water & sanitation

Department
Water and Sanitation
REPUBLIC OF SOUTH AFRICA

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LICENCE IN TERMS OF CHAPTER 4 OF THE NATIONAL WATER ACT, 1998 (ACT NO 36 OF 1998) (THE ACT)

I, ***Trevor Balzer***, in my capacity as Deputy Director-General: Special Projects in the Department of Water and Sanitation acting under authority of the powers sub-delegated to me by the Acting Director-General of Water and Sanitation, hereby authorise the following water uses in respect of this licence.

SIGNED: .....

DATE: 22/01/2019

LICENCE NO: 08/C42K/CI/8861
FILE NO: 27/2/2/C1042/1/1

1. Licensee — **TETRA4 (PTY) LTD**

Postal address
P O BOX 442
BRUMA
2026

2. Water uses

2.1 Section 21(c) of the Act: Impeding or diverting the flow of water in a watercourse subject to the conditions as set out in Appendices I and II.

2.2 Section 21(i) of the Act: Altering the bed, banks, course or characteristics of a watercourse, subject to the conditions as set out in Appendices I and II.

3. Property on which the water uses will be exercised

Table 1: Properties where water use will be exercised

Number	Property Name & Number	Portion	Owner	Registration Division
1.	Brakspruit 121	0	Meintjes Izak Jacobus	Theunissen
2.	Enkeldoorn 360	0	Meintjes Izak Jacobus	Theunissen
3.	Boschluis Spruit 278	0	Jansen Van Rensburg WJ	Theunissen
4.	Boschluis Spruit 278	1	Pretorius Hermanus Johannes	Theunissen
5.	Boschluis Spruit 278	2	Dawie P Junior Trust	Theunissen

B08735

6.	Retreat 118	0	Jacobs FPD	Theunissen
7.	Nortier 361	1	Jacobs Frans Petrus Dawid	Theunissen
8.	Jordaan 1	1	Jacobs Frans Petrus Dawid	Theunissen
9.	Driekoppies 322	0	Smith Jacobus Andriaan	Theunissen
10.	Frisgewaag 550	0	Smith Jacobus Andriaan	Theunissen
11.	Frisgewaag 550	1	Smith Jacobus Andriaan	Theunissen
12.	Frisgewaag 550	2	Smith Jacobus Andriaan	Theunissen
13.	Kleinpan 320	0	Smith Jacobus Adriaan	Theunissen
14.	Hendriena 563	0	Smith Jacobus Andriaan	Theunissen
15.	Glen Ross 562	0	Republiek van Suid-Afrika	Theunissen
16.	Adamsonsvlei No. 655	0	Republiek van Suid-Afrika	Ventersburg
17.	Palmietkuil 328	0	Sibanye Gold Ltd	Theunissen
18.	Palmietkuil 328	1	Sibanye Gold ltd	Theunissen
19.	Palmietkuil 328	4	Mandalay Trust	Theunissen
20.	Palmietkuil 328	5	William Peter Du Plessis FamilieTrust	Theunissen
21.	Palmietkuil 328	6	Sibanye Gold Ltd	Theunissen
22.	Kalkoenkrans 225	1	Sibanye Gold Ltd	Theunissen
23.	Kalkoenkrans 225	2	William P Du Plessis familie Trust	Theunissen
24.	Kalkoenkrans 225	4	Sibanye Gold Ltd	Theunissen
25.	Damplaats 341	0	Palmietkuil Besigheids Trust	Theunissen
26.	Zonderzorg 342	0	Sibanye Gold Ltd	Theunissen
27.	Zonderzorg 342	1	Palmietkuil Besigheids Trust	Theunissen
28.	Zoetendal 243	1	Smith Magdalena Adriana	Theunissen
29.	Doornrivier 330	1	Oosthuizen JH	Theunissen
30.	Doornrivier 330	2	Mandalay Trust	Theunissen
31.	Excelsior 147	0	Luxor Trust	Theunissen
32.	Excelsior 147	1	Kotze JBJN	Theunissen
33.	Terra Blanda 155	0	Dawie Pretorius Junior Trust	Theunissen
34.	Blaauwdrift 188	3	Taljaard Pietra Elizabeth	Theunissen
35.	Die Wilger 544	0	Van Den Berg CJ	Theunissen
36.	Helpmekaar 47	0	South Park Farming Pty Ltd	Theunissen
37.	Helpmekaar 47	1	Stilte Trust	Theunissen

38.	Helpmekaar 47	3	Sibanye Gold Ltd	Theunissen
39.	Mond van Doornrivier 38	0	Sancrocube Pty Ltd	Theunissen
40.	Mond van Doornrivier 38	2	Q R BAETA & CO Pty Ltd	Theunissen
41.	Middelplaas 583	0	Marthinus Boshoff Trust	Theunissen
42.	Grottkau 410	0	Grottkau Trust	Theunissen
43.	Goedemoed 143	0	Sibanye Gold Ltd	Theunissen
44.	Goedemoed 143	2	Kotze DJJ	Theunissen
45.	Deeldam 106	0	Ancor Familie Trust	Theunissen
46.	Deeldam 106	4	Ancor Familie Trust	Theunissen
47.	Leeuwbult 52	0	Sibanye Gold Ltd	Theunissen
48.	Harmonie 579	0	Sibanye Gold Ltd	Theunissen
49.	Erfdeel 188	2	Eskom Holdings Ltd	Ventersburg
50.	Tarka 656/ Adamsons Vlei	0	Stille Trust	Ventersburg

4. Registered owner of the Property

See Table 1 above.

5. Licence and Review Period

5.1 This licence is valid for a period of thirty (30) years from the date of issuance and it may be reviewed at intervals of not more than five (5) years.

6. Definitions

"Any terms, words and expressions as defined in the National Water Act, 1998 (Act 36 of 1998) shall bear the same meaning when used in this Licence."

"The Act" means the National Water Act, 1998 (Act 36 of 1998)

"The Provincial Head" means the Head of Provincial Operations: Free State, Department of Water and Sanitation, Private Bag 528, Bloemfontein, 9300.

"Department" means Department of Water and Sanitation

"Report" refers to all the reports submitted by Environmental Impact Management Services (EIMS) to Department of Water and Sanitation with a water use licence application for the construction of a gas pipeline across the watercourses and the Rivers in C42L and C42K, Theunissen RD, within Lejweleputswa Local Municipality.

