Report Number: P WMA 06/D00/00/3423/12

water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

Directorate: Water Resource Development Planning
Department of Water & Sanitation
Private Bag X313
Pretoria
0001
South Africa

Greater Mangaung Water Augmentation Project

Land Matters Report

Xhariep Pipeline Feasibility Study

ZUTARI
IMPACT. ENGINEERED.

Submission date: 2025/02/28

Revision: A

water & sanitation

Department:
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

Directorate Water Resource Development Planning

Land Matters Report

APPROVAL

Title	:	Land Matters Report
Project Name	:	Xhariep Pipeline Feasibility Study
DWS Report Number	:	P WMA 06/D00/00/3423/12
PSP Name	:	Zutari (Pty) Ltd
Report status	:	Final
Date	:	2025/02/28

CONSULTANT: ZUTARI (PTY) LTD
Approved for the Consultant:

Stephan Kleynhans

Signed by Stephan Kleynhans,
stephan.kleynhans@zutari.com

S KLEYNHANS
Design Director | Study Leader

DEPARTMENT OF WATER & SANITATION
Directorate: Water Resource Development Planning
Approved for Department of Water & Sanitation:

M MUGUMO
Chief Engineer: Water Resource Development Planning

C FOURIE
Director: Water Resource Development Planning

Document control record

Document prepared by:

Zutari (Pty) Ltd

Reg No 1977/003711/07
1 Century City Drive
Waterford Precinct
Century City
Cape Town

South Africa

PO Box 494
Cape Town
8000
Docex: DX 204

T +27 21 526 9400

E capetown@zutari.com

Document Control						
Project name		Land Matters Report				
Document number		P WMA 06/D00/00/3423/12	**Project number**		R0001002533-00	
Client		Department of Water and Sanitation				
Client contact		Ms. Sanet van Jaarsveld	**Client reference**		WP11405-142213	
Rev	**Date**	**Revision details/status**	**Author**	**Reviewer**	**Verifier** (if required)	**Approver**
A	2025/02/28	Final	F A'Bear			S Kleynhans
Current revision		**A**				

Approval			
Author signature	Signed by: Frankie A'Bear, frankie.abear@zutari.com	Approver signature	Signed by: Stephan Kleynhans, stephan.kleynhans@zutari.com
Name	Frankie A'Bear	Name	Stephan Kleynhans
Title	Principal Engineer	Title	Design Director

Report Structure

This report forms part of the following suite for the study:

REPORT INDEX	REPORT NAME	DWS NUMBER
1	Inception Report	P WMA 06/D00/00/3423/1
2	Site Visit Report	P WMA 06/D00/00/3423/2
3	Stakeholder Management Report	P WMA 06/D00/00/3423/3
4	Data Analysis and Collection Report	P WMA 06/D00/00/3423/4
5	Pre-feasibility Study Report	P WMA 06/D00/00/3423/5
6	Main Feasibility Study Report	P WMA 06/D00/00/3423/6
7	Geological and Materials Investigations Report	P WMA 06/D00/00/3423/7
8	Topographical Survey and Mapping Report	P WMA 06/D00/00/3423/8
9	Feasibility Design Report - Pipeline, Pump Stations & Reservoirs	P WMA 06/D00/00/3423/9
10	Socio-Economic Impact Assessment and Legal, Institutional and Financing Arrangements Report	P WMA 06/D00/00/3423/10
11	Feasibility Design Report - Water Treatment Works	P WMA 06/D00/00/3423/11
12	**Land Matters**	**P WMA 06/D00/00/3423/12**
13	DFFE Application Submission	P WMA 06/D00/00/3423/13
14	Public Participation Report	P WMA 06/D00/00/3423/14
15	DFFE BAR Submission	P WMA 06/D00/00/3423/15
16	Summary Feasibility Study Report	P WMA 06/D00/00/3423/16
17	Water Use License Application Summary Report	P WMA 06/D00/00/3423/17
18	Integrated Water and Waste Management Plan	P WMA 06/D00/00/3423/18
19	Water Resource Analysis Report	P WMA 06/D00/00/3423/19

Reference

This report is to be referred to in bibliographies as:

Department of Water and Sanitation, South Africa. 2025. *Greater Manguang Water Augmentation Project – Xhariep Pipeline Feasibility Study: Land Matters Report*.

DWS Report Number: P WMA 06/D00/00/3423/12

Prepared by Zutari (Pty) Ltd

Contents

Appendices

Figures

Tables

Abbreviations

Acronyms

Acronym	Description
DFFE	Department of Forestry, Fisheries and the Environment
DN	Nominal Diameter
DWS	Department of Water & Sanitation
EA	Environmental Authorisation
GBWSS	Greater Bloemfontein Water Supply System
EIA	Environmental Impact Assessment
IAP	Interested and Affected Parties
LRA	Land Rights Administration
MMM	Mangaung Metropolitan Municipality
NWRP	DWA Directorate: National Water Resource Planning
PPP	Public Participation Process
PSC	Project Steering Committee
SANRAL	South African National Roads Agency Limited
SMC	Study Management Committee
VCWB	Vaal Central Water Board
WTP/WTW	Water Treatment Plant / Water Treatment Works

Measurement Units

Symbol	Description
Ha	Hectares
km	Kilometres
m	Meters
m^3/a	Cubic meters per annum
m^3/d	Cubic meters per day
m^3/s	Cubic meters per second
million m^3	Million cubic meters
mm/a	Millimetres per annum
million m^3/a	Million cubic meters per annum

1 Introduction

1.1 Background

The Water Reconciliation Strategy Study for the Larger Bulk Water Supply Systems: Greater Bloemfontein Area (DWS, 2012) (henceforth referred to as the "2012 Reconciliation Strategy") identified that the Greater Bloemfontein Water Supply System (GBWSS) would need to secure a sustainable water supply for the future water demands in the area. The 2012 Reconciliation Strategy recommended that the development of a major surface water augmentation scheme should be given consideration as a possible option in conjunction with the implementation of various other interventions.

Following the 2012 Reconciliation Strategy, the area experienced water shortages and the major surface water augmentation scheme option, now called the Greater Mangaung Water Augmentation Project – Xhariep Pipeline, was accelerated. Vaal Central Water Board (VCWB), previously known as Bloem Water, and Mangaung Metropolitan Municipality (MMM) independently investigated the same three route options from Gariep Dam to tie-in points within the GBWSS area. Each institution reached a different conclusion as to which of the three was the best route/scheme.

The Xhariep Pipeline project was and remains of critical importance to address growing water demands on a regional basis; thus, the Department of Water and Sanitation (DWS, the Client) appointed Zutari to complete the pre-feasibility study, which included reviewing all previous studies, and recommending the optimal scheme from a national and regional perspective. This included determining routing and sizing to be taken forward to a detailed feasibility stage. Upon completion of the pre-feasibility stage, DWS in consultation with the Project Steering Committee approved the preferred option, whereafter Zutari carried out the detailed feasibility study, the water use license application and the environmental authorisation process. The detailed design of the Xhariep Pipeline project, and the preparation of the procurement documentation, will be the subject of a future appointment and does not form part of this project.

1.2 Outcome of Pre-Feasibility Study

The pre-feasibility study concluded that Scheme 1B, as shown in Figure 1-1, was the optimum configuration to address the water shortages experienced within the Greater Bloemfontein Water Supply System (GBWSS), which includes Bloemfontein, Botshabelo and Thaba Nchu.

The main infrastructure components of Scheme 1B, as shown in Figure 1-1, include the following:

- Tie-in at the existing DN2100 pipeline downstream of Gariep Dam Wall,
- A DN 1800 steel pipeline from Gariep Dam to the Raw Water Pump Station (± 2 km long),
- The Raw Water Pump Station,
- A DN 1800 steel pipeline from the Raw Water Pump Station to a break pressure tank (± 2 km long),
- A DN 2000 steel pipeline from the break pressure tank to the Xhariep water treatment works (WTW), ± 9 km long,
- The Xhariep WTW, which is designed for a capacity of 312 Mℓ/d of which 208 Mℓ/d will be constructed as Phase 1, with a future 104 Mℓ/d to be constructed later. The site will, however, be planned for an ultimate capacity of 416 Mℓ/d,
- The High Lift Pump Station located at the WTW site, which will pump water to Command Reservoir No 1,
- The DN 1800 steel pipeline from the High Lift Pump Station to Command Reservoir No 1 (± 43 km long),
- Command Reservoir No 1 (80 Mℓ storage),

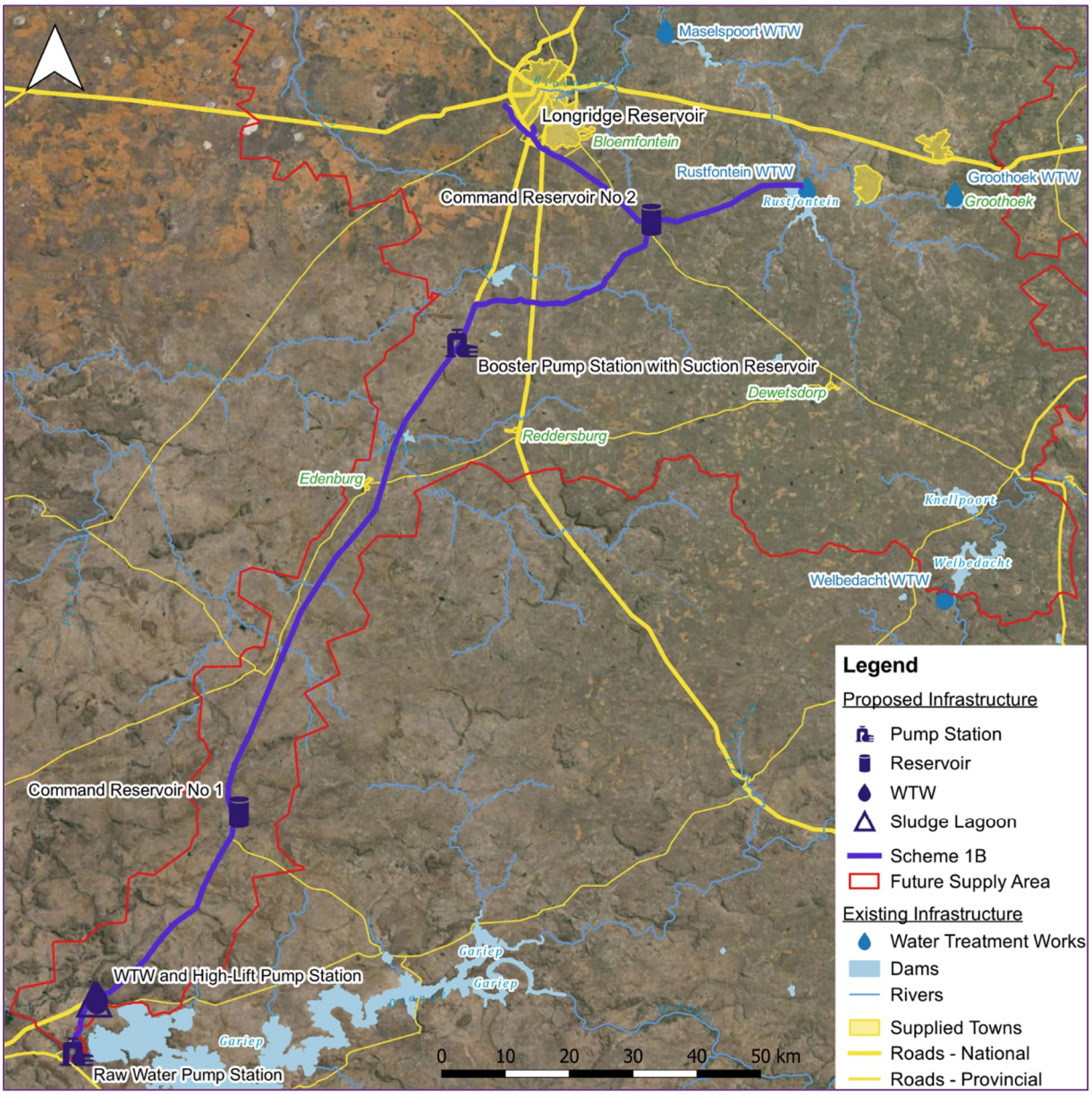


Figure 1-1: Schematic of Xhariep Pipeline

- A DN 1800 steel pipeline from Command Reservoir No 1 to the Booster Pump Station (± 95 km long),
- A Booster Pump Station with Suction Reservoir (10 Mℓ storage),
- A DN 1800 steel pipeline from the Booster Pump Station to Command Reservoir No 2 (± 44 km long),
- Command Reservoir No 2 (80 Mℓ storage),
- A DN 1400 steel pipeline from Command Reservoir No 2 to the existing Rustfontein WTW (± 25 km long), and
- A DN 2000 steel pipeline from Command Reservoir No 2 to the existing Longridge Reservoirs (± 28 km long).

1.3 Land Matters

The construction of the Xhariep Pipeline Project will impact numerous landowners and service authorities. The construction, as well as operational phase, impacts had to be evaluated as part of the environmental authorisation process, which included a comprehensive public participation process

(PPP). The findings from the PPP are documented in the Public Participation Report (Ref. No. P WMA 06/D00/00/3423/14). This report contains all the comments received, as well as the responses shared to these comments.

Furthermore, servitudes will need to be registered to facilitate the future operation and maintenance of the Xhariep Pipeline Project. The registration of these servitudes and the associated financial compensation is handled by the Sub Directorate: Land Rights Administration (LRA), which is the unit within Department of Water and Sanitation (DWS) responsible for all land related matters for the DWS, country-wide. The LRA needs to be engaged as soon as the detailed design phase commences so that communication with affected landowners can commence.

1.4 Report Structure

This report summarises the landowners impacted by the proposed Xhariep Pipeline Project and whom need to be consulted by the LRA of DWS during the detailed design phase of the project. The Land Matters Report is structured as follows:

Chapter 1 presents the background of the study.

Chapter 2 summarises the landowners impacted by the Xhariep Pipeline Project.

Chapter 3 presents the conclusions.

2 Impacted Landowners and Service Authorities

2.1 Overall Scheme

The proposed Xhariep Pipeline Project works traverses multiple properties which some are privately owned agricultural land and to a lesser extent on land owned by the Government of South Africa, the South African National Roads Agency Limited (SANRAL), Eskom servitudes, the Free State Department of Community Safety, Roads and Transport, and Transnet. A comprehensive list of all properties affected by the project is provided in Appendix A. Drawing 1002533-0000-DRG-CC-0001 (refer to Appendix B) shows the overall layout of the scheme and includes reference to the detailed infrastructure drawings for the major infrastructure components.

2.2 Raw Water Pump Station

The proposed location of the raw water (also referred to as the “low-lift”) pump station is shown in Figure 2-1. Drawing 1002533-1000-DRG-CC-1150 (refer to Appendix B) shows the detailed site layout, including access roads, for the raw water pump station.

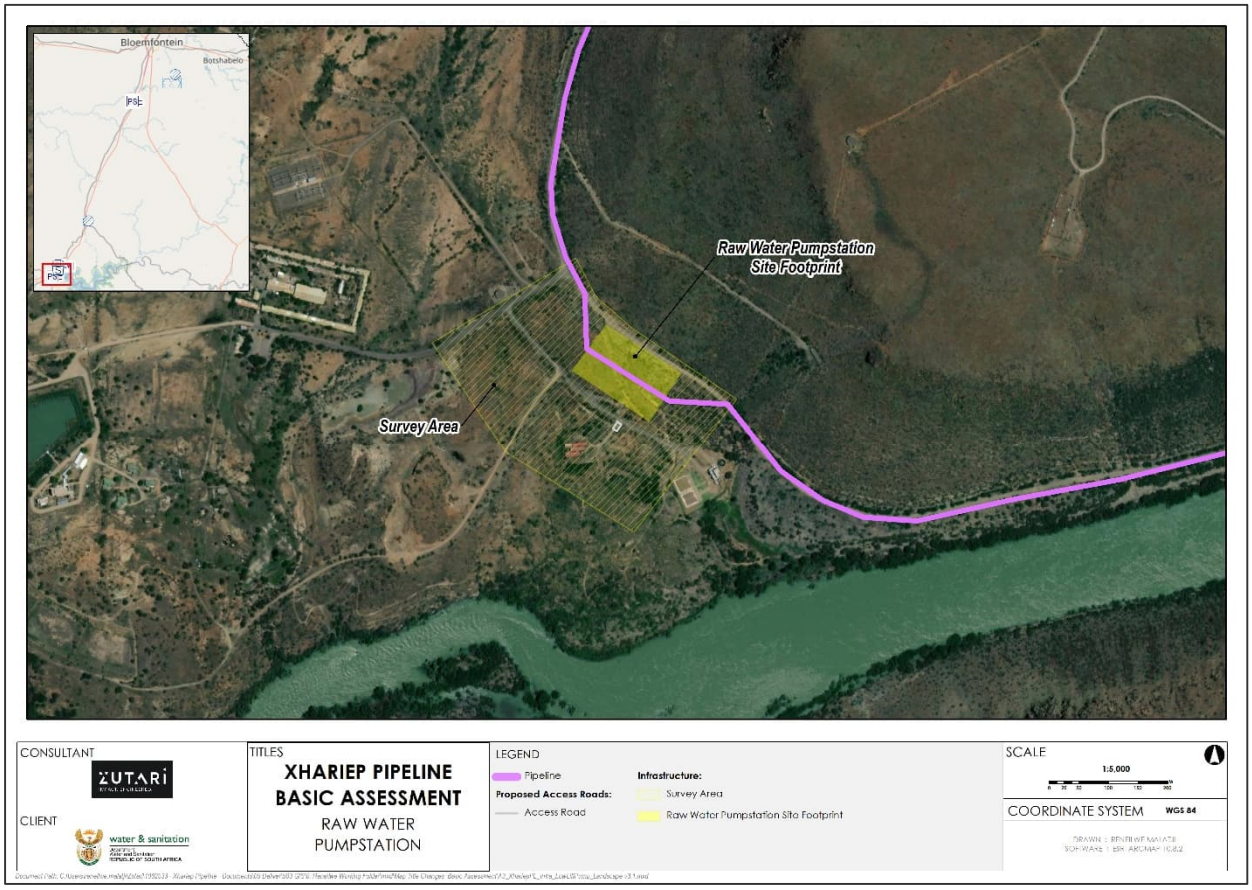


Figure 2-1: Proposed location of Low-Lift Pump Station

Table 2-1 provides a summary of the land information applicable to the proposed raw water pump station site.

Table 2-1: Summary of land information for proposed raw water pump station site

Parameter	Information
Geometry Identifier	1612110

Parameter	Information
Parcel Type	Farm Portion
Farm Name	Waschbank No. 274
Parcel Number	1/274
Province Name	Free State
Major Region	Phillippolis
Major Code	F0260000

2.3 Xhariep Water Treatment Plant and High-Lift Pump Station

The proposed location of the Xhariep Water Treatment Plant and High-Lift Pump Station is shown in Figure 2-2. Drawings 1002533-2500-DRG-CC-2500 and 1002533-2500-DRG-CC-2501 (refer to Appendix B) show the detailed site layout, including access roads, for the Xhariep WTP and high-lift pump station.

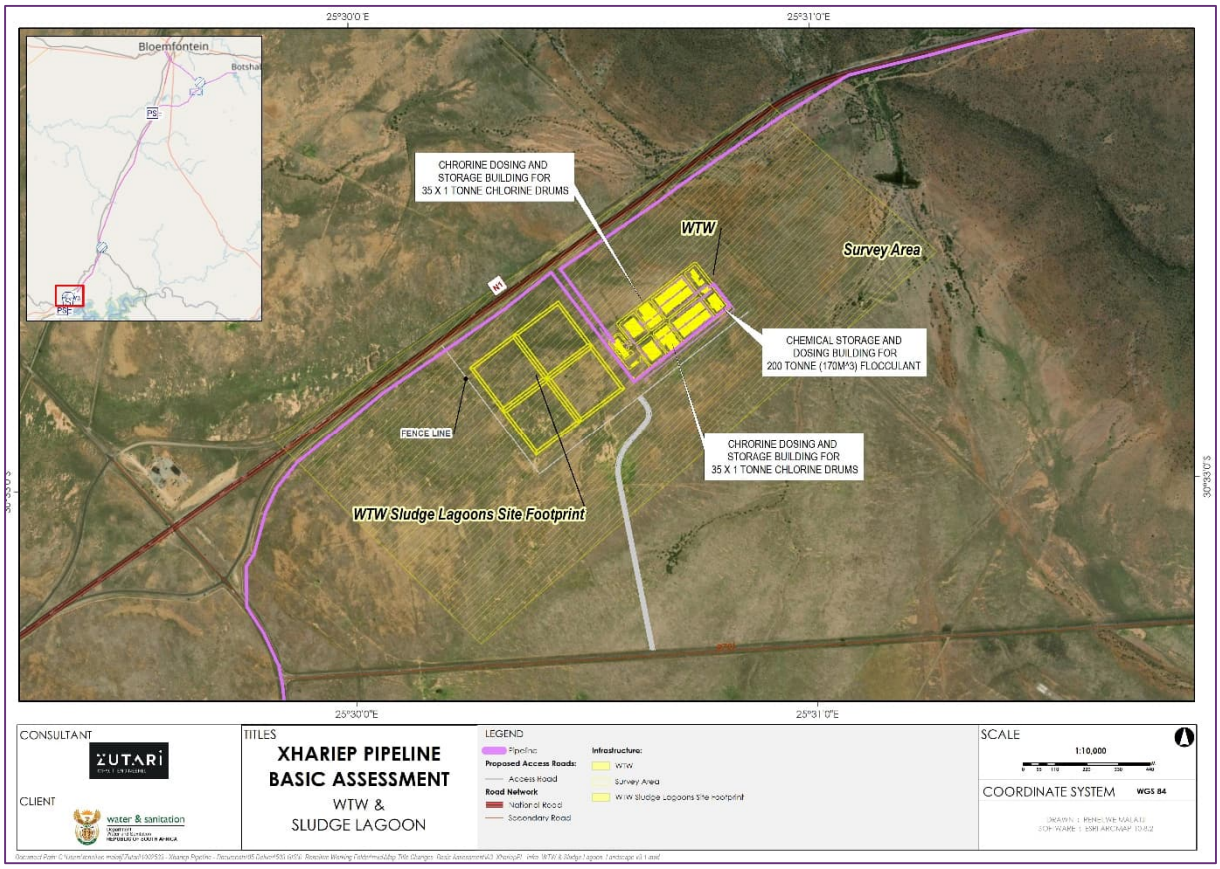


Figure 2-2: Proposed location of Xhariep WTP and High-Lift Pump Station

Table 2-2 provides a summary of the land information applicable to the proposed Xhariep WTP and high-lift pump station site.

