George Fisher Mine: Leading with Safety

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Executive Summary

George Fisher Mine (GFM) has made significant business and cultural changes. Prior to 2014, the culture was production above all else, safety was given insincere support and words were not followed with actions. Management's response was to drive blame and disciplinary action as a result of safety incidents, generating distrust and public compliance among the workforce. Furthermore, production targets were routinely not met and basic business metrics not understood. Management decided the most compelling way to achieve change was through *"leading with safety"*.

Persistent, disciplined and overt behavior from management in line with the Glencore Values (Safety, Entrepreneurialism, Simplicity, Responsibility, Openness) were the first steps towards a safer work environment and a culture of learning. Engagement, communication, openness and upskilling have continued this movement.

During 2010-2013 the average total yearly incidents (near hits, equipment damage, injuries etc) reported was 412; with increases in 2014 to 640 and in 2015 to 958. Reporting improvements has seen no increase in injuries and has enabled us to better understand and manage risks more effectively.

The last eighteen months has seen a reduction of our TRIFR by 64% and 12 months LTI free achieved. Along with improved business and production management, developing a new mining zone (including new hoisting and related infrastructure) whilst mining in close vicinity, a site-wide roster change and major organisational restructure. These results are testament to what can be achieved when *"leading with safety"*.

George Fisher Mine an operation with significant improvement opportunities

GFM, located near Mount Isa, is one of the largest and most complex underground zinc, lead and silver operations in Australia. The mine forms part of Glencore's Mount Isa Mines, an operation with a legacy greater than 90 years. GFM also has a long history with production commencing in 1990 (known as Hilton Mine), the underground mine has now been in operation for more than 25 years, with influxes of different backgrounds (and safety culture) through the various stages of commodity cycles, particularly in the hyper-competitive labour-market of the boom years.

In2013, GFM commenced a significant expansion program, centred on the development of a new hoist system and mining zone to increase the output of the operation. In 2013 despite the effort, attention and investment, GFM's business performance was unsatisfactory against expectations. This was evident in the underperformance of controllable elements, including an average Total Recordable Injury Rate (TRIFR) of 9.3, 27 recordable injuries, and production and cost Key Performance Indicators (KPIs) below target. With consideration to these factors, GFM faced the difficult challenge of responding to the external pressures prevalent in the base metals mining industry arising from price, foreign-exchange and general market volatility.

At a tactical day-to-day level, the systems and symbol indicators of a business with problems were exhibited through values, procedures, and attitudes. Where values in the organisation signify actions that people are rewarded for doing and achieving, or reprimanded for not doing and not achieving - at GFM the unmistakeable key value was on production tonnes. This was the metric that when asked, most employees would have placed at the top.

As a consequence of its long history, which included two changes in ownership (Xstrata 2003, Glencore 2013), GFM was awash with procedures, standards, and processes containing complex overlaps and gaps. This meant that the business was hampered by procedural correctness with obvious gaps between practice and procedure delivering whole of business inconsistencies. In effect, process, procedure, and standards had lost their meaning. An example of this was when an employee was caught smoking in a restricted area underground. His response when asked to show-cause as to why his employment should not be terminated was *"everyone breaks the rules"*, and that he had not considered the immediate and obvious hazard. This was not unique to the workforce, and was consistent with some leadership behaviours.

Family and community acceptance was also a concern for GFM. There was an acceptance that injuries happen, that it was acceptable, and a belief that operating without injury was not possible. This hit home to management when a young employee had hand surgery following a crush injury in an IT basket. While visiting his son the employee's father said *"it is no one's fault, these things are part of mining"*.

Becoming directionally correct – "Leading with safety"

In early 2014, the management team sought to drive change with the support of senior management. Consequently "*leading with safety"* supported by visible action became an important mantra which would influence a noticeable shift in the safety culture.

The following section outlines four steps which were essential in achieving cultural change. These steps were:

1. Making sense;
2. Making choices;
3. Making it happen; and
4. Making revisions.

It was not articulated that change would be made in these clear steps, nor was change always linear or logical in its progression. Instead the starting point was about being directionally correct.

