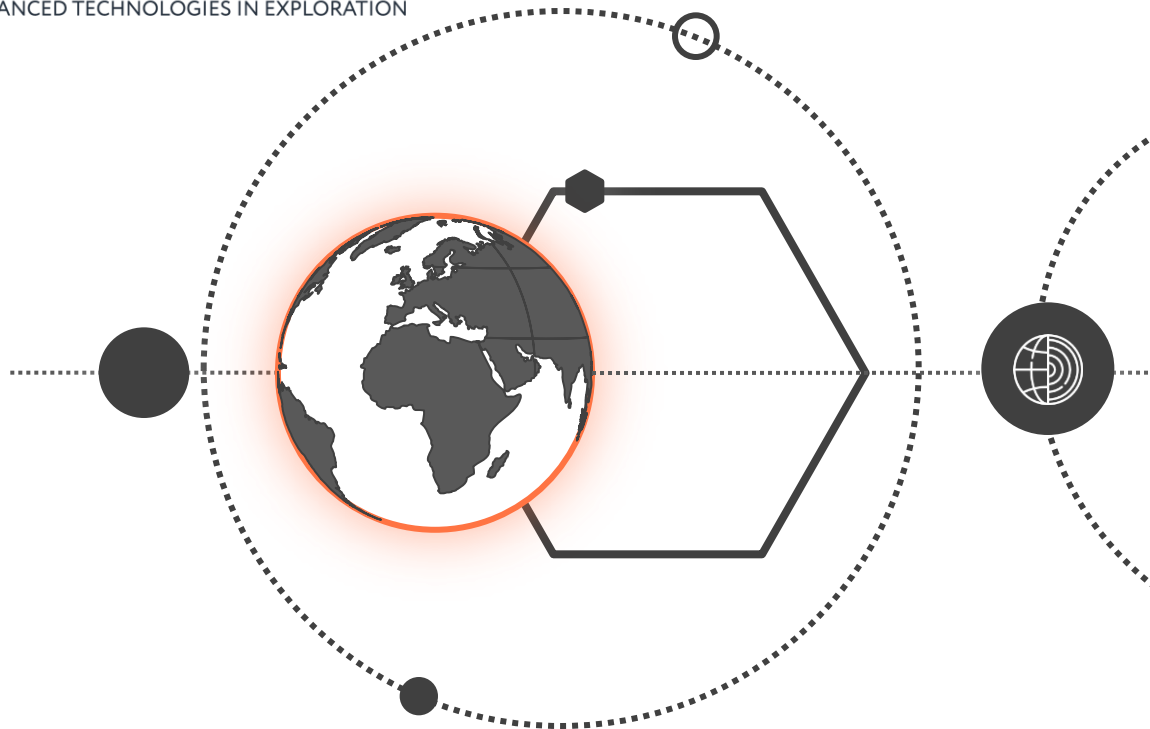




**GEOJET
EXPLORATION**
ADVANCED TECHNOLOGIES IN EXPLORATION

COMPANY REVIEW



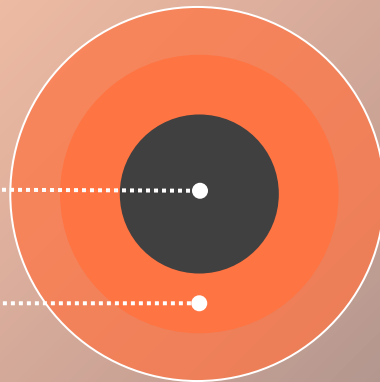
COMPANY MISSION

**Adaptation of Effective
Exploration Methods**

for Mining Industry Demands



Our Mission



Practical Advantages

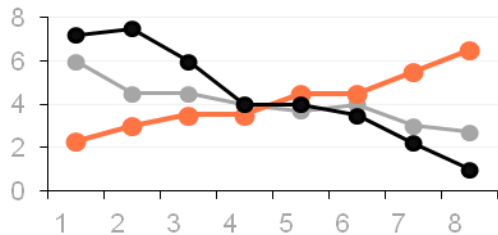
**EXPLORATORY
DRILLING SCOPE
REDUCTION**

**CUTTING TIME FOR
EXPLORATION**

SOLUTIONS FOR CUSTOMERS

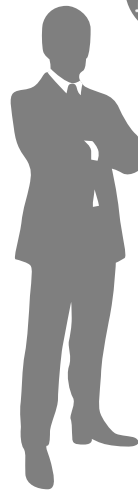
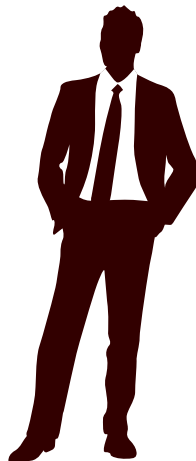
INVESTORS

- Risk Mitigation
- Exploration Schedule Reduction
- Improving the Profitability



SUBSOIL USERS

- Underexplored areas/new licenses
- Mining gain working



STATE GEOLOGICAL SERVICES

- An increasing degree of geological knowledge
- Growth and expanding of the resource base of the region
- Rise of Auction Lot Profitability
- Increasing general investment prospects for the region