Table 2-2: Summary of land information for proposed WTP and high-lift pump station site

Parameter	Information
Geometry Identifier	871413
Parcel Type	Farm Portion
Farm Name	Inhoek No. 495

Parameter	Information
Parcel Number	RE/495
Province Name	Free State
Major Region	Phillippolis
Major Code	F0260000

2.4 Command Reservoir No 1

The proposed location of Command Reservoir No 1 is shown in Figure 2-1. Drawing 1002533-4000-DRG-CC-4150 (refer to Appendix B) shows the detailed site layout, including access roads, for Command Reservoir No 1.

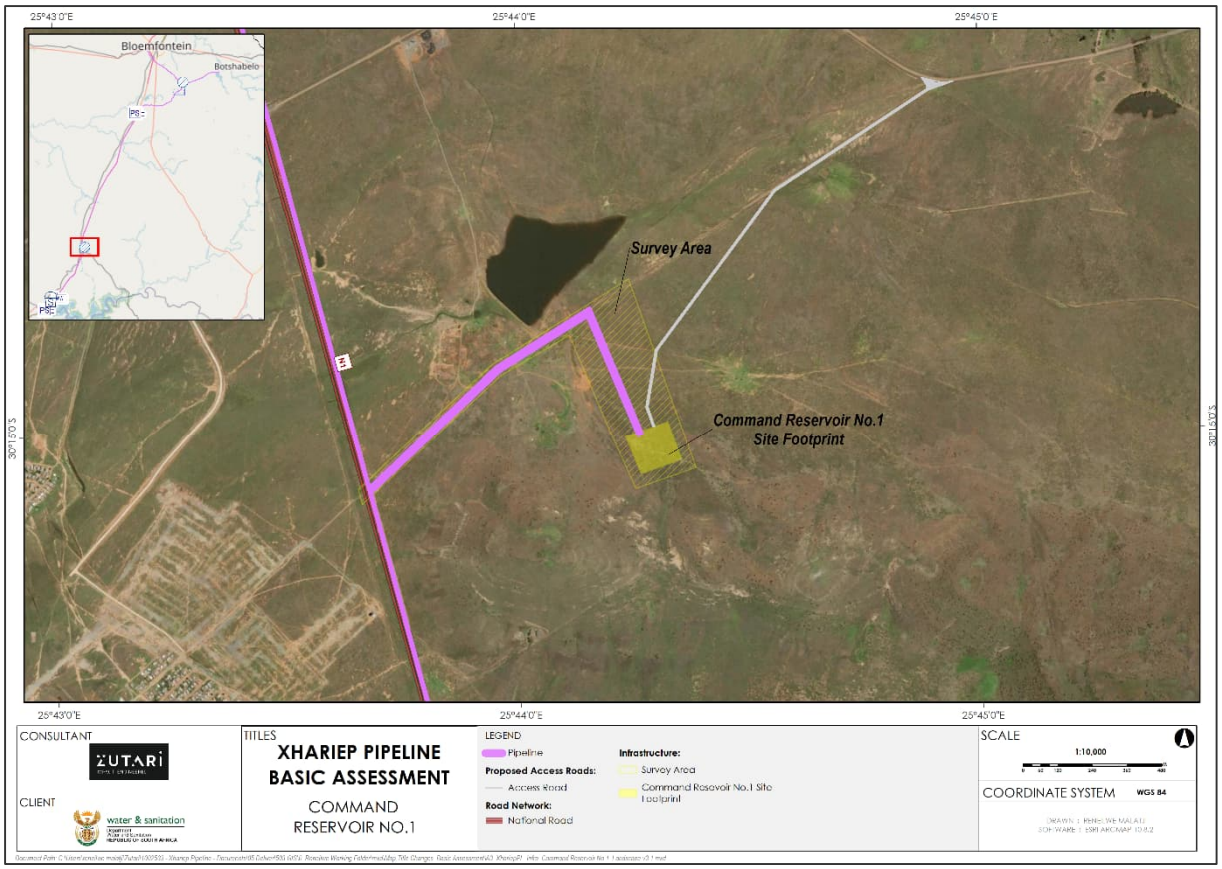


Figure 2-3: Proposed location of Command Reservoir No 1

Table 2-3 provides a summary of the land information applicable to the Command Reservoir No 1 site.

Table 2-3: Summary of land information for proposed Command Reservoir No 1

Parameter	Information
Geometry Identifier	839511
Parcel Type	Farm Portion
Farm Name	Viljoensdam No. 498
Parcel Number	RE/498
Province Name	Free State
Major Region	Bethulie
Major Code	F0020000

2.5 Booster Pump Station and Suction Reservoir

The proposed location of the booster pump station and suction reservoir is shown in Figure 2-4. Drawing 1002533-5000-DRG-CC-5150 (refer to Appendix B) shows the detailed site layout, including access roads, for the booster pump station and suction reservoir.

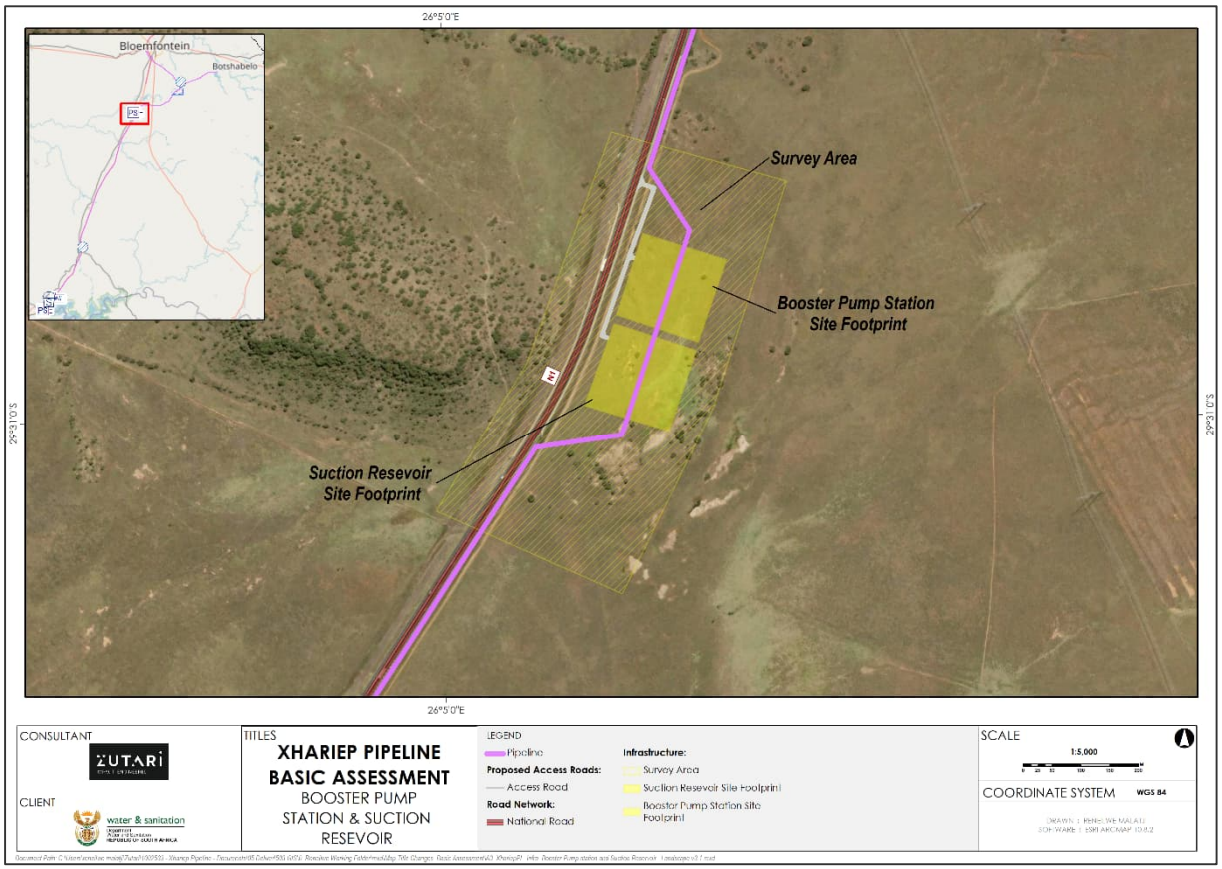


Figure 2-4: Proposed location of Booster Pump Station and Suction Reservoir

Table 2-4 provides a summary of the land information applicable to the booster pump station and suction reservoir site.

Table 2-4: Summary of land information for proposed booster pump station site

Parameter	Information
Geometry Identifier	10465867
Parcel Type	Farm Portion
Farm Name	Vaalkop No. 2589
Parcel Number	2/2589
Province Name	Free State
Major Region	Bloemfontein
Major Code	F0030000

2.6 Command Reservoir No 2

The proposed location of Command Reservoir No 2 is shown in Figure 2-5. Drawing 1002533-6000-DRG-CC-6150 (refer to Appendix B) shows the detailed site layout, including access roads, for Command Reservoir No 2.

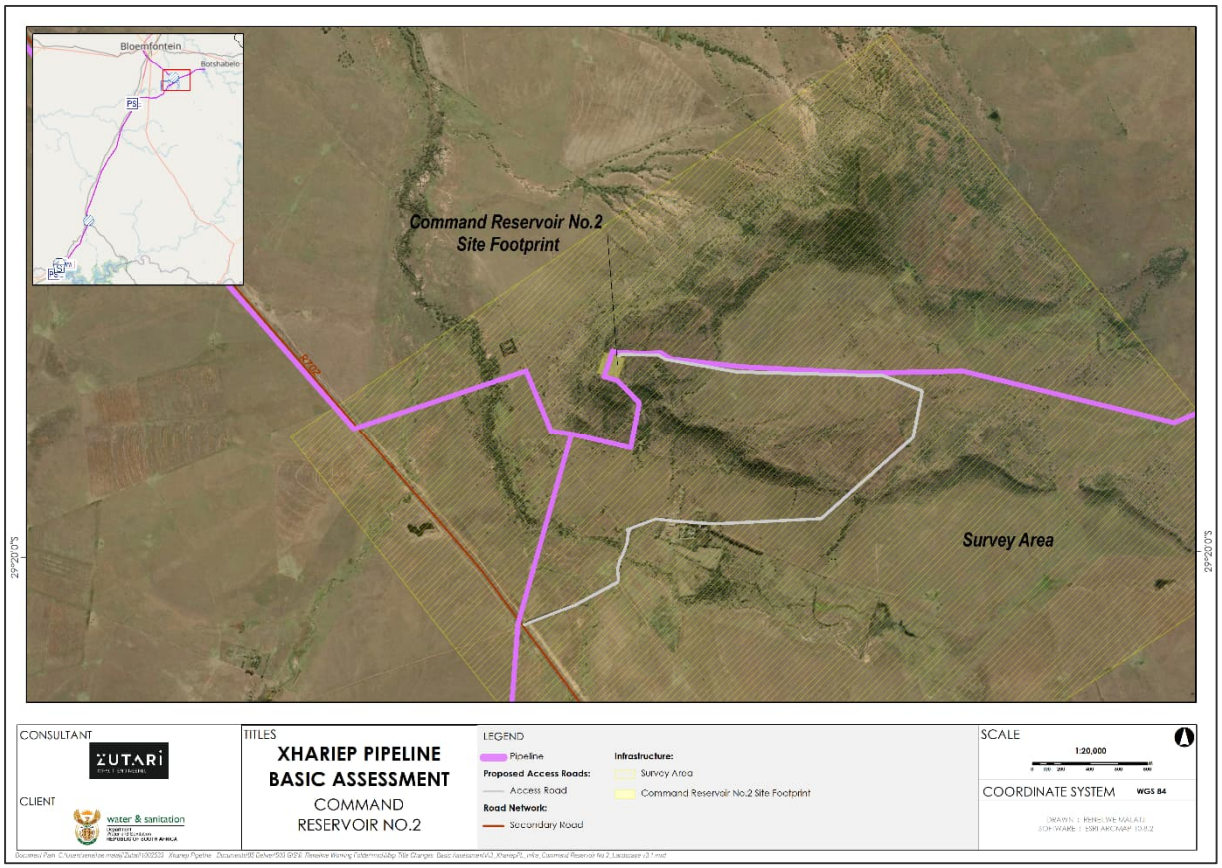


Figure 2-5: Proposed location of Command Reservoir No 2

Table 2-5 provides a summary of the land information applicable to the Command Reservoir No 2 site.

Table 2-5: Summary of land information for proposed Command Reservoir No 2

Parameter	Information
Geometry Identifier	50033194
Parcel Type	Farm Portion
Farm Name	Lieuw Kop No. 105
Parcel Number	105
Province Name	Free State
Major Region	Bloemfontein
Major Code	F0030000

2.7 Pipelines

The horizontal pipeline alignment drawings prepared during the feasibility phase of the project are included in the Book of Drawings that form part of the Main Feasibility Study Report (Ref. No. P WMA 06/D00/00/3423/6). The list of impacted landowners is provided in Appendix A. A kmz file that shows the pipeline routes and the location of the landowners is included on the external hard drive that was submitted with all deliverables in digital format. In addition, an excel file that contains the horizontal alignment of the pipeline, is also included on the external hard drive.

These horizontal pipeline alignments were included as part of the basic assessment process for authorisation. The Department of Forestry, Fisheries and the Environment (DFFE) authorised the project, taking into account the following:

- A 100m wide corridor was assessed for the proposed pipeline route;
- The construction corridor will be 40m wide, unless restricted by existing infrastructure or other constraints; an
- The final servitude width will be 15m.

Any changes to the pipeline alignment during the detailed design phase need to take cognisance of the above and should take place within the 100m wide corridor that was assessed. Where the revised alignment is changed to outside the 100m wide corridor assessed, DFFE will need to be consulted regarding the possible need for an amendment to the environmental authorisation.

2.8 Approvals by Service Authorities

Access to the respective infrastructure sites (i.e. reservoirs, pump stations and WTP) needs to be finalised during the detailed design phase of the project. Once the designs are completed, these need to be submitted to the relevant authorities for formal approval. The proposed access locations and alignment of the access roads were included as part of the environmental authorisation process and no objections had been received.

In addition, wayleave applications for the geotechnical fieldwork investigation were submitted to the following authorities:

- Eskom;
- Free State Provincial Roads;
- Kopanong Local Municipality;
- Liquid Fibre;
- Mangaung Metropolitan Municipality;
- Openserve / Telkom;
- Sanral;
- Transnet; and
- Vaal Central Water Board.

These authorities are therefore all aware of the proposed pipeline alignments, the locations of proposed infrastructure and the associated access requirements.

2.9 Relocation of Existing Services

The following existing services are either known to exist, or are highly likely to exist, in the vicinity of the planned infrastructure:

- Bulk and reticulation water pipelines;
- Bulk and reticulation sewerage pipelines;
- Bulk electricity power transmission lines both overhead and buried;
- Distribution electrical power lines both overhead and buried;
- Railway lines and electrical cables and infrastructure associated with railway lines;
- Water pipelines associated with the railway lines;
- Roads, both municipal, provincial and national;
- Stormwater infrastructure (pipeline and culverts); and
- Telecommunication infrastructure both overhead and buried.

Information on the existence and locality of the abovementioned existing services was requested from the various service providers responsible for each or several of the expected existing services. Unfortunately, very limited to no information had been received, mainly as the water board, district municipalities and local municipalities did not have accurate as-built information. It is proposed that a

ground penetration radar survey be undertaken near build-up areas to locate existing services as part of the detailed design phase.

3 Conclusions

The proposed Xhariep Pipeline Project works traverses multiple properties which some are privately owned agricultural land and to a lesser extent on land owned by the Government of South Africa, the South African National Roads Agency Limited (SANRAL), Eskom servitudes, the Free State Department of Community Safety, Roads and Transport, and Transnet.

A comprehensive public participation process (PPP) was undertaken as part of the environmental authorisation and the water use licence process. The findings from the PPP are documented in the Public Participation Report (Ref. No. P WMA 06/D00/00/3423/14). This report contains all the comments received, as well as the responses shared to these comments, which require consideration during the detailed design phase of the project. It is important to note that no appeal was received against the environmental authorisation.

During the detailed design phase, servitudes will need to be registered to facilitate the future operation and maintenance of the Xhariep Pipeline Project. The registration of these servitudes and the associated financial compensation is handled by the Sub Directorate: Land Rights Administration (LRA), which is the unit within Department of Water and Sanitation (DWS) responsible for all land related matters for the DWS, country-wide. The LRA needs to be engaged as soon as the detailed design phase has progressed to a point where communication with affected landowners can commence.

Appendix A

Properties Relevant to Project

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
1	GARIEP DAM	651	0	30°35'16.81S	25°29'25.54E	Erven	F02600060000065100000	Option 1B (Potable water Gariep - Rustfontein)
2	KOPPIESKRAAL	407	0	29°24'23.35S	26°12'52.99E	Farm	F00300000000040700000	Option 1B (Potable water Gariep - Rustfontein)
3	H.F VERWOERDDAM	523	0	30°35'58.59S	25°29'0.02E	Farm	F02600000000052300000	Option 1B (Potable water Gariep - Rustfontein)
4	SUMMER HILL	275	0	30°33'59.45S	25°29'23.09E	Farm	F02600000000027500000	Option 1B (Potable water Gariep - Rustfontein)
5	MORGENZON	339	0	29°55'27.2S	25°48'38.72E	Farm	F03400000000033900000	Option 1B (Potable water Gariep - Rustfontein)
6	HAMILTON MANOR	499	0	30°12'40.49S	25°44'10.53E	Farm	F00200000000049900000	Option 1B (Potable water Gariep - Rustfontein)
7	KLEINPLAAS A	228	0	29°54'54.26S	25°50'1.05E	Farm	F03400000000022800000	Option 1B (Potable water Gariep - Rustfontein)
8	KOPPIESKRAAL	2944	0	29°25'17S	26°11'39.38E	Farm	F00300000000294400000	Option 1B (Potable water Gariep - Rustfontein)
9	MOUNT BRAND	278	0	30°21'3.82S	25°42'51.29E	Farm	F00200000000027800000	Option 1B (Potable water Gariep - Rustfontein)
10	MOOIVLEY	43	0	29°24'48.92S	26°18'47.4E	Farm	F00300000000004300000	Option 1B (Potable water Gariep - Rustfontein)
11	VAALBANK	478	0	29°23'36.41S	26°19'13.5E	Farm	F00300000000047800000	Option 1B (Potable water Gariep - Rustfontein)
12	BOSCHRAND A	405	0	30°24'31.12S	25°37'56.27E	Farm	F00200000000040500000	Option 1B (Potable water Gariep - Rustfontein)
13	CIJPRESSDEEL	1148	0	29°23'34.89S	26°19'53.03E	Farm	F00300000000114800000	Option 1B (Potable water Gariep - Rustfontein)
14	FONTEINTJE	419	0	29°52'17.54S	25°52'4.93E	Farm	F01000000000041900000	Option 1B (Potable water Gariep - Rustfontein)
15	ROOIRANTJES	304	0	29°53'23.19S	25°51'44.99E	Farm	F01000000000030400000	Option 1B (Potable water Gariep - Rustfontein)
16	GOEDEHOOP	211	0	29°40'58.18S	25°58'50.46E	Farm	F01000000000021100000	Option 1B (Potable water Gariep - Rustfontein)
17	FAIRVIEW	546	0	29°33'27.09S	26°2'29.41E	Farm	F01000000000054600000	Option 1B (Potable water Gariep - Rustfontein)
18	DE HOOP	548	0	29°34'30.33S	26°2'19.88E	Farm	F01000000000054800000	Option 1B (Potable water Gariep - Rustfontein)
19	AANELKAARSKRAAL	2	0	29°43'2.61S	25°58'8.74E	Farm	F01000000000000200000	Option 1B (Potable water Gariep - Rustfontein)
20	DRAAIHOEK A	479	0	29°43'43.48S	25°57'56.86E	Farm	F01000000000047900000	Option 1B (Potable water Gariep - Rustfontein)
21	ELIM	550	0	29°35'41.36S	26°1'29.42E	Farm	F01000000000055000000	Option 1B (Potable water Gariep - Rustfontein)
22	BRANDNEGELFONTEIN	165	0	29°46'34.08S	25°56'14.08E	Farm	F01000000000016500000	Option 1B (Potable water Gariep - Rustfontein)
23	AASVOGEL KNOP	623	0	29°50'26.82S	25°53'42.5E	Farm	F01000000000062300000	Option 1B (Potable water Gariep - Rustfontein)
24	FORTUIN	207	0	29°31'19.95S	26°3'39.79E	Farm	F01000000000020700000	Option 1B (Potable water Gariep - Rustfontein)
25	MEADOWS A	501	0	29°49'38.63S	25°55'4.39E	Farm	F01000000000050100000	Option 1B (Potable water Gariep - Rustfontein)