Planning and forecasting every detail of every change that needed to happen to achieve the demanded safety performance was a very complex proposition. Instead, the leadership team checked decisions and actions against the direction of "*leading with safety"*. *"How will the decision I am about to make impact the views our workforce have of our commitment to safety?"* and *"Is what I am doing going to reflect our current culture, or the culture we want"* are example focus questions that could be used to check against being directionally correct. In lieu of a step-by-step plan, there was a shared understanding of a clear reference point.

In practice starting with *"leading with safety"* was about taking simple, visible action and making it clear that management had a new perspective that was purposeful and strongly aligned with the Glencore Values. Safety was emphasised at the core of every communicated message or visible action that went to the workforce, along with ensuring that concerns raised by the workforce were acknowledged and corrected.

A visible and symbolic change was to take a definite position on mandatory training compliance. There had previously been some acceptance and examples of working under expired mandatory training. Instead the entire site, at all levels was informed that all mandatory training had to be up-to-date and swipe-card access to site would be removed until such time as training was complete. With the obvious and simple benefit of improving compliance, this change represented a clear and unambiguous symbol of new expectations.

There were cross-roads which could either demonstrate or diminish the emphasis and genuineness of *"leading with safety"*. When an LD25 loader fell into a stope management made a clear point that the recovery of this unit posed too great a risk and instead it would be written-off. Again safety over and above production was

reinforced when an underground ore-pass failed, triggering management to cease work within half of the operation despite costing the business 20,000 tonnes of production. A portion of the workforce, where the old safety culture was deeply engrained, publicly argued that the loader should be recovered or work could continue around a failed ore-pass. This gave the leadership team a stark reminder of the significance of making the correct decision at each and every juncture.

There were also setbacks. The direction that needed to be pursued was obvious. The leadership team, including superintendents and above, came together for the inaugural GFM Safety Leaders Workshop to establish what action would be taken by whom, and by when. While the exercise was effective in setting a clear and direct expectation of leaders, there was no evident impact replicated across the workforce. In the absence of having some clarity over what the problems and underlying drivers were, GFM was ideas rich and data poor. A period and mindset of making sense of the problems, issues, and opportunities was a practical next step.

Making Sense

GFM had to make sense of where it had come from, why things were done the way they were, what people believed, and what could (not should) change. This is grouped into a simple matrix, shown below.

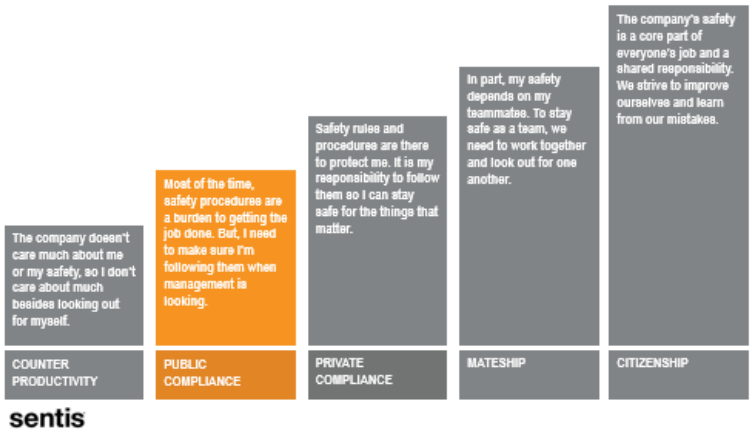
Figure 2. *A matrix comparison of leadership and workforce knowledge.*

Leadership Knowledge ↑	Workforce Knowledge ←	
	We all know - People are getting hurt - Housekeeping is poor - Business was not performing to expectation - Ambiguous or chaotic leadership - Teams pulling in different directions	***Only leaders know*** - The business will get better - There is genuine support and drive from Senior Management Team to make change - "Leading with Safety" is directionally correct
	Only the workforce know - What they think of their leaders and their behaviour - Incidents and hazards they don't tell anyone about - That there were incidents going unreported	***Who knows?*** - What exactly needs to change in order to make a lasting impact - The improvement plan - Lead indicator performance

