ADEQ

A R K A N S A S
Department of Environmental Quality

September 4, 2009

Mr. Jeff Wages
Syrgis Performance Initiators, Inc.
334 Phillips 311 Road
Helena, AR 72342-9033

Re: Syrgis (Tracking Number: ARP001013 AFIN: 54-00429) Pretreatment Inspection

Dear Mr. Wages:

On July 15, 2009 the Department pretreatment staff conducted a sampling inspection of the Syrgis Helena facility. The Department appreciates Syrgis' efforts and time in assisting with the inspection. Please find enclosed the pretreatment inspection report. Please review the report and let the Department know if Syrgis finds any errors. Also enclosed is the Department lab analysis from the collected sample. The Department's lab analysis shows zinc at 0.615 mg/l and lead at 0.025 mg/l in the effluent entering the Helena POTW. In the past Syrgis has not tested for lead. Please note that Syrgis must test the effluent for ALL regulated parameters including lead.

In previous correspondence, the Department considered adjusting Syrgis' limits to allow for dilution (Syrgis combines sanitary wastewater with regulated wastewater). Syrgis declared that the Helena facility does not contain a metal bearing stream listed in Appendix A in 40 CFR 414. Since the only parameters detected in the effluent are metals, 40 CFR 403.6(e) is not applicable and Syrgis must demonstrate that these metals enter the facility in the intake potable water.

At this time Syrgis appears to have no processes which contribute zinc to the wastewater. The zinc in the effluent may be entering with the intake water and may be simply passing through the plant unaltered. Before the Department makes a final determination, please sample the intake water on a calendar quarterly basis for a period of one year. The attached analysis may serve as the required analysis for the July- Sep 2009 quarter. Syrgis must sample (only zinc and lead) the intake water for three additional quarters (Oct- Dec 2009, Jan- Mar 2010 & April – May 2010). If these sampling results confirm that the zinc and lead are in the intake water, Syrgis will not be required to sample the intake water in the future.

In accordance with 40 CFR 403.15, Syrgis can take credit for the metals in the intake water. For the February 2010 report, Syrgis' effluent must not exceed by 20% the highest previous potable metal concentrations. The contract lab must use **EPA Method 200.8** instead of Method 200.7.

Syrgis has two options for future reports:

Option 1: Syrgis may discontinue all testing of the drinking water after May 2010. Syrgis metal concentrations in the effluent must not exceed by 20% the highest previous reported metal potable concentration. If Syrgis reports a concentration higher than this value or an ADEQ lab report shows a value higher than this value, the Department will deem that Syrgis has violated the 40CFR414 categorical pretreatment standard for zinc or lead.

Option 2: If the metal concentration in the effluent remains consistently higher than the metal concentration in the intake water, Syrgis may actually have a process which contributes metals to the wastewater. According to 40 CFR 414.85 (b), "the Control Authority [the Department] on a case-by-case basis" can identify "additional process wastewater streams…as metal or cyanide bearing" streams. Syrgis may petition the Department to have a particular metal bearing stream(s) designated as a 40 CFR 414 metal bearing stream. If the petition is successful, the 40 CFR 414 zinc limits (1.05 & 2.61 mg/l) and lead limits (0.32 & 0.69 mg/l) would be applicable to Syrgis' effluent.

Please note that under Option 1, Syrgis currently has violations for 40 CFR 414 pretreatment standards for lead and zinc. These violations may be mitigated by future intake water analyses.

Please note that before the Department considers Option 2, Syrgis must demonstrate that a BMP (Best Management Practices) will not significantly impact "non-process" sources of zinc and lead.

If Syrgis has concerns or requires more details, please contact Rufus Torrence at (501) 682-0626 or torrence@adeq.state.ar.us.

