

2009 PROJECTS

Major Project

- **APEX Minerals** - Project Management and Construction Management of the Wiluna Gold Mine and Processing Plant up-grade. Included: Mechanical, structural and electrical design and construction, procurement, environmental surveys and reports, plant inspections, source and provide professional, trade and non-skilled contract staff for FIFO project, (60 persons). Refurbish and increase capacity of process plant. Development of P&ID's and PFD's. Provide "AS Built" and new drawings to current Australian Standards. Develop a drawings database. Completion and hand-over to client.
- **Goldfields St Ives** - Engineering Design for feasibility study for the Athena underground mine project.
Included the development of all designs (electrical, mechanical, civil and structural) for surface and underground infrastructure including workshops, offices, pump stations, electrical reticulation, washbay and underground magazine and service bay.
Development of project cost estimate to feasibility level and submission of documentation with the end result of client approval of project.

Projects

- **Reed Resources, Nimbus Plant** - Dismantle old silver process plant, dispose of equipment and materials and clean up site to meet Environmental Management Plan. (Decontamination of Mercury).
- **Bluespec, Kalgoorlie Workshop** - Design, approvals and project manage the process for the construction of a 2700 sq metre workshop.

Mechanical Engineering

- **FMG** - Mechanical engineering and design of minor projects as part of Heads of Agreement
- **Goldfields Agnew Mine** - Heads of Agreement – Capital Projects Study Program
- **BHPBilliton Nickel West - KNS** - Smelter floor support design
- **BHPBilliton Nickel West - KNS** - Self bunded oil tank design
- **BHP Billiton Iron Ore** - Nominated independent project peer review company for capital projects business cases, (project value \$1m to \$20m.)
- **Water Corporation**

Civil/Structural Engineering

- **Kalgoorlie Auto Service** - Workshop
- **Gulf Transport Kalgoorlie** - Workshop up-grade

Electrical Engineering

- **APEX Minerals** - Wiluna Plant
- **Goldfields St Ives** - Athena project electrical reticulation design for feasibility study.
Upgrade of electrical circuits and reticulation including process control as part of process plant refurbishment.

Environmental Science Services

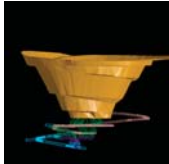
- **Alchemy Resources** - Level 2 Fauna Survey, Meekatharra Region
Level 2 fauna [vertebrate and short range endemic (SRE) invertebrate] survey undertaken in the Meekatharra region of Western Australia. Activities included site selection, trap establishment, survey logistics, pit clearing, foraging, species identification, bird surveys, use of anabat recorder, report compilation
- **Terrain Minerals** - Level 1 Fauna Survey, Leonora Region
Reconnaissance flora and fauna surveys undertaken in the Leonora region of Western Australia.
- **Corvette Resources** - Level 2 Flora Survey, Great Victoria Desert Region Project Management and reporting of vegetation mapping for the Plumridge Project.
- **Alchemy Resources** - Level 2 Flora Survey, Meekatharra Region
Undertook vegetation mapping of the Hermes Project Area, Wilgeena Project Area and Haul Road.
- **MBS Environmental** - Trench Zoologist, Dampier to Bunbury Gas Pipeline
Provided experienced zoologist to undertake removal of fauna trapped in the pipeline trench. Activities included fauna removal, species identification, report writing and presentation to audit and regulator teams.



2009 PROJECTS continued

Asset Management

- **Classified plant audits** - Contracts to provide 3rd party Certified Plant Inspections with BHP Iron Ore, BHP Nickel west, BHP Olympic Dam, Iluka resources and Apache Energy. Inspections completed for Water Corporation, Rio Tinto, KCGM, Sandvik, BIS, GR Engineering, Savcor Fin, Saracen, Dioro and various other major companies.
- **NDT** - Various work undertaken in the Perth metro, Kalgoorlie, NorthWest and South West of Western Australia for drilling operations, mining operations, rail road equipment and small aircraft components. UT C-Scan imaging of tanks and vessels.
- **Norilisk** - Avalon plant. Continuation of care and maintenance contract until client shutdown and withdrew May 2009.



2008 PROJECTS

Major Project

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Overseas Projects

- **Avalon Minerals, Sweden** - Providing Mining Engineering consultancy services ascertaining the feasibility of re-opening exploration tenements surrounding the Viscaria mine. Previous Rapallo experience gained directly through Mining Engineering and Mine Management works for the Boliden Limited mining company as well as for contract mining company Bergteamet and equipment supplier Jama Mining Equipment.
- **Kumtor Gold Mine, Kyrgyzstan** - Provide NATA accredited NDT training to Kumtor personnel on site.

Mechanical Engineering

- **FMG** - Mechanical engineering and design of minor projects at Cloudbreak Minesite WA, (16 projects).
- **BHPBilliton KNS** - Turbine Dump Valve Replacement
- **BHPBilliton - KNS** - Hook, Bridle, Ladle Assessment & Redesign
- **Goldfields Agnew Mine** - Full time secondment of Mech Engineer undertaking Project Management of Agnew Mine site projects.
- **Goldfields - Agnew** - Cyanide Line Upgrade and Code Compliance
- **GoldFields - Agnew** - Packaged work heap leach
- **GoldFields - Agnew** - Shutdown Planning
- **GoldFields - Agnew** - Leach Tank Cone Replacement. Engineering support to identify cause of failure and engineering design and installation management of solution.
- **GoldFields - Agnew** - Mill Water Supply Project. Provision of engineering support and project management for upgrade to plant process water supply.

