



A Boughey Pty Ltd

Technical Management and Consulting

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OVERVIEW



A Boughey Pty Ltd is a multi-discipline consulting firm providing a range of technical and management services. We have a team of consultants who bring a diversity of backgrounds and experience in assisting our clients in solving their problems and executing their projects.

We endeavour to work in partnership with our clients, and to deliver on the promises we make of quality service, optimal communication and teamwork.

A Boughey Pty Ltd was established in 1999. Our consultants have more than 20 years experience in engineering management, business administration, equipment design, mechanical and structural design, software design, contract administration, professional development training, and managing and operating maintenance workshops.

Our business is based on providing innovative technical management services, engineering services, and business solutions.

We provide services in:

- BUSINESS SOLUTIONS
- ENGINEERING
- PROJECT MANAGEMENT
- ASSET MANAGEMENT
- INFORMATION MANAGEMENT

OUR TEAM IS COMMITTED TO WORKING CLOSELY WITH YOUR BUSINESS TO ENSURE THAT YOUR NEEDS ARE CLEARLY UNDERSTOOD AND SOLUTIONS ARE SYSTEMATICALLY IDENTIFIED AND CAREFULLY PLANNED AND IMPLEMENTED

BUSINESS SOLUTIONS



BUSINESS IMPROVEMENT

A Boughey uses its experienced staff to provide solutions to your business problems by taking a holistic view of your organisation and its problems. Whether it involves Needs Analysis or improvement in productivity, ABPL has the expertise to support your organisation.

The success of any initiative or business is dependent on how well the initiative is understood. ABPL can provide customised training programs to support your initiatives, including detailed lesson plans, presentation material and personnel to deliver the training.

BUSINESS CONTINUITY PLANS

A Business Continuity Plan is an integral part of any comprehensive risk management program. We apply a systematic approach to identify the key risk areas within a business that could impact on your organisation's ability to continue providing its goods and services.

DISASTER RECOVERY PLANS

ABPL prepare Disaster Recovery plans from the broader whole of business approach, starting firstly with the identification of key processes and threats through to the preparation of response plans.

DOCUMENT PREPARATION

Quality document preparation is essential to a productive and successful business.

The background of our consultants both in equipment design and manufacture as well as the design and construction of facilities enables us to provide design specifications to satisfy your requirements.

A Boughey provide a comprehensive document preparation service in the following areas:

- Specification Writing
- Tender Writing
- Contracts
- Procedure Writing
- Management Plans
- Disaster Recovery Plans



MANAGEMENT SYSTEMS

Quality systems and procedures are essential to controlling the direction and operation of your organisation. Risk management, quality management, environmental management, etc. are all separate but somewhat related management disciplines. To achieve the most out of your business, these management systems need to be integrated to minimise conflict and maximise synergies.

A Boughey can facilitate the creation of new processes, streamline and integrate existing processes and ensure that the appropriate technology is used to support and present the information necessary for smart decision making.

We provide services in:

- Quality systems
- Document control
- Procedure writing
- Continuous improvement
- Disaster Recovery Plans

RISK MANAGEMENT

Risk is an inherent part of business and the management of risk is critical to the success of your business. A Boughey offer the following risk management services:

- Risk Management System Development and Implementation encompassing risk management systems that are customised to integrate risk management principles with your existing management systems.
- Risk Assessment - Our structured approach to undertaking and facilitating risk assessments utilises our customised risk management database software (RIMSYS).

We assist organisations with a range of assessment types including strategic risk assessments, technical risk assessments, Hazard & Operability Studies (HAZOP) , Failure Mode and Effects Analysis (FMEA) and Reliability, Maintainability & Availability (RMA) studies.

Current Assessment Name	ACME Gold Mine
Assessment Description	Operations
Assessment Criteria Group	Default
Change Assessment	



ASSET MANAGEMENT



ABPL provide a comprehensive and structured approach to the long-term management of assets. We utilise a systematic process to produce a strategy to effectively maintain, upgrade and operate assets by combining engineering principles with sound business practice and economic rationale, and provide the tools to facilitate a more organised and flexible approach to making decisions.

The main streams in asset management are:

- Identification of need for the asset
- Provision of the asset, including its ongoing maintenance
- Operation of the asset
- Disposal of the asset when the need no longer exists or it is no longer appropriate for the asset to be retained.

