







Introduction







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Introduction

ABCO Environmental Services leads the industry in Saudi Arabia, serving Ras Tanurah and Abqaiq with tailored environmental solutions for over 20 years. Specializing in

innovative waste management and recycling, we meet diverse industrial needs with precision and efficiency.

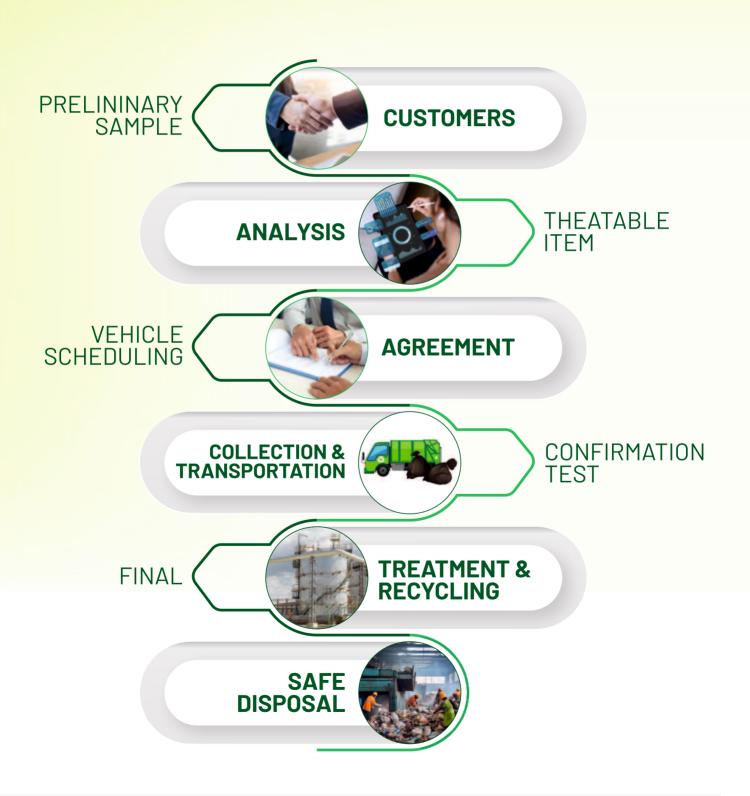
Vision

Our vision is to lead in environmental stewardship, setting benchmarks for excellence in waste management and recycling. We aim to integrate sustainable practices into every business operation, fostering a healthier environment and stronger communities. By continuously advancing our capabilities, we strive to be the partner of choice for businesses seeking sustainable solutions globally.

Mission

Our mission is to pioneer sustainable environmental solutions, delivering innovative waste management services that exceed client expectations while minimizing environmental impact. Through proactive measures and advanced technologies, we enhance operational efficiency and promote a cleaner, greener future for all.

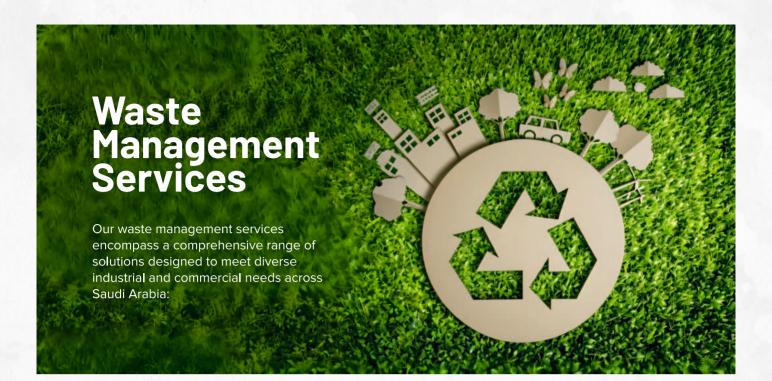
Workflow for Treatment Contracting





We are approved by all concerned governmental sectors such as MWAN & NCEC

| Hazard waste management | | | | |
|--|--|--|--|--|
| Chemical cleaning services | | | | |
| - Chemical storage | | | | |
| - Fire suppression tanks | | | | |
| - Linen Wash Tanks | | | | |
| - Food storage tanks | | | | |
| - Marine Fuel tanks | | | | |
| Bio-Remediation Services | | | | |
| Waste water treatment plant design & construction Services | | | | |
| Landscape construction services | | | | |
| Products | | | | |
| - Ultrasonic Waste water/Algae Treatment devices | | | | |
| - Intelligent Water Monitoring system | | | | |





Efficient collection of both hazardous and non-hazardous waste streams,ensuring timely and reliable disposal.