- **GoldFields – Agnew** - Mill Dust Control Project. Engineering feasibility study for stockpile cover to assist with dust control management onsite.
- **GoldFields – Agnew** – Engineering support for Regen burner replacement.
- **GoldFields - St Ives** - Cyclone underflow upgrade
- **GoldFields - St Ives** - Leach Tank Dart Valves Upgrade
- **Tierney Contracting** - Kanowna Belle Mill Upgrade
- **GME Resources** - Heap Leach Feasibility project
- **GME Resources** - Hepi Heap Leach Project
- **Avalon to Black Swan** – Borefields and pumping stations
- **Heron Resources** - Jump Up Dam Heap Leach
- **Jubilee - Cosmos Mine** - Head Frame and Vent Doors
- **Barrick Kanowna Belle** - Primary & Secondary Crusher Chute Design/Detail
- **BIS** - Acid Storage Design
- **BIS** - Heron Jump Up
- **Hercules Cranes** - RH340 & RH240 Lift study's

Civil/Structural Engineering

- **Kalgoorlie Auto Service** - Workshop
- **Norilsk Nickel Cawse** - Orion Workshop
- **Silverlake Resources** - Cyclone, Trash Screens, supporting structure & Bund Walls
- **FMG** - Access Staircase & Crusher Access Platforms

Electrical Engineering

- **Wiluna Gold Project** - Replacement of 4 substations including the design to provide a more modern and a more automated interface with existing plant and field devices. Installation of new plant and equipment.
- **BHP Flash Butt Crane Lifting Project** - Provide engineering Specifications and drafting to BHP Standards for the construction of a specialized rail track lifting system incorporating 22 monorail cranes in synchronous operation.
- **Mount Newman BHP Whaleback Operation** - Examination of existing Isolations procedure documentation. Field investigations for the purpose of reviewing isolation documentation with regard to technical content plus the inclusion of data to enhance the overall quality of each document.



2008 PROJECTS continued

Drafting

- **SHM** - IT Work Basket Design/Detail
- **Galtee Engineering** - IT Work Basket Design/Detail
- **GBF Underground** - IT Work Basket & Fan Attachment Design/Detail
- **Monadelphous Engineering** - Emulsion Tank Design/Detail
- **BHPBilliton KNS** - Sampler Crusher Detail Design

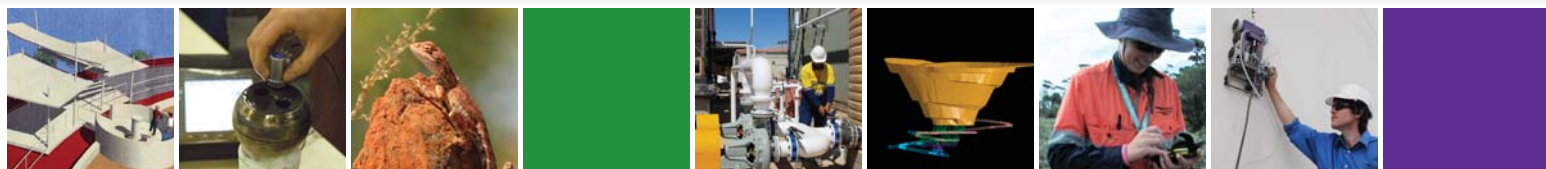
Environmental Science Services

- **Spitfire Oil** - Level 2 Fauna Survey, Salmon Gums Region, WA.
- **Spitfire Oil** - Level 2 fauna (vertebrate and SRE invertebrate) survey undertaken in the Salmon Gums region of Western Australia. Activities included site selection, trap establishment, survey logistics, pit clearing, foraging, species identification, bird surveys, use of anabat recorder, report compilation.
- **Spitfire Oil** - Level 1 Fauna Survey, Salmon Gums Region, WA. - Reconnaissance fauna survey undertaken in the Salmon Gums region of Western Australia.
- **PMI** - Level 1 Fauna Survey, Balfour Downs, Pilbara, WA.- Reconnaissance fauna survey undertaken in the Balfour Downs (Eastern Pibara) region of Western Australia.
- **GME Resources Limited** - Level 1 and 2 Fauna Surveys, Leonora Region, WA.- Vertebrate and invertebrate (SREs and troglofauna) fauna surveys undertaken in the Leonora region in the Goldfields of Western Australia. Activities included site selection, trap establishment, survey logistics, pit clearing, foraging, species identification, bird surveys, use of anabat recorder, report compilation.

Asset Management

- **Classified plant audits** - Contracts to provide 3rd party Certified Plant Inspections with BHP Iron Ore, BHP Nickel west, BHP Olympic Dam, Iluka resources and Apache Energy. Inspections completed for Water Corporation, Rio Tinto and various other major companies.
- **BHPBIO Safety Audit of Critical Maintenance Plant** - Documentation support for the Integrity assessment of a Tyre Handler. Support included inspection, repair and test plan associated with the critical maintenance equipment. Witnessing of key disassembly/assembly activities and functional testing. Non-destructive testing of all critical areas.
- **Water Corporation, Kununurra Diversion Dam, Major Crane Inspection** - Onsite inspection & assessment of 20ton Gantry crane. Identification of interim remedial works together with submission of cost estimates associated with Crane Refurbishment versus total Crane Replacement.

