CATALOG 2026

Fast, reliable, and cost-effective solutions for the energy, mining, and geotechnical sectors

01 Petroleum and Natural Gas

02 Geothermal Exploration

03 Mineral Exploration

04 Consultancy Services

05 Geotechnical Services

KROSJEOFIZIK.COM.TR



KROS JEOFIZIK

ABOUT US

With more than 40 years of experience, Kros Geo closely follows advances in technology and geoscience, delivering fast, reliable, and cost-effective solutions to the energy, mining, and geotechnical sectors.

Our experienced and dedicated team of engineers enables us to deliver effective solutions and successful projects, with a strong focus on quality and client satisfaction.

40+

YEARS OF EXPERIENCE

30+

YEARS IN GEOPHYSICAL EXPLORATION

OUR VISION

To provide fast, reliable, technologically advanced, environmentally responsible, and cost-effective solutions for mineral and energy resource exploration in Türkiye and neighboring regions.

OUR MISSION

Our mission is to identify and evaluate Türkiye’s petroleum, natural gas, mineral, and energy resource potential and contribute to the national economy through scientifically driven exploration.

We aim to deliver projects in accordance with international standards, combining advanced technologies, multidisciplinary expertise, and integrated geoscientific approaches to identify and characterize both conventional and renewable energy resources.

By understanding and characterizing the Earth’s subsurface, we strive to transform scientific knowledge into practical value and contribute to the sustainable development of the sectors we serve.

KROS JEOFIZIK

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Our Services

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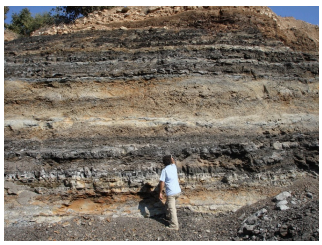
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Oil and Natural Gas

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01

GEOLOGY 01–05

Geology

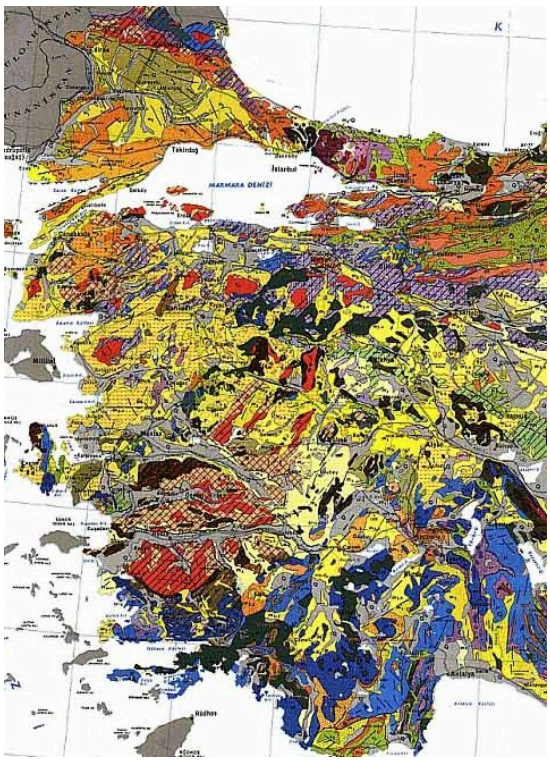
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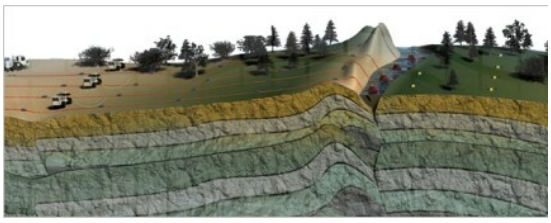
02 Geochemical Field Surveys

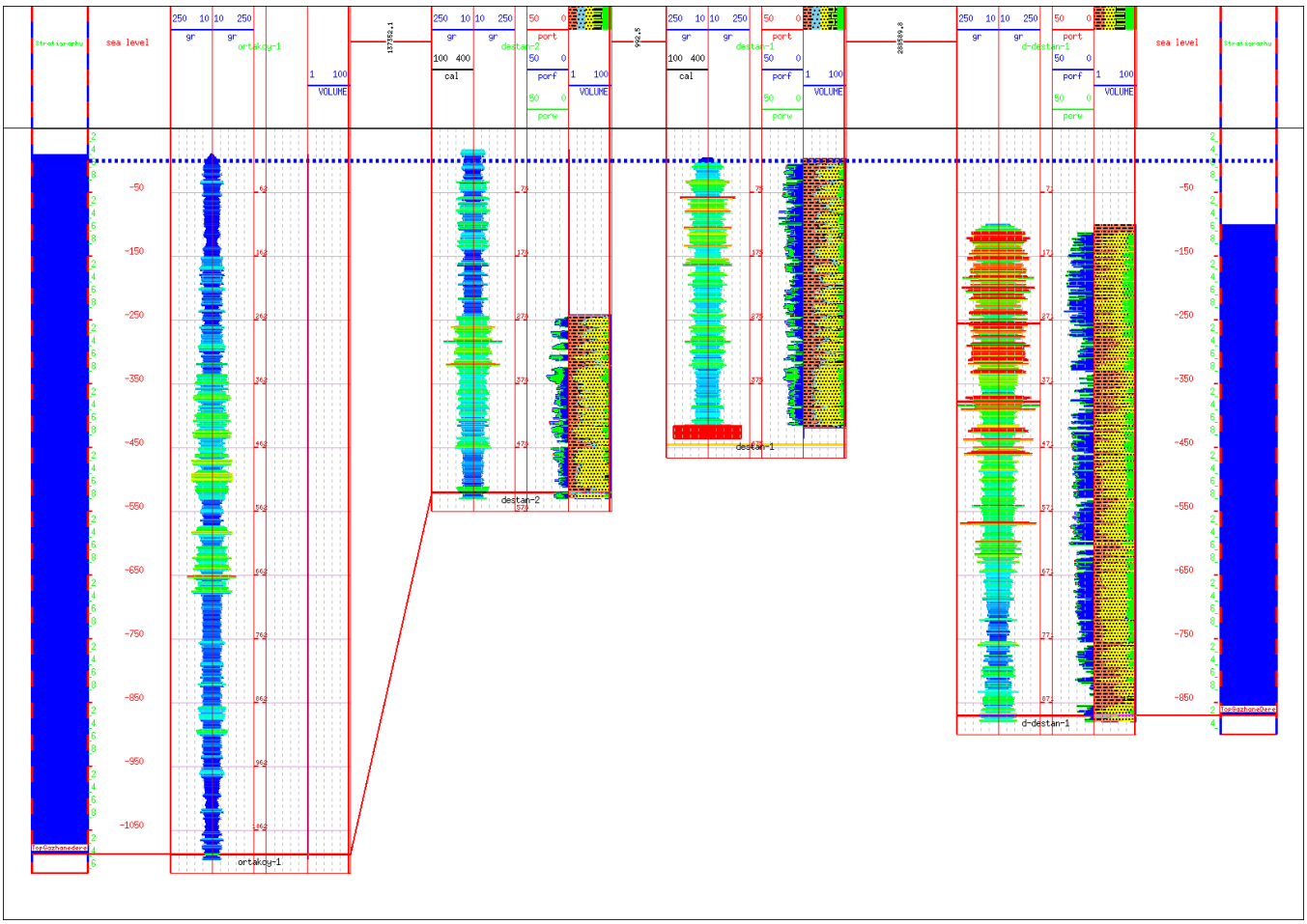
03 Well Monitoring

04 Well Log Evaluation

05 Well Correlations and Geological Modeling





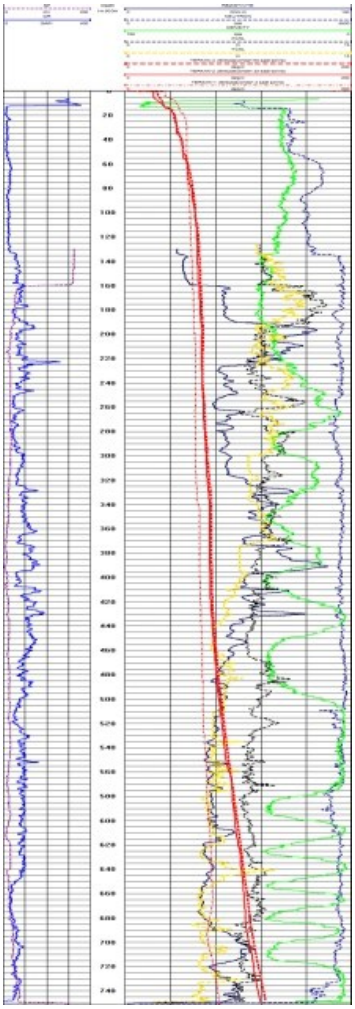


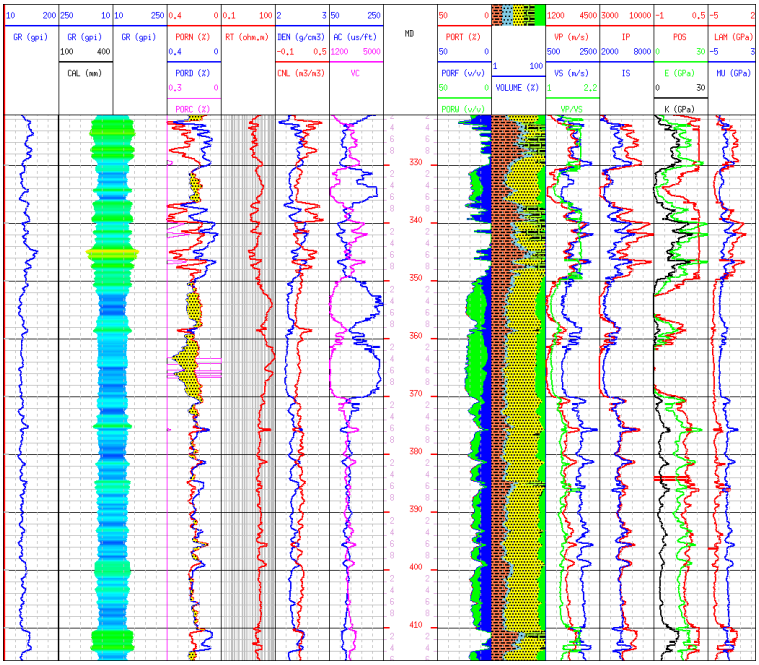


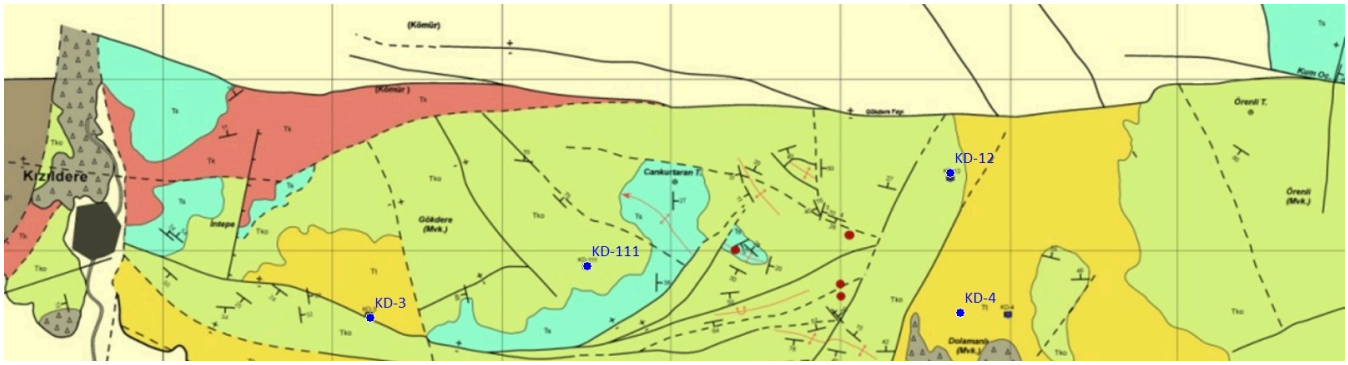









GR (gpi)
CAL (mm)
PORN (%)
PORD (%)
PORC (%)
RT (ohm.m)
DEN (g/cm3)
CNL (m3/m3)
AC (us/ft)
VC
MD
PORT (%)
PORF (v/v)
PORU (v/v)
VOLUME (%)
VP (m/s)
VS (m/s)
VP/VS
IP
IS
POS
E (GPa)
K (GPa)
LAM (GPa)
MU (GPa)


Kızıldere
Göldere (Mvk.)
İntepe
Cankurtaran T.
Örenli T.
Örenli (Mvk.)
KD-12
KD-111
KD-3
KD-4
Dolamanlı (Mvk.)

