SALT LAKE POTASH LTD

Lake Way Playa

Blackham Resources Tenements

SOP Resource Estimate Upgrade

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Document Title

Lake Way Playa - Blackham Resources Tenements - SOP Resource Estimate Upgrade

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1 Introduction

1.1 Objectives

This report details an upgrade of the Sulphate of Potash (SOP, K_2SO_4) Resource Estimate calculated for the SOP dissolved in brine hosted in Lakebed Sediments on the Blackham Resources Tenements beneath Lake Way salt lake playa in Western Australia. These resources make up the Lake Way Blackham Resources Tenements Project (BRT project). The resource estimate is reported in accordance with the JORC Code 2012.

The Lake Way BRT Project is being evaluated by Salt Lake Potash Ltd, Perth (SLP) for potential production of SOP by solar evaporation of the brines to Schoenite ($K_2Mg(SO_4)_2$ and subsequent processing to SOP.

Recent and ongoing extended field trials have been undertaken pumping brine from trenches excavated into the playa surface. These tests have provided a data set to better constrain the parameters applied in the Resource Estimate and subsequently upgrade the confidence in the estimate from Indicated to Measured.

1.2 Context

1.2.1 Reporting Codes

Mineral resources dissolved in brine that is contained within pore spaces of the host rocks (brine resources) are different to solid minerals. The resource is not mined by the conventional methods of excavation. Instead the resource is mined by pumping liquid brine from trenches or bores constructed into the host rock. The method of production is more comparable to production of petroleum resources than mining solid minerals.

Reporting of brine resources in Australia is done in accordance with the JORC Code (2012). The JORC code is designed for solid minerals, not brine resources, and there are some deficiencies in the JORC Code when applied to brine resources.

The Australian Association of Mining and Exploration Companies (AMEC) has developed a set of guidelines for reporting brine resources that aim to address these deficiencies. The guidelines are in draft format (in November 2018) and have not yet been accepted by Joint Ore Resource Committee (JORC).

The AMEC draft guidelines mirror the content of guidelines produced by the Canadian Institute of Mining, Metallurgy and Petroleum (CIMM); *CIM Best Practice Guidelines for Resource and Reserve Estimation for Lithium Brines (2012)*. These guidelines fall under the *National Instrument 43-101 – Standards of Disclosure for Mineral Projects (NI 43-101)* that define mineral resource evaluation reporting requirements for companies listed on the Toronto Stock Exchange. The CIMM guidelines were based on the experience of lithium brine projects on the Salars of South America as collated by Houston et al (2011). Typically, the CIMM guidelines are adopted as the defacto standard for reporting Potash Brine Resources in Australia.

1.2.2 Reporting Requirements

Resource

The reporting guidelines (CIMM and Draft AMEC) specify that a brine resource is calculated as the product of:

Host rock volume x host rock porosity x dissolved mineral concentration.

The report must detail properties of the brine system per the simplified Table 1.1 below.

Table 1.1: Reporting requirements and definition of terms

Parameter	Units	Description
Aquifer		Rock or sediment that is saturated with water and is sufficiently permeable to conduct water to trenches or bores
Aquitard		Rock or sediment that is saturated with water but permeability is too low to conduct water to trenches or bores and a rate that can be pumped.
Un-saturated zone		Rock or sediment that is above the water table. Drainable porosity will be zero, though some water content can be retained through surface tension.
Hydraulic conductivity	m/day	Permeability. How readily a rock or sediment conducts water
Total Porosity (P_t)	fraction by volume	The total water content of a rock or sediment, including "drainable" water, and "retained" water that is retained by surface tension. (P_t) = (P_r) + (P_d)
Drainable Porosity (P_d)	fraction by volume	Also called "Specific Yield". Water content of a rock or sediment that can drain under gravity.
Retained Porosity (P_r)	fraction by volume	Also called "Specific Retention". Water content of a rock or sediment that does not drain under gravity and is held by surface tension.
Water Balance		The temporal effects of basin inflow, rainfall, surface run-off and evaporation on the brine resource.
Geology		Definition of the geological structure
Geometry		Measurement of the thickness, elevation and extent of each defined geological and hydrogeological unit.
Brine Chemistry	mass per volume (kg/m^3)	The concentration of minerals dissolved in the brine. Must include the primary minerals (eg, Potassium and Sulphate) but also other major ions taht define the process route and gangue minerals. (Na, Ca, Mg, Cl, HCO_3)

Reserve

A brine reserve is calculated as the product of:

Production flow rate x dissolved mineral concentration x duration

The reserve is reported for a specified production scheme (system of bores and trenches and pumping regime). This is typically supported by a digital simulation fluid flow model. The fluid flow model implements the full set of parameters in Table 1.1 to estimate the flow rate and brine concentration that can be sustained for a defined period of time.

1.2.3 Mining Method Implications for the Resource Estimate

The shallow Lake Bed Sediments (LBS) at Lake Way comprise the aquifer that hosts the brine resource detailed in this report. The aquifer will be mined by pumping brine from a network of trenches excavated into the playa surface to a depth of nominally 6 m, though trenches may be deepened over time.

The production of brine is cyclic as shown in Figure 1.2 and described below

Initial Resource

The initial brine resource comprises (Figure 1.1):

1. Brine dissolved in water held in Drainable Porosity, (11% of the total aquifer volume).
2. Brine dissolved in water held in Retained Porosity, (32% of total aquifer volume).

The remaining volume is occupied by solid material (sand, silt and clay grains comprising 57% of the aquifer volume).

The combined porosity (Total Porosity) then comprises the total SOP brine resource held in the LBS aquifer.

Production Cycle

During production the brine drains under gravity toward the trench and is subsequently removed by pumping. This creates a hydraulic gradient toward the trench and brine is drawn some distance through the aquifer toward the trench (Typically hundreds of meters depending on aquifer permeability).

Over time the aquifer immediately surrounding the trench is partially dewatered. This means that the drainable brine has been removed from the sediment, but the retained brine is still held in place by surface tension.

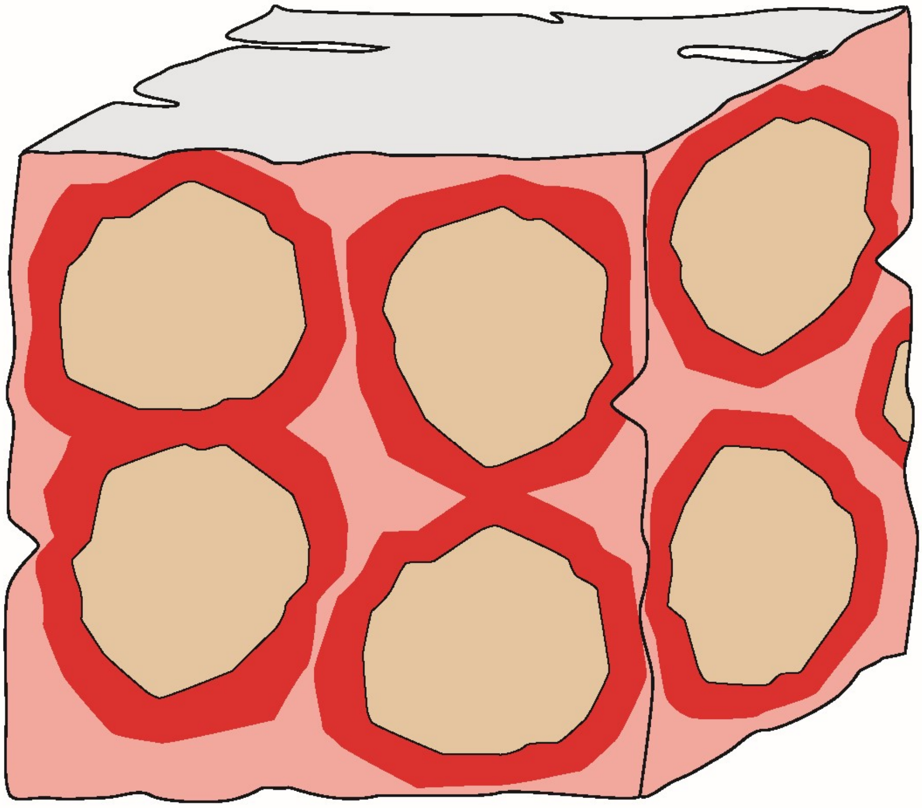
Recharge Cycle

Western Australian Salt Lake playas receive some water input from rainfall and run-off annually. Direct rainfall lands on the playa each year, and most years, heavy, cyclonic rain events cause run-off from the surrounding catchment onto the Playa. This water infiltrates the playa surface and re-fills the drainable pores in the aquifer. The larger rainfall events usually occur from January through to March.

Mixing Cycle

The water that has infiltrated and refilled the drainable porosity then mixes (by physical diffusion) with the brine held in retained porosity.

Through repeated production cycles the total brine resource is mined. The concentration of brine pumped from the production trenches will decline over time as the total resource is depleted over repeated production cycles.



	SOP TONNAGE	VOLUMES
Sand & silt grains		57%
Brine held by surface tension	1.4 Mt	32%
Brine drainable under gravity	0.5 Mt	11%
Total Sulphate of Potash Brine	1.9 Mt	

Figure 1.1: Salt Lake Playa SOP Brine Resource – Conceptual Figure

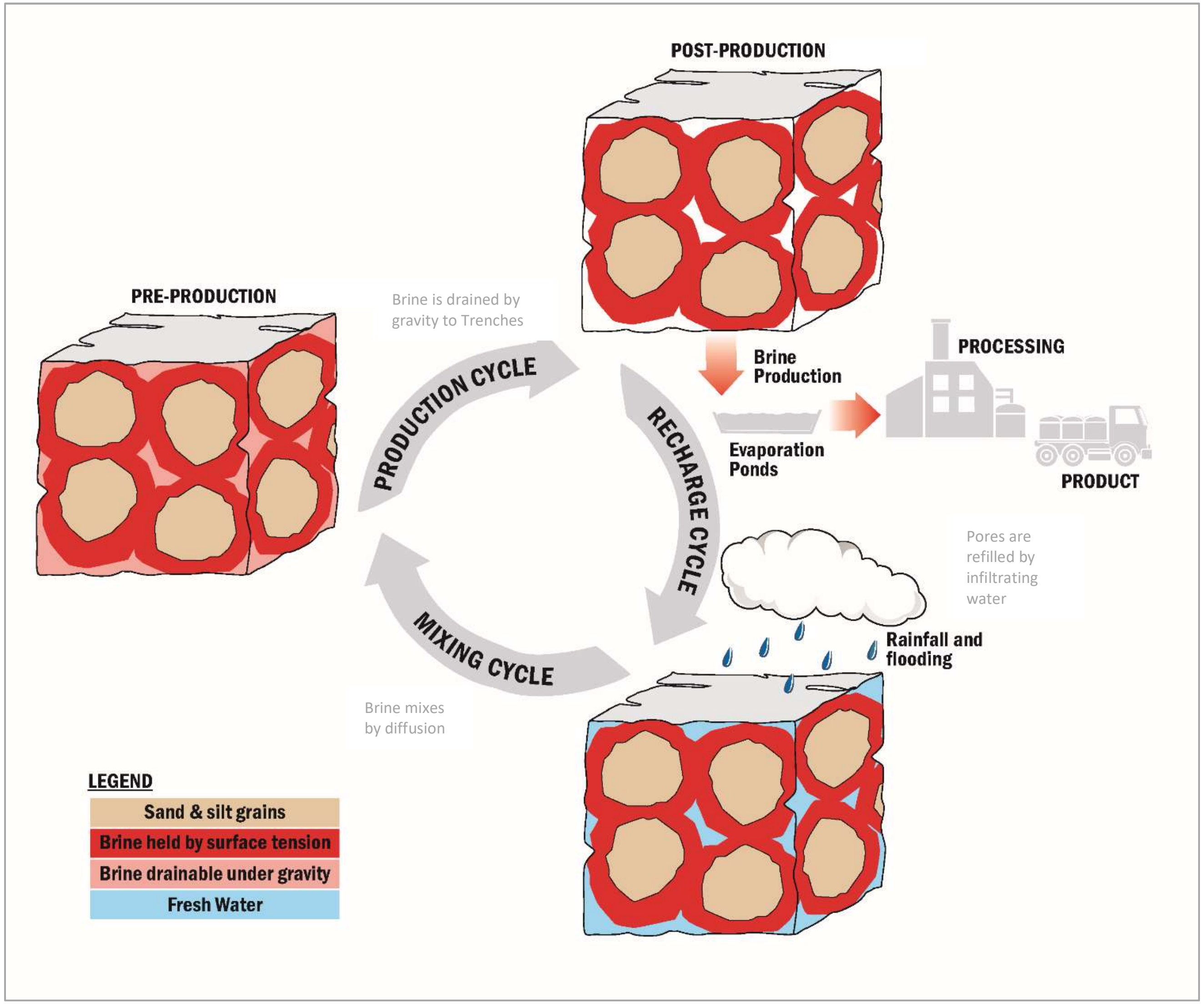


Figure 1.2: Salt Lake Playa SOP Production Cycle

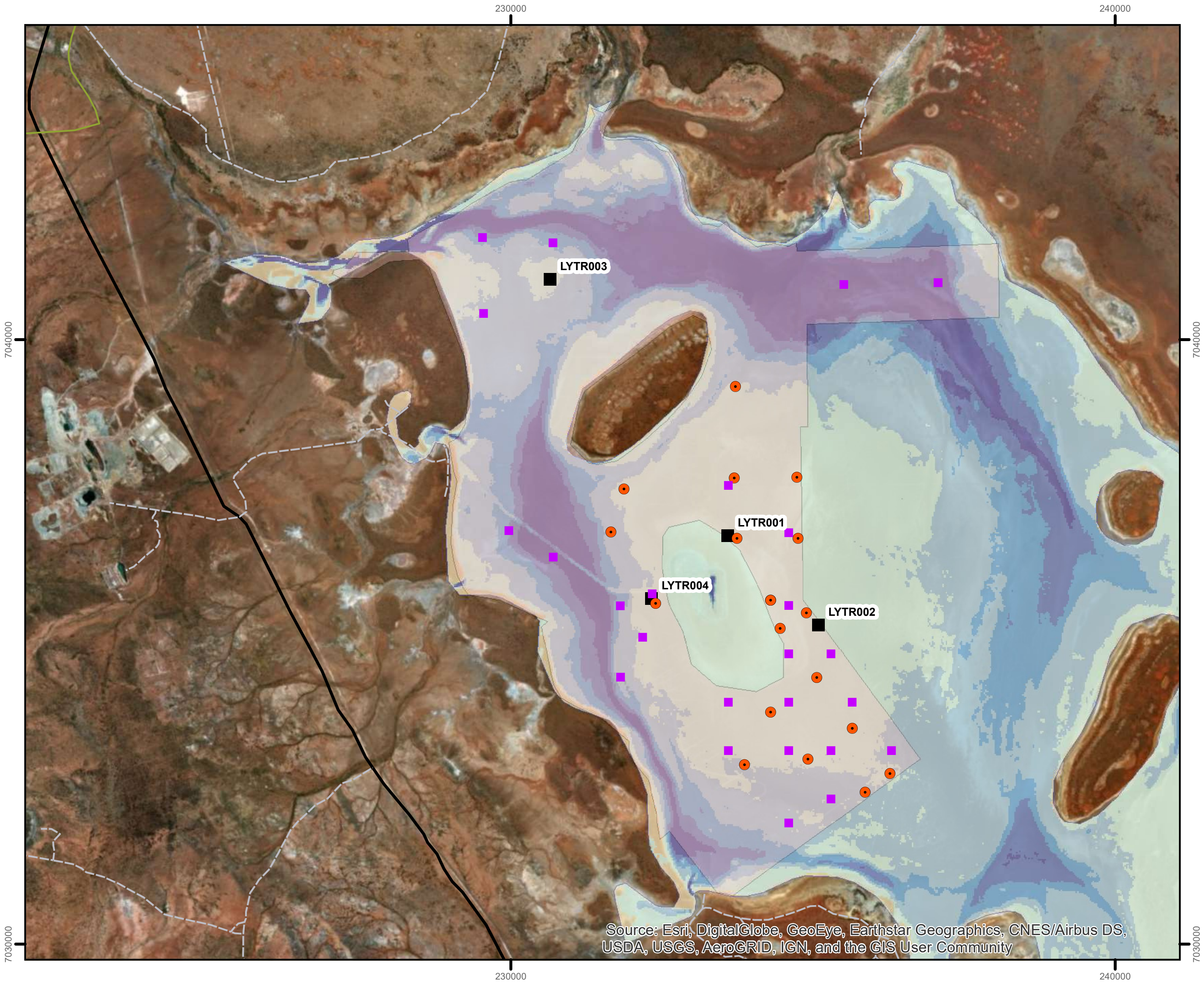
1.3 Background

Lake Way is a Salt Lake playa located to the south east of Wiluna in Western Australia. Significant previous exploration and mining activity has taken place over the BRT area, the majority of which targeted gold and uranium mineralisation.

In July 2018 Salt Lake Potash reported an Indicated Resource Estimate for the SOP mineralisation dissolved in brine held in pore spaces within sediment beneath the Playa (Groundwater Science, 2018a). The estimate was based on data from test pits, aircore drilling and the historical drilling database used to understand and map the thickness of the Lakebed sediments. Laboratory testing and limited field pumping trials were conducted to define porosity and hydraulic parameters of the aquifer. Brine concentration was determined from assay of brine samples taken from test pits, drillholes and trenches excavated into the aquifer. The data distribution is presented on Figure 1.3.

This work enabled the estimation of a sediment hosted SOP resource comprising 1.9 Mt SOP calculated using Total Porosity of the sediment, and 0.49 Mt SOP calculated using the Drainable Porosity of the sediment. The confidence of the estimate supported an Indicated Resource Classification.

Quantification of the brine grade and volume contained in the Pit Lake within the Williamson historic mine pit excavated into the Mine Playa (Figure 1.4) enabled a Measured resource to be determined comprising 0.03Mt SOP.



Legend

- Excavator_Test_Pits
- Hand_Auger
- Test_Trench
- BRT_Sediment Hosted Resource Extent

Playa Extent

Innundation Fequency (%)

- <5
- 6 - 10
- 11 - 15
- 16 - 20
- >20
- Playa

GROUNDWATER SCIENCE

Job Number: SLP-18-4

Client: Salt Lake Potash

Version: 1 Date: 08/06/2018

Drawn by: BJ

N

0 0.75 1.5 3

Kilometers

Coordinate System: GDA 1994 MGA Zone 51

Lake Way Data Points

Figure 1.3

Document Path: C:\Users\Ben Jeuken\Dropbox (Groundwater Science)\Groundwater Science Team Folder\Project Files\SLP\SLP-18-6-Lake Way MR\GIS\Maps\Lake Way Data.mxd
Document Name: Lake Way Data


Figure 1.4: Williamson Pit at Lake Way – July 2018 Measured Resource 0.03 Mt SOP

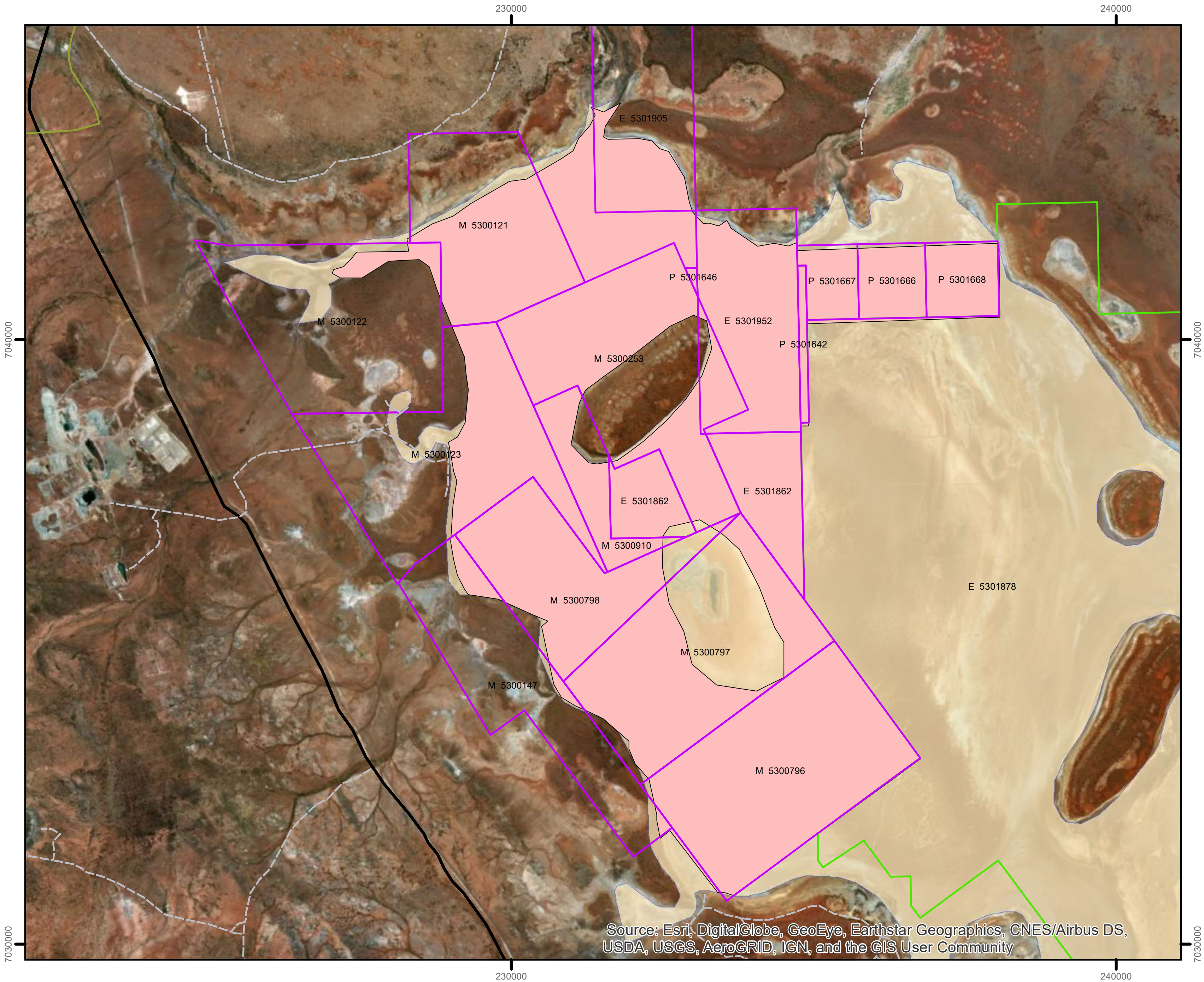
1.4 Tenure

On the 9th March 2018 Salt Lake Potash Ltd. and Blackham Resources Ltd. signed a gold and brine minerals memorandum of understanding. Under this MOU Blackham has granted the brine rights on its Lake Way tenement free from encumbrances to SLP.

The tenements referred to in the MOU are (Figure 1.5);

- Exploration licences E53/1288, E53/1862, E53/1905, E53/1952,
- Mining Licences, M53/121, M53/122, M53/123, M53/147, M53/253, M53/796, M53/797, M53/798, M53/910, and
- Prospecting Licences P53/1642, P53/1646, P53/1666, P53/1667, P53/1668.

All tenure is granted to Blackham Resources Ltd. and their subsidiaries.



Legend

- Blackham Resrources Tenements
- Salt Lake Potash Tenements
- BRT_Sediment Hosted Resource Extent
- Playa

GROUNDWATER SCIENCE

Job Number: SLP-18-4

Client: Salt Lake Potash

Version: 1 Date: 08/06/2018

Drawn by: BJ

N

0 0.75 1.5 3
Kilometers

Coordinate System: GDA 1994 MGA Zone 51

Lake Way Tenements

Figure 1.5

Document Path: C:\Users\Ben Jeuken\Dropbox (Groundwater Science)\Groundwater Science Team Folder\Project Files\SLP\SLP-18-6-Lake Way MR\GIS\Maps\Lake Way Tenements.mxd
Document Name: Lake Way Tenements

1.5 Previous Work

1.5.1 July 2018 Resource Estimate

The SOP resources of the project were reported in July 2018 (Groundwater Science, 2018a). The Resources comprised a Measured Resource estimate of the Sulphate of Potash (SOP, K2SO4) contained within the brine held in the Williamson open pit on Lake Way and an Indicated Resource estimate of the SOP dissolved in brine hosted in Lakebed Sediments beneath the Blackham Resources Tenements on Lake Way in Western Australia.

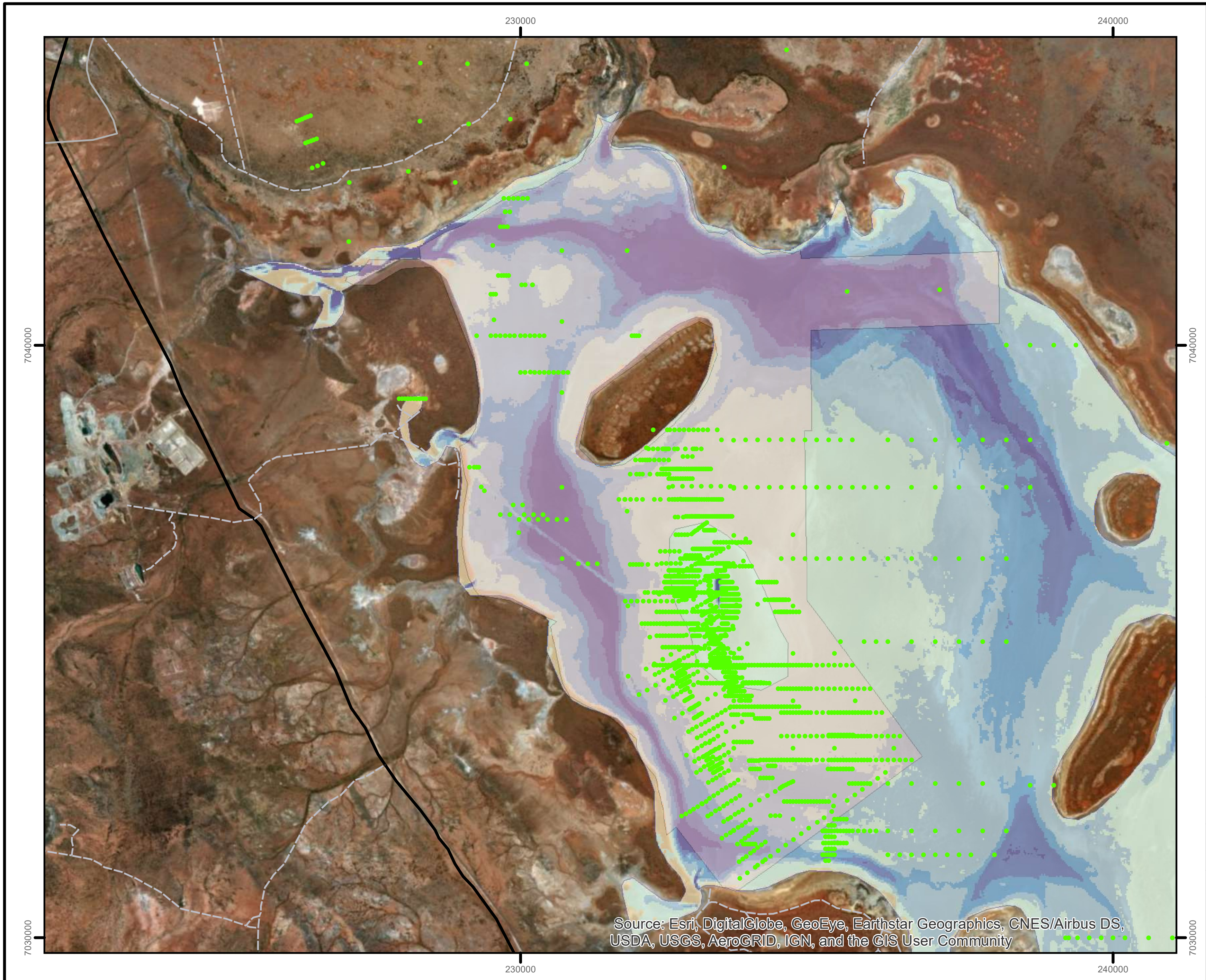
1.5.2 Previous mineral exploration

Significant historical exploration work has been completed both on Lake Way and around the fringes focusing on nickel, gold and uranium, as well as process water for mining operations.

A review of the Department of Mines and Petroleum's WAMEX database was undertaken. The database contains more than 6,200 mineral exploration drill holes, about 1,000 of which are on the BRT area. All holes are shown on Figure 1.6. The holes were drilled on Lake Way for a range of different commodities and widely distributed across the playa surface in a largely east to west orientation. There are a greater proportion of drill holes in the northern and central parts of the playa.

Whilst the database is significant the logging standards and lithological interpretation is highly varied between drilling projects and mining companies. This variability and inconsistency in the lithological logging prevented a re-interpretation of the specific layers and depositional events within the lake bed sediments, but the logging was such that it was useful for mapping the contact between the base of the lake bed sediments and weathered basement.

The lithological logging associated with nickel and gold mineral exploration was less useful, as the emphasis was the basement lithologies and the sediments were considered as overburden and typically not logged. In contrast, the shallow lithology was more accurately logged as part of the uranium exploration by Toro Energy and others. The uranium exploration focused on shallow (upper 10 m) calcrete bodies that are widely distributed beneath the playa surface.



Legend

- WAMEX Data Points
- BRT_Sediment Hosted Resource Extent

Playa Extent

Innundation Fequency (%)

- <5
- 6 - 10
- 11 - 15
- 16 - 20
- >20
- Playa

GROUNDWATER SCIENCE

Job Number: SLP-18-4

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Version: 1 Date: 08/06/2018

Drawn by: BJ

N

0 0.75 1.5 3
Kilometers

Coordinate System: GDA 1994 MGA Zone 51

Lake Way
Historic Drilling Data Points
(WAMEX data base)

Figure 1.6

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Document Name: Lake Way WAMEX

2 Project Description

2.1 Location

The BRT Lake Way project is in the Northern Goldfields region of Western Australia. The playa is located about 15 km south of Wiluna (Figure 2.1), which is an historic mining precinct dating back to the late 19th century. The playa is a significant regional landform with a surface area of over 270 km^2.

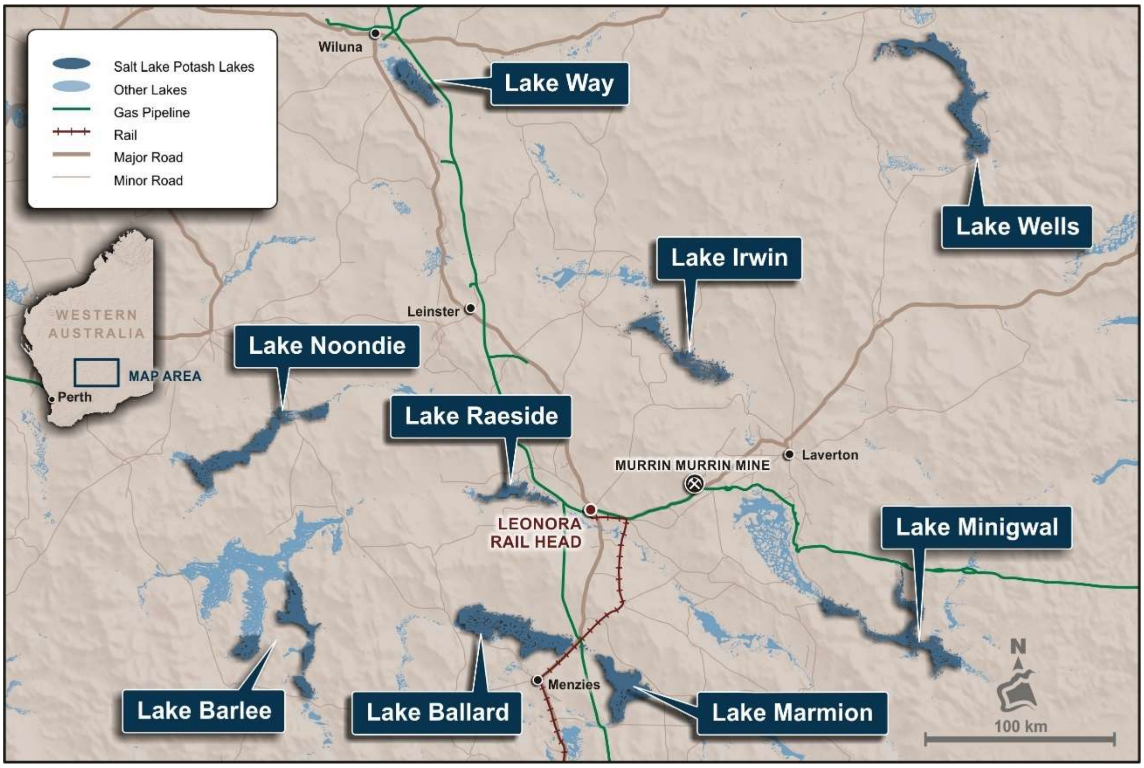


Figure 2.1: Lake Way Location Map

2.2 Regional Geological Setting

The investigation area is in the Northern Goldfields Province on the Archaean Yilgarn Craton.

The province is characterised by granite–greenstone rocks that exhibit a prominent northwest tectonic trend and low to medium-grade metamorphism. The Archaean rocks are intruded by east–west dolerite dykes of Proterozoic age, and in the eastern area there are small, flat-lying outliers of Proterozoic and Permian sedimentary rocks. The basement rocks are generally poorly exposed owing to low relief, extensive superficial cover, and widespread deep weathering. A key characteristic of the goldfields is the occurrence of paleochannel aquifers. These palaeodrainages are incised into the Archean basement and in-filled with a mixed Tertiary and Quaternary sedimentary sequence.

The paleochannel sediments of Lake Way are characterised by a mixed sedimentary sequence including sand, silts and clays of lacustrine, aeolian, fluvial and colluvial depositional origins. These near-surface deposits also include chemically-derived sediments of calcrete, silcrete and ferricrete. Beneath eastern parts of the playa, there is a deep paleochannel that is infilled with Tertiary-aged palaeochannel clay and basal sands in the deepest portion.

2.3 Lake Description

2.3.1 Climate

Weather data for Lake Way was extracted from The Long Paddock website (SILO Climate Data 20 July 2017) on 25 January 2018 using Latitude -26.80 deg, Longitude 120.40 deg and an elevation of 541 masl. The annual evaporation rate was taken from Meekatharra weather station following advice from the Bureau of Meteorology due to inconsistent evaporation data from the Wiluna Township weather station. The average relative humidity (RH) and wind speed were taken from Wiluna Township weather station data (average of 9am and 3pm readings), which is more accurate than the estimate provided by SILO.

SILO is an enhanced climate database hosted by the Science Delivery Division of the Department of Science, Information Technology and Innovation (DSITI). SILO contains Australian climate data from 1889 (current to yesterday), in a number of ready-to-use formats, suitable for research and climate applications. For locations where a weather station is not present at the site of interest, SILO provides interpolated climate data as supported by Beesley et, al 2009[1].

In November 2017, Bureau of Meteorology opened a new automated weather station at the Wiluna airport (Wiluna Aero), which will provide more accurate climate data going forward and will form the basis of future studies in the region (Table 2.1).

Table 2.1: Wiluna Weather Parameters

Item	Value	Source
Mean air temperature (°C)	21.9	Average of SILO mean max and mean min temperature
Mean max. air temperature (°C)	29.3	Average from SILO
Mean min. air temperature (°C)	14.5	Average from SILO
Mean rainfall (mm)	0.712 (daily) 260 (annual total)	Average from SILO. Total rainfall divided by 365 days to give daily value
Mean RH% (%)	36	Average of Wiluna Township BOM annual 9 am and 3 pm RH
Mean evaporation (mm)	9.6 (daily) 3504 (total)	Meekatharra BOM annual average
Mean solar exposure (MJ/m^2)	20.95	Average from SILO
Mean wind speed (km/h)	10.9	Average of Wiluna Township BOM annual 9 am and 3 pm RH

All data is a daily average.

The climate can be described as arid. Annual rainfall averages 260 mm/a (SILO database) and annual pan evaporation averages 3504 mm/a, evaporation exceeds rainfall in all months (Figure 2.2).

1 Beesley, C. A., Frost, A. J., Zajaczkowski, J. (2009) In preparation, A comparison of the BAWAP and SILO spatially interpolated daily rainfall datasets, Water Division, Bureau of Meteorology.

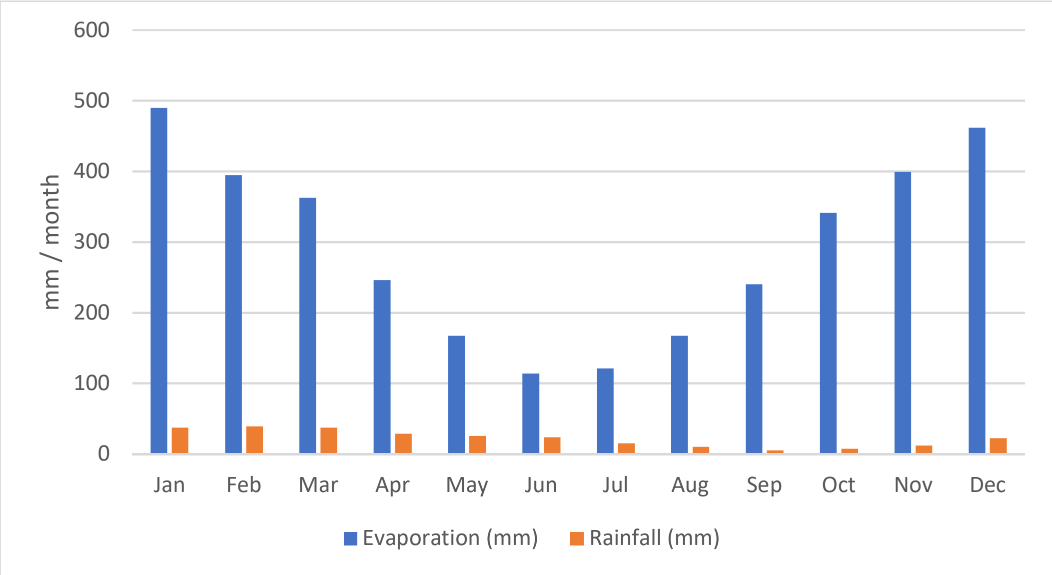


Figure 2.2: Rainfall and Evaporation at Lake Way

Temperatures range from 29 degrees mean daily maximum in January to 15 degrees mean daily minimum in July (Figure 2.3).

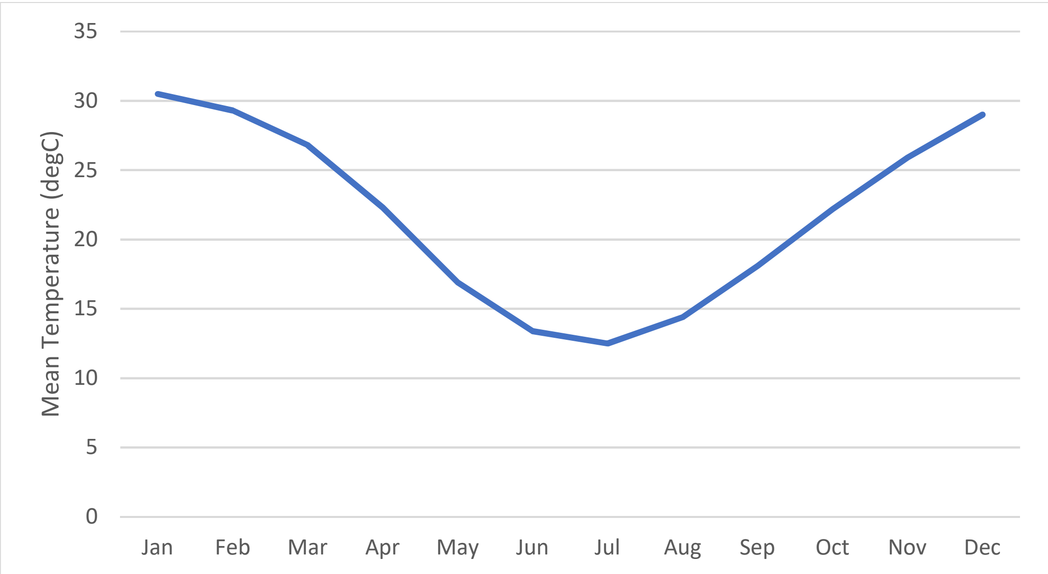


Figure 2.3: Lake Way Annual Temperature

2.3.2 Hydrology

The BRT area receives episodic surface water inflow from West and East Creeks which lie to the north of the playa and other smaller creek lines to west. The Playa is a terminal feature in the surface water system, i.e. there are no drainage lines that exit the playa.

Surface water recharge is a significant part of the water balance for salt-lake playa brine potash operations as described in Turk's (1972) description of the Bonneville Salt Flats (now Wendover Potash Mine) and EPM's (2013) proposed potash operation at Sevier Lake.

The morphology of the playa shape and surface is consistent with the classification system described by Bowler, (1986), shown on Figure 2.4. The Northern part of the Playa exhibits morphology typical of significant surface water influence and periodic inundation (smooth playa edges, one island). The southern part of the playa exhibits morphology consistent with a groundwater dominated playa with rare inundation (irregular shoreline, numerous islands). The frequency of inundation across the lake may be influenced by prevailing south-easterly winds driving water to the north eastern end of the Lake.

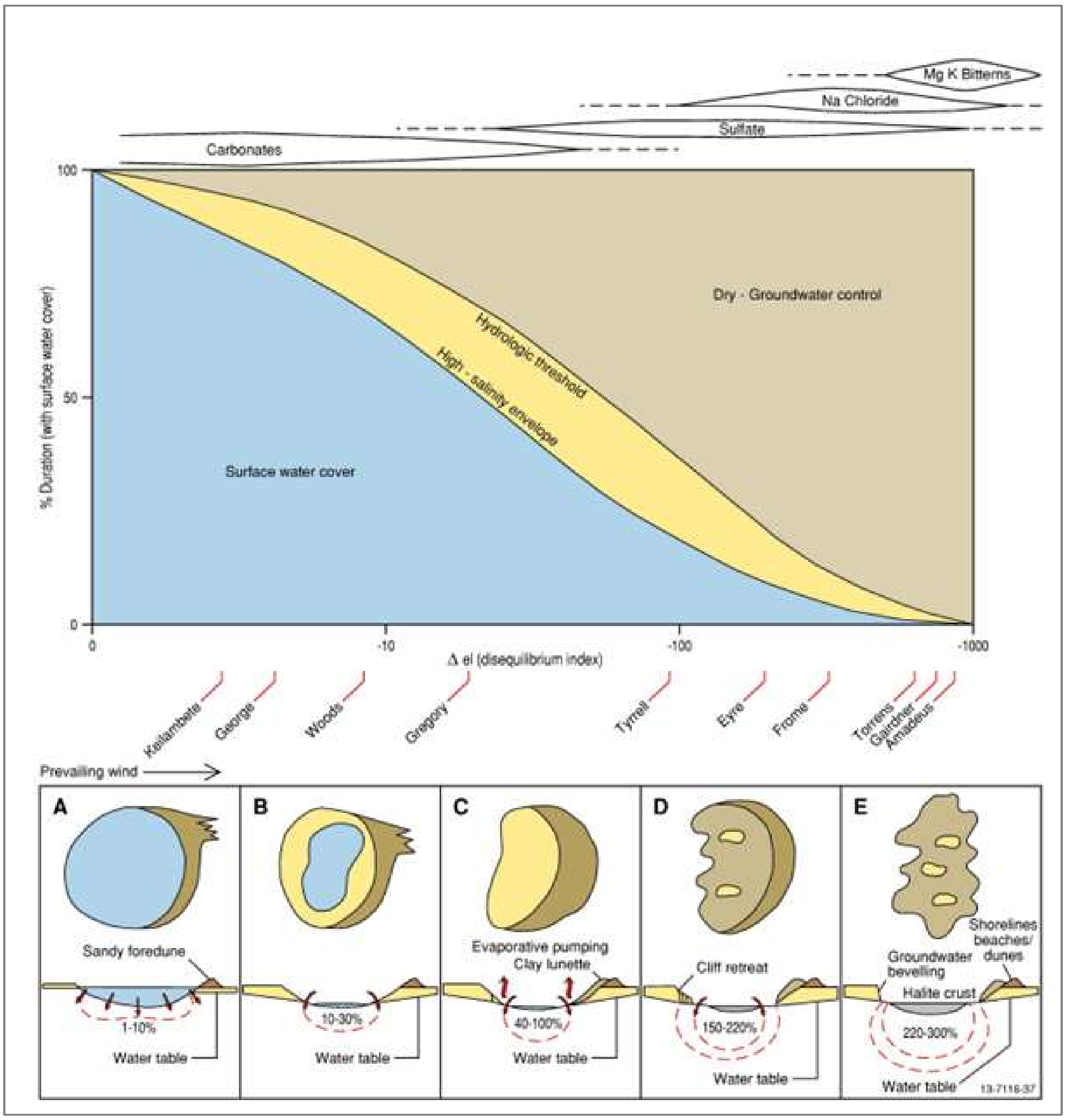


Figure 2.4: Lake Morphology, From GA (2013), originally developed by Bowler (1986)

The Lake Way catchment is shown below (Figure 2.7), the catchment area is 3,767 km^2. The catchment was defined using Geoscience Australia's 1 second DEM and MapInfo Discover Hydrology Package.

A runoff model was developed for the Lake Way Catchment using the WaterCress software package (Groundwater Science 2018b). The model was constructed and calibrated to the adjacent and analogous Gascoyne River catchment, and then run using the catchment area defined for Lake Way and rainfall data from the Wiluna BOM station.

The average annual rainfall for the Lake Way Catchment is 260 mm/year. The run-off model estimates that on average 3.9% of rainfall runs off to the Lake. Most of the heavy rainfall occurs in December to March and as such 71% of significant runoff events (runoff depth >5mm) occur during this period. The average annual modelled run-off to the Playa is 38 GL/year but this is highly variable and ranges from 0 (years 1910 and 1936) up to a maximum of 314 GL in 1936 and more recently 283 GL in 1995.

The 1995 flooding event can be seen in the satellite images from that time (Figure 2.6). In January and February 294 mm fell over 9 rain days including a 124 mm event on 20 February. Inundation of the Playa persisted until at least December when the flooded lake surface was captured by satellite imagery.

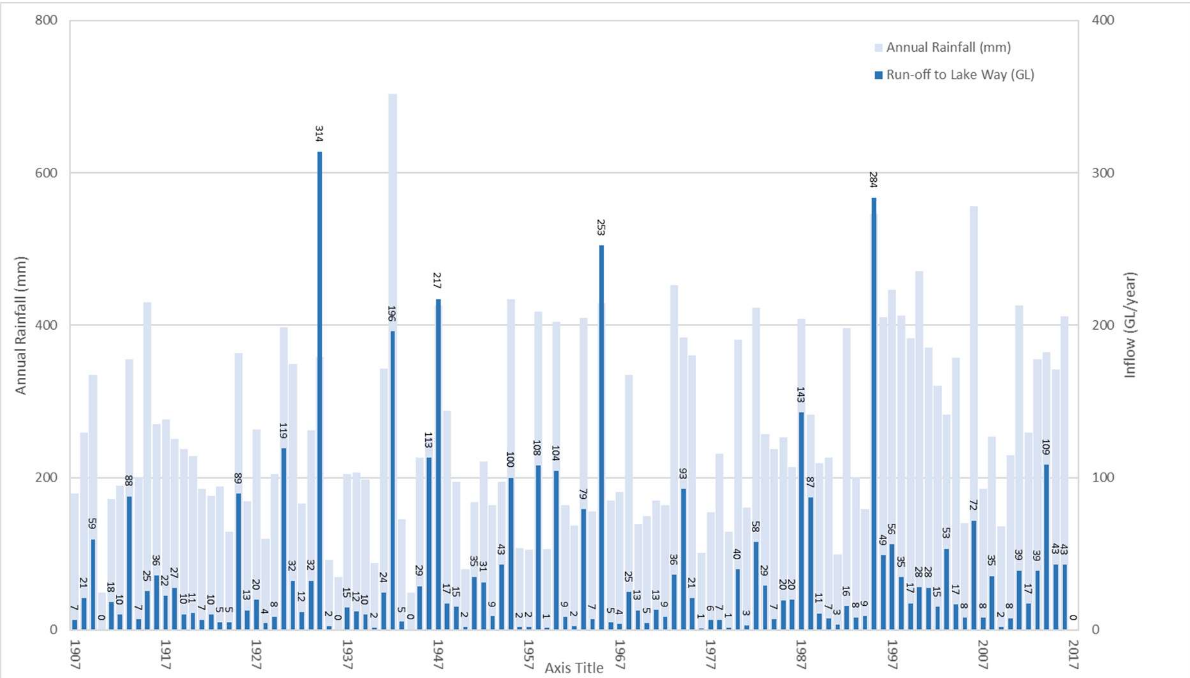


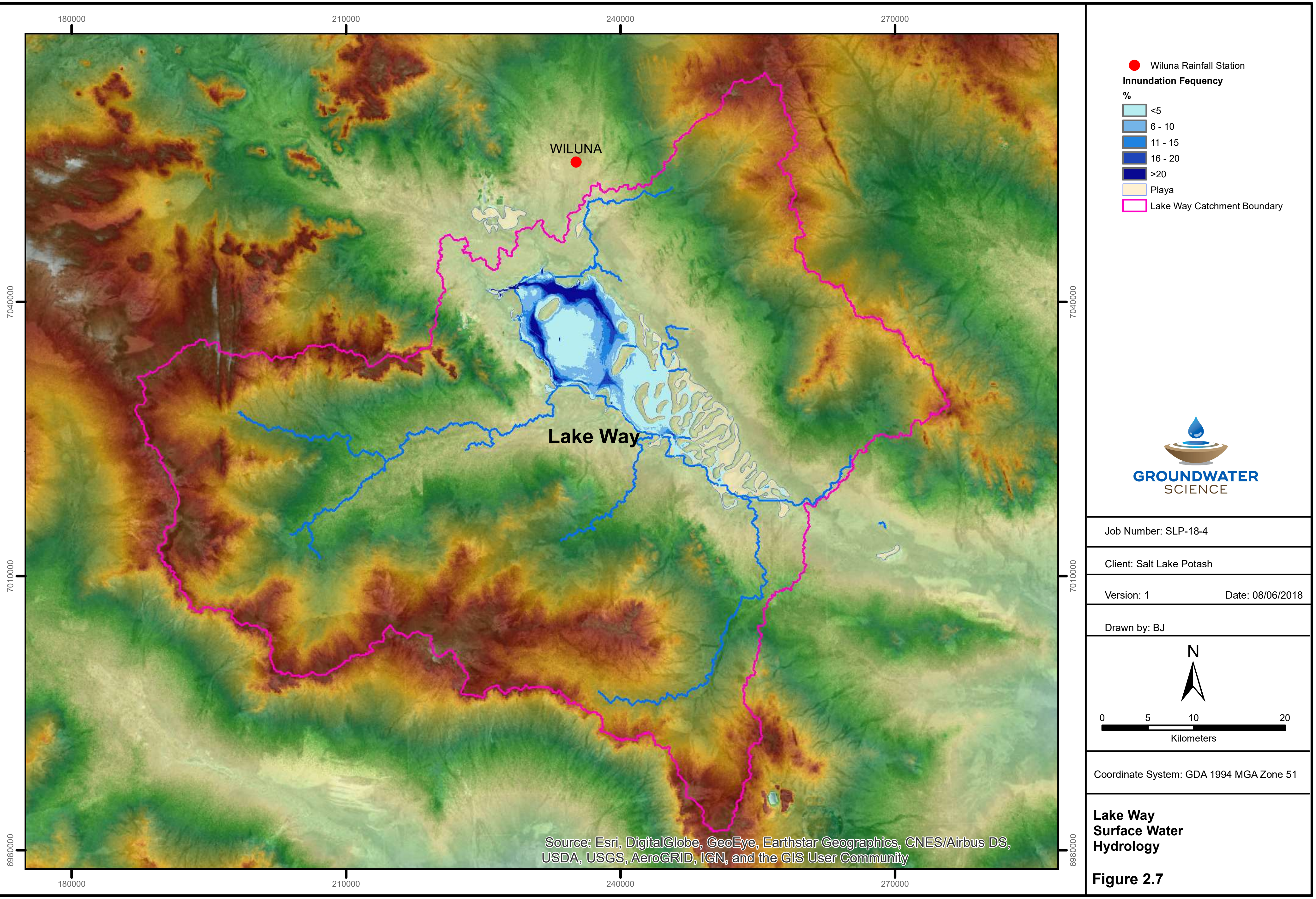
Figure 2.5: Modelled Annual Run-off to Lake Way

December 1994 - Dry

December 1995 – Still flooded following 294 mm rain in January and February 1995

December 1996 - Dry

Figure 2.6: Lake Way Aerial Images 1994 - 1996– Before and after 1995 flooding event.



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Date: 08/06/2018

Drawn by: BJ

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0 5 10 20
Kilometers

Coordinate System: GDA 1994 MGA Zone 51

Lake Way Surface Water Hydrology

Figure 2.7

Document Path: C:\Users\Ben Jeuken\Dropbox (Groundwater Science)\Groundwater Science Team Folder\Project Files\SLP\SLP-18-6-Lake Way MR\GIS\Maps\Lake Way Catchment.mxd
Document Name: Lake Way Catchment

3 Sampling Techniques and data

3.1 Overview

Sampling and data collation for the Resource upgrade comprised extended duration pumping trials to increase the confidence in the hydraulic parameters of Drainable Porosity and Hydraulic Conductivity (permeability) used to calculate and report the Resource. These are reported in Section 4.

Sediment hosted brine resources are calculated as the product of: Aquifer Volume, Porosity, and Brine Concentration. The hydraulic conductivity of the sediment host determines the rate at which the brine can be drained, and the spacing of trenches needed to drain it efficiently.

The data used to define the Area, Aquifer Volume and Brine Concentration of the resource was previously reported in the July 2018 Resource Estimate report (Groundwater Science 2018a) and the detail is not repeated here.

4 Extended Trench Pumping Trials

4.1 Introduction

Salt Lake Potash Ltd (SLP) undertook four trench pumping trials at Lake Way Playa. The aim of the pumping trials was to provide a data set to estimate aquifer properties for the shallow Lake Bed Sediments (LBS) which host the brine resource.

The pumping trials comprised excavation of trenches into the Playa to a depth ranging around 4 to 6m. Trench depth was generally constrained by either refusal on shallow basement, or the capacity of the excavator. The trenches were surrounded by piezometers to enable measurement of the water table surface around the trench. Trenches were pumped nominally continuously for up to 90 days (some tests are ongoing as at 611/2018, but the data collation for this report ceased at 9/9/2018). The volume of water pumped, brine concentration of water pumped, and water table drawdown were measured continuously for all tests. The data were analysed by standard hydrogeological methods to determine aquifer properties.

Trench location are presented as Figure 1.3

4.2 Data Collation

4.2.1 Source Data

The data was provided by Salt Lake Potash.

Water levels in the trench and piezometers were recorded by manual water level measurement and pressure transducer data logger.

Trenches were pumped using diesel driven centrifugal pumps with float switch pump control to maintain a relatively constant water level in the trenches. Water was disposed of via lay-flat and high-density polyethylene (HDPE) pipe sufficient distance from the trench test to minimise recycling of pumped water to the trench test. Typically, greater than 400m from the trench. Pumps and fuel were set up on a self-bunded pallet for stability and spill control (Figure 4.1).

Figure 4.1: Trench and Pump Set-up

The pumping rate was measured by totaliser flow meter, read manually (Figure 4.2)

Figure 4.2: Totaliser Flow Meter

4.2.2 Trench Details

Trench details are provided in Table 4.1

Table 4.1: Trench Details

Trench ID	Length (m)	Depth (m)	Width	Orientation
LYTR01	112	4	4m wide to 1m depth 1m wide to 4m total depth	North - South
LYTR02	100	4		West - East
LYTR03	100	4		North - South
LYTR04	100	4		North - South

Trenches were pumped for 86, 100, 78, and 56 days. Pumping details are presented in Table 4.2.

Table 4.2: Pumping Details

Trench ID	Pumping Duration (Days)	Water Level Drawdown in trench (m)	Total Volume Pumped (m^3)	Average Pumping Rate (m^3/day)
LYTR01	86	2.21	4205	49
LYTR02	100	2.23	8011	80
LYTRO4	56	1.33	3932	70

Each trench was surrounded by piezometers to enable measurement of water table drawdown during pumping. Piezometer details are presented in Table 4.3. Water level drawdown was measured by data logger with density and barometric pressure correction. Manual measurements of water level were also taken.

Table 4.3: Piezometer Details

Trench ID	Piezometer ID	Distance from trench edge (m)	Orientation relative to trench
LYTR01	10E	13	East
	20E	23	
	50E	63	
	10W	20	West
	20W	30	
	50W	60	
	N	10	North
	S	10	South
LYTR02	10N	10	North
	20N	20	
	50N	50	
	100N	100	
	10S	10	South
	20S	20	
	50S	50	
	100S	100	
	E	10	East
	W	10	West
LYTR04	10E	10	North
	20E	20	
	50E	50	
	100E	100	
	10W	10	South
	20W	20	
	50W	50	
	100W	100	
	N	10	North
	S	10	South

4.3 Data Analysis

4.3.1 Overview

Aquifer hydraulic conductivity and Drainable Porosity were calculated using three methods:

- Volumetric,
- Jacobs Solution and
- Murdoch Solution

Details of each method and the results are provided below

4.3.2 Volumetric Analysis

The volumetric method calculates the Drainable Porosity of the aquifer as the quotient of:

$$\frac{\text{Volume of water removed from the sediment aquifer}}{\text{Volume of sediment dewatered}}$$

The volume of water removed from the aquifer was measured as the volume pumped for a defined period of time.

The volume of sediment dewatered was calculated from the water table drawdown interpolated from water level drawdown measured at each piezometer. The procedure was as follows:

1. The profile of drawdown at each transect of piezometers was plotted as drawdown vs distance.
2. A logarithm expression was fitted to each dataset (application of a logarithm expression assumes radial flow toward the trench which is valid for extended periods of pumping (Murdoch, 1994)[2].
3. The log expression was used to calculate the volume of drawdown:
   a. Beneath a rectangular area along each trench
   b. Beneath a radial area at the end of each trench.
4. The slope per log cycle of the distance drawdown plot was used to calculate the Transmissivity of the aquifer by the Hantush-Jacob (1955)[3] method.

The procedure was repeated for 3 time periods; 10 days pumping, 30 days pumping and the full data set to 9/9/2018. The output of the analysis is presented as Table 4.4 through to Table 4.7.

The full data set and analysis is presented as Appendix A1.

[2] Murdoch, (1994), *Transient Analysis of an Interceptor Trench*. Water Resources Research **30**,11 pp 3023-3031.
[3] Hantush and Jacob, 1955. *Non-steady radial flow in an infinite leaky aquifer*, Am. Geophys. Union Trans., vol. 36, no. 1, pp. 95-100.

Trench TR1

Trench TR1 was pumped for 86 days to yield a total of 4,205 m^3 brine.