- **Water Corporation, Wungong Dam Crane Assessment** - Onsite inspection of all cranes & OSH compliance assessment. Provision of cost estimates to restore functionality and establish compliance of all cranes.
- **Water Corporation, Kununurra Dam Man Riding Hoist** - Third Party Technical support/assessment for the provision of Man Riding Hoist capability at the Kununurra Diversion Dam.
- **Water Corporation, Serpentine Dam Inlet Tower Hoists** - Onsite inspection & assessment of all hoists. Identification of remedial works. Liaison with Water Corporation Sub-contractors to conduct/expedite the remedial works.
- **Water Corporation, Kununurra Diversion Dam, Detailed Cost Estimate comparison** - Submission of proposal to identify detailed costs of Gantry Crane Refurbishment versus Replacement. Acceptance of proposal will mean significant work activity for 2009.
- **BHPB Iron Ore/Nickel, KONE Crane Commissioning** - Onsite commissioning and inspection of several KONE cranes. Witnessing of deflection tests. Has potential to generate further onsite commissioning activity in 2009.
- **Iluka Resources Ltd, Third Party Inspection & Audit of Economiser Installation** - Onsite inspections and audit of sub-contractor documentation encompassing welding & fabrication companies, Hydro Testing and NDT companies. Assessment of Monorail Installation activities. Provision of Classified Plant Record Book statement.
- **Apex Minerals, Classified Plant Inspections and Site Audit** - carried out full site audit of the Wiluna Gold Mine and developed all the individual files and reports to allow compliance with the MSIR-1995 and AS3788-2006. This job also entailed sourcing documents for file population from the UK, USA, Australia and using Freedom of Information to source documents from various government agencies.
- **Incident investigations related to machinery and pressure vessels** - Various investigations undertaken for major companies.
- **NDT** - Various work undertaken in the Perth metro, Kalgoorlie, NorthWest and South West of Western Australia for drilling operations, mining operations, rail road equipment and small aircraft components. UT C-Scan imaging of tanks and vessels.



2007 PROJECTS

Mechanical Engineering

- **BHPB Kambalda Nickel Concentrator** sample crushing system
- **BHPB Kalgoorlie Nickel Smelter** fuel tank redesign; hook, ladle, and bridle redesign
- **KCGM** tailings cyanide detoxification project
- **Gold Fields Australasia St Ives** heap leach plant expansion installation of Agglomeration drum and conveying system; cyclone underflow line upgrade; final tailings pumping and upgrade study
- **Gold Fields Australasia Agnew** stockpile and rill tower replacement study
- **Harmony Gold Jubilee Mine** plant structural audit and tailing line upgrade design
- **Saipen** lift study for laying pipes

Civil/Structural Engineering

- **Gold Fields Australasia Agnew** rill tower; stockpile cover; transfer yard civil works
- **BHPB Kambalda Nickel Concentrator** sample crusher tower
- **South Kal Mines** structural audit
- **Murray Black** workshop construction
- **Barrick Kanowna Bell** 10 Tonne crane support structure and structural certification
- **Various Clients** - Housing inspections and structural certifications

Mining Engineering

- **Birla Nifty** mine development
- **Birla Nifty** mining plant design

Electrical Engineering

- **BHPB Kambalda** Sample Crusher power supply and control system
- **BHPB Kalgoorlie Nickel Smelter** air compressor replacement

Drafting

- **Gold Fields Australasia St Ives** heap leach agglomeration drum; reclaim conveyor; electrical high voltage for Victory relocation; Cave Rocks haul road intersection; cyclone underflow upgrade

- **Gold Fields Australasia Agnew** rill tower protection structures
- **BHPB Kalgoorlie Nickel Smelter** hook, bridle, ladle assessment & redesign
- **BHPB Kalgoorlie Nickel Smelter** sampler crusher platform/tower
- **Various Clients** - Commercial and residential architectural drawings

Environmental Science Services

- **Various Clients** - ecological survey; environmental impact assessment and management; exploration environmental approvals; decommissioning and closure support; waste rock characterisation; clearing permits; contaminated site management
- Government and community consultation

Asset Management

- **BHPBIO** - FRCP10 (Lifting Operations Fatal Risk Control Protocol) consulting services
- **BHPB Nickel West** - LNO – plant and machinery integrity assessments/inspections
- **Barrick Various sites** - plant and machinery integrity assessments/inspections
- **Lion Ore Australia Black Swan** CMMS installation – maintenance consulting services
- **Gold Fields Australasia St Ives** maintenance consulting services – CMMS Optimisation
- **MacMahon** Underground maintenance consulting services – CMMS installation
- **Barmenco** plant and machinery integrity assessments /inspections – Countrywide service
- **Remet Engineers** drill rod design, manufacture, inspection and testing optimisation services
- **Various Clients** - standards and compliance management; third party design reviews; third party welding, manufacturing and fabrication inspection and testing services; NDT services; accident and incident investigations



2006 PROJECTS

Mechanical Engineering

- **OMG Cawse Pty Ltd** (Cawse Nickel Project) agglomeration drum scrubber, conveying, and screening system
- **LionOre Thunder Box Mine** Tailing line upgrade study
- **Lion Ore Black Swan Mine** Liner Handler upgrade
- **Lion Ore Avalon Site** care and maintenance and asset disposal
- **Birla Nifty** lime plant conceptual design and documentation; heap leach pad no.7 upgrade; dewatering study
- **Gold Fields Australasia St Ives** heap leach expansion project; full time secondment of maintenance planner;
- **Barrick Kanowna Bell** maintenance planner secondment

Civil/Structural Engineering

- **Gold Fields Australasia St Ives** cyclone underflow support structure design
- **Various Clients** - Housing inspections and structural certifications

