LECE INDONESIA
Your Survey Solution

CERTIFIED ISO 14001:2015 · CERTIFIED ISO 45001:2018 · CERTIFIED ISO 9001:2015

COMPANY PROFILE

INTRODUCTION
VISION & MISSION
PROFILE DATA
ORGANIZATIONAL STRUCTURE
OUT VALUE
OUT SERVICES
WORKING EXPERIENCES
FIELD DOCUMMENTATION

Komplek Harmoni Plaza, Blok E no. 24
Jalan Suryopranoto no. 2, Petojo Utara
Gambir Jakarta Pusat

+62 21 22639805

leceindonesia.com

NTRODUCTION

LECE INDONESIA was established in 2009 by a team of professional accustomed to any challenging conditions of the on/offshore industry. In the early years of establishment, LECE Indonesia provide a wide range survey and analysis from topography, bathymetry to hydro-oceanography, through out Indonesian water. Later, LECE Indonesia expand its services by taking numerous survey from navigation and positioning survey for construction support, hydrographic survey, metocean survey, geophysical and geotechnical survey, and aerial mapping.

Over the years, LECE Indonesia have demonstrated strength and rapid growth in survey and mapping industry. It is driven by the commitment in delivering an integrated quality solution to meet clients requirement. Further, LECE Indonesia has consistently presenting value through innovative solution, effective and efficient operation, as well as commitment to contribute beyond the market we serve.

Supported by solid and experienced team of professionals, LECE Indonesia emphasizes on quality, safety, operational excellence, and preserves the environment at the same time. LECE Indonesia services in Oil and Gas industry, telecommunication infrastructure and ports development; marks the achievement and acknowledgement of LECE Indonesia as one of the survey company within the top tier. LECE Indonesia is committed to continuously be the front leader in technology application and quality service provider within the survey industry

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VISION & MISION

VISION

Our Vision is become a leading national and international survey company by offering full range of survey services and analysis

MISSION

Our mission is to provide wide range of survey services and analysis varies from topography survey, bathymetry, hydro-oceanography, geophysical and geotechnical survey, to navigation and positioning survey for construction support. We commit to work under the principles of good corporate governance, suported by experienced team of management and skilled manpower.

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PROFIL DATA

NAME
PT. LEGENDA EMAS CIPTA ENJINERING

ADDRESS
Komplek Istana Harmoni Blok E 24 Petojo Utara – Jakarta Pusat
Indonesia
(+62) 21 22639805

ENTERPRISE TYPE
Private Limited Liability Company (PT)

BUSINESS FIELD
Construction Survey, Cable Route Survey, Oceanography Survey, Geophysical Survey, Geotechnical Survey, Aerial Photogrammetry, Hydrology Survey, Topography Site Survey

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TRUCTURE ORGANIZATIONAL

PRESIDENT DIRECTOR
RADEN MOHAMAD RIZKI

- **IT & DEV. DIRECTOR** — ERIC HADIANTO
- **OPERATIONS DIRECTOR** — SLAMET RIADI
- **FINANCE DIRECTOR** — MARISSA
- **BUSDEV DIRECTOR** — RIO RAYA PRABOWO
- **WORKSHOP MANAGER** — YUDI AHMAD J
- **HSE MANAGER** — GLORIUS EDWIN
- **HRD MANAGER** — RIDWAN
- **SURVEY MANAGER** — RONI ALFIANSYAH
- **GEOTECH MANAGER** — ASEP NUR JAMIL

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OUR VALUES

EFFECTIVE SOLUTION
We provide the best and individually crafted service and solution, based on your need.

ACCURACY
Providing accurate data result based on your requirements is our priority and workethic.

QUALIFIED PERSONNEL
We only chose selected and competent personnel to execute the projects.

INTEGRATED SURVEY SOLUTIONS
LECE INDONESIA is the One Stop Solution for your survey needs.

QHSE
We value Quality, Health, Safety and Environment as the cornerstone of our business ethic and top priority

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OUR SERVICES

2 CABLE ROUTE SURVEY
DTS (Desktop Study | Topographic Survey |Nearshore Site Survey | Deep Water site Survey

4 GEOPHYSICAL SURVEY
Multibeam Echosounder | Single Beam Echosounder | Magnetometer | Sub-bottom Profiling | Sound Velocity Sensors & Profilers | Minisvs Sound Velocity Sensors|

6 AERIAL PHOTOGRAMETRY
Aerial survey is a method of collecting geomatics or other imagery by using airplanes, helicopters, UAVs, balloons or other aerial methods

8 TOPOGRAPHY SITE SURVEY
Objectives A topographic study may be made for a variety of reasons

1 CONSTRUCTION SURVEY
Pre-Lay | Laying Pipe | Post-Lay | Debris Survey | Barge Management system | Tug Management System | PRRP (Pipe Repair/Replacement Project | Rig Move | Pilling | Platform Installation | Sub-sea Installation

3 OCEANOGRAPHIC SURVEY
Tidal Observation | Seabed Observation & Sampling System | Wave Measurement | Salinity Concentration | Water quality

5 GEOTECHNICAL SURVEY
Concrete Technology | Soil Mechanics Laboratory | Hiighway Laboratory

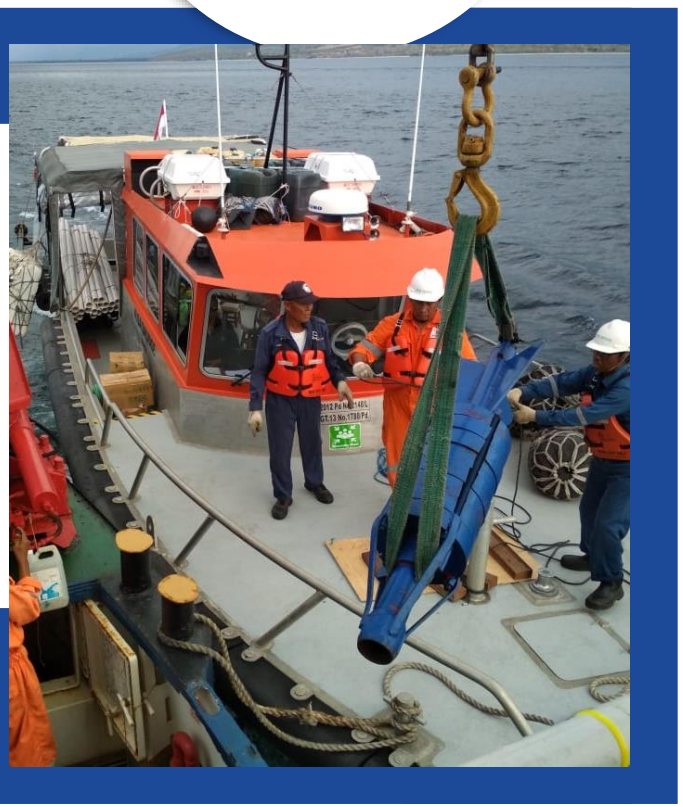
7 HYDROLOGY SURVEY
Hydrology is the scientific study of the movement, distribution, and quality of water on Earth and other planets, including the water cycle, water resources and environmental watershed sustainability.

CONSTRUCTION
SURVEY

- Pre-lay
- Laying Pipe
- Post-Lay
- Debris Survey
- Barge Management System
- Tug Management System
- PRRP (Pipe Repair/Replacement Project)
- Rig Move
- Pilling
- Platform Installation
- Sub-sea Installation

A Contribution survey is use establish or mark desired position corners, roads, sidewalk or utilities, that the engineer has designed. Particular attention is made to ensure the building does not encroach or overlap into or over the designated setbacks, easement, or property line

CABLE ROUTE SURVEY



e.g :

2

> DTS (Desktop Study)
> Topography Survey
> Nearshore Site Survey
> Deep Water site Survey

"We conduct cable route surveys, combining geophysical, geotechnical, environmental to ensure that our clients can design and engineer the most cost-effective and reliable wind farm export and inter array cables, as well as HVDC links and interconnectors in their projects."

