



MORERO OA TOKOMANE ENA:

- Tokomane ena ea Tlhahisoleseding e ka Moraong (BID) e hofa, joalo ka Mokha o Thahasellang le o amehileng (I&AP), kakaretso ea boemo bo holimo ea projeke e reriloeng.
- BID e ho mema, joalo ka I&AP, ho nka karolo ho Ts'ebetso e latelang ea Phatlalatso ea Sechaba.
- BID efa wena, joalo ka I&AP monyetla oa ho kenya letsoho le ho nka karolo ho thehoeng ha Litlaleho tsa Tekolo ea Boipheliso ba Tikoloho.
- BID e boitse efa wena, joalo ka I&AP monyetla oa ho fa sehlopha sa projeke maikutlo, matshwenyeho le khanyetso mabapi le projeke e reriloeng.

SELELEKELA:

Tetra4 (Pty) Ltd (eo hamorao e tla bitsoa mokopi - Tetra4) e khethile Litšebeletso tsa Taolo ea Impact ea Tikoloho (EIMS) joalo ka Setsebi sa Tekolo ea Tikoloho (EAP) ho thusa ka ho etsa lits'ebetso tse hlokalahalang tsa tumello, ho kenyeletsoa ho hlophisa litlaleho tse hlokalahalang le ho etsa molao. ditherisano, ho tshehetsa morero o sisintsweng jwalo ka ha ho hlalositswe mona.

Ho lebeletsoe hore mesebetsi e mengata e thathamisitsoeng kapa e laoloang e teng molaong o latelang e ka 'na ea hlalisoa ke morero o reriloeng:

- Molao oa Naha oa Tsamaiso ea Tikoloho- NEMA (Molao oa 107 oa 1998- joalokaha o fetotsoe);
- Tsamaiso ea Naha ea Tikoloho: Molao oa Boleng ba Moea- NEM:AQA (Molao oa 39 oa 2004);
- Taolo ea Naha ea Tikoloho: Molao oa Litšila- NEM:WA (Molao oa 59 oa 2008); le
- Molao oa Naha oa Metsi – NWA (Molao oa 36 oa 1998).

Litlhoko tse nepahetseng tsa molao le lits'ebetso li tla netefatsoa nakong ea likopano tsa pele ho kopo ea Lekhotla le karolo ea morero oa morero ona.

Tshebetso ya Tekolo ya Phello ya Tikoloho (EIA) e tla etswa ho ya ka Kgaolo ya 6 ya Melawana ya EIA , 2014 (GNR 982) e phatlaladitsweng tlasa NEMA (jwalo kaha e fetotswe). Ho tla lateloa ts'ebetso ea Tekolo ea Boipheliso ba Tikoloho (Scoping and Environmental Impact Assessment) (EIA).

Sepheo sa Tokomane ea Boitsebiso ba Motheo (BID):

Sepheo sa Tokomane ya Boitsebiso BID ke ho:

- Nehelana ka kakaretso ea Likopo tsa Tumello ea Tikoloho/Laesense hammoho le lits'ebetso tsa ho kenya letsoho ha sechaba tse tla etsoa bakeng sa projeke e reriloeng;



- Lumella Mekha e Thahaselitsoeng le e Amehileng (I&APs) monyetla oa ho fumana kutloisiso e batsi ea morero o sisintsoeng le ho kopa kapa ho arolelana tlhahisoleseling; le
- Fana ka lintlha tse mabapi le hore na I&APs ba ka ngolisa thahasello ea bona joang le ho fana ka maikutlo mabapi le projeke. Ho bohlokoa ho elelloa hore ke li-I&APs tse ngolisitsoeng feela tse tla fumana puisano e eketsehileng mabapi le morero nakong ea ts'ebetso ea kopo (ke hore, memo ea ho hlahloba le ho fana ka maikutlo mabapi le Litlaleho tsa Scoping le EIA).

