

## MDPA

Operation and maintenance of surface and underground installations. Underground road maintenance  
Pre-information memo

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HAUT RHIN DEPARTMENT



# Operation and maintenance of surface and underground installations. Underground road maintenance (Mine Operator Assignment)

## Pre-information memo

In accordance with article R2131-1 of the public procurement code, the MDP A are publishing their intention to award a contract by the publication of a pre-information memo in order to attract as much competition as possible for the future Tender Process.

Companies interested in competing for the contract can contact the project owner, MDP A, by sending an e-mail to Stéphanie Zampieri: [contact@achats-economiz.com](mailto:contact@achats-economiz.com) (Subject: MDP A - Mining Operator Assignment)

They will then be informed in writing that the tender process is opened, as soon as the tender is issued.

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Client name:

### **MDPA - MINES DE POTASSE D'ALSACE**

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## **PREINF**

### **Pre-information memo**

Document: PREINF

Document number: 01

Code: Rev0

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# 1- Glossary

## Mining terms

The cage	Means of transport for people and materials in the Joseph shaft
Banking and Landing	The zones in which people and materials enter / leave the cage
Roping	The cage raising/lowering operation between the Surface and the Bottom
The Surface	The surface zone of the site belonging to the Project Owner
The Bottom	The zone at the lowest point of the site, from the Landing
Extraction	The vertical transport of people and items in the shafts
Cage Insertion - Cage Extraction	Inserting and extracting items to and from the cage
The sidings	Tunnel walls, lateral tunnel walls
The crown or roof	The tunnel ceilings
The floor or wall	The tunnel floors
Primary ventilation	General mine ventilation, provided and managed by the Project Owner or their Mine Operator
Secondary ventilation	Ventilation of enclosed worksites by the Contract Bearer This is provided and managed by the Bearer using ventilation ducts and suction or blower fans
EDZ	Excavation damaged zone
Dewatering	Pumping water out of the bottom

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## 2- General context and subject of the contract

### 2.1 – General points

The State has decided to permanently close the StocaMine final waste storage site, located in the subterranean installations of the Joseph-Else mine owned and operated by the Mines de Potasse d'Alsace Company (MDPA) in WITTELSHEIM (Haut Rhin).

The MDPA is a public company, and the State is its sole shareholder. The State is providing funding to the MDPA in order to close the storage site and maintain the installations and the roads during these works. The MDPA is the Project Owner for these operations.

The waste is stored in hermetically sealed blocks, and confinement operations have begun. These consist of isolating the storage site (which corresponds to the blocks represented on the diagram in § 3.3) by creating 12 isolation plugs between the storage access roads<sup>1</sup> and back-filling the empty blocks and tunnels with approximately 100,000m<sup>3</sup> of concrete and salt.

Once the confinement is complete (scheduled for July 2025), the operations will conclude with the dismantling of the installations and the definitive closure of the site.

With this pre-information memo, **the Project Owner will present the Mine Operation assignment which will begin at the end of 2020.**

This assignment will consist, throughout the entire duration of the confinement process, of independently overseeing all of the installation operation and maintenance functions on the surface and on the bottom, in addition to the maintenance of the underground roads.

Neither the confinement nor the dismantling process will be part of this mine operation assignment.

This memo is not a tender, and the data provided within have been abbreviated. There will be sufficient detail in the tender file.
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As the assignment will require a wide range of skills, the contract will be broken down into several items. These can then be allocated separately, and will each be the subject of a separate contract. Companies will have the option to bid for one or several items.
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<sup>1</sup> Each plug will be around 50 metres long.

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## 2.2 - The Contract awarding procedure

The chosen procedure is an open tender, with negotiation (mixed-fee public works contract).  
The consultation will proceed as follows:

1. Release of the present pre-information memo
2. Release of a call for bidders
3. Release of the company consultation file
4. Submission and evaluation of the bids
5. Negotiation and allocation

**The contracts are scheduled to be allocated in January 2021**

## 2.3- Fees

The contract will consist of a mixed-fee public works contrast, consisting of:

- **A monthly fixed rate for maintenance and cleaning.** This will be pegged to the site's activity: the number of kilometers of tunnels to maintain, number of weekly confinement work sites, etc.