Mining Engineering

- **Birla Nifty** mine development
- **Birla Nifty** mining plant design

Electrical Engineering

- **OMG Cawse Pty Ltd** (Cawse Nickel Project) agglomeration drum scrubber, conveying and screening system
- **BHPB Kalgoorlie Nickel Smelter** electrical reliability engineering tasks secondment
- **KCGM Fimiston** electrical engineering tasks secondment

Drafting

- **OMG Cawse Pty Ltd** (Cawse Nickel Project) agglomeration drum scrubber, conveying and screening system
- **Barrick Kanowna Belle** mill upgrade
- **Kal Auto Service** commercial workshop/warehouse development
- **Lion Ore Black Swan** liner handler modifications
- **Gold Fields Australasia Agnew** leach tank agitator installation
- **Gold Fields Australasia St Ives** - Lefroy heap leach agglomeration expansion

Environmental Science Services

- **Wedgetail Mining Limited** vertebrate fauna survey of the golden eagle deposit, Nullagine Region Western Australia; stygofauna survey of Wedgetail mining limited's leases
- **Pioneer Nickel** clearing applications and programme of work for exploration near Ravensthorpe
- **PIHA/Straits Resources Whim Creek** pipeline environmental management and fauna removal
- **LionOre Australia North Eastern Goldfields Operations** annual environmental report
- **Pendoley Environmental** (for Gorgon Gas Project) turtle tagging and track monitoring on Barrow Island

Asset Management

- **BHPBIO Various sites** - plant and machinery integrity assessments/inspections
- **BHPBIO Mt Newman** plant and machinery isolation protocols optimisation; development of a documented classified plant management system
- **BHPBIO Port Hedland/Mt Newman** development of project QA/QC management system; capital expenditure requests – third party peer reviews
- **BHPB Nickel West** - MKO - FRCP10, FRCP9 & FRCP7 consultancy services; LNO - Plant and machinery integrity assessments/inspections
- **KCGM Fiminston** - Cyanide Systems Audit
- **Barrick Various sites** - plant and machinery integrity assessments/inspections
- **Apache Energy** - Contract - plant and machinery integrity assessments
- **Rio Tinto Argyle Diamonds** plant and machinery integrity assessments
- **Saipan** - Dampier to Bumbury Gas Pipeline Project plant and machinery integrity assessments
- **Minara Resources** engineering and drafting services
- **Gold Fields Australasia St Ives Gold Mine** maintenance consulting services
- **Remet Engineers** drill rod design, manufacture, inspection and testing optimisation services
- **Macmahon Underground** maintenance/stores cataloguing services
- **Various Clients** - standards and compliance management; third party design reviews; Third party welding, manufacturing and fabrication inspection and testing services
- **NDT services** - accident and incident investigations



2005 PROJECTS

Mechanical Engineering

- **Various** Engineering Secondments to **OMG Cawse**, Goldfields Australasia, **LionOre Australia**
- **LionOre Australia** - Avalon Feasibility study
- **LionOre Australia** - Avalon Site Care and Maintenance Management
- **OMG Cawse** - Vessel and piping modifications and management.
- **BHP Billiton** - Nickel Smelter Compressor installation Feasibility Study
- **OMG Cawse** - Drum Scrubber feasibility development
- **Placer Dome Asia Pacific** - Paddington Gold Mine - Baseline Residue Storage Facility
- **LionOre Australia** - Waterloo Feasibility study - Mine Surface Infrastructure and layouts
- **LionOre Australia** - Black Swan Nickel Mine - Silver Swan Dewatering Optimisation Study
- **LionOre Australia** - Blackswan Nickel Mine - P32 & P10 Borehole Installations
- **LionOre Australia** - Avalon Nickel Project Pre-Feasibility Study
- **BHP Billiton** - KNS Safety show audit
- **BHP Billiton** - Segregation of Services Feasibility study

Civil/Structural Engineering

- **Lionore** - **Waterloo Site** - Design, Drafting and Project Management for Roads
- **OMG Cawse** - EPCM Acid Delivery Area Upgrade
- **Kalgoorlie Auto Spares** - EPCM Sandvik Tamrock Kalgoorlie Commercial Facility
- **Lionore Australia** - Contract Documentation - Avalon Site Infrastructure
- **Goldfields Australasia** - **St Ives Plant** - Design, Draft Minor Plant Upgrade and Modifications
- **Lionore Australia** - **Avalon** - Pre engineering of civil structural components for pre-feasibility costing.
- **DHW Goldfields Region** - Contract Documentation and Administration – Kalgoorlie Regional Hospital Water Ring main Replacement, Kalgoorlie
- **Portman Ltd** - **EPCM** - ROM Bin and Retaining Wall
- **OMG Cawse** - Design and Draft – Stockpile Conveyor and Trestle Assessment

Mining Engineering

- **Lionore Australia** - Waterloo Underground Contract Compilation, Review and Recommendation
- **Gleneagle Gold** - Various Underground and Open pit studies for Fortnum Project
- **Resolute Mining** - Underground Mining and In-Wall Ramp Studies for Syama Project
- **Dioro Exploration** - Various Mining studies
- **Lionore Australia** - Black Swan Open Pit Owner Operator Study
- **Kingsrose** - Various licencing works for Sand George Mine
- **Titan Resources** - Various Underground and Open Pit Scoping Studies

Electrical Engineering

- **LionOre Australia** - Various electrical feasibility studies (Waterloo, Avalon)
- **LionOre Australia** - Avalon Care and Maintenance
- **LionOre Australia** - Lake Johnston Mill expansion
- **BHP Billiton** - KNS Secondments and various project works
- **OMG Cawse** - Various projects