LEBAKA, SEKALLO, LE BOLEMONG BA MORERO OA POREJEKE EO ESISINTSWENG:

SEBAKA

Morero le ts'ebetso e sisintsoeng li reretsoe ho etsoa sebakeng se latelang:

- Tlhaloso ea Thepa: Sebaka sa kopo se akaretsa likarolo tse fapaneng tsa polasi tse ka bang 14 440 lihekthere (ha)
- Lihokahanyi Bohareng: 28°14'38.37"S le 26°57'54.97"E
- Tlhaloso ea Libaka:
 - Masepala oa Setereke: Lejweleputswa
 - Bomasepala ba Lehae: Masilonyana le Matjhabeng
 - Profinse: Free State
- Toropo e haufi haholo kapa ntlha e khahlang: Moeli oa sebaka ke ~15km ka boroa-bochabela ho toropo ea Virginia, ~28km boroa-bochabela ho toropo ea Welkom, ~13km ka boroa-bophirima ho toropo ea Ventersburg le ~21km leboea-bochabela ho toropo ea Theunissen.

Ka kopo, sheba 'mapa oa sebaka qetellong ea BID ena.

TLHALOSO EA PROJECT:

Motuoane ke mong'a Tokelo ea Tlhahlobo (ER315) bakeng sa hydrocarbon, e fanoeng ho latela Karolo ea 80 ea Molao oa Ntlafatso ea Liminerale le Petroleum (Molao oa 28 oa 2002 - MPRDA, joalo ka ha o fetotsoe) ka la 18 Mphalane 2018. Toropo ya Welkom, ka hara Porofense ya Foreisetata, e fetelang leboya ho tloha hoo e ka bang Theunissen, leboya-botjhabela ho leba Kroonstad, le botjhabela ba Virginia le Hennenman. Motuoane ba ne ba hlokoa hore ba tlohele karolo ea boemo ba bona ba mobu ha ba nchafatsa ER, sebaka se ntlafetseng sa ER hajoale se akaretsa sebaka sa 95 483ha, ho feta 50 000ha ho feta sebaka se amohetsoeng qalong.

Mokopi o lakatsa ho fetola karolo ea ER315 ea bona e teng hore e be Tokelo ea Tlhahiso (PR). Motuoane o hlophisitse le ho etsa kopo ea Tokelo ea Tlhahiso (PR 12/4/016) ho latela Molao oa Ntlafatso ea Mehlooli ea Liminerale le Petroleum (Molao oa 28 oa 2002 - MPRDA, joalo ka ha o fetotsoe) ho Bolaoli ba Tsamaiso (AA), Setsi sa Petroli ea Afrika Boroa (PASA) ka Phato 2025. Ho ntšoa le tlhahiso ea lithane tse 4 ho tla lebisa tlhokomelong ea 4 ea li-gase liliba, lipeipi tse bokellang khase, setsi sa ho hlahphoheloa ha helium le setsi sa ho lokisa khase (CNG kapa LNG) le lisebelisoa tse amanang le tsona. Ntle le moo, mesebetsi e tsoelang pele ea lipatlisiso e tla kenyelletsa ho cheka liliba tsa lipatlisiso, liphuputso tsa seismic le/kapa audio magnetotelluric.

Nts'etsopela e sisintsoeng ea sebaka sa Tokelo ea Tlhahiso e tla kenyelletsa mesebetsi e latelang:

- Liphuputso tsa pele tsa ho phunya seismic(tšisinyeho ea lefatše) le/kapa audio magnetotelluric ho ntlafatsa libaka tsa liliba hore li fumanehe haholo;
- Ho cheka le ho phethoa ha liliba;
- Basebelisi ba ho lokisa liliba;
- Khaho ea lipeipi tse bokellang khase;
- Ho kenya lisebelisoa tsa ho hatella le ho lokisa khase;
- Kaho ea setsi sa ho hlasimolla helium (khase kapa metsi helium) le setsi sa ho lokisa khase (methane) (CNG kapa LNG); le



- Khaho ea meaho e amanang le eona ho kenyeletsoa litsela, mekoti ea likalimo, litsi tsa likhokahanyo le libaka tsa bolulo tsa nakoana ha ho hloka hahle.

Liliba tse reriloeng li tla beoa mabapa le melapo ea phoso e tsebahalang (Virginia le Ventersburg fault lines) le haufi le lifensetere tse ntseng li le teng kapa liliba tsa boithuto tse neng li chekoa ke Motuoane. Libaka tsohle tsa liliba, lipeipi tse bokellang khase le lisebelisoa tsa setsi sa ho lokisa li tla beoa ka therisano le mong'a mobu le ba amehang leha e le bafe ba bang 'me li fumanehe ho fokotsa tšenyō ea litšebeliso tse teng, limela le mobu. Lits'ebeliso le liliba li tla be li le haufi le terata e teng le litselana moo li sebetsang 'me li sa behoe haufi le matlo le meaho e meholo. Ho khethiloe sebaka sa ntlafatso sa 500 m hore liliba li chekoe. Sebaka sena se khethiloe ka mor'a tlhahlobo ea libaka tsa jeoloji le polokelo ea metsi ho kenyeletsa le tlhahlobo ea tšitiso ea liliba. Liliba li tla chekoa ka botebo bo ka bang 500-600m.

