

OSINO TWIN HILLS GOLD MINE PROJECT

ESIA PROCESS
SCOPING PHASE



Welcome



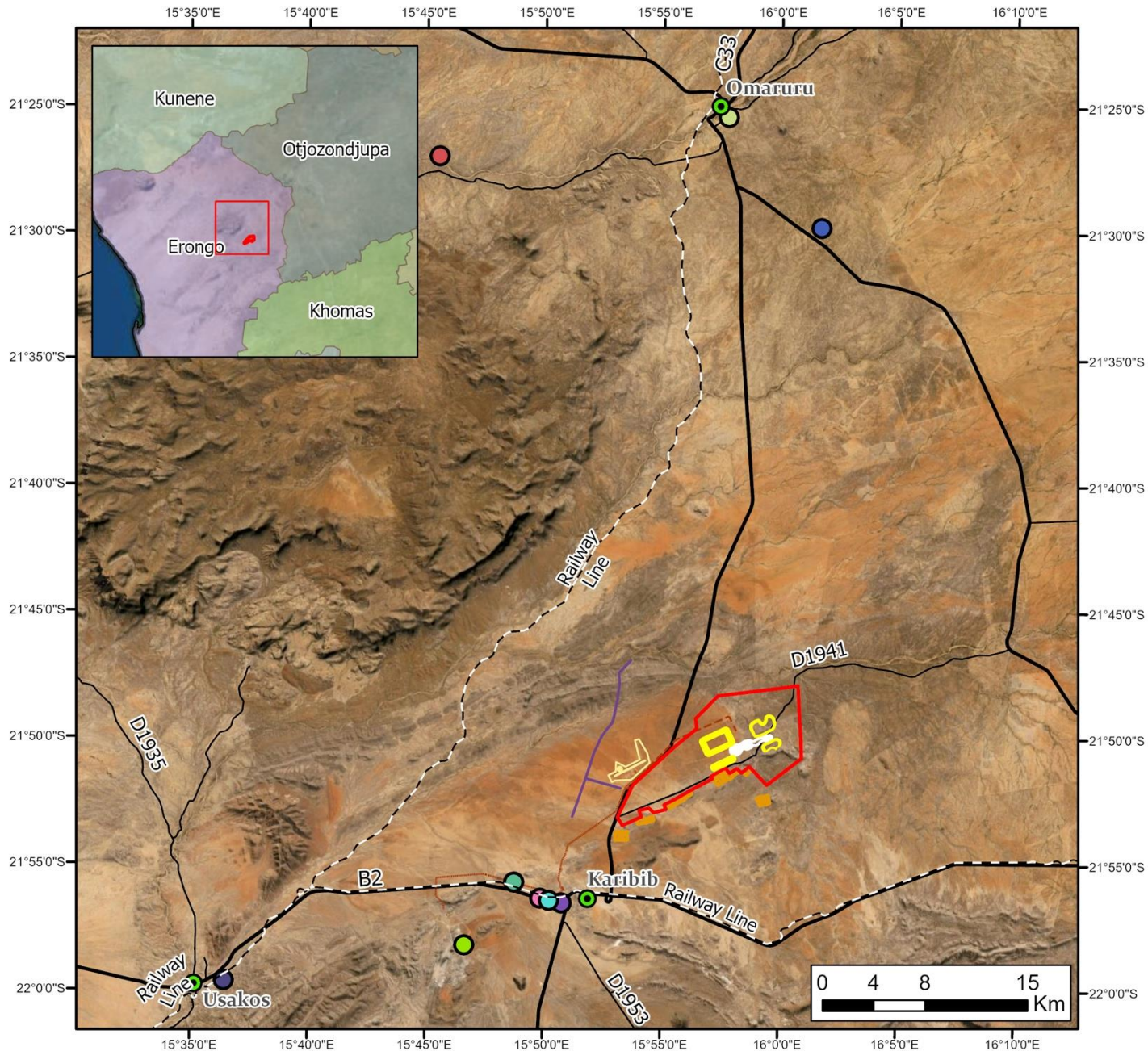
AGENDA

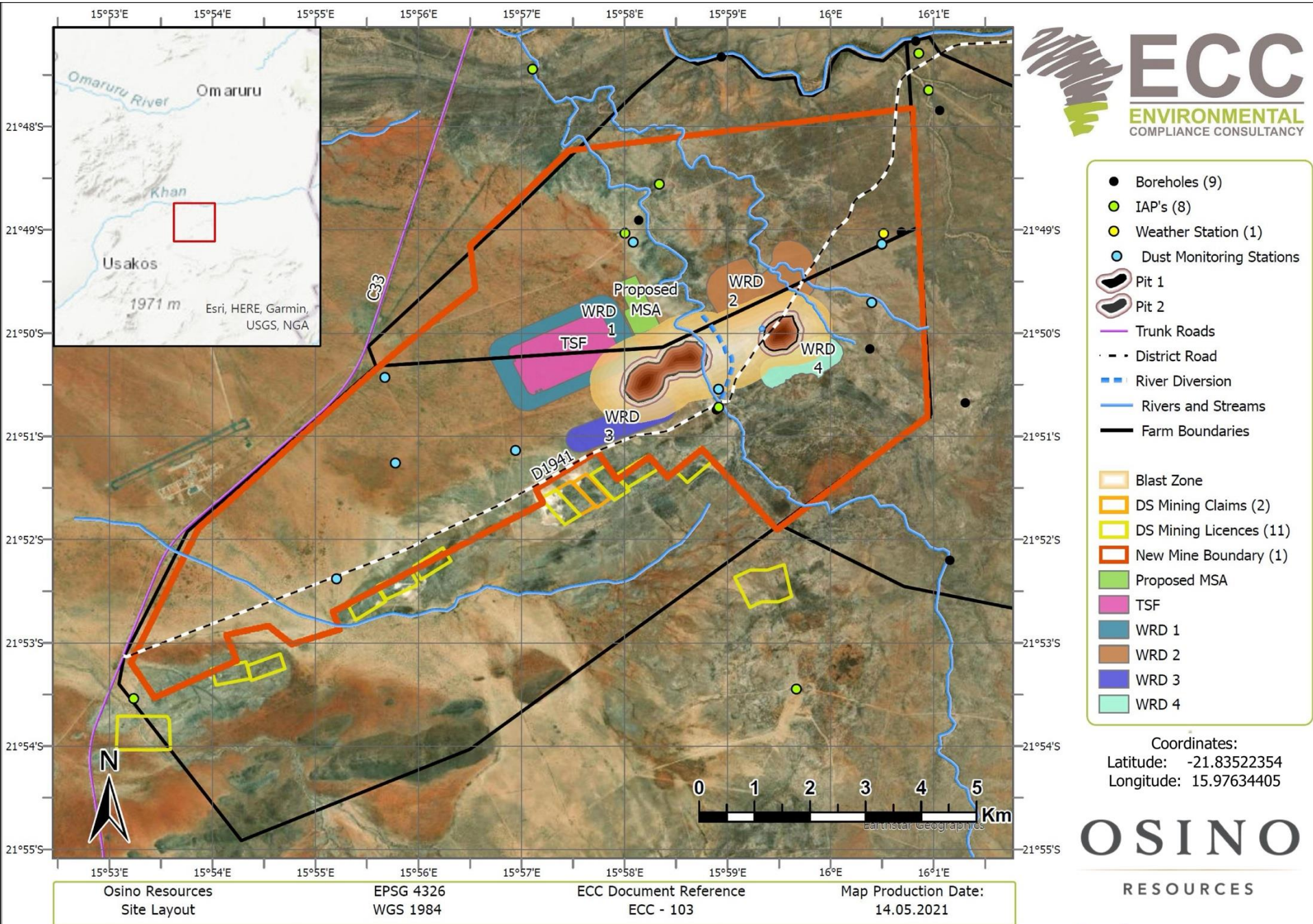
- Main Objectives
- Background Information
- Environmental & Social Impact Assessment (ESIA) Process — *Presented by ECC*
- Osino Presentation — *Presented by Heye Daun*
- Potential Biophysical & Socio-economic Impacts - *Presented by ECC*
- Baseline Studies
- Public Participation



Main Objectives

- ✓ Provide information describing the planned Twin Hills Gold Mine project and associated activities;
- ✓ Provide an independent environmental and social assessment of the activities associated with the proposed mining project; and
- ✓ Develop management and mitigation measures associated with any identified potential impacts where necessary.

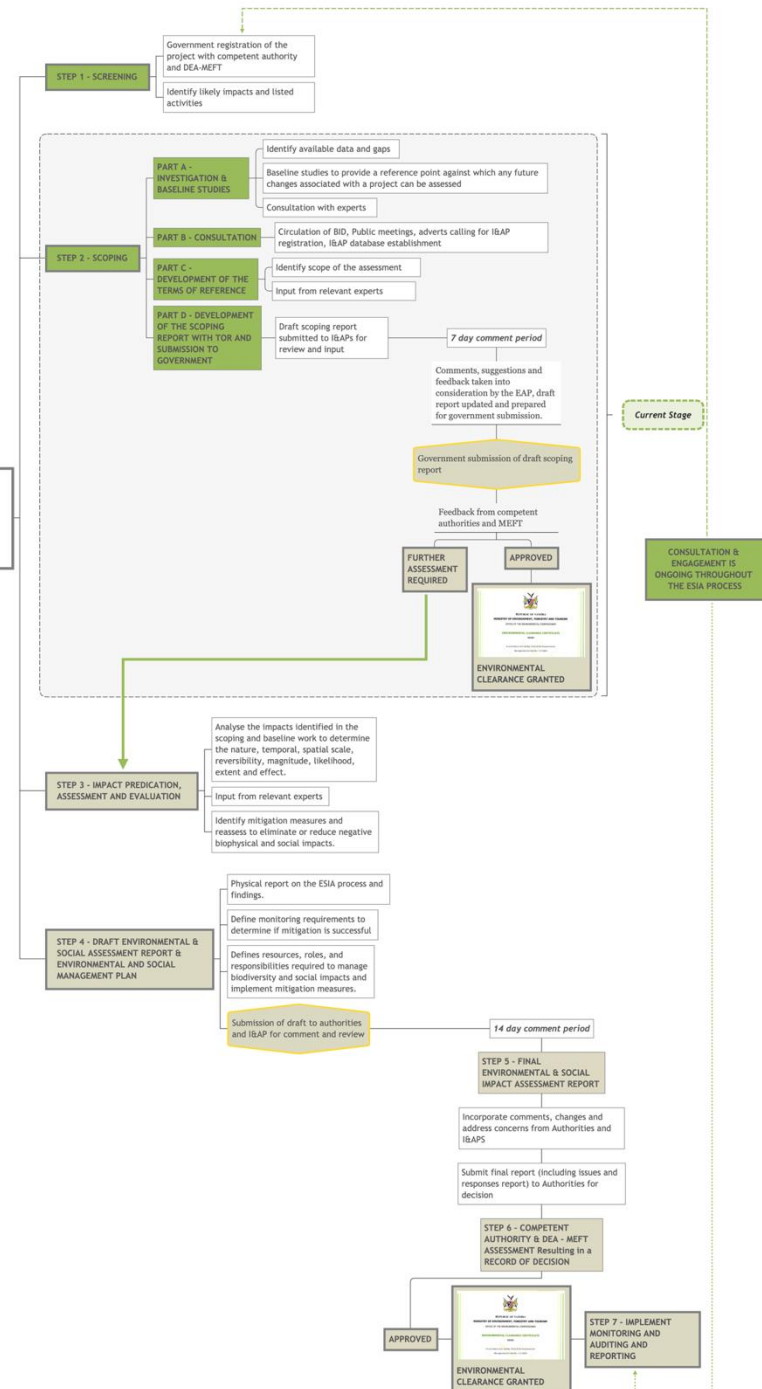






ESIA Process

- Screening - APP-002920 (DEA PORTAL)
- Scoping – Current Phase
 - Baseline Studies
 - Public Participation
 - Terms of Reference
- Assessment Phase



ESIA Process

- Screening – APP-002920 (DEA PORTAL)

ACTIVITIES THAT TRIGGERED A CLEARANCE CERTIFICATE APPLICATION
ENERGY GENERATION, TRANSMISSION AND STORAGE ACTIVITIES
WASTE MANAGEMENT, TREATMENT, HANDLING AND DISPOSAL ACTIVITIES
MINING AND QUARRYING ACTIVITIES
FORESTRY ACTIVITIES
WATER RESOURCE DEVELOPMENT
HAZARDOUS SUBSTANCE TREATMENT, HANDLING AND STORAGE
INFRASTRUCTURE

STEP 1 - SCREENING

- Government registration of the project with competent authority and DEA-MEFT
- Identify likely impacts and listed activities

STEP 2 - SCOPING

PART A - INVESTIGATION & BASELINE STUDIES

- Identify available data and gaps
- Baseline studies to provide a reference point against which any future changes associated with a project can be assessed
- Consultation with experts

PART B - CONSULTATION

- Circulation of BID, Public meetings, adverts calling for I&AP registration, I&AP database establishment

PART C - DEVELOPMENT OF THE TERMS OF REFERENCE

- Identify scope of the assessment
- Input from relevant experts

PART D - DEVELOPMENT OF THE SCOPING REPORT WITH TOR AND SUBMISSION TO GOVERNMENT

- Draft scoping report submitted to I&APs for review and input

7 day comment period

Comments, suggestions and feedback taken into consideration by the EAP, draft report updated and prepared for government submission.