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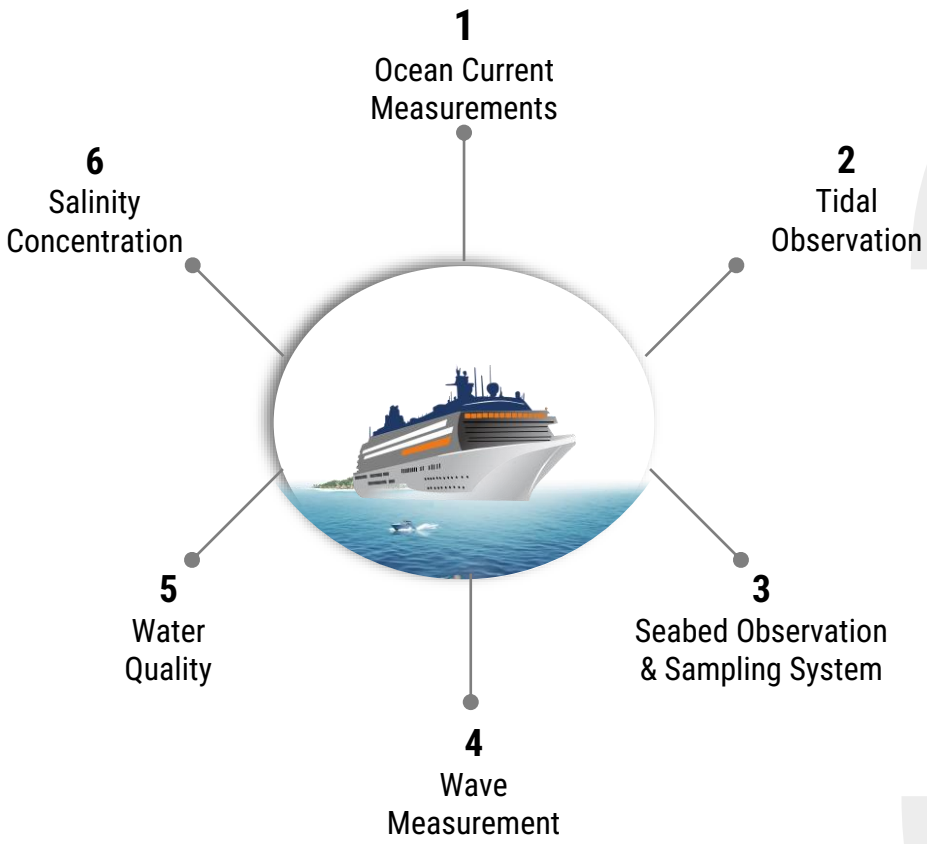


OCEANOGRAPHIC SURVEY

Oceanography also known as oceanology, is the study of the physical and biological aspects of the ocean. It is an important Earth science, which covers a wide range of topics, including ecosystem dynamics; ocean currents, waves, and geophysical fluid dynamics; plate tectonics and the geology of the sea floor; and fluxes of various chemical substances and physical properties within the ocean and across its boundaries. These diverse topics reflect multiple disciplines that oceanographers blend to further knowledge of the world ocean and understanding of processes within: astronomy, biology, chemistry, climatology, geography, geology, hydrology, meteorology and physics.

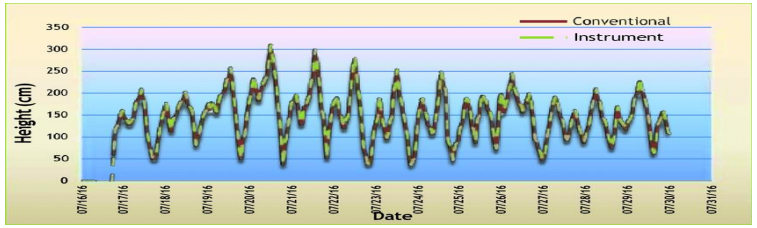
OCEANOGRAPHIC SURVEY

1 Ocean Current Measurements

Measurement of water motion permits us to predict transport of sediment, estimate drift of contaminates, understand mixing and transport processes and to report wave conditions. While these are only a few of the benefits conferred by current measurements, they serve to illustrate the demands made on current meters.

Current measurement techniques have progressed frommechanical sensors to electromagnetic, acoustic and optical sensors. A broad distinction can be made between single point sensors and profiling sensors. Transport of water may also be determined using drifters, tracked acoustically or positioned by radio/satellite transmission.

2 Tidal Observation



mean continuous observations of regular eustatic sea-level changes caused by tide generating forces such as the sun and the moon and the atmospheric pressure, winds, and more. Currently, our administration observes tides with buoy systems, ultrasonic level measurement, pressure-sensitive systems, and more.

Observation data are used to calculate the rate of sea level change, along with statistical data on tides, such as high/low tide levels, the highest/lowest water levels, and average sea level on monthly and yearly average bases, and appropriate statistical/analytic methods in a certain period (a month, a year, ten years, one hundred, etc.).

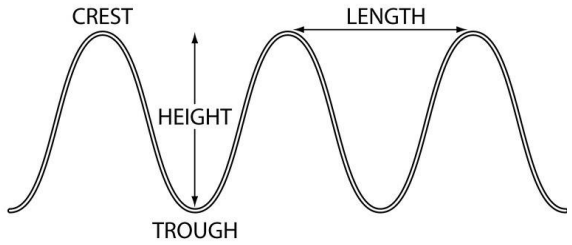
3 Seabed Observation & Sampling System

SEABOSS has proved to be a valuable addition to the USGS data-acquisition and processing field program. It has allowed researchers to collect high-quality images and seabed samples in a timely manner. It is a simple, dependable and trouble-free system with a track record of over 3,000 deployments. When used as part of the USGS seafloor mapping acquisition, processing, and ground-truth program,

SEABOSS enables scientists to collect high-quality images and samples of the seabed, essential to the study of sedimentary environments and biological habitats and to the interpretation of side-scan sonar and multibeam imagery, the most common tools for mapping the seabed.

OCEANOGRAPHIC SURVEY

4 Wave Measurement

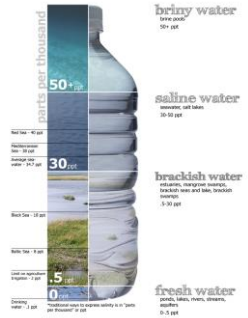


Waves – disturbances of water – are a constant presence in the world's oceans. Because waves travel all across the globe, transmitting vast amounts of energy, understanding their motions and characteristics is essential.

The forces generated by waves are the main factor impacting the geometry of beaches, the transport of sand and other sediments in the nearshore region, and the stresses and strains on coastal structures.

When waves are large, they can also pose a significant threat to commercial shipping, recreational boaters, and the beachgoing public. Thus for ensuring sound coastal planning and public safety, wave measurement and analysis is of great importance.

5 Water Quality



Salinity in rivers, lakes, and the ocean is conceptually simple, but technically challenging to define and measure precisely. Conceptually the salinity is the quantity of dissolved salt content of the water. Salts are compounds like sodium chloride, magnesium sulfate, potassium nitrate, and sodium bicarbonate which dissolve into ions. The concentration of dissolved chloride ions is sometimes referred to as chlorinity.

Operationally, dissolved matter is defined as that which can pass through a very fine filter (historically a filter with a pore size of 0.45 µm, but nowadays usually 0.2 µm).Salinity can be expressed in the form of a mass fraction, i.e. the mass of the dissolved material in a unit mass of solution.

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6 Salinity Concentration

Water quality refers to the chemical, physical, biological, and radiological characteristics of water. It is a measure of the condition of water relative to the requirements of one or more biotic species and or to any human need or purpose. It is most frequently used by reference to a set of standards against which compliance, generally achieved through treatment of the water, can be assessed. The most common standards used to assess water quality relate to health of ecosystems, safety of human contact, and drinking water.

In the setting of standards, agencies make political and technical/scientific decisions about how the water will be used. In the case of natural water bodies, they also make some reasonable estimate of pristine conditions. Natural water bodies will vary in response to environmental conditions. Environmental scientists work to understand how these systems function, which in turn helps to identify the sources and fates of contaminants. Environmental lawyers and policymakers work to define legislation with the intention that water is maintained at an appropriate quality for its identified use.

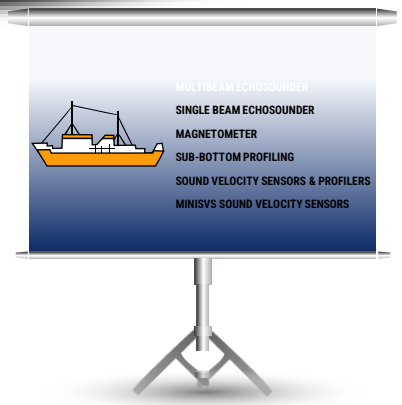
4

GEOPHYSICAL SURVEY

Geophysical survey is the systematic collection of geophysical data for spatial studies. Detection and analysis of the geophysical signals forms the core of Geophysical signal processing. The magnetic and gravitational fields emanating from the Earth's interior hold essential information concerning seismic activities and the internal structure. Hence, detection and analysis of the electric and Magnetic fields is very crucial. As the Electromagnetic and gravitational waves are multi-dimensional signals, all the 1-D transformation techniques can be extended for the analysis of these signals as well. Hence this article also discusses multi-dimensional signal processing techniques.

