00
3284	3284	31.82	1.99
3285	3285	31.83	2.00
3286	3286	31.82	1.99
3287	3287	31.82	1.99
3288	3288	31.83	2.00
3289	3289	31.83	2.00
3290	3290	31.83	2.00
3291	3291	31.82	1.99
3292	3292	31.82	1.99
3293	3293	31.82	1.99
3294	3294	31.82	1.99
3295	3295	31.82	1.99
3296	3296	31.82	1.99
3297	3297	31.82	1.99
3298	3298	31.82	1.99
3299	3299	31.82	1.99
3300	3300	31.83	2.00
3301	3301	31.82	1.99



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
3302	3302	31.82	1.99
3303	3303	31.82	1.99
3304	3304	31.82	1.99
3305	3305	31.82	1.99
3306	3306	31.82	1.99
3307	3307	31.82	1.99
3308	3308	31.83	2.00
3309	3309	31.83	2.00
3310	3310	31.82	1.99
3311	3311	31.83	2.00
3312	3312	31.82	1.99
3313	3313	31.81	1.98
3314	3314	31.81	1.98
3315	3315	31.82	1.99
3316	3316	31.82	1.99
3317	3317	31.81	1.98
3318	3318	31.82	1.99
3319	3319	31.82	1.99
3320	3320	31.82	1.99
3321	3321	31.82	1.99
3322	3322	31.82	1.99
3323	3323	31.82	1.99
3324	3324	31.82	1.99
3325	3325	31.82	1.99
3326	3326	31.81	1.98
3327	3327	31.82	1.99
3328	3328	31.82	1.99
3329	3329	31.82	1.99
3330	3330	31.81	1.98
3331	3331	31.82	1.99
3332	3332	31.82	1.99
3333	3333	31.81	1.98
3334	3334	31.82	1.99
3335	3335	31.82	1.99
3336	3336	31.81	1.98
3337	3337	31.81	1.98
3338	3338	31.80	1.97
3339	3339	31.80	1.97
3340	3340	31.82	1.99
3341	3341	31.82	1.99
3342	3342	31.81	1.98
3343	3343	31.82	1.99
3344	3344	31.82	1.99
3345	3345	31.81	1.98
3346	3346	31.82	1.99
3347	3347	31.81	1.98
3348	3348	31.82	1.99
3349	3349	31.82	1.99
3350	3350	31.82	1.99
3351	3351	31.83	2.00
3352	3352	31.81	1.98
3353	3353	31.82	1.99
3354	3354	31.82	1.99
3355	3355	31.81	1.98
3356	3356	31.82	1.99
3357	3357	31.81	1.98
3358	3358	31.82	1.99



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
3359	3359	31.81	1.98
3360	3360	31.81	1.98
3361	3361	31.82	1.99
3362	3362	31.81	1.98
3363	3363	31.81	1.98
3364	3364	31.82	1.99
3365	3365	31.81	1.98
3366	3366	31.81	1.98
3367	3367	31.81	1.98
3368	3368	31.82	1.99
3369	3369	31.82	1.99
3370	3370	31.81	1.98
3371	3371	31.82	1.99
3372	3372	31.81	1.98
3373	3373	31.81	1.98
3374	3374	31.81	1.98
3375	3375	31.81	1.98
3376	3376	31.81	1.98
3377	3377	31.81	1.98
3378	3378	31.81	1.98
3379	3379	31.81	1.98
3380	3380	31.81	1.98
3381	3381	31.82	1.99
3382	3382	31.80	1.97
3383	3383	31.80	1.97
3384	3384	31.81	1.98
3385	3385	31.82	1.99
3386	3386	31.82	1.99
3387	3387	31.82	1.99
3388	3388	31.81	1.98
3389	3389	31.81	1.98
3390	3390	31.81	1.98
3391	3391	31.81	1.98
3392	3392	31.81	1.98
3393	3393	31.81	1.98
3394	3394	31.81	1.98
3395	3395	31.81	1.98
3396	3396	31.80	1.97
3397	3397	31.81	1.98
3398	3398	31.82	1.99
3399	3399	31.82	1.99
3400	3400	31.81	1.98
3401	3401	31.81	1.98
3402	3402	31.82	1.99
3403	3403	31.82	1.99
3404	3404	31.82	1.99
3405	3405	31.81	1.98
3406	3406	31.81	1.98
3407	3407	31.82	1.99
3408	3408	31.82	1.99
3409	3409	31.81	1.98
3410	3410	31.81	1.98
3411	3411	31.81	1.98
3412	3412	31.81	1.98
3413	3413	31.81	1.98
3414	3414	31.81	1.98
3415	3415	31.82	1.99



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
3416	3416	31.81	1.98
3417	3417	31.81	1.98
3418	3418	31.81	1.98
3419	3419	31.82	1.99
3420	3420	31.81	1.98
3421	3421	31.81	1.98
3422	3422	31.82	1.99
3423	3423	31.80	1.97
3424	3424	31.82	1.99
3425	3425	31.82	1.99
3426	3426	31.81	1.98
3427	3427	31.82	1.99
3428	3428	31.80	1.97
3429	3429	31.82	1.99
3430	3430	31.82	1.99
3431	3431	31.81	1.98
3432	3432	31.81	1.98
3433	3433	31.81	1.98
3434	3434	31.82	1.99
3435	3435	31.80	1.97
3436	3436	31.81	1.98
3437	3437	31.80	1.97
3438	3438	31.81	1.98
3439	3439	31.81	1.98
3440	3440	31.80	1.97
3441	3441	31.81	1.98
3442	3442	31.81	1.98
3443	3443	31.81	1.98
3444	3444	31.81	1.98
3445	3445	31.81	1.98
3446	3446	31.81	1.98
3447	3447	31.81	1.98
3448	3448	31.82	1.99
3449	3449	31.81	1.98
3450	3450	31.81	1.98
3451	3451	31.82	1.99
3452	3452	31.81	1.98
3453	3453	31.82	1.99
3454	3454	31.82	1.99
3455	3455	31.81	1.98
3456	3456	31.82	1.99
3457	3457	31.81	1.98
3458	3458	31.81	1.98
3459	3459	31.81	1.98
3460	3460	31.82	1.99
3461	3461	31.81	1.98
3462	3462	31.82	1.99
3463	3463	31.80	1.97
3464	3464	31.81	1.98
3465	3465	31.80	1.97
3466	3466	31.81	1.98
3467	3467	31.81	1.98
3468	3468	31.80	1.97
3469	3469	31.79	1.96
3470	3470	31.63	1.80
3471	3471	31.55	1.72
3472	3472	31.48	1.65



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
3473	3473	31.45	1.62
3474	3474	31.40	1.57
3475	3475	31.37	1.54
3476	3476	31.35	1.52
3477	3477	31.31	1.48
3478	3478	31.29	1.46
3479	3479	31.26	1.43
3480	3480	31.24	1.41
3481	3481	31.22	1.39
3482	3482	31.20	1.37
3483	3483	31.19	1.36
3484	3484	31.16	1.33
3485	3485	31.16	1.33
3486	3486	31.14	1.31
3487	3487	31.12	1.29
3488	3488	31.11	1.28
3489	3489	31.11	1.28
3490	3490	31.09	1.26
3491	3491	31.08	1.25
3492	3492	31.07	1.24
3493	3493	31.06	1.23
3494	3494	31.05	1.22
3495	3495	31.05	1.22
3496	3496	31.03	1.20
3497	3497	31.02	1.19
3498	3498	31.01	1.18
3499	3499	31.00	1.17
3500	3500	30.99	1.16
3501	3501	30.98	1.15
3502	3502	30.97	1.14
3503	3503	30.97	1.14
3504	3504	30.96	1.13
3505	3505	30.96	1.13
3506	3506	30.95	1.12
3507	3507	30.94	1.11
3508	3508	30.93	1.10
3509	3509	30.93	1.10
3510	3510	30.93	1.10
3511	3511	30.92	1.09
3512	3512	30.91	1.08
3513	3513	30.91	1.08
3514	3514	30.90	1.07
3515	3515	30.90	1.07
3516	3516	30.89	1.06
3517	3517	30.89	1.06
3518	3518	30.87	1.04
3519	3519	30.88	1.05
3520	3520	30.87	1.04
3521	3521	30.87	1.04
3522	3522	30.86	1.03
3523	3523	30.85	1.02
3524	3524	30.85	1.02
3525	3525	30.85	1.02
3526	3526	30.85	1.02
3527	3527	30.84	1.01
3528	3528	30.84	1.01
3529	3529	30.83	1.00



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
3530	3530	30.83	1.00
3531	3531	30.82	0.99
3532	3532	30.83	1.00
3533	3533	30.81	0.98
3534	3534	30.81	0.98
3535	3535	30.80	0.97
3536	3536	30.80	0.97
3537	3537	30.80	0.97
3538	3538	30.79	0.96
3539	3539	30.79	0.96
3540	3540	30.80	0.97
3541	3541	30.79	0.96
3542	3542	30.78	0.95
3543	3543	30.77	0.94
3544	3544	30.77	0.94
3545	3545	30.77	0.94
3546	3546	30.77	0.94
3547	3547	30.77	0.94
3548	3548	30.76	0.93
3549	3549	30.75	0.92
3550	3550	30.75	0.92
3551	3551	30.75	0.92
3552	3552	30.74	0.91
3553	3553	30.74	0.91
3554	3554	30.74	0.91
3555	3555	30.74	0.91
3556	3556	30.74	0.91
3557	3557	30.73	0.90
3558	3558	30.73	0.90
3559	3559	30.73	0.90
3560	3560	30.73	0.90
3561	3561	30.72	0.89
3562	3562	30.73	0.90
3563	3563	30.72	0.89
3564	3564	30.72	0.89
3565	3565	30.72	0.89
3566	3566	30.71	0.88
3567	3567	30.72	0.89
3568	3568	30.70	0.87
3569	3569	30.70	0.87
3570	3570	30.70	0.87
3571	3571	30.70	0.87
3572	3572	30.69	0.86
3573	3573	30.69	0.86
3574	3574	30.68	0.85
3575	3575	30.68	0.85
3576	3576	30.69	0.86
3577	3577	30.68	0.85
3578	3578	30.68	0.85
3579	3579	30.68	0.85
3580	3580	30.68	0.85
3581	3581	30.67	0.84
3582	3582	30.67	0.84
3583	3583	30.67	0.84
3584	3584	30.67	0.84
3585	3585	30.66	0.83
3586	3586	30.67	0.84



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	Time [min]	Water Level [m]	Drawdown [m]
3587	3587	30.67	0.84
3588	3588	30.65	0.82
3589	3589	30.65	0.82
3590	3590	30.65	0.82
3591	3591	30.64	0.81
3592	3592	30.65	0.82
3593	3593	30.64	0.81
3594	3594	30.64	0.81
3595	3595	30.64	0.81
3596	3596	30.64	0.81
3597	3597	30.64	0.81
3598	3598	30.63	0.80
3599	3599	30.63	0.80
3600	3600	30.63	0.80
3601	3601	30.63	0.80
3602	3602	30.63	0.80
3603	3603	30.61	0.78
3604	3604	30.62	0.79
3605	3605	30.63	0.80
3606	3606	30.61	0.78
3607	3607	30.62	0.79
3608	3608	30.61	0.78
3609	3609	30.61	0.78
3610	3610	30.61	0.78
3611	3611	30.61	0.78
3612	3612	30.61	0.78
3613	3613	30.60	0.77
3614	3614	30.61	0.78
3615	3615	30.60	0.77
3616	3616	30.60	0.77
3617	3617	30.60	0.77
3618	3618	30.60	0.77
3619	3619	30.59	0.76
3620	3620	30.59	0.76
3621	3621	30.59	0.76
3622	3622	30.58	0.75
3623	3623	30.58	0.75
3624	3624	30.58	0.75
3625	3625	30.58	0.75
3626	3626	30.58	0.75
3627	3627	30.58	0.75
3628	3628	30.57	0.74
3629	3629	30.58	0.75
3630	3630	30.57	0.74
3631	3631	30.57	0.74
3632	3632	30.58	0.75
3633	3633	30.57	0.74
3634	3634	30.57	0.74
3635	3635	30.57	0.74
3636	3636	30.56	0.73
3637	3637	30.57	0.74
3638	3638	30.56	0.73
3639	3639	30.56	0.73
3640	3640	30.55	0.72
3641	3641	30.56	0.73
3642	3642	30.56	0.73
3643	3643	30.55	0.72



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	Time [min]	Water Level [m]	Drawdown [m]
3644	3644	30.55	0.72
3645	3645	30.55	0.72
3646	3646	30.55	0.72
3647	3647	30.54	0.71
3648	3648	30.54	0.71
3649	3649	30.54	0.71
3650	3650	30.54	0.71
3651	3651	30.54	0.71
3652	3652	30.54	0.71
3653	3653	30.54	0.71
3654	3654	30.54	0.71
3655	3655	30.53	0.70
3656	3656	30.54	0.71
3657	3657	30.53	0.70
3658	3658	30.53	0.70
3659	3659	30.53	0.70
3660	3660	30.53	0.70
3661	3661	30.52	0.69
3662	3662	30.52	0.69
3663	3663	30.51	0.68
3664	3664	30.51	0.68
3665	3665	30.51	0.68
3666	3666	30.51	0.68
3667	3667	30.51	0.68
3668	3668	30.51	0.68
3669	3669	30.51	0.68
3670	3670	30.51	0.68
3671	3671	30.51	0.68
3672	3672	30.50	0.67
3673	3673	30.51	0.68
3674	3674	30.50	0.67
3675	3675	30.50	0.67
3676	3676	30.50	0.67
3677	3677	30.50	0.67
3678	3678	30.50	0.67
3679	3679	30.50	0.67
3680	3680	30.50	0.67
3681	3681	30.50	0.67
3682	3682	30.49	0.66
3683	3683	30.49	0.66
3684	3684	30.49	0.66
3685	3685	30.48	0.65
3686	3686	30.48	0.65
3687	3687	30.48	0.65
3688	3688	30.48	0.65
3689	3689	30.48	0.65
3690	3690	30.48	0.65
3691	3691	30.48	0.65
3692	3692	30.48	0.65
3693	3693	30.47	0.64
3694	3694	30.48	0.65
3695	3695	30.48	0.65
3696	3696	30.48	0.65
3697	3697	30.48	0.65
3698	3698	30.48	0.65
3699	3699	30.48	0.65
3700	3700	30.47	0.64



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	Time [min]	Water Level [m]	Drawdown [m]
3701	3701	30.47	0.64
3702	3702	30.46	0.63
3703	3703	30.47	0.64
3704	3704	30.47	0.64
3705	3705	30.47	0.64
3706	3706	30.46	0.63
3707	3707	30.47	0.64
3708	3708	30.47	0.64
3709	3709	30.46	0.63
3710	3710	30.45	0.62
3711	3711	30.46	0.63
3712	3712	30.46	0.63
3713	3713	30.46	0.63
3714	3714	30.46	0.63
3715	3715	30.46	0.63
3716	3716	30.45	0.62
3717	3717	30.46	0.63
3718	3718	30.45	0.62
3719	3719	30.45	0.62
3720	3720	30.45	0.62
3721	3721	30.45	0.62
3722	3722	30.45	0.62
3723	3723	30.45	0.62
3724	3724	30.45	0.62
3725	3725	30.45	0.62
3726	3726	30.43	0.60
3727	3727	30.45	0.62
3728	3728	30.44	0.61
3729	3729	30.44	0.61
3730	3730	30.44	0.61
3731	3731	30.44	0.61
3732	3732	30.44	0.61
3733	3733	30.44	0.61
3734	3734	30.44	0.61
3735	3735	30.43	0.60
3736	3736	30.44	0.61
3737	3737	30.42	0.59
3738	3738	30.42	0.59
3739	3739	30.42	0.59
3740	3740	30.42	0.59
3741	3741	30.42	0.59
3742	3742	30.42	0.59
3743	3743	30.42	0.59
3744	3744	30.41	0.58
3745	3745	30.42	0.59
3746	3746	30.42	0.59
3747	3747	30.42	0.59
3748	3748	30.42	0.59
3749	3749	30.42	0.59
3750	3750	30.41	0.58
3751	3751	30.41	0.58
3752	3752	30.41	0.58
3753	3753	30.41	0.58
3754	3754	30.41	0.58
3755	3755	30.40	0.57
3756	3756	30.41	0.58
3757	3757	30.41	0.58



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	Time [min]	Water Level [m]	Drawdown [m]
3758	3758	30.41	0.58
3759	3759	30.41	0.58
3760	3760	30.40	0.57
3761	3761	30.40	0.57
3762	3762	30.40	0.57
3763	3763	30.40	0.57
3764	3764	30.40	0.57
3765	3765	30.40	0.57
3766	3766	30.40	0.57
3767	3767	30.40	0.57
3768	3768	30.39	0.56
3769	3769	30.39	0.56
3770	3770	30.39	0.56
3771	3771	30.40	0.57
3772	3772	30.39	0.56
3773	3773	30.39	0.56
3774	3774	30.39	0.56
3775	3775	30.38	0.55
3776	3776	30.40	0.57
3777	3777	30.39	0.56
3778	3778	30.38	0.55
3779	3779	30.38	0.55
3780	3780	30.38	0.55
3781	3781	30.37	0.54
3782	3782	30.38	0.55
3783	3783	30.37	0.54
3784	3784	30.37	0.54
3785	3785	30.37	0.54
3786	3786	30.37	0.54
3787	3787	30.37	0.54
3788	3788	30.37	0.54
3789	3789	30.37	0.54
3790	3790	30.37	0.54
3791	3791	30.37	0.54
3792	3792	30.38	0.55
3793	3793	30.37	0.54
3794	3794	30.37	0.54
3795	3795	30.37	0.54
3796	3796	30.37	0.54
3797	3797	30.36	0.53
3798	3798	30.37	0.54
3799	3799	30.37	0.54
3800	3800	30.36	0.53
3801	3801	30.36	0.53
3802	3802	30.36	0.53
3803	3803	30.36	0.53
3804	3804	30.36	0.53
3805	3805	30.36	0.53
3806	3806	30.36	0.53
3807	3807	30.36	0.53
3808	3808	30.36	0.53
3809	3809	30.36	0.53
3810	3810	30.36	0.53
3811	3811	30.35	0.52
3812	3812	30.36	0.53
3813	3813	30.35	0.52
3814	3814	30.36	0.53



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	Time [min]	Water Level [m]	Drawdown [m]
3815	3815	30.36	0.53
3816	3816	30.36	0.53
3817	3817	30.35	0.52
3818	3818	30.35	0.52
3819	3819	30.35	0.52
3820	3820	30.35	0.52
3821	3821	30.35	0.52
3822	3822	30.36	0.53
3823	3823	30.35	0.52
3824	3824	30.35	0.52
3825	3825	30.34	0.51
3826	3826	30.35	0.52
3827	3827	30.35	0.52
3828	3828	30.34	0.51
3829	3829	30.34	0.51
3830	3830	30.35	0.52
3831	3831	30.34	0.51
3832	3832	30.34	0.51
3833	3833	30.33	0.50
3834	3834	30.34	0.51
3835	3835	30.34	0.51
3836	3836	30.34	0.51
3837	3837	30.34	0.51
3838	3838	30.33	0.50
3839	3839	30.33	0.50
3840	3840	30.34	0.51
3841	3841	30.34	0.51
3842	3842	30.34	0.51
3843	3843	30.34	0.51
3844	3844	30.34	0.51
3845	3845	30.32	0.49
3846	3846	30.34	0.51
3847	3847	30.34	0.51
3848	3848	30.32	0.49
3849	3849	30.34	0.51
3850	3850	30.33	0.50
3851	3851	30.32	0.49
3852	3852	30.33	0.50
3853	3853	30.32	0.49
3854	3854	30.33	0.50
3855	3855	30.32	0.49
3856	3856	30.33	0.50
3857	3857	30.33	0.50
3858	3858	30.32	0.49
3859	3859	30.32	0.49
3860	3860	30.33	0.50
3861	3861	30.33	0.50
3862	3862	30.33	0.50
3863	3863	30.32	0.49
3864	3864	30.32	0.49
3865	3865	30.32	0.49
3866	3866	30.32	0.49
3867	3867	30.32	0.49
3868	3868	30.31	0.48
3869	3869	30.32	0.49
3870	3870	30.32	0.49
3871	3871	30.32	0.49