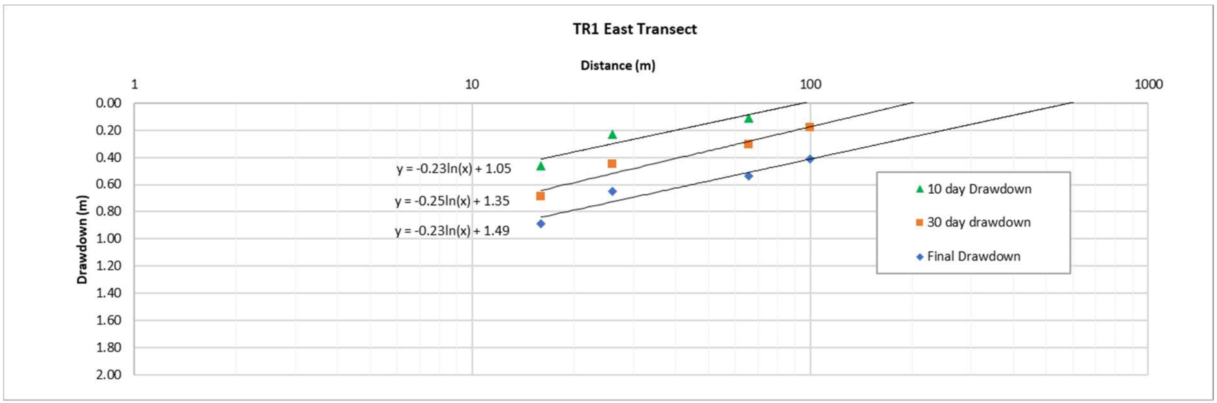
Calculated drainable porosity decreases as the test progresses from 0.10 at 10 days to 0.04 after 86 days. This may be due to two effects:

- The depth of dewatering increases and drainable porosity decreases with depth, or
- After 10 days the volume of sediment dewatered is poorly defined since the cone of dewatering is inferred to extend to a radius of 200 to 600 m from the trench, whilst monitoring piezometers ceases at 100 m distance from the trench.

Calculated aquifer Transmissivity also decreases at the test progresses from 63 m^2/day down to 33 m^2/day for the eastern transect of piezometers and 31 m^2/day down to 11 m^2/day for the western transect. This is likely due to a reduction in transmissivity with depth as the sediments around the trench are progressively dewatered.

Table 4.4: Volumetric Analysis – (TR1 Distance Drawdown data)

	Label	Distance	10-day Drawdown	30-day drawdown	Final Drawdown
East Transect	Trench	0.1	2.21	2.21	2.21
	10E	16	0.46	0.69	0.89
	20E	26	0.23	0.45	0.65
	50E	66	0.11	0.30	0.54
	100E	100		0.18	0.41
West Transect	Trench	0.1	2.21	2.21	2.21
	10W	23	0.51	1.06	1.33
	20W	33	0.30	0.82	1.12
	50W	63	0.06	0.30	0.60
	100W	100		0.17	0.40
Days			10	30	86
Pumped Volume (m^3)			858	2,018	4,205
Dewatered Sediment Volume (m3)			8,832	30,290	120,075
Drainable porosity			**0.10**	**0.07**	**0.04**
Average Pumping Rate (m^3/day)			86	67	49
East Drawdown Slope (m/log cycle)			0.5	0.6	0.55
East Transmissivity (m^2/day)			**63**	**41**	**33**
West Drawdown Slope (m/log cycle)			1	1.4	1.6
West Transmissivity (m^2/day)			**31**	**18**	**11**



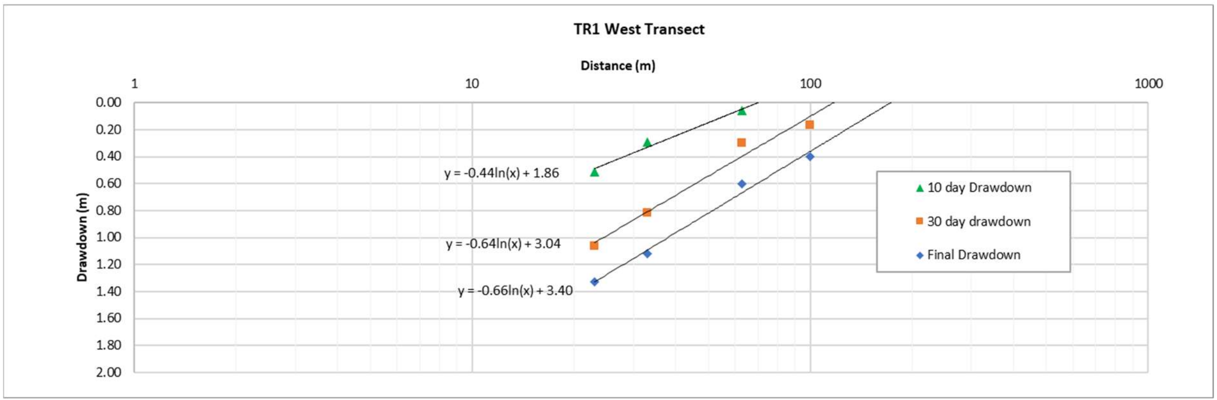


Figure 4.3: Volumetric Analysis – (TR1 Distance Drawdown plots)

Trench TR2

Trench TR2 was pumped for 100 days to yield a total of 8,011 m^3 brine. Pumping ceased from 4.5 days to 9.5 days and hence the early 10 day data point is not suited for analysis.

Calculated drainable porosity varied for the two data points from 0.03 at 30 days to 0.08 at 100 days. This is likely due to the volume of sediment dewatered being poorly defined during the later time steps since the cone of dewatering is inferred to extend to a radius of 300 to 500m from the trench, whilst monitoring piezometers cease at 100m distance from the trench. Some recycling of water from the point of discharge may also have occurred.

Calculated aquifer Transmissivity also decreases at the test progresses from 82 m^2/day down to 59 m^2/day for the northern transect of piezometers and 64 m^2/day down to 43 m^2/day for the southern transect. This is likely due to a reduction in transmissivity with depth as the sediments around the trench are progressively dewatered.

Table 4.5: Volumetric Analysis – (TR2 Distance Drawdown data)

	Label	Distance	10-day Drawdown	30-day drawdown	Final Drawdown
North Transect	Trench	0.1		2.23	2.23
	10N	10		0.68	0.84
	20N	20		0.66	0.79
	50N	50		0.48	0.52
	100N	100		0.25	0.35
South Transect	Trench	0.1		2.23	2.23
	10S	10		0.83	1.03
	20S	20		0.65	0.80
	50S	50		0.45	0.51
	100S	100		0.32	0.36
Days				30	100
Pumped Volume (m^3)				2,884	8,011
Dewatered Sediment Volume (m3)				85,285	106,526
Drainable porosity				**0.03**	**0.08**
Average Pumping Rate (m^3/day)				96	80
North Drawdown Slope (m/log cycle)				0.43	0.5
East Transmissivity (m^2/day)				82	59
South Drawdown Slope (m/log cycle)				0.55	0.68
South Transmissivity (m^2/day)				**64**	**43**

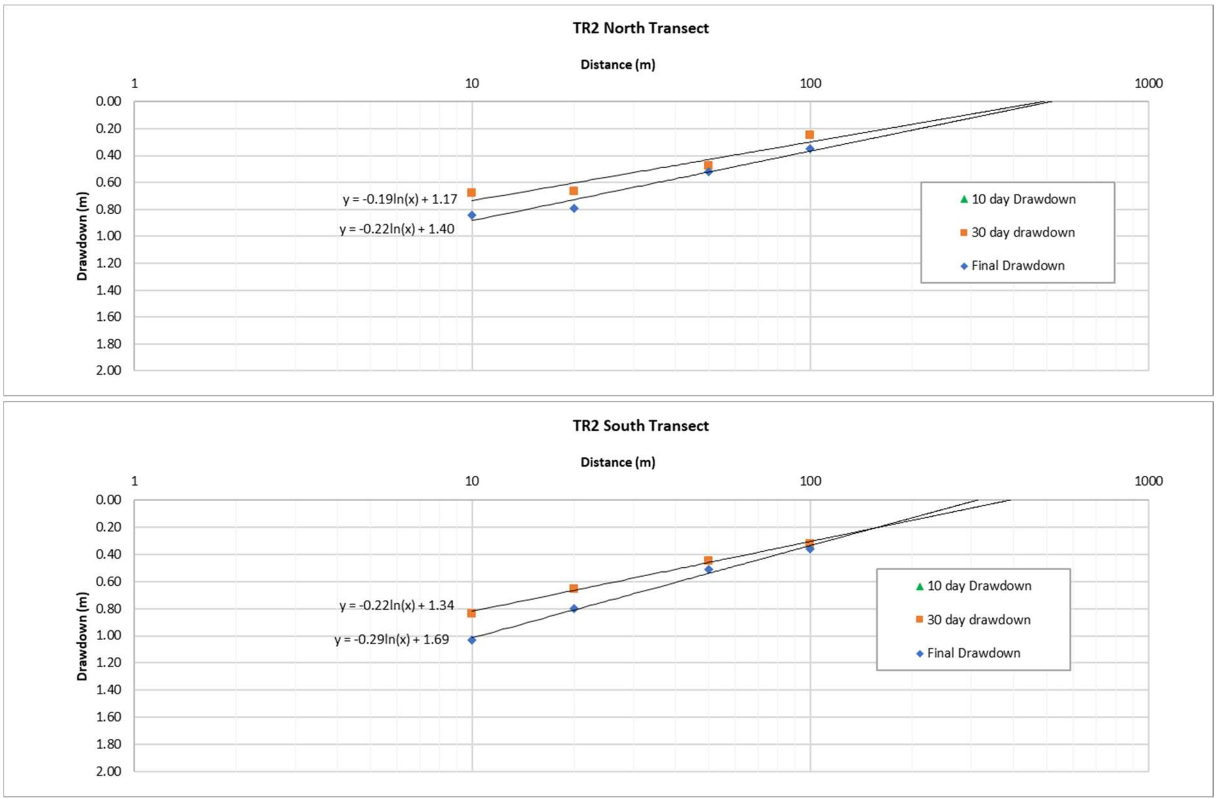


Figure 4.4: Volumetric Analysis – (TR2 Distance Drawdown plots)

Trench TR3

Trench TR3 was pumped for 67 days to yield a total of 5,885 m^3 brine.

Some problems were encountered with the logger data including changing reference points (loggers were lowered and raised during the test), and some clogged piezometers were cleaned out during the trial. Manual water level readings were selected as the most consistent for this trial and used in the subsequent analysis. Time periods were adjusted to select the nearest available manual measurements (9 and 36 days).

Calculated drainable porosity varied from 0.07 at 9 and 38 days to 0.09 at 100 days. Timeseries of drawdown show a flattening of drawdown from of drawdown from 40 days onwards particularly for the northern transect. This is likely due to recycling discharged water impacting on the cone of drawdown. A similar effect is seen in the distance drawdown plot, where the cone of depression ceases to extend after the 38 day plot and maximum extent remains constant. Calculated drainable porosity estimates after 40 days are considered less valid for this test.

Calculated aquifer Transmissivity decreases at the test progresses from 50 m^2/day down to 20 m^2/day for the northern transect of piezometers and 54 m^2/day down to 16 m^2/day for the southern transect. This is likely due to a reduction in transmissivity with depth as the sediments around the trench are progressively dewatered.

Table 4.6: Volumetric Analysis – (TR3 Distance Drawdown data)

	Label	Distance	9-day Drawdown	38-day drawdown	Final Drawdown
North Transect	Trench	1	2.30	2.30	2.30
	10N	10			
	20N	20	0.98	1.51	1.58
	50N	50	0.60	1.03	1.08
	100N	100	0.03	0.40	0.39
South Transect	Trench	1	2.30	2.30	2.30
	10S	10		1.60	
	20S	20	0.93	1.23	1.75
	50S	50	0.44		1.07
	100S	100	0.01	0.32	0.41
Days			9	38	67
Pumped Volume (m^3)			1,727	4,217	5,885
Dewatered Sediment Volume (m3)			23,560	56,244	64,993
Drainable porosity			**0.07**	**0.07**	**0.09**
Average Pumping Rate (m^3/day)			192	111	88
North Drawdown Slope (m/log cycle)			1.4	1.5	1.6
North Transmissivity (m^2/day)			50	27	20
South Drawdown Slope (m/log cycle)			1.3	1.4	2
South Transmissivity (m^2/day)			**54**	**29**	**16**

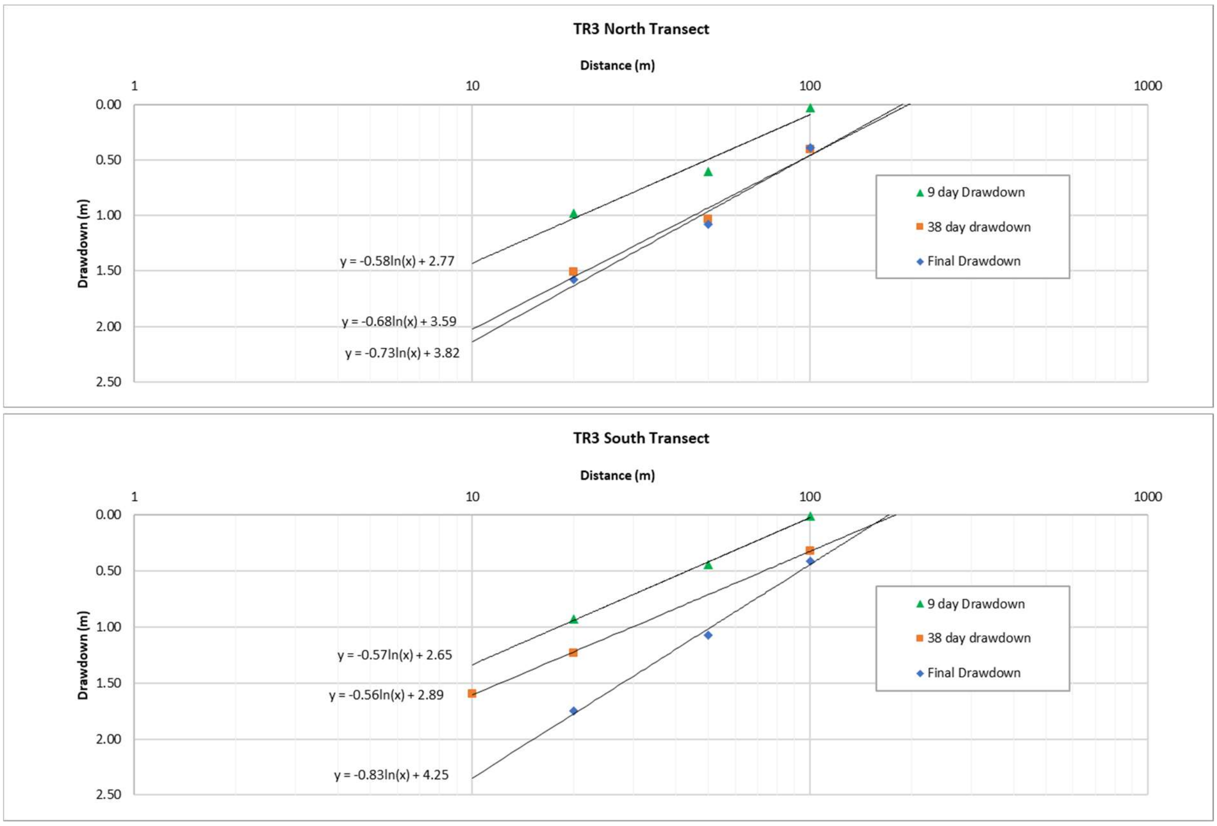


Figure 4.5: Volumetric Analysis – (TR3 Distance Drawdown plots)

Trench TR4

Trench TR4 was pumped for 56 days to yield a total of 3,653 m^3 brine.

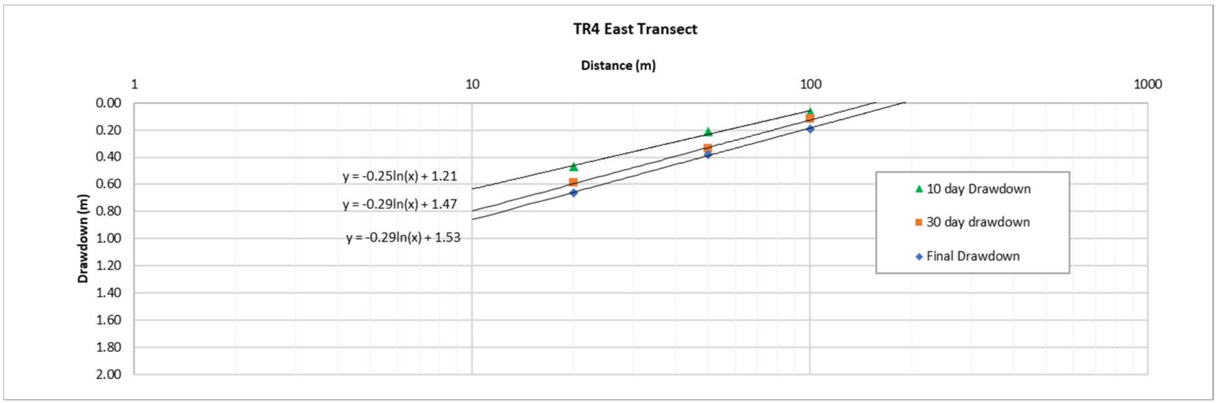
The 10E piezometer was clogged and the data was not useable.

Calculated drainable porosity varied from 0.11 at 10 days to 0.10 at 30 days and 0.04 at 56 days. The change over time is likely due to the volume of sediment dewatered being poorly defined during the later time steps (particularly the western transect) since the cone of dewatering is inferred to extend to a radius of more than 800 m from the trench, whilst monitoring piezometers cease at 100m distance from the trench.

Calculated aquifer Transmissivity also decreases at the test progresses from 92 m^2/day down to 68 m^2/day for the eastern transect of piezometers and 76 m^2/day down to 60 m^2/day for the western transect. This is likely due to a reduction in transmissivity with depth as the sediments around the trench are progressively dewatered or due to reported collapse of some of the trench during pumping.

Table 4.7: Volumetric Analysis – (TR4 Distance Drawdown data)

	Label	Distance	10-day Drawdown	30-day drawdown	Final Drawdown
East Transect	Trench	1	1.4	1.4	1.4
	10E	10			
	20E	20	0.36	0.44	0.49
	50E	50	0.13	0.26	0.34
	100E	100	0.04	0.10	0.26
West Transect	Trench	1	1.4	1.4	1.4
	10W	10	0.60	0.66	0.66
	20W	20	0.46	0.55	0.57
	50W	50	0.23	0.36	0.40
	100W	100	0.04	0.17	0.23
		Days	10	30	56
		Pumped Volume (m^3)	1,251	2,468	3,653
		Dewatered Sediment Volume (m3)	10,969	24,446	87,540
		Drainable porosity	**0.11**	**0.10**	**0.04**
		Average Pumping Rate (m^3/day)	125	82	65
		East Drawdown Slope (m/log cycle)	0.5	0.5	0.35
		East Transmissivity (m^2/day)	**92**	**60**	**68**
		West Drawdown Slope (m/log cycle)	0.6	0.5	0.4
		West Transmissivity (m^2/day)	**76**	**60**	**60**



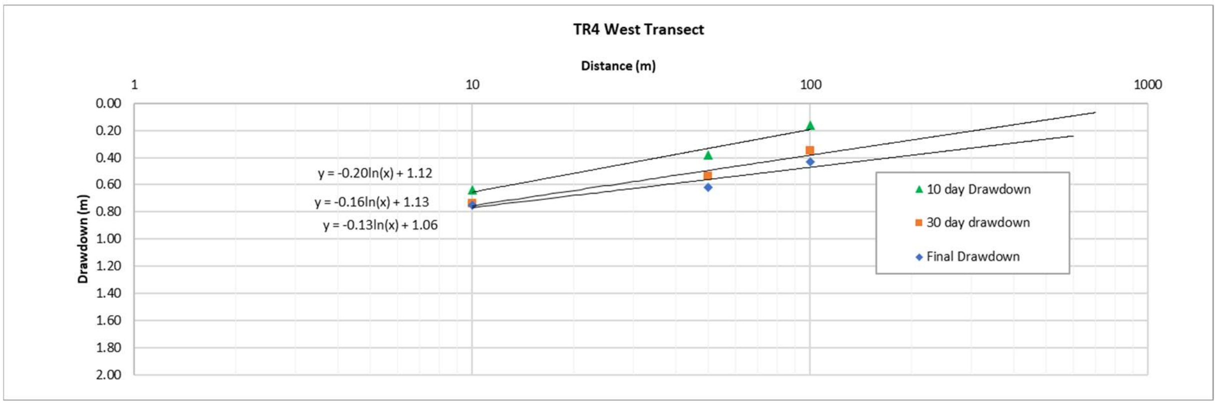


Figure 4.6: Volumetric Analysis – (TR4 Distance Drawdown plots)

4.3.3 Jacob Analysis

The Cooper and Jacob (1946) solution is a late-time approximation derived from the Theis type-curve method. This method was used to analyse the drawdown data plotted as a function of the logarithm of time since pumping began. The slope per log cycle of displacement over time gives the Transmissivity of the aquifer, whilst the intercept gives the storage coefficient. The method assumes radial flow to the trench and treats the trench as a large well.

The data from Trench TR3 was incomplete due to problems with the logger settings and changing reference points for manual measurement. This data was also not used for Jacob Analysis.

Trench TR1

The data from TR1 exhibit a consistent log-linear slope and yield a reliable transmissivity estimate of 22 m^2/day and 14 m^2/day for the east and west piezometer transects respectively. Data is shown on Figure 4.7 and Figure 4.8.

The derived drainable porosity estimates are less consistent and exhibit a decreasing trend with distance of the piezometer from the trench.

Table 4.8: TR1 Trench Test Jacob Analysis

Trench	Piezometer ID	Slope (m/log cycle)	x intercept (days)	Transmissivity (m^2/day)	Drainable porosity	Average Flow Rate (m^3/day)	Distance from Trench (m)
TR1	10E	0.4	0.7	22	0.35	48.9	10
TR1	20E	0.4	2	22	0.25		20
TR1	50E	0.5	8	18	0.13		50
TR1	100E	0.45	14	20	0.06		100
	East Transect Mean			**21**	**0.20**		
TR1	10W	1.05	3 (d)	9	0.58		10
TR1	20W	1	4 (d)	9	0.20		20
TR1	50W	0.55	9 (d)	16	0.13		50
TR1	100W	0.37	10 (d)	24	0.05		100
	West Transect Mean			**13**	**0.24**		

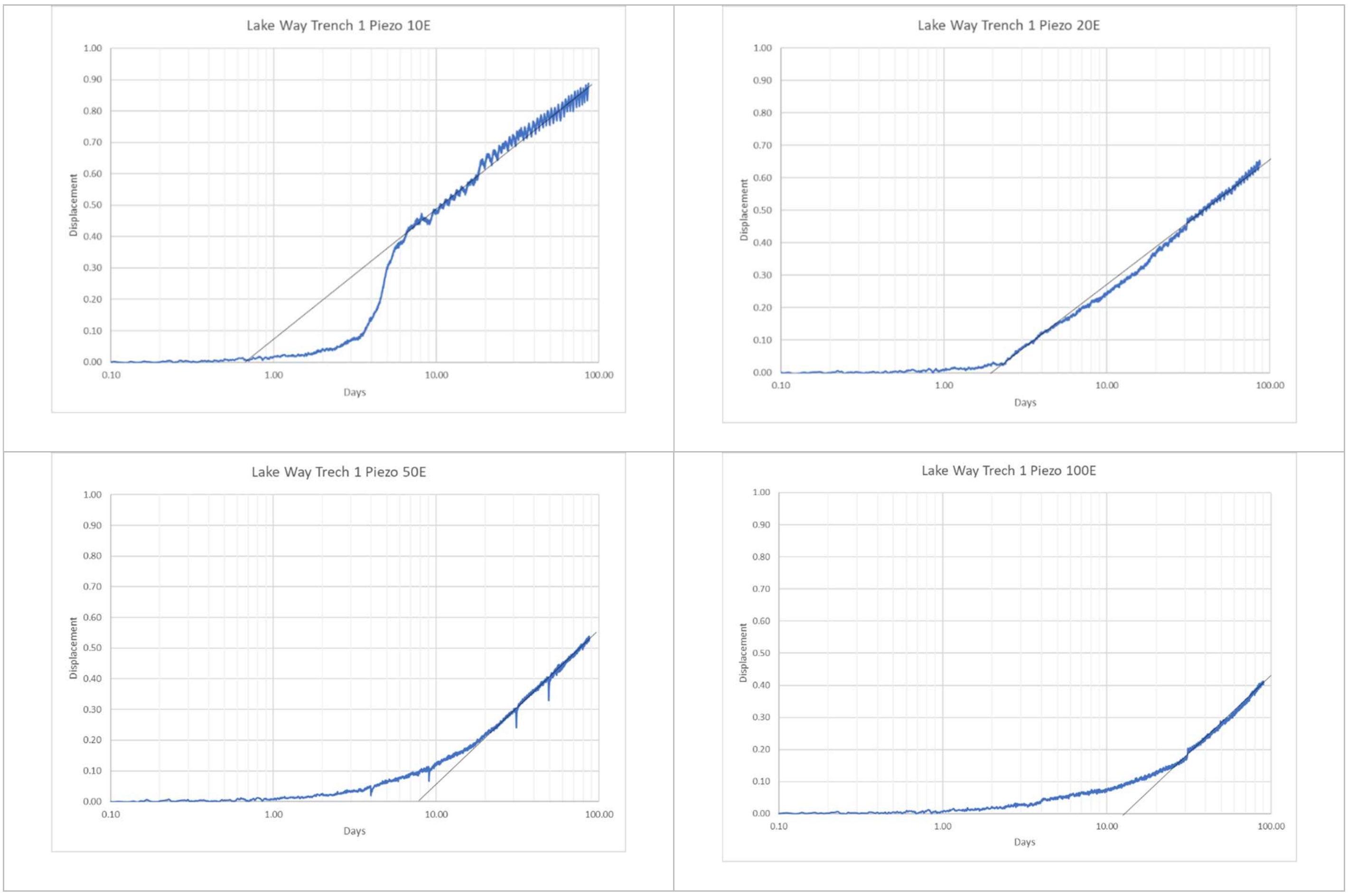


Figure 4.7: TR1 East Transect Displacement (m) vs Log Time

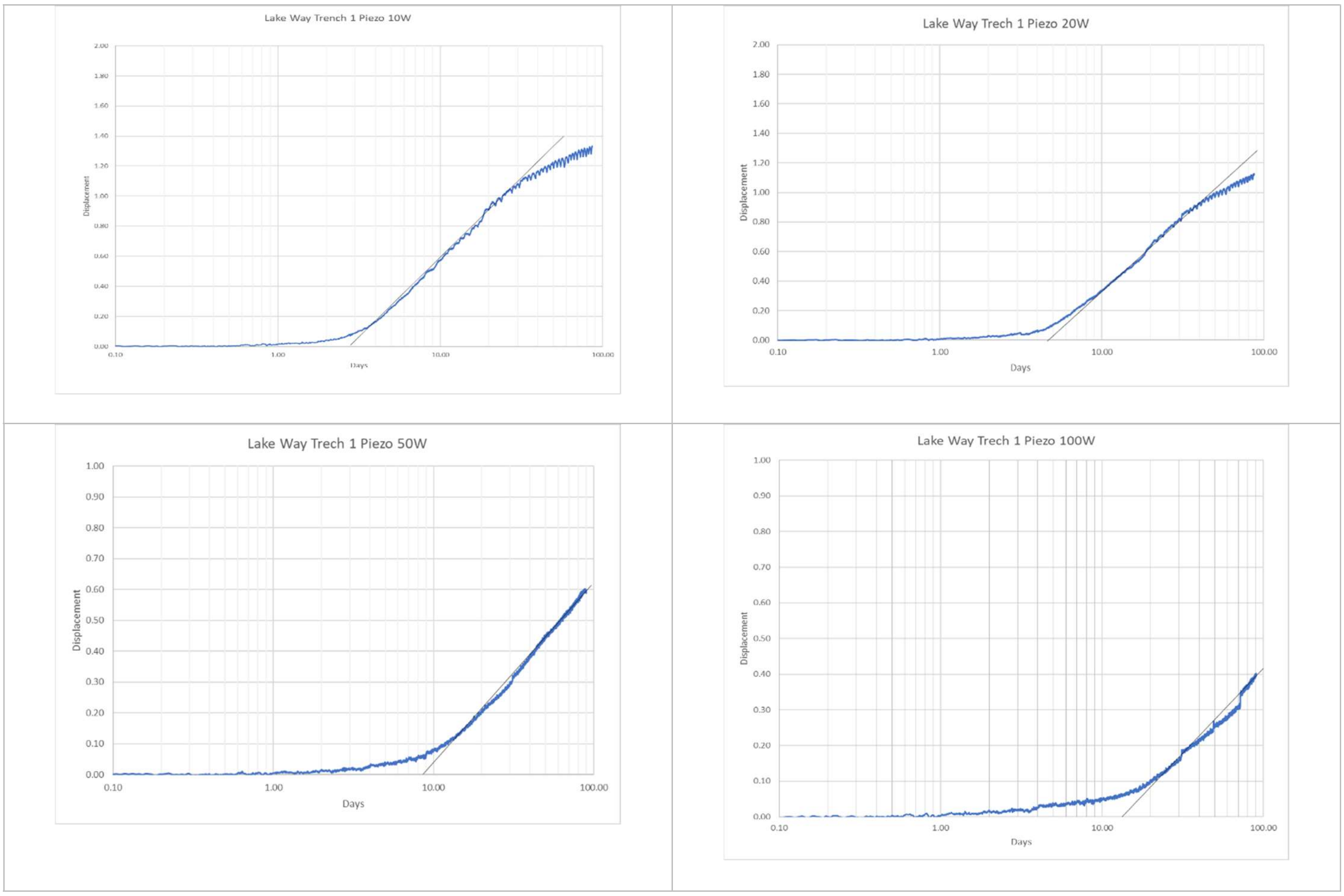


Figure 4.8: TR1 West Transect Displacement (m) vs Log Time

Trench TR2

Pumping ceased from 4.5 days to 9.5 days. The Jacob method assumes a constant pumping rate and the data is not suited for analysis to determine drainable porosity. The late time data, when pumping was constant has been used to estimate transmissivity. These values are consistent averaging 33 m2/day and 39 m2/day for the north and south piezometer transects respectively.

The analysis is presented in Table 4.9 . Displacement vs time plots are shown as Figure 4.9 and Figure 4.10.

Table 4.9: TR2 Trench Test Jacob Analysis

Trench	Piezometer ID	Slope (m/log cycle)	x intercept (days)	Transmissivity (m^2/day)	Drainable porosity	Average Flow Rate (m^3/day)	Distance from Trench (m)
TR2	10N	0.35	0.5	42	0.47	80	10
TR2	20N	0.58	3.2	25	0.46		20
TR2	50N	0.48	7	31	0.19		50
TR2	100N	0.53	25	28	0.16		100
	North Transect Mean	**0.35**		**33**	**0.27**		
TR2	10S	0.35	0.6	42	0.57	80	10
TR2	20S	0.6	1.8	24	0.25		20
TR2	50S	0.45	7	33	0.21		50
TR2	100S	0.32	6	46	0.06		100
	South Transect Mean			**39**	**0.22**		

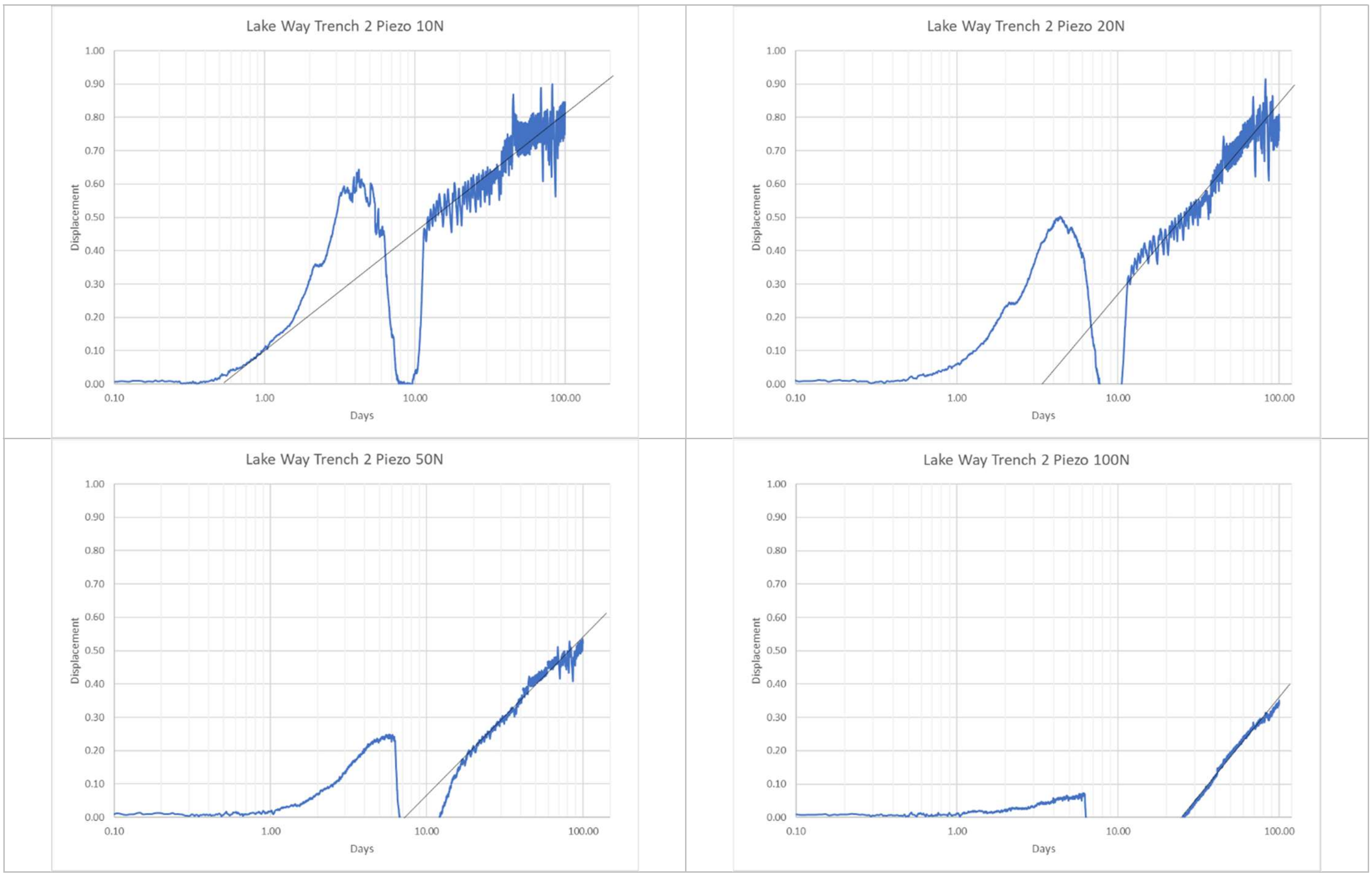


Figure 4.9: TR2 North Transect Displacement (m) vs Log Time

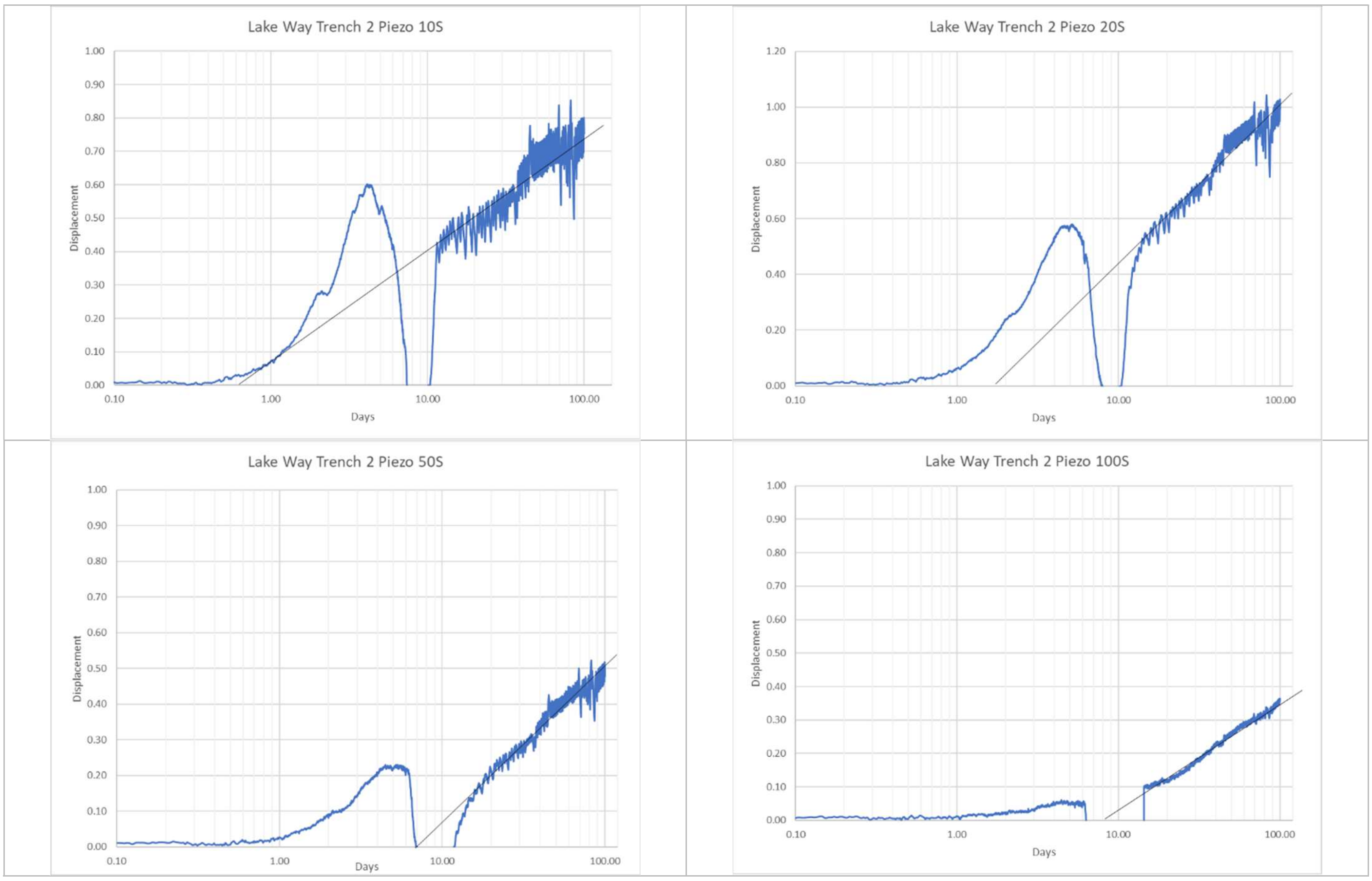


Figure 4.10: TR2 South Transect Displacement (m) vs Log Time

Trench TR3

The data from Trench TR3 was incomplete due to problems with the logger settings and changing reference points for manual measurement. This data was also not used for Jacob Analysis.

Trench TR4

The data from TR4 exhibits a consistent log-linear slope. Data is shown on Figure 4.11 through Figure 4.12

Analysis of the data yields a reliable transmissivity estimate of 37 m^2/day and 38 m^2/day for the east and west piezometer transects respectively.

Data from piezometers 10E and 20W was not suited for analysis.

The derived drainable porosity estimates are consistent for each transect averaging 0.09 for the east transect and 0.02 for the west transect.

Table 4.10: TR1 Trench Test Jacob Analysis

Trench	Piezometer ID	Slope (m/log cycle)	x intercept (days)	Transmissivity (m^2/day)	Drainable porosity	Average Flow Rate (m^3/day)	Distance from Trench (m)
TR4	10E					65	10
TR4	20E	0.45	0.7	26	0.10		20
TR4	50E	0.3	2	40	0.07		50
TR4	100E	0.25	9	48	0.10		100
	East Transect Mean			**37**	**0.09**		
TR4	10W	0.25	na	48	na	65	10
TR4	20W						20
TR4	50W	0.35	0.8	34	0.02		50
TR4	100W	0.35	3	34	0.02		100
	West Transect Mean			**38**	**0.02**		

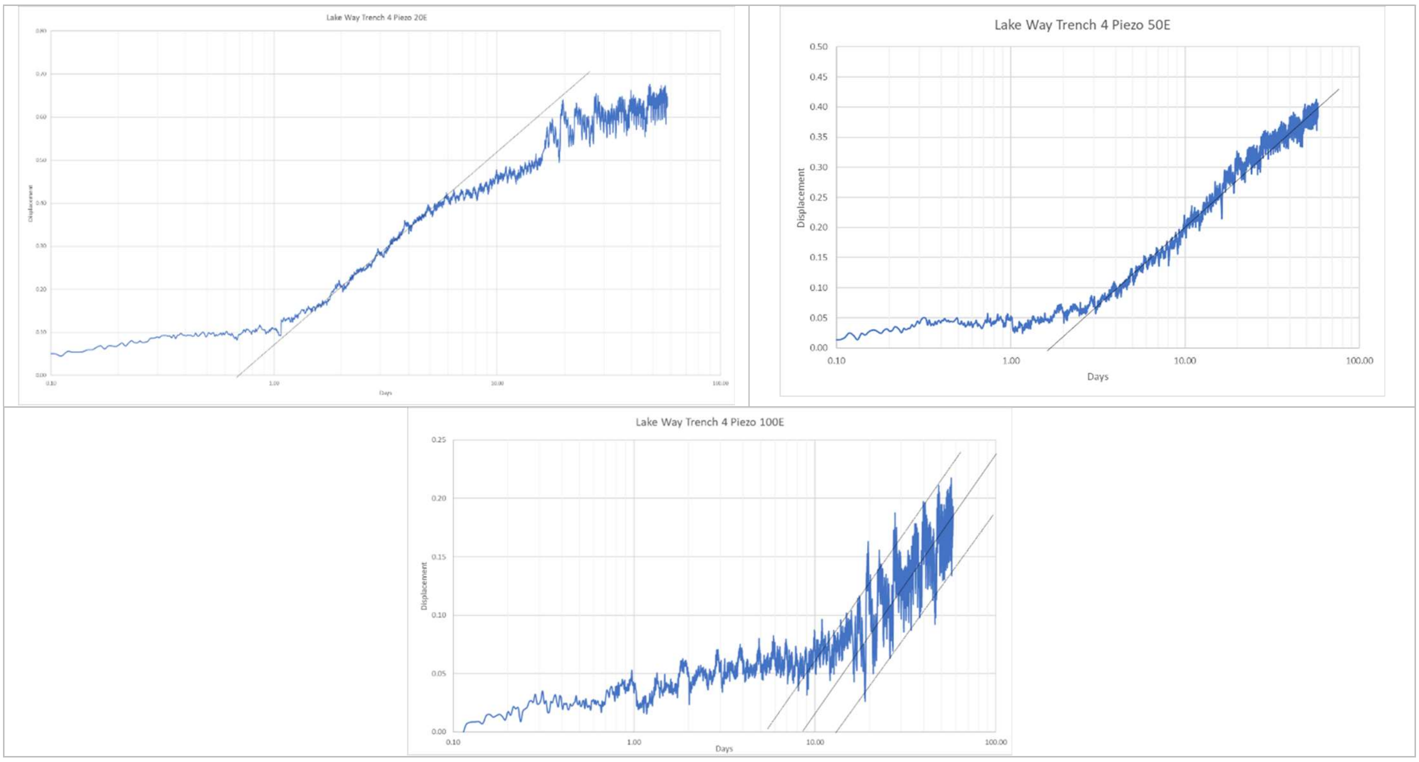


Figure 4.11: TR4 East Transect Displacement (m) vs Log Time

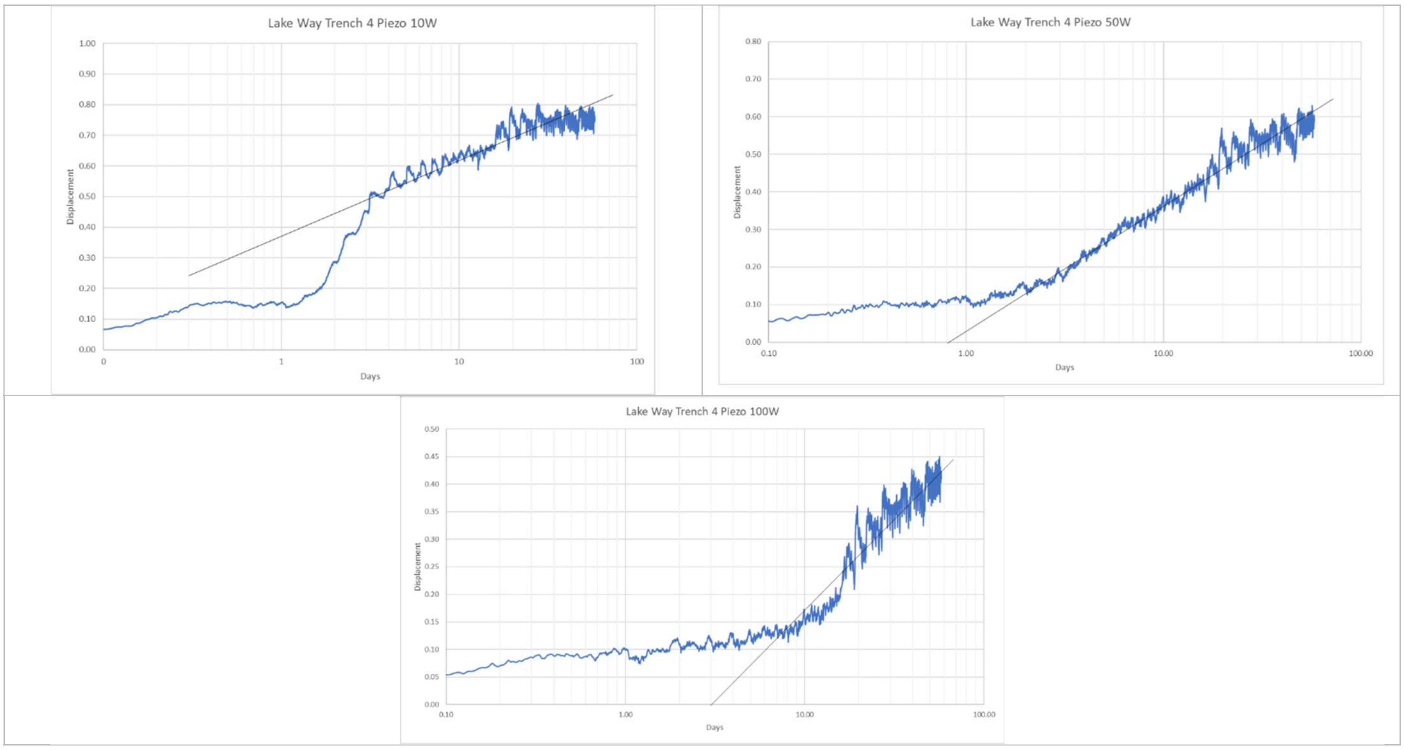


Figure 4.12: TR4 West Transect Displacement (m) vs Log Time

4.3.4 Murdoch Trench Analysis

Murdoch (1994) presented an analytical solution for unsteady flow to an interceptor trench based on the Gringarten and Witherspoon (1972) solution for flow to a uniform-flux plane vertical fracture in an anisotropic nonleaky confined aquifer. The trench is represented by a fully penetrating vertical plane source oriented parallel to the x axis. In the uniform-flux formulation of this solution, drawdown is variable and flux is uniformly distributed along the length of the trench (Aqtesolv 2014).

The Murdoch solution was used to determine the hydraulic properties (hydraulic conductivity, specific storage). Analysis involved matching the drawdown predicted by the Murdoch Solution to drawdown data collected at each piezometer during trench pumping

The analysis was done using the AQTESOLV software package. This package enables the use of variable pumping rates (including periods of no pumping). This enabled the analysis of early time data from the TR2 tests to estimate drainable porosity.

The assumptions implemented in the analysis are that the saturated thickness of the aquifer is 6m and the aquifer is equally permeable in all directions.

The data output is hydraulic conductivity and Specific Storage. These values are converted to Transmissivity and Drainable Porosity by means of multiplying by the aquifer thickness of 6 m.

Trench TR1

The results of the Murdoch analysis are presented as Table 4.11. Outputs of the software showing the calculated data matched to the observed data are presented as Appendix A3.1.

Transmissivity averages 18 m^2/day and 10 m^2/day for the east and west transects respectively and drainable porosity average 0.09 for both transects

Table 4.11: Trench TR1 Murdoch Analysis

Trench	Kx (m/day)	Ss	Transmissivity (m^2/day)	Drainable porosity
10E	2.9	0.011	18	0.06
20E	3.3	0.022	20	0.13
50E	3.1	0.017	19	0.10
100E	2.7	0.011	16	0.06
East Distance Drawdown	3.0	0.013	18	0.08
East Transect Average			**18**	**0.09**
10W	1.8	0.010	11	0.06
20W	1.6	0.015	9	0.09
50W	2.1	0.021	13	0.12
100W	2.3	0.013	14	0.08
West Distance Drawdown	1.2	0.019	7	0.11
West Transect Average			**10**	**0.09**

Trench TR2

The results of the Murdoch analysis are presented as Table 4.12 . Outputs of the software showing the calculated data matched to the observed data and presented as A3.2 .

Transmissivity averages 33 m^2/day and 33 m^2/day for the east and west transects respectively and drainable porosity averages 0.14 and 0.13 respectively.

Table 4.12: Trench TR2 Murdoch Analysis

Trench (T2)	Kx (m/day)	Ss	Transmissivity (m^2/day)	Drainable porosity
10N	7.11	0.012	43	0.07
20N	5.6	0.016	33	0.10
50N	5.2	0.025	31	0.15
100N	5.4	0.024	32	0.14
North Distance Drawdown	4.7	0.037	28	0.22
North Transect Average			**33**	**0.14**
10S	5.8	0.030	35	0.18
20S	4.2	0.016	25	0.10
50S	6.0	0.023	36	0.14
100S	6.0	0.016	36	0.09
South Distance Drawdown	5.8	0.022	35	0.13
South Transect Average			**33**	**0.13**

Trench TR3

The results of the Murdoch analysis are presented as Table 4.13 . Outputs of the software showing the calculated data matched to the observed data and presented as A3.3 .

The logger data for this test was unsuited for analysis. Manual data was reviewed. Early time data was limited with the first manual water level reading taken four days after the test commenced. The lack of early time data meant that drainable porosity could not be calculated for piezometers close to the trench. Only piezometers located 100m from the trench displayed a response sufficiently delayed to be resolved by the data.

Late time drawdown data after 60 days exhibits a flattening indicative of recycling of discharged water. This data is not fitted to the Murdoch type curves for the analysis.

Transmissivity and drainable porosity estimates from the two 100m distant piezometers are quite consistent at 8 m^2/day and 0.07 respectively.

Table 4.13: Trench TR3 Murdoch Analysis

Trench (T3)	Kx (m/day)	Ss	Transmissivity (m^2/day)	Drainable porosity
10N				
20N				
50N				
100N	1.4	0.011	8	0.07
North Transect Average			**8**	**0.07**
10S				
20S				
50S				
100S	1.4	0.014	8	0.08
South Transect Average			**8**	**0.08**

Trench TR4

The results of the Murdoch analysis are presented as Transmissivity averages 35 m^2/day and 36 m^2/day for the east and west transects respectively and drainable porosity averages 0.11 and 0.03 respectively.

Table 4.14. Outputs of the software showing the calculated data matched to the observed data and presented as A3.4. The data from piezo 20W was not suited for analysis.

Transmissivity averages 35 m^2/day and 36 m^2/day for the east and west transects respectively and drainable porosity averages 0.11 and 0.03 respectively.

Table 4.14: Trench TR3 Murdoch Analysis

Trench (T3)	Kx (m/day)	Ss	Transmissivity (m^2/day)	Drainable porosity
10E	6.3	0.010	38	0.06
20E	7.0	0.014	42	0.08
50E	7.8	0.021	47	0.13
100E	6.3	0.010	38	0.06
East Distance Drawdown	3.4	0.028	20	0.17
East Transect Average			**35**	**0.11**
10W	6.8	0.005	41	0.03
20W				
50W	6.1	0.005	37	0.03
100W	5.3	0.007	32	0.04
West Distance Drawdown	6.3	0.005	38	0.03
West Transect Average			**37**	**0.03**

4.4 Results Overview

A summary of the data analysis is presented as Table 4.15. The average drainable porosity calculated from all analysis and all tests is **0.11** and ranges between 0.07 and 0.16 for individual trench trials.

The average Transmissivity calculated from all analysis and all tests is **27 m^2/day** and ranges between 18 and 48 m^2/day for individual trench trials. The concomitant hydraulic conductivity for the nominal 6 m aquifer thickness is an average of **5 m/day** ranging from 3 to 8 m/day for individual trials.

Table 4.15: Trench Trial Analysis - Aquifer Properties

Trench	**TR1**		**TR2**		**TR3**		**TR4**	
Method	DP	T	DP	T	DP	T	DP	T
Volumetric								
10 days	0.10	47			0.07	52	0.11	84
30 days	0.07	29	0.03	73	0.07	28	0.10	60
Duration	0.04	22	0.08	51	0.09	18	0.04	64
Jacob						ccc		
E (N)	0.20	21	0.27	33			0.09	37
W (S)	0.24	13	0.22	39			0.02	38
Murdoch								
E (N)	0.09	18	0.14	33	0.07	8	0.11	35
W (S)	0.09	10	0.13	33	0.08	8	0.03	37
Average	**0.14**	**20**	**0.16**	**42**	**0.07**	**18**	**0.07**	**48**

5 Test Pit Hydraulic Tests

Test pits were excavated into the playa surface to a depth of approximately 4m. The aquifer transmissivity at each site was tested by pumping brine out of the pits and then measuring the rate of water level recovery as the pits were refilled by brine inflow from the surrounding aquifer. The data were analysed by one of two methods depending on the data available for each test.

5.1 Analysis as a short pumping tests

Data for 6 test pit tests reported water level drawdown during pumping and water level recovery when the pump was turned off. These tests were analysed as a standard pumping test using the Moench (1997) solution for a partially penetrating well with well bore storage effects.

Unfortunately, both pumping rate and test pit size were not recorded for these tests. In the analysis, pumping rate was fixed at 1100 m^3/day (12.7 L/s) based on calculated pumping rates from other tests at Lake Ballard where test pit dimensions were recorded, and an equivalent pump set-up was used. This value was cross checked against pump curves supplied by SLP which indicate the pump would have been working at the equivalent of 14 m head which is not unreasonable for an approximately 3m lift at the suction end and discharge through 50 m of lay-flat pipe to discharge.

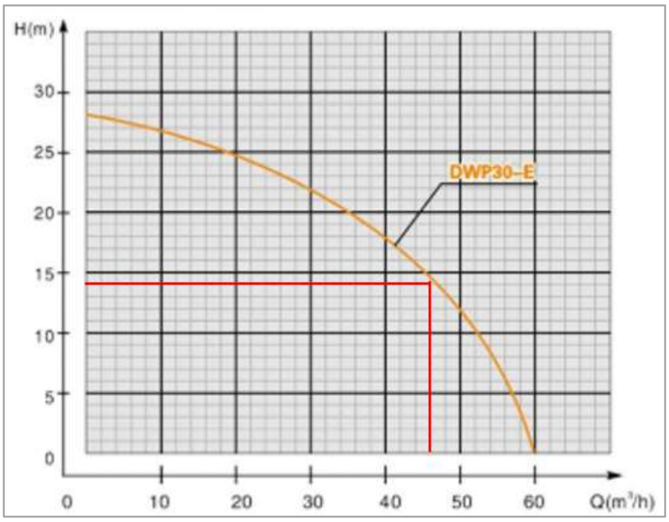


Figure 5.1: Pump curve and pumping rate applied in data analysis

Pit dimension (implemented in the analysis as effective radius – r(c)) was then varied in the analysis so that calculated drawdown matched observed drawdown. Calibration was then achieved by varying transmissivity until the calculated water level recovery matched measured water level recovery.

The resultant transmissivity value is directly proportional to the assumed pumping rate which limits the value of these tests. The estimates are the best that can be extracted from the data and should be considered indicative at best.

5.2 Analysis as slug tests

Data recorded for the remaining 21 tests reported water level recovery after pumping only. The data loggers were placed in the test pits after pumping was complete.

The data was analysed as a slug test using the Hvorslev (1951) method.

Unfortunately test pit dimension was not measured and reported for these tests. The hydraulic conductivity estimate produced by the analysis is directly proportional to the pit volume. For the analysis, pit effective radius was fixed at 1.05 m which is the average of the 6 values derived from the Moench Analysis described at Section 5.1. The assumption is that the same excavator bucket and excavation dimension were used for all test pits.

The result is that all hydraulic conductivity and transmissivity estimates are dependent on the pump flow rate assumption described in Section 5.1. Measuring the output of the pump used for these tests for at least one comparable test would be most useful for constraining the estimates.

The estimates are the best that can be extracted from the data and should be considered indicative at best.

5.3 Results

The results of the analysis are presented in Table 5.1. Transmissivity is quite consistent averaging 18 m^2/day and ranging from 7 to 47 m^2/day with a single high outlier reporting 116 m^2/day. Average hydraulic conductivity for the 4 m aquifer thickness applied in the analyses is 4.4 m^2/day.

These transmissivity estimates are consistent with the estimates derived from the extended pumping trials described in Section 4. This provides confidence that the trench test are typical and representative of the entire playa extent within the BRT.

Table 5.1: Calculated Hydraulic Conductivity from Test Pit Hydraulic Tests

Test Pit	Log Start time	Hydraulic Conductivity (m/day)	Thickness (m)	Transmissivity (m^2/day)	Pit Effective Radius (m)	Pumping Rate (m^3/day)	Anlasyis Method
LYTT004	29/04/2018 11:07	9.3	4	37	1.05		Hvorslev
LYTT006	5/06/2018 10:25	5.8	4	69	1.8	1100	Moench
LYTT007							
LYTT010							
LYTT011	12/05/2018 12:05	4.4	4	18	1.05		Hvorslev
LYTT013	10/05/2018 11:01	1.9	4	7.4	1.05		Hvorslev
LYTT014	10/05/2018 11:35	7.7	4	31	1.05		Hvorslev
LYTT015	10/05/2018 12:38	7.4	4	30	1.05		Hvorslev
LYTT016	10/05/2018 14:06	8.1	4	32	1.05		Hvorslev
LYTT017	11/05/2018 9:39	7.7	4	31	1.05		Hvorslev
LYTT018	11/05/2018 11:35	4.4	4	18	1.05		Hvorslev
LYTT019	11/05/2018 12:50	5.3	4	21	1.05		Hvorslev
LYTT020	11/05/2018 13:52	8.5	4	34	1.05		Hvorslev
LYTT021	11/05/2018 14:57	1.7	4	6.8	1.05		Hvorslev
LYTT022	12/05/2018 10:17	4.9	4	20	1.05		Hvorslev
LYTT023	12/05/2018 11:03	8.5	4	34	1.05		Hvorslev
LYTT024	12/05/2018 11:45	4.4	4	18	1.05		Hvorslev
LYTT025	12/05/2018 14:03	12	4	47	1.05		Hvorslev
LYTT026	13/05/2018 12:28	5.3	4	21	1.05		Hvorslev
LYTT027	20/05/2018 10:48	2.4	4	10	1.05		Hvorslev
LYTT028	20/05/2018 9:41	1.7	4	6.7	1.05	1100	Moench
LYTT029	22/05/2018 10:14	1.7	4	6.8	0.8	1100	Moench
LYTT030	21/05/2018 14:56	4.2	4	17	1.2	1100	Moench
LYTT031	22/05/2018 13:20	1.5	4	5.8	1.1	1100	Moench
LYTT032	22/05/2018 12:20	1.7	4	6.8	1.1	1100	Moench
LYTT033	2/06/2018 13:01	29	4	116	1.05		Hvorslev
LYTT034	2/06/2018 14:25	2.1	4	8.4	1.05		Hvorslev
LYTT035	3/06/2018 11:31	1.8	4	7.2	1.05		Hvorslev
LYTT036	3/06/2018 12:25	4.9	4	20	1.05		Hvorslev
	Geometric Mean	**4.4**		**18**			

6 Estimation and Reporting of Mineral Resources

6.1 Site Visits

A site visit was undertaken by the Competent Person (CP) from 29th to 30th April 2018. The CP visit was documented in Letter Report ASLP-15-1-L001 (Groundwater Science, 2018).

