

Time-Critical Concurrence

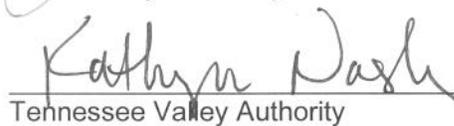
Area: Southern Portion of the East Embayment
Agreement: <p>Ash that had been released in the southern portion of the east embayment (defined as the area of the ash berm and the area south of the ash berm) was removed by amphibious trackhoes, lime treated, and sent to the trains. After completion of the removal based on visual cues, the remaining sediment was sampled according to a statistically-based plan that is attached. The same approach used to site sampling locations in the northern portion of the embayment was taken for the southern portion of the embayment. Also attached is a figure showing sampling locations. Both an onsite lab and an offsite lab were used for analyses. Onsite results were comparable but slightly different from the lab results which are used as the definitive result. Lab results show that all samples had less than 50% ash although some of the results are elevated with the highest being 42% at location 28. Only shallow samples had notable quantities of ash. Sample location 27 was not accessible.</p> <p>The area is considered free of ash (ash is defined as containing greater than 50% ash). No further action is needed to remove ash in this southern portion of the east embayment.</p>
Concurrence Comments:



Jacobs Project Manager

5/11/10

Date



Tennessee Valley Authority

5/11/10

Date



U. S. Environmental Protection Agency

5/11/10

Date

consulted w/ TDEC

**East Embayment Sediment Sampling (Southern Portion)
For Polarized Light Microscopy
Kingston Fossil Plant Ash Spill
April 20, 2010**

Background

On December 22, 2008, the dike failed on a fly ash retention pond at the Kingston Fossil Plant in Kingston, Tennessee. An estimated 5.4 million cubic yards of fly ash was released and subsequently covered approximately 275 acres. A portion of the release flowed northeast into the East Embayment located between Swan Pond Circle Road and Lake Shore Drive. Released ash in the East Embayment is currently being excavated and managed by TVA personnel and/or TVA subcontractors.

Purpose/Data Quality Objectives

The purpose of this plan is to document the procedures associated with sediment sampling in the East Embayment to support confirmation of released ash removal. The data collected during this sampling event are designed to identify the presence/absence of ash and thickness by means of visual assessment. In addition, samples of each sediment horizon encountered will be sent off-site for laboratory polarized light microscopy (PLM) analysis. The information gathered during this sampling event will be used to confirm that time-critical concurrence criteria for ash removal is complete in the southern portion of the East Embayment. Project Management, TVA, and EPA will confirm ash removal is complete based on field observations and PLM analysis data. Ash removal confirmation will be documented by signatures on the Time-Critical Concurrence form for the southern portion of the East Embayment.

Sampling Procedure

A systematic grid of 20 sampling points (see attached figure) located on 119-foot centers has been designed in the southern portion of the East Embayment. Sediment coring will determine the presence or absence of ash following mechanical excavation of released material to the original river bottom elevation in the East Embayment.

The goal of this sampling effort is to collect a sediment core from the top 12-inches of sediment in the southern portion of the East Embayment. The collected samples will be visually inspected and sent to an off-site laboratory for PLM analysis. Onsite analysis will also be done and the results sent to project personnel as soon as available. Samples for PLM analysis will be submitted for each sediment horizon encountered. It is anticipated that sample collection will be performed with a manually operated sediment sampler (*i.e.* Geoprobe Slide Hammer w/ LB Sampler or Macrocore) utilizing acetate core liners.

A Pre-job briefing will be performed prior to performing any sampling activities. Sampling personnel will also review and sign a Job Safety Analysis (JSA) associated with sediment sampling activities prior to performing field work.

A Tennessee on-call excavation ticket will not be required for this activity. The East Embayment was cleared by the TVA Civil Projects group for underground utilities during ash removal and construction of heavy equipment haul roads.

The following steps shall be performed for sediment sample collection.