Government submission of draft scoping report

Current Stage

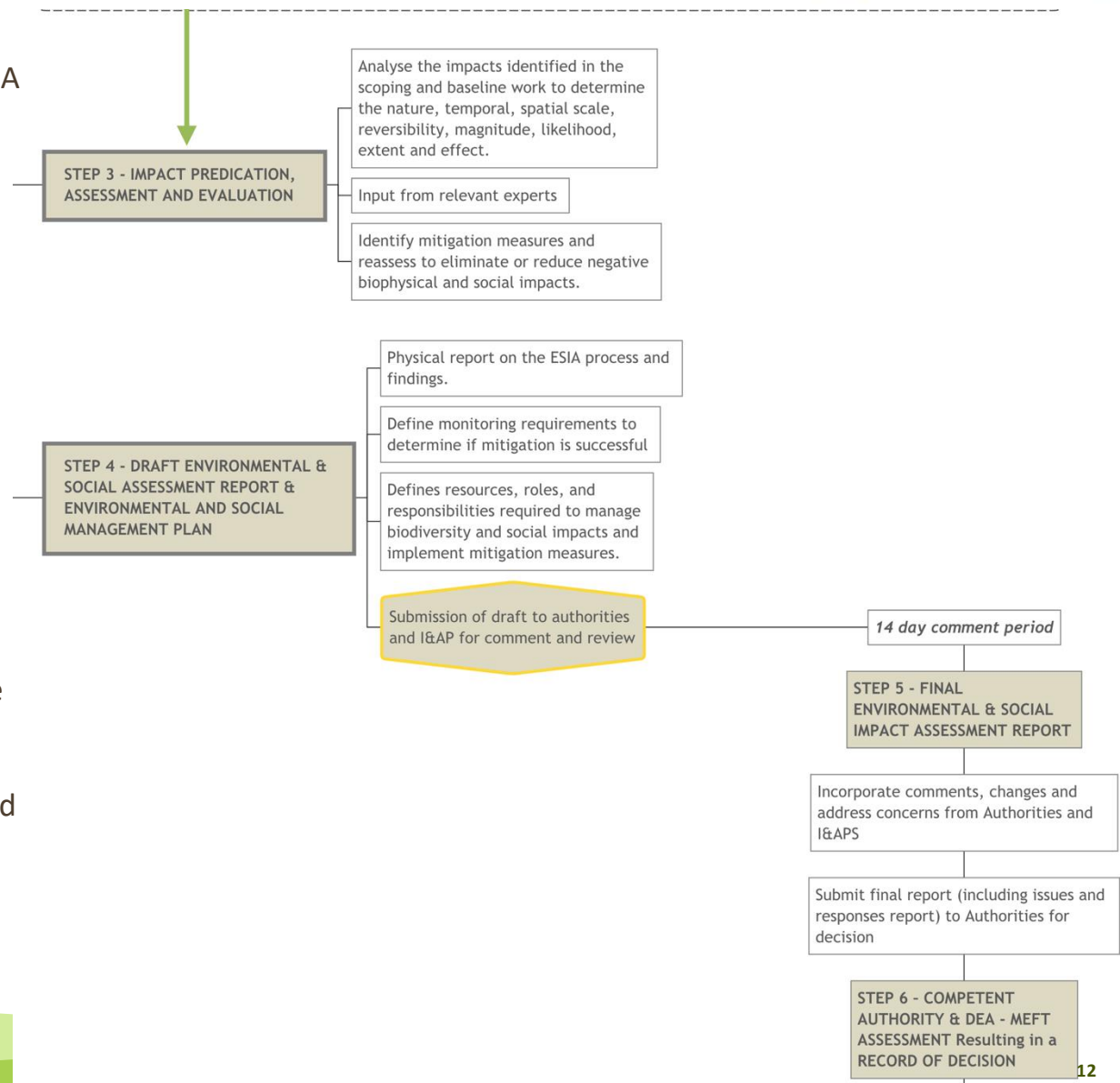
Public Participation



- Notification of the project – newspapers & site notice boards
- The Background Information Document (BID) provided I&APs with the opportunity to take part in the public participation process.
- Copies have been made available to the interested and affected parties to assist them with providing informed inputs
- This presentation extracts information from the BID to describe the project to those attending the meeting.

Process

- Screening - APP-002920 (DEA PORTAL)
- Scoping – Current Phase
- **Assessment Phase**
 - Impact prediction and evaluation of alternatives,
 - Assigning mitigation measures
 - Developing monitoring and conceptual rehabilitation plans.
 - This phase culminates in the drafting of the ESIA report and draft Environmental Management Plan (EMP) and
 - Submission to the appropriate competent authorities.



Baseline Studies

Commissioned to date



BASILINE STUDIES	SPECIALIST
A baseline fauna and flora study was completed	Peter Cunningham
A high level or screening water study was completed	SLR
A noise baseline study was completed	AirShed
An air quality baseline study was completed	AirShed
A heritage baseline study was completed	John Kinahan
A high level socio-economic baseline study was completed	Deon Wessels
TO BE COMPLETED	
Traffic surveys have taken place but report is outstanding.	
Visual baseline study	



Potential Impacts to be assessed

- Potential impacts that can arise from the proposed project include but are not limited to:
 - Dust Pollution
 - Noise impacts
 - Visual impacts
 - Water resource impacts
 - Impact on archaeological and cultural features
 - Biodiversity impacts
 - Increased traffic volumes on public roads
 - Employment opportunities (permanent / temporary)
 - Growth of both local and regional economy
 - Others....





▷ TSXV: OSI
▷ OTC: OSIIF
▷ FSE: RSR1

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Namibia Public Participation Meetings
Growing & Fast-tracking the Twin Hills Gold Project near Karibib

August 2021

Presenter - Heye Daun: Osino Founder & CEO

The reader is cautioned that any reference to mineral resources or geological technical information about Osino's mineral properties is based on, excerpted from and expressly qualified by Osino's current technical report (the "Technical Report") which was prepared in accordance with NI 43-101 entitled, "Twin Hills Gold Project, Namibia, NI 43-101 Technical Report" signed May 10, 2021 dated effective April 1, 2021 by Anton Geldenhuys, MEng, MGSSA, PrSciNat #400313/04 of CSA Global South Africa (Pty) Ltd. and Graham Hetherington, BEng, MAusIMM #318140 of Lycopodium Minerals Africa, (Pty) Ltd. prepared for Osino Resources Corp. Accordingly, Osino recommends that the reader refer to and read the Technical Report in its entirety, a copy of which is available on SEDAR at www.sedar.com under Osino's issuer profile.

The results of the Company's preliminary economic assessment ("PEA") that are described herein is a preliminary technical and economic study of the potential viability of the Twin Hills Gold Project. It is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as Mineral Reserves. In particular, the reader is cautioned that Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. There can be no assurance, and there is no certainty, that the preliminary economic assessment contained in the PEA results disclosed herein will be realized. Further exploration and evaluation work and appropriate studies are required before Osino will be in a position to estimate any mineralized material reserves or to provide any assurance of an economic development case.

The production target and forecast financial information referred to in this PEA are comprised of both Inferred Mineral Resources and Indicated Mineral Resources. Metallurgical recoveries have been based on test work data and costs have been estimated by independent consultants generally from budget quotations, factored estimates or cost data from similar operations/projects. Cost estimate accuracy for the PEA results described herein are in the order of $\pm 35\%$. A more specific description of the assumptions, qualifications, and basis for the results of the PEA are described below, and the key assumptions and economic parameters are set out in Table 2.

Osino Resources Corp. is a Canadian gold exploration and project development company, listed on the TSX-V focused on gold exploration in the Namibian Damara orogenic belt generally, and the development of the **Twin Hills gold mining project** specifically.

- **Economically viable** with attractive returns, capital cost and pay-back period
- **Operationally simple** (low technical, geological & metallurgical risk, excellent location)
- **Significant Upside** (additional ounces, mine design & met optimization)
- **Founders Team** with Namibian roots, a proven track record and focused on “doing it right”



**Heye Daun (President & CEO, Co-Founder):**

Mining engineer and company builder with more than 25 years of mining & public markets experience. Demonstrated ability to deliver value with two successful exits (AYX sold to BTO for C\$180m in 2012 and EGX merged into LUM in C\$200m transaction in 2016). Previous roles in banking & fund management in South Africa. First 10 years of career with Rio Tinto and AngloGold, building & operating mines in Africa.

**Alan Friedman (Chairman, Co-Founder)**

Toronto-based public markets entrepreneur with more than 20 years of experience & various successful acquisitions, financings & go-public transactions in mining, oil & gas, cannabis, e-sports and technology. Formerly with Investec Bank and Director of the Canada-Southern Africa Chamber of Business.

**Dave Hodgson (Non-Executive Director):**

Mining industry veteran with decades of experience mainly with Anglo American & De Beers. Former COO & Board member of AngloGold Ashanti. Former Director of Acacia Mining, Uranium One & various other explorers & developers. Former Director of Aurix Gold Corp. during time of sale to B2 Gold Corp.

**Lazarus Shigwedha (Non-Executive Director):**

Portfolio manager with Investec Asset Management in Cape Town. Broad frontier investment experience across various African sectors and jurisdictions with emphasis on cement, infrastructure and resources. Lazarus is a Namibian citizen and responsible for Investec's significant Namibian pension investments.

**Margot Naudie (Non-Executive Director):**

Veteran Canadian portfolio manager with 25 years experience managing long-only, long/short, and global natural resource strategies at TDAM, where she served as Managing Director, and CPPIB, where she was Senior Portfolio Manager for the Global Materials sector. She has been voted a Brendan Wood Top Gun in 2009 to 2013. She holds an M.B.A. from the University of Western Ontario, a Bachelor of Arts degree in Political Science/Economics from McGill University, and the Chartered Financial Analyst designation.

**Marvin Singer (Non-Executive Director):**

Marvin is a former Senior Partner at Norton Rose Fulbright Canada LLP and brings over 40 years of wide-ranging experience in natural resources law to Osino's Board. Norton Rose is one of North America's largest law firms. Since January 2020 he has been a corporate consultant to private and public companies after retiring from practicing corporate, securities and natural resources law.