7. Description of the activity

This licence authorises Tetra4 (Pty) Ltd for a construction a pipeline for **natural gas production operations within an existing production right** in terms of [redacted] water uses of the National Water Act of 1998, (Act 36 of 1998). Water uses associated with the [redacted] of a [redacted], within Lejweleputswa Local Municipality located in the Middle Vaal Water Management Area.

APPENDIX I

General conditions of the licence

1. This licence is subject to all applicable provisions of the National Water Act, 1998 (Act 36 of 1998).

2. The responsibility for complying with the provisions of the licence is vested in the Licensee and not any other person or body.

3. The Licensee must immediately inform the Provincial Head of any change of name, address, premises and/or legal status.

4. If the property in respect of which this licence is issued is subdivided or consolidated, the Licensee must provide full details of all changes in respect of the properties to the Provincial Head of the Department within sixty (60) days of the said change taking place.

5. If a water user association is established in the area to manage the resource, membership of the Licensee to this association is compulsory. Rules, regulations and water management stipulation of such association must be adhered to.

6. The Licensee shall be responsible for any water use charges or levies imposed by a responsible authority.

7. While effect must be given to the Reserve as determined in terms of the Act, where a desktop determination of the Reserve has been used in issuance of a licence, when a comprehensive determination of the Reserve has finally been made; it must be given effect to.

8. Any incident that causes or may cause water pollution must be reported to the Provincial Head or his/her designated representative within twenty four (24) hours.

9. The licence must not be construed as exempting the Licensee from compliance with the provisions of any other applicable Act, Ordinance, Regulation or By-law.

10. The licence and amendment of this licence are also subject to all the applicable procedural requirements and other applicable provisions of the Act, as amended from time to time.

11. The Licensee must conduct an annual internal audit on compliance with the conditions of Licence. A report on the audit must be submitted to the Provincial Head within one (1) month of the finalisation of the audit.

12. The Licensee must appoint an independent external auditor to conduct an annual audit on compliance with the conditions of this licence. The first audit must be conducted within months of the date this licence is issued and a report on the audit must be submitted to the Provincial Head within one (1) month of finalisation of the report.

13. The Department accepts no liability for any damage, loss or inconvenience, of whatever nature, suffered as a result of / amongst other things.

13.1 Shortage of water;
13.2 Inundation of flood;

13.3 Any force majeur event;
13.4 Siltation of the river or dam basin; and
13.5 Required Reserve releases.

APPENDIX II

Section 21(c) of the Act: **Impeding or diverting the flow of water in a watercourse and**

Section 21(i) of the Act: **Altering the bed, banks, course or characteristic of a watercourse**

1. GENERAL

1.1 This licence authorises Tetra4 (Pty) Ltd to [redacted] operations within an [redacted] for Section 21(c) and (i) water use activities for [redacted] as set out in Table 2. Within quaternary catchment C42K and in the water use licence application reports submitted to the Department:

Table 2: Summary of water uses applied for:

Infrastructure Type	Within Wetland/ Within Buffer	Height (in mm)	Width (in mm)	Length (in mm)	Structure material	Lat-Start	Long-Start	Lat-End	Long-End	Type	Approx. PES	Name
WITHIN WETLAND												
Trunkline South (to Sibanye)	Within Wetland		600	8000	HDPE SDR 17 PE 100 Gas Pipe	-28.25808	26.74904	-28.25823	26.74901	Depression/Pan Wetland	C/D	Middelplaas No. 583/0
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.25822	26.74879	-28.25808	26.74904	Depression/Pan Wetland	C/D	Middelplaas No. 583/0
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.26558	26.74366	-28.26376	26.74339	Flat Wetland	E/F	Excelsior No. 147/0
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.27196	26.74462	-28.26954	26.74426	Seep Wetland	E	Excelsior No. 147/0
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.27206	26.74464	-28.27224	26.74351	Seep Wetland	E	Excelsior No. 147/0
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.27206	26.74464	-28.27206	26.74464	Seep Wetland	E	Excelsior No. 147/0
Existing Wells EX1	Within Wetland		10000	14000	Carbon Steel, Mild Steel, Concrete, HDPE, Structural Steel	-28.27225	26.74351	Not Applicable	Not Applicable	Seep Wetland	E	Excelsior No. 147/0
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.27623	26.74529	-28.27609	26.74529	Seep Wetland	E	Goedemoed No. 143/2
Trunkline South (to Sibanye)	Within Wetland		600	8000	HDPE SDR 17 PE 100 Gas Pipe	-28.24072	26.75309	-28.24234	26.75271	Depression/Pan Wetland	C/D	Middelplaas No. 583/0
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.24234	26.75271	-28.24072	26.75309	Depression/Pan Wetland	C/D	Middelplaas No. 583/0
Trunkline South (to Sibanye)	Within Wetland		600	8000	HDPE SDR 17 PE 100 Gas Pipe	-28.22221	26.75418	-28.22357	26.75420	Depression/Pan Wetland	C/D	Doorn Rivier No. 330/2
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.22244	26.75424	-28.22322	26.75431	Depression/Pan Wetland	C/D	Doorn Rivier No. 330/2
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.18854	26.74184	-28.18727	26.74491	Seep Wetland	C	Kalkoenkrans No. 225/2

Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.18339	26.73457	-28.18292	26.73500	Seep Wetland	C	Kalkoenkrans No. 225/2
Trunkline South (to Sibanye)	Within Wetland		600	8000	HDPE SDR 17 PE 100 Gas Pipe	-28.18594	6	-28.18872	26.73578	Seep Wetland	C	Palmietkuil No. 328/6
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.18866	26.72920	-28.18845	26.72940	Evaporation/Tailings/Other Mining Dams	C	Palmietkuil No. 328/6
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.18857	26.74180	-28.18854	26.74184	Seep Wetland	C	Palmietkuil No. 328/6
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.18594	26.73509	-28.18857	26.74180	Seep Wetland	C	Palmietkuil No. 328/6
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.18594	26.73509	-28.18872	26.73578	Seep Wetland	C	Palmietkuil No. 328/6
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.19069	26.72729	-28.19054	26.72743	Unchanneled Valley Bottom Wetland	D/E	Palmietkuil No. 328/6
Trunkline North (to HDR1)	Within Wetland		600	8000	HDPE SDR 17 PE 100 Gas Pipe	-28.18207	26.72975	-28.18209	26.72979	Seep Wetland	D	Palmietkuil No. 328/6
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.18209	26.72979	-28.18207	26.72975	Seep Wetland	D	Palmietkuil No. 328/6
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.17330	26.74416	-28.17216	26.74473	Seep Wetland	C/D	Kalkoenkrans No. 225/2
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.17162	26.74332	-28.17138	26.74269	Seep Wetland	C/D	Kalkoenkrans No. 225/2
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.16433	26.72841	-28.16475	26.72909	Depression/Pan Wetland	C/D	Kalkoenkrans No. 225/1
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.13444	26.71866	-28.13478	26.71843	Seep Wetland	C	Mond Van Doorn Rivier No. 38/0
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.12258	26.72140	-28.12320	26.72145	Ephemeral Channel	N/A	Mond Van Doorn Rivier No. 38/0
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.10297	26.72602	-28.10301	26.72603	Unchanneled Valley Bottom Wetland	C	Blaauwdrift No. 188/3
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.09318	26.73568	-28.09314	26.73480	Channeled Valley Bottom Wetland	C	Adamsonsvlei No. 655/0
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.24954	26.70281	-28.24908	26.70292	Seep Wetland	E/F	Boschluis Spruit No. 278/2
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.27023	26.67838	-28.26827	26.67855	Seep Wetland	C	Driekoppies No. 422/1
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.27355	26.66717	-28.27338	26.66711	Ephemeral Channel	N/A	Hendriena No. 563/0
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.27433	26.66319	-28.27442	26.66382	Flat Wetland	E/F	Retreat No. 118/0
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.27279	26.65286	-28.27282	26.65307	Seep Wetland	C/D	Retreat No. 118/0
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.27206	26.64797	-28.27214	26.64851	Seep Wetland	C/D	Retreat No. 118/0

Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.28639	26.74531	-28.28465	26.74527	Channeled Valley Bottom Wetland	B/C	Goedemoed No. 143/2
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.28605	26.74200	-28.28618	26.74283	Channeled Valley Bottom Wetland	B/C	Grottkau No. 410/0
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.28638	26.74403	-28.28639	26.74531	Channeled Valley Bottom Wetland	B/C	Grottkau No. 410/0
Existing Wells SPG3	Within Wetland		10000	14000	Carbon Steel, Mild Steel, Concrete, HDPE, Structural Steel	-28.28605	26.74200	Not Applicable	Not Applicable	Channeled Valley Bottom Wetland	B/C	Grottkau No. 410/0
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.21603	26.74812	-28.21434	26.74651	Unchanneled Valley Bottom Wetland	C	Doorn Rivier No. 330/1
Trunkline South (to Sibanye)	Within Wetland		600	8000	HDPE SDR 17 PE 100 Gas Pipe	-28.21434	26.74651	-28.21603	26.74812	Unchanneled Valley Bottom Wetland	C	Doorn Rivier No. 330/4
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.20407	26.74047	-28.20944	26.74363	Unchanneled Valley Bottom Wetland	C	Palmietkuil No. 328/4
Trunkline South (to Sibanye)	Within Wetland		600	8000	HDPE SDR 17 PE 100 Gas Pipe	-28.20012	26.73845	-28.21434	26.74651	Unchanneled Valley Bottom Wetland	C	Palmietkuil No. 328/6
Trunkline North (to HDR1)	Within Wetland		600	8000	HDPE SDR 17 PE 100 Gas Pipe	-28.18265	26.73082	-28.18415	26.73360	Channeled Valley Bottom Wetland	D	Palmietkuil No. 328/6
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.18410	26.73350	-28.18410	26.73350	Channeled Valley Bottom Wetland	D	Palmietkuil No. 328/6
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.18410	26.73350	-28.18410	26.73350	Channeled Valley Bottom Wetland	D	Palmietkuil No. 328/6
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.18155	26.75465	-28.18283	26.75724	Depression/Pan Wetland	C/D	Kalkoenkrans No. 225/2
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.16121	26.73305	-28.16461	26.73261	Seep Wetland	E	Kalkoenkrans No. 225/1
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.16121	26.73305	-28.17116	26.73124	Seep Wetland	E	Kalkoenkrans No. 225/1
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.16121	26.73305	-28.16126	26.73691	Seep Wetland	E	Kalkoenkrans No. 225/1
Trunkline North (to HDR1)	Within Wetland		600	8000	HDPE SDR 17 PE 100 Gas Pipe	-28.15760	26.73352	-28.17602	26.72986	Seep Wetland	E	Kalkoenkrans No. 225/1
Infield Pipeline	Within Wetland		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.11638	26.71524	-28.11747	26.71839	Riparian Habitat	D	Blaauwdrift No. 188/3
WITHIN 500M WETLAND BUFFER												
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	90.00000	26.73390	-28.14863	26.73643	Within 500m of a watercourse	Not Applica ble	Annex Glen Ross No. 562/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.14315	26.73229	-28.13547	26.72720	Within 500m of a watercourse	Not Applica ble	Annex Glen Ross No. 562/1
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.14315	26.73229	-28.13547	26.72720	Within 500m of a watercourse	Not Applica ble	Annex Glen Ross No. 562/1
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.15463	26.73391	-28.14863	26.73644	Within 500m of a watercourse	Not Applica ble	Annex Glen Ross No. 562//RE

Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.14313	26.73232	-28.13547	26.72724	Within 500m of a watercourse	Not Applica ble	Annex Glen Ross No. 562/1
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.14313	26.73232	-28.13547	26.72724	Within 500m of a watercourse	Not Applica ble	Annex Glen Ross No. 562/1
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.13637	26.71802	-28.13659	26.71803	Within 500m of a watercourse	Not Applica ble	Annex Glen Ross No. 562/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.13648	26.71694	-28.13676	26.71681	Within 500m of a watercourse	Not Applica ble	Annex Glen Ross No. 562/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.14832	26.71812	-28.14819	26.71851	Within 500m of a watercourse	Not Applica ble	Annex Glen Ross No. 562/7
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.14338	26.71645	-28.14832	26.71812	Within 500m of a watercourse	Not Applica ble	Annex Glen Ross No. 562/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.14832	26.71811	-28.15037	26.71878	Within 500m of a watercourse	Not Applica ble	Annex Glen Ross No. 562/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.13547	26.72720	-28.13547	26.72720	Within 500m of a watercourse	Not Applica ble	Annex Glen Ross No. 562/1
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.13547	26.72724	-28.13547	26.72724	Within 500m of a watercourse	Not Applica ble	Annex Glen Ross No. 562/1
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.13637	26.71802	-28.13637	26.71802	Within 500m of a watercourse	Not Applica ble	Annex Glen Ross No. 562/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.13647	26.71694	-28.13648	26.71694	Within 500m of a watercourse	Not Applica ble	Annex Glen Ross No. 562/RE
Trunkline North (to HDR1)	Within 500m Wetland Buffer		600	8000	HDPE SDR 17 PE 100 Gas Pipe	-28.14863	26.73643	-28.15463	26.73390	Within 500m of a watercourse	Not Applica ble	Annex Glen Ross No. 562/RE
Trunkline North (to HDR1)	Within 500m Wetland Buffer		600	8000	HDPE SDR 17 PE 100 Gas Pipe	-28.13547	26.72720	-28.14315	26.73229	Within 500m of a watercourse	Not Applica ble	Annex Glen Ross No. 562/1
Trunkline North (to HDR1)	Within 500m Wetland Buffer		600	8000	HDPE SDR 17 PE 100 Gas Pipe	-28.13547	26.72720	-28.14315	26.73229	Within 500m of a watercourse	Not Applica ble	Annex Glen Ross No. 562/1
Trunkline North (to HDR1)	Within 500m Wetland Buffer		600	8000	HDPE SDR 17 PE 100 Gas Pipe	-28.13547	26.72720	-28.13547	26.72720	Within 500m of a watercourse	Not Applica ble	Annex Glen Ross No. 562/1
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.10236	26.72586	-28.10901	26.72752	Within 500m of a watercourse	Not Applica ble	Blaauwdrift No. 188/3
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.11637	26.71524	-28.11747	26.71839	Within 500m of a watercourse	Not Applica ble	Blaauwdrift No. 188/3
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.11106	26.71560	-28.11831	26.71932	Within 500m of a watercourse	Not Applica ble	Blaauwdrift No. 188/3
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.10213	26.72622	-28.10432	26.72171	Within 500m of a watercourse	Not Applica ble	Blaauwdrift No. 188/2
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.10901	26.72752	-28.11091	26.72719	Within 500m of a watercourse	Not Applica ble	Blaauwdrift No. 188/3
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.11005	26.72755	-28.11072	26.72767	Within 500m of a watercourse	Not Applica ble	Blaauwdrift No. 188/2

Existing Well 1629	Within 500m Wetland Buffer		10000	14000	Carbon Steel, Mild Steel, Concrete, HDPE, Structural Steel	-28.11091	26.72719	Not Applicable	Not Applicable	Within 500m of a watercourse	Not Applica ble	Blaauwdrift No. 188/3
Existing Well 1307	Within 500m Wetland Buffer		10000	14000	Carbon Steel, Mild Steel, Concrete, HDPE, Structural Steel	-28.11630	26.71524	Not Applicable	Not Applicable	Within 500m of a watercourse	Not Applica ble	Blaauwdrift No. 188/3
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.24898	26.70299	-28.24568	26.70712	Within 500m of a watercourse	Not Applica ble	Boschluis Spruit No. 278/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.25398	26.70173	-28.24898	26.70299	Within 500m of a watercourse	Not Applica ble	Boschluis Spruit No. 278/2
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.27580	26.64453	-28.27173	26.64579	Within 500m of a watercourse	Not Applica ble	Die Wilger No. 544/0
Existing Well Retreat	Within 500m Wetland Buffer		10000	14000	Carbon Steel, Mild Steel, Concrete, HDPE, Structural Steel	-28.27582	26.64454	Not Applicable	Not Applicable	Within 500m of a watercourse	Not Applica ble	Die Wilger No. 544/0
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.21635	26.74846	-28.21635	26.74846	Within 500m of a watercourse	Not Applica ble	Doorn Rivier No. 330/1
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.23631	26.75412	-28.23631	26.75412	Within 500m of a watercourse	Not Applica ble	Doorn Rivier No. 330/1
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.21635	26.74846	-28.23625	26.75411	Within 500m of a watercourse	Not Applica ble	Doorn Rivier No. 330/1
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.22442	26.75384	-28.22129	26.75372	Within 500m of a watercourse	Not Applica ble	Doorn Rivier No. 330/2
Trunkline South (to Sibanye)	Within 500m Wetland Buffer		600	8000	HDPE SDR 17 PE 100 Gas Pipe	-28.21434	26.74651	-28.23631	26.75412	Within 500m of a watercourse	Not Applica ble	Doorn Rivier No. 330/1
Trunkline South (to Sibanye)	Within 500m Wetland Buffer		600	8000	HDPE SDR 17 PE 100 Gas Pipe	-28.22129	26.75372	-28.22442	26.75384	Within 500m of a watercourse	Not Applica ble	Doorn Rivier No. 330/2
Existing Well 1400	Within 500m Wetland Buffer		10000	14000	Carbon Steel, Mild Steel, Concrete, HDPE, Structural Steel	-28.22205	26.74335	Not Applicable	Not Applicable	Within 500m of a watercourse	Not Applica ble	Doorn Rivier No. 330/1
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.27160	26.67397	-28.27088	26.67538	Within 500m of a watercourse	Not Applica ble	Driekoppies No. 422/0
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.27088	26.67538	-28.26818	26.67855	Within 500m of a watercourse	Not Applica ble	Driekoppies No. 422/0
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.26818	26.67855	-28.26349	26.67895	Within 500m of a watercourse	Not Applica ble	Driekoppies No. 422/2
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.27196	26.74462	-28.25918	26.74271	Within 500m of a watercourse	Not Applica ble	Excelsior No. 147/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.27206	26.74464	-28.27224	26.74351	Within 500m of a watercourse	Not Applica ble	Excelsior No. 147/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.27206	26.74464	-28.27206	26.74464	Within 500m of a watercourse	Not Applica ble	Excelsior No. 147/RE