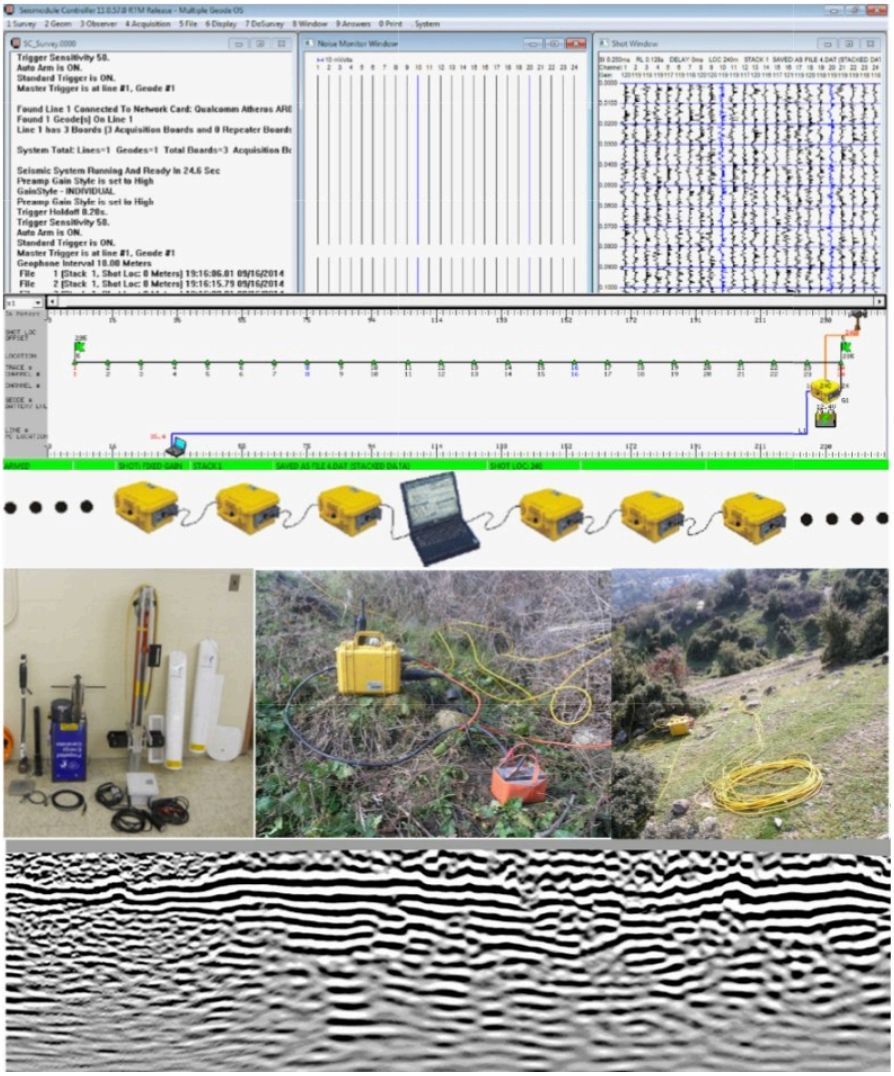
01

GEOPHYSICS 01

High-Resolution 2D Seismic Data Acquisition

Reflection seismic methods provide high-resolution imaging of subsurface geological structures and are particularly effective for identifying geological interfaces, faults, and structural features. Compared with potential-field methods, seismic reflection provides a more direct and detailed representation of subsurface geometry.

The method is widely used in hydrocarbon exploration and has also become increasingly important in geothermal exploration, particularly in the Aegean Region. It is also applied in coal-field investigations to identify fault displacements, structural continuity, and potential gas-bearing zones within coal-bearing sequences.



APPLICATIONS

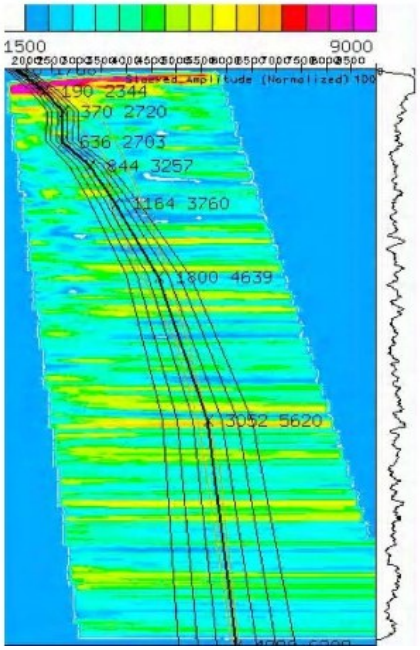
- Oil and natural gas exploration
- Coal and coalbed methane exploration
- Engineering investigations of seabed and sedimentary conditions for coastal structures
- Bedrock characterization for ports, highways, dams, and major infrastructure projects
- Geothermal resource exploration, including the identification of buried faults and reservoir geometry
- Archaeological investigations

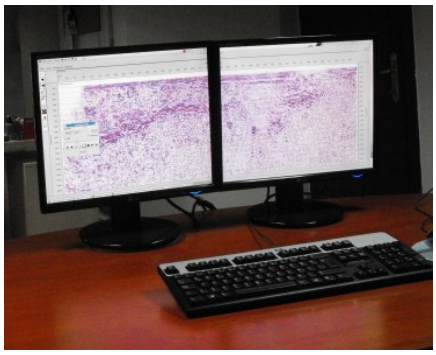
GEOPHYSICS 02

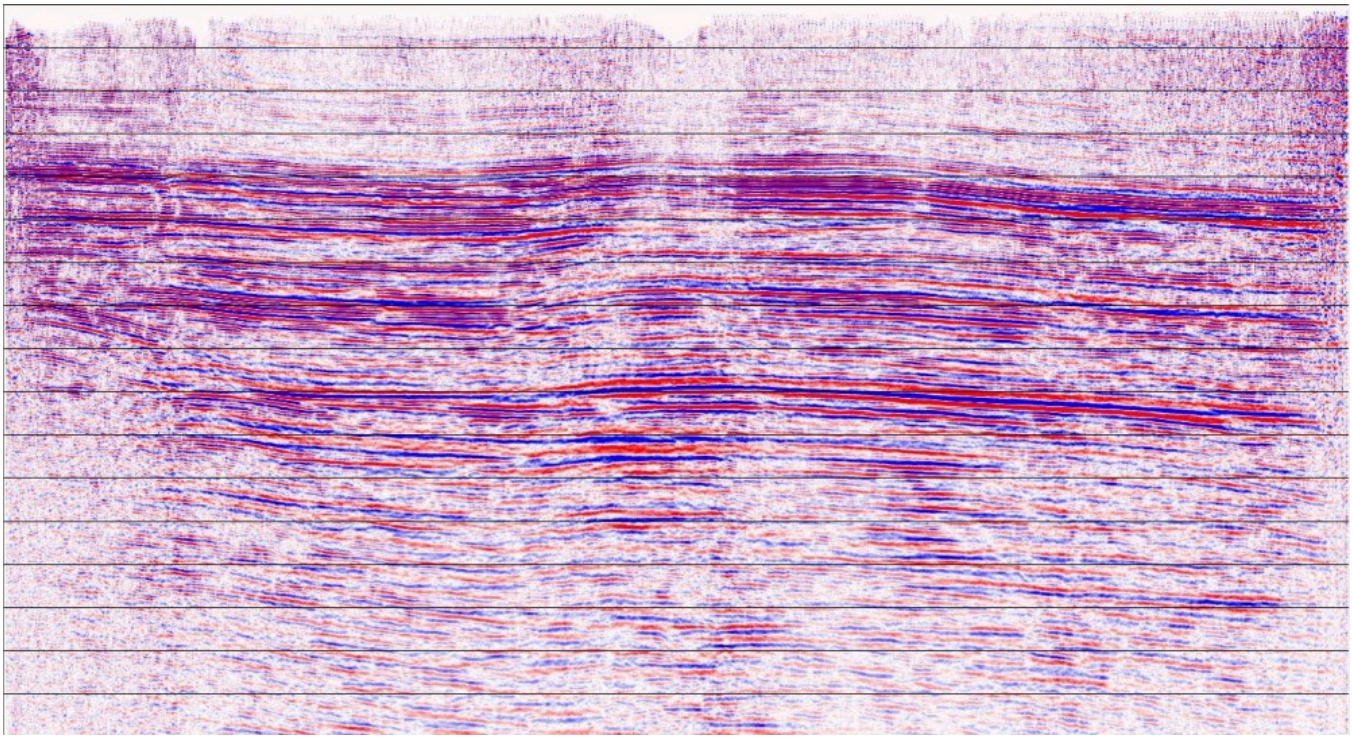
Seismic Data Processing

With more than 30 years of experience in geophysical exploration, Kros Geo processes seismic data using specialized industry-standard software and established processing workflows.

Our processing approach is designed to enhance data quality, improve subsurface imaging, and produce reliable datasets suitable for detailed geological and geophysical interpretation.







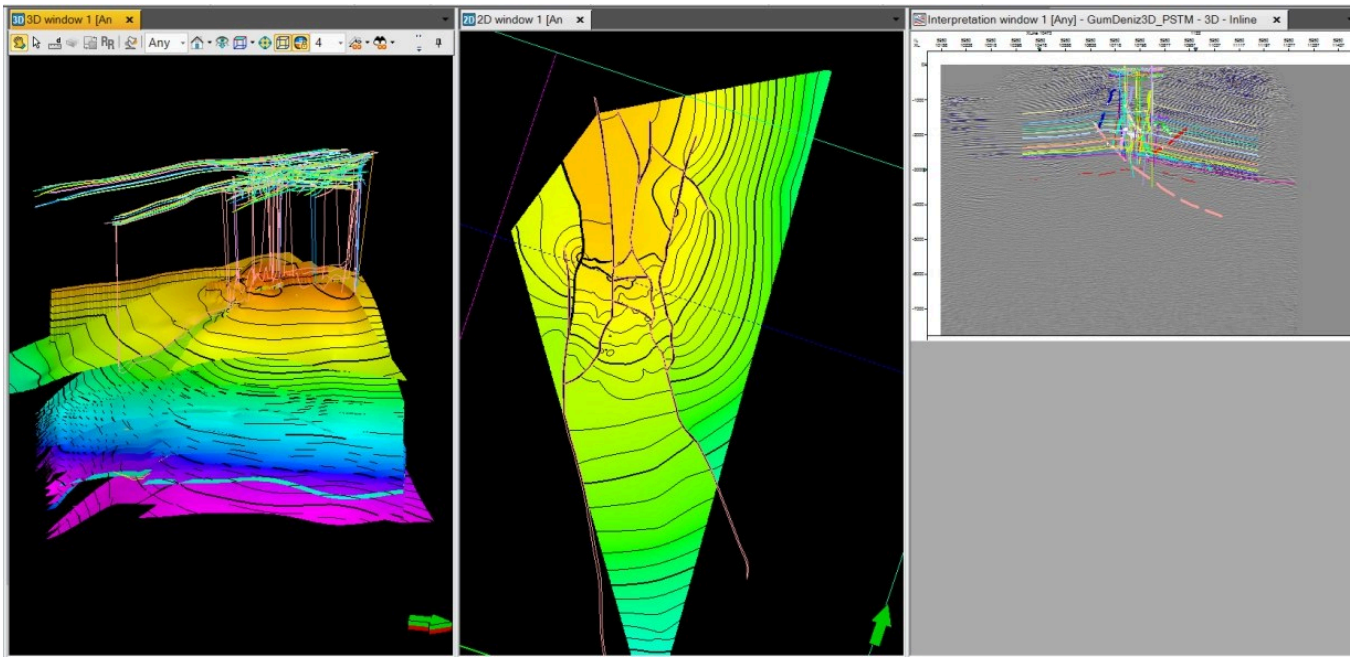
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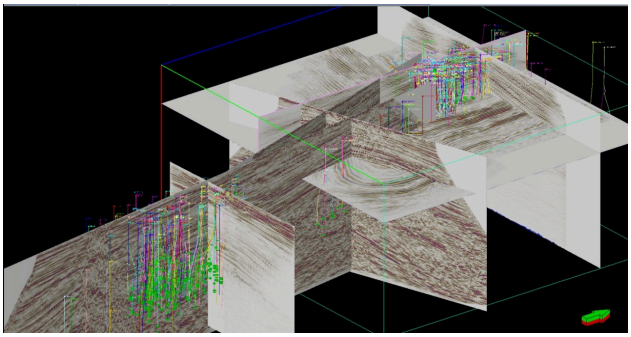
GEOPHYSICS 03

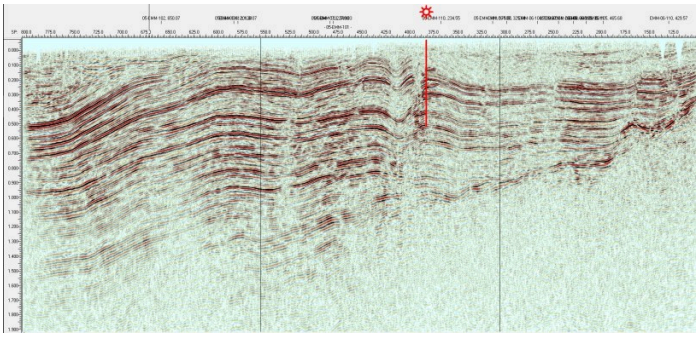
Seismic Interpretation and Prospect (2D & 3D)

2D and 3D Seismic Interpretation and Prospect Evaluation

We provide 2D and 3D seismic interpretation services for the identification and characterization of geological interfaces, stratigraphic units, faults, and fractures. Our interpretation workflow includes the identification of seismic anomalies such as bright spots and dim spots, structural and stratigraphic analysis, reservoir characterization, and the preparation of time- and depth-based maps for target horizons. The results support prospect evaluation, subsurface modeling, and the identification of potential drilling locations.







