

# Going Deeper With Advanced Underground Mapping

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**#ENRTech**



**450**

People Employed

**\$5K-\$60M**

Small projects to major EPC (Engineer, Procure, Construct) programs

**DVBE**

Disabled Veterans Business Enterprise  
(California)

**A, C36 and C10**

Licensed Contractor



# DESIGNED TO BUILD THE BIG PICTURE



## ELECTRIC LINE OPERATION



## DESIGN



## UTILITY CONSTRUCTION



## DIRECTIONAL DRILLING







# UNDERGROUND RISK MANAGEMENT

The cost of unmarked, mismarked, and late/no marks

**"I AM WORRIED ABOUT MY TEAM'S SAFETY. I DON'T WANT ANY INJURIES."**

**"WITH LABOR SHORTAGES, JOBS ARE TAKING LONGER THAN EXPECTED."**

**"THIS OWNER IS AN IMPORTANT CLIENT. WE HAVE TO GET THIS PROJECT DONE SMOOTHLY."**

**"IF THIS PROJECT GETS DELAYED, WE ARE GOING TO HAVE TO RESCHEDULE OTHERS."**

**"RUNNING OUR EXCAVATORS IS A HUGE COST FOR US. WE HAVE TO CUT DOWN."**

**"IDLE TIME ON JOB-SITES IS WASTED MONEY, AND WE CAN'T AFFORD IT."**

**TOP OF MIND**





# SANTA ROSA MOBILE HOME PARK, MARCH 2022

- NO EXISTING RECORDS ON THIS PRIVATE DEVELOPMENT
- CHARGE HIRED EXODIGO AND A PREMIUM LOCATOR FOR A HEAD-TO-HEAD TEST
- CHARGE WAS ABLE TO REDESIGN THE PROJECT TO PREVENT UTILITY STRIKES, DELAYS, AND FURTHER REDESIGNS

**2X MORE  
LINES  
FOUND**

**5 UTILITY  
STRIKES  
AVOIDED**

**50% REDUCTION  
IN POTHOLES**

# SIGNAL PROCESSING & ARTIFICIAL INTELLIGENCE

Solving the underground with technology

We serve customers across transportation, energy, utilities, and construction

## EXODIGO COFOUNDED BY FORMER ISRAELI INTELLIGENCE OFFICERS

Early Israeli customers include national providers for electric utilities and mass transit



**2021**

## EXODIGO OPENS US OPERATIONS AND RAISES \$29M IN INITIAL SEED FUNDING

Early US customers include Charge, Caltrans, PG&E, Florida Power & Light, and National Grid



**2022**

## EXODIGO EXPANDS TO EUROPE AND CLOSES SEED ROUND AT \$41M

Early UK and French customers include Colas Rail, Vinci Construction, and TotalEnergies