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	Time [min]	Water Level [m]	Drawdown [m]
3872	3872	30.31	0.48
3873	3873	30.31	0.48
3874	3874	30.32	0.49
3875	3875	30.31	0.48
3876	3876	30.31	0.48
3877	3877	30.31	0.48
3878	3878	30.31	0.48
3879	3879	30.31	0.48
3880	3880	30.31	0.48
3881	3881	30.31	0.48
3882	3882	30.31	0.48
3883	3883	30.30	0.47
3884	3884	30.30	0.47
3885	3885	30.30	0.47
3886	3886	30.30	0.47
3887	3887	30.30	0.47
3888	3888	30.30	0.47
3889	3889	30.29	0.46
3890	3890	30.29	0.46
3891	3891	30.29	0.46
3892	3892	30.27	0.44
3893	3893	30.28	0.45
3894	3894	30.27	0.44
3895	3895	30.27	0.44
3896	3896	30.26	0.43
3897	3897	30.27	0.44
3898	3898	30.26	0.43
3899	3899	30.25	0.42
3900	3900	30.25	0.42
3901	3901	30.24	0.41
3902	3902	30.24	0.41
3903	3903	30.24	0.41
3904	3904	30.24	0.41
3905	3905	30.24	0.41
3906	3906	30.24	0.41
3907	3907	30.23	0.40
3908	3908	30.22	0.39
3909	3909	30.22	0.39
3910	3910	30.22	0.39
3911	3911	30.21	0.38
3912	3912	30.20	0.37
3913	3913	30.21	0.38
3914	3914	30.20	0.37
3915	3915	30.20	0.37
3916	3916	30.20	0.37
3917	3917	30.20	0.37
3918	3918	30.20	0.37
3919	3919	30.20	0.37
3920	3920	30.20	0.37
3921	3921	30.20	0.37
3922	3922	30.19	0.36
3923	3923	30.19	0.36
3924	3924	30.18	0.35
3925	3925	30.18	0.35
3926	3926	30.18	0.35
3927	3927	30.18	0.35
3928	3928	30.18	0.35



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	Time [min]	Water Level [m]	Drawdown [m]
3929	3929	30.17	0.34
3930	3930	30.18	0.35
3931	3931	30.17	0.34
3932	3932	30.17	0.34
3933	3933	30.17	0.34
3934	3934	30.18	0.35
3935	3935	30.18	0.35
3936	3936	30.17	0.34
3937	3937	30.17	0.34
3938	3938	30.17	0.34
3939	3939	30.17	0.34
3940	3940	30.17	0.34
3941	3941	30.17	0.34
3942	3942	30.17	0.34
3943	3943	30.16	0.33
3944	3944	30.16	0.33
3945	3945	30.17	0.34
3946	3946	30.16	0.33
3947	3947	30.17	0.34
3948	3948	30.17	0.34
3949	3949	30.16	0.33
3950	3950	30.16	0.33
3951	3951	30.16	0.33
3952	3952	30.16	0.33
3953	3953	30.16	0.33
3954	3954	30.16	0.33
3955	3955	30.16	0.33
3956	3956	30.16	0.33
3957	3957	30.15	0.32
3958	3958	30.16	0.33
3959	3959	30.16	0.33
3960	3960	30.15	0.32
3961	3961	30.16	0.33
3962	3962	30.15	0.32
3963	3963	30.16	0.33
3964	3964	30.16	0.33
3965	3965	30.15	0.32
3966	3966	30.15	0.32
3967	3967	30.15	0.32
3968	3968	30.15	0.32
3969	3969	30.15	0.32
3970	3970	30.15	0.32
3971	3971	30.15	0.32
3972	3972	30.14	0.31
3973	3973	30.15	0.32
3974	3974	30.15	0.32
3975	3975	30.15	0.32
3976	3976	30.15	0.32
3977	3977	30.15	0.32
3978	3978	30.14	0.31
3979	3979	30.14	0.31
3980	3980	30.14	0.31
3981	3981	30.14	0.31
3982	3982	30.14	0.31
3983	3983	30.14	0.31
3984	3984	30.15	0.32
3985	3985	30.14	0.31



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	Time [min]	Water Level [m]	Drawdown [m]
3986	3986	30.14	0.31
3987	3987	30.14	0.31
3988	3988	30.13	0.30
3989	3989	30.13	0.30
3990	3990	30.13	0.30
3991	3991	30.13	0.30
3992	3992	30.13	0.30
3993	3993	30.13	0.30
3994	3994	30.13	0.30
3995	3995	30.13	0.30
3996	3996	30.13	0.30
3997	3997	30.13	0.30
3998	3998	30.13	0.30
3999	3999	30.13	0.30
4000	4000	30.13	0.30
4001	4001	30.13	0.30
4002	4002	30.12	0.29
4003	4003	30.13	0.30
4004	4004	30.13	0.30
4005	4005	30.13	0.30
4006	4006	30.13	0.30
4007	4007	30.13	0.30
4008	4008	30.13	0.30
4009	4009	30.13	0.30
4010	4010	30.12	0.29
4011	4011	30.13	0.30
4012	4012	30.12	0.29
4013	4013	30.12	0.29
4014	4014	30.12	0.29
4015	4015	30.12	0.29
4016	4016	30.12	0.29
4017	4017	30.12	0.29
4018	4018	30.13	0.30
4019	4019	30.12	0.29
4020	4020	30.12	0.29
4021	4021	30.12	0.29
4022	4022	30.12	0.29
4023	4023	30.12	0.29
4024	4024	30.12	0.29
4025	4025	30.12	0.29
4026	4026	30.12	0.29
4027	4027	30.12	0.29
4028	4028	30.12	0.29
4029	4029	30.12	0.29
4030	4030	30.12	0.29
4031	4031	30.11	0.28
4032	4032	30.12	0.29
4033	4033	30.11	0.28
4034	4034	30.11	0.28
4035	4035	30.12	0.29
4036	4036	30.12	0.29
4037	4037	30.11	0.28
4038	4038	30.11	0.28
4039	4039	30.12	0.29
4040	4040	30.11	0.28
4041	4041	30.11	0.28
4042	4042	30.11	0.28



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	Time [min]	Water Level [m]	Drawdown [m]
4043	4043	30.11	0.28
4044	4044	30.11	0.28
4045	4045	30.11	0.28
4046	4046	30.11	0.28
4047	4047	30.11	0.28
4048	4048	30.11	0.28
4049	4049	30.11	0.28
4050	4050	30.11	0.28
4051	4051	30.10	0.27
4052	4052	30.11	0.28
4053	4053	30.11	0.28
4054	4054	30.10	0.27
4055	4055	30.11	0.28
4056	4056	30.11	0.28
4057	4057	30.10	0.27
4058	4058	30.10	0.27
4059	4059	30.11	0.28
4060	4060	30.10	0.27
4061	4061	30.10	0.27
4062	4062	30.11	0.28
4063	4063	30.11	0.28
4064	4064	30.11	0.28
4065	4065	30.10	0.27
4066	4066	30.10	0.27
4067	4067	30.10	0.27
4068	4068	30.11	0.28
4069	4069	30.10	0.27
4070	4070	30.10	0.27
4071	4071	30.10	0.27
4072	4072	30.11	0.28
4073	4073	30.10	0.27
4074	4074	30.09	0.26
4075	4075	30.10	0.27
4076	4076	30.10	0.27
4077	4077	30.09	0.26
4078	4078	30.09	0.26
4079	4079	30.10	0.27
4080	4080	30.10	0.27
4081	4081	30.10	0.27
4082	4082	30.10	0.27
4083	4083	30.09	0.26
4084	4084	30.09	0.26
4085	4085	30.10	0.27
4086	4086	30.09	0.26
4087	4087	30.09	0.26
4088	4088	30.10	0.27
4089	4089	30.10	0.27
4090	4090	30.09	0.26
4091	4091	30.08	0.25
4092	4092	30.09	0.26
4093	4093	30.10	0.27
4094	4094	30.10	0.27
4095	4095	30.08	0.25
4096	4096	30.09	0.26
4097	4097	30.08	0.25
4098	4098	30.08	0.25
4099	4099	30.07	0.24



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
4100	4100	30.08	0.25
4101	4101	30.08	0.25
4102	4102	30.08	0.25
4103	4103	30.08	0.25
4104	4104	30.08	0.25
4105	4105	30.08	0.25
4106	4106	30.08	0.25
4107	4107	30.08	0.25
4108	4108	30.08	0.25
4109	4109	30.08	0.25
4110	4110	30.07	0.24
4111	4111	30.08	0.25
4112	4112	30.08	0.25
4113	4113	30.07	0.24
4114	4114	30.08	0.25
4115	4115	30.07	0.24
4116	4116	30.08	0.25
4117	4117	30.08	0.25
4118	4118	30.08	0.25
4119	4119	30.08	0.25
4120	4120	30.07	0.24
4121	4121	30.08	0.25
4122	4122	30.08	0.25
4123	4123	30.08	0.25
4124	4124	30.08	0.25
4125	4125	30.08	0.25
4126	4126	30.08	0.25
4127	4127	30.08	0.25
4128	4128	30.08	0.25
4129	4129	30.08	0.25
4130	4130	30.08	0.25
4131	4131	30.08	0.25
4132	4132	30.07	0.24
4133	4133	30.07	0.24
4134	4134	30.07	0.24
4135	4135	30.06	0.23
4136	4136	30.06	0.23
4137	4137	30.06	0.23
4138	4138	30.06	0.23
4139	4139	30.06	0.23
4140	4140	30.06	0.23
4141	4141	30.05	0.22
4142	4142	30.05	0.22
4143	4143	30.05	0.22
4144	4144	30.05	0.22
4145	4145	30.05	0.22
4146	4146	30.05	0.22
4147	4147	30.05	0.22
4148	4148	30.05	0.22
4149	4149	30.04	0.21
4150	4150	30.05	0.22
4151	4151	30.04	0.21
4152	4152	30.04	0.21
4153	4153	30.05	0.22
4154	4154	30.04	0.21
4155	4155	30.04	0.21
4156	4156	30.05	0.22



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
4157	4157	30.04	0.21
4158	4158	30.05	0.22
4159	4159	30.04	0.21
4160	4160	30.04	0.21
4161	4161	30.04	0.21
4162	4162	30.04	0.21
4163	4163	30.03	0.20
4164	4164	30.04	0.21
4165	4165	30.03	0.20
4166	4166	30.04	0.21
4167	4167	30.04	0.21
4168	4168	30.03	0.20
4169	4169	30.04	0.21
4170	4170	30.03	0.20
4171	4171	30.03	0.20
4172	4172	30.03	0.20
4173	4173	30.03	0.20
4174	4174	30.04	0.21
4175	4175	30.02	0.19
4176	4176	30.03	0.20
4177	4177	30.03	0.20
4178	4178	30.03	0.20
4179	4179	30.03	0.20
4180	4180	30.02	0.19
4181	4181	30.03	0.20
4182	4182	30.02	0.19
4183	4183	30.03	0.20
4184	4184	30.03	0.20
4185	4185	30.02	0.19
4186	4186	30.02	0.19
4187	4187	30.02	0.19
4188	4188	30.02	0.19
4189	4189	30.02	0.19
4190	4190	30.01	0.18
4191	4191	30.02	0.19
4192	4192	30.03	0.20
4193	4193	30.01	0.18
4194	4194	30.01	0.18
4195	4195	30.01	0.18
4196	4196	30.01	0.18
4197	4197	30.01	0.18
4198	4198	30.02	0.19
4199	4199	30.01	0.18
4200	4200	30.01	0.18
4201	4201	30.02	0.19
4202	4202	30.01	0.18
4203	4203	30.01	0.18
4204	4204	30.02	0.19
4205	4205	30.02	0.19
4206	4206	30.01	0.18
4207	4207	30.01	0.18
4208	4208	30.00	0.17
4209	4209	30.01	0.18
4210	4210	30.01	0.18
4211	4211	30.01	0.18
4212	4212	30.01	0.18
4213	4213	30.00	0.17



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
4214	4214	30.01	0.18
4215	4215	30.01	0.18
4216	4216	30.00	0.17
4217	4217	30.00	0.17
4218	4218	30.00	0.17
4219	4219	30.01	0.18
4220	4220	30.00	0.17
4221	4221	30.00	0.17
4222	4222	30.00	0.17
4223	4223	30.00	0.17
4224	4224	30.00	0.17
4225	4225	29.99	0.16
4226	4226	30.00	0.17
4227	4227	30.00	0.17
4228	4228	29.99	0.16
4229	4229	29.99	0.16
4230	4230	30.00	0.17
4231	4231	30.00	0.17
4232	4232	29.99	0.16
4233	4233	29.99	0.16
4234	4234	29.99	0.16
4235	4235	29.99	0.16
4236	4236	29.99	0.16
4237	4237	29.99	0.16
4238	4238	29.99	0.16
4239	4239	29.99	0.16
4240	4240	29.99	0.16
4241	4241	29.99	0.16
4242	4242	30.00	0.17
4243	4243	29.99	0.16
4244	4244	29.99	0.16
4245	4245	30.00	0.17
4246	4246	29.99	0.16
4247	4247	29.99	0.16
4248	4248	29.99	0.16
4249	4249	29.99	0.16
4250	4250	29.99	0.16
4251	4251	29.99	0.16
4252	4252	29.99	0.16
4253	4253	29.99	0.16
4254	4254	29.99	0.16
4255	4255	29.99	0.16
4256	4256	29.99	0.16
4257	4257	29.99	0.16
4258	4258	29.99	0.16
4259	4259	29.99	0.16
4260	4260	29.99	0.16
4261	4261	29.99	0.16
4262	4262	29.99	0.16
4263	4263	29.99	0.16
4264	4264	29.99	0.16
4265	4265	29.99	0.16
4266	4266	29.99	0.16
4267	4267	29.99	0.16
4268	4268	29.99	0.16
4269	4269	29.99	0.16
4270	4270	29.99	0.16



Waterdirect
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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
4271	4271	29.98	0.15
4272	4272	29.99	0.16
4273	4273	29.99	0.16
4274	4274	29.99	0.16
4275	4275	29.99	0.16
4276	4276	29.99	0.16
4277	4277	29.98	0.15
4278	4278	29.99	0.16
4279	4279	29.99	0.16
4280	4280	29.99	0.16
4281	4281	29.98	0.15
4282	4282	29.99	0.16
4283	4283	29.98	0.15
4284	4284	29.99	0.16
4285	4285	29.98	0.15
4286	4286	29.98	0.15
4287	4287	29.99	0.16
4288	4288	29.99	0.16
4289	4289	29.98	0.15
4290	4290	29.98	0.15
4291	4291	29.98	0.15
4292	4292	29.99	0.16
4293	4293	29.99	0.16
4294	4294	29.98	0.15
4295	4295	29.98	0.15
4296	4296	29.98	0.15
4297	4297	29.98	0.15
4298	4298	29.98	0.15
4299	4299	29.98	0.15
4300	4300	29.98	0.15
4301	4301	29.98	0.15
4302	4302	29.98	0.15
4303	4303	29.98	0.15
4304	4304	29.98	0.15
4305	4305	29.98	0.15
4306	4306	29.98	0.15
4307	4307	29.98	0.15
4308	4308	29.99	0.16
4309	4309	29.98	0.15
4310	4310	29.98	0.15
4311	4311	29.98	0.15
4312	4312	29.99	0.16
4313	4313	29.97	0.14
4314	4314	29.98	0.15
4315	4315	29.98	0.15
4316	4316	29.98	0.15
4317	4317	29.98	0.15
4318	4318	29.98	0.15
4319	4319	29.98	0.15
4320	4320	29.98	0.15
4321	4321	29.98	0.15
4322	4322	29.97	0.14
4323	4323	29.97	0.14
4324	4324	29.98	0.15
4325	4325	29.97	0.14
4326	4326	29.97	0.14
4327	4327	29.97	0.14



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
4328	4328	29.97	0.14
4329	4329	29.97	0.14
4330	4330	29.98	0.15
4331	4331	29.97	0.14
4332	4332	29.97	0.14
4333	4333	29.97	0.14
4334	4334	29.98	0.15
4335	4335	29.98	0.15
4336	4336	29.97	0.14
4337	4337	29.97	0.14
4338	4338	29.97	0.14
4339	4339	29.97	0.14
4340	4340	29.96	0.13
4341	4341	29.97	0.14
4342	4342	29.97	0.14
4343	4343	29.97	0.14
4344	4344	29.97	0.14
4345	4345	29.97	0.14
4346	4346	29.96	0.13
4347	4347	29.96	0.13
4348	4348	29.96	0.13
4349	4349	29.97	0.14
4350	4350	29.97	0.14
4351	4351	29.97	0.14
4352	4352	29.97	0.14
4353	4353	29.97	0.14
4354	4354	29.96	0.13
4355	4355	29.97	0.14
4356	4356	29.96	0.13
4357	4357	29.96	0.13
4358	4358	29.97	0.14
4359	4359	29.97	0.14
4360	4360	29.96	0.13
4361	4361	29.97	0.14
4362	4362	29.97	0.14
4363	4363	29.97	0.14
4364	4364	29.96	0.13
4365	4365	29.96	0.13
4366	4366	29.97	0.14
4367	4367	29.98	0.15
4368	4368	29.96	0.13
4369	4369	29.97	0.14
4370	4370	29.96	0.13
4371	4371	29.97	0.14
4372	4372	29.97	0.14
4373	4373	29.97	0.14
4374	4374	29.97	0.14
4375	4375	29.97	0.14
4376	4376	29.97	0.14
4377	4377	29.96	0.13
4378	4378	29.97	0.14
4379	4379	29.97	0.14
4380	4380	29.97	0.14
4381	4381	29.98	0.15
4382	4382	29.97	0.14
4383	4383	29.97	0.14
4384	4384	29.97	0.14



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
4385	4385	29.97	0.14
4386	4386	29.97	0.14
4387	4387	29.97	0.14
4388	4388	29.96	0.13
4389	4389	29.97	0.14
4390	4390	29.97	0.14
4391	4391	29.96	0.13
4392	4392	29.98	0.15
4393	4393	29.97	0.14
4394	4394	29.96	0.13
4395	4395	29.97	0.14
4396	4396	29.98	0.15
4397	4397	29.97	0.14
4398	4398	29.97	0.14
4399	4399	29.96	0.13
4400	4400	29.97	0.14
4401	4401	29.97	0.14
4402	4402	29.97	0.14
4403	4403	29.98	0.15
4404	4404	29.97	0.14
4405	4405	29.98	0.15
4406	4406	29.97	0.14
4407	4407	29.97	0.14
4408	4408	29.97	0.14
4409	4409	29.97	0.14
4410	4410	29.97	0.14
4411	4411	29.96	0.13
4412	4412	29.96	0.13
4413	4413	29.96	0.13
4414	4414	29.96	0.13
4415	4415	29.97	0.14
4416	4416	29.97	0.14
4417	4417	29.96	0.13
4418	4418	29.97	0.14
4419	4419	29.96	0.13
4420	4420	29.97	0.14
4421	4421	29.96	0.13
4422	4422	29.96	0.13
4423	4423	29.96	0.13
4424	4424	29.96	0.13
4425	4425	29.97	0.14
4426	4426	29.96	0.13
4427	4427	29.97	0.14
4428	4428	29.97	0.14
4429	4429	29.96	0.13
4430	4430	29.96	0.13
4431	4431	29.96	0.13
4432	4432	29.96	0.13
4433	4433	29.96	0.13
4434	4434	29.96	0.13
4435	4435	29.96	0.13
4436	4436	29.96	0.13
4437	4437	29.96	0.13
4438	4438	29.96	0.13
4439	4439	29.96	0.13
4440	4440	29.97	0.14
4441	4441	29.96	0.13