PRODUCTION BLOCKS

OUTRUNNING EXPLORATION

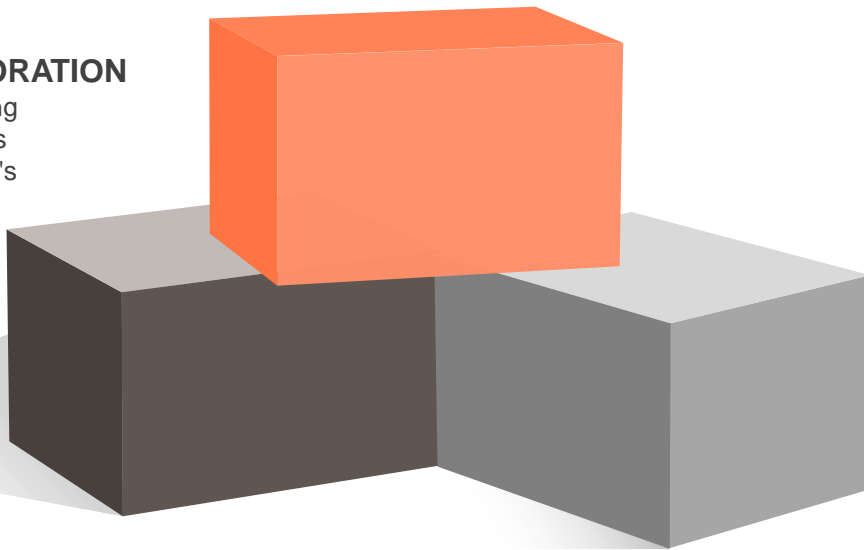
Evaluation of objects with geologic-economic calculation of practicability of implementing exploration applying necessary and sufficient set of field survey methods, both highly efficient and confident and quick to implement.

COMPLEX EXPLORATION

Implementation applying innovative technologies according to Customer's Terms of Reference.

MAINTENANCE SERVICES

Development of recommendations on selecting optimal and informative methods for addressing particular exploratory tasks at any stage of the project.



COMPETITIVE STRENGTHS



Exploration Schedule Reduction

Due to innovative advance methods of geophysics applied.



Coverage

Complex relief (timber, mountains; water, snow, and ice operations) and climate conditions.



Service Assistance

Further cooperation with the Customer after the report release.



Exploration cycle within the same field season

Preliminary analysis, express ground survey, and check drilling.



Innovative technology application

Higher expansion of the data obtained as compared with the classical methods.



Efficient works on complex types of deposits

The advantages of application of the modern proximity high-precision pulse geoelectric prospecting where classical methods are ineffective.

USEFULNESS FOR CUSTOMERS

STEP-BY-STEP SOLUTION AND DESIRABILITY



Comprehensive range of services

We provide comprehensive spectrum of maximum effective complex solutions for implementation of exploration activities of any complexity.



Forecast map

We analytically localize perspective zones and construct forecast maps for organization of appraisal works.



Verification drilling

We propose verification drilling completion within a single field season.



Time saving

As a result, we save Customer's time spent for exploration by forecasting extension of ore zones, optimizing drilling operations and efficiency in determining trends of further operations.

GEOGRAPHY OF OPERATIONS

EUROPE

(Spain, Portugal)

Collaboration with Local Companies

AFRICA

(Sierra Leone, Tanzania, Zimbabwe, Botswana)

Works on placer gold, platinoids, diamonds, kimberlite pipes, etc. have been executed

Works performed:

ore deposits
non-metallic deposits

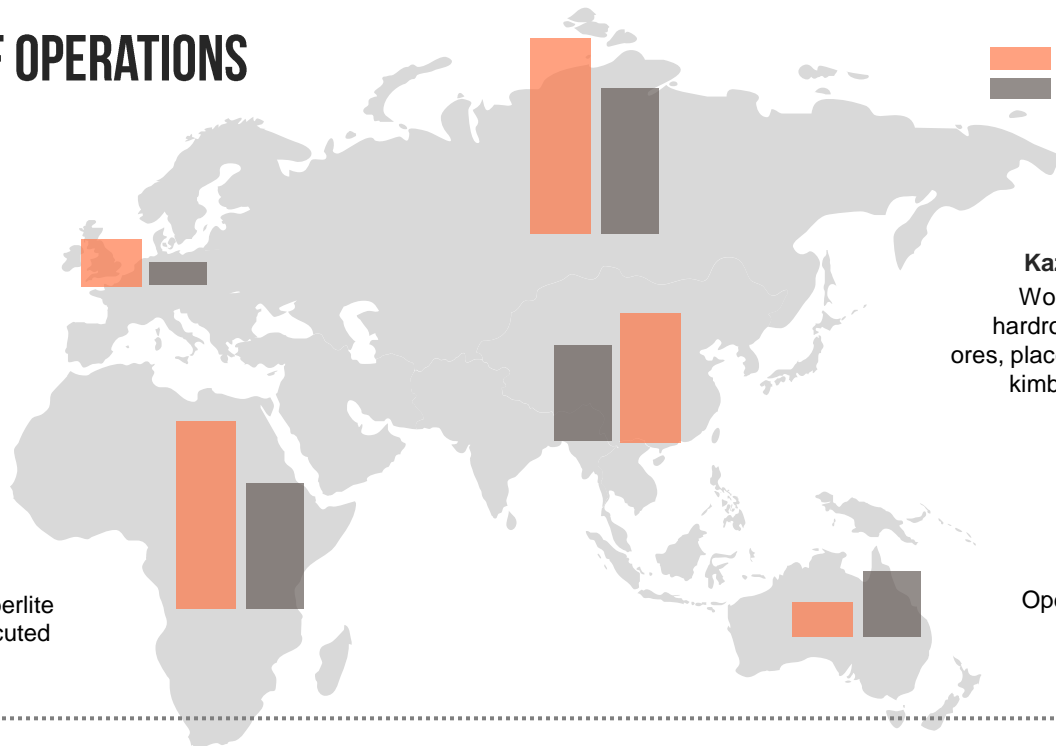
ASIA

(Russia, Iran, Kazakhstan, Cambodia)

Works on various types of hardrock gold, copper-nickel ores, placer deposits, coals, and kimberlite pipes have been executed