The outcomes of the visit were a recognition of the need to quantify and remove the dewatered area around the Williamson pit from the sediment volume, and a refinement of lithology logging and brine sampling procedures.

6.2 Estimation and Modelling Techniques

The brine SOP resource is calculated as the product of:

Host rock volume x host rock porosity x dissolved mineral concentration.

Each of these parameters is described in the sections that follow

6.2.1 Host Rock Volume

The host rock volume was defined during reporting of the indicated resource for the project. The total sediment volume is 290 Mm^3. Volume estimate remains unchanged for the measured resource. The information is provided below

Area

The lateral extent of the resource is defined by the tenement boundary and the Playa edge.

The island to the north of the playa is removed from the resource.

The Williamson pit has resulted in a zone of dewatered material extending out some 500 m from the mine pit. This area has been removed from the resource estimate.

The total area of the resource is 55.4 km^2. The resource is open to the east and south of the Blackham Resources tenements.

Thickness

The top of the indicated resource is defined by the water table. The average water table depth beneath the playa surface noted in the piezometers and test pits ranged 0.3 to 0.5m averaging 0.4m.

The base of the indicated resource is defined by the depth to the base of the lakebed sediments within the BRT as determined from the test pits, piezometers, air core drilling and previous work. Test pits to the west terminated in weathered basement at around 3 mbgl whilst some air core holes to the east didn't encounter basement until 9 mbgl. All air core holes and test pits terminated in saturated material.

The base of the lakebed sediments was interpolated from recent and historic drill hole information and the recent data using the Leapfrog software, the interpolation provided an average thickness of 5.3m.

6.2.2 Host Rock Porosity

Drainable Porosity

The extensive pumping trials detailed in Section 4 provide an estimate of drainable porosity that averages 0.11 (11%) by volume. This estimate is based the dewatering of a total volume of approximately 200,000 m3 of material and is hence a well constrained estimate.

Drainable porosity was also estimated by laboratory analysis of samples obtained from trench excavation and drilling. This data was reported in the Indicated resource estimate and is repeated here (Table 6.1). Drainable Porosity determined by the laboratory is comparable to the values obtained from extensive field pumping trials and averages 0.10.

Table 6.1: Total Porosity and Drainable Porosity

Test Pit or Trench ID	Sample Depth (m)	Total Porosity (%)	Drainable Porosity (%)
LYTT024	0.45 – 0.9	50	
LYTT021	0.6 – 1.1	50	
LYTT020	0.5 – 1.0	54	
LYTT017	0.6 – 1.1	50	
LYTT019	0.6 – 1.1	48	
LYTT014	0.3 – 0.8	52	
LYTT026	0.3 – 0.6	39	10
LYTT019	0.3 – 0.6	26	16
LYTT019	1.5 – 2.0	47	13
LYTT019	3.0 – 4.0	35	8
LYTT014	0.3 – 0.6	46	11
LYTT015	1.5 – 2.0	41	5
LYTT026	3.0 – 4.0	47	24
LYTT035	3.0 – 3.5	43	5
LYTT035	0 – 0.5	39	12
LYTT032	0 – 0.5	38	13.8
LYTT029	4.0 – 5.0	38	5.2
LYTT029	1.0 – 4.0	47	3
LYTT010	0.5 – 4.0	38	3
LYTT020	3.0 – 4.0	50	6
LYTR01	0.5 – 1.5	48	14.2
LYTR01	1 – 1.2	37	26
LYTR01	1.5 – 3	48	1.5
LYTR01	3 - 4	36	5
Average		**43**	**10**

Total Porosity

Total porosity was estimated by laboratory analysis of 24 samples obtained from trench excavation and drilling at depths ranging from 0.5 to 5 m. This data was reported in the Indicated resource estimate and is repeated here (Table 6.1). Total Porosity determined by the laboratory averages 0.43 (43%) by volume.

6.2.3 Dissolved Mineral Concentration

The dissolved mineral concentration was defined during reporting of the Indicated Resource for the project. Reporting included details of data spacing, QA/QC and spatial interpolation. The dissolved mineral concertation remains unchanged for the current measured resource estimate. The average concentrations are presented as Table 6.2.

Table 6.2: Average Brine Chemistry

K (kg/m^3)	Mg (kg/m^3)	SO4 (Kg/m^3)
6.9	7.6	28.3

6.2.4 Qualitative hydrological descriptors.

The reporting guidelines for mineral brine resources (CIMM and draft AMEC) specify that hydrological properties of the resource are understood and described in the resource report. The key issues are hydraulic conductivity (permeability) and the water balance of the aquifer hosting the brine resource. These are discussed below.

Transmissivity and Hydraulic conductivity

The hydraulic conductivity of an aquifer determines the rates at which a fluid can move through an aquifer. For the Lake Way BRT project, hydraulic conductivity has been determining through:

- Extended pumping trials at 4 trenches (Section 4).
- Brief pumping tests at 21 test pits excavated into the playa surface (Section 5)

The full data set is presented on Figure 6.1. The data set is well distributed and exhibit a median transmissivity of 30 m^2/day ranging from 6 to 116 m^2/day. The Geometric mean of the full data set comprising 106 estimates is 26 m^2/day.

This equates to a hydraulic conductivity averaging approximately 6.5 to 7.5 m/day for a 4 m thick aquifer.

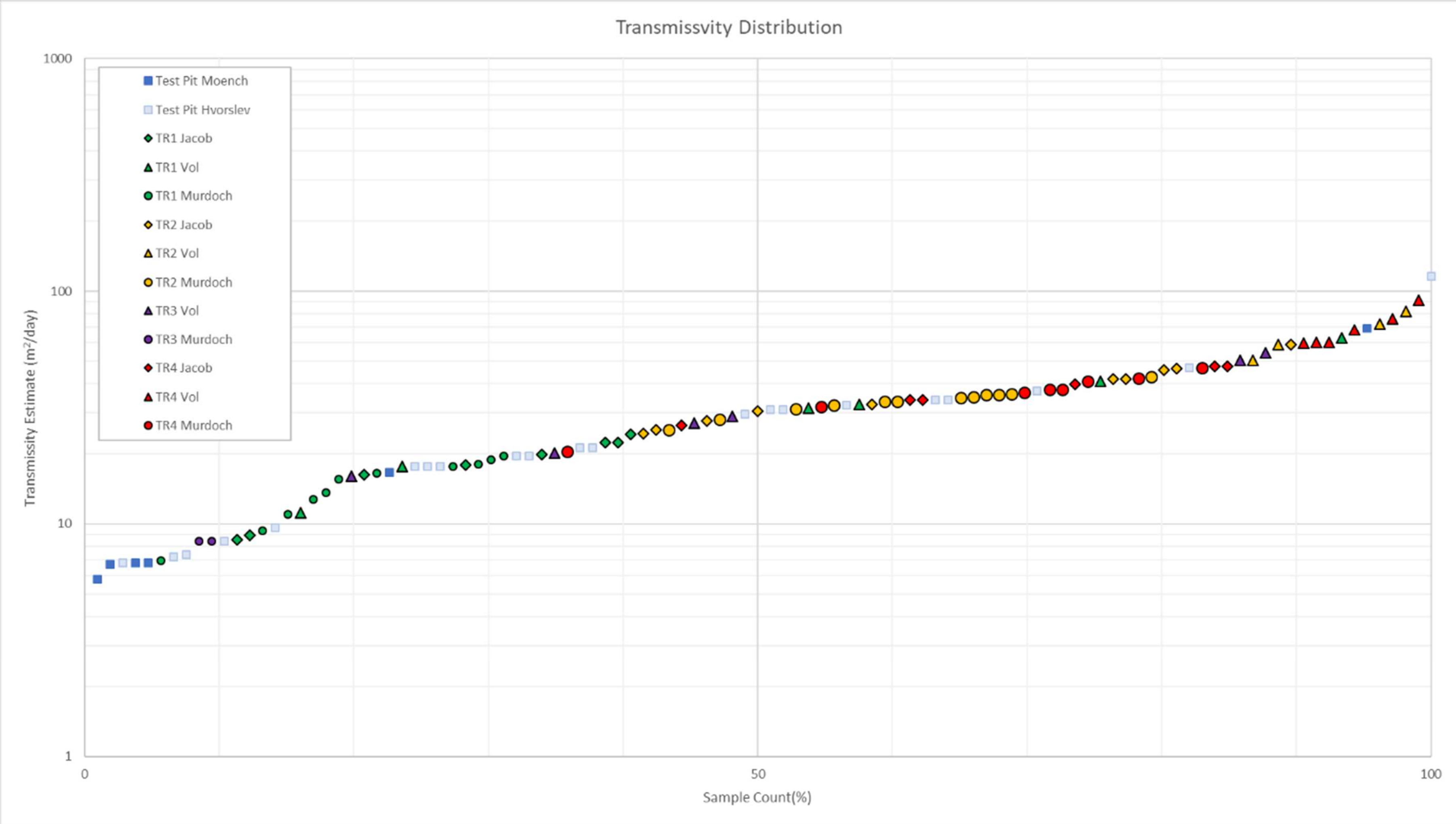


Figure 6.1: Distribution of aquifer transmissivity estimates derived from test pit hydraulic tests and trench pumping trials.

Lake Water Balance

Lake Way is understood to be a terminal drainage feature in the landscape. This means that there are no drainage lines leaving the Playa, and all water that runs-off onto the playa is eventually lost to evaporation.

Surface water run-off to the lake is estimated to average 38 GL/yr ranging annually between 0 in dry years and 325 GL/yr for very heavy rainfall years (Section 2.3.2). In the natural state all, this water is lost to evaporation.

Rainfall that lands directly on the Playa surface will contribute infiltration and recharge to the brine system. Based on monitoring at other playas, rainfall events of greater than 5 mm per day will infiltrate to the brine surface. Rainfall data collected since 1899 at Wiluna BOM station was analysed to find that the average annual rainfall that falls in events greater than 5mm/day is 200 mm per year. For the playa extent of 55,400,000 m^2 (within the BRT area) this amounts to 11 GL/yr. In the natural state this water is also lost to capillary rise and evaporation.

The playa is understood to be a terminal groundwater sink for the shallow lake bed sediment aquifer. All groundwater seepage to the shallow aquifer is subsequently lost via capillary rise and evaporation.

6.3 Results – Mineral Resource

The total minerals resource contained with the BRT Lake Bed sediment aquifer is estimated to be 1.9 Mt contained within the total porosity of the aquifer. Of this total, 0.49 Mt is contained in the drainable porosity of the aquifer. The remaining SOP tonnage is contained in the retained porosity (.

Table 6.3: Measured Sediment Hosted Resource Estimate

Playa Area	Lakebed Sediment Volume	Brine Concentration			Mineral Tonnage Calculated from Total Porosity			Mineral Tonnage Calculated from Drainable Porosity		
		K	Mg	So4	Total Porosity	Brine Volume	SOP Tonnage	Drainable Porosity	Brine Volume	SOP Tonnage
(km^2)	(Mm^3)	(kg/m^3)	(kg/m^3)	(Kg/m^3)		(Mm^3)	(Mt)		(Mm^3)	(Mt)
55.4	290	6.9	7.6	28.3	0.43	125	1.9	0.11	31.9	0.49

Table 6.4: Mineral Resource by Porosity

Aquifer Material		Proportion by Volume	SOP Tonnage (Mt)
Solid Sediment		57%	0
Total Porosity	Retained Porosity	33%	1.4
	Drainable Porosity	11%	0.49
Total		**100**	**1.9**

6.4 Mining Factors or Assumptions

It is assumed that the Brine resource will be mined by gravity drainage to a network of trenches excavated into the Playa Surface. This Measured Resource Estimate presents an extensive hydrogeological dtaset that can be used to develop a mining plan (production plan) for this resource.

6.5 Metallurgical Factors or Assumptions

Validation testwork has been completed to confirm the process flowsheet to be used at the Lake Way Project to recovery SOP from the Lake Brine (Refer SO4 ASX Release 31 October 2018).

6.6 Environmental Factors or Assumptions

Environmental impacts are expected to be; localized reduction in saline groundwater level, surface disturbance associated with trench and pond construction and accumulation of salt tails. The project is in a remote area and these impacts are not expected to prevent project development.

The project is located with the Goldfields Groundwater Proclamation Area. A license to take groundwater will be required under the Rights in Water and Irrigation Act 1914. This act is administered by the Government of Western Australia, Department of Water and Environmental Regulation.

7 REFERENCES

Murdoch, L.C., 1994. Transient analyses of an interceptor trench, Water Resources Research, vol. 30, no. 11, pp. 3023-3031.http://www.aqtesolv.com/murdocht.htm

Cooper, H.H. and C.E. Jacob, 1946. A generalized graphical method for evaluating formation constants and summarizing well field history, Am. Geophysics. Union Trans., vol. 27, pp. 526-534.

Jeuken, B., Clark, R., 2017, Lake Wells Potash Brine Project – Surface Water Estimation. Consultant's Report to Salt Lake Potash

MHA Geotechnical, 2017, Regional Modelling Update. Consultant's Technical Memorandum to Salt Lake Potash.

Groundwater Science, 2017, Lake Wells Potash Project: Brine Production Trench Pumping Test Model Calibration. Consultant's Report to Salt Lake Potash

Moench, A.F., 1997. Flow to a well of finite diameter in a homogeneous, anisotropic water-table aquifer, Water Resources Research, vol. 33, no. 6, pp. 1397-1407

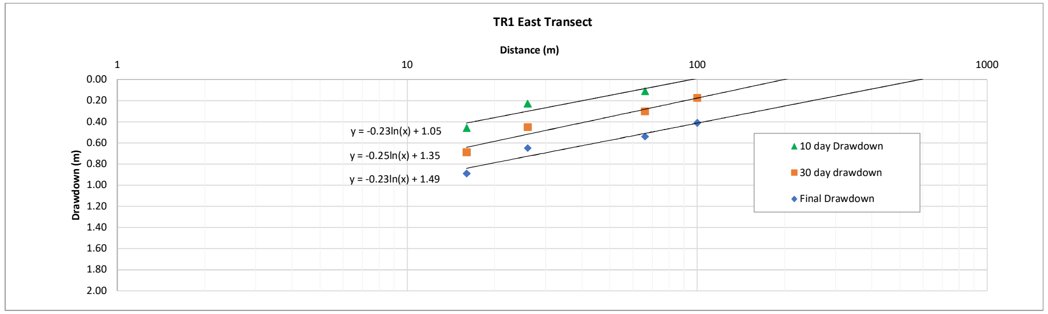
Appendix A Data

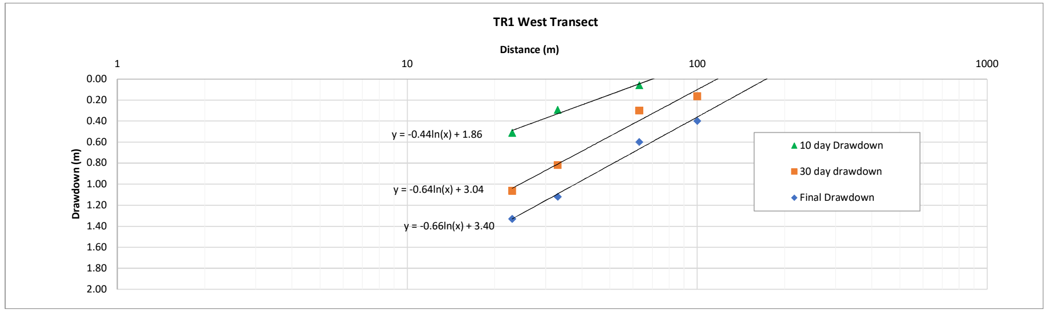
A1. Volumetric Analysis

A1.1. TR1

	Label	Distance	10 day Drawdown	30 day drawdown	Final Drawdown
	Trench	0.1	2.21	2.21	2.21
	10E	16	0.46	0.69	0.89
	20E	26	0.23	0.45	0.65
	50E	66	0.11	0.30	0.54
East Transect	100E	100		0.18	0.41
	Trench	0.1	2.21	2.21	2.21
	10W	23	0.51	1.06	1.33
	20W	33	0.30	0.82	1.12
	50W	63	0.06	0.30	0.60
West Transect	100W	100		0.17	0.40

Days	10	30	86
Pumped Volume (m3)	858	2,018	4,205
Dewatered Sediment Volume (m3)	8,832	30,290	120,075
Specific Yield	0.10	0.07	0.04
Average Pumping Rate (m3/day)	86	67	49
East Drawdown Slope (m/log cycle)	0.5	0.6	0.55
East Transmissvity (m2/day)	63	41	33
West Drawdown Slope (m/log cycle)	1	1.4	1.6
West Transmissvity (m2/day)	31	18	11
	44	27	19

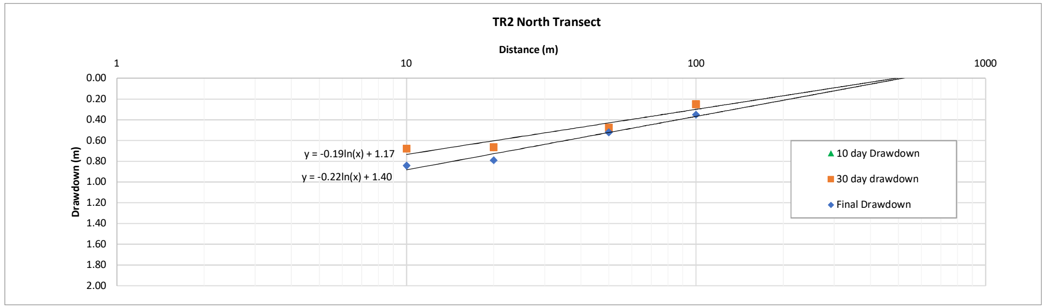


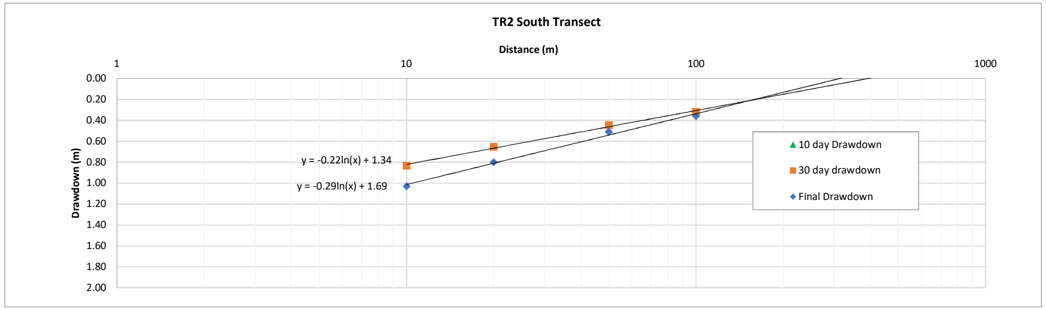


A1.2. TR2

	Label	Distance	10 day Drawdown	30 day drawdown	Final Drawdown
	Trench	0.1		2.23	2.23
	10N	10		0.68	0.84
	20N	20		0.66	0.79
	50N	50		0.48	0.52
North Transect	100N	100		0.25	0.35
	Trench	0.1		2.23	2.23
	10S	10		0.83	1.03
	20S	20		0.65	0.80
	50S	50		0.45	0.51
South Transect	100S	100		0.32	0.36

Days	10	30	100
Pumped Volume (m3)	1,074	2,884	8,011
Dewatered Sediment Volume (m3)	-	85,285	106,526
Drainable Porosity	#DIV/0!	0.03	0.08
Average Pumping Rate (m3/day)	107	96	80
North Drawdown Slope (m/log cycle)		0.43	0.5
North Transmissvity (m2/day)	#DIV/0!	82	59
South Drawdown Slope (m/log cycle)		0.55	0.68
South Transmissvity (m2/day)	#DIV/0!	64	43
	#DIV/0!	72	50

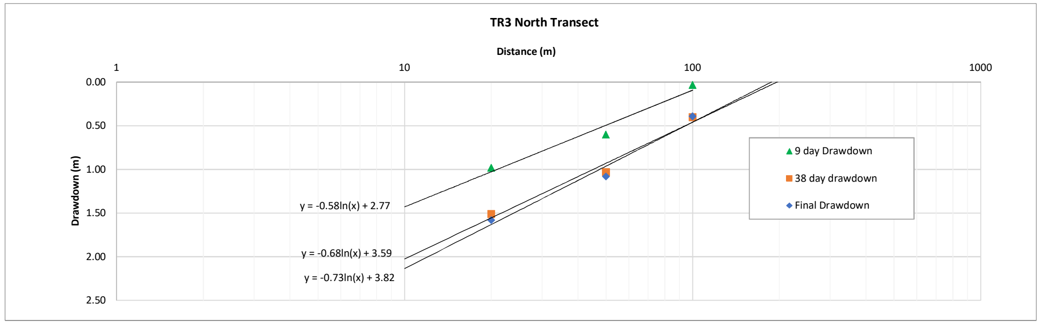


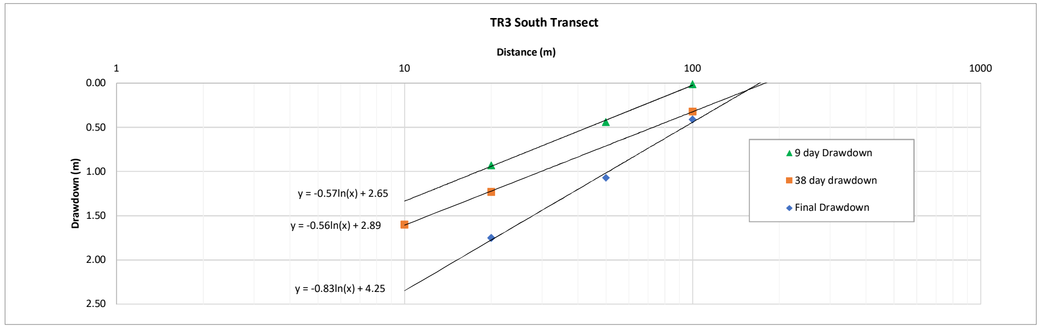


A1.3. TR3

	Label	Distance	9 day Drawdown	38 day drawdown	Final Drawdown
	Trench	1	2.30	2.30	2.30
	10N	10			
	20N	20	0.98	1.51	1.58
	50N	50	0.60	1.03	1.08
North Transect	100N	100	0.03	0.40	0.39
	Trench	1	2.30	2.30	2.30
	10S	10		1.60	
	20S	20	0.93	1.23	1.75
	50S	50	0.44		1.07
South Transect	100S	100	0.01	0.32	0.41

Days	9	38	67
Pumped Volume (m3)	1,727	4,217	5,885
Dewatered Sediment Volume (m3)	23,560	56,244	64,993
Specific Yield	0.07	0.07	0.09
Average Pumping Rate (m3/day)	192	111	88
North Drawdown Slope (m/log cycle)	1.4	1.5	1.6
North Transmissvity (m2/day)	50	27	20
South Drawdown Slope (m/log cycle)	1.3	1.4	2
South Transmissvity (m2/day)	54	29	16
	52	28	18





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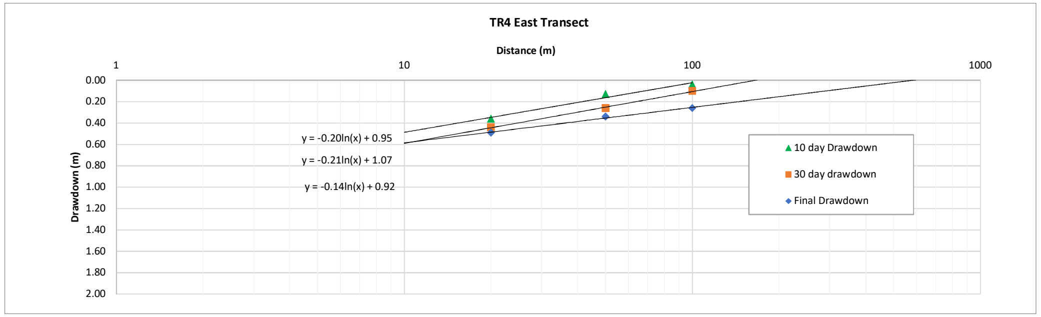
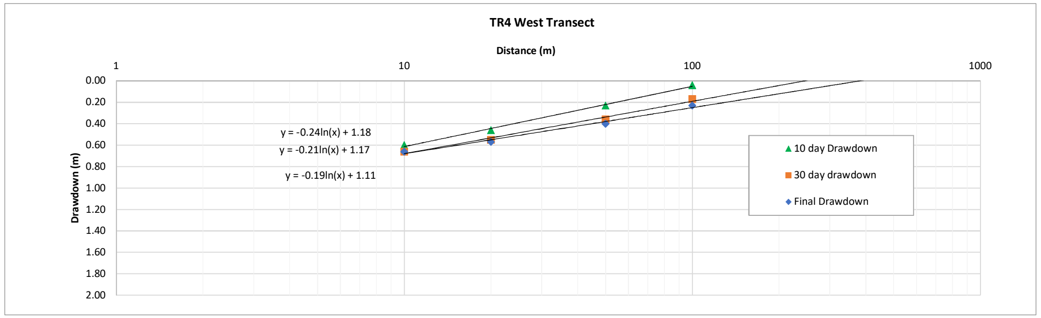
A1.4. TR4

	Label	Distance	10 day Drawdown	30 day drawdown	Final Drawdown
	Trench	1	2.21	2.21	2.21
	10E	10			
	20E	20	0.36	0.44	0.49
	50E	50	0.13	0.26	0.34
East Transect	100E	100	0.04	0.10	0.26
	Trench	1	2.21	2.21	2.21
	10W	10	0.60	0.66	0.66
	20W	20	0.46	0.55	0.57
	50W	50	0.23	0.36	0.40
West Transect	100W	100	0.04	0.17	0.23

Days	10	30	56
Pumped Volume (m3)	1,251	2,468	3,653
Dewatered Sediment Volume (m3)	10,969	24,446	87,540
Specific Yield	0.11	0.10	0.04
Average Pumping Rate (m3/day)	125.10	82	65
East Drawdown Slope (m/log cycle)	0.5	0.5	0.35
East Transmissvity (m2/day)	92	60	68
West Drawdown Slope (m/log cycle)	0.6	0.5	0.4
West Transmissvity (m2/day)	76	60	60
	84	60	64





A2. Raw Data

A2.1. Trench Pumping Trials

Trench TR1															
TR1 10E		TR1 10W		TR1 20E		TR1 20W		TR1 50E		TR1 50W		TR1 100E		TR1 100W	
time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)
0.042	-0.001	0.042	0.003	0.042	0.001	0.042	0.001	0.042	-0.002	0.042	0.003	0.042	0.001	0.042	-0.001
0.083	-0.001	0.083	0.001	0.083	-0.003	0.083	-0.001	0.083	-0.003	0.083	0.000	0.083	0.001	0.083	-0.001
0.125	-0.002	0.125	0.002	0.125	-0.003	0.125	0.001	0.125	-0.002	0.125	0.001	0.125	0.000	0.125	-0.002
0.167	0.001	0.167	0.002	0.167	0.002	0.167	0.002	0.167	0.006	0.167	0.002	0.167	0.004	0.167	0.002
0.208	0.003	0.208	0.003	0.208	0.002	0.208	0.001	0.208	0.003	0.208	0.002	0.208	0.004	0.208	-0.001
0.250	0.001	0.250	0.000	0.250	-0.001	0.250	-0.003	0.250	0.000	0.250	0.000	0.250	0.001	0.250	-0.003
0.333	0.001	0.333	0.000	0.333	0.001	0.333	-0.003	0.333	0.003	0.333	-0.003	0.333	0.002	0.333	-0.002
0.417	0.002	0.417	-0.001	0.417	0.001	0.417	-0.003	0.417	0.002	0.417	-0.002	0.417	0.003	0.417	0.001
0.500	0.010	0.500	0.006	0.500	0.005	0.500	0.002	0.500	0.005	0.500	0.002	0.500	0.005	0.500	0.004
0.583	0.009	0.583	0.004	0.583	0.003	0.583	0.002	0.583	0.002	0.583	0.001	0.583	0.005	0.583	0.001
0.667	0.009	0.667	0.009	0.667	0.005	0.667	0.002	0.667	0.006	0.667	0.003	0.667	0.008	0.667	0.005
0.750	0.015	0.750	0.012	0.750	0.008	0.750	0.007	0.750	0.009	0.750	0.004	0.750	0.007	0.750	0.001
0.833	0.016	0.833	0.014	0.833	0.008	0.833	0.008	0.833	0.009	0.833	0.003	0.833	0.011	0.833	0.006
0.917	0.010	0.917	0.009	0.917	0.007	0.917	0.001	0.917	0.006	0.917	-0.001	0.917	0.006	0.917	0.001
1	0.016	1	0.016	1	0.008	1	0.007	1	0.008	1	0.004	1	0.005	1	0.004
2	0.023	2	0.026	2	0.014	2	0.016	2	0.014	2	0.007	1	0.012	2	0.012
2	0.043	2	0.042	2	0.032	2	0.031	2	0.025	2	0.016	2	0.022	2	0.018
3	0.048	3	0.059	3	0.042	3	0.031	3	0.028	3	0.011	2	0.024	3	0.016
3	0.068	3	0.089	3	0.074	3	0.042	3	0.031	3	0.016	3	0.030	3	0.017
4	0.087	4	0.119	4	0.093	4	0.038	4	0.033	4	0.016	3	0.028	4	0.014
4	0.141	4	0.168	4	0.119	4	0.062	4	0.033	4	0.027	4	0.043	4	0.025
5	0.189	5	0.207	5	0.131	5	0.072	5	0.053	5	0.025	4	0.045	5	0.028
5	0.300	5	0.257	5	0.152	5	0.102	5	0.063	5	0.033	5	0.049	5	0.036
6	0.354	6	0.299	6	0.162	6	0.130	6	0.068	6	0.034	5	0.053	6	0.033
6	0.380	6	0.331	6	0.175	6	0.160	6	0.076	6	0.039	6	0.057	6	0.037
7	0.400	7	0.365	7	0.183	7	0.181	7	0.078	7	0.042	7	0.056	7	0.036
7	0.432	7	0.407	7	0.198	7	0.213	7	0.092	7	0.049	7	0.067	7	0.041
8	0.450	8	0.442	8	0.204	8	0.236	8	0.087	8	0.052	8	0.066	8	0.041
8	0.453	8	0.469	8	0.214	8	0.258	8	0.097	8	0.055	8	0.067	8	0.041
9	0.449	9	0.501	9	0.222	9	0.281	9	0.100	9	0.058	9	0.067	9	0.045
9	0.449	9	0.512	9	0.226	9	0.294	9	0.108	9	0.061	9	0.072	9	0.042
10	0.475	10	0.547	10	0.235	10	0.314	10	0.109	10	0.069	10	0.070	10	0.044
10	0.475	10	0.572	10	0.246	10	0.335	10	0.122	10	0.079	10	0.073	10	0.047
11	0.495	11	0.619	11	0.259	11	0.373	11	0.135	11	0.090	11	0.081	11	0.052
12	0.507	12	0.656	12	0.275	12	0.409	12	0.149	12	0.102	12	0.087	12	0.057
13	0.521	13	0.687	13	0.285	13	0.438	13	0.155	13	0.116	13	0.090	13	0.060
14	0.540	14	0.722	14	0.296	14	0.468	14	0.159	14	0.126	14	0.097	14	0.063
15	0.542	15	0.743	15	0.303	15	0.489	15	0.167	15	0.139	15	0.105	15	0.068
16	0.570	16	0.789	16	0.320	16	0.524	16	0.177	16	0.151	16	0.111	16	0.076
17	0.565	17	0.802	17	0.328	17	0.541	17	0.187	17	0.167	17	0.116	17	0.079
18	0.594	18	0.842	18	0.346	18	0.570	18	0.197	18	0.181	18	0.118	18	0.088
19	0.634	19	0.908	19	0.362	19	0.614	19	0.206	19	0.195	19	0.123	19	0.093
20	0.633	20	0.912	20	0.370	20	0.633	20	0.218	20	0.206	20	0.128	20	0.100
21	0.660	21	0.963	21	0.386	21	0.673	21	0.233	21	0.225	21	0.138	21	0.109
22	0.642	22	0.943	22	0.388	22	0.675	22	0.237	22	0.231	22	0.141	22	0.117
23	0.665	23	0.986	23	0.395	23	0.704	23	0.242	23	0.235	23	0.143	23	0.120
24	0.667	24	0.980	24	0.400	24	0.713	24	0.250	24	0.245	24	0.147	24	0.126
25	0.670	25	1.014	25	0.410	25	0.742	25	0.260	25	0.251	25	0.148	25	0.133
26	0.690	26	1.034	26	0.419	26	0.761	26	0.264	26	0.261	26	0.151	26	0.138
27	0.697	27	1.046	27	0.428	27	0.776	27	0.277	27	0.267	27	0.159	27	0.144
28	0.704	28	1.051	28	0.434	28	0.787	28	0.279	28	0.275	28	0.162	28	0.149
29	0.693	29	1.057	29	0.438	29	0.799	29	0.291	29	0.288	29	0.166	29	0.158
30	0.719	30	1.080	30	0.447	30	0.823	30	0.297	30	0.292	30	0.174	30	0.160
31	0.711	31	1.063	31	0.450	31	0.817	31	0.303	31	0.300	31	0.177	31	0.165
32	0.707	32	1.101	32	0.466	32	0.853	32	0.307	32	0.318	32	0.202	32	0.182
33	0.722	33	1.115	33	0.475	33	0.863	33	0.317	33	0.324	33	0.202	33	0.185
34	0.725	34	1.122	34	0.477	34	0.876	34	0.329	34	0.336	34	0.209	34	0.193
35	0.742	35	1.136	35	0.485	35	0.887	35	0.336	35	0.341	35	0.213	35	0.194
36	0.720	36	1.115	36	0.482	36	0.880	36	0.339	36	0.349	36	0.217	36	0.202
37	0.754	37	1.150	37	0.497	37	0.904	37	0.344	37	0.357	37	0.222	37	0.203
38	0.735	38	1.146	38	0.499	38	0.909	38	0.354	38	0.367	38	0.227	38	0.210
39	0.748	39	1.149	39	0.502	39	0.914	39	0.358	39	0.376	39	0.231	39	0.213
40	0.754	40	1.167	40	0.511	40	0.929	40	0.363	40	0.385	40	0.239	40	0.219
42	0.771	42	1.180	42	0.520	42	0.947	42	0.374	42	0.395	42	0.245	42	0.225
44	0.786	44	1.193	44	0.527	44	0.962	44	0.384	44	0.410	44	0.257	44	0.231
46	0.785	46	1.198	46	0.535	46	0.971	46	0.392	46	0.424	46	0.263	46	0.237
48	0.790	48	1.206	48	0.540	48	0.983	48	0.400	48	0.436	48	0.271	48	0.242
50	0.768	50	1.189	50	0.540	50	0.973	50	0.397	50	0.444	50	0.282	50	0.257
52	0.774	52	1.218	52	0.549	52	0.992	52	0.412	52	0.455	52	0.290	52	0.262
54	0.804	54	1.246	54	0.562	54	1.016	54	0.432	54	0.469	54	0.296	54	0.269
56	0.815	56	1.244	56	0.564	56	1.016	56	0.433	56	0.471	56	0.302	56	0.270
58	0.778	58	1.204	58	0.555	58	0.992	58	0.431	58	0.483	58	0.310	58	0.278
60	0.817	60	1.260	60	0.573	60	1.034	60	0.441	60	0.488	60	0.315	60	0.280
62	0.827	62	1.262	62	0.581	62	1.042	62	0.450	62	0.498	62	0.321	62	0.285
64	0.810	64	1.245	64	0.579	64	1.037	64	0.457	64	0.505	64	0.328	64	0.292
66	0.818	66	1.273	66	0.591	66	1.058	66	0.469	66	0.518	66	0.336	66	0.297
68	0.851	68	1.292	68	0.602	68	1.071	68	0.474	68	0.525	68	0.345	68	0.305
70	0.837	70	1.266	70	0.602	70	1.057	70	0.480	70	0.535	70	0.350	70	0.311
72	0.839	72	1.297	72	0.608	72	1.080	72	0.486	72	0.536	72	0.355	72	0.315
74	0.861	74	1.306	74	0.614	74	1.085	74	0.490	74	0.543	74	0.358	74	0.318
76	0.831	76	1.265	76	0.615	76	1.067	76	0.497	76	0.553	76	0.372	76	0.326
78	0.853	78	1.309	78	0.625	78	1.102	78	0.510	78	0.564	78	0.378	78	0.337
80	0.865	80	1.312	80	0.629	80	1.099	80	0.509	80	0.571	80	0.381	80	0.331
82	0.849	82	1.286	82	0.629	82	1.090	82	0.513	82	0.580	82	0.389	82	0.346
84	0.858	84	1.318	84	0.640	84	1.114	84	0.522	84	0.584	84	0.396	84	0.352
86	0.886	86	1.328	86	0.649	86	1.119	86	0.527	86	0.592	86	0.401	86	0.356
88	0.837	88	1.292	88	0.638	88	1.102	88	0.530	88	0.597	88	0.406	88	0.363
90	0.760	90	1.163	90	0.606	90	1.010	90	0.528	90	0.591	90	0.407	90	0.369
91	0.707	91	1.092	91	0.572	91	0.950	91	0.495	91	0.581	91	0.396	91	0.363

Trench TR2															
TR2 10N		TR2 10S		TR2 20N		TR2 20S		TR2 50N		TR2 50S		TR2 100N		TR2 100S	
time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)
0.042	0.003	0.042	0.004	0.042	0.005	0.042	0.006	0.042	0.005	0.042	0.006	0.042	0.005	0.042	0.004
0.083	0.009	0.083	0.008	0.083	0.010	0.083	0.010	0.083	0.013	0.083	0.012	0.083	0.011	0.083	0.012
0.125	0.007	0.125	0.008	0.125	0.009	0.125	0.010	0.125	0.009	0.125	0.008	0.125	0.008	0.125	0.010
0.167	0.008	0.167	0.008	0.167	0.009	0.167	0.008	0.167	0.010	0.167	0.013	0.167	0.007	0.167	0.009
0.208	0.011	0.208	0.009	0.208	0.010	0.208	0.011	0.208	0.010	0.208	0.011	0.208	0.009	0.208	0.008
0.250	0.006	0.250	0.007	0.250	0.009	0.250	0.009	0.250	0.010	0.250	0.011	0.250	0.008	0.250	0.008
0.333	0.008	0.333	0.008	0.333	0.008	0.333	0.009	0.333	0.008	0.333	0.011	0.333	0.009	0.333	0.007
0.417	0.007	0.417	0.006	0.417	0.010	0.417	0.009	0.417	0.005	0.417	0.006	0.417	0.006	0.417	0.003
0.500	0.016	0.500	0.015	0.500	0.015	0.500	0.013	0.500	0.007	0.500	0.007	0.500	0.003	0.500	0.005
0.583	0.035	0.583	0.027	0.583	0.025	0.583	0.028	0.583	0.015	0.583	0.015	0.583	0.010	0.583	0.013
0.667	0.046	0.667	0.028	0.667	0.026	0.667	0.027	0.667	0.004	0.667	0.012	0.667	0.004	0.667	0.007
0.750	0.058	0.750	0.040	0.750	0.036	0.750	0.036	0.750	0.012	0.750	0.016	0.750	0.008	0.750	0.008
0.833	0.073	0.833	0.051	0.833	0.042	0.833	0.044	0.833	0.015	0.833	0.016	0.833	0.008	0.833	0.010
0.917	0.090	0.917	0.062	0.917	0.053	0.917	0.052	0.917	0.015	0.917	0.025	0.917	0.008	0.917	0.010
1.0	0.106	1.0	0.072	1.0	0.061	1.0	0.063	1.0	0.017	1.0	0.027	1.0	0.011	1.0	0.011
1.5	0.183	1.5	0.155	1.5	0.130	1.5	0.134	1.5	0.036	1.5	0.051	1.5	0.015	1.5	0.015
2.0	0.314	2.0	0.273	2.0	0.230	2.0	0.236	2.0	0.068	2.0	0.081	2.0	0.019	2.0	0.018
2.5	0.366	2.5	0.303	2.5	0.262	2.5	0.284	2.5	0.092	2.5	0.106	2.5	0.027	2.5	0.023
3	0.506	3	0.438	3	0.360	3	0.372	3	0.138	3	0.144	3	0.032	3	0.031
4	0.580	4	0.531	4	0.432	4	0.459	4	0.172	4	0.183	4	0.043	4	0.042
4	0.577	4	0.587	4	0.480	4	0.526	4	0.200	4	0.203	4	0.051	4	0.052
5	0.601	5	0.583	5	0.496	5	0.573	5	0.227	5	0.224	5	0.057	5	0.055
5	0.539	5	0.524	5	0.464	5	0.574	5	0.231	5	0.221	5	0.058	5	0.049
6	0.456	6	0.486	6	0.442	6	0.563	6	0.248	6	0.229	6	0.066	6	0.054
6	0.454	6	0.421	6	0.389	6	0.520	6	0.245	6	0.219	6	0.067	6	0.054
7	0.318	7	0.312	7	0.282	7	0.420	7	0.067	7	0.128	7	-0.031	7	-0.028
7	0.151	7	0.148	7	0.127	7	0.193	7	-0.034	7	-0.008	7	-0.079	7	-0.081
8	0.036	8	-0.031	8	0.030	8	0.062	8	-0.073	8	-0.061	8	-0.099	8	-0.100
8	-0.001	8	-0.048	8	-0.035	8	-0.008	8	-0.105	8	-0.092	8	-0.117	8	-0.122
9	-0.001	9	-0.036	9	-0.048	9	-0.020	9	-0.112	9	-0.097	9	-0.121	9	-0.125
9	0.000	9	-0.037	9	-0.054	9	-0.031	9	-0.113	9	-0.104	9	-0.122	9	-0.132
10	-0.008	10	-0.037	10	-0.059	10	-0.034	10	-0.118	10	-0.107	10	-0.124	10	-0.131
10	0.031	10	-0.009	10	-0.032	10	-0.007	10	-0.109	10	-0.106	10	-0.124	10	-0.129
11	0.210	11	0.220	11	0.145	11	0.164	11	-0.079	11	-0.073	11	-0.111	11	-0.119
12	0.457	12	0.404	12	0.321	12	0.379	12	-0.008	12	0.013	12	-0.095	12	-0.092
13	0.494	13	0.425	13	0.359	13	0.461	13	0.045	13	0.072	13	-0.085	13	-0.081
14	0.549	14	0.488	14	0.406	14	0.529	14	0.088	14	0.114	14	-0.080	14	-0.074
15	0.526	15	0.449	15	0.398	15	0.534	15	0.121	15	0.134	15	-0.071	15	0.101
16	0.550	16	0.472	16	0.421	16	0.564	16	0.151	16	0.160	16	-0.062	16	0.111
17	0.536	17	0.463	17	0.422	17	0.571	17	0.175	17	0.176	17	-0.056	17	0.117
18	0.560	18	0.495	18	0.436	18	0.584	18	0.173	18	0.182	18	-0.063	18	0.105
19	0.508	19	0.430	19	0.408	19	0.565	19	0.187	19	0.183	19	-0.052	19	0.116
20	0.540	20	0.455	20	0.439	20	0.599	20	0.208	20	0.214	20	-0.038	20	0.120
21	0.585	21	0.503	21	0.473	21	0.630	21	0.218	21	0.232	21	-0.031	21	0.128
22	0.562	22	0.478	22	0.462	22	0.629	22	0.230	22	0.229	22	-0.021	22	0.133
23	0.564	23	0.488	23	0.470	23	0.637	23	0.239	23	0.240	23	-0.014	23	0.136
24	0.591	24	0.509	24	0.490	24	0.658	24	0.247	24	0.249	24	-0.008	24	0.143
25	0.567	25	0.479	25	0.472	25	0.646	25	0.250	25	0.241	25	-0.005	25	0.141
26	0.603	26	0.529	26	0.510	26	0.675	26	0.264	26	0.260	26	0.006	26	0.150
27	0.587	27	0.522	27	0.507	27	0.679	27	0.269	27	0.259	27	0.012	27	0.157
28	0.599	28	0.534	28	0.519	28	0.693	28	0.276	28	0.273	28	0.026	28	0.164
29	0.570	29	0.496	29	0.497	29	0.678	29	0.283	29	0.258	29	0.036	29	0.167
30	0.583	30	0.515	30	0.507	30	0.691	30	0.288	30	0.266	30	0.039	30	0.171
31	0.583	31	0.514	31	0.516	31	0.698	31	0.295	31	0.275	31	0.054	31	0.182
32	0.615	32	0.546	32	0.535	32	0.721	32	0.302	32	0.288	32	0.061	32	0.185
33	0.606	33	0.544	33	0.537	33	0.720	33	0.301	33	0.285	33	0.063	33	0.183
34	0.621	34	0.560	34	0.552	34	0.734	34	0.311	34	0.293	34	0.075	34	0.193
35	0.630	35	0.570	35	0.558	35	0.742	35	0.315	35	0.295	35	0.084	35	0.201
36	0.607	36	0.539	36	0.542	36	0.735	36	0.319	36	0.296	36	0.088	36	0.202
37	0.624	37	0.559	37	0.563	37	0.742	37	0.324	37	0.304	37	0.096	37	0.211
38	0.683	38	0.615	38	0.602	38	0.772	38	0.336	38	0.331	38	0.104	38	0.218
39	0.687	39	0.625	39	0.613	39	0.790	39	0.353	39	0.344	39	0.117	39	0.223
40	0.679	40	0.611	40	0.611	40	0.793	40	0.352	40	0.330	40	0.119	40	0.224
42	0.664	42	0.593	42	0.608	42	0.798	42	0.373	42	0.344	42	0.143	42	0.225
44	0.677	44	0.614	44	0.626	44	0.813	44	0.379	44	0.351	44	0.153	44	0.231
46	0.717	46	0.633	46	0.649	46	0.842	46	0.398	46	0.369	46	0.167	46	0.246
48	0.690	48	0.620	48	0.644	48	0.839	48	0.398	48	0.365	48	0.179	48	0.252
50	0.697	50	0.632	50	0.657	50	0.854	50	0.407	50	0.374	50	0.187	50	0.255
52	0.694	52	0.630	52	0.660	52	0.857	52	0.413	52	0.380	52	0.200	52	0.261
54	0.689	54	0.631	54	0.664	54	0.861	54	0.414	54	0.380	54	0.209	54	0.269
56	0.701	56	0.647	56	0.684	56	0.874	56	0.426	56	0.394	56	0.217	56	0.274
58	0.703	58	0.655	58	0.697	58	0.883	58	0.431	58	0.402	58	0.225	58	0.281
60	0.734	60	0.681	60	0.723	60	0.896	60	0.453	60	0.413	60	0.235	60	0.282
62	0.743	62	0.692	62	0.735	62	0.914	62	0.455	62	0.423	62	0.243	62	0.292
64	0.755	64	0.697	64	0.755	64	0.923	64	0.465	64	0.433	64	0.254	64	0.294
66	0.766	66	0.710	66	0.763	66	0.937	66	0.467	66	0.439	66	0.257	66	0.295
68	0.773	68	0.724	68	0.775	68	0.948	68	0.476	68	0.446	68	0.267	68	0.303
70	0.746	70	0.679	70	0.748	70	0.923	70	0.475	70	0.432	70	0.276	70	0.304
72	0.771	72	0.709	72	0.762	72	0.912	72	0.464	72	0.443	72	0.276	72	0.305
74	0.795	74	0.740	74	0.805	74	0.970	74	0.489	74	0.462	74	0.283	74	0.313
76	0.813	76	0.768	76	0.824	76	0.973	76	0.483	76	0.462	76	0.284	76	0.312
78	0.690	78	0.638	78	0.724	78	0.871	78	0.460	78	0.416	78	0.288	78	0.310
80	0.756	80	0.711	80	0.798	80	0.947	80	0.487	80	0.454	80	0.295	80	0.323
82	0.889	82	0.843	82	0.903	82	1.028	82	0.513	82	0.513	82	0.304	82	0.330
84	0.784	84	0.732	84	0.828	84	0.974	84	0.502	84	0.474	84	0.304	84	0.330
86	0.577	86	0.506	86	0.623	86	0.769	86	0.418	86	0.365	86	0.292	86	0.310
88	0.783	88	0.732	88	0.811	88	0.930	88	0.471	88	0.456	88	0.305	88	0.324
90	0.790	90	0.743	90	0.835	90	0.965	90	0.491	90	0.468	90	0.308	90	0.331
92	0.769	92	0.725	92	0.736	92	0.951	92	0.489	92	0.466	92	0.317	92	0.338
94	0.773	94	0.721	94	0.746	94	0.969	94	0.504	94	0.479	94	0.329	94	0.345
96	0.831	96	0.783	96	0.797	96	1.013	96	0.524	96	0.507	96	0.335	96	0.348
98	0.741	98	0.687	98	0.720	98	0.941	98	0.506	98	0.459	98	0.333	98	0.350
100	0.835	100	0.753	100	0.778	100	0.998	100	0.525	100	0.498	100	0.343	100	0.359

Trench TR3															
TR3 10N		TR3 10S		TR3 20N		TR3 20S		TR3 50N		TR3 50S		TR3 100N		TR3 100S	
time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)
0		0		0		0		0		0		0		0	
1		1		1		1		1		1		1		1	
2		2		2		2		2		2		2		2	
4		4		4		4		4		4		4		4	
5		5		5		5		5		5		5		5	
6	0.66	6	0.75	6	0.60	6	0.61	6	0.25	6	0.22	6	0.03	6	0.03
7		7		7		7		7		7		7		7	
8		8		8		8		8		8		8		8	
9		9		9		9		9		9		9		9	
10	0.99	10	0.76	10	0.98	10	0.93	10	0.60	10	0.44	10	0.03	10	0.01
11		11		11		11		11		11		11		11	
13		13		13		13		13		13		13		13	
14		14		14		14		14		14		14		14	
15	1.01	15	1.11	15	1.11	15	0.96	15	0.80	15	0.48	15	0.08	15	0.03
16		16		16		16		16		16		16		16	
17		17		17		17		17		17		17		17	
18	1.09	18	1.09	18	1.20	18	1.06	18	0.90	18	0.52	18	0.13	18	0.09
19		19		19		19		19		19		19		19	
20		20		20		20		20		20		20		20	
21	1.07	21	1.10	21	1.09	21	1.08	21	0.93	21	0.58	21	0.17	21	0.11
22		22		22		22		22		22		22		22	
23		23		23		23		23		23		23		23	
24		24		24		24		24		24		24		24	
25	1.02	25	1.10	25	1.21	25	1.06	25	1.00	25	0.58	25	0.24	25	0.16
26		26		26		26		26		26		26		26	
27		27		27		27		27		27		27		27	
28	1.08	28	1.16	28	1.22	28	1.08	28	1.03	28	0.59	28	0.25	28	0.17
29		29		29		29		29		29		29		29	
30		30		30		30		30		30		30		30	
31		31		31		31		31		31		31		31	
32		32		32		32		32		32		32		32	
33	1.07	33	1.11	33	1.22	33	1.08	33	1.05	33	0.58	33	0.33	33	0.25
34		34		34		34		34		34		34		34	
35		35		35		35		35		35		35		35	
39	1.01	39	1.14	39	1.15	39	0.71	39	0.47	39	0.70	39	0.42	39	0.32
40		40		40		40		40		40		40		40	
41		41		41		41		41		41		41		41	
42	1.03	42	1.17	42	1.19	42	0.75	42	0.48	42	0.67	42	0.42	42	0.34
43		43		43		43		43		43		43		43	
44		44		44		44		44		44		44		44	
45		45		45		45		45		45		45		45	
46		46		46		46		46		46		46		46	
47		47		47		47		47		47		47		47	
48		48		48		48		48		48		48		48	
49		49		49		49		49		49		49		49	
50		50		50		50		50		50		50		50	
51	0.99	51	1.16	51	1.08	51	0.71	51	0.50	51	0.61	51	0.41	51	0.37
52		52		52		52		52		52		52		52	
53	1.09	53	1.20	53	1.23	53	0.78	53	0.50	53	0.65	53	0.44	53	0.40
54	1.09	54	1.23	54	1.23	54	0.77	54	0.53	54	0.64	54	0.45	54	0.41
55	0.97	55	1.21	55	1.19	55	0.77	55	0.52	55	0.65	55	0.45	55	0.42
56	1.04	56	1.27	56	1.17	56	0.75	56	0.54	56	0.64	56	0.46	56	0.44
57		57		57		57		57		57		57		57	
63		63		63		63		63		63		63		63	
64	1.06	64	1.35	64	1.23	64	1.21	64	0.53	64	0.64	64	0.42	64	0.43
66		66		66		66		66		66		66		66	
67	1.06	67	1.34	67	1.22	67	1.23	67	0.52	67	0.65	67	0.41	67	0.41
68		68		68		68		68		68		68		68	
69		69		69		69		69		69		69		69	
70	1.05	70	1.42	70	1.22	70	1.22	70	0.53	70	0.66	70	0.46	70	
71		71		71		71		71		71		71		71	
72		72		72		72		72		72		72		72	
73		73		73		73		73		73		73		73	
74		74		74		74		74		74		74		74	
75		75		75		75		75		75		75		75	
76		76		76		76		76		76		76		76	
77		77		77		77		77		77		77		77	
78	1.07	78	1.51	78	1.21	78	1.24	78	0.53	78	0.63	78	0.48	78	0.43

Trench TR4															
TR4 10E		TR4 10W		TR4 20E		TR4 20W		TR4 50E		TR4 50W		TR4 100E		TR4 100W	
time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)	time (days)	Drawdown (m)
0.042	-0.007	0.042	0.036	0.042	0.034	nd	nd	0.042	0.010	0.042	0.032	0.042	-0.008	0.042	0.035
0.083	-0.004	0.083	0.059	0.083	0.045	nd	nd	0.083	0.017	0.083	0.056	0.083	0.002	0.083	0.055
0.125	-0.014	0.125	0.074	0.125	0.054	nd	nd	0.125	0.021	0.125	0.057	0.125	0.008	0.125	0.056
0.167	-0.011	0.167	0.093	0.167	0.069	nd	nd	0.167	0.029	0.167	0.072	0.167	0.013	0.167	0.067
0.208	-0.001	0.208	0.110	0.208	0.075	nd	nd	0.208	0.029	0.208	0.070	0.208	0.015	0.208	0.072
0.250	0.010	0.250	0.126	0.250	0.080	nd	nd	0.250	0.030	0.250	0.086	0.250	0.020	0.250	0.078
0.333	0.016	0.333	0.150	0.333	0.091	nd	nd	0.333	0.038	0.333	0.098	0.333	0.017	0.333	0.089
0.417	0.020	0.417	0.155	0.417	0.093	nd	nd	0.417	0.049	0.417	0.098	0.417	0.024	0.417	0.091
0.500	0.017	0.500	0.157	0.500	0.092	nd	nd	0.500	0.041	0.500	0.105	0.500	0.027	0.500	0.088
0.583	0.010	0.583	0.147	0.583	0.093	nd	nd	0.583	0.037	0.583	0.095	0.583	0.027	0.583	0.086
0.667	0.008	0.667	0.144	0.667	0.086	nd	nd	0.667	0.037	0.667	0.099	0.667	0.027	0.667	0.083
0.750	0.009	0.750	0.149	0.750	0.107	nd	nd	0.750	0.044	0.750	0.111	0.750	0.039	0.750	0.093
0.833	0.009	0.833	0.152	0.833	0.102	nd	nd	0.833	0.045	0.833	0.114	0.833	0.040	0.833	0.094
0.917	0.006	0.917	0.153	0.917	0.097	nd	nd	0.917	0.041	0.917	0.116	0.917	0.035	0.917	0.095
1.0	0.006	1.0	0.155	1.0	0.106	nd	nd	1.0	0.053	1.0	0.124	1.0	0.033	1.0	0.098
1.5	0.350	1.5	0.185	1.5	0.160	nd	nd	1.5	0.044	1.5	0.134	1.5	0.036	1.5	0.102
2.0	0.418	2.0	0.285	2.0	0.208	nd	nd	2.0	0.060	2.0	0.150	2.0	0.051	2.0	0.110
2.5	0.289	2.5	0.383	2.5	0.244	nd	nd	2.5	0.064	2.5	0.151	2.5	0.047	2.5	0.106
3	0.318	3	0.451	3	0.284	nd	nd	3	0.071	3	0.178	3	0.057	3	0.115
4	0.315	4	0.503	4	0.315	nd	nd	4	0.081	4	0.209	4	0.053	4	0.109
4	0.318	4	0.529	4	0.352	nd	nd	4	0.086	4	0.232	4	0.050	4	0.126
5	0.334	5	0.537	5	0.368	nd	nd	5	0.108	5	0.237	5	0.053	5	0.112
5	0.337	5	0.551	5	0.386	nd	nd	5	0.120	5	0.266	5	0.065	5	0.130
6	0.330	6	0.572	6	0.395	nd	nd	6	0.136	6	0.288	6	0.068	6	0.126
6	0.303	6	0.578	6	0.412	nd	nd	6	0.139	6	0.304	6	0.070	6	0.136
7	0.284	7	0.582	7	0.402	nd	nd	7	0.136	7	0.310	7	0.056	7	0.121
7	0.242	7	0.579	7	0.425	nd	nd	7	0.162	7	0.327	7	0.071	7	0.145
8	0.227	8	0.598	8	0.423	nd	nd	8	0.161	8	0.325	8	0.059	8	0.131
8	0.214	8	0.584	8	0.422	nd	nd	8	0.162	8	0.323	8	0.060	8	0.131
9	0.216	9	0.620	9	0.435	nd	nd	9	0.175	9	0.341	9	0.055	9	0.131
9	0.253	9	0.621	9	0.443	nd	nd	9	0.174	9	0.343	9	0.051	9	0.146
10	0.250	10	0.625	10	0.446	nd	nd	10	0.189	10	0.360	10	0.057	10	0.144
10	0.252	10	0.632	10	0.462	nd	nd	10	0.204	10	0.370	10	0.074	10	0.159
11	0.205	11	0.641	11	0.470	nd	nd	11	0.223	11	0.396	11	0.084	11	0.174
12	0.198	12	0.630	12	0.464	nd	nd	12	0.214	12	0.371	12	0.076	12	0.162
13	0.230	13	0.622	13	0.477	nd	nd	13	0.230	13	0.407	13	0.069	13	0.175
14	0.244	14	0.642	14	0.489	nd	nd	14	0.249	14	0.416	14	0.086	14	0.184
15	0.000	15	0.660	15	0.492	nd	nd	15	0.251	15	0.426	15	0.091	15	0.195
16	0.244	16	0.000	16	0.000	nd	nd	16	0.000	16	0.000	16	0.000	16	0.000
17	0.230	17	0.694	17	0.537	nd	nd	17	0.279	17	0.439	17	0.059	17	0.235
18	0.162	18	0.697	18	0.546	nd	nd	18	0.292	18	0.448	18	0.067	18	0.250
19	0.231	19	0.661	19	0.506	nd	nd	19	0.277	19	0.416	19	0.045	19	0.219
20	0.241	20	0.744	20	0.586	nd	nd	20	0.299	20	0.514	20	0.105	20	0.300
21	0.173	21	0.687	21	0.535	nd	nd	21	0.301	21	0.453	21	0.050	21	0.247
22	0.229	22	0.702	22	0.551	nd	nd	22	0.288	22	0.476	22	0.078	22	0.272
23	0.255	23	0.746	23	0.589	nd	nd	23	0.313	23	0.515	23	0.114	23	0.316
24	0.231	24	0.705	24	0.553	nd	nd	24	0.311	24	0.490	24	0.079	24	0.281
25	0.205	25	0.706	25	0.555	nd	nd	25	0.317	25	0.484	25	0.089	25	0.290
26	0.164	26	0.684	26	0.540	nd	nd	26	0.318	26	0.465	26	0.065	26	0.275
27	0.233	27	0.694	27	0.546	nd	nd	27	0.305	27	0.472	27	0.086	27	0.283
28	0.272	28	0.746	28	0.594	nd	nd	28	0.344	28	0.537	28	0.130	28	0.339
29	0.266	29	0.725	29	0.571	nd	nd	29	0.348	29	0.516	29	0.111	29	0.322
30	0.232	30	0.720	30	0.570	nd	nd	30	0.346	30	0.515	30	0.097	30	0.318
31	0.198	31	0.702	31	0.552	nd	nd	31	0.339	31	0.495	31	0.099	31	0.303
32	0.197	32	0.712	32	0.569	nd	nd	32	0.337	32	0.508	32	0.111	32	0.323
33	0.182	33	0.716	33	0.568	nd	nd	33	0.345	33	0.516	33	0.096	33	0.321
34	0.183	34	0.701	34	0.565	nd	nd	34	0.344	34	0.507	34	0.095	34	0.316
35	0.216	35	0.729	35	0.591	nd	nd	35	0.346	35	0.536	35	0.122	35	0.347
36	0.229	36	0.733	36	0.590	nd	nd	36	0.361	36	0.538	36	0.125	36	0.346
37	0.195	37	0.710	37	0.571	nd	nd	37	0.343	37	0.525	37	0.117	37	0.336
38	0.142	38	0.705	38	0.569	nd	nd	38	0.354	38	0.504	38	0.105	38	0.322
39	0.191	39	0.721	39	0.581	nd	nd	39	0.348	39	0.516	39	0.121	39	0.341
40	0.238	40	0.738	40	0.600	nd	nd	40	0.364	40	0.560	40	0.149	40	0.373
42	0.191	42	0.714	42	0.571	nd	nd	42	0.369	42	0.535	42	0.123	42	0.348
44	0.143	44	0.715	44	0.584	nd	nd	44	0.366	44	0.523	44	0.126	44	0.351
46	0.056	46	0.691	46	0.562	nd	nd	46	0.354	46	0.481	46	0.092	46	0.325
48	0.176	48	0.761	48	0.635	nd	nd	48	0.369	48	0.587	48	0.174	48	0.405
50	0.167	50	0.731	50	0.595	nd	nd	50	0.383	50	0.564	50	0.144	50	0.375
52	0.137	52	0.724	52	0.594	nd	nd	52	0.381	52	0.544	52	0.134	52	0.367
54	0.161	54	0.727	54	0.602	nd	nd	54	0.382	54	0.558	54	0.150	54	0.379
56	0.218	56	0.726	56	0.604	nd	nd	56	0.397	56	0.565	56	0.147	56	0.383

