

Gold Desorption Monitoring (Pi Asset Framework)

Calculates desorbed ounces based on laboratory samples analyzed in **Labware**.

```
Onzas00 = IF Hour('*')=0 Then (If  
BadVal(LastValue(RecordedValues('LeyAu_Salida  
_00','t','*')) -  
LastValue(RecordedValues('LeyAu_Entrada_00','  
t','*')))) Then 0 Else  
(LastValue(RecordedValues('LeyAu_Salida_00','  
t','*')) -  
LastValue(RecordedValues('LeyAu_Entrada_00','  
t','*')))) Else 0
```

```
Fechaout = Bod('*') + Hour('*') * 3600 //+ 3599
```

```
Onzas = ('Flujo por hora' * (Onzas00 + Onzas01  
+ Onzas02 + Onzas03 + Onzas04 + Onzas05 +  
Onzas06 + Onzas07 + Onzas08 + Onzas09 + Onzas10  
+ Onzas11 + Onzas12 + Onzas13 + Onzas14 +  
Onzas15 + Onzas16 + Onzas17 + Onzas18 + Onzas19  
+ Onzas20 + Onzas21 + Onzas22 + Onzas23)) /  
31.1035
```

Reactor01

General Child Elements Attributes Ports Analyses Notification Rules Version

Name: Onzas desorbidas

Description:

Categories:

Analysis Type: ☒ Expression ☐ Rollup ☐ Event Frame Generation ☐ SQC

Advanced options

Output Time Stamp

☐ Trigger Time

☐ Execution Time

☐ Relative to Trigger Time: Fechaout

☒ Variable: Fechaout

Automatic Recalculation

☐ Recalculate analysis for out-of-order input events

OK Cancel

Name	Expression	Value
Onzas18	IF Hour('*')=18 Then (If BadVal(LastValue(RecordedValues('L	
Onzas19	IF Hour('*')=19 Then (If BadVal(LastValue(RecordedValues('L	
Onzas20	IF Hour('*')=20 Then (If BadVal(LastValue(RecordedValues('L	
Onzas21	IF Hour('*')=21 Then (If BadVal(LastValue(RecordedValues('L	
Onzas22	IF Hour('*')=22 Then (If BadVal(LastValue(RecordedValues('L	
Onzas23	IF Hour('*')=23 Then (If BadVal(LastValue(RecordedValues('L	
Fechaout	Bod('*') + Hour('*') * 3600 //+ 3599	
Onzas	('Flujo por hora' * (Onzas00 + Onzas01 + Onzas02 + Onzas03	

Scheduling: ☐ Event-Triggered ☒ Periodic

Period: 00h 05m 00s

Advanced...

Output time stamp override: Fechaout

Activar Windows

Ve a Control Panel para activar Windows

Connected to the PI Analysis Serv

Weighted Ore Grade Analysis (Pi Asset Framework)

Reports weighted grades for the tertiary crushing process

```
Turnonoch = If Hour('*')=21 then
TagVal('Mineral húmedo (t)', '*-14h') -
TagVal('Mineral húmedo (t)', '*-26h') else
NoOutput()
```

```
Turnodiaaux = If Hour('*')=21 then
TagVal('Mineral húmedo (t)', '*-26h') -
TagVal('Mineral húmedo (t)', '*-38h') else
NoOutput()
```

```
Compositodia = If Hour('*') = 9 then
compositodia else
((Turnodiaaux*compositodiaaux) +
(turnonoch*compositonoch))/((turnonoch+turnod
iaaux)
```

```
If Hour('*') = 9 then Bod('*-1d') +
Hour('y+10h') * 3600 Else Bod('*-1d') +
Hour('y+22h') * 3600
```

02. HPGR

General Child Elements Attributes Ports Analyses Notification Rules Version

Name: Ley HPGR composito

Description:

Categories:

Analysis Type: ☒ Expression ☐ Rollup ☐ Event Frame Generation

☐ SQC

Advanced options

Output Time Stamp

☐ Trigger Time

☐ Execution Time

☐ Relative to Trigger Time:

☒ Variable: FechaOut

Automatic Recalculation

☐ Recalculate analysis for out-of-order input events

OK Cancel

Name	Expression	Value at Event
Turnonoch	If Hour('*')=21 then TagVal('Mineral húmedo (t)', '*-14h') -	
TurnodiaAux	If Hour('*')=21 then TagVal('Mineral húmedo (t)', '*-26h') -	
Compositodia	IF HOUR('*') = 9 THEN IF ArrayLength(RecordedValues('Compo:	
Compositodiaaux	IF HOUR('*') = 21 THEN IF ArrayLength(RecordedValues('Compi	
Compositonoch	IF HOUR('*') = 21 THEN IF ArrayLength(RecordedValues('Compi	
Ley	If Hour('*') = 9 then compositodia else ((Turnodiaaux*com	Ley HPGR composito Ley
FechaOut	If Hour('*') = 9 then Bod('*-1d') + Hour('y+10h') * 3600 E	Map

Scheduling: ☐ Event-Triggered ☒ Periodic

Period: 12h 00m 00s, Offset: 09h 00m 00s

Advanced...

Output time stamp override: FechaOut

Activar Windows

Ve a Configuración de Windows para obtener más información.

Connected to the PI/Analysis Service.

Daily Production Analysis (Pi Asset Framework)

Calculates the quantity of ore processed on a daily basis.

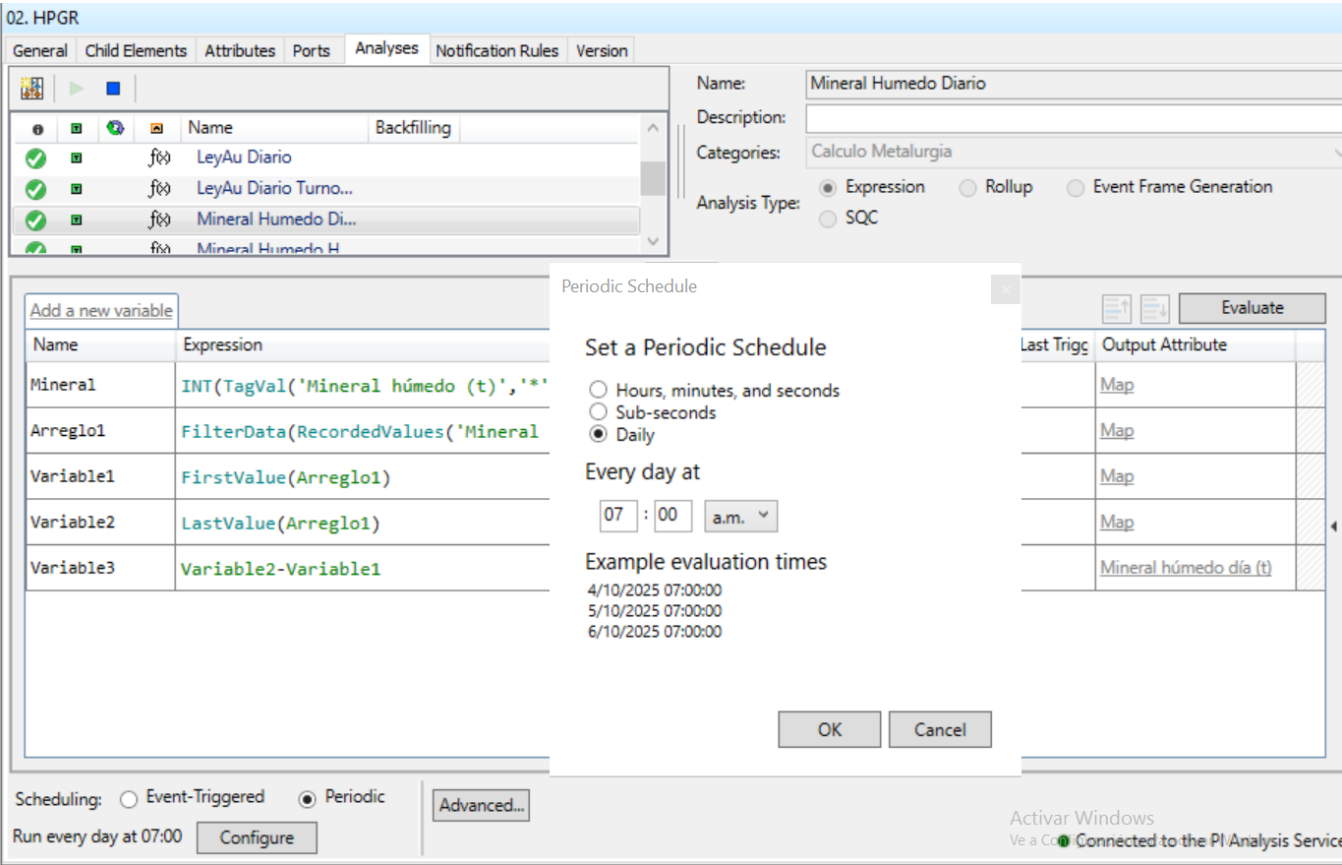
```
Mineral = INT(TagVal('Mineral húmedo (t)', '*')) - INT(TagVal('Mineral húmedo (t)', '*-1d'))

Arreglo1 =FilterData(RecordedValues('Mineral húmedo (t)', '*-24h', '*'),(NOT BadVal($val) AND $val>1))
```

```
Variable1 = FirstValue(Arreglo1)
```

```
Variable2 =LastValue(Arreglo1)
```

```
Variable3 =Variable2-Variable1
```