- Document all sampling activities in accordance with Field Documentation SOP TVA-KIF-SOP-06.
- Using a GPS unit, navigate to the design sampling locations using coordinates provided by Jacobs Engineering (JE) personnel. If sample locations are unobtainable by foot due to soft substrates, then use of an amphibious off-road vehicle shall be used to access sample points. Only trained heavy equipment operators shall operate amphibious off-road vehicles and operator shall perform daily inspection of equipment prior to use. No more than 2 samplers will accompany the operator aboard the vehicle. See attached table for sample location coordinates.
- Non-disposable sampling equipment will be decontaminated prior to use and between each sample location with a Liquinox (or similar non-phosphate detergent) wash and scrub, potable water rinse, and deionized water rinse in accordance with TVA-KIF-SOP-08.
- Coring will be performed in accordance with TVA-KIF-SOP-05 Sediment Sampling.
- Advance coring device to sufficient depth so that retrieval of a 12-inch sediment core is achieved. If refusal is encountered at less than 12-inches total depth, then document the information in the field logbook and proceed with the next step.
- Upon retrieval of the sediment core, inspect and describe the sediment sample. Record a description (color, grain size, presence of organics, length of recovered core sample, presence and thickness of ash, and % of ash in terms of greater than or less than 50%) of the collected sediment sample in the field logbook.
- Separate and thoroughly homogenize each sediment horizon in accordance with TVA-KIF-SOP-05 Sediment Sampling.
- Collect sample(s) from each sediment horizon and place into appropriate laboratory containers for PLM analysis. The samples will be labeled under proper chain-of-custody for shipment to the respective laboratories (according to TVA-KIF-SOP-06 and TVA-KIF-SOP-07).
- Two duplicate sediment samples will be collected (in accordance with the 1 duplicate for every 20 investigative samples criteria presented in TVA-KIF-SOP-11) for this sampling event.
- Photo documentation of event will be performed in accordance with TVA-KIF-SOP-26 Photo Documentation.
- Any deviation to the sampling plan must be approved by the Jacobs Project Manager and documented in the field logbook in accordance with Field Documentation SOP TVA-KIF-SOP-06.

Sample Naming Convention

The sample IDs for the East Embayment sediment samples will be designated as follows:

KIF-EEMBAY_GRID_X-SED-mmddyy

Where "EEMBAY" identifies sample location and collection plan
"X" is the sediment sample location number.
"SED" is the matrix code for sediment ("AED" will be used for duplicates).
"mmddyy" is the date including specified data format.

Note: For sample locations with multiple sediment horizons, the sediment location number shall have sequential letters placed after the sediment sample location number for each horizon