Management Team

OSINO

RESOURCES



HEYE DAUN
PRESIDENT & CEO



TONY DA SILVA
CFO



DAVE UNDERWOOD
VP EXPLORATION



WYNAND SLABBERT
EXPLORATION MANAGER



WERNER SCHUCKMANN
COUNTRY MANAGER



EDWIN DAWETI
MINERAL RESOURCE MANAGER



CHARLES CREASY
STUDY MANAGER



THERESIA MALOBELA
SENIOR EXPLORATION GEOLOGIST



EMMANUEL SHILONGO
SENIOR PROJECT GEOLOGIST



JOLANDA FORTUNATO
SENIOR DATABASE GEOLOGIST



JULIA BECKER
INVESTOR RELATIONS MANAGER



MARIA KAMBAZEMBI
OFFICE MANAGER

Fast-tracked project development, resource drilling & exploration (+9 drill rigs completed ~51,000m in 2020 and +110,000m planned in 2021). TSX-V compliant **Technical Reports** (MRE/PEA) published in Q1/Q2 followed by **permitting/feasibility/financing** activities from mid 2021.

Lycopodium

PEA Study Manager &
Coordinating Consultant

Process plant design, met testwork management
Infrastructure design, capex estimates



CSA Global
Mining Industry Consultants
an ERM Group company

Geology & Mineral Resource

Domaining & block modelling
Non-linear geostatistical estimation



qubeka
MINING CONSULTANTS

Mine Planning

Pit optimisation, mine scheduling & design
Cost benchmarking



Environmental & Social / Closure

Risk Assessment
Baseline & specialist studies



Knight Piésold
CONSULTING

Geohydrology & Surface Water

Water supply studies
Surface water management



Detailed Metallurgical Testwork

Crushing, milling, mineralogy, heap leach studies
Diagnostic leach testwork, gravity gold recovery



Geotechnical (Pit & Civil)

Slope angles, civil construction geotech



Comminution, Hydrometallurgy

Mill sizing



prime resources

Tailings Management

TSF, WRD & infrastructure location studies

Ownership & Share Structure

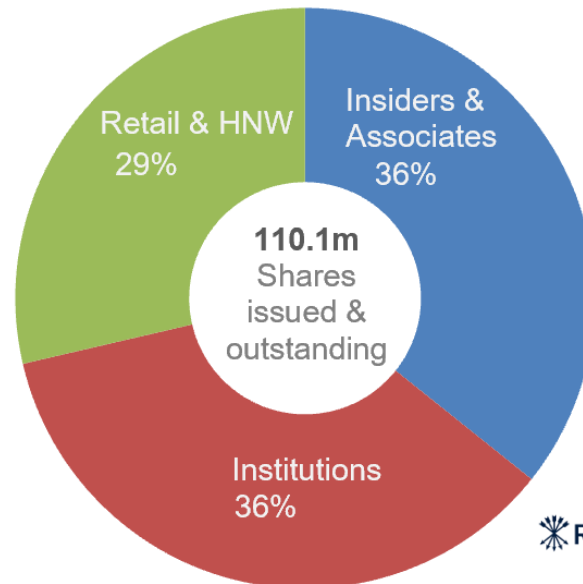
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Share Structure

Shares Basic (m)	110,1	
Shares FDITM (m)	128,4	
ITM Share Options (m)	8,9	38, 30, 80, 120 cps
ITM Warrants (m)	9,4	78, 105cps
Share Price (12m H/L)	\$1.65 / \$0.43	
Cash in treasury (C\$m)	15,8	31 Mar 21
ITM warrants cash (C\$m)	9,6	
Market Cap (C\$m)	133,2	21 Jul 21

Research Coverage	Target (C\$)	Analyst
Cormark	3.20	Richard Gray
M Partners	2.80	Ben Pirie
Sprott	2.75	Brock Salier
IA Financial Group	2.60	George Topping
Beacon Securities	2.50	Bereket Berhe
Stifel GMP	2.30	Alex Terentiew
Echelon Wealth	2.20	Ryan Walker
Consensus Target Price	2.62	



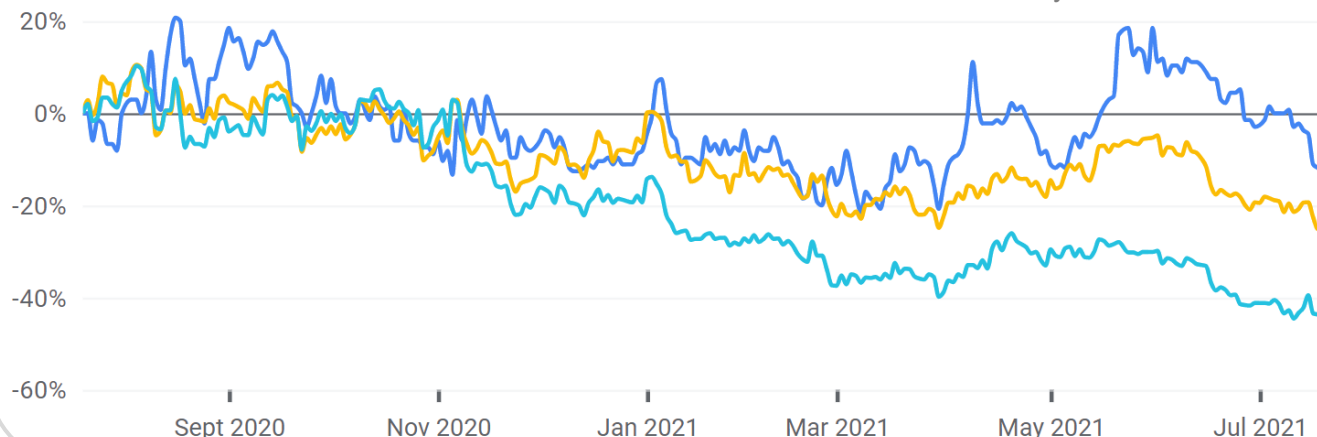
Early-stage Seed Funders:
Ross Beaty, Co-Founders, RCF



MACKENZIE
Investments



Relative Share Price Performance: 12 Months to 21 July 2021



Osino Resources C	\$1.17	↓ 13.33%
VanEck Vectors Ju	\$43.95	↓ 24.17%
B2Gold Corp.	\$5.04	↓ 42.99%

Damara Orogenic Belt

- Structurally controlled
- Sediment-hosted Au deposits
- Large tonnage / lower grades often simple metallurgy

