



One Tower Center Blvd., 21st Floor
East Brunswick, NJ 08816

Mailing Address:
Patriot Hydro, LLC
670 N. Commercial Street, Suite 204
Manchester, NH 03101

December 22, 2025

Hon. Michelle L. Phillips
Secretary to the Commission
New York State Public Service Commission
Empire State Plaza
Agency Building 3
Albany, NY 12223-1350

Re: Pyrites Hydro, LLC, Pyrites Hydroelectric Facility;
Case 17-E-0603 – Tier 2 Maintenance Resource Eligibility for a Renewable Energy
Standard Facility, Application for Tier 2 Maintenance Resource Support – Capital
Investment Projects

Hon. Michelle L. Phillips:

Pyrites Hydro, LLC, Pyrites hydroelectric facility (“Pyrites”) is seeking Tier 2
Maintenance Resource Support due to financial hardship. Please find enclosed
redacted documents to support the following capital investment projects:

1. Fiber Optics Replacement

- a. In 2024, Pyrites experienced a failure of its fiber-optic communication system, resulting in the loss of remote visibility and monitoring capability for key plant and dam infrastructure. In 2025, the facility initiated the installation of a new fiber-optic cabling system to restore safe operations and enable required data transmission to National Grid in support of grid reliability.



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2. FERC Relicensing

- a. In 2025, Pyrites was required to meet obligations arising from the FERC relicensing process. Specifically, this included upgrades to meet standards for the asset's Water Quality Certificate and recreational facilities. Under the facility's newly issued FERC license, additional costs will be incurred in 2026 to meet updated recreational facility standards.

3. NYISO Interconnection Upgrades

- a. Pyrites is required to upgrade its telemetry systems in order to meet National Grid and NYISO interconnection standards. The facility is implementing these improvements in 2025 to ensure continued compliance and operation.

4. Unit 2 Overhaul

- a. Pyrites Unit 2 requires a major overhaul in 2026 which will include turbine repair, bearing and bearing pad replacement, shaft repairs, thrust collar replacement, and many other essential mechanical improvements to ensure reliability.

5. Penstock Headgate Seals and Actuator Replacements

- a. The penstock headgate seals and actuators have deteriorated and require replacement in 2026. This work is necessary to restore proper gate function, ensure safe unit isolation, and maintain dam safety by mitigating the risk of penstock leakage, thereby supporting continued safe and reliable facility operations.

6. Unit 3 Automation

- a. Unit 3 experienced a failure of its programmable logic controller ("PLC"), impairing the unit's control and operation. Patriot Hydro will install a new PLC and associated control software in 2026 to enable automated and safe unit operation.



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7. Fire Detection System Installation

- a. In 2027, Pyrites requires the installation of a new smoke and fire detection system to enhance fire detection capabilities and support safe and reliable facility operations.

8. Essential Penstock Repairs

- a. As noted in Point 5, various sections of the Pyrites penstock are exhibiting signs of severe deterioration. In response, Patriot Hydro engaged qualified engineers to conduct inspections and identify critical repairs requiring attention. The resulting engineering report recommends near-term repairs, including rehabilitation of ring girders and recoating of the interior of the upper powerhouse penstock. Patriot Hydro undertook similar penstock repairs at other facilities and, based on that experience, has budgeted approximately \$250,000 to perform this work in 2027. The main driver for these costs is the need to perform a re-coating of the interior of the penstock, based on the inspecting engineer's recommendations.

Sincerely,

PATRIOT HYDRO FUNDING, LLC

By: 

Name: David Olsheski

Title: Vice President, Asset Management

Address: One Tower Center Blvd, 21st Floor, East Brunswick, NJ 08816

Phone: 970-702-1136

Email: DOlsheski@lspower.com

Company name: Patriot Hydro, LLC

Report name:

Reporting Book:

Start Date:

End Date:

Project:

Posted dt:

[REDACTED]

[REDACTED]

10/13/2025

10/13/2025

[REDACTED]

[REDACTED]

6/17/2025

Pyrites - Fiber Optics Replacement

[REDACTED]

Major Maintenance Non Routine (Maintenance) (Balance forward As of 01/01/2023)

Location

Project name

Project

Location name

Vendor name

JNL

Amount

PG

Pyrites - Fiber Optics Repl

[REDACTED]

Pyrites Hydro, LLC

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



TO:
Patriot Hydro



DATE:
6/28/2024

JOB LOCATION:
Pyrites Hydroelectric Project

JOB NUMBER:

We hereby submit specifications and estimates for:

[Redacted text block]

[Redacted text line]

[Redacted text line]

[Redacted text line]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]




INVOICE






TO: Central Rivers Power US, LLC
c/o Patriot Hydro Funding, LLC



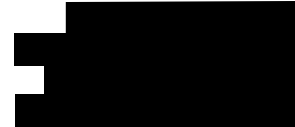
DATE	INVOICE #
6/17/2025	



QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
	 Replace & extend Fiber Optic Cable		
	COMPLETE		
	TOTAL DUE		



PURCHASE ORDER

**BILL TO:**

[REDACTED]
 Central Rivers Power US, LLC
 c/o Patriot Hydro Funding, LLC
 [REDACTED]
 [REDACTED]

[REDACTED]
 [REDACTED]
 [REDACTED]

DELIVER TO: Pyrites Hydro, LLC
 [REDACTED]
 [REDACTED]

REQUISITIONER	BUYER	REFERENCE
[REDACTED]	[REDACTED]	[REDACTED] Patriot Hydro Fiber [REDACTED]

ITEM #	ITEM ID	LOCATION	MEMO	DELIVERY DATE	AMOUNT
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				[REDACTED]	[REDACTED]

Other Comments and Special Instructions

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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[REDACTED]

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- [REDACTED]

[REDACTED]



PURCHASE ORDER

**BILL TO:**

[Redacted]
 Central Rivers Power US, LLC
 c/o Patriot Hydro Funding, LLC
 [Redacted]

[Redacted]
 [Redacted]

DELIVER TO: [Redacted]
 [Redacted]

REQUISITIONER	BUYER	REFERENCE
[Redacted]	[Redacted]	Pyrites Fiber [Redacted]

ITEM #	ITEM ID	LOCATION	MEMO	DELIVERY DATE	AMOUNT
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Other Comments and Special Instructions
[Redacted]
[Redacted]
[Redacted]

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[Redacted]

[Redacted]

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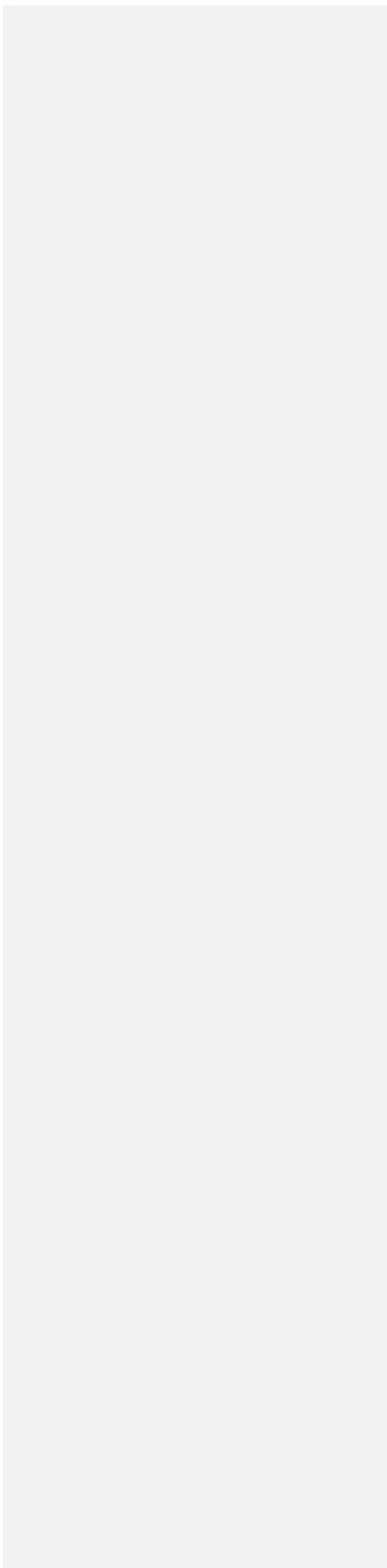
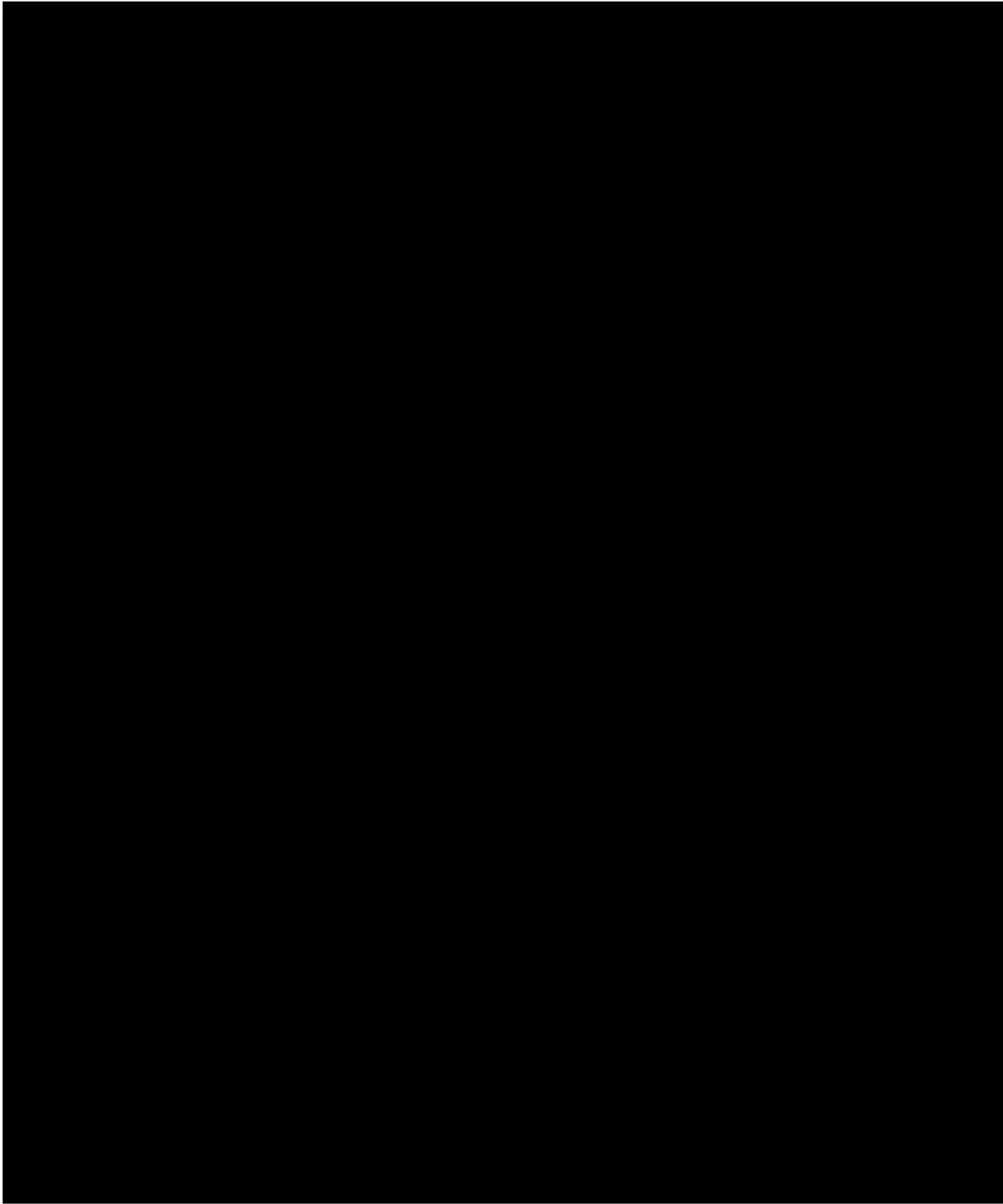
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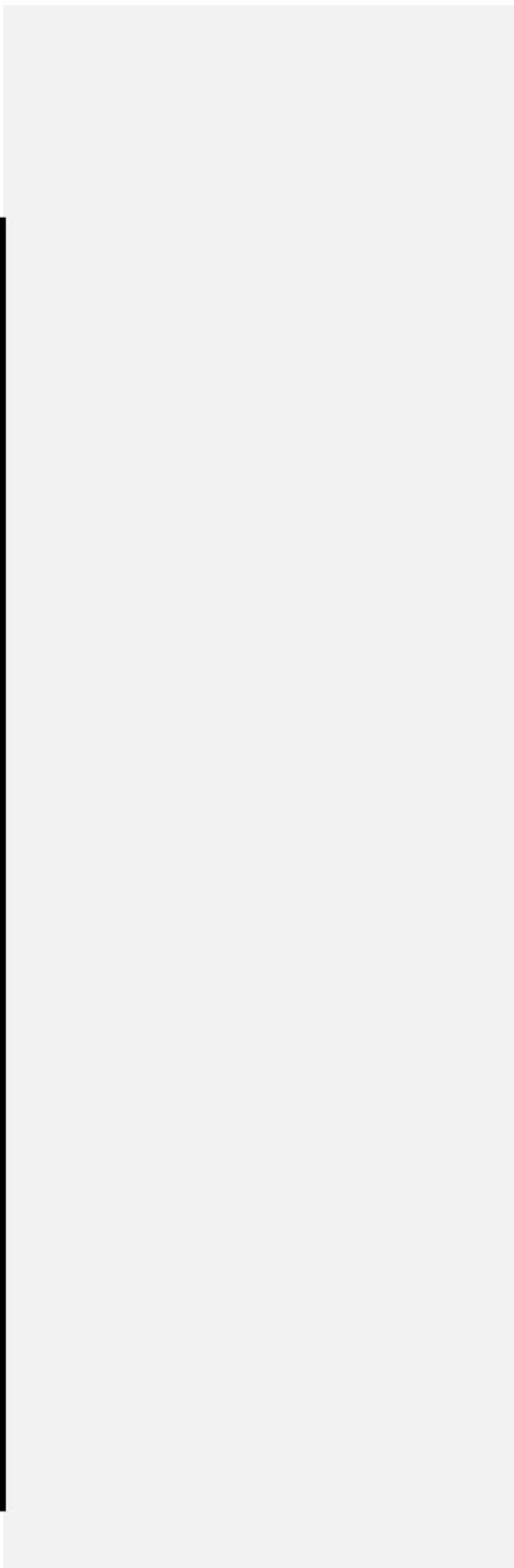
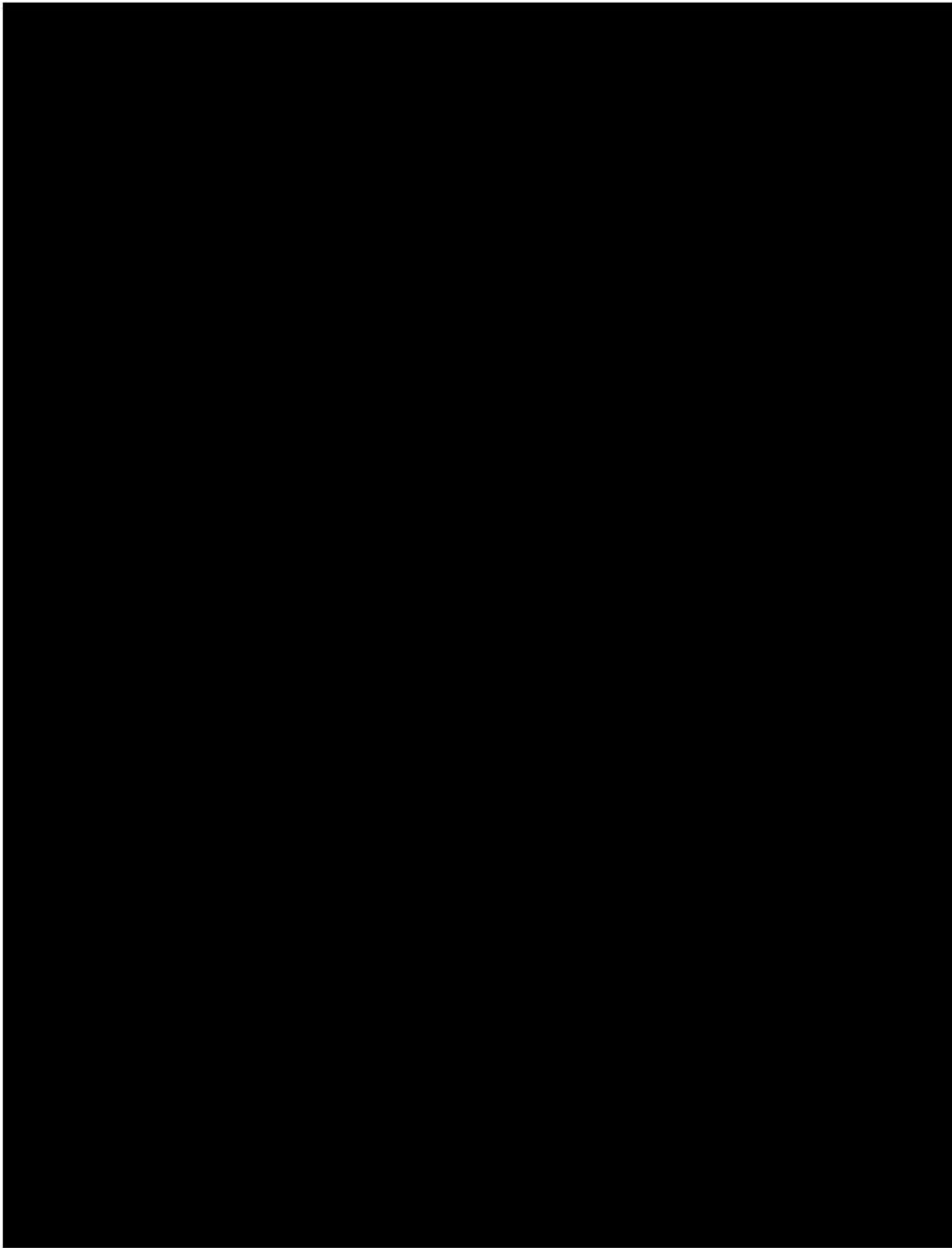
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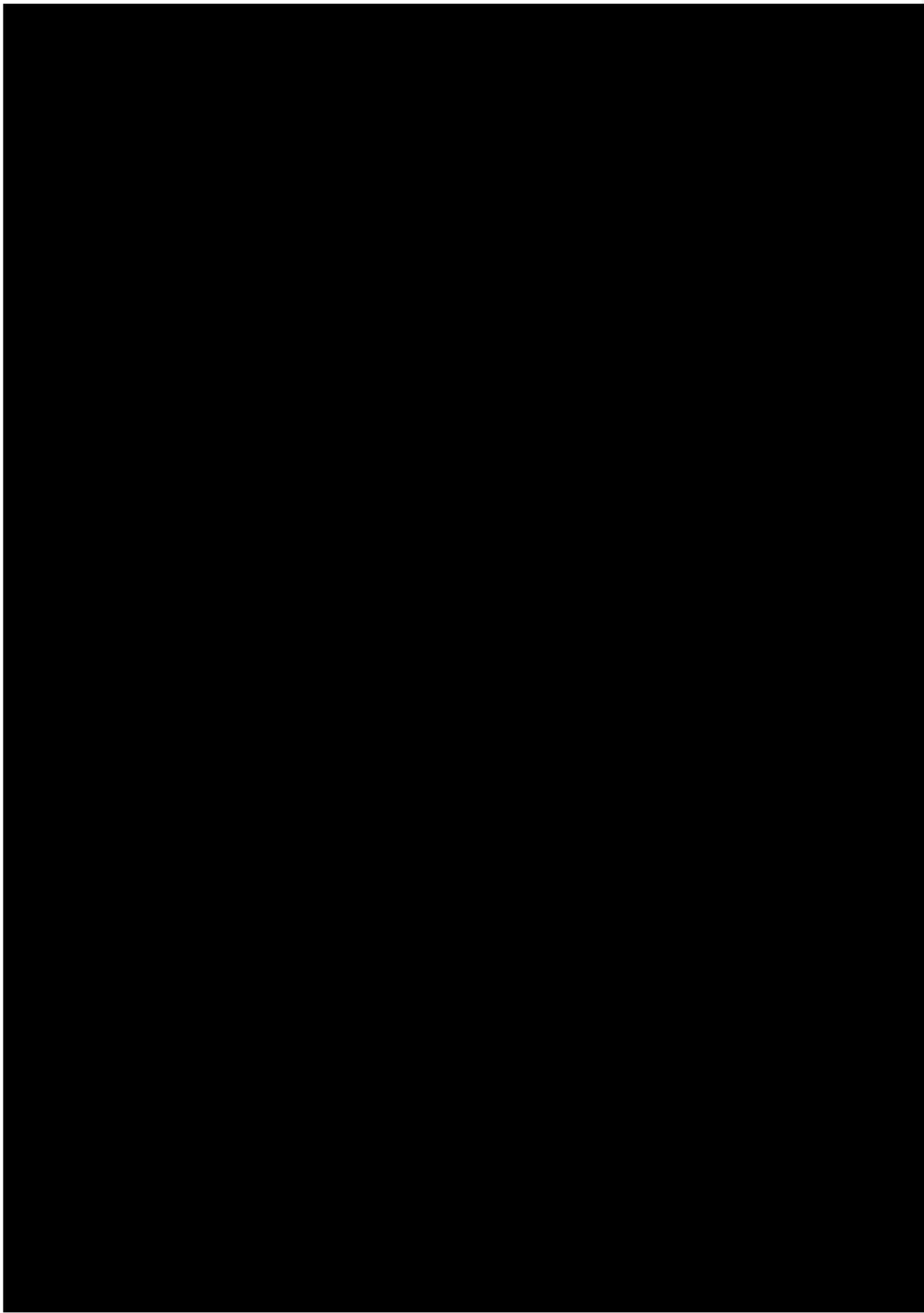
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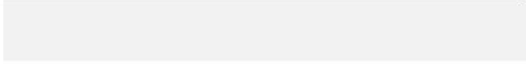
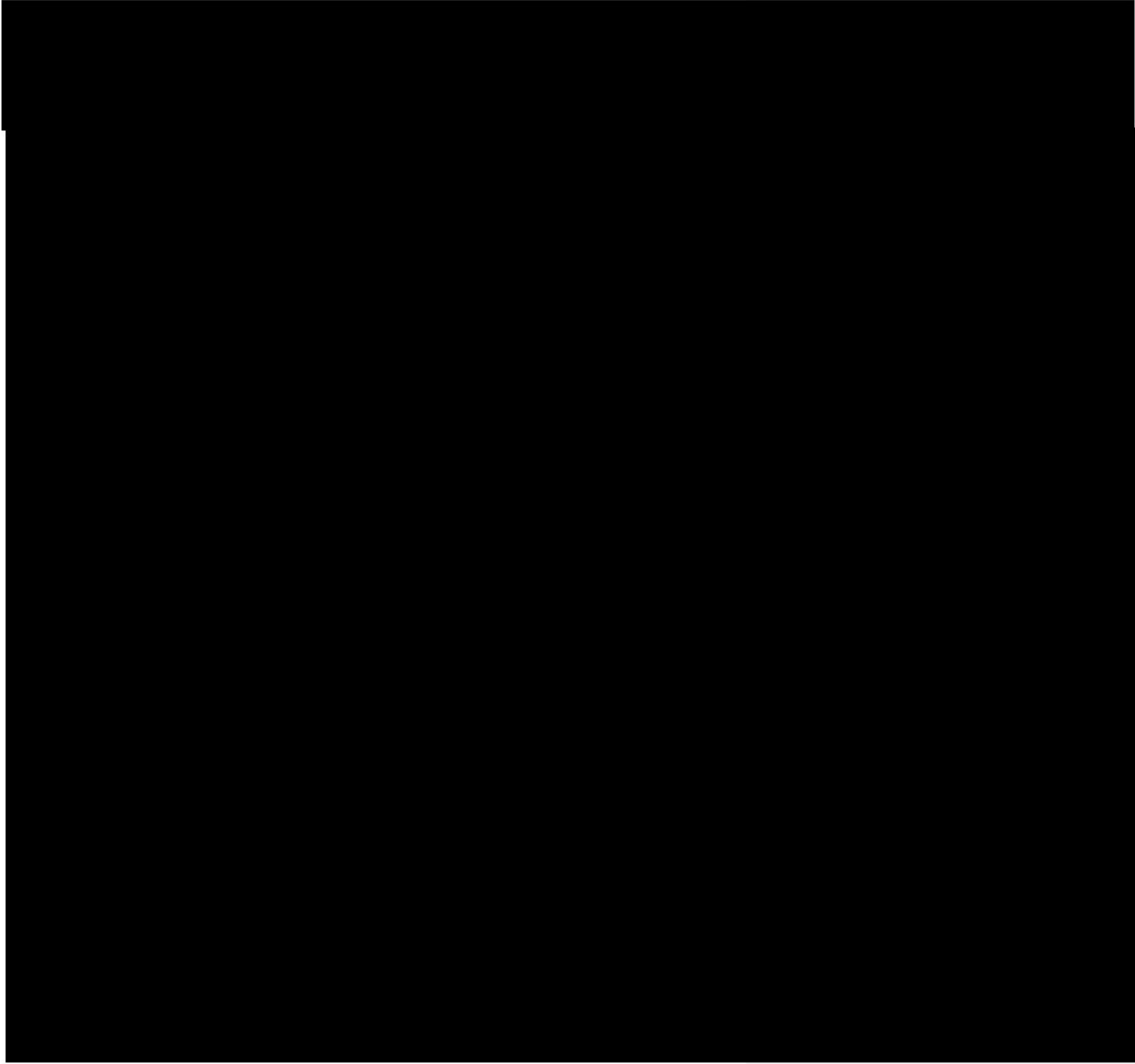
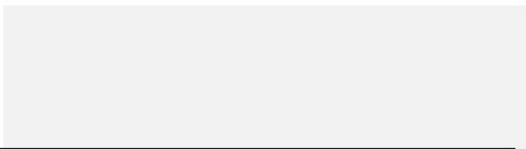
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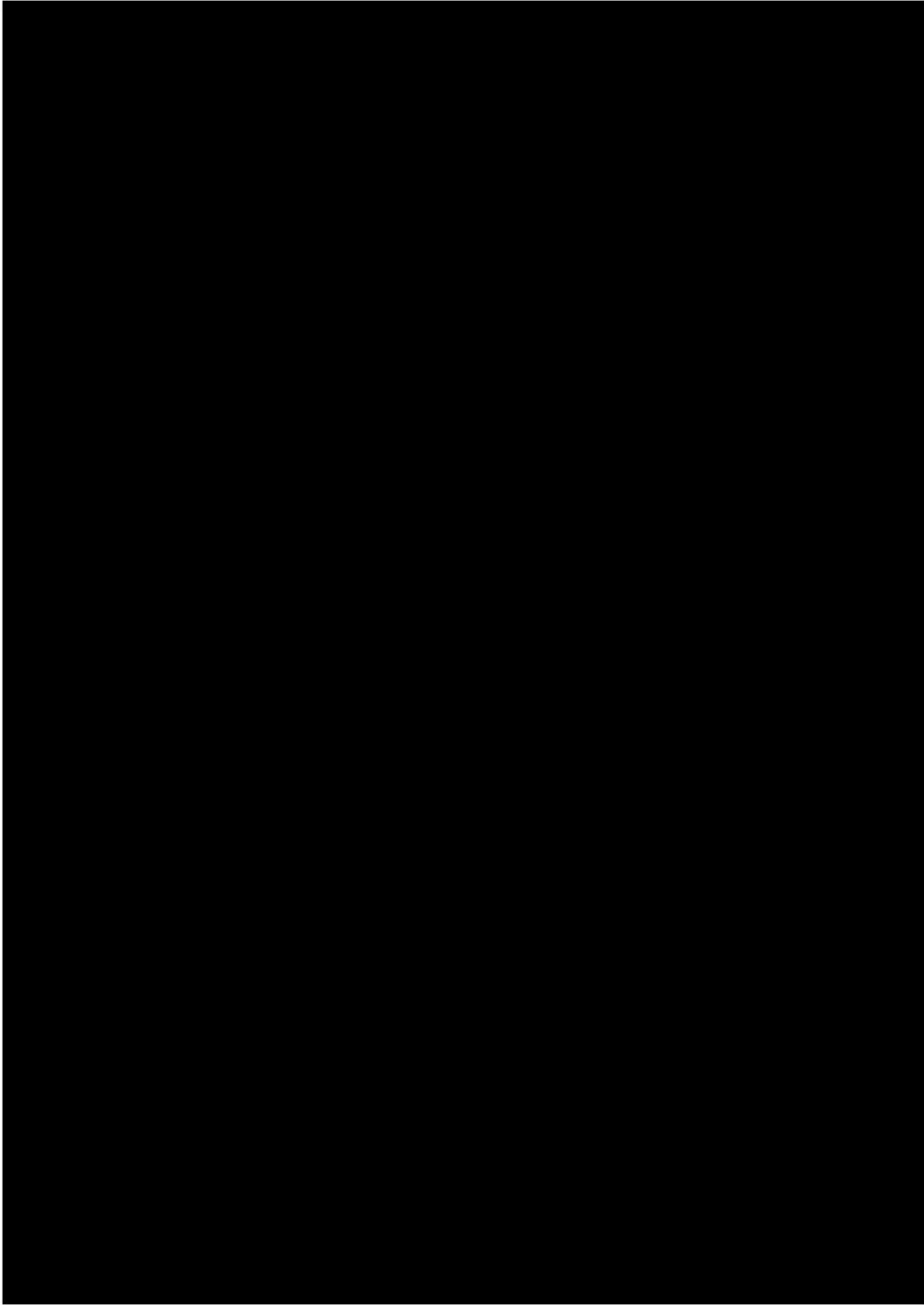
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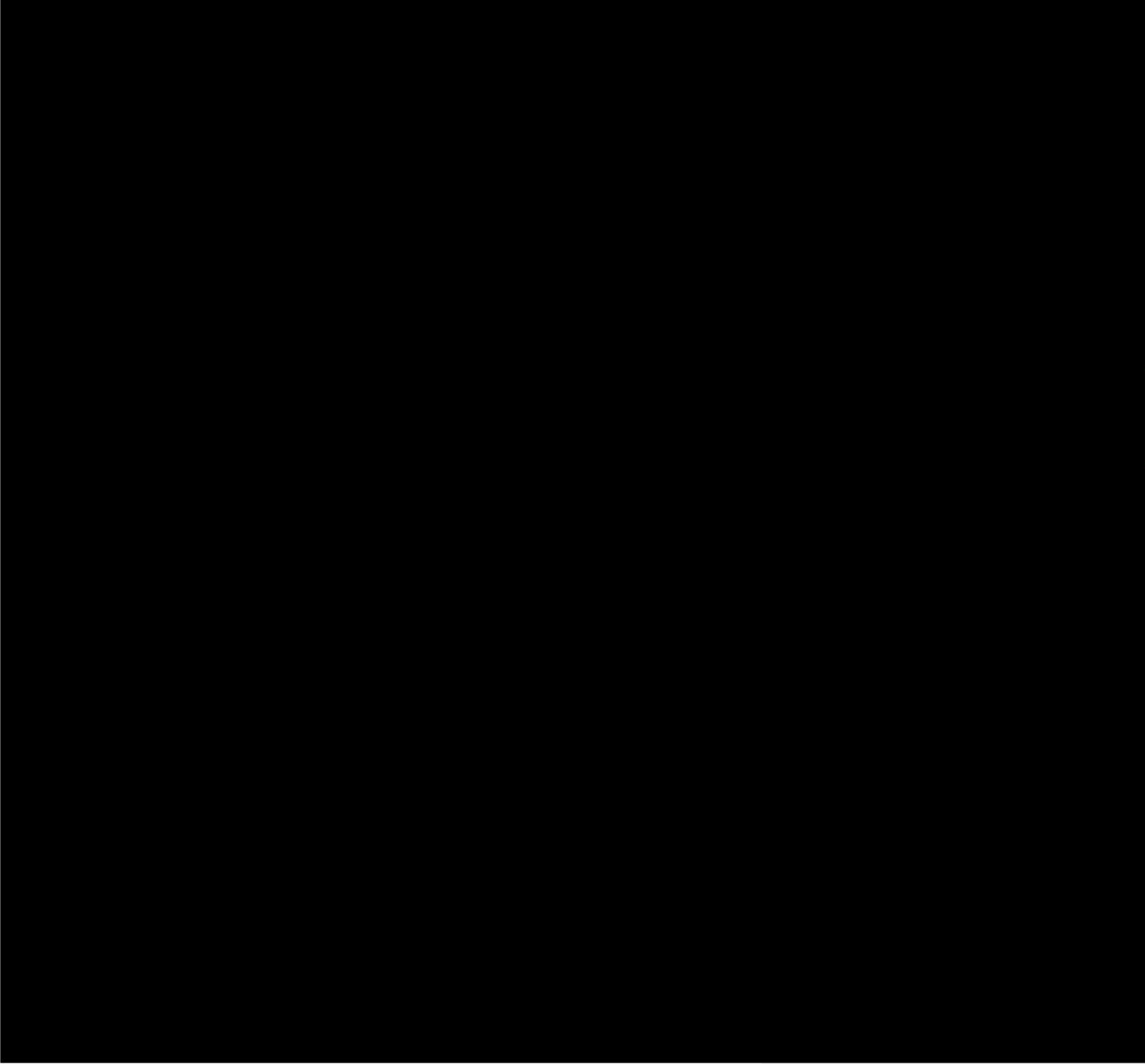