Geophysical surveys may use a great variety of sensing instruments, and data may be collected from above or below the Earth's surface or from aerial, orbital, or marine platforms. Geophysical surveys have many applications in geology, archaeology, mineral and energy exploration, oceanography, and engineering. Geophysical surveys are used in industry as well as for academic research.

OUR SERVICES



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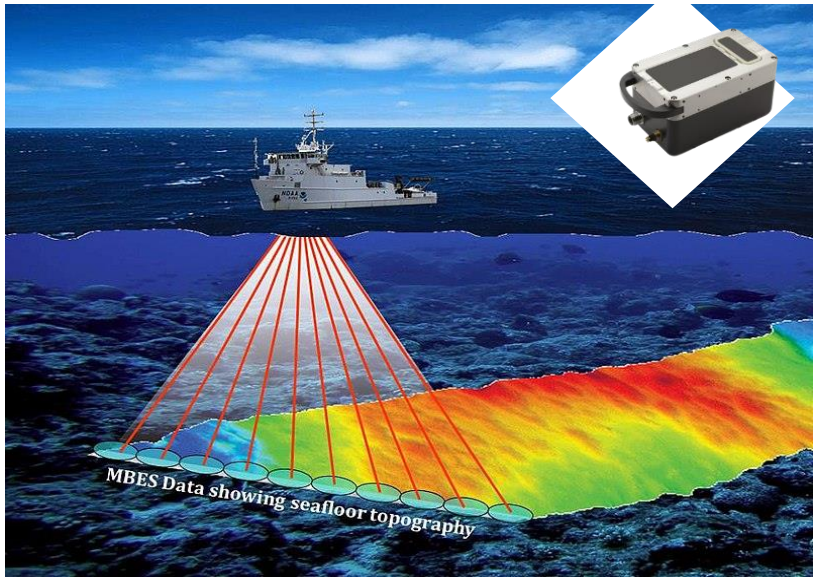
GEOPHYSICAL SURVEY

MULTIBEAM ECHOSOUNDER



A multibeam echosounder is a type of sonar that is used to map the seabed. Like other sonar systems, multibeam systems emit sound waves in a fan shape beneath a ship's hull. The amount of time it takes for the sound waves to bounce off the seabed and return to a receiver is used to determine water depth. Unlike other sonars, multibeam systems use beamforming to extract directional information from the returning soundwaves, producing a swath of depth readings from a single ping. A multibeam echosounder is a device typically used by hydrographic surveyors to determine the depth of water and the nature of the seabed. Most modern systems work by transmitting a broad acoustic fan shaped pulse from a specially designed transducer across the full swath acrosstrack with a narrow alongtrack then forming multiple receive beams (beamforming) that are much narrower in the acrosstrack (around 1 degree depending on the system). From this narrow beam, a two way travel time of the acoustic pulse is then established utilizing a bottom detection algorithm. If the speed of sound in water is known for the full water column profile, the depth and position of the return signal can be determined from the receive angle and the two-way travel time. In order to determine the transmit and receive angle of each beam, a multibeam echosounder requires accurate measurement of the motion of the sonar relative to a cartesian coordinate system. The measured values are typically heave, pitch, roll, yaw, and heading. To compensate for signal loss due to spreading and absorption a time-varied gain circuit is designed into the receiver. For deep water systems, a steerable transmit beam is required to compensate for pitch. This can also be accomplished with beamforming

GEOPHYSICAL SURVEY

SINGLE BEAM ECHOSOUNDER

Hydrographic Surveying with Single Beam Echo Sounders (SBES) Single beam echo sounders (SBES), also known as depth sounders or fathometers determine water depth by measuring the travel time of a short sonar pulse, or “ping”. The sonar ping is emitted from a transducer positioned just below the water surface, and the SBES listens for the return echo from the bottom. In reality, the sonar energy will be reflected by anything that may be in the path of the sound – fish, debris, aquatic vegetation and suspended sediment. Hydrographic survey grade single beam echo sounders are able to provide accurate bottom depths by distinguishing the real bottom from any spurious signals in the returned echo. True survey-grade hydrographic single beam echosounders record a digital water column echogram or echo envelope, that provides a graphical representation of the return echo. Historically this information was presented on a paper chart recorder using thermal paper to provide the surveyor with a means to qualify sounding accuracy. SBES may use various different sonar frequencies; typically 200 kHz is used in shallow water under 100m. As the attenuation of sound in water decreases at lower frequencies, 24-33 kHz is commonly used for deeper water surveys. Often, two frequencies are combined for convenience into a single dual frequency transducer, eg 33/200 kHz. For surveys when suspended particulates are very high, usually when dredging is taking place, the low frequency sonar is able to penetrate the thick resuspended layer and measure the undisturbed hard bottom beneath.

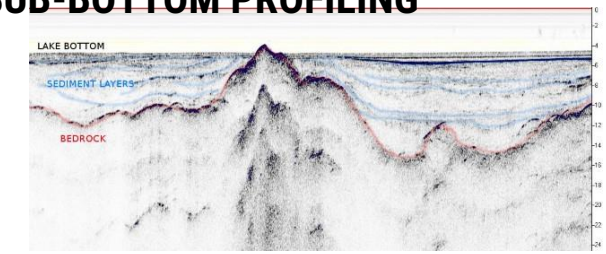
Transducers may be selected with different beam widths, which determines the size of the ping footprint on the bottom. Narrower beam transducers provide a smaller ensonified area and therefore present a depth measurement at a more discrete point under the survey vessel. To determine the exact position of bottom features, narrower beam width transducers are desirable. Inexpensive depth sounders may offer a very wide beam width, presenting a low potential for accurate depth measurement. Lower frequency transducers typically have a wider beam width than high frequency options; the transducer needs to be larger to generate a directional beam as the frequency decreases. Single beam echo sounders offer significant cost savings compared to multibeam echosounder systems and are especially useful in very shallow water, under 5-10m depth. Results from single beam echosounders are easier to interpret, far less time-consuming to edit, and the SBES equipment may be operated by less experienced personnel.

GEOPHYSICAL SURVEY

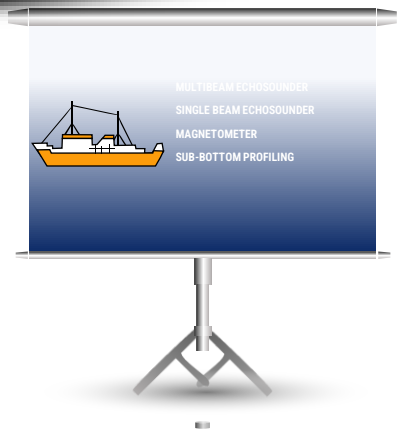
MAGNETOMETER

Local variations in the Earth's magnetic field are most often caused by ferromagnetic objects or other magnetic objects located in the vicinity of the studied area. Through measuring and recording of this variation, it is possible to detect objects submerged beneath the water (and sediments). An accurate map of the object's position can be created by recording the sensor's position along with the magnetic variation. Marine magnetometry surveys are carried out using a magnetometer specially modified for marine operations. The magnetometer is installed in a water-tight tow-fish, which is towed behind the vessel using a tow cable. The sensor used most often is a proton precession or Overhauser type. Magnetometers have a very diverse range of applications, including locating objects such as submarines, sunken ships, hazards for tunnel boring machines, hazards in coal mines, unexploded ordnance, toxic waste drums, as well as a wide range of mineral deposits and geological structures.

SUB-BOTTOM PROFILING



Sub-bottom profiling (SBP), in this case, refers to the high-resolution characterization of sediments and rock under bodies of water using tow-able chirp/ping system. Marine geological profiling allows us to detect and to map interfaces between the various sedimentary layers or the overburden / bedrock interface beneath a body of water. The technique is based on the principles of seismic reflection, i.e. the emission of a seismic wave into the subsurface, and the reception of the energy reflected by the various interfaces. With SBP systems, there is a trade-off between resolution and signal penetration. Geophysics GPR has a range of frequencies available to meet your requirements.