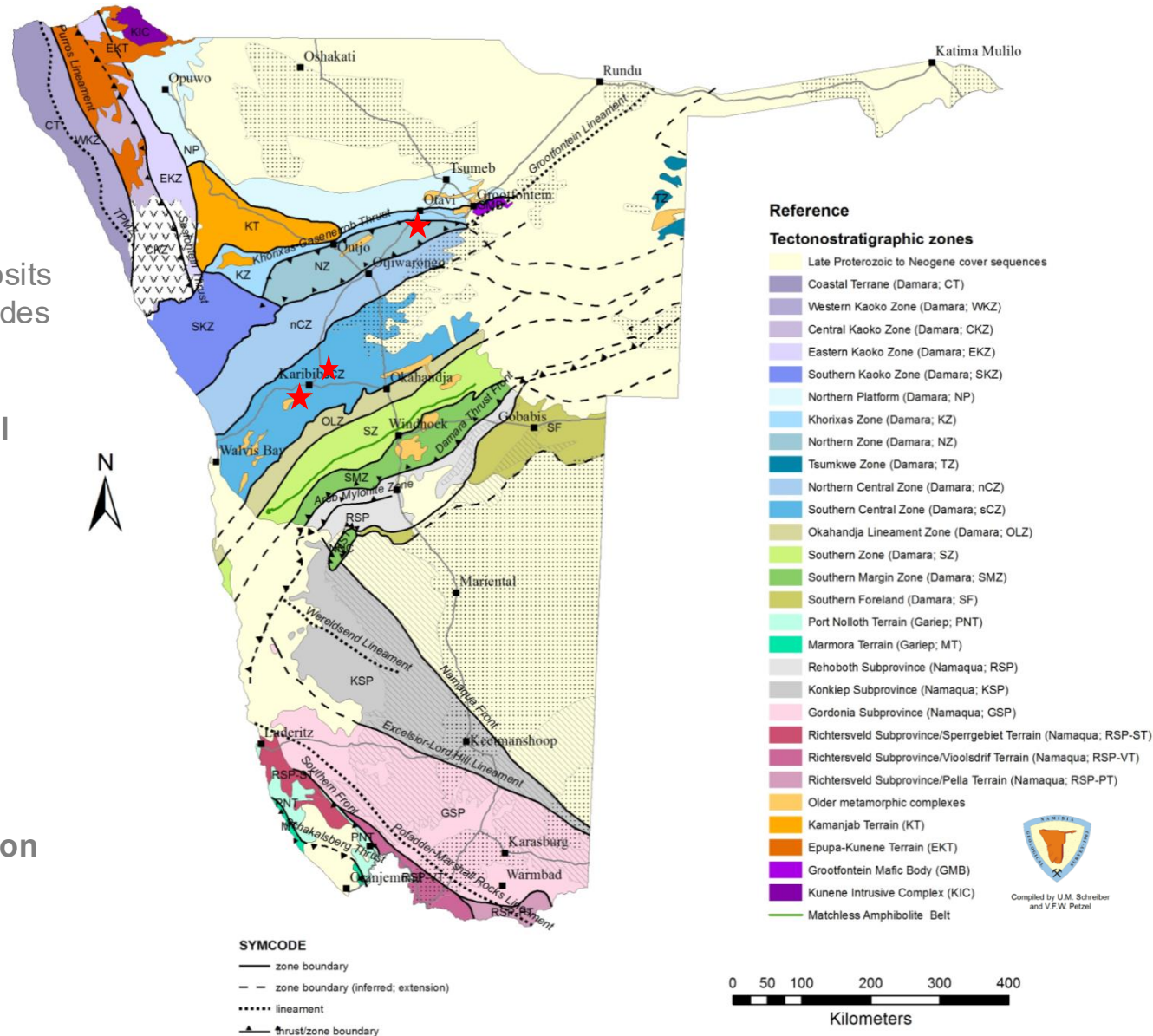
Orogenic Exploration Model

- Source
- Pathway
- Traps

Neoproterozoic Analogues

- Haile, USA
- Otjikoto, Namibia
- Sukari, Egypt

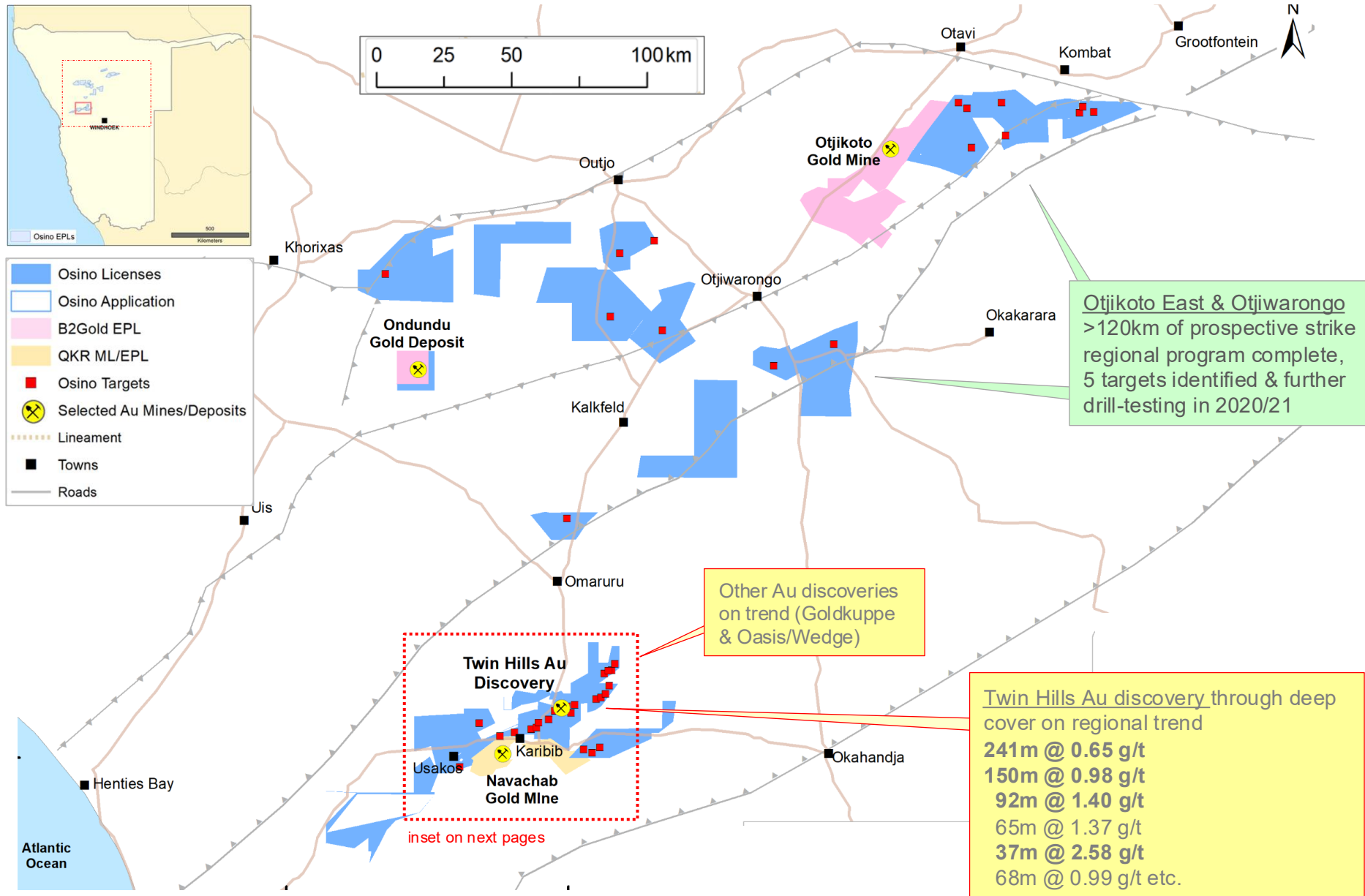
Excellent regional exploration potential

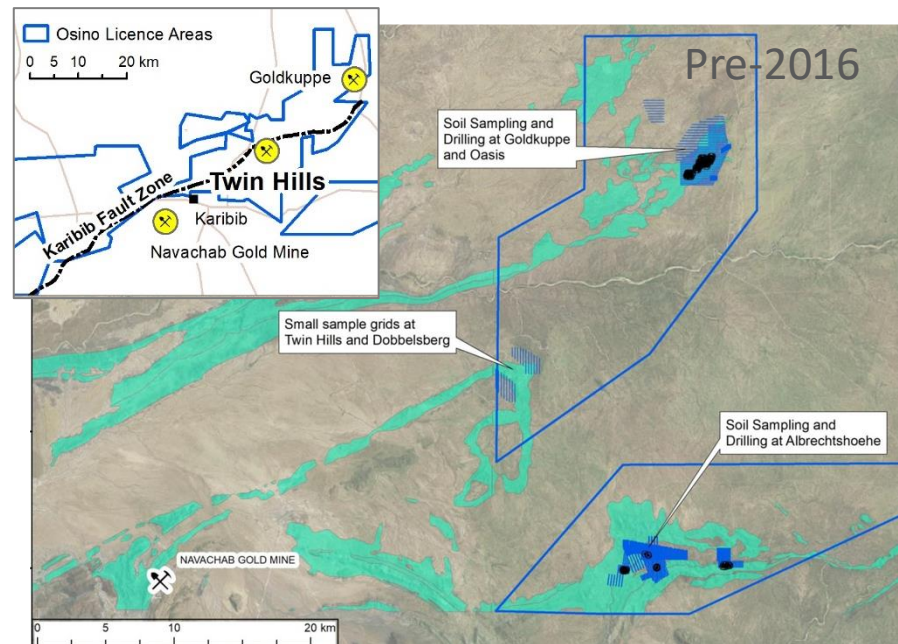


Osino License Position in Namibia

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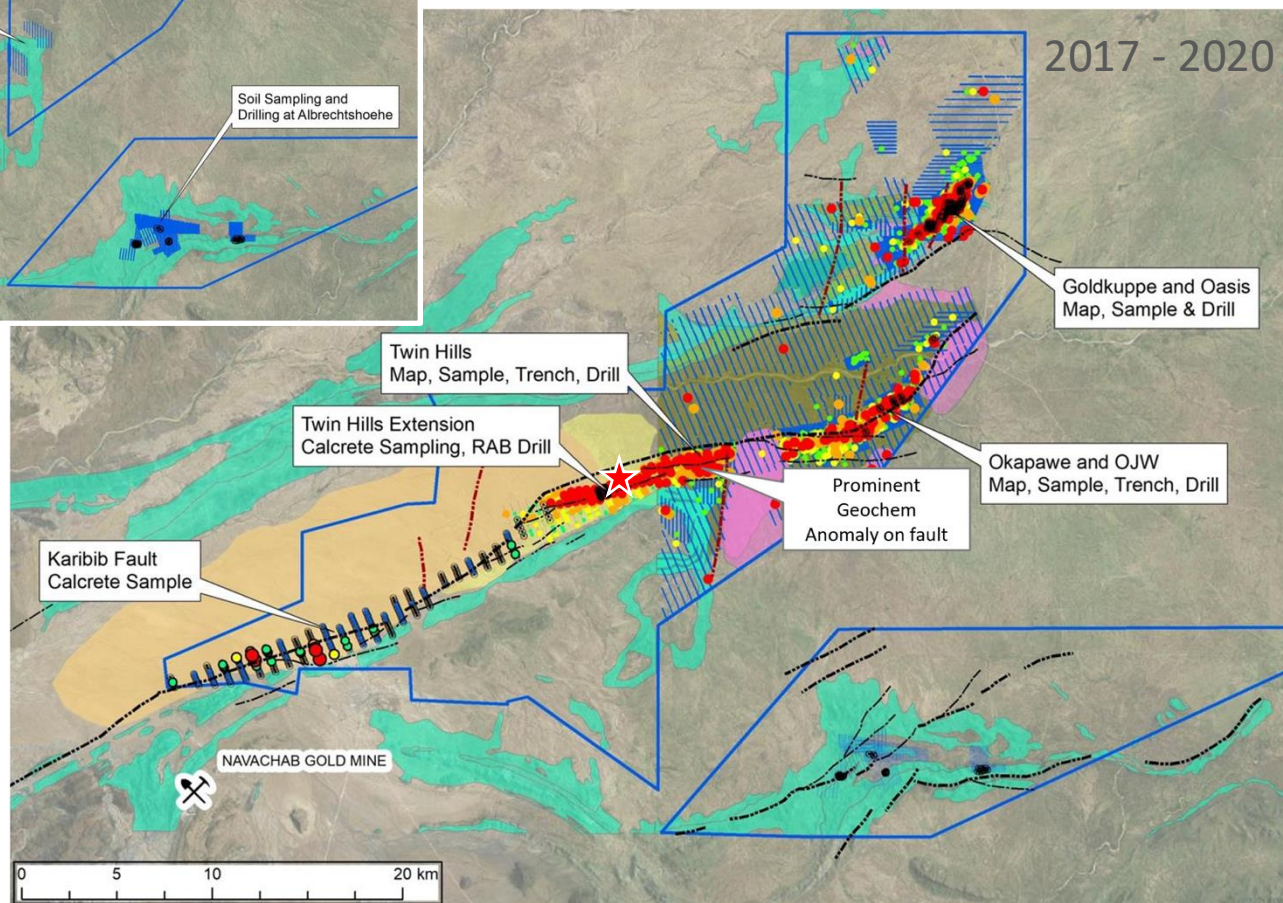
RESOURCES





- **until 2016:** model-driven exploration with limited success despite significant expenditure by various operators

- **2017 – 2020:** Systematic, large-scale exploration using regional geophysics, innovative geochemistry & drilling results in significant, shallow gold discovery from surface within large orogenic system.