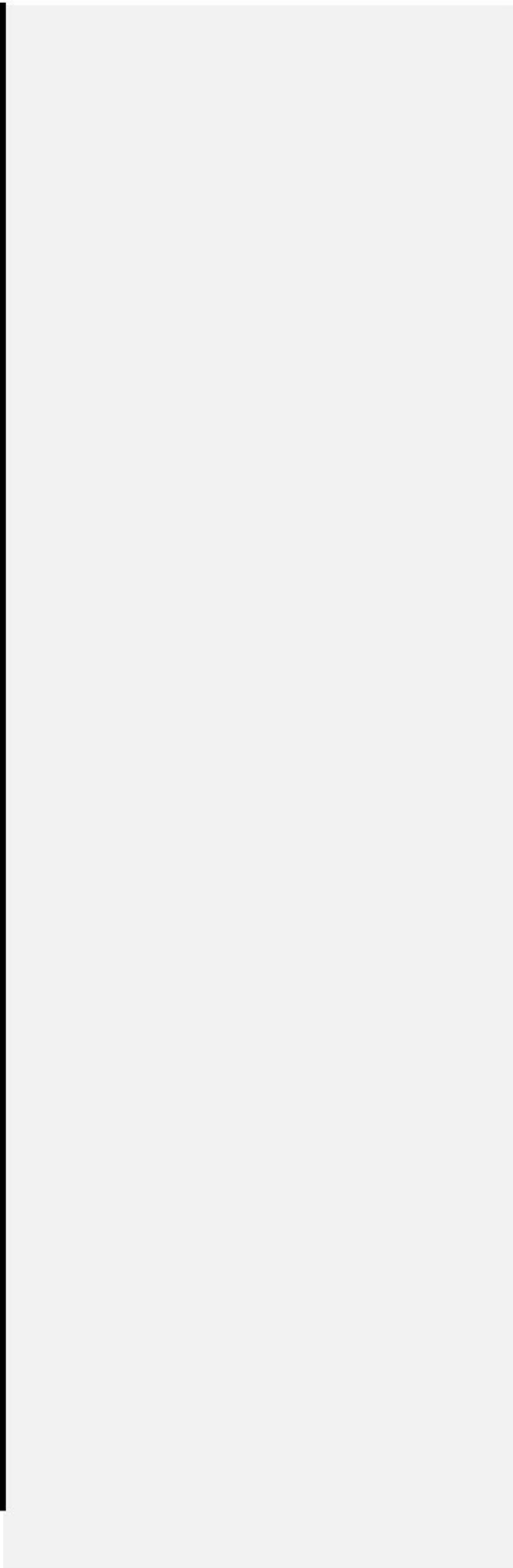
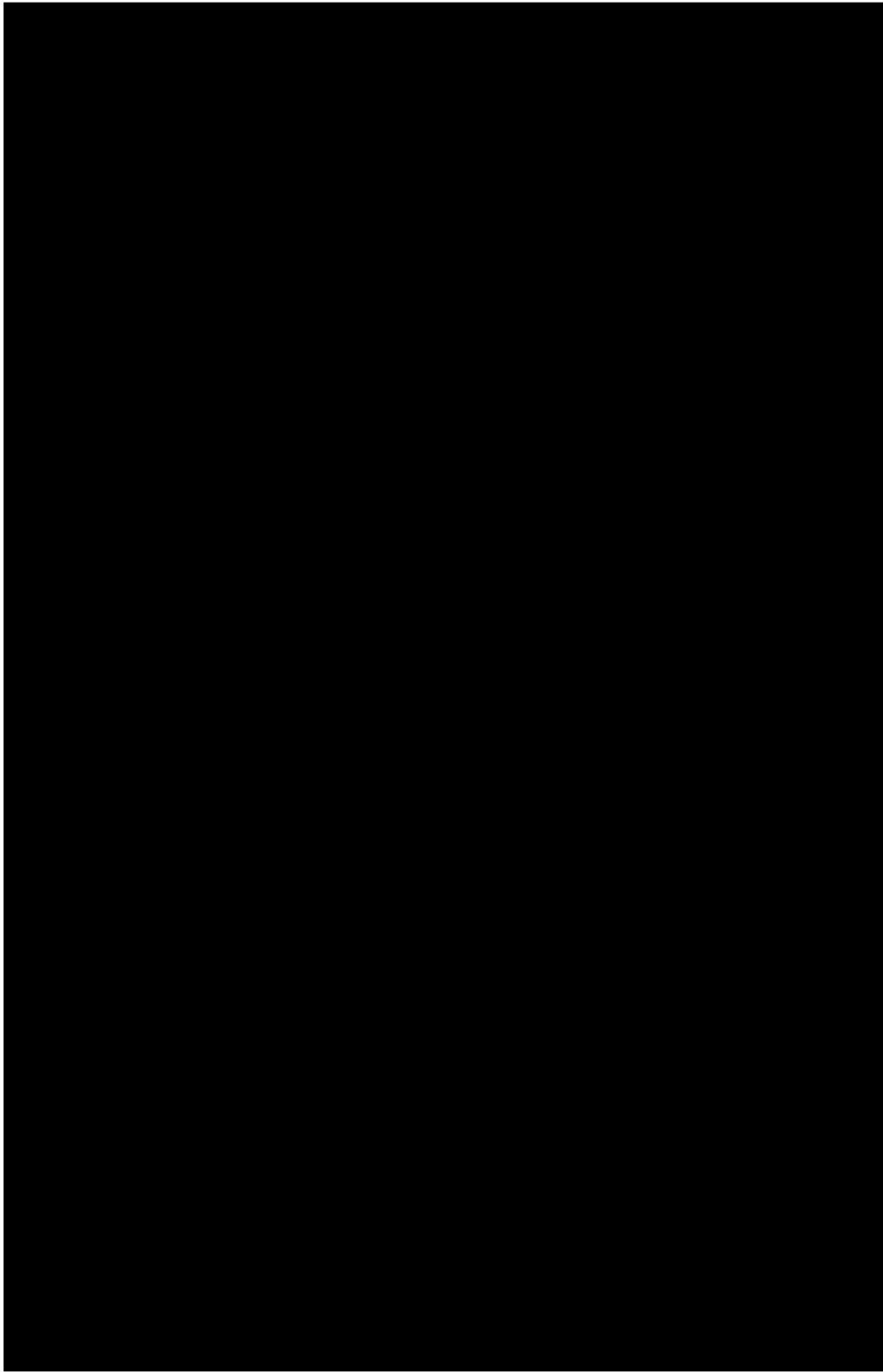












Company name: Patriot Hydro, LLC
Report name: [REDACTED]
Reporting Book: [REDACTED]
Start Date: 1/1/2025
End Date: 10/9/2025
Project: [REDACTED] - Pyrites - FERC Relicensing

Posted dt.	Doc dt.	Doc	Memo/Description	Location	Project name	Project	Location name	Vendor name	JNL	Amount
Relicensing (Balance forward As of 01/01/2025)										
1/28/2025	1/17/2025	[REDACTED]	[REDACTED]	[REDACTED]	Pyrites - FERC Relicemin	[REDACTED]	Pyrites Hydro, LLC	[REDACTED]		
1/31/2025	1/31/2025	[REDACTED]	[REDACTED]	[REDACTED]	Pyrites - FERC Relicemin	[REDACTED]	Pyrites Hydro, LLC	[REDACTED]		
2/20/2025	1/31/2025	[REDACTED]	[REDACTED]	[REDACTED]	Pyrites - FERC Relicemin	[REDACTED]	Pyrites Hydro, LLC	[REDACTED]		
3/14/2025	2/28/2025	[REDACTED]	[REDACTED]	[REDACTED]	Pyrites - FERC Relicemin	[REDACTED]	Pyrites Hydro, LLC	[REDACTED]		
3/25/2025	3/20/2025	[REDACTED]	[REDACTED]	[REDACTED]	Pyrites - FERC Relicemin	[REDACTED]	Pyrites Hydro, LLC	[REDACTED]		
4/17/2025	4/14/2025	[REDACTED]	[REDACTED]	[REDACTED]	Pyrites - FERC Relicemin	[REDACTED]	Pyrites Hydro, LLC	[REDACTED]		
4/24/2025	3/31/2025	[REDACTED]	[REDACTED]	[REDACTED]	Pyrites - FERC Relicemin	[REDACTED]	Pyrites Hydro, LLC	[REDACTED]		
5/6/2025	3/31/2025	[REDACTED]	[REDACTED]	[REDACTED]	Pyrites - FERC Relicemin	[REDACTED]	Pyrites Hydro, LLC	[REDACTED]		
5/14/2025	4/30/2025	[REDACTED]	[REDACTED]	[REDACTED]	Pyrites - FERC Relicemin	[REDACTED]	Pyrites Hydro, LLC	[REDACTED]		
5/22/2025	5/19/2025	[REDACTED]	[REDACTED]	[REDACTED]	Pyrites - FERC Relicemin	[REDACTED]	Pyrites Hydro, LLC	[REDACTED]		
6/18/2025	5/31/2025	[REDACTED]	[REDACTED]	[REDACTED]	Pyrites - FERC Relicemin	[REDACTED]	Pyrites Hydro, LLC	[REDACTED]		
6/23/2025	6/18/2025	[REDACTED]	[REDACTED]	[REDACTED]	Pyrites - FERC Relicemin	[REDACTED]	Pyrites Hydro, LLC	[REDACTED]		
7/11/2025	6/30/2025	[REDACTED]	[REDACTED]	[REDACTED]	Pyrites - FERC Relicemin	[REDACTED]	Pyrites Hydro, LLC	[REDACTED]		
7/17/2025	7/15/2025	[REDACTED]	[REDACTED]	[REDACTED]	Pyrites - FERC Relicemin	[REDACTED]	Pyrites Hydro, LLC	[REDACTED]		
8/15/2025	7/31/2025	[REDACTED]	[REDACTED]	[REDACTED]	Pyrites - FERC Relicemin	[REDACTED]	Pyrites Hydro, LLC	[REDACTED]		
8/18/2025	8/15/2025	[REDACTED]	[REDACTED]	[REDACTED]	Pyrites - FERC Relicemin	[REDACTED]	Pyrites Hydro, LLC	[REDACTED]		
9/18/2025	8/31/2025	[REDACTED]	[REDACTED]	[REDACTED]	Pyrites - FERC Relicemin	[REDACTED]	Pyrites Hydro, LLC	[REDACTED]		
9/18/2025	9/16/2025	[REDACTED]	[REDACTED]	[REDACTED]	Pyrites - FERC Relicemin	[REDACTED]	Pyrites Hydro, LLC	[REDACTED]		
Totals for: [REDACTED] - Relicensing										

[REDACTED]

[Redacted]

February 28, 2025

[Redacted]

Patriot Hydro

[Redacted]

Re: Pyrites Hydroelectric Project Relicensing Scope and Cost Estimate – [Redacted]

[Redacted]

[Redacted]

