Module 8: Metal Smelting in Small Scale Mining
- Smelting of Metals
  - Basic Chemistry of Smelting
- Melting Points of Metals
- Melting or Smelting
  - Chemicals/Reagents
  - Equipment & Tools
- Smelting Procedure

Module 9: Business Planning and Costing
- Types of Costs by any Mining Method
  - Identifying and Classifying Costs
  - Fixed Costs and Variable Costs
- Evaluating Costs, Benefits and Making Projections
  - Breakeven Analysis
  - Cash Flow Projections
- Business Plan
  - What is a Business Plan
  - Relationship with Planning
  - Writing a Business Plan

Module 10: Community Living
- Citizenship Rights and Responsibilities
- Parental Roles and Responsibilities
- Marriage, Separation/Divorce and Adoption
- Violence Against Family and Women
- Marriage and Family Planning

The Level 3 course is focused mainly on Mechanised Small Scale Mining practices and also addresses related topics at that level reinforced by practical sessions both onsite and offsite. A site trip to Mechanised Mining operations...

FOR MORE INFORMATION PLEASE CONTACT

Mr. Samuel Leonhard
Small Scale Mining Training Centre
PO Box 126,
WAU, Morobe Province, Papua New Guinea
Telephone: 71922394 Fax: 474 0600
Module 2: Laws Governing Small Scale Mining in PNG
- Transfers, Renewals and Objections
  - Tenement Transfer
  - Renewal of a Tenement
  - Objection to extension/renewal of a Tenement
- Contract/Tribute Agreement
- Lease Development Proposals
- Variation of Approved Proposals

Module 3: Geology and Gold
- Gold in various stages
- Effect of weight loss & puturity on gold sales
- Keeping a Production Record
- Reserve Estimation Calculation

Module 4: Prospecting in Small Scale Mining
- Prospecting in Different Geological Conditions
  - Current River Placers
  - High Terrace/Bench Deposits
- Budgeting a Prospecting Cost
  - Logistic Costs
  - Equipment Costs
  - Manpower/Personnel
- Planning a Prospecting Program
- Using GPS and Applications

Module 5: Mechanized Mining & Processing Techniques
- Mechanical Concentrators
  - Shaking Table
  - Wave Table
  - Nelson Concentrator
  - Knudsen Bowl Concentrator
  - Gold Wheel/Carmel
  - Gold Spinner
  - Spiral Concentrator
- Mechanical Rock Crushers
  - Jaw Crushers
  - Ball Mills
  - Rod Mills
  - Autogenic Mills
  - Stamp Mills
- Mechanical Wash Plants
  - Sizing Trommel Plants
  - Jig Wash Plants
  - Static Wash Plants
  - Shaking & Vibrating Wash Plants
- General Purpose/Standard Equipment
  - Hydraulic Excavators
  - Bulldozers
  - Front End Loaders (FEL)
  - Backhoes
  - Tipper/Dump Trucks

Module 6: Occupational Health & Safety
- Occupational Health & Safety Management
  - OHS Management System
  - Risk Management
  - Risk Assessment
- Cost of an Accident
- Emergency Planning and Fire Prevention
  - Emergency Planning
  - Fire Fighting
- Writing an OHS Policy

Module 7: Environmental Management & Rehabilitation
- What are Environmental Issues
  - Air Quality
  - Noise and Vibrations
  - Water Management
  - Flaura and Fauna
  - Parks and Protected Areas
  - Waste Management
  - Principles of Environmental Management
- Mine Clossure in Mechanized Hardrock and Alluvial Mining
  - Stakeholder Involvement
  - Planning and Financial Provision
  - Implementation
- Case Study on Mine Clossure