LITLHOKO TSA MOLAO

Morero o sisintsoeng o hloka litumello tse itseng, litumello, litumello, le/kapa lilaesense. Litlhokahalo tse latelang li se li khethiloe mothating ona mme mesebetsi e meng e kanna ea tsejoa kamora lipuisano tsa pele ho kopo:

Melao e Amanang	Mesebetsi e thathamisoeng kapa lintho tse susumetsang	Tlhoko ea tumello, tumello, laesense, kapa tumello:
Khaolo ea 5 ea NEMA	GNR 983 (2014, joalo ka ha e fetotsoe): Ketsahalo ea 21C: Ketsahalo efe kapa efe e kenyelletsang ts'ebetso ea ts'ebetso e amanang le phuputso ea litšisinyeho tsa lefatše e hlohang tokelo ea ho batlisisa ho latela karolo ea 79 ea Molao oa Ntlafatso ea Mehloli ea Limerale le Petroleum, hammoho le ts'ebetso efe kapa efe e sebetsang joalo ka ha e fuperoe Tsebisong ena ea Lethathamo kapa ho Tsebiso ea Lethathamo e hlokehang ho hlakisa 3, tokelo ea 20 boithuto bofe kapa bofe ba komporo, (b) tlhahlobo efe kapa efe ea arial, le (c) tšebetso ea hydraulic fracturing e kenyelletsoeng tšebetsong ea 20A ho Tsebiso ea Lethathamo la 2 ea 2014, moo ketsahalo eo e sebetsang. Ketsahalo ea 27: Ho hloekisoa ha sebaka sa hektare e le 1 kapa ho feta, empa e ka tlase ho lihekthere tse 20 tsa limela tsa matsoalloa, ntle le moo ho hlokehang ho hloekisoa ha limela tsa sebakeng seo bakeng sa- (i) ho etsa mesebetsi o itseng; kapa (ii) merero ea tlhokomelo e entsoeng ho latela moralo oa tsamaiso ea tlhokomelo. GNR 984 (2014, joalo ka ha e lokisitsoe): Ketsahalo ea 20: Ketsahalo efe kapa efe e kenyelletsang ts'ebetso ea ketso eo e hlohang tokelo ea tlhahiso ho latela karolo ea 83 ea Mineral and Petroleum Resources Development Act, hammoho le ketso efe kapa efe e sebetsang joalo ka ha e fupere Tsebiso ea Lethathamo, ho Tsebiso ea Lethathamo 1 ea 2014 kapa Lethathamo la Tsebiso e hlokaalang tokelo ea tlhahiso ea 3, ea 20. GNR 985 (2014, joalo ka ha e lokisitsoe): Ketsahalo ea 12: Ho hloekisoa ha sebaka sa lisekoere-mithara tse 300 kapa ho feta tsa limela tsa sebaka seo ntle le moo ho hlokehang ho joalo ha limela tsa matsoalloa bakeng sa merero ea tlhokomelo e etsoang ho latela moralo oa tsamaiso ea tlhokomelo. b. Free State i. Ka har'a tikoloho efe kapa efe e kotsing e kholo kapa e kotsing ea ho timela e thathamisoeng ho latela karolo ea 52 ea NEMBA kapa pele ho phatlalatsoa lethathamo le joalo, ka har'a sebaka se hloailoeng se le kotsing e kholo ea Tlhahlobo ea Naha ea Mefuta-futa ea Libaka ea 2004; ii. Ka har'a libaka tsa bohlokoa tsa mefuta-futa tse khethiloeng mererong ea tikoloho; iv. Libaka tse ka har'a tsela ea metsi kapa mokhoabo; kapa sebakeng sa limithara tse 100 ho tloha moeling oa tsela ea metsi kapa mokhoabo.	Tumello ea Tikoloho (EA)