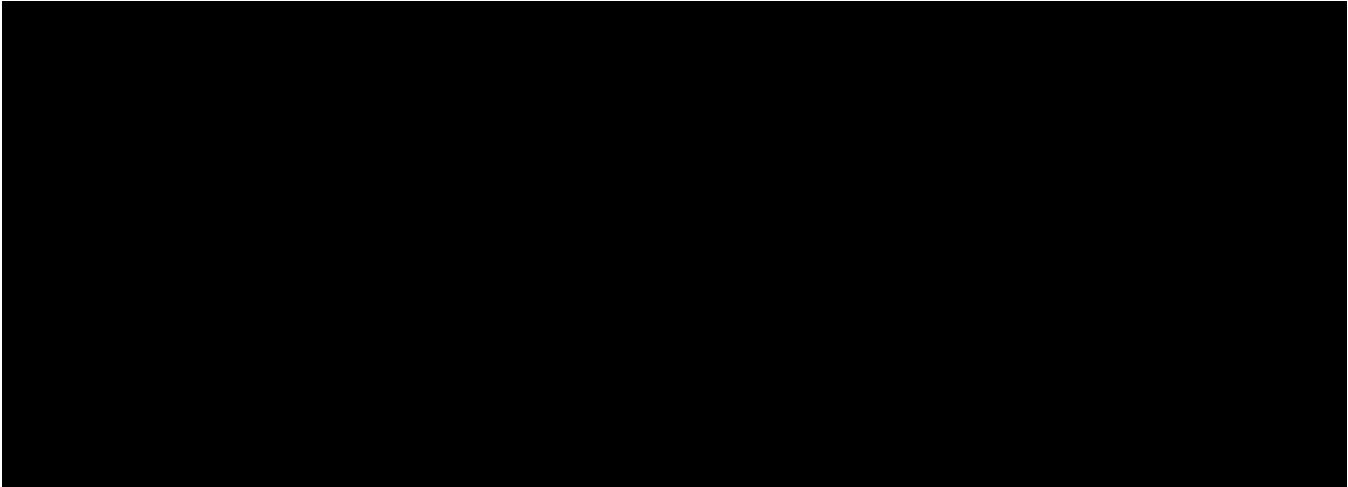
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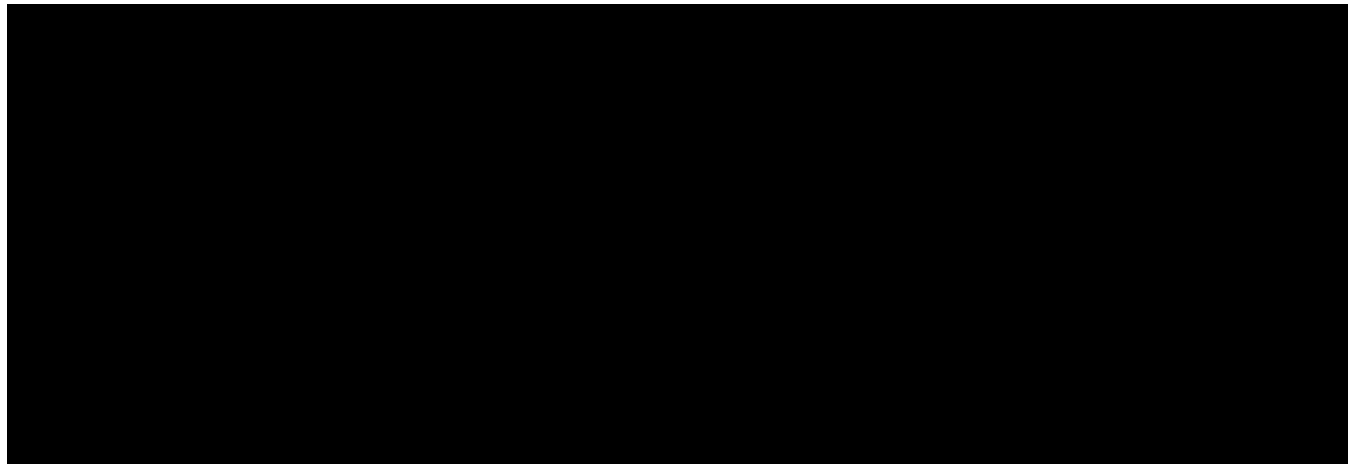
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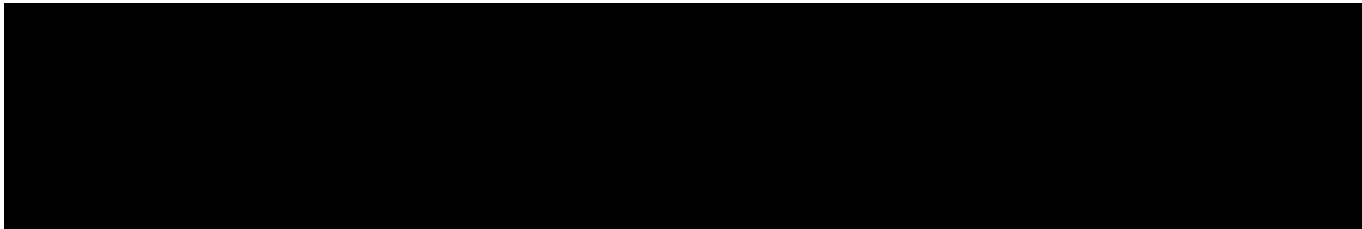
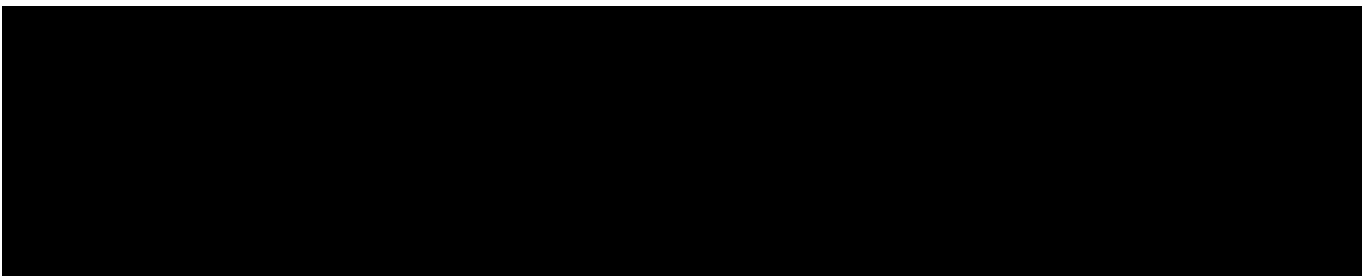
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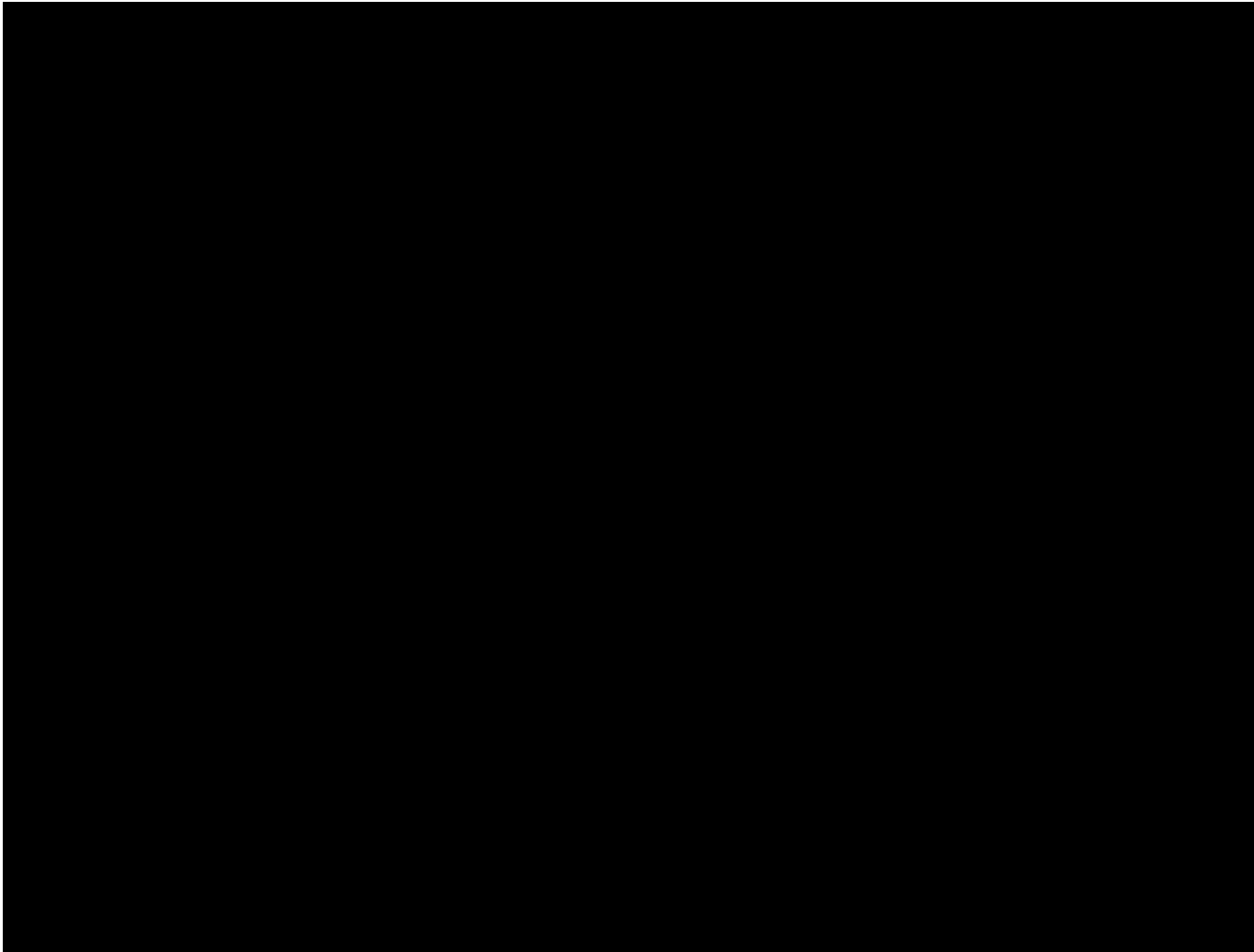


Task 8 -Post-filing Support



Task 9 -License Implementation





Task 10 - Project Management

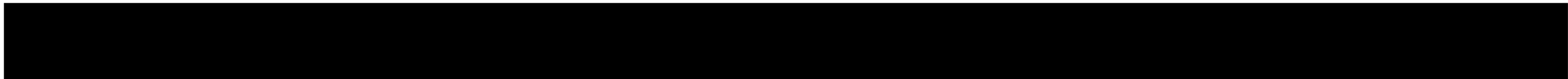
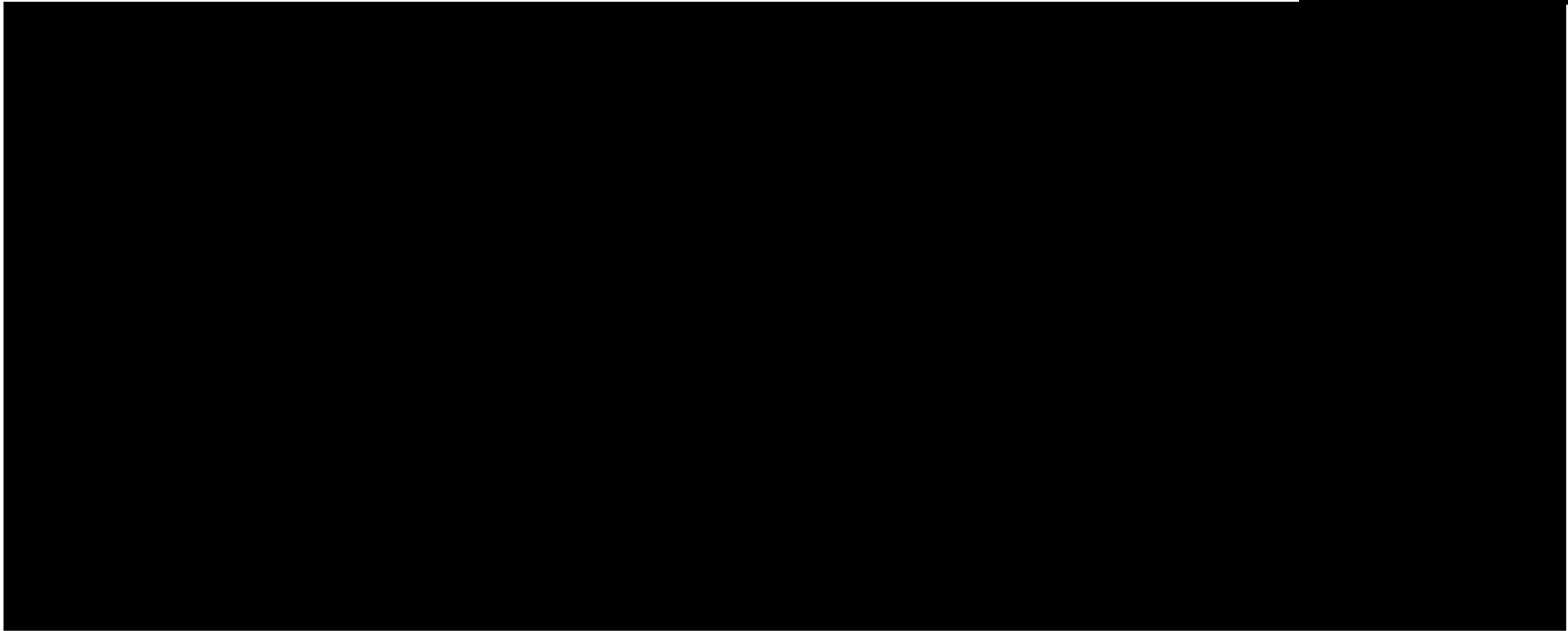


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II. Cost Proposal

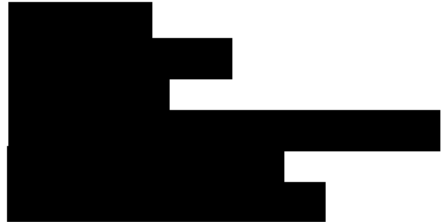
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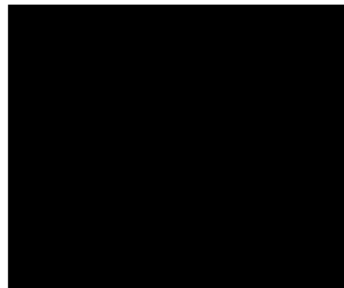




May 12, 2025

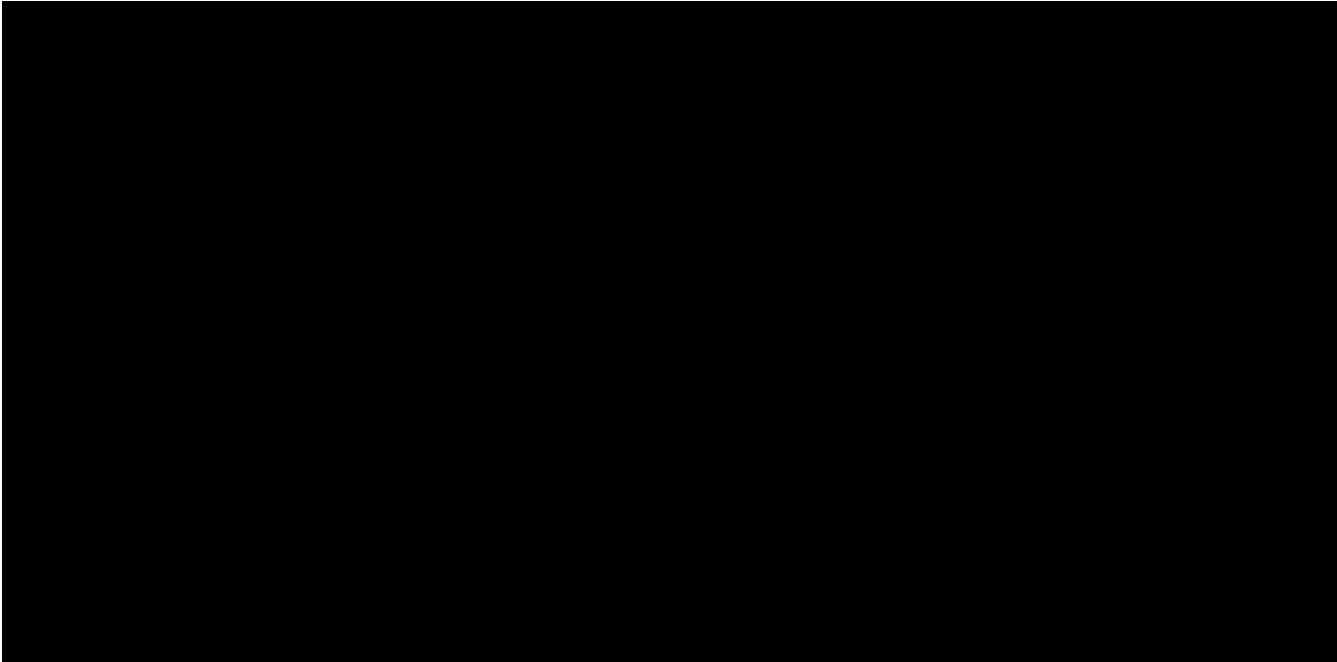


Re: Pyrites Hydroelectric Project Relicensing Scope and Cost Estimate [redacted],

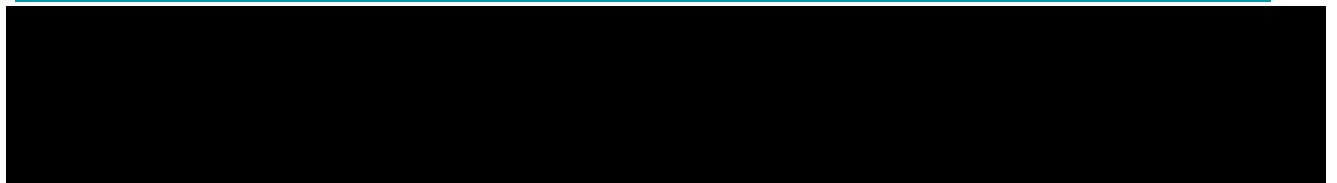


I. Scope of Services

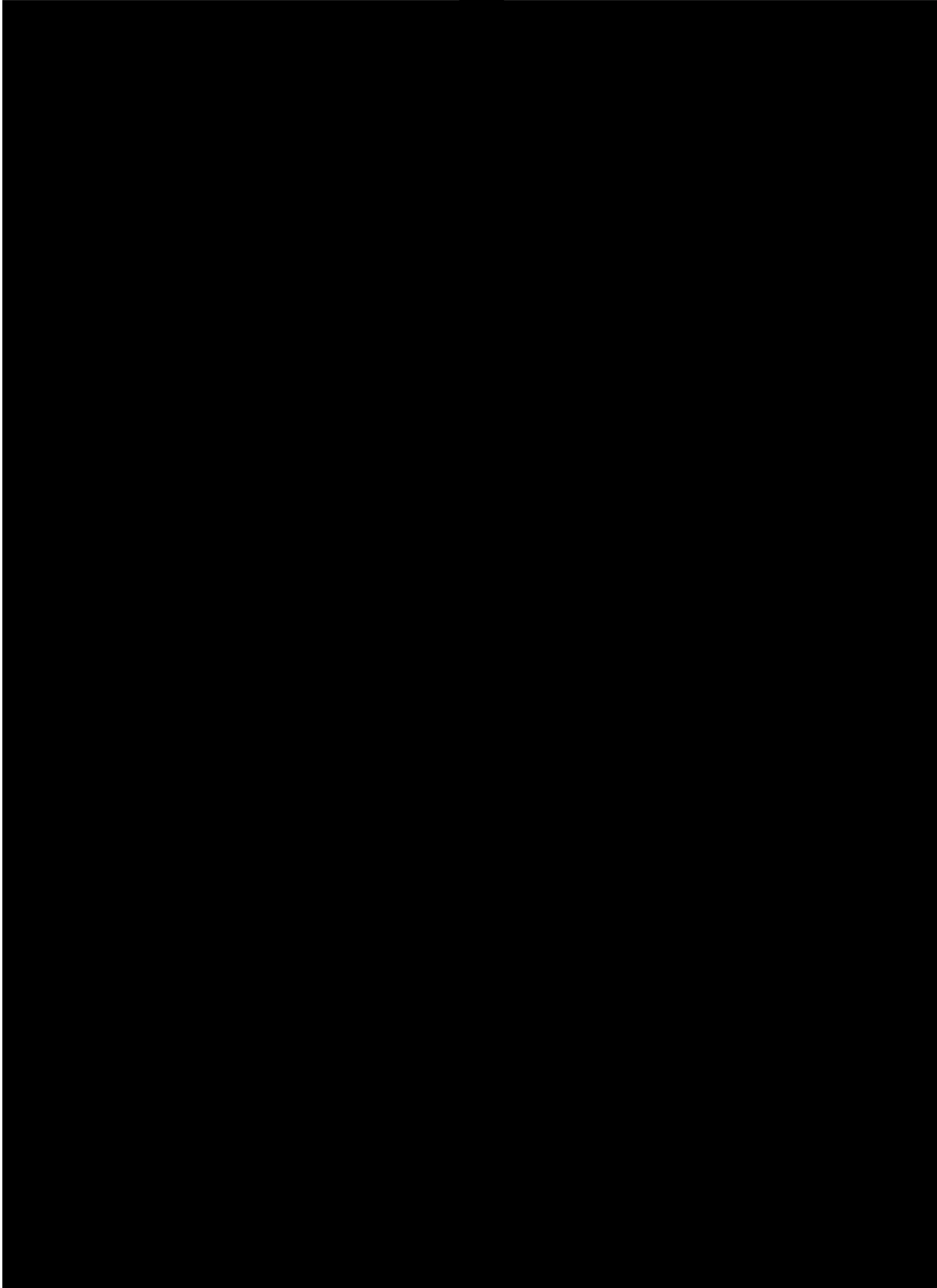
Task 9.7 - Recreation Engineering Support - Design



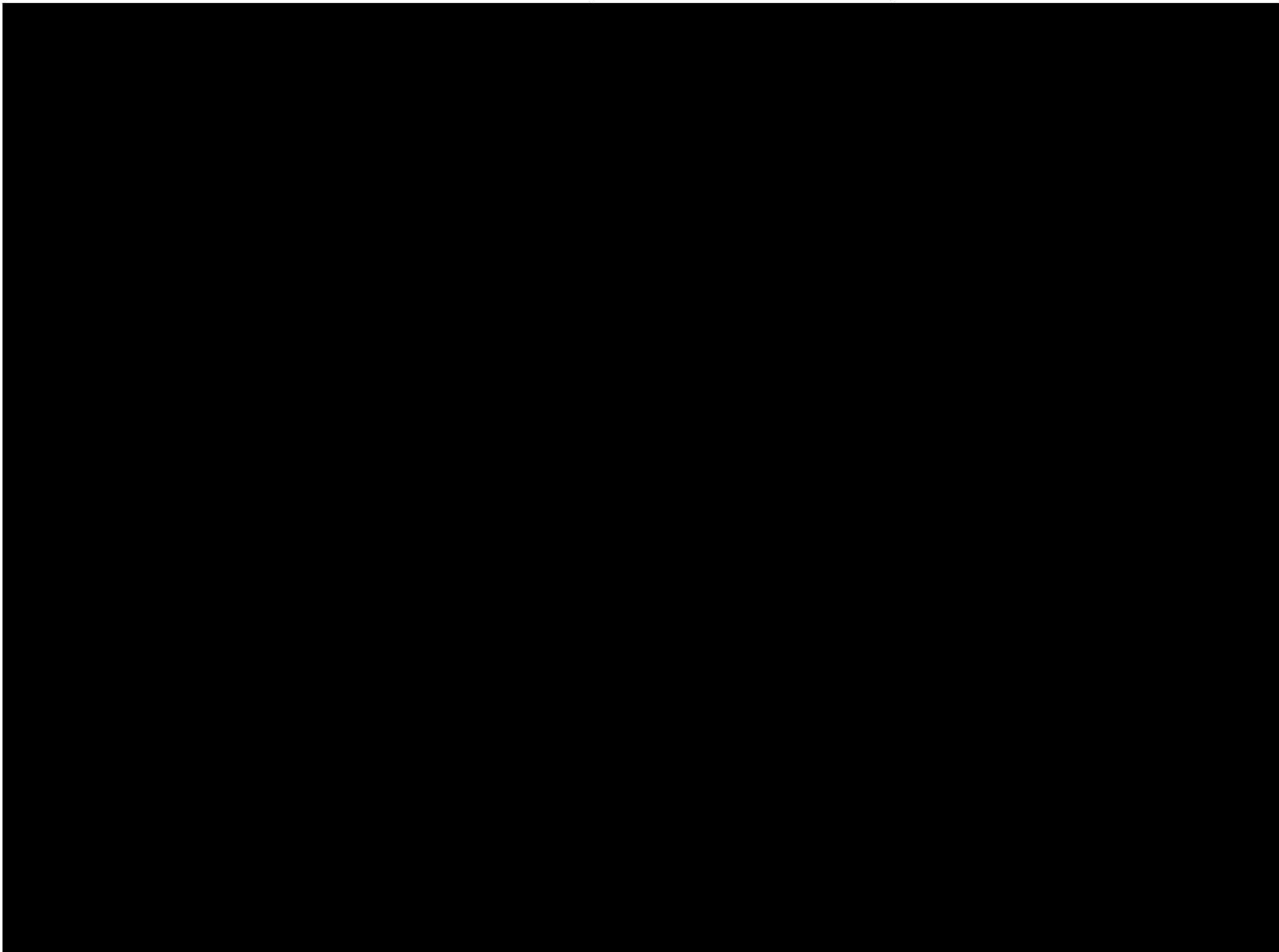
Task 9.8 - Recreation Engineering Support - Construction Management (Optional)