Sincerely,

Rufus J. Torrence, Water Division Engineer

Encl: Pretreatment Inspection Report dated July 15, 2009
ADEQ Lab Report 2009-1761
Syrgis (Rineco 9094) Lab Report
EPA Local Limits Development Guidance Appendices; Appendix V Domestic Pollutant Loading

Pretreatment Industrial Inspection
Facility Information

Facility Name:	Site Address: **334 Phillips 311 Road**
Syrgis Performance Initiators, Inc.	**Helena, AR 72342-9033**
Signatory Authority (Name & Title): **Scott Ahlers, Plant Manager**	
Phone: **(870) 572-9061**	Mailing Address (if different):
Fax: **(870) 572-1416**	**(Same)**
Address: **(Same)**	Corporate Owner Name and address (if applicable):
(Same)	**Syrgis Performance Products**
Phone: **(Same)**	**Stockholm, Sweden**
Fax: **(Same)**	Phone: **+46 8545 12160**
Contact Person (Name & Title):	Fax: **+46 8545 12170**
Jeff Wages	Corporate CEO: **Andy Harris**
e-mail:	e-mail: **aharris@syrgis.com**
Facility Permit # **ARP001013**	Last Inspection Date: **10-31-2007**
POTW (City) IU discharges to: **Helena WWTP**	POTW's NPDES #**AR0043389**
Industrial Classification: ☒ Categorical ☐ Significant	AFIN **54-00429**
If Categorical, list which CFR #(s) the facility is subject to: **40 CFR 414.85**	

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Inspector's Name (Print): **Rufus Torrence**	Signature: Rufus Torrence
IU Rep's Name (Print) **Jeff Wages**	Signature: (Not Required)
Date and Time Inspection Ended: **July 15, 2009 @ 11:20 pm**	

I. Summary of Inspection

A. Inspection and Objective (Complete Before Inspection)

☐ Permit Renewal	☒ Bi-Annual	☐ Spill/Slug	☐ Unscheduled
☐ New Construction	☐ Noncompliance	☐ Follow-up	☐ Complaint

Inspection Objective(s)

Compliance Assurance

Checklist of items to be reviewed and/or visually inspected:

☒ Pre-inspection Meeting	☐ Permit Conditions	☐ Safety Concerns
☒ Process Inspection	☒ Pretreatment Process	☐ TOMP
☒ Chemical Storage	☒ Discharge point(s)	☐ Spills/Slug Control Plan
☐ Records Review	☐ RCRA information	☐ Process/Flow/Pretreatment Schematics
☐ IU sampling procedures	☐ Flow/pH Meter(s)	☐ Calibration Records
☐ MSDS Inventory List	☐ New MSDS	☐

Comments:

B. Inspection Analysis

Were there any deficiencies/violations identified and noted during the inspection? ☐ Yes ☒ No

Provide a brief narrative of deficiencies/violations or other concerns in the following areas:

Records Review

Process Area(s)

Pretreatment System

Self Monitoring Procedures

Diversion/Sewer Meters

Spill/Slug Control Plan

Sampling Point

Chemical Storage

II. Pre-Inspection Meeting

A. General Information

Date and Time Inspection Started: **July 15, 2009 @ 9:45 am**	SIC code(s): **2869**
IU Reps/Titles	Control Authority Reps/Titles
Jeff Wages, EHS Coor	**Rufus Torrence, Engineer**
End product(s): **Organic Peroxides**	Approx. # of units produced: **18,500 tons/year**
Days of Operation: **Monday thru Friday**	Days of Production (if different): **(Same)**
Hours of Operation: **24 hr/day**	Hours of Production (if different): **(Same)**
Shift 1, hrs.: **7 am** to **3 pm**	Shift 2, hrs.: **3 pm** to **11 pm**
# of Employees: **46**	Peak Mos.: **May** / "Off" Mos.: **December**

Are there any scheduled plant shutdowns? Yes ☒ No ☐ N/A ☐ If yes, when? **Last 2 weeks / year**

Are there designated plant clean-up days? Yes ☐ No ☒ N/A ☐ If yes, when?

Is the facility currently in compliance with all pretreatment reporting requirements and limits? Yes ☒ No ☐

If No, explain:

Are there any Special Entry Procedures for the Discharge/Sample point locations? Yes ☐ No ☒

If Yes, explain:

Are there any Safety Concerns or Identified Hazards that the inspector should be aware of: ☐ Yes. ☒ No

If Yes, explain:

Has there been any changes since the last inspection regarding the following items:

Plant/flow/process layout? Yes ☐ No ☒ If yes, obtain copy of updated schematic for facility file.