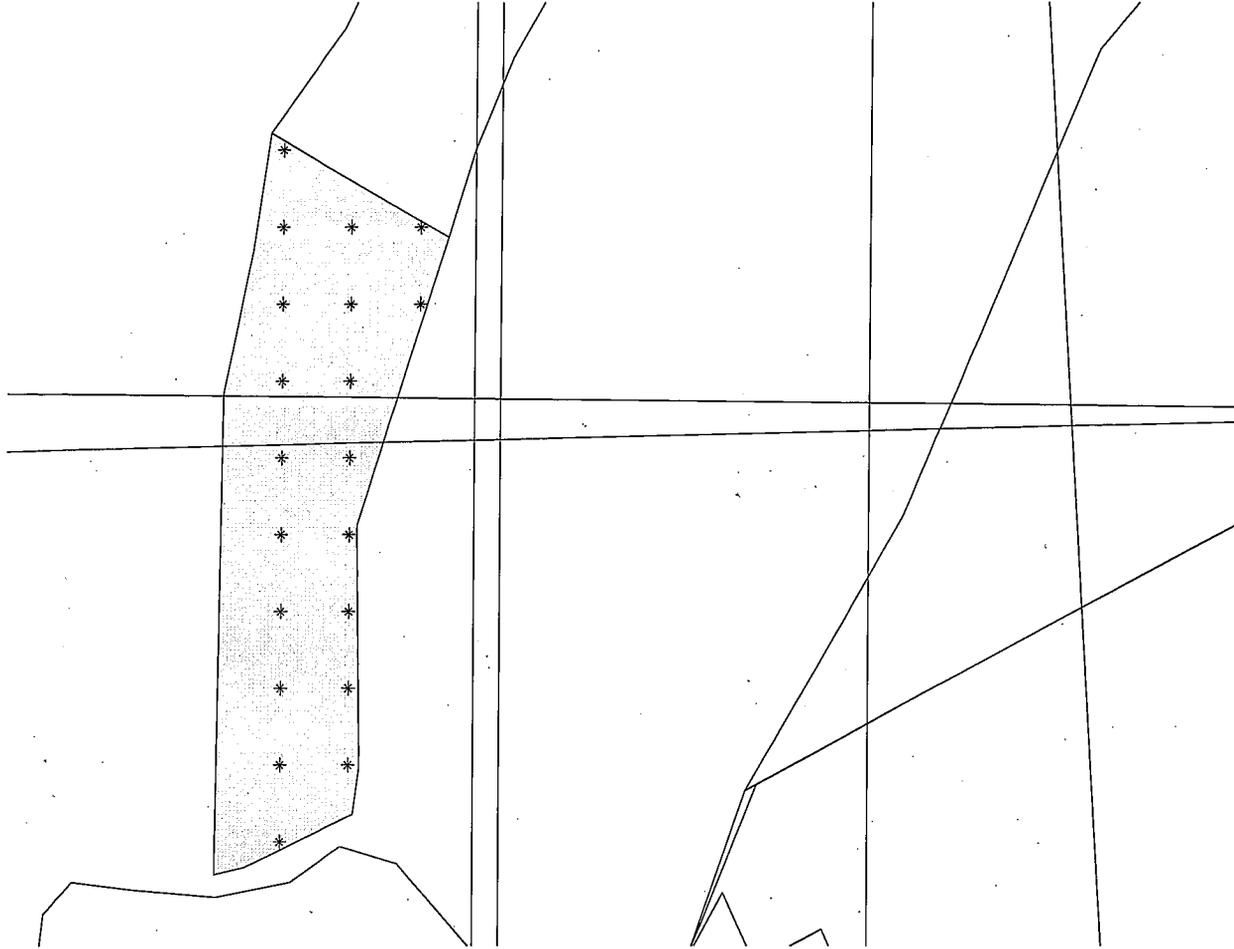
encountered (*i.e.* KIF-EEMBAY-27.A-SED-MMDDYY for second sediment horizon encountered at location 27). Numbering of the sediment sampling points will start at 27 to continue where the previous numbering left off during the sediment sampling activities in the northern portion of the East Embayment.

Management of Investigation-Derived Waste

It is anticipated that minimal investigation-derived waste (IDW) will be generated during the ash deposit evaluation program. No IDW shall be left behind during the sampling program.

- Personal protective equipment (PPE), acetate liners, and trash will be placed in designated receptacles within the exclusion zone.
- The residual sediment/ash samples remaining after sample processing and collection will be returned to the immediate vicinity of the sampling location.
- Upon completion of the day's sediment sampling activities, the decontamination liquid (Liquinox and water – if generated) and the rinse water shall be transported to the exclusion zone and poured in the Ash Recovery Ditch.