Confidential: *The information contained on this page is confidential and proprietary. It shall not be released or otherwise made available to any third party without the express written consent* [REDACTED]



Confidential: *The information contained on this page is confidential and proprietary. It shall not be released or otherwise made available to any third party without the express written consent* [REDACTED]





PURCHASE ORDER

**BILL TO:**

[Redacted]
Central Rivers Power US, LLC
c/o Patriot Hydro Funding, LLC
[Redacted]

PAY TO:

[Redacted]
[Redacted]

DELIVER TO:

Pyrites Hydro, LLC
[Redacted]

REQUISITIONER	BUYER	REFERENCE
[Redacted]	[Redacted]	Pyrites Relicensing Scope and Cost Estimate [Redacted]

ITEM #	ITEM ID	LOCATION	MEMO	DELIVERY DATE	AMOUNT
1	[Redacted]	Pyrites Hydro, LLC	water quality certificate [Redacted]	03/01/2026	[Redacted]
				[Redacted]	[Redacted]
				[Redacted]	[Redacted]

Other Comments and Special Instructions

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

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[Redacted]

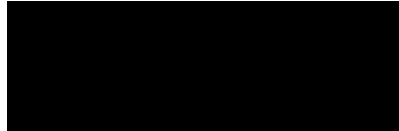
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PURCHASE ORDER

**BILL TO:**

[Redacted]
 Central Rivers Power US, LLC
 c/o Patriot Hydro Funding, LLC
 [Redacted]
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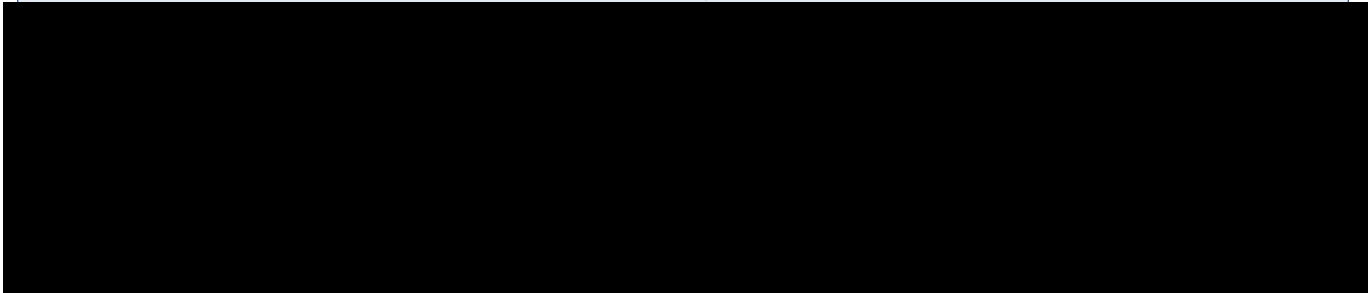
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 [Redacted]

DELIVER TO: **Pyrites Hydro, LLC**
 [Redacted]
 [Redacted]

REQUISITIONER	BUYER	REFERENCE
[Redacted]	[Redacted]	[Redacted] Pyrites Relicensing Scope and Cost Estimate - [Redacted]

ITEM #	ITEM ID	LOCATION	MEMO	DELIVERY DATE	AMOUNT
1	[Redacted]	Pyrites Hydro, LLC	[Redacted] Recreation Engineering [Redacted]	03/31/2026	[Redacted]
				[Redacted]	[Redacted]
				[Redacted]	[Redacted]

Other Comments and Special Instructions



[Redacted]

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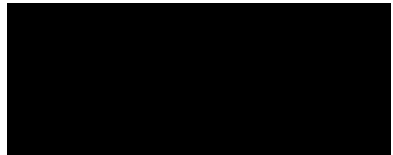
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PURCHASE ORDER

**BILL TO:**

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 Central Rivers Power US, LLC
 c/o Patriot Hydro Funding, LLC
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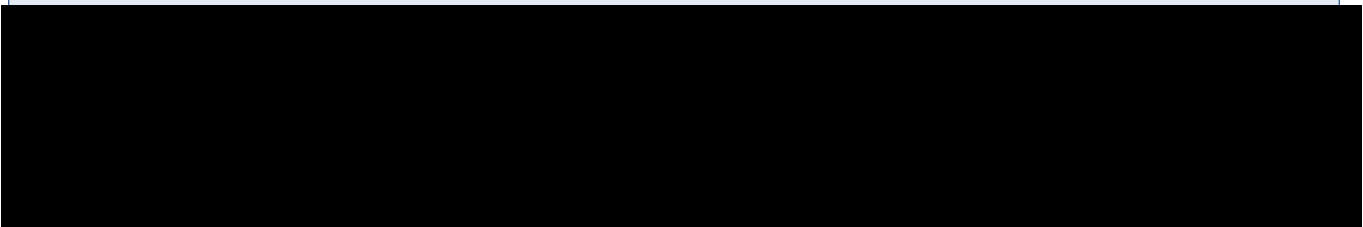
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DELIVER TO: **Pyrites Hydro, LLC**
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REQUISITIONER	BUYER	REFERENCE
[Redacted]	[Redacted]	[Redacted] Repairs to Pyrites [Redacted] Dated 9/29/25

ITEM #	ITEM ID	LOCATION	MEMO	DELIVERY DATE	AMOUNT
1	[Redacted]	Pyrites Hydro, LLC	[Redacted]	10/10/2025	[Redacted]
				[Redacted]	[Redacted]

Other Comments and Special Instructions



[Redacted]

[Redacted]

[Redacted]

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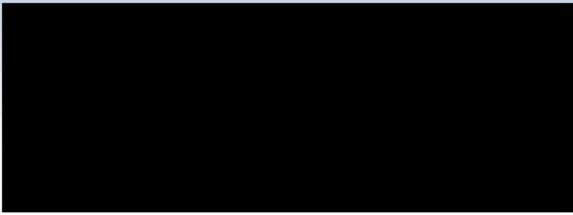
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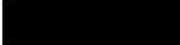
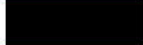
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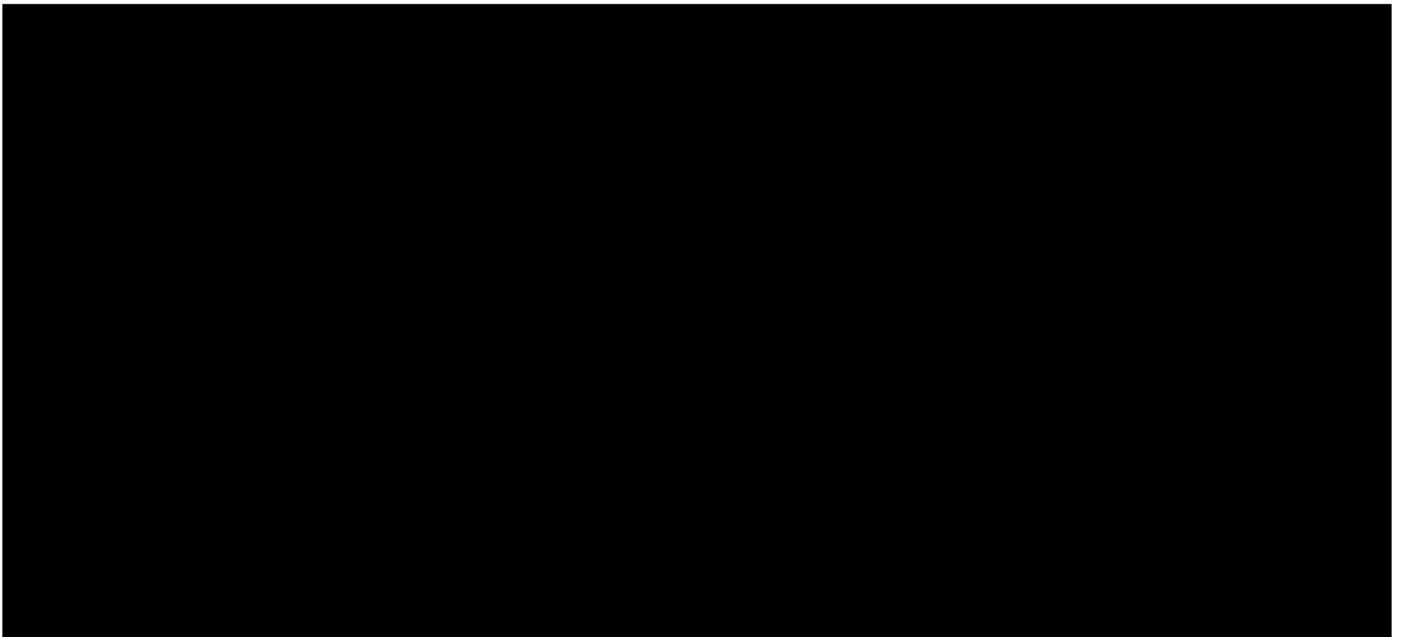
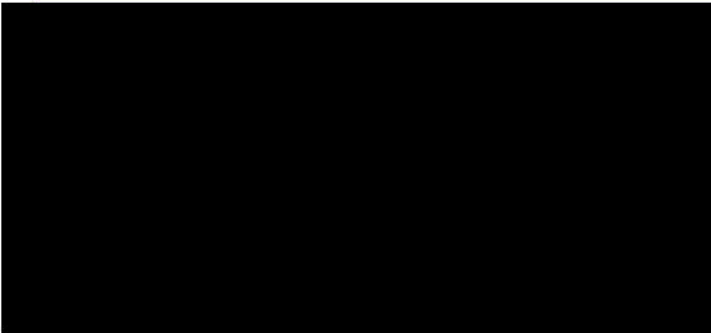
PROPOSAL

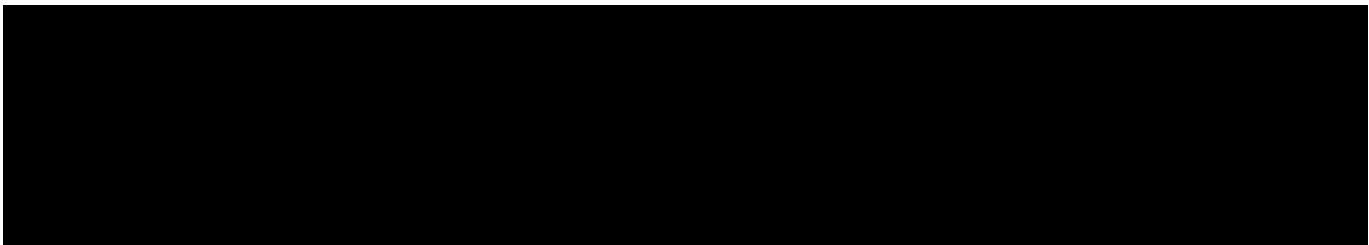
DATE: SEPTEMBER 29, 2025



TO Pyrites Hydro

SALESPERSON	PROJECT	LOCATION	PAYMENT TERMS
	Repairs to Pyrites Boat Launch	Pyrites, NY	

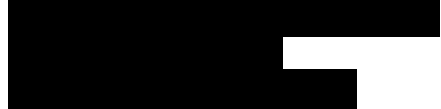




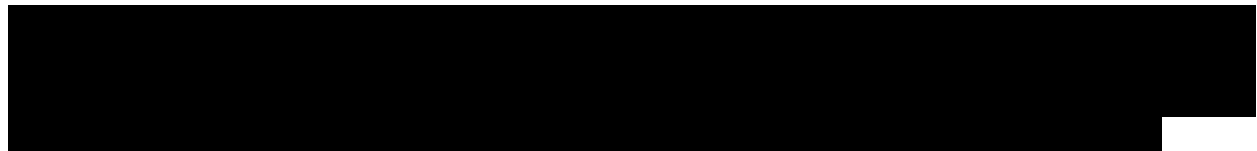
November 5, 2025



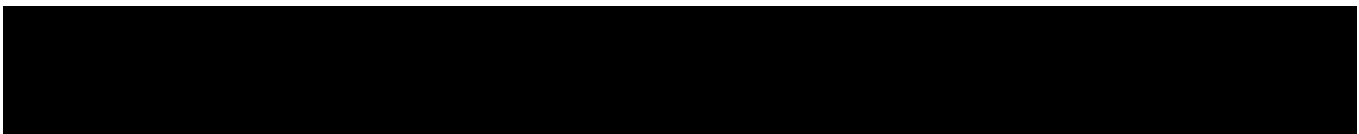
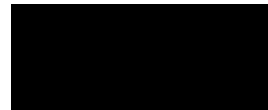
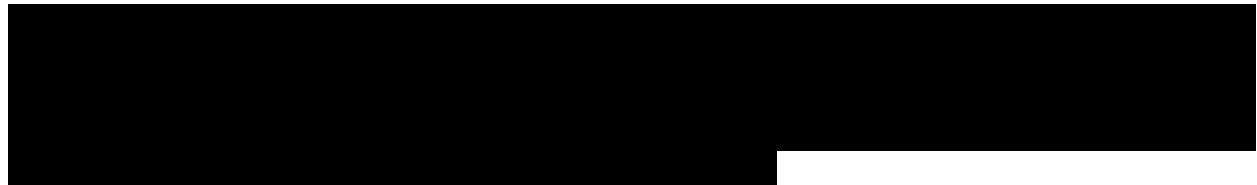
Patriot Hydro



Re: Pyrites Hydroelectric Project License Implementation – Recreation Enhancement Costs



- | [Redacted]
- | [Redacted]
- | [Redacted]
- | [Redacted]
- | [Redacted]





Prepared for:
Patriot Hydro

OPINION OF PROBABLE CONSTRUCTION COST

11/5/2025

Project: **Pyrites**

Estimate for: **Formal Take Out, Parking, Trail Improvements**



Total Direct Cost (2025)



Prepared for:

Patriot Hydro

OPINION OF PROBABLE CONSTRUCTION COST

11/5/2025

Project:

Pyrites

Estimate for:

Invasive Species Signage

Total Direct Cost (2025)

Prepared for:
Patriot Hydro

OPINION OF PROBABLE CONSTRUCTION COST

11/5/2025

Project: **Pyrites**



Total Direct Cost (2025)

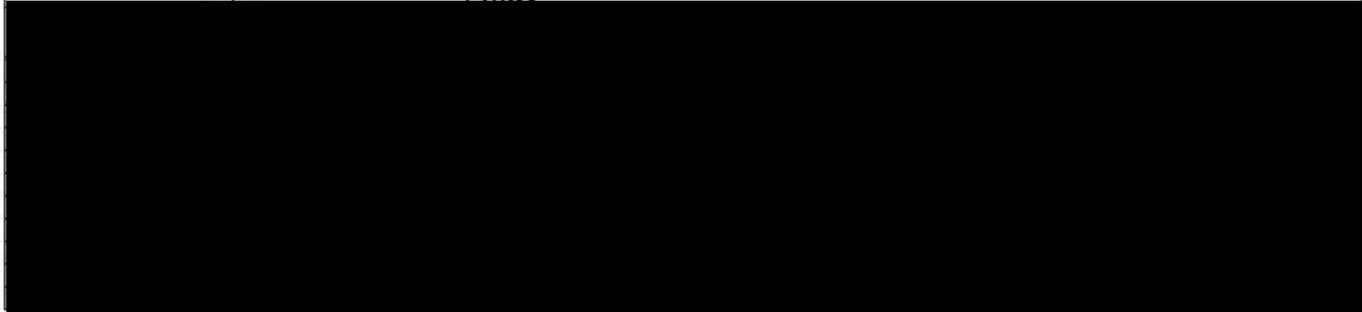


Prepared for:
Patriot Hydro

OPINION OF PROBABLE CONSTRUCTION COST

11/5/2025

Project: **Pvrites**



Total Direct Cost (2022)



Prepared for:

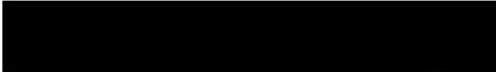
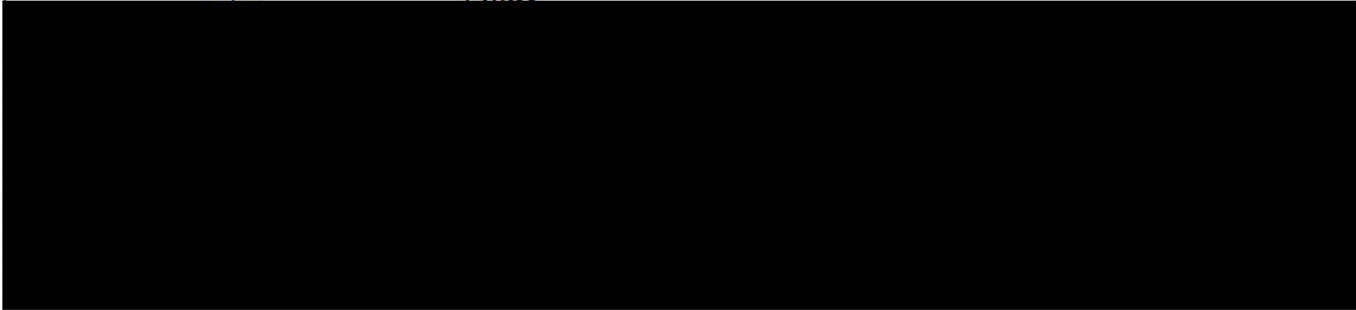
Patriot Hydro

OPINION OF PROBABLE CONSTRUCTION COST

11/5/2025

Project:

Pvrites

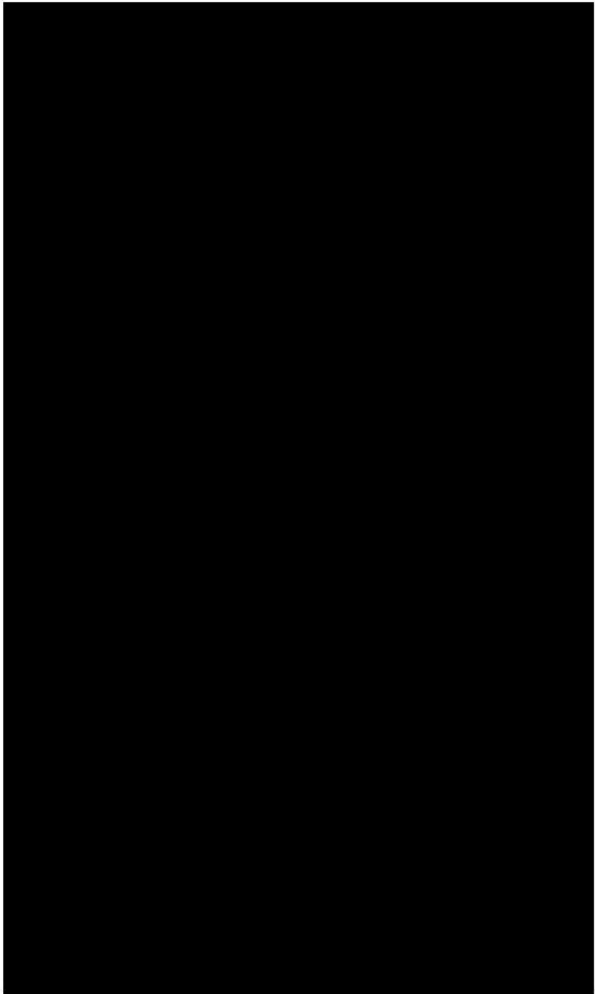
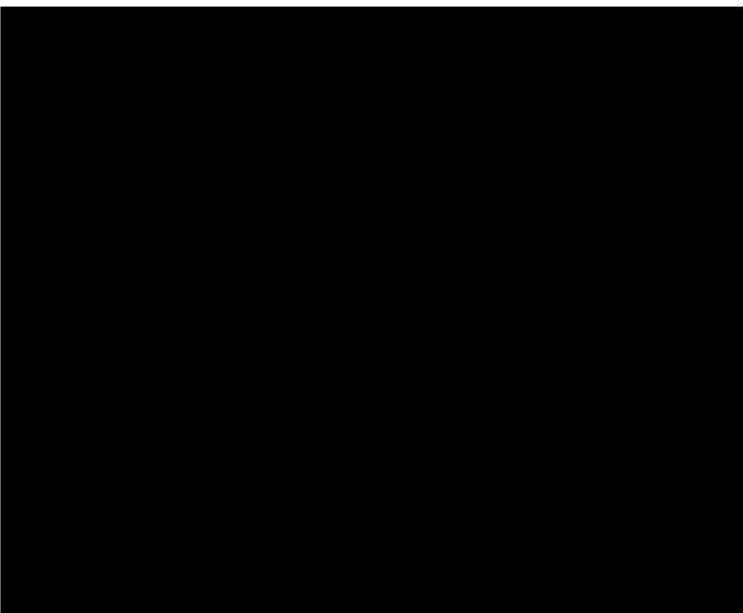
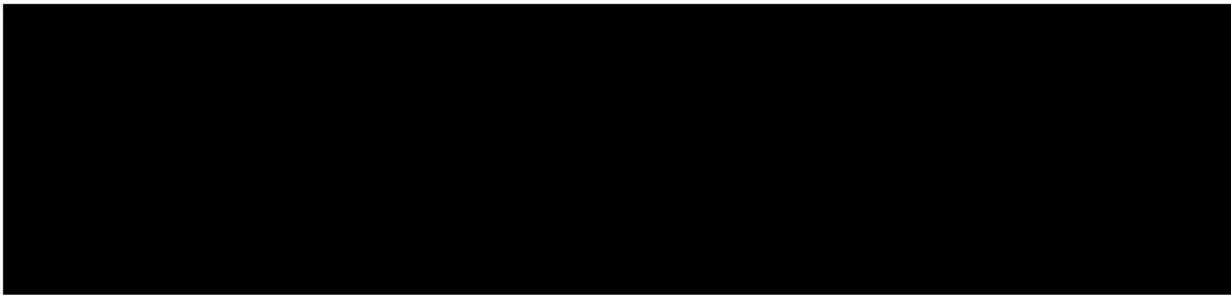


Total Direct Cost (2025)