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
26	COURLAND	527	0	29°49'7.96S	25°56'10.26E	Farm	F01000000000052700000	Option 1B (Potable water Gariep - Rustfontein)
27	VAALPLAAT	478	0	29°42'13.24S	25°58'42.48E	Farm	F01000000000047800000	Option 1B (Potable water Gariep - Rustfontein)
28	WELGELUK	612	0	29°42'56.05S	25°58'51.71E	Farm	F01000000000061200000	Option 1B (Potable water Gariep - Rustfontein)
29	TAPFONTEIN	116	0	29°53'58.19S	25°51'15.29E	Farm	F01000000000011600000	Option 1B (Potable water Gariep - Rustfontein)
30	DIEPFONTEIN	160	0	29°32'44.07S	26°3'48.83E	Farm	F02700000000016000000	Option 1B (Potable water Gariep - Rustfontein)
31	DORPS GROND VAN	104	0	29°43'43.2S	25°56'5.3E	Farm	F01000000000010400000	Option 1B (Potable water Gariep - Rustfontein)
32	WILGE DRAAI	125	0	29°25'44.68S	26°18'4E	Farm	F02700000000012500000	Option 1B (Potable water Gariep - Rustfontein)
33	VAALBANK	127	0	29°28'32.21S	26°6'1.85E	Farm	F02700000000012700000	Option 1B (Potable water Gariep - Rustfontein)
34	OVERSCHOT	615	0	29°36'54S	26°2'9.1E	Farm	F01000000000061500000	Option 1B (Potable water Gariep - Rustfontein)
35	AANDEEL	79	0	29°26'59.67S	26°18'2.72E	Farm	F02700000000007900000	Option 1B (Potable water Gariep - Rustfontein)
36	RUSTFONTEIN	120	0	29°16'18.36S	26°35'19.66E	Farm	F00300000000012000000	Option 1B (Potable water Gariep - Rustfontein)
37	DONKERPOORT	128	0	29°16'56.47S	26°29'6.98E	Farm	F00300000000012800000	Option 1B (Potable water Gariep - Rustfontein)
38	TYGERPOORT	1636	0	29°26'15.56S	26°9'0.54E	Farm	F00300000000163600000	Option 1B (Potable water Gariep - Rustfontein)
39	CYPRESHOEK	1892	0	29°24'13.72S	26°19'28.29E	Farm	F00300000000189200000	Option 1B (Potable water Gariep - Rustfontein)
40	GERLACHSTHAL	458	0	30°16'10.92S	25°43'17.22E	Farm	F00200000000045800000	Option 1B (Potable water Gariep - Rustfontein)
41	MONTAGU	1228	0	29°18'37.35S	26°26'28.2E	Farm	F00300000000122800000	Option 1B (Potable water Gariep - Rustfontein)
42	UITHOEK	108	0	29°31'31.76S	26°5'24.93E	Farm	F02700000000010800000	Option 1B (Potable water Gariep - Rustfontein)
43	KIEL	37	0	30°20'5.97S	25°41'39.77E	Farm	F00200000000003700000	Option 1B (Potable water Gariep - Rustfontein)
44	LANGVERWACHT	864	0	29°15'40.79S	26°36'17.48E	Farm	F00300000000086400000	Option 1B (Potable water Gariep - Rustfontein)
45	ALLEMANSPUNT	151	0	29°51'33.41S	25°52'36.18E	Farm	F01000000000015100000	Option 1B (Potable water Gariep - Rustfontein)
46	VLAKDAM	589	0	29°46'23.4S	25°57'30.32E	Farm	F01000000000058900000	Option 1B (Potable water Gariep - Rustfontein)
47	GELUKSDAM	551	0	29°35'16.65S	26°2'49.39E	Farm	F01000000000055100000	Option 1B (Potable water Gariep - Rustfontein)
48	LASTFONTEIN	261	0	29°48'20.24S	25°57'12.81E	Farm	F01000000000026100000	Option 1B (Potable water Gariep - Rustfontein)
49	VETVLAKTE	357	0	29°51'45.54S	25°53'30.57E	Farm	F01000000000035700000	Option 1B (Potable water Gariep - Rustfontein)
50	BELLEVUE	166	0	29°46'43.56S	25°56'43.11E	Farm	F01000000000016600000	Option 1B (Potable water Gariep - Rustfontein)

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
51	VLEIPLAATS	152	0	30°5'54.41S	25°46'3.07E	Farm	F0340000000015200000	Option 1B (Potable water Gariep - Rustfontein)
52	EENZAAM B	333	0	29°27'13.3S	26°13'52.34E	Farm	F0270000000033300000	Option 1B (Potable water Gariep - Rustfontein)
53	KLIP KUIL	215	0	29°26'31.91S	26°16'27.4E	Farm	F0270000000021500000	Option 1B (Potable water Gariep - Rustfontein)
54	HELDERFONTEIN	184	0	29°15'18.83S	26°32'13.38E	Farm	F0030000000018400000	Option 1B (Potable water Gariep - Rustfontein)
55	BEWEE	93	0	29°17'45.23S	26°31'38.62E	Farm	F0030000000009300000	Option 1B (Potable water Gariep - Rustfontein)
56	VERLAAT	2339	0	29°23'10.98S	26°21'5.72E	Farm	F0030000000233900000	Option 1B (Potable water Gariep - Rustfontein)
57	PALMIETFONTEIN	67	0	29°15'42.17S	26°38'8.98E	Farm	F0320000000006700000	Option 1B (Potable water Gariep - Rustfontein)
58	TWEEFONTEIN	1580	0	29°17'43.17S	26°28'38.52E	Farm	F0030000000158000000	Option 1B (Potable water Gariep - Rustfontein)
59	KINDERSPRUIT	120	0	29°29'23.37S	26°5'43.3E	Farm	F0270000000012000000	Option 1B (Potable water Gariep - Rustfontein)
60	STANDERTON	1227	0	29°18'15.57S	26°26'36.62E	Farm	F0030000000122700000	Option 1B (Potable water Gariep - Rustfontein)
61	VLAK FONTEIN	430	0	29°27'38.55S	26°15'58.65E	Farm	F0270000000043000000	Option 1B (Potable water Gariep - Rustfontein)
62	EENSGEVONDEN	331	0	30°28'50.01S	25°36'23.62E	Farm	F0260000000033100000	Option 1B (Potable water Gariep - Rustfontein)
63	PLAATJESFONTEIN	130	0	29°18'37.71S	26°31'7.74E	Farm	F0030000000013000000	Option 1B (Potable water Gariep - Rustfontein)
64	SOPHIAS DAL	382	0	29°27'19.53S	26°10'47.64E	Farm	F0030000000038200000	Option 1B (Potable water Gariep - Rustfontein)
65	EXCELSIOR	267	0	30°23'22S	25°40'58.96E	Farm	F0020000000026700000	Option 1B (Potable water Gariep - Rustfontein)
66	BOSCHRAND B	404	0	30°24'48.24S	25°39'8.05E	Farm	F0020000000040400000	Option 1B (Potable water Gariep - Rustfontein)
67	BETHANY	610	0	29°36'24.58S	25°58'31.2E	Farm	F0100000000061000000	Option 1B (Potable water Gariep - Rustfontein)
68	ATLEHANG	3001	0	29°20'30.33S	26°25'18.64E	Farm	F0030000000300100000	Option 1B (Potable water Gariep - Rustfontein)
69	DONKERPOORT SCHOOLSITE 472	1	0	30°31'40.51S	25°29'42.52E	Farm	F0260000000000100000	Option 1B (Potable water Gariep - Rustfontein)
70	VLEIPLAATS	356	0	30°7'50.11S	25°45'59.27E	Farm	F0340000000035600000	Option 1B (Potable water Gariep - Rustfontein)
71	JENNY`S PASS	279	0	30°21'57.89S	25°41'44.74E	Farm	F0020000000027900000	Option 1B (Potable water Gariep - Rustfontein)
72	KOPPIE ALLEEN	497	0	30°13'59.45S	25°43'12.81E	Farm	F0020000000049700000	Option 1B (Potable water Gariep - Rustfontein)
73	NIET ZO GROOT	465	0	29°47'27.75S	25°57'25.2E	Farm	F0100000000046500000	Option 1B (Potable water Gariep - Rustfontein)
74	TROMPSBURG B	142	0	30°3'59.79S	25°46'12.9E	Farm	F0340000000014200000	Option 1B (Potable water Gariep - Rustfontein)

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
75	INHOEK	495	0	30°31'38.15S	25°30'15.57E	Farm	F02600000000049500000	Option 1B (Potable water Gariep - Rustfontein)
76	TWEE ZUSTERS	140	0	29°55'6.29S	25°50'47.05E	Farm	F03400000000014000000	Option 1B (Potable water Gariep - Rustfontein)
77	KUILFONTEIN	195	0	30°17'17.01S	25°43'7.55E	Farm	F00200000000019500000	Option 1B (Potable water Gariep - Rustfontein)
78	MEADOWS B	503	0	29°48'8.04S	25°55'31.36E	Farm	F01000000000050300000	Option 1B (Potable water Gariep - Rustfontein)
79	VEELGELUK	136	0	29°27'23.16S	26°13'7.22E	Farm	F02700000000013600000	Option 1B (Potable water Gariep - Rustfontein)
80	BLOEMHOF	186	0	29°58'54.53S	25°49'7.67E	Farm	F03400000000018600000	Option 1B (Potable water Gariep - Rustfontein)
81	ERFPOS	1465	0	29°16'36.99S	26°32'32.66E	Farm	F00300000000146500000	Option 1B (Potable water Gariep - Rustfontein)
82	VAALKOP	2589	0	29°29'53.88S	26°4'7.16E	Farm	F00300000000258900000	Option 1B (Potable water Gariep - Rustfontein)
83	GRAYSHAVEN	2995	0	29°25'7.08S	26°10'31.52E	Farm	F00300000000299500000	Option 1B (Potable water Gariep - Rustfontein)
84	VLAKFONTEIN A	101	0	29°27'17.83S	26°14'49.94E	Farm	F02700000000010100000	Option 1B (Potable water Gariep - Rustfontein)
85	GALIPPOLI	1548	0	29°27'29.08S	26°6'8.7E	Farm	F00300000000154800000	Option 1B (Potable water Gariep - Rustfontein)
86	WASCHBANK	274	0	30°37'25.03S	25°29'29.42E	Farm	F02600000000027400000	Option 1B (Potable water Gariep - Rustfontein)
87	HELDERPOORT	907	0	29°16'23.65S	26°31'4.4E	Farm	F00300000000090700000	Option 1B (Potable water Gariep - Rustfontein)
88	LIEUW KOP	105	0	29°20'18.96S	26°22'52.36E	Farm	F00300000000010500000	Option 1B (Potable water Gariep - Rustfontein)
89	KLIPFONTEIN	109	0	30°7'43.13S	25°45'16.05E	Farm	F03400000000010900000	Option 1B (Potable water Gariep - Rustfontein)
90	HEREFORD	294	0	30°26'41.04S	25°39'4.47E	Farm	F00200000000029400000	Option 1B (Potable water Gariep - Rustfontein)
91	LORRAINE	342	0	30°0'15.9S	25°47'45.74E	Farm	F03400000000034200000	Option 1B (Potable water Gariep - Rustfontein)
92	DRIEKUIL	130	0	30°30'55.84S	25°33'30.63E	Farm	F02600000000013000000	Option 1B (Potable water Gariep - Rustfontein)
93	ZUURFONTEIN	266	0	29°18'24.68S	26°28'9.4E	Farm	F00300000000026600000	Option 1B (Potable water Gariep - Rustfontein)
94	ANNEX	2522	0	29°21'38.68S	26°21'6.5E	Farm	F00300000000252200000	Option 1B (Potable water Gariep - Rustfontein)
95	AASVOGEL KNOP	1	0	29°50'31.4S	25°53'49.96E	Farm	F01000000000000100000	Option 1B (Potable water Gariep - Rustfontein)
96	TWYFELFONTEIN	2083	0	29°18'53.17S	26°27'28.7E	Farm	F00300000000208300000	Option 1B (Potable water Gariep - Rustfontein)
97	HILLSIDE	301	0	30°10'43.54S	25°43'41.17E	Farm	F03400000000030100000	Option 1B (Potable water Gariep - Rustfontein)
98	POORTJE 365	362	0	29°30'33.7S	26°5'58.38E	Farm	F02700000000036200000	Option 1B (Potable water Gariep - Rustfontein)

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
99	DONKERPOORT STATION 53	2	0	30°31'50.06S	25°29'46.31E	Farm	F02600000000000200000	Option 1B (Potable water Gariep - Rustfontein)
100	KLIPBANKFONTEIN	116	0	30°27'0.03S	25°36'26.35E	Farm	F02600000000011600000	Option 1B (Potable water Gariep - Rustfontein)
101	PRIOR GRANGE	282	0	30°18'58.27S	25°41'5.35E	Farm	F00200000000028200000	Option 1B (Potable water Gariep - Rustfontein)
102	TROMPSBURG DOPS GROUND	141	0	30°2'48.39S	25°46'55.16E	Farm	F03400000000014100000	Option 1B (Potable water Gariep - Rustfontein)
103	SPRINGFONTEIN TOWNLAND B	495	0	30°14'55.64S	25°42'10.5E	Farm	F00200000000049500000	Option 1B (Potable water Gariep - Rustfontein)
104	KINDERSPRUIT	428	0	29°29'29.61S	26°6'4.61E	Farm	F02700000000042800000	Option 1B (Potable water Gariep - Rustfontein)
105	STOFKRAAL	110	0	29°57'40.25S	25°50'43.3E	Farm	F03400000000011000000	Option 1B (Potable water Gariep - Rustfontein)
106	KRAPFONTEIN	2720	0	29°27'3.89S	26°7'27.53E	Farm	F00300000000272000000	Option 1B (Potable water Gariep - Rustfontein)
107	DRIEKUIL	499	0	30°29'44.93S	25°35'23.77E	Farm	F02600000000049900000	Option 1B (Potable water Gariep - Rustfontein)
108	LINDE`S VLEY	908	0	29°17'39.46S	26°30'40.22E	Farm	F00300000000090800000	Option 1B (Potable water Gariep - Rustfontein)
109	VEREENIGING	329	0	30°27'56.09S	25°35'29.91E	Farm	F02600000000032900000	Option 1B (Potable water Gariep - Rustfontein)
110	VILJOENSDAM	498	0	30°14'53.32S	25°44'22.37E	Farm	F00200000000049800000	Option 1B (Potable water Gariep - Rustfontein)
111	GRUISFONTEIN	35	0	30°1'15.58S	25°48'38.98E	Farm	F03400000000003500000	Option 1B (Potable water Gariep - Rustfontein)
112	BOSCHRAND A	405	2	30°26'3.46S	25°37'43.47E	Farm Portion	F00200000000040500002	Option 1B (Potable water Gariep - Rustfontein)
113	BOSCHRAND B	404	0	30°25'3.99S	25°39'18.14E	Farm Portion	F00200000000040400000	Option 1B (Potable water Gariep - Rustfontein)
114	EXCELSIOR	267	2	30°23'55.62S	25°40'20.27E	Farm Portion	F00200000000026700002	Option 1B (Potable water Gariep - Rustfontein)
115	BOSCHRAND B	404	1	30°24'57.68S	25°38'59.91E	Farm Portion	F00200000000040400001	Option 1B (Potable water Gariep - Rustfontein)
116	KOPPIE ALLEEN	497	1	30°13'54.14S	25°43'17.04E	Farm Portion	F00200000000049700001	Option 1B (Potable water Gariep - Rustfontein)
117	HAMILTON MANOR	499	1	30°12'50.07S	25°43'16.87E	Farm Portion	F00200000000049900000	Option 1B (Potable water Gariep - Rustfontein)

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
118	EXCELSIOR	267	1	30°23'4.02S	25°40'35.87E	Farm Portion	F0020000000026700001	Option 1B (Potable water Gariep - Rustfontein)
119	KUILFONTEIN	195	3	30°16'45.72S	25°44'0.12E	Farm Portion	F0020000000019500003	Option 1B (Potable water Gariep - Rustfontein)
120	KIEL	37	1	30°19'48S	25°42'8.15E	Farm Portion	F0020000000003700001	Option 1B (Potable water Gariep - Rustfontein)
121	KOPPIE ALLEEN	497	0	30°13'54.97S	25°43'39.8E	Farm Portion	F0020000000049700000	Option 1B (Potable water Gariep - Rustfontein)
122	HEREFORD	294	0	30°26'40.04S	25°39'10.39E	Farm Portion	F0020000000029400000	Option 1B (Potable water Gariep - Rustfontein)
123	ANNEX	2522	0	29°21'38.68S	26°21'6.5E	Farm Portion	F0030000000252200000	Option 1B (Potable water Gariep - Rustfontein)
124	HAMILTON MANOR	499	0	30°12'39.36S	25°44'19.18E	Farm Portion	F0020000000049900001	Option 1B (Potable water Gariep - Rustfontein)
125	JENNY`S PASS	279	1	30°21'37.71S	25°41'11.28E	Farm Portion	F0020000000027900001	Option 1B (Potable water Gariep - Rustfontein)
126	GERLACHSTHAL	458	7	30°15'59.47S	25°43'47.41E	Farm Portion	F0020000000045800007	Option 1B (Potable water Gariep - Rustfontein)
127	GERLACHSTHAL	458	0	30°15'47.42S	25°44'7.99E	Farm Portion	F0020000000045800000	Option 1B (Potable water Gariep - Rustfontein)
128	HELDERPOORT	907	0	29°16'51.38S	26°31'16.34E	Farm Portion	F0030000000090700000	Option 1B (Potable water Gariep - Rustfontein)
129	PRIOR GRANGE	282	2	30°19'15.12S	25°42'26.37E	Farm Portion	F0020000000028200002	Option 1B (Potable water Gariep - Rustfontein)
130	MOOIVLEY	43	4	29°24'50.08S	26°19'11.31E	Farm Portion	F0030000000004300004	Option 1B (Potable water Gariep - Rustfontein)
131	CIJPRESSDEEL	1148	0	29°23'34.89S	26°19'53.03E	Farm Portion	F0030000000114800000	Option 1B (Potable water Gariep - Rustfontein)
132	VAALBANK	478	0	29°23'36.41S	26°19'13.5E	Farm Portion	F0030000000047800000	Option 1B (Potable water Gariep - Rustfontein)

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
133	MOOIVLEY	43	3	29°24'34.36S	26°19'27.03E	Farm Portion	F00300000000004300003	Option 1B (Potable water Gariep - Rustfontein)
134	KRAPFONTEIN	2720	0	29°26'49.72S	26°7'47.17E	Farm Portion	F00300000000272000000	Option 1B (Potable water Gariep - Rustfontein)
135	VLAK FONTEIN	430	0	29°27'38.58S	26°15'58.64E	Farm Portion	F02700000000043000000	Option 1B (Potable water Gariep - Rustfontein)
136	MOOIVLEY	43	0	29°25'15.5S	26°18'24.2E	Farm Portion	F00300000000004300000	Option 1B (Potable water Gariep - Rustfontein)
137	MOOIVLEY	43	2	29°25'7.3S	26°18'45.82E	Farm Portion	F00300000000004300002	Option 1B (Potable water Gariep - Rustfontein)
138	VLAKFONTEIN A	101	2	29°27'17.83S	26°14'49.94E	Farm Portion	F02700000000010100002	Option 1B (Potable water Gariep - Rustfontein)
139	KLIP KUIL	215	0	29°26'31.91S	26°16'27.4E	Farm Portion	F02700000000021500000	Option 1B (Potable water Gariep - Rustfontein)
140	FONTEINTJE	419	0	29°52'49.18S	25°52'28.5E	Farm Portion	F01000000000041900000	Option 1B (Potable water Gariep - Rustfontein)
141	KIEL	37	0	30°19'44.9S	25°42'12.22E	Farm Portion	F00200000000003700000	Option 1B (Potable water Gariep - Rustfontein)
142	BRANDNEGELFONTEIN	165	4	29°47'49.37S	25°56'10.57E	Farm Portion	F01000000000016500004	Option 1B (Potable water Gariep - Rustfontein)
143	BELLEVUE	166	0	29°46'54.58S	25°56'59.27E	Farm Portion	F01000000000016600000	Option 1B (Potable water Gariep - Rustfontein)
144	BRANDNEGELFONTEIN	165	1	29°47'43.59S	25°56'9.7E	Farm Portion	F01000000000016500001	Option 1B (Potable water Gariep - Rustfontein)
145	KUILFONTEIN	195	0	30°16'4.61S	25°44'33.55E	Farm Portion	F00200000000019500000	Option 1B (Potable water Gariep - Rustfontein)
146	VETVLAKTE	357	0	29°51'47.81S	25°53'33.23E	Farm Portion	F01000000000035700000	Option 1B (Potable water Gariep - Rustfontein)
147	LASTFONTEIN	261	1	29°47'33.11S	25°56'18.67E	Farm Portion	F01000000000026100001	Option 1B (Potable water Gariep - Rustfontein)

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
148	BRANDNEGELFONTEIN	165	2	29°45'52.52S	25°57'17.86E	Farm Portion	F01000000000016500002	Option 1B (Potable water Gariep - Rustfontein)
149	BOSCHRAND A	405	0	30°26'5.06S	25°37'44.44E	Farm Portion	F00200000000040500000	Option 1B (Potable water Gariep - Rustfontein)
150	VETVLAKTE	357	1	29°51'31.36S	25°53'5.75E	Farm Portion	F01000000000035700001	Option 1B (Potable water Gariep - Rustfontein)
151	NIET ZO GROOT	465	0	29°47'28.23S	25°57'27.83E	Farm Portion	F01000000000046500000	Option 1B (Potable water Gariep - Rustfontein)
152	DONKERPOORT	128	0	29°16'56.47S	26°29'6.98E	Farm Portion	F00300000000012800000	Option 1B (Potable water Gariep - Rustfontein)
153	TAPFONTEIN	116	0	29°53'54.81S	25°51'48.95E	Farm Portion	F01000000000011600000	Option 1B (Potable water Gariep - Rustfontein)
154	TAPFONTEIN	116	1	29°53'56S	25°51'33.19E	Farm Portion	F01000000000011600001	Option 1B (Potable water Gariep - Rustfontein)
155	BRANDNEGELFONTEIN	165	3	29°45'50.34S	25°57'23.41E	Farm Portion	F01000000000016500003	Option 1B (Potable water Gariep - Rustfontein)
156	DORPS GROND VAN	104	14	29°44'37.29S	25°57'40.11E	Farm Portion	F01000000000010400014	Option 1B (Potable water Gariep - Rustfontein)
157	WELGELUK	612	0	29°42'56.05S	25°58'51.71E	Farm Portion	F01000000000061200000	Option 1B (Potable water Gariep - Rustfontein)
158	ALLEMANSPUNT	151	1	29°51'55.46S	25°52'50.32E	Farm Portion	F01000000000015100001	Option 1B (Potable water Gariep - Rustfontein)
159	GOEDEHOOP	211	2	29°41'1.23S	25°59'18.98E	Farm Portion	F01000000000021100002	Option 1B (Potable water Gariep - Rustfontein)
160	DRAAIHOEK A	479	1	29°43'43.48S	25°57'56.86E	Farm Portion	F01000000000047900001	Option 1B (Potable water Gariep - Rustfontein)
161	FORTUIN	207	3	29°31'11.04S	26°5'0.49E	Farm Portion	F01000000000020700002	Option 1B (Potable water Gariep - Rustfontein)
162	GOEDEHOOP	211	1	29°40'56.78S	25°58'46.27E	Farm Portion	F01000000000021100001	Option 1B (Potable water Gariep - Rustfontein)