MAINTENANCE AUDITS

ABPL can undertake maintenance audits to determine whether the way forward is correctly defined and is being followed. The audit will measure the effectiveness of the normal practices and reveal whether improvements are required. From this, action plans may evolve which will refine not only the maintenance strategy, but also the way in which the maintenance operations and technologies are applied.



An audit is a more questioning activity than monitoring performance indicators. It can include a review of one or more of the following four areas:

- Equipment condition and effectiveness
- The maintenance processes, and the procedures and systems in place
- The ISO quality system
- An improvement project in isolation from all other activities.

MAINTENANCE PLANS

ABPL can develop an Equipment Maintenance strategy plan that will identify the tasks needed to properly maintain fixed plant, mobile plant or process equipment. The equipment maintenance plan will detail the required maintenance tasks. This plan can also provide planning and budgeting information.

CONTRACT SUPPORT

ABPL have experience in the management of procurement and life cycle contracts. Managing contracts and monitoring the performance of suppliers is crucial to achieving the intended objectives.

Contract management activities can be broadly grouped into three areas:

- Service delivery management ensures that the service is being delivered as agreed, to the required level of performance and quality
- Relationship management keeps the relationship between the two parties open and constructive, aiming to resolve or ease tensions and identify problems early
- Contract administration handles the formal governance of the contract and amendments to the contract documentation.

Through identifying and monitoring a clear set of contract outcomes and actively working with the supplier to ensure the delivery and achievement of these requirements, we can ensure the intended benefits are actually realised during the period of the contract.

ENGINEERING

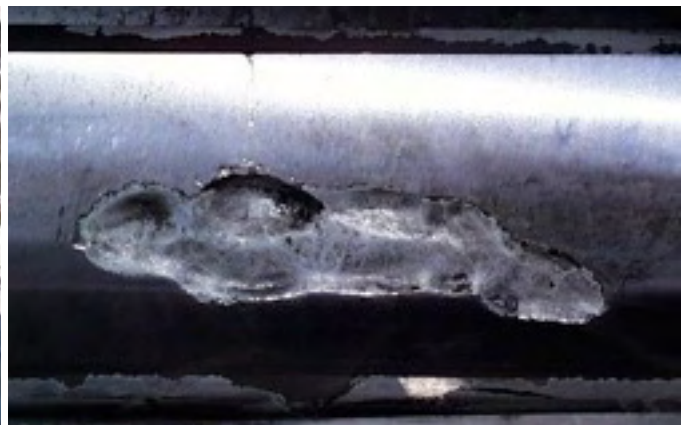


ENGINEERING CONSULTING

ABPL offers a range of engineering services that will assist you in providing solutions to your technical problems. Our services range from engineering design and preparation of technical documentation through to failure analysis and engineering management.

APBL provides services in:

- Management
- Document control
- Scheduling
- Failure analysis and remedial design
- Assessing equipment failure - cause and effect
- Auditing
- Specification writing - engineering equipment
- Design - equipment components
- Facilitation and design study tools - HAZOP (Hazard Operability Study) and FMEA (Failure Modes and Effects Analysis)
- Inspection and expediting



PROJECT MANAGEMENT



A Boughey Pty Ltd specialise in managing corporate projects such as management systems implementation, process and system improvement programs and technology infrastructure [utilising a customised project management toolkit].

Our project management team provide the following range of services:

- Risk management
- Risk assessment
- Systems implementation
- Document and correspondence management systems
- Contract administration
- Equipment supply
- Refurbishment
- Project audits that ensure correct controls are in place for such areas as procedures, budgets and scheduling.
- Cost estimating, cost control and scheduling
- Document preparation for contracts, tenders and scoping.

**OUR TALENTED PROJECT
MANAGEMENT TEAM WILL TAKE A
PROJECT FROM AN INITIAL IDEA
THROUGH TO IMPLEMENTATION
AND SUPPORT.**



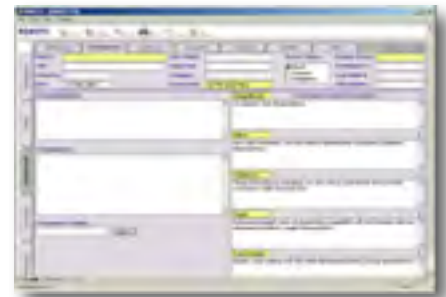
INFORMATION MANAGEMENT



GAIN FULL CONTROL OF YOUR INFORMATION SYSTEMS

At the heart of good decision making is having adequate information at hand when it is required.