Overview

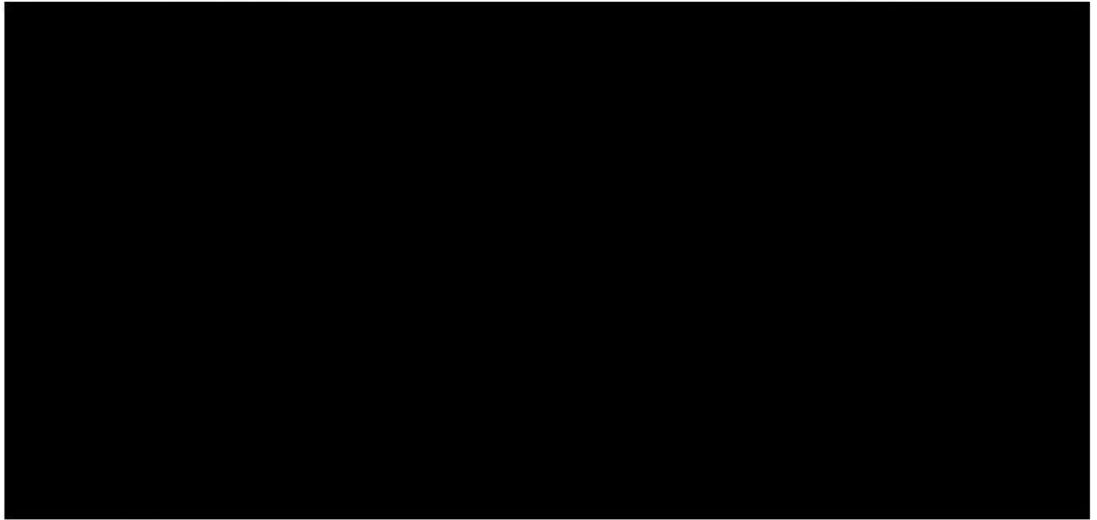
This proposal outlines the scope of work for the disassembly, inspection, repair, reassembly, and commissioning of Pyrites Unit #2 with a focus on the Thrust Bearing and associated components. The



Work Scope

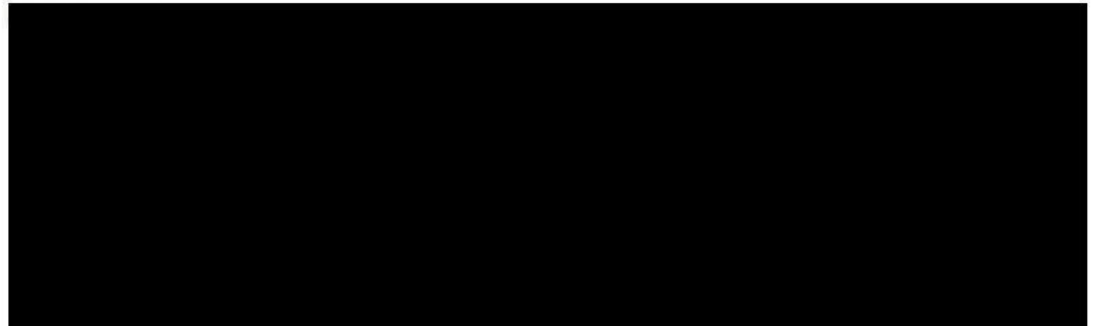
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DISASSEMBLY



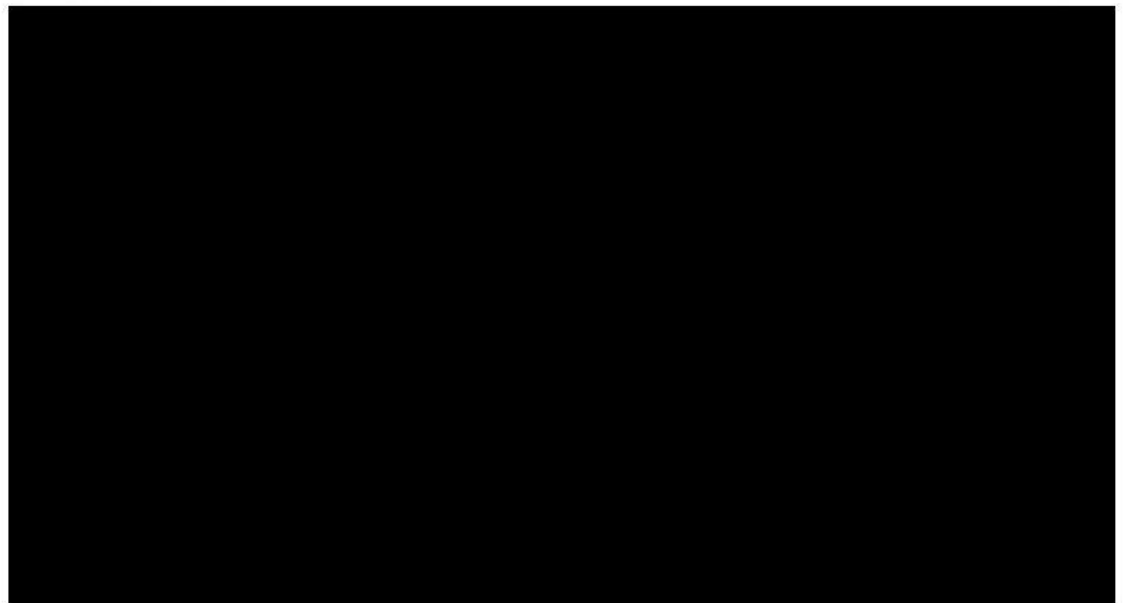
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REPAIR



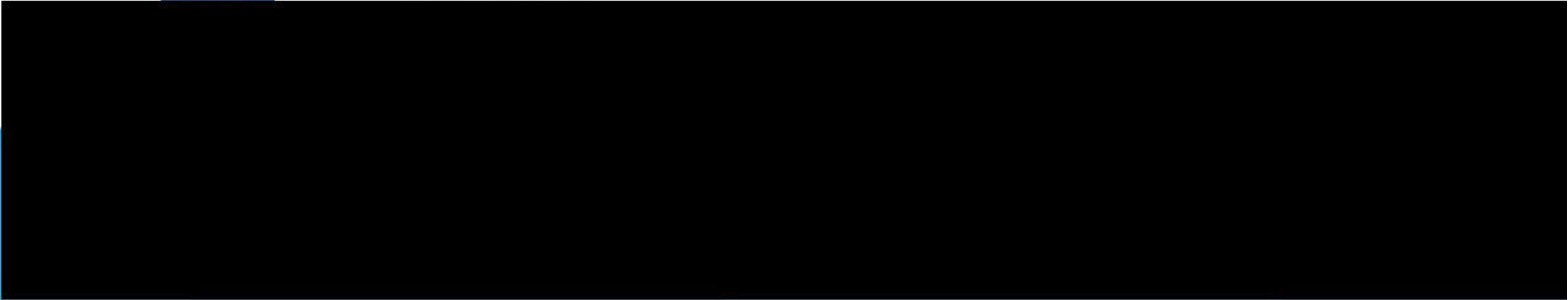
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REASSEMBLY



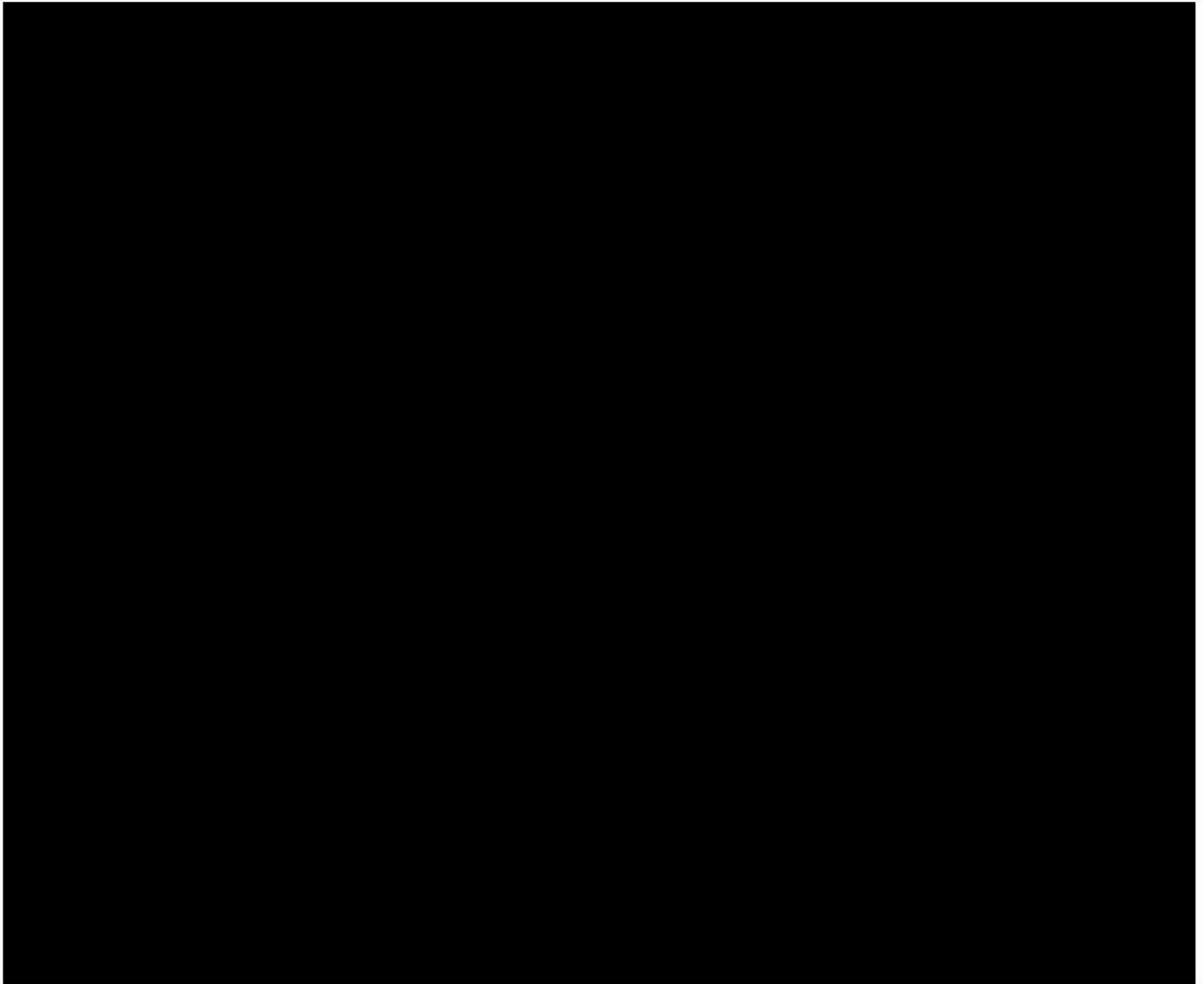
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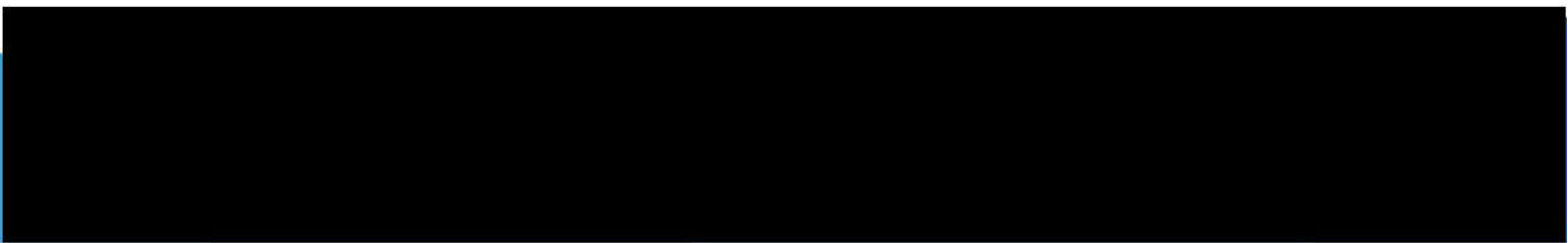
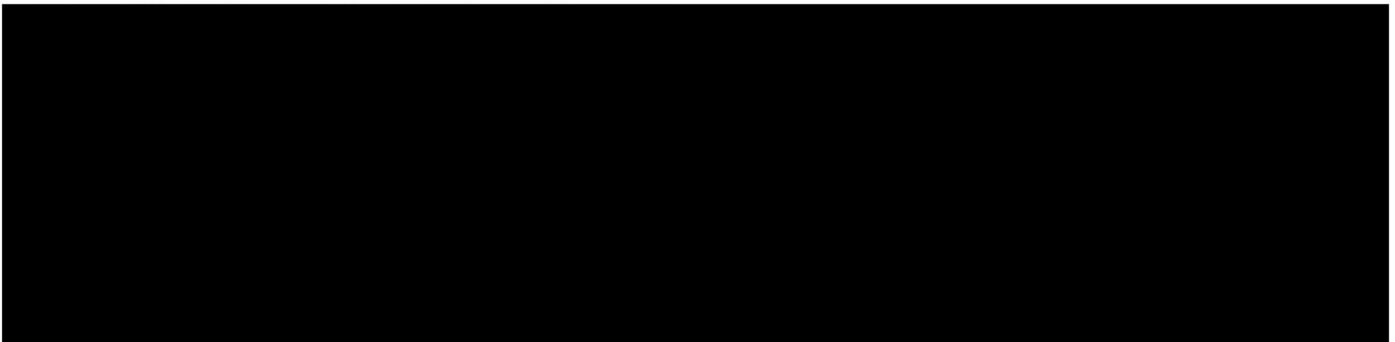


Clarifications

WORK SCOPE CLARIFICATIONS



CONTRACTUAL CLARIFICATIONS



[Redacted]



October 30, 2025

Patriot Hydro, LLC

[Redacted]

RE: Pyrites Hydro
Upper Powerhouse Penstock Recoating

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

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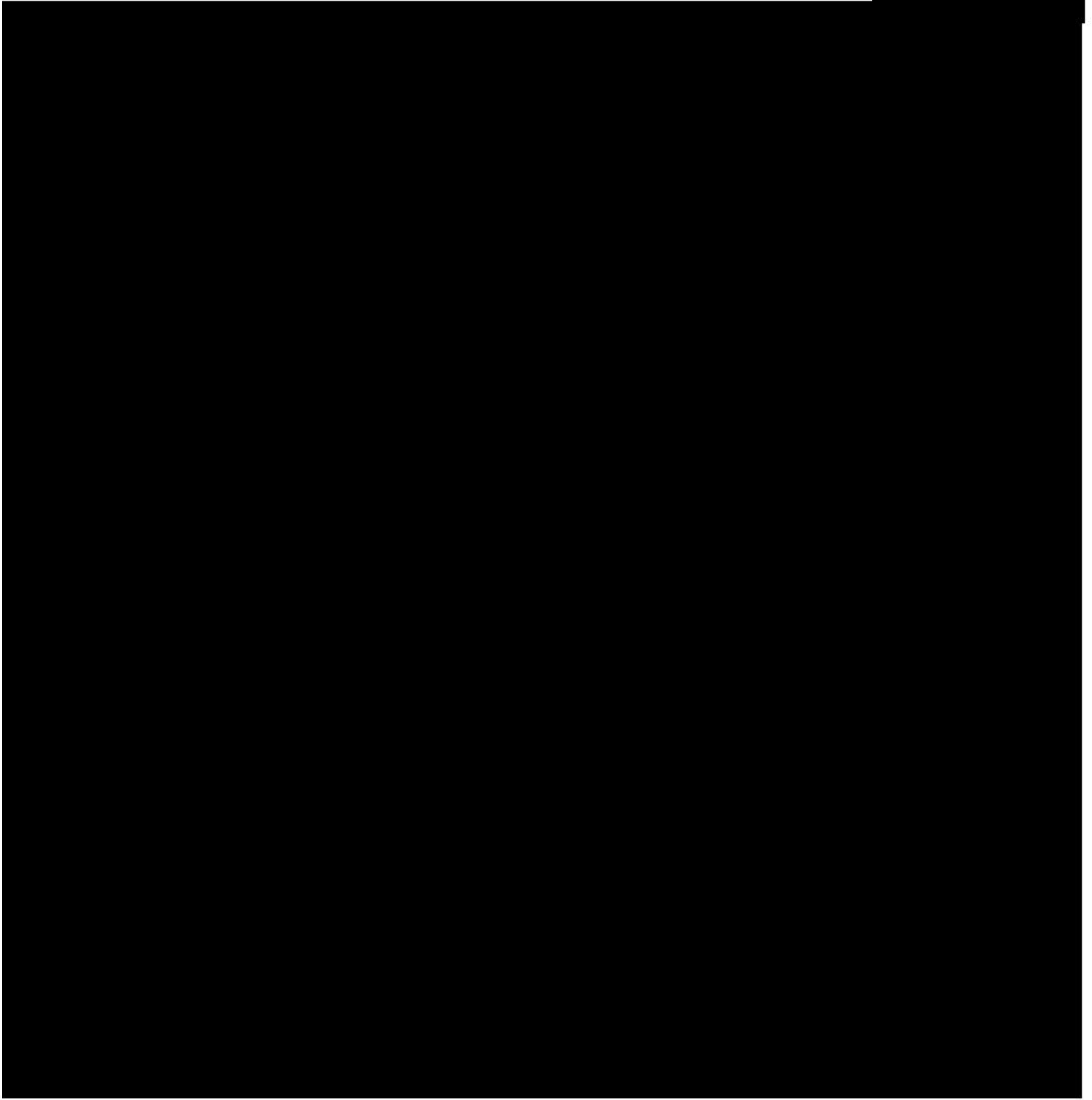
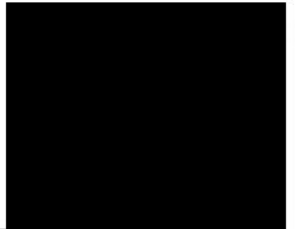
Scope of Work:

Task 1 - Upper Powerhouse Penstock Recoating

[Redacted]

[Redacted]

- [Redacted]



[REDACTED]

[REDACTED]

[REDACTED]

CENTRAL RIVERS POWER US, LLC

CUSTOMER#
PO#
Date:
Job Name:
Job Number:

Billing E-Mail:

[REDACTED]

October 24, 2024

[REDACTED]

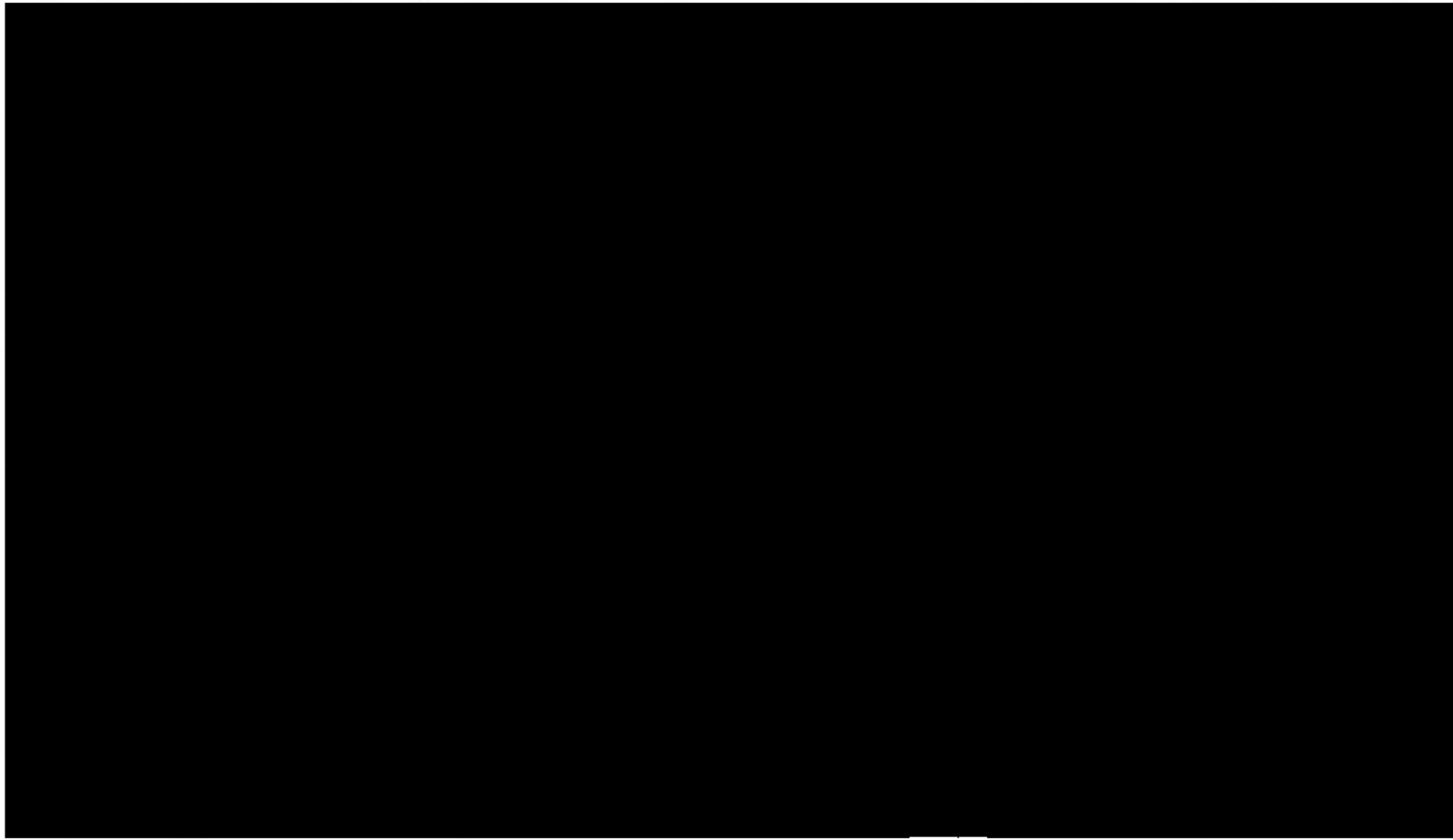
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Proposal # [REDACTED]

[REDACTED]

[REDACTED]

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[REDACTED]