It will include labor costs, including the materials, tools and equipment required.

The MDPA will however provide the Bearer (free of charge but in its present condition) with their mining machines (digging and dinting machine, bolters, etc.)<sup>2</sup>

This fixed price does not include materials, parts and consumables used, which will be invoiced to MDPA at cost price. Anti-waste rules will be developed in the consultation file, and their breach will have an associated financial penalty.

- **A price schedule** for works not included in the fixed price contract

**A hardship coefficient** will be defined to execute any works not covered by the schedule, under a controlled cost scheme.

## 2.4 - Bearer selection criteria

The independent mine operator assignment requires resources and skills, which will be evaluated when the applications and tenders are judged.

The consultation rules (which will be provided alongside the call for bidders) will list these criteria, which will focus on the following key points:

- The capacity to complete the assignment completely autonomously.
- Convincing and specific experience that the personnel are able to complete the mine

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<sup>2</sup> A full and detailed list will be provided in the tender file.

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operator assignment, concerning the functions described below.

- The presence of a seasoned unit, capable of satisfactorily managing the assignment (MDPA contact, steering, coordination, methods, planning, safety, procedures, control, quality, procurement, etc.).

## 3- A brief description of the site

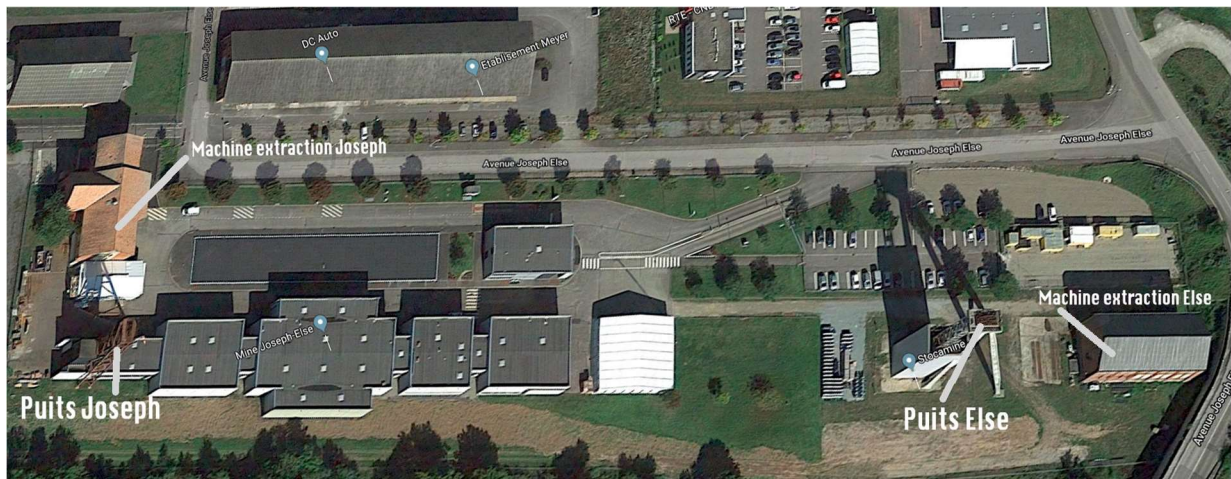
### 3.1 The surface installations



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### 3.2 The two access shafts

- **The Joseph Shaft** was dug to a depth of 531.1 m and has both a Banking and a Landing. It is used to provide fresh air into the mine and transport personnel and material. The Joseph shaft is used to transport people, packages, materials and equipment.



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The extraction machine features a cage and a counterweight.  
This consists of a twin-cable Koepe pulley (diameter 27 mm), with a 410kW motor.

- **The Else Shaft** was dug to a depth of 489.2 m and has both a Banking and a Landing. This is used to expel used air, and is also used as an emergency shaft.



