

XERPIUM

Perhiasan & Emas

Enterprise Resource Planning

Solusi ERP lengkap untuk industri
perhiasan & emas

2000+

MODUL

AI

ASSISTANT

SaaS

/ ON
PREMISE

Bahasa Indonesia Edition — brosur.xerpium.com

Ekosistem Tambang Emas & Pemurnian

XERPIUM GOLD adalah solusi ERP lengkap untuk industri tambang emas & refinery — dari eksplorasi blok, produksi ore, stockpile kadar, assay lab, smelting, bullion tracking, hingga penjualan & akuntansi.

Master Data Tambang Emas

Data master terstruktur untuk seluruh entitas tambang — site, block, ore type, cost center, shift.

gold.mine.site — Site Tambang

Site Code — Unique per company, GPS coordinates (lat/lon)

Area — Total area (ha), province, district, address

Permit Management — Permit no, type (IUP/IUPK/IPR), issue date, expiry, days remaining (computed)

State — Active, Suspended, Closed (with workflow actions)

Stats — Block count, total reserve ton (computed from blocks)

gold.mine.block — Blok / Pit

Block Code — Unique per site, sequence, area (ha), depth (m)

Mining Type — Open Pit, Underground, Alluvial

Geological Data — Geological zone, ore type, estimated reserve (ton)

Grade Estimation — Grade g/ton, estimated gold kg computed: $\text{reserve} * \text{grade} / 1000$

Status — Exploration → Development → In Production → Depleted

gold.ore.type — Tipe Bijih

Ore Classification — Berdasarkan mineralogy & processing method

Reference — Digunakan di block dan production order

Processing Method — Referensi metode pengolahan (smelting, CIL, CIP, heap leach)

gold.cost.center + gold.shift

Cost Center — Analytic account per site/block untuk cost tracking

Shift Management — Day/Night/Evening shift configuration

Linked — Cost center linked to analytic account, shift to production order

Produksi & Ore Management

Alur produksi tambang dari perencanaan hingga stockpile — shift-based, equipment tracking, grade analysis.

gold.production.order — MO Tambang

Auto-sequence — PO/2026/00001, unique per company

Site & Block — Linked to mine site + block (in production status)

Shift & Date — Per shift, production date, responsible employee

Planning — Planned ton vs actual ton, achievement % computed

Grade — Avg grade g/ton, estimated gold content computed: $\text{actual_ton} * \text{grade} * 1000$

Fuel — Total fuel liter computed from production lines

Stockpile Link — Target stockpile, auto-add ton saat done

gold.production.line — Detail Produksi

Equipment — gold.equipment linked, domain per site + active

Operator — hr.employee assignment, start/end time

Duration — Auto-computed hours from start-end datetime

Output — Tons extracted (required), fuel used liter

Notes — Per-line notes for operational issues

gold.ore.stockpile — Stockpile Bijih

Stockpile Per Site — Capacity ton, current tonnage

Grade Tracking — Weighted average grade (g/ton)

Auto Update — _add_tons method dipanggil saat production done

Movement — In/out tracking, reconciliation

Quality — Average grade recomputed after each addition

gold.equipment — Alat Berat

Types — Excavator, Dump Truck, Crusher, Mill, Pump, Loader, Drill Rig, Bulldozer, Conveyor

Registry — Asset code, brand, model, year, plate no, serial/engine no

Status — Active, Under Maintenance, Idle, Retired

Meters — Current hours, purchase value, residual, insurance expiry

Maintenance — Next maintenance date, maintenance history (one2many)

Performance — Total maintenance cost, total fuel, total operating hours (computed)

Assay Lab & Quality Control

Laboratorium assay terintegrasi — sampling, multiple test methods, purity certification, workflow terstruktur.

gold.assay.sample — Sample Assay

Auto-sequence — Sample no, linked to site + block

Sample Types — Chip, Core, Grab, Channel, Composite

Source Types — Ore/Rock, Bullion, Process Stream, Tailings, Soil

Collection — Date collected, collected by (employee), location, depth range

Weight — Sample weight (g) for reference

Results — One2many gold.assay.result, result count, best grade computed

gold.assay.result — Hasil Assay

Test Methods — Fire Assay, XRF, Wet Chemistry, AAS, ICP-OES

Elements — Gold PPM, Silver PPM, Copper %, Iron %, Sulfur %

Grade — Result grade g/ton, auto-compute dari element values

Analyst — Employee assigned as analyst, analysis date

State — Draft → Done → Verified

gold.purity.certificate — Sertifikat Kemurnian

Auto-sequence — Certificate no unique

Purity — Purity percent, fineness label computed (999/995/960/916/750/585/375)

Weight — Weight in grams, troy oz (auto-computed: g / 31.1035)

Issuance — Issue date, valid until, issued by, issuing lab

State — Draft → Issued → Revoked

Linked — To refinery job output bullion

Refinery & Bullion Management

Proses pemurnian emas dari ore hingga bullion bar — dengan recovery rate, loss tracking, purity certificate.

gold.refinery.job — Job Pemurnian

Auto-sequence — REF/2026/00001, unique per company

Process Types — Smelting, CIL, CIP, Heap Leaching, Amalgamation, Electrolysis/Wohlwill

Input Tracking — Input ore ton, input grade g/ton, theoretical gold input computed: ore * grade * 1000