Drafting

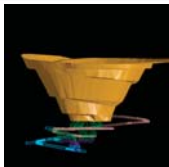
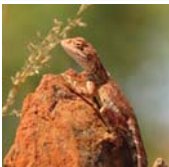
- **Gold Fields Lefroy Plant** - Pebble Crusher Bypass/Overflow Chute
- **Gold Fields Lefroy Plant** - Drafting Secondment
- **Gold Fields Lefroy Plant** - CV05 and CV06 Upgrades
- **LionOre Australia** - Avalon Nickel Project - Road and Drainage Design
- **LionOre Australia** - Avalon Nickel Project - Site Plan Design
- **LionOre Australia** - Avalon Nickel Project - Site Electrical Verification
- **LionOre Australia** - Thunderbox Gold Project CIL Feed Re-Design
- **OMG-Cawse Nickel** - Sulphuric Area Hastalloy Sump Liner
- **OMG-Cawse Nickel** - Drafting Secondment



2005 PROJECTS continued

Asset Management

- **Classified Plant Management Audits** - (Rio Tinto - Argyle Diamonds, Gold Fields Australasia, Western Areas, BHP Nickel West, Lionore, OMG Cawse, KCGM, Placerdome, Simcoa, Lungana Lime, Perilya, Iluka Resources, Simcoa etc).
- **Major Contractors** (Barminco, Ausdril, Layne Drilling, Boom Logistics, Drillcorp, RocheMining etc)
- **Mobile Plant and Drilling Equipment Inspections** - (Argyle Diamonds, Western Areas, BHP Nickel West, Lionore, OMG Cawse, Placerdome, Simcoa, Lungana Lime, Perilya, Iluka Resources etc).
- **Major Contractors** (Barminco, Ausdril, Layne Drilling, Boom Logistics, Drillcorp, RocheMining etc)
- **Maintenance Consulting**
- **Lionore Blackswan** - Transition from Contractor to owner asset management
- **Mincor (Wannaway)** - Transition from Contractor to owner asset management
- **Gold Fields (St Ives Gold Mines)** - PM strategy optimisation
- **Gold Fields (Agnew Operations)** - PM Strategy optimisation
- **Risk and Safety Engineering**
- **NATA approved Non Destructive Testing for various clients**
- **Plant Commissioning Works** for various clients
- **Dangerous Goods Facilities** auditing (Placerdome, Western Areas etc)
- **Incident investigations** (Lionore, Perilya St Ives Gold Mines)
- **Proof Load Tests for winding equipment**
- **Equipment design** reviews for various clients
- **Hydrotests for Pressure Vessels**
- **Shutdown works** (OMG Cawse, etc)
- **Gap analysis for lifting operations** - BHP Iron Ore Port Operations
- **Corrosion monitoring** - Portman
- **Training Services**
- **Maintenance Planning** (Gold Fields Australasia).
- **NDT Ultrasonic Thickness Testing Level 1** (OMG Cawse, Placerdome & Rapallo).



2004 PROJECTS

Civil/Structural Engineering

- **LionOre Australia** - Dynamic Analysis for Thunderbox Carbon-screens.
- **Perilya Limited** - Removal of Daisy Milano Head frame and Installation of Vent fan and Collar.
- **Geotechnical** - Investigations including the proposed target development, Egan St and Main Road development Piesse St
- **Concrete Durability Audits** for Placer Dome Asia Pacific and Goldfields St Ives Mining Company.
- **Granny Smith Sag Mill** platform upgrade for specialized reline methodology.
- **Fluidline Services** - industrial development.
- **Residential projects Including** - foundations and structural design, pre-purchasing inspections.
- **Coolgardie Mining Company** - Three mile Hill Rom Bin and bridge crane replacement EPCM.
- **Australian Rail Track Corporation** - Hydrology investigations into various rail bridge culverts.

Mechanical Engineering

- **Various Engineering secondments** to OMG Cawse, Goldfields Australia, LionOre Australia.
- **LionOre Australia** - Avalon Feasibility study.
- **Kanowna Belle Gold Mine** - Audit and certification works.
- **OMG Cawse** - Vessel and piping modifications and management.
- **KCGM** - Pipeline saline water integrity study.
- **KCGM** - Drilling broom mounting plate design.
- **MPI mines** Further upgrades to the primary ventilation fan at the black swan.

Mining Engineering

- **Various Engineering and Mine management secondments** to Goldfields Australasia, LionOre Australia, Siberia Mining
- **LionOre Australia** - Waterloo Feasibility study.
- **Siberia Mining** - Various scoping and feasibility studies.
- **Breakaway Resources** - Various scoping and feasibility studies.
- **Dioro Exploration** - Various scoping and feasibility studies.
- **Hibernia Gold** - Various scoping and feasibility studies.
- **Australian Contract Mining** - Various scoping and feasibility studies.

Electrical Engineering

- **LionOre Australia** - Various electrical feasibility studies. (Waterloo, Avalon)
- **LionOre Australia** - Emily Anne and Maggie Hayes Pump station control design.
- **LionOre Australia** - Avalon Care and Maintenance.
- **LionOre Australia** - Lake Johnston Mill expansion.
- **St Ives Gold Mines** - High voltage distribution system designs.
- **Mt Marion** - High voltage distribution designs.
- **Central Norseman Gold Operations** - Power station and High voltage distribution system designs.
- **Mt Isa Mine** - Underground High voltage system audit, design an engineering support.