TRANSPORTATION:

Safe and compliant transportation of waste materials using specialized vehicles and equipment.

RECYCLING INITIATIVES:

Implementation of recycling programs to maximize resource recovery and minimize landfill usage.

DISPOSAL SOLUTIONS:

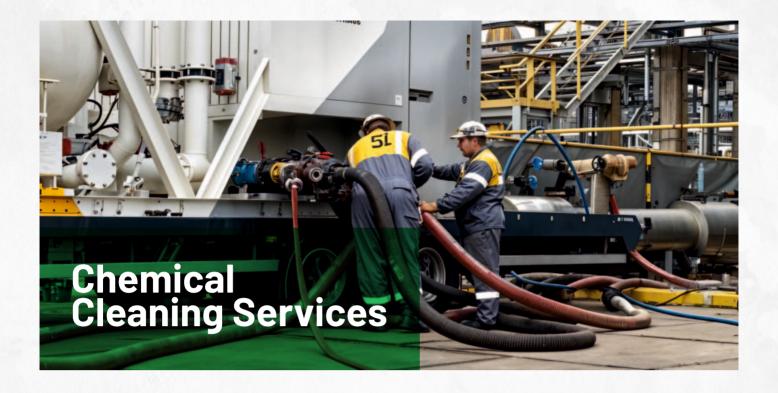
Responsible disposal methods, including landfill management and wasteto-energy processes.

COMPLIANCE ASSURANCE:

Strict adherence to environmental regulations and standards, ensuring legal compliance and environmental protection.

CUSTOMIZED SOLUTIONS:

Tailored waste management plans to meet specific client requirements and industry challenges.



Our chemical cleaning services are tailored to address specific industrial cleaning needs with precision and effectiveness. We specialize in a variety of treatments designed to enhance operational efficiency and maintain equipment integrity. Our comprehensive approach includes:

CORROSION CONTROL:

Utilizing advanced chemical formulations to prevent and mitigate corrosion, prolonging the lifespan of equipment and infrastructure.

SCALE REMOVAL:

Effective removal of scale deposits from surfaces using specialized chemicals, ensuring optimal performance and efficiency.

SURFACE DISINFECTION:

Thorough cleaning and disinfection of industrial surfaces to maintain hygiene standards and prevent contamination.

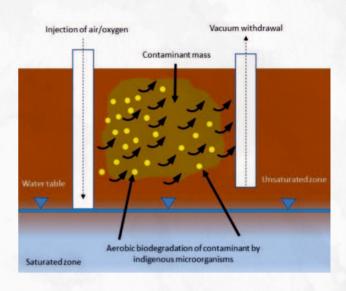
EQUIPMENT DEGREASING:

Removing grease, oil, and other contaminants from equipment surfaces to improve operational safety and reliability.



Bio-Remediation for contaminated Soil (Soilex Technology)

Our innovative solutions for remediating soil and sludge pits are pivotal in ensuring environmental safety and compliance with stringent regulatory standards. By integrating advanced technologies and specialized methodologies, we effectively treat contaminated sites with precision and efficiency. Equipped with state-of-the-art equipment and expertise, our dedicated teams undertake comprehensive remediation projects that consistently exceed industry benchmarks, delivering sustainable outcomes that restore ecological balance.





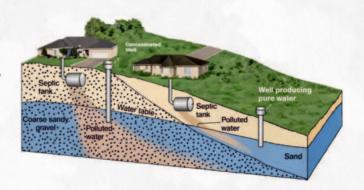
BEFORE



AFTER



Bio-Remediation for Waste Water



Advanced Techniques:

Employs cutting-edge filtration systems, such as membrane filtration and advanced oxidation processes, along with specialized chemical treatments to effectively address and purify contaminated water sources, including groundwater and water surfaces.

Specialized Equipment:

Utilizes high-tech equipment, including automated sensors, bio-reactors, and multi-stage treatment systems, designed for precise and efficient decontamination of water, ensuring removal of pollutants and toxins.

Rigorously Tested Protocols:

Implements stringent, tested protocols and quality assurance measures to meet and exceed environmental regulations. These include detailed sampling, analysis, and validation processes to ensure that all treated water meets safety and quality standards.