A2.2. Test Pit Slug Tests

LYTT04	
time (days)	Drawdown (m)
0.00069	1.856
0.00139	1.806
0.00208	1.750
0.00278	1.712
0.00347	1.679
0.00417	1.651
0.00486	1.628
0.00556	1.607
0.00625	1.586
0.00694	1.567
0.00764	1.547
0.00833	1.534
0.00903	1.512
0.00972	1.499
0.01042	1.479
0.01111	1.468
0.01181	1.455
0.01250	1.441
0.01319	1.428
0.01389	1.411
0.01528	1.391
0.01667	1.363
0.01806	1.344
0.01944	1.324
0.02083	1.296
0.02222	1.280
0.02361	1.261
0.02500	1.242
0.02639	1.224
0.02778	1.203
0.03125	1.155
0.03472	1.118
0.03819	1.080
0.04167	1.041
0.04861	0.965
0.05556	0.900
0.06250	0.839
0.06944	0.782
0.07639	0.730
0.08333	0.620
0.09028	0.590
0.09722	0.554
0.10417	0.527
0.11111	0.495
0.11806	0.468
0.12500	0.440
0.16667	0.327
0.20833	0.241
0.25000	0.179
0.29167	0.129
0.33333	0.087
0.37500	0.052
0.41667	0.041
0.45833	0.026
0.50000	0.016
0.54167	0.003
0.58333	0.000

LYTT06	
time (days)	Drawdown (m)
0.00139	0.026
0.00139	0.026
0.00278	0.035
0.00417	0.124
0.00417	0.124
0.00417	0.124
0.00556	0.238
0.00556	0.238
0.00694	0.343
0.00833	0.409
0.00833	0.409
0.00833	0.409
0.00972	0.461
0.01111	0.510
0.01111	0.510
0.01111	0.510
0.01250	0.576
0.01250	0.576
0.01528	0.744
0.01528	0.744
0.01667	0.858
0.01806	0.996
0.01944	1.157
0.02222	1.483
0.02222	1.483
0.02361	1.644
0.02639	1.985
0.02639	1.985
0.03056	1.874
0.03333	1.785
0.03750	1.681
0.04028	1.613
0.04861	1.430
0.05556	1.285
0.06250	1.162
0.06806	1.054
0.07500	0.940
0.08194	0.846
0.08889	0.769
0.09583	0.692
0.10278	0.642
0.11111	0.588
0.11806	0.547
0.12500	0.516
0.16528	0.374
0.20694	0.266
0.22917	0.223

LYTT011	
time (days)	Drawdown (m)
0.00139	3.345
0.00139	3.345
0.00278	3.298
0.00278	3.298
0.00417	3.265
0.00417	3.265
0.00556	3.227
0.00556	3.227
0.00694	3.189
0.00694	3.189
0.00833	3.147
0.00833	3.147
0.00972	3.138
0.00972	3.138
0.01111	3.109
0.01111	3.109
0.01250	3.083
0.01250	3.083
0.01389	3.057
0.01528	3.030
0.01667	3.009
0.01806	2.985
0.01944	2.958
0.02083	2.932
0.02222	2.912
0.02361	2.911
0.02500	2.883
0.02639	2.871
0.02778	2.843
0.03056	2.809
0.03472	2.752
0.03750	2.713
0.04167	2.647
0.04861	2.550
0.05556	2.443
0.06250	2.348
0.06944	2.253
0.07639	2.170
0.08333	2.082
0.09028	1.991
0.09722	1.900
0.10417	1.822
0.11111	1.741
0.11806	1.667
0.12500	1.588
0.16667	1.218
0.20833	0.941
0.25000	0.722
0.29167	0.495
0.33333	0.386
0.37500	0.328
0.41667	0.268
0.45833	0.229
0.50000	0.113
0.54167	0.112
0.58333	0.105
0.62500	0.096
0.66667	0.085
0.70833	0.079
0.75000	0.073
0.79167	0.062
0.83333	0.049
0.87500	0.041
0.91667	0.043
0.95833	0.048
1.00000	0.058

LYTT013	
time (days)	Drawdown (m)
0.00069	2.704
0.00139	2.695
0.00208	2.688
0.00278	2.675
0.00347	2.666
0.00417	2.651
0.00486	2.643
0.00556	2.633
0.00625	2.626
0.00694	2.617
0.00764	2.604
0.00833	2.596
0.00903	2.586
0.00972	2.591
0.01042	2.580
0.01111	2.566
0.01181	2.560
0.01250	2.554
0.01319	2.543
0.01389	2.541
0.01528	2.523
0.01667	2.502
0.01806	2.454
0.01944	2.451
0.02083	2.435
0.02222	2.422
0.02361	2.409
0.02500	2.400
0.02639	2.380
0.02778	2.374
0.03125	2.347
0.03472	2.314
0.03819	2.290
0.04167	2.258
0.04861	2.211
0.05556	2.168
0.06250	2.120
0.06944	2.071
0.07639	2.036
0.08333	2.001
0.09028	1.959
0.09722	1.929
0.10417	1.891
0.11111	1.860
0.11806	1.819
0.12500	1.788
0.16667	1.598
0.20833	1.430
0.25000	1.282
0.29167	1.135
0.33333	1.014
0.37500	0.903
0.41667	0.811
0.45833	0.729
0.50000	0.662
0.54167	0.598
0.58333	0.543
0.62500	0.494
0.66667	0.451
0.70833	0.415
0.75000	0.380
0.79167	0.345
0.83333	0.320
0.87500	0.284
0.91667	0.258
0.92778	0.256
0.92778	0.256

LYTT014	
time (days)	Drawdown (m)
0.00139	1.774
0.00139	1.774
0.00278	1.717
0.00278	1.717
0.00417	1.642
0.00417	1.642
0.00556	1.671
0.00556	1.671
0.00694	1.641
0.00694	1.641
0.00833	1.614
0.00833	1.614
0.00972	1.590
0.00972	1.590
0.01111	1.566
0.01111	1.566
0.01250	1.544
0.01250	1.544
0.01389	1.516
0.01528	1.503
0.01667	1.478
0.01806	1.456
0.01944	1.438
0.02083	1.415
0.02222	1.397
0.02361	1.378
0.02500	1.359
0.02639	1.337
0.02778	1.322
0.03056	1.285
0.03472	1.225
0.03750	1.192
0.04167	1.143
0.04861	1.068
0.05556	0.998
0.06250	0.926
0.06944	0.863
0.07639	0.793
0.08333	0.741
0.09028	0.698
0.09722	0.649
0.10417	0.596
0.11111	0.555
0.11806	0.515
0.12500	0.470
0.16667	0.283
0.20000	0.092

LYTT015	
time (days)	Drawdown (m)
0.00139	3.197
0.00139	3.197
0.00278	3.142
0.00278	3.142
0.00417	3.099
0.00417	3.099
0.00556	3.065
0.00556	3.065
0.00694	3.024
0.00694	3.024
0.00833	2.982
0.00833	2.982
0.00972	2.941
0.00972	2.941
0.01111	2.879
0.01111	2.879
0.01250	2.836
0.01250	2.836
0.01389	2.814
0.01528	2.777
0.01667	2.742
0.01806	2.717
0.01944	2.692
0.02083	2.653
0.02222	2.621
0.02361	2.589
0.02500	2.558
0.02639	2.530
0.02778	2.497
0.03056	2.445
0.03472	2.359
0.03750	2.292
0.04167	2.212
0.04861	1.993
0.05556	1.870
0.06250	1.749
0.06944	1.632
0.07639	1.525
0.08333	1.424
0.09028	1.322
0.09722	1.235
0.10417	1.152
0.11111	1.075
0.11806	1.004
0.12500	0.935
0.16667	0.591
0.20833	0.392
0.25000	0.244
0.29167	0.168
0.33333	0.117
0.37500	0.085
0.41667	0.069
0.44583	0.054

LYTT016	
time (days)	Drawdown (m)
0.00139	3.583
0.00139	3.583
0.00278	3.554
0.00278	3.554
0.00417	3.495
0.00417	3.495
0.00556	3.437
0.00556	3.437
0.00694	2.636
0.00694	2.636
0.00833	2.588
0.00833	2.588
0.00972	2.540
0.00972	2.540
0.01111	2.497
0.01111	2.497
0.01250	2.452
0.01250	2.452
0.01389	2.393
0.01528	2.355
0.01667	2.312
0.01806	2.268
0.01944	2.234
0.02083	2.194
0.02222	2.161
0.02361	2.120
0.02500	2.083
0.02639	2.046
0.02778	2.020
0.03056	1.948
0.03472	1.651
0.03750	1.596
0.04167	1.551
0.04861	1.417
0.05556	1.318
0.06250	1.229
0.06944	1.138
0.07639	1.056
0.08333	0.986
0.09028	0.837
0.09722	0.787
0.10417	0.720
0.11111	0.643
0.11806	0.613
0.12500	0.586
0.16667	0.384
0.20833	0.252
0.25000	0.178
0.29167	0.128
0.33333	0.095
0.37500	0.069
0.41667	0.051

LYTT017	
time (days)	Drawdown (m)
0.00139	2.225
0.00139	2.225
0.00278	1.827
0.00278	1.827
0.00417	1.765
0.00417	1.765
0.00556	1.728
0.00556	1.728
0.00694	1.712
0.00694	1.712
0.00833	1.698
0.00833	1.698
0.00972	1.693
0.00972	1.693
0.01111	1.693
0.01111	1.693
0.01250	1.693
0.01250	1.693
0.01389	1.686
0.01528	1.595
0.01667	1.583
0.01806	1.572
0.01944	1.504
0.02083	1.465
0.02222	1.379
0.02361	1.362
0.02500	1.352
0.02639	1.270
0.02778	1.262
0.03056	1.229
0.03472	1.181
0.03750	1.151
0.04167	1.109
0.04861	1.035
0.05556	0.965
0.06250	0.891
0.06944	0.815
0.07639	0.729
0.08333	0.660
0.09028	0.590
0.09722	0.485
0.10417	0.361
0.11111	0.323
0.11806	0.288
0.12500	0.269
0.16667	0.259
0.20833	0.132
0.25000	0.057
0.29167	0.098
0.33333	0.094
0.37500	0.078
0.41667	0.037
0.44583	0.023

LYTT018	
time (days)	Drawdown (m)
0.00139	2.549
0.00139	2.549
0.00278	2.514
0.00278	2.514
0.00417	2.483
0.00417	2.483
0.00556	2.404
0.00556	2.404
0.00694	2.377
0.00694	2.377
0.00833	2.341
0.00833	2.341
0.00972	2.247
0.00972	2.247
0.01111	2.217
0.01111	2.217
0.01250	2.193
0.01250	2.193
0.01389	2.168
0.01528	2.139
0.01667	2.119
0.01806	2.097
0.01944	2.066
0.02083	1.917
0.02222	1.905
0.02361	1.872
0.02500	1.857
0.02639	1.566
0.02778	1.552
0.03056	1.442
0.03472	1.409
0.03750	1.376
0.04167	1.309
0.04861	1.020
0.05556	0.978
0.06250	0.910
0.06944	0.868
0.07639	0.827
0.08333	0.793
0.09028	0.753
0.09722	0.708
0.10417	0.680
0.11111	0.648
0.11806	0.619
0.12500	0.583
0.16667	0.443
0.20833	0.329
0.25000	0.251
0.29167	0.193
0.33333	0.160
0.37500	0.122
0.41667	0.098
0.45833	0.081
0.50000	0.063
0.54167	0.056
0.58333	0.034
0.62500	0.021
0.66528	0.015

LYTT019	
time (days)	Drawdown (m)
0.00139	2.634
0.00139	2.634
0.00278	2.577
0.00278	2.577
0.00417	2.511
0.00417	2.511
0.00556	2.464
0.00556	2.464
0.00694	2.410
0.00694	2.410
0.00833	2.357
0.00833	2.357
0.00972	2.324
0.00972	2.324
0.01111	2.283
0.01111	2.283
0.01250	2.236
0.01250	2.236
0.01389	2.189
0.01528	2.147
0.01667	2.100
0.01806	2.056
0.01944	2.013
0.02083	1.973
0.02222	1.933
0.02361	1.882
0.02500	1.846
0.02639	1.804
0.02778	1.766
0.03056	1.669
0.03472	1.568
0.03750	1.512
0.04167	1.418
0.04861	1.263
0.05556	1.129
0.06250	1.034
0.06944	0.933
0.07639	0.905
0.08333	0.829
0.09028	0.787
0.09722	0.732
0.10417	0.679
0.11111	0.531
0.11806	0.687
0.12500	0.642
0.16667	0.425
0.20833	0.306
0.25000	0.222
0.29167	0.173
0.33333	0.128
0.37500	0.093
0.41667	0.076
0.45833	0.062
0.50000	0.055
0.54167	0.034
0.58333	0.025
0.62500	0.030
0.64028	0.013

LYTT020	
time (days)	Drawdown (m)
0.00139	3.178
0.00139	3.178
0.00278	3.089
0.00278	3.089
0.00417	3.017
0.00417	3.017
0.00556	2.963
0.00556	2.963
0.00694	2.901
0.00694	2.901
0.00833	2.849
0.00833	2.849
0.00972	2.800
0.00972	2.800
0.01111	2.746
0.01111	2.746
0.01250	2.697
0.01250	2.697
0.01389	2.629
0.01528	2.580
0.01667	2.536
0.01806	2.490
0.01944	2.443
0.02083	2.404
0.02222	2.353
0.02361	2.309
0.02500	2.267
0.02639	2.224
0.02778	2.181
0.03056	2.093
0.03472	1.975
0.03750	1.901
0.04167	1.796
0.04861	1.632
0.05556	1.496
0.06250	1.371
0.06944	1.266
0.07639	1.175
0.08333	1.094
0.09028	1.017
0.09722	0.946
0.10417	0.876
0.11111	0.812
0.11806	0.747
0.12500	0.691
0.16667	0.412
0.20833	0.252
0.25000	0.155
0.29167	0.098
0.33333	0.057
0.37500	0.041
0.41667	0.031
0.45833	0.019
0.46389	0.014

LYTT021	
time (days)	Drawdown (m)
0.00139	2.852
0.00139	2.852
0.00278	2.765
0.00278	2.765
0.00417	2.705
0.00417	2.705
0.00556	2.657
0.00556	2.657
0.00694	2.638
0.00694	2.638
0.00833	2.619
0.00833	2.619
0.00972	2.595
0.00972	2.595
0.01111	2.477
0.01111	2.477
0.01250	2.400
0.01250	2.400
0.01389	2.366
0.01528	2.325
0.01667	2.243
0.01806	2.241
0.01944	2.263
0.02083	2.227
0.02222	1.975
0.02361	2.011
0.02500	2.011
0.02639	2.003
0.02778	2.012
0.03056	1.953
0.03472	1.917
0.03750	1.885
0.04167	1.830
0.04861	1.781
0.05556	0.874
0.06250	0.783
0.06944	0.787
0.07639	0.786
0.08333	0.780
0.09028	0.774
0.09722	0.757
0.10417	0.747
0.11111	0.745
0.11806	0.729
0.12500	0.721
0.16667	0.669
0.20833	0.596
0.25000	0.546
0.29167	0.499
0.33333	0.407
0.37500	0.381
0.41667	0.347
0.45833	0.330
0.50000	0.300
0.54167	0.272
0.58333	0.255
0.62500	0.229
0.66667	0.204
0.70833	0.192
0.75000	0.170
0.79167	0.161
0.83333	0.155
0.87500	0.146
0.91667	0.162
0.95833	0.151
1.00000	0.144
1.16667	0.099
1.33333	0.062
1.50000	0.046

LYTT022	
time (days)	Drawdown (m)
0.00139	3.029
0.00139	3.029
0.00278	2.867
0.00278	2.867
0.00417	2.766
0.00417	2.766
0.00556	2.713
0.00556	2.713
0.00694	2.648
0.00694	2.648
0.00833	2.601
0.00833	2.601
0.00972	2.555
0.00972	2.555
0.01111	2.504
0.01111	2.504
0.01250	2.461
0.01250	2.461
0.01389	2.413
0.01528	2.372
0.01667	2.327
0.01806	2.282
0.01944	2.259
0.02083	2.231
0.02222	2.235
0.02361	2.216
0.02500	2.181
0.02639	2.148
0.02778	2.122
0.03056	2.031
0.03472	1.880
0.03750	1.799
0.04167	1.724
0.04861	1.566
0.05556	1.433
0.06250	1.303
0.06944	1.193
0.07639	1.097
0.08333	0.990
0.09028	0.898
0.09722	0.820
0.10417	0.802
0.11111	0.736
0.11806	0.677
0.12500	0.628
0.16667	0.425
0.20833	0.303
0.25000	0.229
0.29167	0.178
0.33333	0.127
0.37500	0.098
0.41667	0.070
0.45833	0.061
0.50000	0.047
0.54167	0.043
0.58333	0.034
0.62500	0.033
0.66667	0.037
0.70833	0.031
0.75000	0.028
0.79167	0.021
0.83333	0.012
0.87500	0.007

LYTT023	
time (days)	Drawdown (m)
0.22917	0.223
0.22917	0.223
0.22917	0.223
0.22917	0.223
0.22917	0.223
0.22917	0.223
0.22917	0.223
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0.22917	0.223
0.22917	0.223
0.22917	0.223
0.22917	0.223
0.22917	0.223
0.22917	0.223
0.20694	0.266
0.16528	0.374
0.12500	0.516
0.09583	0.692
0.06806	1.054
0.05556	1.285
0.04028	1.613
0.04028	1.613
0.03333	1.785
0.03056	1.874
0.03333	1.785

LYTT024	
time (days)	Drawdown (m)
0.00139	3.501
0.00139	3.501
0.00278	3.555
0.00278	3.555
0.00417	3.490
0.00417	3.490
0.00556	3.148
0.00556	3.148
0.00694	3.060
0.00694	3.060
0.00833	3.087
0.00833	3.087
0.00972	3.059
0.00972	3.059
0.01111	3.006
0.01111	3.006
0.01250	3.218
0.01250	3.218
0.01389	3.317
0.01528	3.317
0.01667	3.270
0.01806	3.237
0.01944	3.199
0.02083	3.161
0.02222	3.119
0.02361	3.110
0.02500	3.081
0.02639	3.055
0.02778	3.029
0.03056	2.981
0.03472	2.904
0.03750	2.883
0.04167	2.815
0.04861	2.724
0.05556	2.619
0.06250	2.522
0.06944	2.415
0.07639	2.320
0.08333	2.225
0.09028	2.142
0.09722	2.054
0.10417	1.963
0.11111	1.872
0.11806	1.794
0.12500	1.713
0.16667	1.294
0.20833	1.013
0.25000	0.788
0.29167	0.496
0.33333	0.388
0.37500	0.318
0.41667	0.258
0.45833	0.218
0.50000	0.086
0.54167	0.089
0.58333	0.075
0.62500	0.067
0.66667	0.061
0.70833	0.053
0.75000	0.050
0.79167	0.036
0.83333	0.030
0.87500	0.020
0.91667	0.016
0.95833	0.014
1.00000	0.021
1.16667	0.031
1.33333	0.009

LYTT025	
time (days)	Drawdown (m)
0.00069	1.974
0.00139	1.960
0.00208	1.948
0.00278	1.930
0.00347	1.912
0.00417	1.893
0.00486	1.877
0.00556	1.868
0.00625	1.852
0.00694	1.831
0.00764	1.816
0.00833	1.803
0.00903	1.787
0.00972	1.777
0.01042	1.759
0.01111	1.745
0.01181	1.729
0.01250	1.722
0.01319	1.700
0.01389	1.681
0.01528	1.657
0.01667	1.627
0.01806	1.603
0.01944	1.564
0.02083	1.546
0.02222	1.509
0.02361	1.488
0.02500	1.452
0.02639	1.426
0.02778	1.396
0.03125	1.326
0.03472	1.266
0.03819	1.194
0.04167	1.145
0.04861	1.025
0.05556	0.918
0.06250	0.818
0.06944	0.736
0.07639	0.655
0.08333	0.569
0.09028	0.501
0.09722	0.439
0.10417	0.388
0.11111	0.327
0.11806	0.299
0.12500	0.255
0.16667	0.137
0.20833	0.085
0.25000	0.057
0.29167	0.048
0.33333	0.035
0.37500	0.029
0.41667	0.026
0.45833	0.025
0.50000	0.020
0.54167	0.017
0.58333	0.023
0.62500	0.023
0.66667	0.018
0.69444	0.014

LYTT026	
time (days)	Drawdown (m)
0.00139	3.785
0.00139	3.785
0.00278	3.758
0.00278	3.758
0.00417	3.695
0.00417	3.695
0.00556	3.667
0.00556	3.667
0.00694	3.634
0.00694	3.634
0.00833	3.606
0.00833	3.606
0.00972	3.580
0.00972	3.580
0.01111	3.545
0.01111	3.545
0.01250	3.517
0.01250	3.517
0.01389	3.490
0.01528	3.455
0.01667	3.426
0.01806	3.399
0.01944	3.367
0.02083	3.337
0.02083	3.337
0.02222	3.306
0.02500	3.245
0.02639	3.223
0.02778	3.184
0.03056	3.125
0.03472	3.047
0.03750	2.990
0.04167	2.908
0.04861	2.782
0.05556	2.667
0.06250	2.512
0.06944	2.440
0.07639	2.339
0.08333	2.236
0.09028	2.135
0.09722	2.035
0.10417	1.943
0.11111	1.850
0.11806	1.768
0.12500	1.695
0.16667	1.217
0.20833	0.847
0.25000	0.609
0.29167	0.443
0.33333	0.322
0.37500	0.246
0.41667	0.186
0.45833	0.130
0.50000	0.067
0.54167	0.052
0.58333	0.035
0.62500	0.030
0.66667	0.023
0.70833	0.013
0.75000	0.005

LYTT027	
time (days)	Drawdown (m)
0.00139	2.337
0.00139	2.337
0.00278	2.318
0.00278	2.318
0.00417	2.300
0.00417	2.300
0.00556	2.292
0.00556	2.292
0.00694	2.273
0.00694	2.273
0.00833	2.264
0.00833	2.264
0.00972	2.247
0.00972	2.247
0.01111	2.228
0.01111	2.228
0.01250	2.222
0.01250	2.222
0.01389	2.206
0.01528	2.186
0.01667	2.177
0.01806	2.158
0.01944	2.149
0.02083	2.135
0.02222	2.119
0.02361	2.111
0.02500	2.098
0.02639	2.077
0.02778	2.070
0.03056	2.036
0.03472	2.005
0.03750	1.992
0.04167	1.944
0.04861	1.895
0.05556	1.837
0.06250	1.794
0.06944	1.737
0.07639	1.690
0.08333	1.650
0.09028	1.595
0.09722	1.562
0.10417	1.519
0.11111	1.477
0.11806	1.447
0.12500	1.410
0.16667	1.194
0.20833	1.024
0.25000	0.878
0.29167	0.754
0.33333	0.651
0.37500	0.567
0.41667	0.492
0.45833	0.443
0.50000	0.387
0.54167	0.345
0.58333	0.311
0.62500	0.279
0.66667	0.250
0.70833	0.222
0.75000	0.202
0.79167	0.171
0.83333	0.151
0.87500	0.135
0.91667	0.122
0.95833	0.105
1.00000	0.104
1.16667	0.092
1.33333	0.056
1.50000	0.030

LYTT028	
time (days)	Drawdown (m)
0.00000	0.003
0.00069	0.194
0.00208	0.650
0.00208	0.650
0.00278	0.871
0.00417	1.305
0.00417	1.305
0.00486	1.529
0.00625	2.008
0.00625	2.008
0.00694	2.295
0.00764	2.451
0.00833	2.426
0.00903	2.410
0.00972	2.394
0.01111	2.358
0.01111	2.358
0.01181	2.368
0.01319	2.413
0.01319	2.413
0.01528	2.439
0.01597	2.457
0.01736	2.455
0.01875	2.438
0.02014	2.418
0.02222	2.399
0.02292	2.392
0.02431	2.378
0.02639	2.351
0.02708	2.343
0.03125	2.305
0.03403	2.284
0.03750	2.255
0.04097	2.212
0.04861	2.126
0.05556	2.046
0.06250	1.986
0.06875	1.942
0.07569	1.912
0.08264	1.877
0.08958	1.846
0.09653	1.818
0.10347	1.793
0.11111	1.762
0.11806	1.736
0.12500	1.701
0.16597	1.525
0.20764	1.348
0.25000	1.183
0.29097	1.032
0.33264	0.886
0.37500	0.750
0.41597	0.633
0.45764	0.522
0.50000	0.423
0.54097	0.339
0.58264	0.265
0.62500	0.191
0.66597	0.135
0.70764	0.082
0.75000	0.030

LYTT029	
time (days)	Drawdown (m)
0.00139	1.314
0.00139	1.314
0.00139	1.314
0.00278	1.860
0.00417	2.311
0.00417	2.311
0.00556	2.838
0.00556	2.838
0.00556	2.838
0.00694	3.293
0.00833	3.261
0.00833	3.261
0.00833	3.261
0.00972	3.221
0.01111	3.199
0.01111	3.199
0.01250	3.171
0.01250	3.171
0.01250	3.171
0.01528	3.120
0.01528	3.120
0.01667	3.099
0.01944	3.052
0.01944	3.052
0.02222	3.002
0.02361	2.983
0.02361	2.983
0.02639	2.945
0.02639	2.945
0.03056	2.868
0.03472	2.802
0.03750	2.763
0.04167	2.696
0.04861	2.591
0.05556	2.491
0.06250	2.407
0.06806	2.340
0.07500	2.258
0.08194	2.176
0.08889	2.099
0.09722	2.006
0.10417	1.930
0.11111	1.865
0.11806	1.795
0.12500	1.726
0.16667	1.376
0.20694	1.080
0.25000	0.831
0.29167	0.656
0.33194	0.517
0.37500	0.405
0.41667	0.325
0.45694	0.271
0.50000	0.229
0.54167	0.187
0.58194	0.173
0.62500	0.147
0.66667	0.123
0.70694	0.110
0.75000	0.097
0.79167	0.081
0.83194	0.077
0.87500	0.065
0.91667	0.049
0.95694	0.040

LYTT030	
time (days)	Drawdown (m)
0.00139	0.065
0.00139	0.065
0.00278	0.378
0.00417	0.751
0.00417	0.751
0.00417	0.751
0.00556	1.160
0.00556	1.160
0.00694	1.557
0.00694	1.557
0.00833	1.940
0.00833	1.940
0.00972	2.336
0.01111	2.721
0.01111	2.721
0.01111	2.721
0.01250	2.878
0.01250	2.878
0.01528	2.778
0.01528	2.778
0.01667	2.747
0.01806	0.000
0.01944	2.611
0.02222	2.492
0.02222	2.492
0.02361	2.464
0.02639	2.409
0.02639	2.409
0.03056	2.327
0.03333	2.275
0.03750	2.210
0.04028	2.166
0.04861	2.041
0.05556	1.949
0.06250	1.857
0.06806	1.784
0.07500	1.698
0.08194	1.614
0.08889	1.531
0.09583	1.457
0.10278	1.377
0.11111	1.294
0.11806	1.227
0.12500	1.166
0.16528	0.855
0.20694	0.645
0.25000	0.505
0.29028	0.412
0.33194	0.343
0.37500	0.291
0.41528	0.251
0.45694	0.223
0.50000	0.198
0.54028	0.182
0.58194	0.162
0.62500	0.149
0.66528	0.133
0.70694	0.122
0.75000	0.115
0.77361	0.111

LYTT031	
time (days)	Drawdown (m)
0.00000	0.000
0.00139	0.077
0.00139	0.077
0.00139	0.077
0.00278	0.397
0.00417	0.800
0.00417	0.800
0.00417	0.800
0.00556	1.275
0.00556	1.275
0.00694	1.683
0.00833	2.081
0.00833	2.081
0.00833	2.081
0.00972	2.394
0.01111	2.386
0.01111	2.386
0.01111	2.386
0.01250	2.369
0.01250	2.369
0.01528	2.348
0.01528	2.348
0.01667	2.337
0.01944	2.322
0.01944	2.322
0.02222	2.295
0.02222	2.295
0.02361	2.287
0.02639	2.265
0.02639	2.265
0.03056	2.243
0.03333	2.220
0.03750	2.184
0.04167	2.148
0.04861	2.100
0.05556	2.054
0.06250	2.008
0.06806	1.973
0.07500	1.936
0.08194	1.898
0.08889	1.858
0.09583	1.830
0.10417	1.778
0.11111	1.742
0.11806	1.709
0.12500	1.672
0.16667	1.500
0.20694	1.337
0.25000	1.193
0.29167	1.039
0.33194	0.933
0.37500	0.829
0.41667	0.730
0.45694	0.664
0.50000	0.585
0.54167	0.536
0.58194	0.478
0.62500	0.435
0.66667	0.398
0.70694	0.363
0.75000	0.317
0.79167	0.286
0.83194	0.266
0.87500	0.249
0.91667	0.231
0.95694	0.207
1.00000	0.200
1.16667	0.140
1.33194	0.076
1.50000	0.053
1.66667	0.021

LYTT032	
time (days)	Drawdown (m)
0.00139	0.264
0.00139	0.264
0.00139	0.264
0.00278	0.545
0.00417	0.936
0.00417	0.936
0.00556	1.330
0.00556	1.330
0.00556	1.330
0.00694	1.640
0.00833	1.984
0.00833	1.984
0.00972	2.279
0.00972	2.279
0.01111	2.539
0.01111	2.539
0.01250	2.526
0.01250	2.526
0.01250	2.526
0.01528	2.481
0.01667	2.457
0.01667	2.457
0.01944	2.415
0.02083	2.399
0.02222	2.379
0.02361	2.359
0.02361	2.359
0.02639	2.343
0.02778	2.330
0.03056	2.297
0.03472	2.261
0.03750	2.250
0.04167	2.209
0.04861	2.165
0.05556	2.107
0.06250	2.051
0.06806	2.011
0.07500	1.967
0.08333	1.911
0.09028	1.857
0.09722	1.815
0.10417	1.766
0.11111	1.719
0.11806	1.684
0.12500	1.646
0.16667	1.429
0.20833	1.239
0.25000	1.059
0.29167	0.903
0.33333	0.772
0.37500	0.670
0.41667	0.598
0.45833	0.533
0.50000	0.486
0.54167	0.440
0.58333	0.399
0.62500	0.362
0.66667	0.330
0.70833	0.303
0.75000	0.275
0.79167	0.245
0.83333	0.228
0.87500	0.205
0.91667	0.207
0.95833	0.192
1.00000	0.196
1.16667	0.157
1.33333	0.117
1.50000	0.099
1.66667	0.092
1.83333	0.088
2.00000	0.098
2.50000	0.114
3.00000	0.113
3.50000	0.095
4.00000	0.074
4.50000	0.045
5.00000	0.042

LYTT033	
time (days)	Drawdown (m)
0.00139	1.434
0.00139	1.434
0.00278	1.422
0.00278	1.422
0.00417	1.411
0.00417	1.411
0.00556	1.401
0.00556	1.401
0.00694	1.390
0.00694	1.390
0.00833	1.382
0.00833	1.382
0.00972	1.374
0.00972	1.374
0.01111	1.365
0.01111	1.365
0.01250	1.356
0.01250	1.356
0.01389	1.349
0.01528	1.343
0.01667	1.335
0.01806	1.329
0.01944	1.323
0.02083	1.316
0.02222	1.309
0.02361	1.302
0.02500	1.292
0.02639	1.285
0.02778	1.277
0.03056	1.267
0.03472	1.247
0.03750	1.239
0.04167	1.223
0.04861	1.200
0.05556	1.176
0.06250	1.156
0.06944	1.139
0.07639	1.120
0.08333	1.103
0.09028	1.084
0.09722	1.064
0.10417	1.048
0.11111	1.030
0.11806	1.013
0.12500	0.998
0.16667	0.906
0.20833	0.818
0.25000	0.749
0.29167	0.687
0.33333	0.616
0.37500	0.558
0.41667	0.501
0.45833	0.453
0.50000	0.360
0.54167	0.316
0.58333	0.281
0.62500	0.249
0.66667	0.211
0.70833	0.187
0.75000	0.149
0.79167	0.139
0.83333	0.113
0.87500	0.091
0.91667	0.066
0.95833	0.050
1.00000	0.037
1.14722	0.001

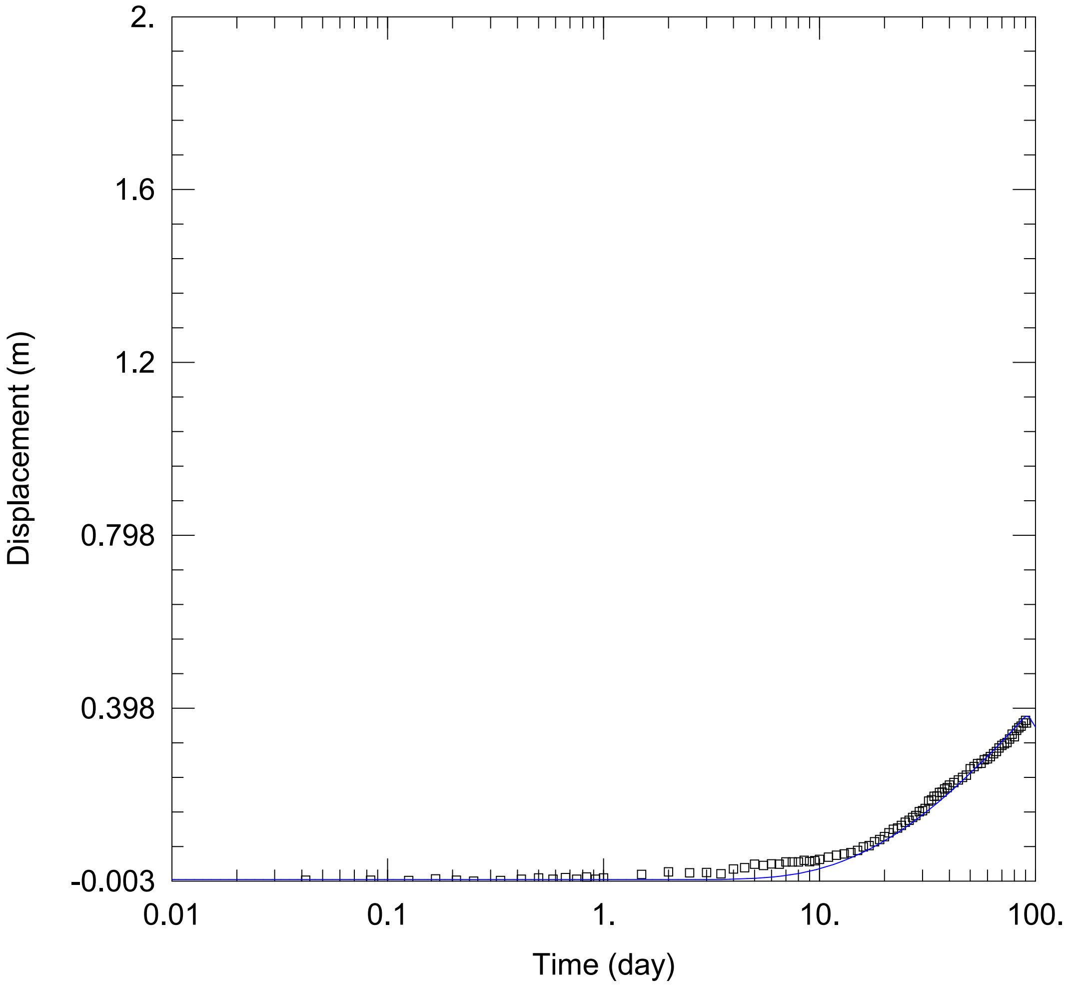
LYTT034	
time (days)	Drawdown (m)
0.00139	3.016
0.00139	3.016
0.00278	2.923
0.00278	2.923
0.00417	2.842
0.00417	2.842
0.00556	2.785
0.00556	2.785
0.00694	2.727
0.00694	2.727
0.00833	2.674
0.00833	2.674
0.00972	2.627
0.00972	2.627
0.01111	2.577
0.01111	2.577
0.01250	2.535
0.01250	2.535
0.01389	2.493
0.01528	2.449
0.01667	2.415
0.01806	2.379
0.01944	2.349
0.02083	2.314
0.02222	2.280
0.02361	2.251
0.02500	2.219
0.02639	2.191
0.02778	2.162
0.03056	2.106
0.03472	2.018
0.03750	1.968
0.04167	1.895
0.04861	1.784
0.05556	1.682
0.06250	1.584
0.06944	1.496
0.07639	1.416
0.08333	1.333
0.09028	1.259
0.09722	1.194
0.10417	1.132
0.11111	1.071
0.11806	1.018
0.12500	0.967
0.16667	0.715
0.20833	0.544
0.25000	0.416
0.29167	0.299
0.33333	0.235
0.37500	0.180
0.41667	0.147
0.45833	0.118
0.50000	0.094
0.54167	0.073
0.58333	0.060
0.62500	0.042
0.66667	0.037
0.70833	0.020
0.74861	0.006

LYTT035	
time (days)	Drawdown (m)
0.00139	2.064
0.00139	2.064
0.00278	1.945
0.00278	1.945
0.00417	1.845
0.00417	1.845
0.00556	1.755
0.00556	1.755
0.00694	1.675
0.00694	1.675
0.00833	1.601
0.00833	1.601
0.00972	1.525
0.00972	1.525
0.01111	1.460
0.01111	1.460
0.01250	1.396
0.01250	1.396
0.01389	1.331
0.01528	1.268
0.01667	1.208
0.01806	1.150
0.01944	1.091
0.02083	1.038
0.02222	0.986
0.02361	0.938
0.02500	0.889
0.02639	0.846
0.02778	0.798
0.03056	0.717
0.03472	0.613
0.03750	0.555
0.04167	0.436
0.04861	0.333
0.05556	0.252
0.06250	0.184
0.06944	0.131
0.07639	0.092
0.08333	0.057
0.09028	0.029
0.09722	0.007

LYTT036	
time (days)	Drawdown (m)
0.00139	1.434
0.00139	1.434
0.00278	1.422
0.00278	1.422
0.00417	1.411
0.00417	1.411
0.00556	1.401
0.00556	1.401
0.00694	1.390
0.00694	1.390
0.00833	1.382
0.00833	1.382
0.00972	1.374
0.00972	1.374
0.01111	1.365
0.01111	1.365
0.01250	1.356
0.01250	1.356
0.01389	1.349
0.01528	1.343
0.01667	1.335
0.01806	1.329
0.01944	1.323
0.02083	1.316
0.02222	1.309
0.02361	1.302
0.02500	1.292
0.02639	1.285
0.02778	1.277
0.03056	1.267
0.03472	1.247
0.03750	1.239
0.04167	1.223
0.04861	1.200
0.05556	1.176
0.06250	1.156
0.06944	1.139
0.07639	1.120
0.08333	1.103
0.09028	1.084
0.09722	1.064
0.10417	1.048
0.11111	1.030
0.11806	1.013
0.12500	0.998
0.16667	0.906
0.20833	0.818
0.25000	0.749
0.29167	0.687
0.33333	0.616
0.37500	0.558
0.41667	0.501
0.45833	0.453
0.50000	0.360
0.54167	0.316
0.58333	0.281
0.62500	0.249
0.66667	0.211
0.70833	0.187
0.75000	0.149
0.79167	0.139
0.83333	0.113
0.87500	0.091
0.91667	0.066
0.95833	0.050
1.00000	0.037

A3. Murdoch AQTESOLV Outputs

A3.1. TR1



WELL TEST ANALYSIS

Data Set: C:\...\TR1.aqt
Date: 10/18/18
Time: 13:43:36

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m
Trench Length: 112. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR1	0	0

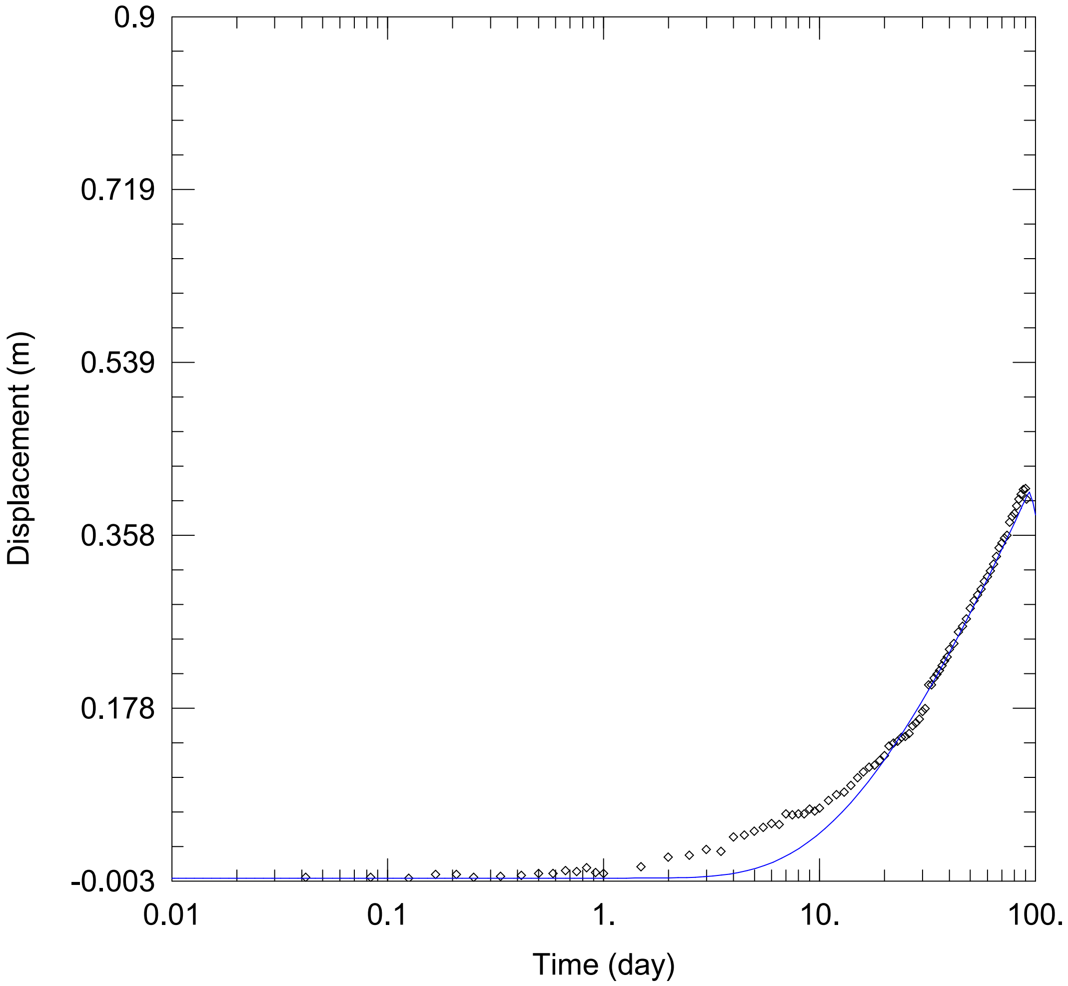
Observation Wells

Well Name	X (m)	Y (m)
□ TR1_100W	0	-100

SOLUTION

Aquifer Model: Confined
Solution Method: Murdoch (Trench)

Kx = 2.277 m/day
Ss = 0.01312 m^{-1}
Ky/Kx = 1.
Lt = 112. m



WELL TEST ANALYSIS

Data Set: C:\...\TR1.aqt
Date: 10/18/18 Time: 12:30:45

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 112. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR1	0	0

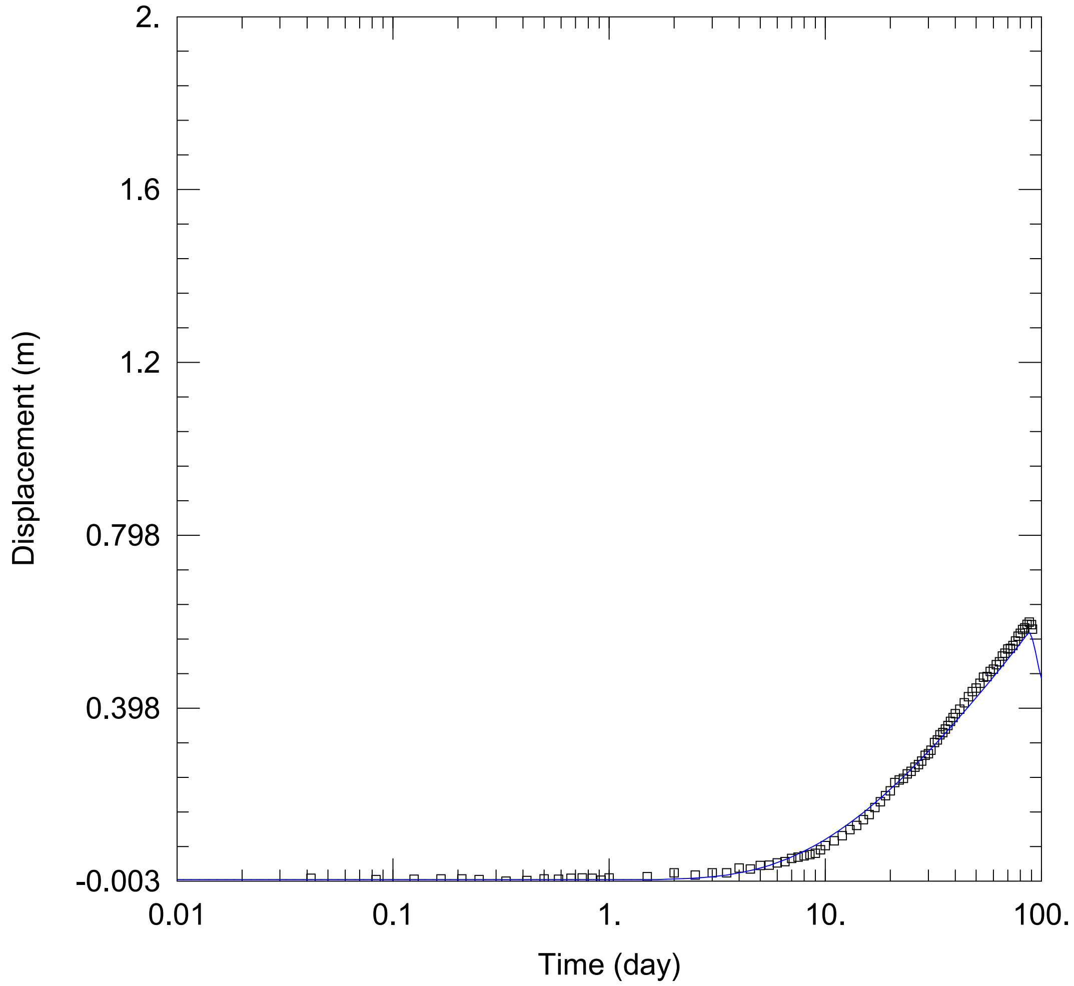
Observation Wells

Well Name	X (m)	Y (m)
◇ TR1_100E	0	100

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 2.742 m/day
Ky/Kx = 1.
Ss = 0.01063 m^{-1}
Lt = 112. m



WELL TEST ANALYSIS

Data Set: C:\...\TR1.aqt
Date: 10/18/18 Time: 13:36:33

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 112. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR1	0	0

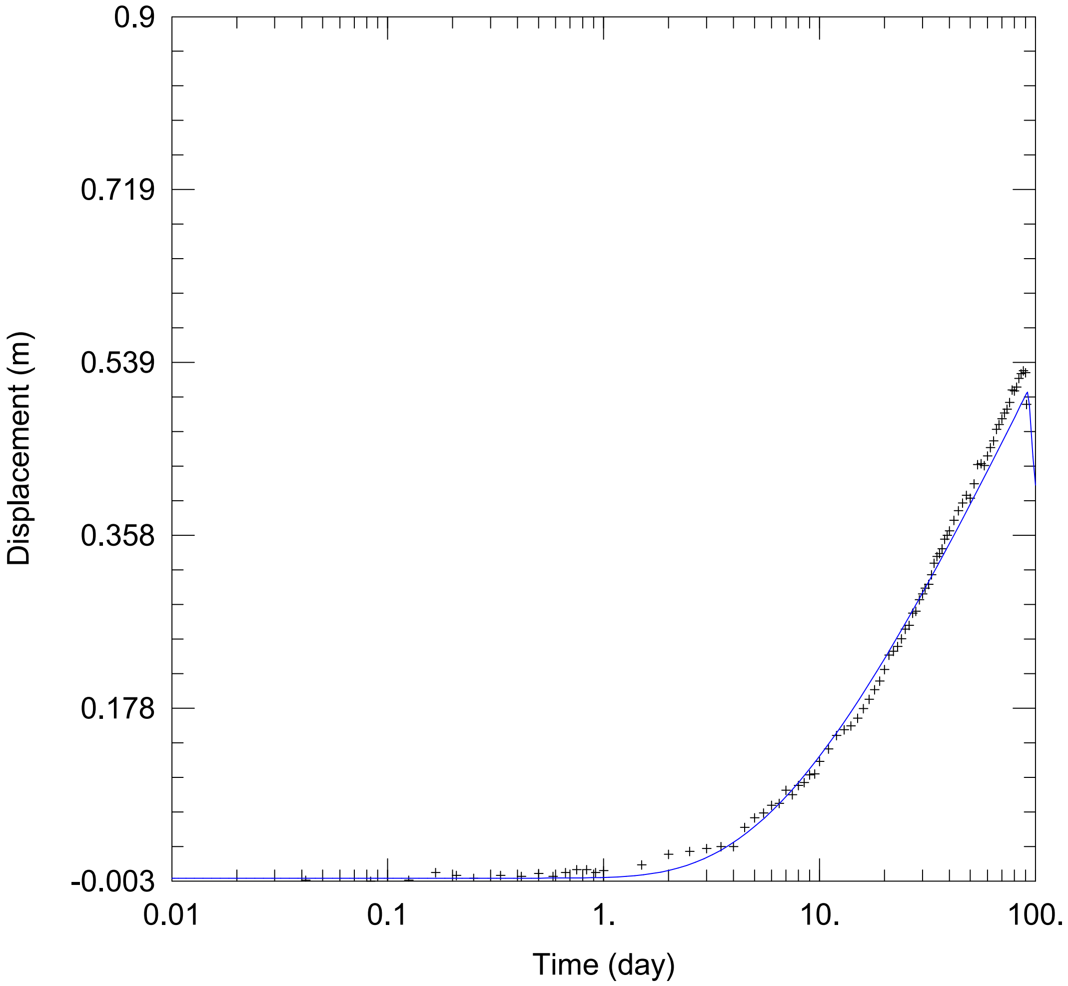
Observation Wells

Well Name	X (m)	Y (m)
□ TR1_50W	0	-50

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 2.12 m/day
Ky/Kx = 1.
Ss = 0.02062 m^{-1}
Lt = 112. m



WELL TEST ANALYSIS

Data Set: C:\...\TR1.aqt
Date: 10/18/18 Time: 12:28:06

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 112. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR1	0	0

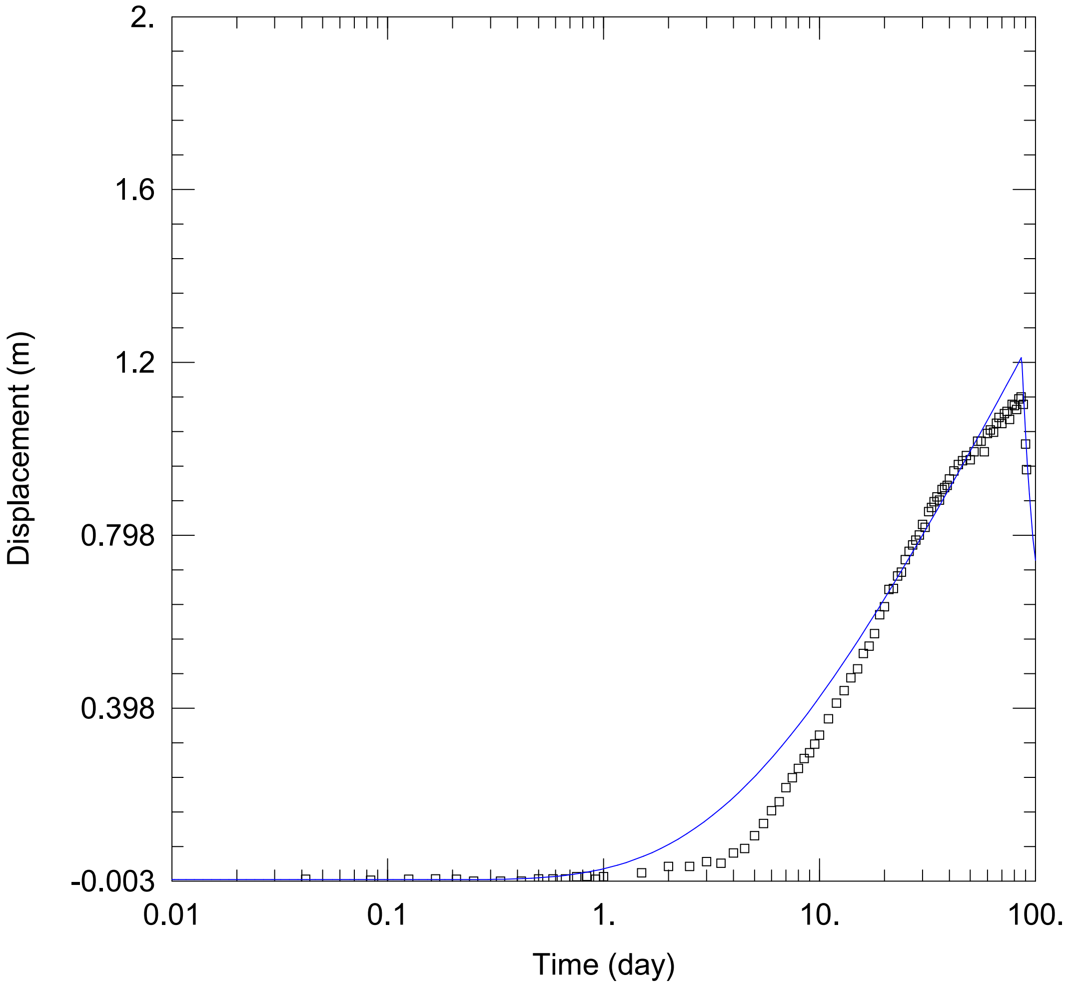
Observation Wells

Well Name	X (m)	Y (m)
+ TR1_50E	0	50

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 3.149 m/day Ss = 0.017 m^{-1}
Ky/Kx = 1. Lt = 112. m



WELL TEST ANALYSIS

Data Set: C:\...\TR1.aqt
Date: 10/18/18 Time: 13:39:44

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 112. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR1	0	0