East Embayment PLM Sample Locations



East Embayment Sample Location Coordinates		
X Coord	Y Coord	Location Number
2442634.7260	558380.9849	Grid Point 27
2442634.7260	558499.9591	Grid Point 28
2442753.7002	558499.9591	Grid Point 29
2442634.7260	558618.9334	Grid Point 30
2442753.7002	558618.9334	Grid Point 31
2442634.7260	558737.9077	Grid Point 32
2442753.7002	558737.9077	Grid Point 33
2442634.7260	558856.8819	Grid Point 34
2442753.7002	558856.8819	Grid Point 35
2442634.7260	558975.8562	Grid Point 36
2442753.7002	558975.8562	Grid Point 37
2442634.7260	559094.8305	Grid Point 38
2442753.7002	559094.8305	Grid Point 39
2442634.7260	559213.8047	Grid Point 40
2442753.7002	559213.8047	Grid Point 41
2442872.6745	559213.8047	Grid Point 42
2442634.7260	559332.7790	Grid Point 43
2442753.7002	559332.7790	Grid Point 44
2442872.6745	559332.7790	Grid Point 45
2442634.7260	559451.7533	Grid Point 46
2442924.6152	559407.4081	Grid Point 01 (not on map above)

- Numbering of the sediment sampling points will start at 27 to continue where the previous numbering left off during the sediment sampling activities in the northern portion of the East Embayment.

- Grid Point 01 was unable to be sampled during the February 2010 sampling (*East Embayment Sediment Sampling for Polarized Light Microscopy, Feb 2010*) of the northern portion of the East Embayment. The sample location was located on an ash berm that has since been removed as part of the East Embayment cleanup effort. The sample point will be carried over into this plan and collected in the same manner as grid locations 27 through 46. Coordinates of Grid Point 01 are listed in the East Embayment Sample Location Coordinates Table above.

-Number of sample locations may differ from the calculated number because of 1) grid edge effects, 2)adding judgment samples, or 3) selecting or unselecting sample areas.

-Sample coordinates are in Tennessee State Plane 4100, Nad 1927.