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
163	VAALPLAAT	478	1	29°42'22.31S	25°58'20.44E	Farm Portion	F01000000000047800001	Option 1B (Potable water Gariep - Rustfontein)
164	ROOIRANTJES	304	1	29°53'18.85S	25°51'57.01E	Farm Portion	F01000000000030400001	Option 1B (Potable water Gariep - Rustfontein)
165	OVERSCHOT	615	0	29°36'54.01S	26°2'9.11E	Farm Portion	F01000000000061500000	Option 1B (Potable water Gariep - Rustfontein)
166	FAIRVIEW	546	2	29°33'50.75S	26°3'7.8E	Farm Portion	F01000000000054600002	Option 1B (Potable water Gariep - Rustfontein)
167	MEADOWS B	503	0	29°48'11.65S	25°56'0.22E	Farm Portion	F01000000000050300000	Option 1B (Potable water Gariep - Rustfontein)
168	DE HOOP	548	1	29°34'29.82S	26°2'32.18E	Farm Portion	F01000000000054800001	Option 1B (Potable water Gariep - Rustfontein)
169	VAALPLAAT	478	0	29°42'4.27S	25°59'7.71E	Farm Portion	F01000000000047800000	Option 1B (Potable water Gariep - Rustfontein)
170	DORPS GROND VAN	104	0	29°45'1S	25°57'45.77E	Farm Portion	F01000000000010400000	Option 1B (Potable water Gariep - Rustfontein)
171	COURLAND	527	0	29°49'8.47S	25°56'11.42E	Farm Portion	F01000000000052700000	Option 1B (Potable water Gariep - Rustfontein)
172	BETHANY	610	0	29°38'33.79S	26°1'22.51E	Farm Portion	F01000000000061000000	Option 1B (Potable water Gariep - Rustfontein)
173	KRAPFONTEIN	2720	3	29°27'29.83S	26°8'4.88E	Farm Portion	F00300000000272000003	Option 1B (Potable water Gariep - Rustfontein)
174	MEADOWS B	503	1	29°48'13.41S	25°55'47.2E	Farm Portion	F01000000000050300001	Option 1B (Potable water Gariep - Rustfontein)
175	AASVOGEL KNOP	623	0	29°50'26.82S	25°53'42.5E	Farm Portion	F01000000000062300000	Option 1B (Potable water Gariep - Rustfontein)
176	UITHOEK	108	1	29°31'33.23S	26°4'41.42E	Farm Portion	F02700000000010800001	Option 1B (Potable water Gariep - Rustfontein)
177	DIEPFONTEIN	160	0	29°32'45.14S	26°4'1.9E	Farm Portion	F02700000000016000000	Option 1B (Potable water Gariep - Rustfontein)

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
178	KLIPBANKFONTEIN	116	0	30°27'31.2S	25°37'31.39E	Farm Portion	F02600000000011600000	Option 1B (Potable water Gariep - Rustfontein)
179	DRIEKUIL	130	6	30°31'31.24S	25°34'15.75E	Farm Portion	F02600000000013000006	Option 1B (Potable water Gariep - Rustfontein)
180	DE HOOP	548	0	29°34'25.84S	26°2'55.31E	Farm Portion	F01000000000054800000	Option 1B (Potable water Gariep - Rustfontein)
181	FAIRVIEW	546	1	29°33'46.94S	26°3'1.94E	Farm Portion	F01000000000054600001	Option 1B (Potable water Gariep - Rustfontein)
182	EENSGEVONDEN	331	0	30°28'51.71S	25°36'49.14E	Farm Portion	F02600000000033100000	Option 1B (Potable water Gariep - Rustfontein)
183	EENSGEVONDEN	331	5	30°28'50.61S	25°35'42.87E	Farm Portion	F02600000000033100005	Option 1B (Potable water Gariep - Rustfontein)
184	DIEPFONTEIN	160	1	29°32'40.3S	26°3'52.06E	Farm Portion	F02700000000016000001	Option 1B (Potable water Gariep - Rustfontein)
185	INHOEK	495	3	30°32'9.31S	25°31'26.92E	Farm Portion	F02600000000049500003	Option 1B (Potable water Gariep - Rustfontein)
186	SOPHIAS DAL	382	4	29°26'6.68S	26°10'6.03E	Farm Portion	F00300000000038200004	Option 1B (Potable water Gariep - Rustfontein)
187	INHOEK	495	1	30°32'32.19S	25°31'49.22E	Farm Portion	F02600000000049500001	Option 1B (Potable water Gariep - Rustfontein)
188	INHOEK	495	4	30°32'50.41S	25°29'57.34E	Farm Portion	F02600000000049500004	Option 1B (Potable water Gariep - Rustfontein)
189	BLOEMHOF	186	1	29°58'28.92S	25°49'8.35E	Farm Portion	F03400000000018600001	Option 1B (Potable water Gariep - Rustfontein)
190	AANELKAARSKRAAL	2	1	29°43'2.61S	25°58'8.74E	Farm Portion	F01000000000000200001	Option 1B (Potable water Gariep - Rustfontein)
191	LASTFONTEIN	261	0	29°48'20.53S	25°57'13.13E	Farm Portion	F01000000000026100000	Option 1B (Potable water Gariep - Rustfontein)
192	BAKENKOP	457	2	29°51'8.73S	25°53'20.6E	Farm Portion	F01000000000045700000	Option 1B (Potable water Gariep - Rustfontein)

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
193	HILLSIDE	301	0	30°10'56.28S	25°44'14.17E	Farm Portion	F03400000000030100000	Option 1B (Potable water Gariep - Rustfontein)
194	LORRAINE	342	1	30°0'10.29S	25°48'27.41E	Farm Portion	F03400000000034200001	Option 1B (Potable water Gariep - Rustfontein)
195	DRIEKUIL	130	7	30°30'58.12S	25°33'22.81E	Farm Portion	F02600000000013000007	Option 1B (Potable water Gariep - Rustfontein)
196	VEREENIGING	329	1	30°28'3.51S	25°36'6.38E	Farm Portion	F02600000000032900001	Option 1B (Potable water Gariep - Rustfontein)
197	LINDE`S VLEY	908	1	29°17'32.62S	26°30'49.69E	Farm Portion	F00300000000090800001	Option 1B (Potable water Gariep - Rustfontein)
198	LINDE`S VLEY	908	2	29°18'10.41S	26°30'42.28E	Farm Portion	F00300000000090800002	Option 1B (Potable water Gariep - Rustfontein)
199	RUSTFONTEIN	120	0	29°15'58.62S	26°34'23.86E	Farm Portion	F00300000000012000000	Option 1B (Potable water Gariep - Rustfontein)
200	ERFPOS	1465	0	29°16'36.99S	26°32'32.66E	Farm Portion	F00300000000146500000	Option 1B (Potable water Gariep - Rustfontein)
201	GELUKSDAM	551	0	29°35'16.88S	26°2'51.08E	Farm Portion	F01000000000055100000	Option 1B (Potable water Gariep - Rustfontein)
202	GELUKSDAM	551	1	29°35'10.42S	26°2'4.19E	Farm Portion	F01000000000055100001	Option 1B (Potable water Gariep - Rustfontein)
203	MEADOWS A	501	0	29°49'50.11S	25°55'11.89E	Farm Portion	F01000000000050100000	Option 1B (Potable water Gariep - Rustfontein)
204	VLAKDAM	589	0	29°46'24.49S	25°57'33.06E	Farm Portion	F01000000000058900000	Option 1B (Potable water Gariep - Rustfontein)
205	SUMMER HILL	275	4	30°33'8.03S	25°29'29.43E	Farm Portion	F02600000000027500004	Option 1B (Potable water Gariep - Rustfontein)
206	DRIEKUIL	499	0	30°29'58.08S	25°36'2.85E	Farm Portion	F02600000000049900000	Option 1B (Potable water Gariep - Rustfontein)
207	EENSGEVONDEN	331	2	30°28'28.79S	25°35'47.26E	Farm Portion	F02600000000033100002	Option 1B (Potable water Gariep - Rustfontein)

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
208	EENSGEVONDEN	331	3	30°28'47.22S	25°35'33.32E	Farm Portion	F02600000000033100003	Option 1B (Potable water Gariep - Rustfontein)
209	MOUNT BRAND	278	0	30°21'8.96S	25°42'53.64E	Farm Portion	F00200000000027800000	Option 1B (Potable water Gariep - Rustfontein)
210	EENZAAM B	333	0	29°27'13.3S	26°13'52.34E	Farm Portion	F02700000000033300000	Option 1B (Potable water Gariep - Rustfontein)
211	H.F VERWOERDDAM	523	2	30°35'41.9S	25°29'42.87E	Farm Portion	F02600000000052300002	Option 1B (Potable water Gariep - Rustfontein)
212	TWEEFONTEIN	1580	0	29°17'43.17S	26°28'38.52E	Farm Portion	F00300000000158000000	Option 1B (Potable water Gariep - Rustfontein)
213	ATLEHANG	3001	5	29°19'20.83S	26°26'29.3E	Farm Portion	F00300000000300100005	Option 1B (Potable water Gariep - Rustfontein)
214	H.F VERWOERDDAM	523	3	30°35'40.16S	25°29'20.25E	Farm Portion	F02600000000052300003	Option 1B (Potable water Gariep - Rustfontein)
215	SPRINGFONTEIN TOWNLAND B	495	3	30°15'19.84S	25°43'43.11E	Farm Portion	F00200000000049500003	Option 1B (Potable water Gariep - Rustfontein)
216	VILJOENSDAM	498	0	30°14'50.02S	25°44'41.06E	Farm Portion	F00200000000049800000	Option 1B (Potable water Gariep - Rustfontein)
217	HEREFORD	294	2	30°26'7.78S	25°37'39.07E	Farm Portion	F00200000000029400002	Option 1B (Potable water Gariep - Rustfontein)
218	FONTEINTJE	419	1	29°52'28.89S	25°52'29.05E	Farm Portion	F01000000000041900001	Option 1B (Potable water Gariep - Rustfontein)
219	BELLEVUE	166	1	29°46'51.58S	25°56'52.41E	Farm Portion	F01000000000016600001	Option 1B (Potable water Gariep - Rustfontein)
220	KLIPFONTEIN	109	1	30°8'0.49S	25°45'7.26E	Farm Portion	F03400000000010900001	Option 1B (Potable water Gariep - Rustfontein)
221	STOFKRAAL	110	0	29°57'38.07S	25°50'51.18E	Farm Portion	F03400000000011000000	Option 1B (Potable water Gariep - Rustfontein)
222	HELDERFONTEIN	184	0	29°15'18.83S	26°32'13.38E	Farm Portion	F00300000000018400000	Option 1B (Potable water Gariep - Rustfontein)

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
223	MONTAGU	1228	0	29°18'41.18S	26°26'32.02E	Farm Portion	F00300000000122800000	Option 1B (Potable water Gariep - Rustfontein)
224	STANDERTON	1227	0	29°18'22.88S	26°26'37.84E	Farm Portion	F00300000000122700000	Option 1B (Potable water Gariep - Rustfontein)
225	VAALBANK	127	1	29°28'32.47S	26°6'2.27E	Farm Portion	F02700000000012700001	Option 1B (Potable water Gariep - Rustfontein)
226	VAALBANK	127	0	29°28'44.81S	26°6'13.64E	Farm Portion	F02700000000012700000	Option 1B (Potable water Gariep - Rustfontein)
227	ALLEMANSPUNT	151	2	29°51'59.52S	25°52'50.17E	Farm Portion	F01000000000015100002	Option 1B (Potable water Gariep - Rustfontein)
228	NIET ZO GROOT	465	1	29°47'18.03S	25°56'30.96E	Farm Portion	F01000000000046500001	Option 1B (Potable water Gariep - Rustfontein)
229	ROOIRANTJES	304	0	29°53'21.16S	25°52'6E	Farm Portion	F01000000000030400000	Option 1B (Potable water Gariep - Rustfontein)
230	GRUISFONTEIN	35	0	30°1'22.56S	25°48'46.35E	Farm Portion	F03400000000003500000	Option 1B (Potable water Gariep - Rustfontein)
231	TROMPSBURG DOPS GROUND	141	9	30°2'20.23S	25°47'34.64E	Farm Portion	F03400000000014100009	Option 1B (Potable water Gariep - Rustfontein)
232	VILJOENSDAM	498	1	30°14'44.64S	25°43'32.09E	Farm Portion	F00200000000049800001	Option 1B (Potable water Gariep - Rustfontein)
233	KUILFONTEIN	195	0	30°17'45.36S	25°43'29.45E	Farm Portion	F00200000000019500000	Option 1B (Potable water Gariep - Rustfontein)
234	KUILFONTEIN	195	1	30°17'26.26S	25°43'32.9E	Farm Portion	F00200000000019500001	Option 1B (Potable water Gariep - Rustfontein)
235	KLEINPLAAS A	228	1	29°56'6.19S	25°50'9.88E	Farm Portion	F03400000000022800001	Option 1B (Potable water Gariep - Rustfontein)
236	STOFKRAAL	110	1	29°57'38.05S	25°49'34.18E	Farm Portion	F03400000000011000001	Option 1B (Potable water Gariep - Rustfontein)
237	HILLSIDE	301	1	30°10'48.71S	25°43'50.79E	Farm Portion	F03400000000030100001	Option 1B (Potable water Gariep - Rustfontein)

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
238	PRIOR GRANGE	282	0	30°19'13.94S	25°42'34.23E	Farm Portion	F00200000000028200000	Option 1B (Potable water Gariep - Rustfontein)
239	JENNY`S PASS	279	0	30°22'7S	25°42'16.59E	Farm Portion	F00200000000027900000	Option 1B (Potable water Gariep - Rustfontein)
240	VLEIPLAATS	356	1	30°7'48.2S	25°46'5.33E	Farm Portion	F03400000000035600001	Option 1B (Potable water Gariep - Rustfontein)
241	LANGVERWACHT	864	2	29°16'5.27S	26°36'49.01E	Farm Portion	F00300000000086400002	Option 1B (Potable water Gariep - Rustfontein)
242	BEWEE	93	0	29°17'45.23S	26°31'38.62E	Farm Portion	F00300000000009300000	Option 1B (Potable water Gariep - Rustfontein)
243	VAALKOP	2589	1	29°30'44.74S	26°5'12.2E	Farm Portion	F00300000000258900001	Option 1B (Potable water Gariep - Rustfontein)
244	CYPRESHOEK	1892	0	29°24'13.72S	26°19'28.29E	Farm Portion	F00300000000189200000	Option 1B (Potable water Gariep - Rustfontein)
245	ATLEHANG	3001	8	29°19'41.9S	26°25'16.45E	Farm Portion	F00300000000300100008	Option 1B (Potable water Gariep - Rustfontein)
246	ATLEHANG	3001	3	29°18'56.42S	26°26'16.59E	Farm Portion	F00300000000300100003	Option 1B (Potable water Gariep - Rustfontein)
247	KRAPFONTEIN	2720	7	29°27'1.87S	26°6'36.34E	Farm Portion	F00300000000272000007	Option 1B (Potable water Gariep - Rustfontein)
248	KRAPFONTEIN	2720	2	29°27'46.54S	26°7'19.42E	Farm Portion	F00300000000272000002	Option 1B (Potable water Gariep - Rustfontein)
249	SOPHIAS DAL	382	5	29°27'47.12S	26°11'54.53E	Farm Portion	F00300000000038200005	Option 1B (Potable water Gariep - Rustfontein)
250	BETHANY	610	1	29°38'12.54S	25°59'56.93E	Farm Portion	F01000000000061000001	Option 1B (Potable water Gariep - Rustfontein)
251	TROMPSBURG B	142	1	30°4'29.09S	25°46'39.93E	Farm Portion	F03400000000014200001	Option 1B (Potable water Gariep - Rustfontein)
252	AASVOGEL KNOP	1	1	29°50'27.78S	25°53'54.44E	Farm Portion	F01000000000000100001	Option 1B (Potable water Gariep - Rustfontein)

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
253	FORTUIN	207	2	29°31'15.02S	26°4'54.75E	Farm Portion	F01000000000020700003	Option 1B (Potable water Gariep - Rustfontein)
254	ELIM	550	0	29°35'56.18S	26°1'52.75E	Farm Portion	F01000000000055000000	Option 1B (Potable water Gariep - Rustfontein)
255	ELIM	550	2	29°36'7.69S	26°1'25.34E	Farm Portion	F01000000000055000002	Option 1B (Potable water Gariep - Rustfontein)
256	MEADOWS A	501	1	29°49'25.57S	25°54'45.91E	Farm Portion	F01000000000050100001	Option 1B (Potable water Gariep - Rustfontein)
257	COURLAND	527	1	29°48'46.32S	25°55'18.51E	Farm Portion	F01000000000052700001	Option 1B (Potable water Gariep - Rustfontein)
258	VLAKDAM	589	1	29°46'15.84S	25°57'10.87E	Farm Portion	F01000000000058900001	Option 1B (Potable water Gariep - Rustfontein)
259	WILGE DRAAI	125	0	29°25'44.68S	26°18'4E	Farm Portion	F02700000000012500000	Option 1B (Potable water Gariep - Rustfontein)
260	KLIPBANKFONTEIN	116	2	30°26'55.22S	25°36'59.42E	Farm Portion	F02600000000011600002	Option 1B (Potable water Gariep - Rustfontein)
261	POORTJE 365	365	1	29°30'5.45S	26°5'27.77E	Farm Portion	F02700000000036500001	Option 1B (Potable water Gariep - Rustfontein)
262	VEELGELUK	136	0	29°27'23.16S	26°13'7.22E	Farm Portion	F02700000000013600000	Option 1B (Potable water Gariep - Rustfontein)
263	KLEINPLAAS A	228	2	29°56'10.27S	25°50'13.01E	Farm Portion	F03400000000022800002	Option 1B (Potable water Gariep - Rustfontein)
264	LORRAINE	342	0	30°0'6.42S	25°48'44.11E	Farm Portion	F03400000000034200000	Option 1B (Potable water Gariep - Rustfontein)
265	BLOEMHOF	186	0	29°59'2.27S	25°49'37.52E	Farm Portion	F03400000000018600000	Option 1B (Potable water Gariep - Rustfontein)
266	MORGENZON	339	0	29°56'42.09S	25°49'39.9E	Farm Portion	F03400000000033900000	Option 1B (Potable water Gariep - Rustfontein)
267	MORGENZON	339	9	29°56'46S	25°49'52.47E	Farm Portion	F03400000000033900009	Option 1B (Potable water Gariep - Rustfontein)

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
268	PALMIETFONTEIN	67	2	29°16'20.24S	26°36'59.4E	Farm Portion	F03200000000006700002	Option 1B (Potable water Gariep - Rustfontein)
269	RUSTFONTEIN	120	1	29°16'6.46S	26°36'12.77E	Farm Portion	F00300000000012000001	Option 1B (Potable water Gariep - Rustfontein)
270	SUMMER HILL	275	1	30°33'59S	25°29'21.03E	Farm Portion	F02600000000027500001	Option 1B (Potable water Gariep - Rustfontein)
271	TWEE ZUSTERS	140	0	29°55'7.96S	25°50'59.23E	Farm Portion	F03400000000014000000	Option 1B (Potable water Gariep - Rustfontein)
272	TWEE ZUSTERS	140	2	29°55'6.14S	25°50'48.2E	Farm Portion	F03400000000014000002	Option 1B (Potable water Gariep - Rustfontein)
273	VLEIPLAATS	152	1	30°5'54.41S	25°46'3.07E	Farm Portion	F03400000000015200001	Option 1B (Potable water Gariep - Rustfontein)
274	PALMIETFONTEIN	67	0	29°16'2.91S	26°38'40.57E	Farm Portion	F03200000000006700000	Option 1B (Potable water Gariep - Rustfontein)
275	LANGVERWACHT	864	1	29°16'7.98S	26°36'45.55E	Farm Portion	F00300000000086400001	Option 1B (Potable water Gariep - Rustfontein)
276	H.F VERWOERDDAM	523	6	30°35'22.13S	25°29'27.19E	Farm Portion	F02600000000052300006	Option 1B (Potable water Gariep - Rustfontein)
277	SUMMER HILL	275	2	30°34'28.04S	25°29'46.72E	Farm Portion	F02600000000027500002	Option 1B (Potable water Gariep - Rustfontein)
278	PLAATJESFONTEIN	130	0	29°18'37.71S	26°31'7.74E	Farm Portion	F00300000000013000000	Option 1B (Potable water Gariep - Rustfontein)
279	ATLEHANG	3001	7	29°18'59.48S	26°24'36.39E	Farm Portion	F00300000000300100007	Option 1B (Potable water Gariep - Rustfontein)
280	LIEUW KOP	105	0	29°20'19.87S	26°22'51.35E	Farm Portion	F00300000000010500000	Option 1B (Potable water Gariep - Rustfontein)
281	ZUURFONTEIN	266	0	29°18'41.59S	26°28'14.22E	Farm Portion	F00300000000026600000	Option 1B (Potable water Gariep - Rustfontein)
282	INHOEK	495	0	30°33'15.91S	25°30'26.45E	Farm Portion	F02600000000049500000	Option 1B (Potable water Gariep - Rustfontein)