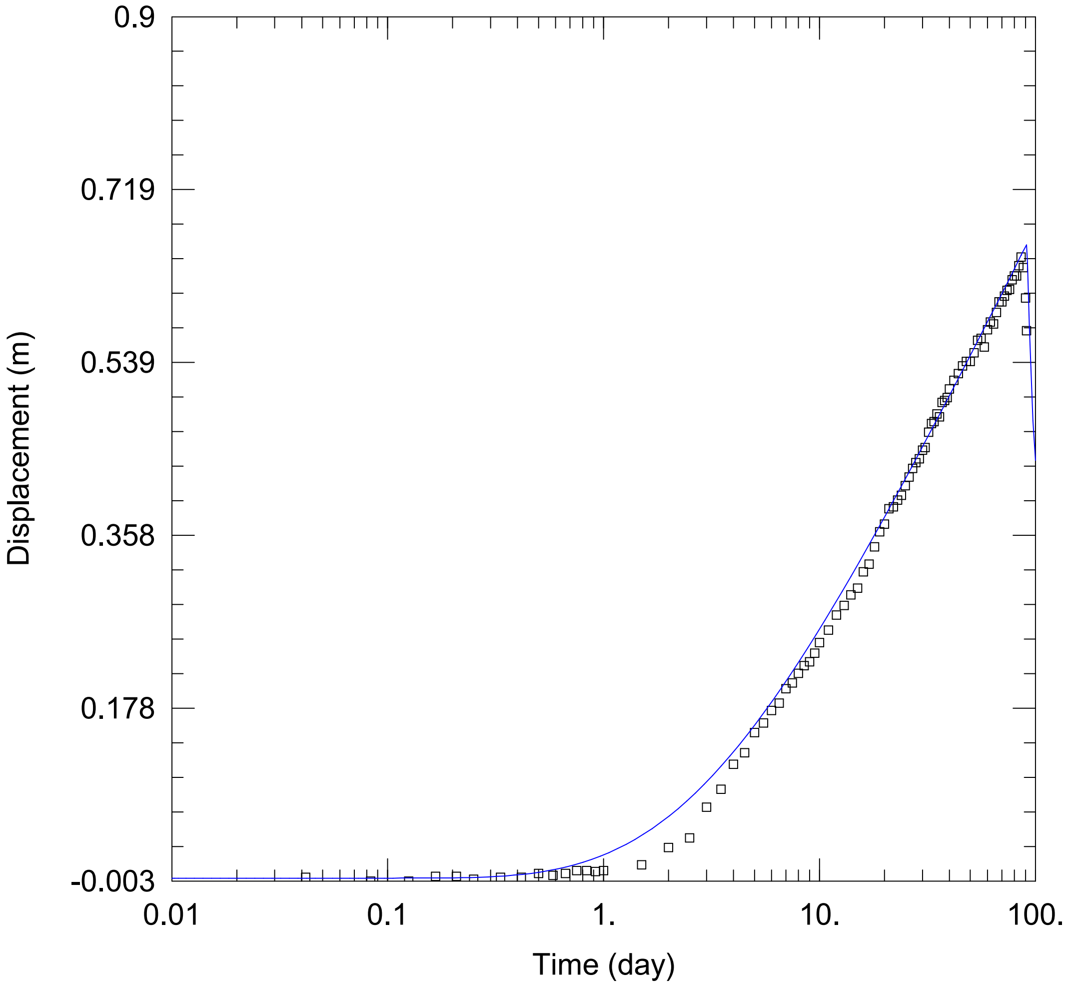
Observation Wells

Well Name	X (m)	Y (m)
□ TR1_20W	0	-20

SOLUTION

Aquifer Model: Confined
Solution Method: Murdoch (Trench)

Kx = 1.555 m/day
Ky/Kx = 1.
Ss = 0.01507 m^{-1}
Lt = 112. m



WELL TEST ANALYSIS

Data Set: C:\...\TR1.aqt
Date: 10/18/18 Time: 12:22:54

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 112. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR1	0	0

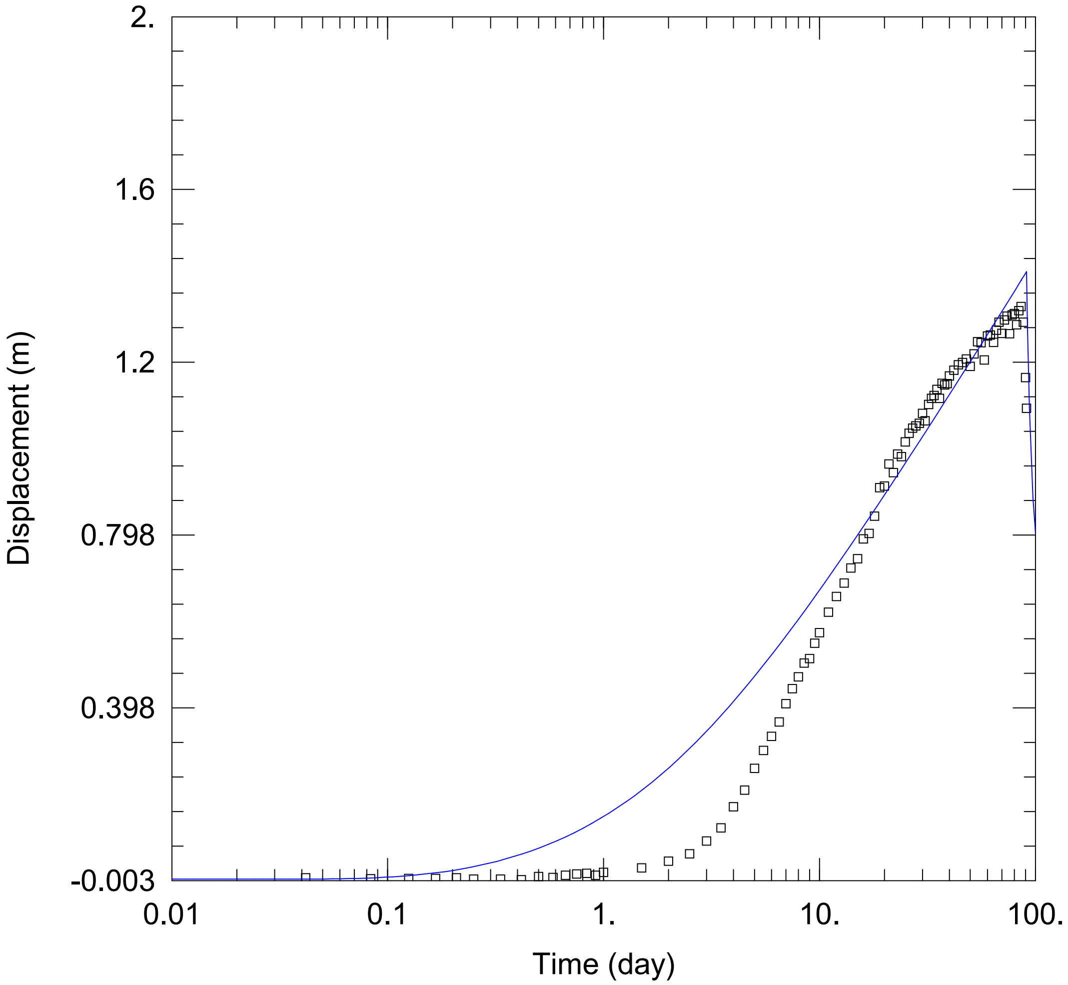
Observation Wells

Well Name	X (m)	Y (m)
□ TR1_20E	0	20

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 3.26 m/day Ss = 0.0215 m^{-1}
Ky/Kx = 1. Lt = 112. m



WELL TEST ANALYSIS

Data Set: C:\...\TR1.aqt
Date: 10/18/18 Time: 12:47:28

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 112. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR1	0	0

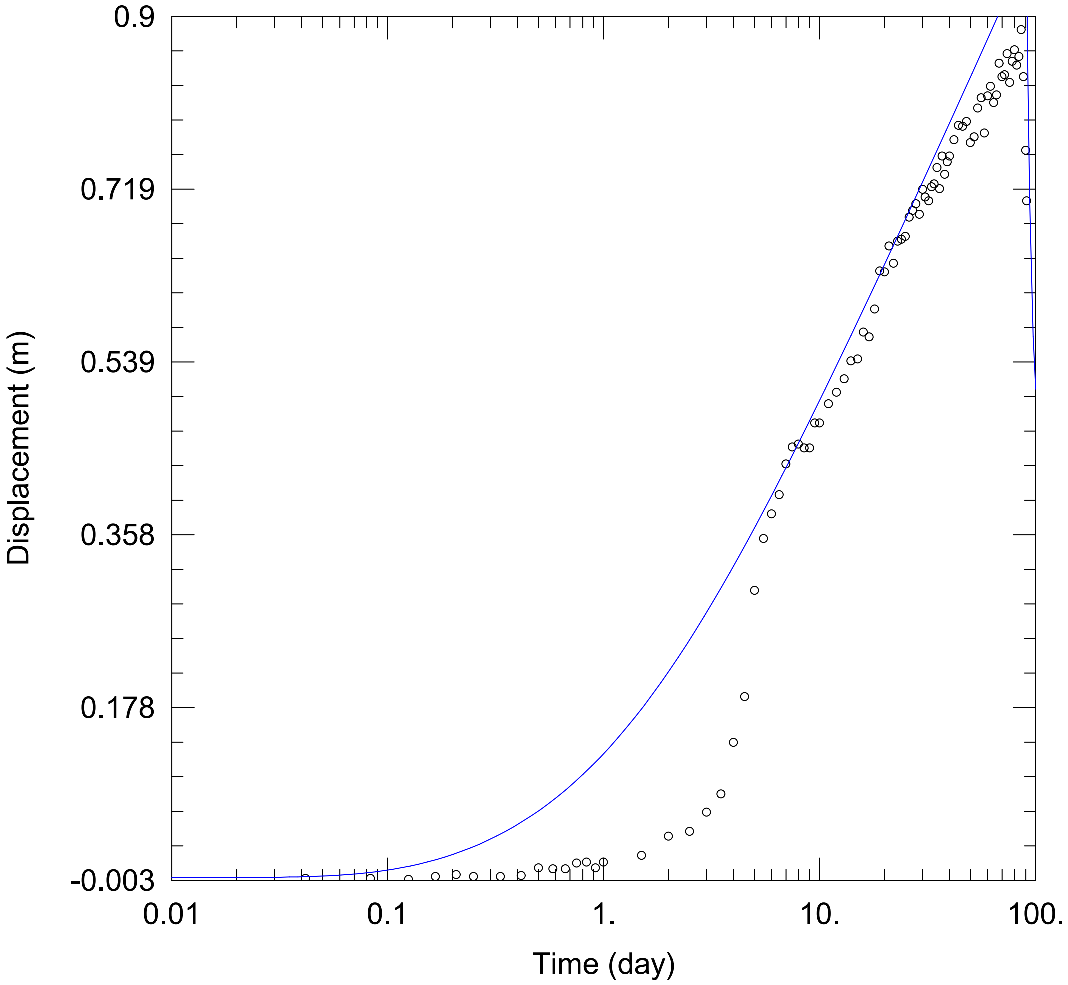
Observation Wells

Well Name	X (m)	Y (m)
□ TR1_10W	0	-10

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 1.83 m/day
Ky/Kx = 1.
Ss = 0.01 m^{-1}
Lt = 112. m



WELL TEST ANALYSIS

Data Set: C:\...\TR1.aqt
Date: 10/18/18 Time: 12:19:19

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 112. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR1	0	0

Observation Wells

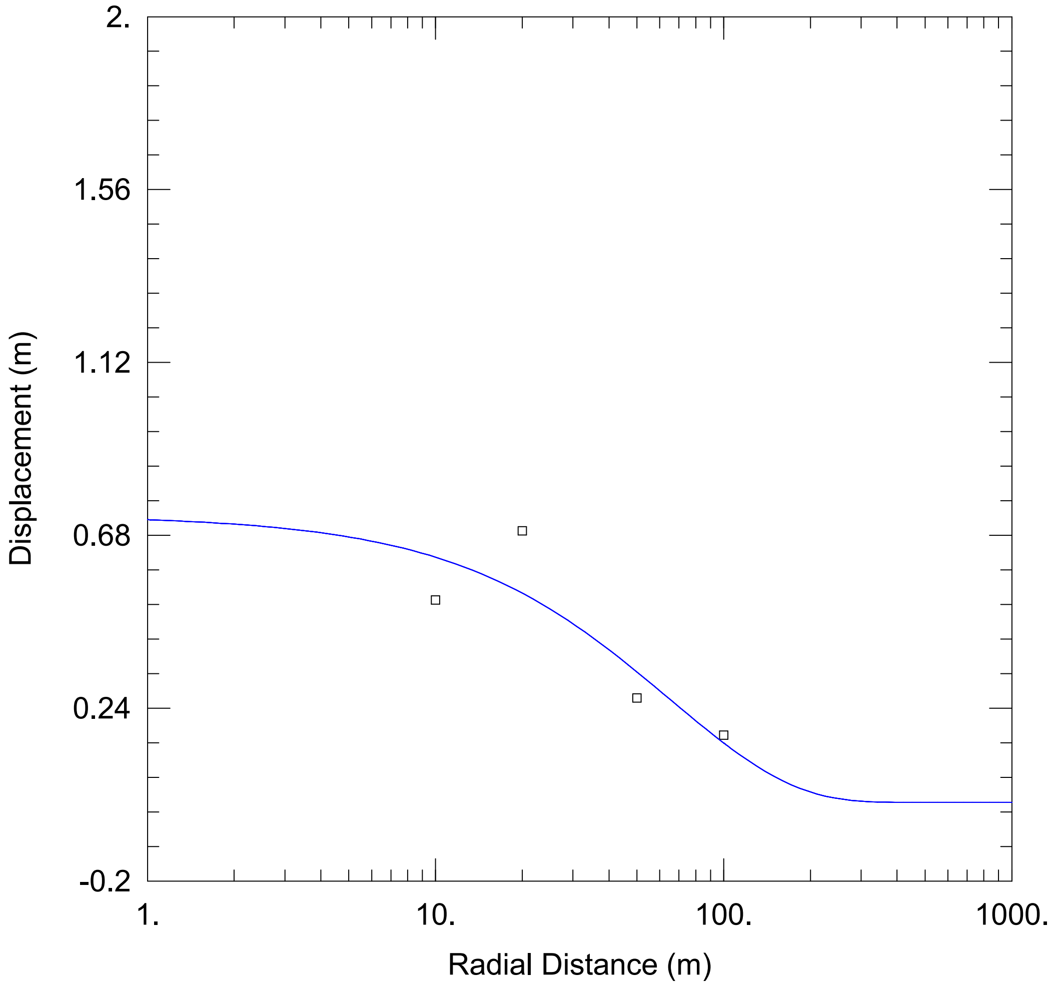
Well Name	X (m)	Y (m)
○ TR1_10E	0	10

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 2.939 m/day
Ky/Kx = 1.
Ss = 0.0106 m^{-1}
Lt = 112. m

A3.2. TR2



WELL TEST ANALYSIS

Data Set: C:\...\TR2 Distance Drawdown South.aqt
Date: 10/18/18 Time: 16:14:30

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 100. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR2	0	0

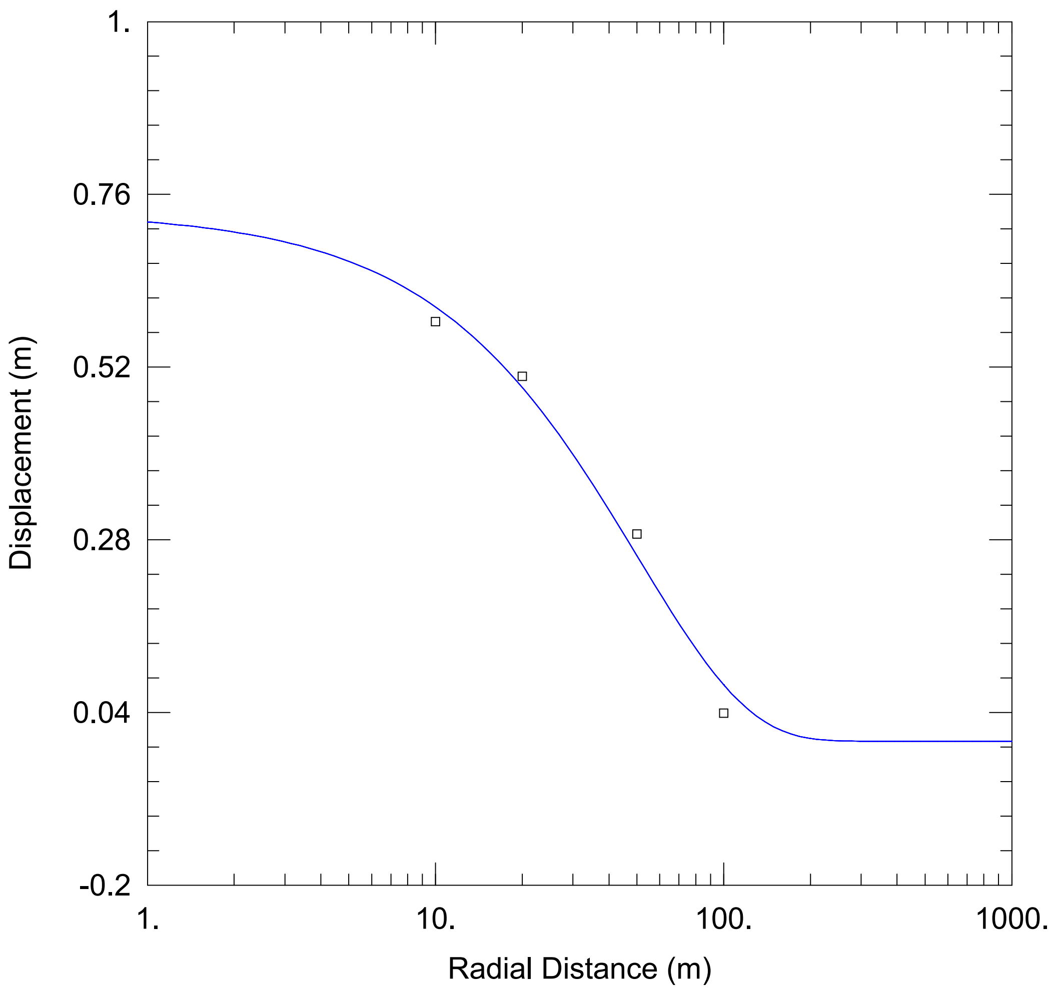
Observation Wells

Well Name	X (m)	Y (m)
□ TR2_10S	0	-10
□ TR2_20S	0	-20
□ TR2_50S	0	-50
□ TR2_100S	0	-100

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 5.832 m/day Ss = 0.02156 m^{-1}
Ky/Kx = 1 Lt = 100. m



WELL TEST ANALYSIS

Data Set: C:\...\TR2 Distance Drawdown North.aqt
Date: 10/18/18 Time: 16:11:31

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 100. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR2	0	0

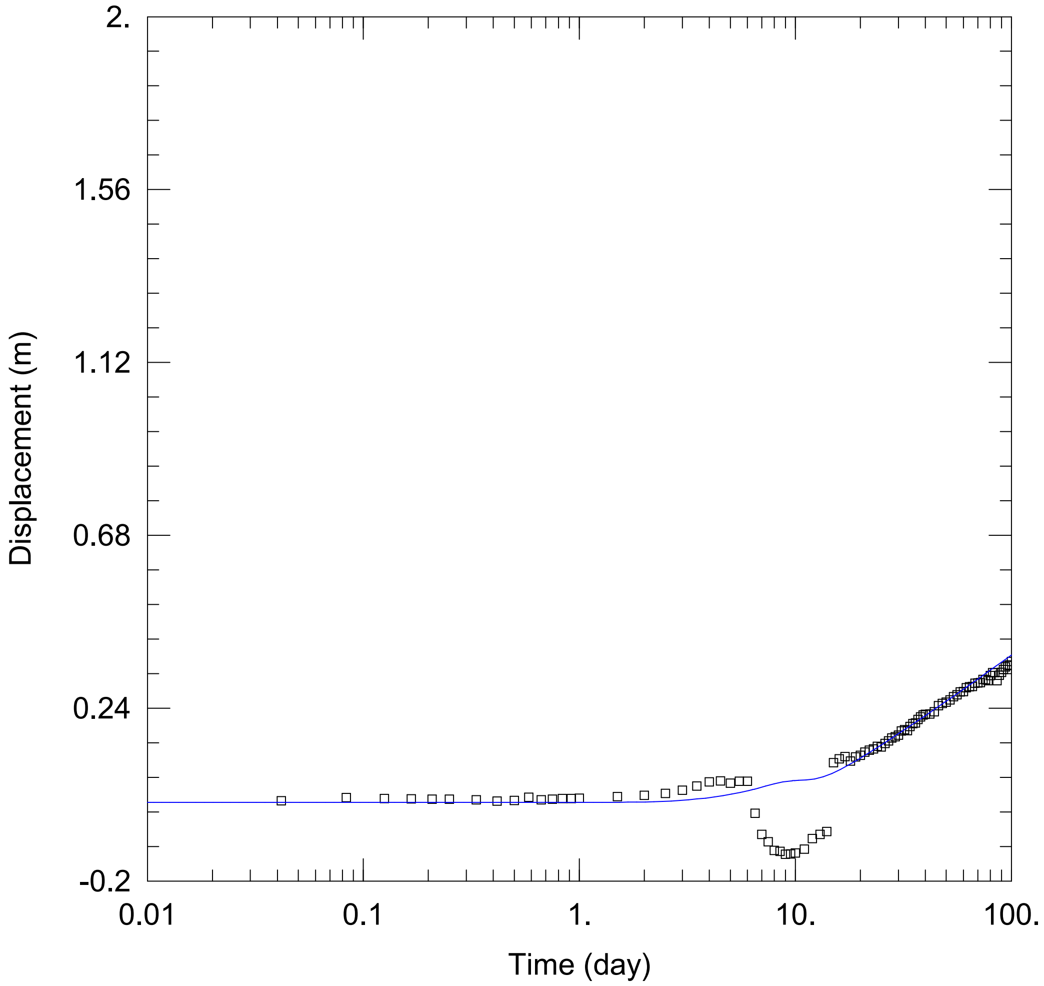
Observation Wells

Well Name	X (m)	Y (m)
□ TR2_10N	0	10
□ TR2_20N	0	20
□ TR2_50N	0	50
□ TR2_100N	0	100

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 4.676 m/day Ss = 0.03864 m^{-1}
Ky/Kx = 1 Lt = 100. m



WELL TEST ANALYSIS

Data Set: C:\...\TR2.aqt
Date: 10/19/18 Time: 10:11:20

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 100. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR2	0	0

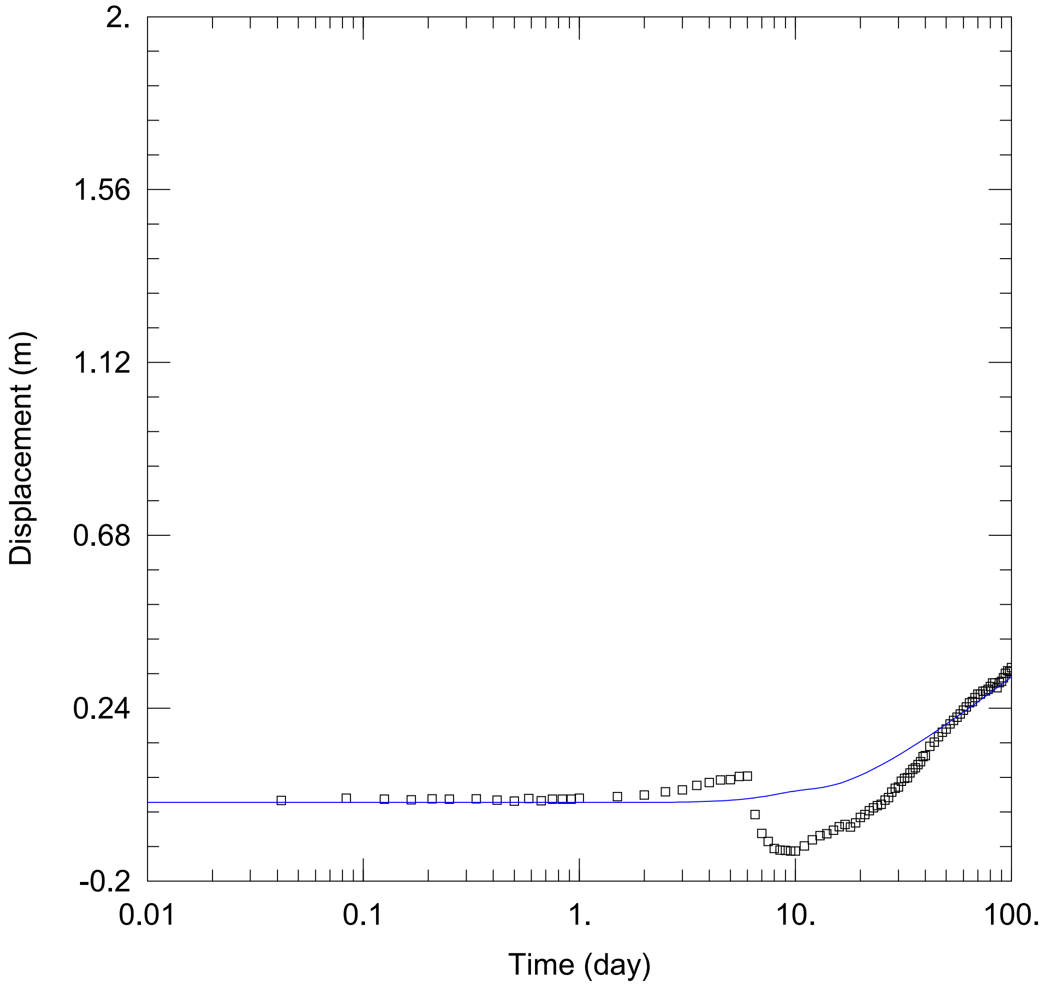
Observation Wells

Well Name	X (m)	Y (m)
□ TR2_100S	0	-100

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 5.979 m/day Ss = 0.0156 m^{-1}
Ky/Kx = 1. Lt = 100. m



WELL TEST ANALYSIS

Data Set: C:\...\TR2.aqt
Date: 10/19/18
Time: 09:50:04

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m
Trench Length: 100. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR2	0	0

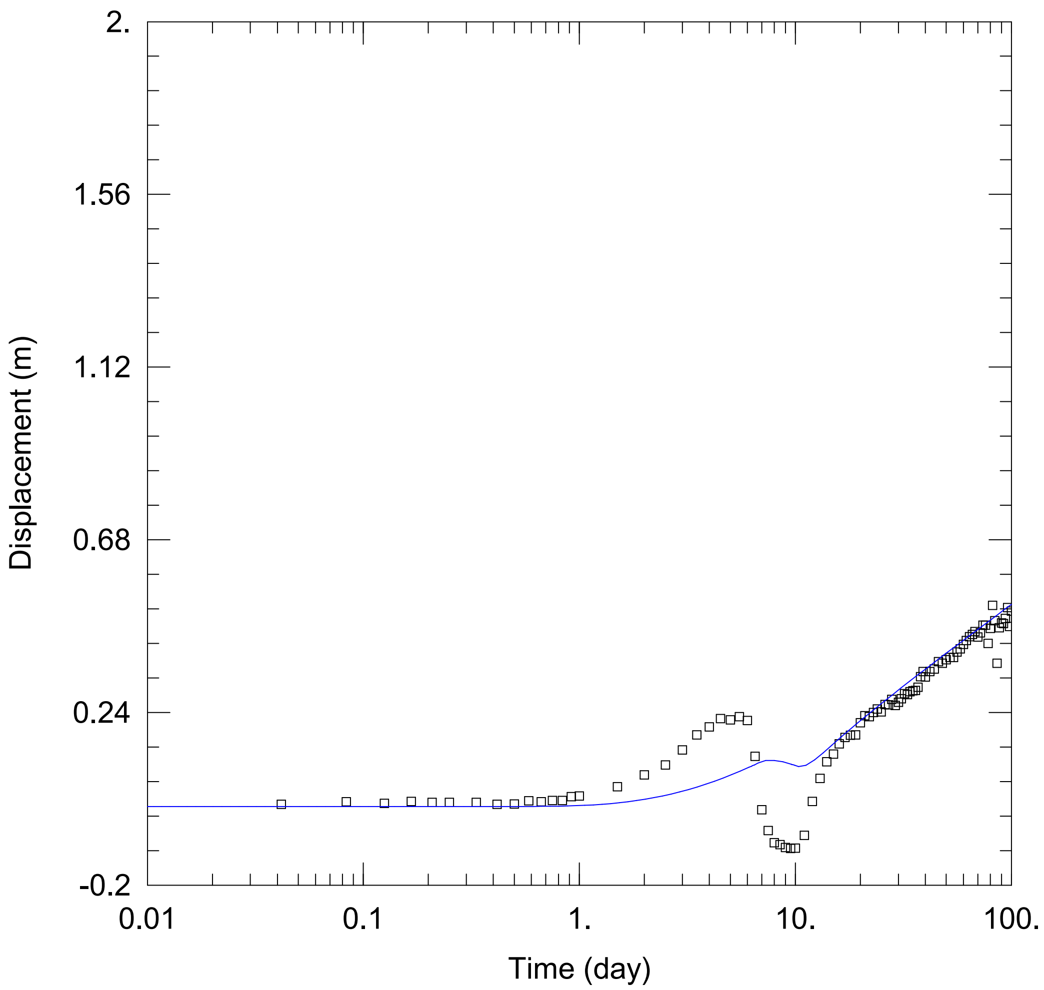
Observation Wells

Well Name	X (m)	Y (m)
□ TR2_100N	0	100

SOLUTION

Aquifer Model: Confined
Solution Method: Murdoch (Trench)

Kx = 5.392 m/day
Ss = 0.02411 m^{-1}
Ky/Kx = 1.
Lt = 100. m



WELL TEST ANALYSIS

Data Set: C:\...\TR2.aqt
Date: 10/19/18 Time: 09:28:07

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 100. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR2	0	0

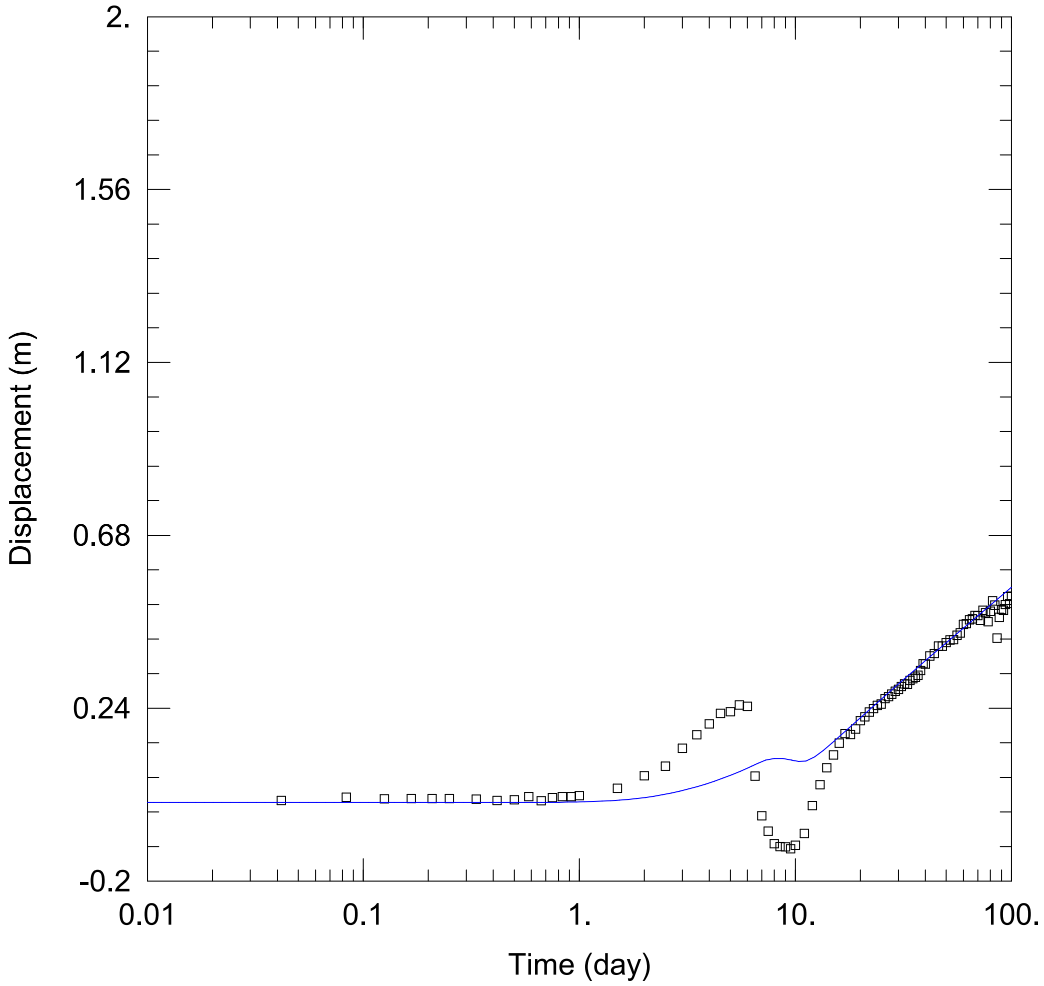
Observation Wells

Well Name	X (m)	Y (m)
□ TR2_50S	0	-50

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 5.99 m/day Ss = 0.02252 m^{-1}
Ky/Kx = 1. Lt = 100. m



WELL TEST ANALYSIS

Data Set: C:\...\TR2.aqt
Date: 10/19/18 Time: 09:48:36

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 100. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR2	0	0

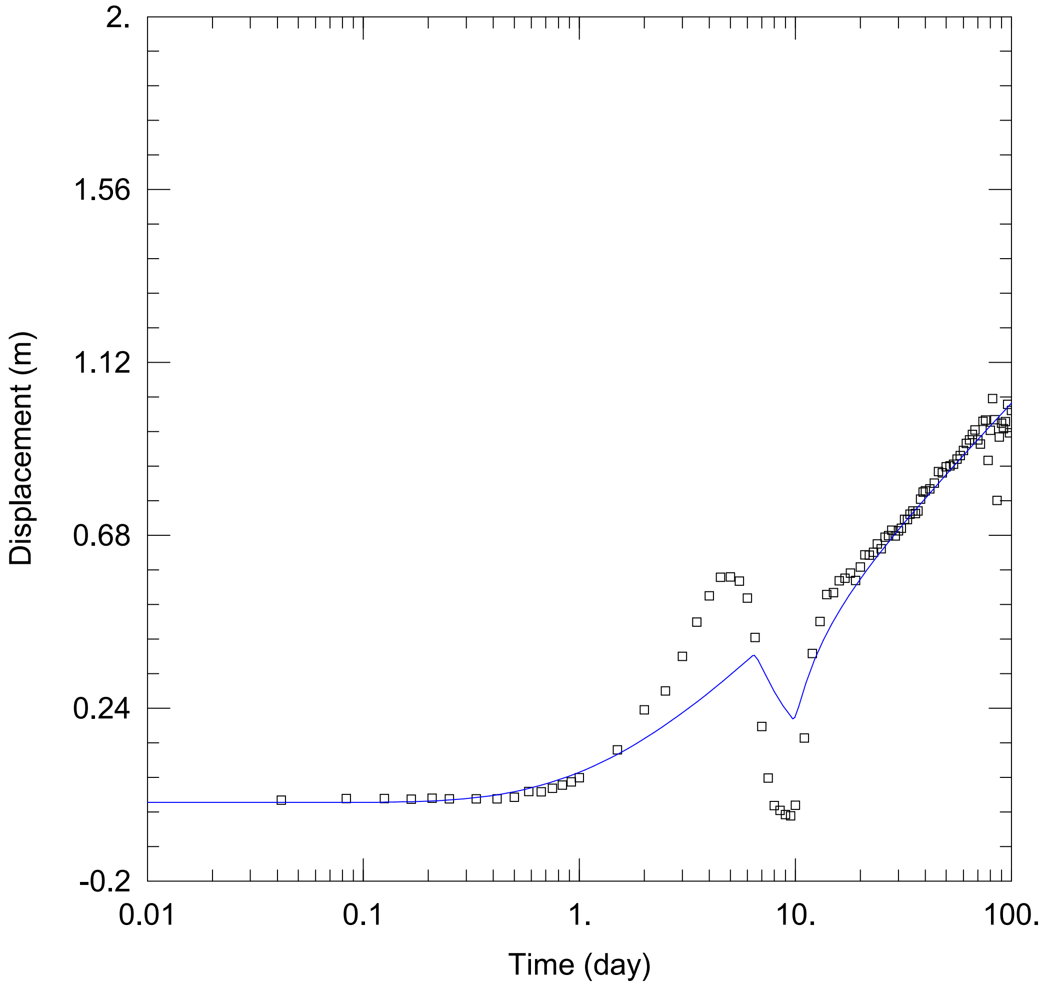
Observation Wells

Well Name	X (m)	Y (m)
□ TR2_50N	0	50

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 5.209 m/day Ss = 0.02459 m^{-1}
Ky/Kx = 1. Lt = 100. m



WELL TEST ANALYSIS

Data Set: C:\...\TR2.aqt
Date: 10/19/18
Time: 10:07:12

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m
Trench Length: 100. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR2	0	0

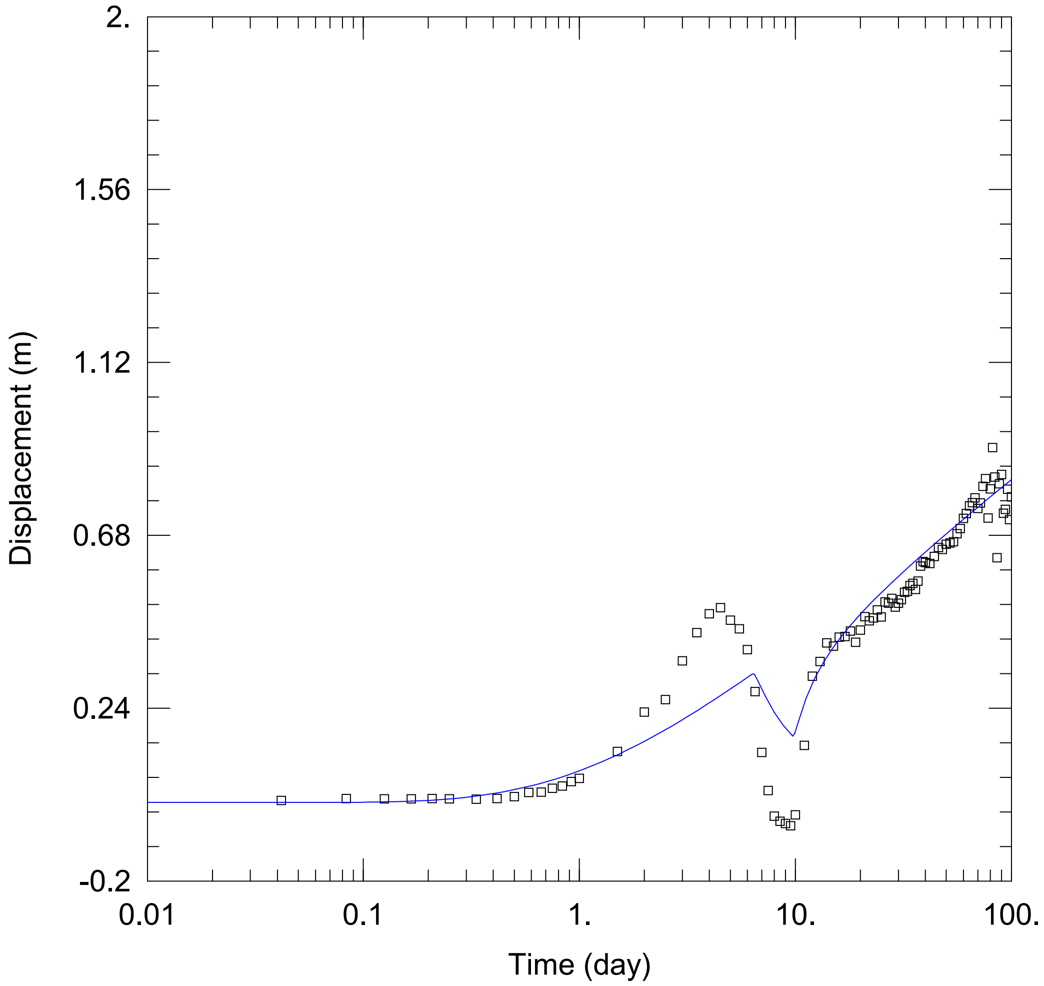
Observation Wells

Well Name	X (m)	Y (m)
□ TR2_20S	0	-20

SOLUTION

Aquifer Model: Confined
Solution Method: Murdoch (Trench)

Kx = 4.233 m/day
Ss = 0.01591 m^{-1}
Ky/Kx = 1.
Lt = 100. m



WELL TEST ANALYSIS

Data Set: C:\...\TR2.aqt
Date: 10/19/18 Time: 09:47:08

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 100. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR2	0	0

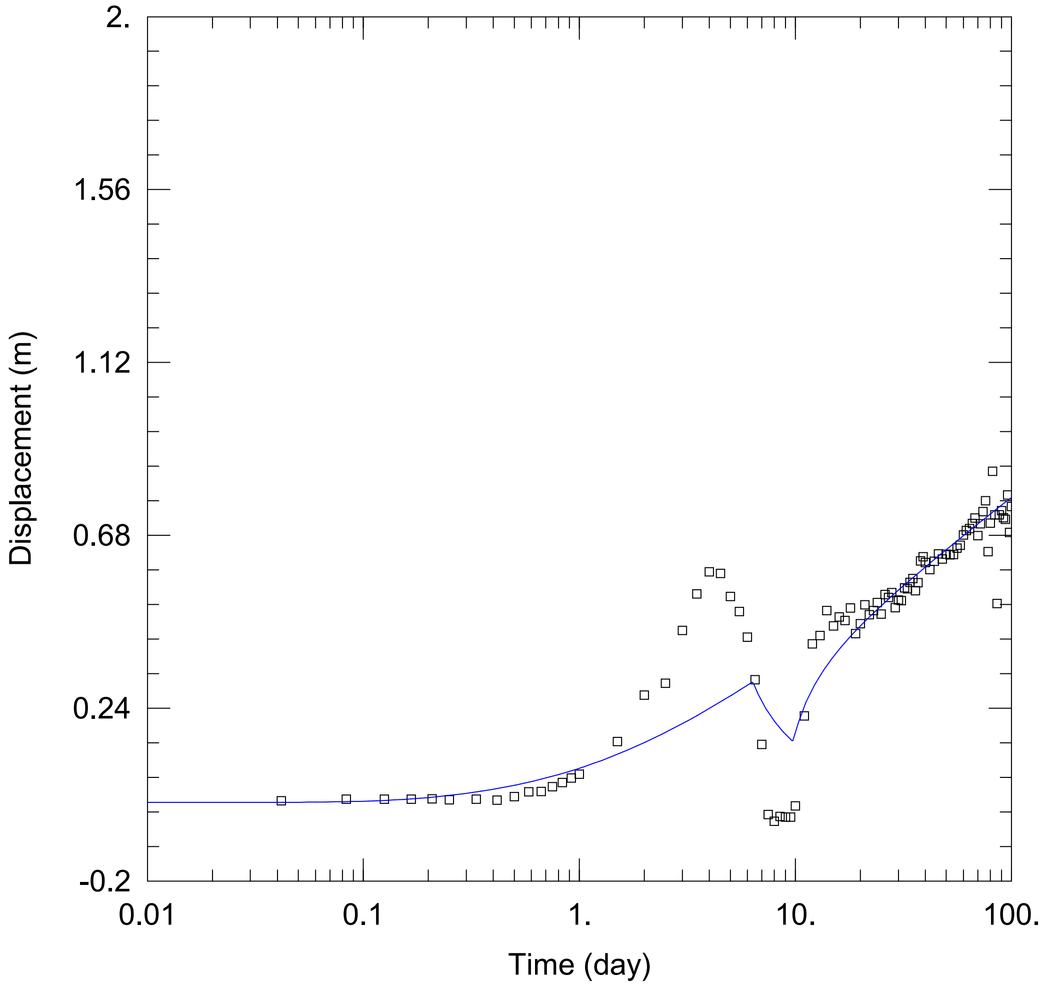
Observation Wells

Well Name	X (m)	Y (m)
□ TR2_20N	0	20

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 5.582 m/day Ss = 0.01599 m^{-1}
Ky/Kx = 1. Lt = 100. m



WELL TEST ANALYSIS

Data Set: C:\...\TR2.aqt
Date: 10/19/18 Time: 09:51:57

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 100. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR2	0	0

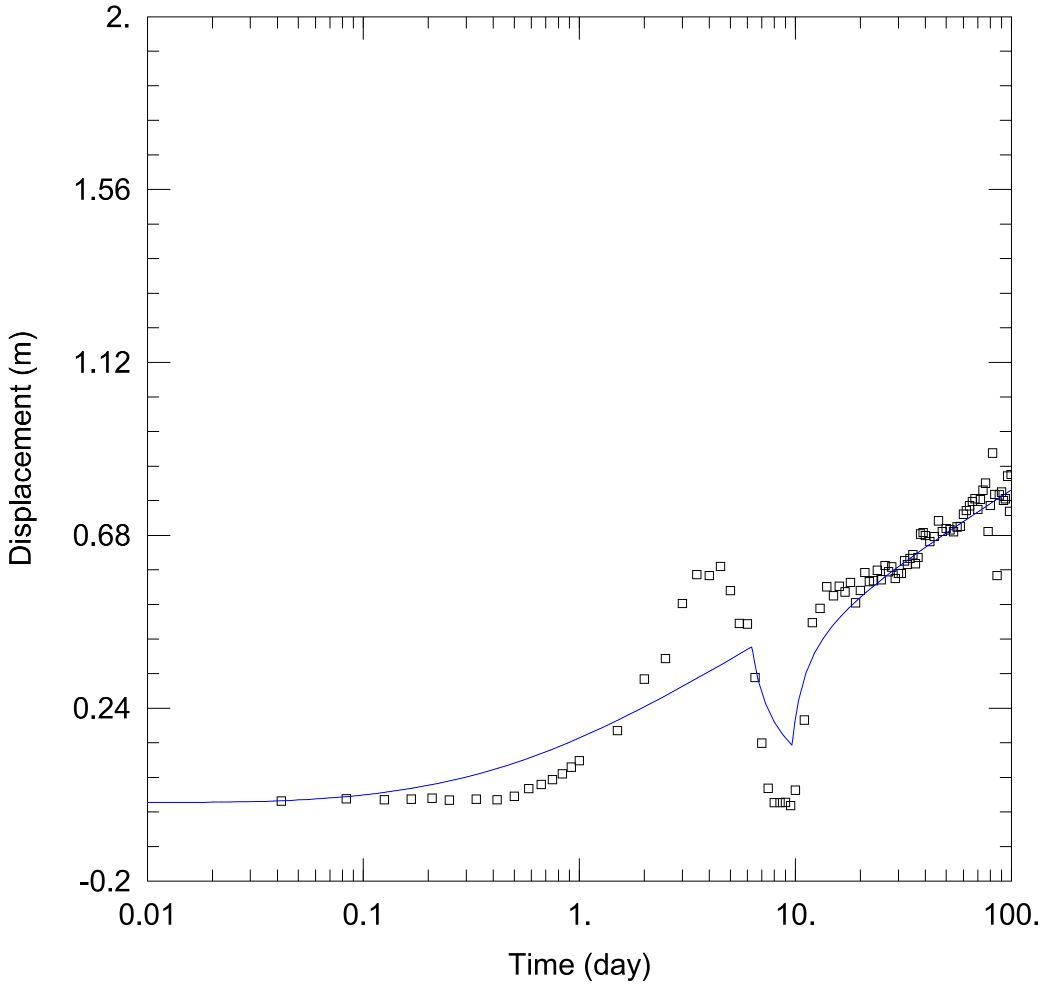
Observation Wells

Well Name	X (m)	Y (m)
□ TR2_10S	0	-10

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 5.778 m/day Ss = 0.03049 m^{-1}
Ky/Kx = 1. Lt = 100. m



WELL TEST ANALYSIS

Data Set: C:\...\TR2.aqt
Date: 10/19/18 Time: 09:43:28

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 100. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR2	0	0

Observation Wells

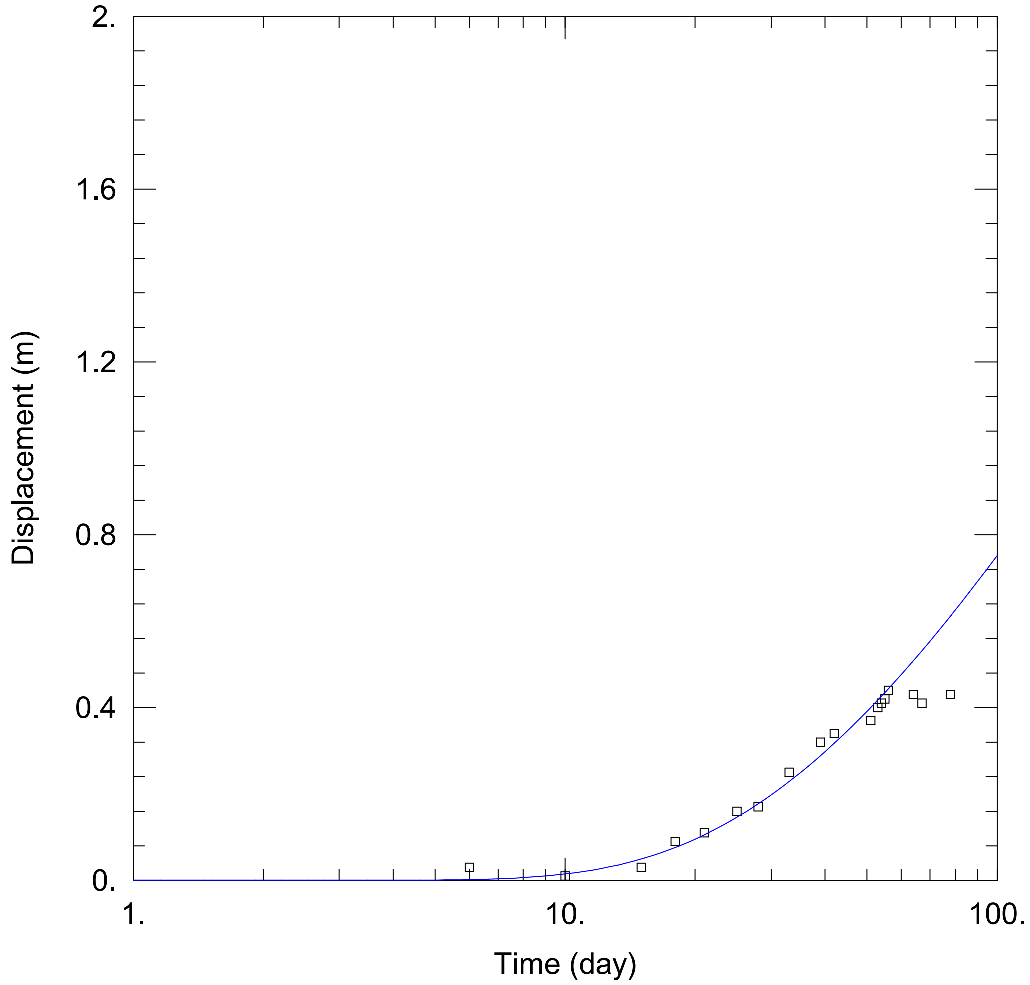
Well Name	X (m)	Y (m)
□ TR2_10N	0	10

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 7.108 m/day Ss = 0.0124 m^{-1}
Ky/Kx = 1. Lt = 100. m

A3.3. TR3



WELL TEST ANALYSIS

Data Set: C:\...\TR3.aqt
Date: 11/07/18 Time: 15:50:35

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 112. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR3	0	0

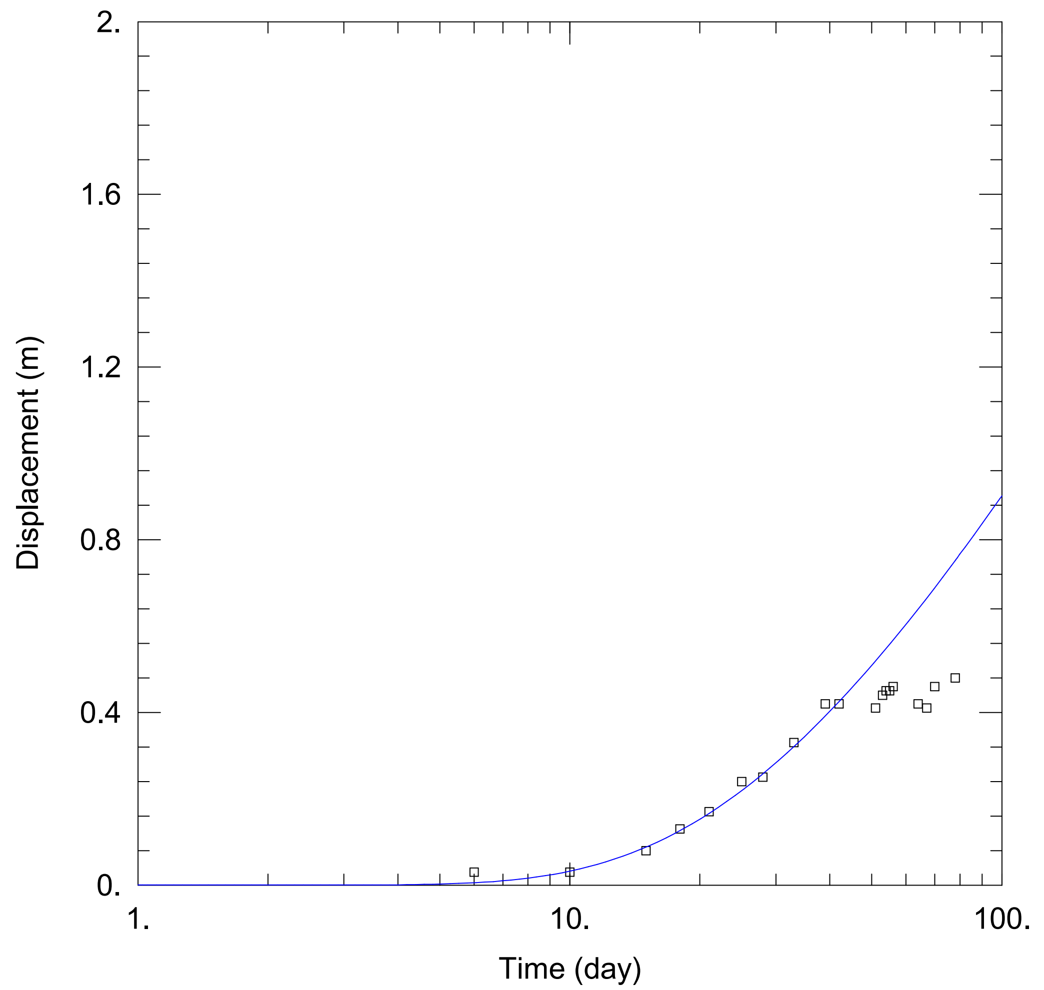
Observation Wells

Well Name	X (m)	Y (m)
□ TR3_100S	0	-100

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 1.442 m/day Ss = 0.0143 m^{-1}
Ky/Kx = 1. Lt = 112. m



WELL TEST ANALYSIS

Data Set: C:\...\TR3.aqt
Date: 11/07/18 Time: 15:49:20

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m
Trench Length: 112. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR3	0	0

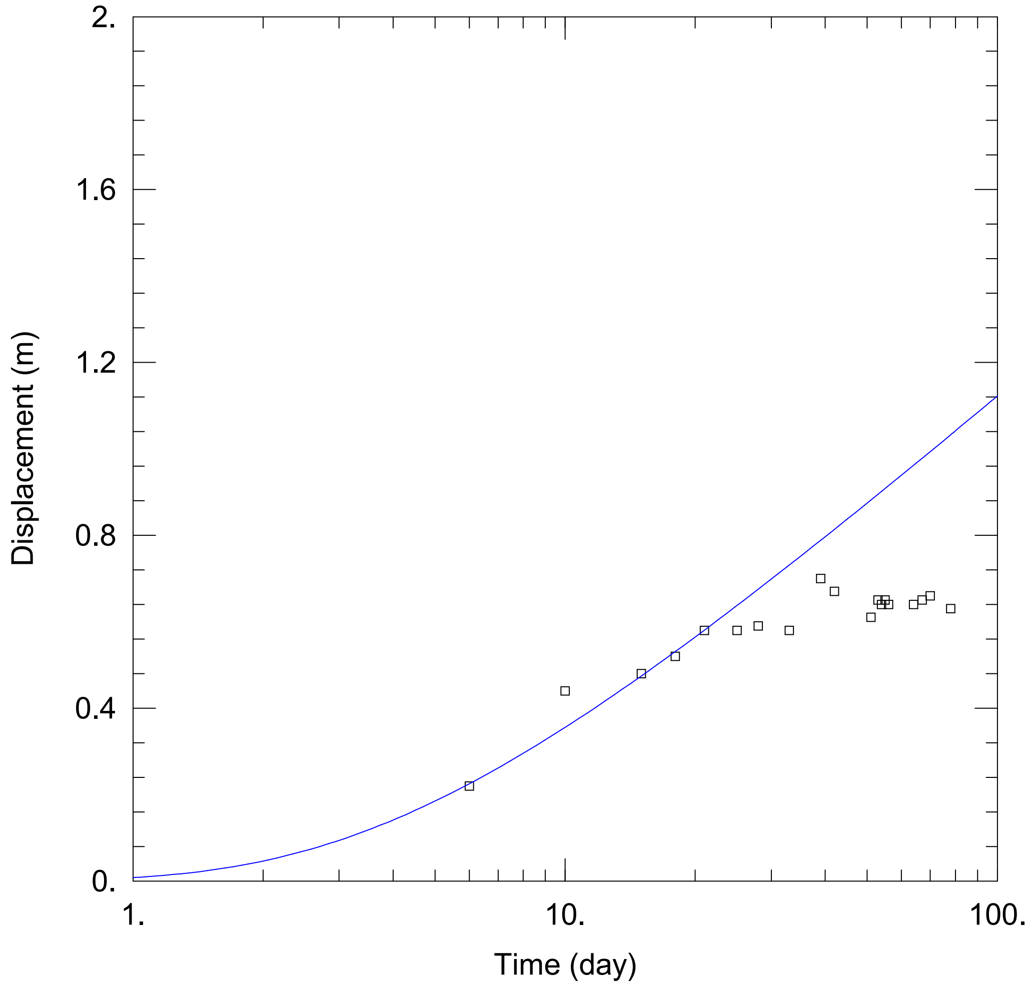
Observation Wells

Well Name	X (m)	Y (m)
□ TR3_100N	0	100

SOLUTION

Aquifer Model: Confined
Solution Method: Murdoch (Trench)

Kx = 1.442 m/day
Ky/Kx = 1.
Ss = 0.01115 m^{-1}
Lt = 112. m



WELL TEST ANALYSIS

Data Set: C:\...\TR3.aqt
Date: 11/06/18 Time: 14:35:44

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 112. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR3	0	0

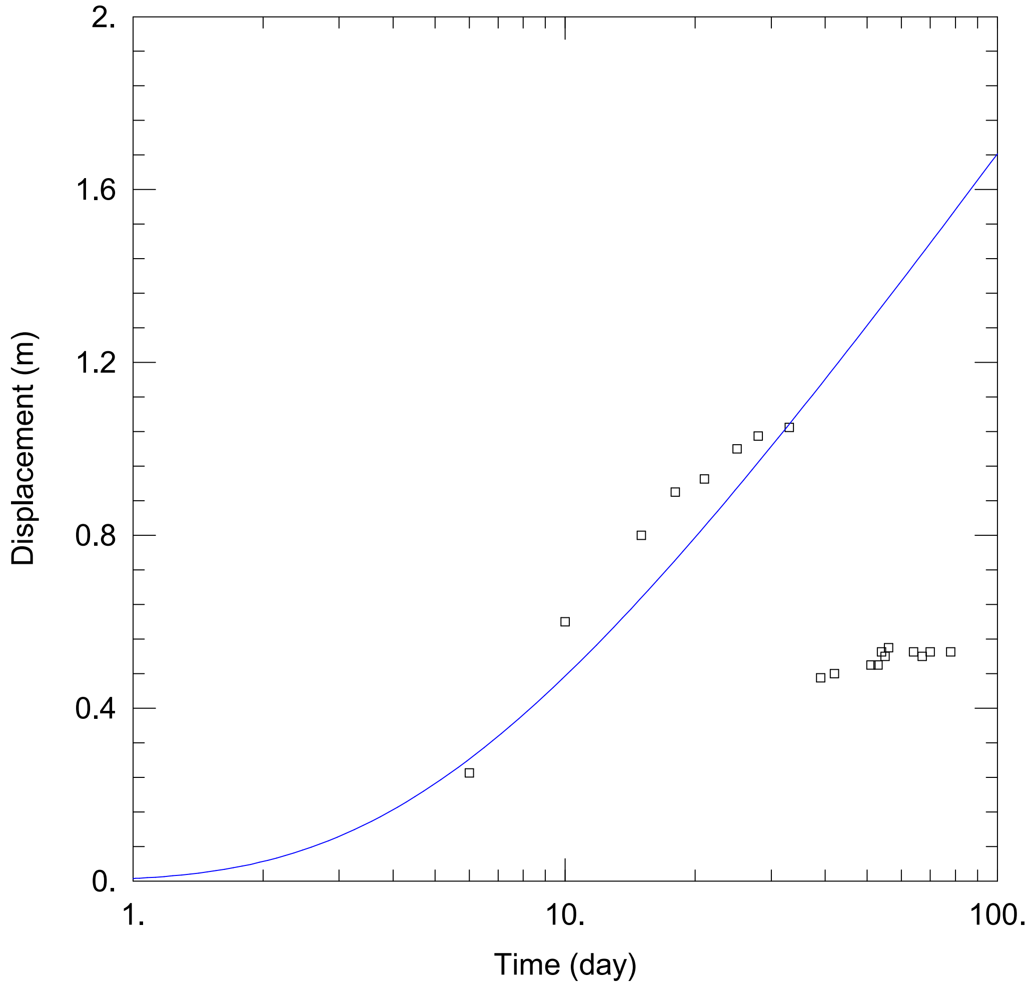
Observation Wells

Well Name	X (m)	Y (m)
□ TR3_50S	0	-50

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 2.978 m/day Ss = 0.009846 m^{-1}
Ky/Kx = 1. Lt = 112. m