Drafting

- **City of Kalgoorlie Boulder** - road extension at Boomerang Crescent Kalgoorlie.
- **LionOre Australia** - Lake Johnston Operations underground pump station, major pipeline design.
- **LionOre Australia** - Waterloo feasibility study, mine infrastructure layouts.
- **LionOre Australia** - Thunderbox primary crusher Bridge crane design.
- **City of Kalgoorlie Boulder** - Extension of community center.
- **Placer Dome Asia Pacific** - Wallaby pump station.
- **Fluidline** - Design and project management of new 720m2 work shop.
- **Breakaway Resources** - Highway intersection Design.



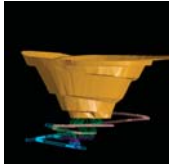
2004 PROJECTS continued

Inspection Services

- **Harmony Pty Ltd** - Classified plant audit and inspection – New celebration.
- **Argyle Diamond Mines** - Implementation of inspection services.
- **Argyle Diamond Mines** - Classified plant audit and inspection.
- **LionOre Australia** - Lake Johnston Operation, classified plant audit and inspection service.
- **Placer Dome Asia Pacific** - Kanowna Belle Gold Mine, classified plant audit and inspection service.
- **Portman mining** - Rail wagon inspection service.
- **OMG Cawse** - Autoclave and other classified plant inspections during February 2004 shut down.
- **Monodelphous Engineering** - Load test man cage
- **Inspection Service Provider** - (classified and mobile plant) for major mining houses: Goldfields Australia, Sons of Gwalia, VMC, Placer Dome Asia Pacific, LionOre Australia KCGM. Croesus, Perilya as well as Majority of drilling companies in Western Australia.

Maintenance and Construction Planning/Supervision

- **Various Secondments** to placer Dome Asia Pacific, LionOre Australia and WMC.



2003 PROJECTS

- **LionOre Australia** - Various scoping & Pre-feasibility studies.
- **Granny Smith Underground (Placer Dome Asia Pacific)** - Construction Management.
- **Sally Mallay (Macquarie Bank)** Review and Bankable feasibility.
- **Hawkins St Golf Course Rehabilitation – (City of Kalgoorlie Boulder)** - feasibility and costing.
- **Cawse Shutdown (OMG Cawse)** - Shutdown supervision
- **Cawse Shutdown (OMG Cawse)** - Civil Works and Precast concrete acid bund.
- **Rail Cars (Portman)** - Rail Car inspection and electronic triggering.
- **Compressor Station Upgrades (KCGM)** - Detailed drafting.
- **Blair Underground Project (Australian Mines Limited)** - Bankable feasibility.
- **Hornet Rubicon Pegasus** - Scoping study.
- **Black Swan (MPI Mines)** - Project management of the Black swan Ventilation Improvements.
- **Endowment Block (City of Kalgoorlie Boulder)** - Structural inspection and termite treatment.
- **Kanowna Belle Civil Works Upgrade (Placer Dome Asia Pacific)** - Design and project management.
- **Mt Charlotte Lookout (National Trust)** - Construction
- **Paddington Acacia Reactor Installation (Placer Dome Asia Pacific)** - Design and project management.
- **Paddington Acacia Reactor Installation (Placer Dome Asia Pacific)** - Design and Project management of Gold room upgrade.
- **Extension of Roads to Boomerang Crescent (Department of housing and works)** - Engineering projects services.
- **SMM02 workshop office and Cribroom (WMM, KNS)** - Design and drafting.
- Energy management studies for WMC SIG.
- **Detailed Load flow studies for WMC, SIG, LionOre and others**
- Detailed design of electrical infrastructure, HV system, plant, P&ID's, diesel power station conceptual design, U/G mine distribution system for LionOre Nickel Australia.
- 3.3kV and 415 VAC distribution system fault system study for Worsley Alumina.

- Transient stability studies conducted for Worsley Alumina, WMC SIG mineral processing plant.
- Tender, technical specifications and contract management for LionOre Nickel, Emily Ann Mine project.
- Tender preparation and evaluation for HV and communications system at WMC SIG.

2002 PROJECTS

- **Thunderbox Gold Project (LionOre Gold Australia)** - Project management of treatment plant and infrastructure.
- **Thunderbox Gold project (LionOre Gold Australia)** - Design of Airstrip and mine access roads.
- **Chinese Garden (Australian Prospectors & Miners Hall of Fame)** - Engineering Design.
- **O'Connor Local Business Center Subdivision (City of Kalgoorlie Boulder)** - Engineering project management.
- **Kalgoorlie & Boulder streetscape upgrade (Bovis Lend Lease)** - Civil design of Cassidy St, St Barbara Square.
- **Cosmos Skid Mounted Tank & Pumping station (Sir Samuel Mines)** - Engineering design.
- **Leonora CBD Upgrade (shire of Leonora)** - Drafting of roadwork layouts.
- **KCGM Primary Crusher (Pac-Rim)** - Drafting of existing primary crushing plant.
- Energy management studies for New Hampton Goldfields Jubilee.



2001 PROJECTS

- **Rebel Road (Australian Prospector and Miners Hall of Fame)** - Design.
- **Australian Prospectors & Miners Hall of Fame** - Client representative for construction workers.
- **Emily Ann Mine (LionOre Nickel Australia)** - Plant construction project managers.
- **Emily Ann Mine (LionOre Nickel Australia)** - Drafting of site layout plan
- **Emily Ann Mine (LionOre Nickel Australia)** - Site installation maintenance.
- **Saint Ives Heap Leach Project Conveyor Modification and dust suppression (WMC St Ives)** - Engineering design and drafting.
- **Windy Hill Campsite (LionOre Nickel Australia)** - Relocation and renovation of accommodation units.
- **Underground pumping station Emily Ann (LionOre Nickel Australia)** - Engineering design and drafting.
- **Refuge Chambers (Kanowna Belle Gold Mine)** - Maintenance.
- **Dewatering Canal Saint Ives Gold Mine (WMC STGM)** - Engineering design.