Karolo ea 21 ea NWA	Karolo ea 21(c&i): ho sitisa kapa ho khelosa phallo ea metsi ka har'a kotopo le/kapa ho fetola bethe, mabōpo, tsela kapa litšobotsi tsa tsela ea metsi.	License ea Tšebeliso ea Metsi (WUL)
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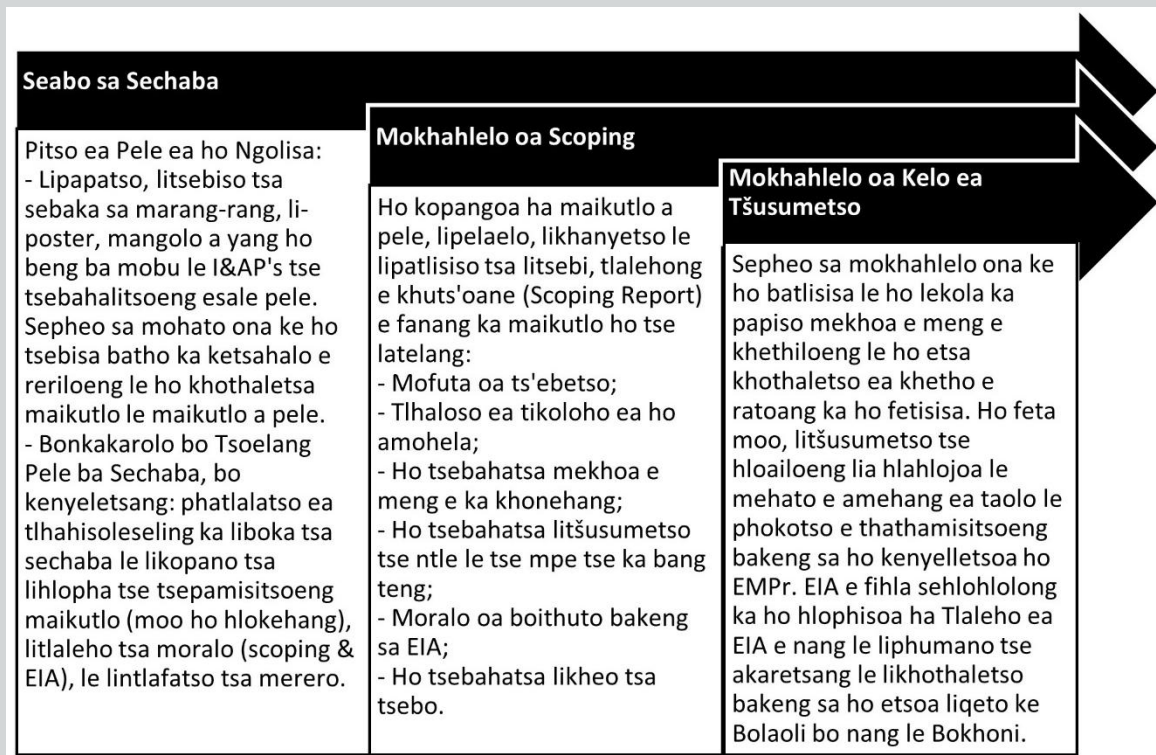
Ka lebaka la ho hlohlletsa lipehelo tse ka holimo, ho na le tlhokahalo ea ho etsa Tlhahlobo ea Phello ea Tikoloho (EIA). EIA e tla etsoa ho latela litlhoko tsa Melaoana ea NEMA EIA (GNR982, 2014 joalokaha e fetotsoe.

TSHEBETSO YA TLHAHLOBO YA TSHOSOMETSO

Ts'ebetso ea EIA ke sesebelisoa sa moralo le ho etsa liqeto, ho hlalosa le ho lekola litlamorao tsa 'mele, tsa baeloji, tsa sechaba, le moruo tseo nts'etsopele kapa morero o itseng li ka bang le tsona. Ho tseba ho tsebahatsa tšebetso ea ho etsa liqeto, ho bohlokoa hore litaba le matshwenyeho a sechaba a khethoe ka nako, ho nolofalletsa sehlopha sa EIA ho li hlahloba.