Sustainable Solutions:

Develops eco-friendly solutions that cater to industrial needs while reducing environmental impact. This includes the use of biodegradable chemicals, energy-efficient systems, and processes that minimize waste generation and enhance resource recovery.

Technological Advancements:

Integrates the latest technologies, such as real-time data analytics, artificial intelligence for predictive maintenance, and advanced monitoring systems, to enhance treatment accuracy and operational efficiency.

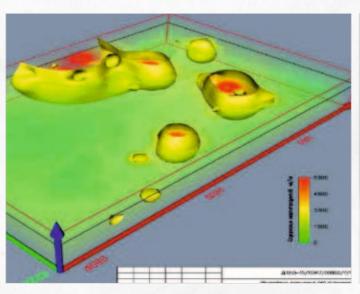
Comprehensive Approach:

Adopts a holistic strategy that combines innovative treatment methods, environmental engineering, and continuous process optimization. This approach ensures comprehensive decontamination and long-term sustainability.

Environmental Compliance:

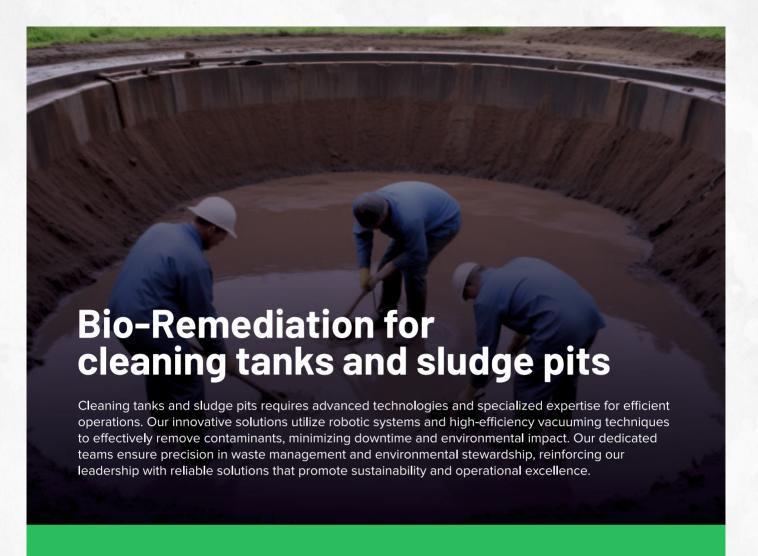
Guarantees adherence to rigorous environmental standards and regulations, contributing to the preservation of natural water bodies and promoting overall ecological balance.

General contamination scheme



Stratified 3D pollution map





Applications Petroleum Power and Energy

- Petroleum
- Manufacturing
- Sanitation
- Pulp and Paper
- Potable water
- Mining infrastructure
- Fisheries
- Processing Facilities

Our approach to cleaning tanks and sludge pits integrates advanced technologies and specialized expertise for efficient operations. Using robotic systems and high-efficiency vacuuming techniques, we effectively remove contaminants while optimizing cleaning processes. Committed to innovation and sustainability, we invest in technological advancements to meet industry demands and exceed client expectations, ensuring environmental responsibility and operational excellence.





Abco Facility Techniques

Abco technologies of Waste treatment

Our wastewater treatment systems use advanced methods to remove contaminants from industrial wastewater, ensuring compliance with environmental regulations and promoting safe discharge or reuse of treated water.



Chemical Water Segregation

Our chemical water segregation systems use precise methods to safely separate and manage chemicals in wastewater, minimizing environmental impact and ensuring compliance with regulations.



Autoclave

Our systems, for Pharma, Bio-Tech, Medical, and Agro industries, meet ASME Sec. VIII Div. 1 standards with 4-layer safety and easy touch screen operation. They offer automatic, webbased controls, and multiple fuel options with eco-friendly SA516Gr70 and SS304/SS316L materials.