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
283	VERLAAT	2339	0	29°23'7.78S	26°20'59.88E	Farm Portion	F0030000000233900000	Option 1B (Potable water Gariep - Rustfontein)
284	SOPHIAS DAL	382	3	29°27'41.84S	26°12'18.01E	Farm Portion	F0030000000038200003	Option 1B (Potable water Gariep - Rustfontein)
285	BOSCHRAND B	404	2	30°24'6.72S	25°40'12.88E	Farm Portion	F0020000000040400002	Option 1B (Potable water Gariep - Rustfontein)
286	ATLEHANG	3001	4	29°19'5.92S	26°27'0.33E	Farm Portion	F0030000000300100004	Option 1B (Potable water Gariep - Rustfontein)
287	WASCHBANK	274	1	30°37'25.87S	25°29'27.27E	Farm Portion	F0260000000027400001	Option 1B (Potable water Gariep - Rustfontein)
288	AANDEEL	79	0	29°26'59.67S	26°18'2.72E	Farm Portion	F0270000000007900000	Option 1B (Potable water Gariep - Rustfontein)
289	H.F VERWOERDDAM	523	0	30°35'25.28S	25°28'46.69E	Farm Portion	F0260000000052300000	Option 1B (Potable water Gariep - Rustfontein)
290	MOUNT BRAND	278	1	30°20'29.91S	25°41'44.44E	Farm Portion	F0020000000027800001	Option 1B (Potable water Gariep - Rustfontein)
291	GRUISFONTEIN	35	1	30°1'20.19S	25°47'58.59E	Farm Portion	F0340000000003500001	Option 1B (Potable water Gariep - Rustfontein)
292	SOPHIAS DAL	382	3	29°27'37.13S	26°11'21.56E	Farm Portion	F0030000000038200003	Option 1B (Potable water Gariep - Rustfontein)
293	EXCELSIOR	267	0	30°23'27.3S	25°41'27.01E	Farm Portion	F0020000000026700000	Option 1B (Potable water Gariep - Rustfontein)
294	BOSCHRAND B	404	3	30°23'57.29S	25°40'19.67E	Farm Portion	F0020000000040400003	Option 1B (Potable water Gariep - Rustfontein)
295	MOUNT BRAND	278	3	30°20'41.96S	25°41'40.15E	Farm Portion	F0020000000027800003	Option 1B (Potable water Gariep - Rustfontein)
296	UITHOEK	108	0	29°31'32.46S	26°5'25.35E	Farm Portion	F0270000000010800000	Option 1B (Potable water Gariep - Rustfontein)
297	TWYFELFONTEIN	2083	0	29°18'57.99S	26°27'35.67E	Farm Portion	F0030000000208300000	Option 1B (Potable water Gariep - Rustfontein)

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
298	GRAYSHAVEN	2995	0	29°25'8.72S	26°10'34.95E	Farm Portion	F0030000000299500000	Option 1B (Potable water Gariep - Rustfontein)
299	KINDERSPRUIT	120	1	29°29'22.52S	26°5'43.26E	Farm Portion	F0270000000012000001	Option 1B (Potable water Gariep - Rustfontein)
300	SPRINGFONTEIN TOWNLAND B	495	0	30°15'18.83S	25°43'52.89E	Farm Portion	F0020000000049500000	Option 1B (Potable water Gariep - Rustfontein)
301	VEREENIGING	329	0	30°28'7.07S	25°36'27.69E	Farm Portion	F0260000000032900000	Option 1B (Potable water Gariep - Rustfontein)
302	ATLEHANG	3001	0	29°19'46.02S	26°25'51.67E	Farm Portion	F0030000000300100000	Option 1B (Potable water Gariep - Rustfontein)
303	KOPPIESKRAAL	2944	2	29°26'18.88S	26°12'0.2E	Farm Portion	F0030000000294400002	Option 1B (Potable water Gariep - Rustfontein)
304	KOPPIESKRAAL	2944	1	29°26'30.72S	26°11'11.1E	Farm Portion	F0030000000294400001	Option 1B (Potable water Gariep - Rustfontein)
305	KOPPIESKRAAL	407	1	29°24'21.37S	26°13'1.53E	Farm Portion	F0030000000040700001	Option 1B (Potable water Gariep - Rustfontein)
306	TROMPSBURG DOPS GROUND	141	0	30°3'12.08S	25°47'40.3E	Farm Portion	F0340000000014100000	Option 1B (Potable water Gariep - Rustfontein)
307	PALMIETFONTEIN	67	11	29°16'14.16S	26°37'6.59E	Farm Portion	F0320000000006700011	Option 1B (Potable water Gariep - Rustfontein)
308	VAALKOP	2589	2	29°30'48.93S	26°5'19.78E	Farm Portion	F0030000000258900002	Option 1B (Potable water Gariep - Rustfontein)
309	ATLEHANG	3001	6	29°19'18.26S	26°25'50.85E	Farm Portion	F0030000000300100006	Option 1B (Potable water Gariep - Rustfontein)
310	GALIPPOLI	1548	1	29°27'43.45S	26°6'22.58E	Farm Portion	F0030000000154800001	Option 1B (Potable water Gariep - Rustfontein)
311	GALIPPOLI	1548	2	29°27'49.61S	26°6'27.94E	Farm Portion	F0030000000154800002	Option 1B (Potable water Gariep - Rustfontein)
312	KINDERSPRUIT	428	0	29°29'31.15S	26°6'4.44E	Farm Portion	F0270000000042800000	Option 1B (Potable water Gariep - Rustfontein)

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
313	POORTJE 365	365	0	29°30'31.54S	26°5'59.26E	Farm Portion	F02700000000036500000	Option 1B (Potable water Gariep - Rustfontein)
314	TROMPSBURG B	142	0	30°4'39.83S	25°46'59.26E	Farm Portion	F03400000000014200000	Option 1B (Potable water Gariep - Rustfontein)
315	KRAPFONTEIN	2720	11	29°27'3.93S	26°6'44.1E	Farm Portion	F00300000000272000011	Option 1B (Potable water Gariep - Rustfontein)
316	WASCHBANK	274	12	30°37'24.49S	25°29'58.72E	Farm Portion	F02600000000027400012	Option 1B (Potable water Gariep - Rustfontein)
317	BLOEMFONTEIN	20848	0	29°9'26.42S	26°9'53.85E	Erven	F00300030002084800000	Option 1B Gravity pipeline to Bloemfontein
318	BLOEMFONTEIN	20539	0	29°8'45.72S	26°9'27.74E	Erven	F00300030002053900000	Option 1B Gravity pipeline to Bloemfontein
319	BLOEMFONTEIN	20163	0	29°10'0.35S	26°10'13.83E	Erven	F00300030002016300000	Option 1B Gravity pipeline to Bloemfontein
320	BLOEMFONTEIN	20544	0	29°8'48.8S	26°9'32.05E	Erven	F00300030002054400000	Option 1B Gravity pipeline to Bloemfontein
321	BLOEMFONTEIN	20551	0	29°8'53.09S	26°9'38.06E	Erven	F00300030002055100000	Option 1B Gravity pipeline to Bloemfontein
322	BLOEMFONTEIN	20798	0	29°9'0.05S	26°9'43.52E	Erven	F00300030002079800000	Option 1B Gravity pipeline to Bloemfontein
323	BLOEMFONTEIN	21216	0	29°9'40.7S	26°10'1.76E	Erven	F00300030002121600000	Option 1B Gravity pipeline to Bloemfontein
324	BLOEMFONTEIN	21224	0	29°9'47.6S	26°10'5.52E	Erven	F00300030002122400000	Option 1B Gravity pipeline to Bloemfontein
325	BLOEMFONTEIN	20157	0	29°10'3.9S	26°10'16.81E	Erven	F00300030002015700000	Option 1B Gravity pipeline to Bloemfontein
326	BLOEMFONTEIN	20160	0	29°10'2.43S	26°10'15.2E	Erven	F00300030002016000000	Option 1B Gravity pipeline to Bloemfontein
327	BLOEMFONTEIN	21245	0	29°9'35.72S	26°9'56.87E	Erven	F00300030002124500000	Option 1B Gravity pipeline to Bloemfontein
328	BLOEMFONTEIN	20535	0	29°8'43.09S	26°9'23.98E	Erven	F00300030002053500000	Option 1B Gravity pipeline to Bloemfontein
329	BLOEMFONTEIN	20541	0	29°8'46.95S	26°9'29.46E	Erven	F00300030002054100000	Option 1B Gravity pipeline to Bloemfontein
330	BLOEMFONTEIN	20546	0	29°8'50.01S	26°9'33.75E	Erven	F00300030002054600000	Option 1B Gravity pipeline to Bloemfontein
331	BLOEMFONTEIN	21220	0	29°9'44.27S	26°10'3.22E	Erven	F00300030002122000000	Option 1B Gravity pipeline to Bloemfontein
332	BLOEMFONTEIN	21222	0	29°9'45.88S	26°10'4.28E	Erven	F00300030002122200000	Option 1B Gravity pipeline to Bloemfontein
333	BLOEMFONTEIN	20133	0	29°10'17.89S	26°10'35.09E	Erven	F00300030002013300000	Option 1B Gravity pipeline to Bloemfontein
334	BLOEMFONTEIN	20817	0	29°9'11.9S	26°9'48.32E	Erven	F00300030002081700000	Option 1B Gravity pipeline to Bloemfontein

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
335	BLOEMFONTEIN	20849	0	29°9'25.23S	26°9'53.7E	Erven	F0030030002084900000	Option 1B Gravity pipeline to Bloemfontein
336	BLOEMFONTEIN	20844	0	29°9'30.52S	26°9'54.62E	Erven	F0030030002084400000	Option 1B Gravity pipeline to Bloemfontein
337	BLOEMFONTEIN	20845	0	29°9'29.5S	26°9'54.43E	Erven	F0030030002084500000	Option 1B Gravity pipeline to Bloemfontein
338	BLOEMFONTEIN	20819	0	29°9'20.8S	26°9'53.86E	Erven	F0030030002081900000	Option 1B Gravity pipeline to Bloemfontein
339	BLOEMFONTEIN	20501	0	29°8'42.59S	26°9'21.73E	Erven	F0030030002050100000	Option 1B Gravity pipeline to Bloemfontein
340	BLOEMFONTEIN	20156	0	29°10'13.16S	26°10'26.83E	Erven	F0030030002015600000	Option 1B Gravity pipeline to Bloemfontein
341	BLOEMFONTEIN	20538	0	29°8'45.08S	26°9'26.84E	Erven	F0030030002053800000	Option 1B Gravity pipeline to Bloemfontein
342	BLOEMFONTEIN	20540	0	29°8'46.33S	26°9'28.6E	Erven	F0030030002054000000	Option 1B Gravity pipeline to Bloemfontein
343	BLOEMFONTEIN	20543	0	29°8'48.18S	26°9'31.19E	Erven	F0030030002054300000	Option 1B Gravity pipeline to Bloemfontein
344	BLOEMFONTEIN	20548	0	29°8'51.25S	26°9'35.49E	Erven	F0030030002054800000	Option 1B Gravity pipeline to Bloemfontein
345	BLOEMFONTEIN	20550	0	29°8'52.47S	26°9'37.21E	Erven	F0030030002055000000	Option 1B Gravity pipeline to Bloemfontein
346	BLOEMFONTEIN	20801	0	29°9'1.26S	26°9'44.14E	Erven	F0030030002080100000	Option 1B Gravity pipeline to Bloemfontein
347	BLOEMFONTEIN	21217	0	29°9'41.64S	26°10'1.35E	Erven	F0030030002121700000	Option 1B Gravity pipeline to Bloemfontein
348	BLOEMFONTEIN	20846	0	29°9'28.47S	26°9'54.24E	Erven	F0030030002084600000	Option 1B Gravity pipeline to Bloemfontein
349	BLOEMFONTEIN	20847	0	29°9'27.45S	26°9'54.04E	Erven	F0030030002084700000	Option 1B Gravity pipeline to Bloemfontein
350	BLOEMFONTEIN	20870	0	29°9'3.21S	26°9'44.45E	Erven	F0030030002087000000	Option 1B Gravity pipeline to Bloemfontein
351	BLOEMFONTEIN	20881	0	29°9'7.29S	26°9'46.27E	Erven	F0030030002088100000	Option 1B Gravity pipeline to Bloemfontein
352	BLOEMFONTEIN	20554	0	29°8'54.98S	26°9'40.71E	Erven	F0030030002055400000	Option 1B Gravity pipeline to Bloemfontein
353	BLOEMFONTEIN	20555	0	29°8'55.7S	26°9'41.72E	Erven	F0030030002055500000	Option 1B Gravity pipeline to Bloemfontein
354	BLOEMFONTEIN	20884	0	29°9'8.91S	26°9'47.16E	Erven	F0030030002088400000	Option 1B Gravity pipeline to Bloemfontein
355	BLOEMFONTEIN	20552	0	29°8'53.7S	26°9'38.92E	Erven	F0030030002055200000	Option 1B Gravity pipeline to Bloemfontein
356	BLOEMFONTEIN	20553	0	29°8'54.32S	26°9'39.78E	Erven	F0030030002055300000	Option 1B Gravity pipeline to Bloemfontein
357	BLOEMFONTEIN	21243	0	29°9'33.67S	26°9'54.63E	Erven	F0030030002124300000	Option 1B Gravity pipeline to Bloemfontein
358	BLOEMFONTEIN	21246	0	29°9'33.14S	26°10'4.57E	Erven	F0030030002124600000	Option 1B Gravity pipeline to Bloemfontein
359	BLOEMFONTEIN	20158	0	29°10'4.36S	26°10'15.91E	Erven	F0030030002015800000	Option 1B Gravity pipeline to Bloemfontein

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
360	BLOEMFONTEIN	20161	0	29°10'2.87S	26°10'14.3E	Erven	F0030030002016100000	Option 1B Gravity pipeline to Bloemfontein
361	BLOEMFONTEIN	20536	0	29°8'43.8S	26°9'25E	Erven	F0030030002053600000	Option 1B Gravity pipeline to Bloemfontein
362	BLOEMFONTEIN	21196	0	29°9'39.94S	26°10'0.17E	Erven	F0030030002119600000	Option 1B Gravity pipeline to Bloemfontein
363	BLOEMFONTEIN	20545	0	29°8'49.41S	26°9'32.91E	Erven	F0030030002054500000	Option 1B Gravity pipeline to Bloemfontein
364	BLOEMFONTEIN	20547	0	29°8'50.63S	26°9'34.62E	Erven	F0030030002054700000	Option 1B Gravity pipeline to Bloemfontein
365	BLOEMFONTEIN	21221	0	29°9'45.08S	26°10'3.75E	Erven	F0030030002122100000	Option 1B Gravity pipeline to Bloemfontein
366	BLOEMFONTEIN	21223	0	29°9'46.79S	26°10'4.78E	Erven	F0030030002122300000	Option 1B Gravity pipeline to Bloemfontein
367	BLOEMFONTEIN	21240	0	29°9'48.89S	26°10'6.11E	Erven	F0030030002124000000	Option 1B Gravity pipeline to Bloemfontein
368	BLOEMFONTEIN	20879	0	29°9'5.39S	26°9'46.97E	Erven	F0030030002087900000	Option 1B Gravity pipeline to Bloemfontein
369	BLOEMFONTEIN	21218	0	29°9'42.65S	26°10'2.13E	Erven	F0030030002121800000	Option 1B Gravity pipeline to Bloemfontein
370	BLOEMFONTEIN	20159	0	29°10'16.58S	26°10'26.33E	Erven	F0030030002015900000	Option 1B Gravity pipeline to Bloemfontein
371	BLOEMFONTEIN	20800	0	29°9'0.71S	26°9'45.08E	Erven	F0030030002080000000	Option 1B Gravity pipeline to Bloemfontein
372	BLOEMFONTEIN	20557	0	29°8'57.37S	26°9'43.48E	Erven	F0030030002055700000	Option 1B Gravity pipeline to Bloemfontein
373	BLOEMFONTEIN	20886	0	29°9'9.73S	26°9'48.36E	Erven	F0030030002088600000	Option 1B Gravity pipeline to Bloemfontein
374	BLOEMFONTEIN	20885	0	29°9'8.36S	26°9'48.11E	Erven	F0030030002088500000	Option 1B Gravity pipeline to Bloemfontein
375	BLOEMFONTEIN	19166	0	29°9'8.62S	26°9'49.08E	Erven	F0030030001916600000	Option 1B Gravity pipeline to Bloemfontein
376	BLOEMFONTEIN	20872	0	29°9'3.71S	26°9'46.2E	Erven	F0030030002087200000	Option 1B Gravity pipeline to Bloemfontein
377	BLOEMFONTEIN	19169	0	29°9'5.66S	26°9'47.93E	Erven	F0030030001916900000	Option 1B Gravity pipeline to Bloemfontein
378	BLOEMFONTEIN	20818	0	29°9'11.34S	26°9'49.27E	Erven	F0030030002081800000	Option 1B Gravity pipeline to Bloemfontein
379	BLOEMFONTEIN	20799	0	29°8'59.47S	26°9'44.52E	Erven	F0030030002079900000	Option 1B Gravity pipeline to Bloemfontein
380	BLOEMFONTEIN	20871	0	29°9'2.57S	26°9'45.59E	Erven	F0030030002087100000	Option 1B Gravity pipeline to Bloemfontein
381	BLOEMFONTEIN	20159	1	29°10'7.5S	26°10'18.8E	Erven	F0030030002015900001	Option 1B Gravity pipeline to Bloemfontein
382	BLOEMFONTEIN	21164	0	29°9'53.95S	26°10'8.44E	Erven	F0030030002116400000	Option 1B Gravity pipeline to Bloemfontein
383	BLOEMFONTEIN	20820	0	29°9'20.32S	26°9'55.16E	Erven	F0030030002082000000	Option 1B Gravity pipeline to Bloemfontein
384	BLOEMFONTEIN	20502	0	29°8'41.84S	26°9'22.41E	Erven	F0030030002050200000	Option 1B Gravity pipeline to Bloemfontein

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
385	BLOEMFONTEIN	20843	0	29°9'31.65S	26°9'54.81E	Erven	F0030030002084300000	Option 1B Gravity pipeline to Bloemfontein
386	BLOEMFONTEIN	20850	0	29°9'24.68S	26°9'52.82E	Erven	F0030030002085000000	Option 1B Gravity pipeline to Bloemfontein
387	BLOEMFONTEIN	20537	0	29°8'44.43S	26°9'25.92E	Erven	F0030030002053700000	Option 1B Gravity pipeline to Bloemfontein
388	BLOEMFONTEIN	20873	0	29°9'4.28S	26°9'45.21E	Erven	F0030030002087300000	Option 1B Gravity pipeline to Bloemfontein
389	BLOEMFONTEIN	20542	0	29°8'47.56S	26°9'30.33E	Erven	F0030030002054200000	Option 1B Gravity pipeline to Bloemfontein
390	BLOEMFONTEIN	20878	0	29°9'5.91S	26°9'46.07E	Erven	F0030030002087800000	Option 1B Gravity pipeline to Bloemfontein
391	BLOEMFONTEIN	20549	0	29°8'51.87S	26°9'36.35E	Erven	F0030030002054900000	Option 1B Gravity pipeline to Bloemfontein
392	BLOEMFONTEIN	20556	0	29°8'56.44S	26°9'42.78E	Erven	F0030030002055600000	Option 1B Gravity pipeline to Bloemfontein
393	BLOEMFONTEIN	21219	0	29°9'43.47S	26°10'2.68E	Erven	F0030030002121900000	Option 1B Gravity pipeline to Bloemfontein
394	BLOEMFONTEIN	21241	0	29°9'44.71S	26°10'2.26E	Erven	F0030030002124100000	Option 1B Gravity pipeline to Bloemfontein
395	BLOEMFONTEIN	20880	0	29°9'6.67S	26°9'47.35E	Erven	F0030030002088000000	Option 1B Gravity pipeline to Bloemfontein
396	CALEB MOTSABI	5702	0	29°13'30.37S	26°14'37.93E	Erven	F0030090000570200000	Option 1B Gravity pipeline to Bloemfontein
397	KLIPFONTEIN	716	0	29°13'23.91S	26°15'46.42E	Farm	F0030000000071600000	Option 1B Gravity pipeline to Bloemfontein
398	LIEUW KOP	105	0	29°20'18.96S	26°22'52.36E	Farm	F0030000000010500000	Option 1B Gravity pipeline to Bloemfontein
399	HALDON	894	0	29°8'30.16S	26°9'11.16E	Farm	F0030000000089400000	Option 1B Gravity pipeline to Bloemfontein
400	BLYDSCHAP	504	0	29°15'30.83S	26°18'59.28E	Farm	F0030000000050400000	Option 1B Gravity pipeline to Bloemfontein
401	GROOTVLEI	206	0	29°14'19.66S	26°17'25.87E	Farm	F0030000000020600000	Option 1B Gravity pipeline to Bloemfontein
402	RAVENSWOOD	1611	0	29°14'8.58S	26°16'14.34E	Farm	F0030000000161100000	Option 1B Gravity pipeline to Bloemfontein
403	TOCHGEKRIJ	2301	0	29°16'10.61S	26°20'37.31E	Farm	F0030000000230100000	Option 1B Gravity pipeline to Bloemfontein
404	WELGEVONDEN	112	0	29°17'39.13S	26°19'45.82E	Farm	F0030000000011200000	Option 1B Gravity pipeline to Bloemfontein
405	SYDENHAM	445	0	29°12'40.95S	26°11'43.88E	Farm	F0030000000044500000	Option 1B Gravity pipeline to Bloemfontein
406	DANIELSRUST	717	0	29°13'29.13S	26°13'20.81E	Farm	F0030000000071700000	Option 1B Gravity pipeline to Bloemfontein
407	NALISVIEW	2835	0	29°14'14.67S	26°13'50.55E	Farm	F0030000000283500000	Option 1B Gravity pipeline to Bloemfontein
408	CALEB MOTSABI	3016	0	29°12'55.23S	26°14'41.78E	Farm	F0030000000301600000	Option 1B Gravity pipeline to Bloemfontein
409	BRANDKOP	702	0	29°10'32.57S	26°9'41.93E	Farm	F0030000000070200000	Option 1B Gravity pipeline to Bloemfontein