Processes? Yes ☐ No ☒ If yes, explain:

Production Levels? Yes ☒ No ☐ If yes, explain: **Slow down in the economy**

Raw materials? Yes ☐ No ☒ If yes, explain:

Flow rates? Yes ☐ No ☒ If yes, explain

Are regulated and non-regulated wastestreams combined?	yes ☐	no ☒	
Prior to Pretreatment System?	yes ☐	no ☒	N/A ☐
If Yes, was the CWF used to calculate limits?	yes ☐	no ☐	
Prior to connection to the POTW sanitary sewer?	yes ☐	no ☒	N/A ☐
At connection to sanitary sewer?	yes ☐	no ☒	N/A ☐
Production and flows verified for Production-Based Standards?	yes ☐	no ☐	N/A ☒

What is the current avg. production rate and process flow?

Production Rate is not applicable; the process flow remains consistent.

Is the prod. rate or flow substantially different (+/- 20%) from those used in calculating limits? yes ☐ no ☐

Not Applicable

B. Facility Permits		
Permit Type	Permit No.	Expiration Date
Air		
RCRA	**ARR000016899**	
NPDES	**ARR000303**	**March 31, 2010**
Other **(SPB-Water)**	**2543-W**	**Not Active**

C. Additional Comments

(Note which section or attachment comments are regarding)

1. Bldg 6 has the MEKP initiator process & bldg 16 has the Benzo Peroxide process

2. Based on emails and conversations with Jeff Wages, all the wastewater exiting the plant is regulated except the sanitary wastewater. The regulated wastewater mixes with the sanitary wastewater; therefore, the effluents limits are subject to 40 CFR 403.6(e). Since the only regulated parameter detected in the past is zinc and none of the regulated processes have a zinc bearing stream listed in Appendiz A of 40 CFR 414, at this time no limits will be adjusted to comply with 40 CFR 403.6(e) limits.

3. Syrgis is to test the intake water for zinc and lead.

4. Srygis may petition ADEQ to have a stream designated as metal bearing.

Attachment A: Industrial Process(es)

List process(es) generating wastewater. Note if it's categorical (federally regulated w/pretreatment limits) or not

1. **MEK Peroxide**	Yes ☒ No ☐	4.	Yes ☐ No ☐
2. **Benzoyl Peroxide**	Yes ☒ No ☐	5.	Yes ☐ No ☐
3.	Yes ☐ No ☐	6.	Yes ☐ No ☐

Were processes visually inspected? Yes ☒ No ☐ N/A ☐

Brief description of process(es):

Manufature of MEK peroxide and benzoyl peroxide.

Benzoyl Peroxide is a hardener or "initiator" in the plastic industry.

General observations of facility's indoor housekeeping: **Good**

General observations of area outside facility's building: **Good**

Check all sources of wastewater being discharged into the City's collection system. Indicate avg. gal/day, measured (M) or estimated (E). If batch (B) discharged, list frequency and volume (1000 gal/month, e.g.).

☐ Process Rinse Overflows	☐ Equip. Cleanup	☐ Floor Cleanup	☐ Spent Bath Solutions
☐ Product Cleaning	☐ Forklifts Maint./Wash	☐ Tank Dragout	☐ Air Pollution Devices
☒ Boiler Blowdown **100 + gpd**	☐ Spent Rinse Tanks	☐ Equipment Coolants	☒ Non-Contact Cooling Water
☐ Stormwater	☐	☐	☐

List Major Raw Materials and Chemicals used:

Methyl Ethyl Ketone, Hydrogen Peroxide, Sulfuric Acid, Demethyl Phthalate & Benzoyl Cholride

Check Waste Stream Pollutants of Concern from Process(es)

☐ BOD	☒ CN^-	☒ Metals (List) **Lead and Zinc**	☐ Solvents (List)
☐ TSS	☐ Cl_2		
☐ O&G	☐ S^-		
☐ pH	☒	**Toxic Organic**	

Are there floor drains in the Process area? ☒ Yes ☐ No If yes list number and the location of all floor drains:

None of the floor drains have access to the POTW directly; all wastewater is pumped to the treatment system.