Incineration

Based on technologies developed through in-house R&D and absorbed through tieups with reputed technology partners, Thermax offers a full range of incinerators:

- Rotary kilns
- Fluidized bed incinerators
- Liquid/ gaseous waste incinerators
- Fixed hearth (Pyrolytic/ Controlled air)
- VOC incinerators



Abco Advantage

Single point solution for all your Water, Waste Water Treatment and Waste Management

- I High performance culture
- Vast experience in project engineering
- National and international installation base
- Thrust on process & detail engineering
- After-sales operations & maintenance support



Product of Ultrasonic Algae/Waste water treatment (American Technology)

Our featured product, the Quartro-DB, represents a cutting-edge solution for algae treatment using ultrasonic technology powered by solar units. Designed to effectively control and eliminate algae in various water bodies, this innovative device operates with minimal environmental impact and energy consumption. The Quartro-DB integrates seamlessly into aquatic environments, offering sustainable algae management solutions that ensure water clarity and ecological balance.

List of Algae we are most likely to control.



Product of Intelligent monitoring Analysis system (PC&Mobile Application)

Our mobile application transforms wastewater management by delivering real-time analysis of water quality parameters to users' mobile devices. This innovative tool boosts operational efficiency by enabling remote monitoring and management of wastewater treatment processes. Users have immediate access to comprehensive reports and analytics, empowering timely decisions for environmental compliance and resource optimization. This technology-driven approach reflects our dedication to advancing sustainable practices in wastewater treatment.

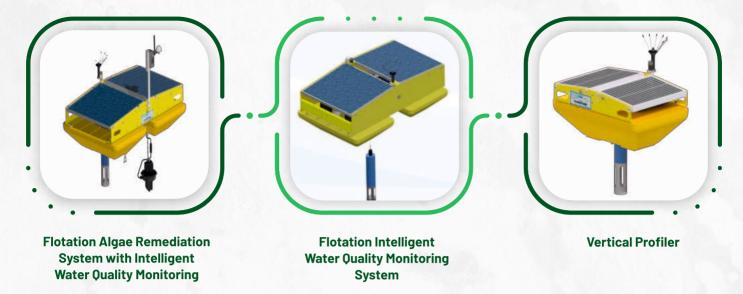


 Cellular and Serial Communications Link

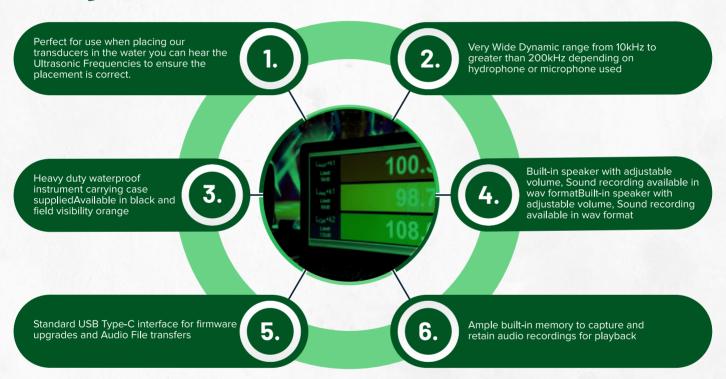
AFTER

 Intelligent Water Monitoring Capabilities

BEFORE



Product of Sound Pressure Level analyzer



Aeration Benefits

We encourage you to add aeration with our Ultrasonic Algae Treatment for the best possible results.

- Improves Waters Quality by adding Oxygen.
- Reduces Accumulation Sediment.
- Decreases Bugs like mosquitos and black flies.
- Enhances Aquatic Environments.
- · Removes odours.
- Fountains and lights can beautify the environment

We offer the best results at the best prices.





Our waste water treatment services efficiently remove contaminants from industrial and residential wastewater, converting it into clean, reusable resources. Using advanced filtration and chemical processes, we ensure compliance with regulatory standards while supporting environmental sustainability.

Field of Business

Waste water

- Livestock Wastewater
- Chemistry Plant Wastewater
 - ETP Recycling
 - Rainwater Reuse

Water Purification

- Drinking Water
- Water Supply Facilities
 - RO Pretreatment
- · Manufacturing Aseptic Water

Separation Concentrate

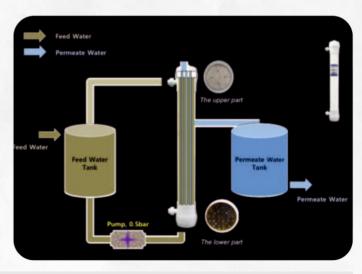
- · Separation, Collection of Silica
- · Bio, Plankton, Urea Concentrate

Membrane Technology

2-2. Type of DEERFOS Membranes **Hollow Fiber**



- Hollow Fiber having pores in the interior selectively separate by internal pores
- Separating water from suspended solid
- Wide surface area enables high flux



Benefits

The system offers many advantages when compared to conventional treatment methods.