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
4442	4442	29.97	0.14



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Pumping Test - Discharge Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

Location: Arrowsmith Central	Pumping Test: YPB2	Pumping Well: YPB2
Test Conducted by: Western Irrigation	Test Date: 27-Oct-22	Discharge: variable, average rate 40 [l/s]
Observation Well: YPB2		Radial Distance to PW [m]: -

	Time [min]	Discharge [l/s]
1	3467	40.00



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

Location: Arrowsmith Central	Pumping Test: YPB2	Pumping Well: YPB2
Test Conducted by: Western Irrigation	Test Date: 27-Oct-22	Discharge Rate: 40 [l/s]
Observation Well: YPB2	Static Water Level [m]: 29.71	Radial Distance to PW [m]: -

	Time [min]	Water Level [m]	Drawdown [m]
1	1	37.34	7.63
2	2	37.54	7.83
3	3	37.64	7.93
4	4	37.66	7.95
5	5	37.67	7.96
6	6	37.72	8.01
7	7	37.74	8.03
8	8	37.76	8.05
9	9	37.79	8.08
10	10	37.80	8.09
11	15	37.96	8.25
12	20	38.01	8.30
13	25	38.07	8.36
14	30	38.11	8.40
15	35	38.15	8.44
16	40	38.24	8.53
17	45	38.27	8.56
18	50	38.29	8.58
19	60	38.35	8.64
20	70	38.38	8.67
21	80	38.41	8.70
22	90	38.44	8.73
23	100	38.48	8.77
24	120	38.54	8.83
25	140	38.58	8.87
26	160	38.63	8.92
27	180	38.67	8.96
28	210	38.72	9.01
29	240	38.78	9.07
30	270	38.80	9.09
31	300	38.82	9.11
32	330	38.86	9.15
33	360	38.91	9.20
34	390	38.90	9.19
35	420	38.93	9.22
36	450	38.94	9.23
37	480	38.95	9.24
38	540	38.98	9.27
39	600	39.06	9.35
40	660	39.10	9.39
41	720	39.16	9.45
42	780	39.19	9.48
43	840	39.21	9.50
44	900	39.22	9.51
45	960	39.24	9.53
46	1020	39.26	9.55
47	1080	39.28	9.57
48	1140	39.29	9.58
49	1200	39.30	9.59
50	1260	39.32	9.61
51	1320	39.32	9.61
52	1380	39.34	9.63



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
53	1440	39.34	9.63
54	1560	39.37	9.66
55	1680	39.38	9.67
56	1800	39.40	9.69
57	1920	39.43	9.72
58	2040	39.44	9.73
59	2160	39.45	9.74
60	2280	39.50	9.79
61	2400	39.51	9.80
62	2520	39.51	9.80
63	2760	39.60	9.89
64	2880	39.63	9.92
65	3120	39.65	9.94
66	3360	39.69	9.98



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Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

Location: Arrowsmith Central	Pumping Test: YPB2	Pumping Well: YPB2
Test Conducted by: Western Irrigation	Test Date: 27-Oct-22	Discharge Rate: 40 [l/s]
Observation Well: YMB2	Static Water Level [m]: 29.83	Radial Distance to PW [m]: 38

	Time [min]	Water Level [m]	Drawdown [m]
1	6	30.23	0.40
2	7	30.27	0.44
3	8	30.29	0.46
4	9	30.32	0.49
5	10	30.33	0.50
6	15	30.41	0.58
7	20	30.47	0.64
8	25	30.52	0.69
9	30	30.56	0.73
10	35	30.59	0.76
11	40	30.63	0.80
12	45	30.67	0.84
13	50	30.69	0.86
14	60	30.73	0.90
15	70	30.77	0.94
16	80	30.79	0.96
17	90	30.82	0.99
18	100	30.85	1.02
19	120	30.90	1.07
20	140	30.94	1.11
21	160	30.98	1.15
22	180	31.01	1.18
23	210	31.06	1.23
24	240	31.10	1.27
25	270	31.13	1.30
26	300	31.14	1.31
27	330	31.17	1.34
28	360	31.20	1.37
29	390	31.20	1.37
30	420	31.23	1.40
31	450	31.25	1.42
32	480	31.26	1.43
33	540	31.29	1.46
34	600	31.33	1.50
35	660	31.34	1.51
36	720	31.38	1.55
37	780	31.40	1.57
38	840	31.43	1.60
39	900	31.46	1.63
40	960	31.46	1.63
41	1020	31.48	1.65
42	1080	31.50	1.67
43	1140	31.51	1.68
44	1200	31.51	1.68
45	1260	31.53	1.70
46	1320	31.55	1.72
47	1380	31.57	1.74
48	1440	31.58	1.75
49	1560	31.61	1.78
50	1680	31.64	1.81
51	1800	31.66	1.83
52	1920	31.67	1.84



Waterdirect
Pty Ltd

Pumping Test - Water Level Data

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

	Time [min]	Water Level [m]	Drawdown [m]
53	2040	31.69	1.86
54	2160	31.71	1.88
55	2280	31.71	1.88
56	2400	31.72	1.89
57	2520	31.72	1.89
58	2640	31.74	1.91
59	2760	31.76	1.93
60	2880	31.78	1.95
61	3120	31.82	1.99
62	3360	31.87	2.04

APPENDIX D
TEST PUMPING ANALYSES



Waterdirect
Pty Ltd

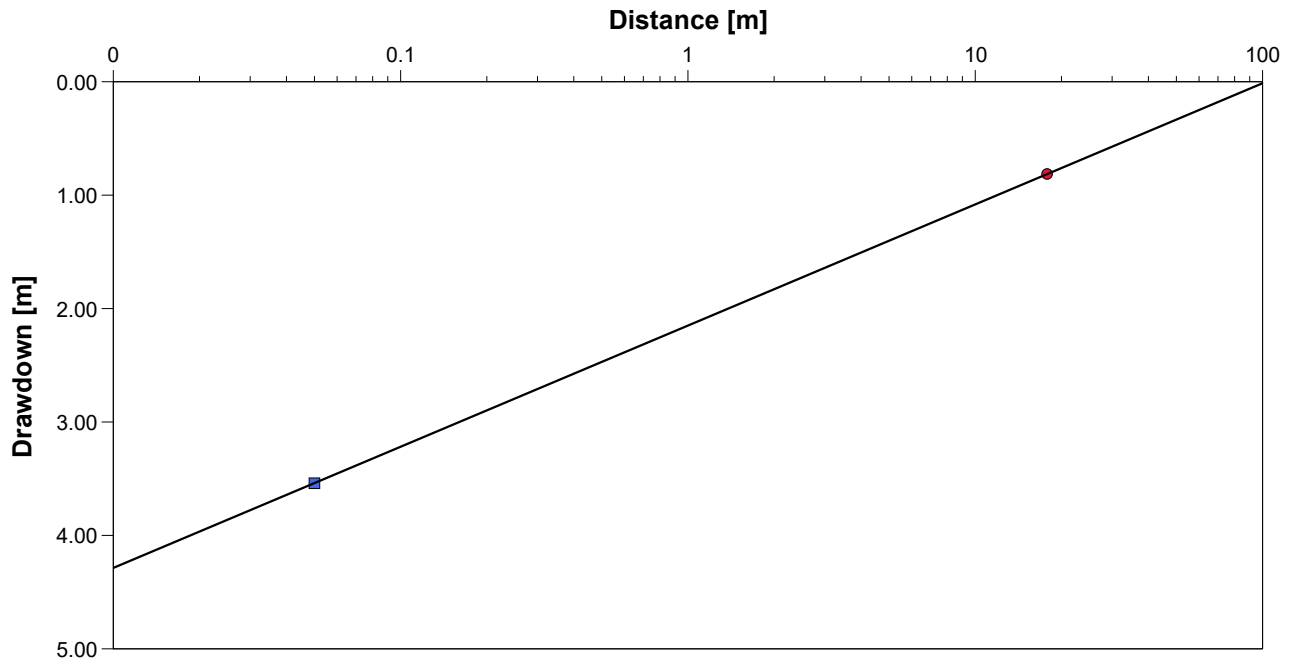
Pumping Test Analysis Report

Project: VRX Central Superficial

Number: 340

Client: VRX Silica

Location: Arrowsmith Central	Pumping Test: SPB1	Pumping Well: SPB2
Test Conducted by: Western Irrigation		Test Date: 03-Nov-22
Analysis Performed by: rrm	Cooper & Jacob2	Analysis Date: 09-Nov-22
Aquifer Thickness: 10.00 m	Discharge: variable, average rate 0.85 [l/s]	



Calculation using COOPER & JACOB

	Transmissivity [m ² /d]	Hydraulic Conductivity [m/d]	Storage coefficient	
Point of time [min]: 1400	2.51×10^1	2.51×10^0	5.21×10^{-3}	



Waterdirect
Pty Ltd

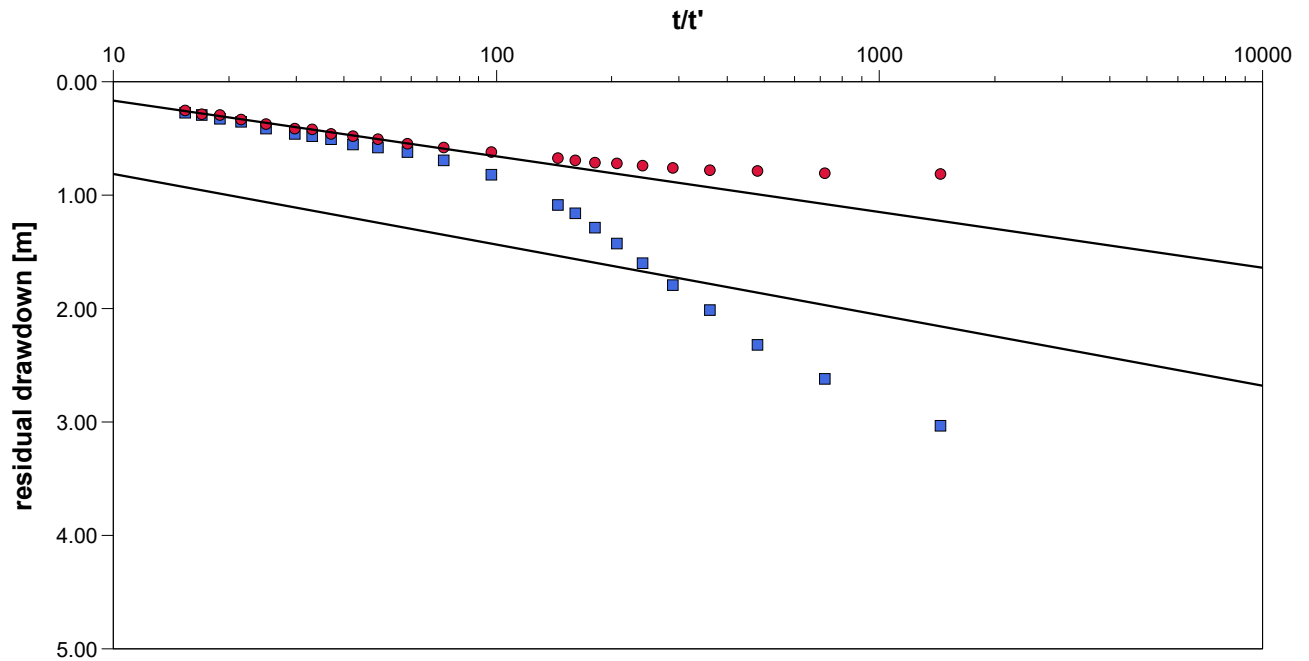
Pumping Test Analysis Report

Project: VRX Central Superficial

Number: 340

Client: VRX Silica

Location: Arrowsmith Central	Pumping Test: SPB1	Pumping Well: SPB2
Test Conducted by: Western Irrigation		Test Date: 03-Nov-22
Analysis Performed by: rrm	Recovery	Analysis Date: 09-Nov-22
Aquifer Thickness: 10.00 m	Discharge: variable, average rate 0.85 [l/s]	



Calculation using THEIS & JACOB

Observation Well	Transmissivity [m ² /d]	Hydraulic Conductivity [m/d]	Storage coefficient	Radial Distance to PW [m]
SPB2	2.16×10^1	2.16×10^0	5.00×10^{-1}	0.05
SMB2	2.74×10^1	2.74×10^0	0	17.8
Average	2.45×10^1	2.45×10^0	0.25	



Waterdirect
Pty Ltd

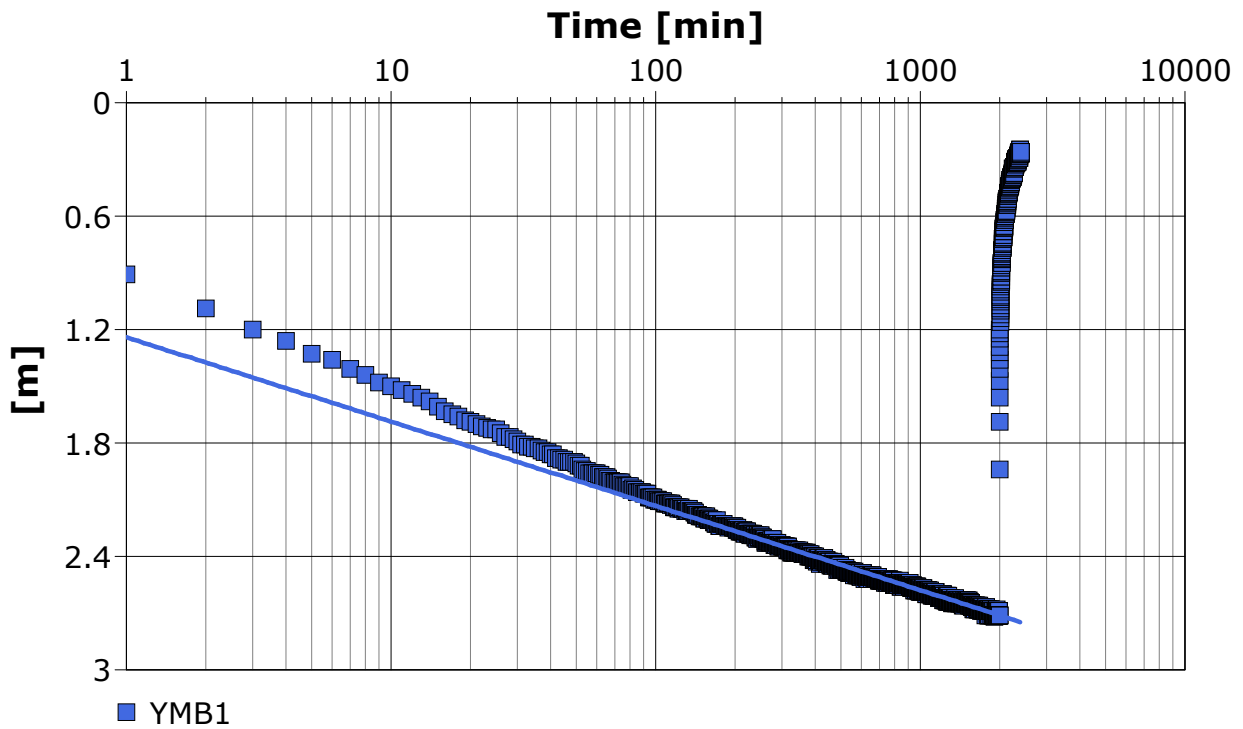
Pumping Test Analysis Report

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

Location: Arrowsmith	Pumping Test: YPB1	Pumping Well: YPB1
Test Conducted by: Western Irrigation		Test Date: 10-Mar-22
Analysis Performed by: rrm	Theis Drawdown YMB1 Logger Data	Analysis Date: 22-Apr-22
Aquifer Thickness: 72.00 m	Discharge: variable, average rate 30 [l/s]	



Calculation using Theis

Observation Well	Transmissivity [m ² /d]	Hydraulic Conductivity [m/d]	Storage coefficient	Ratio K(v)/K(h)	Radial Distance to PW [m]
YMB1	1.07×10^3	1.48×10^1	2.74×10^{-4}	1.82×10^{-1}	3.16



Waterdirect
Pty Ltd

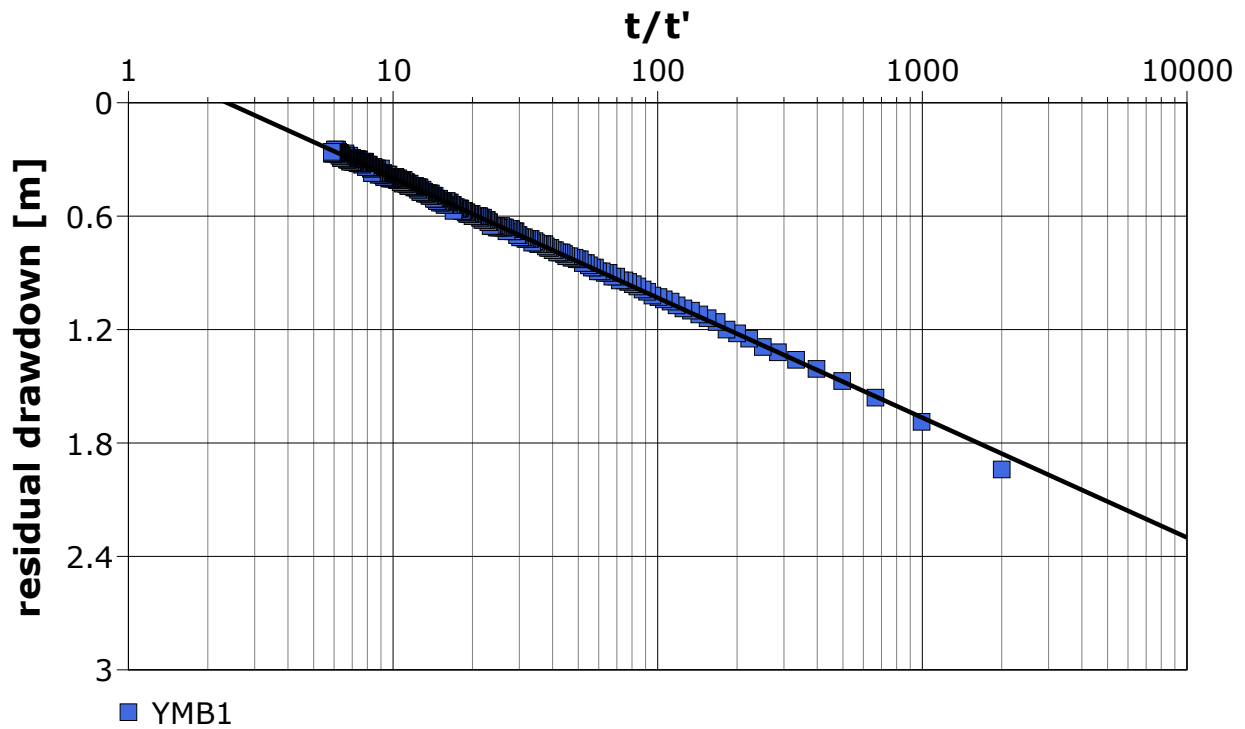
Pumping Test Analysis Report

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

Location: Arrowsmith	Pumping Test: YPB1	Pumping Well: YPB1
Test Conducted by: Western Irrigation		Test Date: 10-Mar-22
Analysis Performed by: rrm	Theis Recovery	Analysis Date: 22-Apr-22
Aquifer Thickness: 72.00 m	Discharge: variable, average rate 30 [l/s]	