Attachment B: Pollution Prevention (P2) / Recycling Activities			
Does the facility have a written P2 Plan?	Yes ☐	No ☒	
Does this facility practice P2?	Yes ☐	No ☒	
Environmental Management System in place?	Yes ☐	No ☒	
ISO Certified?	Yes ☒	No ☐	**ISO 9001**
Written Standard Operating Procedures?	Yes ☒	No ☐	
Explain:			
Preventative Maintenance Program	Yes ☒	No ☐	(hydraulic systems, valves, pumps, etc)
Explain:			
Water Reuse:	Yes ☒	No ☐	
Explain:			
Cost Accounting to Track Savings:	Yes ☐	No ☒	
Explain:			
Inventory Control / "Green Purchasing":	Yes ☒	No ☐	(lean manufacturing/"env. friendly purchasing", etc)
Explain:			
Employee Training:	Yes ☒	No ☐	
Explain:			
Spent Solvent Reclamation?	Yes ☒	No ☐	
Explain:			
Recycle Paper, Aluminum, Boxes, and Pallets?	Yes ☐	No ☒	
Explain:			
Recycle Waste Oil, Solvents, and Lubricants?	Yes ☒	No ☐	
Explain:			
Other Activities			
P2 Equipment/Practices in use:			

☒ Overflow Alarms	☐ Aqueous Cleaning Solutions
☐ Fog Spray Rinsing	☐ Countercurrent Rinsing
☐ Dragout Collection Trays	☐ Seal-Less Pumps
☐ Air Jets to Blow Parts Dry	☐ Secondary Containment of Process Solutions
☐ Aqueous Paint Stripping Solutions	☐ Bead Blasting to Remove Paint
☐ Water Soluble Cutting Fluids	☐ Recycle Overspray
☐ In-Process Recycle (Ion Exchange, Reverse Osmosis)	☐ Conductivity Meters
☐ Dead Rinse Tanks	☐ Bath / Rinse Filtration

Attachment C: Pretreatment System

Are wastestreams segregated before pretreatment?	☐ Yes	☒ No	☐ N/A
Are they pretreated prior to discharge to the sanitary sewer?	☒ Yes	☐ No	☐ N/A
Was the pretreatment system visually inspected during this visit?	☒ Yes	☐ No	☐ N/A

Check which of the following are utilized for pretreatment prior to discharge to sanitary sewer:

☐ Dissolved air floatation	☐ Membrane Tech.	☐ Ion Exchange	☐ Biological Treatment
☐ Centrifugation	☐ Flow Equalization	☐ Ozonation	☐ Chlorinating
☐ Chemical Precipitation	☐ Oil/Water Separation	☐ Reverse Osmosis	☐ Grit Removal
☐ Sludge Filter Press	☐ Grease Trap	☐ Screen	☐ Solvent Separation
☐ pH Adjustment	☐ Sand Trap	☐ Sedimentation	☐ Silver Recovery
☐ Belt/Disk Oil Skimmer	☐	☐	☐

Provide Brief Description of Pretreatment System (leaks, cleanliness, equipment not in working order):

Two ponds...First pond is a settling pond Second pond is a "polishin" pond.

Does the description match the schematic currently on file? ☐ Yes ☐ No ☒ N/A

System Operator(s) Name:

Not Applicable

Does discharge permit require licensed operator? ☐ Yes ☐ No ☒ N/A

Is the System Operator(s) licensed by the State of Arkansas (per Reg. # 3?) ☐ Yes ☐ No ☒ N/A

List Name(s) and License classification:

Is training provided to the Pretreatment System Operator(s)? ☐ Yes ☐ No ☒ N/A

If Yes, list type and frequency:

Is the discharge from the Pretreatment System? ☐ Batch ☒ Continuous ☐ Combination

If any discharges are batch type or combination, describe the following:

Volume of each batch: gallons per

Describe process from which batch originated (spent bath, e.g.):

Approximate duration of batch discharge:

Meter Type	Calibration Procedure and Frequency	Comments (Totalizer Reading)
Not Applicable		

Attachment D: Chemical Storage Area(s)

Does the facility have a designated chemical storage area(s)? ☒ Yes ☐ No

Was this area(s) visually inspected? ☒ Yes ☐ No ☐ N/A

Describe Chemical Storage Area(s)	Are there floor drains in this area?	If yes, where does this drain lead to?
1. **MEKP**[1]	☐ Yes ☒ No	☐ Pretreatment ☐ Sanitary Sewer ☐ Storm Sewer
2. **Benzoyl Peroxide**[1]	☐ Yes ☒ No	☐ Pretreatment ☐ Sanitary Sewer ☐ Storm Sewer
3.	☐ Yes ☐ No	☐ Pretreatment ☐ Sanitary Sewer ☐ Storm Sewer
4.	☐ Yes ☐ No	☐ Pretreatment ☐ Sanitary Sewer ☐ Storm Sewer

Does the Chemical Storage Area(s) contain any of the following?