East Embayment Sediment Confirmation Sampling 042110



X Coord	Y Coord	Location Number	Sample ID	Site Microscopy Lab Evaluation *	Date Analyzed	RJ Lee Gp
2442634.73	558380.985	Grid Point 27	location not accessible			
2442634.73	558499.959	Grid Point 28	KIF-EEMBAY_GRID_28-SED-042610	more than 50% ash, some cenospheres	04/27/2010	42%
			KIF-EEMBAY_GRID_28.A-SED-042610	less than 10% ash, some cenospheres	04/27/2010	9%
2442753.7	558499.959	Grid Point 29	KIF-EEMBAY_GRID_29-SED-042610	less than 50% ash, some cenospheres	04/27/2010	11%
			KIF-EEMBAY_GRID_29.A-SED-042610	less than 50% ash, some cenospheres	04/27/2010	8%
2442634.73	558618.933	Grid Point 30	KIF-EEMBAY_GRID_30-SED-042610	more than 50% ash, some cenospheres	04/27/2010	40%
			KIF-EEMBAY_GRID_30.A-SED-042610	less than 10% ash, some cenospheres	04/27/2010	9%
2442753.7	558618.933	Grid Point 31	KIF-EEMBAY_GRID_31-SED-042610	less than 50% ash, some cenospheres	04/27/2010	2%
			KIF-EEMBAY_GRID_31.A-SED-042610	less than 10% ash, some cenospheres	04/27/2010	1%
2442634.73	558737.908	Grid Point 32	KIF-EEMBAY_GRID_32-SED-042610	more than 50% ash, some cenospheres	04/27/2010	26%
			KIF-EEMBAY_GRID_32.A-SED-042610	less than 10% ash	04/27/2010	2%
2442753.7	558737.908	Grid Point 33	KIF-EEMBAY_GRID_33-SED-042610	less than 50% ash, some cenospheres	04/27/2010	3%
			KIF-EEMBAY_GRID_33.A-SED-042610	less than 50% ash, some cenospheres	04/27/2010	6%
			KIF-EEMBAY_GRID_33.B-SED-042610	no ash	04/27/2010	1%
2442634.73	558856.882	Grid Point 34	KIF-EEMBAY_GRID_34-SED-042610	less than 50% ash, some cenospheres	04/27/2010	25%
2442753.7	558856.882	Grid Point 35	KIF-EEMBAY_GRID_35-SED-042610	less than 50% ash, some cenospheres	04/27/2010	15%
			KIF-EEMBAY_GRID_35.A-SED-042610	less than 1% ash, some cenospheres	04/27/2010	<1%
2442634.73	558975.856	Grid Point 36	KIF-EEMBAY_GRID_36-SED-042310	less than 10% ash, some cenospheres	04/26/2010	<1%
			KIF-EEMBAY_GRID_36.A-SED-042310	no ash, some cenospheres	04/26/2010	ND
2442753.7	558975.856	Grid Point 37	KIF-EEMBAY_GRID_37-SED-042610	less than 10% ash, some cenospheres	04/27/2010	7%
2442634.73	559094.831	Grid Point 38	KIF-EEMBAY_GRID_38-SED-042310	less than 50% ash, some cenospheres	04/26/2010	6%
			KIF-EEMBAY_GRID_38.A-SED-042310	no ash	04/26/2010	ND
2442753.7	559094.831	Grid Point 39	KIF-EEMBAY_GRID_39-SED-042610	less than 50% ash, some cenospheres	04/27/2010	4%
			KIF-EEMBAY_GRID_39.A-SED-042610	less than 10% ash, some cenospheres	04/27/2010	1%
2442634.73	559213.805	Grid Point 40	KIF-EEMBAY_GRID_40-SED-042310	less than 50% ash, some cenospheres	04/26/2010	9%
			KIF-EEMBAY_GRID_40.A-SED-042310	less than 50% ash, some cenospheres	04/26/2010	5%
2442753.7	559213.805	Grid Point 41	KIF-EEMBAY_GRID_41-SED-042610	less than 50% ash, some cenospheres	04/27/2010	18%
			KIF-EEMBAY_GRID_41.A-SED-042610	less than 50% ash, some cenospheres	04/27/2010	19%
2442872.67	559213.805	Grid Point 42	KIF-EEMBAY_GRID_42-SED-042610	less than 50% ash, some cenospheres	04/27/2010	33%
			KIF-EEMBAY_GRID_42.A-SED-042610	less than 50% ash, some cenospheres	04/27/2010	ND
2442634.73	559332.779	Grid Point 43	KIF-EEMBAY_GRID_43-SED-042310	less than 50% ash, some cenospheres	04/26/2010	11%
			KIF-EEMBAY_GRID_43.A-SED-042310	no ash, some cenospheres	04/26/2010	ND
2442753.7	559332.779	Grid Point 44	KIF-EEMBAY_GRID_44-SED-042310	less than 50% ash, some cenospheres	04/26/2010	10%
			KIF-EEMBAY_GRID_44.A-SED-042310	less than 50% ash, some cenospheres	04/26/2010	19%
2442872.67	559332.779	Grid Point 45	KIF-EEMBAY_GRID_45-SED-042610	no ash, some cenospheres	04/27/2010	5%
			KIF-EEMBAY_GRID_45.A-SED-042610	less than 10% ash, some cenospheres	04/27/2010	4%
2442634.73	559451.753	Grid Point 46	KIF-EEMBAY_GRID_46-SED-042310	no ash, some cenospheres	04/26/2010	ND
			KIF-EEMBAY_GRID_46.A-SED-042310	no ash, some cenospheres	04/26/2010	ND
2442924.62	559407.408	Grid Point 01 (not on map above)	KIF-EEMBAY_GRID_1-SED-042610	less than 10% ash, some cenospheres	04/27/2010	1%
			KIF-EEMBAY_GRID_1.A-SED-042610	no ash	04/27/2010	ND

*** Results designations**

- no ash - No ash particles observed at 200X at ordinary light
- <1% - May have one or a few ash particules.
- <10% - Some ash observed but not much as observed with < 50%.
- <50% - Lots of ash but not all ash.
- >50% - Mostly ash.