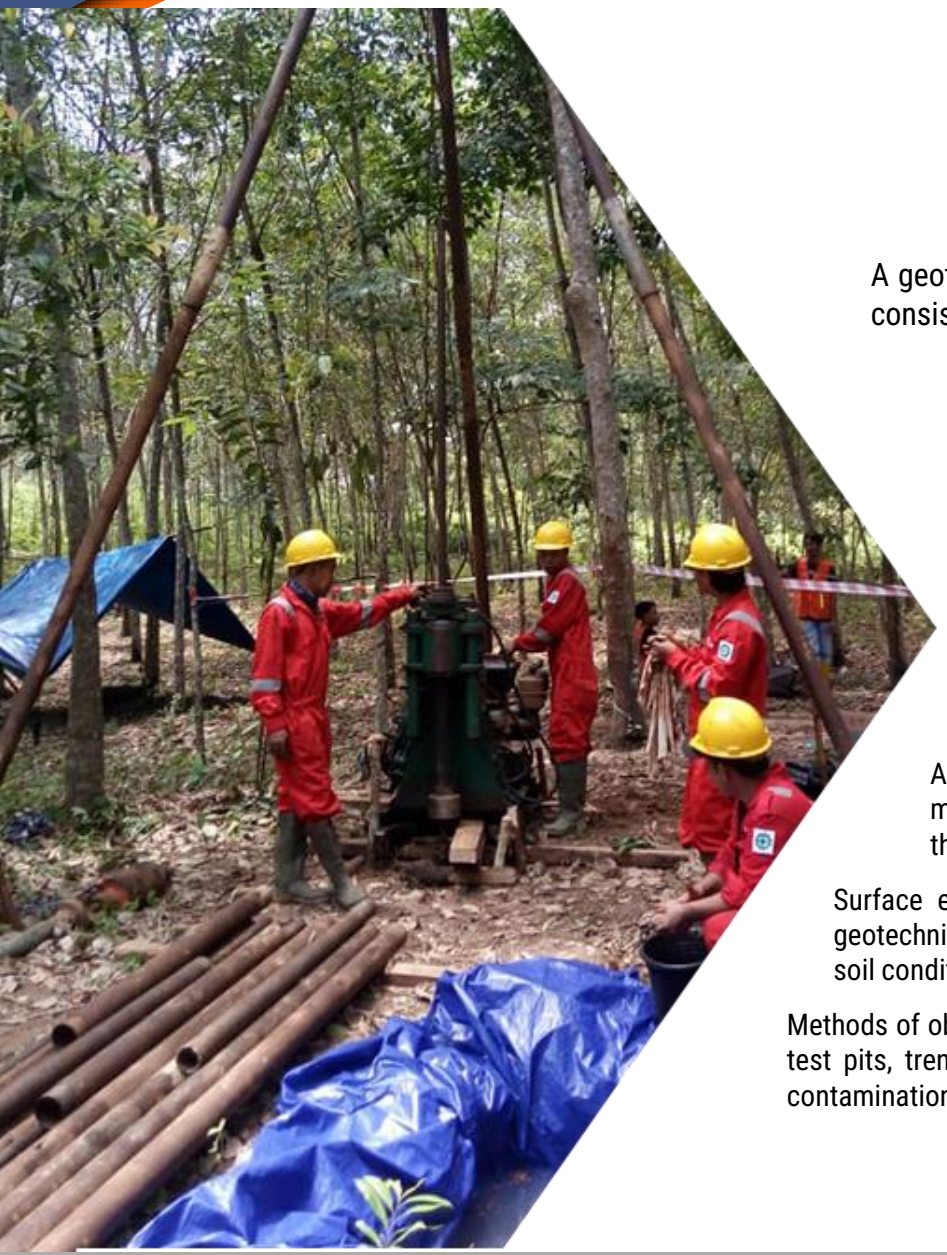
GEOPHYSICAL SURVEY

SOUND VELOCITY SENSORS & PROFILERS

Sound Velocity Sensors and Profilers from Valeport, the world leaders in Sound Velocity technology – a position achieved by both innovative development and meticulous attention to detail throughout the design, manufacture and especially calibration processes. Having been established at the forefront of this field nearly a decade ago with Digital Time of Flight technology, Valeport have now made a series of incremental changes to reinforce that position, ensuring that Valeport SV sensors offer levels of performance that are demonstrably far in excess of even the latest offerings from our competitors.

MINISVS SOUND VELOCITY SENSORS

The miniSVS Sound Velocity Sensors use state of the art digital “time of flight” technology to provide the lowest noise, highest accuracy, best resolution sound velocity data available. Small size and a choice of sensor lengths down to just 25mm make the sensor suitable for a variety of applications, and the optional pressure or temperature sensor adds versatility. There is a choice of data formats to allow interface to existing systems. We will also consider OEM and custom designs.



GEOTECHNICAL SURVEY

A geotechnical survey is the first step in the construction or consolidation of a site. It includes information about soil consistency and structure, groundwater level and recommendations for the technical project.

Following the drilling, the samples collected from the ground are taken to the lab for analysis. Based on these results and field observations, the geotechnical report is devised, which together with the drilling records represents the documentation that is delivered to the customer.

Geotechnical investigations are performed by geotechnical engineers or engineering geologists to obtain information on the physical properties of soil earthworks and foundations for proposed structures and for repair of distress to earthworks and structures caused by subsurface conditions. This type of investigation is called a site investigation.

Additionally, geotechnical investigations are also used to measure the thermal resistivity of soils or backfill materials required for underground transmission lines, oil and gas pipelines, radioactive waste disposal, and solar thermal storage facilities.

A geotechnical investigation will include surface exploration and subsurface exploration of a site. Sometimes, geophysical methods are used to obtain data about sites. Subsurface exploration usually involves soil sampling and laboratory tests of the soil samples retrieved.

Surface exploration can include geologic mapping, geophysical methods, and photogrammetry, or it can be as simple as a geotechnical professional walking around on the site to observe the physical conditions at the site. To obtain information about the soil conditions below the surface, some form of subsurface exploration is required.

Methods of observing the soils below the surface, obtaining samples, and determining physical properties of the soils and rocks include test pits, trenching (particularly for locating faults and slide planes), boring, and in situ tests. These can also be used to identify contamination in soils prior to development in order to avoid negative environmental impacts.

So if you need a geotechnical survey,

YOU CAN CONTACT US WITH CONFIDENCE.

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GEOTECHNICAL SURVEY

FOR GEOTECHNICAL LABORATORIES, WE COLLABORATE WITH BAKRI UNIVERSITY

CONCRETE TECHNOLOGY

Laboratory technology for concrete materials is used for example pavement and recognizing the properties of concrete constituents, planning fresh concrete mixes in the field and carrying out concrete testing in the laboratory according to S.K. meu ip SNI 1991. Besides being used as a student practicum in this course, the laboratory is also used for research facilities for students, lecturers and technical consulting services (services) in the field of concrete building materials technology.

SOIL MECHANICS LABORATORY

This integrated laboratory is used to investigate the land so that it can know and recognize the physical properties and types of land, both undisturbed and disturbed and to carry out tests and inspections of land in the field. In addition to practicum in this laboratory, this laboratory is also used for lecturer research advice and technical consulting services (services) in the field of soil mechanics and geotechnical engineering.

HIIGHWAY LABORATORY

This integrated laboratory is used for testing building materials used for both plastic (asphalt) and non-plastic pavement. In addition to practicum in this laboratory, this laboratory is also used for lecturer research advice and technical consulting services (services) in the field of highway construction