WELL TEST ANALYSIS

Data Set: C:\...\TR3.aqt
Date: 11/06/18
Time: 14:34:01

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m
Trench Length: 112. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR3	0	0

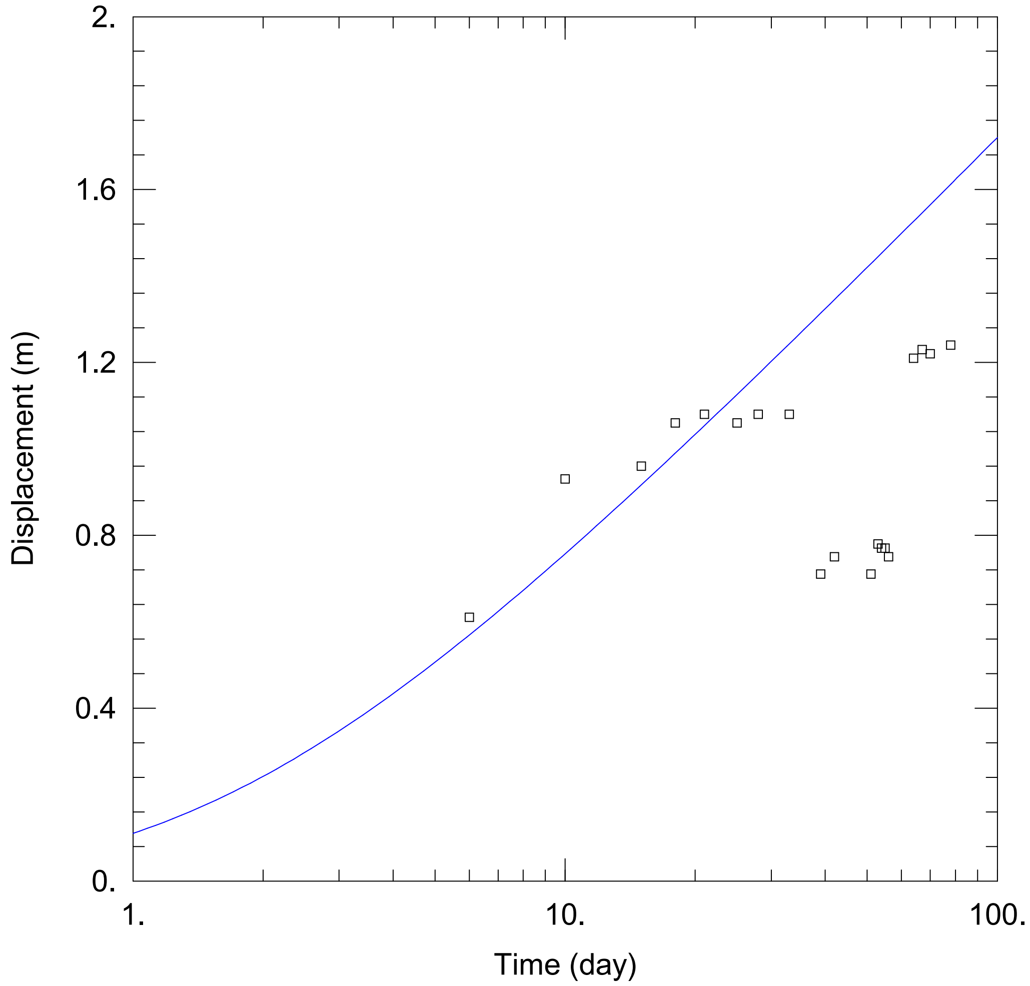
Observation Wells

Well Name	X (m)	Y (m)
□ TR3_50N	0	50

SOLUTION

Aquifer Model: Confined
Solution Method: Murdoch (Trench)

Kx = 1.836 m/day
Ss = 0.007679 m^{-1}
Ky/Kx = 1.
Lt = 112. m



WELL TEST ANALYSIS

Data Set: C:\...\TR3.aqt
Date: 11/06/18 Time: 14:32:12

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 112. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR3	0	0

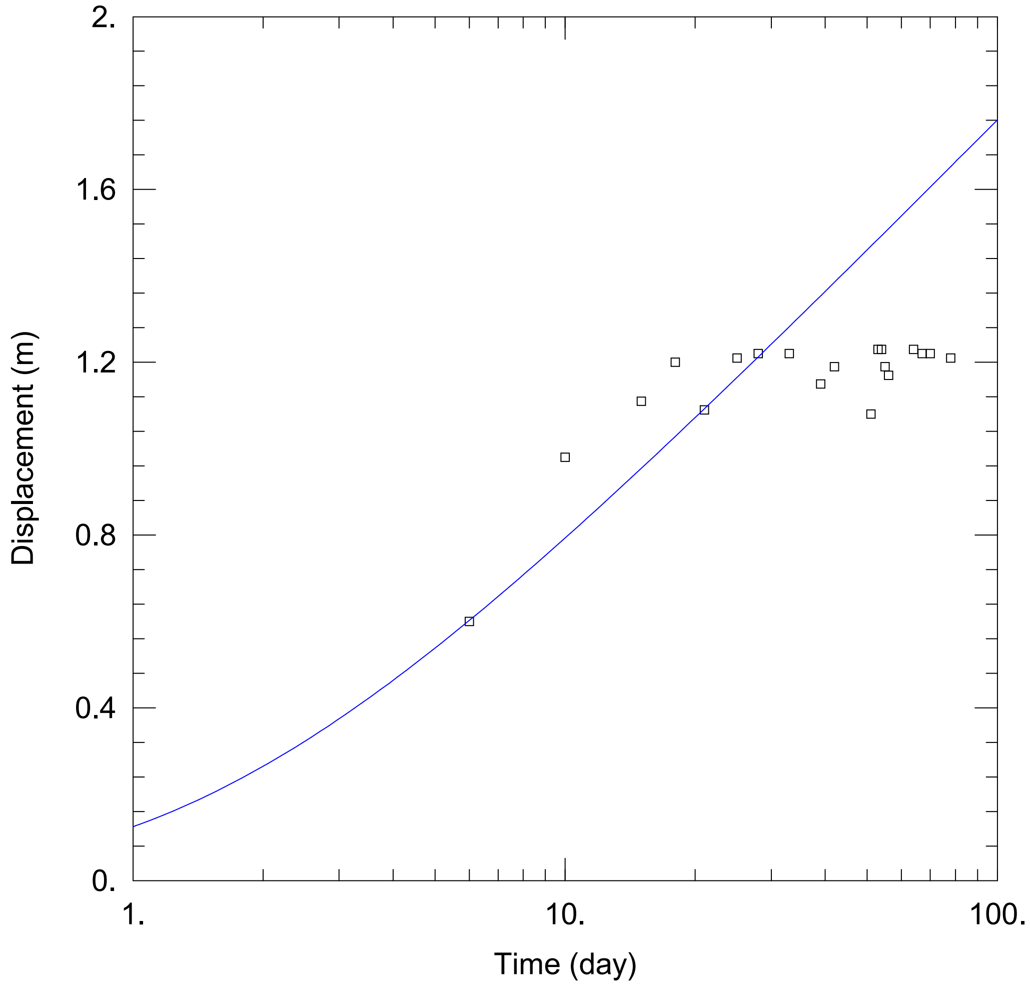
Observation Wells

Well Name	X (m)	Y (m)
□ TR3_20S	0	-20

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 2.505 m/day
Ky/Kx = 1.
Ss = 0.01016 m^{-1}
Lt = 112. m



WELL TEST ANALYSIS

Data Set: C:\...\TR3.aqt
Date: 11/06/18 Time: 16:43:36

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 112. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR3	0	0

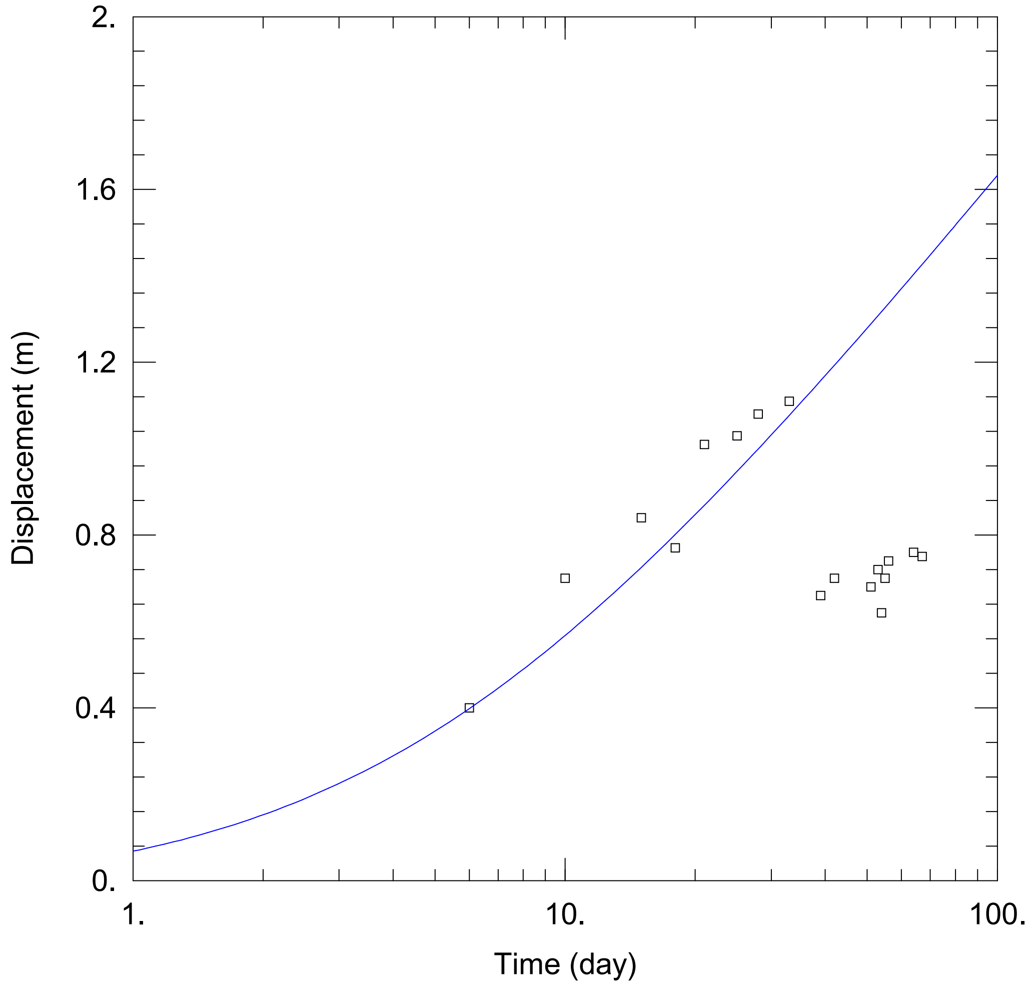
Observation Wells

Well Name	X (m)	Y (m)
□ TR3_20N	0	20

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 2.505 m/day Ss = 0.009252 m^{-1}
Ky/Kx = 1. Lt = 112. m



WELL TEST ANALYSIS

Data Set: C:\...\TR3.aqt
Date: 11/06/18 Time: 14:22:44

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 112. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR3	0	0

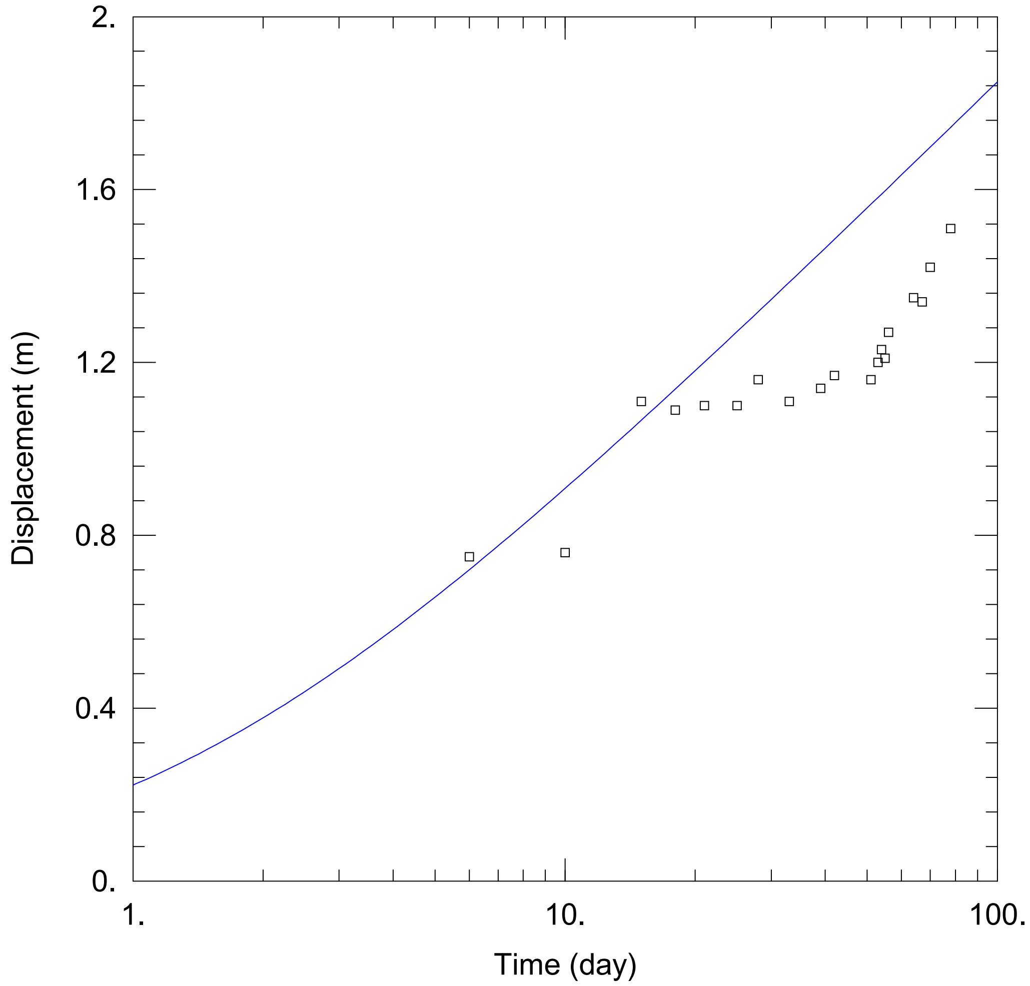
Observation Wells

Well Name	X (m)	Y (m)
□ TR3_10W	0	-10

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 2.037 m/day Ss = 0.03308 m^{-1}
Ky/Kx = 1. Lt = 112. m



WELL TEST ANALYSIS

Data Set: C:\...\TR3.aqt
Date: 11/06/18 Time: 14:27:15

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 112. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR3	0	0

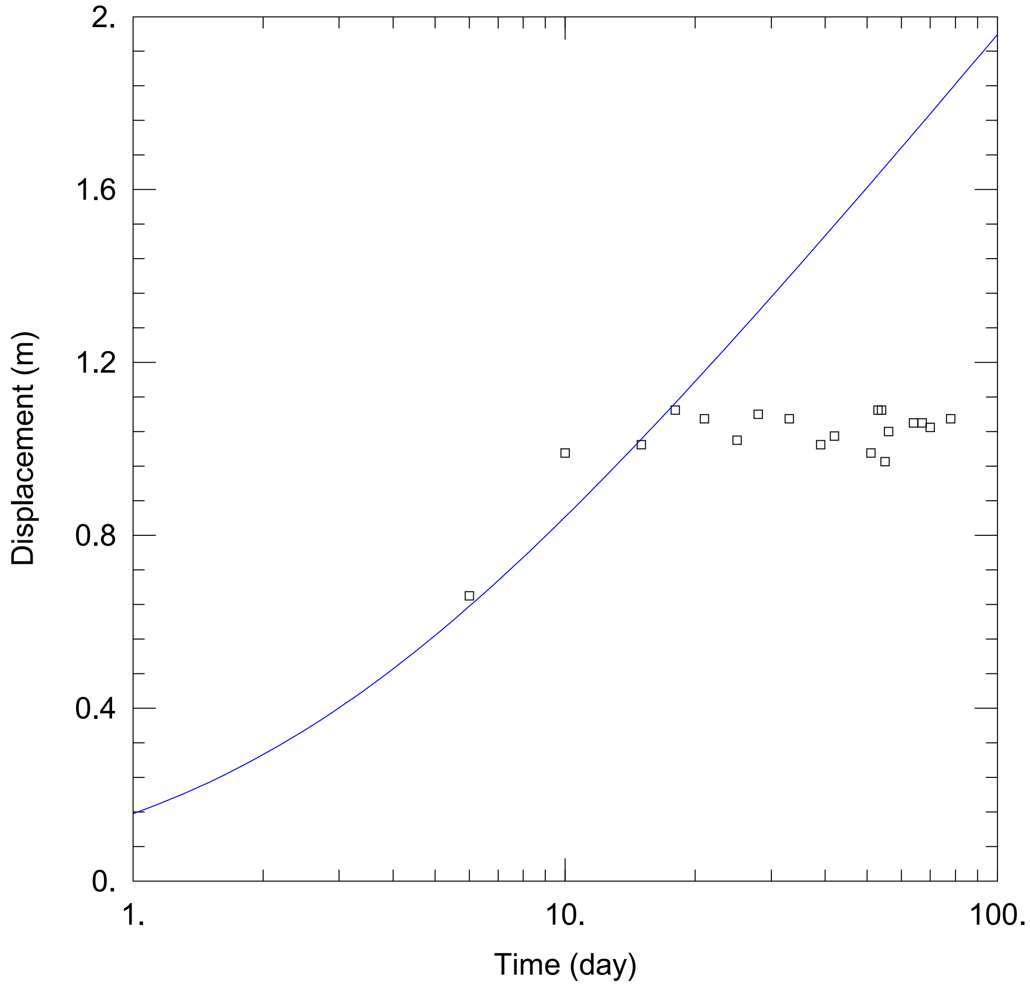
Observation Wells

Well Name	X (m)	Y (m)
□ TR3_10S	0	-10

SOLUTION

Aquifer Model: Confined
Solution Method: Murdoch (Trench)

Kx = 2.594 m/day
Ss = 0.01081 m^{-1}
Ky/Kx = 1.
Lt = 112. m



WELL TEST ANALYSIS

Data Set: C:\...\TR3.aqt
Date: 11/06/18 Time: 14:24:33

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 112. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR3	0	0

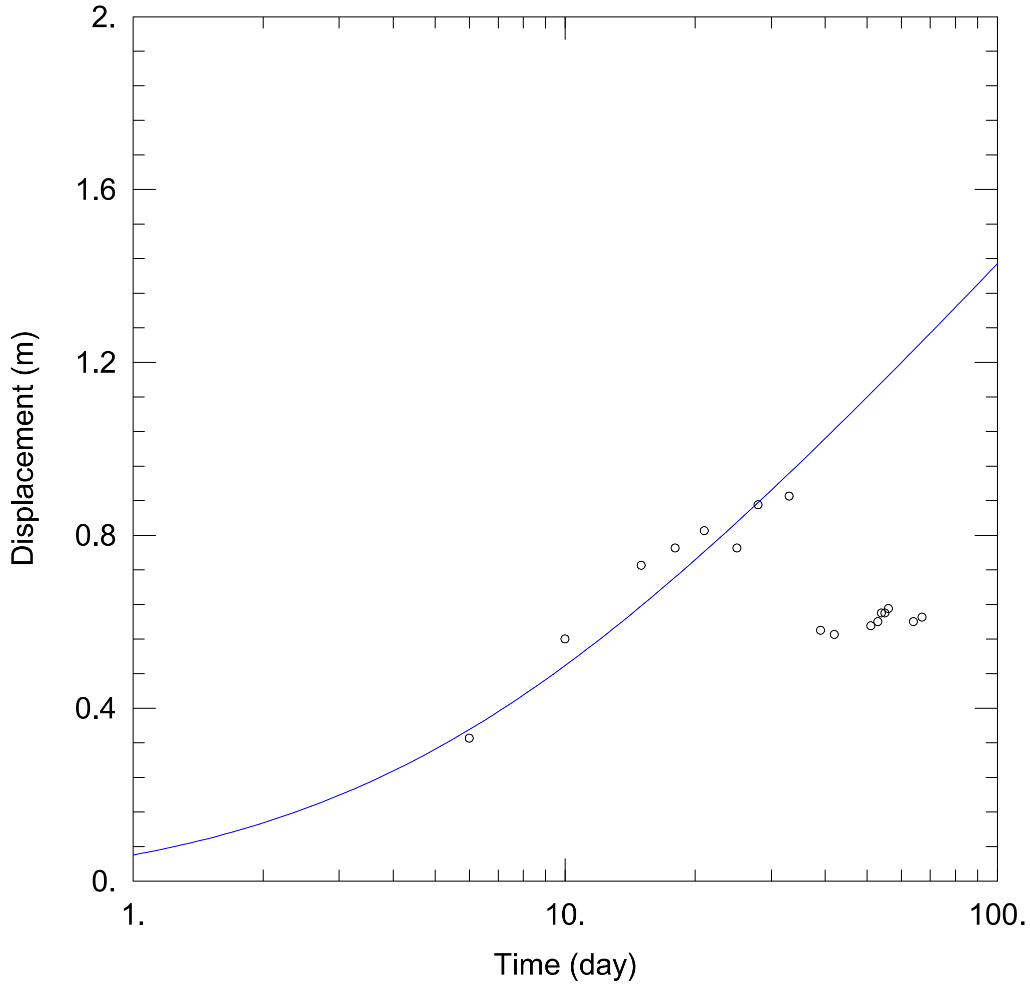
Observation Wells

Well Name	X (m)	Y (m)
□ TR3_10N	0	10

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 2.108 m/day Ss = 0.01619 m^{-1}
Ky/Kx = 1. Lt = 112. m



WELL TEST ANALYSIS

Data Set: C:\...\TR3.aqt
Date: 11/06/18
Time: 14:19:41

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m
Trench Length: 112. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR3	0	0

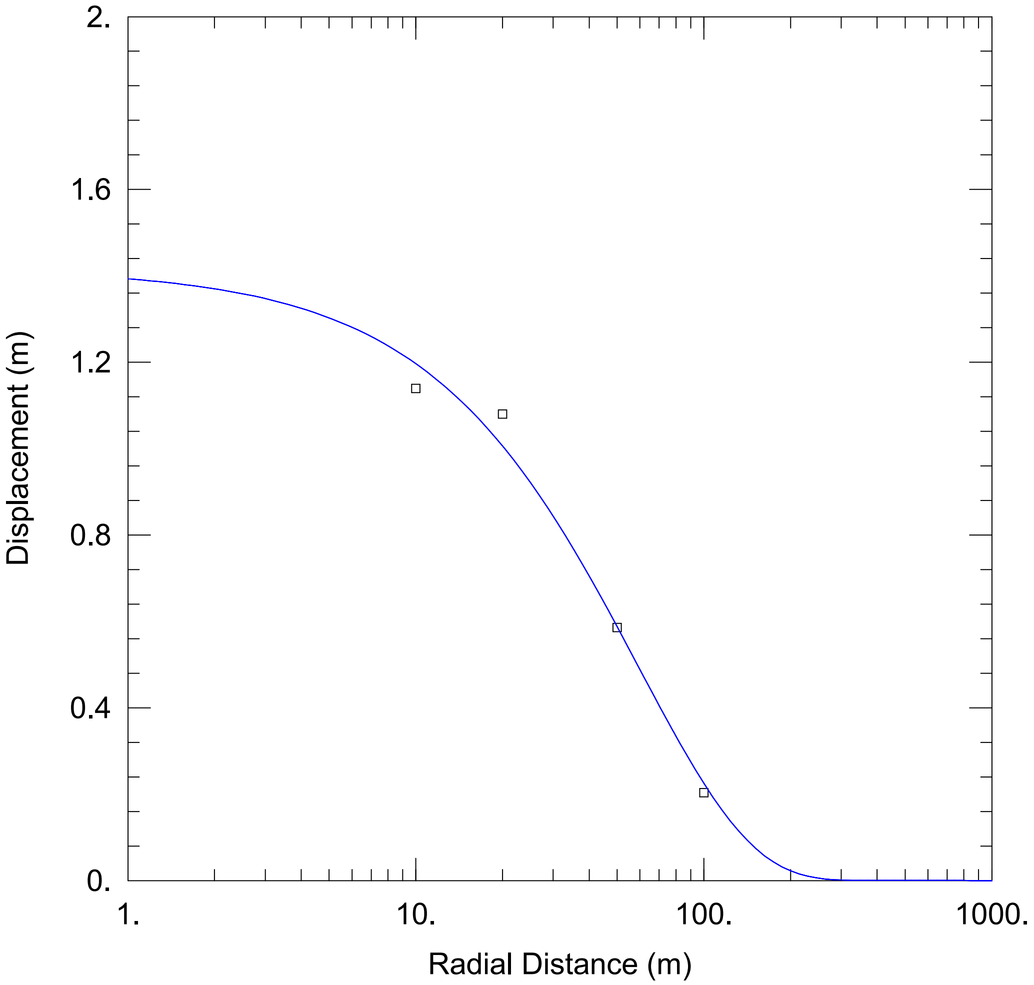
Observation Wells

Well Name	X (m)	Y (m)
○ TR3_10E	0	10

SOLUTION

Aquifer Model: Confined
Solution Method: Murdoch (Trench)

Kx = 2.338 m/day
Ky/Kx = 1.
Ss = 0.03746 m^{-1}
Lt = 112. m



WELL TEST ANALYSIS

Data Set: C:\...\TR3 - Distance Drawdown South.aqt
Date: 11/06/18
Time: 16:23:24

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m
Trench Length: 112. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR3	0	0

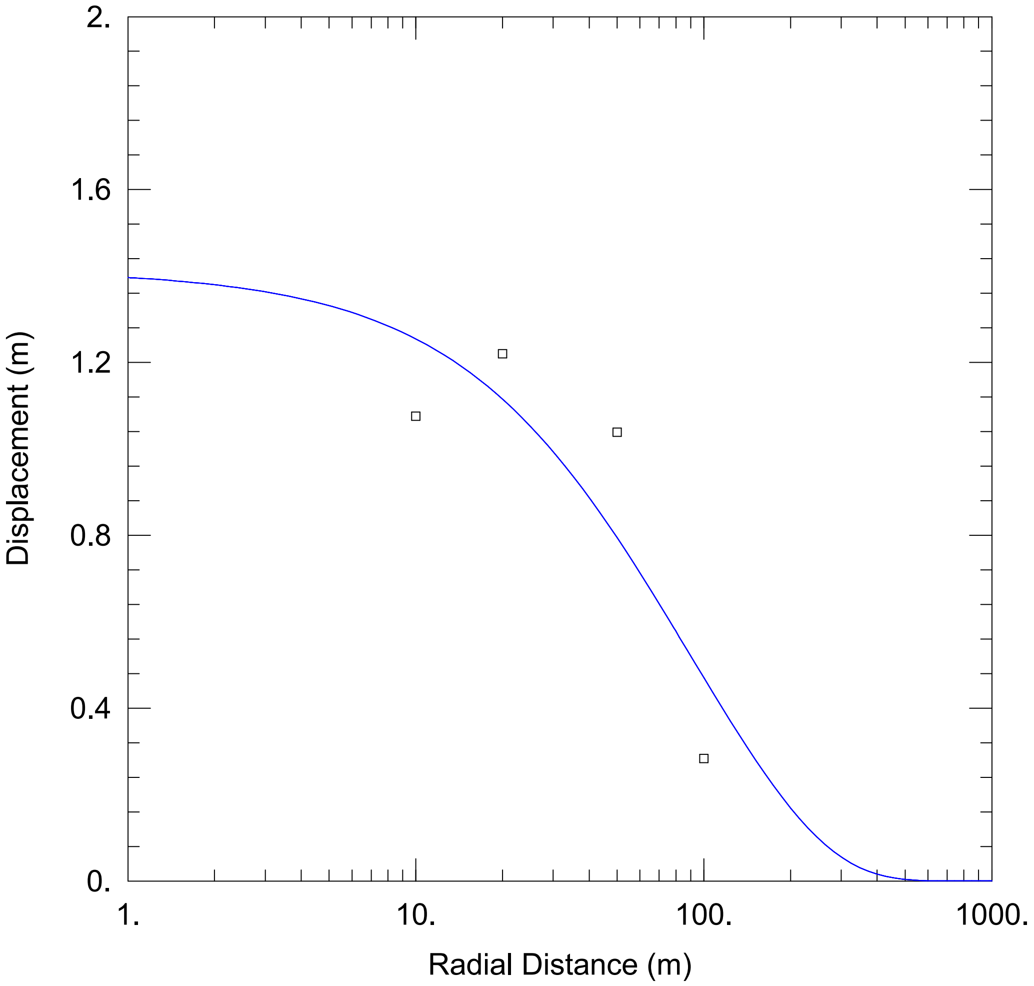
Observation Wells

Well Name	X (m)	Y (m)
□ TR3_10S	0	-10
□ TR3_20S	0	-20
□ TR3_50S	0	-50
□ TR3_100S	0	-100

SOLUTION

Aquifer Model: Confined
Solution Method: Murdoch (Trench)

Kx = 2.644 m/day
Ss = 0.01501 m^{-1}
Ky/Kx = 1
Lt = 112. m



WELL TEST ANALYSIS

Data Set: C:\...\TR3 - Distance Drawdown North.aqt
Date: 11/06/18 Time: 16:40:27

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 112. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR3	0	0

Observation Wells

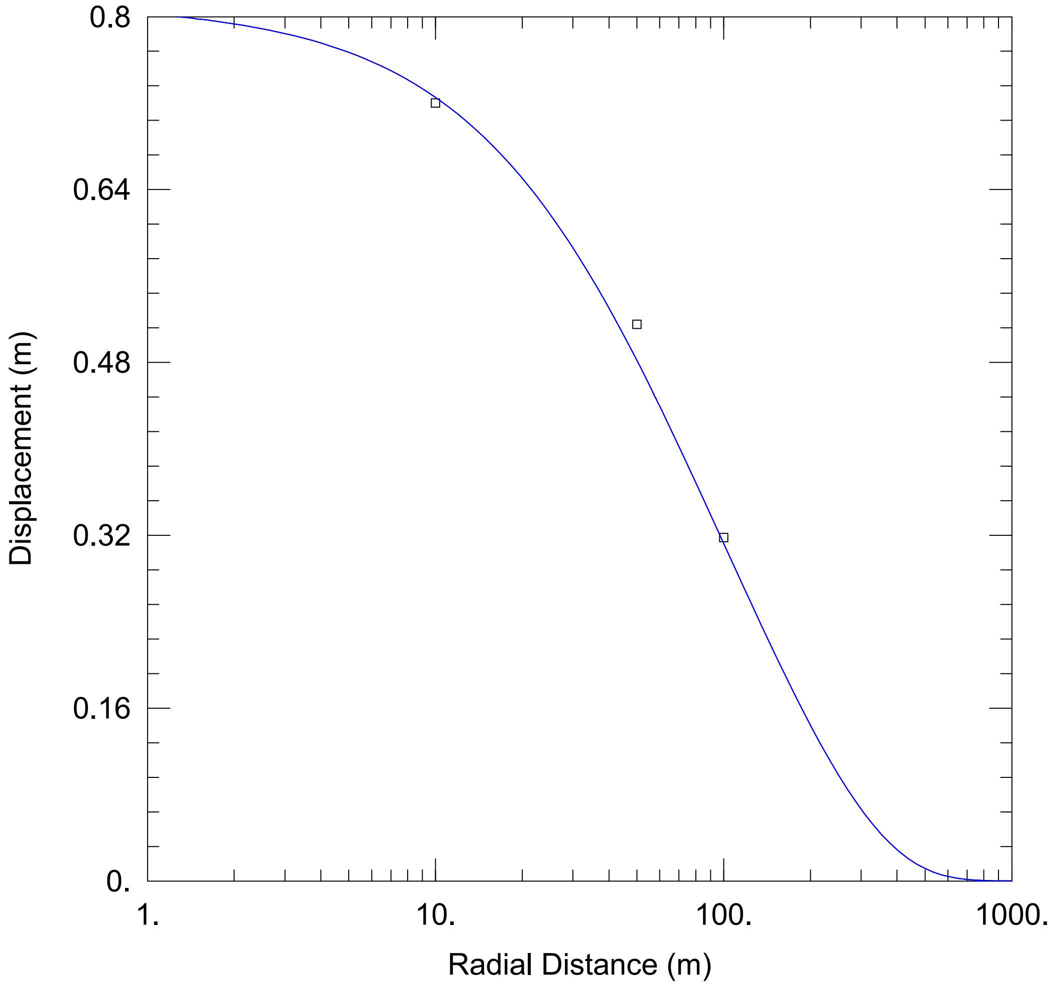
Well Name	X (m)	Y (m)
TR3_10N	0	10
TR3_20N	0	20
TR3_50N	0	50
TR3_100N	0	100

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 3.689 m/day Ss = 0.005375 m^{-1}
Ky/Kx = 1 Lt = 112. m

A3.4. TR4



WELL TEST ANALYSIS

Data Set: C:\...\TR4 - Distance Drawdown West.aqt
Date: 10/20/18 Time: 15:35:34

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 100. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR4	0	0

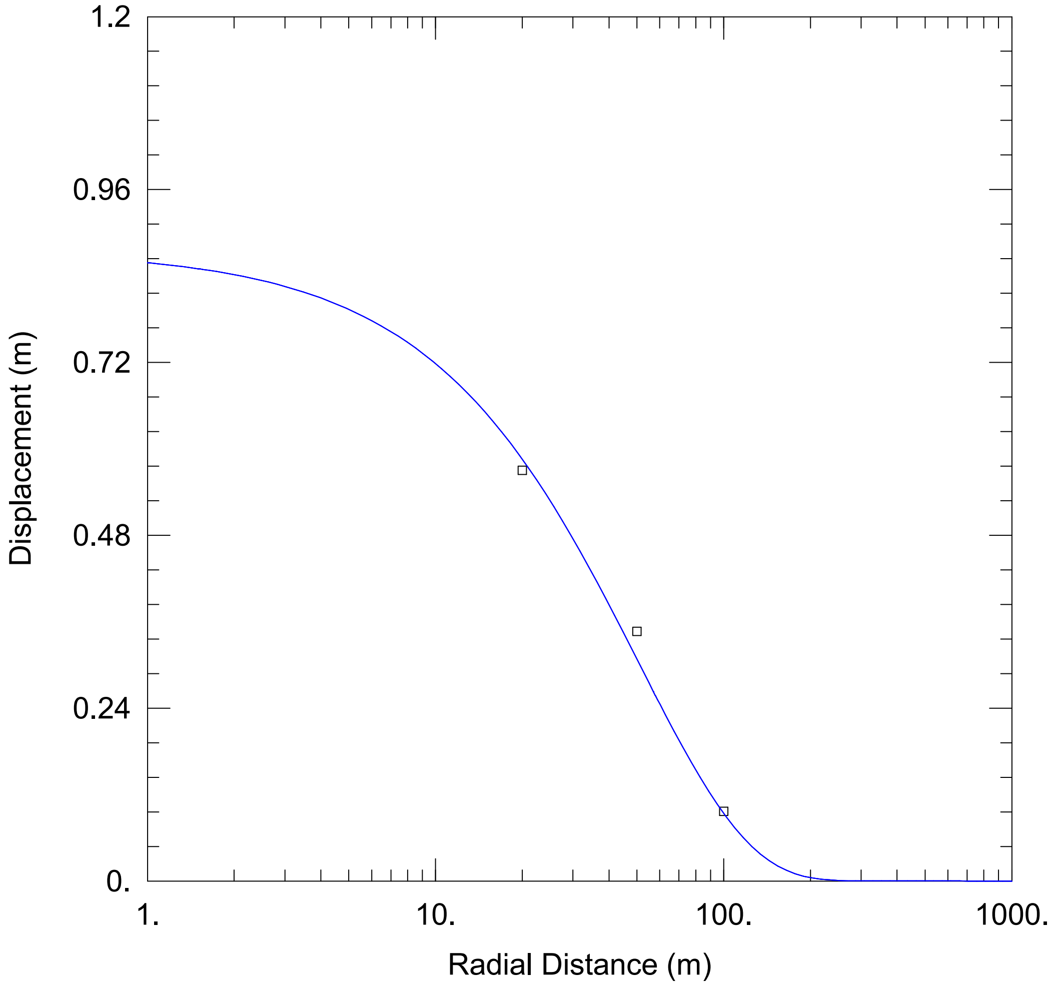
Observation Wells

Well Name	X (m)	Y (m)
□ TR4_10W	0	-10
□ TR4_50W	0	-50
□ TR4_100W	0	-100

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 6.323 m/day Ss = 0.005032 m^{-1}
Ky/Kx = 1. Lt = 100. m



WELL TEST ANALYSIS

Data Set: C:\...\TR4 Distance Drawdown East.aqt
Date: 10/20/18 Time: 15:36:01

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 100. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR4	0	0

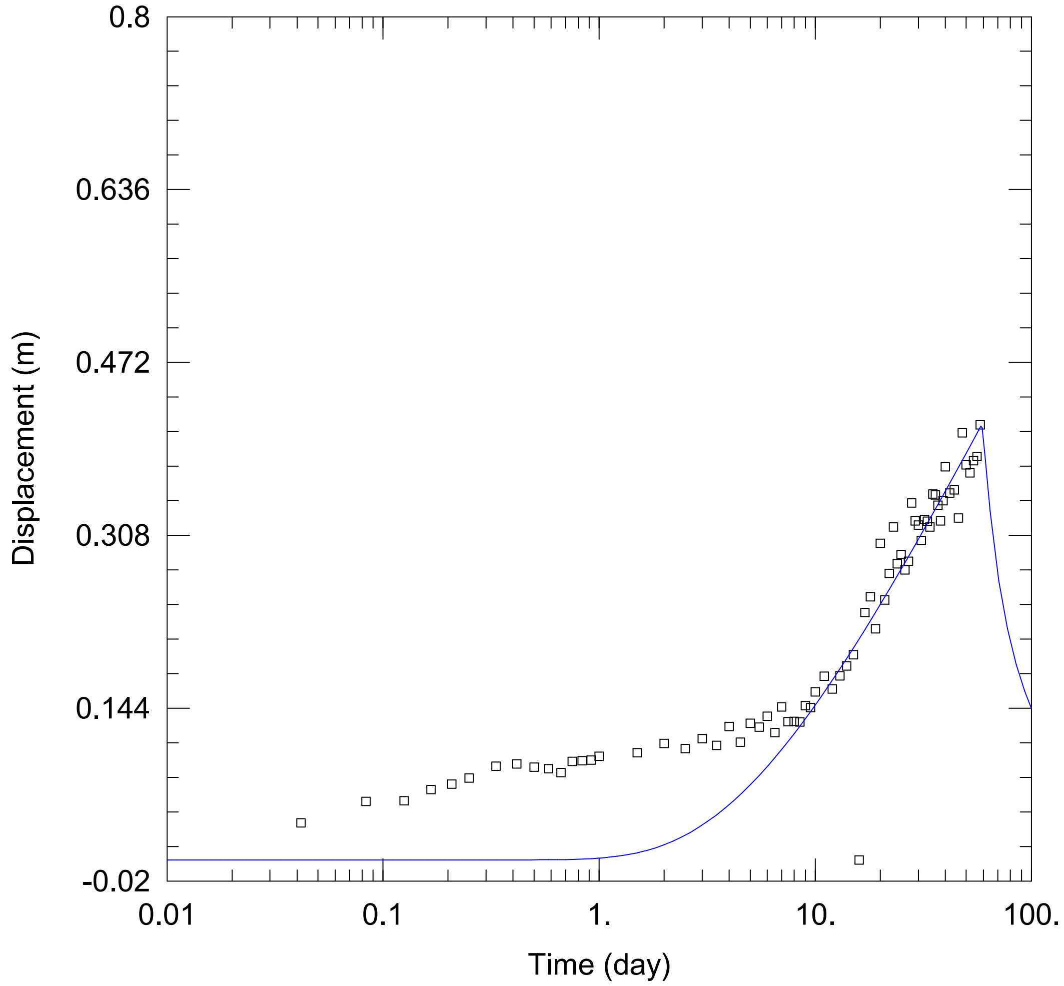
Observation Wells

Well Name	X (m)	Y (m)
□ TR4_20E	0	20
□ TR4_50E	0	50
□ TR4_100E	0	100

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 3.444 m/day Ss = 0.02821 m^{-1}
Ky/Kx = 1. Lt = 100. m



WELL TEST ANALYSIS

Data Set: C:\...\TR4.aqt
Date: 10/20/18 Time: 15:25:24

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 100. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR4	0	0

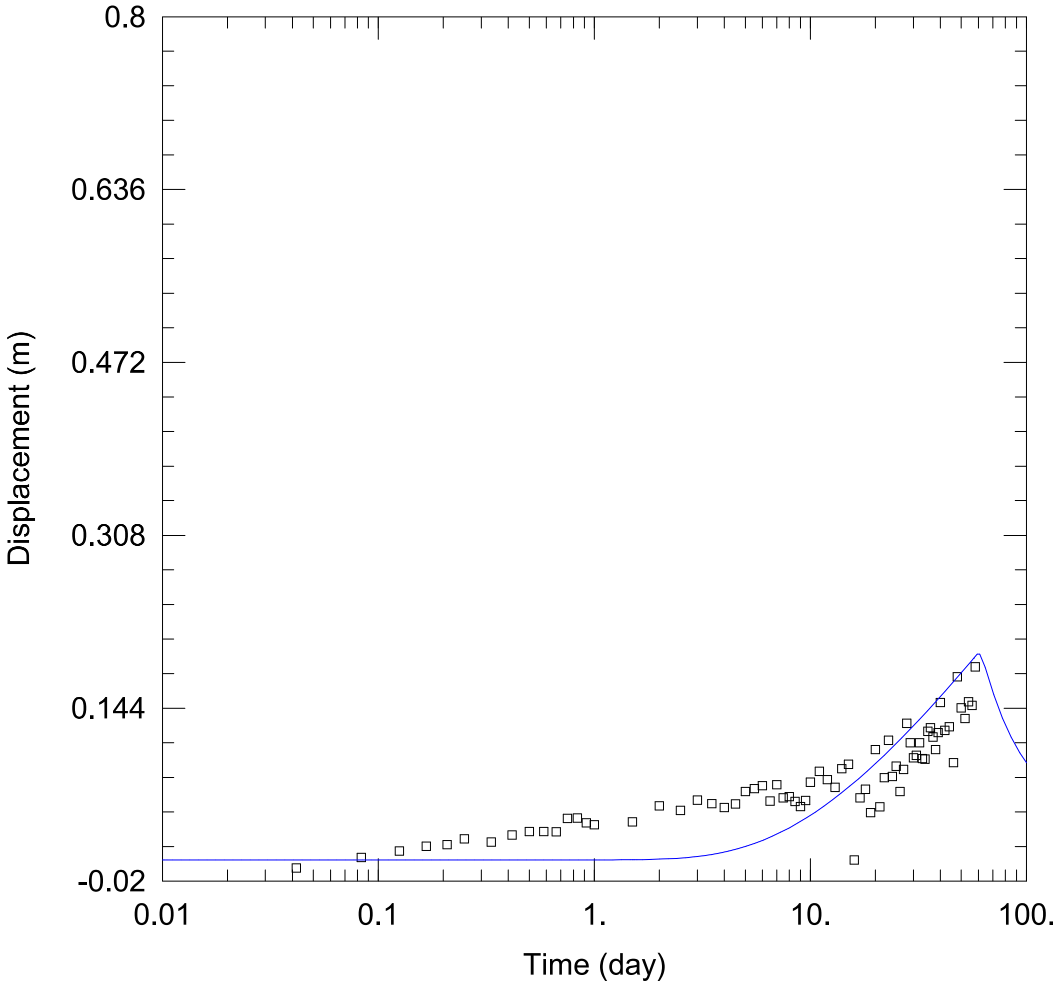
Observation Wells

Well Name	X (m)	Y (m)
□ TR4_100W	0	-100

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 5.321 m/day Ss = 0.006452 m^{-1}
Ky/Kx = 1. Lt = 100. m



WELL TEST ANALYSIS

Data Set: C:\...\TR4.aqt
Date: 10/20/18
Time: 15:20:45

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m
Trench Length: 100. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR4	0	0

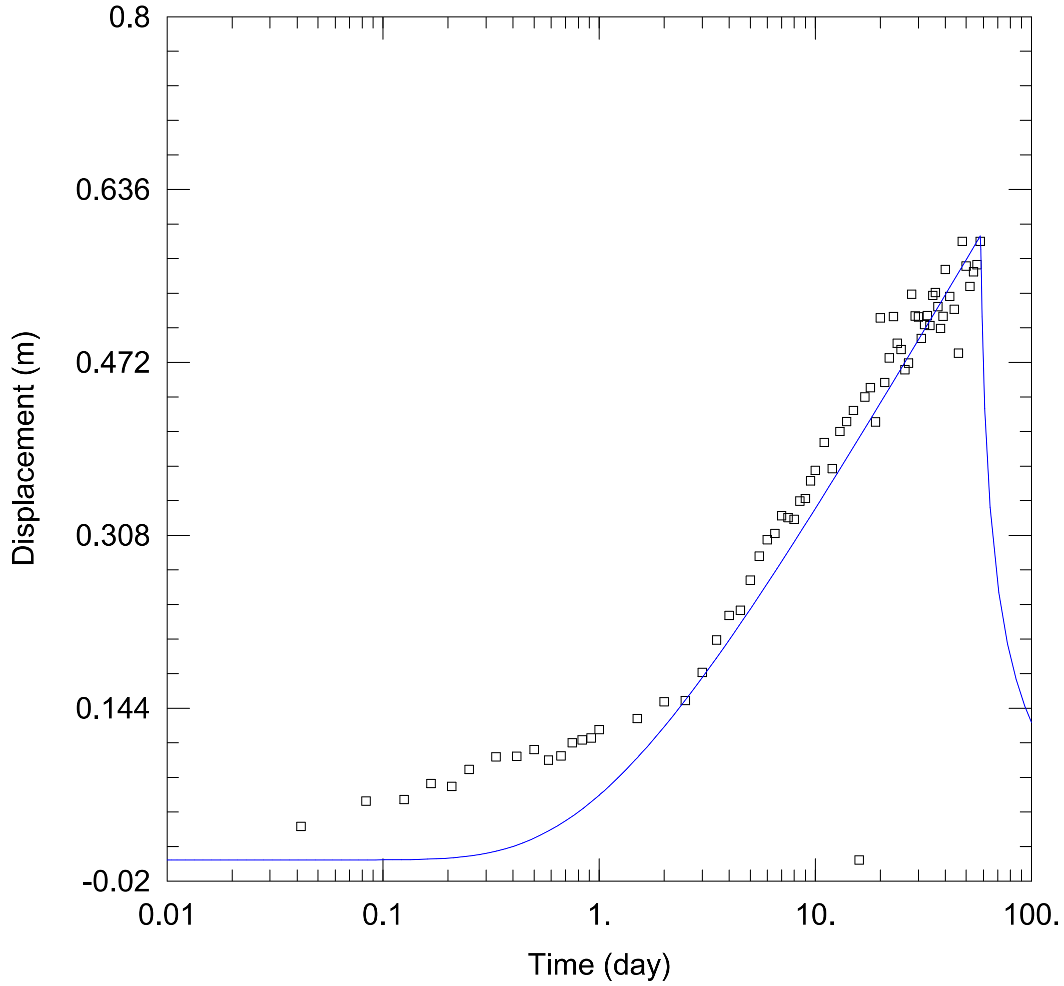
Observation Wells

Well Name	X (m)	Y (m)
□ TR4_100E	0	100

SOLUTION

Aquifer Model: Confined
Solution Method: Murdoch (Trench)

Kx = 7.78 m/day
Ss = 0.02101 m^{-1}
Ky/Kx = 1.
Lt = 100. m



WELL TEST ANALYSIS

Data Set: C:\...\TR4.aqt
Date: 10/20/18 Time: 15:24:06

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 100. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR4	0	0

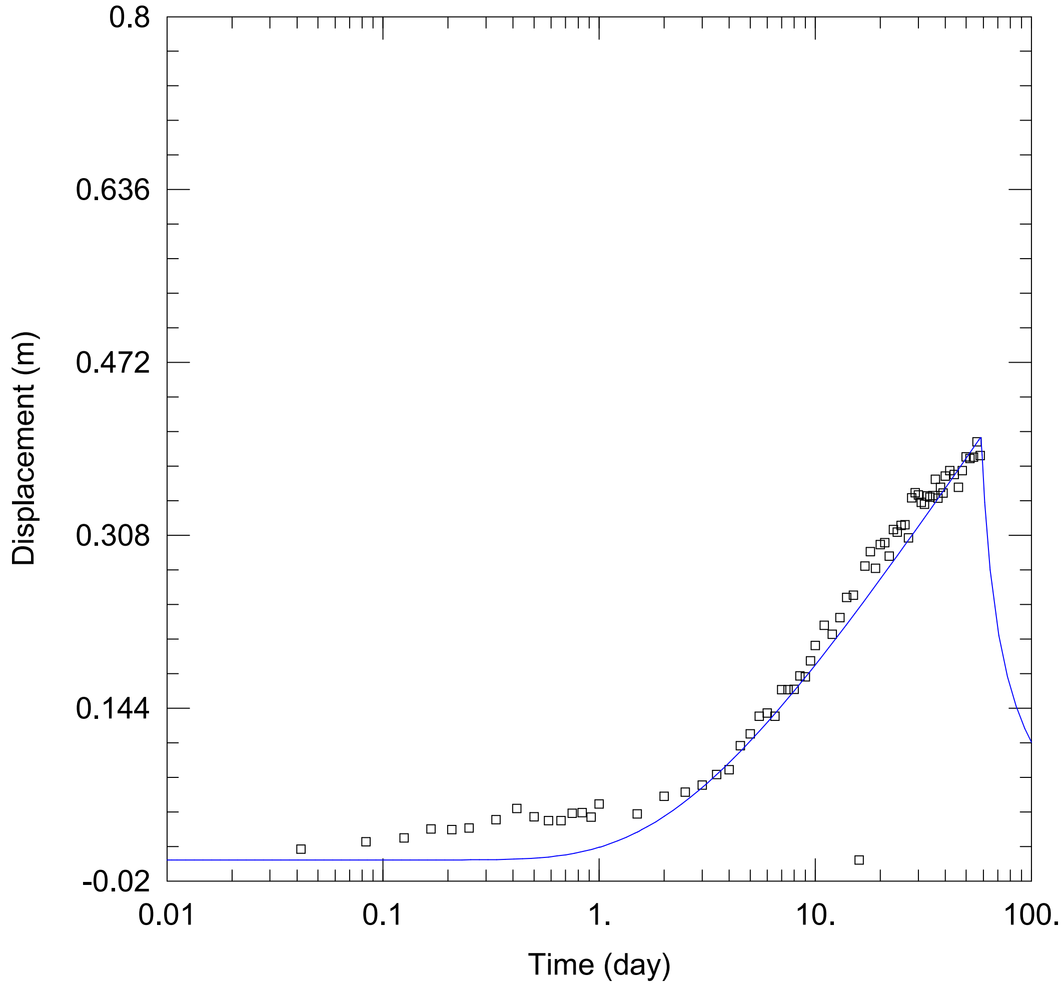
Observation Wells

Well Name	X (m)	Y (m)
□ TR4_50W	0	-50

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 6.109 m/day Ss = 0.005032 m^{-1}
Ky/Kx = 1. Lt = 100. m



WELL TEST ANALYSIS

Data Set: C:\...\TR4.aqt
Date: 10/20/18 Time: 15:18:09

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 100. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR4	0	0

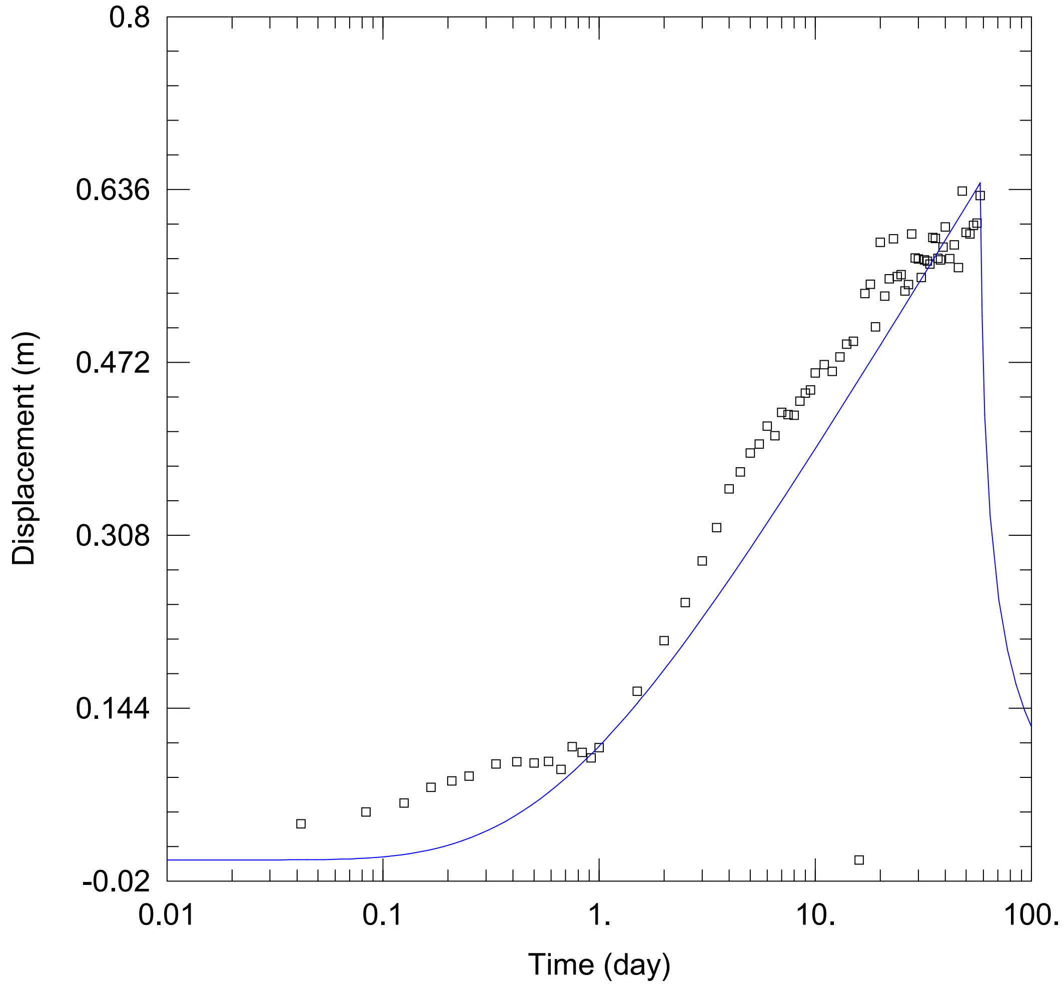
Observation Wells

Well Name	X (m)	Y (m)
□ TR4_50E	0	50

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 7.014 m/day Ss = 0.01403 m^{-1}
Ky/Kx = 1. Lt = 100. m



WELL TEST ANALYSIS

Data Set: C:\...\TR4.aqt
Date: 10/20/18 Time: 15:16:24

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 100. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR4	0	0

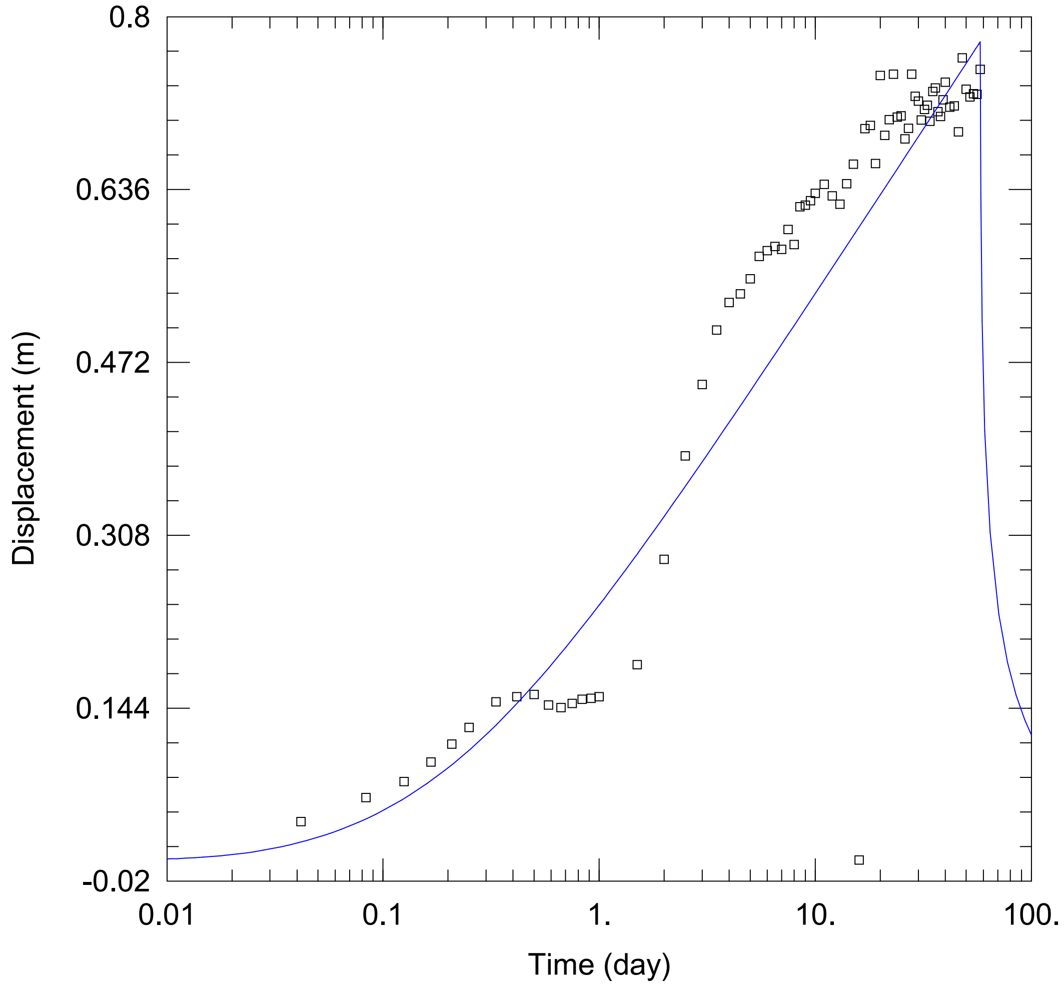
Observation Wells

Well Name	X (m)	Y (m)
□ TR4_20E	0	20

SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 6.323 m/day
Ky/Kx = 1.
Ss = 0.01028 m^{-1}
Lt = 100. m