India, Australia

Operations with Qualified Partners



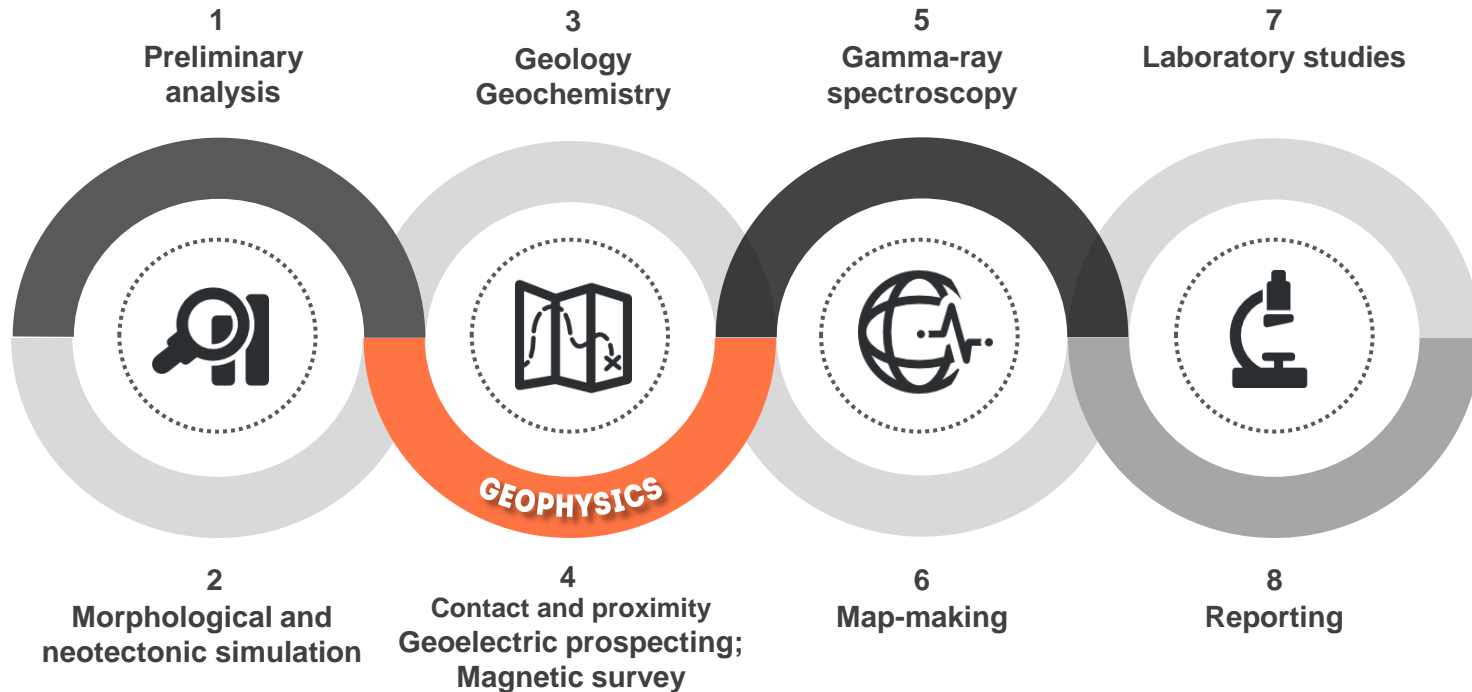
GeoJet Exploration is the service exploration Company that features necessary qualifications for planning and implementation of the full spectrum of exploration in mineral deposits for solid resources required for a subsoil user and an investor for project development at its any stage.

REGIONS OF STRATEGIC DEVELOPMENT



Since 2018, our Company operates actively at the market of North and South America and participates in regional and international ore mining forums. Partnership agreements are concluded, within which field trials are performed in order to provide high-quality services in this region.

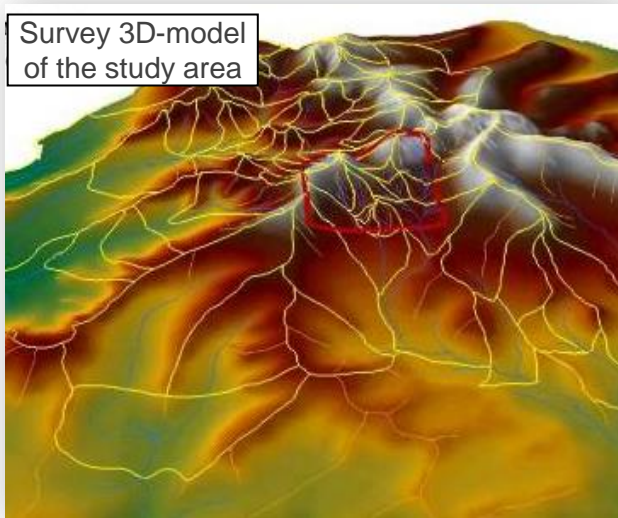
EXPLORATION CYCLE DIAGRAM



PRELIMINARY ANALYSIS

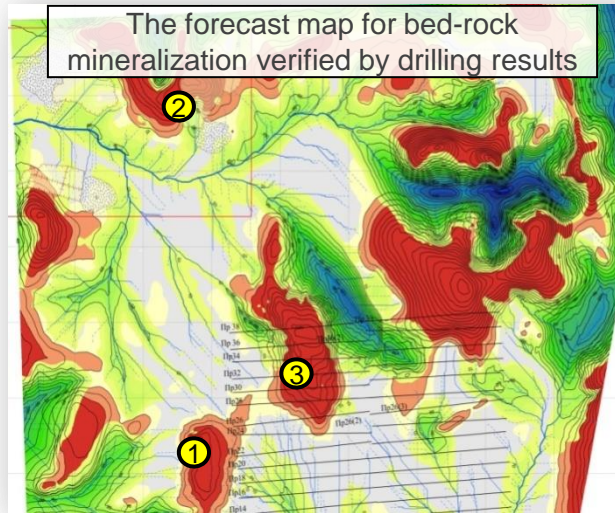
GEOMORPHOLOGICAL AND NEOTECTONIC SIMULATION

Survey 3D-model
of the study area



- ① Exploited pit
- ② Ore zone *penetrated* by drilling
- ③ Ore zone *ensured* by drilling after geophysical survey
- Predicted ore zones