The operation had a mix of known and unknowns and when it comes to safety this can be difficult as a leadership team to admit. *“Do we really know what our workforce thinks of us?”*, *“Do we really know what is going on down there?”*, and *“Do we think the workforce will tell us directly?”* are confronting questions. The authentic but uncomfortable answer in all cases was “no”. This lead to the decision to undertake a comprehensive and anonymous safety culture assessment and evaluation, facilitated by an external third party partner. The survey was completed by 84% of employees, statistically representative of the workforce meaning trust could be placed in the resulting data. Furthermore the research project engaged 54 employees in interviews, focus groups, and observations.

The research revealed that there was evidence of counterproductive safety behaviours, a perceived divide between managers and workers (in the eyes of crews), and generally negative perceptions of trust, community, and social acceptance across site. An excerpt of the summary report from the exercise was as follows: *“GFM received an overall safety culture maturity rating of ‘Public Compliance’, with the key belief characterising this result being:* ***“Most of the time, safety is a burden to getting the job done. But, I need to make sure I’m following the rules when leaders are looking”***

Figure 3. *GFM was characterised as having a Public Compliance safety maturity rating.*



A key and disconcerting “unknown” derived from the survey was that up to 30% of incidents were not being reported. However significant insight came from the reasons why, being that the workforce had a genuinely held belief that if they reported something nothing would be done and they did not see the purpose. Understanding this was a particularly valuable for three reasons:

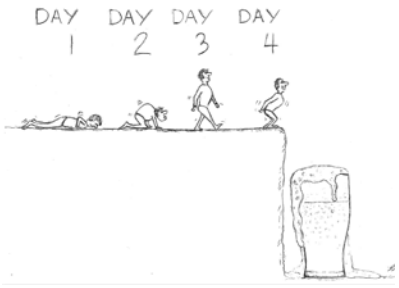
- It was a clear expression of the workforce’s perception of safety in the organisation and leadership’s attitude towards it;
- It highlighted that the systems and data that was being used to make sense of safety on a day-to-day basis was not necessarily reflective of what was actually happening; and
- It triggered a comprehensive audit of the open actions, close-outs and incidents within the core information system which was a crucial step in making sense.

At this point the organisation could start *"making sense"* of the profound impact that leadership capability and organisation structure was having on the workforce. The research process showed a divide between the surface and underground cultures with commonplace phrases such as *"what happens underground, stays underground".* There was also poor clarity of who was accountable for leadership of the crew. This was evidenced by feedback from the workforce regarding the prescribed Performance Review (PER) process. A significant number of employees were receiving performance ratings and feedback from a supervisor who had never or rarely worked with them. This was due in-part to the misalignment of supervisor rosters (7/7) and crew rosters (4/4). This meant that the crew leadership changed often and there was little continuity. The multiple layers of supervision in the organisation structure exacerbated the confusion over leadership accountability..

From a leadership capability perspective it was now evident that leaders spent more time with their people focusing on production than safety, despite being compliant with their safety pre-start obligations. Also discipline and feedback, particularly with regard to safety incidents, had a punitive approach and there was very little to no evidence of positive feedback or reward. In effect the workforce's experience of safety via their frontline leader/s was almost entirely negative and only arose in response to a negative incident occurring or a compliance based reason, such as a pre-start, before the "important" conversation about production happens.