Landscape construction services

Landscaping can change any atmosphere in any surrounding, combining aesthetics, nature and culture in a contemporary practice for your enjoyment.

We create beautiful gardens, passionately and professionally. Adding value to your property. We specialize in the design and construction of parks, sports grounds, commercial landscaping. domestic landscaping, landscape design, installation and maintenance.

Our unique approach enables us to offer our clients the most flexible garden design and landscaping service available.

- Landscape Architecture
- Masterplanning & Urban Design
- Roof Garden Design
- 3D Visualisation
- Landscape Management Consultancy
- Landscape Planning Consultancy
- SUDs Amenity Design
- Landscape & Visual Impact Assessment
- Landscape Construction Project Management

Irrigation systems and types we have installed:

- Drip and sprinkler systems
- · Centre pivot and lateral move systems
- · Manual and automated systems
- · Rain water harvesting, tailings and dust suppression
- · Sports field, golf course and horse arena's
- · Domestic. commercial and dragline systems
- Irrigation travellers and self-creeping water cannon
- · Sludge and effluent irrigation
- Pole mounted overhead irrigation
- · Misting irrigation for propagation





WHAT WE DO HYDROSEEDING / REHABILITATION

We offer erosion control methods on construction sites or as an alternative to the traditional process of seed broadcasting. It is very effective on steep slopes and sloping lawns. The advantage of hydroseeding is that large areas can be completed in very short timeframes with quick germination results.

Should you require a different vegetation than grass as an end-result, we have a variety of low water requirement plants/groundcovers/creepers that can be used as alternative.













GULF GARDEN NURSERIEES



ABCO PETROLEUM SERVICES



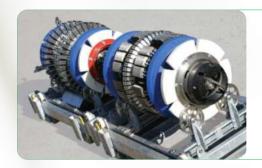
The Inspex Solution



CONTACTLESS DIAGNOSTIC

Remote measurements of magnetic field anomalies caused by defects of various nature

Traditional Methods



INSPECTION INSIDE PIPELINE

Monitoring inside pipeline with a set of various sensors



CONTACT CONTROL

Non destructive testing by traditional methods



The Inspex Solution

Advantages

- Low cost
- High speed of work
- Diagnostic of non-piggable pipeline sections
- Diagnostics without stopping the pipleline flow



Traditional Methods

Disadvantages

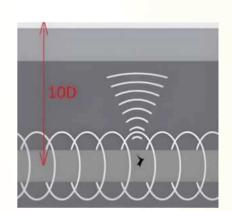
- High cost of work
- Need for preparatory work
- Stopping product transportation for the duration of inspection
- Significant limitations on applicability
- · Risk of smart pig stucking

• • •

MANTAGES - Limitations

ADVANTAGES

- Remote discants from pipe to tool up to 15 pipe diameters
- Not require stopping or reducing the volume of oil or gas transportation
- Detecting anomalies in real time in this mode
- High performance up to 15 km per day
- Inspection of areas that are not available for in-pipe or contact methods
- Automatic pipeline tracing
- Determination of the pipeline depth (if technically possible)
- Ability to operate in high electromagnetic interference environments



LIMITATIONS

- Requires a pressure of at least 5 bar (75 psi)
- Applicable only on steel pipelines



| PARAMETER | SPECIFICATIONS | | | |
|--|---|--|--|--|
| Type Of Sensors (Primary Transducers) | The Latest Generation Of Fluxgate Sensors | | | |
| Amount of measured parameters of the magnetic field | 12 | | | |
| | Metal loss from 10% | | | |
| | Crack - like defects | | | |
| Types of detectable defects | Discontinuity | | | |
| | Weld joints defects | | | |
| | Change in geometry | | | |
| | Anomalies Of Stress-deformed State (sections With Sags, Deflections, And Landslip Phenomena) | | | |
| | Other defects causes changing of the magnetic field | | | |
| Determination of pipeline bedding depth | Up to 15 diameters of the inspected pipeline | | | |
| Min/Max diameters of the pipelines inspected | 8in – 60in (200-1420 mm) | | | |
| Min/Max pipeline wall thickness | No limitation | | | |
| Type and presence of coating and cathodic protection | No limitation | | | |
| Min/Max pressure of fluid in pipeline | 5 bar (75 bar) / no limitation | | | |
| Depth /size of detectable metal loss | starting from 10 to 100 % of pipe wall thickness / from 1,5 mm long (single pitting) | | | |
| Length/opening of detectable crack-like defects | From 8 mm / 300 mkm | | | |
| Rate of survey | up to 6 m/sec | | | |
| Requirements preparation of the surface and changes in pipeline operation mode | Not required | | | |
| Intersection with underground lines/cables/metal objects | Will be excluded from analysis as interference points | | | |