April 30, 2010

Dr. William Rogers
Kingston Fossil Plant
714 Swan Pond Road
Harriman, TN 37748

RE: Tennessee Valley Authority – Analytical Report
RJ Lee Group Project Number TOH1009525-19

The RJ Lee Group, Inc. Monroeville laboratory received twelve (12) samples on April 27, 2010 associated with Tennessee Valley Authority (TVA) Chain of Custody (COC) number P1DSED0423Y10A. The samples were logged into RJ Lee Group project number TOH1009525-19 and assigned RJLG sample numbers as indicated in Appendix A.

The samples were received in good condition with all custody seals in place and intact. Attached in Appendix A is the signed sample receipt confirmation form, COC, and sample receipt check list.

If you have any question or comments regarding the information contained in this report, please feel free to contact us.

These results are submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which the results are used or interpreted.

Sincerely,

Ryan Hall
Project Manager

RH/am

Attachments: Chain of Custody Forms
Mineral Identification Report



RJ LeeGroup, Inc.
350 Hochberg Road, Monroeville, PA 15146
Tel: (724) 325-1776 | Fax: (724) 733-1799

Appendix A
Chain of Custody Forms



RJ Lee Group, Inc.
 www.rjlg.com

Chain Of Custody

RJ Lee Group Work Order #: TOH1009525-19

Project Name / Case #: COC # P1DSED0423Y10A

Received From:	Relinquished To:
Mirtha Martin Tennessee Valley Authority 189 Lakeshore Drive Kingston Fossil Plant/TVA Harriman, TN 37748 United States Main: 225-931-5077	RJLee Group, Inc. 350 Hochberg Road Monroeville, PA 15146 United States Main: 724-325-1776 Fax: 724-325-1775

Sample ID	Client Sample ID	Date Received
10102907	KIF-EEMBAY_GRID_36-SED-042310	04/27/2010 10:30 AM EDT
10102908	KIF-EEMBAY_GRID_36_A-SED-042310	04/27/2010 10:30 AM EDT
10102909	KIF-EEMBAY_GRID_38-SED-042310	04/27/2010 10:30 AM EDT
10102910	KIF-EEMBAY_GRID_38_A-SED-042310	04/27/2010 10:30 AM EDT
10102911	KIF-EEMBAY_GRID_40-SED-042310	04/27/2010 10:30 AM EDT
10102912	KIF-EEMBAY_GRID_40_A-SED-042310	04/27/2010 10:30 AM EDT
10102913	KIF-EEMBAY_GRID_43-SED-042310	04/27/2010 10:30 AM EDT
10102914	KIF-EEMBAY_GRID_43_A-SED-042310	04/27/2010 10:30 AM EDT
10102915	KIF-EEMBAY_GRID_44-SED-042310	04/27/2010 10:30 AM EDT
10102916	KIF-EEMBAY_GRID_44-AED-042310	04/27/2010 10:30 AM EDT
10102917	KIF-EEMBAY_GRID_46-SED-042310	04/27/2010 10:30 AM EDT
10102918	KIF-EEMBAY_GRID_46-SED-042310_QC1	04/27/2010 10:30 AM EDT
10102919	KIF-EEMBAY_GRID_46_A-SED-042310	04/27/2010 10:30 AM EDT

	Received From: Mirtha Martin	<i>Method of Shipment:</i> UPS
	Company: Tennessee Valley Authority	Date: 04/27/2010
	Received By: Ashley Moore	<i>Package Condition Upon Receipt:</i> Sealed
	Company: RJ Lee Group, Inc.	Date: 04/27/2010

	Relinquished	<i>Method of Shipment:</i>
	Company:	Date:
	Received By:	<i>Package Condition Upon Receipt:</i>
	Company:	Date:

	Relinquished	<i>Method of Shipment:</i>
	Company:	Date:
	Received By:	<i>Package Condition Upon Receipt:</i>
	Company:	Date:

RJ Lee Group
Sample Receipt and Log in Check List

Client:	TVA	Date Received:	4/27/2010	Log in Date:	4/27/2010
Time Received:	10:30 AM	By:	Ashley Moore	COC#:	P1DSED0423Y10A
Project:	TOH1009525	# Coolers Received:	1	Means of Shipment:	UPS
Air Bill:	1Z939EX20195853370				

As Received Screen	Yes	No	Comments
Were the Coolers received in good condition?	✓		
Was there evidence of tampering?		✓	
Are Custody Seals intact and in good condition?	✓		
Were Coolers received between 2 and 4 degrees C?	—	—	N/A
Were all samples intact?	✓		
Were all samples accurately labeled?	✓		
Was the COC received in good condition?	✓		
Did the sample ID on COC match the ID on the sample jars?	✓		
Were there any discrepancies among samples and COC?		✓	
Is the COC completely filled out?	✓		
Was the COC relinquished properly?	✓		

List any anomalies associated with Sample Receipt

N/A

Analyst Signature: Ashley Moore, 04-28-2010

Manager Signature: [Signature], 04-28-2010



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

Page: 1 of 1
Cooler # L of L

Jul 4-2010

RECORD COPY

COC # P1DSED0423Y10A
P1DSED0423Y10A

Required Ship to Lab:		Required Project Information:		Required Sampler Information:		TAT: Standard 5 day <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Mark One <input type="checkbox"/>	
Lab Name: RJ Lee Group, Inc.	Site ID #: KIF	Address: 350 Hochberg Road Monroeville, PA 15146	Project #: Kingston Fossil Plant	Sampler: Chris Freshour	Sampling Company: TVA - Kingston Fossil Ash Recovery Operations		
Lab PM: Keith Rickabough	City: Harriman	State: TN	Zip: 37057	Address:	City/State:	Phone #:	
Phone/Fax: 724-387-1841	Site PM Name: Bill Rogers	Site Address: 714 Swan Pond Rd	City/State:	Reimbursement project? <input type="checkbox"/>	Non-reimbursement project? <input type="checkbox"/>	Mark one	
Lab PM email:	Phone/Fax: 865-717-1827	Site PM Email: wjrogers@tva.gov	Send EDD to: TVAEDD@envstd.com	CC Hardcopy report to:			
Applicable Lab Quote #:			CC Hardcopy report to:				

ITEM #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth		MATRIX CODE	G-GRAB	C-COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/Lab Sample I.D.	PLM/LASH/L
			Start Depth	End Depth									
M 1	KIF-EEMBAY_GRID_36-SED-042310	EEMBAY_GRID_36	0	8	SED	G	N	04/23/2010	11 23	1			X
M 2	KIF-EEMBAY_GRID_36_A-SED-042310	EEMBAY_GRID_36	8	12	SED		N	04/23/2010	11 23	1			X
M 3	KIF-EEMBAY_GRID_38-SED-042310	EEMBAY_GRID_38	0	6.5	SED		N	04/23/2010	11 08	1			X
M 4	KIF-EEMBAY_GRID_38_A-SED-042310	EEMBAY_GRID_38	6.5	12	SED		N	04/23/2010	11 08	1			X
M 5	KIF-EEMBAY_GRID_40-SED-042310	EEMBAY_GRID_40	0	4.5	SED		N	04/23/2010	10 46	1			X
M 6	KIF-EEMBAY_GRID_40_A-SED-042310	EEMBAY_GRID_40	4.5	12	SED		N	04/23/2010	10 46	1			X
M 7	KIF-EEMBAY_GRID_43-SED-042310	EEMBAY_GRID_43	0	2	SED		N	04/23/2010	10 30	1			X
M 8	KIF-EEMBAY_GRID_43_A-SED-042310	EEMBAY_GRID_43	2	12	SED		N	04/23/2010	10 30	1			X
M 9	KIF-EEMBAY_GRID_44-SED-042310	EEMBAY_GRID_44	0	12	SED		N	04/23/2010	13 38	1			X
M 10	KIF-EEMBAY_GRID_44-AED-042310	EEMBAY_GRID_44	0	12	SED		N	04/23/2010	13 38	1			X
M 11	KIF-EEMBAY_GRID_46-SED-042310	EEMBAY_GRID_46	0	3	SED		N	04/23/2010	10 11	1			X
M 12	KIF-EEMBAY_GRID_46_A-SED-042310	EEMBAY_GRID_46	3	12	SED		N	04/23/2010	10 11	1			X