WELL TEST ANALYSIS

Data Set: C:\...\TR4.aqt
Date: 10/20/18 Time: 15:22:34

PROJECT INFORMATION

Company: GWS
Client: Salt Lake Potash
Project: SLP-18-6
Location: Perth
Test Well: TR1
Test Date: 9-9-18

AQUIFER DATA

Saturated Thickness: 6. m Trench Length: 100. m

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
TR4	0	0

Observation Wells

Well Name	X (m)	Y (m)
□ TR4_10W	0	-10

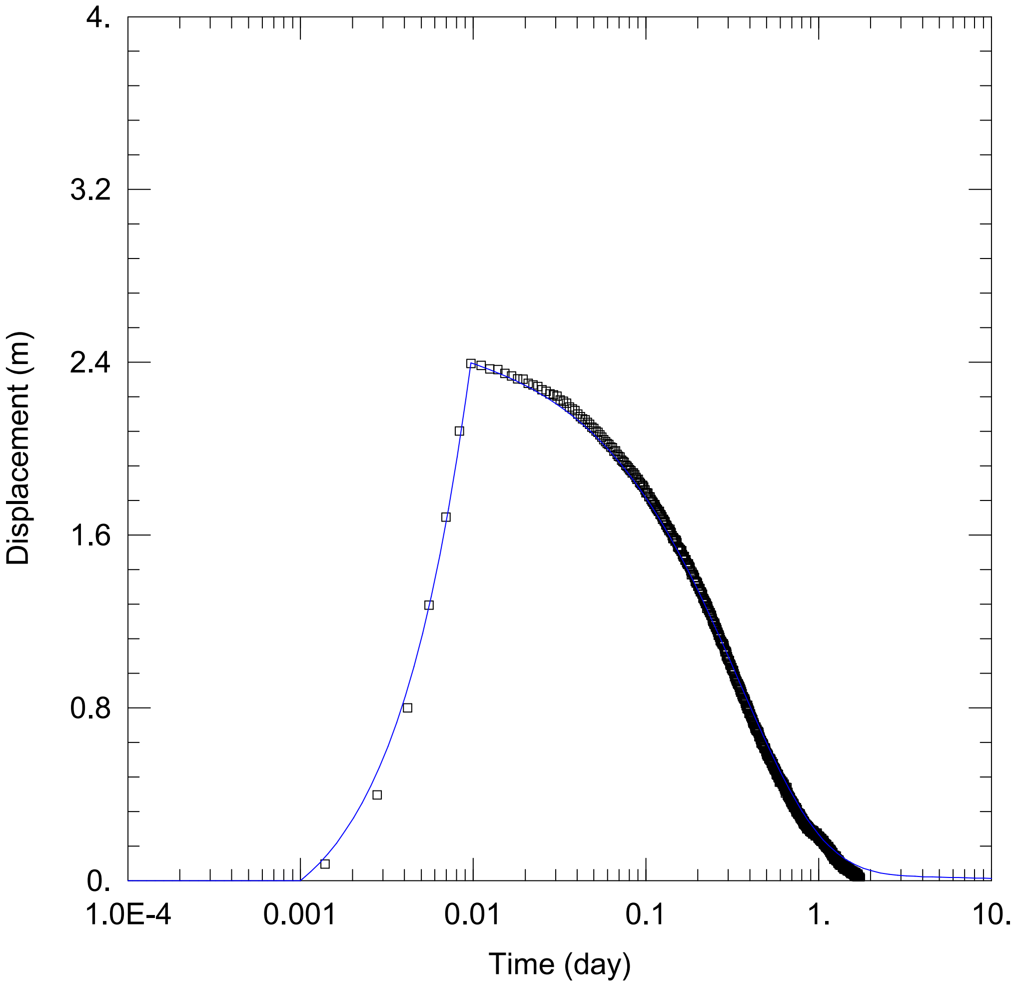
SOLUTION

Aquifer Model: Confined Solution Method: Murdoch (Trench)

Kx = 6.776 m/day Ss = 0.005032 m^{-1}
Ky/Kx = 1. Lt = 100. m

A4. Test Pit Hydraulic Test Aqtesove Outputs

A4.1. Moench ANalysis



LYTT06

Data Set: C:\...\LYTT031.aqt
Date: 12/03/18 Time: 15:01:21

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT06

AQUIFER DATA

Saturated Thickness: 4. m Anisotropy Ratio (Kz/Kr): 0.007505

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
LYTT31	0	0

Observation Wells

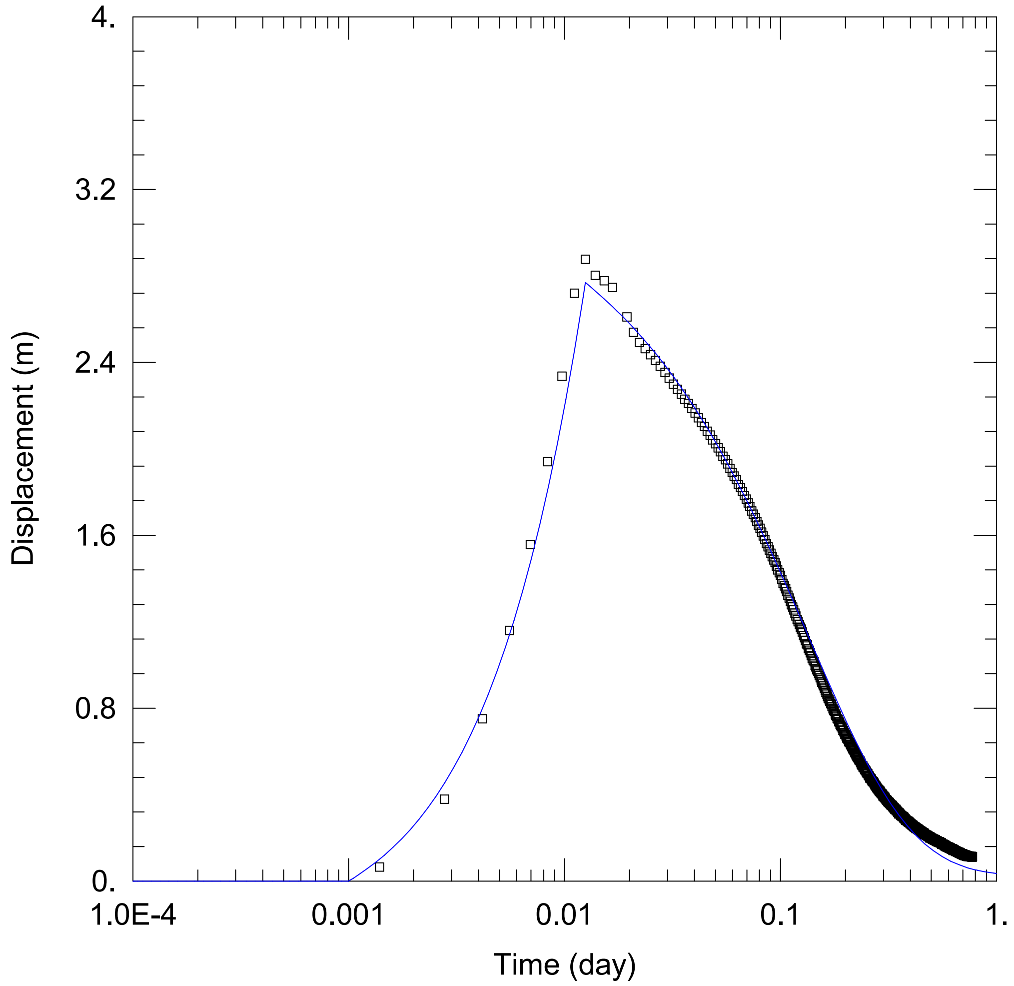
Well Name	X (m)	Y (m)
□ LYTT31	0	0

SOLUTION

Aquifer Model: Unconfined
Solution Method: Moench

T = 5.768 m^2/day
Sy = 0.07477
Sw = -0.375
r(c) = 1.112 m

S = 0.00302
ß = 0.0001443
r(w) = 0.5546 m
alpha = 1.0E+30 day^{-1}



LYTT06

Data Set: C:\...\LYTT030.aqt
Date: 12/03/18 Time: 14:51:31

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT06

AQUIFER DATA

Saturated Thickness: 4. m Anisotropy Ratio (Kz/Kr): 0.007505

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
LYTT30	0	0

Observation Wells

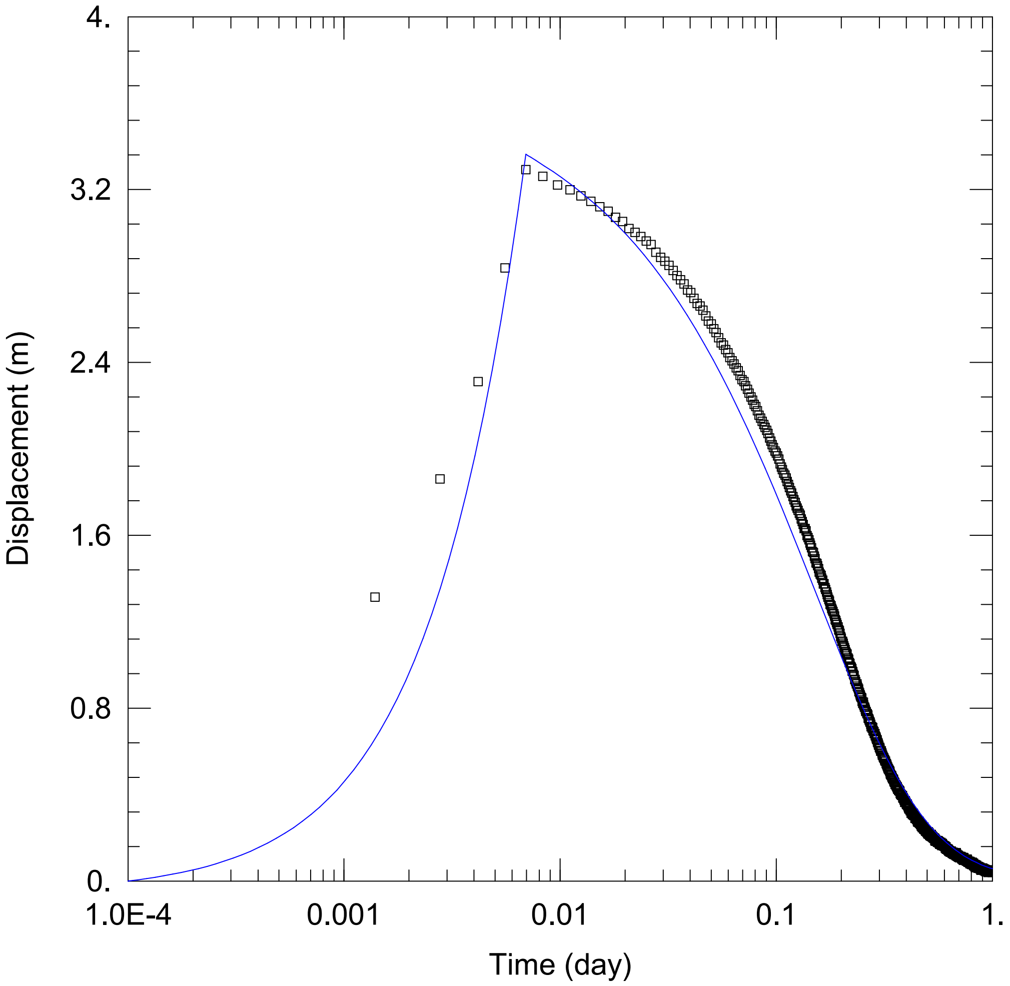
Well Name	X (m)	Y (m)
□ LYTT30	0	0

SOLUTION

Aquifer Model: Unconfined Solution Method: Moench

T = 16.64 m^2/day
Sy = 0.07477
Sw = -0.375
r(c) = 1.164 m

S = 0.00302
ß = 0.0001443
r(w) = 0.5546 m
alpha = 1.0E+30 day^{-1}



LYTT06

Data Set: C:\...\LYTT029.aqt
Date: 12/03/18 Time: 14:37:44

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT06

AQUIFER DATA

Saturated Thickness: 4. m Anisotropy Ratio (Kz/Kr): 0.007505

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
LYTT29	0	0

Observation Wells

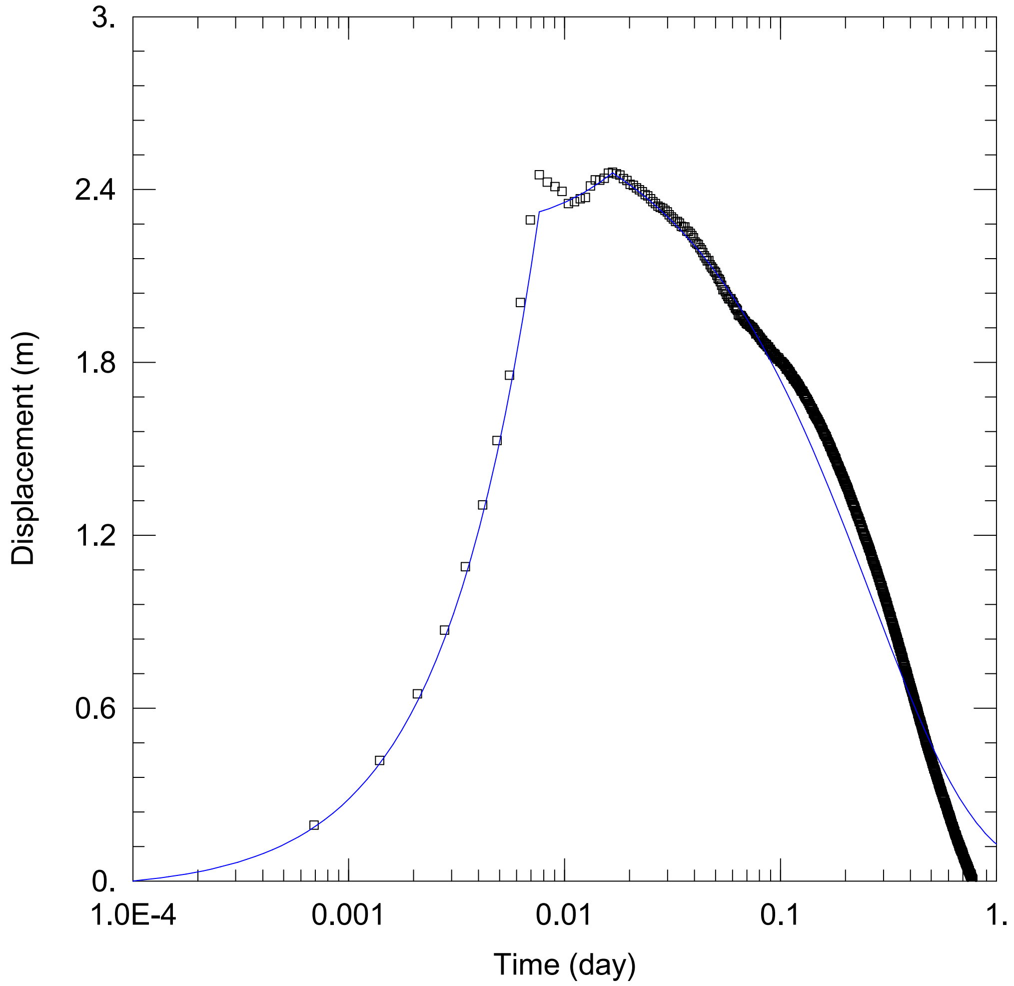
Well Name	X (m)	Y (m)
□ LYTT29	0	0

SOLUTION

Aquifer Model: Unconfined
Solution Method: Moench

T = 6.777 m^2/day
Sy = 0.07477
Sw = -0.375
r(c) = 0.8242 m

S = 0.00302
ß = 0.0001443
r(w) = 0.5546 m
alpha = 1.0E+30 day^{-1}



LYTT06

Data Set: C:\...\LYTT028.aqt
Date: 12/03/18 Time: 14:24:05

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT06

AQUIFER DATA

Saturated Thickness: 4. m Anisotropy Ratio (Kz/Kr): 0.007505

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
LYTT28	0	0

Observation Wells

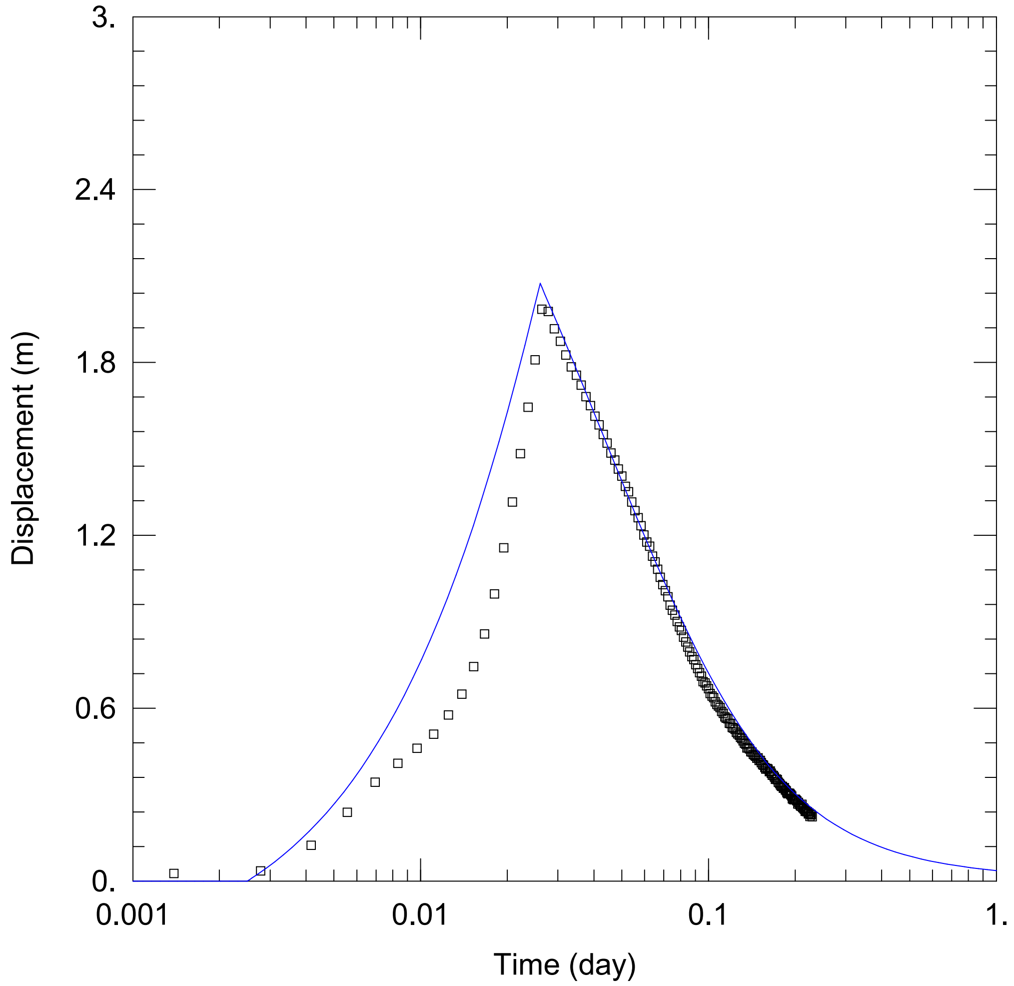
Well Name	X (m)	Y (m)
□ LYTT28	0	0

SOLUTION

Aquifer Model: Unconfined Solution Method: Moench

T = 6.777 m^2/day
Sy = 0.07477
Sw = -0.375
r(c) = 1.05 m

S = 0.00302
ß = 0.0001443
r(w) = 0.5546 m
alpha = 1.0E+30 day^{-1}



LYTT06

Data Set: C:\...\LYTT06.aqt
Date: 12/02/18 Time: 12:38:10

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT06

AQUIFER DATA

Saturated Thickness: 1. m Anisotropy Ratio (Kz/Kr): 0.009233

WELL DATA

Pumping Wells

Well Name	X (m)	Y (m)
LYTT06	0	0

Observation Wells

Well Name	X (m)	Y (m)
□ LYTT06	0	0

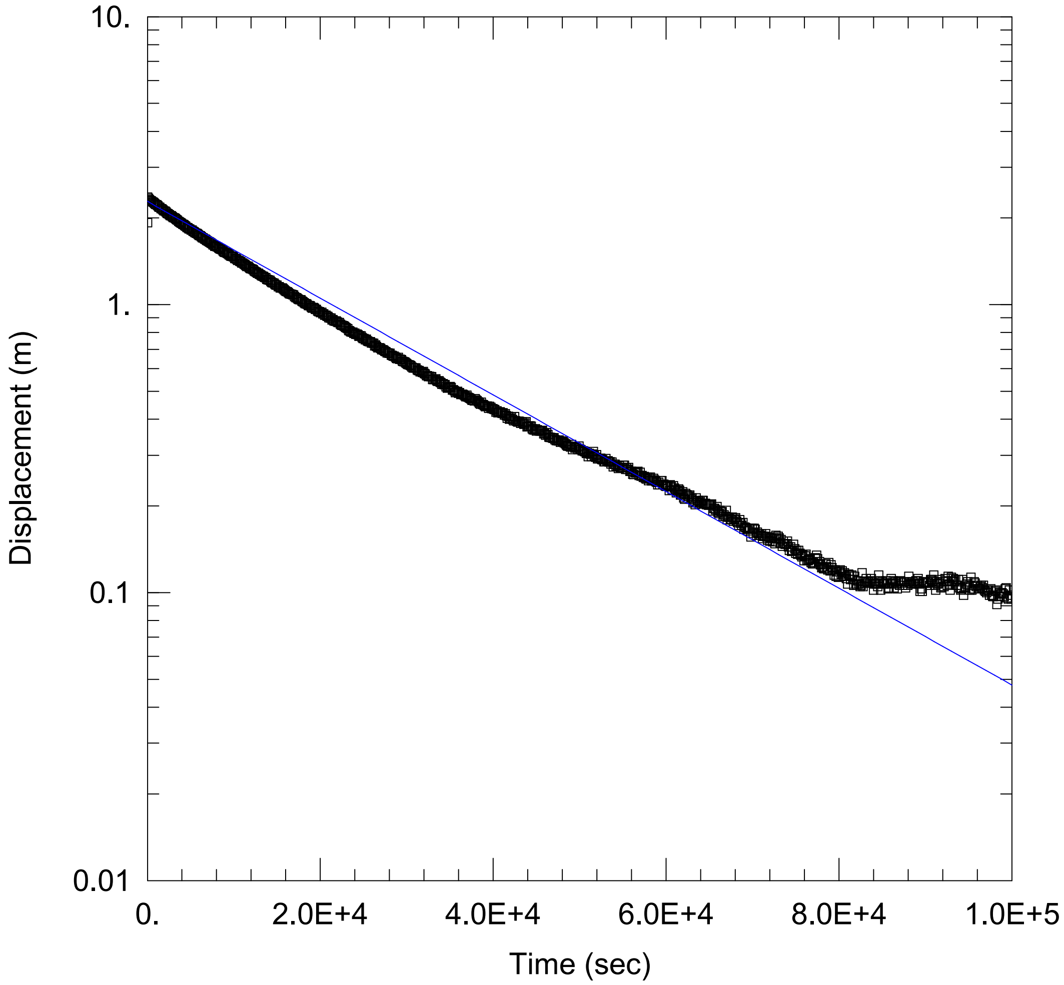
SOLUTION

Aquifer Model: Unconfined Solution Method: Moench

T = 69.35 m^2/day
Sy = 0.07477
Sw = -0.375
r(c) = 1.782 m

S = 0.00302
ß = 0.002308
r(w) = 0.5 m
alpha = 1.0E+30 day^{-1}

A4.2. Hvorslev Analysis



WELL TEST ANALYSIS

Data Set: C:\...\LYTT27.aqt
Date: 12/03/18 Time: 17:15:28

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT04
Test Date: 30/4/2018

AQUIFER DATA

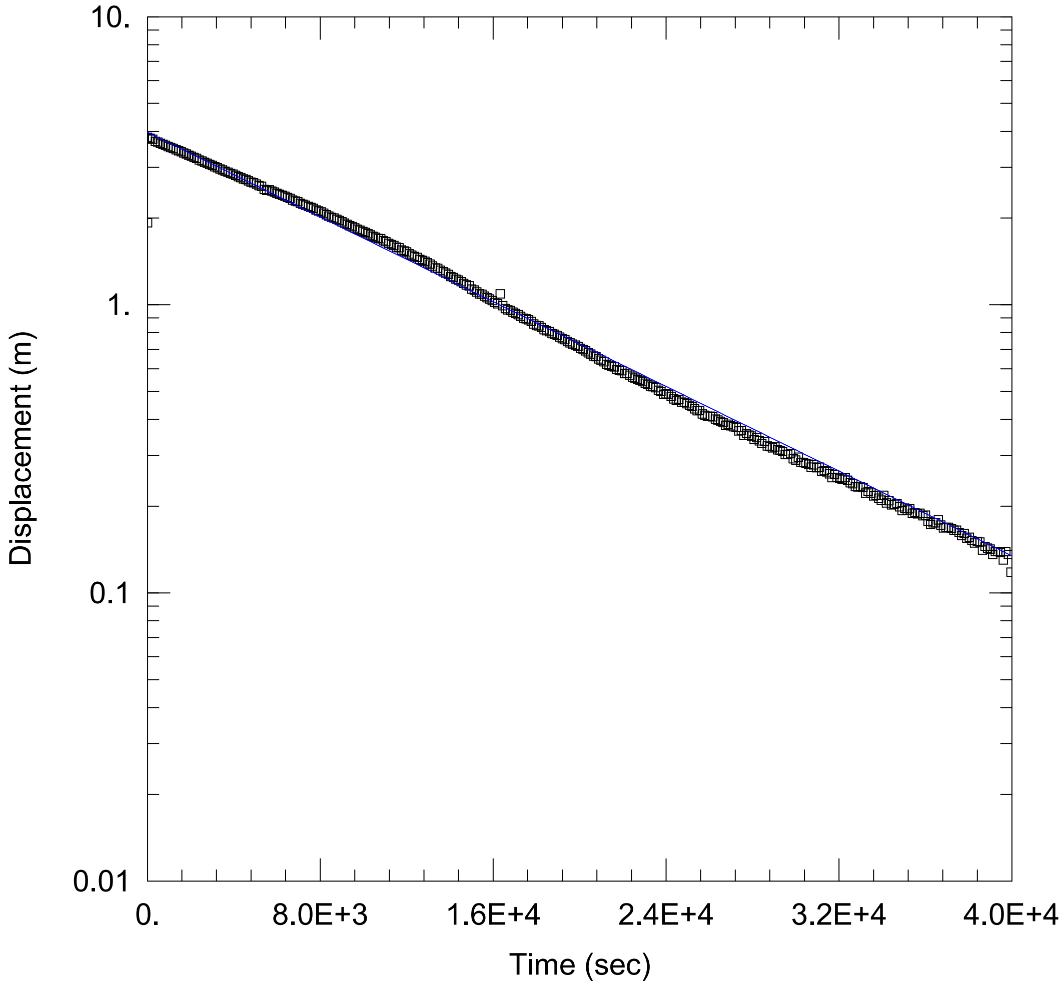
Saturated Thickness: 4. m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (LYTT027)

Initial Displacement: 1.925 m Static Water Column Height: 4. m
Total Well Penetration Depth: 4. m Screen Length: 4. m
Casing Radius: 1.05 m Well Radius: 1.05 m

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev
K = 2.44 m/day y0 = 2.284 m



WELL TEST ANALYSIS

Data Set: C:\...\LYTT26.aqt
Date: 12/03/18 Time: 17:14:49

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT04
Test Date: 30/4/2018

AQUIFER DATA

Saturated Thickness: 4. m
Anisotropy Ratio (Kz/Kr): 1.

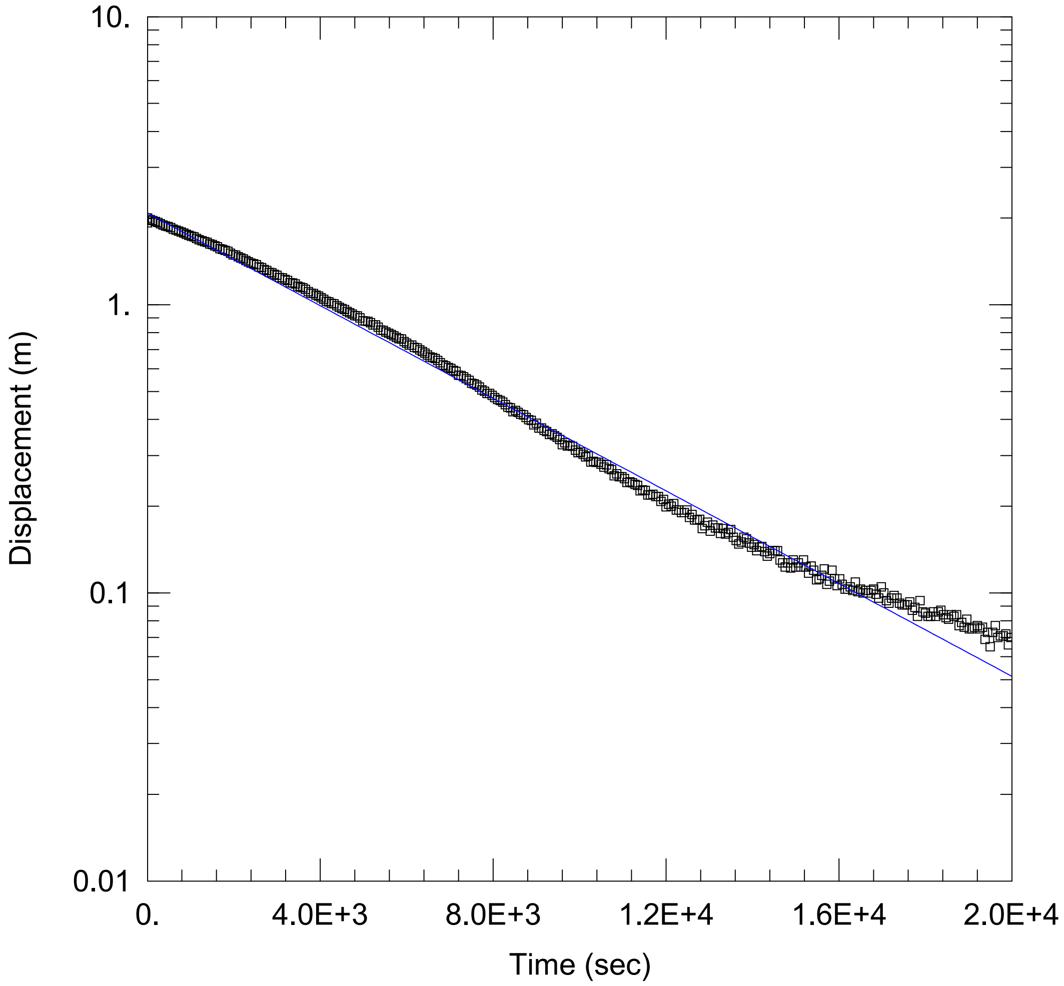
WELL DATA (LYTT026)

Initial Displacement: 1.925 m
Static Water Column Height: 4. m
Total Well Penetration Depth: 4. m
Screen Length: 4. m
Casing Radius: 1.05 m
Well Radius: 1.05 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Hvorslev

K = 5.338 m/day
y0 = 3.97 m



WELL TEST ANALYSIS

Data Set: C:\...\LYTT25.aqt
Date: 12/03/18 Time: 17:14:09

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT04
Test Date: 30/4/2018

AQUIFER DATA

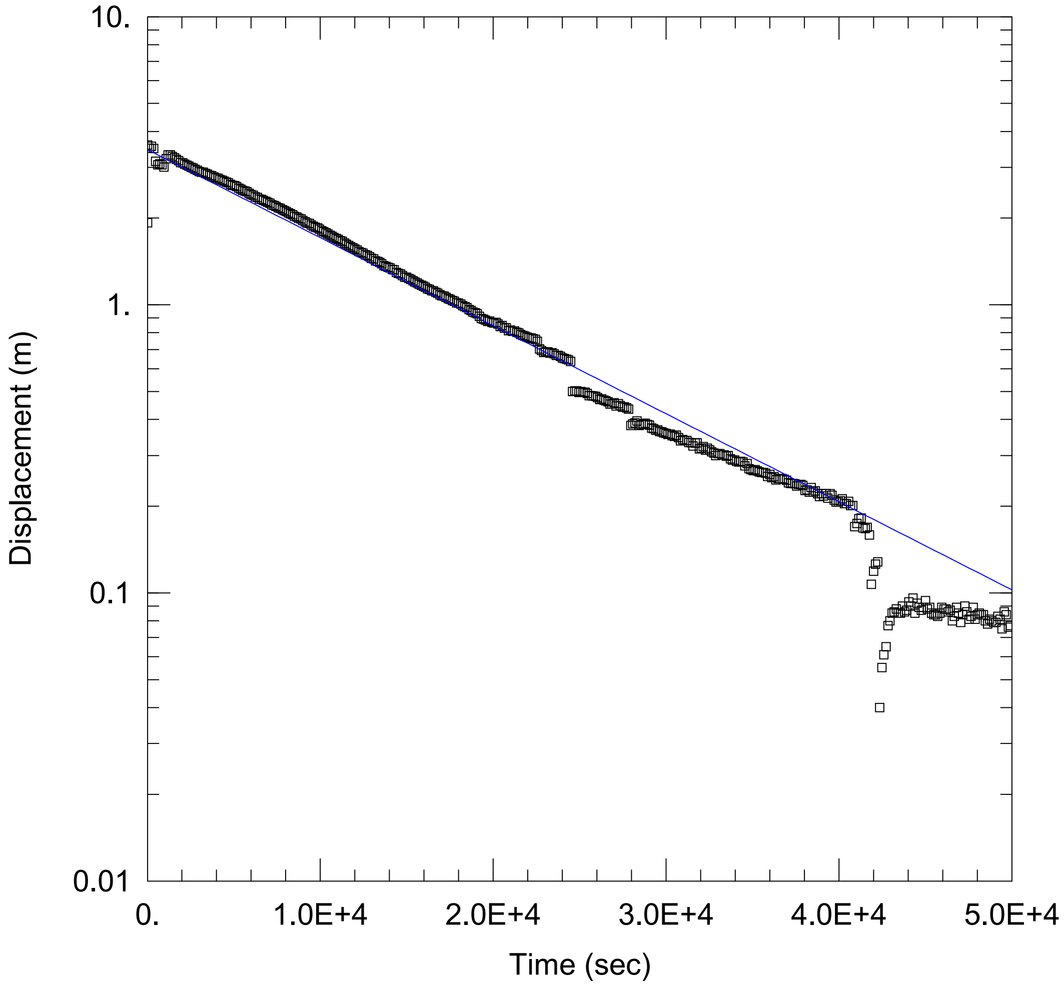
Saturated Thickness: 4. m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (LYTT025)

Initial Displacement: 1.925 m Static Water Column Height: 4. m
Total Well Penetration Depth: 4. m Screen Length: 4. m
Casing Radius: 1.05 m Well Radius: 1.05 m

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev
K = 11.68 m/day y0 = 2.083 m



WELL TEST ANALYSIS

Data Set: C:\...\LYTT24.aqt
Date: 12/03/18 Time: 17:13:33

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT04
Test Date: 30/4/2018

AQUIFER DATA

Saturated Thickness: 4. m Anisotropy Ratio (Kz/Kr): 1.

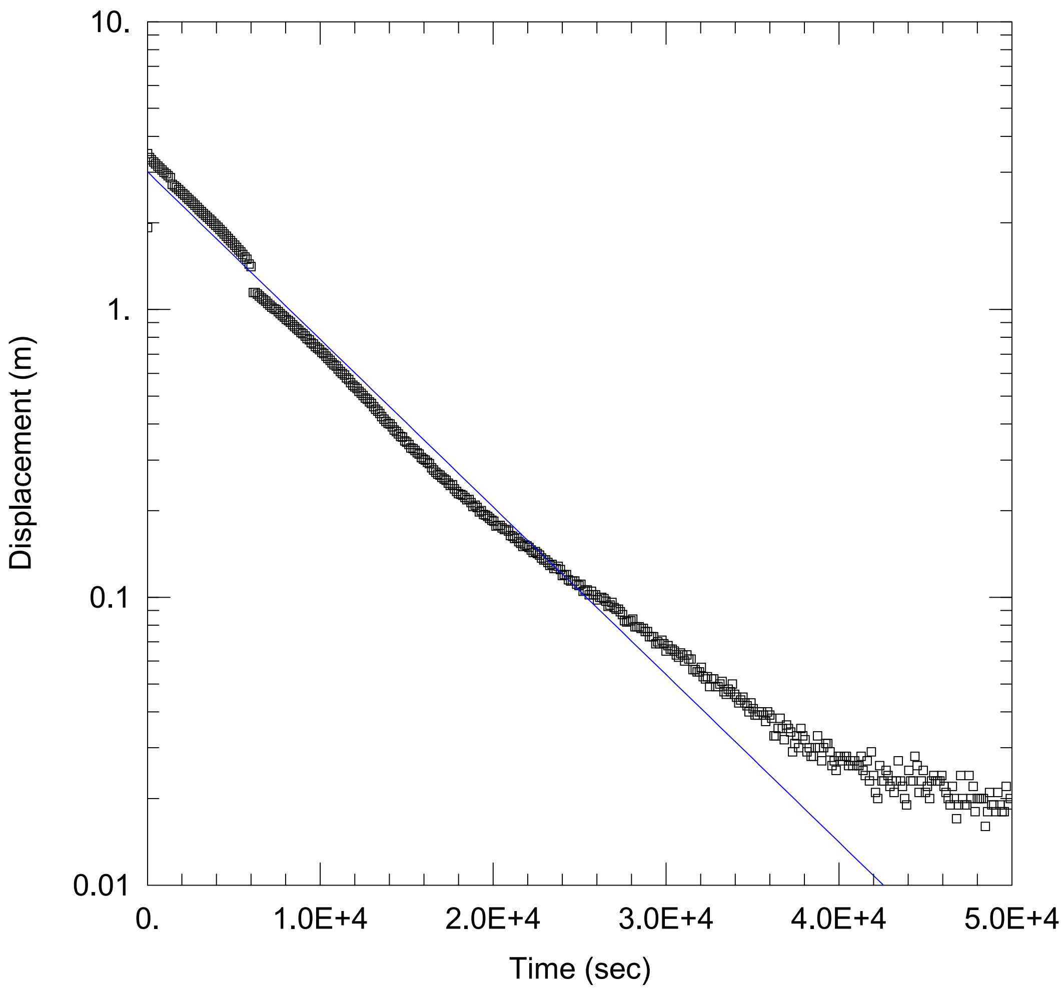
WELL DATA (LYTT024)

Initial Displacement: 1.925 m Static Water Column Height: 4. m
Total Well Penetration Depth: 4. m Screen Length: 4. m
Casing Radius: 1.05 m Well Radius: 1.05 m

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev

K = 4.44 m/day y0 = 3.458 m



WELL TEST ANALYSIS

Data Set: C:\...\LYTT23.aqt
Date: 12/03/18 Time: 17:12:51

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT04
Test Date: 30/4/2018

AQUIFER DATA

Saturated Thickness: 4. m
Anisotropy Ratio (Kz/Kr): 1.

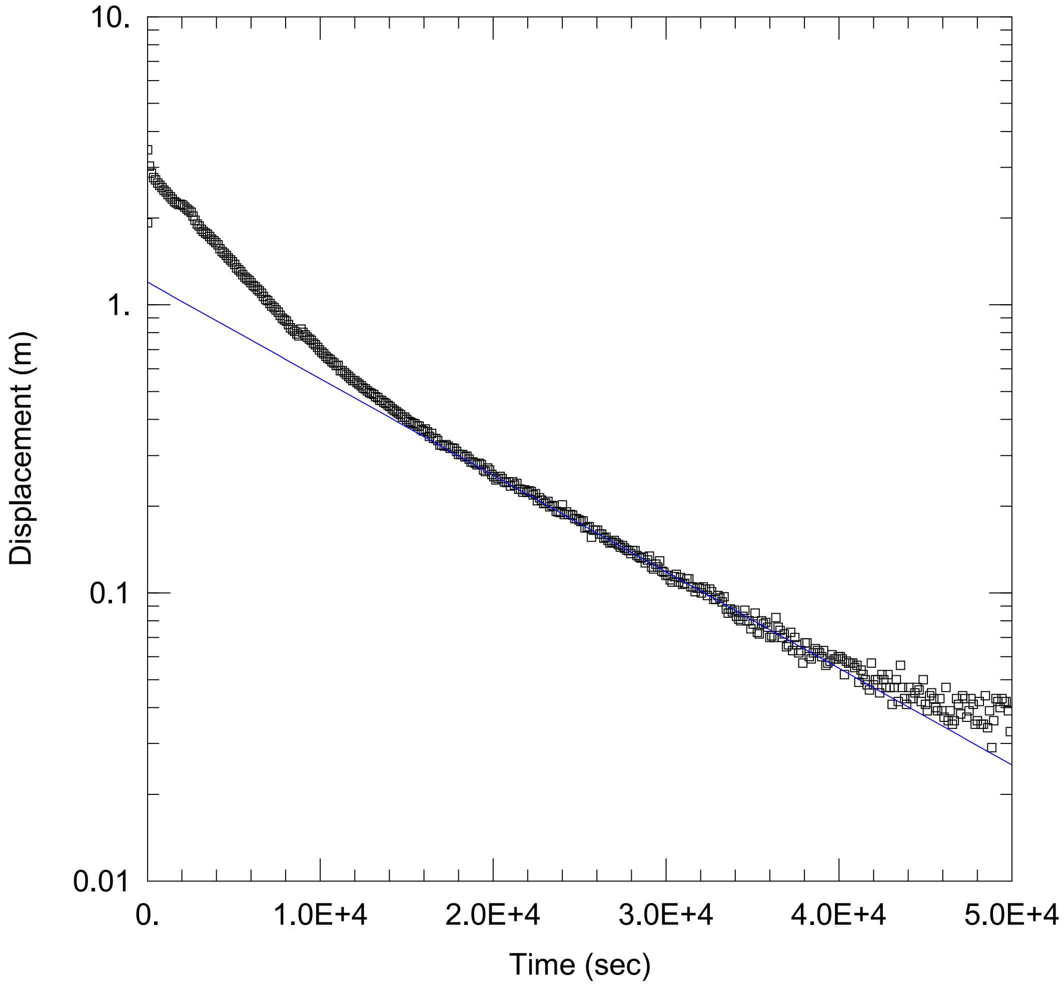
WELL DATA (LYTT023)

Initial Displacement: 1.925 m
Static Water Column Height: 4. m
Total Well Penetration Depth: 4. m
Screen Length: 4. m
Casing Radius: 1.05 m
Well Radius: 1.05 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Hvorslev

K = 8.461 m/day
y0 = 3.011 m



WELL TEST ANALYSIS

Data Set: C:\...\LYTT22.aqt
Date: 12/03/18 Time: 17:12:06

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT04
Test Date: 30/4/2018

AQUIFER DATA

Saturated Thickness: 4. m
Anisotropy Ratio (Kz/Kr): 1.

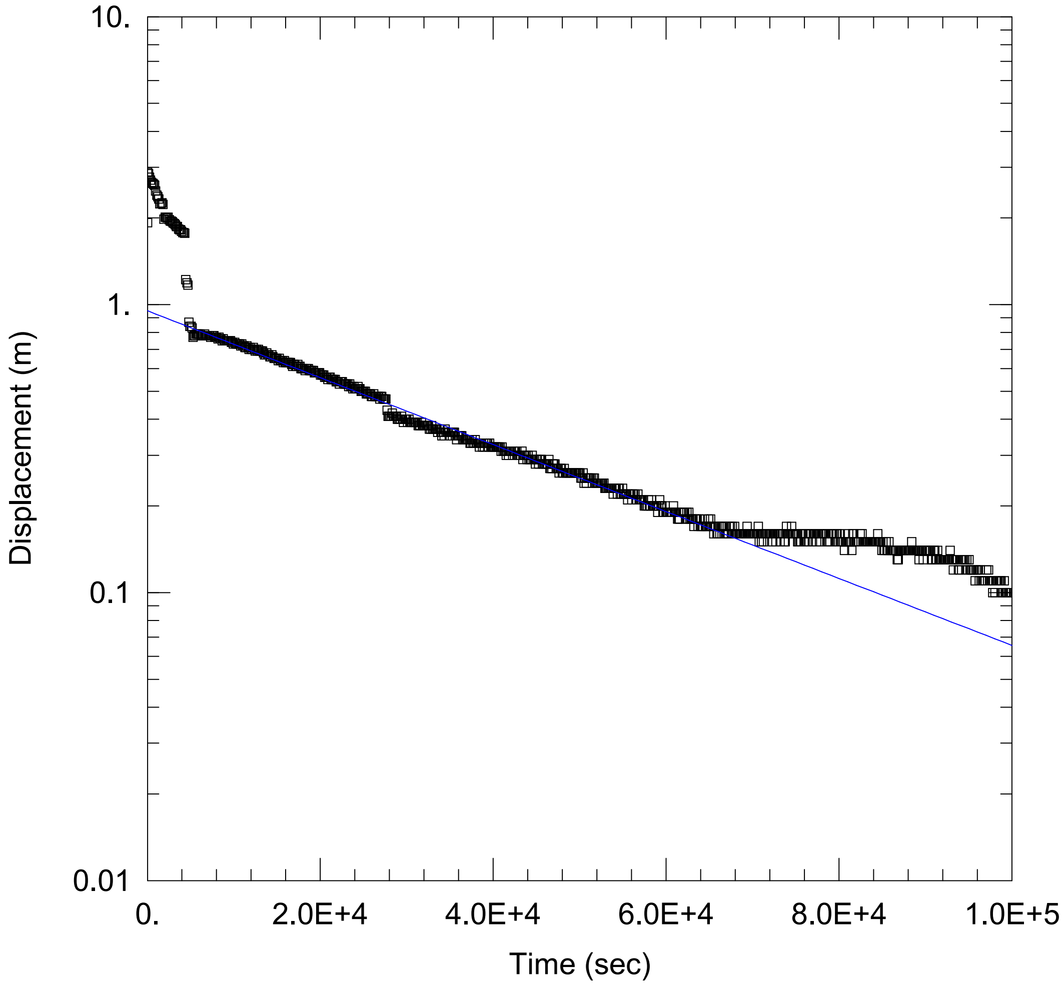
WELL DATA (LYTT022)

Initial Displacement: 1.925 m
Total Well Penetration Depth: 4. m
Casing Radius: 1.05 m
Static Water Column Height: 4. m
Screen Length: 4. m
Well Radius: 1.05 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Hvorslev

K = 4.869 m/day
y0 = 1.199 m



WELL TEST ANALYSIS

Data Set: C:\...\LYTT21.aqt
Date: 12/03/18 Time: 17:11:30

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT04
Test Date: 30/4/2018

AQUIFER DATA

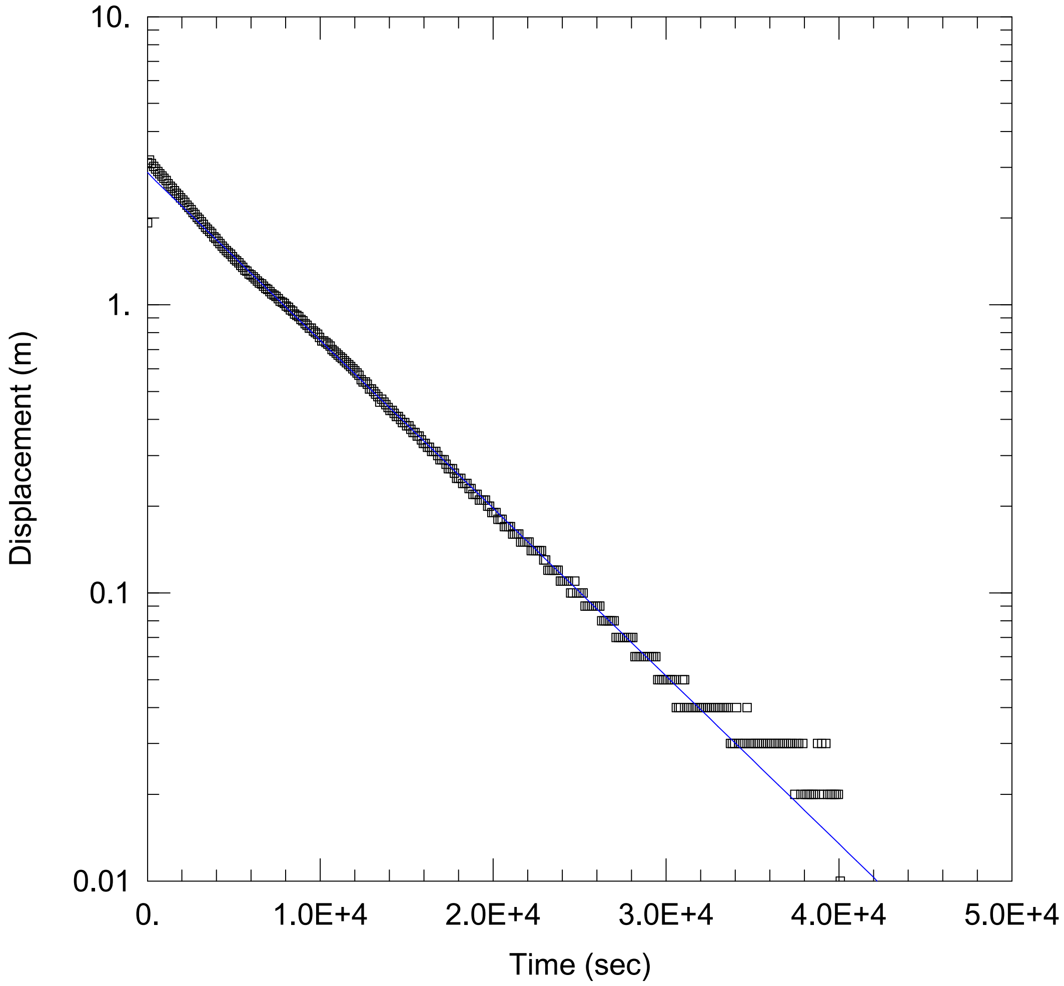
Saturated Thickness: 4. m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (LYTT021)

Initial Displacement: 1.925 m Static Water Column Height: 4. m
Total Well Penetration Depth: 4. m Screen Length: 4. m
Casing Radius: 1.05 m Well Radius: 1.05 m

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev
K = 1.688 m/day y0 = 0.9523 m



WELL TEST ANALYSIS

Data Set: C:\...\LYTT20.aqt
Date: 12/03/18 Time: 17:10:34

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT04
Test Date: 30/4/2018

AQUIFER DATA

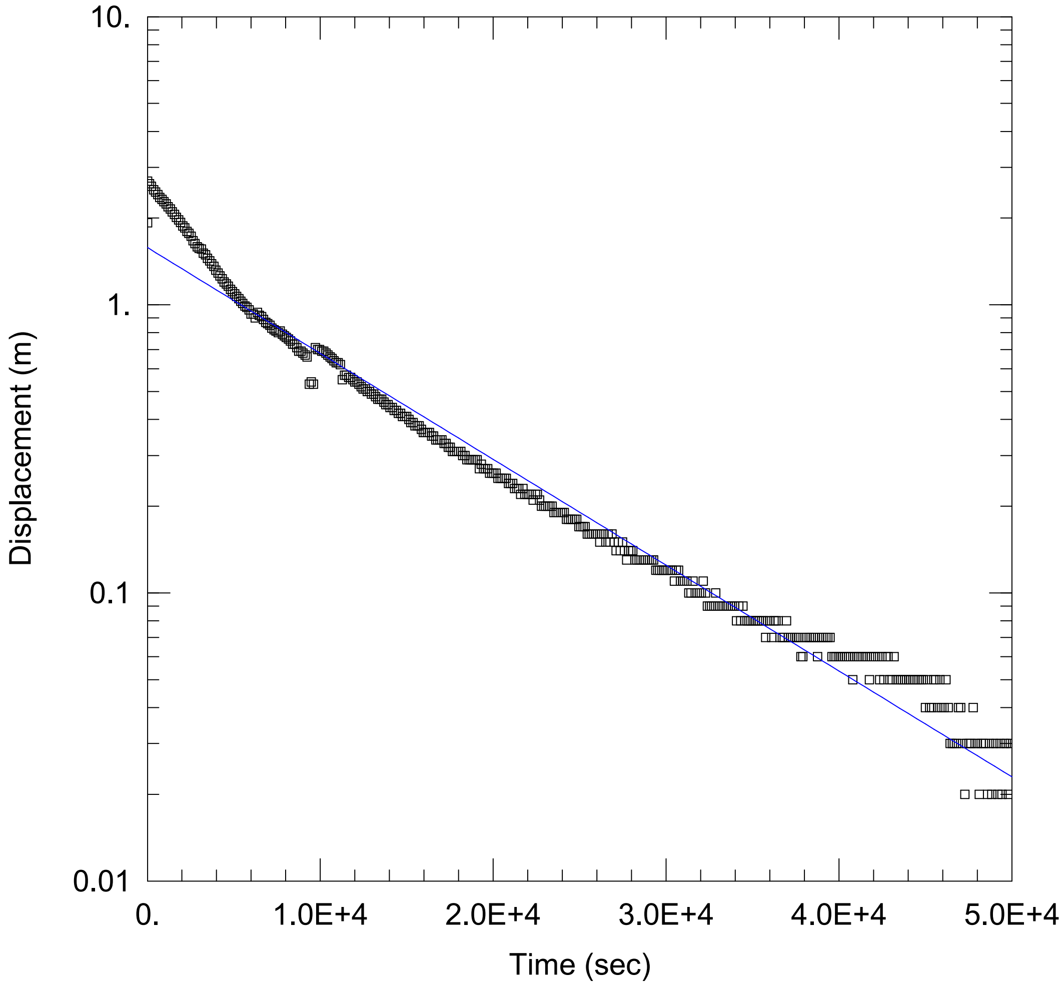
Saturated Thickness: 4. m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (LYTT020)

Initial Displacement: 1.925 m Static Water Column Height: 4. m
Total Well Penetration Depth: 4. m Screen Length: 4. m
Casing Radius: 1.05 m Well Radius: 1.05 m

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev
K = 8.461 m/day y0 = 2.876 m



WELL TEST ANALYSIS

Data Set: C:\...\LYTT19.aqt
Date: 12/03/18 Time: 17:09:57

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT04
Test Date: 30/4/2018

AQUIFER DATA

Saturated Thickness: 4. m Anisotropy Ratio (Kz/Kr): 1.

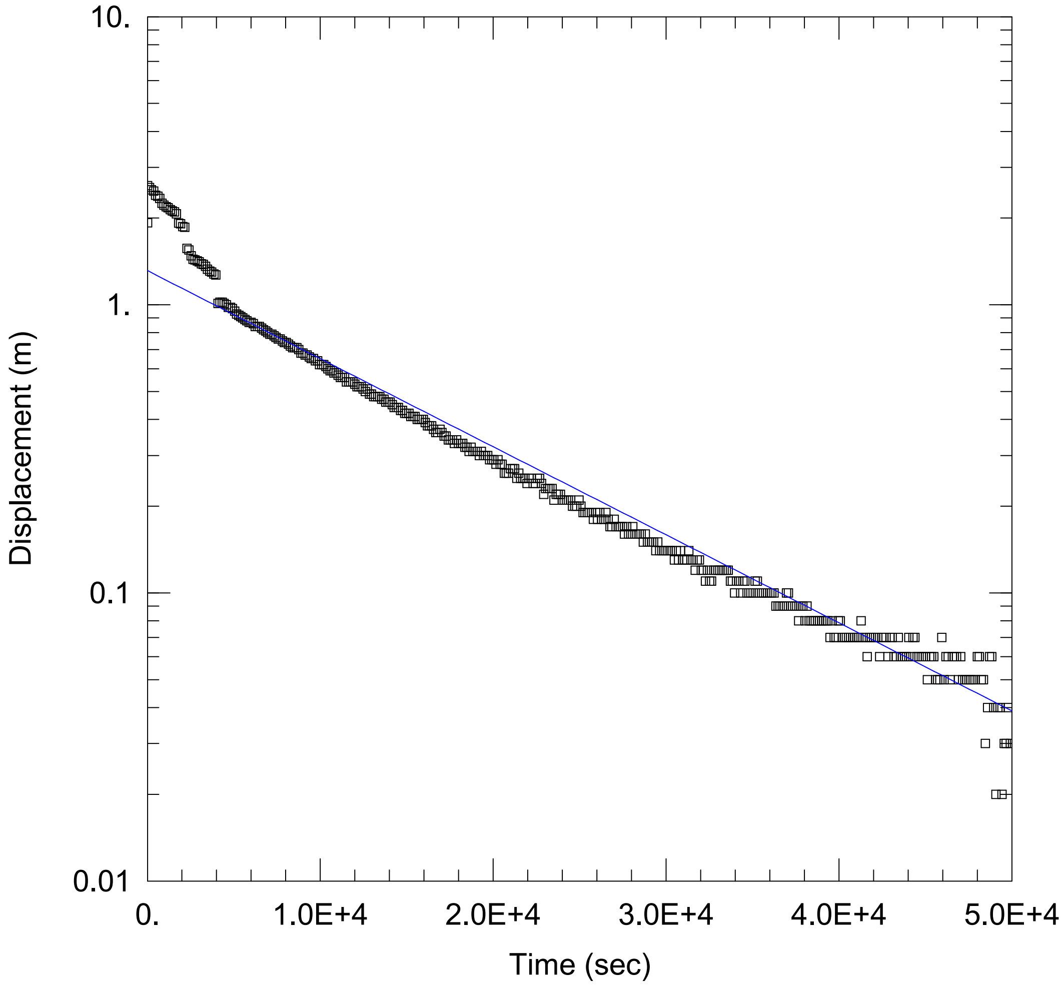
WELL DATA (LYTT019)

Initial Displacement: 1.925 m Static Water Column Height: 4. m
Total Well Penetration Depth: 4. m Screen Length: 4. m
Casing Radius: 1.05 m Well Radius: 1.05 m

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev

K = 5.338 m/day y0 = 1.58 m



WELL TEST ANALYSIS

Data Set: C:\...\LYTT18.aqt
Date: 12/03/18 Time: 17:09:08

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT04
Test Date: 30/4/2018

AQUIFER DATA

Saturated Thickness: 4. m Anisotropy Ratio (Kz/Kr): 1.