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
410	KARREEFONTEIN	733	0	29°18'46.81S	26°21'33.28E	Farm	F0030000000073300000	Option 1B Gravity pipeline to Bloemfontein
411	ROCKLANDS 684	655	0	29°12'9.4S	26°12'28.7E	Farm	F0030000000065500000	Option 1B Gravity pipeline to Bloemfontein
412	MANGAUNG 3005	656	0	29°12'29.59S	26°13'7.18E	Farm	F0030000000065600000	Option 1B Gravity pipeline to Bloemfontein
413	BLOEMFONTEIN	654	0	29°7'34.31S	26°12'3.59E	Farm	F0030000000065400000	Option 1B Gravity pipeline to Bloemfontein
414	WELGEVONDEN	112	2	29°18'6.6S	26°19'42.72E	Farm Portion	F0030000000011200002	Option 1B Gravity pipeline to Bloemfontein
415	WELGEVONDEN	112	0	29°17'49.5S	26°18'20.58E	Farm Portion	F0030000000011200000	Option 1B Gravity pipeline to Bloemfontein
416	RAVENSWOOD	1611	0	29°14'6.92S	26°16'19.69E	Farm Portion	F0030000000161100000	Option 1B Gravity pipeline to Bloemfontein
417	GROOTVLEI	206	0	29°14'18.25S	26°17'30.75E	Farm Portion	F0030000000020600000	Option 1B Gravity pipeline to Bloemfontein
418	TOCHGEKRIJ	2301	0	29°16'11.22S	26°20'41.4E	Farm Portion	F0030000000230100000	Option 1B Gravity pipeline to Bloemfontein
419	BLOEMFONTEIN	654	241	29°8'40.05S	26°9'22.55E	Farm Portion	F0030000000065400241	Option 1B Gravity pipeline to Bloemfontein
420	SYDENHAM	445	0	29°12'9.27S	26°12'0.91E	Farm Portion	F0030000000044500000	Option 1B Gravity pipeline to Bloemfontein
421	BLOEMFONTEIN	654	267	29°9'57.59S	26°10'28.8E	Farm Portion	F0030000000065400267	Option 1B Gravity pipeline to Bloemfontein
422	BLOEMFONTEIN	654	262	29°9'0.42S	26°9'58.36E	Farm Portion	F0030000000065400262	Option 1B Gravity pipeline to Bloemfontein
423	BLYDSCHAP	504	0	29°15'37.25S	26°18'57.92E	Farm Portion	F0030000000050400000	Option 1B Gravity pipeline to Bloemfontein
424	BLOEMFONTEIN	654	269	29°8'47.32S	26°9'37.79E	Farm Portion	F0030000000065400269	Option 1B Gravity pipeline to Bloemfontein
425	LIEUW KOP	105	0	29°20'19.87S	26°22'51.35E	Farm Portion	F0030000000010500000	Option 1B Gravity pipeline to Bloemfontein
426	HALDON	894	1	29°8'39.24S	26°9'14.45E	Farm Portion	F0030000000089400001	Option 1B Gravity pipeline to Bloemfontein

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
427	BLOEMFONTEIN	654	0	29°11'9.8S	26°11'22.66E	Farm Portion	F0030000000065400000	Option 1B Gravity pipeline to Bloemfontein
428	ROCKLANDS 684	684	2	29°12'23.86S	26°12'39.81E	Farm Portion	F0030000000068400002	Option 1B Gravity pipeline to Bloemfontein
429	KLIPFONTEIN	716	0	29°13'32.19S	26°15'28.45E	Farm Portion	F0030000000071600000	Option 1B Gravity pipeline to Bloemfontein
430	BRANDKOP	702	0	29°10'11.72S	26°9'3.61E	Farm Portion	F0030000000070200000	Option 1B Gravity pipeline to Bloemfontein
431	ROCKLANDS 684	684	10	29°12'33.8S	26°12'39.55E	Farm Portion	F0030000000068400010	Option 1B Gravity pipeline to Bloemfontein
432	RE/3005 (associated with Mangaung)	3005	0	29°12'36.48S	26°13'7.13E	Farm Portion	F0030000000300500000	Option 1B Gravity pipeline to Bloemfontein
433	BLOEMFONTEIN	654	321	29°10'40.48S	26°11'2.1E	Farm Portion	F0030000000065400321	Option 1B Gravity pipeline to Bloemfontein
434	SYDENHAM	445	6	29°12'19.99S	26°12'10.72E	Farm Portion	F0030000000044500006	Option 1B Gravity pipeline to Bloemfontein
435	BLOEMFONTEIN	654	371	29°9'56.6S	26°10'51.57E	Farm Portion	F0030000000065400371	Option 1B Gravity pipeline to Bloemfontein
436	NALISVIEW	2835	1	29°13'59.92S	26°13'48.77E	Farm Portion	F0030000000283500001	Option 1B Gravity pipeline to Bloemfontein
437	BLOEMFONTEIN	654	0	29°7'29.68S	26°12'39.84E	Farm Portion	F0030000000065400000	Option 1B Gravity pipeline to Bloemfontein
438	BLOEMFONTEIN	654	238	29°10'24.94S	26°10'39.04E	Farm Portion	F0030000000065400238	Option 1B Gravity pipeline to Bloemfontein
439	BLOEMFONTEIN	654	441	29°11'0.22S	26°11'42.46E	Farm Portion	F0030000000065400441	Option 1B Gravity pipeline to Bloemfontein
440	WELGEVONDEN	112	3	29°16'39.12S	26°20'34.71E	Farm Portion	F0030000000011200003	Option 1B Gravity pipeline to Bloemfontein
441	ROCKLANDS 684	684	1	29°12'0.52S	26°12'30.57E	Farm Portion	F0030000000068400001	Option 1B Gravity pipeline to Bloemfontein

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
442	KARREEFONTEIN	733	0	29°18'48.3S	26°21'37.91E	Farm Portion	F0030000000073300000	Option 1B Gravity pipeline to Bloemfontein
443	DANIELSRUST	717	0	29°13'29.03S	26°13'26.58E	Farm Portion	F0030000000071700000	Option 1B Gravity pipeline to Bloemfontein
444	CALEB MOTSABI	3016	5	29°13'20.6S	26°14'38.87E	Farm Portion	F0030000000301600005	Option 1B Gravity pipeline to Bloemfontein
445	BLOEMFONTEIN	654	277	29°9'27.12S	26°9'59.26E	Farm Portion	F0030000000065400277	Option 1B Gravity pipeline to Bloemfontein
446	ROCKLANDS 684	684	9	29°12'26.14S	26°12'57.51E	Farm Portion	F0030000000068400009	Option 1B Gravity pipeline to Bloemfontein
447	ROCKLANDS AGRICULTURAL PLOTS	4	0	29°12'14.53S	26°12'30.61E	Agri Holding	F0030072000000400000	Option 1B Gravity pipeline to Bloemfontein
448	BLOEMFONTEIN	21165	0	29°9'54.13S	26°10'7.96E	Public Place	F0030030002116500000	Option 1B Gravity pipeline to Bloemfontein
449	BLOEMFONTEIN	20854	0	29°9'18.05S	26°9'47.91E	Public Place	F0030030002085400000	Option 1B Gravity pipeline to Bloemfontein
450	BLOEMFONTEIN	21244	0	29°9'35.46S	26°9'55.99E	Public Place	F0030030002124400000	Option 1B Gravity pipeline to Bloemfontein
451	BLOEMFONTEIN	21242	0	29°9'44.91S	26°10'1.78E	Public Place	F0030030002124200000	Option 1B Gravity pipeline to Bloemfontein
452	BLOEMFONTEIN	20162	0	29°10'1.07S	26°10'12.63E	Public Place	F0030030002016200000	Option 1B Gravity pipeline to Bloemfontein
453	BLOEMFONTEIN	654	0	29°7'34.31S	26°12'3.59E	Farm	F0030000000065400000	Welbedacht to Longridge pipeline
454	BLOEMFONTEIN	654	441	29°11'0.22S	26°11'42.46E	Farm Portion	F0030000000065400441	Welbedacht to Longridge pipeline
455	BLOEMFONTEIN	654	0	29°7'29.68S	26°12'39.84E	Farm Portion	F0030000000065400000	Welbedacht to Longridge pipeline
456	ATLEHANG	3001	0	29°20'30.33S	26°25'18.64E	Farm	F0030000000300100000	Option 1B reservoirs and roads
457	LIEUW KOP	105	0	29°20'18.96S	26°22'52.36E	Farm	F0030000000010500000	Option 1B reservoirs and roads
458	CICILIA	1641	0	29°21'12.75S	26°23'48.6E	Farm	F0030000000164100000	Option 1B reservoirs and roads

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
459	KARREEFONTEIN	733	0	29°18'46.81S	26°21'33.28E	Farm	F0030000000073300000	Option 1B reservoirs and roads
460	NIEUW KARREEFONTEIN	945	0	29°17'39.63S	26°24'10.09E	Farm	F0030000000094500000	Option 1B reservoirs and roads
461	LOVEDALE	1888	0	29°18'5.77S	26°23'8.46E	Farm	F0030000000188800000	Option 1B reservoirs and roads
462	VAALPLAAT	2237	0	29°22'5.81S	26°23'4.72E	Farm	F0030000000223700000	Option 1B reservoirs and roads
463	DE HEK	296	0	29°18'18.31S	26°24'56.11E	Farm	F0030000000029600000	Option 1B reservoirs and roads
464	ATLEHANG	3001	6	29°19'18.26S	26°25'50.85E	Farm Portion	F0030000000300100006	Option 1B reservoirs and roads
465	ATLEHANG	3001	24	29°20'46.96S	26°24'32.84E	Farm Portion	F0030000000300100024	Option 1B reservoirs and roads
466	LIEUW KOP	105	0	29°20'19.87S	26°22'51.35E	Farm Portion	F0030000000010500000	Option 1B reservoirs and roads
467	CICILIA	1641	1	29°21'3.28S	26°23'51.9E	Farm Portion	F0030000000164100001	Option 1B reservoirs and roads
468	ATLEHANG	3001	8	29°19'41.9S	26°25'16.45E	Farm Portion	F0030000000300100008	Option 1B reservoirs and roads
469	CICILIA	1641	2	29°21'15.1S	26°23'50.87E	Farm Portion	F0030000000164100002	Option 1B reservoirs and roads
470	ATLEHANG	3001	0	29°19'46.02S	26°25'51.67E	Farm Portion	F0030000000300100000	Option 1B reservoirs and roads
471	VAALPLAAT	2237	0	29°22'5.81S	26°23'4.72E	Farm Portion	F0030000000223700000	Option 1B reservoirs and roads
472	ATLEHANG	3001	20	29°20'10.56S	26°25'27.13E	Farm Portion	F0030000000300100020	Option 1B reservoirs and roads
473	NIEUW KARREEFONTEIN	945	0	29°17'39.63S	26°24'10.09E	Farm Portion	F0030000000094500000	Option 1B reservoirs and roads
474	ATLEHANG	3001	12	29°19'50.11S	26°26'19.26E	Farm Portion	F0030000000300100012	Option 1B reservoirs and roads
475	LOVEDALE	1888	0	29°18'7.29S	26°23'12.65E	Farm Portion	F0030000000188800000	Option 1B reservoirs and roads

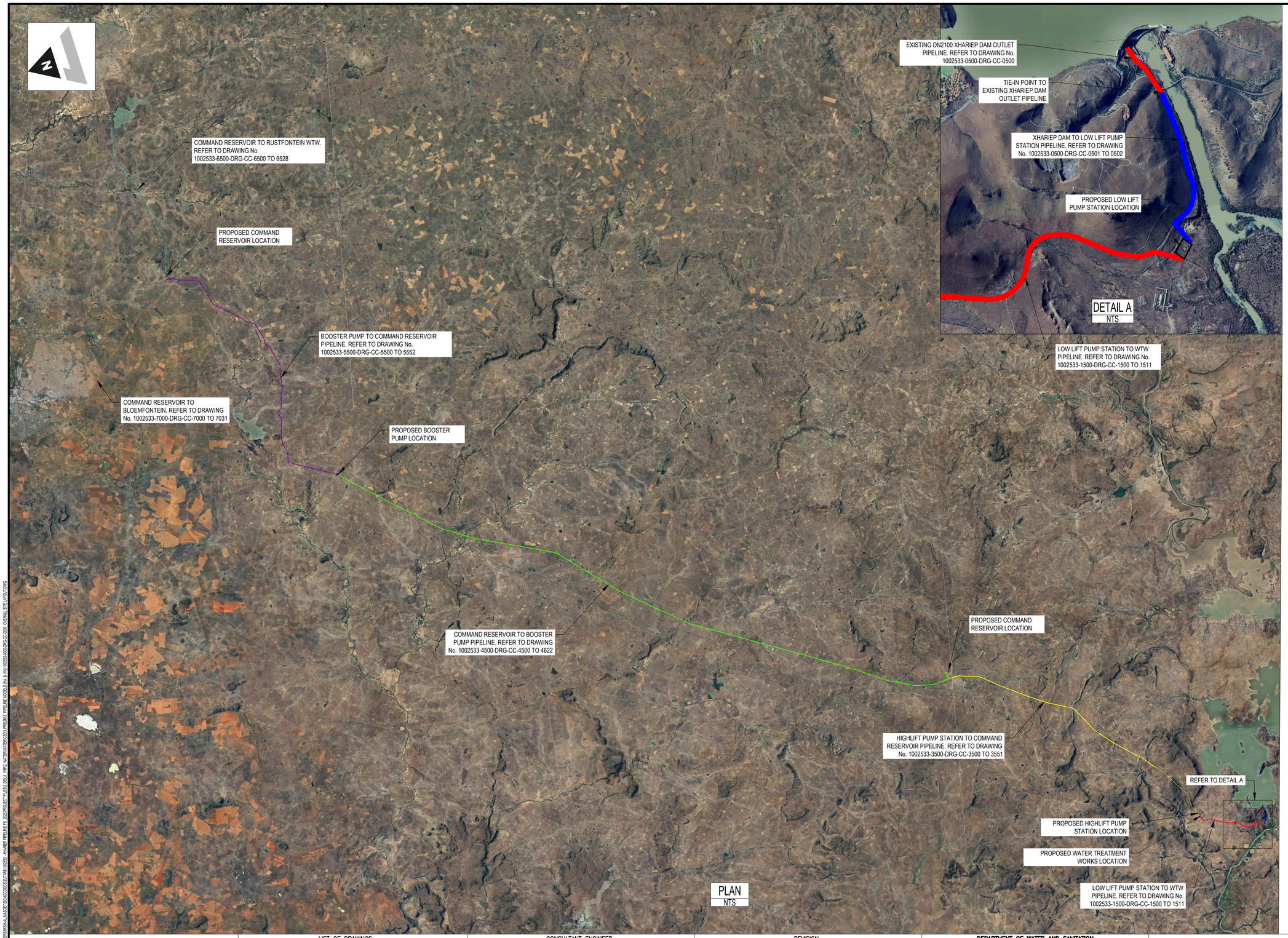
No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
476	DE HEK	296	0	29°18'18.31S	26°24'56.11E	Farm Portion	F0030000000029600000	Option 1B reservoirs and roads
477	ATLEHANG	3001	18	29°20'52.73S	26°25'29.06E	Farm Portion	F0030000000300100018	Option 1B reservoirs and roads
478	ATLEHANG	3001	16	29°20'14.19S	26°26'1.67E	Farm Portion	F0030000000300100016	Option 1B reservoirs and roads
479	ATLEHANG	3001	23	29°20'34.82S	26°25'9.38E	Farm Portion	F0030000000300100023	Option 1B reservoirs and roads
480	ATLEHANG	3001	21	29°20'10.36S	26°25'2.48E	Farm Portion	F0030000000300100021	Option 1B reservoirs and roads
481	ATLEHANG	3001	1	29°18'38.35S	26°24'57.96E	Farm Portion	F0030000000300100001	Option 1B reservoirs and roads
482	ATLEHANG	3001	7	29°18'59.48S	26°24'36.39E	Farm Portion	F0030000000300100007	Option 1B reservoirs and roads
483	ATLEHANG	3001	22	29°20'19.7S	26°25'4.84E	Farm Portion	F0030000000300100022	Option 1B reservoirs and roads
484	ATLEHANG	3001	2	29°18'58.2S	26°25'18.73E	Farm Portion	F0030000000300100002	Option 1B reservoirs and roads
485	ATLEHANG	3001	9	29°19'44.33S	26°25'48.22E	Farm Portion	F0030000000300100009	Option 1B reservoirs and roads
486	KARREEFONTEIN	733	0	29°18'48.3S	26°21'37.91E	Farm Portion	F0030000000073300000	Option 1B reservoirs and roads
487	UITHOEK	108	0	29°31'31.76S	26°5'24.93E	Farm	F0270000000010800000	Booster pump station 1B
488	VAALKOP	2589	0	29°29'53.88S	26°4'7.16E	Farm	F0030000000258900000	Booster pump station 1B
489	UITHOEK	108	0	29°31'32.46S	26°5'25.35E	Farm Portion	F0270000000010800000	Booster pump station 1B
490	VAALKOP	2589	0	29°30'14.84S	26°4'47.68E	Farm Portion	F0030000000258900000	Booster pump station 1B
491	VAALKOP	2589	2	29°30'48.93S	26°5'19.78E	Farm Portion	F0030000000258900002	Booster pump station 1B

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
492	VAALKOP	2589	1	29°30'44.74S	26°5'12.2E	Farm Portion	F00300000000258900001	Booster pump station 1B
493	H.F VERWOERDDAM	523	0	30°35'58.59S	25°29'0.02E	Farm	F02600000000052300000	Low Lift pump station
494	WASCHBANK	274	0	30°37'25.03S	25°29'29.42E	Farm	F02600000000027400000	Low Lift pump station
495	WASCHBANK	274	9	30°37'35.07S	25°29'12E	Farm Portion	F02600000000027400009	Low Lift pump station
496	WASCHBANK	274	8	30°37'34.63S	25°29'5.12E	Farm Portion	F02600000000027400008	Low Lift pump station
497	H.F VERWOERDDAM	523	0	30°35'25.28S	25°28'46.69E	Farm Portion	F02600000000052300000	Low Lift pump station
498	WASCHBANK	274	1	30°37'25.87S	25°29'27.27E	Farm Portion	F02600000000027400001	Low Lift pump station
499	SPRINGFONTEIN TOWNLAND B	495	0	30°14'55.64S	25°42'10.5E	Farm	F00200000000049500000	Reservoir Site 1B
500	VILJOENSDAM	498	0	30°14'53.32S	25°44'22.37E	Farm	F00200000000049800000	Reservoir Site 1B
501	SPRINGFONTEIN TOWNLAND B	495	3	30°15'19.84S	25°43'43.11E	Farm Portion	F00200000000049500003	Reservoir Site 1B
502	VILJOENSDAM	498	0	30°14'50.02S	25°44'41.06E	Farm Portion	F00200000000049800000	Reservoir Site 1B
503	SPRINGFONTEIN TOWNLAND B	495	0	30°15'18.83S	25°43'52.89E	Farm Portion	F00200000000049500000	Reservoir Site 1B
504	VILJOENSDAM	498	1	30°14'44.64S	25°43'32.09E	Farm Portion	F00200000000049800001	Reservoir Site 1B
505	DONKERPOORT SCHOOLSITE 472	1	0	30°31'40.51S	25°29'42.52E	Farm	F02600000000000100000	WTW 1B
506	INHOEK	495	0	30°31'38.15S	25°30'15.57E	Farm	F02600000000049500000	WTW 1B
507	DONKERPOORT STATION 53	2	0	30°31'50.06S	25°29'46.31E	Farm	F02600000000000200000	WTW 1B
508	INHOEK	495	1	30°32'32.19S	25°31'49.22E	Farm Portion	F02600000000049500001	WTW 1B

No	Farm Name	Farm/Erf No	Portion	Latitude	Longitude	Property Type	SG Code	Infrastructure
509	INHOEK	495	4	30°32'50.41S	25°29'57.34E	Farm Portion	F02600000000049500004	WTW 1B
510	INHOEK	495	3	30°32'9.31S	25°31'26.92E	Farm Portion	F02600000000049500003	WTW 1B
511	INHOEK	495	0	30°33'15.91S	25°30'26.45E	Farm Portion	F02600000000049500000	WTW 1B
512	INHOEK	495	0	30°32'24.21S	25°29'55.2E	Farm Portion	F02600000000049500000	WTW 1B
513	INHOEK	495	1	30°31'1.4S	25°30'37.92E	Farm Portion	F02600000000049500001	WTW 1B

Appendix B

Site Layout Drawings



LEGEND

- PROPOSED XHARIED DAM TO LOWLIFT PUMPSTATION PIPELINE
- PROPOSED HIGHLIFT PUMPSTATION TO COMMAND RESERVOIR PIPELINE
- PROPOSED COMMAND RESERVOIR TO BOOSTER PUMP PIPELINE
- PROPOSED LOWLIFT PUMPSTATION TO WATER TREATMENT WORKS PIPELINE
- PROPOSED BOOSTER PUMP TO COMMAND RESERVOIR PIPELINE
- PROPOSED COMMAND RESERVOIR TO LONGRIDGE RESERVOIR PIPELINE
- PROPOSED COMMAND RESERVOIR TO RUSTFONTEIN WTW PIPELINE

0.25 0 0.5 1m
SCALE 1:25

THE MASTER HELD AT AURECON BEARS THE ORIGINAL SIGNATURE OF APPROVAL

LIST OF DRAWINGS

SHEET	DESCRIPTION	OTHER No.	REG. No.
1	DESCRIPTION		

CONSULTANT ENGINEER

ZUTARI DRG No.: 1002533-0000-DRG-CC-0001
DESIGN: M.MASOET
ZUTARI APPROVER (Pr. Eng): S.K DATE:
DRAWN: M.MASOET

ZUTARI
IMPACT. ENGINEERED.