Calculation using THEIS & JACOB

Observation Well	Transmissivity [m ² /d]	Hydraulic Conductivity [m/d]	Radial Distance to PW [m]
YMB1	7.49×10^2	1.04×10^1	3.16



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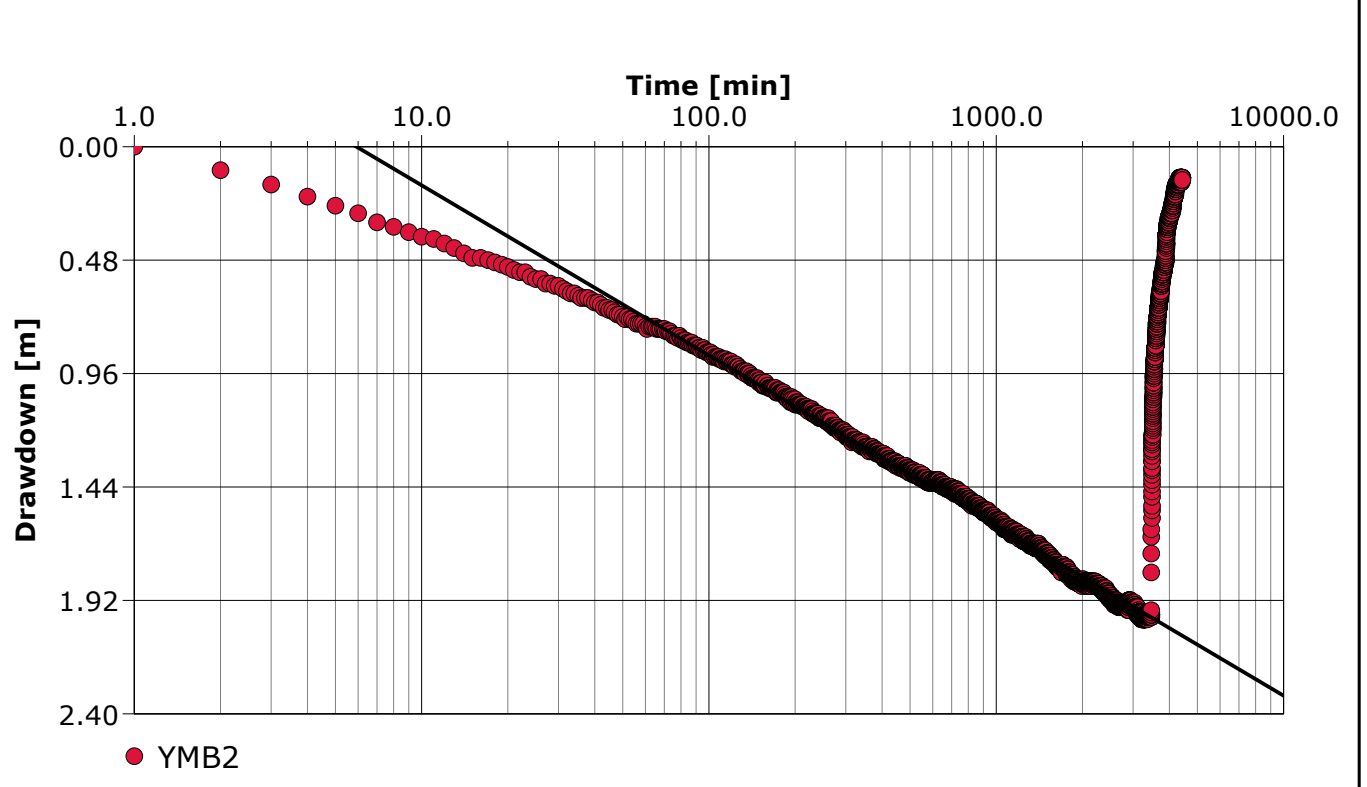
Pumping Test Analysis Report

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

Location: Arrowsmith Central	Pumping Test: YPB2	Pumping Well: YPB2
Test Conducted by: Western Irrigation		Test Date: 27-Oct-22
Analysis Performed by: rrm	Cooper & Jacob 1	Analysis Date: 03-Nov-22
Aquifer Thickness: 350.00 m	Discharge: variable, average rate 40 [l/s]	



Calculation using COOPER & JACOB

Observation Well	Transmissivity [m ² /d]	Hydraulic Conductivity [m/d]	Storage coefficient	Radial Distance to PW [m]
YMB2	8.78×10^2	2.51×10^0	5.64×10^{-3}	38.0



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Pty Ltd

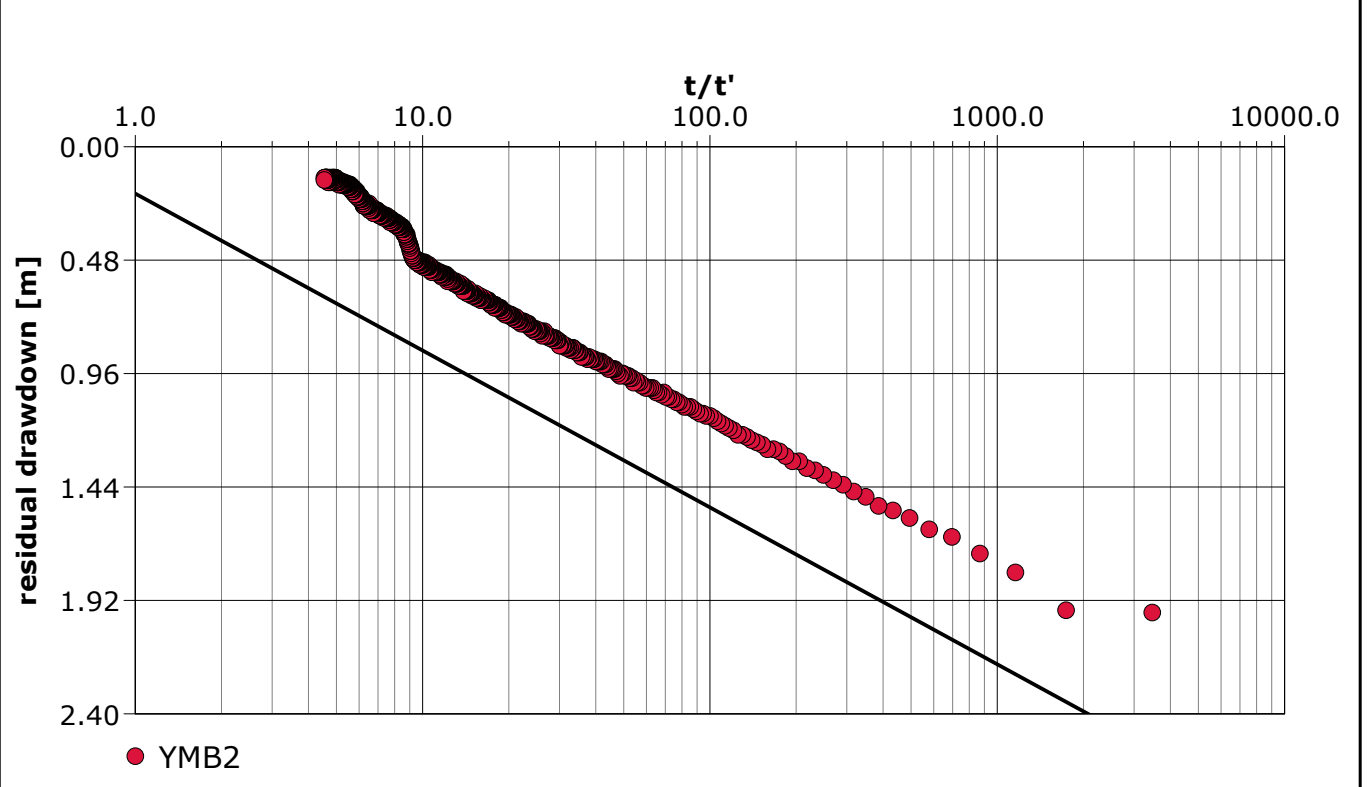
Pumping Test Analysis Report

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

Location: Arrowsmith Central	Pumping Test: YPB2	Pumping Well: YPB2
Test Conducted by: Western Irrigation		Test Date: 27-Oct-22
Analysis Performed by:	New analysis 1	Analysis Date: 03-Nov-22
Aquifer Thickness: 350.00 m	Discharge: variable, average rate 40 [l/s]	



Calculation using THEIS & JACOB

Observation Well	Transmissivity [m ² /d]	Hydraulic Conductivity [m/d]	Storage coefficient	Radial Distance to PW [m]
YMB2	9.53×10^2	2.72×10^0	5.00×10^{-1}	38.0



Waterdirect
Pty Ltd

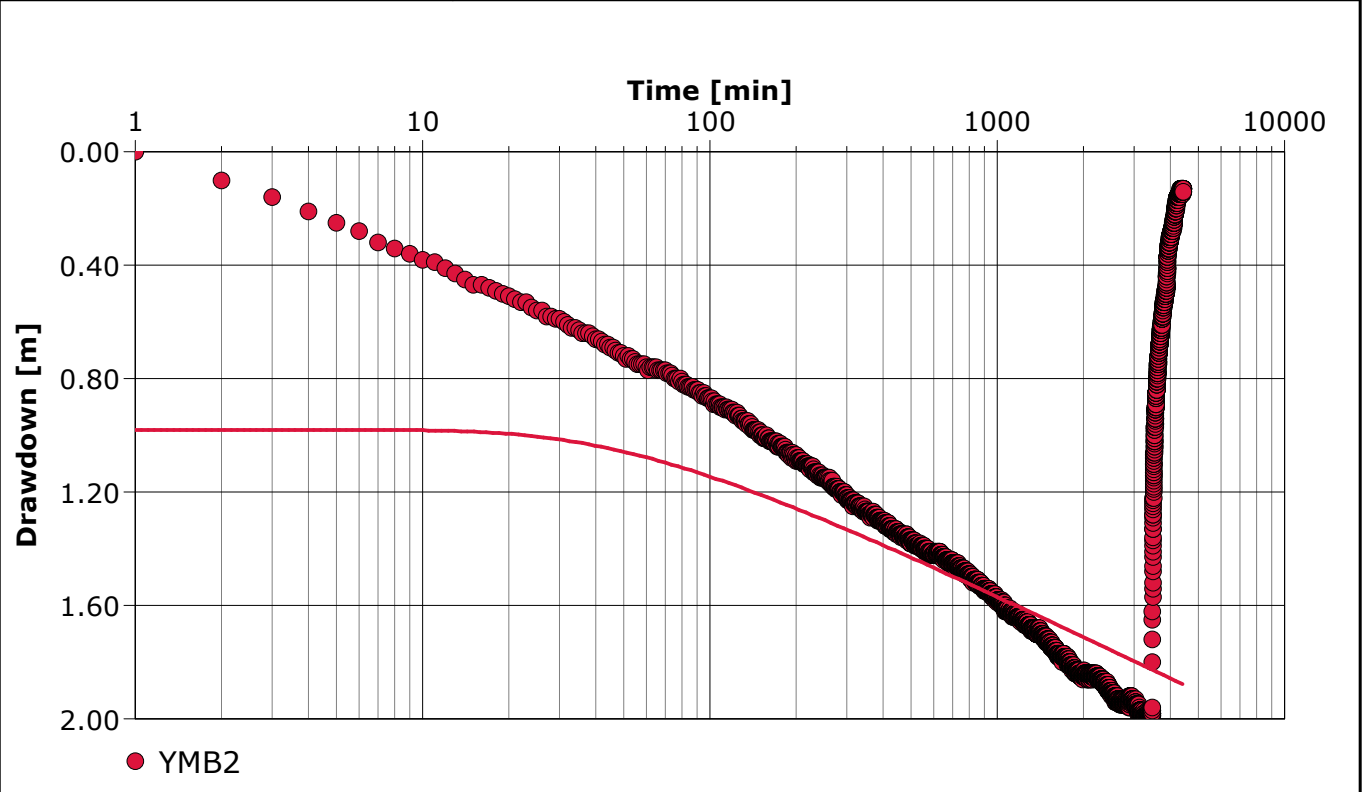
Pumping Test Analysis Report

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

Location: Arrowsmith Central	Pumping Test: YPB2	Pumping Well: YPB2
Test Conducted by: Western Irrigation	Test Date: 27-Oct-22	
Analysis Performed by: rrm	Theis	Analysis Date: 03-Nov-22
Aquifer Thickness: 350.00 m	Discharge: variable, average rate 40 [l/s]	



Calculation using Theis

Observation Well	Transmissivity [m ² /d]	Hydraulic Conductivity [m/d]	Storage coefficient	Radial Distance to PW [m]
YMB2	1.30×10^3	3.73×10^0	8.94×10^{-2}	38.0



Waterdirect
Pty Ltd

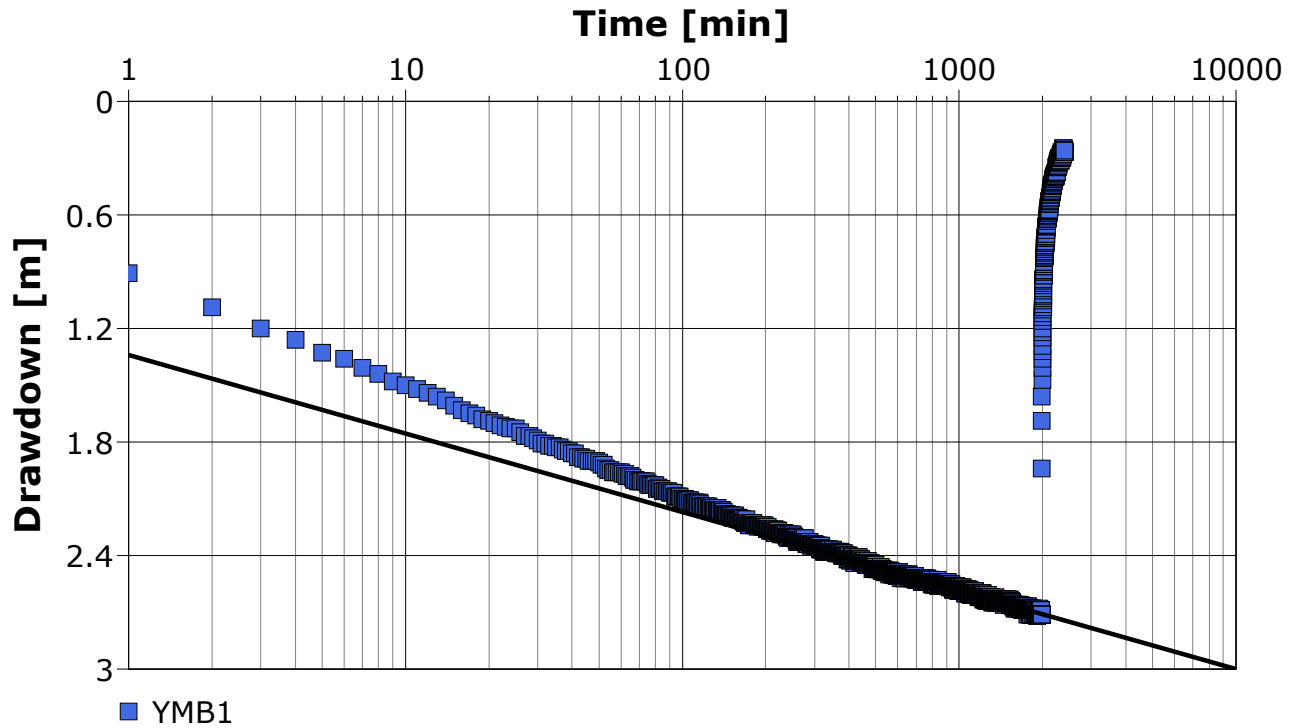
Pumping Test Analysis Report

Project: VRX North

Number: 340

Client: Ventnor Mining Pty Ltd

Location: Arrowsmith	Pumping Test: YPB1	Pumping Well: YPB1
Test Conducted by: Western Irrigation		Test Date: 10-Mar-22
Analysis Performed by: rrm	Cooper & Jacob 1 YMB1	Analysis Date: 22-Apr-22
Aquifer Thickness: 72.00 m	Discharge: variable, average rate 30 [l/s]	



Calculation using COOPER & JACOB

Observation Well	Transmissivity [m ² /d]	Hydraulic Conductivity [m/d]	Storage coefficient	Radial Distance to PW [m]
YMB1	1.14×10^3	1.59×10^1	1.05×10^{-4}	3.16



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Pty Ltd

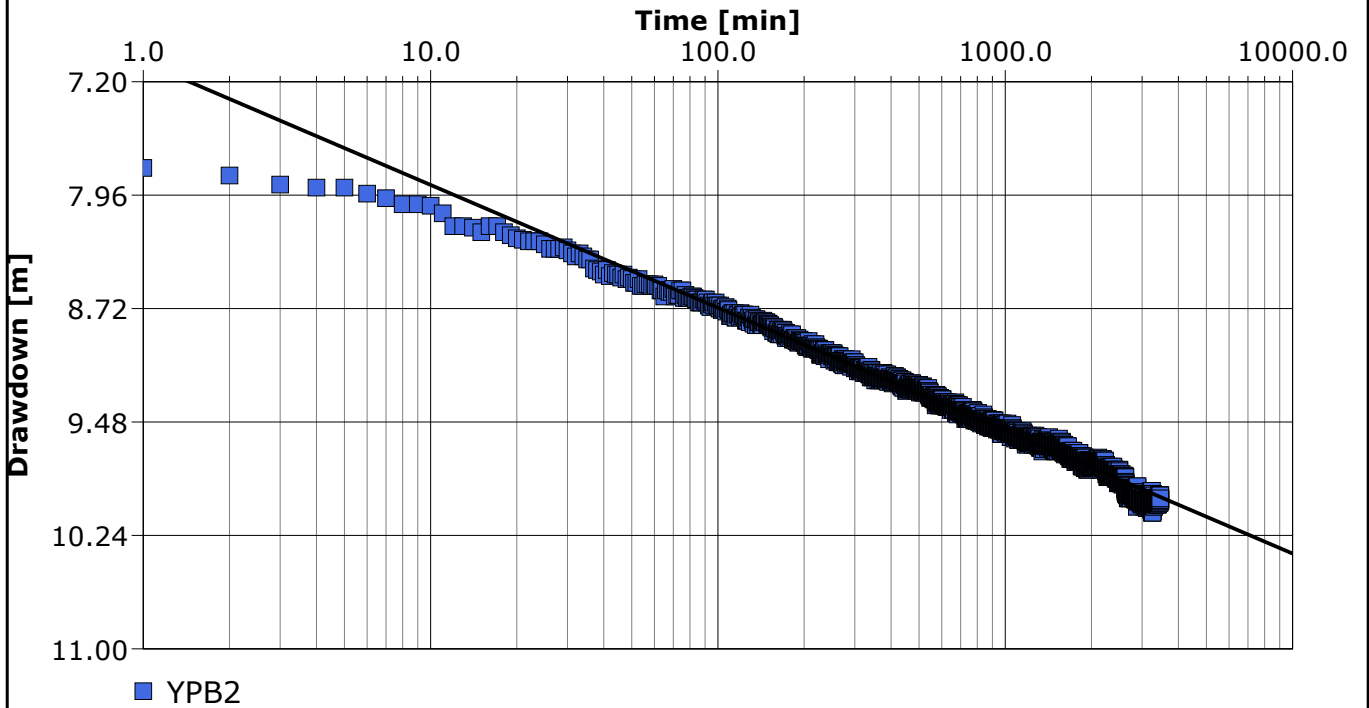
Pumping Test Analysis Report

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

Location: Arrowsmith Central	Pumping Test: YPB2	Pumping Well: YPB2
Test Conducted by: Western Irrigation	Test Date: 27-Oct-22	
Analysis Performed by: rrm	Cooper & Jacob 1	Analysis Date: 03-Nov-22
Aquifer Thickness: 350.00 m	Discharge: variable, average rate 40 [l/s]	