A Boughey provide assistance in developing information management systems in terms of the concept design and database software applications.



Running an effective and efficient organisation requires the management to have the correct information available in a timely manner. Off-the-shelf information systems can assist in managing the information needs of the company but usually dictate how the company must operate rather than be adaptable to the existing organisational processes and procedures. A Boughey build custom programs focused on your particular challenges, opportunities, problems, and prospects.

Our custom cross-platform database solutions fill the void left by the off-the-shelf solutions. These solutions combine a library of database functionality with the specific needs of your organisation.

Our services include:

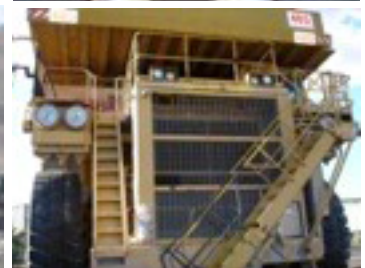
- A complete needs analysis
- Project documentation
- Software development
- Reporting
- Data conversion
- Information system upgrades
- Installation/configuration
- Training and support.

We also offer the following customised product:

TOMSYS - Office Management Database

PROJECT HISTORY

Asset Management



Rio Tinto/Hail Creek Coal Project

Heavy Mobile Equipment contract support, 2008 - 2013

Energy Resources of Australia

Heavy Mobile Equipment contract support, 2010 - 2012

Clermont Coal Project

Heavy Mobile Equipment contract training and support, and Heavy Mobile Equipment agreements, 2008 - 2012

Warkworth Mining Limited

Heavy Mobile Equipment Support, 2011

Coal & Allied - Hunter Valley Operations

Heavy Mobile Equipment contract support, 2008 - 2012

Blair Athol Coal

Heavy Mobile Equipment contract support, 2008 - 2011

Rio Tinto/Hail Creek Coal Project

Heavy Mobile Equipment contract support, 2008 - 2012

Red Button Group Limited

Creation of maintenance plans for Lucas Drilling, 2009-2010

Rio Tinto Coal Australia Pty Ltd

Maintenance Audits, 2006 - 2012

Development of contingency plans for Critical Risk, 2004

Bengalla Mining Company Pty Ltd

Heavy Mobile Equipment contract support, 2008 - 2011.

PROJECT HISTORY

Business Solutions



Hinchinbrook Public School

Creation of centralised and remote reporting databases for Hinchinbrook Public School K-6
Reporting and ongoing associated modifications, 2007 - 2011

Melbourne City Council

Business Continuity Program, 2007

Newcrest Mining Limited

Whole-of-business risk management system implementation, including training programs
Development of Disaster Recovery Plan Framework
Risk assessment workshops
Development of Group Crisis Management Plan
Director's IT support

Oxiana Ltd

Risk Assessment workshops and report - Prominent Hill Project, 2005

Ross Campbell & Associates

Leightons Holdings & Xstrata (Ravenswood) Crisis Management workshops & support, 2008
ARA Crisis Management Audit, 2006
P & O Business Continuity Planning, 2006
Preparation of Emergency Response Plans for Sun Metals Refinery, 2004
NRMA Crisis Management Plan, 2004
Fosters Risk Assessment, 2005

Roads and Traffic Authority, NSW

Risk Assessment Report for RTA Bellambi Asphalt Plant

Centennial Coal

Supply and installation of RIMSYS and associated database training for risk personnel, 2004-2006

GRD Minproc

Risk Assessment - Kingsgate Consolidated Ltd

Delta Gold Risk Project

Eastern Creek UR-3R Project - Commissioning risk assessment, 2004

Kanowna Belle Gold Mine

Risk Management training

SAMAG (South Australian Magnesium) Project

Business Risk Assessment

Bulong Nickel Project on behalf of Barclays Bank

Risk Assessment

Kirrawee High School

Cost audit and estimation for Music Block construction, 2004

Kingsgate Consolidated

Supply and installation of RIMSYS and associated database training

Database development, 2003.