REVISION

MOD No.	DATE	DESCRIPTION	FOR	DWS
A	02/2025	ISSUED FOR INFORMATION	S.K	

DEPARTMENT OF WATER AND SANITATION
REPUBLIC OF SOUTH AFRICA

HEAD OFFICE
ENGINEERING SERVICES
PRIVATE BAG X313
PRETORIA 0001

SEDIBENG BUILDING
185 FRANCIS BAARD STREET
PRETORIA
(012) 336-7500

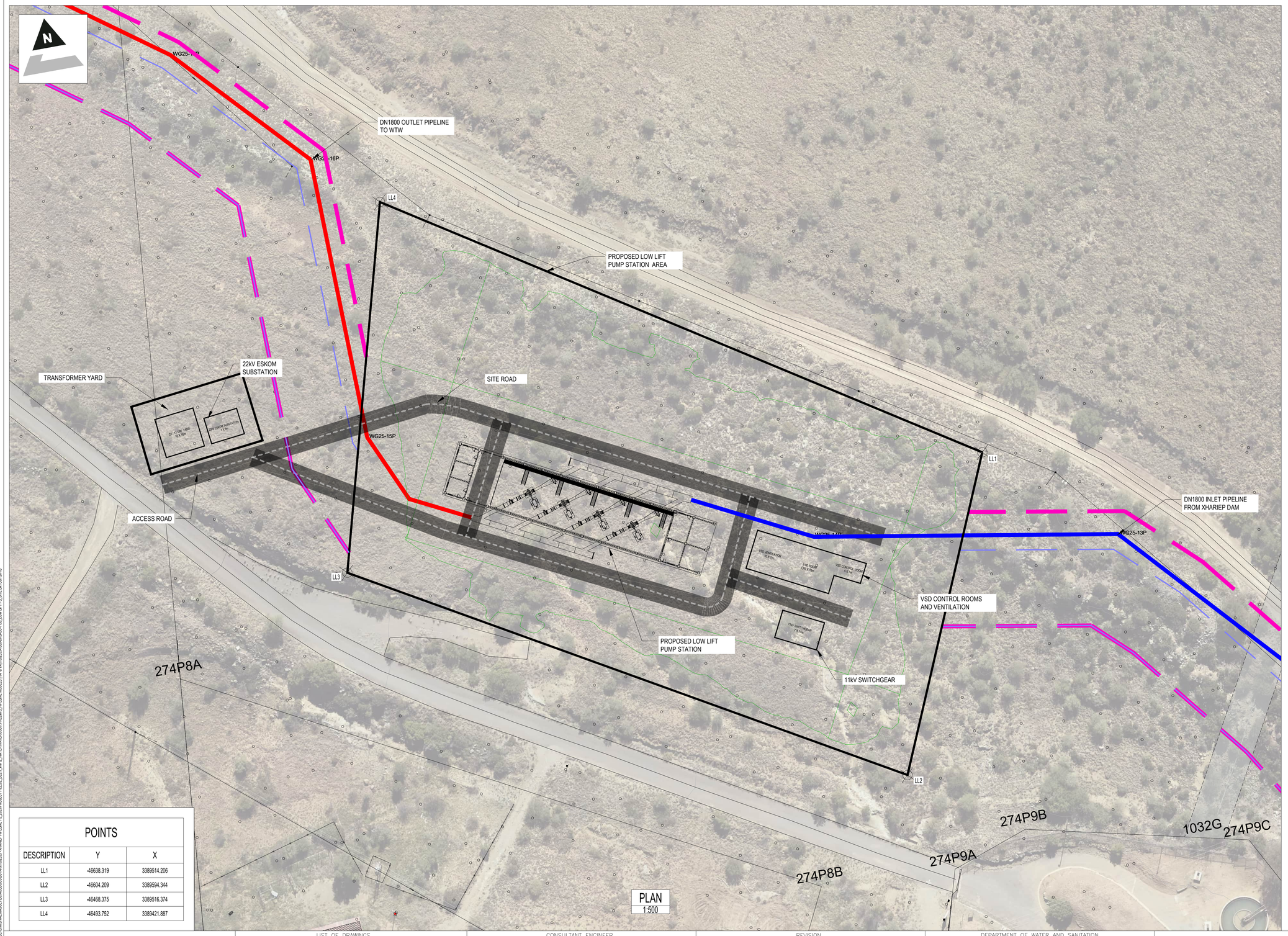
CHECKED: A.HUNTER DATE:
DESIGN: M.MASOET
DRAWN: M.MASOET
ENGINEER: Engineer DATE:
EXT. APPROVAL / DESIGN CHECKED: DATE:
CHIEF ENGINEER / APP (Pr. Eng): DATE:
DIRECTOR (Pr. Eng): DATE:

XHARIEP PIPELINE AND FEASIBILITY STUDY

OVERALL PLAN LAYOUT OF PROPOSED PIPELINE

PROVINCE: PROVINCE	DISTRICT: DISTRICT	KEYCODES: X X X – –	OTHER NUMBER 0100
LOCALITY No.: LOCALITY No.	TENDER/ CONTRACT No. TENDER/CONTRACT No.	SHEET X OF X	REG. No.
CALCULATION FILE: CALCULATION FILE			REV. A

Plot Date: 1/02/2025 1:11:17 pm Office: ZACPT Filename: C:\USERS\MSAL.MASOETO\ACCDOCS\ZUTARI\10533 - XHARIEP PIPELINE FS 2023\REC\SCT FLEED DELIV\ MP2_WATERWATERCON\PREBID\ PIPELINE MODELS\ALL\1002533-0000-DRG-CC-0000_OVERALL SITE LAYOUT.DWG



PLAN
1:500

POINTS		
DESCRIPTION	Y	X
LL1	-46638.319	3389514.206
LL2	-46604.209	3389594.344
LL3	-46468.375	3389516.374
LL4	-46493.752	3389421.887

LEGEND

- PROPOSED DN1800 INLET PIPELINE
- PROPOSED DN1800 OUTLET PIPELINE
- CADASTRAL BOUNDARY
- WORKING WIDTH (±60m)
- SERVITUDE WIDTH

ANNOTATION LEGEND

AV	AIR VALVE
SV	SCOUR VALVE
SC	STREAM CROSSING
RIVC	RIVER CROSSING
IRC	INFORMAL ROAD CROSSING
RC	ROAD CROSSING

REFERENCE DRAWINGS:

- 1002533-1000-DRG-CC-1000 TO 1002 LOW LIFT PS DRAWINGS

NOTES:

1. ALL EXISTING SERVICES TO BE EXPOSED BY HAND TO DETERMINE INVERT LEVELS AND POSITIONS PRIOR TO COMMENCING TRENCH EXCAVATIONS.
2. HORIZONTAL PIPELINE ALIGNMENT TO BESET OUT BY CONTRACTOR AND APPROVED BY ENGINEER BEFORE COMMENCING WITH TRENCH EXCAVATIONS.
3. MINIMUM COVER TO PIPE IS 1.3m. MAXIMUM SOIL COVER TO BE LIMITED TO 2.7m.
4. PIPE BEDDING TO BE FOR FLEXIBLE PIPES.
5. FINAL POSITIONS OF AIR VALVES, SCOUR VALVES AND OTHER STRUCTURES TO BE CONFIRMED WITH ENGINEER ON SITE.
6. CONTRACTOR TO CONFIRM WITH ENGINEER PIPE ALIGNMENT AT RIVER AND ROAD CROSSINGS.
7. ALL ROAD CROSSINGS WILL BE CONCRETE ENCASED.
8. REFER TO STANDARD DETAILS FOR ALL ROAD/RIVER CROSSINGS AND STEEP SLOPE PROTECTION.
9. REFER TO GEOTECHNICAL REPORT FOR INSITU MATERIAL CONDITIONS.

0.25 0 0.5 1m
SCALE 1:25

THE MASTER HELD AT ZUTARI BEARS THE ORIGINAL SIGNATURE OF APPROVAL

LIST OF DRAWINGS

SHEET	DESCRIPTION	OTHER No.	REG. No.
1	DESCRIPTION		

CONSULTANT ENGINEER

ZUTARI DRG No.: 1002533-1000-DRG-CC-1150
DESIGN: M.MASOET
ZUTARI APPROVER (Pr. Eng): S.K DATE:
DRAWN: M.MASOET

ZUTARI
IMPACT. ENGINEERED.

REVISION

MOD No.	DATE	DESCRIPTION	FOR	DWS
A	01/2025	ISSUED FOR INFORMATION	S.K	

DEPARTMENT OF WATER AND SANITATION
REPUBLIC OF SOUTH AFRICA

HEAD OFFICE
ENGINEERING SERVICES
PRIVATE BAG X313
PRETORIA 0001

SEDIBENG BUILDING
185 FRANCIS BAARD STREET
PRETORIA
(012) 336-7500

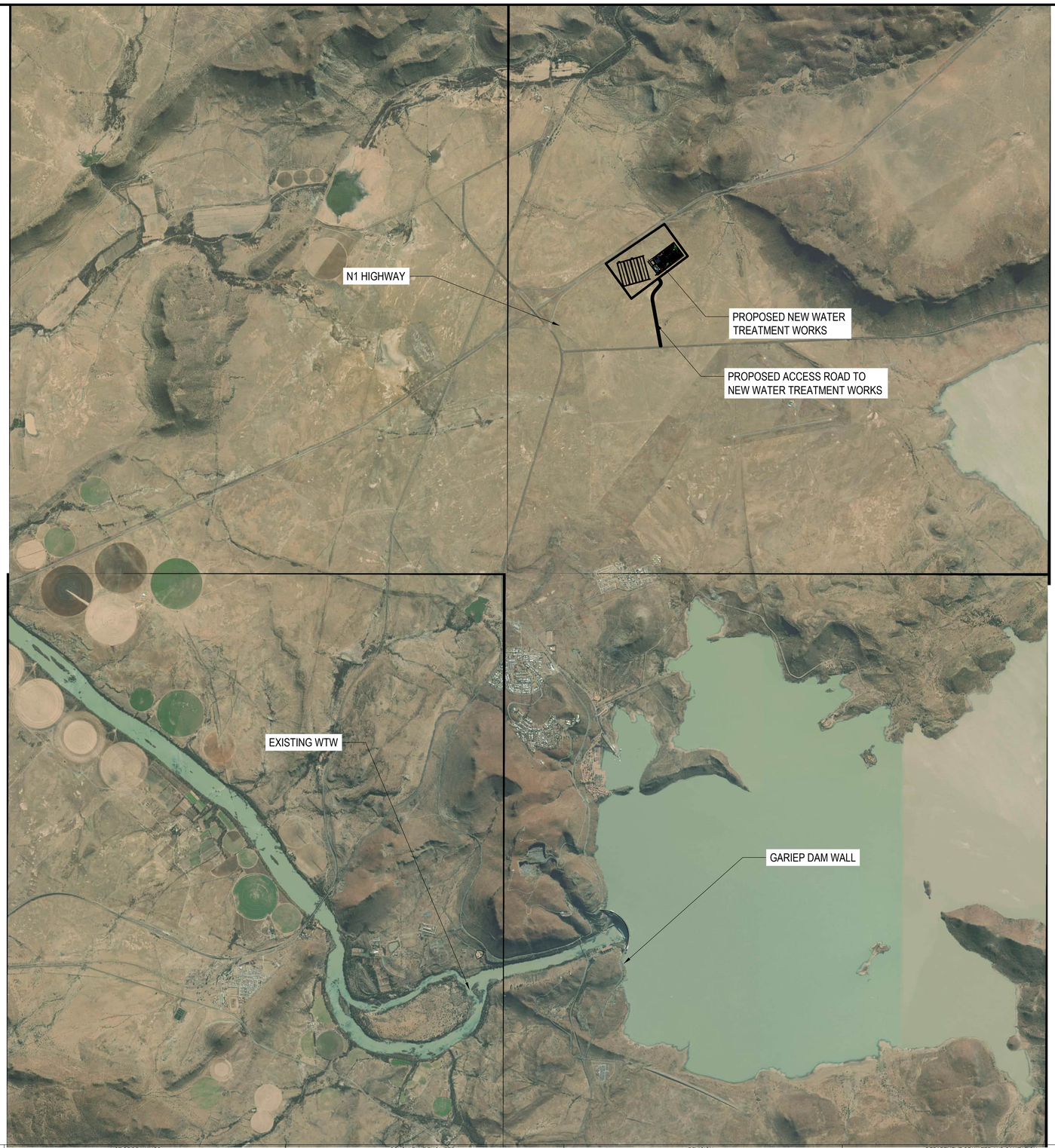
CHECKED: A.HUNTER DATE:
DESIGN: M.MASOET
DRAWN: M.MASOET
ENGINEER: Engineer DATE:
EXT. APPROVAL / DESIGN CHECKED: DATE:
CHIEF ENGINEER / APP (Pr. Eng): DATE:
DIRECTOR (Pr. Eng): DATE:

XHARIEP PIPELINE FEASIBILITY STUDY

LOW LIFT PUMP STATION SITE LAYOUT

PROVINCE:	PROVINCE	DISTRICT:	DISTRICT	KEYCODES:	X	X	X	–	–	OTHER NUMBER	0100
LOCALITY No.:	LOCALITY No.	TENDER/ CONTRACT No.	TENDER/CONTRACT No.	SHEET	X OF X	REG. No.					REV. A
CALCULATION FILE:	CALCULATION FILE										

Office: ZAQC1 Filename: C:\USERS\MASHA-AL\MASOET\DACUDOCS\ZUTARI\WIZ533 - XHARIEP PIPELINE FS_2023\PROJECT FILES_DELI_WPC_INTERIM\TERC\30\PRELIM\LPIPELINE MODELS HA X XH\1002533-1000-DRG-CC-1150_LOW LIFT PS_SITE LAYOUT.DWG
Plot Date: 26/2/2025 2:55:15 pm



GENERAL NOTES:

1. THIS DRAWING IS FOR PREFEASIBILITY STUDY PURPOSES ONLY AND DOES NOT REPRESENT THE FINAL DESIGN.
2. THIS DRAWING MUST NOT BE SCALED.

LEGEND:

- PHASE 1
- PHASE 2
- FUTURE

THE MASTER HELD AT AURECON BEARS THE ORIGINAL SIGNATURE OF APPROVAL

LIST OF DRAWINGS

SHEET	DESCRIPTION	OTHER No.	REG. No.
1	DESCRIPTION		

CONSULTANT ENGINEER

ZUTARI DRG No.: 1002533-2500-DRG-CC-2500

ZUTARI APPROVER (Pr. Eng): T.C. DATE:

DESIGN: JB STRYDOM

DRAWN: JB STRYDOM

ZUTARI
IMPACT. ENGINEERED.

REVISION

MOD No.	DATE	DESCRIPTION	FOR	DWS
A	8/12/2023	ISSUED FOR INFORMATION	T.C.	
B	01/2015	ISSUED FOR INFORMATION	T.C.	

DEPARTMENT OF WATER AND SANITATION
REPUBLIC OF SOUTH AFRICA

HEAD OFFICE
ENGINEERING SERVICES
PRIVATE BAG X313
PRETORIA 0001

SEDIBENG BUILDING
185 FRANCIS BAARD STREET
PRETORIA
(012) 336-7500

CHECKED: T.C. DATE:

DESIGN: JB STRYDOM

DRAWN: JB STRYDOM

ENGINEER: Engineer DATE:

EXT. APPROVAL / DESIGN CHECKED: DATE:

CHIEF ENGINEER / APP (Pr. Eng): DATE:

DIRECTOR (Pr. Eng): DATE:

XHARIEP PIPELINE AND FEASIBILITY STUDY

WATER TREATMENT PLANT LOCALITY PLAN

PROVINCE:	PROVINCE	DISTRICT:	DISTRICT	KEYCODES:	X	X	X	-	-	OTHER NUMBER	0100
LOCALITY No.:	LOCALITY No.	TENDER/ CONTRACT No.	TENDER/CONTRACT No.	SHEET	1 OF 1	REG. No.				REV.	B
CALCULATION FILE:	CALCULATION FILE										

Office: ZADC1 Filename:

Plot Date:

GENERAL NOTES:

1. THIS DRAWING IS FOR PREFEASIBILITY STUDY PURPOSES ONLY AND DOES NOT REPRESENT THE FINAL DESIGN.
2. THIS DRAWING MUST NOT BE SCALED.

LEGEND:

- PHASE 1
- PHASE 2
- FUTURE

SITE COORDINATES:

POINT	X C0-ORD	Y CO-ORD
P1	3380602.437	-49356.882
P2	3381154.312	-48624.198
P3	3380699.268	-48292.993
P4	33800184.683	-49052.878

LIST OF DRAWINGS

SHEET	DESCRIPTION	OTHER No.	REG. No.
1	DESCRIPTION		

THE MASTER HELD AT AURECON BEARS THE ORIGINAL SIGNATURE OF APPROVAL

CONSULTANT ENGINEER

ZUTARI DRG No.: 1002533-2500-DRG-CC-2501

DESIGN: JB STRYDOM

ZUTARI APPROVER (Pr. Eng): T.C. DATE: DRAWN: JB STRYDOM

ZUTARI IMPACT. ENGINEERED.

REVISION

MOD No.	DATE	DESCRIPTION	FOR	DWS
A	08/12/2023	ISSUED FOR INFORMATION	T.C.	
A	01/2025	ISSUED FOR INFORMATION	T.C.	

DEPARTMENT OF WATER AND SANITATION
REPUBLIC OF SOUTH AFRICA

HEAD OFFICE
ENGINEERING SERVICES
PRIVATE BAG X313
PRETORIA 0001

SEDIBENG BUILDING
185 FRANCIS BAARD STREET
PRETORIA
(012) 336-7500

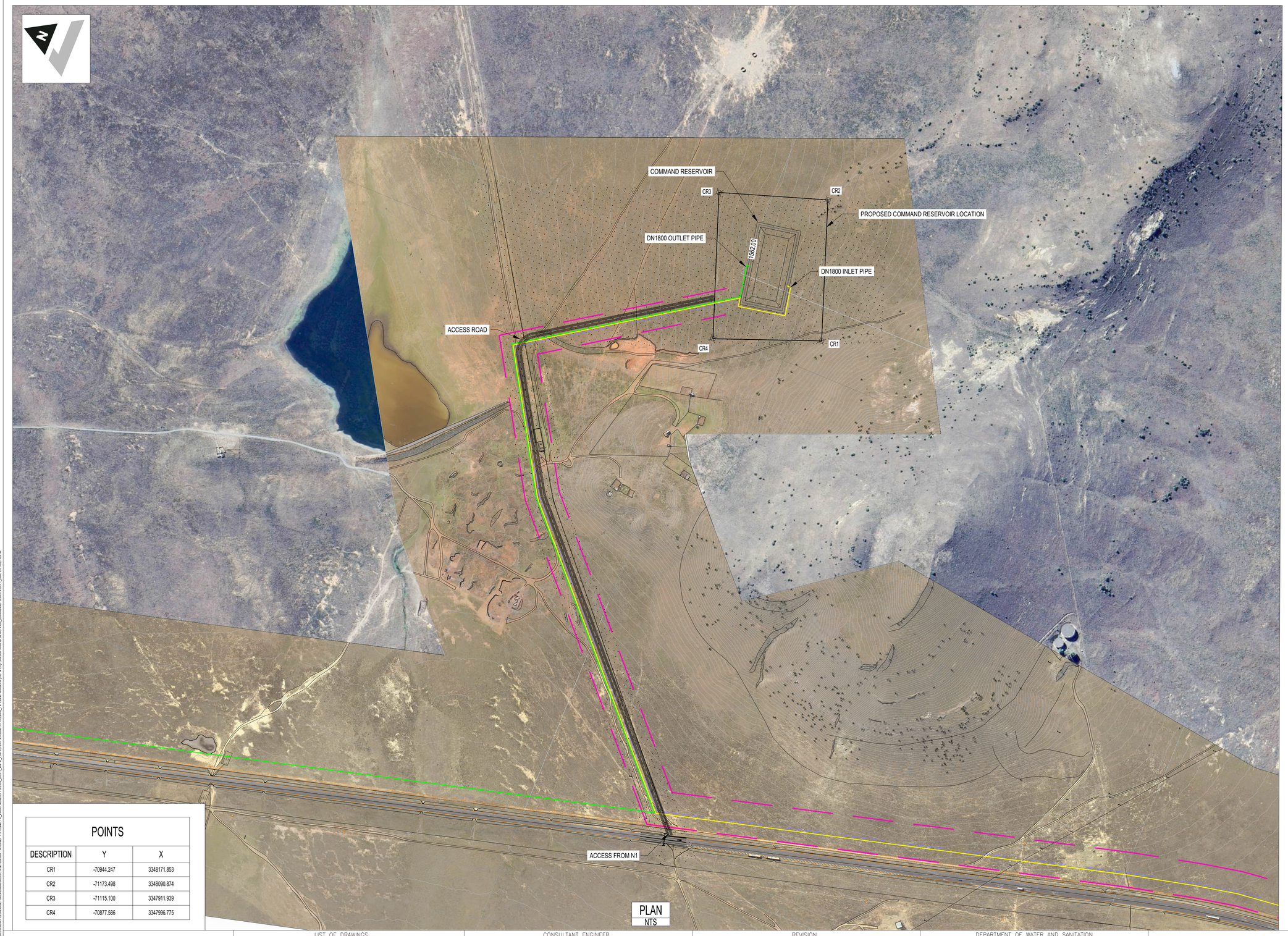
DESIGN: JB STRYDOM
CHECKED: T.C. DATE: DRAWN: JB STRYDOM
ENGINEER: Engineer DATE: EXT. APPROVAL / DESIGN CHECKED: DATE:
CHIEF ENGINEER / APP (Pr. Eng): DATE: DIRECTOR (Pr. Eng): DATE:

XHARIEP PIPELINE AND FEASIBILITY STUDY

WATER TREATMENT PLANT OVERALL SITE LAYOUT

PROVINCE:	PROVINCE	DISTRICT:	DISTRICT	KEYCODES:	X	X	X	-	-	OTHER NUMBER	0100
LOCALITY No.:	LOCALITY No.	TENDER/ CONTRACT No.	TENDER/CONTRACT No.	SHEET	1 OF 1	REG. No.					REV. B
CALCULATION FILE:	CALCULATION FILE										

Filename:
Office: ZADC1
Plot Date:



PLAN
NTS

POINTS		
DESCRIPTION	Y	X
CR1	-70944.247	3348171.853
CR2	-71173.498	3348090.874
CR3	-71115.100	3347911.939
CR4	-70877.586	3347996.775

PROPOSED DN1800 INLET PIPELINE
PROPOSED DN1800 OUTLET PIPELINE
CADASTRAL BOUNDARY
WORKING WIDTH (±60m)
SERVITUDE WIDTH
SENSITIVE AREAS (ENVIRONMENTAL)

ANNOTATION LEGEND

AV	AIR VALVE
SV	SCOUR VALVE
SC	STREAM CROSSING
RIVC	RIVER CROSSING
IRC	INFORMAL ROAD CROSSING
RC	ROAD CROSSING

REFERENCE DRAWINGS:

- 1002533-4000-DRG-CC-4000 TO 4004 COMMAND RESERVOIR

NOTES:

1. ALL EXISTING SERVICES TO BE EXPOSED BY HAND TO DETERMINE INVERT LEVELS AND POSITIONS PRIOR TO COMMENCING TRENCH EXCAVATIONS.
2. HORIZONTAL PIPELINE ALIGNMENT TO BESET OUT BY CONTRACTOR AND APPROVED BY ENGINEER BEFORE COMMENCING WITH TRENCH EXCAVATIONS.
3. MINIMUM COVER TO PIPE IS 1.3m. MAXIMUM SOIL COVER TO BE LIMITED TO 2.7m.
4. PIPE BEDDING TO BE FOR FLEXIBLE PIPES.
5. FINAL POSITIONS OF AIR VALVES, SCOUR VALVES AND OTHER STRUCTURES TO BE CONFIRMED WITH ENGINEER ON SITE.
6. CONTRACTOR TO CONFIRM WITH ENGINEER PIPE ALIGNMENT AT RIVER AND ROAD CROSSINGS.
7. ALL ROAD CROSSINGS WILL BE CONCRETE ENCASED.
8. REFER TO STANDARD DETAILS FOR ALL ROAD/RIVER CROSSINGS AND STEEP SLOPE PROTECTION.
9. REFER TO GEOTECHNICAL REPORT FOR INSITU MATERIAL CONDITIONS.