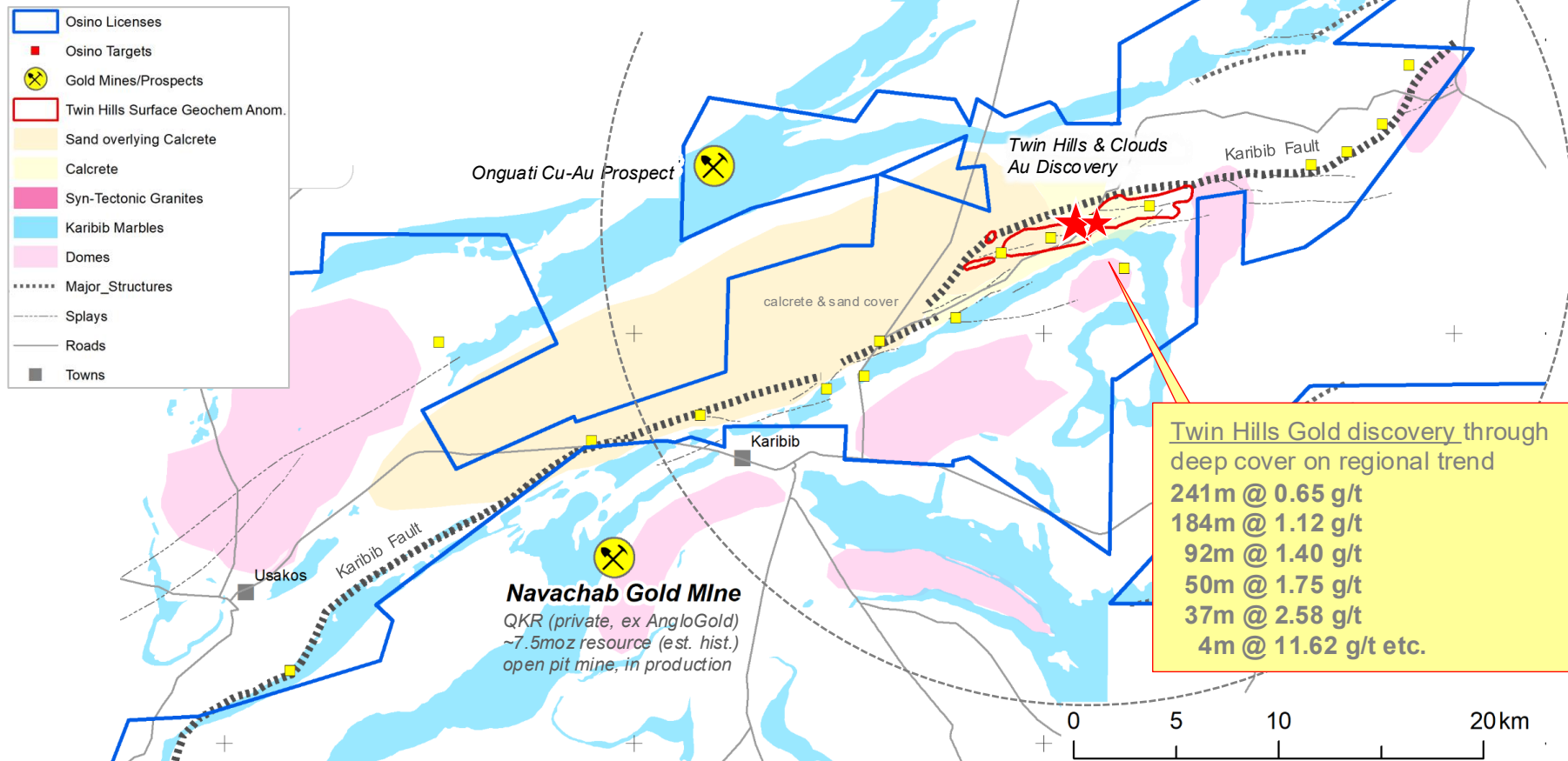


Twin Hills within the Karibib Gold District

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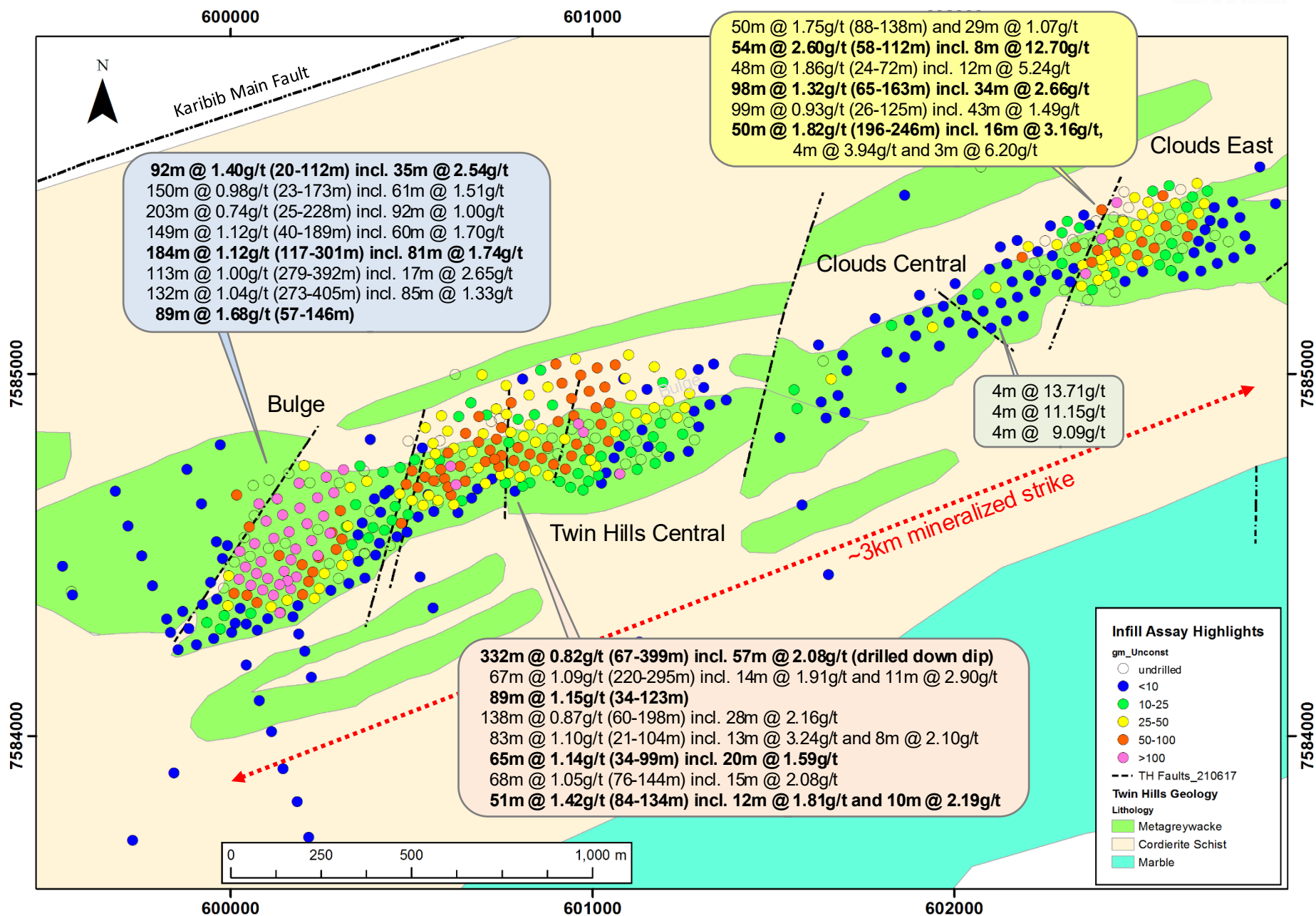
- **Innovative & systematic exploration** delineated new Au system
- **Twin Hills Au System:** >11km strike, sediment-hosted, structurally controlled hydrothermal Au system with coincident geochem & geophysics in **classic orogenic setting** (source/pathway/trap)
- **Breakthrough discovery at Twin Hills Central & Clouds**
Wide intercepts incl. high grade = economic scale potential



Twin Hills & Clouds: Best Drill Results To-Date

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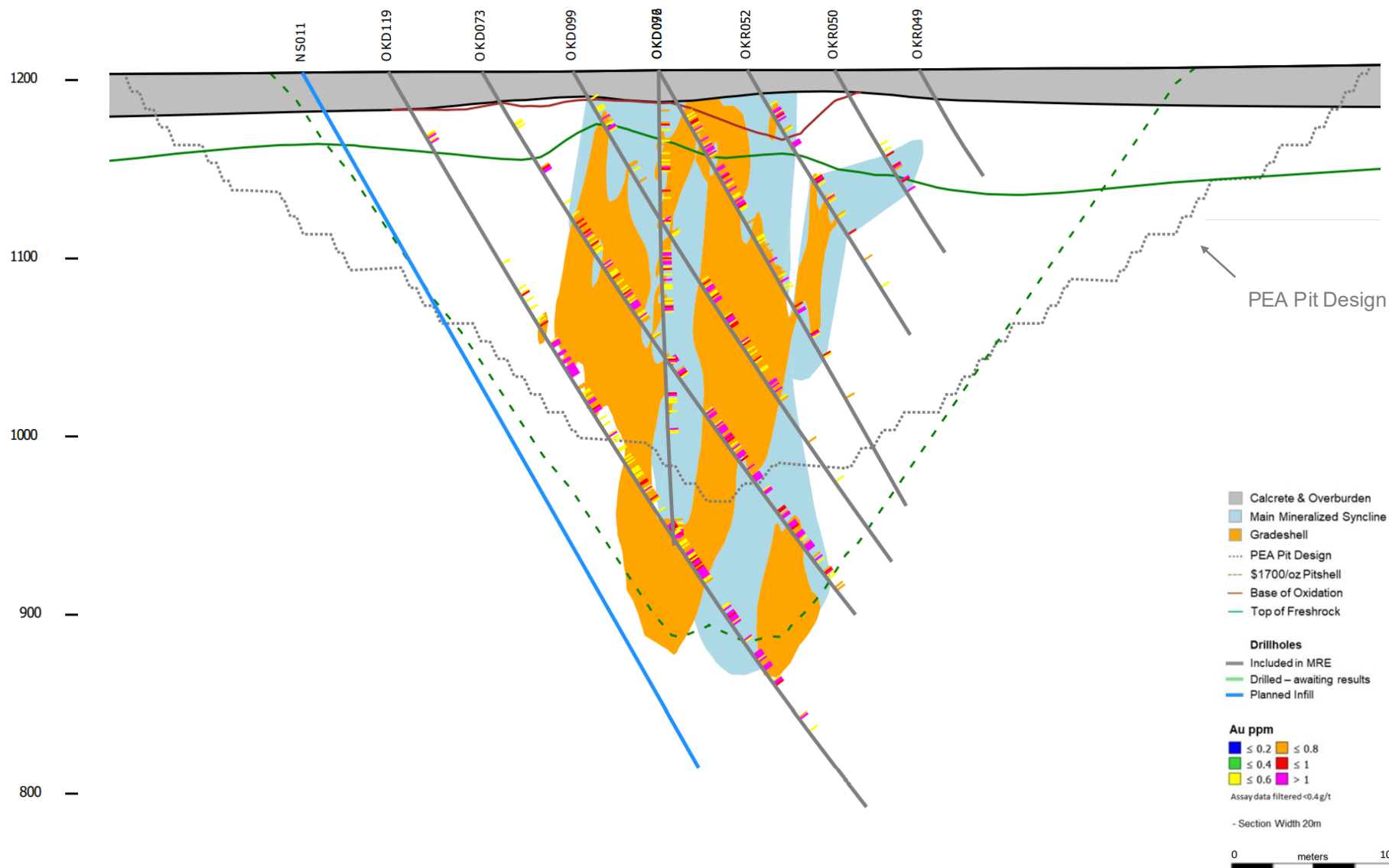
RESOURCES



Typical Deposit Cross-Section (Section 23)

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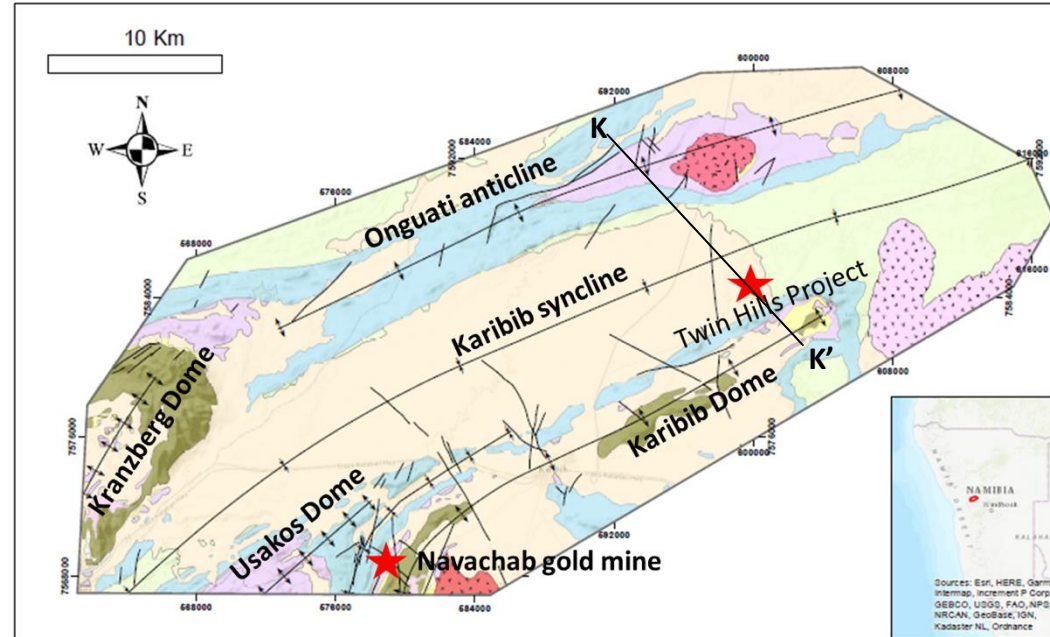


Geological Setting of the Karibib Area

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LITHOLOGY	MEMBER	FORMATION	AGE
			QUATERNARY
		KUISEB	
		KARIBIB	
	OBERWASSER		
	OKAWAYO	ARANDIS	DAMARA
	SPES BONA		
		CHUOS	
		ETUSIS	
		ABBABIS	KHEISIAN (BASEMENT)



Legend

Structures_Karibib_district

- Anticline
- Syncline
- Structures from GSN

Granite_ScZ

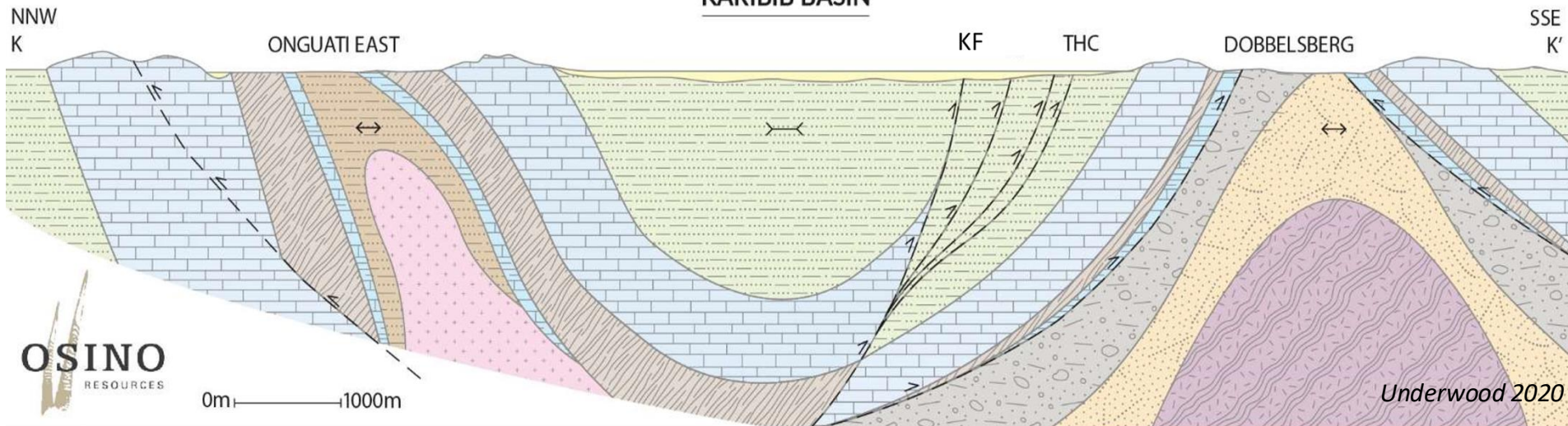
- Late tectonic
- Post tectonic
- Syn_tectonic