Existing Well EX1	Within 500m Wetland Buffer		10000	14000	Carbon Steel, Mild Steel, Concrete, HDPE, Structural Steel	-28.27225	26.74351	Not Applicable	Not Applicable	Within 500m of a watercourse	Not Applicable	Excelsior No. 147/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.28639	26.74531	-28.27609	26.74529	Within 500m of a watercourse	Not Applicable	Goedemoed No. 143/2
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.28605	26.74200	-28.28639	26.74531	Within 500m of a watercourse	Not Applicable	Grottkau No. 410/RE
Existing Well SPG3	Within 500m Wetland Buffer		10000	14000	Carbon Steel, Mild Steel, Concrete, HDPE, Structural Steel	-28.28605	26.74200	Not Applicable	Not Applicable	Within 500m of a watercourse	Not Applicable	Grottkau No. 410/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.13756	26.71635	-28.14003	26.71676	Within 500m of a watercourse	Not Applicable	Helpmekaar No. 47/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.14003	26.71676	-28.14338	26.71645	Within 500m of a watercourse	Not Applicable	Helpmekaar No. 47/1
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.15499	26.71788	-28.15510	26.71744	Within 500m of a watercourse	Not Applicable	Helpmekaar No. 47/3
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.13756	26.71635	-28.13756	26.71635	Within 500m of a watercourse	Not Applicable	Helpmekaar No. 47/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.27497	26.66764	-28.27337	26.66711	Within 500m of a watercourse	Not Applicable	Hendriena No. 563/0
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.27336	26.66710	-28.27214	26.67188	Within 500m of a watercourse	Not Applicable	Hendriena No. 563/0
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.27497	26.66764	-28.27497	26.66764	Within 500m of a watercourse	Not Applicable	Hendriena No. 563/0
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.16121	26.73305	-28.16558	26.73248	Within 500m of a watercourse	Not Applicable	Kalkoenkrans No. 225/1
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.16121	26.73305	-28.16558	26.73248	Within 500m of a watercourse	Not Applicable	Kalkoenkrans No. 225/1
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.16121	26.73305	-28.16558	26.73248	Within 500m of a watercourse	Not Applicable	Kalkoenkrans No. 225/1
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.18387	26.75080	-28.18395	26.74810	Within 500m of a watercourse	Not Applicable	Kalkoenkrans No. 225/2
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.18474	26.73479	-28.18474	26.73479	Within 500m of a watercourse	Not Applicable	Kalkoenkrans No. 225/2
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.16121	26.73305	-28.16126	26.73691	Within 500m of a watercourse	Not Applicable	Kalkoenkrans No. 225/1
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.17986	26.73780	-28.17986	26.73780	Within 500m of a watercourse	Not Applicable	Kalkoenkrans No. 225/2
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.17986	26.73780	-28.17138	26.74269	Within 500m of a watercourse	Not Applicable	Kalkoenkrans No. 225/2
Trunkline North (to HDR1)	Within 500m Wetland Buffer		600	8000	HDPE SDR 17 PE 100 Gas Pipe	-28.15463	26.73390	-28.18126	26.72837	Within 500m of a watercourse	Not Applicable	Kalkoenkrans No. 225/1

Existing Well DBE 1	Within 500m Wetland Buffer		10000	14000	Carbon Steel, Mild Steel, Concrete, HDPE, Structural Steel	-28.18340	26.75818	Not Applicable	Not Applicable	Within 500m of a watercourse	Not Applicable	Kalkoenkrans No. 225/2
Existing Well BEI 02	Within 500m Wetland Buffer		10000	14000	Carbon Steel, Mild Steel, Concrete, HDPE, Structural Steel	-28.16294	26.72420	Not Applicable	Not Applicable	Within 500m of a watercourse	Not Applicable	Kalkoenkrans No. 225/1
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.24701	26.75162	-28.25356	26.75009	Within 500m of a watercourse	Not Applicable	Middelplaas No. 583/0
Trunkline South (to Sibanye)	Within 500m Wetland Buffer		600	8000	HDPE SDR 17 PE 100 Gas Pipe	-28.23631	26.75412	-28.25823	26.74901	Within 500m of a watercourse	Not Applicable	Middelplaas No. 583/0
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.11946	26.72051	-28.12698	26.72277	Within 500m of a watercourse	Not Applicable	Mond Van Doorn Rivier No. 38/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.11946	26.72051	-28.12698	26.72277	Within 500m of a watercourse	Not Applicable	Mond Van Doorn Rivier No. 38/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.11831	26.71932	-28.11946	26.72051	Within 500m of a watercourse	Not Applicable	Mond Van Doorn Rivier No. 38/2
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.12409	26.71809	-28.12584	26.71899	Within 500m of a watercourse	Not Applicable	Mond Van Doorn Rivier No. 38/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.12581	26.71957	-28.13378	26.72631	Within 500m of a watercourse	Not Applicable	Mond Van Doorn Rivier No. 38/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.12578	26.71950	-28.13378	26.72635	Within 500m of a watercourse	Not Applicable	Mond Van Doorn Rivier No. 38/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.12689	26.72232	-28.13637	26.71802	Within 500m of a watercourse	Not Applicable	Mond Van Doorn Rivier No. 38/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.13676	26.71681	-28.13756	26.71635	Within 500m of a watercourse	Not Applicable	Mond Van Doorn Rivier No. 38/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.13535	26.71802	-28.13647	26.71694	Within 500m of a watercourse	Not Applicable	Mond Van Doorn Rivier No. 38/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.13547	26.72720	-28.13547	26.72720	Within 500m of a watercourse	Not Applicable	Mond Van Doorn Rivier No. 38/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.13547	26.72724	-28.13547	26.72724	Within 500m of a watercourse	Not Applicable	Mond Van Doorn Rivier No. 38/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.13637	26.71802	-28.13637	26.71802	Within 500m of a watercourse	Not Applicable	Mond Van Doorn Rivier No. 38/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.13756	26.71635	-28.13756	26.71635	Within 500m of a watercourse	Not Applicable	Mond Van Doorn Rivier No. 38/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.13647	26.71694	-28.13648	26.71694	Within 500m of a watercourse	Not Applicable	Mond Van Doorn Rivier No. 38/RE
Trunkline North (to HDR1)	Within 500m Wetland Buffer		600	8000	HDPE SDR 17 PE 100 Gas Pipe	-28.12586	26.71897	-28.13547	26.72720	Within 500m of a watercourse	Not Applicable	Mond Van Doorn Rivier No. 38/RE
Trunkline North (to HDR1)	Within 500m Wetland Buffer		600	8000	HDPE SDR 17 PE 100 Gas Pipe	-28.13547	26.72720	-28.13547	26.72720	Within 500m of a watercourse	Not Applicable	Mond Van Doorn Rivier No. 38/RE