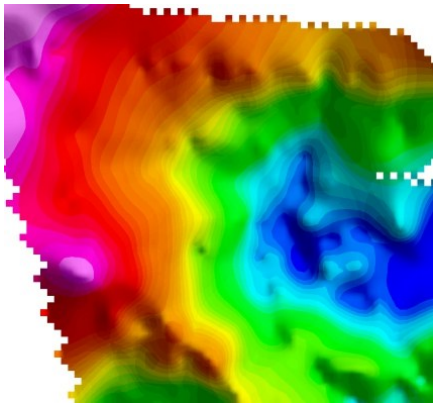
GEOPHYSICS 04

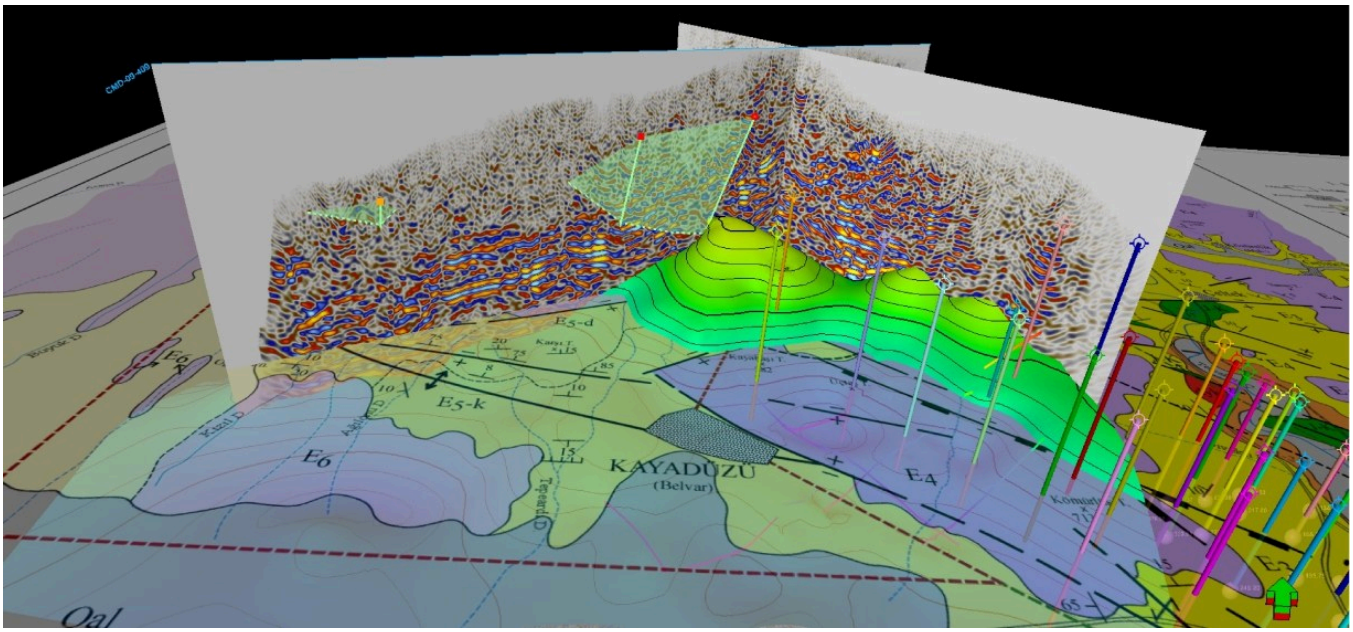
Integrated Geophysical Interpretation

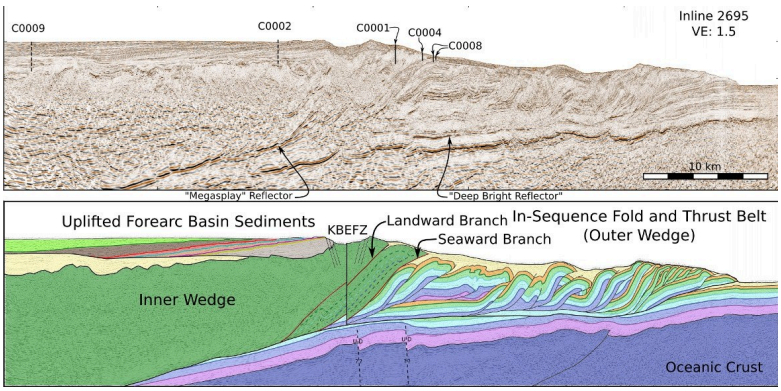
Kros Geo integrates multiple geophysical datasets within a unified interpretation framework to provide a comprehensive understanding of subsurface conditions.

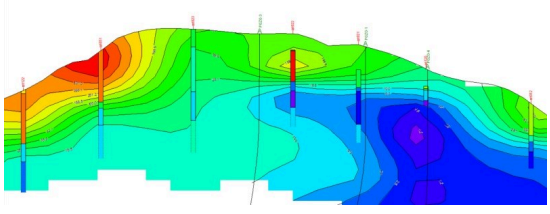
By combining different geophysical methods and integrating their results with geological information, we aim to reduce interpretation uncertainty, improve the reliability of exploration results, and provide a more robust basis for project decisions.

Our multidisciplinary approach enables individual datasets to be evaluated together rather than independently, providing a more complete picture of the subsurface.









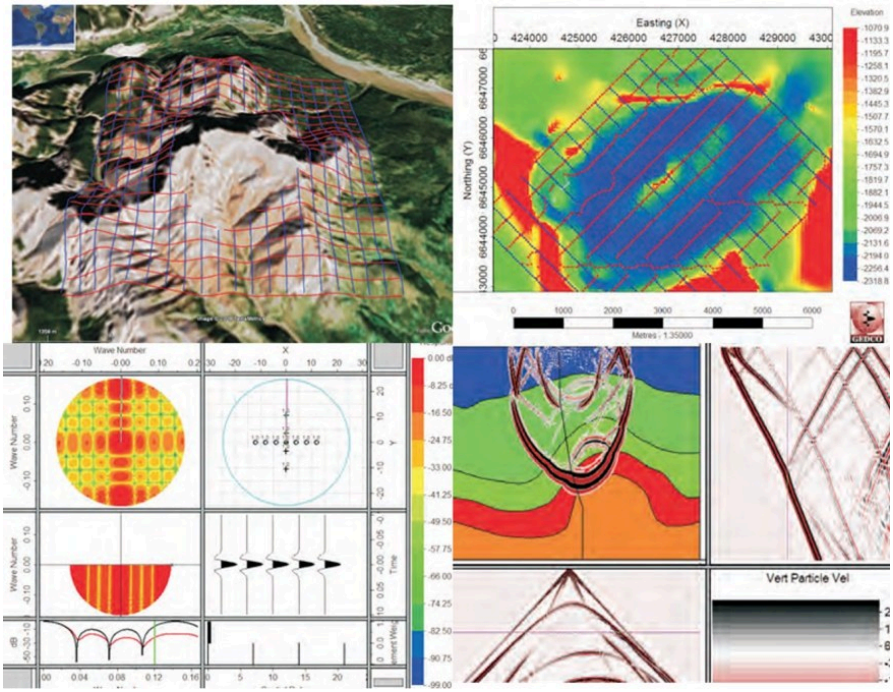
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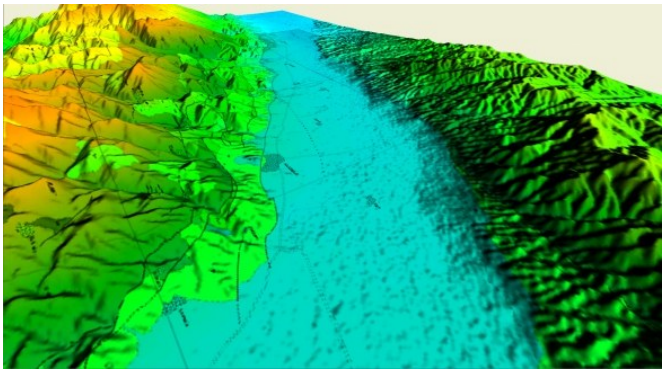
GEOPHYSICS 05

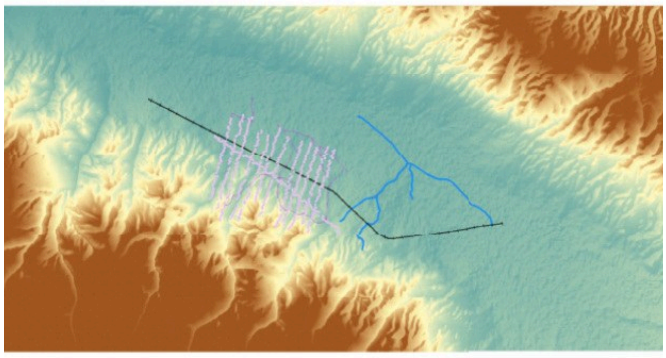
Field Scouting and Geophysical Survey Design

Kros Geo provides field reconnaissance and geophysical survey design services to support the planning and efficient execution of exploration projects.

Prior to data acquisition, we assess site conditions, accessibility, terrain, environmental constraints, and other field-related factors that may affect survey operations. By identifying potential challenges at an early stage, our field and office-based planning helps minimize operational delays, avoid unnecessary costs, and improve the overall efficiency of the project.





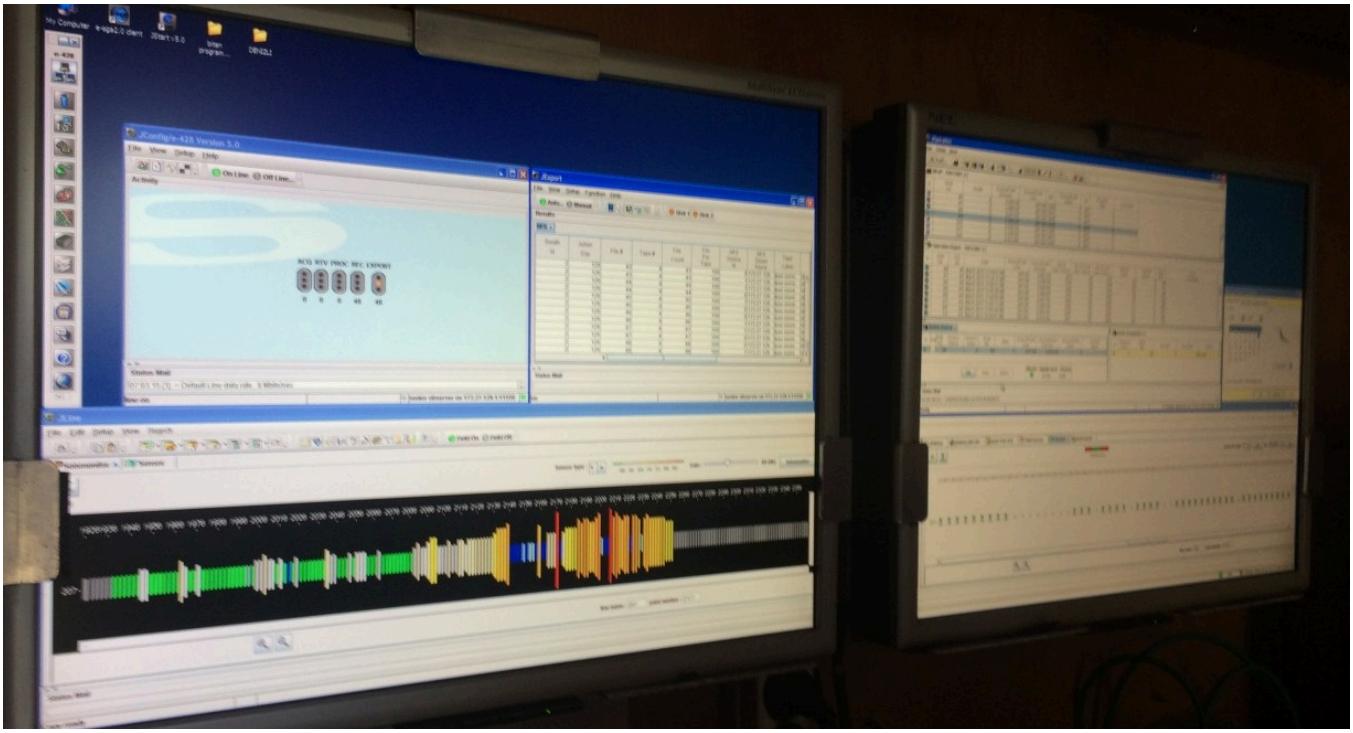


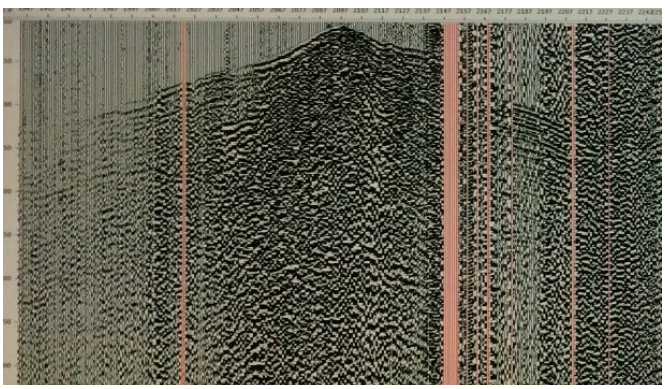
GEOPHYSICS 06

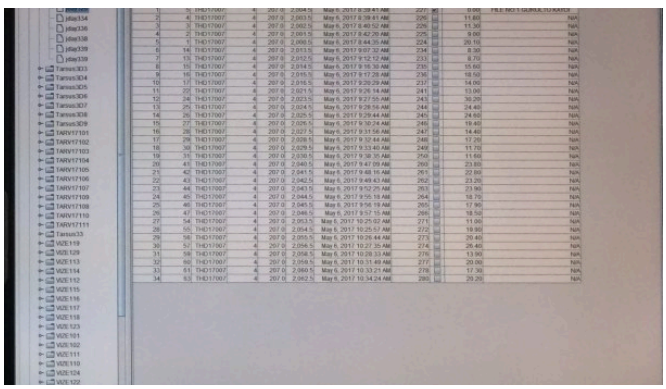
Seismic Quality Control

Kros Geo provides independent seismic quality control services on behalf of project owners and clients, monitoring field data acquisition activities to ensure that operations are conducted in accordance with project specifications, industry best practices, and applicable international standards.

Our QC services include monitoring field operations, reviewing acquisition procedures and data quality, identifying potential operational issues, and recommending corrective actions when necessary. We also support responsible field operations by helping minimize environmental impacts and maintain safe, efficient, and well-controlled survey activities.







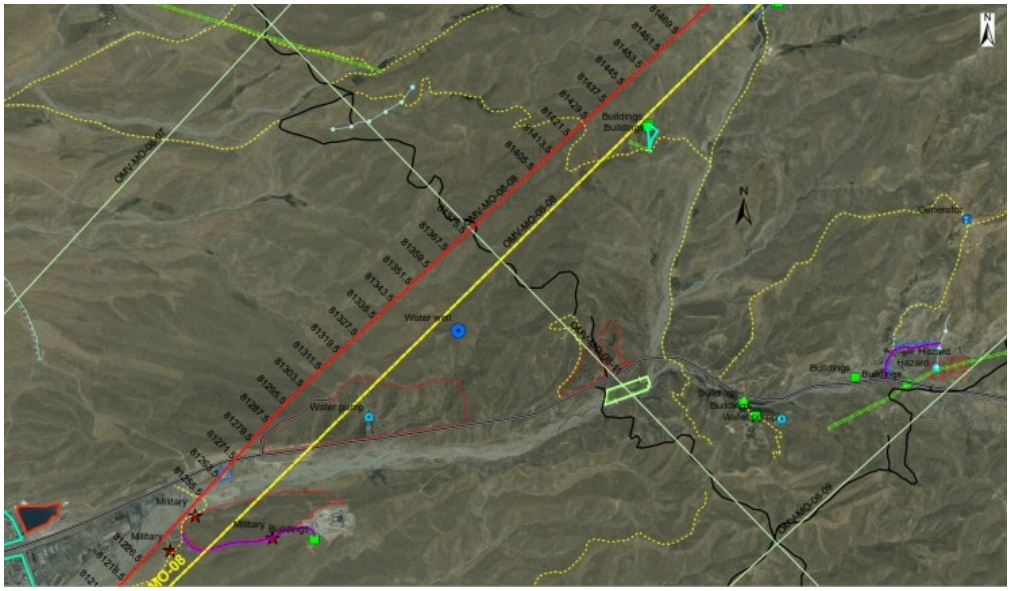
01

GEOPHYSICS 07–08

Field Work Permit & Crop Damaging

Before large-scale geophysical exploration projects begin, Kros Geo coordinates with relevant local authorities and stakeholders to facilitate the required permits, approvals, and notifications. We manage and follow up on the application process to support the timely commencement of field operations.