☒ Dikes, Berms for Containment	☐ Plugs for Floor Drains
☐ Secondary Tanks for Holding	☐ Premix (low) Concentrations
☐ Alarms	☐ Chain restraints, limited access
☐ Spills Control Kits for Cleanup	☐ Notification Procedures
☐ Chemical desegregation within Storage Area	☐ Other

Chemical Inventory List (MSDS) on file? ☒ Yes ☐ No ☐ N/A

Were any new MSDS reviewed during the Inspection? ☐ Yes ☐ No ☐ N/A

If yes, list below:

Chemical storage comments:

[1]**Syrgis is primarily a chemical company so chemicals are stored over the entire plant but Syrgis does have a bulk storage area: other storage areas are scattered over acreage and the areas are isolated for safety reasons. Earth berms prevent surface run-off.**

Chemical handling procedures (totes, dolly, buckets, hardline, etc):

Pumps and Piping

Attachment E: Spill/Slug Control Plan	
Does the facility have a Spill/Slug control plan?	☐ yes ☒ no[2]
If yes are the following: 403.8(f)(2)(v)(A-D) requirements in place?	
Is the spill/slug control plan <2 years old?	☐ yes ☐ no ☐ N/A
(A) Describes discharge practices including non routine batch (slug) discharges	☐ yes ☐ no ☐ N/A
(B) Describes storage and handling of chemicals	☐ yes ☐ no ☐ N/A
(C) Procedures for immediate notification to POTW of slug discharges	☐ yes ☐ no ☐ N/A
(D) 1. Describes measures for controlling toxic/hazardous pollutants	☐ yes ☐ no ☐ N/A
2. Describes procedures and equipment for emergency response	☐ yes ☐ no ☐ N/A
3. Describes follow-up to limit damage suffered by POTW or environment	☐ yes ☐ no ☐ N/A
4. Does the facility have Spill/Slug Notification Procedures posted?	☐ yes ☐ no ☐ N/A
5. Are worker personnel provided training in the event of a spill or slug discharge?	☐ yes ☐ no ☐ N/A
If no:	
Does the facility have Spill/Slug Notification Procedures posted?	☐ yes ☐ no
Is it posted in areas where chemicals are used and stored?	☐ yes ☐ no
If Yes how many?	
Are appropriate personnel provided training in the event of a spill or slug discharge?	☐ yes ☐ no
Have there been any non-routine, episodic discharges or chemical spills in the past year?	☐ yes ☐ no
(Briefly Describe, Include Dates)	
Was the City notified of these occurrences? ☐ yes ☐ no ☐ N/A	
Visual Inspection of Discharge Lines/Points	
Provide description of manhole condition and flow channel of the following where applicable:	
Sampling / Monitoring Point **Discharge from Polishing Pond**	
Total Flow Monitoring Point **Estimated using city water meter**	
Upstream Manhole	
Point of Connection:	

[2] **Spill Plan is not applicable to this facility. There is no central plant area; the facility has scattered "satellite" plants with on direct access to the POTW.**

Attachment F: Self-Monitoring & if CFR 433, TTO/TOMP Requirements

Have Operator (or person collecting the sample) to describe how composite and grab samples are collected and preserved. Record descriptions. Include name of individual and title.

Operator has been instructed to use a 24 hour time composite sampler.

Where is the sample point located?