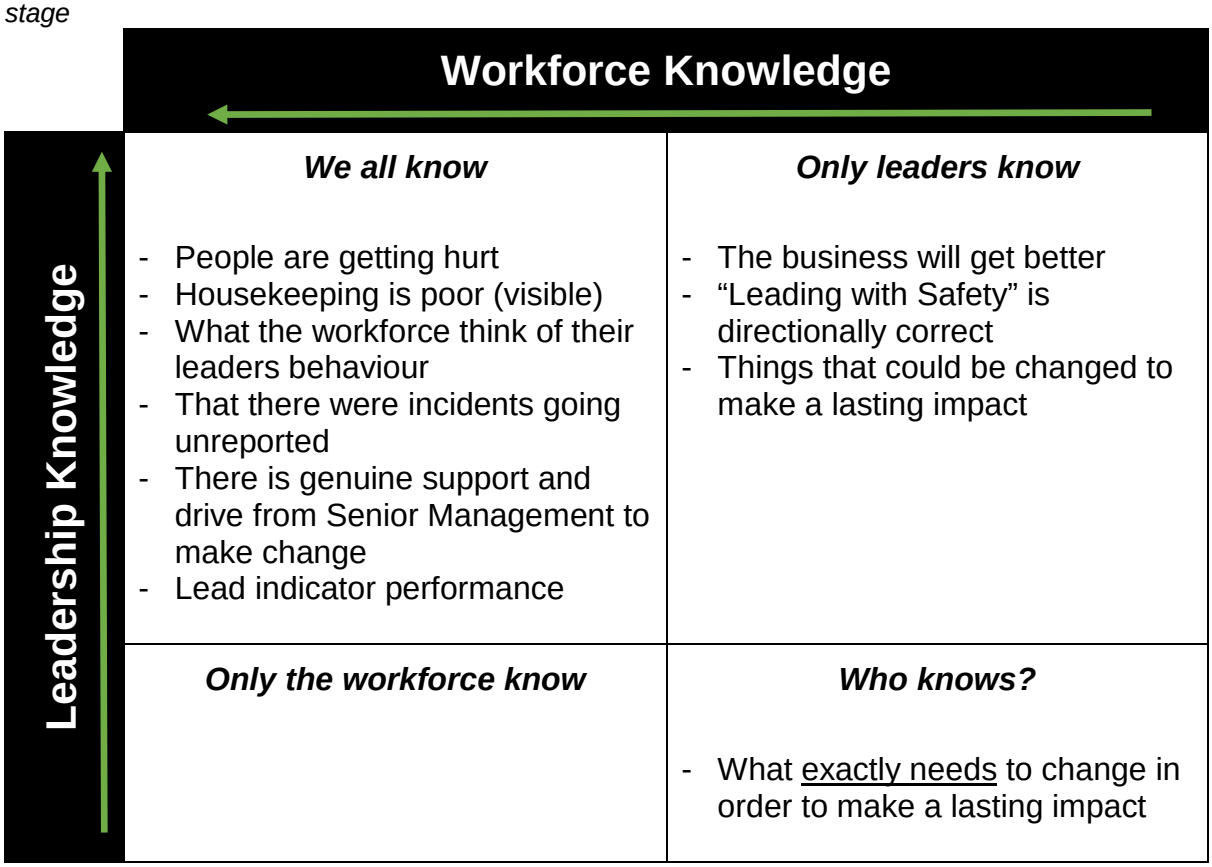
The mindset and mode of "*making sense*" was not purely based on the survey or research. There were a number of varying insights and learnings through this time that if looked at closely enough and questioned carefully would either append the insight arising from the survey and research, reinforce the feedback that the workforce was providing, or expose another opportunity altogether. For example the High Potential Risk Incident (HPRI) reporting culture which had been trending downwards and inverse to the injury frequency rates and an insightful cartoon depicting rostered shift work (see figure 4).

Figure 4.



So with many data points and sources of information, the management team had some facts to act upon. Furthermore the survey gave an opportunity to provide feedback to the workforce, unfiltered. This was a crucial step in building alignment, trust, transparency, and commitment between the leadership team and workforce. GFM had made some sense of itself and could now make informed choices. Accordingly, the matrix now looked like this:

Figure 5. *A matrix comparison of leadership and workforce knowledge following the "Making Sense" stage*



Making Choices

GFM was still left with a long list of improvements that could be made, and strengths to be capitalised upon. The temptation was again to create a master plan with all of the change that would be made to be marked against. Instead, the chosen focus areas were to:

- Improve the experience of leadership that our workforce receives;
- Deliver upon the leadership's "50%" when it came to reporting; and
- Remove structural impediments.