PROJECT HISTORY

Engineering & Project Management



Tasmines Mill Support

Client: Tasmania Mines Limited, Tasmania, 2013-2015 ongoing

Mill Drive Analysis and mill refurbishment option study including support for gear and pinion procurement and manufacture

Northparkes ML03 Replacement Gear

Client: Northparkes Mines, 2013-2015

Technical support for purchase of new gear and pinion

McArthur River Expansion Mill Support

Client: McArthur River Mining Pty Ltd, 2013-2014

Support services for ball mill installation

Collahuasi Mine Component Failure Analysis

Client: Compania Minera Dona Ines de Collahuasi SCM, Chile, 2012

Ball mill repair support

Collahuasi Mine Mill Support

Client: Compania Minera Dona Ines de Collahuasi SCM, Chile, 2011-2012

Mill support services including inspection of damage to ball mills and provision of independent assessment report

Masbate SAG Mill Replacement Shell Contract Support

Client: Philippine Gold Processing and Refining Corporation, Indonesia, 2011-2013

Procurement and manufacture support for replacement of SAG Mill shell

Telfer Crusher Feasibility Study

Client: Newcrest Mining Limited, 2011

Feasibility review to increase size of trucks feeding primary crushers

Masbate SAG Mill Shell Repair Support

Client: Metso Minerals (Australia) Limited, 2011-2013

Support for repair of damaged shell

Three Springs Conveyer Design

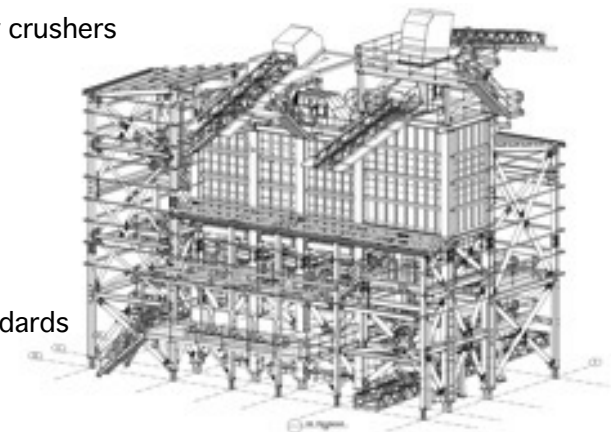
Client: Metso Minerals (Australia) Limited, 2011-2012

Design review of conveyer compliance with Australian Standards

Kayelekera SAG Mill Equipment Audit

Client: Paladin Resources (Africa), 2011

SAG Mill inspection and support



Holcim-Lynwood Crushing and Screening Plant Building Design
Client: Metso Minerals (Australia) Limited, 2011-2013
Design and documentation services for the structural design of the Primary Crushing Station for the Holcim-Lynwood Quarry Project

Savage River AG Mill, Fabrication and Technical Support
Client: Metso Minerals (Australia) Limited, 2011-2012
Technical support for Savage River replacement mill shell assembly

Freeport (Indonesia) Ball Mill Gear Inspection
Client: Metso Minerals (Australia) Limited, 2011
Inspection of damaged gear

Batu Hijau Grinding Mill Equipment Audit
Client: PT. Crushing and Mining Equipment, Indonesia, 2011
Site support and mill equipment audit

Telfer Gold Mine Mill Lubrication Systems Audit
Client: Newcrest Mining Limited, 2011
Mill lubrication system reliability audits

Mt Isa Mines, QLD
Client: Metso Minerals, 2009-2012
Field support and failure analysis for hydrostatic trunnion bearing on ball mill

Kimberley Metals, NSW
Client: Mineral Hill Project, 2010
Inspection and condition report on existing ball mills to enable mills to be returned to service after being on care and maintenance

Batu Hijau, Indonesia
Client: Metso Minerals, 2009
Training on Mill Trunnion bearing lubrication systems

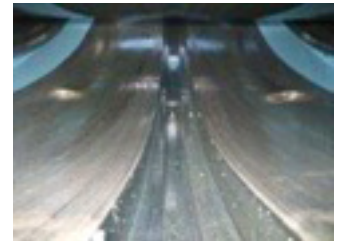
Telfer Gold Project, WA
Client: Newcrest Mining Limited, 2009
Grinding mill lubrication systems reliability audit and review

Pinjarra Mill Replacement Study Report, WA
Client: Alcoa World Alumina Australia, 2009
Mill shell options study for repair or replacement of existing mill shell

Savage River Shell Replacement
Client: Metso Minerals, 2010
Support for manufacturing of replacement mill shell

Boddington Gold Mine WA
Client: Metso Minerals, 2009-2010
Technical support on grinding mills

Mindoro Nickel Project, Philippines
Client: Philipp's Technical Consultant Corporation, 2008-2009
Project support for Mindoro Nickel Project DFS