☐ End of Process	☒ Pretreatment Effluent	☐ Total Flow
☐ Combined Flow	☐ Metered Flow	☐ Flow Actuator
☐ Private Manhole	☐ Utility Manhole	☐ Advance Notice Required
☐ Safety Hazards Identified	☐	☐

Is the Sample Collection Site Adequate?	☐ Yes ☐ No ☐ N/A
Does the facility rep. request a split sample on this sampling/inspection?	☐ Yes ☐ No
Does the facility perform self-monitoring tests in-house?	☐ Yes ☒ No ☐ N/A

If no, record the name and address of Contract Lab: **Rineco Analytical Services (subletted to American Interplex Cor)**

Automatic Sampler ☐ or Manual ☐

IU Self-Monitoring Results reviewed:	☒ Yes ☐ No ☐ N/A
Is the Contract Lab certified by ADEQ for test parameters?	☒ Yes ☐ No ☐ N/A
Dates and Times of Sample Analysis Recorded?	☒ Yes ☐ No ☐ N/A
Correct Methods Used for Test Analysis (Refer To 40CFR Part 136)	☒ Yes ☐ No ☐ N/A
EPA recommended holding times being met (Refer to 40CFR Part 136)	☒ Yes ☐ No ☐ N/A
Chain of Custody Records for Self-Monitoring Samples Reviewed	☒ Yes ☐ No ☐ N/A
Were correct Sample Types Collected	☒ Yes ☐ No ☐ N/A
Dates and times of Sample Collection Recorded?	☒ Yes ☐ No ☐ N/A
Were Samples preserved correctly (refer to 40CFR Part 136)	☒ Yes ☐ No ☐ N/A
Were Self Monitoring records on file for past 3 years?	☒ Yes ☐ No ☐ N/A

List the parameters the facility monitors and the frequency:

☐ Cd(t)	☐ Cu(t)	☐ Cr(t)	☐ Ni(t)	☒ Pb(t) **2 per year**
☐ Ag(t)	☒ Zn(t) **2 per year**	☐ pH	☐ CN^-(t)	☐ CN^-(a-c)
☒ TTO-Vol **2 per year**	☒ TTO-B/N **2 per year**	☒ TTO-A.E. **2 per year**	☒ TTO-Pest **2 per year**	☐ Cr(hex)
☐	☐	☐	☐	☐

Toxic Organic Management Plan (TOMP) for Metal Finishers under CFR 433

How does the IU report TTO? ☒ Analysis ☐ Certification Statement

Does the facility have a Toxic Organic Management Plan? ☐ Yes ☐ No ☒ N/A

If yes, Does the plan show how toxic organics are used, stored, and disposed? ☐ Yes ☐ No ☐ N/A

List the date of the last revision to the TOMP:

Is the TOMP being followed as written? ☐ Yes ☐ No ☒ N/A (If no, provide explanation in comments.)

If no, is there evidence that a TOMP is needed? ☐ Yes ☐ No ☒ N/A (If yes, provide description of evidence in comments.)

Comments:

Arkansas Department of Environmental Quality

5301 Northshore Drive
North Little Rock, AR 72118

- CERTIFICATE OF ANALYSIS -

Our Lab#: 2009-1761
Sample ID: Syrgis
Sample Type: C

Sample Collect Date: 7/15/2009
Report Date: 8/3/2009

Test Group	Test		Result	Units	Analysis Date	MDL	RDL
ICP/MS-T							
	Aluminum		1250	µg/L	7/30/2009	20	200
	Antimony		?<100	µg/L	7/30/2009	5	100
	Arsenic		16.4	µg/L	7/30/2009	0.5	10.0
	Barium		1080	µg/L	7/30/2009	2	100
	Beryllium	<	5.00	µg/L	7/30/2009	0.1	5.00
	Boron		2710	µg/L	7/30/2009	5	250
	Cadmium	<	10.0	µg/L	7/30/2009	0.3	10.0
	Calcium		156	mg/L	7/30/2009	0.04	0.400
	Chromium		80.1	µg/L	7/30/2009	0.3	10.0
	Cobalt	<	10.0	µg/L	7/30/2009	0.5	10.0
	Copper	<	10.0	µg/L	7/30/2009	0.5	10.0
	Iron		4100	µg/L	7/30/2009	10	200
	Lead		25.0	µg/L	7/30/2009	0.1	10.0
	Magnesium		38.5	mg/L	7/30/2009	0.1	1.00
	Manganese		1110	µg/L	7/30/2009	0.2	10.0
	Nickel		66.4	µg/L	7/30/2009	0.5	25.0
	Potassium		1070	mg/L	7/30/2009	0.05	1.00
	Selenium	<	20.0	µg/L	7/30/2009	0.5	20.0
	Silicon Dioxide		263	mg/L	7/30/2009	0.02	2.00
	Silver	<	50.0	µg/L	7/30/2009	1	50.0
	Sodium		66700	mg/L	7/30/2009	0.02	0.400
	Thallium	<	25.0	µg/L	7/30/2009	0.5	25.0
	Vanadium		80.5	µg/L	7/30/2009	1	25.0
	Zinc		615	µg/L	7/30/2009	2	30.0

Rineco Analytical Services

819 Vulcan Road - Haskell
Benton, Arkansas 72015
(800) 377-4692 / (501) 778-9089
FAX (501) 776-5816

Analysis Summary

Syrgis Performance Initiators, Inc.