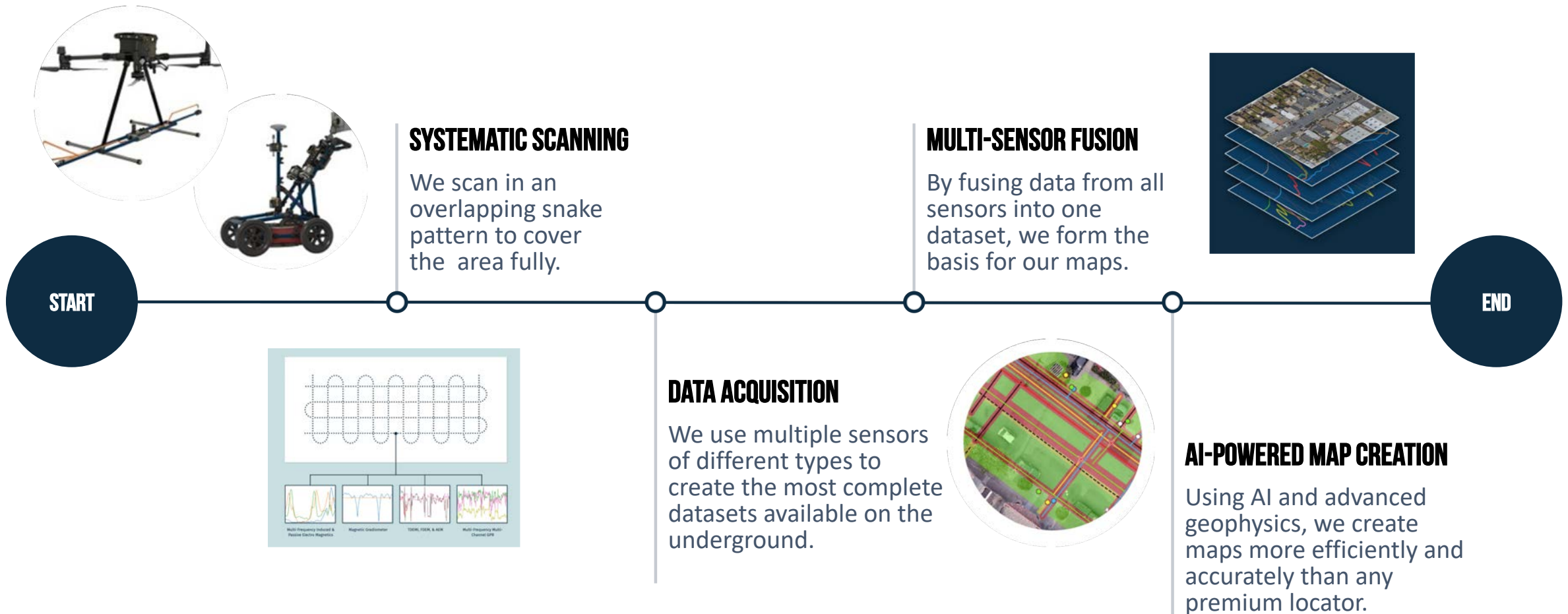


**2023**

# A COMPLETELY NEW APPROACH

The opposite of "follow the line"

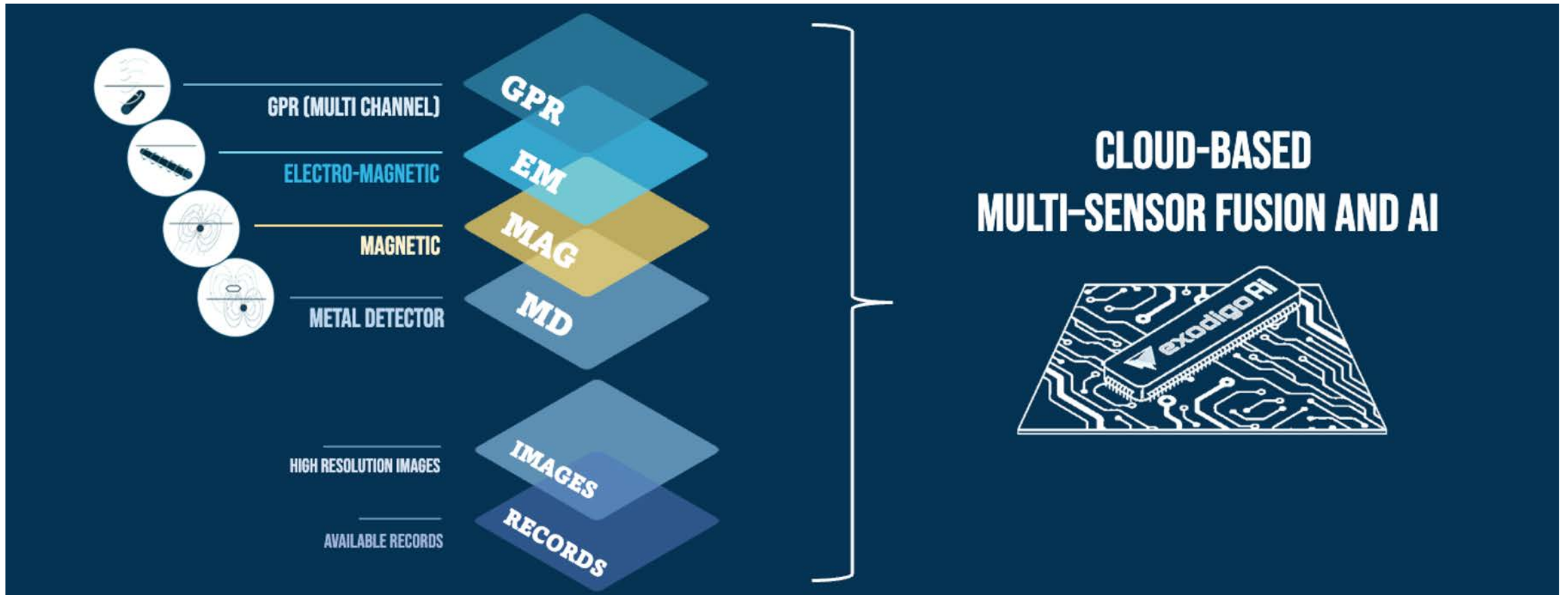
We start with a blank slate and locate all subsurface assets in the scan area