Calculation using COOPER & JACOB

Observation Well	Transmissivity [m ² /d]	Hydraulic Conductivity [m/d]	Storage coefficient	Radial Distance to PW [m]
YPB2	7.68×10^2	2.19×10^0	4.47×10^{-7}	0.08



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Pty Ltd

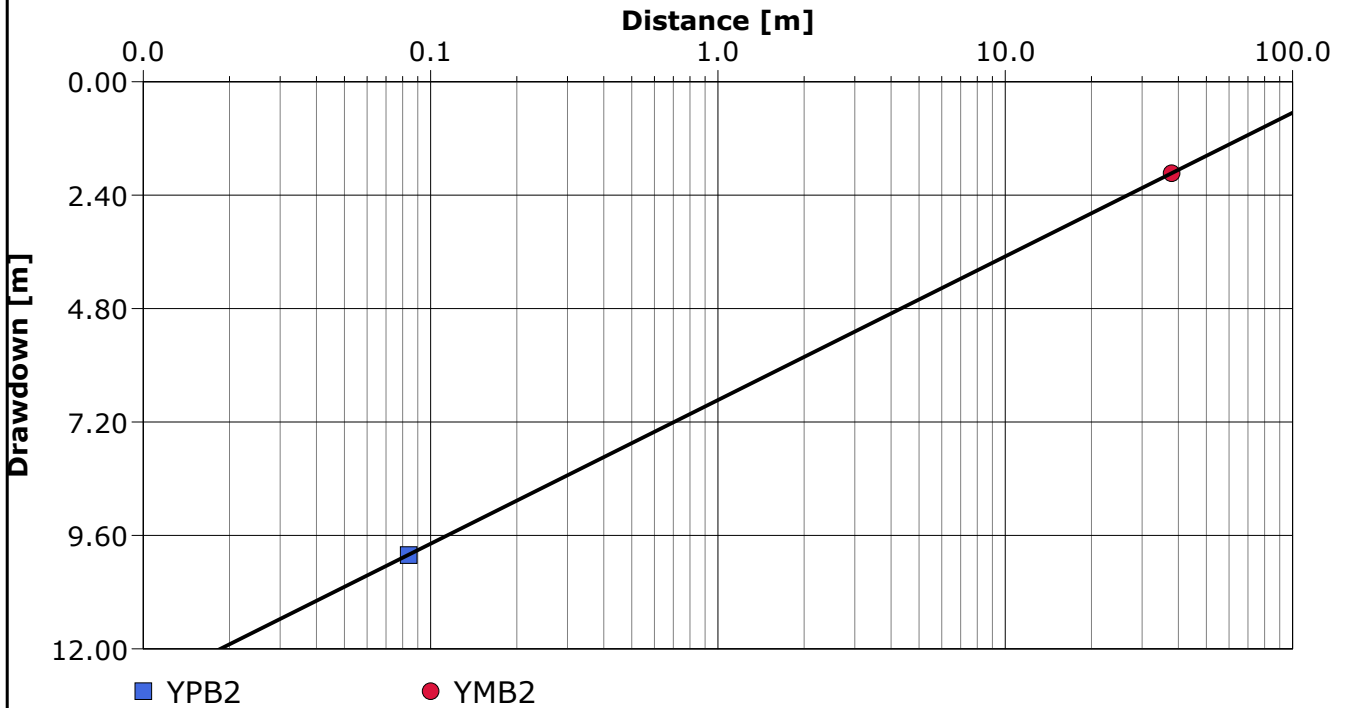
Pumping Test Analysis Report

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

Location: Arrowsmith Central	Pumping Test: YPB2	Pumping Well: YPB2
Test Conducted by: Western Irrigation		Test Date: 27-Oct-22
Analysis Performed by:	Cooper & Jacob 2 3000 minutes	Analysis Date: 03-Nov-22
Aquifer Thickness: 350.00 m	Discharge: variable, average rate 40 [l/s]	



Calculation using COOPER & JACOB

	Transmissivity [m ² /d]	Hydraulic Conductivity [m/d]	Storage coefficient	
Point of time [min]: 3000	4.16×10^2	1.19×10^0	7.15×10^{-2}	



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Pty Ltd

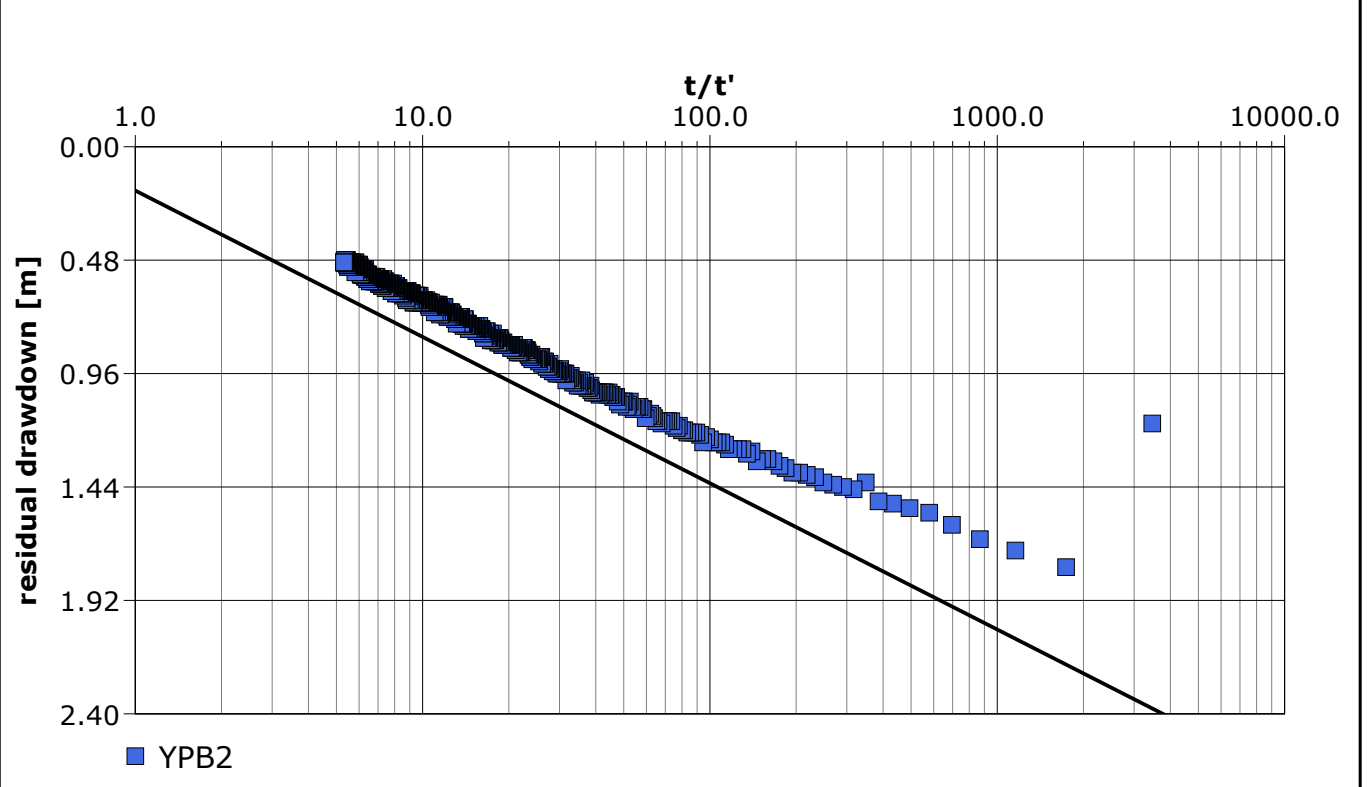
Pumping Test Analysis Report

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

Location: Arrowsmith Central	Pumping Test: YPB2	Pumping Well: YPB2
Test Conducted by: Western Irrigation		Test Date: 27-Oct-22
Analysis Performed by: rrm	Theis Recovery	Analysis Date: 03-Nov-22
Aquifer Thickness: 350.00 m	Discharge: variable, average rate 40 [l/s]	



Calculation using THEIS & JACOB

Observation Well	Transmissivity [m ² /d]	Hydraulic Conductivity [m/d]	Storage coefficient	Radial Distance to PW [m]
YPB2	1.02×10^3	2.92×10^0	5.00×10^{-1}	0.08



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Pty Ltd

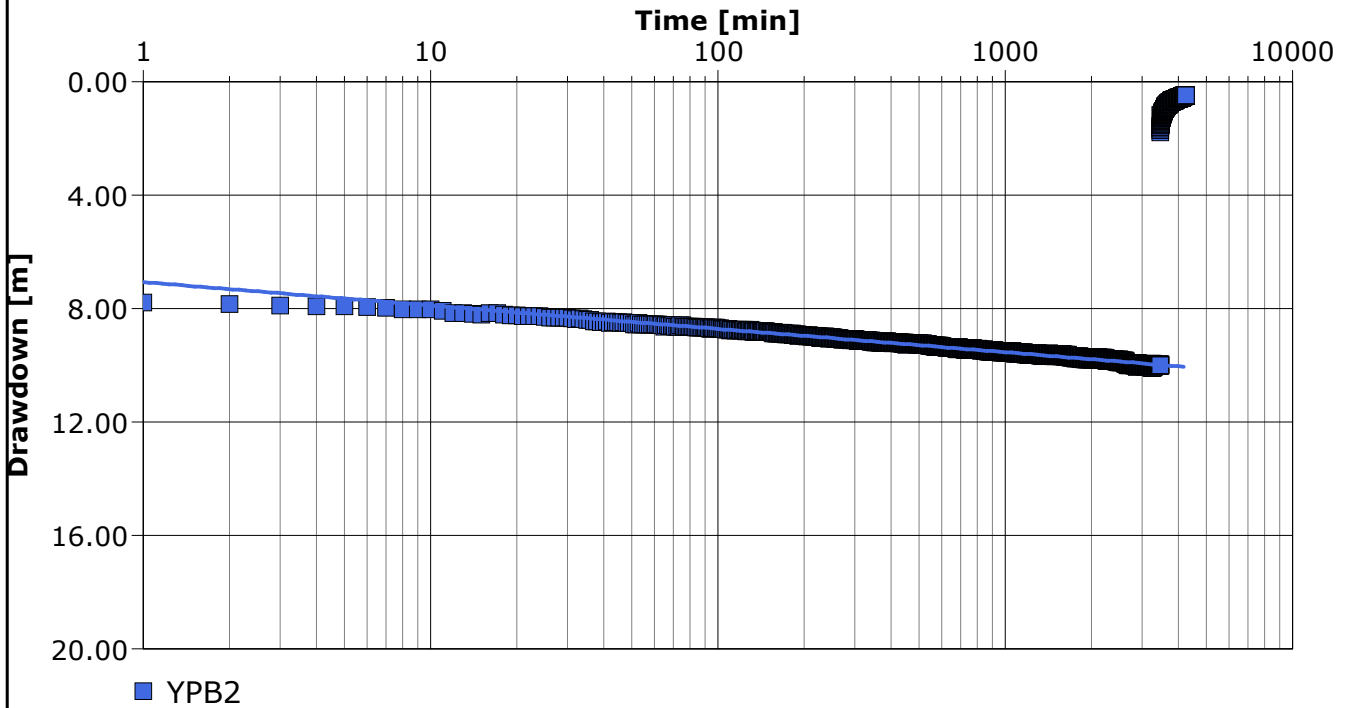
Pumping Test Analysis Report

Project: Central Arrowsmith

Number: 340

Client: Ventnor Mining

Location: Arrowsmith Central	Pumping Test: YPB2	Pumping Well: YPB2
Test Conducted by: Western Irrigation	Test Date: 27-Oct-22	
Analysis Performed by: rrm	Theis	Analysis Date: 03-Nov-22
Aquifer Thickness: 350.00 m	Discharge: variable, average rate 40 [l/s]	



Calculation using Theis

Observation Well	Transmissivity [m ² /d]	Hydraulic Conductivity [m/d]	Storage coefficient	Radial Distance to PW [m]
YPB2	7.69×10^2	2.20×10^0	4.46×10^{-7}	0.08

APPENDIX E
GROUNDWATER CHEMICAL ANALYSIS

ANALYSIS REPORT

Accredited for compliance with
ISO/IEC 17025 - Testing

Final Report

Job No: B2211-0078
Date Issued: 16-Nov-2022
Report Number: 185319

Attention: Mr. Andrew Ogden
Client: Western Irrigation
Address: 211 Barrington Street
BIBRA LAKE WA 6163

Purchase Order: B164464
Date Sampled:
Date Received: 07-Nov-2022

The following sample was analysed:

Sample ID

B22-0097327	Your Reference	B89231 Bore SPB2
	Product	Water
	Description	VRX - Beekeeper
	Arrival Temp (°C)^	21.6

Analysis of this sample conducted between 07-Nov-2022 and 11-Nov-2022

Analysis Results

Determinant		Result Value
Ammonium (NH4) (TP_WA/026) ^		
B22-0097327	Ammonium (NH4)	<0.1 mg/L
General Appearance (N/A) ^		
B22-0097327	Appearance	Colourless
B22-0097327	Odour	Odourless
Total Alkalinity (TP_WA/007)		
B22-0097327	Alkalinity (to pH 4.5@25degC)	55 mg CaCO3/L
B22-0097327	Bicarbonate	70 mg/L
Ionic Balance (TP_WA/029) ^		
B22-0097327	Cations	11.72 meq/L
B22-0097327	Anions	13.32 meq/L
B22-0097327	Balance	90 %
Fluoride (TP_WA/014)		
B22-0097327	Fluoride	0.14 mg/L
Chloride (TP_WA/020) ^		
B22-0097327	Chloride	390 mg/L
Electrical Conductivity (TP_WA/009)		
B22-0097327	Electrical Conductivity	1.49 mS/cm
Dissolved Carbon dioxide (Calculated)		
B22-0097327	Dissolved Carbon Dioxide	54 mg/L
Filterable Reactive P (TP_WA/017) ^		
B22-0097327	PO4 - P	0.16 mg/L
Hardness (Calculated) ^		
B22-0097327	Hardness	110 mg CaCO3/L
Metals - ICP (TP_WA/015)		
B22-0097327	Boron	<0.10 mg/L

ANALYSIS REPORT

Accredited for compliance with
ISO/IEC 17025 - Testing

Final Report

Job No: B2211-0078
Date Issued: 16-Nov-2022
Report Number: 185319

Attention: Mr. Andrew Ogden
Client: Western Irrigation
Address: 211 Barrington Street
BIBRA LAKE WA 6163

Purchase Order: B164464
Date Sampled:
Date Received: 07-Nov-2022

B22-0097327	Calcium	5.7 mg/L
B22-0097327	Potassium	16 mg/L
B22-0097327	Iron	<0.050 mg/L
B22-0097327	Manganese	<0.010 mg/L
B22-0097327	Magnesium	23 mg/L
B22-0097327	Sodium	210 mg/L
B22-0097327	Silicon	21 mg/L
B22-0097327	SiO2^	45 mg/L

Nitrate (TP_WA/014) ^

B22-0097327	Nitrate - as NO3	<0.5 mg/L
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pH (TP_WA/010)

B22-0097327	pH	6.3
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Sulphate (TP_WA/014)

B22-0097327	Sulphate SO4	56 mg/L
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TDS (calculation) (TP_WA/029) ^

B22-0097327	Total Dissolved Salts	820 mg/L
-------------	-----------------------	----------

Note: All samples are analysed on an 'as received' basis, all results are based on the sample received. This report is not to be reproduced except in full.

Please refer to the following link for the measurement of uncertainty values for all NATA accredited analysis

<https://services.awta.com.au/AFTMeasurementUncertainty/index.php>

Please Note: If this sample was taken greater than 24 hours prior to the commencement of testing; the integrity of the sample may have been affected which may have influenced the final results.

^ - NATA Accreditation does not cover the performance of this test/Component.

ANALYSIS REPORT

Accredited for compliance with
ISO/IEC 17025 - Testing

Final Report

Job No: B2211-0078
Date Issued: 16-Nov-2022
Report Number: 185319

Attention: Mr. Andrew Ogden
Client: Western Irrigation
Address: 211 Barrington Street
BIBRA LAKE WA 6163

Purchase Order: B164464
Date Sampled:
Date Received: 07-Nov-2022

The sample(s) referred to in this report were analysed for the following determinant(s):

Analysis	Method	Laboratory
Ammonium (NH4)	TP_WA/026	Bibra Lake Chemistry Lab
General Appearance	N/A	Bibra Lake Chemistry Lab
Total Alkalinity	TP_WA/007	Bibra Lake Chemistry Lab
Ionic Balance	TP_WA/029	Bibra Lake Chemistry Lab
Fluoride	TP_WA/014	Bibra Lake Chemistry Lab
Chloride	TP_WA/020	Bibra Lake Chemistry Lab
Electrical Conductivity	TP_WA/009	Bibra Lake Chemistry Lab
Dissolved Carbon dioxide	Calculated	Bibra Lake Chemistry Lab
Filterable Reactive P	TP_WA/017	Bibra Lake Chemistry Lab
Hardness	Calculated	Bibra Lake Chemistry Lab
Metals - ICP	TP_WA/015	Bibra Lake Chemistry Lab
Nitrate	TP_WA/014	Bibra Lake Chemistry Lab
pH	TP_WA/010	Bibra Lake Chemistry Lab
Sulphate	TP_WA/014	Bibra Lake Chemistry Lab
TDS (calculation)	TP_WA/029	Bibra Lake Chemistry Lab

The results in this report were authorised by:

Name	Title
Prashubha Bhandari	Laboratory Controller, WA



ANALYSIS REPORT

Final Report

Job No: B2203-0168
Date Issued: 24-Mar-2022
Report Number: 146794

Attention: Mr Rian Moore
Client: Water Direct
Address: PO Box 3135
 PERTH WA 6832

Purchase Order: received 14/03/22
Date Sampled:
Date Received: 14-Mar-2022

The following sample was analysed:

Sample ID	Your Reference	VRX Silica - 83797 - 1 hour
B22-0022588	Product	Water
	Arrival Temp (°C)	12.4

Analysis of this sample conducted between 14-Mar-2022 and 18-Mar-2022

Analysis Results

Determinant	Result Value
Ammonium (NH4) (none) ^	
B22-0022588 Ammonium (NH4)	1.4 mg/L
General Appearance (N/A) ^	
B22-0022588 Appearance	Iron
B22-0022588 Odour	Odourless
Total Alkalinity (TP_WA/007)	
B22-0022588 Alkalinity (to pH 4.5@25degC)	100 mg CaCO3/L
B22-0022588 Bicarbonate	120 mg/L
Ionic Balance (1030 E - APHA methods) ^	
B22-0022588 Cations	122.42 meq/L
B22-0022588 Anions	111.43 meq/L
B22-0022588 Balance	109.9 %
Fluoride (TP_WA_014) ^	
B22-0022588 Fluoride	2.60 mg/L
Chloride (TP_WA_014) ^	
B22-0022588 Chloride	3700 mg/L
Electrical Conductivity (TP_WA/009)	
B22-0022588 Electrical Conductivity	11.9 mS/cm
Dissolved Carbon dioxide (Calculated)	
B22-0022588 Dissolved Carbon Dioxide	30 mg/L
Filterable Reactive P (TP_WA/017) ^	
B22-0022588 PO4 - P	<0.01 mg/L
Hardness (TP_WA/008)	
B22-0022588 Hardness	1770 mg CaCO3/L
Metals - ICP (TP_WA/015)	
B22-0022588 Boron	0.16 mg/L
B22-0022588 Calcium	240 mg/L

ANALYSIS REPORT

Final Report

Job No: B2203-0168
Date Issued: 24-Mar-2022
Report Number: 146794

Attention: Mr Rian Moore
Client: Water Direct
Address: PO Box 3135
 PERTH WA 6832

Purchase Order: received 14/03/22
Date Sampled:
Date Received: 14-Mar-2022

B22-0022588	Potassium	110 mg/L
B22-0022588	Iron	5.8 mg/L
B22-0022588	Manganese	0.79 mg/L
B22-0022588	Magnesium	290 mg/L
B22-0022588	Sodium	1900 mg/L
B22-0022588	Silicon	7.8 mg/L
B22-0022588	SiO2^	17 mg/L

Nitrate (TP_WA_014) ^

B22-0022588	Nitrate - as NO3	19 mg/L
-------------	------------------	---------

pH (TP_WA/010)

B22-0022588	pH	6.8
-------------	----	-----

Sulphate (TP_WA_014) ^

B22-0022588	Sulphate SO4	290 mg/L
-------------	--------------	----------

TDS (calculation) (Calculated) ^

B22-0022588	Total Dissolved Salts	6610 mg/L
-------------	-----------------------	-----------

Note: All samples are analysed on an as received basis.
 This report is not to be reproduced except in full.

