International Directional Services (IDS) is a premier provider of nonmagnetic downhole gyro deviation surveys, directional drilling services, geophysical logging services, rental downhole instrumentation, and directional mud motor sales to the minerals, energy, and civil construction markets.

As a key partner to many of the world’s largest clients, IDS is trusted to provide its services on surface and underground, across the globe.

- **PRECISE BOREHOLE STEERING**
- **ACCURATE BOREHOLE SURVEYS**
- **GEOLOGICAL INTERPRETATION**

IDS is a leading provider of services to the minerals, energy, and civil construction markets.

- **NONMAGNETIC DOWNHOLE GYRO DEVIATION SURVEYS**
- **DIRECTIONAL DRILLING SERVICES**
- **GEOPHYSICAL LOGGING SERVICES**
- **RENTAL DOWNHOLE INSTRUMENTATION**
- **DIRECTIONAL MUD MOTOR SALES**
- **DRILLING MANAGEMENT SOFTWARE**

**OUR STORY**

1979: **TECHNOLOGY**
Christensen Boyles pioneers Navidrill directional drilling

1992: **ADDING VALUE**
Dedicated borehole surveys & directional division is formed

1999: **GROWTH**
IDS is incorporated by Layne Christensen

2010: **INTERNATIONAL**
IDS de Mexico is established.
Chilean mine rescue (Plan B)

2018: **GROWING STRONGER**
IDS joins the Granite family

**OUR SERVICES**
IDS provides directional drilling services with full-hole mud motors from sizes N through 13+ inches, directional coring in size H (with produced B size core), and with measurement-while-drilling (MWD) steering technology where applicable. Applications include:

- **STRAIGHT PILOT HOLES**
- **SPECIFIC SUBSURFACE TARGETS**
- **MULTIPLE KICK-OFFS**
- **REACH INACCESSIBLE AREAS**
- **OVERCOME GEOLOGIC STRUCTURAL CONTROLS**

IDS pioneered the use of directional drilling in the U.S. hard rock mining industry several decades ago. Methodology enhancements and equipment development have led to a premier service across a wide range of applications in mining, geotechnical construction, municipal projects, and energy sectors. IDS provides services for directionally drilled core and rotary boreholes, including coretails and precollars, in surface and underground applications to depths limited only by rig and pump capacity. IDS utilizes the latest MWD technology when applicable to expedite drilling processes and provide the highest level of accuracy available.

**Technologies used:**

- NORTH-SEEKING GYRO
- FIBEROPTIC GYRO
- SURFACE RECORDING GYRO
- MEMS GYRO
- MAGNETIC INSTRUMENTS
- CONTINUOUS DATA COLLECTION

IDS maintains a large mobile surveying fleet with an extensive suite of the latest instrumentation to provide high quality deviation survey services for complex projects with strict accuracy requirements.
IDS is a key supplier of borehole geophysics services for mining, geotechnical, water infrastructure, and environmental markets. IDS provides geophysical logging services to collect lithological, structural, and hydrological data.

**Instruments used:**

- **ACOUSTIC MEASUREMENTS (ACOUSTIC TELEVIEWER)**
- **OPTICAL MEASUREMENTS (OPTICAL TELEVIEWER AND BOREHOLE VIDEO)**
- **ELECTRIC AND MAGNETIC MEASUREMENTS (NORMAL RESISTIVITY, SINGLE POINT RESISTANCE, SPONTANEOUS POTENTIAL)**
- **NUCLEAR MEASUREMENTS (NATURAL GAMMA)**
- **FLUID MEASUREMENTS (TEMPERATURE/DIFFERENTIAL TEMPERATURE, FLUID RESISTIVITY/CONDUCTIVITY)**
- **DEVIATION MEASUREMENTS (NON-MAGNETIC GYRO AND MAGNETIC)**
- **GEOPHYSICAL DATA INTERPRETATION**

**APPLICATIONS**

**Mineral Exploration**

- **Directional Drilling**
  - Directionally Drilled Pre-Collars; Multiple kick-offs off of pilot hole; Difficult Drill Targets; Correcting Deviated Boreholes; Pinpoint Ore Targets
  - Pilot Hole for Raised Borehole Shafts; Controlled Drilling for Coal Degassing

- **Borehole Surveying**
  - Borehole Deviation Surveys; Core Orientation
  - Borehole Deviation Surveys for Exploration and Utility Boreholes; Core Orientation

- **Geophysical Logging**
  - Coal Quality; Ore Structure; Formation Resistivity + Conductivity; Moisture-Content; Mine Feasibility Studies
  - Fracture-Orientations/Fracture-Density; Slope Stability Analysis; Dewatering Studies; Rock-Strength Properties; Fracture-Specific Permeabilities

**Operation Mine**

- **Environmental**
  - Utility Boreholes; Dam Rehabilitation; Freeze Ring Boreholes for Shaft Sinking
  - Multiple Kick-offs off of Pilot Hole; Controlled Drilling for Coal Degassing

- **Civil**
  - Borehole Deviation Surveys; Core Orientation
  - Borehole Deviation Surveys; Core Orientation

- **Energy**
  - Borehole Deviation Surveys; Core Orientation
  - Borehole Deviation Surveys; Core Orientation

- **Geophysical Logging**
  - Fracture Characterization; Fracture Flow; Moisture Monitoring; Porosity
  - Rock-Strength Properties; Video Inspections
  - Coal Seam Thickness/Quality; Lithologic Evaluation
IDS and BlackFox bring you LINK, a powerful software platform designed for both mining companies and drilling contractors. Start a free trial and get connected.

DRILLING MANAGEMENT SOFTWARE

- Production Metrics
- Project & Material Costs
- Driller Performance
- Downtime & Maintenance
- Site Inventory
- Equipment Usage
- Utilization
- Track Lost Time
- Bit Tracking
- Materials

EQUIPMENT SALES+RENTALS

Instrumentation product lines for sale and rent:

- ACCU-DRIL™ POSITIVE DISPLACEMENT DIRECTIONAL DRILLING MUD MOTORS
- ACCESSORY DIRECTIONAL DRILLING GEAR, NON-MAG DRILL RODS, ORIENTATION GEAR, AND MORE
- GYRO & MAGNETIC BOREHOLE DEVIATION SURVEY INSTRUMENTS
- CORE ORIENTATION INSTRUMENTATION
DATA QUALITY CONTROL

IDS maintains a rigorous QA/QC program for delivered data quality which includes comprehensive employee training programs, routine data reviews, and inhouse instrument calibration facilities. IDS can design and implement a custom-tailored QA/QC program for even the most challenging projects.

TOUGH CHALLENGES. COMPREHENSIVE SOLUTIONS.

IDS has the expertise and resources to collaborate globally on the world’s most demanding projects: innovative, real solutions to complex situations.
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