Defectable Anomalies (defects)

- Metal loss from 10%
- Corrosion and fatigue stresses
- Defects related to metal loss and metal strength violations
 - Changing the pipeline geometry
 - Stress-deformed states

COMPARISON OF TECHNOLOGIES JOHNANISON OF JECHNOLOGIES

| | SPEED OF CONDUCTING SURVEYS | MEASUREMENT TYPE | ACCURACY | COST | ADDITIONAL REQUIREMENTS |
|-----------------------|-----------------------------------|--|----------|------|--|
| Inspex | 4 km/h | Non-contact (up To 10 Pipe Diameters) | 90-98% | Low | No Access Required |
| Contact Inspection | 30-50 m/h | Contact (outer surface of the pipe) | 95-98% | Low | Access To The Pipe Body Is Required |
| In-line Inspection | 4 km/h | Contact (inner surface) of the pipe | 90-98% | High | Special Equipment Of The Pipeline Is Required; Violation Of The Pipeline Operation Mode Is Required |



Case study

Verde Generation Company (kazakhstan) Feedback:

"... We were impressed with INSPEX technology and our company managed to save 250 000\$ for infrastructure construction cost..."



5 CONCEPTS OF ZERO WASTE

Buy products with less packaging, purchase in bulk, and think critically about what you truly need before making a purchase.

Recycling conserves resources and reduces pollution. Follow local recycling guidelines for effective recycling.

REDUCE

RECYCLE



REFUSE

REUSE

REPURPOSE

This minimizes waste at the source. For example, you can refuse single-use plastics like straws and utensils.

Reuse, or donate items instead of discarding them. Using reusable bags and containers also fits this principle.

Repurposing, or finding new uses for old items, not only money but also divert from landfills