Please refer to the following link for the measurement of uncertainty values for all NATA accredited analysis

<https://services.awta.com.au/AFTMeasurementUncertainty/index.php>

Please Note: If this sample was taken greater than 24 hours prior to the commencement of testing; the integrity of the sample may have been affected which may have influenced the final results.

^ - NATA Accreditation does not cover the performance of this test/Component.

ANALYSIS REPORT

Final Report

Job No: B2203-0168
Date Issued: 24-Mar-2022
Report Number: 146794

Attention: Mr Rian Moore
Client: Water Direct
Address: PO Box 3135
 PERTH WA 6832

Purchase Order: received 14/03/22
Date Sampled:
Date Received: 14-Mar-2022

The sample(s) referred to in this report were analysed for the following determinant(s):

Analysis		Laboratory
Ammonium (NH4)		Agro Nutritional Laboratory
General Appearance	N/A	Agro Nutritional Laboratory
Total Alkalinity	TP_WA/007	Agro Nutritional Laboratory
Ionic Balance		Agro Nutritional Laboratory
Fluoride	TP_WA/014	Agro Nutritional Laboratory
Chloride	TP_WA/014	Agro Nutritional Laboratory
Electrical Conductivity	TP_WA/009	Agro Nutritional Laboratory
Dissolved Carbon dioxide	Calculated	Agro Nutritional Laboratory
Filterable Reactive P	TP_WA/017	Agro Nutritional Laboratory
Hardness	TP_WA_008	Agro Nutritional Laboratory
Metals - ICP	TP_WA/015	Agro Nutritional Laboratory
Nitrate	TP_WA/014	Agro Nutritional Laboratory
pH	TP_WA/010	Agro Nutritional Laboratory
Sulphate	TP_WA/014	Agro Nutritional Laboratory
TDS (calculation)	Calculated	Agro Nutritional Laboratory

The results in this report were authorised by:

Name	Title
Prashubha Bhandari	Laboratory Controller, WA



ANALYSIS REPORT

Final Report

Job No: B2203-0168
Date Issued: 24-Mar-2022
Report Number: 146794

Attention: Mr Rian Moore
Client: Water Direct
Address: PO Box 3135
 PERTH WA 6832

Purchase Order: received 14/03/22
Date Sampled:
Date Received: 14-Mar-2022

The following sample was analysed:

Sample ID	Your Reference	VRX Silica - 83797 - 24 hour
B22-0022589	Product	Water
	Arrival Temp (°C)	12.4

Analysis of this sample conducted between 14-Mar-2022 and 18-Mar-2022

Analysis Results

Determinant	Result Value
Ammonium (NH4) (none) ^	
B22-0022589 Ammonium (NH4)	1.3 mg/L
General Appearance (N/A) ^	
B22-0022589 Appearance	Iron
B22-0022589 Odour	Odourless
Total Alkalinity (TP_WA/007)	
B22-0022589 Alkalinity (to pH 4.5@25degC)	100 mg CaCO3/L
B22-0022589 Bicarbonate	120 mg/L
Ionic Balance (1030 E - APHA methods) ^	
B22-0022589 Cations	120.48 meq/L
B22-0022589 Anions	114.44 meq/L
B22-0022589 Balance	105.3 %
Fluoride (TP_WA_014) ^	
B22-0022589 Fluoride	<0.1 mg/L
Chloride (TP_WA_014) ^	
B22-0022589 Chloride	3800 mg/L
Electrical Conductivity (TP_WA/009)	
B22-0022589 Electrical Conductivity	11.4 mS/cm
Dissolved Carbon dioxide (Calculated)	
B22-0022589 Dissolved Carbon Dioxide	30 mg/L
Filterable Reactive P (TP_WA/017) ^	
B22-0022589 PO4 - P	<0.01 mg/L
Hardness (TP_WA/008)	
B22-0022589 Hardness	1755 mg CaCO3/L
Metals - ICP (TP_WA/015)	
B22-0022589 Boron	0.16 mg/L
B22-0022589 Calcium	240 mg/L

ANALYSIS REPORT

Final Report

Job No: B2203-0168
Date Issued: 24-Mar-2022
Report Number: 146794

Attention: Mr Rian Moore
Client: Water Direct
Address: PO Box 3135
 PERTH WA 6832

Purchase Order: received 14/03/22
Date Sampled:
Date Received: 14-Mar-2022

B22-0022589	Potassium	110 mg/L
B22-0022589	Iron	5.5 mg/L
B22-0022589	Manganese	0.83 mg/L
B22-0022589	Magnesium	280 mg/L
B22-0022589	Sodium	1900 mg/L
B22-0022589	Silicon	7.5 mg/L
B22-0022589	SiO2^	16 mg/L

Nitrate (TP_WA_014) ^

B22-0022589	Nitrate - as NO3	7.7 mg/L
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pH (TP_WA/010)

B22-0022589	pH	6.8
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Sulphate (TP_WA_014) ^

B22-0022589	Sulphate SO4	280 mg/L
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TDS (calculation) (Calculated) ^

B22-0022589	Total Dissolved Salts	6670 mg/L
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Note: All samples are analysed on an as received basis.
 This report is not to be reproduced except in full.

Please refer to the following link for the measurement of uncertainty values for all NATA accredited analysis

<https://services.awta.com.au/AFTMeasurementUncertainty/index.php>

Please Note: If this sample was taken greater than 24 hours prior to the commencement of testing; the integrity of the sample may have been affected which may have influenced the final results.

^ - NATA Accreditation does not cover the performance of this test/Component.

ANALYSIS REPORT

Final Report

Job No: B2203-0168
Date Issued: 24-Mar-2022
Report Number: 146794

Attention: Mr Rian Moore
Client: Water Direct
Address: PO Box 3135
 PERTH WA 6832

Purchase Order: received 14/03/22
Date Sampled:
Date Received: 14-Mar-2022

The sample(s) referred to in this report were analysed for the following determinant(s):

Analysis		Laboratory
Ammonium (NH4)		Agro Nutritional Laboratory
General Appearance	N/A	Agro Nutritional Laboratory
Total Alkalinity	TP_WA/007	Agro Nutritional Laboratory
Ionic Balance		Agro Nutritional Laboratory
Fluoride	TP_WA/014	Agro Nutritional Laboratory
Chloride	TP_WA/014	Agro Nutritional Laboratory
Electrical Conductivity	TP_WA/009	Agro Nutritional Laboratory
Dissolved Carbon dioxide	Calculated	Agro Nutritional Laboratory
Filterable Reactive P	TP_WA/017	Agro Nutritional Laboratory
Hardness	TP_WA_008	Agro Nutritional Laboratory
Metals - ICP	TP_WA/015	Agro Nutritional Laboratory
Nitrate	TP_WA/014	Agro Nutritional Laboratory
pH	TP_WA/010	Agro Nutritional Laboratory
Sulphate	TP_WA/014	Agro Nutritional Laboratory
TDS (calculation)	Calculated	Agro Nutritional Laboratory

The results in this report were authorised by:

Name	Title
Prashubha Bhandari	Laboratory Controller, WA



ANALYSIS REPORT

Accredited for compliance with
ISO/IEC 17025 - Testing

Final Report

Job No: B2211-0036
Date Issued: 16-Nov-2022
Report Number: 185218

Attention: Mr. Andrew Ogden
Client: Western Irrigation
Address: 211 Barrington Street
BIBRA LAKE WA 6163

Purchase Order: B164333
Date Sampled:
Date Received: 02-Nov-2022

The following sample was analysed:

Sample ID	Your Reference	B89231 - Bore YPB2
B22-0096060	Product	Water
	Description	VRK - Bee Keeper
	Arrival Temp (°C)^	17.5

Analysis of this sample conducted between 02-Nov-2022 and 04-Nov-2022

Analysis Results

Determinant	Result Value
Ammonium (NH4) (TP_WA/026) ^	
B22-0096060 Ammonium (NH4)	0.1 mg/L
General Appearance (N/A) ^	
B22-0096060 Appearance	Pale Yellow
B22-0096060 Odour	Odourless
Total Alkalinity (TP_WA/007)	
B22-0096060 Alkalinity (to pH 4.5@25degC)	105 mg CaCO3/L
B22-0096060 Bicarbonate	130 mg/L
Ionic Balance (TP_WA/029) ^	
B22-0096060 Cations	8.10 meq/L
B22-0096060 Anions	8.13 meq/L
B22-0096060 Balance	99.6 %
Fluoride (TP_WA/014)	
B22-0096060 Fluoride	0.24 mg/L
Chloride (TP_WA/020) ^	
B22-0096060 Chloride	200 mg/L
Electrical Conductivity (TP_WA/009)	
B22-0096060 Electrical Conductivity	0.87 mS/cm
Dissolved Carbon dioxide (Calculated)	
B22-0096060 Dissolved Carbon Dioxide	13 mg/L
Filterable Reactive P (TP_WA/017) ^	
B22-0096060 PO4 - P	<0.01 mg/L
Hardness (Calculated) ^	
B22-0096060 Hardness	65 mg CaCO3/L
Metals - ICP (TP_WA/015)	
B22-0096060 Boron	<0.10 mg/L

ANALYSIS REPORT

Accredited for compliance with
ISO/IEC 17025 - Testing

Final Report

Job No: B2211-0036
Date Issued: 16-Nov-2022
Report Number: 185218

Attention: Mr. Andrew Ogden
Client: Western Irrigation
Address: 211 Barrington Street
BIBRA LAKE WA 6163

Purchase Order: B164333
Date Sampled:
Date Received: 02-Nov-2022

B22-0096060	Calcium	5.6 mg/L
B22-0096060	Potassium	28 mg/L
B22-0096060	Iron	1.3 mg/L
B22-0096060	Manganese	0.080 mg/L
B22-0096060	Magnesium	12 mg/L
B22-0096060	Sodium	140 mg/L
B22-0096060	Silicon	8.6 mg/L
B22-0096060	SiO2^	18 mg/L

Nitrate (TP_WA/014) ^

B22-0096060	Nitrate - as NO3	<0.5 mg/L
-------------	------------------	-----------

pH (TP_WA/010)

B22-0096060	pH	7.2
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Sulphate (TP_WA/014)

B22-0096060	Sulphate SO4	17 mg/L
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TDS (calculation) (TP_WA/029) ^

B22-0096060	Total Dissolved Salts	480 mg/L
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Note: All samples are analysed on an 'as received' basis, all results are based on the sample received.
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<https://services.awta.com.au/AFTMeasurementUncertainty/index.php>

Please Note: If this sample was taken greater than 24 hours prior to the commencement of testing; the integrity of the sample may have been affected which may have influenced the final results.

^ - NATA Accreditation does not cover the performance of this test/Component.

ANALYSIS REPORT

Accredited for compliance with
ISO/IEC 17025 - Testing

Final Report

Job No: B2211-0036
Date Issued: 16-Nov-2022
Report Number: 185218

Attention: Mr. Andrew Ogden
Client: Western Irrigation
Address: 211 Barrington Street
BIBRA LAKE WA 6163

Purchase Order: B164333
Date Sampled:
Date Received: 02-Nov-2022

The sample(s) referred to in this report were analysed for the following determinant(s):

Analysis	Method	Laboratory
Ammonium (NH4)	TP_WA/026	Bibra Lake Chemistry Lab
General Appearance	N/A	Bibra Lake Chemistry Lab
Total Alkalinity	TP_WA/007	Bibra Lake Chemistry Lab
Ionic Balance	TP_WA/029	Bibra Lake Chemistry Lab
Fluoride	TP_WA/014	Bibra Lake Chemistry Lab
Chloride	TP_WA/020	Bibra Lake Chemistry Lab
Electrical Conductivity	TP_WA/009	Bibra Lake Chemistry Lab
Dissolved Carbon dioxide	Calculated	Bibra Lake Chemistry Lab
Filterable Reactive P	TP_WA/017	Bibra Lake Chemistry Lab
Hardness	Calculated	Bibra Lake Chemistry Lab
Metals - ICP	TP_WA/015	Bibra Lake Chemistry Lab
Nitrate	TP_WA/014	Bibra Lake Chemistry Lab
pH	TP_WA/010	Bibra Lake Chemistry Lab
Sulphate	TP_WA/014	Bibra Lake Chemistry Lab
TDS (calculation)	TP_WA/029	Bibra Lake Chemistry Lab

The results in this report were authorised by:

Name	Title
Prashubha Bhandari	Laboratory Controller, WA



APPENDIX F
WATER USAGE STATEMENT

PROCESS MASS BALANCE REV Q (NOMINAL)



Ore Solids S.G 2.65
Solution S.G 1.00

Description	Process Stream	PFD	Throughput			Solid SG	Slurry Density		Solution	Flowrate			Size fractions							
			Stream #	Solids (t/h)	Solution (t/h)		Slurry (t/h)	(m ³ /h)		(% solids)	(t/m ³)	t/m ³	Solids (m ³ /h)	Solution (m ³ /h)	Slurry (m ³ /h)	Check size fractions	+600um	-600um, +300	-300um, +150	-150um
Mine feed plant																				
Located 500m from the process plant																				
ROM bin & conveyor																				
Inputs																				
ROM feed		1	300	12.5	313	2.65	96%	2.49	1.00	113	13	126	300.0	36.8	141.0	103.2	19.1			
Outputs																				
Grizzly O/S		2	0	0	0	2.65	96%	0.00	1.00	0	0	0								
Grizzly U/S		3	300	12.5	313	2.65	96%	2.49	1.00	113	13	126	300.0	36.8	141.0	103.2	19.1			
Trommel (2mm aperture)																				
Inputs																				
Trommel feed		5	300	12.5	313	2.65	96%	2.49	1.00	113	13	126	300.0	36.8	141.0	103.2	19.1			
Trommel feed chute water		12		300					1.00		300	300								
Trommel spray water		9		50					1.00		50	50								
Outputs																				
Trommel O/S		6	0.1	0.01	0.11	2.65	88%	2.21	1.00	0.0	0.01	0.1								
Trommel U/S		7	300	362	662	2.65	45%	1.39	1.00	113	362	476	300.0	36.8	141.0	103.2	19.1			
Trommel hopper																				
Inputs																				
Trommel U/S		7	300	362	662	2.65	45%	1.39	1.00	113	362	476	300.0	36.8	141.0	103.2	19.1			
Trommel hopper level control		13		0					1.00		0	0								
Trommel U/F pump water injection		10		0					1.00		0	0								
Outputs																				
CD tank feed		15	300	362	662	2.65	45%	1.39	1.00	113	362	476	300.0	36.8	141.0	103.2	19.1			
Attritioning																				
CD tank																				
Inputs																				
CD tank level control/clarifying water		14		210					1.00		210	210								
CD tank feed		15	300	362	662	2.65	45%	1.39	1.00	113	362	476	300.0	36.8	141.0	103.2	19.1			
CD tank fluidising water		17		89.9					1.00		90	90								
CD tank dialation water		18		17					1.00		17	17								
CD tank density control water		19		142					1.00		142	142								
Outputs																				
CD tank overflow		16	8.1	530	538	2.65	2%	1.01	1.00	3	530	533	8.1	0.0	0.0	0.0	8.1			
Attritioners cyclone feed		20	292	292	584	2.65	50%	1.45	1.00	110	292	402	291.9	36.8	141.0	103.2	11.0			
CD tank overflow																				
Inputs																				
CD tank overflow		16	8.1	530	538	2.65	1.5%	1.01	1.00	3	530	533								
Outputs																				
CD tank overflow		16	8.1	530	538	2.65	1.5%	1.01	1.00	3	530	533								
Attritioner cyclones																				
Inputs																				
Attritioners cyclone feed		20	292	292	584	2.65	50%	1.45	1.00	110	292	402	291.9	36.8	141.0	103.2	11.0			
Cyclone underflow dilution #1		25		0					1.00		0	0								
Cyclone underflow dilution #2		30		0					1.00		0	0								
Cyclone underflow dilution #3		35		0					1.00		0	0								
Outputs																				
Attritioners cyclone O/F		21	2.597	195	198	2.65	1%	1.00	1.00	1	195	196	0.0							
Attritioners cyclone U/F to train 1		22	96.4	32	129	2.65	75%	1.88	1.00	36	32	69	2.6	12.3	47.0	34.2	2.0			
Attritioners cyclone U/F to train 2		23	96.4	32	129	2.65	75%	1.88	1.00	36	32	69	96.4	12.3	47.0	34.2	3.0			
Attritioners cyclone U/F to train 3		24	96.4	32	129	2.65	75%	1.88	1.00	36	32	69	96.4	12.3	47.0	34.2	3.0			
Attritioners train 1																				
Inputs																				
Attritioners cyclone U/F to train 1		22	96.4	32.1	129	2.65	75%	1.88	1.00	36	32	69	96.4	12.3	47.0	34.2	3.0			
Attritioners train 1 dilution water		26		0					1.00		0	0								
Attritioners train 1 HP flush water		27		0					1.00		0	0								
Attritioners train 1 discharge chute water		28		40					1.00		40	40								
Outputs																				
Attritioners train 1 discharge		29	96.4	72	169	2.65	57.2%	1.55	1.00	36	72	109	96.5	11.8	49.9	31.5	3.2			
Attritioners train 2																				
Inputs																				
Attritioners cyclone U/F to train 2		23	96.4	32.1	129	2.65	75%	1.88	1.00	36	32	69	96.4	12.3	47.0	34.2	3.0			
Attritioners train 2 dilution water		31		0					1.00		0	0								
Attritioners train 2 HP flush water		32		0					1.00		0	0								
Attritioners train 2 discharge chute water		33		40					1.00		40	40								
Outputs																				
Attritioners train 2 discharge		34	96.4	72	169	2.65	57.2%	1.55	1.00	36	72	109	96.5	11.8	49.9	31.5	3.2			
Attritioners train 3																				
Inputs																				
Attritioners cyclone U/F to train 3		24	96.4	32.1	129	2.65	75%	1.88	1.00	36	32	69	96.4	12.3	47.0	34.2	3.0			
Attritioners train 3 dilution water		36		0					1.00		0	0								
Attritioners train 3 HP flush water		37		0					1.00		0	0								
Attritioners train 3 discharge chute water		38		40					1.00		40	40								
Outputs																				
Attritioners train 3 discharge		39	96.4	72	169	2.65	57.2%	1.55	1.00	36	72	109	96.5	11.8	49.9	31.5	3.2			
Attritioner area sump pump																				
Inputs																				
Attritioners area spillage		41		0					1.00		0	0								
Attritioners area sump pump water injection		42		0					1.00		0	0								
Outputs																				
Attritioners area sump pump discharge		43		0					1.00		0	0								
Attritioners area sump pump to grade		44																		
Fines Removal																				