Once again, it is important to note that the specific actions that would be taken under each focus area weren't known to their full extent or understood from the very beginning. But it was known that these focus areas would be key to addressing the underlying legacy issues and lift the culture required for GFM to improve its performance. As opportunities to make change later arose the leadership team could clearly link, prioritise, and communicate the change back to the shared understanding between management, and workforce. This is a crucial learning that enables any action in the *"making it happen"* mode.

A key enabler for making choices was to have a methodology and framework by which to manage and govern the initiatives, focus points of the site. Using a LEAN business-improvement methodology, action was taken to:

- Make key business and project progress highly visual and prominent;

- Stop pet projects across the site to focus on what is important; and
- Align cross-functional teams and promote interdepartmental teams to collaborate on business-wide initiatives.

Making it Happen

It was recognised that waiting for clarity of a plan or focus areas was not required. The momentum gained through *"leading with safety"* had to be maintained and it was important that positive action continued while the organisation was learning about itself. Being directionally correct was crucial at this stage as there were opportunities to take action, make decisions or to demonstrate the direction, such as the previously described examples of the ore-pass and loader. Obviously there was no requirement to wait to get the safety reporting system cleaned-up and effective. Some things just needed to happen, there and then, so they did.

Otherwise, GFM embarked on a significant drive for change in alignment with *"leading with safety"* and its known focus areas. The change effort comprised of a mix of transformational and incremental changes, which are symbiotic to the bigger objective.

Table 1. *Positive changes impacting the leadership experience*

1. Improve the experience of leadership that our workforce receives *Enhancing the competency and resources of all leaders to communicate and engage effectively with the workforce*	
Incremental Changes	**Transformational Changes**
- Safety Innovation Reward scheme - Creation of Supervisor Hub where supervisors can interact more effectively - Introduction of A3 program to govern projects and activity and limit noise and distraction - Communicate less frequently but with greater safety focus and impact	- Implementation of a business-wide Safety Leadership Development Program - Implementation of aligned supervisor and crew rosters in order to have the same supervisor permanently rostered to a crew - Introduction of genuine two-way performance moderation process where performance rating is agreed in situ based on examples between supervisor and employee -

Improving the workforce experience of leadership has involved direct and indirect intervention. The key transformational activity underpinning change and enabling other actions to happen was aligning a consistent supervisor to a crew. In doing so the PER process was simplified and gained credibility, the workforce was given clarity of direction, and consistency given across discipline, reward, and communication factors.

Table 2. *Positive changes impacting leadership reporting compliance*

2. Deliver upon the leadership's "50%" when it came to reporting *Seeking transparency in reporting through tracking, understanding and actioning reporting*	
Incremental Changes	**Transformational Changes**
- Full system audit and legacy clean-up - Communicate leadership team performance in addressing issues openly and transparently	- Introduction of hazard reporting and tracking - Significant improvement in actions and incident closeouts - High-quality ICAM investigations focussing on root-cause - Change the frame of HPRI with support from the Senior Leadership from being a pure negative, to also an opportunity

There was a clear call to action on the quality and level of reporting in the organisation. Culturally the workforce had formed a view as to its purpose, compliance, and discipline. Consequently the approach has been to make a series of small but public symbols that this frame was going to change. Most mine sites have the systems to track and report hazards, incidents and actions but the execution of these systems is crucial to turn data into wisdom. Anecdotally some employees had raised actions repeatedly however they were not being addressed. Auditing the system found that outstanding actions were still attached to ex-employees and many were well past their due date. Cleaning up the system was a considerable undertaking requiring the commitment of all leaders to review and close out every item that was not complete. The leadership team had to be prepared to transparently accept accountability for the progress of actions publicly to the workforce.