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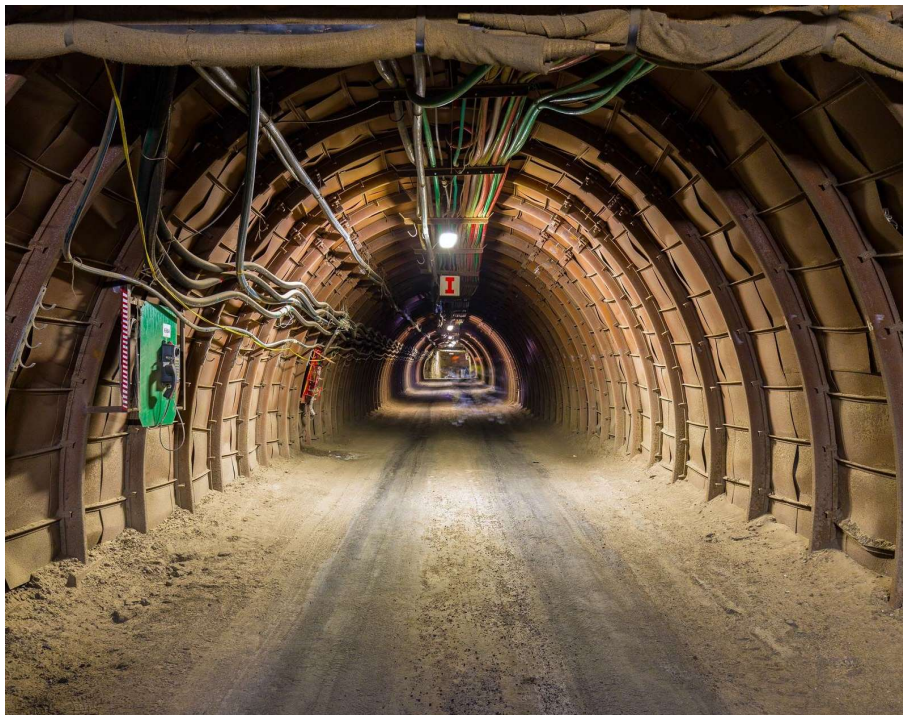
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The extraction machine uses two opposing cages. The characteristics are as follows:

- The cage speed is limited to 2m/s.
- The enclosed cables have a diameter of 41.2 mm and a metric mass of 9.6kg/m.
- The power is 828 kW DC.

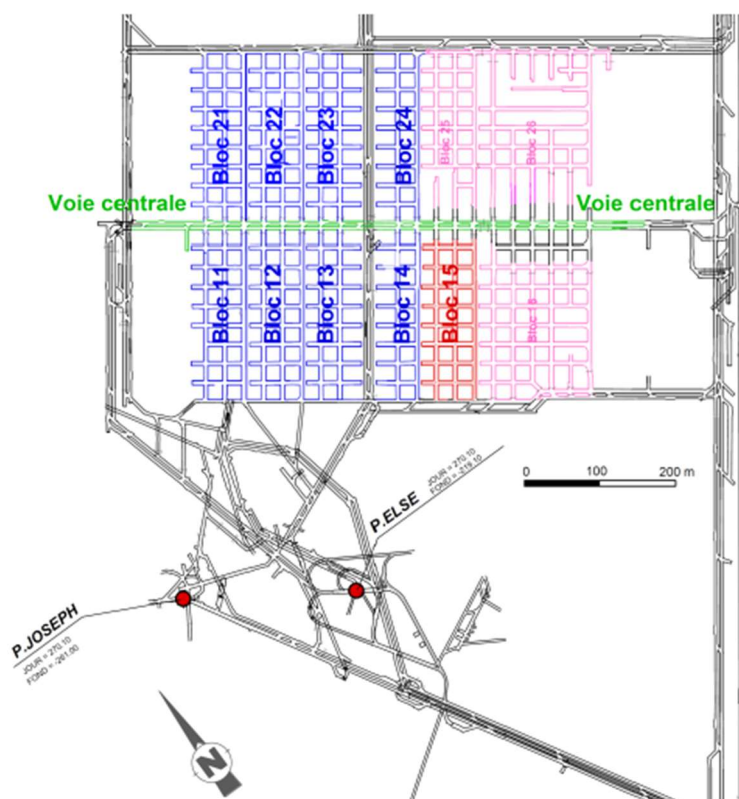
### 3.3 The roads and tunnels at the bottom