07	Field Operation Permits and Regulatory Coordination
08	Crop Damaging and Compensation Management







As geophysical surveys are often conducted in rural and agricultural areas, we also support the management of potential impacts on cultivated land. This includes documenting field-related damage, maintaining detailed records, and preparing the necessary documentation for subsequent damage assessment and compensation processes.



02

02

Geothermal Exploration

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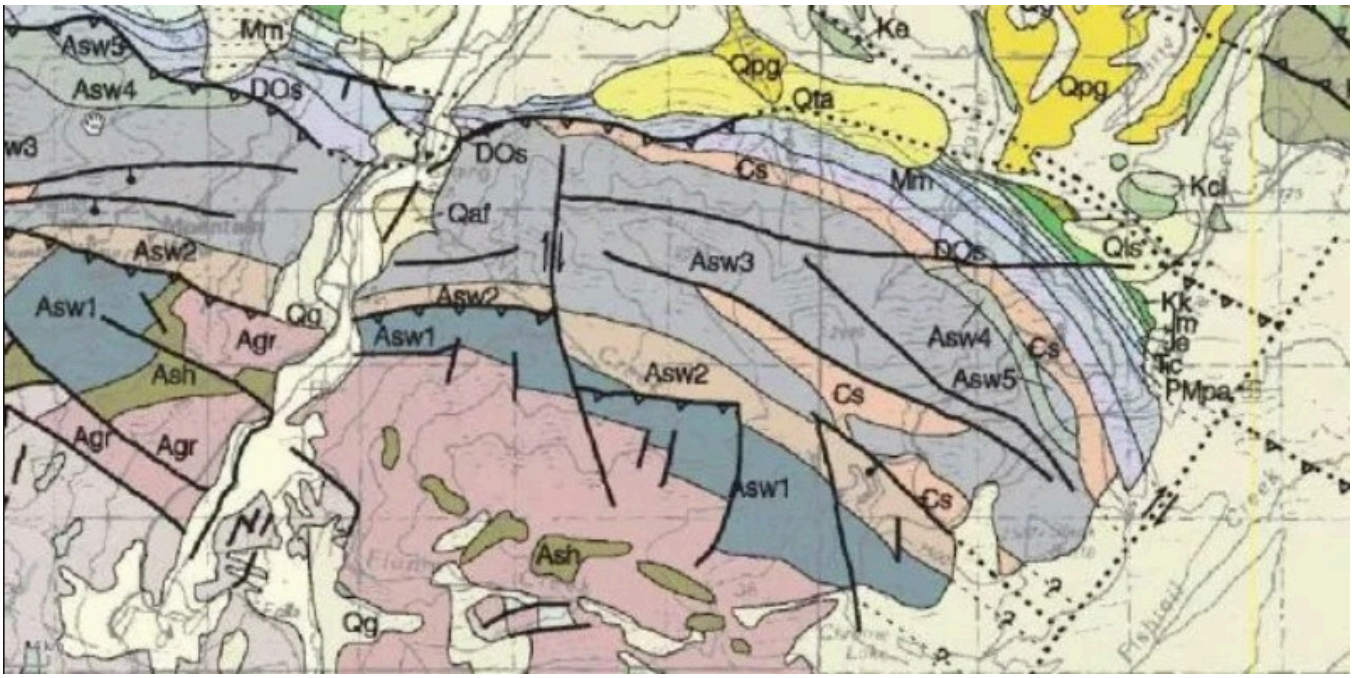




GEOLOGY 01

Geological Field Mapping

Geological field mapping provides the fundamental framework for identifying lithological units, structural features, alteration zones, and other geological characteristics relevant to geothermal exploration.

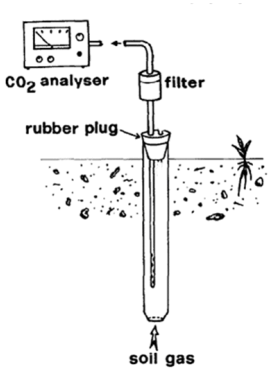


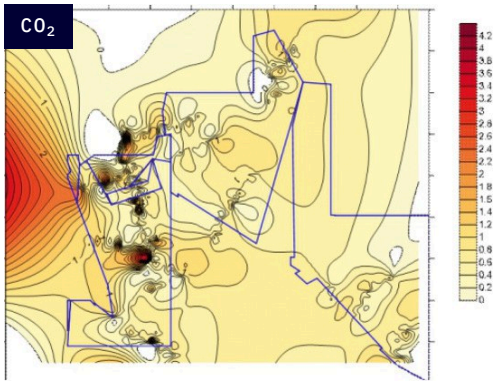


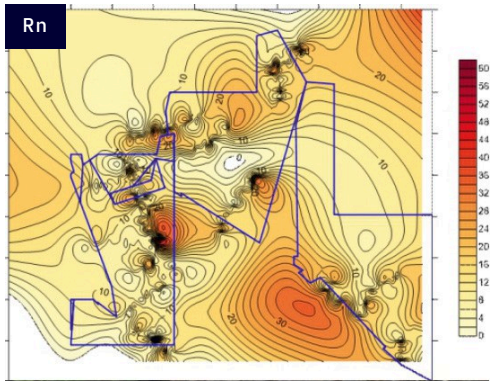
GEOLOGY 02

Soil Gas Measurements

Soil gas measurements, including CO_2 and radon (Rn), can be used as complementary indicators in geothermal exploration studies.





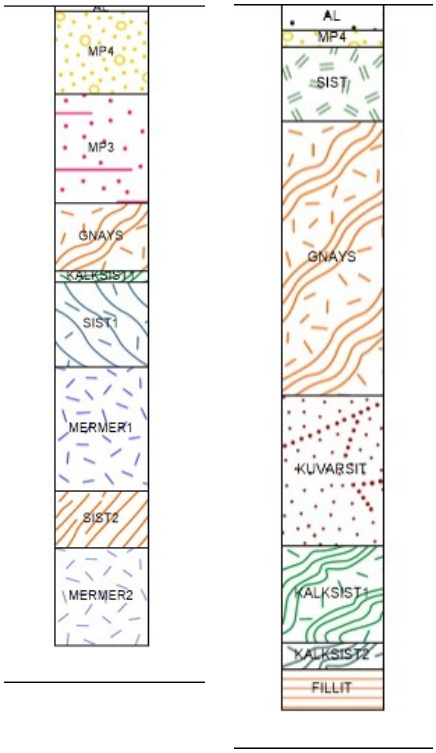


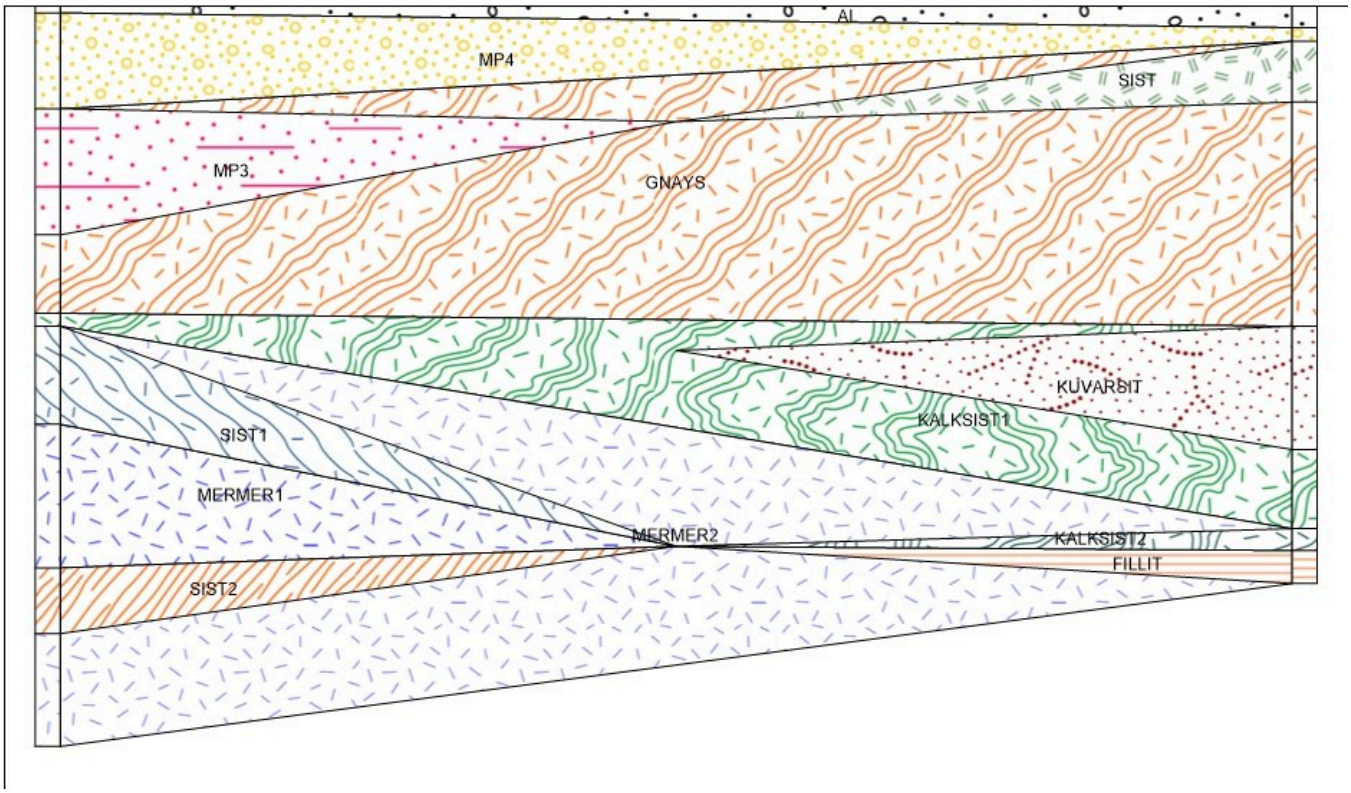


GEOLOGY 03

Well Correlation and Geological Modeling

Kros Geo provides well correlation and geological modeling services by integrating and interpreting well data obtained from drilling activities.

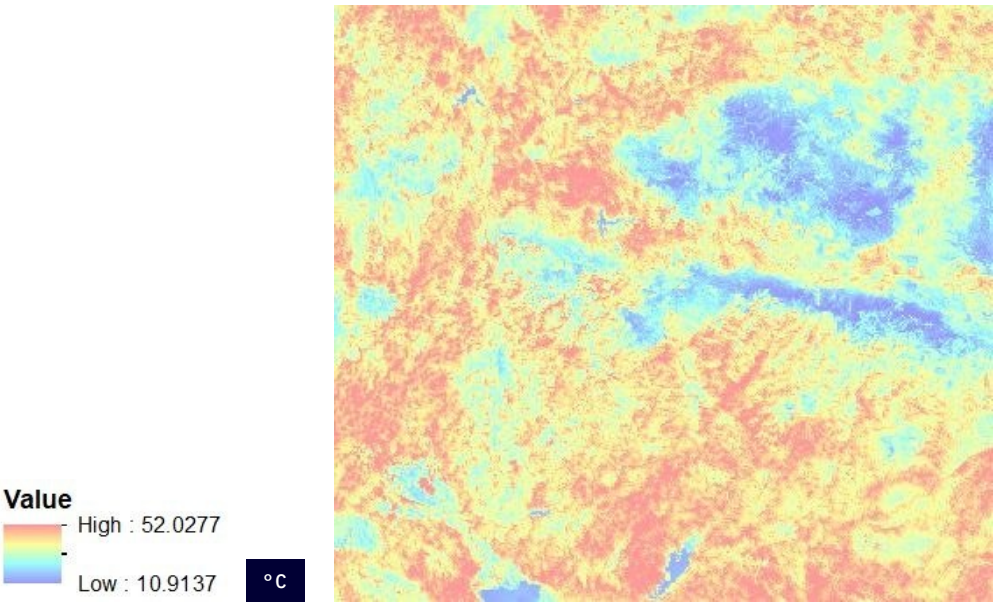




GEOLOGY 04

Remote Sensing

- Identification of fault lines
- Investigation of geological formations and alteration zones
- Vegetation cover analysis
- Analysis of layer orientations and bedding attitudes
- Identification of fold axes
- Assessment of fault displacements
- Slope gradient analysis
- Tectonic and lithological mapping
- Drainage network mapping
- Identification of volcanic domes, lava flows, and calderas
- Detection of areas with low or no snow accumulation