Lithology

- Kuiseb Fm
- Karibib Fm
- Ghaub Fm
- Arandis Fm
- Chuosi Fm
- Etusis Fm
- Abbabis basement
- Calcrete, sand, gravel

Adapted from GSN geological map

KARIBIB BASIN

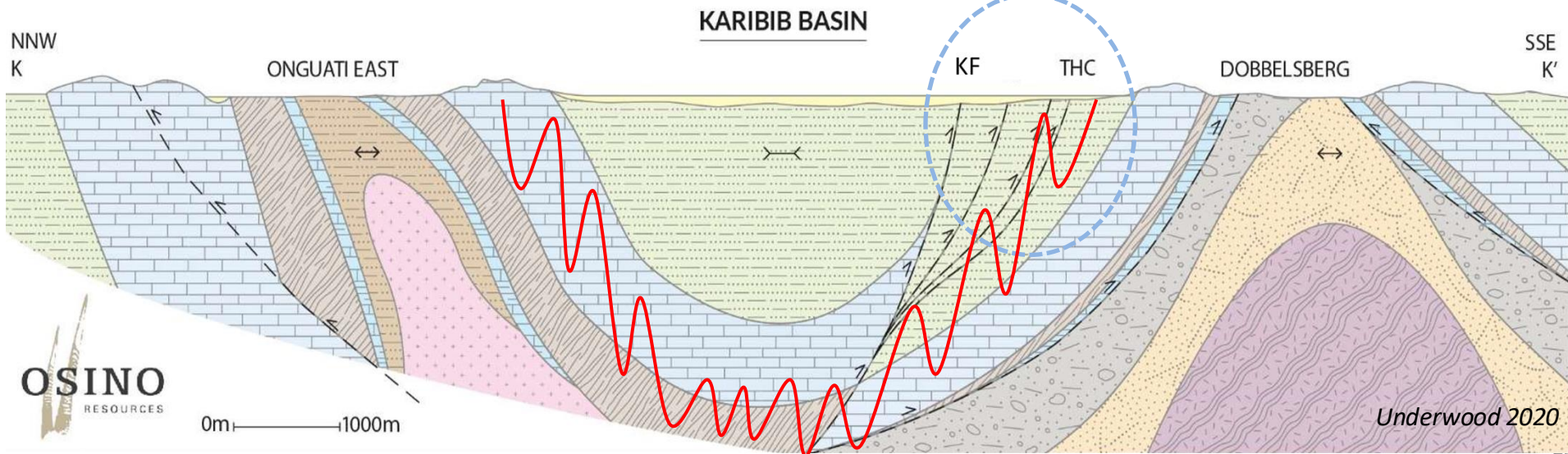
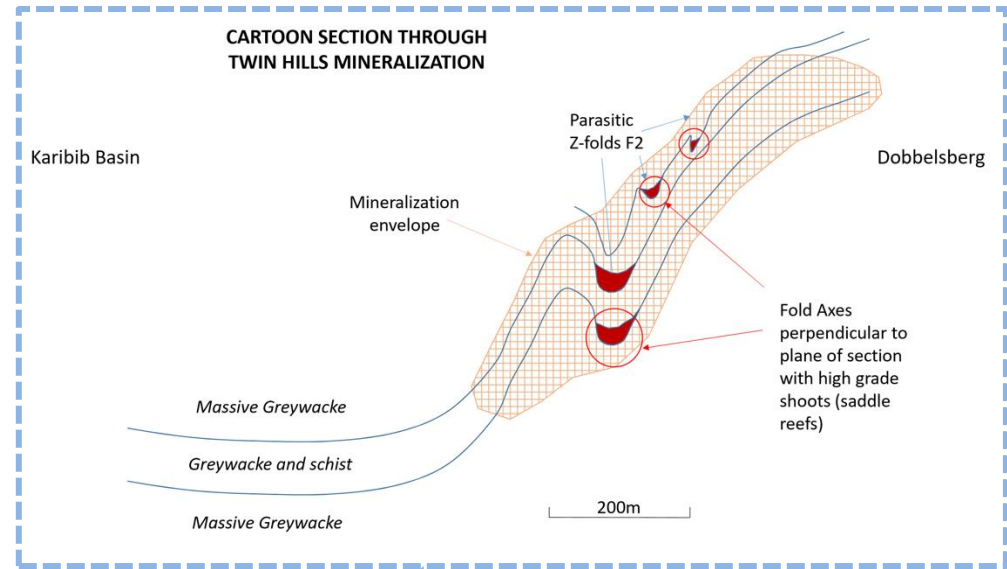


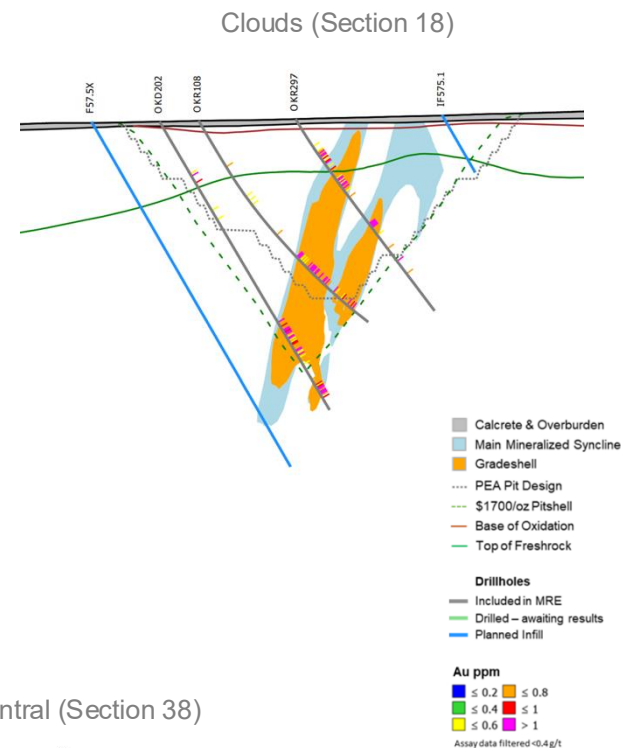
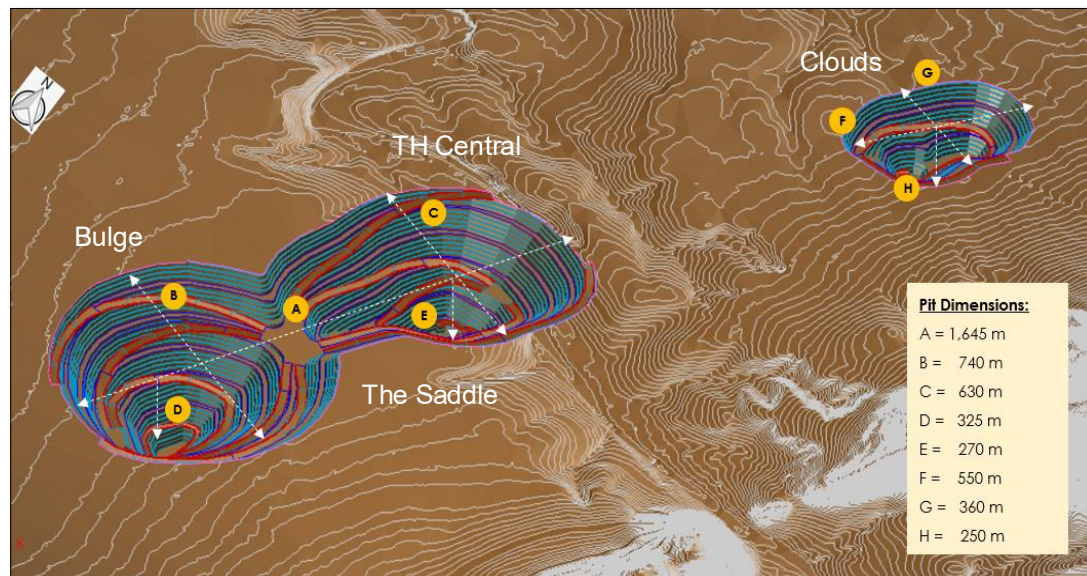
Cross Section Through Karibib Basin

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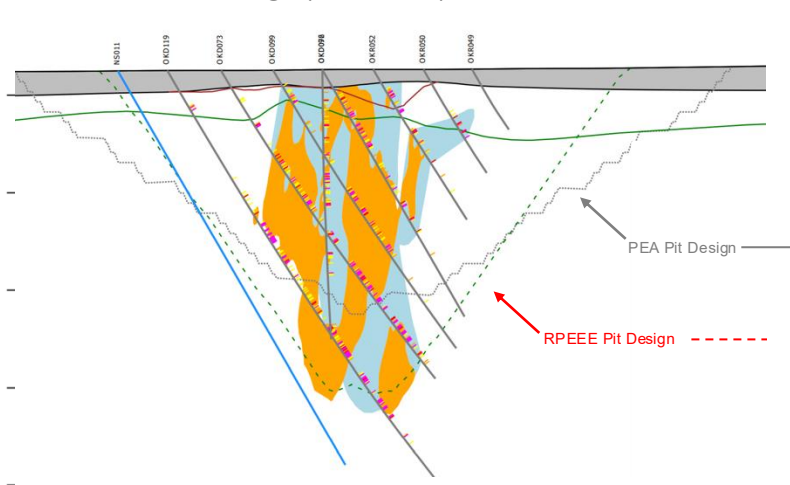
RESOURCES

LITHOLOGY	MEMBER	FORMATION	AGE
	Calcrete		QUATERNARY
	Granite		
	Metagraywacke Schist	KUISEB	
	Marble	KARIBIB	
	Schist	OBERWASSER	
	Marble	OKAWAYO	ARAMDIS
	Metagraywacke Schist	SPES BONA	
	Diamictite	CHUOS	
	Meta-Arkose	ETUSIS	
	Gneiss	ABBABIS	KHEISIAN (BASEMENT)

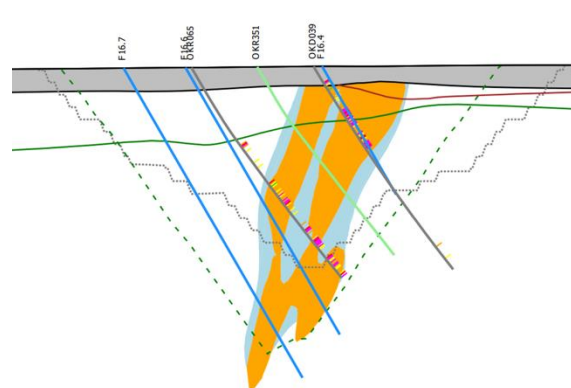




Bulge (Section 23)