PROCESS MASS BALANCE REV Q (NOMINAL)



Ore Solids S.G 2.65
Solution S.G 1.00

Description	Process Stream	PFD	Throughput			Solid SG	Slurry Density		Solution	Flowrate			Size fractions							
			Stream #	Solids (t/h)	Solution (t/h)		Slurry (t/h)	(m ³ /h)		(% solids)	(t/m ³)	t/m ³	Solids (m ³ /h)	Solution (m ³ /h)	Slurry (m ³ /h)	Check size fractions	+600um	-600um, +300	-300um, +150	-150um
Attritioner Discharge																				
Inputs																				
Attritioners train 1 discharge		29	96.4	72	169	2.65	57.2%	1.55	1.00	36	72	109	96.5	11.8	49.9	31.5	3.2			
Attritioners train 2 discharge		34	96.4	72	169	2.65	57.2%	1.55	1.00	36	72	109	96.5	11.8	49.9	31.5	3.2			
Attritioners train 3 discharge		39	96.4	72	169	2.65	57.2%	1.55	1.00	36	72	109	96.5	11.8	49.9	31.5	3.2			
Attritioners area sump pump discharge		43		0					1.00		0	0								
Attritioner discharge hopper level control		46		74					1.00		74	74								
Attritioner discharge pump water injection		47		0					1.00		0	0								
Outputs																				
Conditioning Tank Feed		48	289	291	580	2.65	49.9%	1.45	1.00	109	291	400	289.4	35.5	149.8	94.6	9.5			
Conditioning Tank Feed Hopper																				
Inputs																				
Conditioning Tank Feed		48	289	291	580	2.65	49.9%	1.45	1.00	109	291	400	289.4	35.5	149.8	94.6	9.5			
Outputs																				
Conditioning Tank Feed		48	289	291	580	2.65	49.9%	1.45	1.00	109	291	400	289.4	35.5	149.8	94.6	9.5			
														12.3%	51.8%	32.7%	3.3%			
Cond. tank dewatering cyclones																				
Inputs																				
Conditioning Tank Feed		48	289	291	580	2.65	49.9%	1.45	1.00	109	291	400		35.5	149.8	94.6	9.5			
Outputs																				
Conditioning cyclone O/F to thickener		91	3.8	137	141	2.65	2.7%	1.02	1.00	1.4	137.2	138.6	3.8	0.0	0.0	1.4	2.4			
Conditioning cyclone O/F recycle		90	0.00								0.0	0.0								
Conditioning cyclone U/F to Conditioning Tank		89	285	154	439	2.65	65.0%	1.68	1.00	108	154	261	285.6	35.5	149.8	93.1	7.1			
Flotation																				
Flotation conditioning tank																				
Inputs																				
Conditioning cyclone U/F to Conditioning Tank		89	285	154	439	2.65	65.0%	1.68	1.00	108	154	261	285.6	35.5	149.8	93.1	7.1			
Conditioning tank depressant		184	0.014	0.132			10.0%		1.08		0.12	0.12								
Conditioning tank collector		190		0.062					0.92		0.07	0.07								
Hydrofloat sodium carbonate solution		208		0.50			8.0%		1.08		0.46	0.46								
Conditioning tank level control		100		0					1.00		0	0								
Conditioning HP flush water		101		0					1.00		0	0								
Conditioning tank pump water injection		103		0					1.00		0	0								
Outputs																				
Hydrofloat feed		102	285	154	440	2.65	64.9%	1.68	1.00	108	154	262	285.6	35.5	149.8	93.1	7.1			
														12.4%	52.5%	32.6%	2.5%			
Hydrofloat feed distributor																				
Inputs																				
Hydrofloat feed		102	285	154	440	2.65	64.9%	1.68	1.00	108	154	262	285.6	35.5	149.8	93.1	7.1			
Outputs																				
Hydrofloat #1 feed		105	143	77	220	2.65	64.9%	1.68	1.00	54	77	131	142.8	17.7	74.9	46.6	3.6			
Hydrofloat #2 feed		116	143	77	220	2.65	64.9%	1.68	1.00	54	77	131	142.8	17.7	74.9	46.6	3.6			
Hydrofloat #1																				
Inputs																				
Hydrofloat #1 feed		105	143	77	220	2.65	64.9%	1.68	1.00	54	77	131	142.8	17.7	74.9	46.6	3.6			
Hydrofloat #1 feed water		106		12					1.00		12	12								
Hydrofloat #1 teeter water		107		232					1.00		232	232								
Hydrofloat #1 cone injection water		108		0					1.00		0	0								
Hydrofloat #1 collector		191		0.000					0.92		0.000	0.000								
Hydrofloat #1 feed frother		199		0.001					0.96		0.001	0.001								
Hydrofloat #1 teeter water frother		200		0.012					0.96		0.013	0.013								
Outputs																				
Hydrofloat #1 product		112	125	53	178	2.65	70.0%	1.77	1.00	47	53	100	124.8	17.5	72.7	34.4	0.2			
Hydrofloat #1 reject		113	18.0	268	286	2.65	6.3%	1.04	1.00	7	268	275	18.0	0.23	2.2	12.20	3.4			
			18.0																	
Hydrofloat #1 flotation reject			3.4																	
Hydrofloat #1 -150um rejected			12.6%																	
Hydrofloat #2																				
Inputs																				
Hydrofloat #2 feed		116	142.7	77	220	2.65	64.9%	1.68	1.00	54	77	131	142.8	17.7	74.9	46.6	3.6			
Hydrofloat #2 feed water		117		12					1.00		12	12								
Hydrofloat #2 teeter water		118		232					1.00		232	232								
Hydrofloat #2 cone injection water		119		0					1.00		0	0								
Hydrofloat #2 collector		192		0.000					0.92		0.000	0.000								
Hydrofloat #2 feed frother		201		0.001					0.96		0.001	0.001								
Hydrofloat #2 teeter water frother		202		0.012					0.96		0.013	0.013								
Outputs																				
Hydrofloat #2 product		123	124.7	53	178	2.65	70.0%	1.77	1.00	47	53	100	124.8	17.5	72.7	34.4	0.2			
Hydrofloat #2 reject		124	18.0	268	286	2.65	6.3%	1.04	1.00	7	268	275	18.0	0.23	2.2	12.20	3.4			
			18.0																	
Hydrofloat #2 flotation reject			3.4																	
Hydrofloat #2 -150um rejected			12.6%																	
Flotation rejects hopper																				
Inputs																				
Hydrofloat #1 reject		113	18.0	268	286	2.65	6.3%	1.04	1.00	7	268	275								
Hydrofloat #2 reject		124	18.0	268	286	2.65	6.3%	1.04	1.00	7	268	275								
Outputs																				
Hydro. Rej. Stacking Cyclone Feed		144	36.1	535.5	572	2.65	6.3%	1.04	1.00	14	536	549	36.1	0.5	4.5	24.4	6.7			
														1.3%	12.5%	67.7%	18.6%			
Flotation area sump pump																				
Input																				
Flotation area spillage		160		0					1.00		0	0								
Flotation area sump pump water injection		161		0					1.00		0	0								
Output																				
Flotation area sump pump discharge		162		0					1.00		0	0								
Flotation area sump pump to grade		163																		
Reagents																				

PROCESS MASS BALANCE REV Q (NOMINAL)



Ore Solids S.G 2.65
Solution S.G 1.00

Description	Process Stream	PFD	Throughput			Solid SG	Slurry Density		Solution	Flowrate			Size fractions				
			Solids	Solution	Slurry		(% solids)	(t/m ³)		Solids	Solution	Slurry	Check size fractions	+600um	-600um, +300	-300um, +150	-150um
Depressant bulki																	
Inputs																	
Depressant bulki		178															
Outputs																	
Neat depressant		179		0.03			41.0%	1.40		0.02	0.02						
Depressant storage tank																	
Inputs																	
Neat depressant		179		0.03			41.0%	1.40		0.02	0.02						
Depressant dilution water		181		0.10				1.00		0.10	0.10						
Outputs																	
Diluted depressant		182		0.13			10.0%	1.08		0.12	0.12						
Depressant dosing																	
Inputs																	
Diluted depressant		182		0.13			10.0%	1.08		0.12	0.12						
Output																	
Conditioning tank depressant		184		0.13			10.0%	1.08		0.12	0.12						
Collector storage (tank or bulki)																	
Inputs																	
Delivered collector		187															
Outputs																	
Collector		188		0.062				0.92		0.067	0.067						
Collector dosing																	
Inputs																	
Collector to plant		189		0.062				0.92		0.067	0.067						
Outputs																	
Conditioning tank collector		190		0.062				0.92		0.067	0.067						
Hydrofloat #1 collector		191		0.000				0.00		#DIV/0!	#DIV/0!						
Hydrofloat #2 collector		192		0.000				0.00		#DIV/0!	#DIV/0!						
Frother bulki																	
Inputs																	
Delivered frother		196															
Outputs																	
Frother		197		0.025				0.96		0.026	0.026						
Frother dosing																	
Inputs																	
Frother		197		0.025				0.96		0.026	0.026						
Outputs																	
Hydrofloat #1 feed frother		199		0.001				0.96		0.001	0.001						
Hydrofloat #1 teeter water frother		200		0.012				0.96		0.013	0.013						
Hydrofloat #2 feed frother		201		0.001				0.96		0.001	0.001						
Hydrofloat #2 teeter water frother		202		0.012				0.96		0.013	0.013						
Sodium carbonate mixing tank																	
Inputs																	
Sodium carbonate powder (bag or bulki)		205	0.04														
Raw water for sodium carbonate mixing		206		0.46			8.0%	1.00		0.46	0.46						
Outputs																	
Sodium carbonate solution		207		0.50			8.0%	1.09		0.45	0.45						
Sodium carbonate storage tank																	
Inputs																	
Sodium carbonate solution		207		0.50			8.0%	1.09		0.45	0.45						
Outputs																	
Hydrofloat sodium carbonate solution		208		0.50			8.0%	1.09		0.45	0.45						
Reagent area sump pump																	
Inputs																	
Reagent bund spillage		213		0				1.00		0	0						
Rainfall into reagent bund		214		0				1.00		0	0						
Outputs																	
Reagent bund sump pump to tails area		216		0				1.00		0	0						
Reagent bund sump pump to bulki box		217		0				1.00		0	0						
Reagent waste bulki																	
Inputs																	
Reagent bund sump pump to bulki box		217		0				1.00		0	0						
Outputs																	
Reagent spillage bulki to thickener/conditioning tank		218		0				1.00		0	0						
Classifiers																	
Classifier #1																	
Inputs																	
Hydrofloat #1 product		112	124.7	53.4	178	2.65	70.0%	1.77	1.00	47	53	100	124.8	17.5	72.7	34.4	0.2
Classifier #1 teeter water		129		174					1.00		174	174					
Outputs																	
Classifier #1 O/F		127	32.7	188	220.7	2.65	14.8%	1.10	1.00	12	188	200	32.7	0.0	1.8	30.7	0.2
Classifier #1 U/F		126	92.1	39.5	131.5	2.65	70.0%	1.77	1.00	35	39	74	92.1	17.5	70.9	3.7	0.0
Overflow														0.00%	5.50%	93.82%	0.68%
Underflow														19.02%	76.99%	3.99%	0.00%
Classifier #2																	
Inputs																	
Hydrofloat #2 product		123	124.7	53.4	178	2.65	70.0%	1.77	1.00	47	53	100	124.8	17.5	72.7	34.4	0.2
Classifier #2 teeter water		139		174					1.00		174	174					
Outputs																	
Classifier #2 O/F		137	32.7	188	220.7	2.65	14.8%	1.10	1.00	12	188	200	32.7	0.0	1.8	30.7	0.2
Classifier #2 U/F		136	92.1	39.5	131.5	2.65	70.0%	1.77	1.00	35	39	74	92.1	17.5	70.9	3.7	0.0

PROCESS MASS BALANCE REV Q (NOMINAL)



Ore Solids S.G 2.65
Solution S.G 1.00

Description	Process Stream	PFD	Throughput			Solid SG	Slurry Density		Solution	Flowrate			Size fractions							
			Stream #	Solids (t/h)	Solution (t/h)		Slurry (t/h)	(m ³ /h)		(% solids)	(t/m ³)	t/m ³	Solids (m ³ /h)	Solution (m ³ /h)	Slurry (m ³ /h)	Check size fractions	+600um	-600um, +300	-300um, +150	-150um
Overflow																				
Underflow																				
Cyclone Stacking & Drainage																				
Stacking Cyclone Feed Hopper																				
Inputs																				
Hydrofloat #1 reject		113	18.0	268	286	2.65	6.3%	1.04	1.00	7	268	275								
Hydrofloat #2 reject		124	18.0	268	286	2.65	6.3%	1.04	1.00	7	268	275								
Hydro. Rej. Hopper Level Control		142		0	0	2.65			1.00	0	0	0								
Outputs																				
Hydro. Rej. Stacking Cyclone Feed		144	36.1	536	572	2.65	6.3%	1.04	1.00	14	536	549								
Stacking Cyclone																				
Inputs																				
Hydro. Rej. Stacking Cyclone Feed		144	36.1	536	572	2.65	6.3%	1.04	1.00	14	536	549	36.1	0.5	4.5	24.4	6.7			
Outputs																				
Stacking Cyclone O/F		145	0.45	518	518.0	2.65	0.1%	1.00	1.00	0	518	518						0.4		
Stacking Cyclone U/F		146	35.6	17.9	54	2.65	66.5%	1.71	1.00	13	18	31	35.6	0.5	4.5	24.4	6.3			
Hydrofloats Rejects stockpile & drainage																				
Inputs																				
Stacking Cyclone U/F		146	35.6	17.9	53.6	2.65	66.5%	1.71	1.00	13	18	31								
Outputs																				
Coarse rejects product stockpile		331	35.6	2.27	37.9	2.65	94.0%	2.41	1.00	13	2	16								
Hydrofloat Rej. Stockpile Drainage		147		7.83	7.8	2.65	0.0%	1.00	1.00	0	8	8								
Hydrofloat Rej. Stockpile Evap & Seepage		148		7.83	7.8	2.65	0.0%	1.00	1.00	0	8	8								
Hydrofloat Rejects Return Water																				
Inputs																				
HRS Return Water Hopper Make-up Water		149		0.0																
Decanter Return Water		271		11.4	11.4	2.65		1.00	1.00	0	11.4	11.4								
Hydrofloat Rej. Stockpile Drainage		147		7.83	7.8	2.65		1.00	1.00	0	8	8								
Stacking Cyclone O/F		145	0.45	518	518.0	2.65	0.1%	1.00	1.00	0	518	518	0.0	0.0	0.0	0.0	0.4			
Outputs																				
HRS Return Water		150	0.45	537	537.2	2.65	0.1%	1.00	1.00	0	537	537	0.0	0.0	0.0	0.0	0.4			
Product stacking																				
Located adjacent to the process plant																				
Hydrofloat Product Hopper to Coarse																				
Inputs																				
Classifier #1 U/F		126	92.1	39	132	2.65	70%	1.77	1.00	35	39	74	92.1	17.5	70.9	3.7	0.0			
Classifier #1 discharge chute water		130		40	40				1.00		40	40								
Classifier #2 U/F		136	92.1	39	132	2.65	70%	1.77	1.00	35	39	74	92.1	17.5	70.9	3.7	0.0			
Classifier #2 discharge chute water		140		40	40				1.00		40	40								
Hydrofloat coarse product pump water injection		151		0					1.00		0	0								
Hydrofloat coarse product hopper level control		152		72	72				1.00		72	72								
Outputs																				
Hydrofloats coarse product		153	184.1	231	415	2.65	44.4%	1.38	1.00	69	231	300	184.1	35.0	141.8	7.4	0.0			
Sieve bend screen																				
Inputs																				
Hydrofloats coarse product		153	184.1	231	415	2.65	44%	1.38	1.00	69	231	300	184.1	35.0	141.8	7.4	0.0			
Sieve bend screen wash water		154		10					1.00		10	10								
Outputs																				
Coarse product screen feed		156	184.1	241	425	2.65	43%	1.37	1.00	69	241	310	183.8	34.7	141.8	7.4	0.0			
Sieve bend O/S (+1000um)		155	0.35	0.06	0.41	2.65	85%	2.12	1.00	0.13	0.06	0.19	0.35	0.35	0.00	0.00	0.00			
Product (0.6mm cut point) fresh feed																				
Inputs																				
Coarse product screen feed		156	183.8	240	424	2.65	43%	1.37	1.00	69	240	310	183.8	34.7	141.8	7.4	0.0			
Coarse product screen spray water		173		125					1.00		125	125								
Outputs																				
Coarse product screen O/S		174	36.1	4.0	40	2.65	90%	2.27	1.00	14	4	18	36.1	34.7	1.4	0.0	0.0			
Coarse product screen U/F		175	147.7	361	509	2.65	29%	1.22	1.00	56	361	417	147.7	0.0	140.3	7.4	0.0			
Coarse product dewatering hopper level control		176	0.0	0.0					1.00		0	0								
Coarse product screen O/S																				
Coarse product screen U/F																				
Hydrofloat Fines Product Hopper distributor																				
Inputs																				
Classifier #1 O/F		127	32.7	188	221	2.65	14.8%	1.10	1.00	12	188	200	0	1.8	30.7	0.2				
Classifier #2 O/F		137	32.7	188	221	2.65	14.8%	1.10	1.00	12	188	200	0	1.8	30.7	0.2				
Hydrofloat fines product hopper level control		158		39					1.00		39	39								
Hydrofloat fines product pump water injection		157		0					1.00		0	0								
Outputs																				
Hydrofloats fines product		159	65.4	415	481	2.65	14%	1.09	1.00	25	415	440	65.4	0.0	3.60	61.4	0.44			
Fines Product dewatering hopper #1																				
Inputs																				
Hydrofloats fines product		159	65.4	415	481	2.65	13.6%	1.09	1.00	25	415	440	0.0	3.60	61.4	0.44				
Fines product dewatering screen U/S		229	1.3	21.3	22.6	2.7	5.8%	1.0	1.0	0	21	22								
Fine product dewatering hopper level control		221		48					1.00		48	48								
Fine product dewatering pump water injection		222		0					1.00		0	0								
Outputs																				
Fines product dewatering cyclone feed		224	67	485	552	2.65	12.1%	1.08	1.00	25	485	510								
Product dewatering cyclone #1																				
Inputs																				
Fines product dewatering cyclone feed		224	67	485	552	2.65	12.1%	1.08	1.00	25	485	510								



PROCESS MASS BALANCE REV Q (NOMINAL)