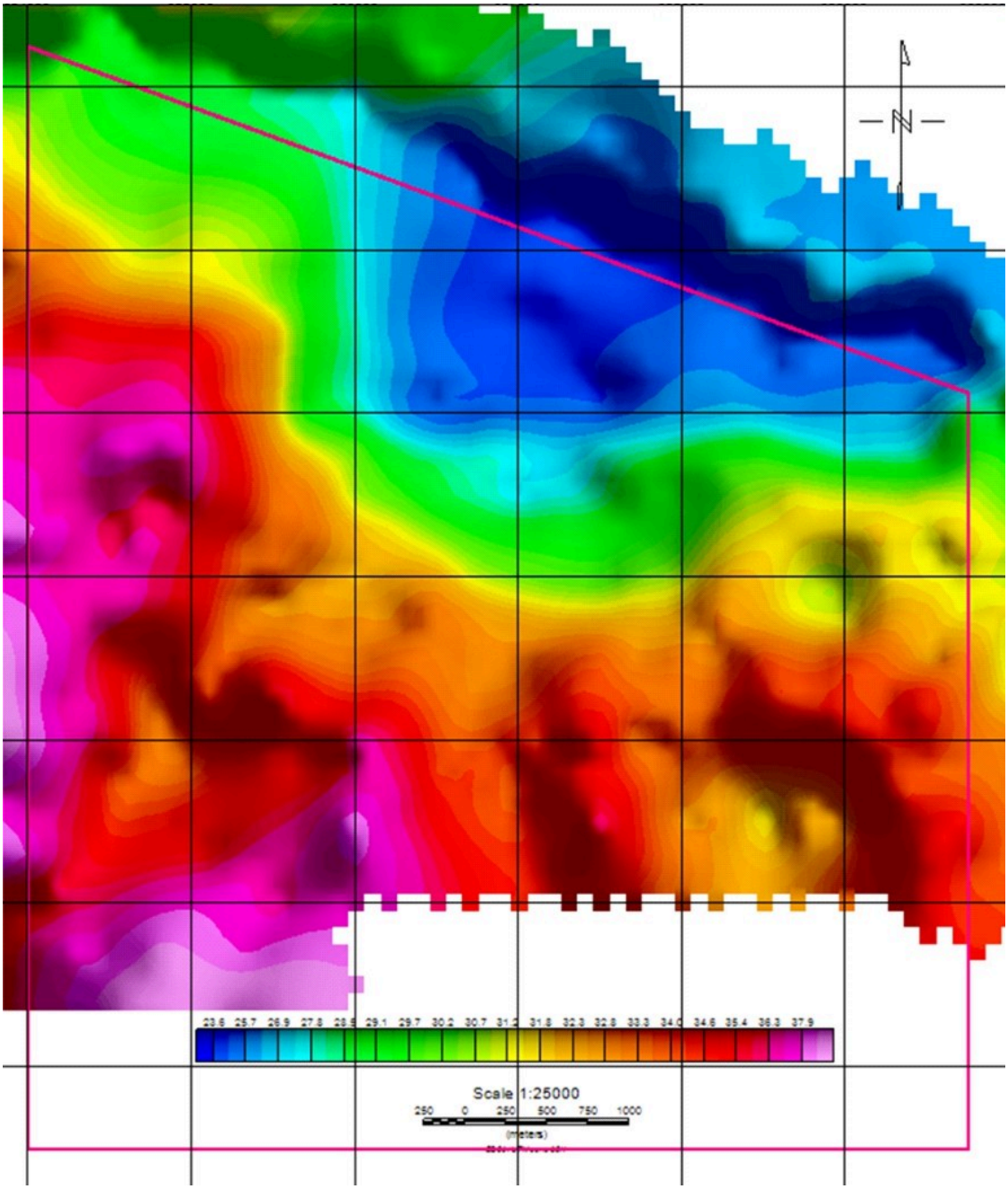


GEOPHYSICS 01

Gravity Field Surveys

Gravity surveys enable the characterization of geothermal areas based on subsurface density variations and can be used to investigate the geometry of deeper geological units. The method is particularly useful in areas affected by hydrothermal alteration, where density contrasts between altered and unaltered rock units can provide valuable information for geological interpretation.



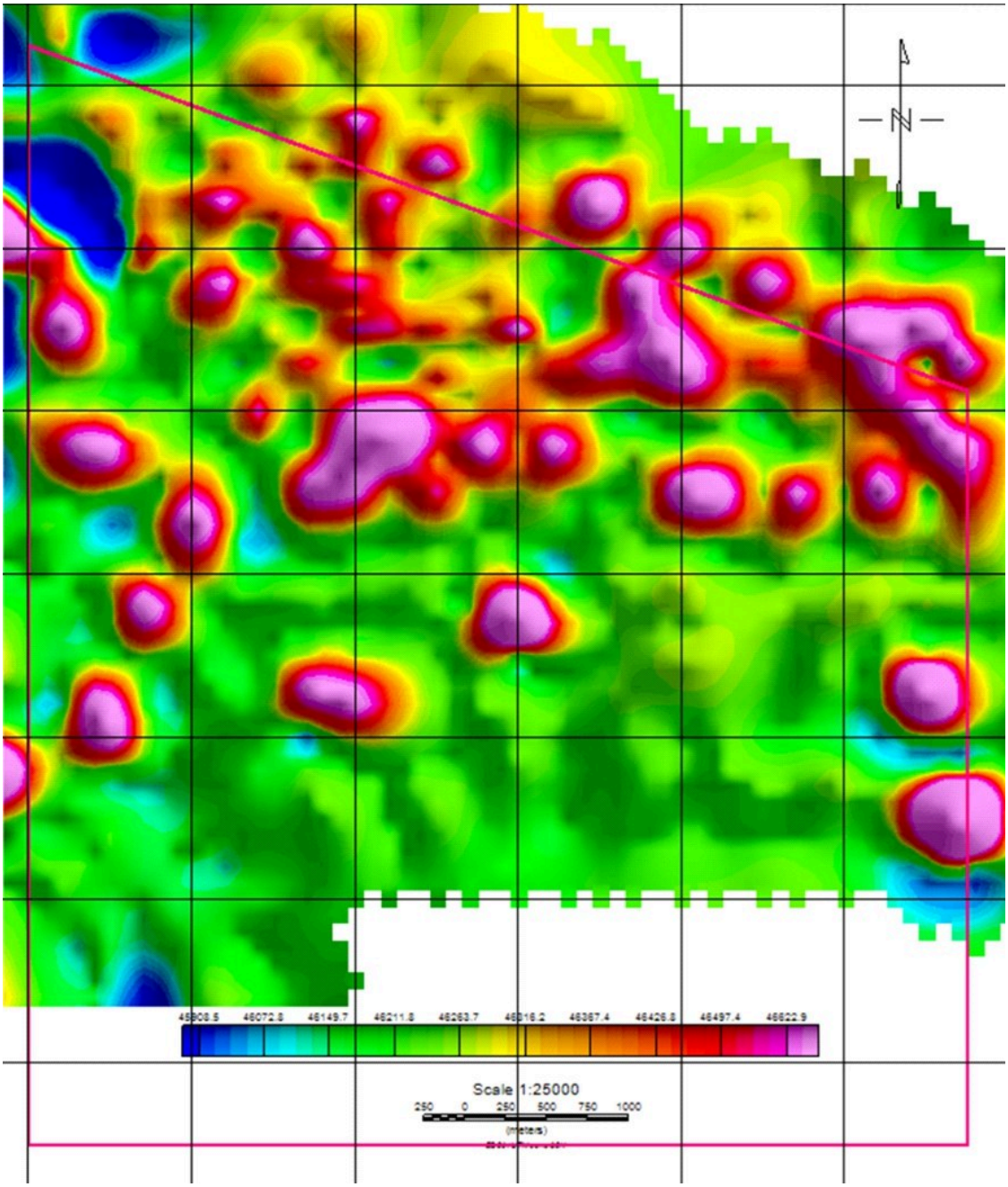


GEOPHYSICS 01

Magnetic Field Surveys



In geothermal exploration, particularly in areas associated with volcanic activity, magnetic surveys can be used to investigate the distribution and depth of magnetically susceptible geological units. The method can also help identify areas where magnetization has been reduced as a result of hydrothermal alteration and thermal activity, providing valuable information for geothermal system interpretation.

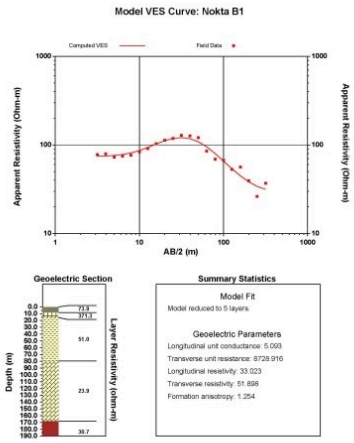


GEOPHYSICS 02

Vertical Electrical Sounding Measurement and Evaluation

The electrical resistivity method is based on injecting a known electrical current into the ground through a surface electrode array and measuring the resulting potential difference.

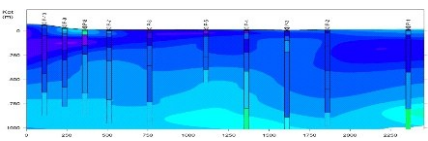
Vertical Electrical Sounding (VES) is used to investigate the vertical variation of subsurface electrical resistivity and to support the interpretation of subsurface geological and hydrogeological conditions.











GEOPHYSICS 02

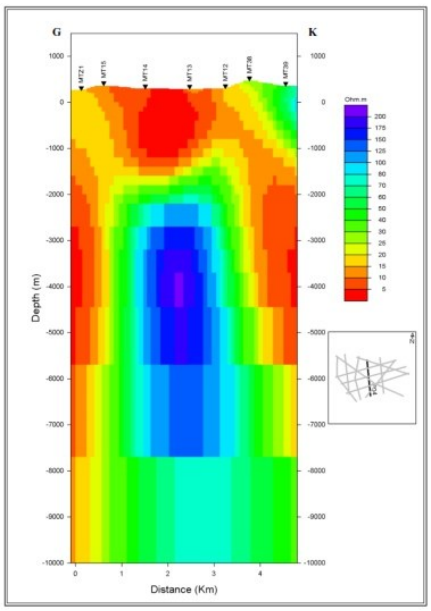
Magnetotelluric (MT)

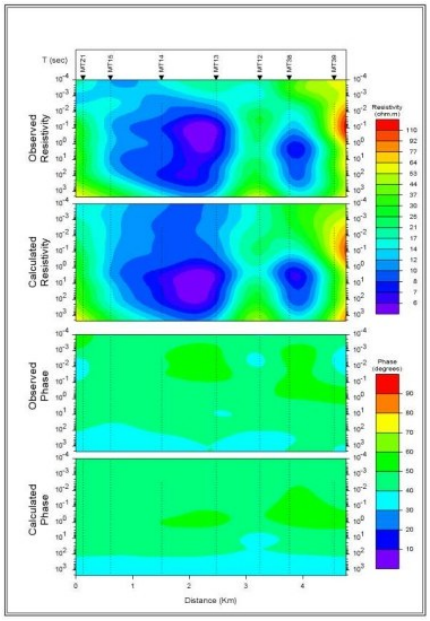
The Magnetotelluric (MT) method is an effective geophysical technique for investigating geological structures, fault systems, and zones characterized by significant electrical conductivity contrasts.











MT is particularly effective in identifying low-resistivity and high-conductivity anomalies. It can also be used to investigate deep subsurface structures, including the depth and geometry of the lithospheric crust and major conductivity anomalies.

