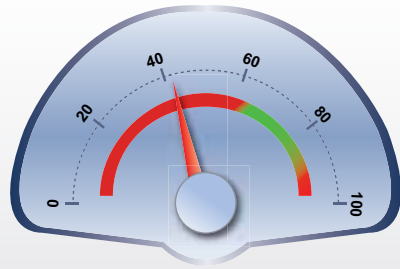


# GEMCOM INSITE™

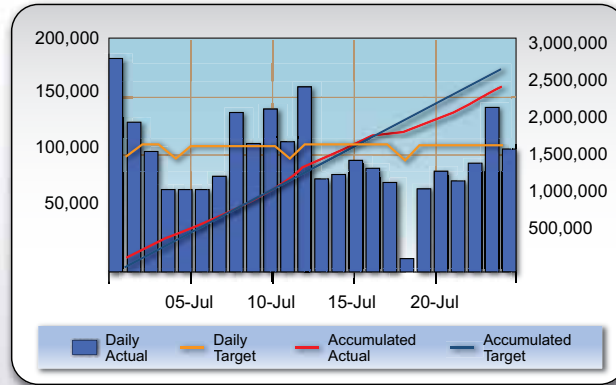
Mine Production Management



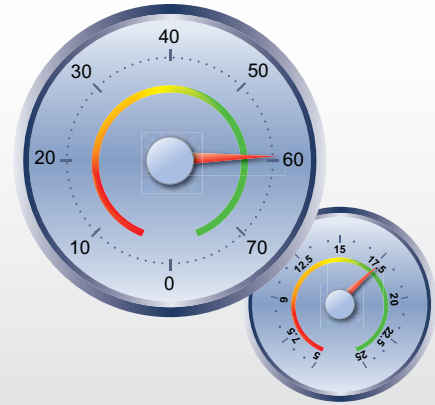
Equipment Availability



Daily Production



Tonnes x1000 and Grade



Gemcom InSite™ gives mining operations the tools and real-time data needed to improve production management from the mine to final product.

## Benefits:

- Management of production from the mine, trucking, plant, stockpiling, processing, to final product.
- Identifying production and equipment problems that would otherwise remain hidden.
- Monitoring of equipment performance to eliminate bottlenecks and control costs.
- Improves alignment between planned and actual production.
- A higher degree of confidence in production numbers and compliance of systems through auditing, traceability, and data integrity.
- Provides the catalyst for continuous improvement by empowering Plan-Do-Check-Act decision making.

# Take Control of Mine and Plant Production

Gemcom InSite™ gives mining operations the tools and real-time data needed to improve production management from the mine to final product. With InSite, you will be able to link production data, costs, and planned versus actual production. The result is greater efficiency, lower costs, and the ability to continuously improve performance of all processes, activities, and equipment.

## Unleash the Power of Your Data

Every mining business produces large volumes of information but is challenged to make it accessible and actionable. By eliminating the dependence on spreadsheets and other ad-hoc manual methods of gathering data, InSite delivers real-time decision-making data about critical processes.

Trust in the quality and timeliness of data are critical factors that impact the ability to make informed decisions at the right time. InSite addresses this by automatically capturing data from source systems including LIMS, fleet management, programmable logic controllers, SCADA, and data historians. Where data must be entered manually, InSite provides configurable data entry forms with auditability. Add InSite's robust data validation, and you and your team will be more confident in the decisions you make.

## Increase Confidence in Stockpile Management

Knowing what mass and grade you have on hand and where it is stored is key to running an efficient and profitable mining operation. In order to make the right decisions, you need to have a clear and accurate view across the mining value chain. This overcomes the obstacles associated with aligning production with stockpile capacity, feed, and contract demand.

Establishing a clear and accurate view of your mine begins with having high confidence in your production data. Through real-time integration and sophisticated data entry of material movements, activities, and surveys, InSite draws a clear picture of what is happening at the operation. This

is further enhanced with a robust calculation engine that enables mass and grade changes that propagate to material movements and stockpiles to ensure the most accurate view at all times. With mass and grade data that is fully auditable and traceable, data integrity and compliance of systems is assured.

## Quickly Identify and Respond to Problems

Understanding how well your mining operation is moving and delivering mass and grade is central to improving productivity and driving better cost control. InSite connects your mine schedule to operational data to allow variances to be quickly identified and dealt with. With measure points along the way, material balancing becomes much more effective as you will know the differences between the inputs and outputs of processes.

Equipment performance, whether its weightometers, or the fleet or plant equipment, has a significant impact on meeting production targets and on controlling costs. With InSite you will know how well your equipment is performing and can identify production issues and bottlenecks. Data is available where and when it is needed, ensuring that problems do not become systemic issues.