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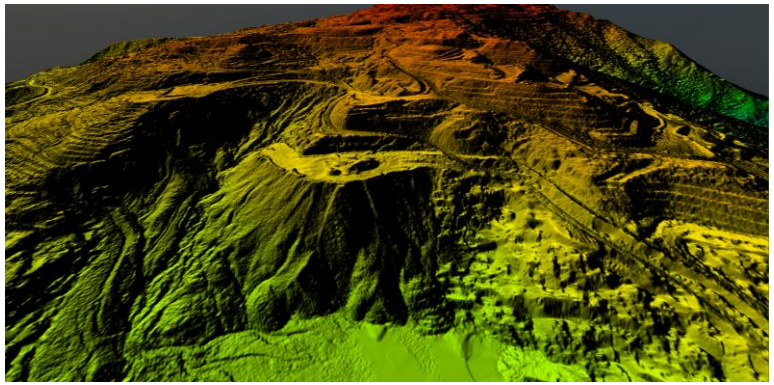
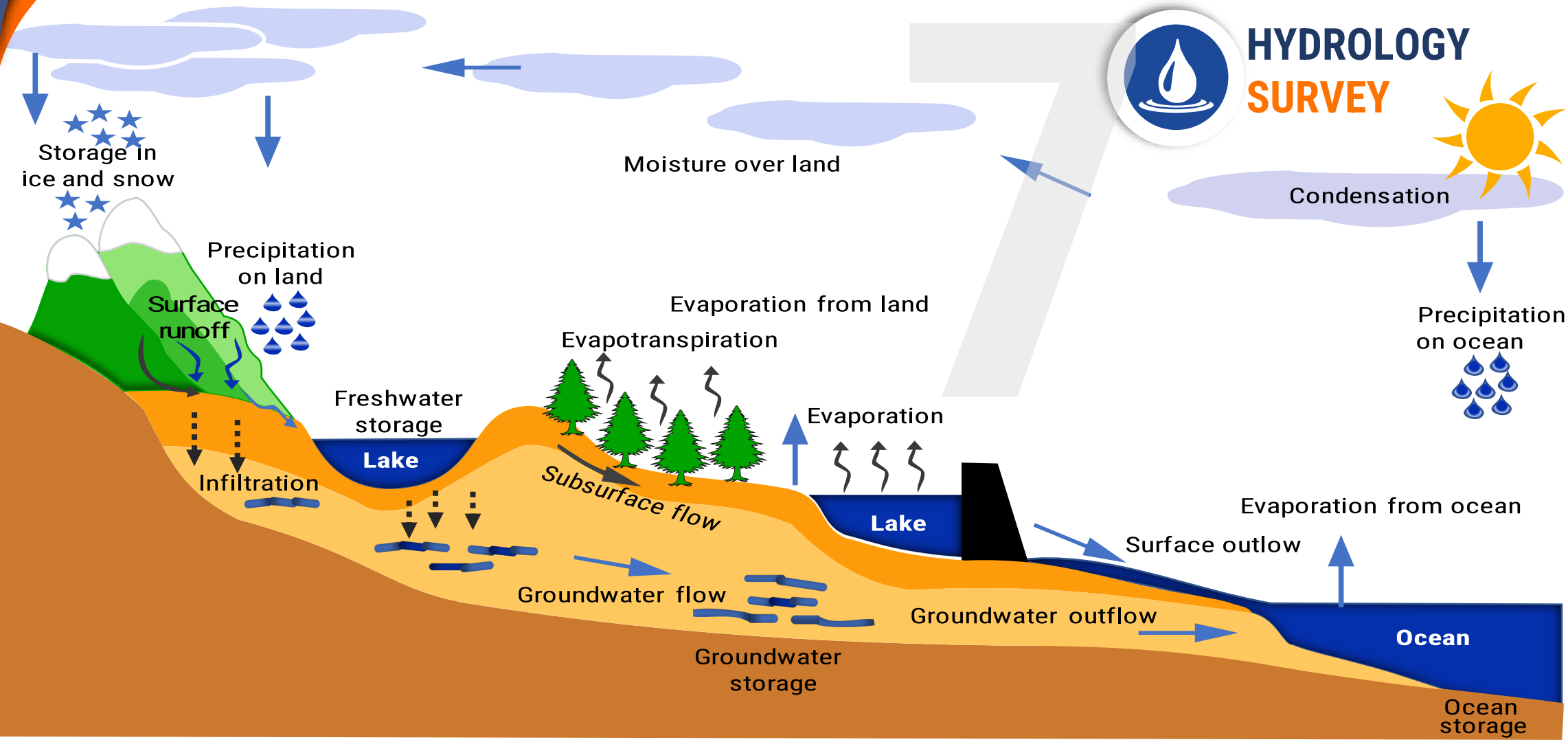


AERIAL PHOTOGRAMETRY

Aerial survey is a method of collecting geomatics or other imagery by using airplanes, helicopters, UAVs, balloons or other aerial methods. Typical types of data collected include aerial photography, Lidar, remote sensing (using various visible and invisible bands of the electromagnetic spectrum, such as infrared, gamma, or ultraviolet) and also geophysical data (such as aeromagnetic surveys and gravity. It can also refer to the chart or map made by analysing a region from the air.

Aerial survey should be distinguished from satellite imagery technologies because of its better resolution, quality and atmospheric conditions (which can negatively impact and obscure satellite observation). Today, aerial survey is sometimes recognized as a synonym for aerophotogrammetry, part of photogrammetry where the camera is placed in the air. Measurements on aerial images are provided by photogrammetric technologies and methods.

HYDROLOGY SURVEY



HYDROLOGY SURVEY

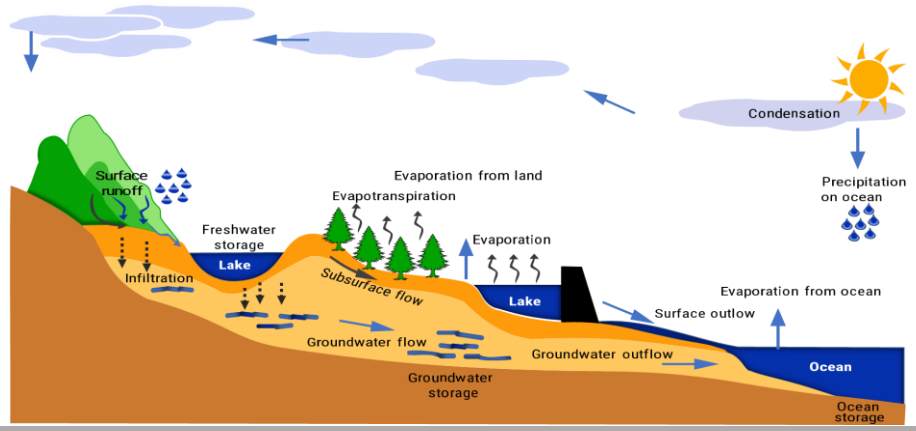
Hydrology is the scientific study of the movement, distribution, and quality of water on Earth and other planets, including the water cycle, water resources and environmental watershed sustainability. A practitioner of hydrology is a hydrologist, working within the fields of earth or environmental science, physical geography, geology or civil and environmental engineering. Using various analytical methods and scientific techniques, they collect and analyze data to help solve water related problems such as environmental preservation, natural disasters, and water management.

DATA MANAGEMENT SYSTEM

Data management system Time series are a product of hydrometry and related surveys, and include values of physical parameters over time. Examples are water level, temperature and other parameters describing water quality, like electrical conductivity, acidity, turbidity, etc. Mannvit places a great deal of importance on professional and secure data management and storage. With this in mind, the company has invested in a data management system. The data management system provides overall data management and the archival of data collected from a variety of sources, and is also used to process, analyze, visualize and report all measured data.

By analyzing the statistical properties of hydrologic records, such as rainfall or river flow, hydrologists can estimate future hydrologic phenomena. When making assessments of how often relatively rare events will occur, analyses are made in terms of the return period of such events. Other quantities of interest include the average flow in a river, in a year or by season.

These estimates are important for engineers and economists so that proper risk analysis can be performed to influence investment decisions in future infrastructure and to determine the yield reliability characteristics of water supply systems. Statistical information is utilized to formulate operating rules for large dams forming part of systems which include agricultural, industrial and residential demands.



TOPOGRAPHY SITE SURVEY

Topography Survey Topography is the study of the shape and features of land surfaces. The topography of an area could refer to the surface shapes and features themselves, or a description (especially their depiction in maps). Topography is a field of geoscience and planetary science and is concerned with local detail in general, including not only relief but also natural and artificial features, and even local history and culture. This meaning is less common in the United States, where topographic maps with elevation contours have made “topography” synonymous with relief. Topography in a narrow sense involves the recording of relief or terrain, the three-dimensional quality of the surface, and the identification of specific landforms. This is also known as geomorphometry. In modern usage, this involves generation of elevation data in digital form (DEM). It is often considered to include the graphic representation of the landform on a map by a variety of techniques, including contour lines, hypsometric tints, and relief shading.

Objectives A topographic study may be made for a variety of reasons: military planning and geological exploration have been primary motivators to start survey programs, but detailed information about terrain and surface features is essential for the planning and construction of any major civil engineering, public works, or reclamation projects.