03

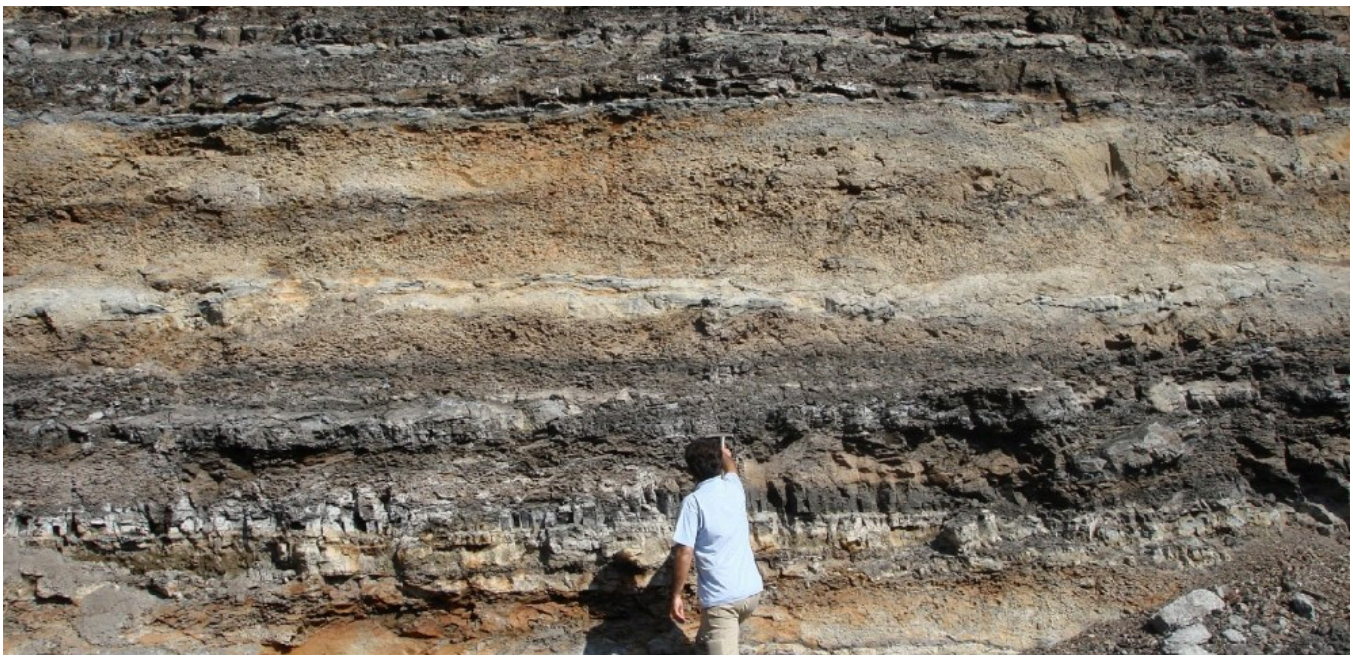
Mineral Exploration

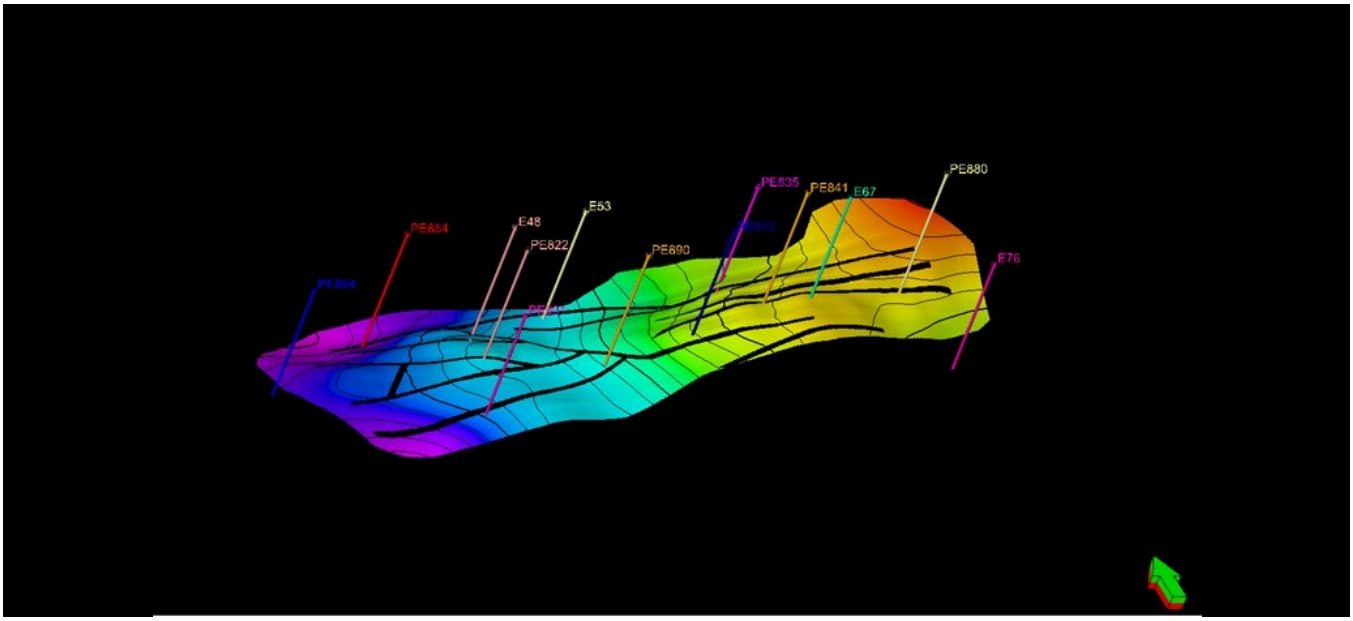
GEOLOGY

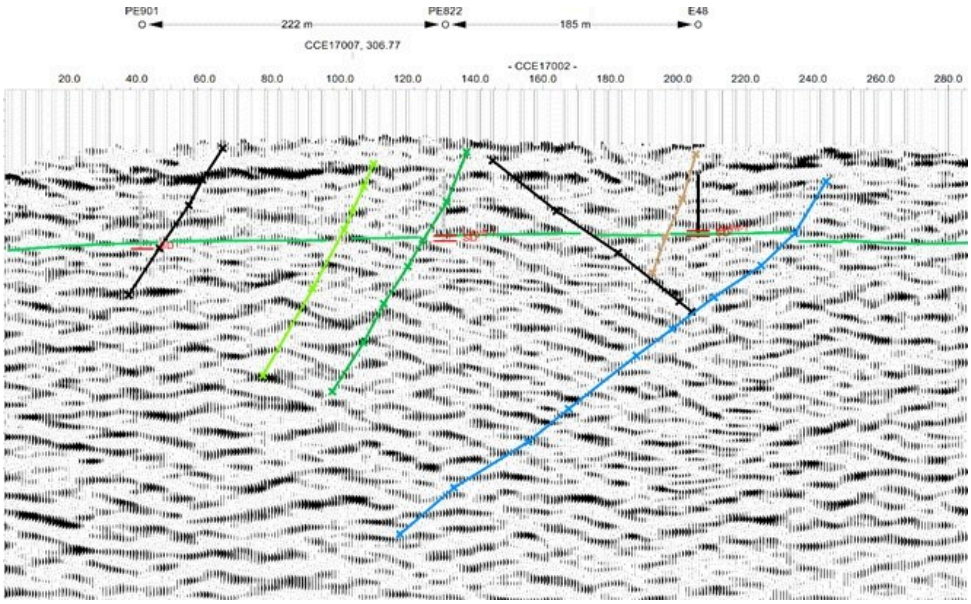
01	Geological Field Mapping	
02	Well Log Evaluation, Where Available	
03	Well Correlation and Geological Modeling	
04	Remote Sensing and Satellite Imagery Analysis	

GEOPHYSICS

01	Gravity and Magnetic Surveys	p. 30
02	Electrical and Electromagnetic Surveys	p. 30
03	High-Resolution 2D Seismic Data Acquisition	p. 10
04	Integrated Geophysical Interpretation	p. 13




PE835
PE841
E67
PE880
PE854
E48
E53
PE822
PE890
E76
PE804


PE901
222 m
PE822
185 m
E48
CCE17007, 306.77
- CCE17002 -
20.0
40.0
60.0
80.0
100.0
120.0
140.0
160.0
180.0
200.0
220.0
240.0
260.0
280.0

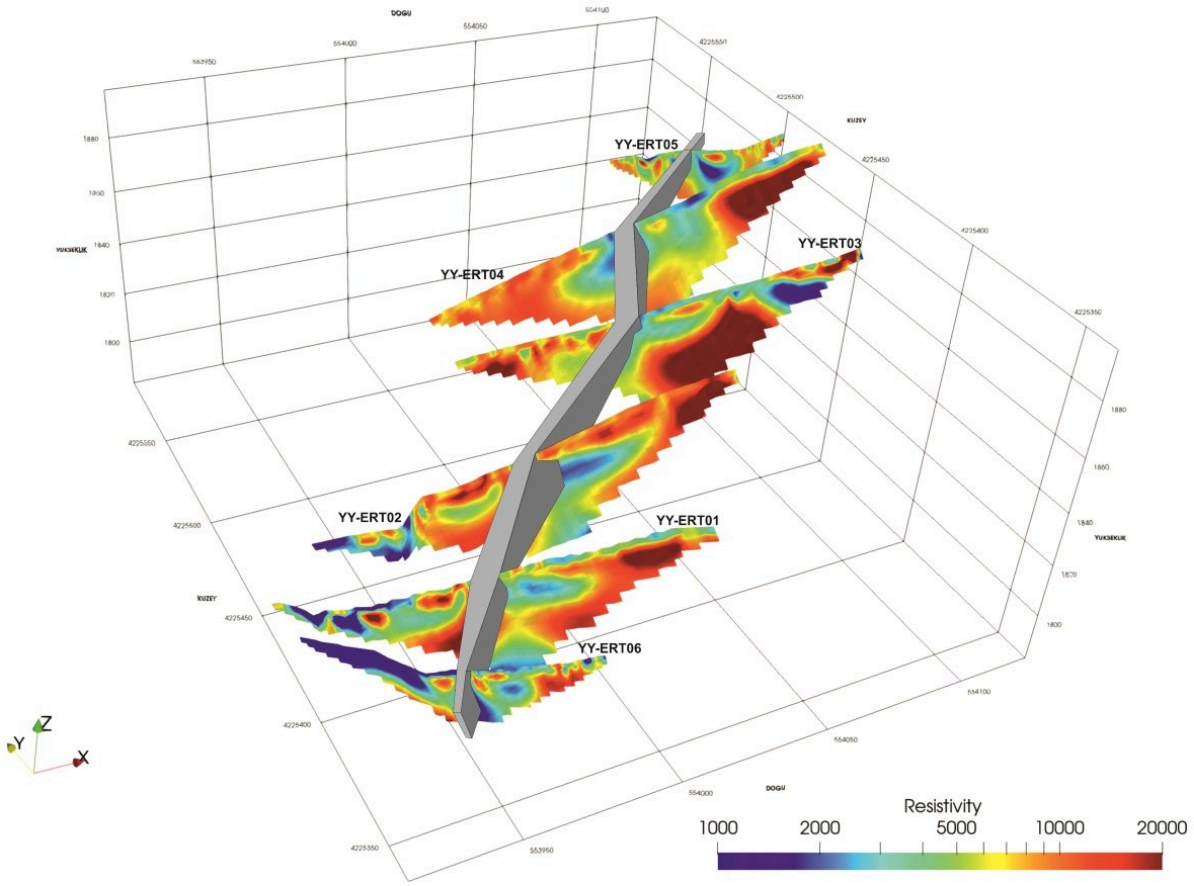
MINERAL EXPLORATION GEOPHYSICS

Geophysics

01 Gravity Surveys

02 Magnetic Surveys

03 Electrical Resistivity Tomography (ERT)









04

04

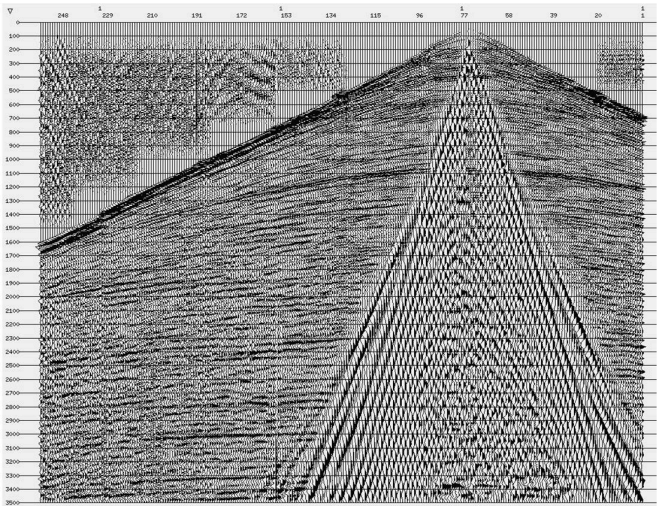
Consulting Services

We provide consulting services tailored to the specific needs and requirements of our clients across the sectors we serve.

With a professional and solution-oriented approach, we support projects in the petroleum, natural gas, mining, and geothermal energy sectors. Working closely with our clients throughout the problem-solving process, we combine our technical expertise and field experience to develop practical and effective solutions that support successful project outcomes.









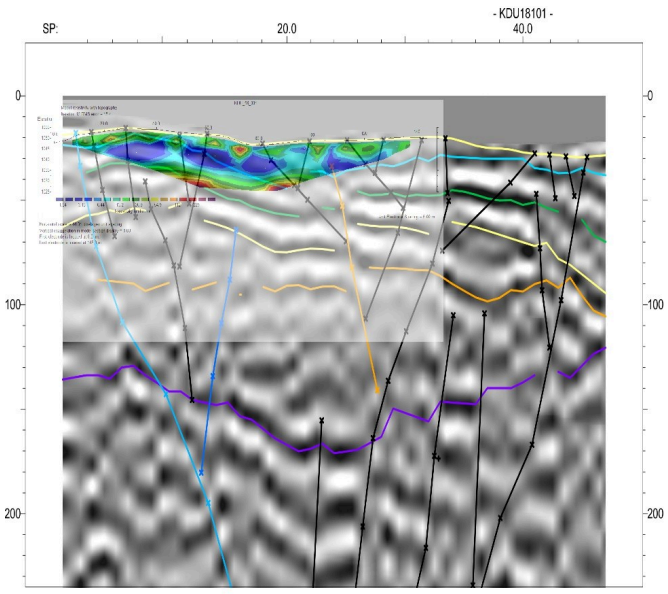
05

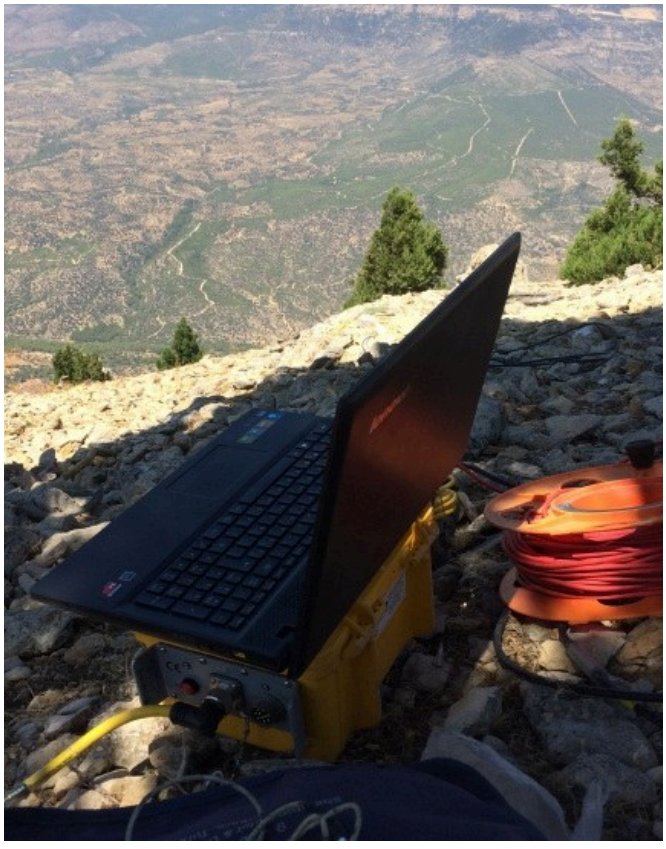
Geotechnical Survey Services

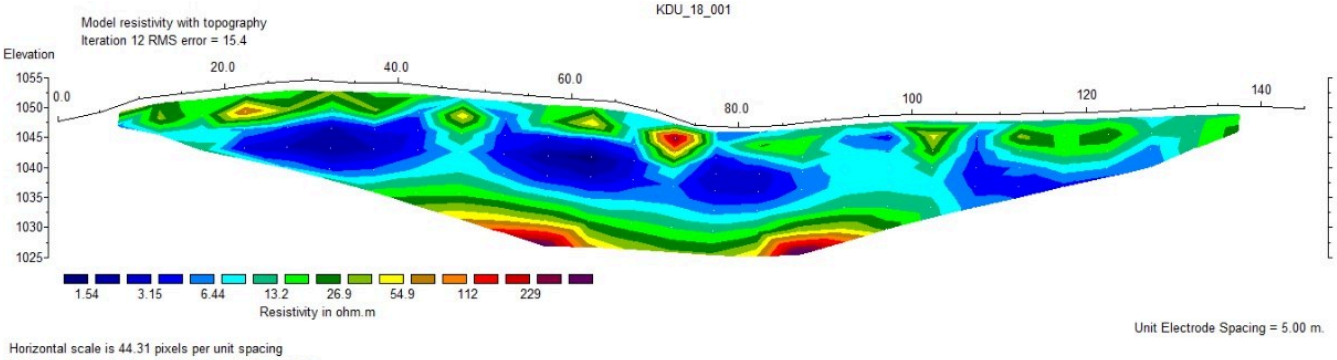
SERVICES

01	Electrical Resistivity Tomography (ERT)	p. 36
02	Vertical Electrical Sounding Method (VES)	p. 36
03	Seismic P & S Refraction	p. 40
04	MASW (Multichannel Analysis of Surface Waves), ReMi	p. 38
05	Ground Penetrating Radar (GPR)	p. 42
06	Microtremor Surveys	p. 43
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08	Geotechnical Laboratory Service	
09	Geotechnical Drilling Service	
10	Pile Testing	p. 46
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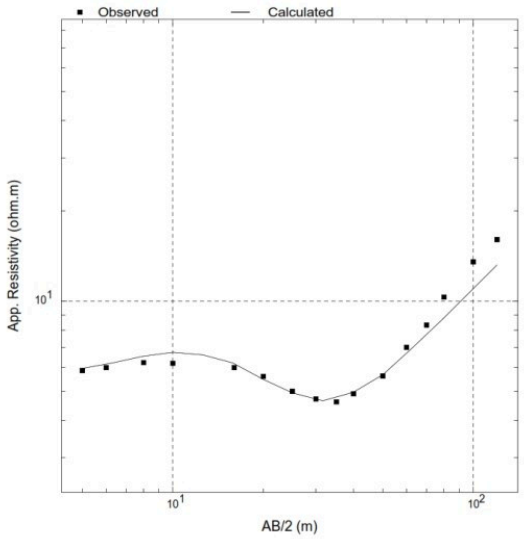
Horizontal scale is 44.31 pixels per unit spacing
Vertical exaggeration in model section display = 0.68
First electrode is located at 0.0 m.
Last electrode is located at 145.0 m.