InSite can automatically detect variations beyond acceptable limits in production or detect when equipment is idle or under utilised. For example, variation in truck weight under or beyond preset thresholds can be set to trigger an alert which can be supplemented with comments to inform follow-on actions by other members of the team.

## Continuously Improve Your Operation

InSite acts as a catalyst for continuous improvement of the operation, enabling processes to be standardised, and establishing a single version of the truth. With the system, your team will have a better window into production and costs, empowering Plan-Do-Check-Act decision making.

No matter your role in mine operations, InSite delivers unique benefits that will improve how you manage your areas of responsibility to improve the bottom line of the business.

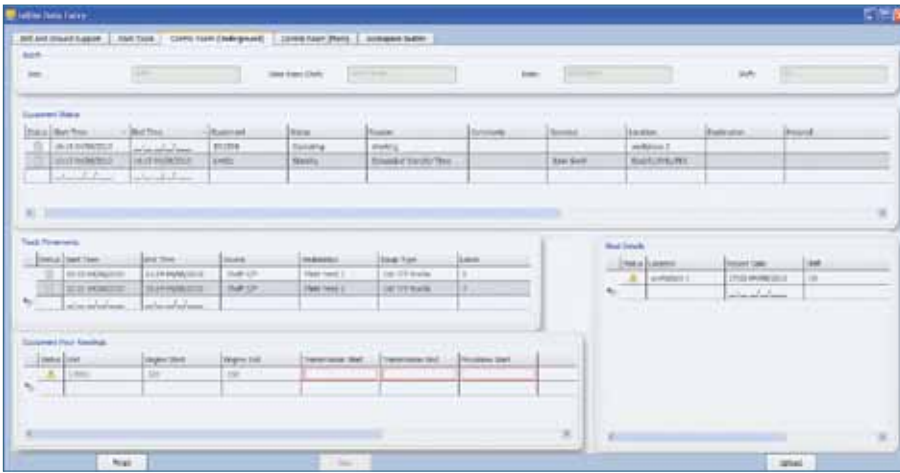
## Corporate Management

Mining executives are responsible for reporting production data to their shareholders and for making strategic decisions that affect their business as a whole, they need to have confidence in the information they receive from

The screenshot displays the InSite software interface. On the left, a 'From' section includes a truck icon, a dropdown for 'OC\_WST', a dropdown for 'W-1080-01-1B - W-108', a dropdown for 'Material: LG - Low Grade', a checked 'Show All' checkbox, and a dropdown for 'Period: N/S'. Below this is an 'Equipment: T769-1 - [OPERTN]' dropdown with a 'Show All' checkbox. A green arrow points to the right, where a 'To' section mirrors the 'From' section with 'Site: PLANT1', 'Location: STP LG - Stockpile Low', 'Material: LG - Low Grade', a checked 'Show All' checkbox, and 'Period: N/S'. Below the forms is a table with columns for 'Event Details', 'Detail Code', and 'Audit History'.

Seq. No	Measure Point	Measure	Compound	Claimed Value	Decl. Value	Actual Value	Unit
10	TRUCKING	LOADS		20	25	25	qty
20	TRUCKING	VOLUME		560	700	700	m3
30	TRUCKING	TONWET		1200	1527	1527.846	t
40	TRUCKING	TONDRY		1200	1497	1497.025	t

Tracking of stockpile mass and grade with traceability and auditability helps ensure compliance and confidence in decision making.



Data entry templates with offline data capture capabilities helps improve data entry efficiency and reduce errors.

their operations. The information they receive from InSite will be more accurate and more timely as reports are available on demand, based on validated data.

## Production and Operations Management

Meeting production targets and contract specifications are keys to running a profitable mining operation. InSite provides managers with real-time and summary data that tells them how well their operation is performing. Having an accurate view of the mass and grade on hand in their stockpiles relative to planned production allows the right adjustments to be made to meet sales contracts.

## Mine Engineering

By leveraging InSite, mining engineers benefit from improved work processes as the critical data they require is available to them when they need it. This gives them greater visibility into production activities and enables them to run more timely analyses to better align actual production and plans.

## Plant Operations and Metallurgy

InSite puts plant operators and metallurgists in control, giving them the ability to respond to problems before they become issues. At any plant, there can be thousands of different measure points to track, making it a time consuming and sometimes impossible task to identify issues. InSite ensures this does not happen, alerting staff when equipment performance

and production levels vary beyond acceptable threshold limits.

## Shift Management

Shift managers can pass on reliable information to their team with InSite as it establishes a single version of the truth for all aspects of the operation. This ensures that unacceptable write-offs and end-of-month production discrepancies can be avoided because the expected mass and grade is delivered from the mine and the plant. As an additional benefit, all your information about material movement and outstanding issues and problems can be readily communicated and made available to workers as shift changeovers occur.