The forecast map for bed-rock
mineralization verified by drilling results



The purpose for annotation is detection of multi-ordinal geological structures with which mineral resources are spatially and genetically associated. We annotate satellite images and perform complex analysis of data on the area of works (recent data of METI and NASA radar sensing: ASTER Global Digital Elevation Model Version 2; recent data of 1-3 second Shuttle Radar Topography Mission (SRTM) sensing; high and medium resolution Landsat ETM multi-zone space images. The analysis is based on the topographic base of the scale 1:10'000 which, in turn, is used for making maps as follows: the difference in base surfaces; sweep direction; residual relief map; peak plain map; water divide map. These maps form the basis for the forecast map.

GEOLOGICAL WORKS

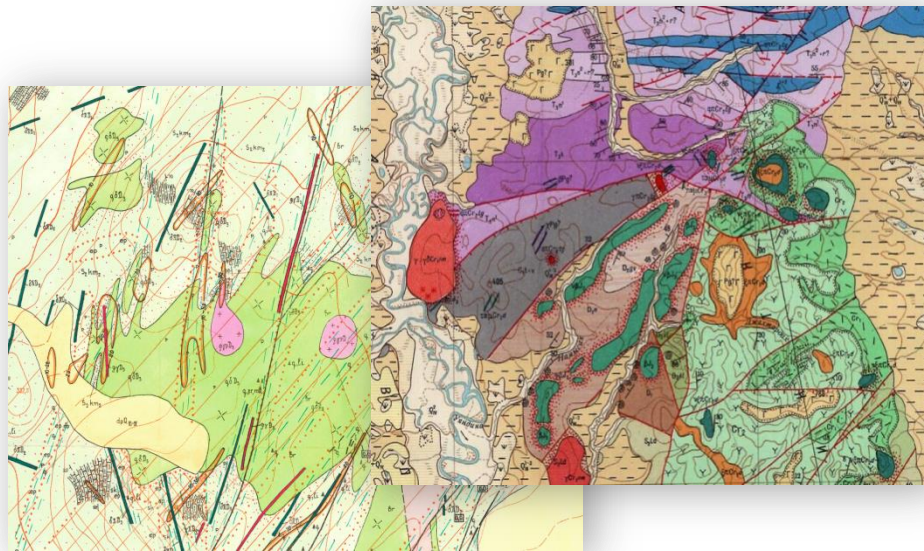


Basalts



Exposure of kimberlites

Pegmatitic lode
in granites



Geological maps are built up by the result of geological works and surveys. Sites outlined at the 1st stage are tested. This allows the investor to reduce time to mining (placer) operations and map (bed-rock) drilling.

Electronic databases that conform to international reporting standards are compiled.

GEOELECTRIC PROSPECTING

Our Company owns a wide spectrum of contact and proximity equipment for geoelectric prospecting meeting all modern safety and magnetic compatibility requirements. A combination of different techniques allows receiving sufficient data for composing a detailed geological-geophysical model of the work site. Data complexing increases the probability of outlining ore zones.



Apparent resistivity method
(VES)



Induced polarization
method (IP)



High-precision pulse geoelectric
prospecting method (HPGP)

GEOELECTRIC PROSPECTING METHODS COVERAGE

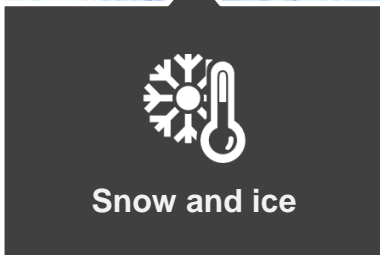
WORKING UNDER HEAVY RELIEF AND CLIMATE CONDITIONS AND ON ANY SURFACES



Mountain relief and
rock glaciers



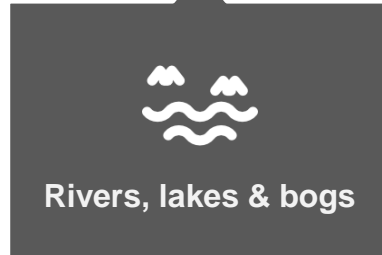
Snow and ice



Timber and bushes



Rivers, lakes & bogs



COMPLEXING EFFICIENCY

Seconds and microseconds

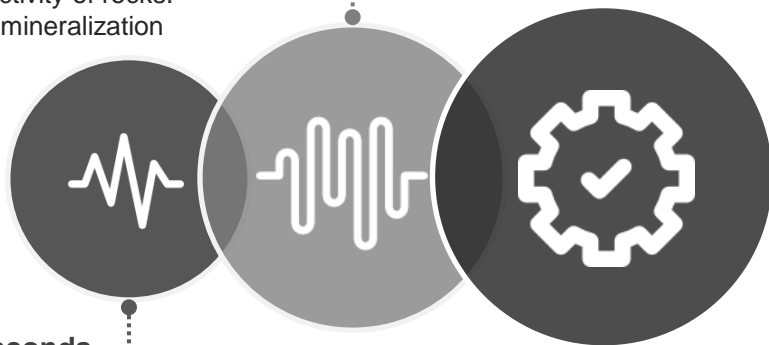
Hz-kHz range

Receiving information about specific resistance and conductivity of rocks. Water saturation and mineralization zones are identified.