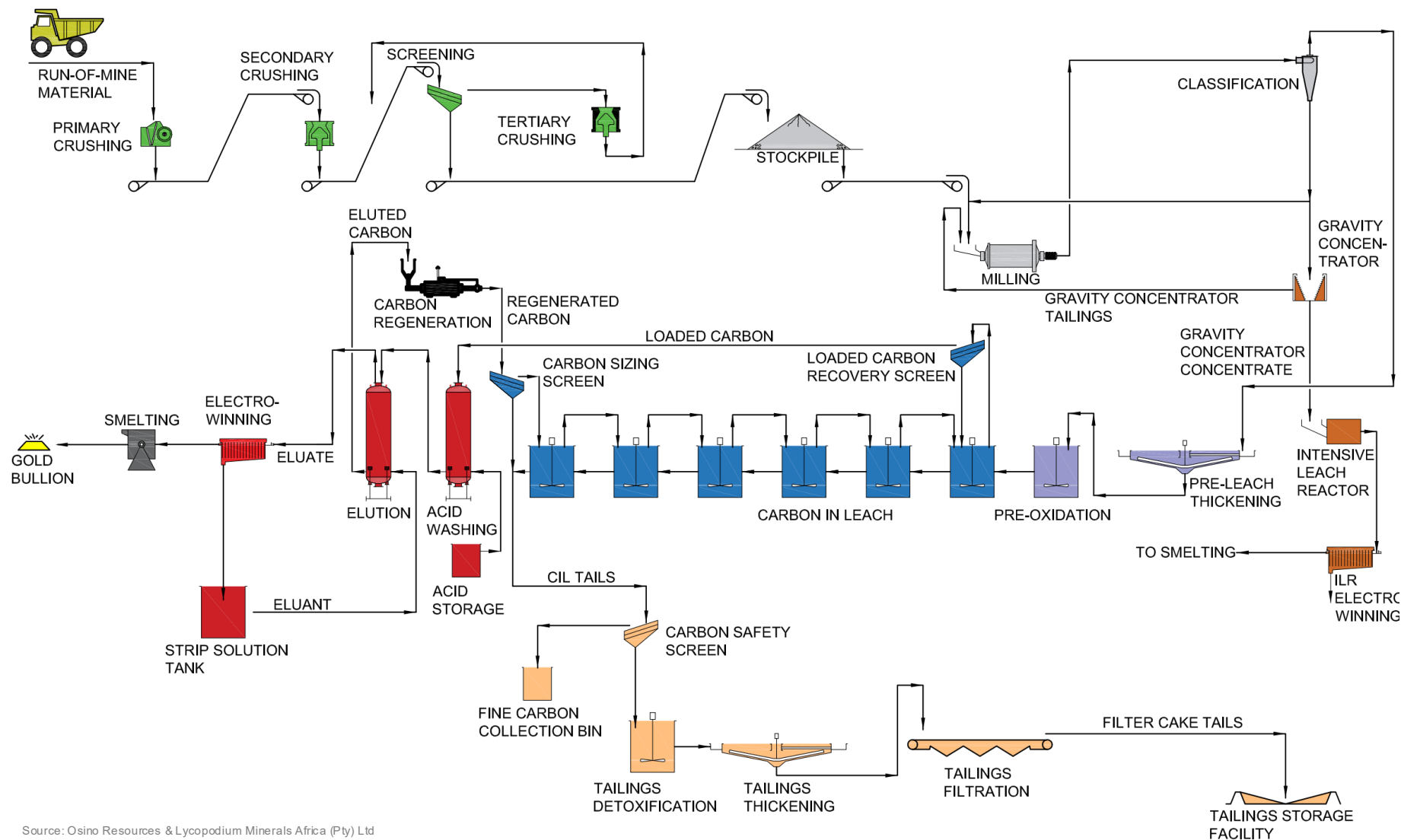
Twin Hills Central (Section 38)



Not to Scale!

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Envisaged circuit layout is 3-stage crushing followed by ball-milling, pre-oxidation and CIL with electrowinning & smelting. Dry stack tailings deposition (likely co-disposal with waste rock) after detox, thickening & filtration.



Typical Namibian Gold Mines

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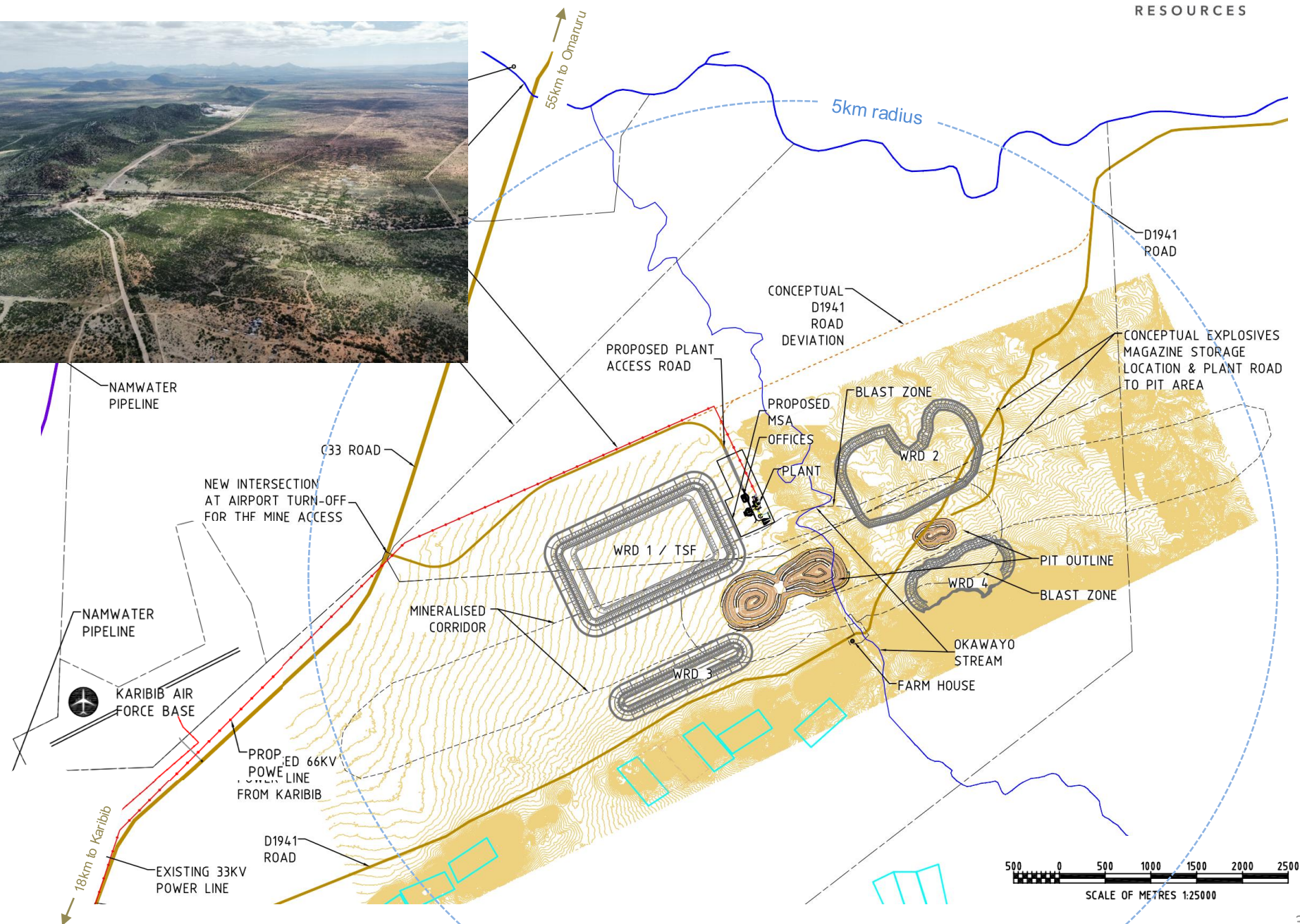
The Town Hills Project is envisaged as a conventional open pit, drill & blast, load & haul, crush, grind, carbon-in-leach processing layout, very similar to the other 2 Namibian gold mines. Navachab and Otjikoto.



Site Layout

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➤ Economically viable with attractive returns

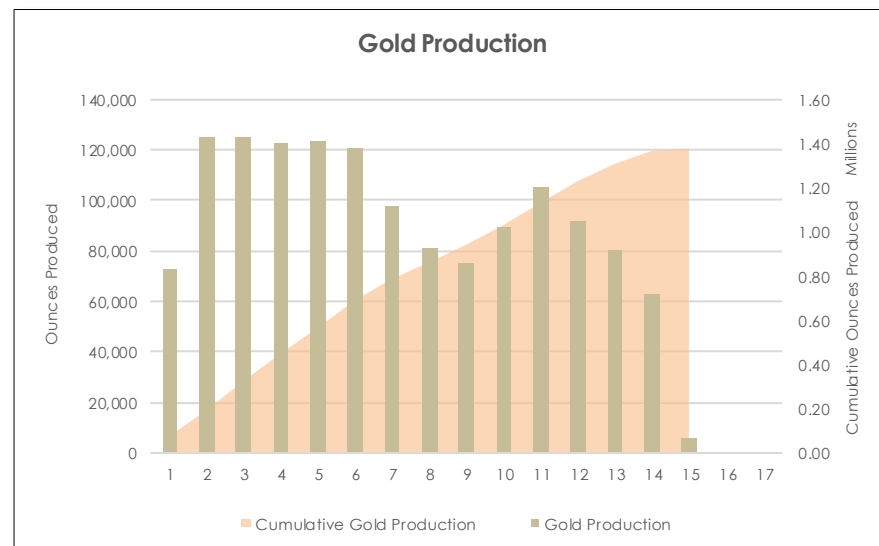
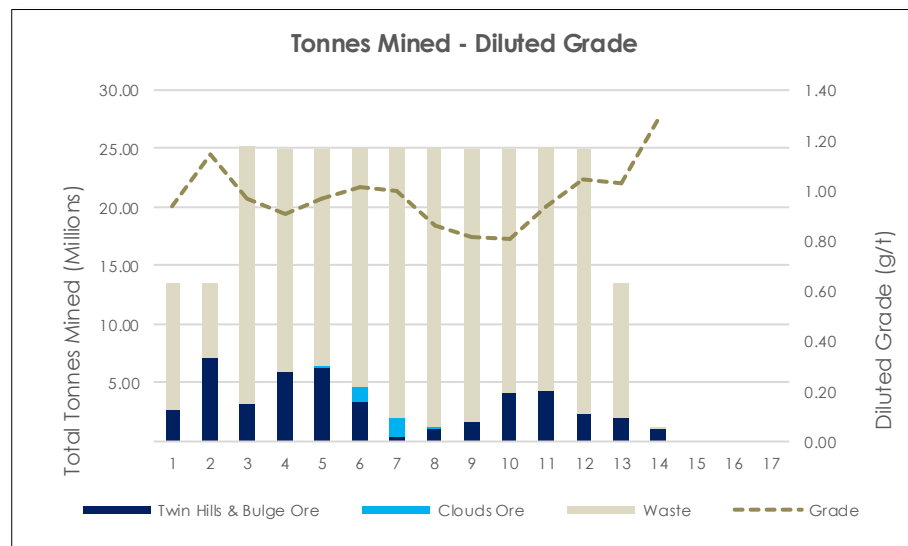
- 15-year LOM, 3.5mtpa processing capacity with 90.9% average Au recovery.
- 124,000 ounces Au pa for years 2-5, 99,000 ounces average annual production
- US\$ 827/oz cash cost, 947 US\$/oz AISC (incl. royalties, levies & sustaining capex)
- US\$ 176m estimated capital cost (excl. contingency)