Output Tracking — Gross bullion output (g), output purity (999/995/960/916/750/585/375)

Fine Gold — Fine gold computed: bullion * purity_factor

Loss & Recovery — Slag (g), other loss (g), total loss, recovery rate %, loss rate %

Certificate — Linked gold.purity.certificate

gold.bullion.stock — Stok Bullion

Bar Identity — Bar no, purity, weight (g), fine gold (g), troy oz

Linked Job — Many2one to refinery job

Status — Available, Reserved, Sold

Location — Warehouse/stock location, vault storage

Certificate — Linked purity certificate for each bar

Refinery Process Types

Smelting — Traditional furnace smelting, >95% recovery

CIL — Carbon-in-Leach, 90-97% recovery for oxide ores

CIP — Carbon-in-Pulp, 90-95% recovery

Heap Leach — Low-grade ore, 50-80% recovery

Amalgamation — Mercury-based, 60-90% recovery

Electrolysis — Wohlwill process, 99.99% purity

Gold Trading & Price Board

Price board harian, spot price tracking, penjualan emas dengan integrasi harga real-time.

gold.price.board — Papan Harga

Date & Purity — Harga per tanggal per purity (999, 995, 960, 916, 750, 585, 375)

Prices — Buy price/gram, sell price/gram, spread (computed)

Spot Reference — Spot USD/troy oz, USD/IDR rate, Spot IDR/gram (computed)

Source — Manual Entry, API/Feed, Calculated

Unique — Per date + purity + company unique constraint

API Method — `get_latest_price(purity, company_id)` untuk ambil harga terbaru

gold.sale.order — Penjualan Emas

Customer — Buyer info, linked to res.partner

Product — Bullion bar atau fine gold

Pricing — Harga dari price board, purity-based

Weight — Gold weight, fine gold, troy oz conversion

Invoice Integration — Account.move untuk transaksi

Health, Safety & Environment

Sistem HSE terintegrasi — incident reporting, safety inspection, permit to work untuk tambang emas.

gold.hse.incident — Incident Report

Types — Personal Injury, Near Miss, Property Damage, Environmental, Fire, Vehicle, Chemical Spill, Structural

Severity — Low, Medium, High, Critical

Investigation — Root cause analysis, corrective action, preventive action

Impact — Lost time days, first aid, medical treatment, hospitalization

Witnesses — Employee witnesses, photos/evidence attachments

State — Draft → Reported → Investigating → Closed

gold.safety.inspection + Permit

Safety Inspections — Daily/weekly/monthly checklist, score %

Permit to Work — Hot work, confined space, working at height, excavation

PTW Validity — Permit start/end, area, responsible person

Environmental — Monitoring waste management, reclamation tracking

Dashboard & KPI Tambang Emas

Dashboard analytics real-time untuk monitoring produksi, refinery, assay, dan bullion trading.

AI Assistant — Gold Mining Tools

get_gold_price — Harga emas per purity (999, 995, etc)

get_production_summary — Ringkasan produksi ore per site

get_refinery_output — Output refinery per periode

get_bullion_inventory — Inventory bullion per purity & status

get_pending_assays — Sample assay pending analisis

get_top_gold_buyers — Top pembeli emas

create_gold_sale_quotation — Buat quotation penjualan emas

Akuntansi Tambang Emas & Refinery

Chart of Account khusus tambang emas dengan alur jurnal otomatis dari produksi, refinery, hingga penjualan bullion.

Fitur Akuntansi Tambang

Cost Center per Site — Analytic account per site/block

Auto-Journal Production — Jurnal otomatis saat ore dipindah ke stockpile

Refinery Costing — Biaya refinery di-capitalize ke bullion inventory

Revenue Recognition — Saat bullion terjual, revenue + cost matching

Royalty Calculation — Royalti % dari revenue untuk pemerintah

Multi-Company — Operasi multi-site dengan company terpisah

Integrasi Cross-Module

Gold Mining & Refinery terintegrasi penuh dengan seluruh ekosistem XERPIUM.

Gold ↔ Accounting

COA tambang emas, GL otomatis produksi ke stockpile

Revenue penjualan bullion, cost matching

Analytic per site/block untuk cost tracking

Gold ↔ Inventory

Stockpile ore inventory, bullion stock tracking

Spare part equipment inventory

Material request untuk consumables

Gold ↔ Purchase

PO untuk bahan kimia (sianida, merkuri, asam)

PO spare part equipment

Purchase requisition dari production order

Gold ↔ HR

Operator assignment, analisis lab, teknisi

Shift scheduling, attendance tracking

HSE training & certification tracking

Gold ↔ Dashboard

vit_dashboard_gold_mining — KPI end-to-end

Dashboard Studio: 19 chart types

AI auto-generate dashboard & insight

Gold ↔ AI Assistant

7 AI tools spesifik gold mining

Cek harga emas, produksi, refinery, inventory

Buat quotation via natural language

Gold ↔ Quality

Assay sample & result integration

Purity certificate linked to refinery job

Quality review stage sebelum refinery completed

Gold ↔ Dynamic Stage

Configurable workflow untuk production & refinery

Python hooks, server actions, RBAC

Auto-sync stage ↔ native state

Xerpium ERP — xerpium.com

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