Micro- and nanoseconds

MHz range

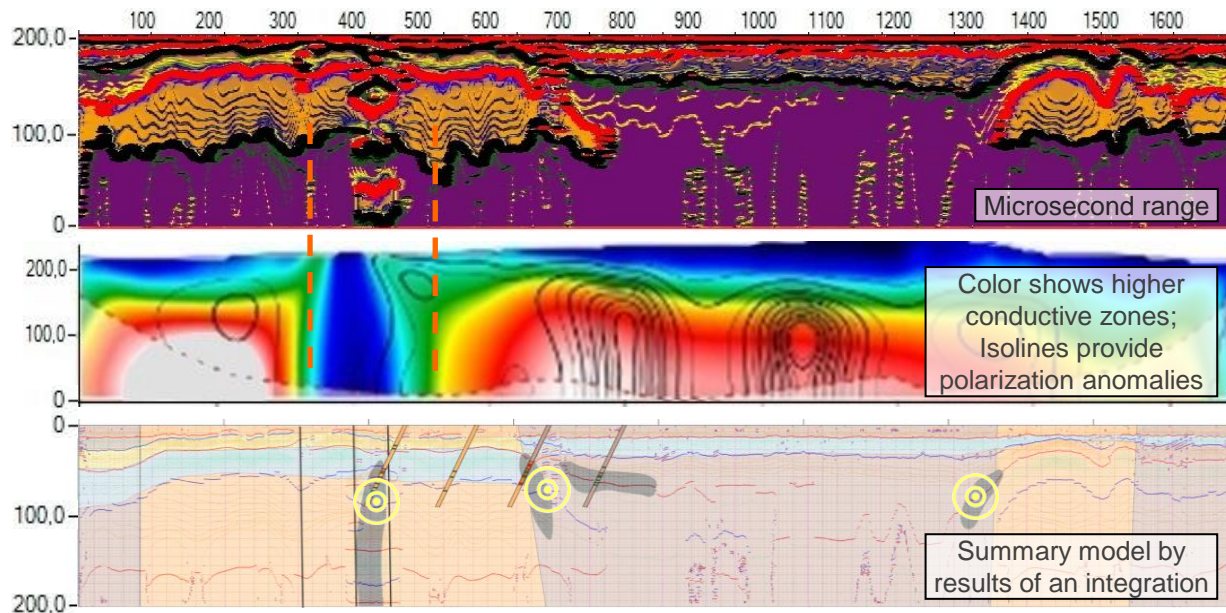
Receiving information on electric capacity and permeability. Tectonics, type and internal structure of rocks associated with metamorphism are identified.



EFFECTIVE SOLUTION

HPGP technique (High Precision Pulse Geoelectric Prospecting) used by GeoJet Exploration which is capable of providing data in the full time range, from seconds to nanoseconds, determining the maximum informative frequency range during analysis and processing, and obtaining detailed information about geological structure features of the surveyed area.

EXAMPLES OF 2D-INTEGRATION



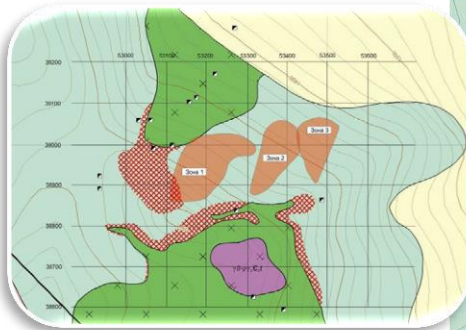
○ Ore mineralization zones

High-resolution 2D-profiles allow studying in detail and differentiation of ore zones, and detection of structural and tectonic pattern features. Integration of data significantly increases informative value and confidence of outlined anomalies.

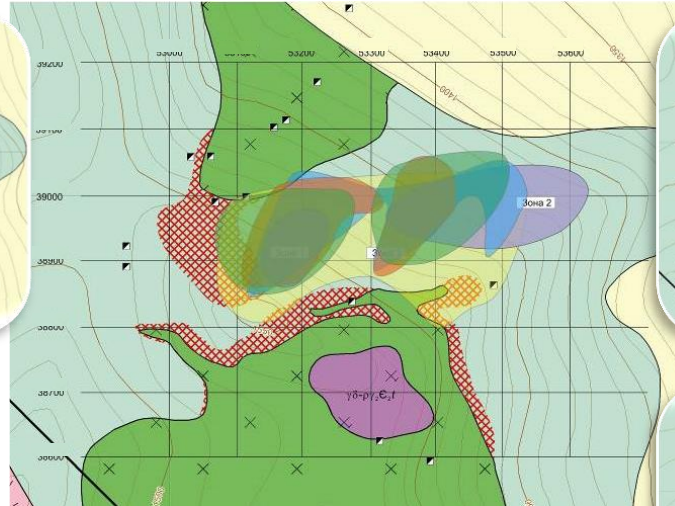
The geophysical profile was made by the volcanic sedimentation mass. In the left part, the profile crosses the fault zone, which is recognized by a contrast conductivity zone. Intensive polarization anomalies due to disseminated sulfide mineralization were detected in the central part of the profile.