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Dug into the rock salt, the tunnels are some 550 m deep. The South-East end is slightly higher than the North-West end (-240m compared to -295m).

Approximate road and tunnel dimensions:

Access roads: 3.8m wide, 2.8m high

Alleys: 5.5 m wide, 2.8m high

Cut-outs: 5.5 m wide, 2.8m high.

There are around 15 km of roads and tunnels to maintain. They are dug into the rock salt (with a hardness of around 30 to 35MPa), with alternating banks of marl.

The total length of the tunnels to be maintained will be reduced as the confinement work progresses.

Convergence progresses at a rate of 1 to 8cm per year (horizontally and vertically), requiring support reinforcement and nominal cross-section restoration.

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### 3.4 The atmosphere at the bottom

The mine atmosphere is relatively dry (with a humidity level of around 40%), with a temperature ranging from 15 to 30°C depending on the distance to the air inflow shaft. The surroundings are highly saline. The total ventilation into the mine is around 100m<sup>3</sup>/s. The storage site is an area with an intermittent fire risk.

## 4- Division

The mine operation assignment will cover the maintenance and upkeep of three different site functions. As such, the Contract will be allocated in a way that reflects this breakdown.

### 4.1 - Extraction installations

<b>Extraction structures</b>	Fixed-rate services	Maintenance of the structures at the shaft head (headframe, wheel, false edge).
	Services not included	Masonry and road work
<b>Extraction machines</b>	Fixed-rate services	Operating 2 shaft machines  Mechanical, hydraulic and pneumatic maintenance of the shaft machines and the emergency hoist.  Automatic system maintenance, regulation, cabling and instrumentation of the shaft machines (on the surface and bottom). Extraction building maintenance (access, ventilation, heating, air conditioning, fire/intruder safety)
<b>Shafts and banking</b>		Management of cage insertion and extraction operations.
		Shaft maintenance (tubbing, structure, cables)
<b>Checks</b>		Regulatory installation inspections (in compliance with the RGIE and the instructions from the MDPA-mandated inspection bodies).
<b>Miscellaneous</b>	Services not included	Modifications to equipment not covered by standard maintenance in the fixed rate, as (replacement of obsolete components falls under standard required by the work maintenance).
	on the site.	Any necessary modifications to the machine buildings (cable pathway, cable ducts, bolts, shelves, etc.).

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### 4.2 - Bottom-level tunnels and material

<b>Bottom-level tunnels and mining machines</b>	Fixed-rate services	Regular support inspections Hooping Support reinforcement when necessary Cross-section restoration of the tunnels when necessary Bottom-level mining machine maintenance Door and ventilation dust-barrier maintenance Bottom-level network maintenance (compressed air, water, dewatering)
	Services not included	All those assigned to the bearer of the confinement contract
	Services not included required by the work on the site.	Mine interventions requested by third parties and which do not fall in the fixed rate, as under mine maintenance. Installation and removal of standard network material (pipes, ducts, cables) Digging and supporting any new tunnels Modifications to machines which do not fall under standard maintenance.

### 4.3- Energy, utilities

<b>Energy and utilities</b>	Fixed-rate services	Maintenance of the electrical substations on the surface and bottom, of the back-up generator and the compressor station. Electrical distribution and cable maintenance (all voltage levels used on the site) on the surface and at the bottom. Repair of the electrical equipment at the bottom (ATEX Gr1) Maintenance (on the surface) of the compressed air, industrial water and dewatering systems, Maintenance of the primary ventilation unit and its equipment, Maintenance of the Surface and Bottom camera network and monitoring
	Services not included	Not applicable
	Services not included	Modifications to equipment not covered by standard maintenance in the fixed rate, as (replacement of obsolete components falls under standard required by the work maintenance).