HPRI reporting had previously been viewed purely as a negative event, however the leadership team actively chose to re-frame HPRI as an opportunity for learning and removed punitive aspects of the investigation process. These are now openly reported internally with a focus on learning, sharing and improving. The message to the workforce has followed suit, which in part, has adjusted the lens by which they see reporting.

Table 3. *Positive changes impacting structural impediments.*

3. Remove structural impediments *Ensure structure & alignment of the organisation enables safety improvement*	
Incremental Changes	**Transformational Changes**
- Planning week aligned to rosters - Fleet management system	- Major organisation restructure - Site-wide operational roster change from 4-on/4-off to 7-on /7-off

The final focus area for change was around the structure and design of the organisation. The workforce's confusion over who was accountable for leading at the frontline could be linked to the roster alignment component referenced above. However it could also be attributed to the many layers of leadership between the "floor" and their superintendent. A full organisation review was undertaken to understand the handover points between departments and roles, the accountabilities at each level, and the spans of control of leaders. This process showed a mix of considerable overlaps in accountabilities, and substantial gaps where no ownership was evident. The mantra of "*leading with safety*" continued to play an important role in communicating with the workforce and was key to building the understanding around the changes and that the leadership team were serious about improving the organisation.

The final transformational change implemented was to the workforce structure, moving from a 4-on/4-off shift to a 7-on/7-off shift. Within the workforce and local community rosters were viewed as sacred arrangements between management and workforce. However a compelling argument for change had been made throughout the *"sense making"* process. It had been indicated by the workforce that their first day back onsite, following days off, was the time they felt least familiar with their environment and hazards, and it was also when they felt most fatigued. While the results of the survey were clear, it is notable that the workforce may not have realised this themselves and certainly many were not considering the feasibility of a roster change. There was a general acceptance that 4-on/4-off roster was an enduring status-quo. Despite the compelling case for change, the workforce needed to be engaged with considerable effort invested in building trust through greater transparency, better engagement, clearer leadership, and delivering on promises. This was achieved through genuine consultation, presentation of options and ultimately, the opportunity for employees to vote on their preferred option.

<u>Making Revisions – Where does GFM go now?</u>

The last eighteen months has seen a reduction of GFM's TRIFR by 64% and an achievement of 12 months lost time injury (LTI) free, and considerable improvement in operational performance overall.

The leadership team knows it is on the right path. However, the team also acknowledges that more must change and improve before the vision for GFM will be fully realised. The collective leadership competency will be a key focus, with a major program of in-situ, on-the-job learning and coaching intensely over the next 12 months. This will take leadership development from the classroom into all the work areas of GFM, and this will be a continuous exercise in perpetuity.

There is also a focus to continue and increase workforce engagement in peer-to-peer safety interactions, starting with the roll-out of a team safety program across the workforce. By the end of 2016, each and every GFM employee and contractor will have participated in a development program to reflect upon, and re-frame what safety

means in their workplace. Whether an employee is in a leadership, operator, maintenance or technical role there will be a common language and shared belief in the value of safety.

The key learning for the leadership group from reviewing the change that has occurred is that making a difference is not about having and knowing the master plan or a detailed gantt chart that shows every detail. Instead, leaders can make a difference by making sense of their business and making the unknown, known. They must make choices that are clearly linked to the direction that they have set for their business, regardless of whether they are proactive projects or reactive decisions. Finally and crucially, leaders have to make it happen, and execute their choices actively move their business in the correct direction.

From this point, GFM will re-enter the making sense, making choices, and making it happen cycle. A re-evaluation of the baseline of the culture, climate, and employee engagement will occur in the beginning of 2017 and will guide the leadership team toward the specifics of where, and what next. However, the core, innate belief in the value of being directionally correct by “leading with safety” remains unchanged, and as a leadership mindset, it is proven as a significant driver of a vastly improved mining operation.