EXAMPLES OF AREAL INTEGRATION

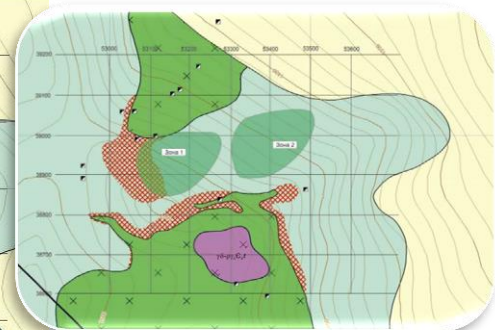
IP anomalies



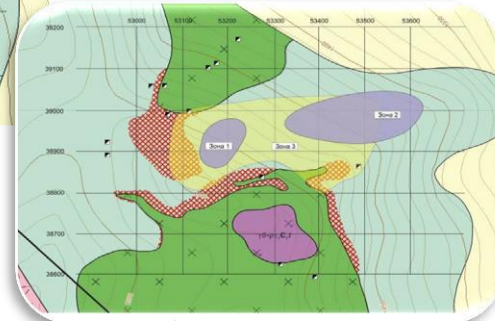
Integral map



VES anomalies



HPGP anomalies

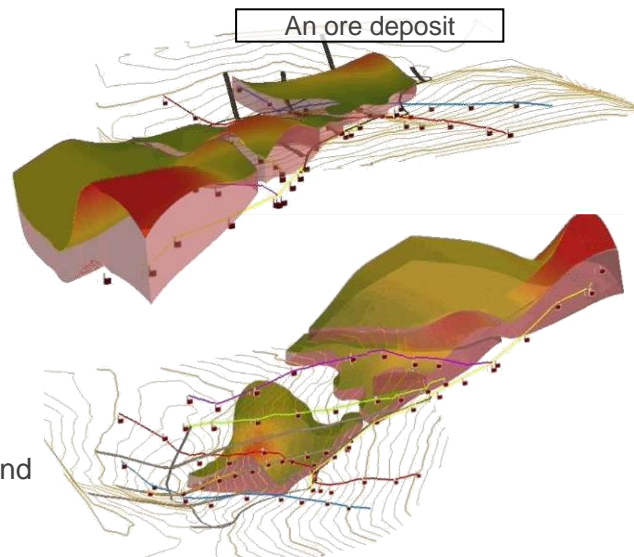
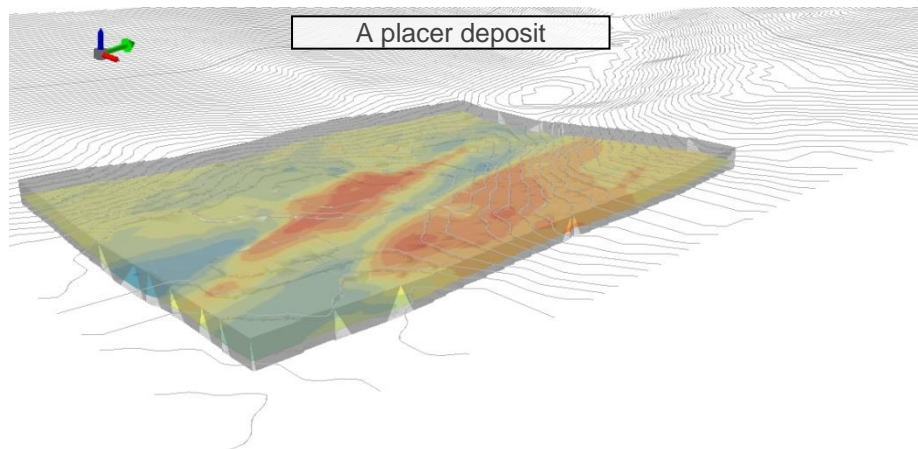


-  Limestones
-  Diorites
-  Comminuted sedimentary deposits
-  Skarn zones by results of ditch cut

Complex analysis of the geophysical data obtained visualizes the presence of a broad anomalous zone formed at the interface of magmatic and sedimentary rocks.

3D-MODELING

RESULTING FROM DATA INTEGRATION



Detection of ore zones/bodies, their extraction in profiles, and interprofile tie and space tracking.

Detection of block-type geological structures significant for ore localization (fault troughs, rift-blocks, key-block structure).

MAGNETIC MEASUREMENTS AND GAMMA-RAY SPECTROSCOPY



Magnetic Measurements



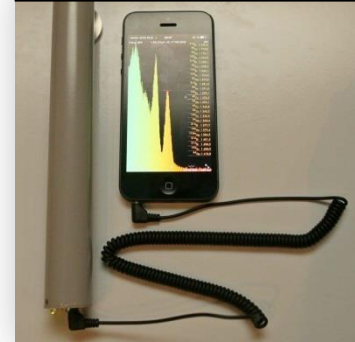
Magnetic exploration method, or magnetic prospecting is a geophysical method for addressing geological tasks based on surveying magnetic field of the Earth and magnetic characteristics of rocks, ores, deposits, and minerals.

Aerial survey (using quadcopters) and land survey is performed.

Inclusion of gamma-ray spectroscopy for potassium, uranium, and thorium (K, U, Th) into the Work Cycle of the Company provides a significant increase in the geological efficiency of exploration and development of deposits in a complex environment. These are primary goals among the majority to be addressed:

- Lithological stratification of profiles, detection of geochemical and geological trends inherent to the profile under study;
- Evaluation of the fractional analysis of rocks, and contents of some clay minerals;
- Outlining of fracture zones etc.

Gamma-ray spectrometer connected to a smartphone



GEOCHEMICAL SURVEY AND LABORATORY ANALYSIS

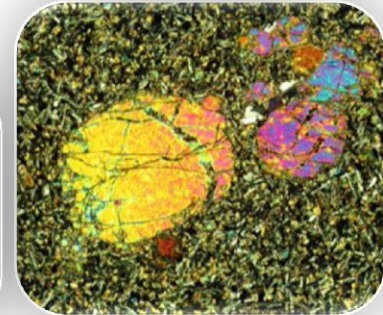
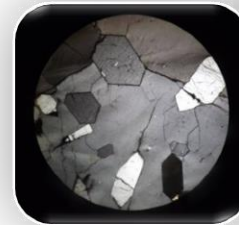
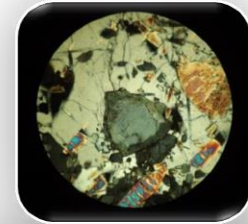


Geochemical survey is performed for studying envelopes of valuable components and elements, which are indicators around agglomerates of a mineral, and quantitative and qualitative composition of noxious impurities.