Ore Solids S.G 2.65
Solution S.G 1.00

Description	Process Stream	PFD	Throughput			Solid SG	Slurry Density		Solution	Flowrate			Size fractions							
			Stream #	Solids (t/h)	Solution (t/h)		Slurry (t/h)	(m ³ /h)		(% solids)	(t/m ³)	t/m ³	Solids (m ³ /h)	Solution (m ³ /h)	Slurry (m ³ /h)	Check size fractions	+600um	-600um, +300	-300um, +150	-150um
Outputs																				
Fines product dewatering cyclone O/F		225	0	456				1.00		456	456									
Fines product dewatering cyclone U/F		226	67	29	95	2.65	70.0%	1.77	1.00	25	29	54								
Product dewatering screen #1																				
Inputs																				
Fines product dewatering cyclone U/F		226	67	29	95	2.65	70.0%	1.77	1.00	25	29	54								
Fines product dewatering screen spray water		227		0					1.00		0	0								
Outputs																				
Fines product dewatering screen O/S		228	65.4	7	73	2.65	90.0%	2.27	1.00	25	7	32	0.0	3.60	61.4	0.44				
Fines product dewatering screen U/S		229	1.3	21	23	2.65	5.8%	1.04	1.00	0	21	22								
Intermediate dewatering hopper #2																				
Inputs																				
Intermediate product dewatering hopper feed		231	148	361	509	2.65	29.0%	1.22	1.00	56	361	417	0	140	7	0				
Intermediate product dewatering screen U/S		240	3	48	51	2.65	5.8%	1.04	1.00	1	48	49								
Intermediate product dewatering hopper level control		232		34					1.00		34	34								
Intermediate product dewatering pump water injection		233		0					1.00		0	0								
Outputs																				
Intermediate product dewatering cyclone feed		235	151	443	594	2.65	25.4%	1.19	1.00	57	443	500								
Product dewatering cyclone #2																				
Inputs																				
Intermediate product dewatering cyclone feed		235	151	443	594	2.65	25.4%	1.19	1.00	57	443	500								
Outputs																				
Intermediate product dewatering cyclone O/F		236	0	379					1.00		379	379								
Intermediate product dewatering cyclone U/F		237	151	65	215	2.65	70.0%	1.77	1.00	57	65	121								
Product dewatering screen #2																				
Inputs																				
Intermediate product dewatering cyclone U/F		237	151	65	215	2.65	70.0%	1.77	1.00	57	65	121								
Intermediate product dewatering screen spray water		238		0					1.00		0	0								
Outputs																				
Intermediate product dewatering screen O/S		239	148	16	164	2.65	90.0%	2.27	1.00	56	16	72	0	140	7	0				
Intermediate product dewatering screen U/S		240	3	48	51	2.65	5.8%	1.04	1.00	1	48	49								
Fines Product conveyor																				
Inputs																				
Fines product dewatering screen O/S		228	65.4	7	73	2.65	90.0%	2.27	1.00	25	7	32								
Outputs																				
Fines Product conveyor discharge		242	65.4	7	73	2.65	90.0%	2.27	1.00	25	7	32								
Product stockpile - Fines																				
Inputs																				
Fines Product conveyor discharge		242	65.4	7	73	2.65	90.0%	2.27	1.00	25	7	32								
Stockpile spray water - Fines		256		10					1.00		10	10								
Outputs																				
Fines Product stockpile		244	65.4	4.2	70	2.65	94.0%	2.41	1.00	25	4	29	0	4	61	0				
Fines Product stockpile drainage		245		0.0					1.00		0	0								
Fines Product stockpile evaporation & seepage		246		13.1					1.00		13	13								
Coarse Product conveyor																				
Inputs																				
Coarse product screen O/S		174	36.1	4.0	40	2.65	90.0%	2.27	1.00	14	4	18	34.7	1.42	0.00	0.00				
Outputs																				
Coarse product conveyor discharge		319	36.1	4.0	40	2.65	90.0%	2.27	1.00	14	4	18								
Product stockpile - Coarse																				
Inputs																				
Coarse product conveyor discharge		319	36.1	4.0	40	2.65	90.0%	2.27	1.00	14	4	18	34.7	1.42	0.00	0.00				
Stockpile spray water - Coarse		257		10					1.00		10	10								
Outputs																				
Coarse product stockpile		321	36.1	2.3	38	2.65	94.0%	2.41	1.00	14	2	16	34.7	1.42	0.00	0.00				
Coarse product stockpile drainage		322		0.0					1.00		0	0								
Coarse product stockpile evaporation & seepage		323		11.7					1.00		12	12								
Inter. Product conveyor																				
Inputs																				
Intermediate product dewatering screen O/S		239	148	16	164	2.65	90.0%	2.27	1.00	56	16	72	0	140	7.4	0				
Outputs																				
Intermediate product conveyor discharge		325	148	16	164	2.65	90.0%	2.27	1.00	56	16	72								
Product stockpile - Intermediate																				
Inputs																				
Intermediate product conveyor discharge		325	148	16	164	2.65	90.0%	2.27	1.00	56	16	72	0	140	7	0				
Stockpile spray water - Intermediate		258		10					1.00		10	10								
Outputs																				
Intermediate product stockpile		327	148	9.4	157	2.65	94.0%	2.41	1.00	56	9	65	0	140	7	0				
Intermediate product stockpile drainage		328		0.0					1.00		0	0								
Intermediate product stockpile evaporation & seepage		329		17.0					1.00		17	17								
Product Stacking Tails Hopper																				
Inputs																				
Fines product dewatering cyclone O/F		225		456					1.00		456	456								
Intermediate product dewatering cyclone O/F		236		379					1.00		379	379								
Product dewatering area sump discharge		253		0.0					1.00		0	0								
Product stacking area sump discharge		255		0.0					1.00		0	0								
Product stacking tails pump hopper level control		248		0.0					1.00		0	0								
Outputs																				
Product stacking tails pump return		249		835					1.00		835	835								
Product stacking area sump																				

PROCESS MASS BALANCE REV Q (NOMINAL)



Ore Solids S.G 2.65
Solution S.G 1.00

Description	Process Stream	PFD	Throughput			Solid SG	Slurry Density		Solution	Flowrate			Size fractions							
			Stream #	Solids (t/h)	Solution (t/h)		Slurry (t/h)	(m ³ /h)		(% solids)	(t/m ³)	t/m ³	Solids (m ³ /h)	Solution (m ³ /h)	Slurry (m ³ /h)	Check size fractions	+600um	-600um, +300	-300um, +150	-150um
Inputs																				
Fines Product stockpile drainage		245		0.00				1.00		0.0	0.0									
Intermediate product stockpile drainage		328		0.00				1.00		0.0	0.0									
Coarse product stockpile drainage		322		0.00				1.00		0.0	0.0									
Outputs																				
Product stacking area sump discharge		255		0.0				1.00		0	0									
Product dewatering area sump																				
Inputs																				
Product dewatering spillage		251		0				1.00		0	0									
Product dewatering area sump pump water injection		252		0				1.00		0	0									
Outputs																				
Product dewatering area sump discharge		253		0				1.00		0	0									
Thickener and flocculant																				
Thickener																				
Inputs																				
Thickener feed		260	14.9	1413.2	1428	2.65	1.05%	1.01	1.00	6	1413	1419		0	0	2	13			
CD tank overflow		16	8.1	529.5	538	2.65	1.5%	1.01	1.00	3	530	533		0.0	0.0	0.0	8.1			
Attritioners cyclone O/F		21	3	195.4	198	2.65	1.3%	1.01	1.00	1	195	196		0.00	0.00	0.62	1.98			
Conditioning cyclone O/F to thickener		91	3.8	137.2	141	2.65	2.7%	1.02	1.00	1	137	139		0.00	0.00	1.42	2.38			
HRS Return Water		150	0.4	536.8	537	2.65	0.1%	1.00	1.00	0	537	537		0.0	0.0	0.0	0.4			
Thickener & flocc area sump pump discharge		282		0.0				1.00		0	0									
Flocculant secondary soution		276		14.3				1.00		14.3	14.3									
Coagulant to thickener		278		0.000				1.10		0.000	0.000									
Thickener cone injection water		261		0.0				1.00		0	0									
Thickener U/F pump water injection		262		0.0				1.00		0	0									
Outputs																				
Thickener O/F		263		1401	1401	2.65		1.00		1401	1401									
Thickener U/F		264	14.9	12.2	27.1	2.65	55.0%	1.52	1.00	6	12	17.9								
Tails dam																				
Inputs																				
Thickener U/F		264	14.9	12.2	27.1	2.65	55.0%	1.52	1.00	6	12	18								
Outputs																				
Centrifuge cake		266	14.9	2.6	17.6	2.65	85.0%	2.12	1.00	6	3	8								
Consolidated thickener solids		267	0.0	9.6				1.00		10	10									
Centrifuge in use																				
Yes			1	1																
Centrifuge Feed Hopper																				
Inputs																				
Thickener U/F		264	14.93	12.22	27.1	2.65	55.0%	1.52	1.00	5.63	12.22	17.9								
Flocculant to centrifuge		265		1.79				1.00		1.79	1.79									
Outputs																				
Centrifuge cake		266	14.9	2.6	17.6	2.65	85.0%	2.12	1.00	5.6	2.6	8.3								
Decanter Return Water		271	0.0	11.4	11.4	2.65	0.0%	1.00	1.00	0.0	11.4	11.4								
Reject Stockpile - Fines																				
Inputs																				
Centrifuge cake		266	14.9	2.6	17.6	2.65	85.0%	2.12	1.00	5.63	2.64	8.27								
Outputs																				
Consolidated thickener solids		267	14.9	1.66	16.59	2.65	90.0%	2.27	1.00	5.63	1.66	7.29								
Consolidated thickener solids seepage & evaporation		268		0.98				1.00		0.98	0.98									
Consolidated thickener solids drainage				0.00																
Flocculant mixing tank																				
Inputs																				
Powder flocculant		272	0.0036																	
Flocculant dilution pump		306		1.43				1.00		1.4	1.4									
Outputs																				
Powder flocculant		272	0.0036	1.43	1.43		0.25%	1.00		1.4	1.4									
Flocculant storage tank																				
Inputs																				
Flocculant primary solution		274	0.0036	1.43	1.43		0.25%	1.00		1.4	1.4									
HP water for flocculant secondary dilution		275		12.9				1.00		12.9	12.9									
Outputs																				
Flocculant secondary soution		276	0.0036	14.3	14.3		0.025%	1.00		14.3	14.3									
Coagulant																				
Inputs																				
Coagulant bulki		277		0.00015					1.10	0.0	0.0									
Outputs																				
Coagulant to thickener		278		0.00015					1.10	0.0	0.0									
Thickener & flocc area sump pump																				
Inputs																				
Thickener & flocc area spillage		280		0				1.00		0	0									
Thickener & flocc area sump pump water injection		281		0				1.00		0	0									
Outputs																				
Thickener & flocc area sump pump discharge		282		0				1.00		0	0									
Water																				
Trommel water pump (on process water dam)																				
Inputs																				
Mine feed water pump		285		374				1.00		374	374									
Outputs																				
Trommel feed chute water		12		300				1.00		300	300									
Trommel hopper level control		13		0				1.00		0	0									
Trommel HP water		8		50				1.00		50	50									
Dust supression / Stand pipe		287		24.3				1.00		24	24									

PROCESS MASS BALANCE REV Q (NOMINAL)



Ore Solids S.G 2.65
Solution S.G 1.00

Description	Process Stream	PFD	Throughput			Solid SG	Slurry Density		Solution	Flowrate			Size fractions				
			Solids	Solution	Slurry		(% solids)	(t/m ³)		Solids	Solution	Slurry	Check size fractions	+600um	-600um, +300	-300um, +150	-150um
Trommel LP water		11		300				1.00		300	300						
Trommel spray pump																	
Inputs																	
Trommel HP water		8		50				1.00		50	50						
Outputs																	
Trommel spray water		9		50				1.00		50	50						
Trommel U/F pump water injection		10		0				1.00		0	0						
Fluidising water pump																	
Inputs																	
Fluidising water pump		290		107				1.00		107	107						
Outputs																	
CD tank fluidising water		17		89.9				1.00		90	90						
CD tank dialation water		18		17				1.00		17	17						
Density control water pump																	
Inputs																	
Density control pump		291		142				1.00		142	142						
Outputs																	
CD tank density control water		19		142				1.00		142	142						
Hydrofloat teeter water pump																	
Inputs																	
Teeter water pump		293		836				1.00		836	836						
Outputs																	
Hydrofloat #1 feed water		106		12				1.00		12	12						
Hydrofloat #1 teeter water		107		232				1.00		232	232						
Hydrofloat #2 feed water		117		12				1.00		12	12						
Hydrofloat #2 teeter water		118		232				1.00		232	232						
Classifier #1 teeter water		129		174				1.00		174	174						
Classifier #2 teeter water		139		174				1.00		174	174						
Low pressure water pumps																	
Inputs																	
Low pressure water pumps		295		677.2				1.00		677	677						
Outputs																	
Cyclone underflow dilution #1		25		0				1.00		0	0						
Cyclone underflow dilution #2		30		0				1.00		0	0						
Cyclone underflow dilution #3		35		0				1.00		0	0						
CD tank clarifying water addition		14		210				1.00		210	210						
Attritioners train 1 dilution water		26		0				1.00		0	0						
Attritioners train 1 discharge chute water		28		40				1.00		40	40						
Attritioners train 2 dilution water		31		0				1.00		0	0						
Attritioners train 2 discharge chute water		33		40				1.00		40	40						
Attritioners train 3 dilution water		36		0				1.00		0	0						
Attritioners train 3 discharge chute water		38		40				1.00		40	40						
Attritioner discharge hopper level control		46		74				1.00		74	74						
Conditioning tank level control		100		0				1.00		0	0						
Classifier #1 discharge chute water		130		40				1.00		40	40						
Classifier #2 discharge chute water		140		40				1.00		40	40						
Hydro. Rej. Hopper Level Control		142		0				1.00		0	0						
Hydrofloat coarse product hopper level control		152		72				1.00		72	72						
Hydrofloat fines product hopper level control		158		39				1.00		39	39						
Coarse product dewatering hopper level control		176		0				1.00		0	0						
Fine product dewatering hopper level control		221		48.2				1.00		48	48						
Intermediate product dewatering hopper level control		232		33.6				1.00		34	34						
Product stacking tails pump hopper level control		248		0				1.00		0	0						
Low pressure water to product stockpiling		301		82				1.00		82	82						
High pressure water pump																	
Inputs																	
High pressure water pumps		298		179				1.00		179	179						
Outputs																	
Attritioners train 1 HP flush water		27		0				1.00		0	0						
Attritioners train 2 HP flush water		32		0				1.00		0	0						
Attritioners train 3 HP flush water		37		0				1.00		0	0						
Attritioners area sump pump water injection		42		0				1.00		0	0						
Attritioner discharge pump water injection		47		0				1.00		0	0						
Conditioning HP flush water		101		0				1.00		0	0						
Conditioning tank pump water injection		103		0				1.00		0	0						
Hydrofloat #1 cone injection water		108		0				1.00		0	0						
Hydrofloat #2 cone injection water		119		0				1.00		0	0						
HRS Return Water Hopper Make-up Water		149		0				1.00		0	0						
Hydrofloat coarse product pump water injection		151		0				1.00		0	0						
Sieve bend screen wash water		154		10				1.00		10	10						
Hydrofloat fines product pump water injection		157		0				1.00		0	0						
Flotation area sump pump water injection		161		0				1.00		0	0						
Coarse product screen spray water		173		125				1.00		125	125						
Fine product dewatering pump water injection		222		0				1.00		0	0						
Fines product dewatering screen spray water		227		0				1.00		0	0						
Intermediate product dewatering screen spray water		238		0				1.00		0	0						
Intermediate product dewatering pump water injection		233		0				1.00		0	0						
Product stacking tails pump water injection		247		0				1.00		0	0						
Product dewatering area sump pump water injection		252		0				1.00		0	0						
Stockpile spray water - Intermediate		258		10				1.00		10	10						
Stockpile spray water - Coarse		257		10				1.00		10	10						
Stockpile spray water - Fines		256		10				1.00		10	10						
Thickener cone injection water		261		0				1.00		0	0						
Thickener U/F pump water injection		262		0				1.00		0	0						
Raw water for flocculant primary dilution		273		1.4				1.00		1.4	1.4						
HP water for flocculant secondary dilution		275		12.9				1.00		13	13						
Thickener & flocc area sump pump water injection		281		0				1.00		0	0						
High pressure water to product stockpiling		300		165				1.00		165	165						

PROCESS MASS BALANCE REV Q (NOMINAL)



Ore Solids S.G 2.65
Solution S.G 1.00

Description	Process Stream	PFD	Throughput			Solid SG	Slurry Density		Solution	Flowrate			Size fractions							
			Stream #	Solids (t/h)	Solution (t/h)		Slurry (t/h)	(m ³ /h)		(% solids)	(t/m ³)	t/m ³	Solids (m ³ /h)	Solution (m ³ /h)	Slurry (m ³ /h)	Check size fractions	+600um	-600um, +300	-300um, +150	-150um
Plant process water																				
Plant process water		302		2340				1.00		2340	2340									
Raw water tank																				
Inputs																				
Raw water for reagents & gland water		304		7				1.00		7	7									
Outputs																				
Depressant dilution water		181		0.10				1.00		0	0									
Raw water for sodium carbonate mixing		206		0.46				1.00		0	0									
Flocculant dilution pump		306		1.43				1.00		1	1									
Gland water pump		310		5				1.00		5	5									
Non-process water		312		0.1				1.00		0	0									
Bore pumps																				
Inputs																				
Bore water		316		111				1.00		111	111									
Outputs																				
Bore water to process water dam		317		104				1.00		104	104									
Raw water for reagents & gland water		304		7				1.00		7	7									
Process water pond																				
Inputs																				
Bore water to process water dam		317		104				1.00		104	104									
Product stacking tails pump return		249		835																
Thickener O/F		263		1401				1.00		1401	1401									
Outputs																				
CD tank density control water		19		142				1.00		142	142									
Mine feed water pump		285		374				1.00		374	374									
Dust suppression / Stand pipe		287		24				1.00		24	24									
Fluidising water pump		290		107				1.00		107	107									
Teeter water pump		293		836				1.00		836	836									
Low pressure water pumps		295		677				1.00		677	677									
High pressure water pumps		298		179				1.00		179	179									
ANNUAL WATER CONSUMPTION (GL/a)																				
0.88																				
Process summary																				
Inputs																				
ROM feed		1	300.0	12.5																
Bore water		316		111																
Neat depressant		179		0.03																
Collector		188		0.06																
Frother		197		0.025																
Sodium carbonate powder (bag or bulki)		205	0.04	0.0																
Raw water for flocculant primary dilution		273	0.004	0.0																
Coagulant bulki		277		0.0																
Total inputs			300.0	123.7																
Outputs (water loses)																				
Grizzly O/S		2	0.0	0																
Trommel O/S		6	0.1	0.01																
Reagent bund sump pump to tails area		216	0.0	0																
Fines Product stockpile		244	65.4	4.2									0	4	61	0				
Fines Product stockpile evaporation & seepage		246	0.0	13.1																
Centrifuge cake		266	14.9	2.6																
Coarse product stockpile		321	36.1	2.3																
Coarse product stockpile evaporation & seepage		323	0.0	11.7									35	1	0	0				
Intermediate product stockpile		327	147.7	9.4																
Intermediate product stockpile evaporation & seepage		329	0.0	17.0									0	140	7	0				
Coarse rejects product stockpile		331	35.6	2.3																
Coarse rejects stockpile evaporation & seepage		333	0.0	7.8																
Gland water pump		310	0.0	5																
Non-process water		312	0.0	0.1																
Dust suppression / Stand pipe		287	0.0	24.3																
Raw water for flocculant primary dilution		273	0.0	1.43																
Total outputs			299.8	101.2																