Kayelekera Project Mill Refurbishment

Client: Paladin Resources (Africa), 2006-2010

Inspection and condition reporting of used mill

Oversight of loading for shipment to Africa from Philippines

Preparation of refurbishment work scope



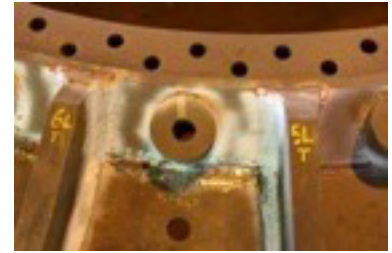
Engineering support for 2008 Lifecycle Cost Modelling

Client: Rio Tinto Coal Australia Pty Ltd, 2008

Project Coordination

Client: Oceanagold (Philippines), Inc., 2007

Didipio Gold Copper Project



Maintenance Auditing

Client: Rio Tinto Coal Australia Pty Ltd, from 2007 (ongoing)

Project Engineering Services

Client: Cullen Mining Services Pty Ltd, 2006

Didipio Gold Copper Project



Black Swan Project Mill Refurbishment

Client: Metso Minerals, 2006

Inspection and reporting of condition of used SAG mill. Services included the preparation of refurbishment plans and supervision of refurbishment activities for the mill.



Ball Mill Gearbox Failure Analysis

Client: Metso Minerals, 2005

Inspection, failure analysis and reporting of ball mill gearbox bearing failures.



Capital Cost Estimate for Molymines Molybdenum project

Client: Battery Limits Pty Ltd, 2006

Preparation of capital cost estimate for section of plant

In-situ Machining of SAG Mill Trunnion Flange

Client: Metso Minerals, 2005

Provision of technical support services to resolve installation problems of a SAG mill that required in-situ machining of trunnion mounting flange to eliminate excessive run-out

Austindo Project - Inspection of Used Mill

Client: Cullen Mining Services Pty Ltd, 2005

Inspection and condition report preparation for a used ball mill being purchased by Austindo for project in Indonesia

Prominent Hill Pre-feasibility Quantity Take-off

Client: Cullen Mining Services, 2005

Preparation of preliminary arrangements and engineering to enable preparation of quantities for the development of a capital cost estimate

Lumwana Project Technical Support for Mill Tender Evaluation
Client: GRD Minproc, 2005
Technical Support for Mill Tender Evaluation

Pre-feasibility Capital Cost Estimate for Fosterville Sulphide Project
Client: Cullen Mining Services, 2004

Rapu Rapu Polymetallic Project
Client: Cullen Mining Services, 2004
Provision of engineering support services for the purchase and refurbishment of a ball and SAG mill

Mupane Gold Project Construction Review
Client: Cullen Mining Services Pty Ltd, 2004
Construction Review

Telfer Ball Mill Fabrication Supervision
Client: Metso Minerals, 2003
Provision of workshop supervision for the resolution of fabrication problems during the fabrication of the ball mill shells. Activities included workshop scheduling, purchaser liaison and inspection.

Georgia Minerals Sand Project
Client: Cullen Mining Services Pty Ltd, 2002
Project Engineering services

SAG Mill Motor Failure Analysis
Client: Northparkes Mines, 2000
Analysis of SAG mill motor failure

Lithgow Silicon Smelter
Client: Australian Silicon, 2000
Provision of project engineering services including the review of project specifications and capital costs

Ball Mill Gear Failure Analysis
Client: Northparkes Mines, 2000
Analysis of SAG mill motor failure

Regrind Mill Refurbishment Project
Client: Northparkes Mines, 2000
Provision of project management, inspection and technical services for the refurbishment and installation oversight of a used ball mill

Torsional Analysis of Compressor System
Client: Industry Uniserve, 1996

Design of Feed Hopper Extension for Thermal Soil Remediation Unit
Client: Australian Defense Industries - Industrial Decontamination Division, 1993.



PROJECT HISTORY

Hazard & Operability Studies (HAZOP)



HAZOP for Asphalt Batching Plant

Client: Roads & Traffic Authority, NSW, 2006

HAZOP of Burner System for Rotary Dryer

Client: Cement Australia, 2004

HAZOP for Asphalt Plant Port Kembla

Client: Boral Asphalt Ltd, 2004

HAZOP for a Mineral Sands Concentrator

Client: Iluka Resources' Florida Georgia
Development Project

HAZOP for Limited Attendance Fluid Bed Boiler

Client: Energy Equipment Pty Ltd, 1993

HAZOP on limited attended boiler installations.





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