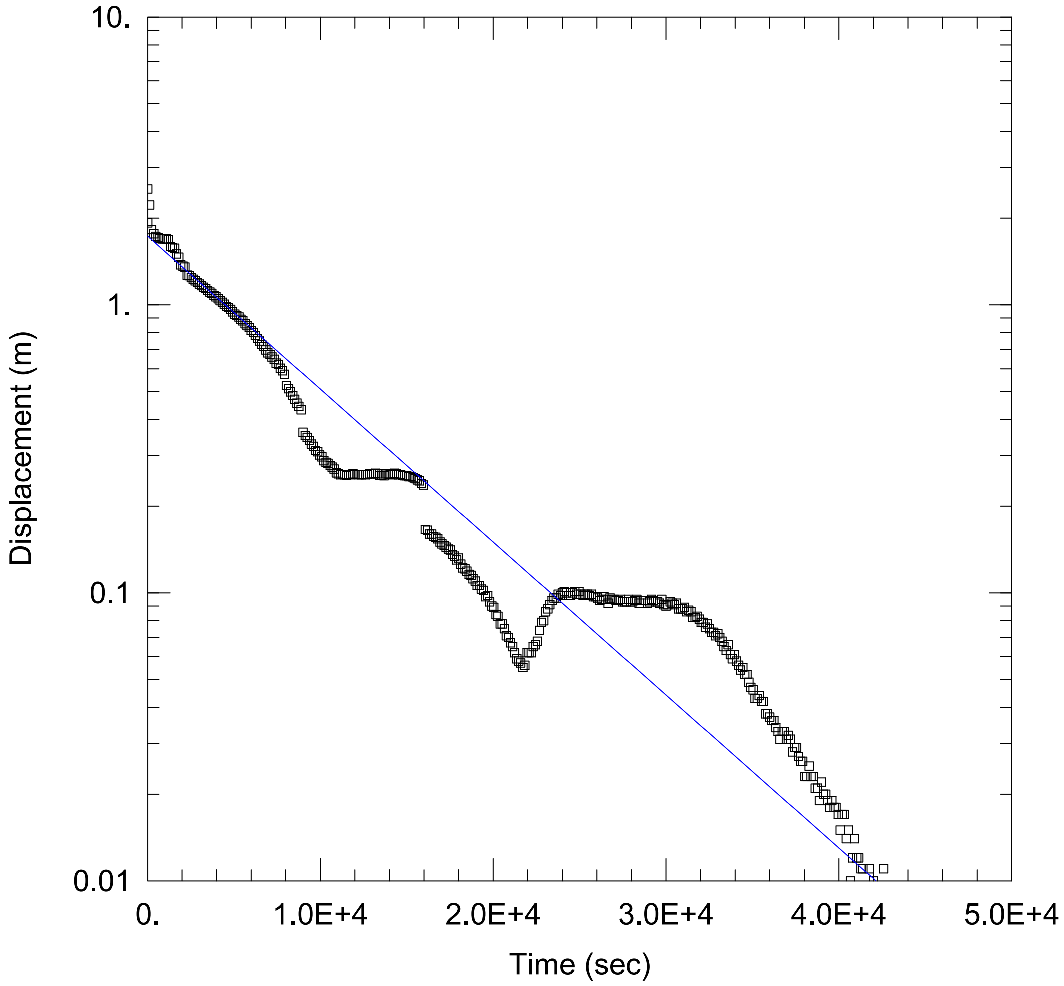
WELL DATA (LYTT018)

Initial Displacement: 1.925 m Static Water Column Height: 4. m
Total Well Penetration Depth: 4. m Screen Length: 4. m
Casing Radius: 1.05 m Well Radius: 1.05 m

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev

K = 4.44 m/day y0 = 1.315 m



WELL TEST ANALYSIS

Data Set: C:\...\LYTT17.aqt
Date: 12/03/18 Time: 17:08:31

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT04
Test Date: 30/4/2018

AQUIFER DATA

Saturated Thickness: 4. m
Anisotropy Ratio (Kz/Kr): 1.

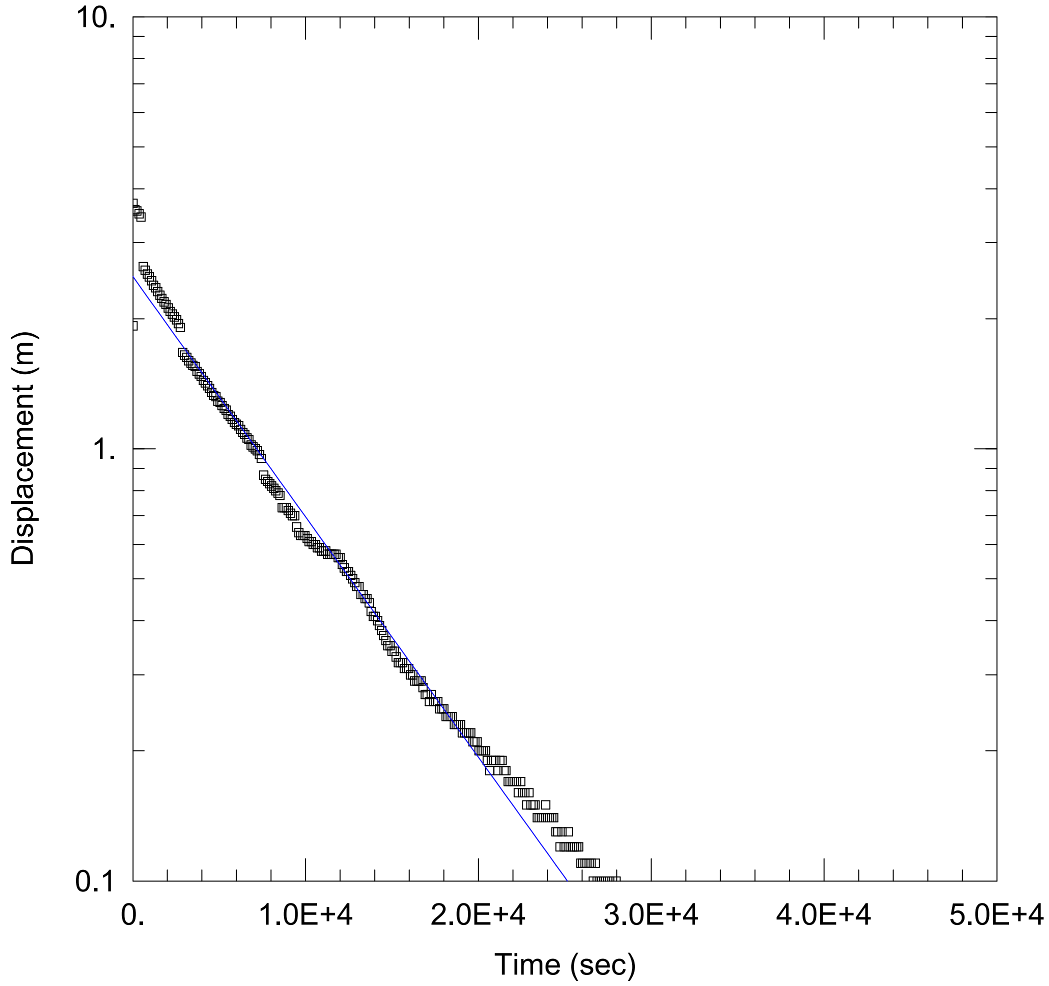
WELL DATA (LYTT017)

Initial Displacement: 1.925 m
Static Water Column Height: 4. m
Total Well Penetration Depth: 4. m
Screen Length: 4. m
Casing Radius: 1.05 m
Well Radius: 1.05 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Hvorslev

K = 7.716 m/day
y0 = 1.733 m



WELL TEST ANALYSIS

Data Set: C:\...\LYTT16.aqt
Date: 12/03/18 Time: 17:07:20

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT04
Test Date: 30/4/2018

AQUIFER DATA

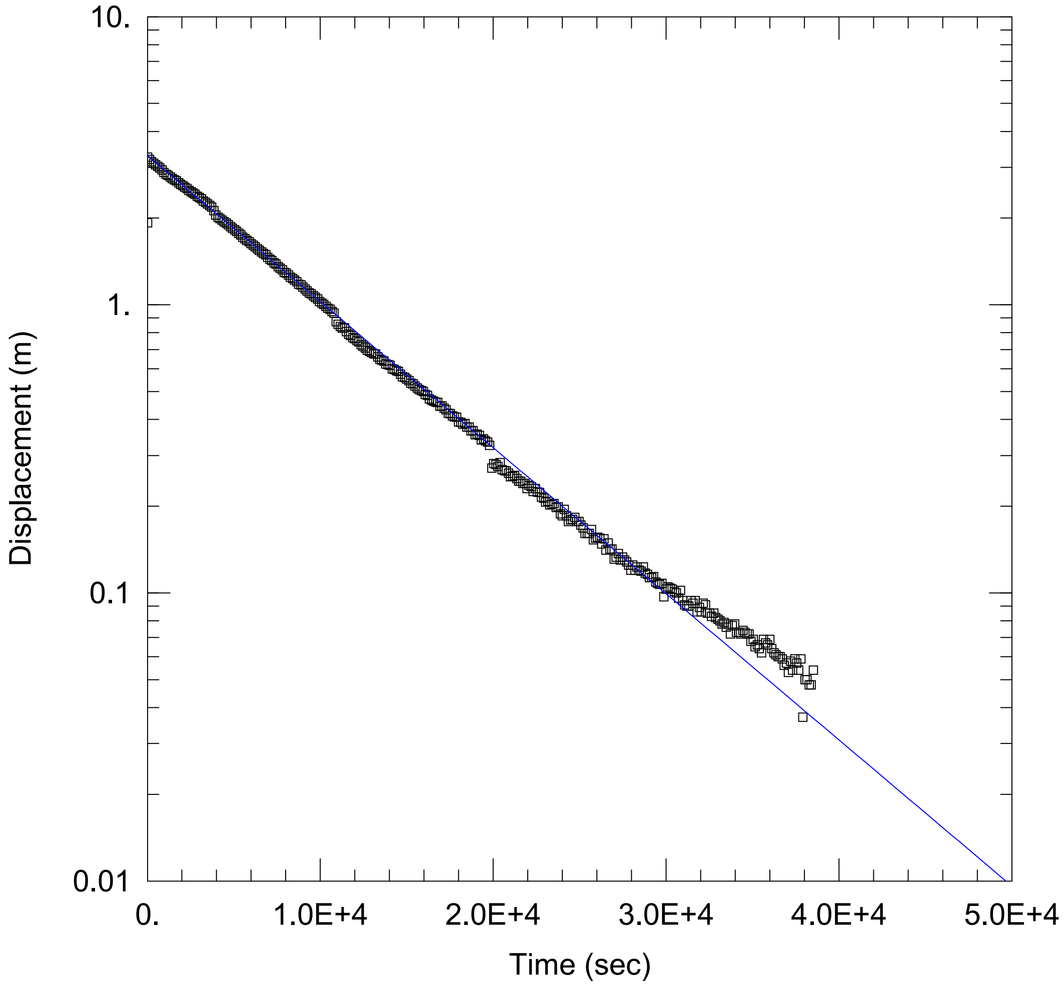
Saturated Thickness: 4. m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (LYTT016)

Initial Displacement: 1.925 m Static Water Column Height: 4. m
Total Well Penetration Depth: 4. m Screen Length: 4. m
Casing Radius: 1.05 m Well Radius: 1.05 m

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev
K = 8.08 m/day y0 = 2.505 m



WELL TEST ANALYSIS

Data Set: C:\...\LYTT15.aqt
Date: 12/03/18 Time: 17:06:41

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT04
Test Date: 30/4/2018

AQUIFER DATA

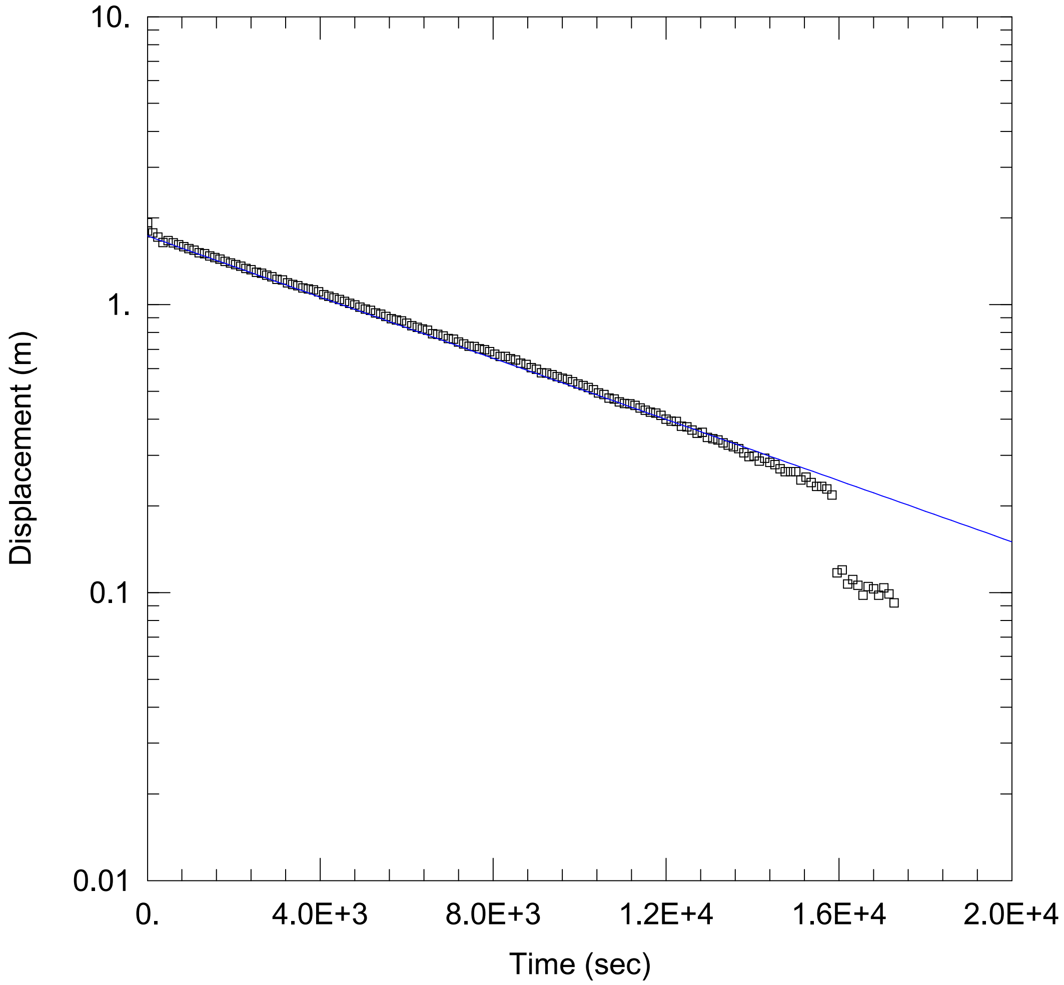
Saturated Thickness: 4. m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (LYTT015)

Initial Displacement: 1.925 m Static Water Column Height: 4. m
Total Well Penetration Depth: 4. m Screen Length: 4. m
Casing Radius: 1.05 m Well Radius: 1.05 m

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev
K = 7.369 m/day y0 = 3.302 m



WELL TEST ANALYSIS

Data Set: C:\...\LYTT14.aqt
Date: 12/03/18
Time: 17:05:32

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT04
Test Date: 30/4/2018

AQUIFER DATA

Saturated Thickness: 4. m
Anisotropy Ratio (Kz/Kr): 1.

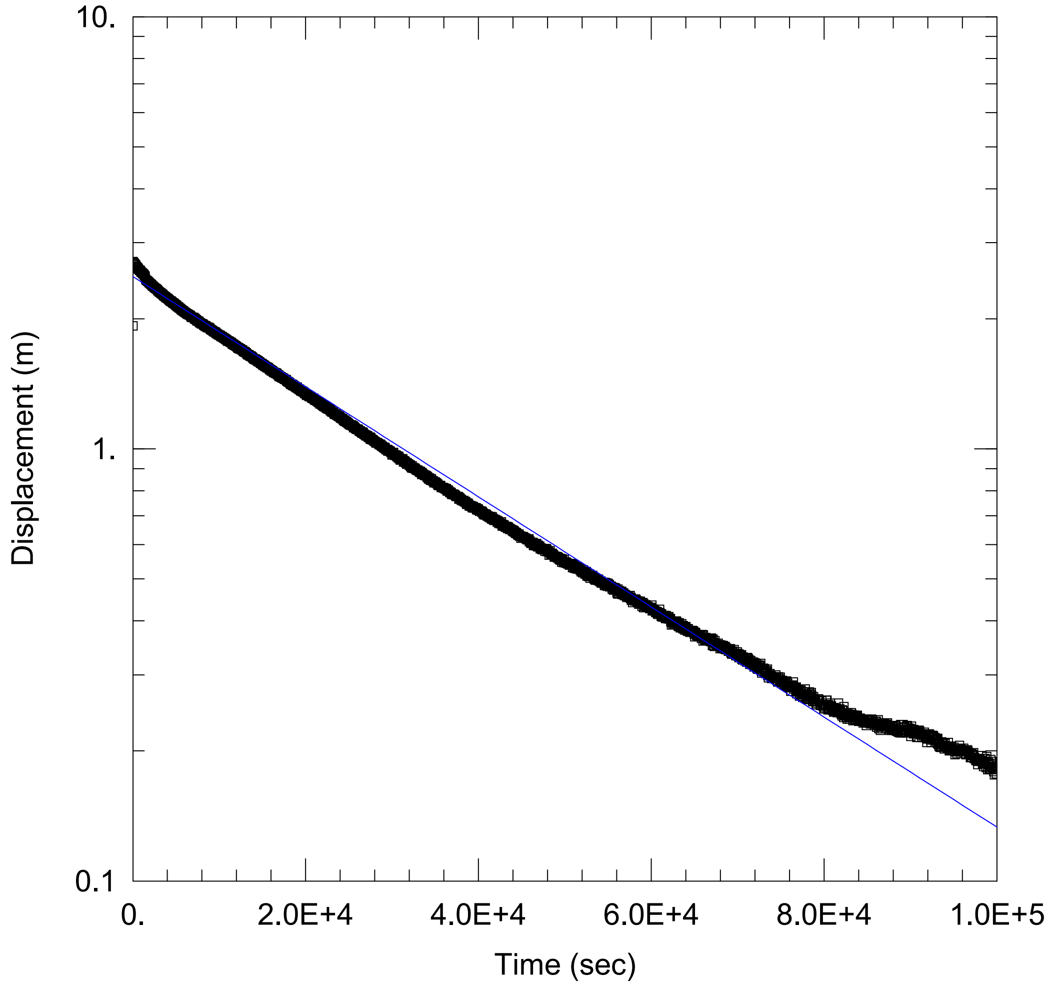
WELL DATA (LYTT014)

Initial Displacement: 1.925 m
Total Well Penetration Depth: 4. m
Casing Radius: 1.05 m
Static Water Column Height: 4. m
Screen Length: 4. m
Well Radius: 1.05 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Hvorslev

K = 7.716 m/day
y0 = 1.733 m



WELL TEST ANALYSIS

Data Set: C:\...\LYTT13.aqt
Date: 12/03/18
Time: 17:04:53

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT04
Test Date: 30/4/2018

AQUIFER DATA

Saturated Thickness: 4. m
Anisotropy Ratio (Kz/Kr): 1.

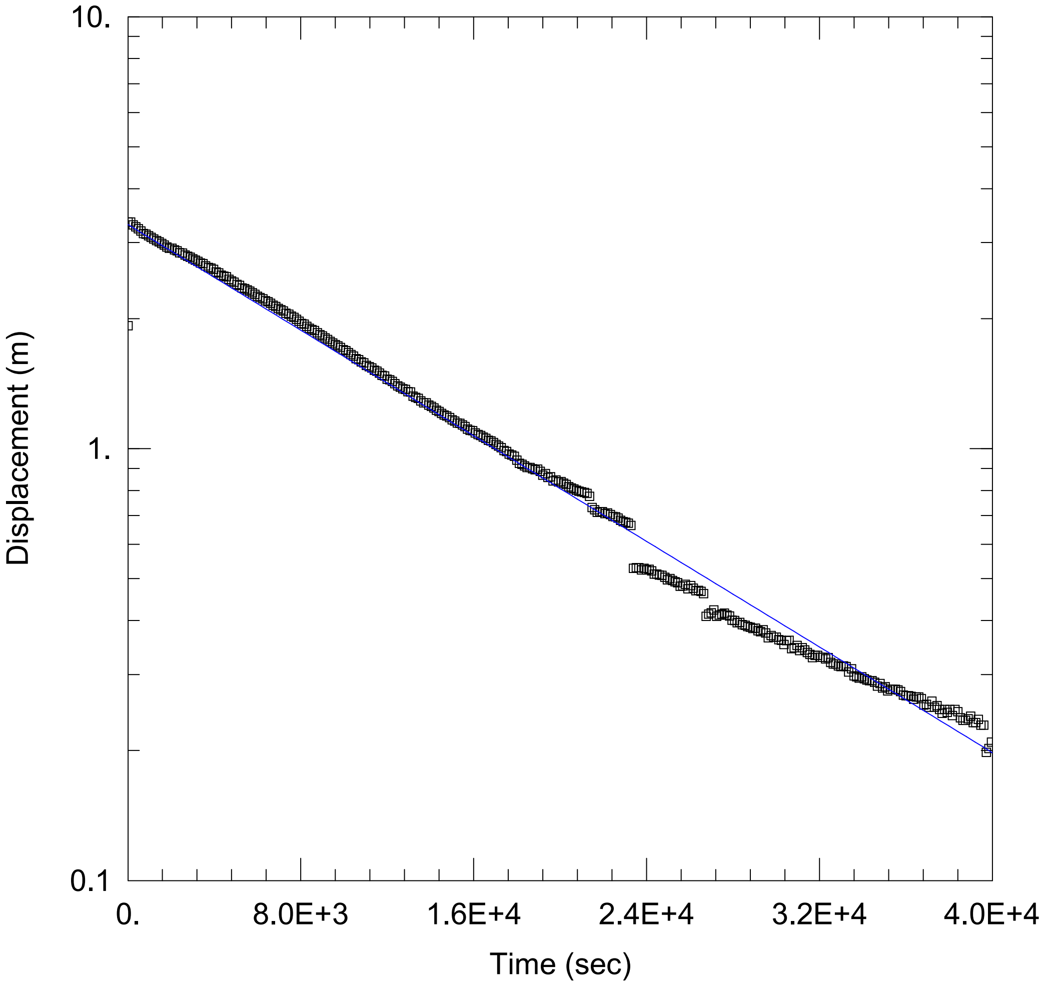
WELL DATA (LYTT013)

Initial Displacement: 1.925 m
Static Water Column Height: 4. m
Total Well Penetration Depth: 4. m
Screen Length: 4. m
Casing Radius: 1.05 m
Well Radius: 1.05 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Hvorslev

K = 1.851 m/day
y0 = 2.505 m



WELL TEST ANALYSIS

Data Set: C:\...\LYTT11.aqt
Date: 12/03/18 Time: 16:48:55

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT04
Test Date: 30/4/2018

AQUIFER DATA

Saturated Thickness: 4. m Anisotropy Ratio (Kz/Kr): 1.

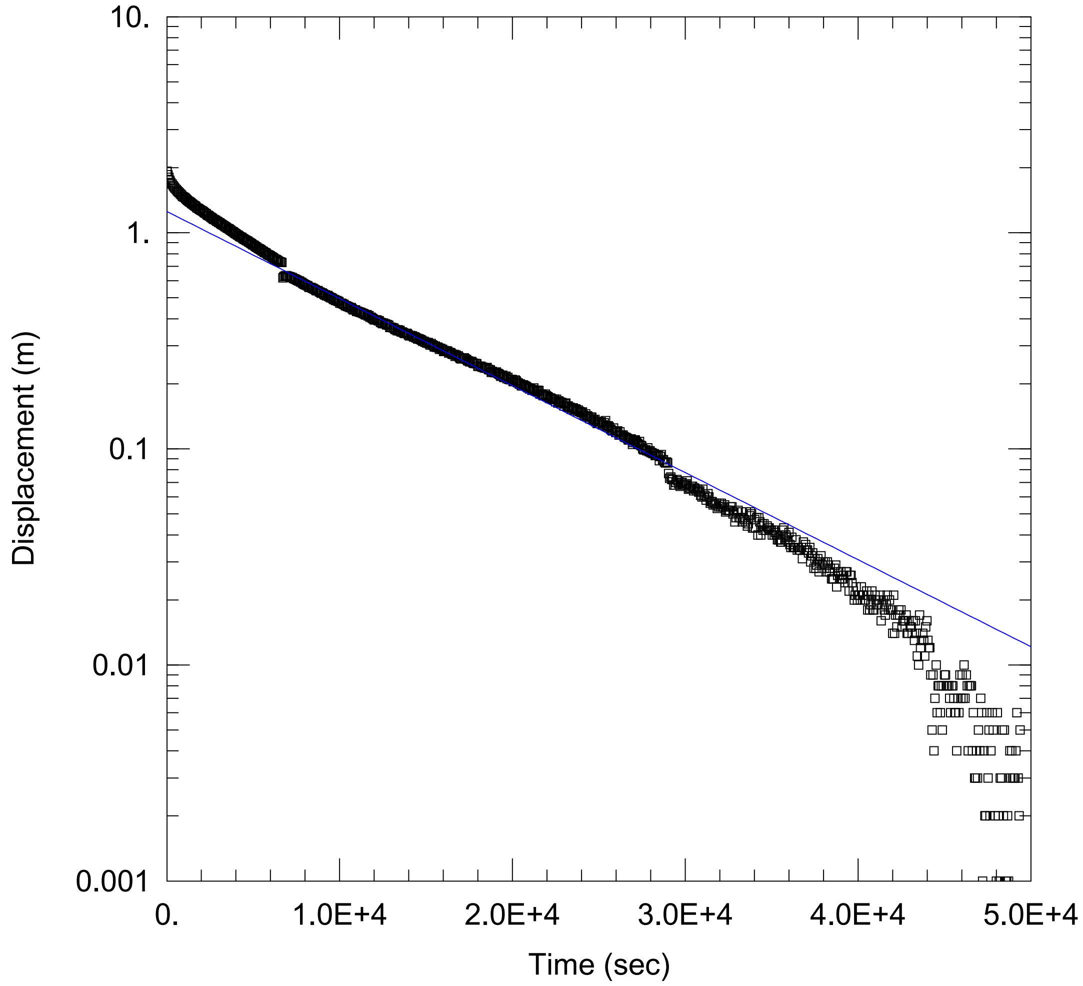
WELL DATA (LYTT011)

Initial Displacement: 1.925 m
Total Well Penetration Depth: 4. m
Casing Radius: 1.05 m
Static Water Column Height: 4. m
Screen Length: 4. m
Well Radius: 1.05 m

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev

K = 4.44 m/day y0 = 3.302 m



WELL TEST ANALYSIS

Data Set: C:\...\LYTT04.aqt
Date: 12/03/18 | Time: 16:50:00

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT04
Test Date: 30/4/2018

AQUIFER DATA

Saturated Thickness: 4. m | Anisotropy Ratio (Kz/Kr): 1.

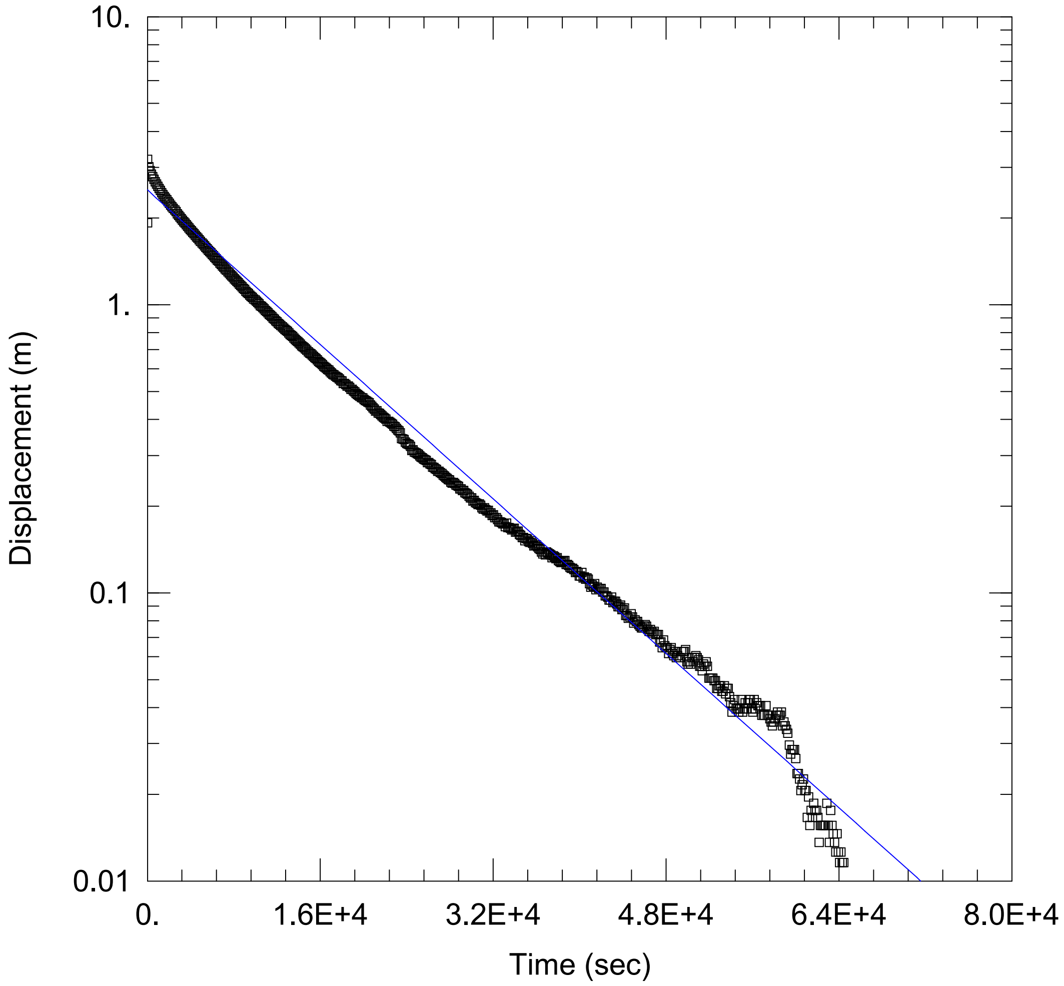
WELL DATA (LYTT04)

Initial Displacement: 1.925 m | Static Water Column Height: 4. m
Total Well Penetration Depth: 4. m | Screen Length: 4. m
Casing Radius: 1.05 m | Well Radius: 1.05 m

SOLUTION

Aquifer Model: Unconfined | Solution Method: Hvorslev

K = 5.853 m/day | y0 = 1.255 m



WELL TEST ANALYSIS

Data Set: C:\...\LYTT036.aqt
Date: 12/03/18 Time: 17:18:52

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT04
Test Date: 30/4/2018

AQUIFER DATA

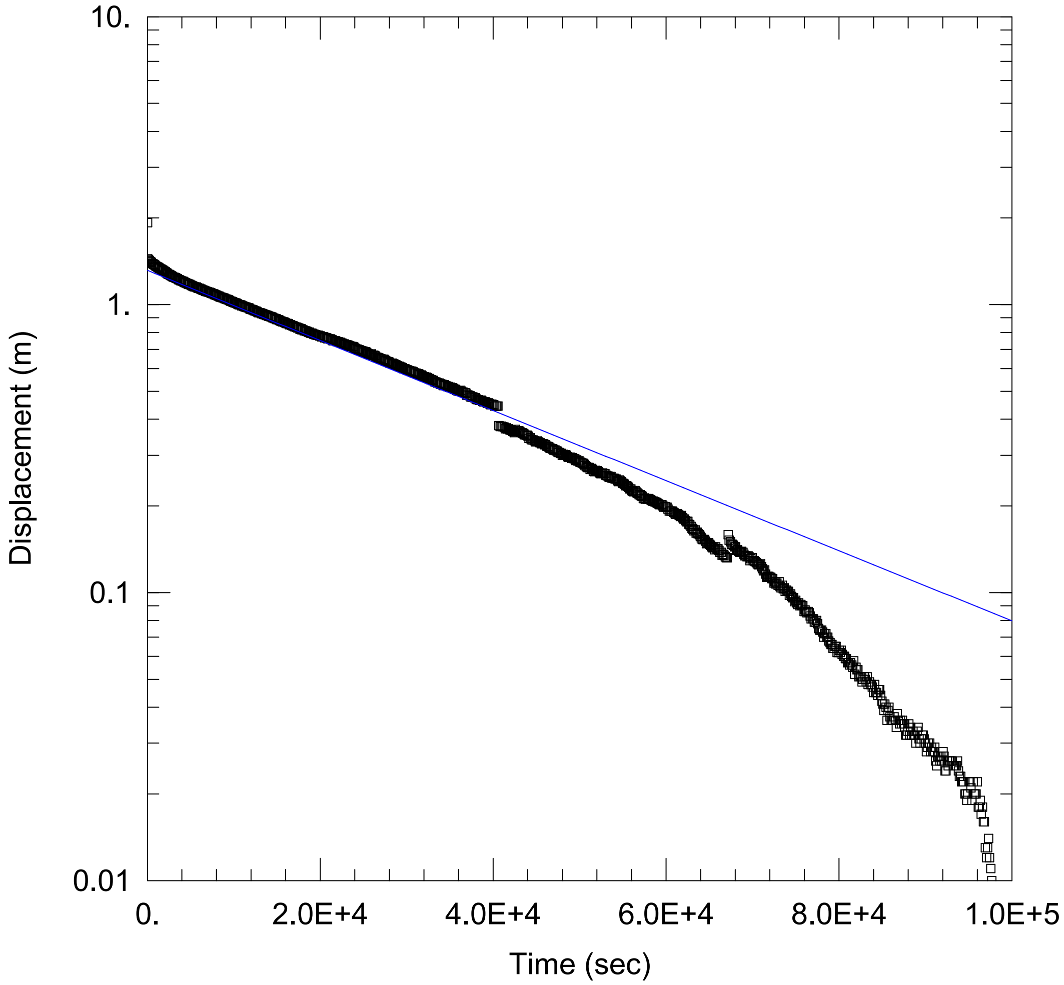
Saturated Thickness: 4. m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (LYTT036)

Initial Displacement: 1.925 m Static Water Column Height: 4. m
Total Well Penetration Depth: 4. m Screen Length: 4. m
Casing Radius: 1.05 m Well Radius: 1.05 m

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev
K = 4.869 m/day y0 = 2.505 m



WELL TEST ANALYSIS

Data Set: C:\...\LYTT035.aqt
Date: 12/03/18 Time: 17:18:11

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT04
Test Date: 30/4/2018

AQUIFER DATA

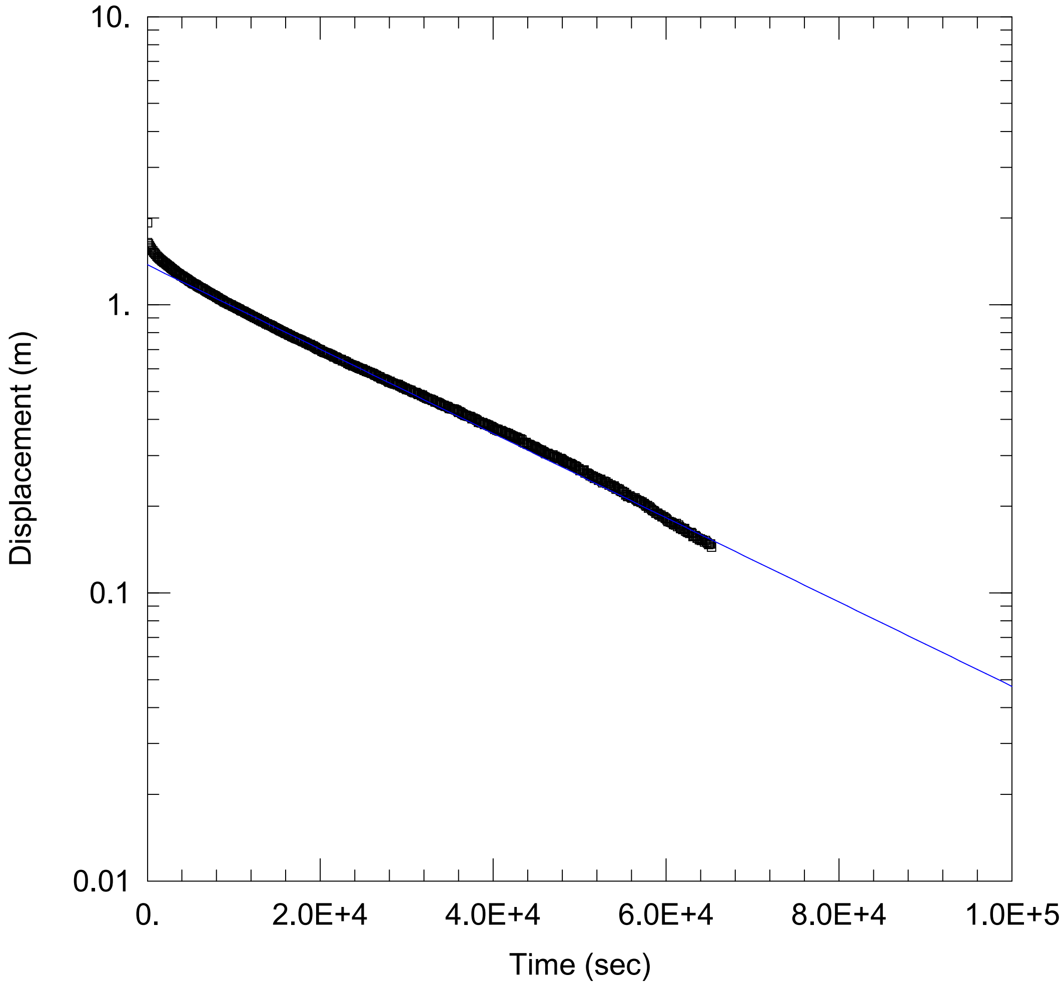
Saturated Thickness: 4. m
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (LYTT035)

Initial Displacement: 1.925 m
Static Water Column Height: 4. m
Total Well Penetration Depth: 4. m
Screen Length: 4. m
Casing Radius: 1.05 m
Well Radius: 1.05 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Hvorslev
K = 1.768 m/day
y0 = 1.315 m



WELL TEST ANALYSIS

Data Set: C:\...\LYTT034.aqt
Date: 12/03/18 Time: 17:17:05

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT04
Test Date: 30/4/2018

AQUIFER DATA

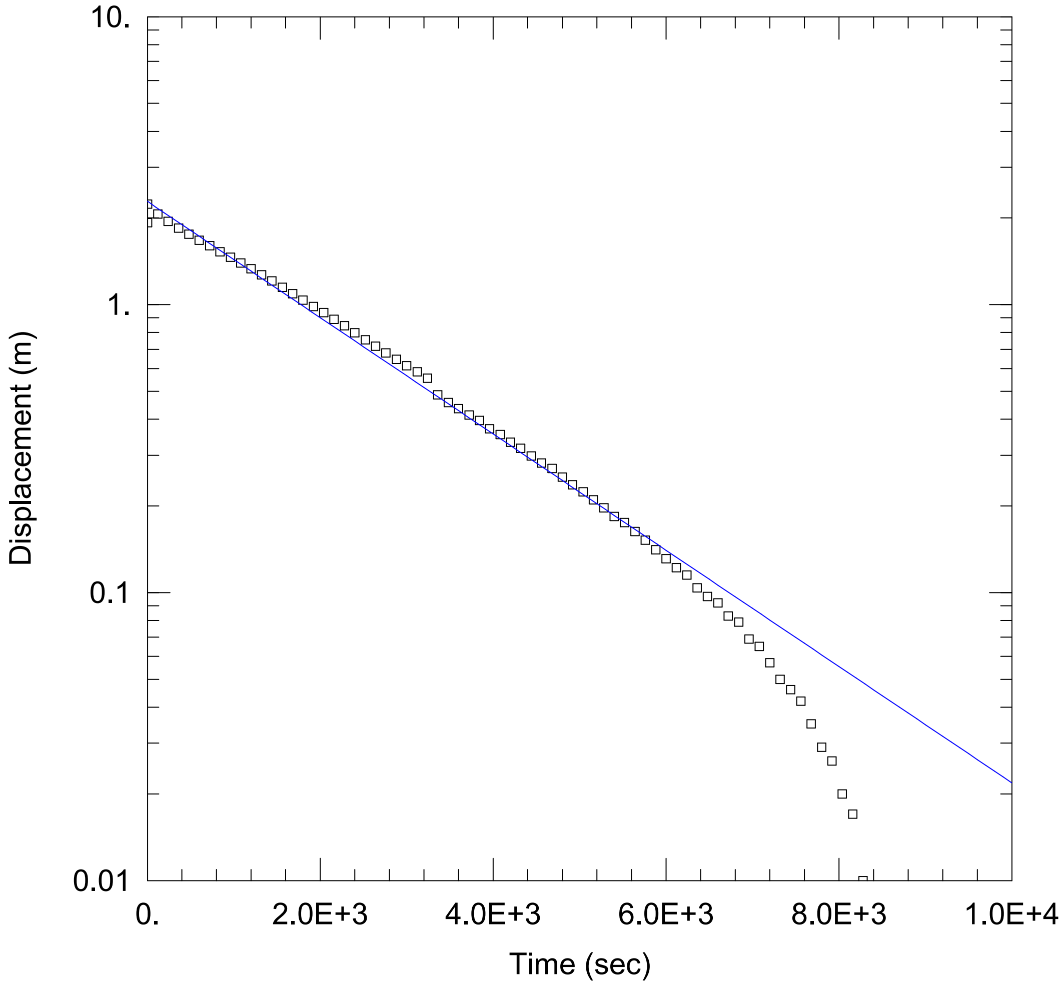
Saturated Thickness: 4. m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (LYTT034)

Initial Displacement: 1.925 m
Total Well Penetration Depth: 4. m
Casing Radius: 1.05 m
Static Water Column Height: 4. m
Screen Length: 4. m
Well Radius: 1.05 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Hvorslev
K = 2.125 m/day
y0 = 1.376 m



WELL TEST ANALYSIS

Data Set: C:\...\LYTT033.aqt
Date: 12/03/18 Time: 17:16:20

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT04
Test Date: 30/4/2018

AQUIFER DATA

Saturated Thickness: 4. m
Anisotropy Ratio (Kz/Kr): 1.

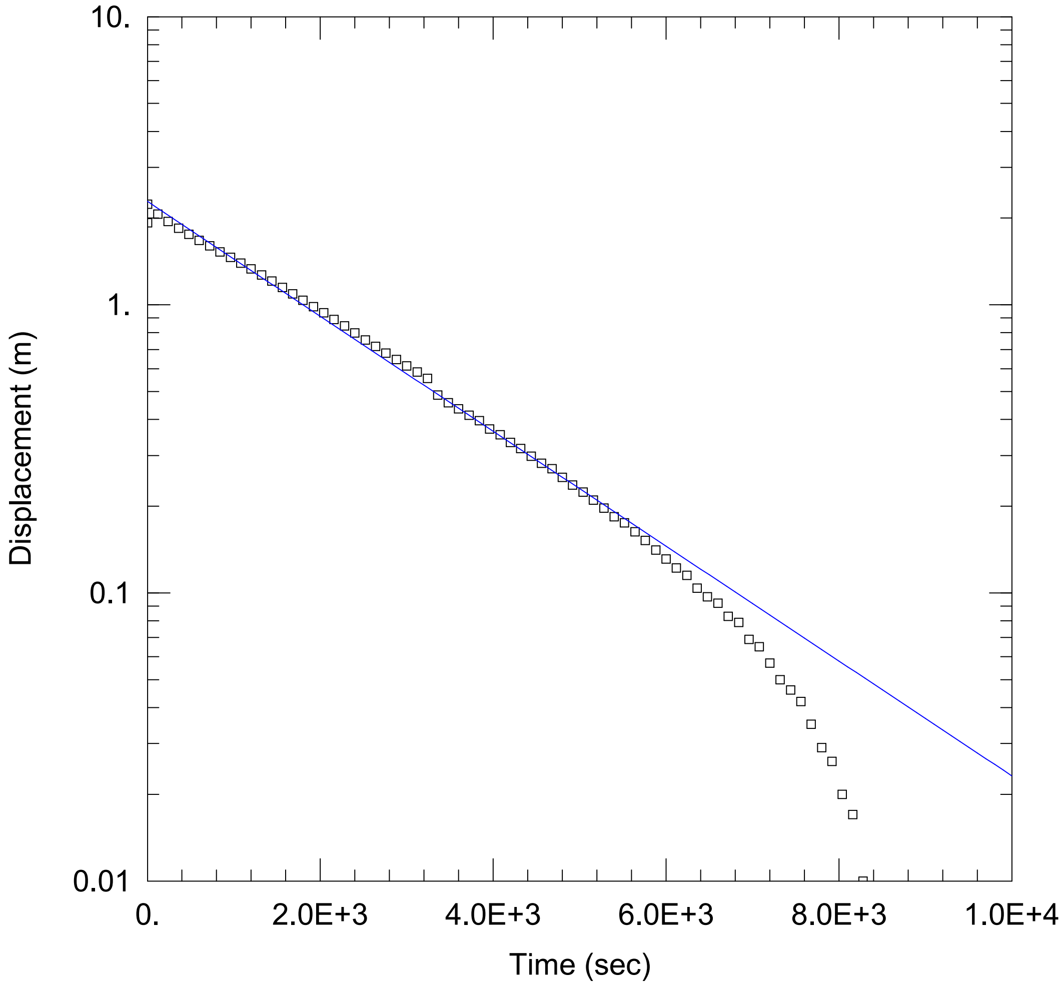
WELL DATA (LYTT033)

Initial Displacement: 1.925 m
Static Water Column Height: 4. m
Total Well Penetration Depth: 4. m
Screen Length: 4. m
Casing Radius: 1.05 m
Well Radius: 1.05 m

SOLUTION

Aquifer Model: Unconfined
Solution Method: Hvorslev

K = 29.34 m/day
y0 = 2.284 m



WELL TEST ANALYSIS

Data Set: C:\...\LYTT033.aqt
Date: 12/03/18 Time: 15:52:59

PROJECT INFORMATION

Company: Groundwater Science
Client: SLP
Project: SLP-18-6
Location: Lake Way
Test Well: LYTT04
Test Date: 30/4/2018

AQUIFER DATA

Saturated Thickness: 4. m Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (LYTT033)

Initial Displacement: 1.925 m Static Water Column Height: 4. m
Total Well Penetration Depth: 4. m Screen Length: 4. m
Casing Radius: 1.3 m Well Radius: 1.3 m

SOLUTION

Aquifer Model: Unconfined Solution Method: Hvorslev
K = 44.4 m/day y0 = 2.284 m

Appendix B JORC Tables

JORC Code, 2012 Edition – Table 1

Criteria	JORC Code explanation	Commentary
Sampling techniques	• Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, or handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling. • Include reference to measures taken to ensure sample presentively and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • In cases where 'industry standard' work has been done, this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases, more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.	Sampling involved the excavation of test pits over the tenement area to a depth of 4mbgl or weathered basement whichever was encountered first. Four trenches were also dug to 4m depth, A brine sample and duplicate were taken from each test pit and trench for analysis. Samples were taken manually by initially rinsing out the bottle with brine from the pit or trench and then placing the bottle in the test pit or trench and allowing it to fill. Samples were analysed for K, Mg, Ca, Na, Cl, SO_4, HCO_3, NO_3, pH, TDS and specific gravity. Each test pit was geologically logged and a sample taken each 1m depth. Test pumping entailed pumping from the trenches and test pits using a diesel driven submersible pump coupled to a level switch. Water levels in the piezometer, test pits and trenches were logged manually and by pressure transducer with barometric pressure and brine density correction.
Drilling techniques	• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc.).	No drilling was undertaken. Test pits were dug with an excavator
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Samples from the test pits were logged each bucket and a representative sample bagged. 100% of excavated sample was available for sampling. The ability to see the bulk sample facilitated the selection of a representative sample. There is no relationship between sample recovery and grade and no loss of material as a result of excavation.
Logging	• Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.	The geological logging is sufficient for the purposes of identifying variations in sand/ clay and silt fraction within the top 4m. For a brine abstraction project, the key parameters are the hydraulic conductivity and storativity of the host rock, which will be determined during test pumping of the trenches. The logging is qualitative. The entire pit depth was logged in every case.

Criteria	JORC Code explanation	Commentary
	• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography. • The total length and percentage of the relevant intersections logged.	
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • Measures taken to ensure that the sampling is representative of the insitu material collected, including for instance results for field duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled.	Not applicable Not applicable At all test pits brine samples were taken from the pit after 24hours or once the pit had filled with brine. The brine samples taken from the pits are bulk samples which is an appropriate approach given the long-term abstraction technique of using many kilometres of trenches to abstract brine from the upper 4m. All the samples taken were incorporated into a rigorous QA / QC program in which Standards and Duplicates were taken. The samples were taken in sterile plastic bottles of 250ml capacity. Excavated lake bed samples were sealed in plastic bags. For all brine samples (original or check samples) the samples were labelled with the alphanumeric code Y8001, Y80002 ... Lake bed samples were labelled with the test pit locator LYTT01, LYTT02 etc. and the depth from which they were taken.
Quality of assay data and laboratory tests	• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. • For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. • Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	The brine samples were sent to Bureau Veritas Laboratories in Perth, WA with the duplicates being held by SLP. Every 10th duplicate was sent to Intertek, an alternate laboratory for comparison purposes. No laboratory analysis was undertaken with geophysical tools. Soil samples and laboratory derived hydraulic conductivity, total porosity and drainable porosity samples were analysed by Core Laboratories in Perth WA. All laboratories used are NATA certified.
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. • Discuss any adjustment to assay data.	Not applicable Not applicable All sampling and assaying is well documented and contained on SLP's internal database No adjustments have been made to assay data
Location of data points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. • Specification of the grid system used.	All coordinates were collected by handheld GPS. The grid system is the Australian National Grid Zone MGA 51 (GDA 94) The is no specific topographic control as the lake surface can essentially be considered flat.

Criteria	JORC Code explanation	Commentary
	• Quality and adequacy of topographic control.	
Data spacing and distribution	• Data spacing for reporting of Exploration Results. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied.	The lake area contained within the Blackham tenement was calculated by digitising the lake surface and removing the area covered by the islands and the dewatered area of the Williamson pit, the approximate area is 55.4km^2. 36 test pits and 2 trenches were excavated over the BRT surface resulting in 1 excavation per 1.5Km^2. Which is a high density of investigation for a salt-lake and sufficient to establish variations in depth to basement, sedimentology and local hydraulic conductivity. Sample compositing not applicable .
Orientation of data in relation to geological structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	There are no structural or geological controls with respect to sampling the lake bed sediments. The variation in depth to basement does control the potential depth of future trench systems to the west of Williamson pit and the main island. Geological influence on the brine is limited to the aquifer parameters of the host rock, namely the hydraulic conductivity, drainable porosity and storativity.
Sample security	• The measures taken to ensure sample security.	SLP field geologists were responsible for bagging and tagging samples prior to shipping to the BV lab in Perth and the SLP offices. The security measures for the material and type of sampling at hand was appropriate
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	Data review is summarised in the report and included an assessment of the quality of assay data and laboratory tests and verification of sampling and assaying. No audits of sampling techniques and data have been undertaken.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. • The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	On the 9th March 2018 Salt Lake Potash Ltd. and Blackham Resources Ltd. signed a gold and brine minerals memorandum of understanding. Under this MOU Blackham has granted the brine rights on its Lake Way tenement free from encumbrances to SLP. The tenements referred to in the MOU are; Exploration licences E53/1288, E53/1862, E53/1905, E53/1952, Mining Licences, M53/121, M53/122, M53/123, M53/147, M53/253, M53/796, M53/797, M53/798, M53/910, and Prospecting Licences P53/1642, P53/1646, P53/1666, P53/1667, P53/1668. All tenure is granted to Blackham Resources Ltd.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	There is a database of approximately 6200 boreholes across Lake Way of which some 1000 are within the Blackham tenement. The primary source for the information is the publicly available Western Australian Mineral Exploration (WAMEX) report data base. Recent sterilisation drilling has also been undertaken by Blackham resources to the south and east of the BRT area. The majority of previous work has been concerned with investigating the bedrock and calcrete for gold and Uranium, it is of limited value in defining the stratigraphy of the lakebed sediments. The data has been shown to be useful in the determination of the depth to base of lakebed sediments and has been used to develop an overall estimate of the volume of lake bed sediments that has been applied to the mineral resource calculations.
Geology	• Deposit type, geological setting and style of mineralisation.	The deposit is a salt-lake brine deposit. The lake setting is typical of a Western Australian palaeovalley environment. Ancient hydrological systems have incised palaeovalleys into Archaean basement rocks, which were then infilled by Tertiary-aged sediments typically comprising a coarse-grained fluvial basal sand overlaid by palaeovalley clay with some coarser grained interbeds. The clay is overlaid by recent Cainozoic material including lacustrine sediment, calcrete, evaporite and aeolian deposits.

Criteria	JORC Code explanation	Commentary
Drill hole Information	• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: • easting and northing of the drill hole collar • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • dip and azimuth of the hole • downhole length and interception depth • hole length. • If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.	No drilling was undertaken. test pits and trenches were excavated on the lake surface. All test pit and trench details and locations of all data points are presented in the report.
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated. • Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. • The assumptions used for any reporting of metal equivalent values should be clearly stated.	Within the salt-lake extent no low-grade cut-off or high-grade capping has been implemented due to the consistent nature of the brine assay data. Test pit and trench data aggregation comprised calculation of a hydraulic conductivity, transmissivity and drainable porosity for the whole sequence. .
Relationship between mineralisation widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • If it is not known and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').	The chemical analysis from each of the test pits has shown the that the brine resource is consistent and continuous through the full thickness of the Lake Playa sediments unit. The unit is flat lying all test pits were excavated into the lake sediments to a depth of 4m or basement, the intersected depth is equivalent to the vertical depth and the thickness of mineralisation.
Diagrams	• Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	All location maps and sections are contained within the body of the report.
Balanced reporting	• Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	All results have been included in the body of the report.
Other substantive exploration data	• Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and	All material exploration data has been reported.

Criteria	JORC Code explanation	Commentary
	method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
Further work	• The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Field trials of brine harvesting will be undertaken, and the resource on tenement outside the BRT will be undertaken.

Section 3 Estimation and Reporting of Mineral resources – Williamson Pit and BRT lakebed area
(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Cross-check of laboratory assay reports and database • Extensive QA/QC as described in Section 3 *Sampling Techniques and Data*
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• A site visit was undertaken by the Competent Person (CP) from 29th to 30th April 2018. The CP visit was documented in Letter Report SLP-18-1-L001 (Groundwater Science, 2018).
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The shallow geological profile beneath the lake is relatively homogenous. The porosity of the material is consistent with depth; hence the geological interpretation has little impact on the resource except to define its thickness. • The island is excluded from the resource estimate as access is not permitted. Mining the Williamson Pit has resulted in an area of approximately 4km^2 being dewatered, this areas has also been excluded from the resource estimate.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The resource extends beneath 55.4km^2 of the Blackham Resources Tenements on Lake Way. The top of the resource is defined by the water table surface; on average 0.3m below ground surface. The average thickness of the resource is 5.3m as determined from the leapfrog model. • The Williamson Pit volume has been estimated as 1.26million m^3.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.*	• Brine concentration was interpolated using both Ordinary kriging and Voronoi polygons • The thickness of the lakebed sediments was developed using the Leapfrog software package and an inverse distance weighted calculation applied to the WAMEX boreholes database covering Lake Way. • Average test pit spacing was 500m. • No check estimates were available • No recovery of by-products was considered • Deleterious elements were not considered • Selective mining units were not modelled. • Correlation between variables was not assumed. • The geological interpretation from the WAMEX database was used to inform the Leapfrog model which was used to define the thickness of the

Criteria	JORC Code explanation	Commentary
	• *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	orebody. • Grade cutting or capping was not employed due to the homogenous nature of the orebody.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• Not applicable to brine resources. See discussion of moisture content under *Bulk Density*
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• No cut-off parameters were used
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• Mining will be undertaken by gravity drainage of brine from trenches. • Test pumping of two trenches was undertaken to obtain preliminary aquifer characteristics.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to*	• The brine is characterised by elevated concentration of potassium, magnesium and sulphate elements and distinctly deficient in calcium ions. Such a chemical makeup is considered highly favorable for efficient recovery of Schoenite from the lake brines (the main

Criteria	JORC Code explanation	Commentary
	consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	feedstock for Sulphate of Potash production), using conventional evaporation methods
Environmen-tal factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• Environmental impacts are expected to be; localized reduction in saline groundwater level, surface disturbance associated with trench and pond construction and accumulation of salt tails. The project is in a remote area and these impacts are not expected to prevent project development.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Bulk density is not relevant to brine resource estimation. • Volumetric moisture content or volumetric porosity was measured based on determination of 19 samples (average sample spacing 1.5m) to yield an average value of 43% v/v.
Classificatio n	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations,*	• The data is considered sufficient to assign an Measured resource classification to brine within the lakebed sediments within the Blackham Resources tenements excluding the Williamson Pit dewatered area and the area of the island. • The result reflects the view of the Competent

Criteria	JORC Code explanation	Commentary
	reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data). • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	Person
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• No audit or reviews were undertaken.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• For the lakebed sediments the estimated tonnage represents the in-situ brine with no recovery factor applied. It will not be possible to extract all of the contained brine by pumping from trenches. The amount which can be extracted depends on many factors including the permeability of the sediments, the drainable porosity, and the recharge dynamics of the aquifers. • No production data are available for comparison

Appendix C Competent Persons Statement

Competent Person's Consent Form

Pursuant to the requirements of ASX Listing Rules 5.6, 5.22 and 5.24 and
Clause 9 of the JORC Code 2012 Edition (Written Consent Statement)

Report name

Lake Way Playa, Blackham Resources Tenements, SOP Resource Estimate Upgrade

Salt Lake Potash Ltd

(*Insert name of company releasing the Report)*

Lake Way Blackham Resources Tenements Project

(Insert name of the deposit to which the Report refers)

If there is insufficient space, complete the following sheet and sign it in the same manner as this original sheet.

7 December, 2018

(Date of Report)

T: 08 7078 3515 F: 08 8121 1839
Level 2, 70 Pirie Street, Adelaide, SA, 5000
www.groundwaterscience.com.au

Statement

I

Ben Mattheus Jeuken

(*Insert full name(s)*)

confirm that I am the Competent Person for the Report and:

- I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).
- I am a Competent Person as defined by the JORC Code, 2012 Edition, having more than five years experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.
- I am a Member or Fellow of *The Australasian Institute of Mining and Metallurgy* or the *Australian Institute of Geoscientists* or a 'Recognised Professional Organisation' (RPO) included in a list promulgated by ASX from time to time.
- I have reviewed the Report to which this Consent Statement applies.

I am a full time employee of

(Insert company name)

Or

I am a consultant working for

Groundwater Science Pty Ltd

(Insert company name)

and have been engaged by

Salt Lake Potash Pty Ltd

(Insert company name)

to review the documentation for

Lake Way Blackham Resources Tenements Project

(Insert deposit name)

on which the Report is based, for the period ended

7 Dec 2018

(Insert date of Resource/Reserve statement)

I have disclosed to the reporting company the full nature of the relationship between myself and the company, including any issue that could be perceived by investors as a conflict of interest.

I verify that the Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Exploration Results, and Mineral Resources.

Consent

I consent to the release of the Report and this Consent Statement by the directors of:

Salt Lake Potash Pty Ltd

(Insert reporting company name)

	7/12/2018
Signature of Competent Person:	Date:
AUSIMM	312150
Professional Membership: *(insert organisation name)*	Membership Number:
	Emma Golder, Jervois, SA
Signature of Witness:	Print Witness Name and Residence: (eg town/suburb)