2000 PROJECTS

- **Gatacre Dual Carriageway Upgrade (GHD)** Engineering design drafting.
- **Fine Ore Bin (Jubilee/New Hampton)** - Modification and upgrade.
- **Underground vent doors (Kanowna Belle Gold Mine)** - Design and installation.
- **Underground refueling bay (Kanowna Belle Gold Mine)** - Design and installation.
- **Shed in Wilson St (City of Kalgoorlie Boulder)** - Removal.
- **Advertising Signage (Visual Impact)** - Engineering Design and certification.
- **Existing IT workbaskets (Force Equipment)** - Engineering design.

Past Major projects before 2000

- **St Ives Gold Mine Leviathan Open Pit Infrastructure Development (WMC Resources)** Project management.
- **Central Norseman Gold Corporation** - Development (in cooperation with WMC) of the TMU 200 stopping method and development of the Hama TUM 200/240 drilling rig.
- **Underground Refueling & Service Truck (Kanowna Belle Gold Mine)** - Design and manufacture.



Rapallo: Local Government and Infrastructure Projects track record

Rapallo provides engineering and project services of various sizes over a range of industries. From drafting services to major project management Rapallo has the solution. The following are a sample of local government and infrastructure projects undertaken by Rapallo

Dept Housing & Works Goldfields Region – Contract Documentation and Administration – Kalgoorlie Regional Hospital Water Ring main Replacement, Kalgoorlie

City of Kalgoorlie Boulder – road extension at Boomerang Crescent Kalgoorlie. Commercial Facility

Hawkins St Golf Course Rehabilitation – (City of Kalgoorlie Boulder) - feasibility and costing.

City of Kalgoorlie Boulder – Extension of community centre.

Endowment Block (City of Kalgoorlie Boulder) – Structural inspection and termite treatment.

Extension of Roads to Boomerang Crescent (Department of housing and works) – Engineering projects services.

Leonora CBD Upgrade (Shire of Leonora) – Drafting of roadwork layouts.

Chinese Garden (Australian Prospectors & Miners Hall of Fame) – Engineering Design.

O'Connor Local Business Center Subdivision (City of Kalgoorlie Boulder) – Engineering project management.

Kalgoorlie & Boulder streetscape upgrade (Bovis Lend Lease) – Civil design of Cassidy St, St Barbara Square.

Water Corporation, Wungong Dam Crane Assessment – Onsite inspection of all cranes & OSH compliance assessment. Provision of cost estimates to restore functionality and establish compliance of all cranes.

Water Corporation, Kununurra Dam Man Riding Hoist – Third Party Technical support/assessment for the provision of Man Riding Hoist capability at the Kununurra Diversion Dam.

Water Corporation, Serpentine Dam Inlet Tower Hoists – Onsite inspection & assessment of all hoists. Identification of remedial works. Liaison with Water Corporation Subcontractors to conduct/expedite the remedial works.

Water Corporation, Kununurra Diversion Dam, Detailed Cost Estimate comparison – Submission of proposal to identify detailed costs of Gantry Crane Refurbishment versus Replacement. Acceptance of proposal will mean significant work activity for 2009.

Kalgoorlie Auto Service – Workshop design

Kalgoorlie Auto Spares – EPCM



RECENT PROJECT LIST

The following are relevant projects outlining the scope of skills and experience of the Rapallo team:

Level 2 Fauna Survey, Meekatharra Region, WA

November 2009

Client: Alchemy Resources

Level 2 fauna [vertebrate and short range endemic (SRE) invertebrate] survey undertaken in the Meekatharra region of Western Australia. Activities included site selection, trap establishment, survey logistics, pit clearing, foraging, species identification, bird surveys, bat survey, report compilation

Level 1 Fauna Survey, Leonora Region, WA

October 2009

Client: Terrain Minerals

Reconnaissance fauna survey undertaken in the Leonora region of Western Australia.

Trench Zoologists, Dampier to Bunbury Gas Pipeline July 2009 to November 2009

Client: MBS Environmental

Provided experienced zoologist to undertake removal of fauna trapped in the pipeline trench. Activities included fauna removal, species identification, report writing and presentation to auditor and regulator teams.

Level 2 Fauna Survey, Salmon Gums Region, WA

October 2008

Client: Spitfire Oil

Level 2 fauna [vertebrate and short range endemic (SRE) invertebrate] survey undertaken in the Salmon Gums region of Western Australia. Activities included site selection, trap establishment, survey logistics, pit clearing, foraging, species identification, bird surveys, bat survey, report compilation.

Level 2 Target Survey for Chuditch, Salmon Gums Region, WA

October 2008

Client: Spitfire Oil

Level 2 Targeted Survey for Chuditch using motion sensor cameras and hair analysis undertaken in the Salmon Gums region of Western Australia. Activities included site selection, camera establishment, bait trap establishment, sticky wicket setup for hair collection and species identification from photographs

Level 2 Target Survey for Avian Species of Significance - White-browed Babblers, Gilberts Whistler, Crested Shrike-tit, Shy Heath Wren. Salmon Gums Region, WA

October 2008

Client: Spitfire Oil

Level 2 Targeted Survey for presence of Gilberts Whistler, Crested Shrike-tit and Shy Heath Wren and subspecies

Identification of White-browed Babblers undertaken in the Salmon Gums region of Western Australia. Activities included site selection, mist-net establishment to capture birds, in-hand species identification, playback selections and collection of feathers for DNA analysis.