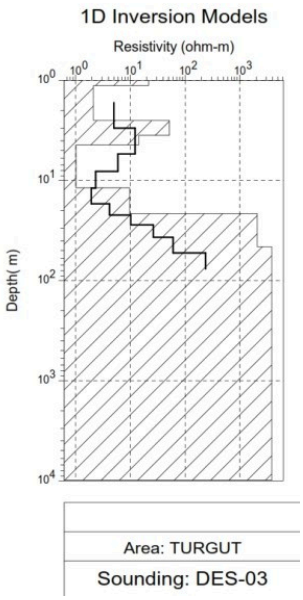
ELECTRICAL METHOD 01–02

Electrical Method

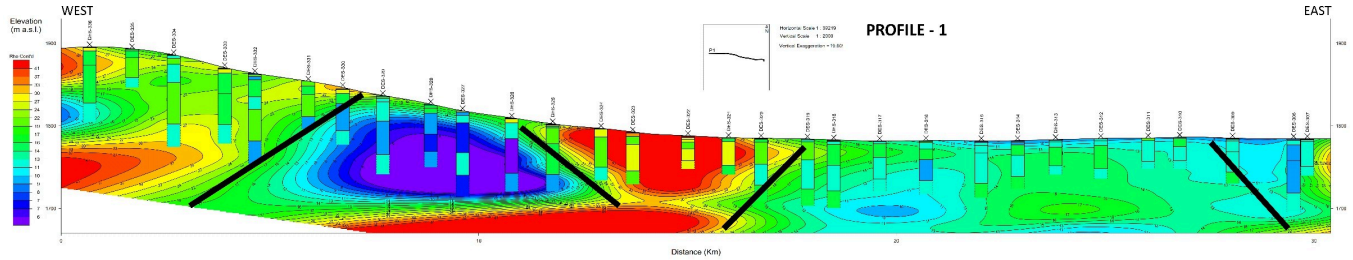
01 Vertical Electrical Sounding (VES)

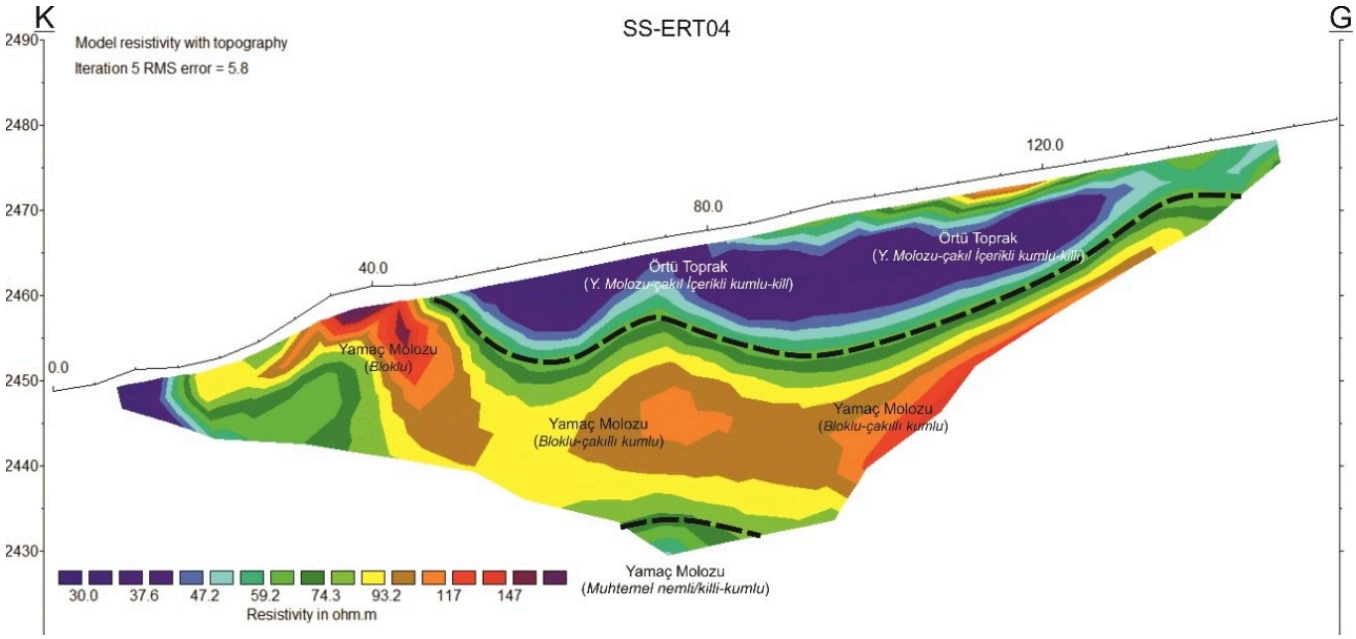
02 Electrical Resistivity Tomography (ERT), 2D & 3D

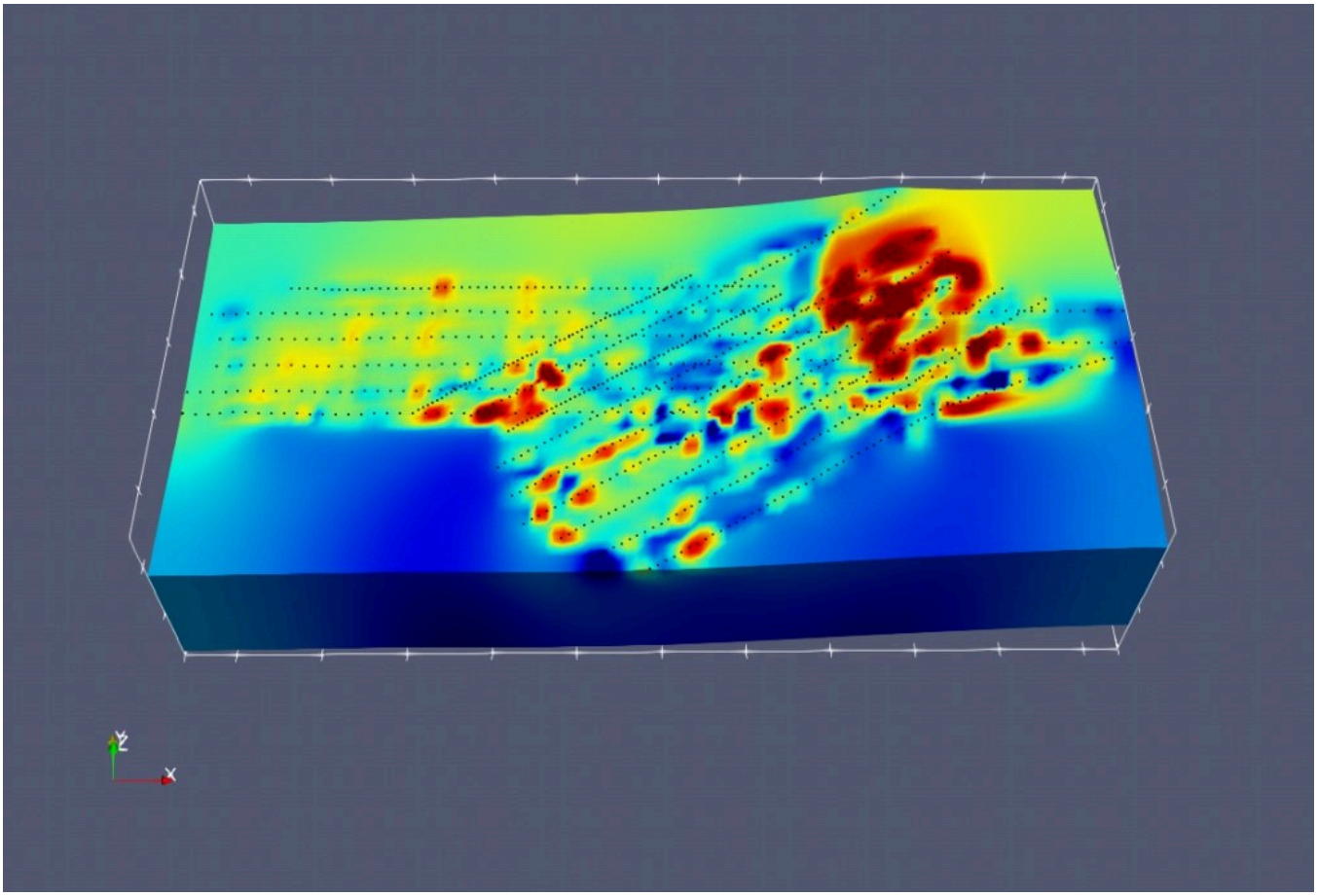







WEST
EAST
Elevation (m a.s.l.)
PROFILE - 1
Distance (Km)


K
G
SS-ERT04
Model resistivity with topography
Iteration 5 RMS error = 5.8
2490
2480
2470
2460
2450
2440
2430
0.0
40.0
80.0
120.0
Örtü Toprak
(Y. Molozu-çakıl İçerikli kumlu-kil)
Örtü Toprak
(Y. Molozu-çakıl İçerikli kumlu-kil)
Yamaç Molozu
(Bloklu)
Yamaç Molozu
(Bloklu-çakıllı kumlu)
Yamaç Molozu
(Bloklu-çakıllı kumlu)
Yamaç Molozu
(Muhtemel nemli/killi-kumlu)
30.0 37.6 47.2 59.2 74.3 93.2 117 147
Resistivity in ohm.m


Z
X

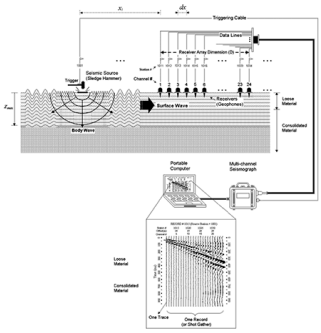
SEISMIC METHOD 04

MASW

Multichannel Analysis of Surface Waves

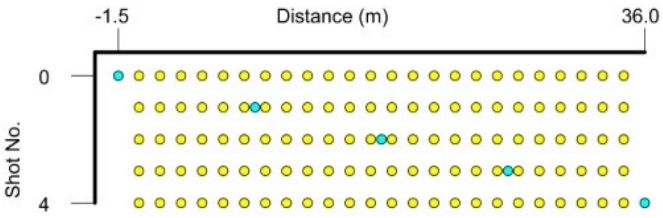
MASW is a widely used near-surface seismic method that analyzes the propagation of Rayleigh surface waves to determine the shear-wave velocity (Vs) profile of the subsurface.

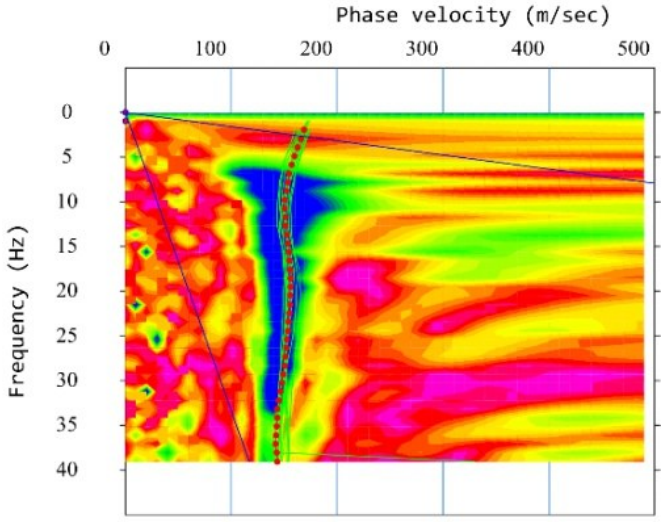
Typically acquired using 12–24 geophones, MASW data can be used to characterize subsurface layers, determine Vs profiles, and support seismic site classification, including Vs30 assessment.

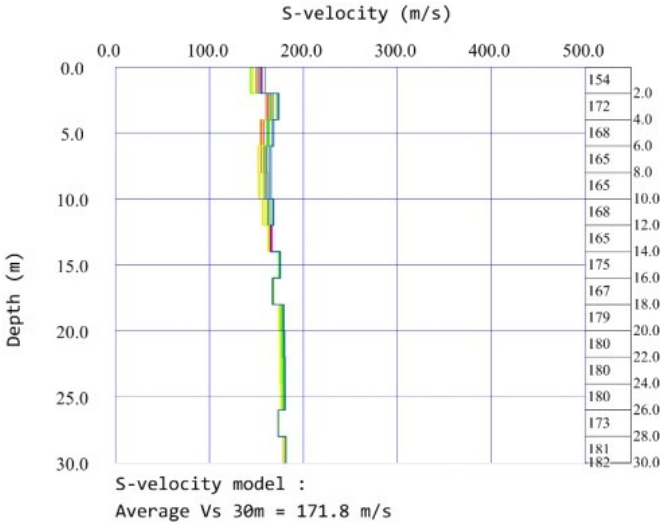


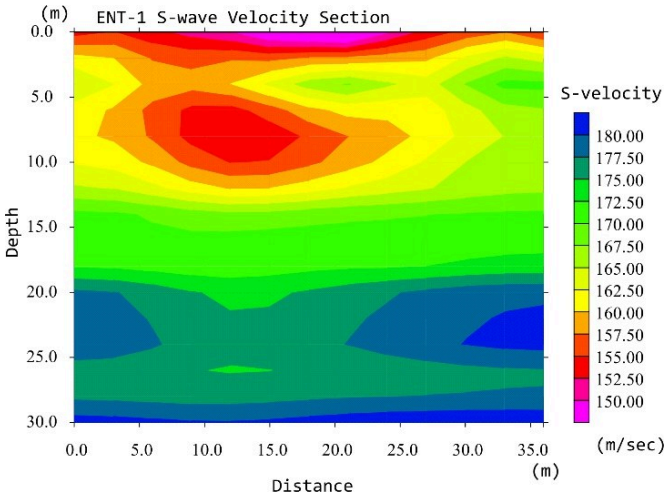
Advantages: Non-invasive, efficient, and effective for subsurface layering and shear-wave velocity characterization.