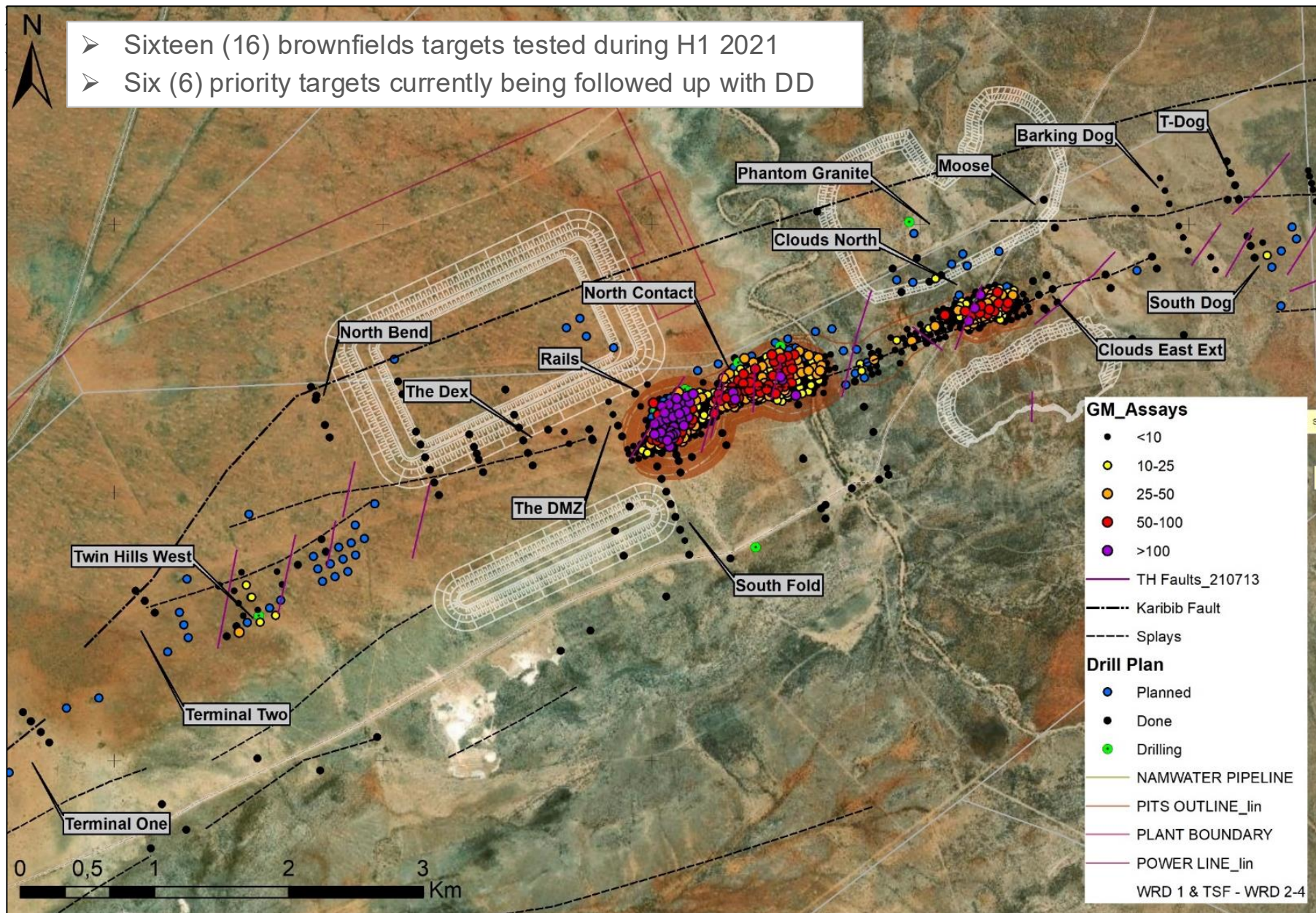
➤ Low-risk, technically straightforward

- Low capital cost & advantageous location (proximity to infrastructure)
- geologically consistent and simple metallurgy simple
- no fatal flaws

➤ Significant Upside Potential

- Additional ounces, improved mine plan & optimised metallurgy





Ongoing, active **resource (expansion & infill)** and **exploration drill program** in conjunction with fast-tracked **feasibility & project development** to grow Twin Hills and **advance it to construction**.

- | | |
|---|--------------|
| 1. Osino formation & commencement of Namibian exploration activities | 2016 |
| 2. 2016 – 2018 large-scale regional exploration | 2017 - 2019 |
| 3. Discovery of Twin Hills Gold Deposit | August 2019 |
| 4. Resource Definition, Growth Drilling & Technical Studies | 2020 - 2021 |
| 5. Publication of Preliminary Economic Assessment (Pre-feasibility Study) | August 2021 |
| 6. Bankable Feasibility, FEED & Project Financing | late H1 2022 |
| 7. Commencement of early works (subject to permitting) | late H2 2022 |



BUILDING VALUE FOR ALL



FACT SHEET
AUGUST 2021


TWIN HILLS
TRUST | NAMIBIA

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Thank You!

- ▷ TSX-V: OSI
- ▷ OTC: OSIIF
- ▷ FSE: RSR1

For more information contact:

Heye Daun : President & CEO
Suite 810 - 789 West Pender Street
Vancouver, BC V6C 1H2
www.osinoresources.com

- Located along **crustal-scale lineament known as the Karibib Fault**, on southern margin of a turbidite basin folded into a tight syncline during the Damara Orogen
- **11km long system, part of >25km strike length of anomalous geochemistry** along the Karibib Fault; **Au assay values increase towards the southwest**; association with splays and second and third order structures to the south of the Karibib fault
- **Quartz biotite schist-hosted** and associated with hydrothermal alteration assemblage of quartz - sericite - pyrrhotite - arsenopyrite- pyrite
- **High tenor gold anomalies (>100ppb) in calcrete.** Bedrock testing via percussion fence line drilling over high grade calcrete anomaly; tight correlation with surface calcrete values validates the use of **‘top of calcrete’ as a sample medium**; several bedrock assays over 0.5g/t with a peak value of 2.69g/t
- **Gold anomalies are spatially coincident with magnetic anomalies** in data collected during Q4 2018; causative body for magnetic anomalies is pyrrhotite mineralization in hydrothermally altered quartz biotite schist
- Most prospective portion of TH prospect is a **structural jog on the margin** of the Dobbelsberg dome; **Three magnetic splays**, coincident with anomalous gold assays are visible in the jog, with a combined width of over 1km
- Recent confirmatory work (bedrock percussion drilling) and strike & width expansion was completed before 7-hole diamond drill program resulted in **Twin Hills Central discovery**



Cm-scale quartz sulphide veins in schist



Brecciation and silicification in quartzite



Pyrrhotite in brecciated quartz vein



Arsenopyrite in cm scale veinlet in schist



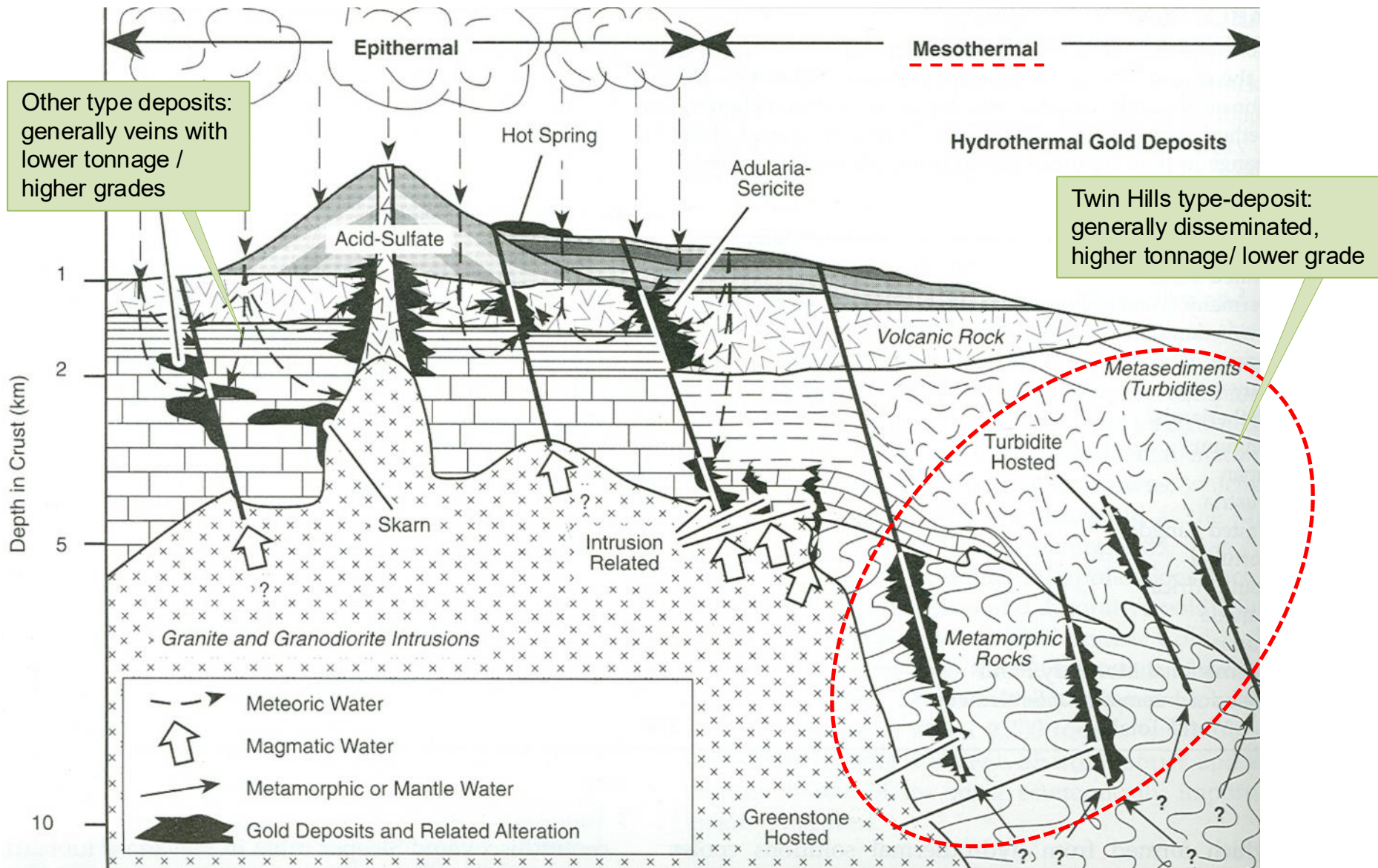
Pyrite on margin of breccia in quartzite

- Sediment-hosted, orogenic (structurally controlled) Au deposit
- Thick package of **turbidites and calcareous sediments** were buried and deformed during the late Proterozoic Damara orogeny
- Metal bearing brines were expelled from the deep **sedimentary basin** and driven towards the southern margin which is defined by a basement cored anticline
- **Hydrothermal fluids** were channelled upwards in the basin margin fault and out into the lower stress splay structures
- **Gold deposition** mainly in a zone of intense **folding and faulting** adjacent to the basin margin.
- **Host rocks** include **biotite** and **muscovite schist** (Au in quartz - sulphide veins parallel or sub-parallel to foliation) and quartzite and turbidite (Au in breccia, stockwork and cross cutting quartz – sulphide veins)
- **Gold mineralization** is associated with three sulphide phases, namely **pyrrhotite, arsenopyrite and pyrite**
- Several zones of **pervasive alteration** and **replacement** by silica-rich fluids and sulphides have been intersected. These replacement zones appear to host **higher gold grades**
- Detailed **petrography & mineralogy** samples submitted for better understanding of the Au associations and deportment.

Major Gold Deposit Types

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Source: Science Education Resource Centre, Carleton College

What you can do!

- Provide in writing, any issues and suggestions regarding the proposed development. This correspondence must include:
 1. Name & Surname;
 2. Organization represented;
 3. Position in the organization;
 4. Contact details and;
 5. Any direct business, financial, personal or other interest which you may have in the approval or refusal of the application.
- All initial contributions, comments and concerns must be submitted by 24th September 2021.
- Send written submissions to info@eccenvironmental.com
- Or uploaded onto the ECC website

Questions / Discussion



Pygmy Falcon
Polihierax semitorquatus



Kobas
Cyphostemma currorii

Questions / Comments / Concerns

Name / Organisation	Comment / Concern

Thank You For Your Time!



Contact Us:
Tel: +264 81 669 7608
info@eccenvironmental.com