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TOPOGRAPHIC SURVEY

Forms of Topographic Data

Terrain is commonly modelled either using vector (triangulated irregular network or TIN) or gridded (Raster image) mathematical models. In the most applications in environmental sciences, land surface is represented and modelled using gridded models. In civil engineering and entertainment businesses, the most representations of land surface employ some variant of TIN models. In geostatistics, land surface is commonly modelled as a combination of the two signals – the smooth (spatially correlated) and the rough (noise) signal. In practice, surveyors first sample heights in an area, then use these to produce a Digital Land Surface Model in the form of a TIN. The DLSM can then be used to visualize terrain, drape remote sensing images, quantify ecological properties of a surface or extract land surface objects. Note that the contour data or any other sampled elevation datasets are not a DLSM. A DLSM implies that elevation is available continuously at each location in the study area, i.e. that the map represents a complete surface. Digital Land Surface Models should not be confused with Digital Surface Models, which can be surfaces of the canopy, buildings and similar objects. For example, in the case of surface models produces using the lidar technology, one can have several surfaces – starting from the top of the canopy to the actual solid earth. The difference between the two surface models can then be used to derive volumetric measures (height of trees etc.).

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- pt. CHINA PETROLEUM PIPELINE
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- PT. ANUGERAH TAMBANG INDUSTRI
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- PT. CITEC ENGINEERING
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No	Project Name	Location	Client	Period
1	Topography survey for Pertamina Geothermal Energy	Lumut Balai	PT. CHCI	2023
2	Resistivity Survey and soil investigation	Obi Island	PT. HGI	2023
3	LiDAR and Photogrametry	Sambalagi, Morowali	PT. Anugerah Tambang Industri	2023
4	Topography Survey	Tangofa, Morowali	PT. CHCI	2022
5	hidro oceanografi dan geotechnical investigasi	Sebuku	PT. Indotek Engico	2022
6	Topography Survey For Pt Ba-Pertamina Tanjung Enim Ctd Project	Tj. Enim	Hebei Geologikal Indonesia	2022
7	Met Ocean Survey in South Kalimantan	Kalimantan	PT. Sinomine	2022
8	Aerial Photogrametry LIDAR SurveyWest Kalimantan Province	Kalimantan	PT. GEO CM	2022
9	Topography Survey for HGI in Palu	Palu	PT. HGI	2022
10	Bathymetry and Hydrology survey at palembang	Palembang	PT. HGI	2022
11	Metocean Survey at North Kalimantan Project	Tanah Kuning	PT. MIC	2022
12	Bathymetry and Topography survey at palembang For For Wangxiang	Palembang	PT. HGI	2022
13	Aerial Photogrametry LIDAR Survey, Location Morowali, South East Sulawesi	Morowali	PT. ATI	2022
14	Xinhai Land Survey in Desa Mangkupadi, Tanjung Palas Timur, Bulungan, North Kalimantan.	Mangkupadi	CHCI	2022
15	Oceanography Survey and Mathematical Model for Buli Industrial Park, Halmahera	Halmahera	PT. ATI	2022
16	TOPOGRAPHY SURVEY FOR PLANNING DIMETHYL ETHER PLANT AT PT BUKIT ASAM LOCATION AREA AT PT.BA - PERTAMINA	tj enim	CHCI	2022
17	Down Hole Shear Velocity Test in Tg Enim, South Sumatera Province	Tj. Enim	CHCI	2022
18	Bathymetry Survey in Balikpapan, East Kalimantan Province	Balikpapan	CCCC Second Harbour	2022
19	Soil Investigation for Sulfuric Acid Plant in Kabaena, South East Sulawesi Province	Kabaena	PT. BUKIT MAKMUR RESOURCES	2022
20	Air Quality, Water Discharge, Bathymetry and Topography Survey for AP Project in Enim , South Sumatera Province	South Sumatera	TIWTE	2022
21	Bathymetry and Topography Survey for AP Project in East Kutai Regency, East Kalimantan Province	East Kutai	CCCC Second Harbour	2022
22	Topography Survey In Tapak Tuan, South Aceh Province	Aceh	WSGEI	2021
23	Drilling Work Full Coring Limestone Mining In Kuto Baru, South Aceh.	Kuto Baru	Hebei Geologikal Indonesia	2021
24	Drilling Work For PT. Hebei Geological Indonesia North Morowali, South East Sulawesi Province	Morowali	Hebei Geologikal Indonesia	2021
25	Bathymetry Survey In Kolonodale, North Morowali	Morowali	Hebei Geologikal Indonesia	2021
26	Topography Survey For PT HGI In Morowali, Central Sulawesi.	Morowali	Hebei Geologikal Indonesia	2021
27	Topographic Survey For PT. Anhe Konstruksi Indonesia At Kualu River - Toba Samosir, North Sumatera	Toba Samosir	PT. ANHE	2021
28	Geotechnical Work For Pltm Sapalewa In Buria Village, Maluku Province	Maluku	Hebei Geologikal Indonesia	2021
29	Topography Survey For PT HGI In Bolang Mangondow, North Sulawesi	North Sulawesi	Hebei Geologikal Indonesia	2021
30	Topographic Survey For PT. Anhe Konstruksi Indonesia At Talang Ratu Village, Lebong, Bengkulu	Bengkulu	PT. ANHE	2021

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31	Topography And Bathymetry Survey For Lng Project In Banten Province	Banten	Hebei Geologikal Indonesia	2021
32	Metocean Survey For PT. Mosa Indo Palma	Bakauhuni	PT. MOSA INDO PALMA	2021
33	Geological Survey At Stone Mining Area For PT. Mosa Indo Palma	Bakauhuni	PT. MOSA INDO PALMA	2021
34	Metocean Survey For PT. Anugrah Tambang Industri In	Central Sulawesi, Morowali, Sambalagi Village	PT. ATI	2021
35	Survey Construction Services And Engineeer Manpower Supply	Obi Island	mutiara indah construction	2021
36	Bathymetry, Topography And Metocean Survey	Sangatta, East Kalimantan	CCCC Second Harbor China	2021
37	Bathymetry And Topography Survey In Kapuas River	West Kalimantan Province	PT. BEGINJAN JAYA MAKMUR	2021
38	Topography And Bathymmetry Survey For Bakrie-Athaca Ctm Project	Bengalon	Bakrie Atacha/Air Product	2021
39	Bathymetry and Aerial Photogrametry (LiDAR)	Kota Fajar, South Aceh	PT. WSGEI	2020
40	Bathymetry and Topography Survey	Kapuas River	PT Beginjan Jaya Makmur	2020
41	Bathymetry Survey	Sambalagi, Morowali	PT. ATI	2020
42	Bathymetry Survey	Bakauheni, Lampung	PT Mosa Indo Palma	2020
43	Geophysic survey	Teluk Bayur, Padang	Pelindo II	August 2020
44	Metocean Survey	Panjang, Bandar Lampung	PT. Cargill	May 2020
45	Topography and Soil Investiagion	Prabumulih, South Sumatera	PT. MPC	Aprl - June 2020
46	Topography, Oceanography Survey, Soil Investigation, Hydrology study and Model Analysis	LOGBON, West Papua, Indonesia	PT ASIA PASIFIC PAPUA RESOURCES	2020
47	Bathymetry Survey	Celukan Bawang, Bali	PT. MIC	2020
48	Metocean Survey And bathymetry	Conakry, Guinea, West Africa	Tianjin Re search Intitutefor Water Transport Engineering M.O.T (TWTE)	Oct 2019 - Jan 2020
49	Hydrodynamic Survey Study for 2x350MW Coal- Fired Power Plant Project, Sihanouk Ville, Cambodia	Steung Hav, Sihanouk Ville Water Transport Engineering M.O.T(TIWTE)	Tianjin Re search Intitutefor Water Transport Engineering M.O.T (TWTE)	August- September 2019
50	Hydrologycal observation of dock project In	tanauge village, center sulawesi	pt. shandong zhongcheng international indonesia	
51	Topography and Bathymetry Site Survey for Proposed Pipeline	Tanjung Jabung, Jambi	Meindo Elang Indah-Petro China	May-June 2019
52	Oceanograghy Survey	Halmahera, Maluku Utara	TIWTE, Tianjin, China	Apr-Mei 2019
53	Bathymetri Survey At Kahayan River 150km	Kuala Kurun, Kalimantan Tengah	PT. Mitra Sejahtera Resources	Feb-mar 2019
54	Topographic And Bathymetry Survey	Palembang	TIWTE, Tianjin, China	Feb-Mar 2019
55	Cable Route Survey at Offshore	NTT,NTB,Bali	Telkom Indonesia's	Nov 2018-Jan 2019
56	Topographic And Bathymetri Survey	Muara Enim, Sumatera Selatan	TIWTE, Tianjin, China	Okt-Nov 2018
57	Oceanograghy And Topographic Survey	Bitung, Manado Sulawesi Utara	TIWTE, Tianjin, China	Agt-sept 2018