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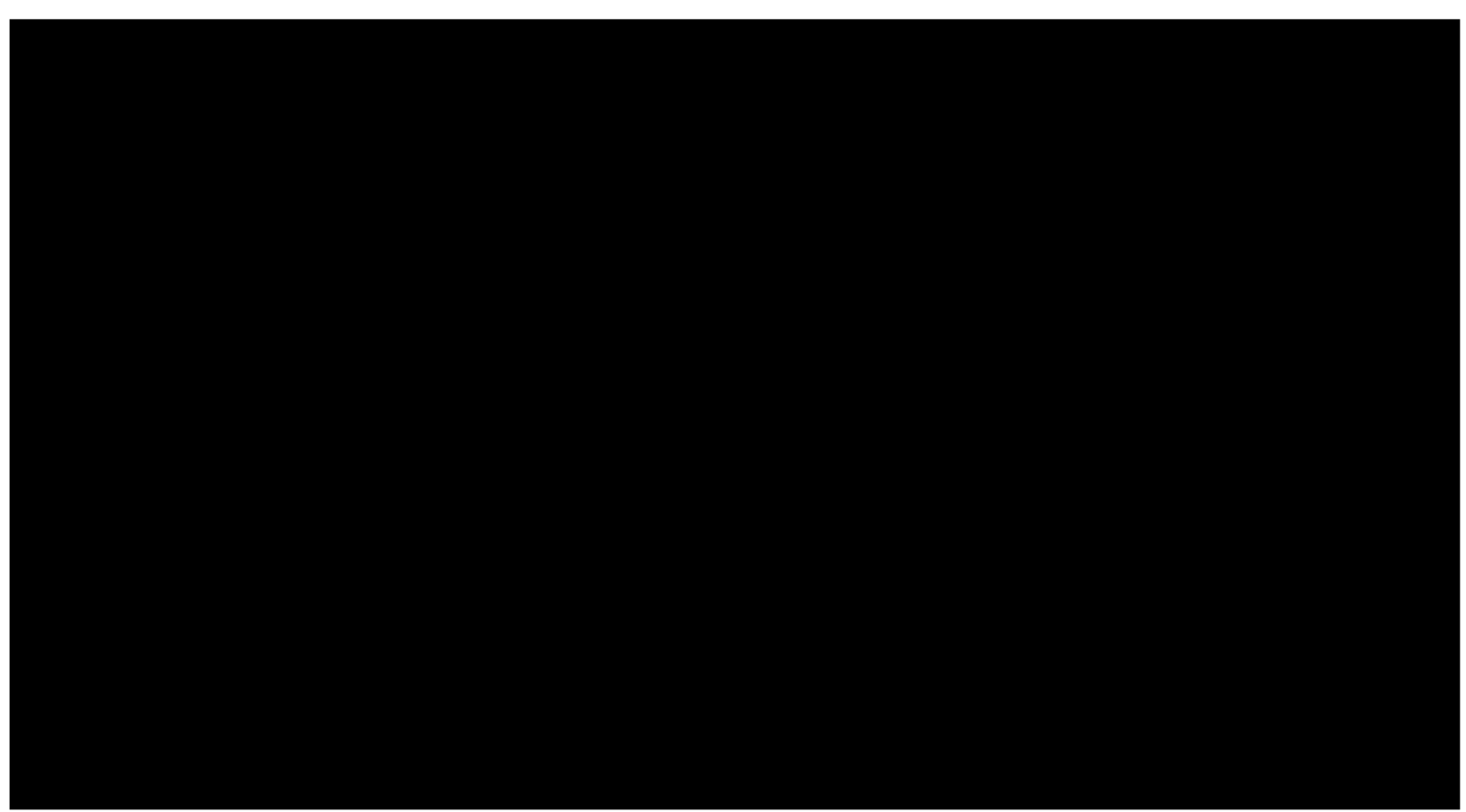
October 24, 2024

[REDACTED]
Patriot Hydro

Re: Pyrites [REDACTED] Breaker Work
Proposal # [REDACTED]

[REDACTED]

[REDACTED]





PURCHASE ORDER

**BILL TO:**

[Redacted]
 Central Rivers Power US, LLC
 c/o Patriot Hydro Funding, LLC
 [Redacted]

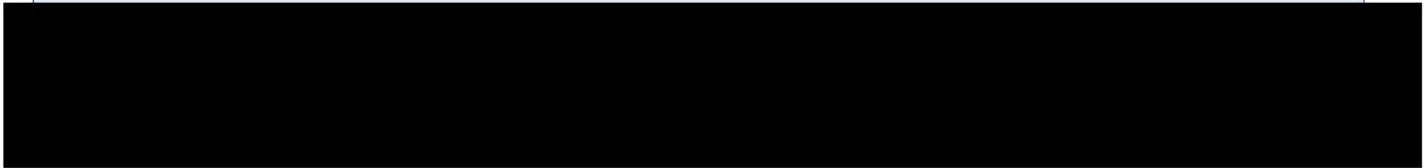
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 [Redacted]

DELIVER TO: Pyrites Hydro, LLC
 [Redacted]
 [Redacted]

REQUISITIONER	BUYER	REFERENCE
[Redacted]	[Redacted]	[Redacted] Pyrites Breaker Work

ITEM #	ITEM ID	LOCATION	MEMO	DELIVERY DATE	AMOUNT
1	[Redacted]	Pyrites Hydro, LLC	[Redacted]	11/30/2024	[Redacted]
				Subtotal	[Redacted]
				Total	[Redacted]

Other Comments and Special Instructions



Company name: Patriot Hydro, LLC

Report name: [REDACTED]

Reporting Book: [REDACTED]

Start Dates: 1/1/2023

End Dates: 10/13/2025

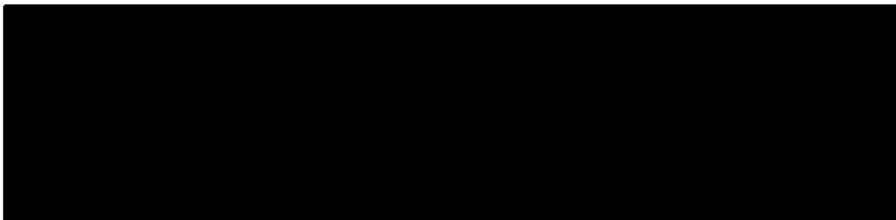
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Posted dt. Doc dt. Memo/Description

2/24/2025 2/18/2025 [REDACTED] Major Maintenance Non Routine (unbudgeted) (Balance forward As of 01/01/2023)

Location	Project name	Project	Location name	Vendor name	JNL	Amount	PO
[REDACTED]	[REDACTED]	Pyrites - [REDACTED] Breaker Repl	[REDACTED]	Pyrites Hydro, LLC	[REDACTED]	[REDACTED]	[REDACTED]

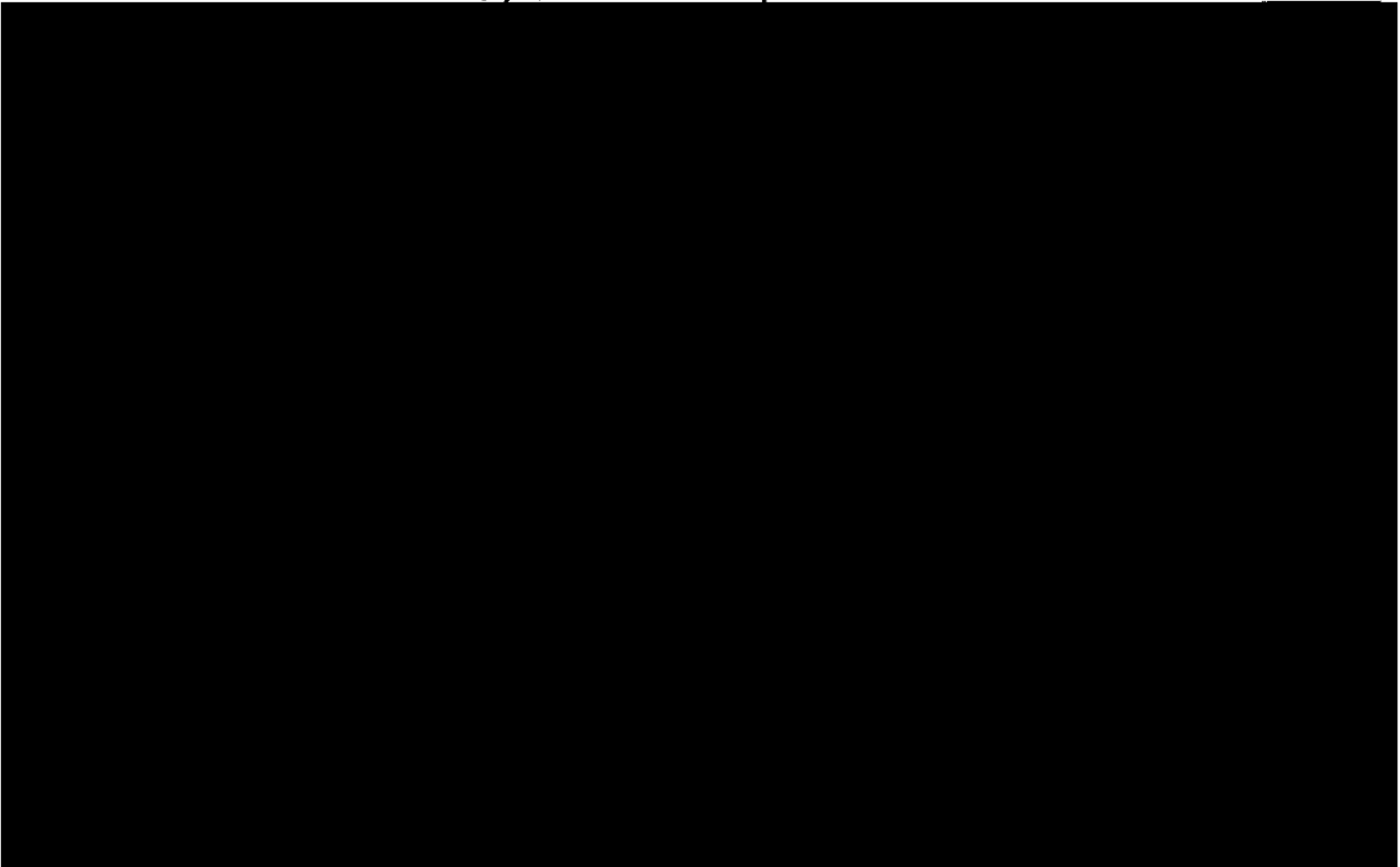
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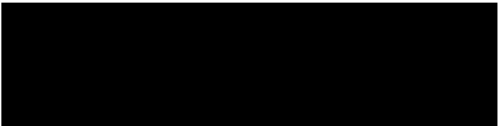
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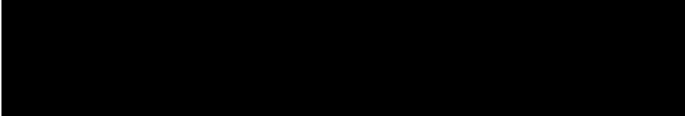
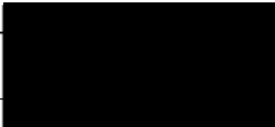
JOB DESCRIPTION
Pyrites Gate Seal Replacements



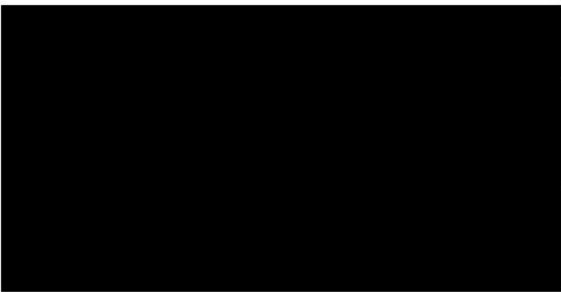
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SUBTOTAL-----
sales tax-----
TOTAL PRICE-----



10-28-25



QUOTE			
DATE	QUOTE #		
11/17/2025			

Revision 12/8/2025

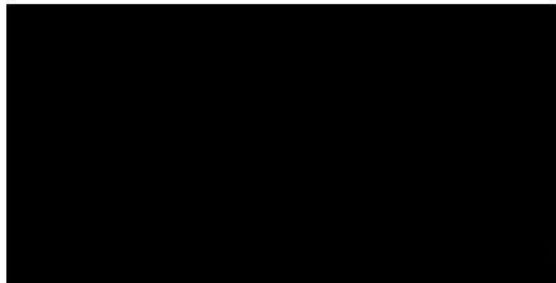
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PH-

Standard Del.	SHIP VIA:	F.O.B.	FRT.	PAYMENT TERMS				
[Redacted]								
					Total			





QUOTE			
DATE	QUOTE #		
11/17/2025			

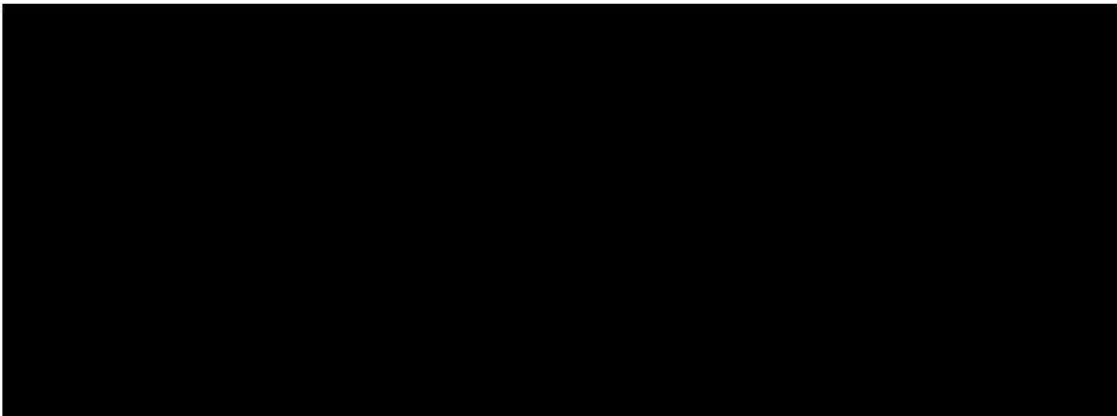
Revision 12/8/2025

TO:



PH-

Standard Del.	SHIP VIA:		F.O.B.	FRT.	PAYMENT TERMS	
Item	Quantity	U of M	Description		Unit Price	Amount
						Total





PROPOSAL – TRANSMITTAL

Project: Patriot Hydro-Automation and Control Upgrade – Pyrites



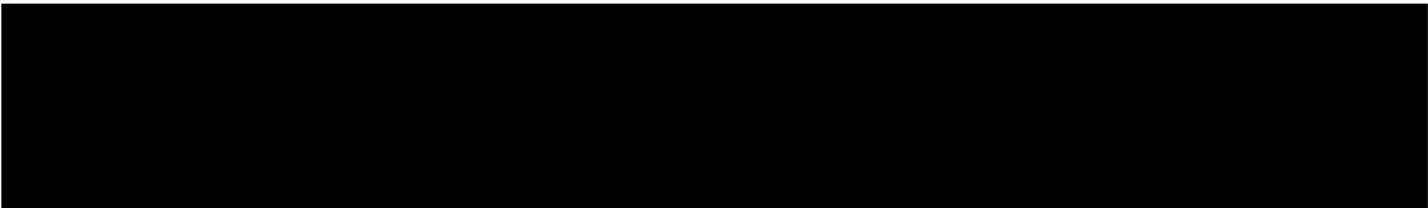
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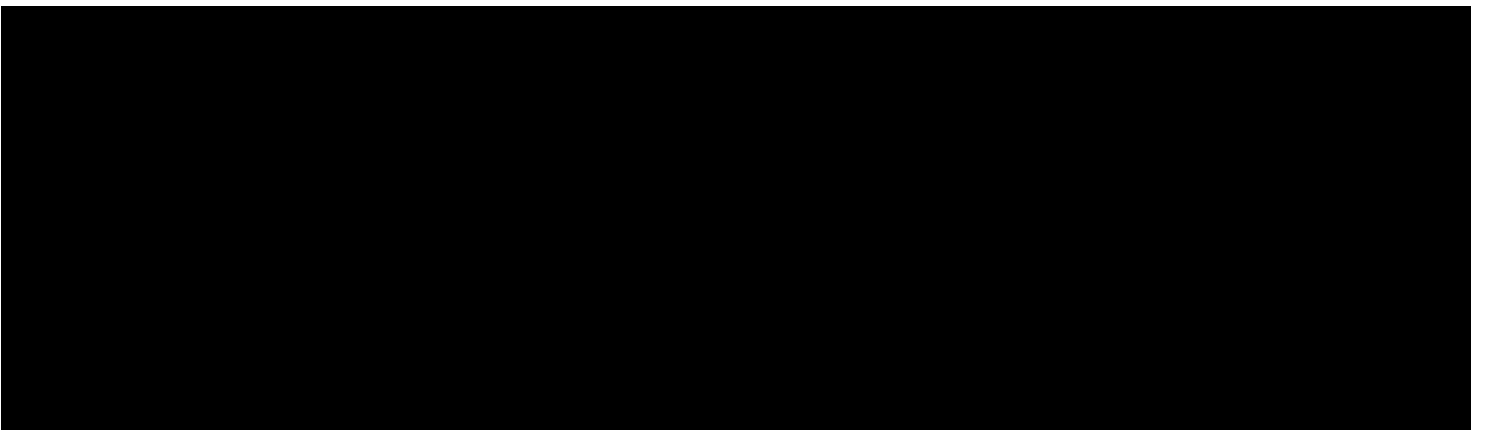


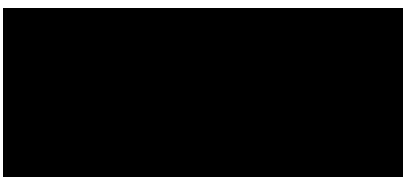
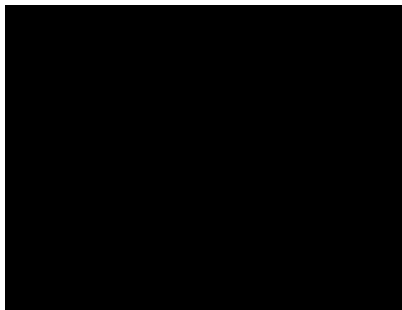
Patriot Hydro



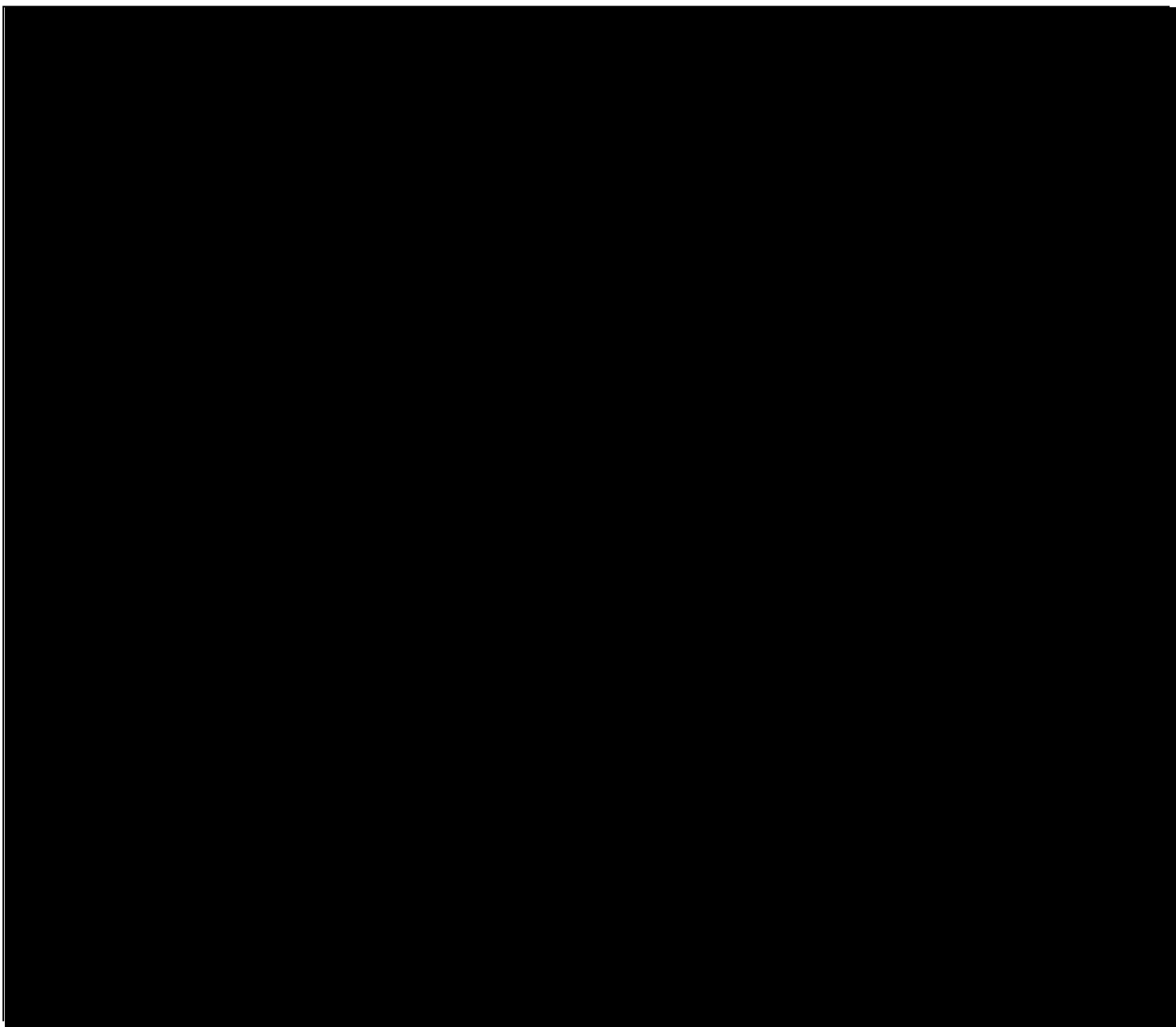
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AUTHORIZATION TO PROCEED





[Redacted]
Terms and Conditions

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

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From



Quote For

Patriot Hydro LLC.