# THE DIFFERENTIATOR: MULTI-SENSING FUSION $\neq$ AI

Imagine doing a CT scan, ultrasound, and MRI all at once

We do this for the underground





# VALLEJO MOBILE HOME PARK, MARCH 2023

- **CHALLENGING TERRAIN SPURRED PRODUCT DEVELOPMENT**
- **CHARGE AND EXODIGO PARTNERED TO REFINE FIELD APPLICATION OF DIGITAL DATA**
- **FOR NOW, MARKS ON THE GROUND ARE STILL REQUIRED, BUT WE ARE TESTING VGIS AND AUGMENTED REALITY SOFTWARE TO ONE DAY ELIMINATE WHITELINING**

**MOVING TOWARDS REAL-TIME DIGITAL DISPLAYS OF  
PHYSICAL DATA FOR ASSET MAPPING**



# UTILITIES

## EXODIGO'S CORE PRODUCT DETECTS UNDERGROUND UTILITIES



MAPS FOR EVERY STAGE OF THE PROJECT

1 EXOINFO: BEST AVAILABLE AUTOMATED REMOTE RESEARCH

2 GREEN CORRIDOR EXOMAP: MULTI-SENSING SCAN

3 UNDERGROUND NETWORK EXOMAP: MULTI-SENSING SCAN WITH IDENTITIES AND PROPERTIES

4 UNDERGROUND SERVICE PLAN: MULTI-SENSING SCAN WITH IDENTITIES, PROPERTIES, AND SUE-CERTIFIED SERVICES

WE FIND MORE LINES THAN ANYONE ELSE

OUR AI IS LEARNING CONTINUALLY FROM DOZENS OF SITES AROUND THE WORLD

**SAMPLING  
EVERY 1 CM OF  
SCANNING**

**~500 GB OF  
DATA PER  
ACRE**





0.01m

**Identified Utilities Area**  
Identified Utilities Area f565c48a-9ab4-4285-88ef-d7eb23dde44b

DISTANCE  
3.25m

ELEVATION  
0.03m

ADJUST

LAYERS

TOOLS

# **SCHEDULE**

**REDUCE DELAYS AND REDESIGN TIME BY  
MITIGATING UNDERGROUND RISKS**

# **SAVINGS**

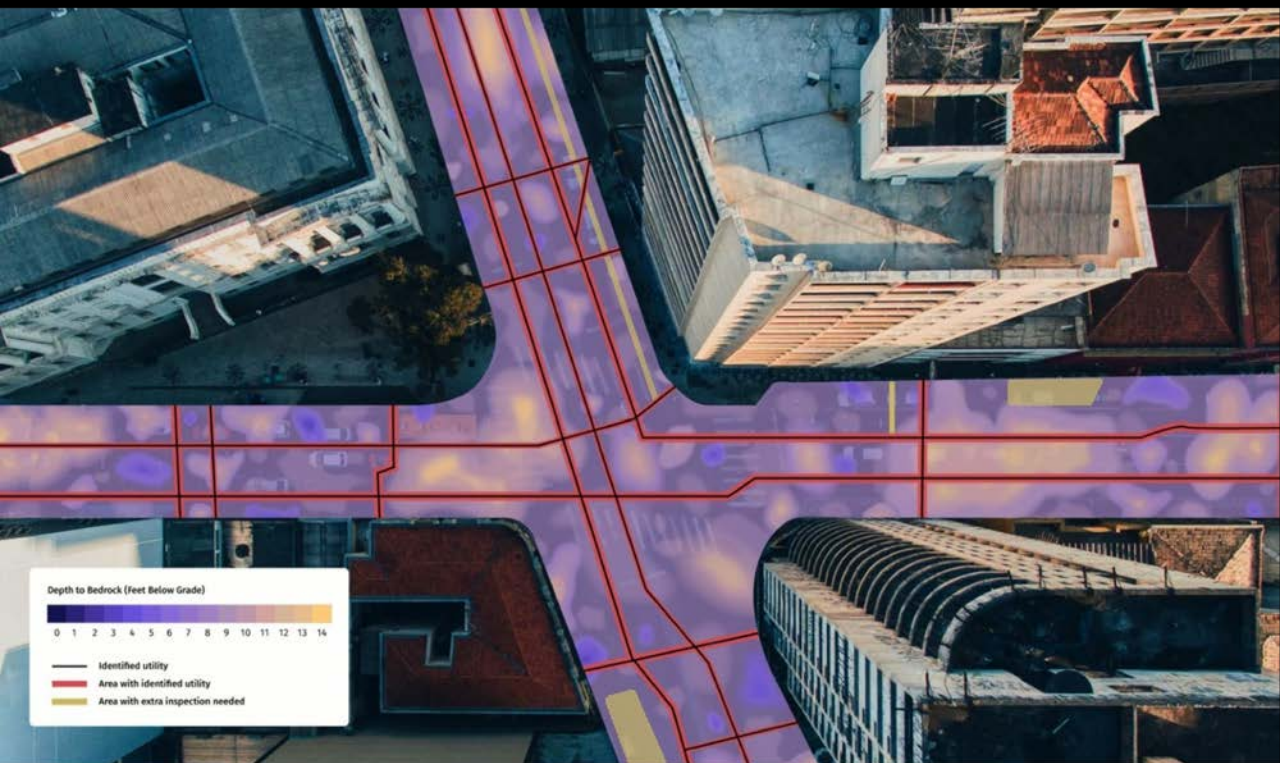
**AVOID EXPENSIVE UTILITY STRIKES,  
EXPLORATORY DIGGING, AND CHANGE ORDERS**