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58	Oceanograghy And Topographic Survey	Teluk Palu, Sulawesi Tengah	TIWTE, Tianjin, China	Juni-Juli 2018
59	Bathymetri Survey	Meulaboh, Nagan RayaAceh	TIWTE, Tianjin, China	Mei -Juni 2018
60	Bathymetri Survey	Sembur Island, Batam	PT. Berkat Sentosa Makmur	Juli - Juni 2018
61	Bathymetri And Topographic Survey	Ogan Komering Ilir, Sumatera Selatan	OKI Pulp And Paper Manufacturing	Apr- Mei 2018
62	Oceanograghy Survey	Bontang, Kalimantan Timur	TIWTE, Tianjin, China	Mei - Juni 2017
63	Hydro-Oceanography Survey for heat Dispersion Study	Pangakalan Susu North Sumatera	Synohidro	Oct 2015
64	Bathymetri Survey	Meulaboh, Nagan RayaAceh	TIWTE, Tianjin, China	Jan -Feb 2015
65	Bathymetry and Oceanography Survey, Topographic and Soil Investigation	Cipatujah, Tasikmalaya, West Java	TIWTE, Tianjin, China	Aug 2014- March 2015
66	Hydro-oceanography Survey	Ketapang, West Kalimantan	CCCC Second Harbor China	Jan - Sep 2014
67	Wave Survey	Ketapang, West Kalimantan	TIWTE, Tianjin, China	Jan -Apr 2014
68	Metocean Survey and Hydrology study and Model Analysis	Bayah, Banten Province	TIWTE, Tianjin, China	Dec 2013 - Apr2014
69	Bathymetry and Oceanography Survey	Takalar, South Sulawesi	TIWTE, Tianjin, China	Dec 2013- Feb 2014
70	Bathymetri Survey	Musi Banyuasin, SouthSumatera	Shandong Power Electric	Nov 2013- Feb 2014
71	Procurement of Heavy Equipment for Fish Pond Karawang	WestJava	CV Mahoni	Jun - Dec 2013
72	Procurement of Dump Truck for sand	Kuningan, West Java	PT Dahlia Mekar Utama	Mar- May 2013
73	Procurement of Dump Truck for sand, soil, stone	Jogjakarta, Middle Java	PT Nindya Karya	Oct 2012- Feb 2013
74	Procurement of Dump truck for soil, sand, stone, and heavy metal	karawang, west java	PT. Invratech Makmur Bersama	mei - sept 2012
75	Procurement of Dump Truck for sand, stone and Heavy Equipment	Jeneponto, South Sulawesi	DNC China	Jun 2011- Apr2012
76	Bathymetry and Oceanography for Bosowa Cement Jetty	Batam, KEPRI Province	PT. Bosowa	June 2012
77	Bathymetry , Oceanography and Climatologi Survey	Manokwari, West Papua Province	CSEPDI, China	2012
78	Mechanical and Electrical for Sand Pump Machine	Jeneponto, South Sulawesi	TIWTE, Tianjin, China	Jun 2011- Apr2012
79	Breakwater Construction and Dredging Work	Jeneponto, South Sulawesi	DNC China	Sep 2011- Apr2012
80	Breakwater Construction	Jeneponto, South Sulawesi	Chengda, Tianjin, China	Jun - Aug 2011
81	Topography Survey	Topogaro, North Sulawesi	PT Astra	July 2011

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82	Topography Survey	Pulau Laut, South Kalimantan	PT Krakatau Steel	June 2011
83	Topography and Bathymetry Survey	Bengalon, East Kalimantan	PT BEP	Apr-Jun 2011
84	Procurement of Dump Truck for soil	Lahat, South Sumatera	CSEPDI, China	March 2011
85	Procurement of Heavy Equipment for Cut and Fill	Lahat, South Sumatera	CSEPDI, China	March 2011
86	Bathymetry and Bathymetri Survey	Lahat, South Sumatera	CSEPDI, China	March 2011
87	Bathymetry and Oceanography Survey	Kuala Tanjung, North Sumatera	PT Pelindo	Mar - Apr 2011
88	Bathymetry and Oceanography Survey	Bungus, Padang, West Sumatera	Ing.Rail Amagedon, Netherland	Feb- Mar 2011
89	Bathymetry and Oceanography Survey	Celukan Bawang, Bali	CSEPDI, China	Jan -- Feb 2011
90	Bathymetry Survey	Pacitan, East Java	DEC, China	2011
91	Bathymetry Survey	Ketahun, Bengkulu	PT Injatama	Nov 2010- Jan 2011
92	Bathymetry and Oceanography Survey	Cilegon, Banten	Daewoo, Korea	Feb- Mar 2011
93	Batanghari, Jambi	Batanghari, Jambi	PTCMI	No- Dec 2010
94	Bathymetry and Oceanography Survey	Suralaya, Banten	Daewoo, Korea	2010
95	Oceanography Survey	Batam, Kepri	China Huadian	Oct 2010
96	Dredging Work from river to sea	Padang, West Sumatera	PT Sena MakmurSentosa	Oct - Dec 2010
97	Bathymetry Survey	Cilacap, Central Java	CENTIC, China	2010
98	Bathymetry and Oceanography Survey	Seblat, Bengkulu	PTCMI	Aug 2010
99	Bathymetry and Oceanography Survey	Pangkalan Susu & Brandan, NorthSumatera	PT Salamander	Aug 2010
100	Bathymetry and Oceanography Survey	Madura, East Java	China Harbor	July 2010
101	Bathymetry Survey	Jeneponto, SouthBreakwater	PT Bossowa	June 2010
102	Bathymetry Survey	Muara angke	PT. Samudera Wisesa	mei 2010
103	Bathymetry and Oceanograghy Survey for S2P Power Plant	Cilacap, Central Java	CENTIC, Chiina	2010
104	Bathymetry and Wave Survey	Pacitan, East Java	DEC, China	Nov 2009 - Jan 2010
105	Bathymetry Survey	Muara Karang, Jakarta	PT PJB	Dec 2009
106	Bathymetry Survey	Ancol, Jakarta	PT Jaya Konstruksi	2009
107	Bathymetry and Oceanograghy Survey for S2P Power Plant	Cilacap, Central Java	CENTIC, Chiina	June 2009
108	Oceanography and Bathymetry Survey	Bintan, Kepri	Bintan Lagoon Resort	2009
109	Oceanography and Bathymetry Survey	Tg.Sekong, Banten	PT Pertamina	2009
110	Bathymetri and Bathymetry Survey	Bontang, East Kalimantan TIWTE, Tianjin China		2009

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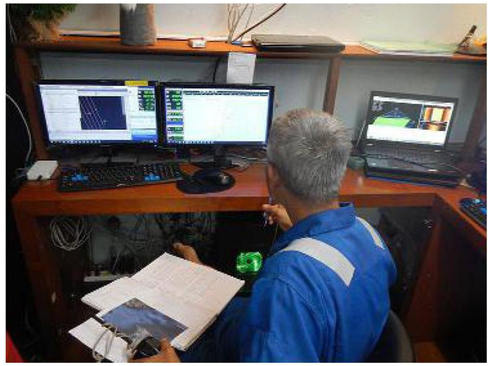

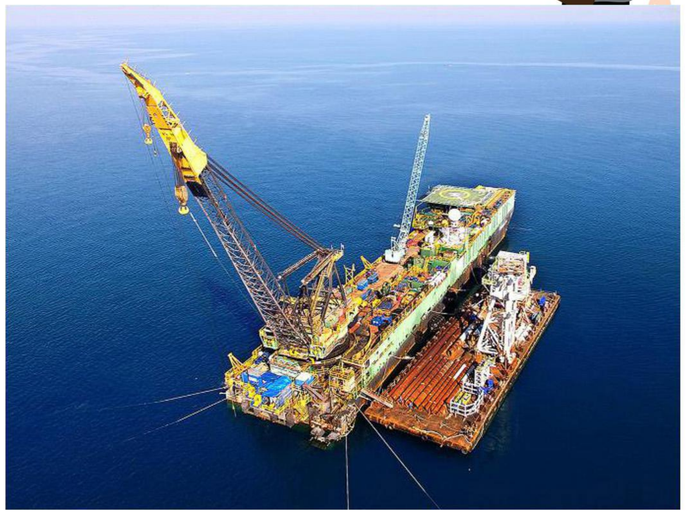

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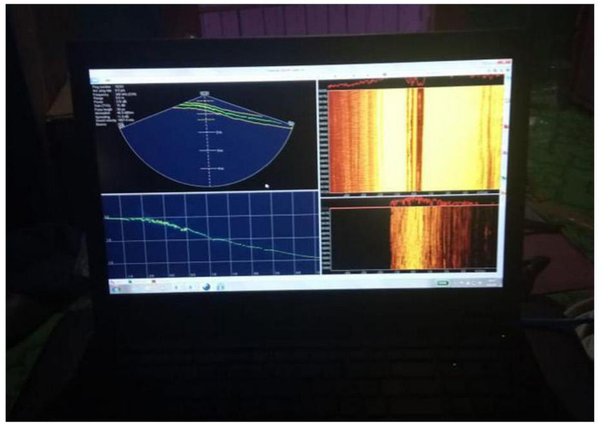