These kinds of the study increase significantly the confidence and informative value of outlined anomalies by geoelectric prospecting methods, and provide completeness of deposit studies.

Implementation of laboratory analyses:

- Spectral qualitative and semiquantitative analysis;
- Petrographic study of crystalline and sedimentary rocks;
- Ore microscopy study;
- Mineralogical analysis;
- Chemical analysis;
- Assaying;
- Electron microscopy;
- Microprobe analysis.



REPORTING



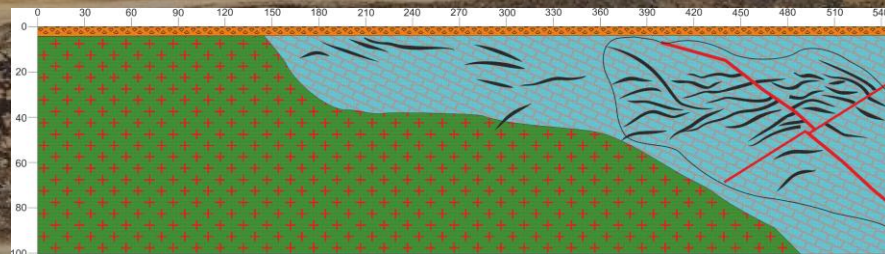
GeoJet Exploration assesses objects using geologic-economic calculation of practicability of implementing exploration. According to the Customer's choice, materials are prepared in one of the following reporting codes: JORC (Joint Ore Reserves Committee), CRIRSCO (Committee for Mineral Reserves International Reporting Standards), SAMREC (The South African Mineral Resource Committee), and so on, including GOST (Russia).




ORE DEPOSITS

GOLD

Quartz-veined gold deposit type

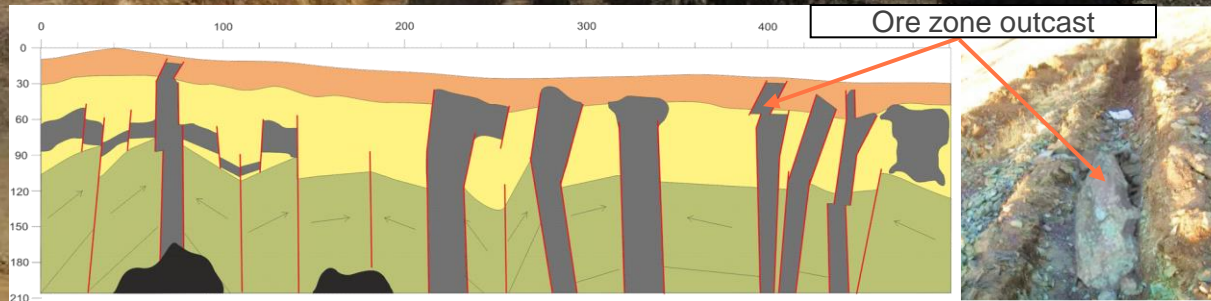
Resulting from geoelectric prospecting, conductivity and polarization anomalies confined to diorites and dolomites contact zone were detected. The comparison with drilling data indicated correspondence to the ore zone suggested.