Low Productivity Events (Pi Asset Framework)

Tracks performance events including duration, date, and time. These events can be used as filters to analyze operating conditions during low-productivity periods.

The screenshot shows the "Agglomeration" configuration window. The left pane lists several rules, with "Baja productividad - Aglomeración (Supervisión)" selected. The right pane displays the configuration for this rule:

- Name:** Baja productividad - Aglomeración (Supervisión)
- Description:**
- Categories:**
- Analysis Type:** Event Frame Generation (selected), Expression, Rollup, SQC
- Link:** Create a new notification rule for Baja productividad - Aglomeración (Supervisión)

Below the analysis type, there are two dropdown menus: "Generation Mode" set to "Explicit Trigger" and "Event Frame Template" set to "ThroughputTemplate".

The main area contains a table for defining triggers and end triggers:

Name	Expression	True for	Severity
Start triggers			
mediahora	('Throughput - A1'+'Throughput - A2')<1070	30 minutes	Warning
End trigger			
EndTrigger	('Throughput - A1'+'Throughput - A2')>=1070		

At the bottom, there are scheduling options: "Scheduling:" with "Event-Triggered" selected and "Periodic" unselected. Below it is a "Trigger on" dropdown menu set to "Any Input".


Notifications triggered by low productivity events

Aglomeración			
General Child Elements Attributes Ports Analyses Notification Rules Version			
Productividad <1070 t/h - supervisión - Subscriptions			
Name	Configuration	Notify Optic	
Juda David Garcia Cutire - E...	HPGR - t/h Supervision	Event start	
Maximiliano Saúl Díaz - Email	HPGR - t/h Supervision	Event start	
Ruyeli Fernandez - Email	HPGR - t/h Supervision	Event start	
Julio Emilio Choque - Email	HPGR - t/h Supervision	Event start	
Hector Daniel Acoria - Email	HPGR - t/h Supervision	Event start	
Luis Alberto Martinez - Email	HPGR - t/h Supervision	Event start	

*Notifications are escalated to different recipients depending on how long the low productivity event lasts

Baja productividad - Aglomeración (Supervisión) 2025-09-28 02:27:25.038

Resumir



itmansfieldmin@gmail.com

Para: Eduardo Perez Sangabriel

Dom 28/09/2025 2:53

Este mensaje está en Japonés

Traducir a Español

No traducir nunca de Japonés

Este remitente itmansfieldmin@gmail.com es de fuera de su organización.

Bloquear remitente

PRECAUCIÓN: Este correo electrónico se originó desde fuera de Fortuna Silver Mines o sus subsidiarias. No haga clic en enlaces ni abra archivos adjuntos a menos que reconozca al remitente y sepa que el contenido es seguro.

Estimados:

Se identificó Baja productividad - Aglomeración (Supervisión) 2025-09-28 02:27:25.038 (Menor a 1,070 t/h) por un periodo sostenido de 30 minutos. Favor de tomar las acciones correctiv.

Inicio	28/9/2025 02:27:25 Hora estándar de Argentina (GMT-03:00:00)
Throughput	<1,070 t/h
Severidad	Warning