334 Phillips 311 Rd
Helena, AR 72342-9033
870-572-2935
870-572-1416 (FAX)

Client's Project ID:	Syrgis Plant Water	**Project:**	9094
Sampling Date:	08/10/09	**Date Received:**	08/11/09
Contact Name:	Jeff Wages	**Report Date:**	08/19/09

Comments: ND = not detected.
(surr.) = surrogate – internal standard added to the sample to ensure the overall efficiency of the method.

Standard practice for quality control includes the use of blanks, laboratory control samples, matrix spikes and duplicates on at least 10% of samples analyzed. Standard practice for quality assurance includes compliance to USEPA guidelines for instrument maintenance and calibration.

Quality Manager or Laboratory Director Paul D. Hay Date 8/19/09

Results Summary

Project #:	9094	Parameter	Result	Quantitation Limit	Units	Method	Analyst	Analysis Date
RAS laboratory ID	215							
Client ID:	Plant Water Sample 1							
		Zinc	0.089	0.002	mg/l	EPA 200.7	AI	08/13/09 1043
		Lead	ND	0.04	mg/l	EPA 200.7	AI	08/13/09 1043
RAS laboratory ID	216							
Client ID:	Plant Water Sample 2							
		Total Cyanide	ND	0.01	mg/l	4500-CN C	AI	08/17/09 0913

Quality Control Summary
(Part C)

Project : 9094

Parameter	Result	Det. Limit	Units	Method	Analysis Date	Sample Type	Result Type	Batch Number
Lead	ND	0.04	mg/l	EPA 200.7	08/13/09 0803	B	REG	S26145
Zinc	ND	0.002	mg/l	EPA 200.7	08/13/09 0803	B	REG	S26145
Cyanide	ND	0.01	mg/l	SM4500-CN C,E	08/17/09 0915	B	REG	W29908
Lead	103		%	EPA 200.7	08/13/09 0803	Q	REC	S26145
Zinc	104		%	EPA 200.7	08/13/09 0803	Q	REC	S26145
Lead	99		%	EPA 200.7	08/13/09 0803	Q	REC	S26145
Lead	4		%	EPA 200.7	08/13/09 0803	Q	RPD	S26145
Zinc	100		%	EPA 200.7	08/13/09 0803	Q	REC	S26145
Zinc	4		%	EPA 200.7	08/13/09 0803	Q	RPD	S26145
Lead	94		%	EPA 200.7	08/13/09 0803	S	REC	S26145
Zinc	95		%	EPA 200.7	08/13/09 0803	S	REC	S26145
Lead	96		%	EPA 200 7	08/13/09 0803	SD	REC	S26145
Lead	2		%	EPA 200 7	08/13/09 0803	SD	RPD	S26145
Zinc	97		%	EPA 200.7	08/13/09 0803	SD	REC	S26145
Zinc	3		%	EPA 200.7	08/13/09 0803	SD	RPD	S26145
Cyanide	101		%	SM4500-CN C,E	08/17/09 0915	Q	REC	W29908
Cyanide	102		%	SM4500-CN C,E	08/17/09 0915	Q	REC	W29908
Cyanide	1		%	SM4500-CN C,E	08/17/09 0915	Q	RPD	W29908
Cyanide	101		%	SM4500-CN C,E	08/17/09 0915	S	REC	W29908
Cyanide	98		%	SM4500-CN C,E	08/17/09 0915	SD	REC	W29908
Cyanide	3		%	SM4500-CN C,E	08/17/09 0915	SD	RPD	W29908

NOTES:
Q - lab control QD - lab control dup S - spike SD - spike dup B - blank D - duplicate SURR - surrogate