Existing Well HDR 1	Within 500m Wetland Buffer		10000	14000	Carbon Steel, Mild Steel, Concrete, HDPE, Structural Steel	-28.12586	26.71897	Not Applicable	Not Applicable	Within 500m of a watercourse	Not Applicable	Mond Van Doorn Rivier No. 38/RE
HDR 1 Compressor	Within 500m Wetland Buffer		60000	60000	Carbon Steel, Mild Steel, Concrete, HDPE, Structural Steel	-28.12582	26.71838	Not Applicable	Not Applicable	Within 500m of a watercourse	Not Applicable	Mond Van Doorn Rivier No. 38/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.18410	26.73350	-28.18479	26.73481	Within 500m of a watercourse	Not Applicable	Palmietkuil No. 328/6
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.19490	26.72375	-28.19129	26.72672	Within 500m of a watercourse	Not Applicable	Palmietkuil No. 328/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.21891	26.71549	-28.20978	26.71867	Within 500m of a watercourse	Not Applicable	Palmietkuil No. 328/1
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.18410	26.73350	-28.18526	26.73496	Within 500m of a watercourse	Not Applicable	Palmietkuil No. 328/6
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.18857	26.74180	-28.18854	26.74184	Within 500m of a watercourse	Not Applicable	Palmietkuil No. 328/6
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.21434	26.74651	-28.20005	26.73843	Within 500m of a watercourse	Not Applicable	Palmietkuil No. 328/4
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.18541	26.73496	-28.18857	26.74180	Within 500m of a watercourse	Not Applicable	Palmietkuil No. 328/6
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.19672	26.73765	-28.19991	26.73840	Within 500m of a watercourse	Not Applicable	Palmietkuil No. 328/4
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.18474	26.73479	-28.19672	26.73765	Within 500m of a watercourse	Not Applicable	Palmietkuil No. 328/6
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.20005	26.73843	-28.19991	26.73840	Within 500m of a watercourse	Not Applicable	Palmietkuil No. 328/4
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.20005	26.73843	-28.19991	26.73840	Within 500m of a watercourse	Not Applicable	Palmietkuil No. 328/4
Trunkline North (to HDR1)	Within 500m Wetland Buffer		600	8000	HDPE SDR 17 PE 100 Gas Pipe	-28.18126	26.72837	-28.18509	26.73509	Within 500m of a watercourse	Not Applicable	Palmietkuil No. 328/6
Trunkline South (to Sibanye)	Within 500m Wetland Buffer		600	8000	HDPE SDR 17 PE 100 Gas Pipe	-28.19672	26.73765	-28.21434	26.74651	Within 500m of a watercourse	Not Applicable	Palmietkuil No. 328/4
Trunkline South (to Sibanye)	Within 500m Wetland Buffer		600	8000	HDPE SDR 17 PE 100 Gas Pipe	-28.18541	26.73496	-28.19672	26.73765	Within 500m of a watercourse	Not Applicable	Palmietkuil No. 328/4
Existing Well ST23	Within 500m Wetland Buffer		10000	14000	Carbon Steel, Mild Steel, Concrete, HDPE, Structural Steel	-28.19989	26.73855	Not Applicable	Not Applicable	Within 500m of a watercourse	Not Applicable	Palmietkuil No. 328/4
ST23 Compressor	Within 500m Wetland Buffer		60000	60000	Carbon steel, mild steel, concrete, HDPE, structural steel	-28.18511	26.73508	Not Applicable	Not Applicable	Within 500m of a watercourse	Not Applicable	Palmietkuil No. 328/6

Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.27173	26.64579	-28.27497	26.66764	Within 500m of a watercourse	Not Applicable	Retreat No. 118/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.27497	26.66764	-28.27497	26.66764	Within 500m of a watercourse	Not Applicable	Retreat No. 118/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.09054	26.73717	-28.10213	26.72622	Within 500m of a watercourse	Not Applicable	Adamsonsvlei No. 655/RE
Infield Pipeline	Within 500m Wetland Buffer		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.08270	26.73062	-28.08295	26.73060	Within 500m of a watercourse	Not Applicable	Adamsonsvlei No. 655/RE
Existing Well 2057 (subject to change with the completion of detailed designs)	Within 500m Wetland Buffer		20000	28000	Carbon Steel, Mild Steel, Concrete, HDPE, Structural Steel	-28.09055	26.73716	Not Applicable	Not Applicable	Within 500m of a watercourse	Not Applicable	Adamsonsvlei No. 655/RE
Existing Well 2033	Within 500m Wetland Buffer		10000	14000	Carbon Steel, Mild Steel, Concrete, HDPE, Structural Steel	-28.07838	26.73234	Not Applicable	Not Applicable	Within 500m of a watercourse	Not Applicable	Adamsonsvlei No. 655/RE
ROAD CROSSINGS ON SAND RIVER AND BOSLUITSPRUIT												
Infield Pipeline	Sand River Crossing		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.11583	26.71717	-28.11831	26.71932	Riparian Habitat	D	Blaauwdrift No. 188/3 (Property 1)
Infield Pipeline	Sand River Crossing		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.11946	26.72051	-28.11981	26.72076	Riparian Habitat	D	Mond Van Doorn Rivier No. 38/RE (Property 2)
Infield Pipeline	Sand River Crossing		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.11831	26.71932	-28.11946	26.72051	Riparian Habitat	D	Mond Van Doorn Rivier No. 38/2 (Property 3)
Infield Pipeline	Bosluitspruit Crossing		600	50000	HDPE SDR 17 PE 100 Gas Pipe	-28.28618	26.74283	-28.28652	26.74532	Riparian Habitat	B	Grottkau No. 410/RE

1.2 The Licensee must carry out and complete all the activities listed under condition 1.1 according to the following:

1.2.1 Plans to extend natural gas production operations within an existing production right: Integrated Water Use Licence Application by Environmental Impact Management Services (EIMS) dated 28 March 2018.

1.2.2 Approved Environmental Impact Assessment (EIA) Report for cluster 1 by Environmental Impact Management Services (EIMS), 02 May 2017.

1.2.3 Environmental Management Programme for the cluster 1 project by Environmental Impact Management Services (EIMS, dated 28 April 2017.

1.3 The conditions of the authorisation must be brought to the attention of all persons (employees, sub-consultants, contractors etc.) associated with the undertaking of these activities and the Licensee must take such measures that are necessary to bind such persons to the conditions of this licence.