You must have come across the 5R's to save the Environment



REFUSE



REDUCE



REUSE



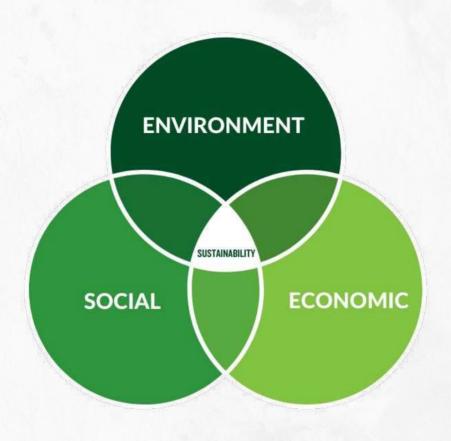
REPURPOSE



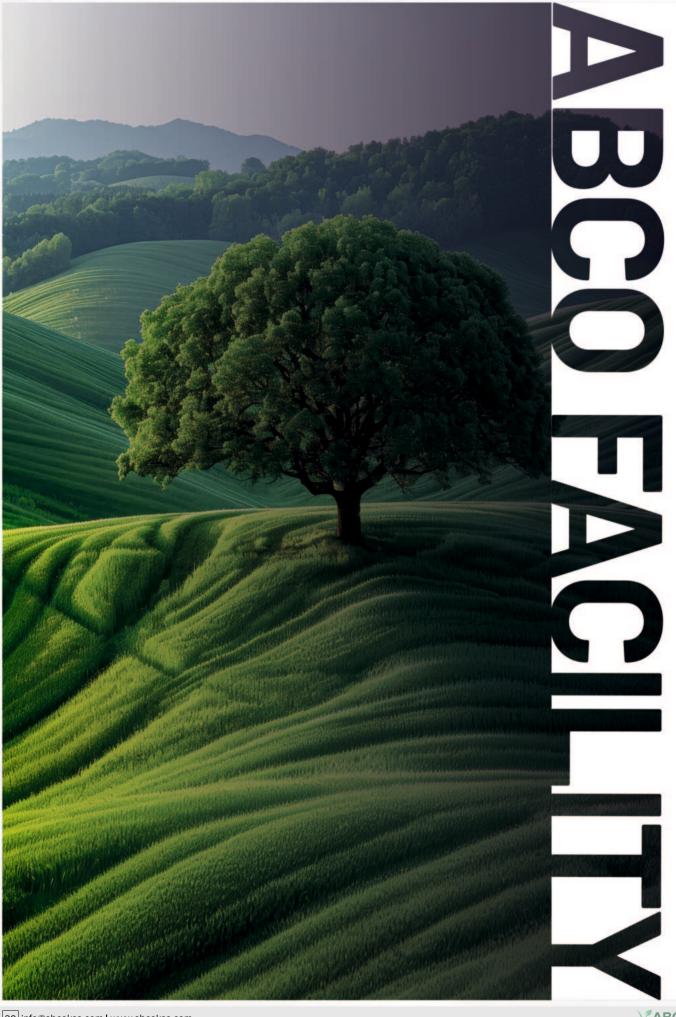
RECYCLE

Sustainability

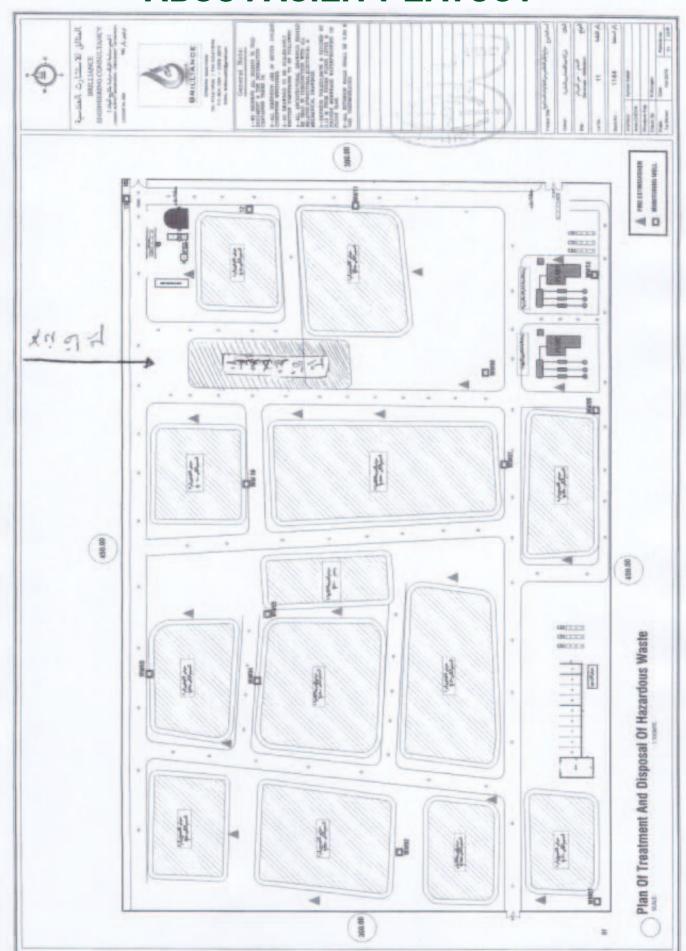
The ability to maintain or support a process continuously over time.







ABCO FACILITY LAYOUT







OUR CERTIFICATIONS

OUR ISO CERTIFICATIONS







ROYAL COMISSION APPROVED HAZORDOUS & NON HAZAROUS WASTE TRANSPORTER





TRANSPORT GENERAL AUTHORITY



GENERAL AUTHORITY OF METEROLOGY & ENVIRONMENTAL SERVICES



Our Success Partners































































































OUR AGENTS & PARTNERS



- 1. Remediation of Soil and Sludge Pits
- 2. Decontamination of Soil , Ground Water and water surfaces
- 3. Cleaning tanks and Sludge pits
- 4. Development of Environmental Documentation
- 5. Design and construction of Biogas plants



- 2. Real-Time Waste Water Analysis (Mobile Application)
- 3. Puroxi Ultrasonic Descaler
- 4. Puroxi Nano Bubble Handout





- 1. Design & construction of Waste water treatment plants
- 2. Design& construction of Sewage treatment plants
- 3. Design & construction of water purification plants

Remote pipeline Inspection services (No-Contact electromagnetic inspection services)

















Today's waste Tomorrow's Energy

OUR CORPORATE OFFICE.

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