Level 1 Fauna Survey, Salmon Gums Region, WA

May and September 2008

Client: Spitfire Oil

Reconnaissance fauna survey undertaken in the Salmon Gums region of Western Australia.

Level 1 Fauna Survey, Balfour Downs, Pilbara, WA

July 2008

Client: Process Minerals International

Reconnaissance fauna survey undertaken in the Balfour Downs (Eastern Pilbara) region of Western Australia.

Level 1 and 2 Fauna Surveys, Leonora Region, WA

September 2007 and March 2008

Client: GME Resources Limited

Vertebrate and invertebrate (SREs and troglofauna) fauna surveys undertaken in the Leonora region in the Goldfields of Western Australia. Activities included site selection, trap establishment, survey logistics, pit clearing, foraging, species identification, bird surveys, bat survey, report compilation.

Preliminary Stygofauna Survey, Menzies Region, WA

November 2007

Client: Heron Resources

Preliminary stygofauna survey of pastoral wells and water bores undertaken in the Menzies region of the Goldfields of Western Australia. Activities included trap construction, survey logistics, in situ water monitoring, sampling and report compilation.

Pre-Cane Toad Survey in the Kununurra and Mitchell Plateau Areas of the Kimberley

June 2007

Client: Department of Environment and Conservation

Elliot and funnel trapping of mammal and reptiles within the Kununurra and Mitchell Plateau areas to provide data for Department of Environment and Conservation cane toad research.

Vertebrate Fauna Survey of the Golden Eagle Deposit, Nullagine Region, WA

September 2006

Client: Wedgetail Mining Limited

Vertebrate fauna survey undertaken in the Nullagine region in the East Pilbara of Western Australia. Activities included site selection, trap establishment, survey logistics, pit clearing, foraging, species identification, bird surveys, bat survey, report compilation.

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Stygofauna Survey of Wedgetail Mining Limited's Leases
September 2006

Client: Wedgetail Mining Limited
Stygofauna survey undertaken in the Nullagine region in the East Pilbara of Western Australia. Activities included site selection, trap manufacture, survey logistic, drill hole sampling and report compilation.

Gorgon Barrow Island Turtle Monitoring Program
2006.

Client: Pendoley Environmental and Gorgon Venture
Turtle tagging and track monitoring of Flatback and Green Turtles on beaches earmarked for development as part of the Gorgon Gas Project.

Pilbara Biological Survey

May 2005 and May 2006
Client: Department of Environment and Conservation
Biological surveys of terrestrial vertebrate fauna with the Department of Environment and Conservation in the Pilbara region, Western Australia. Activities trap establishment, survey logistics, pit clearing, species identification, specimen preparation and vouchering, bird surveys.

Whim Creek Gas Pipeline

November 2005
Client: PIHA Pty Ltd / Straits Resources
Trench zoologist – removal of fauna trapped in the pipeline trench. Activities included fauna removal, species identification and report writing.

Jack Hills Iron Ore Project Area: Vertebrate Fauna Survey
August 2005

Client: Murchison Metals Limited
Fauna survey undertaken in the Murchison region of Western Australia. Activities included site selection, trap establishment, survey logistics, pit clearing, foraging, bird surveys, use of bat survey and report compilation.

Nifty Copper Operation: Power Supply and Infrastructure Corridor Targeted Fauna Search

August 2005
Client: Birla (Nifty) Pty Ltd
Undertook a 50-kilometre tracking survey for Marsupial Mole, Bilby, Great Desert Skink and Mulga with two indigenous trackers from the Martu people.

Nifty Copper Operation: Power Supply and Infrastructure Corridor Vegetation and Habitat Assessment

July 2004
Client: Birla (Nifty) Pty Ltd
Vegetation survey and habitat assessment undertaken on the proposed Nifty Gas Pipeline route (50 kilometres) in April 2004. Activities included literature review, mapping, specimen collection and pressing, coordination of plant identifications with Dr Eleanor Bennett, opportunistic fauna inventory, spotlighting and report write-up.

Coyote and Larranganni Project Areas: Vegetation and Fauna Assessment

August 2004
Client: Tanami Gold NL
Vegetation survey and fauna assessment undertaken in the

Tanami Desert in north-eastern Western Australia. Activities included literature review, logistical management, mapping a 30-kilometre haul road route, specimen collection and pressing, coordination of plant identifications with Dr Eleanor Bennett, opportunistic fauna inventory, spotlighting, Elliot and cage trapping and report write-up.

Nifty Copper Operation: Northern Marsupial Mole Management Plan

October 2004
Client: Birla (Nifty) Pty Ltd
Management plan prepared in consultation with Dr Joe Benshemesh and Dr Peter Kendrick Regional Ecologist from Department of Conservation and Land Management (now Department of Environment and Conservation). Report included procedures for field staff to follow if a Marsupial Mole was encountered during earthworks.



Rapallo has no problem roughing it – no matter the weather



Mist-netting – part of a targeted bird survey at Salmon Gums.



Rapallo field camp – we can be completely self sufficient if your project is remote and without a camp.



Token cute furry shot – Rides Ningai (Ningai ridei)



Monitors like Elliot traps too