CHAIN OF CUSTODY RECORD

RAS Project # 9094

RINECO
ANALYTICAL SERVICES
819 Vulcan Road • Benton, AR 72015
501-778-9089 • 1-800-377-4692
FAX 501-776-5816

PROJECT NAME / NUMBER	Syrgis Plant Water
REPORT MAILING ADDRESS (Include Company Name)	Syrgis 334 Phillips 311 Rd. Helena AR 72342-9033
BILLING ADDRESS	SAME
PROJECT MANAGER	Jeff Wages
P.O. #	
ATTENTION:	Jeff Wages
TELEPHONE #	870 572 3297
FAX #	870 572 1410
TURNAROUND TIME:	NORMAL ☑ 7-10 day; RUSH ☐ ____ day(s)
COMMENTS:	
Samplers (Signature)	Jeff Wages

PRESERVATION CODES:
1. Cool, 4 degrees C
2. Sulfuric Acid, pH < 2
3. Nitric Acid, pH < 2
4. Sodium Thiosulfate
5. Hydrochloric Acid
6. Sodium Hydroxide
7. Zinc Acetate

TEST PARAMETERS

Client I.D.	SAMPLE Date	SAMPLE Time	Comp.	Grab	No. of Containers	Preservation Codes	Sample Description/Matrix	Zn, Pb	Total Cyanide						RAS LABORATORY I.D. #
Plant Water Sample 1	8/10/09	09:30		✓	1	3	✓								215
Plant Water Sample 2	8/10/09	09:30		✓	1	6		✓							216

Relinquished by: (Signature)	Date	Time	Relinquished by: (Signature)	Date	Time	Relinquished by: (Signature)	Date	Time
Jeff Wages	8/10/09	10:30						
Received by: (Signature)	**Date**	**Time**	**Received by: (Signature)**	**Date**	**Time**	**Received by: (Signature)**	**Date**	**Time**
[signature]	8/11/09	8:00						

Complete Entire Form In Ink

APPENDIX V -
DOMESTIC POLLUTANT LOADINGS

Residential/Commercial Trunkline Monitoring Data

Pollutant	Number of Detections	Number of Samples	Minimum Concentration (mg/L)	Maximum Concentration (mg/L)	Average Concentration (mg/L)
INORGANICS					
Arsenic	140	205	0.0004	0 088	0.007
Barium	3	3	0.04	0.216	0 115
Boron	4	4	0 1	0 42	0 3
Cadmium	361	538	0.00076	0.11	0.008
Chromium (III)	1	2	< 0 005	0.007	0.006
Chromium (T)	311	522	< 0.001	1.2	0.034
Copper	603	607	0.005	0 74	0 14
Cyanide	7	7	0 01	0 37	0 082
Fluoride	2	2	0.24	0.27	0.255
Iron	18	18	0 0002	3.4	0 989
Lead	433	540	0.001	2 04	0 058
Lithium	2	2	0.03	0.031	0.031
Manganese	3	3	0 04	0 161	0 087
Mercury	218	235	< 0.0001	0.054	0.002
Nickel	313	540	< 0.001	1.6	0.047
Phosphate	2	2	27 4	30 2	28 8
Total Phosphorous	1	1	0.7	0.7	0.7
Silver	181	224	0.0007	1 052	0 019
Zinc	636	638	0.01	1.28	0.231
ORGANICS					
Chloroform	21	30	<0 002	0.069	0 009
1,1-Dichloroethene	2	29	0 005	0 008	0 007
1 1-Dichloroethane	1	28	0 026	0 026	0.026
Trans-1,2-Dichloroethene	1	28	0.013	0.013	0 013
Fluoranthene	2	5	0 00001	<0.001	0 001
Methylene Chloride	7	30	0.00008	0 055	0 027
Phenols	2	2	0.00002	0 00003	0 000025
Bis (2-ethylhexyl) Phthalate	5	5	0.00002	0 022	0.006
Pyrene	2	3	0.00001	<0.005	0.0002
Tetrachloroethene	5	29	0.00001	0.037	0.014
1,2 4-Trichlorobenzene	1	3	<0 002	0.035	0.013
PESTICIDES					
Total BHC	3	3	0.001	0.001	0.001
4,4-DDD	3	3	0 00026	0 0004	0.0003
Total Endosulfan	3	3	0.002	0.002	0.002