-  Diorites
-  Limestones
-  Zones of quartz-veined units

ORE DEPOSITS

COPPER

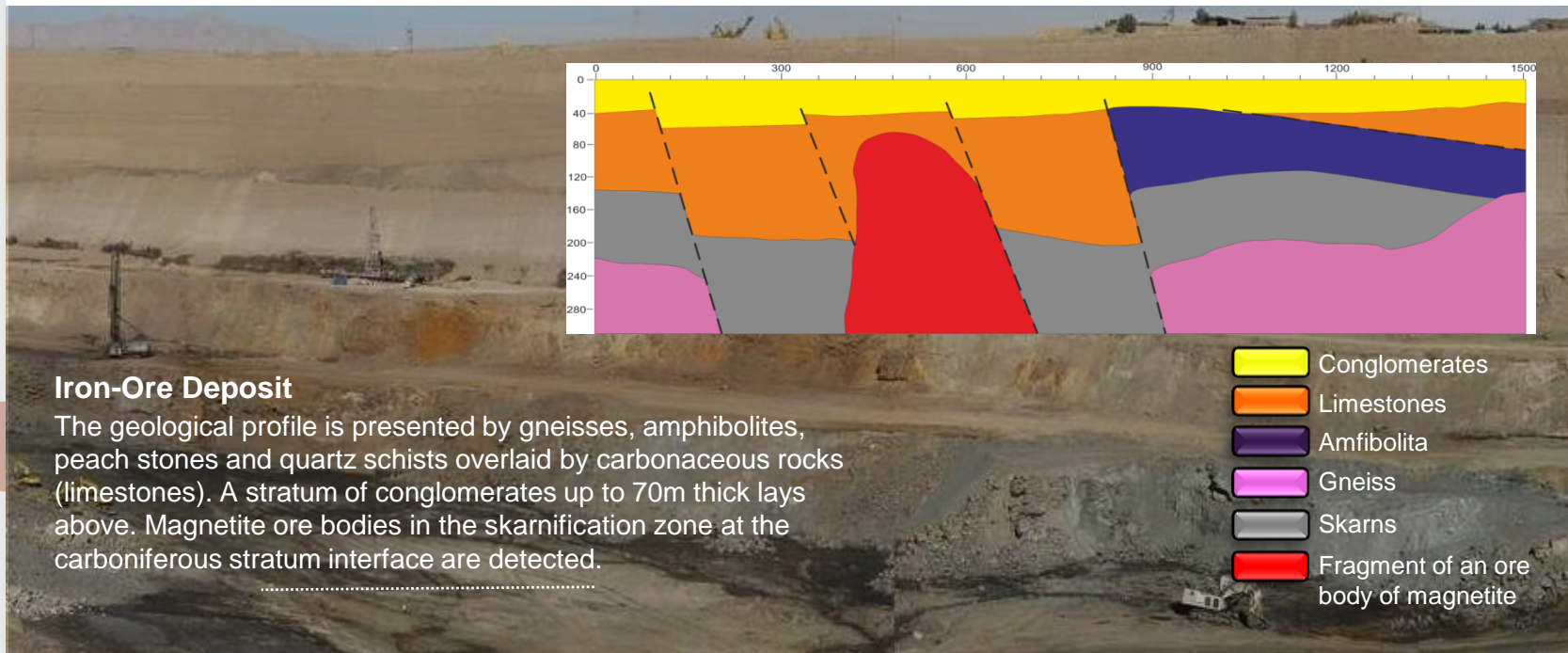


Copper-Porphyry Deposits

Subvertical and vertical zones of increased mineralization are detected within a geoelectric section.

ORE DEPOSITS

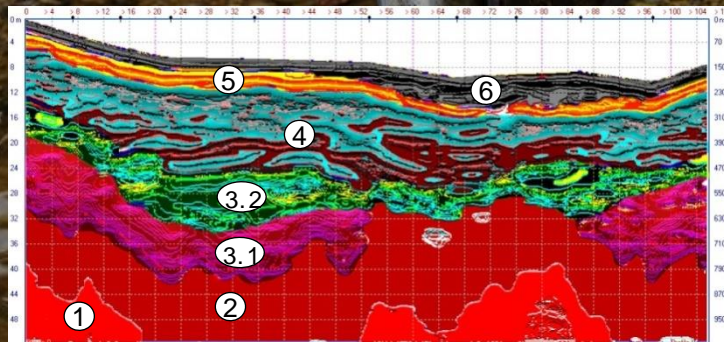
MAGNETITE



PLACER DEPOSITS

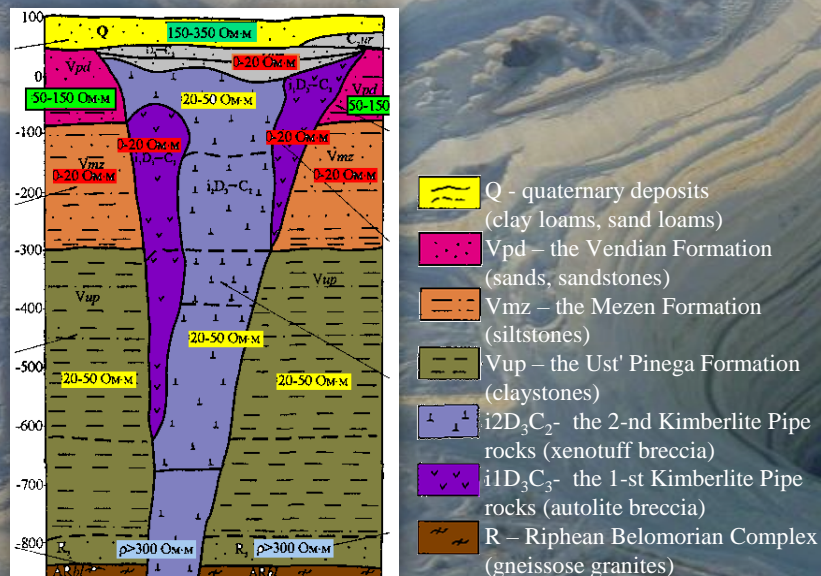
GOLD, DIAMONDS

Exploration performed within the shortest possible time.
Establishing production mining within a single field season.
Determination of overburden rocks and pay horizons thickness;
detection and charting of paleochannels, river terraces,
accumulative traps; determination of alluvial deposits thickness.



- ① Bedding rocks (granitoids)
- ② Bedding rock crusts of weathering
- ③.1 Primary crust of weathering
- ③.2 Derivative crust of weathering
- ④ Sandy shale deposits
- ⑤ Lateritic soils
- ⑥ Loamy soils

DYKES, KIMBERLITE PIPES



Geological and geophysical profile and geoelectric model of Pomorskaya Kimberlite Pipe, Arkhangelsk Diamond Province. Methodology for application of a proximity geoelectric prospecting complex for searching and mapping kimberlite structures in the permafrost environment.

INTERNAL AND EXTERNAL COMPANY'S PROCEDURES

01

OFFICE

Analytics of aerial and space, geophysical, and geological data.

02

TECH DEPARTMENT

Proprietary Design Bureau (DB) allows for self-developing new equipment and modernizing the existing instruments (including maintenance and repair).

03

SOFTWARE

Data processing software development

04

R&D

Trials, research and development, communication of experience with profile organizations, cooperation with Divisions of the Russian Academy of Sciences on geophysics

05

B2B RELATIONS

Participation in specialized exhibitions and conferences, and mining forums.





**GEOJET
EXPLORATION**
ADVANCED TECHNOLOGIES IN EXPLORATION

THANK YOU FOR YOUR ATTENTION!

TEL.

+7 (900) 555 75 50

E-MAIL

INFO@GEOJETEXPLORATION.COM

GO TO WEBSITE