1.4 A suitably qualified person(s), appointed by the Licensee, and approved in writing by the Provincial Head: Free State must be responsible for ensuring that activities are undertaken in compliance with the specifications as set out in reports submitted to the Department or the Responsible Authority and the conditions of this licence.

1.5

1.6 A copy of the water use licence and reports set out under condition 1.2 of this Appendix must be on site at all times.

1.7 Buffers of 30m must be implemented between the wetland and the irrigation area and the pasture area.

1.8 Ecological class of rivers and wetlands (PES of B) must not to be lowered. Recommended Ecological Class (REC) for wetland must be set as class B.

1.9 A layout plan confirming that the 1:100 year floodline of the watercourse upstream of the dam wall do not affect any public property must be submitted to the Department within 30 days of issuance of water use licence.

2. FURTHER STUDIES AND INFORMATION REQUIREMENTS

2.1 For water use activities in Table 2:

2.1.1. No fundamental alterations of the work method statements, site plan(s) and drawings are allowed, unless a modification is requested and granted by the Provincial Head in writing; and

2.2 If the Licensee is not the end user/beneficiary of the water use related infrastructure and will not be responsible for long term maintenance and management of the infrastructure, the Licensee must provide a programme for hand over to the successor-in-title including a brief management/maintenance plan and the agreement for infrastructure along with allocation of responsibilities, within three (3) months of the date of issuing of this licence.

2.3 For the activity listed under condition 1.1, Table 2, "as-built" plan(s) and engineering drawing(s) prepared by a registered professional engineer, must be submitted to the Provincial Heal within six (6) months of completion of activity. These plan(s) and drawing(s) must indicate the watercourse(s) including wetland boundaries and layout and structure location(s) of all infrastructure impeding and/or diverting flow of watercourses as well as alterations to watercourse(s) on the properties.

2.4 Pipeline Maintenance Plan must be submitted within three months of issuance of this licence.

2.5 For all the activities listed under condition 1.1, Table 2, "as-built" plan(s) and engineering drawing(s) prepared by a registered professional engineer, must be submitted to the Provincial Head within three (3) months of the date of issuance of this licence. These plan(s) and drawing(s) must indicate the watercourse including wetland boundaries and layout and structure location(s) of all infrastructure impeding and/or diverting flow of the watercourse as well as

alterations to the watercourse on the property.

2.6 An Environmental Management Plan (EMP) and rehabilitation plan for the decommissioning of any of the water use activities listed in Table 2 must be submitted five (5) years before commencing with closure to the Provincial Head for a written approval.

3. PROTECTIVE MEASURES

General Conditions on Stormwater Management

3.1 Stormwater shall be diverted from the construction works and roads and shall be managed in such a manner as to disperse runoff and to prevent the concentration of stormwater flow.

3.2 Where necessary works must be constructed to attenuate the velocity of the stormwater discharge and to protect the banks of the watercourse.

3.3 Stormwater control works must be constructed, operated and maintained in a sustainable manner throughout the project.

3.4 Increased runoff due to vegetation clearance and/or soil compaction must be managed, and steps must be taken to ensure that stormwater does not lead to bank instability and excessive levels of silt entering the watercourse.

4. WATER USE ACTIVITIES IN RELATION TO THE CHARACTERISTICS OF A WATERCOURSE

4.1 Water Quality

4.1.1 The Licensee must ensure that the quality of the water to downstream water users does not decrease because of the water use activities listed under condition 1.1.

4.1.2 In-stream [redacted] must be analysed on a [redacted] basis [redacted] otherwise [redacted] of the activities for the following variables, but not limited to:

4.1.2.1 Suspended solids (mg/l) : <20 mg/l;

4.1.2.2 Total dissolved Solids (mg/l) : <450MG/l;

4.1.2.3 Dissolved Oxygen (mg/l) : <6mg/l and

4.1.2.4 Turbidity (NTU): <3NTU

4.1.3 Monitoring must be undertaken as set out in condition 4.

4.1.4 Monitoring must continue for [redacted] of the activities listed in condition 1.1.

4.1.5 Turbidity, sedimentation and chemical changes to the composition of the water must be limited and monitored both upstream and downstream of activities.

4.1.6 Activities that lead to elevated levels of turbidity of any watercourse must be minimised. Activities must be scheduled to take place during the dry seasons when flows are lowest where reasonably possible. If this is not possible and if management measures have not been provided for activities in a wet season in the reports submitted to the Department or the Responsible Authority, the Licensee must submit such to the Head of Provincial Operations: Free State for written approval before these activities commence. Natural in-stream hydrology is to be used to determine which months constitute the low flow months.

4.1.7 Pollution of and disposal/spillage of any material into the watercourse must be prevented, reduced, or otherwise remediated through proper operation, maintenance and effective protective measures.

4.1.8 Vehicles and other machinery must be serviced well above the 1:100 year flood-line or outer edge of the riparian habitat whichever is the greatest. Oils and other potential pollutants must be disposed off at an appropriate licensed site, with the necessary agreement from the owner of such a site.

4.1.9 Any hazardous substances must be handled according to the relevant legislation relating to transport, storage and use of the substance.

4.1.10 No material with pollution generating potential will be used in any of the operation and maintenance activities.

4.1.11 All reagent storage tanks and reaction units must be supplied with a bunded area built to the capacity of the facility and provided with sumps and pumps return the spilled material back into the system. The system must be maintained in a state of good repair and standby pumps must be provided.

4.2 Flow

4.2.1 The water use must not result in a change in the quality, velocity, pattern, timing water level and assurance of flow in the watercourse.

4.2.2 The Licensee must ensure that the overall magnitude and frequency of flow in the water course/s does not decrease, other than for natural evaporative losses and authorised attenuation volumes.

4.2.3 Increased run-off during construction must be managed using berms and other suitable structures as required to ensure flow velocities are reduced, special care must be given to ensure velocity is slowed before reaching the watercourse.

4.3 Riparian Habitat (Vegetation and Morphology)

4.3.1 Activities must start up-stream and proceed into a down-stream direction, so that the recovery processes can start immediately, without further disturbance from upstream works.

4.3.2 The proposed construction should not increase bank instability and the erosive potential of a stream. Steps should be taken to ensure that the channel is able to withstand the most probable maximum flood events without undue bank instability or erosion.

4.3.3 Operation and storage of equipment within the riparian habitat must only take place within the approved limits of disturbance indicated in an approved site plan and work method statements.