Tshebetso ya EIA e dumella ditlamorao tsa tikoloho tsa morero o sisintsweng hore di hlwauwe pele, di fuputswe nakong yohle ya tshepetso ya kgahlamelo, le ho nkelwa hloohong ke ba bohlong ba etsang diqeto. EAP le litsebi tse fapaneng li boetse li hloaea litšusumetso tse mpe le tse ntle tse ka hlahang ka lebaka la projeke e sisintsoeng le ho hloaea mehato e sebetsang ea phokotso e hlokalang, ho qoba kapa ho fokotsa litlamorao tse mpe le ho matlafatsa litlamorao tse ntle.

Kakaretso e pharaletseng ea ts'ebetso ea EIA e fanoe ka tlase:



Hang ha lits'ebetso tse amehang li phethiloe 'me litokomane tsa ho qetela li rometsoe ho bolaoli bo nang le bokhoni, bolaoli bo nang le bokhoni bo hlahloba kopo ebe bo etsa qeto bo nang le tsebo. Ba I&APs ba tla tsebisoa ka qeto le tokelo ea bona ea ho etsa boipiletso haeba ba hanana le qeto eo.

LITŠOELETSO TSA TIKOLOHO

E 'ngoe ea lintho tse ka sehloohong tse etsang hore EIA e atlehe ke ho netefatsa hore litšusumetso tse ka bang teng (tse ntle le tse mpe) lia tsejoa le ho fuputsoa. Litšusumetso tse ling li ka 'na tsa hlokomeloa ke litsebi tse amehang 'me li tla kenyetsoa ke Sehlopha sa EIA e le ho hlahloba ka nepo le ka nepo litšusumetso tsena tse ka bang teng. Lits'ebetso tse 'maloa tse ka bang teng tikolohong tse amanang le morero o sisintsoeng li se li hloahloa. Litšusumetso tsa pele tse ka bang teng tse tla hlahlojoa tšebetsong ena ea EIA li kenyetsoa har'a tse ling:

- Litšusumetso tsa tšitiso ea ts'ebeliso ea mobu / mesebetsi e teng.
- Litšusumetso litšebeletsong / mekhoa ea motheo.



- Ho falla ha nakoana ha beng ba masimo le/kapa liphoofole tse ruiroeng.
- Boleng ba moea / likhase tse futhumatsang lefatše le phetoho ea boemo ba leholimo.
- Litšusumetso holim'a boleng ba metsi a ka holim'a lefatše.
- Litšusumetso mobung le mesebetsing ea temo.
- Ho senyeha ha mobu le ho koaheloa ke mobu.
- Litšusumetso ho limela le libaka tsa bolulo.
- Litšusumetso ho mefuta ea lefatše le ea metsing.
- Litšusumetso ho likokoana-hloko.
- Litšusumetso holim'a likarolo tsa lefa la paleontological le setso.
- Litlamorao ho sephethephethe le tšenyō ea mahlale a litsela.
- Litlamorao ho bophelo bo botle le polokeho ea sechaba.
- Liphello tsa moruo oa kahisano.
- Litšusumetso tse bonoang.

Tse boletsoeng ka holimo ha lia lokela ho nkoa e le tsona feela litlamorao tse tla tsejoa nakong ea ts'ebetso ea kopo. Ho ipapisitsoe le thesano ea sechaba, maikutlo a litsebi le tlithahlobo tse felletseng, litlamorao tse ling li tla tsejoa le ho hlalojoa.

Litšusumetso tsohle tse ka bang teng li tla tsejoa le ho hlalojoa ho latela mokhoa oa tlithahlobo ea phello o tataisoang ke litlhoko tsa Melawana ea NEMA EIA. Mokhoa o pharaletseng oa mokhoa oa ho lekanya bohlokoa ke ho tseba kotsi ea tikoloho (ER) ka ho nahana ka sephetho (C) sa phello e 'ngoe le e 'ngoe (e kenyeletsang Tlhalo, Bolelele, Nako, Boholo, le Reversibility) le ho amahanya sena le monyetla/monyetla (P) ea tšusumetso e etsahalang. Sena se bolela kotsi ea tikoloho. Ho feta moo, lintlha tse ling tse kenyeletsang litlamorao tse ngata le monyetla oa tahlehelo e ke keng ea nkeloa sebaka ea lisebelisoa li sebelisoa ho fumana ntlha ea bohlokoa (PF) e sebelisoang ho ER ho fumana bohlokoa ba kakaretso (S).