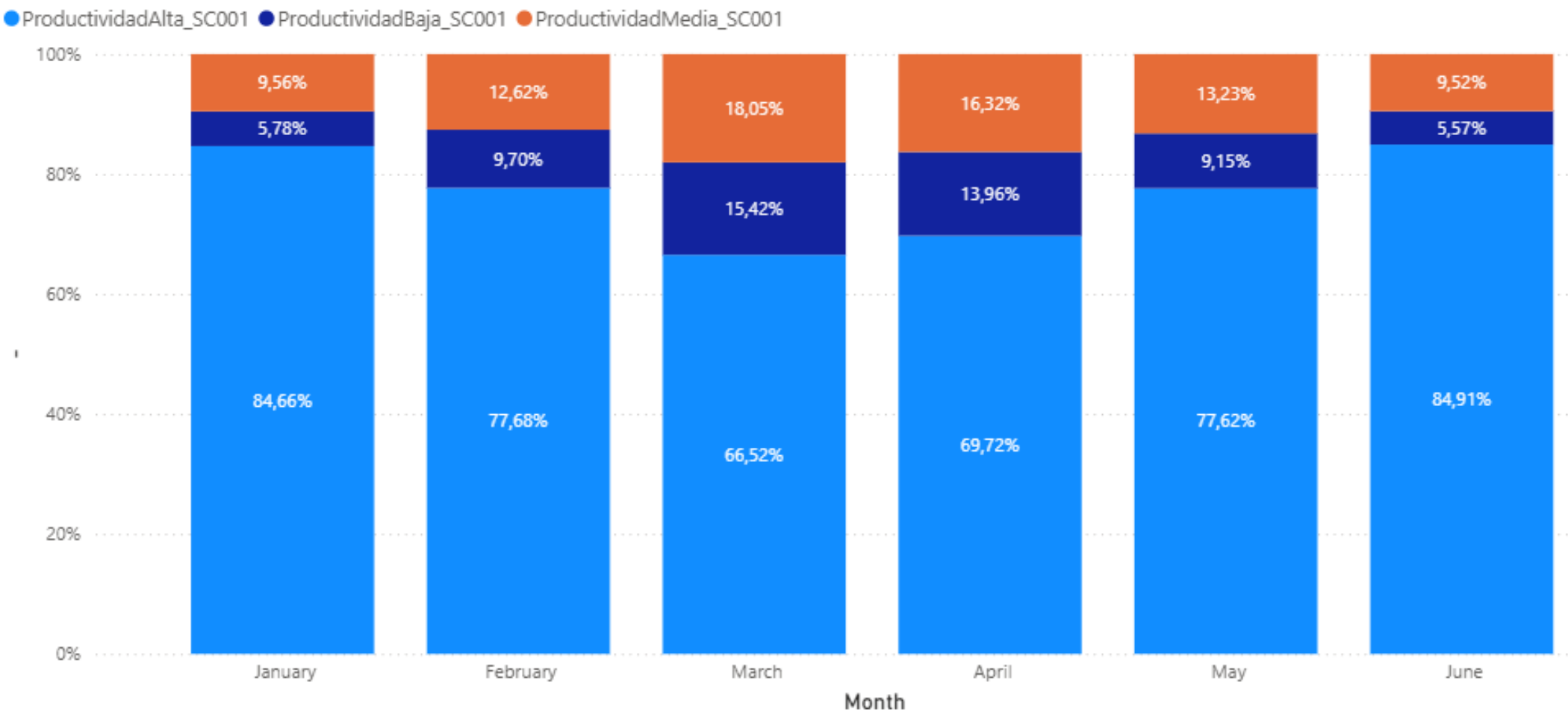
Responder

Reenviar

Productivity by Category

Evaluates the impact of corrective actions by excluding non-operating periods, allowing for a more accurate productivity assessment.

Primary Crushing Productivity



Equipment Status Event Frames (Pi Asset Framework)

Converts **STATUS tags** from SCADA, originally in hexadecimal format, into binary (0/1) values for downtime analysis.

K. Estado Equipos

General Child Elements Attributes Ports Analyses Notification Rules Version

Name: 29_200-BF-002

Description:

Categories:

Analysis Type: ☒ Expression ☐ Rollup ☐ Event Frame Generation ☐ SQC

Add a new variable

Name	Expression	Output Attribute	
Variable1	TagVal('ENTRADA 200-BF-002','*')	Map	⊗
Variable2	Int(Variable1)/Int(128)	Map	⊗
Variable3	Int(Variable2) Mod Int(2)	Map	⊗
Variable4	If Variable3 = 1 then 1 Else 0	SALIDA 200-BF-002	⊗

Scheduling: ☒ Event-Triggered ☐ Periodic

Trigger on: Any Input

Advanced...

Activar Windows
Ve a Configuración de Windows para activar Windows Defender.
Connected to the PI Analysis Service.

Downtime Analysis Integration

Event Frames generated from equipment status serve as inputs for third-party applications such as *Downtimes*. This enables comprehensive reporting and analysis of equipment performance.