# **SAFETY**

**KEEP CREWS SAFE BY DIGGING  
ONLY IN UTILITY FREE ZONES**

# **SUSTAINABILITY**

**MINIMIZE USE OF HIGHLY POLLUTIVE EQUIPMENT,  
AND POTHOLE ONLY WHERE NECESSARY**



***LAUNCHING FALL 2023***

# GEOTECH

## EXODIGO'S NEW PRODUCT IDENTIFIES CRITICAL SOIL CONDITIONS AND PROPERTIES

1

**SHALLOW BEDROCK FOR UTILITY DESIGN**

2

**DEPTH OF CHANGING SOIL AND ROCK LAYERS FOR FOUNDATION DESIGN**

3

**DEPTH AND GEOMETRY OF VOIDS FOR VOID AVOIDANCE**



## EXODIGO OPERATIONS ROADMAP

1

*Full service  
(cart, drone)*

2

*Full service (cart,  
drone, backpack,  
trailer)*

3

*Full service (cart,  
drone, backpack,  
trailer)*

+

*Self-service for  
selected projects  
(drone)*

+

*Self-service for  
selected projects  
(cart, drone,  
backpack, trailer)*

2023

2024

2025

# OUR VISION

## ACCURATE UNDERGROUND DATA FOR EVERY PROJECT AT EVERY BUDGET

1

**LARGE INFRASTRUCTURE PROJECTS AT FEASIBILITY / DESIGN**

2

**SMALLER PROJECT AT FEASIBILITY / DESIGN ± LARGE PROJECTS  
IN CONSTRUCTION**

3

**SOLUTIONS FOR ALL SIZES AND PHASES OF PROJECTS**

**THE POSSIBILITIES FOR NON-INTRUSIVE DISCOVERY ARE ENDLESS...**

**HUMANITARIAN**

**BURIED AMMO**

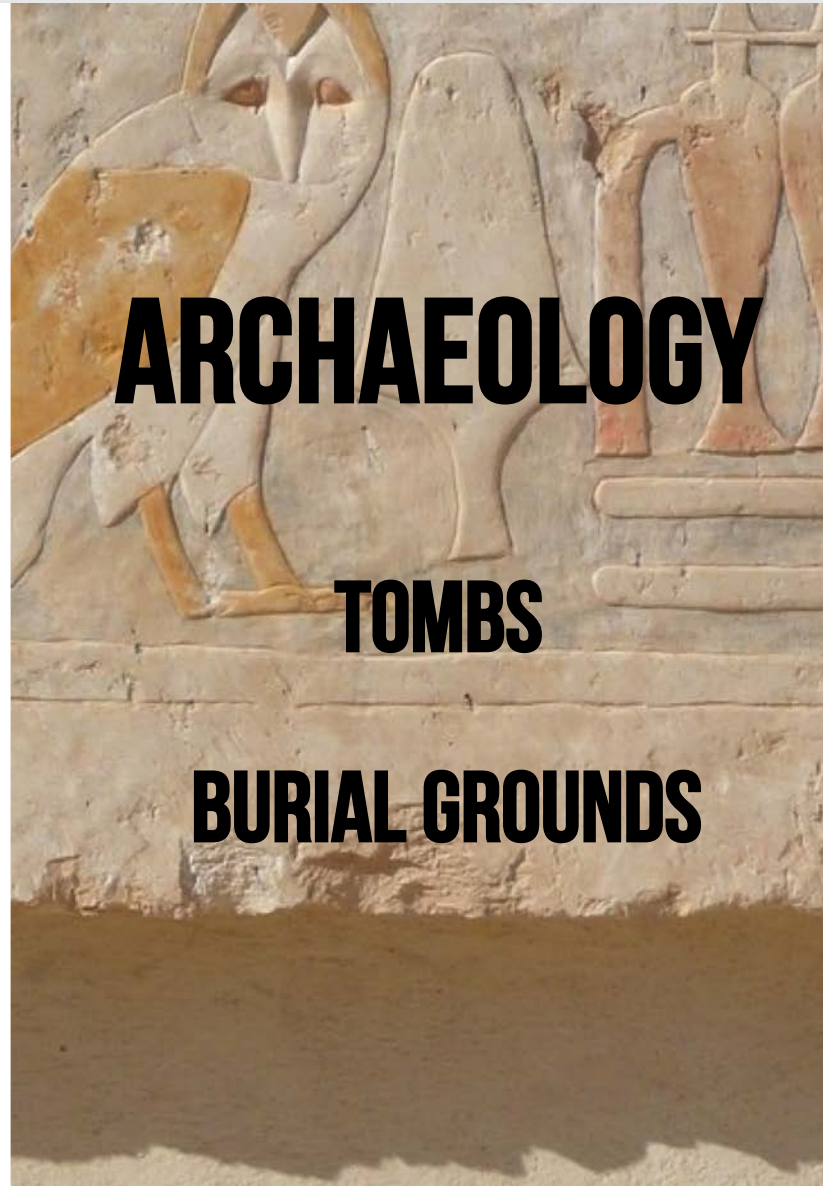
**LAND MINES**



**ARCHAEOLOGY**

**TOMBS**

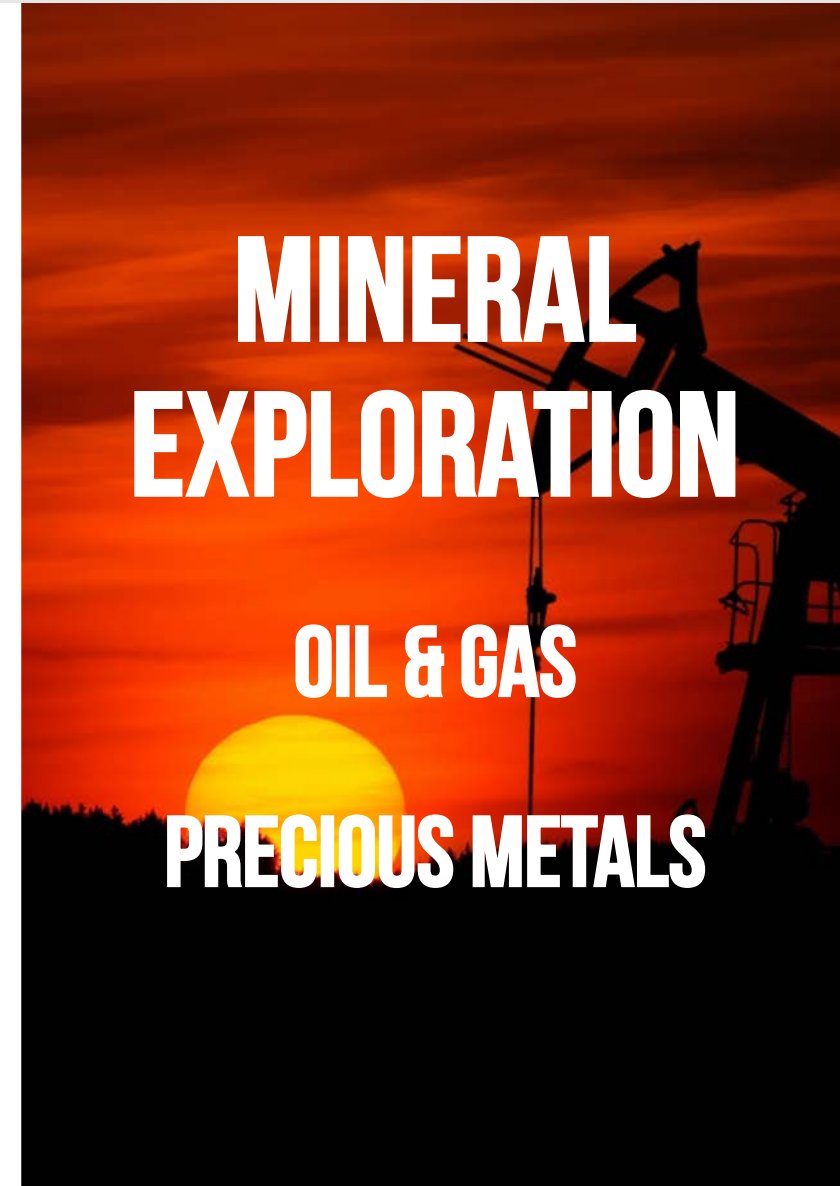
**BURIAL GROUNDS**



**MINERAL  
EXPLORATION**

**OIL & GAS**

**PRECIOUS METALS**



# ENR FutureTech

Engineering News-Record

CONSTRUCTION'S LEADING TECHNOLOGY FORUM

HILTON UNION SQUARE  
SAN FRANCISCO