Ho feta moo, ho ipapisitsoe le litšusumetso tse hloailoeng le litekanyetso tsa tsona, ho khothaletsoa mehato ea phokotso le taolo bakeng sa mokopi, 'me tsena li kenyelletsoe Lenaneong la Tsamaiso ea Tikoloho (EMPr) mabapi le ho netefatsa hore litlamorao life kapa life tse ke keng tsa qojoa lia fokotsoa le ho laoloa, le litlamorao tse ntle. phahamisitsoe.

Lithuto tsa litsebi li tla sebelisoa ho tataisa le ho tsebisa tlithahlobo ea litlamorao tse ka bang teng. Lithuto tsa litsebi tse hloailoeng ho kenyeletsoa tlithahlobo ena li bonts'itsoe ka tlase mme lithuto tse ling li ka tsejoa nakong ea ts'ebetso:

- Bokhoni ba Temo, Mobu le Bokhoni ba Mobu.
- Tekolo ea Boemo ba Moea le Phetoho ea Tlelaemete.
- Tekolo ea Metsi le Metsi.
- Tekolo ea Lefa la Boepolli ba Lintho tsa Khale le Setso.
- Tlithahlobo ea Paleontological.
- Tekolo ea Mefuta-futa ea Lefatše.
- Moralo oa ho Koala le Lipehelo tsa Lichelete.
- Tekolo ea Geohydrological.
- Tlithahlobo ea Hydrological.
- Tlithahlobo ea Sechaba.
- Tlithahlobo ea Lerata.
- Tekolo ea Kotsi ea Boleng ba MHI.



Tlhokahalo ea liphuputso tse ling tsa litsebi e ka tsejoa ka mokhoa oa scoping.

MOKHOA OA HO KENYA

Haeba u bona eka u na le thahasello, kapa u angoa ke morero ona, ho bohlokoa hore u ingolise u le Mokha o Nang le Thahasello (I&AP) moo u tla tsebisoa mabapi le projeke le ho fuaa monyetla oa ho nka karolo ho eona. mokhoa. Ka kopo hlokomela hore ke li-I&APs tse ngolisitsoeng feela tse tla kenyeletsoa mangolong a kamoso mabapi le morero le lintlafatso tse amanang le ona. O ka ingodisa le/kapa wa fana ka maikutlo jwaloka I&AP ka efe kapa efe ya mekgwa e latelang:

- Tlatsa foromo ea ngoliso ea I&AP le lethathamo la lipotso ebe u li khutlisetsa ho EIMS ka imeile, fax kapa poso;
- Romela maikutlo a ngotsweng, boingodiso, kapa dikopo ho EIMS ka imeile, fax kapa poso; le/kapa
- Ka mohala.

Ho bohlokoa ho hlokomela hore ts'ebetso ea EIA e tataisoa ke linako tse behiloeng ke molao, ka hona, e le ho etsa bonnete ba hore o tsoela pele ho kenya letsoho mosebetsing ona, re kopa hore likopo tsa hau tsa boingoliso le maikutlo afe kapa afe a pele a romelloe ho EIMS (lintlha tsa puisano li fanoe ka tlase) kapele kamoo ho ka khonehang. Lingoliso li ntse li tla amoheloa kamora letsatsi lena ho fihlela qetellong ea ts'ebetso ea EIA. Ka ho ingolisa joalo ka mokha o nang le thahasello le o amehang, o lumela ho bokelloa le ho sebetsoa ha tlhahisoleseling ea hau ho latela Tsebiso ea Lekunutu ea EIMS e fumanehang ho www.eims.co.za/public-participation.

Ka kopo hlokomela hore ho ea pele ho tse ka holimo, bohle ba I&APs ba ngolisitsoeng le bona ba tla tsebisoa ka nako ea menyetla ea ho nka karolo, hammoho le boteng ba Scoping le Litlaleho tsa EIA, moo maikutlo a tla kopuoa.