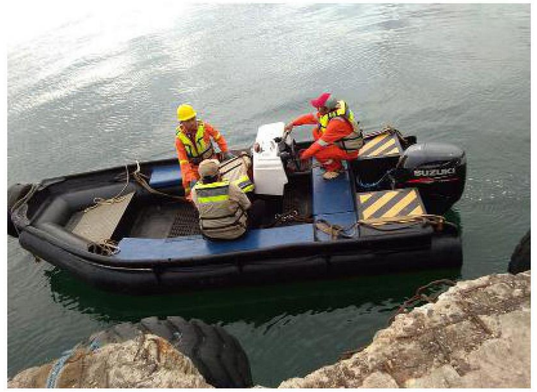

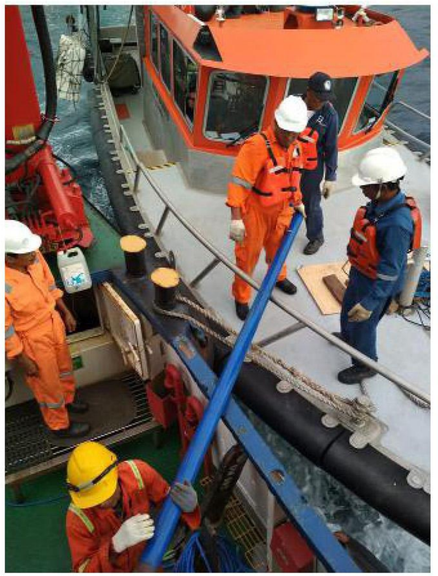

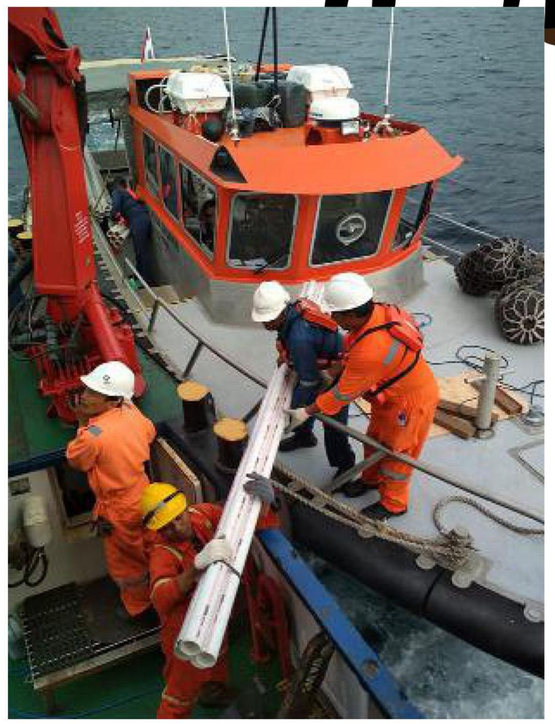

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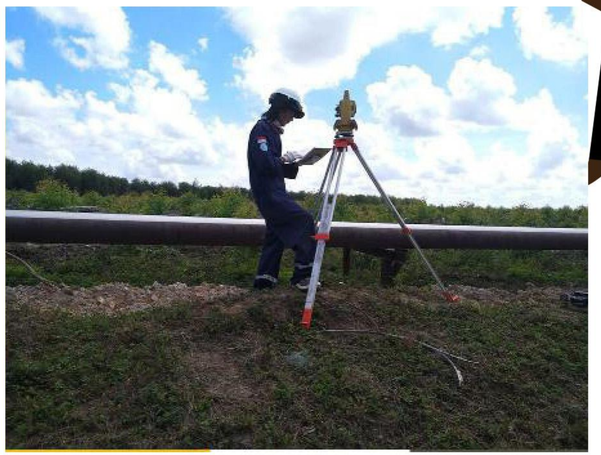

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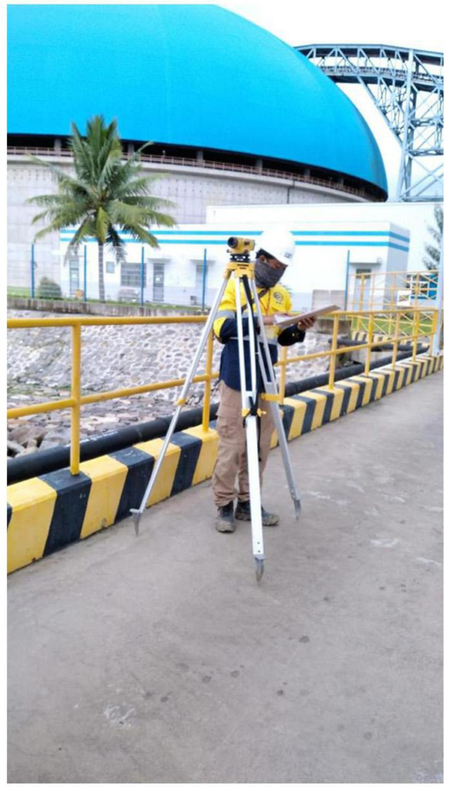

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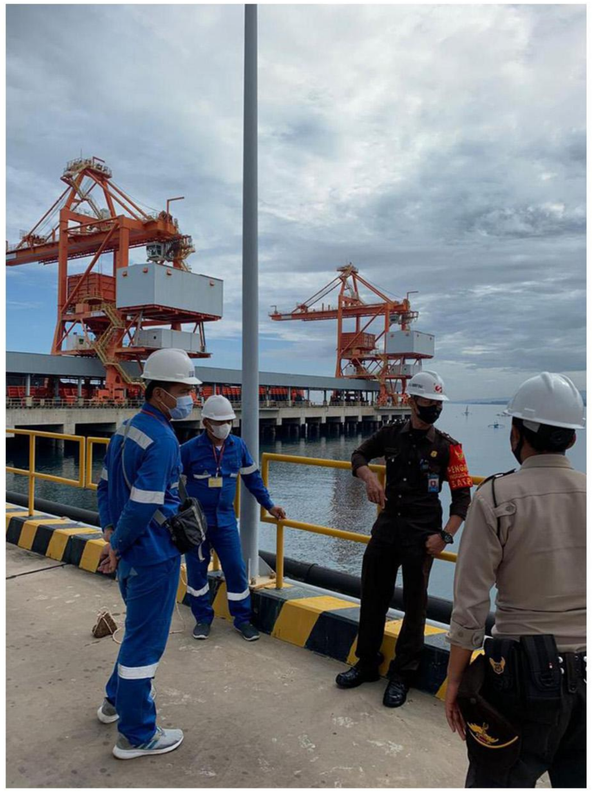

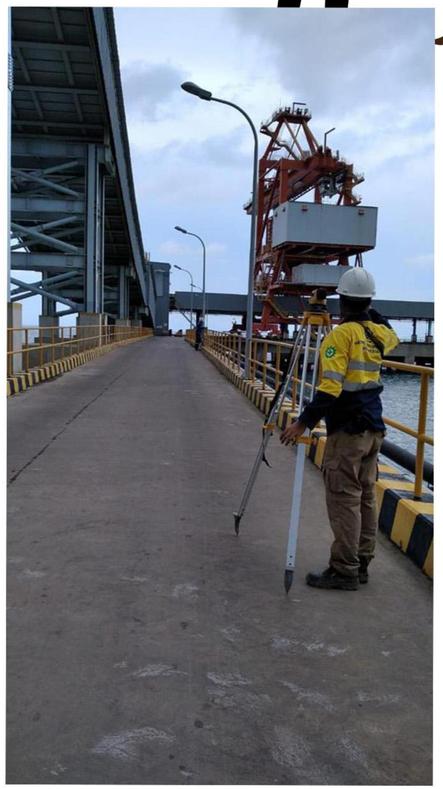

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