## See the Information You Want

InSite is your platform to view your entire operation. Whether you require real-time alerts or need summary data about daily, weekly, or monthly mining activities, you are in control of the information you see and how it is delivered.

Using InSite means that issues can never hide from view. By drilling down in the data to any level of granularity,



Equipment performance reporting highlights issues that may affect production.

*“InSite manages our mine production from the pit, trucking, plant, stockpiling, and heap leaching, all the way to final product. The ability to manage and analyse our stockpiles and equipment utilisation from crushed tonnes per hour to SAG mill utilisation provides timely, consolidated, and audited information to decision makers. InSite has improved our processes, taking them from days to hours.”*

*— Alex Petermann, Chief Mining Engineer, Boroo Gold Co., Ltd. Centerra Gold Inc.*

you can determine the root cause of production bottlenecks, downtime, and delays.

## Choose a System Right for Your Needs

Our team of mining, IT, and best-practice experts will work closely with you to determine a solution that matches your business and operational goals and challenges. Depending on your operational needs, InSite is available in mining, plant or premium editions comprised of the following modules.

### Stockpile Management

The Stockpile Management module provides you with the data, decision-making tools, and confidence you need to understand how well stockpile management is functioning. It also enables you to make adjustments to ensure production levels remain in alignment with the plan. It seamlessly links production, stockpile capacity, feed, and contract demand by delivering an accurate view of mass and grade values.

### Material Balance

The Material Balance module enables you to balance mass and grade from final saleable product back through all processes to the original source. Using the module, you can reduce variances between planned and actual production, mitigating future errors, and reducing production write-offs. This is achieved through “what-if” scenario analyses that can be employed as month-end approaches, allowing



possible issues with the balance to be identified; for example comparing truck factors to a weigh scale.

### Equipment Performance

The Equipment Performance module gives you the information you need to increase production by improving equipment utilisation. You will have better visibility into equipment to see what, when, and where activities are occurring to align maintenance activities with production. You will also be able to set benchmark performance targets to monitor equipment and tune maintenance activities, including preventative maintenance.

### Finished Product Tracking

The Finished Product Tracking module enables you to track your product from dispatch to final shipment, taking into account customer or

umpire mass and grade analyses. The module handles all finished product types (packages, bags, batches, containers, and bars) and allows adjustments to be made due to damage. It also lets shipping mass and grade to be updated as better information becomes available.

### Rates Management

The Rates Management module enables you to track, understand, and control the impact of different costs associated with activity-based mining. The ability to assign rates to specific operations with effective start and end dates permits accurate cost control of mine production activities. The module can integrate to costing systems such as ERP and EAM and provides for historical analysis of costing information. For ultimate cost control, specific conditions for specific

operators, equipment, or locations can be applied.

### Event and Process Management

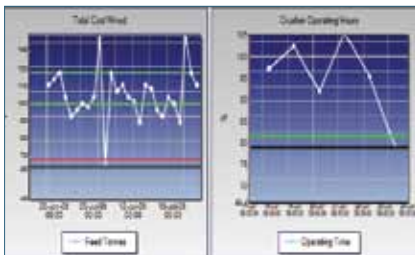
The Event and Process Management module has the ability to monitor thousands of data points from operational systems and equipment in real time, delivering exception reports that allow decisions to be made rapidly. As there is no longer a need to manually review data, response times for production issues go from hours to minutes. With actionable tasks identified, communication and efficiencies across departments is improved.

### Data Entry Capture

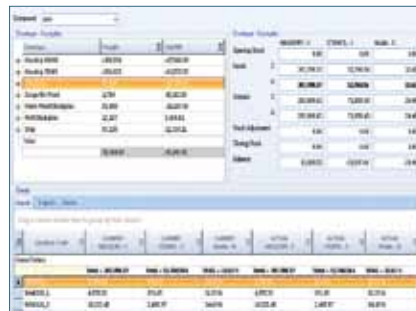
The Data Entry Capture module overcomes the timeliness and data error issues associated with entering data from a number of sources and different source types such as voice, email, paper, and spreadsheets. It incorporates data validation and keyboard shortcuts to allow fast data entry and minimise errors.

### Reporting Framework

The Reporting Framework module provides you with the tools you need to generate production and end-of-month reports more efficiently. The module allows you to report on and compare planning and scheduling data to production actuals. It also provides end-to-end visualisation and drilldown capabilities from drilling and blasting to production, the plant, and transport.



Exception Management highlights only metrics outside of defined limits. The ability to assign comments to alerts and send follow-up actions drives real-time decision-making to ensure production is met and costs are controlled.



Stockpile Management and Material Balance increases visibility and accuracy in tracking your mass and grade throughout your operation.

For more information email [insite@gemcomsoftware.com](mailto:insite@gemcomsoftware.com) or visit [www.gemcomsoftware.com/insite](http://www.gemcomsoftware.com/insite).

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