0.25 0 0.5 1m
SCALE 1:25

THE MASTER HELD AT AURECON BEARS THE ORIGINAL SIGNATURE OF APPROVAL

LIST OF DRAWINGS

SHEET	DESCRIPTION	OTHER No.	REG. No.
1	DESCRIPTION		

CONSULTANT ENGINEER

ZUTARI DRG No.: 1002533-4000-DRG-CC-4150
DESIGN: M.MASOET
DRAWN: M.MASOET
ZUTARI APPROVER (Pr. Eng): S.K DATE:

ZUTARI
IMPACT. ENGINEERED.

REVISION

MOD No.	DATE	DESCRIPTION	FOR	DWS
A	01/2025	ISSUED FOR INFORMATION	S.K	

DEPARTMENT OF WATER AND SANITATION
REPUBLIC OF SOUTH AFRICA

HEAD OFFICE
ENGINEERING SERVICES
PRIVATE BAG X313
PRETORIA 0001

SEDIBENG BUILDING
185 FRANCIS BAARD STREET
PRETORIA
(012) 336-7500

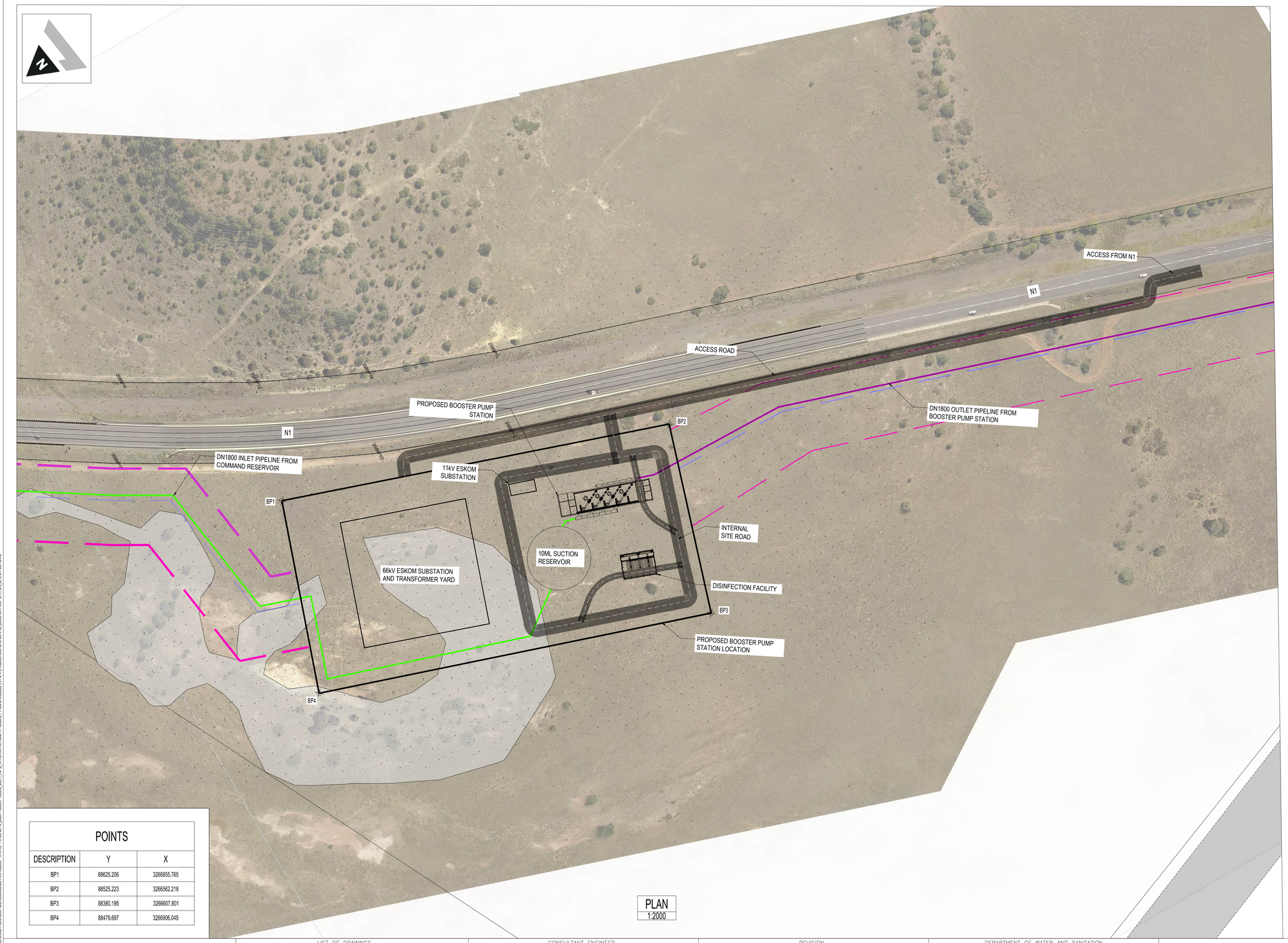
CHECKED: A.HUNTER DATE:
DESIGN: M.MASOET
DRAWN: M.MASOET
ENGINEER: Engineer DATE:
EXT. APPROVAL / DESIGN CHECKED: DATE:
CHIEF ENGINEER / APP (Pr. Eng): DATE:
DIRECTOR (Pr. Eng): DATE:

XHARIEP PIPELINE FEASIBILITY STUDY

COMMAND RESERVOIR 1
SITE LAYOUT

PROVINCE: PROVINCE	DISTRICT: DISTRICT	KEYCODES:	X	X	X	–	–	OTHER NUMBER	0100
LOCALITY No.: LOCALITY No.	TENDER/ CONTRACT No. TENDER/CONTRACT No.	SHEET X OF X	REG. No.						REV. A
CALCULATION FILE: CALCULATION FILE									

Plot Date: 30/2025-12:28 pm Office: ZADC1 Filename: C:\USERS\MSHALAMASETION\ACCDOCS\ZUTARI\1002533 - XHARIEP PIPELINE FS_2023\PROJECT FILES_DELI_WP2_WATER\WATER\CAD\PIPELINE_PIPELINE MODELS (IN A VAULT)\1002533-4000-DRG-CC-4145_COMMAND RESERVOIR 1_SITE LAYOUT.DWG



PLAN
1:2000

POINTS		
DESCRIPTION	Y	X
BP1	88625.206	3266855.765
BP2	88525.223	3266562.218
BP3	88380.195	3266607.801
BP4	88479.697	3266906.045

LEGEND

- PROPOSED DN1800 INLET PIPELINE
- PROPOSED DN1800 OUTLET PIPELINE
- CADASTRAL BOUNDARY
- WORKING WIDTH (±60m)
- SERVITUDE WIDTH
- SENSITIVE AREAS (ENVIRONMENTAL)

ANNOTATION LEGEND

AV	AIR VALVE
SV	SCOUR VALVE
SC	STREAM CROSSING
RIVC	RIVER CROSSING
IRC	INFORMAL ROAD CROSSING
RC	ROAD CROSSING

REFERENCE DRAWINGS:

- 1002533-5000-DRG-CC-5000 BOOSTER PUMP STATION DRAWINGS

NOTES:

1. ALL EXISTING SERVICES TO BE EXPOSED BY HAND TO DETERMINE INVERT LEVELS AND POSITIONS PRIOR TO COMMENCING TRENCH EXCAVATIONS.
2. HORIZONTAL PIPELINE ALIGNMENT TO BESET OUT BY CONTRACTOR AND APPROVED BY ENGINEER BEFORE COMMENCING WITH TRENCH EXCAVATIONS.
3. MINIMUM COVER TO PIPE IS 1.3m. MAXIMUM SOIL COVER TO BE LIMITED TO 2.7m.
4. PIPE BEDDING TO BE FOR FLEXIBLE PIPES.
5. FINAL POSITIONS OF AIR VALVES, SCOUR VALVES AND OTHER STRUCTURES TO BE CONFIRMED WITH ENGINEER ON SITE.
6. CONTRACTOR TO CONFIRM WITH ENGINEER PIPE ALIGNMENT AT RIVER AND ROAD CROSSINGS.
7. ALL ROAD CROSSINGS WILL BE CONCRETE ENCASED.
8. REFER TO STANDARD DETAILS FOR ALL ROAD/RIVER CROSSINGS AND STEEP SLOPE PROTECTION.
9. REFER TO GEOTECHNICAL REPORT FOR INSITU MATERIAL CONDITIONS.

0.25 0 0.5 1m
SCALE 1:25

THE MASTER HELD AT AURECON BEARS THE ORIGINAL SIGNATURE OF APPROVAL

LIST OF DRAWINGS

SHEET	DESCRIPTION	OTHER No.	REG. No.
1	DESCRIPTION		

CONSULTANT ENGINEER

ZUTARI DRG No.: 1002533-4500-DRG-CC-4622
DESIGN: M.MASOET
DRAWN: M.MASOET
ZUTARI APPROVER (Pr. Eng): S.K DATE:

ZUTARI
IMPACT. ENGINEERED.

REVISION

MOD No.	DATE	DESCRIPTION	FOR	DWS
A	01/2025	ISSUED FOR INFORMATION	S.K	

DEPARTMENT OF WATER AND SANITATION
REPUBLIC OF SOUTH AFRICA

HEAD OFFICE
ENGINEERING SERVICES
PRIVATE BAG X313
PRETORIA 0001

SEDIBENG BUILDING
185 FRANCIS BAARD STREET
PRETORIA
(012) 336-7500

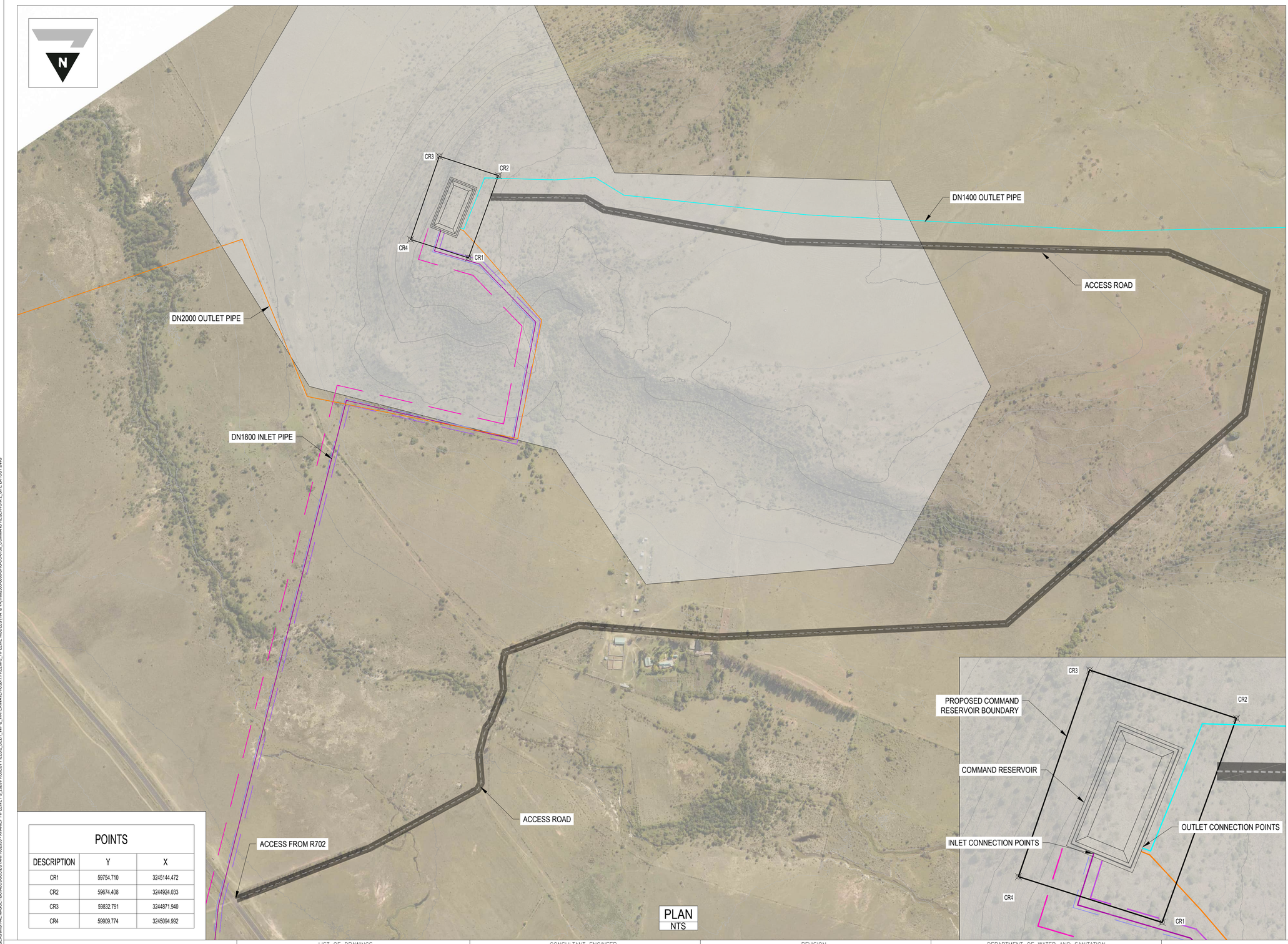
CHECKED: A.HUNTER DATE:
DESIGN: M.MASOET
DRAWN: M.MASOET
ENGINEER: Engineer DATE:
EXT. APPROVAL / DESIGN CHECKED: DATE:
CHIEF ENGINEER / APP (Pr. Eng): DATE:
DIRECTOR (Pr. Eng): DATE:

XHARIEP PIPELINE FEASIBILITY STUDY

BOOSTER PUMP STATION
SITE LAYOUT

PROVINCE: PROVINCE	DISTRICT: DISTRICT	KEYCODES: X X X – –	OTHER NUMBER 0100
LOCALITY No.: LOCALITY No.	TENDER/CONTRACT No. TENDER/CONTRACT No.	SHEET X OF X	REG. No.
CALCULATION FILE: CALCULATION FILE			REV. A

Office: ZAOC1 Filename: C:\USERS\MSHALHUMASOET\DOWNLOADS\DOWNLOADS\ZUTARI\1002533 - XHARIEP PIPELINE FS_2025\PROJECT FILES\2_DELIV_WP2_WATER\WATER\CD\1 PRELIMS_PIPELINE MODELS\1 HA & HA\1002533-5000-DRG-CC-5100_BOOSTER PUMP STATION_SITE LAYOUT.DWG
Plot Date: 20/02/2025 4:32:12 pm



PLAN
NTS

POINTS		
DESCRIPTION	Y	X
CR1	59754.710	3245144.472
CR2	59674.408	3244924.033
CR3	59832.791	3244871.940
CR4	59909.774	3245094.992

LEGEND

- DN1800 INLET PIPELINE
- DN1800 OUTLET PIPELINE
- DN1800 OUTLET PIPELINE
- CADASTRAL BOUNDARY
- WORKING WIDTH (±60m)
- SERVITUDE WIDTH
- SENSITIVE AREAS (ENVIRONMENTAL)

ANNOTATION LEGEND

AV	AIR VALVE
SV	SCOUR VALVE
SC	STREAM CROSSING
RIVC	RIVER CROSSING
IRC	INFORMAL ROAD CROSSING
RC	ROAD CROSSING

REFERENCE DRAWINGS:

- 1002533-4000-DRG-CC-4001 COMMAND RESERVOIR 2

NOTES:

1. ALL EXISTING SERVICES TO BE EXPOSED BY HAND TO DETERMINE INVERT LEVELS AND POSITIONS PRIOR TO COMMENCING TRENCH EXCAVATIONS.
2. HORIZONTAL PIPELINE ALIGNMENT TO BESET OUT BY CONTRACTOR AND APPROVED BY ENGINEER BEFORE COMMENCING WITH TRENCH EXCAVATIONS.
3. MINIMUM COVER TO PIPE IS 1.3m. MAXIMUM SOIL COVER TO BE LIMITED TO 2.7m.
4. PIPE BEDDING TO BE FOR FLEXIBLE PIPES.
5. FINAL POSITIONS OF AIR VALVES, SCOUR VALVES AND OTHER STRUCTURES TO BE CONFIRMED WITH ENGINEER ON SITE.
6. CONTRACTOR TO CONFIRM WITH ENGINEER PIPE ALIGNMENT AT RIVER AND ROAD CROSSINGS.
7. ALL ROAD CROSSINGS WILL BE CONCRETE ENCASED.
8. REFER TO STANDARD DETAILS FOR ALL ROAD/RIVER CROSSINGS AND STEEP SLOPE PROTECTION.
9. REFER TO GEOTECHNICAL REPORT FOR INSITU MATERIAL CONDITIONS.

0.25 0 0.5 1m
SCALE 1:25

THE MASTER HELD AT AURECON BEARS THE ORIGINAL SIGNATURE OF APPROVAL

LIST OF DRAWINGS

SHEET	DESCRIPTION	OTHER No.	REG. No.
1	DESCRIPTION		

CONSULTANT ENGINEER

ZUTARI DRG No.: 1002533-6000-DRG-CC-6150
DESIGN: M.MASOET
DRAWN: M.MASOET
ZUTARI APPROVER (Pr. Eng): S.K DATE:

ZUTARI
IMPACT. ENGINEERED.

REVISION

MOD No.	DATE	DESCRIPTION	FOR	DWS
A	01/2025	ISSUED FOR INFORMATION	S.K	

DEPARTMENT OF WATER AND SANITATION
REPUBLIC OF SOUTH AFRICA

HEAD OFFICE
ENGINEERING SERVICES
PRIVATE BAG X313
PRETORIA 0001

SEDIBENG BUILDING
185 FRANCIS BAARD STREET
PRETORIA
(012) 336-7500

CHECKED: A.HUNTER DATE:
DESIGN: M.MASOET
DRAWN: M.MASOET
ENGINEER: Engineer DATE:
EXT. APPROVAL / DESIGN CHECKED: DATE:
CHIEF ENGINEER / APP (Pr. Eng): DATE:
DIRECTOR (Pr. Eng): DATE:

XHARIEP PIPELINE FEASIBILITY STUDY

COMMAND RESERVOIR 2 SITE LAYOUT

PROVINCE:	PROVINCE	DISTRICT:	DISTRICT	KEYCODES:	X	X	X	–	–	OTHER NUMBER	0100
LOCALITY No.:	LOCALITY No.	TENDER/ CONTRACT No.	TENDER/CONTRACT No.	SHEET	X OF X	REG. No.					REV. A
CALCULATION FILE:	CALCULATION FILE										

Office: ZADC1 Filename: C:\USERS\MISH-AL.MASOET\DC\ACCDOCS\ZUTARI\1002533 - XHARIEP PIPELINE FS_2023\PROJECT FILES\2_DELI1_WPF2_WATERWATERK\2011 PRELIM\3_PIPELINE MODELS\HA & VA\1002533-6000-DRG-CC-6150_COMMAND RESERVOIR 2_SITE LAYOUT.DWG
28/02/2025 5:02:23 pm