Type

Installation



Description of Work

Fire Alarm System Installation Quote at Pyrites [Redacted]

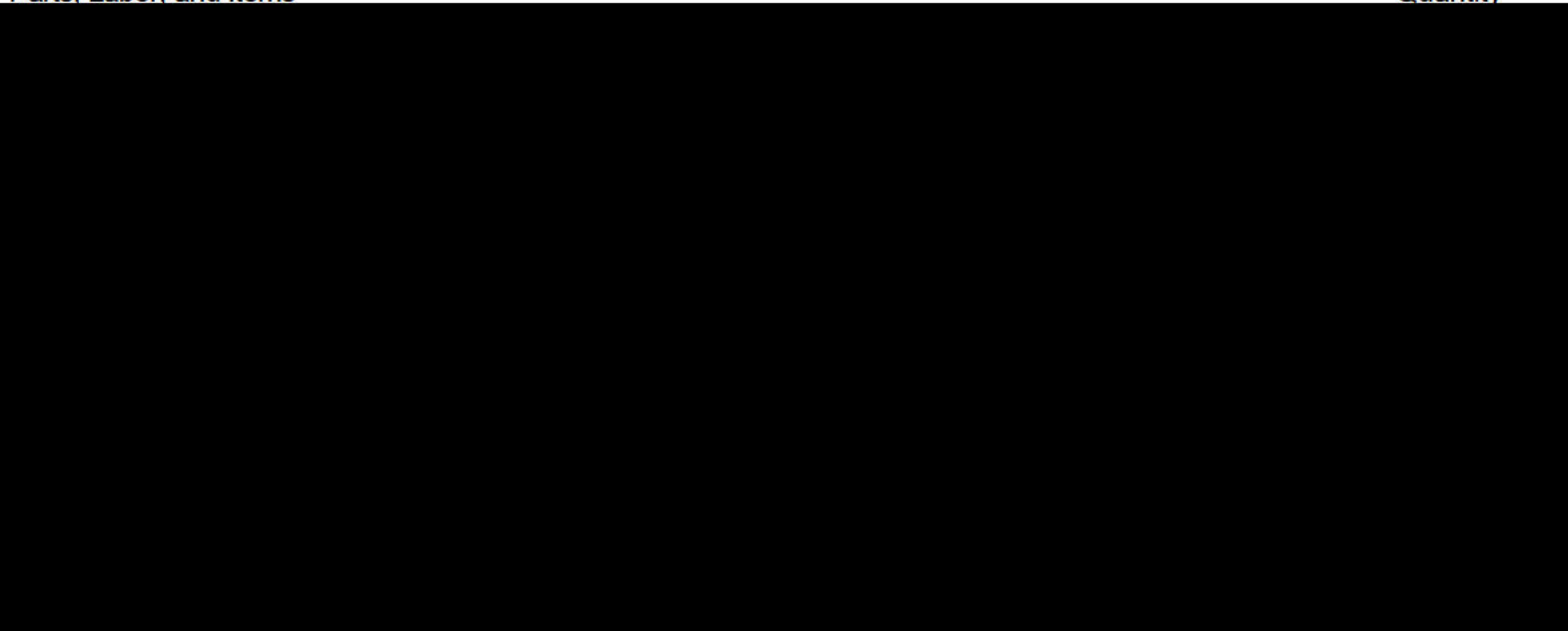
Services to be completed

[Alarm Systems] Location - Building



Parts, Labor, and Items

Quantity



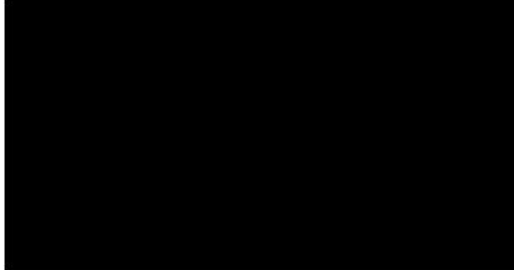
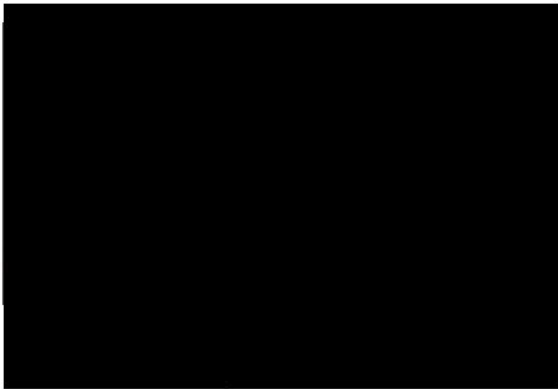
Terms and Conditions





[Redacted]

[Redacted]



Type	Installation
Created On	02/13/2025
Valid Until	03/31/2025

Quote For	Patriot Hydro LLC.
	Pyrites Hydro Electric Plant

Description of Work

Fire Alarm System Installation Quote for the Pyrites

Services to be completed

[Alarm Systems] Location - Building



Parts, Labor, and Items

Quantity



GRAND TOTAL

Terms and Conditions



[Redacted]

[Redacted]



Patriot Hydro, LLC

PYRITES, NY – PENSTOCK INSPECTION

Inspection Report – 2023.06.26





Patriot Hydro, LLC



Penstock Inspection Report

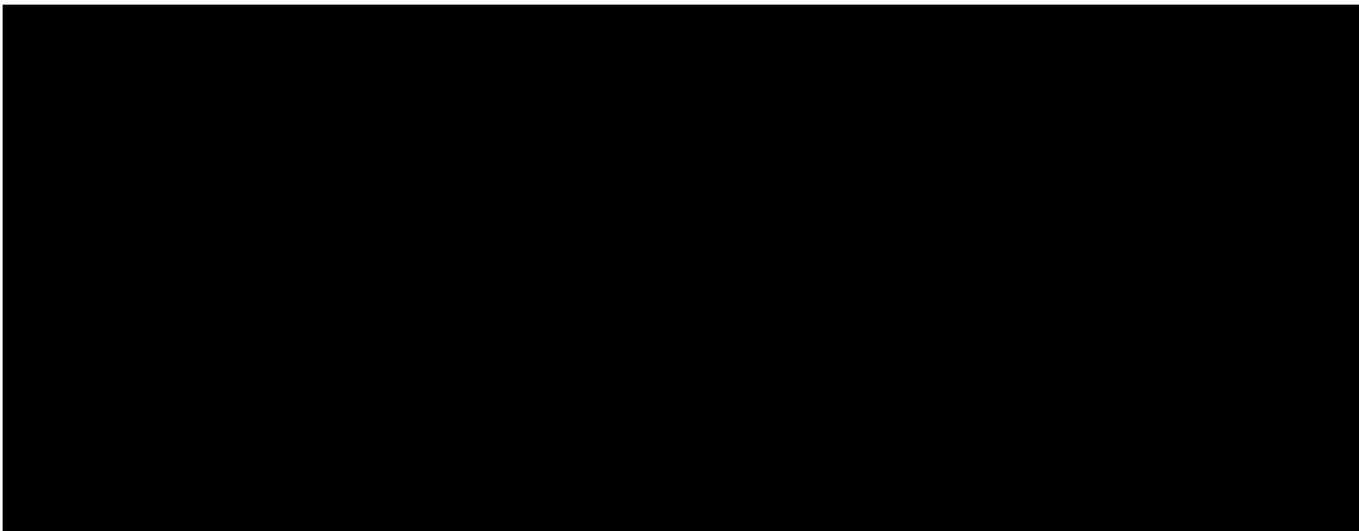
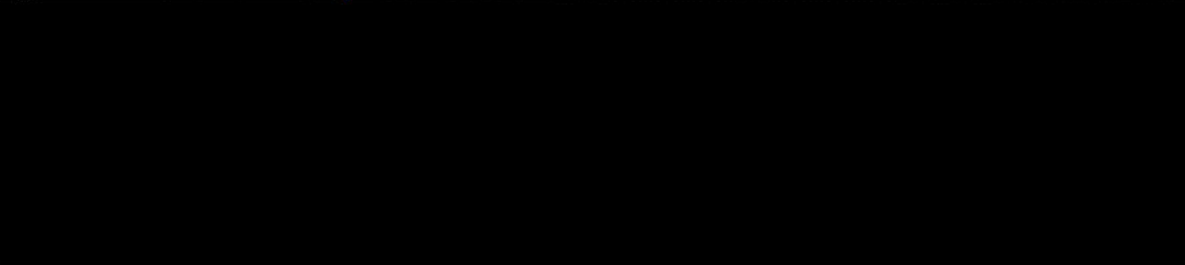
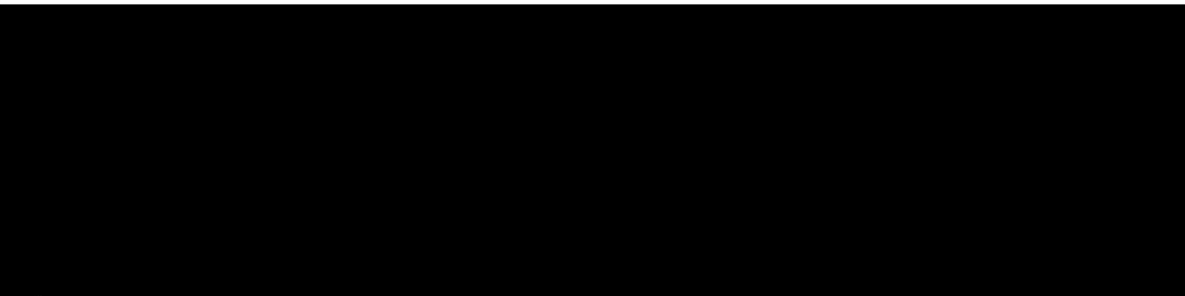


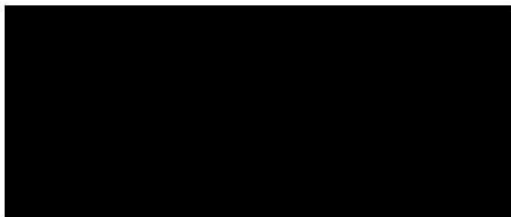



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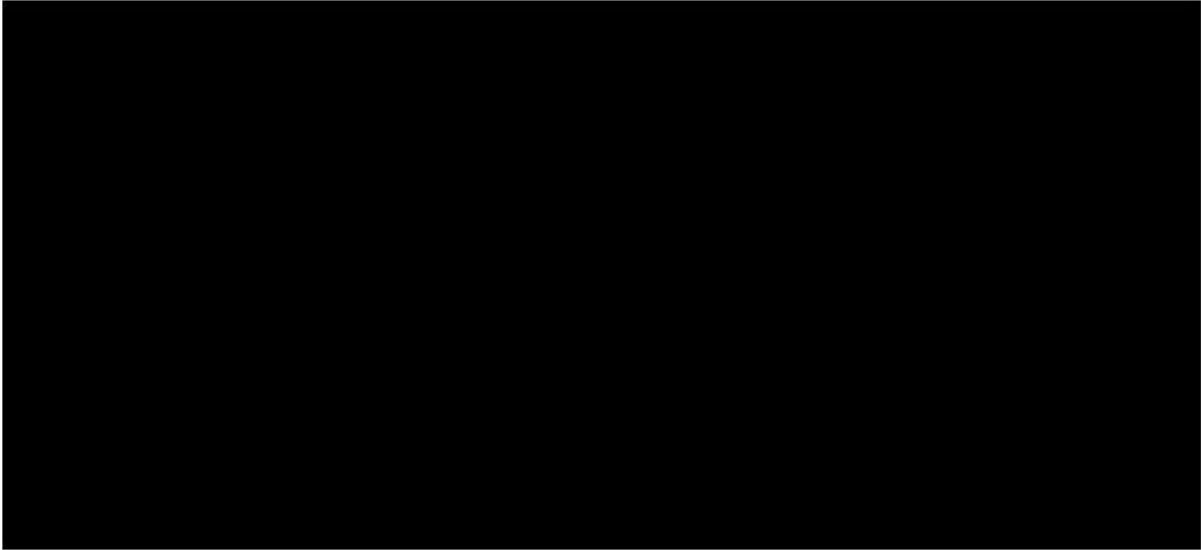
1.0	Project Scope	2
2.0	Facility Summary.....	2
3.0	Review of Existing Documentation	3
		
4.0	Upper Powerhouse Penstock Inspection	4
		
5.0	Lower Powerhouse Penstock Inspection	10
		
6.0	Calculations	16
		
7.0	Conclusions	20
8.0	Recommendations.....	22
9.0	Statement of Independent Inspection	24



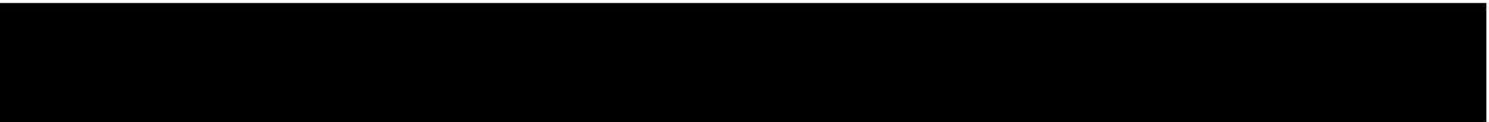
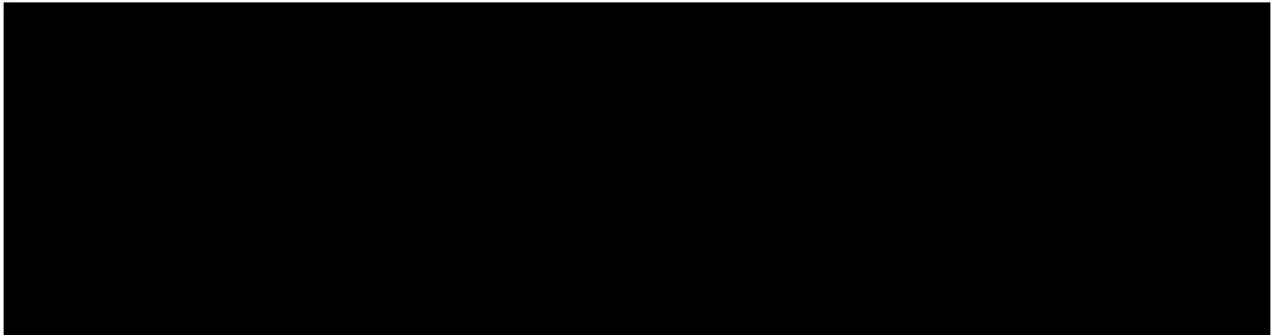



1.0 Project Scope

Patriot Hydro, LLC has retained  to complete an inspection of the penstocks at the Pyrites hydroelectric facility. The inspection and this report were conducted in accordance with FERC's Engineering Guidelines for the Evaluation of Hydropower Projects, Chapter 12 – Guidance on Water Conveyance Structures.



2.0 Facility Summary



[Redacted]

[Redacted]

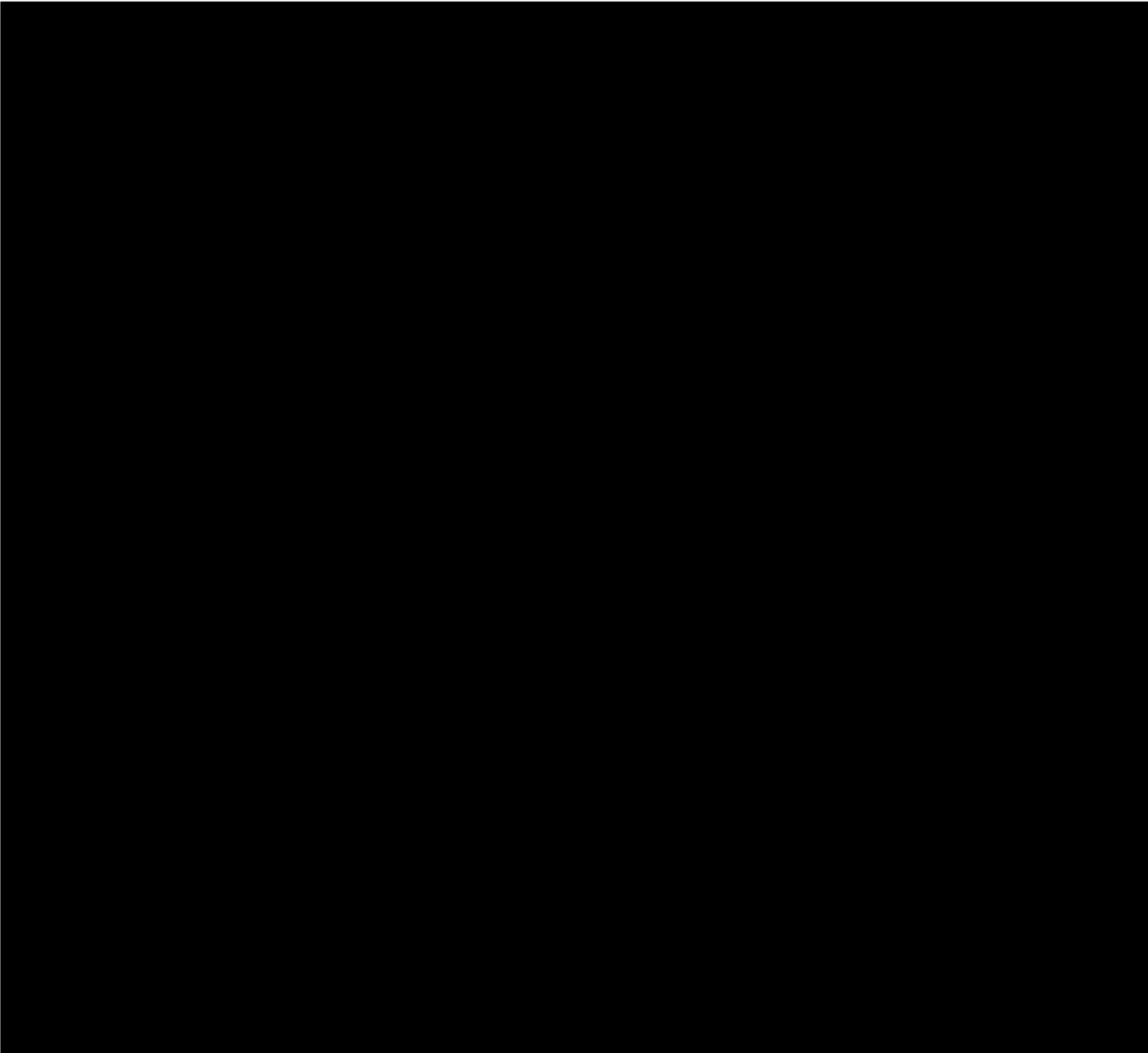
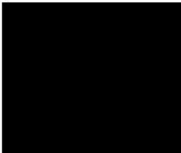
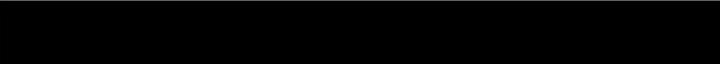
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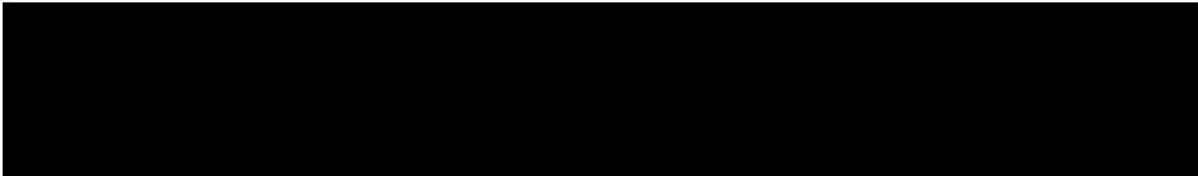
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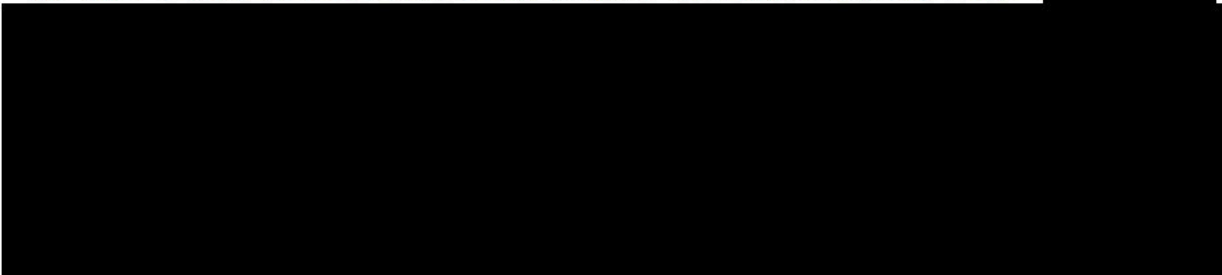


3.7 MISCELLANEOUS



4.0 Upper Powerhouse Penstock Inspection

The upper powerhouse penstock inspection at Pyrites was completed on June 26, 2023



[REDACTED]

[REDACTED]

[REDACTED]

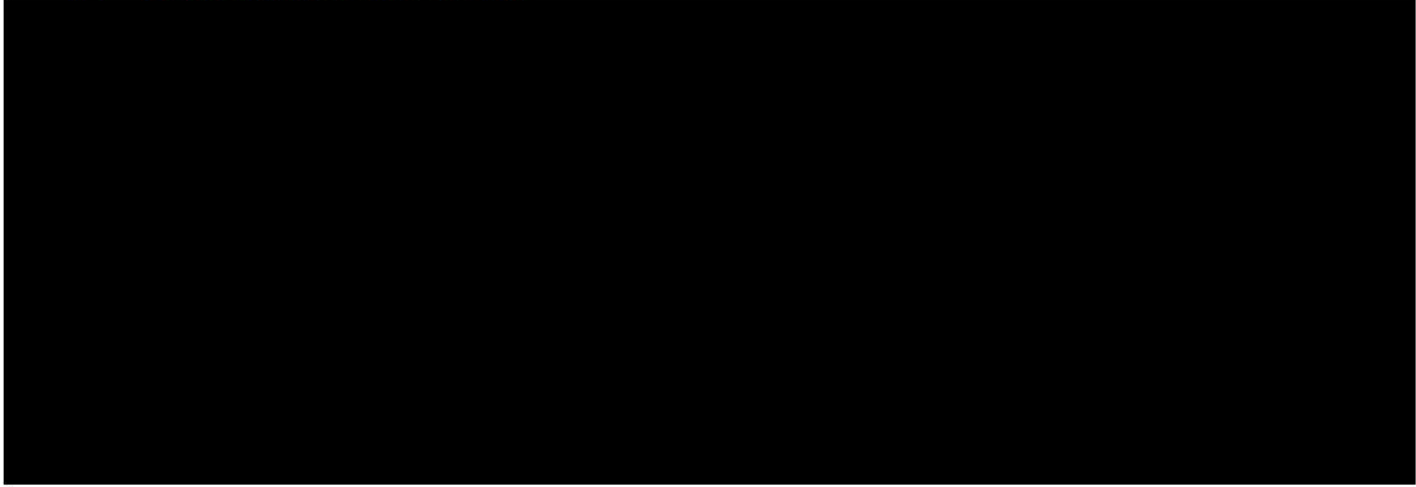
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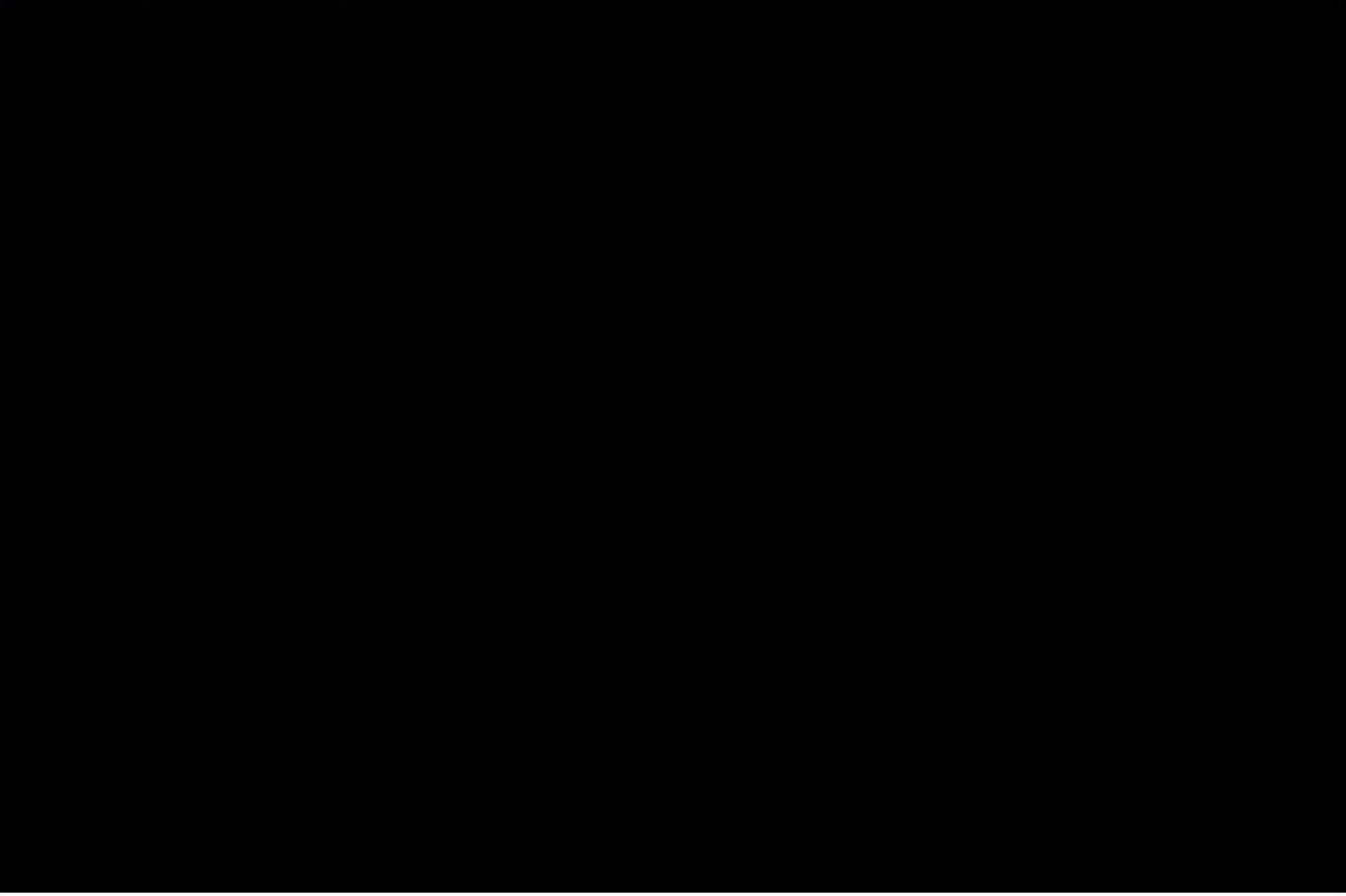
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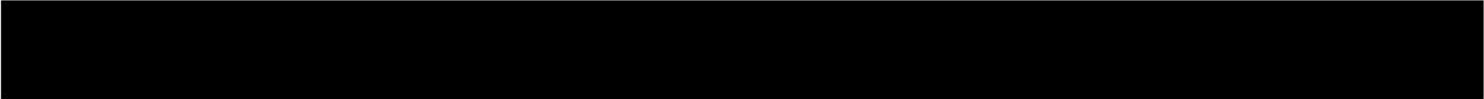
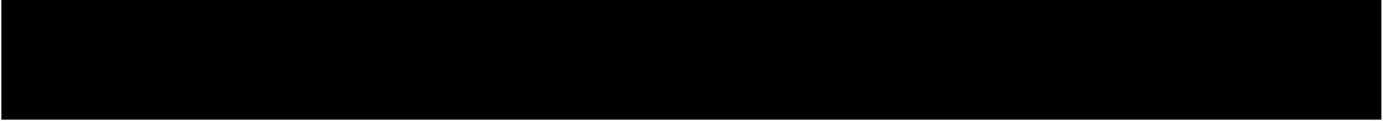
4.2 SUPPORTING STRUCTURES