Applications: Geotechnical investigations, seismic site classification, and ground improvement monitoring.









SEISMIC METHOD 04

ReMi

Refraction Microtremor

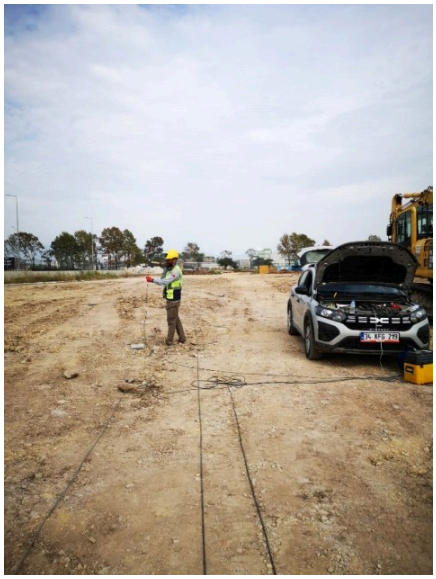
ReMi is a passive seismic method that analyzes surface waves using ambient vibrations generated by sources such as traffic, wind, and industrial activity rather than an active seismic source.

Similar to MASW, ReMi is used to estimate subsurface shear-wave velocity (Vs) profiles and can provide information from greater depths depending on site conditions and acquisition geometry. It is particularly suitable for urban and developed environments where ambient noise is readily available.

Advantages: Passive method, no active seismic source required, and suitable for urban environments.

Limitations: Generally lower resolution than active-source methods and dependent on the characteristics of ambient vibrations.





SEISMIC METHOD 03

P-Wave Refraction

The P-wave seismic refraction method analyzes the propagation and refraction of compressional (P) waves through subsurface layers with different seismic velocities. The method is used to estimate P-wave velocity (Vp), identify subsurface layer boundaries, and characterize near-surface geological conditions.

It can also support investigations of groundwater conditions and the differentiation of unconsolidated materials, weathered zones, and bedrock.



Advantages: Provides P-wave velocity information and supports subsurface stratigraphic and geological characterization.

Applications: Foundation investigations, groundwater studies, and differentiation of fill, weathered materials, and bedrock.









ELECTROMAGNETIC METHOD 05

Ground Penetrating Radar (GPR)

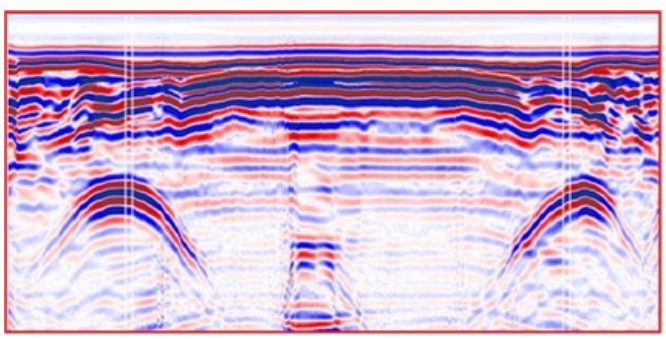
Ground Penetrating Radar (GPR) is a non-invasive electromagnetic geophysical method used to detect and visualize subsurface structures and anomalies.

The method transmits high-frequency electromagnetic waves into the ground and records reflected signals generated by contrasts between subsurface materials and structures.



APPLICATIONS

01	Infrastructure and route surveys
02	Void detection
03	Archaeogeophysics



SEISMIC METHOD 06

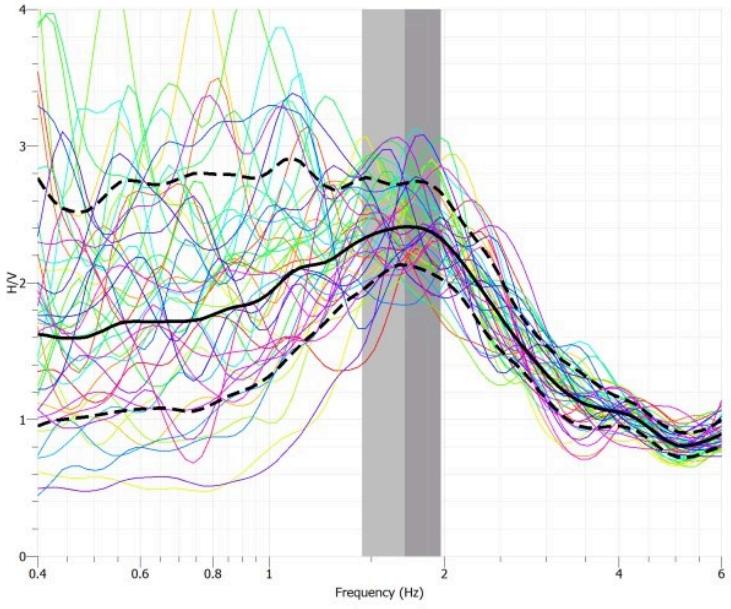
Microtremor Surveys

Microtremors are very low-amplitude ground vibrations generated by natural and anthropogenic sources, including:

- Wind
- Ocean waves
- Traffic
- Industrial machinery
- Seismic background noise

These vibrations are continuously present in the ground and can be recorded using sensitive seismometers or velocimeters.



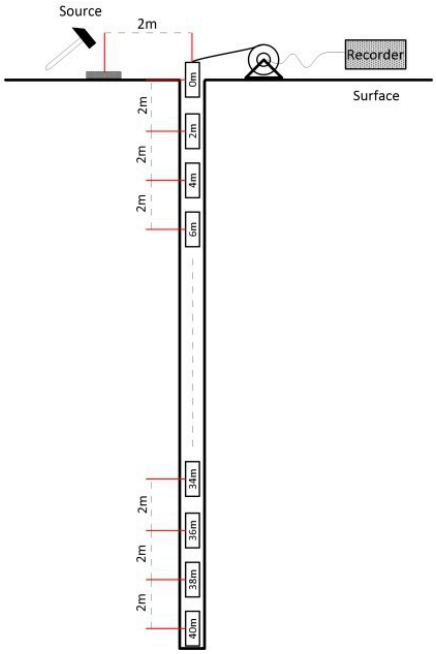


SEISMIC METHOD 07

Downhole, Crosshole and Uphole

Downhole Seismic Method

The Downhole method involves placing a geophone or accelerometer at different depths within a borehole while generating seismic waves at or near the ground surface. The arrival times of P- and S-waves are recorded to determine the seismic velocity profile of the subsurface.



Crosshole Seismic Method

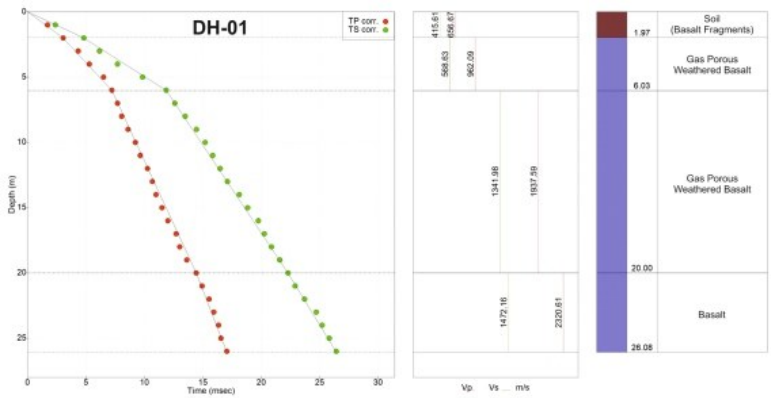
The Crosshole method typically requires at least two closely spaced boreholes. A seismic source is placed in one borehole while receivers record wave arrivals at corresponding depths in adjacent boreholes.

This configuration allows accurate determination of seismic wave velocities between the boreholes.

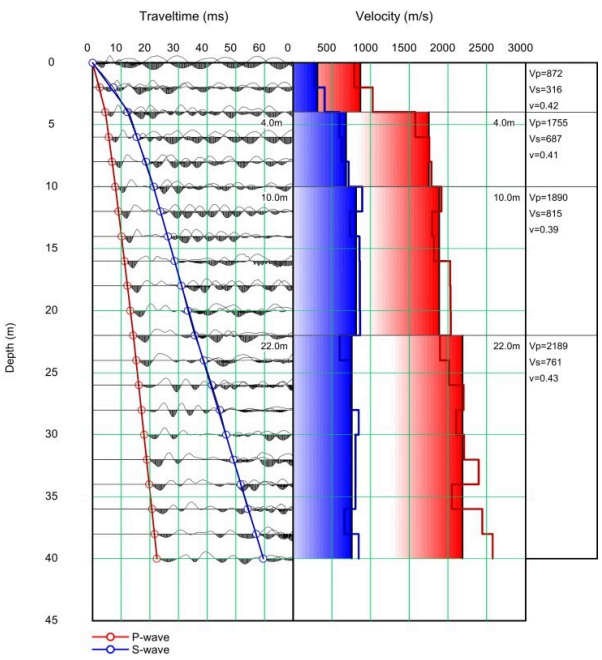
Uphole Seismic Method

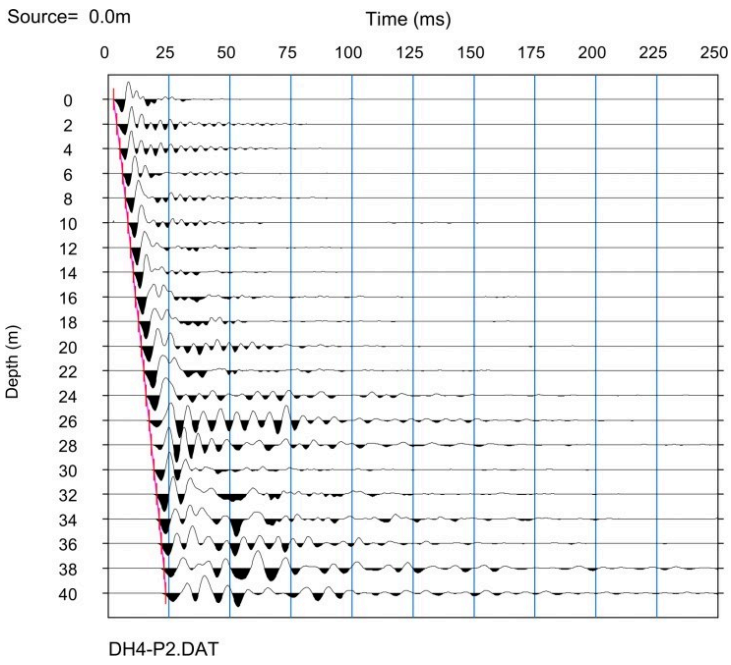
In the Uphole method, the seismic source is positioned within a borehole while receivers are placed at the ground surface.

The method is essentially the reverse of the Downhole approach and is primarily used for shallow subsurface investigations.






Traveltime (ms)
Velocity (m/s)
Depth (m)
Vp=872
Vs=316
v=0.42
4.0m
Vp=1755
Vs=687
v=0.41
10.0m
Vp=1890
Vs=815
v=0.39
22.0m
Vp=2189
Vs=761
v=0.43
P-wave
S-wave


Source= 0.0m
Time (ms)
Depth (m)
DH4-P2.DAT

GEOTECHNICAL SURVEY SERVICES 10

Pile Testing

Pile testing comprises a range of field tests used to evaluate the load-bearing capacity, structural integrity, and soil–structure interaction of deep foundation elements.

These tests help verify whether installed piles perform in accordance with their design requirements under actual site conditions.

01	Static Load Tests
02	Dynamic Load Testing (e.g., PDA: Pile Driving Analyzer)
03	Pile Integrity Testing (Non-Destructive Testing, NDT)
04	Pile Instrumentation and Monitoring



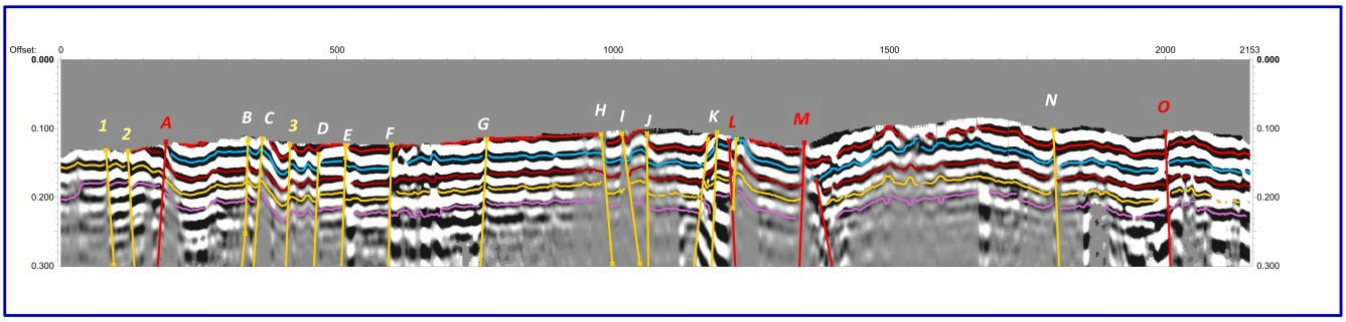
SEISMIC METHOD 11

Hybrid 2D Seismic Data Acquisition and Processing

Hybrid 2D seismic is an advanced geophysical approach that combines active- and passive-source seismic techniques to obtain high-resolution two-dimensional images of the subsurface.

By integrating complementary seismic data, the hybrid approach aims to overcome some of the limitations associated with using a single acquisition technique, while improving subsurface imaging, depth of investigation, and overall data efficiency.

This approach can provide a more comprehensive characterization of subsurface structures while optimizing field operations and project costs.



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