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on the site.

## 5- Assignment characteristics

### 5.1 Independence

The Project Owner will, within the scope of the regulatory framework, delegate their responsibilities to the Bearer who must organize and schedule their independence completely independently. The Bearer will also be tasked with designing their works (methods, production plans, operating modes).

As the Bearer will be in charge of the regulatory inspections of the installations, the shafts (tubbing, machine, cables, etc.) and tunnels (supports, utilities, etc.), they must launch the appropriate work to resolve non-compliances and at-risk situations upon their own initiative.

### 5.2 Assignment breakdown

**Phase 1** For the first three months of the assignment, the Bearer will be required to:

- Integrate the regulations and the good working practices on the site.
- Establish their training handbooks (using an existing documentary base, available).
- Organize the workstations and train personnel (initial training).

**Phase 2** Over the next three months, the Bearer will need to be organized in such a way as to ensure their personnel can take over from the bearer of the existing contract (which expires on the 30/06/21). They will define the take-over schedule themselves.

**Phase 3** From the 01/07/21, the Bearer will be fully operational and able to fulfil all assignments entrusted to them.

### 5.2 Availability

The services covered by this contract abide by a number of key constraints:

- They must scrupulously follow all of the regulatory terms of the RGIE and the Labor Code.
- They must ensure the movement of personnel and material between the surface and bottom, with an availability rate of 100% during the following periods:  
For the Joseph shaft: from 06:00 to 21:00, with maintenance beginning at 01:30 and ending at 06:00.  
For the Else shaft: continuously, from Monday at 06:00 to Thursday at 21:00, with the exception of a daily maintenance shutdown at 01:30.

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- They must ensure 100% availability for the energy and utility networks (compressed air and water) over all periods of activity for the confinement worksites.
- They must schedule maintenance work in such a way that the operations on the confinement worksites are never in any way hindered.

**NB: the times given are a guideline only**

## 5.2 Key maintenance figures

In 2019, the scale of the workforce (without management) required for the mine operation assignment was the following:

Extraction installations	:	15 to 20 people
Bottom-level tunnels and material	:	6 to 8 people
Energy, utilities	:	3 to 4 people

**Important:** The number of people listed above can in no way be construed as a requirement set by the MDPA.

This is rather the indicative number that the applicants must be ready to provide, if necessary, to fulfil their maintenance duties and other work on the site.

The 2021-2025 requirements will be lower than that in 2019 (fewer tunnels to maintain, less off-plan work to be completed).

The consultation file will list these requirements in greater detail.

## 5.3 Quarters

MDPA will let the quarters necessary for the bearer (office, workshops, stores, showers, bathrooms, refectory). The rental costs will be listed in the consultation file.

# 6- Other parties active on the site

The Contract Bearer's activities will be conducted at the same time as those of other parties:

- The Project Owner's (MDPA) teams and any sub-contractors,
- The Mining delegate,
- The company (BOUYGUES) tasked with site confinement,
- The Project Manager (INGEROP) tasked with overseeing the confinement worksite,
- The Preventionist (APAVE) tasked with coordinating health and safety for the confinement work,
- The bearers of other contracts (various concrete work, concrete and road restoration,



electricity, etc.).

## **7- Miscellaneous constraints**

### **7.1 Language**

The language of both the contract and the worksite is French. This means that each operational team must be headed by a manager who speaks French, or at least have one operator who speaks French.

Any isolated workers must speak French.

All personnel on site must have a sufficient level to understand the signposts and the verbal safety instructions given to them (getting to safety, evacuation, etc.).

### **7.2 Social security for foreign workers**

The Bearer will be responsible for all additional costs incurred to have their employees working in France.