Station	Structure Name	Observations
---------	----------------	--------------



4.3 PENSTOCK VISUAL OBSERVATIONS



[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

4.4 PENSTOCK ROUNDNESS MEASUREMENTS

[REDACTED]

[REDACTED]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

Location	Avg. Variance (In.)	Max Variance (In.)
----------	---------------------	--------------------

[Redacted]	[Redacted]	[Redacted]
------------	------------	------------

[Redacted]

[Redacted]

[REDACTED]

[REDACTED]

4.5 PENSTOCK ULTRASONIC THICKNESS MEASUREMENTS

[REDACTED]

[REDACTED]

[REDACTED]

5.0 Lower Powerhouse Penstock Inspection

[REDACTED]

[REDACTED]

5.1 GENERAL CONDITION RATING

[Redacted content]

5.2 SUPPORTING STRUCTURES

[Redacted content]

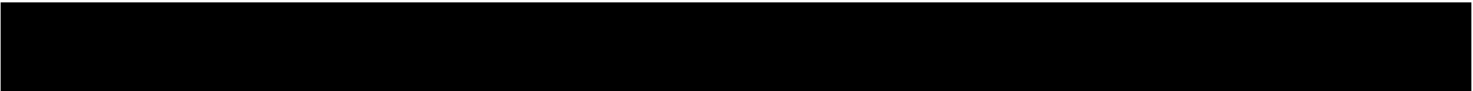
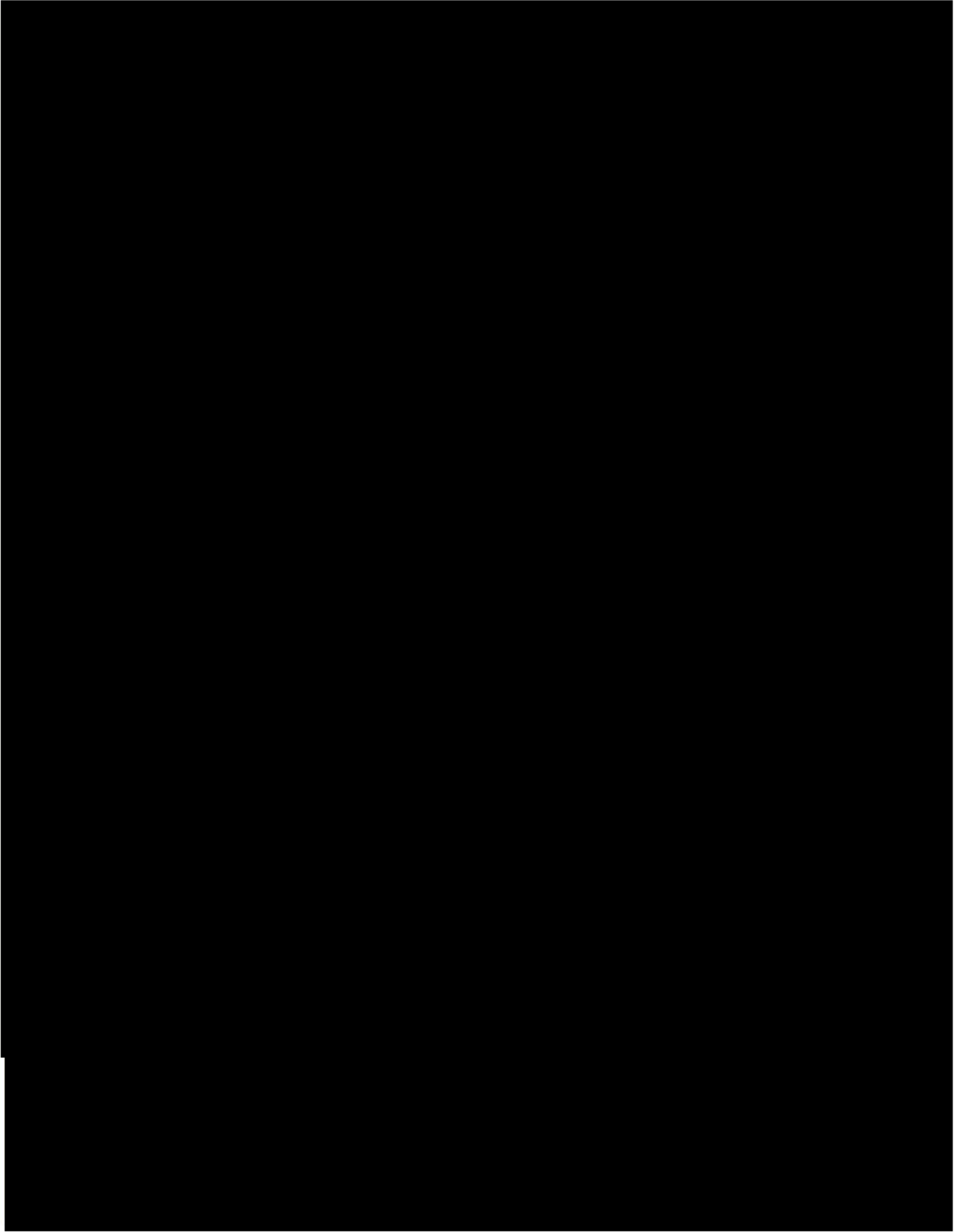
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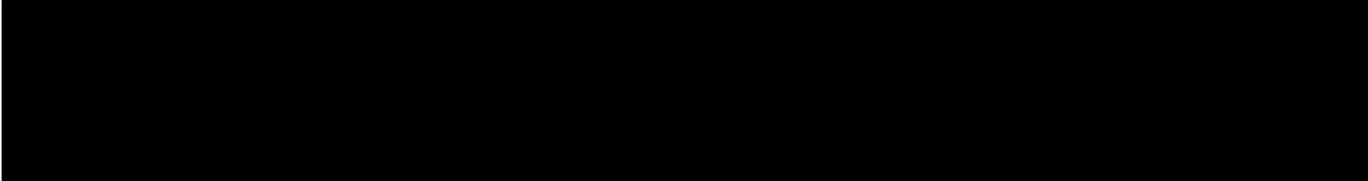
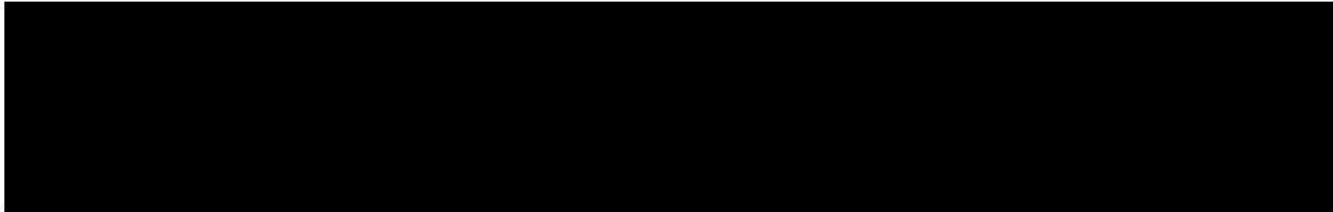


Station	Structure Name	Observations
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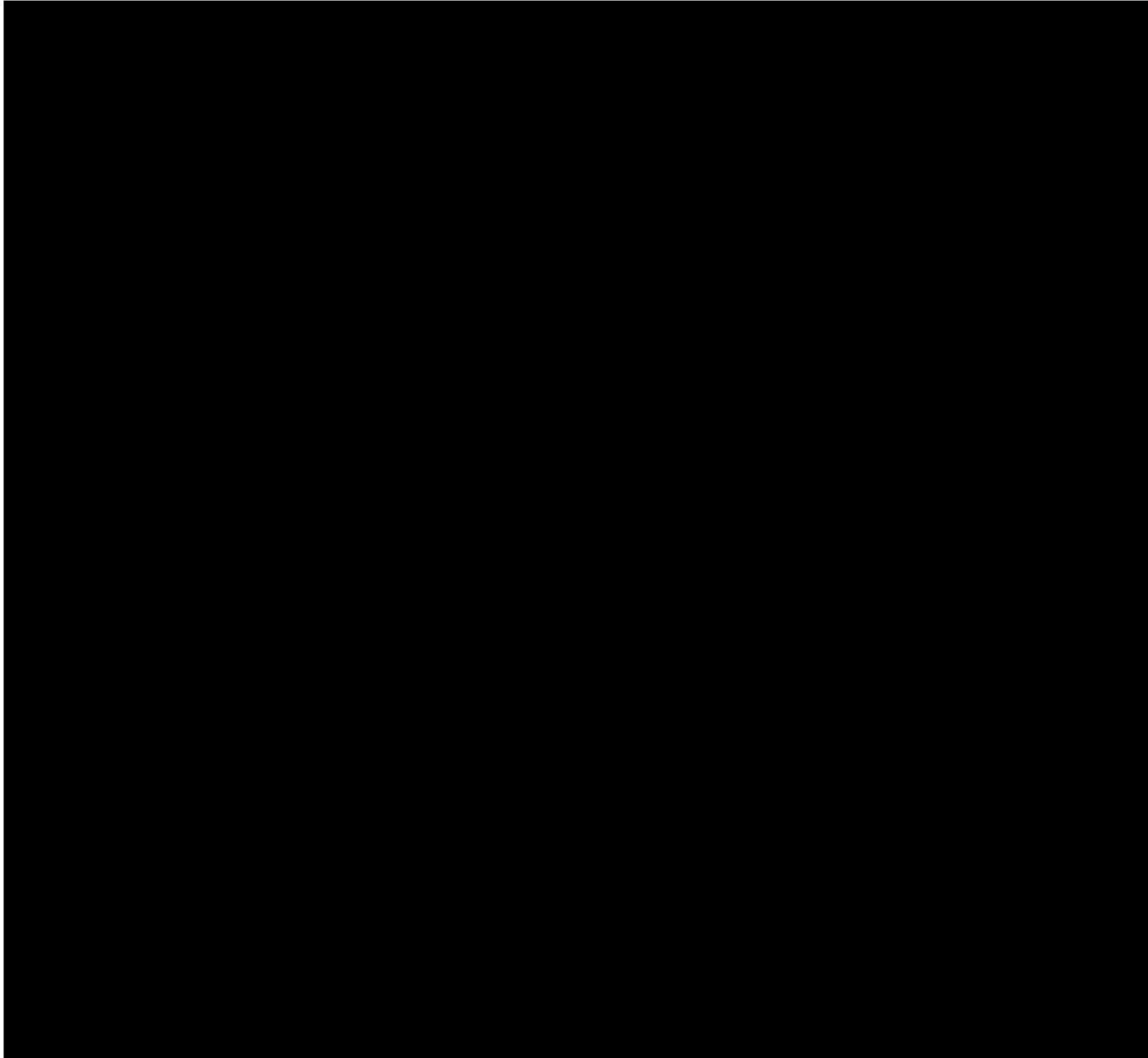
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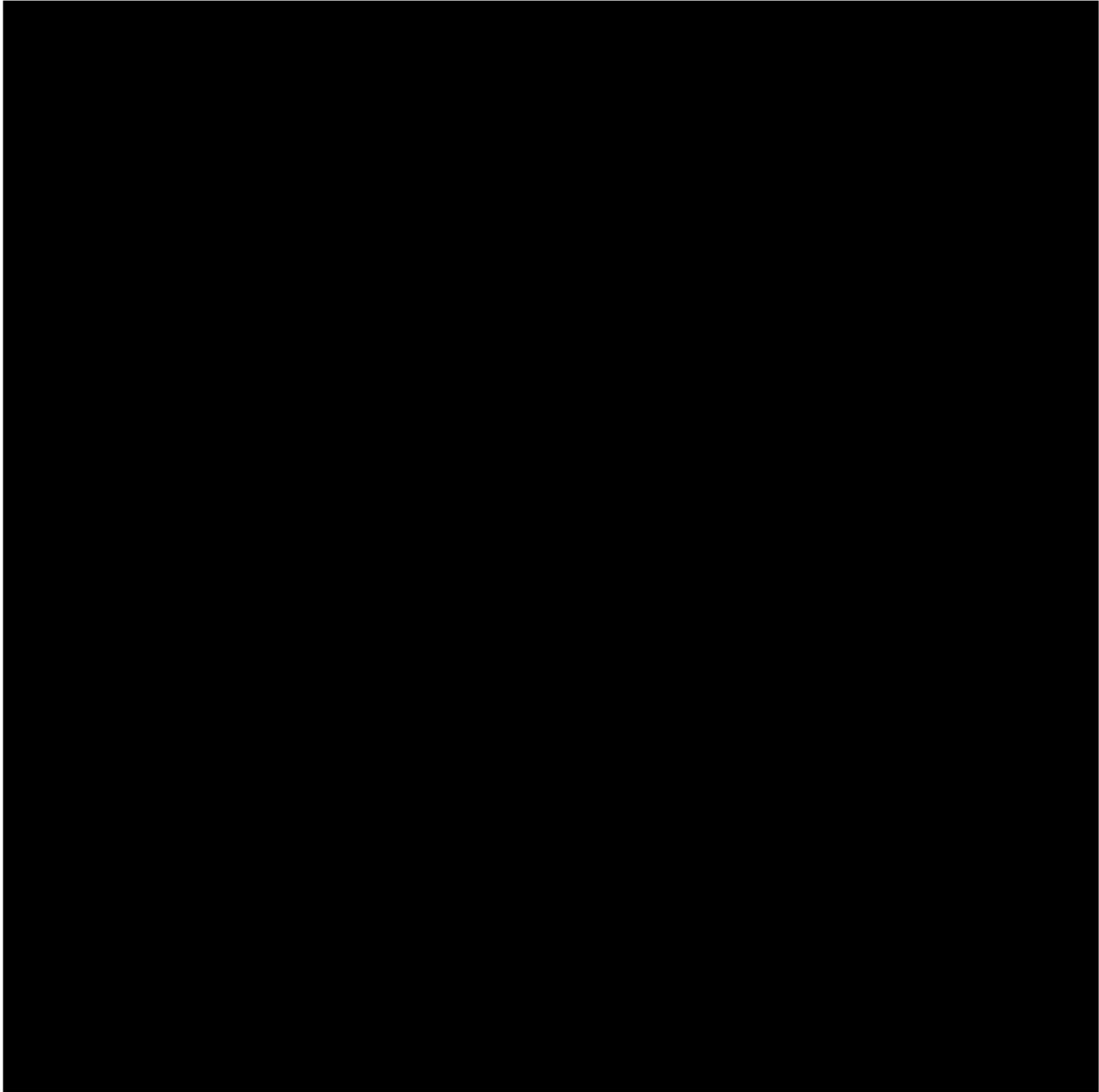
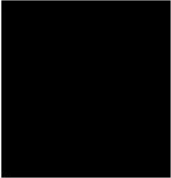




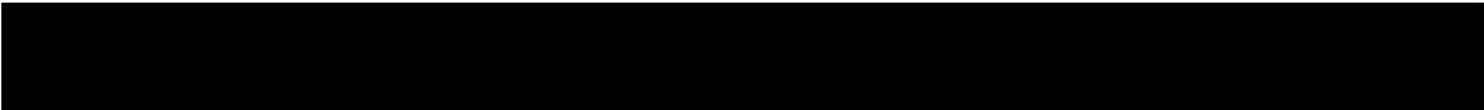
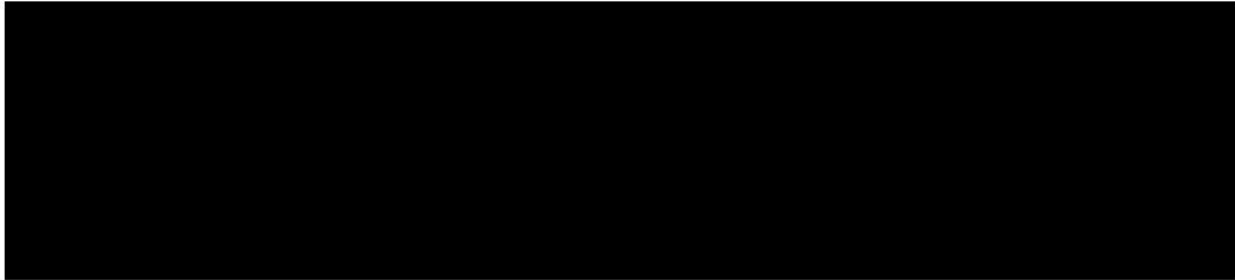


5.3 PENSTOCK VISUAL OBSERVATIONS





5.4 PENSTOCK ROUNDNESS MEASUREMENTS



[Redacted]

[Redacted]

[Redacted]

Location	Avg. Variance (In.)	Max Variance (In.)
----------	---------------------	--------------------

[Redacted]

[Redacted]

5.5 PENSTOCK ULTRASONIC THICKNESS MEASUREMENTS

[Redacted]

[Redacted]

[Redacted]

6.0 Calculations

[Redacted]

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[Redacted]

[Redacted]

[Redacted]

[Redacted]

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[Redacted]

[REDACTED]

[REDACTED]

6.2 UPPER POWERHOUSE PENSTOCK BASELINE STRESS ANALYSIS

[REDACTED]

[REDACTED]

[REDACTED]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

6.3 LOWER POWERHOUSE PENSTOCK BASELINE STRESS ANALYSIS

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

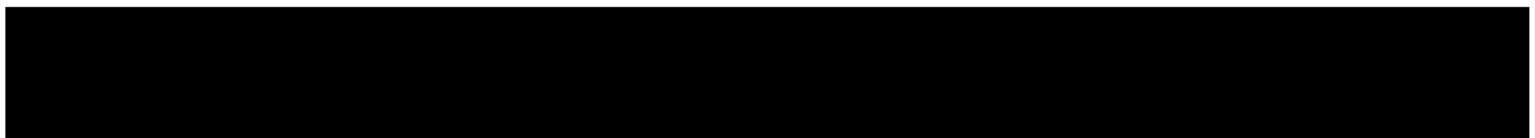
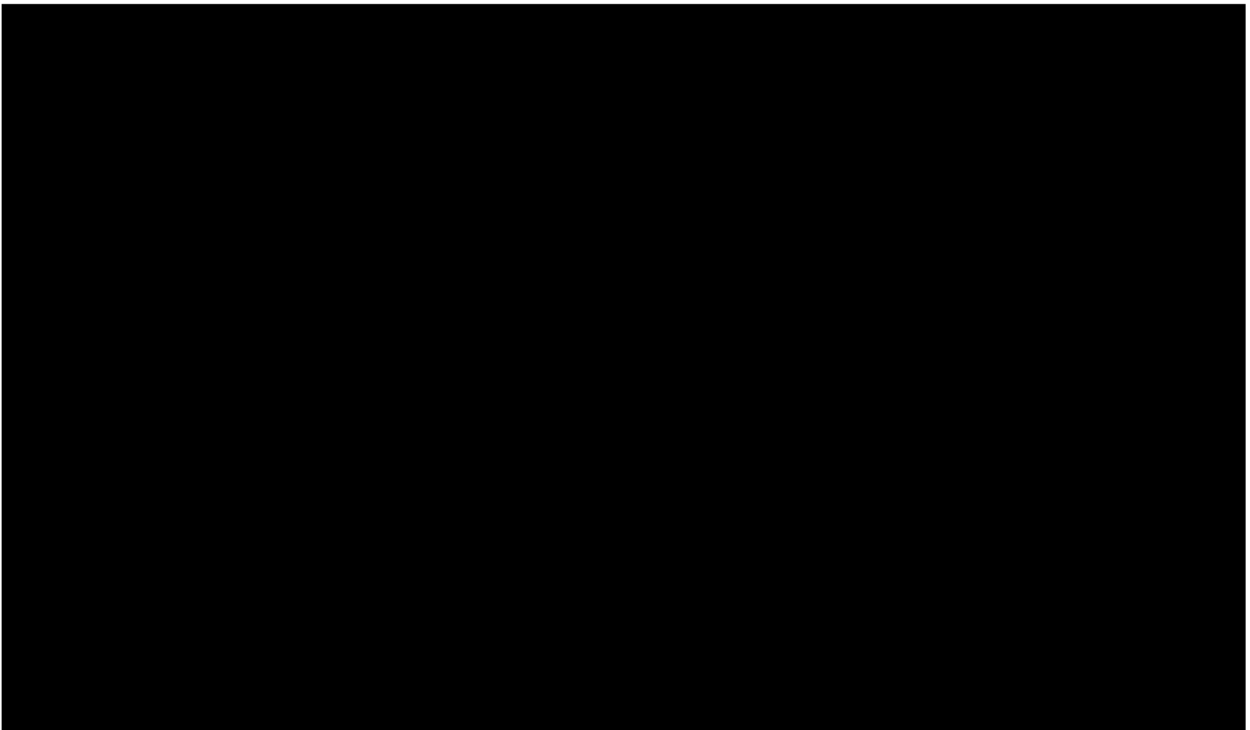
[Redacted]

[Redacted]

7.0 Conclusions

[Redacted]

[Redacted]



[REDACTED]

8.0 Recommendations

[REDACTED]

short-term needs should be addressed within 1-3 years, [REDACTED]

[REDACTED]

[REDACTED]

ID #	Recommended Urgency	Recommendations
1		[REDACTED]
2		
3		
4		
5		

[REDACTED]



6	
8	
9	





9.0 Statement of Independent Inspection