Environmental Impact Management Services (Pty) Ltd (EIMS)

Motho ea ka ikopanyang le eena: Alex Msipa or Mbali Tshabalala

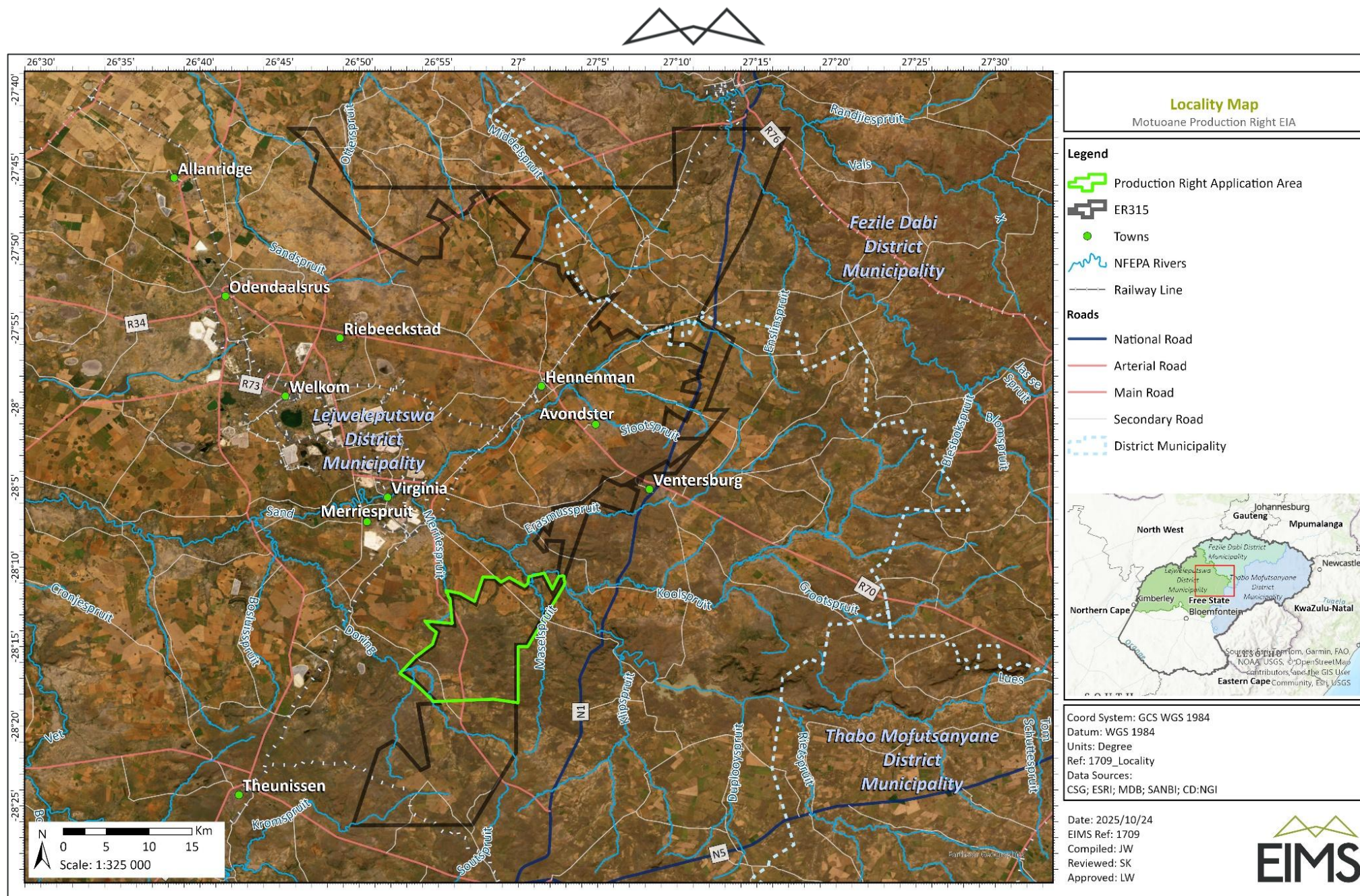
Nomoro ea Tšupiso ea EIMS: 1709

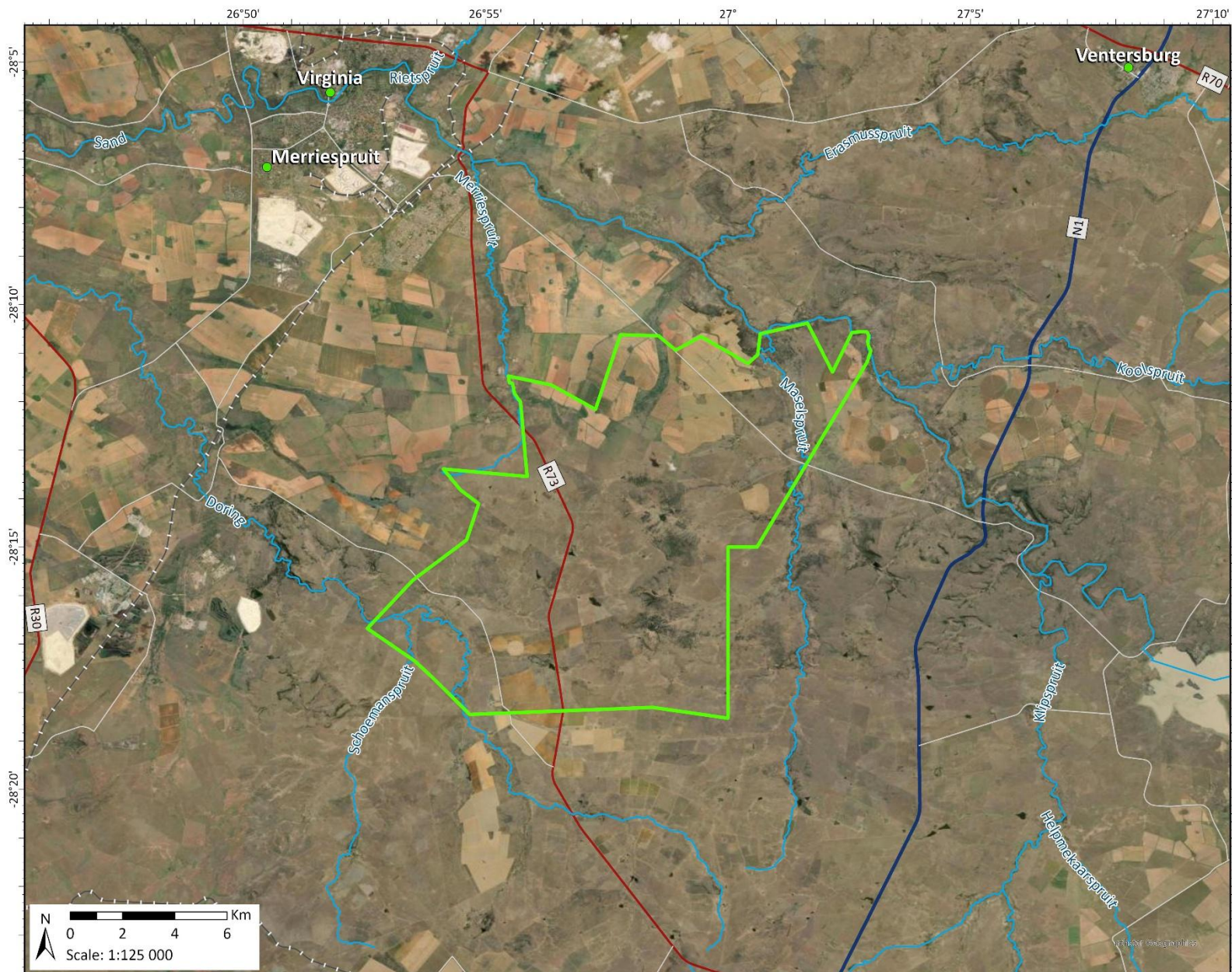
Aterese ea Poso: PO Box 2083; Pinegowrie; 2123

Mohala: (011) 789 7170/ Fax: (086) 571 9047

E-mail: motuoanepr@eims.co.za

Lintlha tse ling li tla fumaneha ho www.eims.co.za/public-participation/. Ka kopo hlokomela hore haeba u sa khone ho kena seabakeng sa Marang-rang ka lebaka la likhaello tsa data ka kopo ikopanye le EIMS bakeng sa litlhophiso tse ling.





Locality Map

Motuoane Production Right EIA

Legend

- Production Right Application Area
- Towns
- NFEPA Rivers
- Railway Line
- Roads**
 - National Road
 - Arterial Road
 - Secondary Road



Coord System: GCS WGS 1984
Datum: WGS 1984
Units: Degree
Ref: 1709_Locality
Data Sources:
CSG; ESRI; MDB; SANBI; CD:NGI

Date: 2025/07/24
EIMS Ref: 1709
Compiled: JW
Reviewed: SK
Approved: LW