4.3.4 Activities must not occur in sensitive riffle habitats or where there are rock outcrops.

4.3.5 Indigenous riparian vegetation, including dead trees, outside the limits of disturbance indicated in the site plans, referred to in condition 2, may not be removed from the area.

4.3.6 Removal of riparian forest must be authorised in terms of the National Forest Act (Act No. 84 of 1998).

4.3.7 The vegetation of the surrounding catchment on the property must also be managed to prevent erosion and siltation of the watercourse.

4.3.8 Alien and invader vegetation must not be allowed to further colonise the area, and all new alien vegetation recruitment must be eradicated or controlled, using standard methods approved by the Department.

4.3.9 Existing vegetation composition in riparian zones by maintaining the natural variability in flow fluctuations must be maintained.

4.3.10 Recruitment and maintaining of a range of size classes of dominant riparian species in perennial channels must be stimulated.

4.3.11 Encroachment of additional exotic species and terrestrial species in riparian zones must be discouraged.

4.3.12 Accumulation of woody debris on terraces by periodic flooding must be discouraged.

4.3.13 Existing flood terraces and deposition of sediments on these terraces to ensure optimum growth, spread and recruitment of these species must be maintained.

4.3.14 All reasonable steps must be taken to minimise noise and mechanical vibrations in the vicinity of the watercourses.

4.3.15 The necessary erosion prevention mechanisms must be employed to ensure the sustainability of all structures and activities and to prevent in stream sedimentation.

4.3.16 Soils that have become compacted through the water use activities must be loosened to an appropriate depth to allow seed germination.

4.3.17 Slope/bank stabilisation measures must be implemented.

4.3.18 Stockpiling of removed soil and material must be stored outside of the 1:100 year flood line or riparian habitat, whichever is the greater, to prevent being washed into the watercourse and must be covered to prevent wind and rain erosion.

4.3.19 The indiscriminate use of machinery within the in stream and riparian habitat may lead to compaction of soils and vegetation and must therefore be strictly controlled.

4.4 Biota

4.4.1 The Licensee must take all reasonable steps to allow movement of aquatic species, including migratory species.

4.4.2 All reasonable steps must be taken not to disturb the breeding, nesting and/or feeding habitats and natural movement patterns of aquatic biota.

4.4.3 The current level of diversity of biotopes and communities of animals, plants and microorganisms must be maintained.

5. GENERAL SPECIFICATIONS

5.1 A suitably qualified person, appointed by the Licensee, and approved, in writing, by the Provincial Head, must be responsible for ensuring that the structure is constructed, operated and maintained in line with the design specifications.

5.2 The Licensee must ensure that the pipeline shall not be damaged excessively by floods exceeding the magnitude of floods occurring on average once in every 100 years.

5.3 The necessary erosion prevention mechanisms shall be employed to ensure the sustainability of all the abstraction works and the pipeline.

5.4 Structural maintenance plan must be submitted to the Department for approval within three months from the date of issuance of this licence

5.5 Gas pipeline must cater for aquatic biota movement and ecological connectivity.

5.6 Pipeline structure must cater for the 1:100 year flood events. Plants species plan for the rehabilitation purpose must be developed and submitted to Department for approval within three months of issuance of this licence.

5.7 The banks must be shaped to 1:3 slopes to blend into the environmental, protected by rocks, top soil, rock mattress or geotextiles and vegetated with natural vegetation.

5.8 Environmental Management Plan must be implemented and

5.9 This authorisation does not authorise the production of gas or conducting any other water uses activities except the construction of pipe lines.

5.10 The Liencee is responsible for obtaining the neccesary servitudes associated with this activiy.

6. PROTECTIVE MEASURES

6.1 All activities within the riparian zone should be restricted as far as possible.

6.2 Alien vegetation must not be allowed to further colonise the area, and all new alien vegetation recruitment must be eradicated or controlled, using standard methods approved by the Department.

6.3 Soils that have become compacted through the activities of the development must be loosened to an appropriate depth to allow seed germination.

6.4 Increased runoff due to vegetation clearance and/or soil compaction must be managed and steps must be taken to ensure that stormwater does not lead to the watercourse instability and excessive levels of silt entering the watercourse.

6.5 The extent of disturbance should be limited by limiting all construction activities to the development area as indicated on the general layout plan as far as practically possible.

6.7 As far as possible, the existing road and farm tracks should be used as the access road to provide access during construction as this will reduce the extent of the disturbed area.

7. REHABILITATION

7.1 All disturbed areas must be re-vegetated with an indigenous seed mix in consultation with an indigenous plant expert, ensuring that during rehabilitation only indigenous shrubs, trees and grasses are used in restoring the biodiversity.

7.2 The vegetation of the surrounding catchment should also be managed to prevent erosion and siltation of the watercourse including wetland/pan.

7.3 The Licensee shall embark on a systematic long-term rehabilitation programme to restore natural watercourses (wetland/pan) to environmentally acceptable and sustainable conditions after construction, which shall include, but not be limited to:

7.3.1 The rehabilitation of disturbed and degraded riparian areas to restore and upgrade the riparian habitat integrity to sustain a bio-diverse riparian ecosystem; and

7.3.2 Annually assess the habitat to monitor the sustainability of the solar panels and compliance with these conditions. Action must be taken to rectify any negative impacts.

7.4 The Licensee shall ensure that the volume of runoff to the wetlands/pans is not reduced or excessively increased except for natural evaporative losses and the authorised attenuation volumes.

8. GENERAL SURFACE WATER DESIGN REQUIREMENTS AND CRITERIA

8.1 The Licensee shall clearly indicate all wetlands boundaries within the project area on layout plans.

8.2 Design and planning of all proposed construction activities adjacent to or in the vicinity of rivers, streams and wetlands shall consider the following measures:

8.2.1 Impact of alignment on springs and wetlands shall be investigated and monitored and ensure their continued functioning.

8.2.2 Where appropriate, large individual indigenous riparian trees shall be avoided during construction and shall be clearly marked on site.

8.2.3 All construction roads in or adjacent to the riparian zone shall be minimised and if required, shall be aligned and managed so as to minimise disturbance of the riparian zone and in-stream habitats.

9. BUDGETARY PROVISIONS

9.1 The water user must ensure that there is a budget sufficient to complete and maintain the water use and for successful implementation of the rehabilitation programme as set out in this licence.

9.2 The Department may at any stage of the process request proof of budgetary provisions.

[END OF LICENCE]