Additional Comments/Special Instructions: USE THE NOMENCLATURE ON THIS COC FOR SAMPLE DOCUMENTATION FOR ALL LABORATORY DOCUMENTATION. THE SAMPLE IDs in this COC replace those in the original, attached COC, P1DSED0423Y10B, Pages 1 of 1. USE THE ORIGINAL, ATTACHED CHAIN TO TRACK CUSTODY.	SAMPLE REASON		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	Sample Receipt Conditions				
	(check only one)											Y/N	Y/N	Y/N	
	<input checked="" type="checkbox"/> Investigatory											Y/N	Y/N	Y/N	
	<input type="checkbox"/> Split Comparison											Y/N	Y/N	Y/N	
	<input type="checkbox"/> Split Legal											Y/N	Y/N	Y/N	
<input type="checkbox"/> Special Study				SHIPPING METHOD: (mark as appropriate)		SAMPLER NAME AND SIGNATURE									
<input type="checkbox"/> Plant Ops		UPS COURIER / FEDEX		PRINT Name of SAMPLER:								Temp in DC	Samples on Ice?	Sample intact?	Trip Blank?
<input type="checkbox"/> Oth:		US MAIL		SIGNATURE of SAMPLER:				DATE Signed		Time:					

see original
COC attached
Jul 4-2010

MISSISSIPPI VALLEY AUTHORITY

CHAIN-OF-CUSTODY / Analytical Request Document
 The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

Page: 1 of 1
 Cooler # 1 of 1

RECORD COPY

COC # P1DSED0723Y10A

Required Ship to Lab: Lab Name: RJ Lee Group		Required Project Information: Site ID #: KIF		Required Sampler Information: Sampler: <i>Chris Freshour</i>		TAT: Standard 5 day <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Mark One	
Address: 350 Hochberg Road Monroeville, PA 15146		Project #: Kingston Fossil Plant		Sampling Company: TVA - Kingston Fossil Ash Recovery Operations			
Lab PM: Keith Rickabaugh		Site Address: 714 Swan Pond Rd		Address: 714 Swan Pond Road			
Phone/Fax: 724-387-1641		City: Harriman		City/State: Harriman, TN		Phone #: 865.717.6642	
Lab PM email:		State, Zip: TN, 37740		Reimbursement project? <input type="checkbox"/>		Non-reimbursement project? <input type="checkbox"/> Mark one	
Applicable Lab Quote #:		Site PM Name: Bill Rogers		Send EDD to: TVAEDD@envsttd.com			
		Phone/Fax: 865.717.1627		CC Hardcopy report to:			
		Site PM Email: wjrogers@tva.gov		CC Hardcopy report to:			

1
2
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12

ITEM #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth		MATRIX CODE	G-GRAB	C-COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/Lab Sample I.D.	None	None
			Start Depth	End Depth										
1	KIF-EEMBAY_GRID 46 SED-042310	EEMBAY_GRID 46	0	3	SED	G	N	04/23/2010	1011	1	(4oz)			
2	KIF-EEMBAY_GRID 46A SED-042310	EEMBAY_GRID 46A	3	12	SED	G	N	04/23/2010	1011	1		X		
3	KIF-EEMBAY_GRID 43 SED-042310	EEMBAY_GRID 43	0	2	SED	G	N	04/23/2010	1030	1		X		
4	KIF-EEMBAY_GRID 43A SED-042310	EEMBAY_GRID 43A	2	12	SED	G	N	04/23/2010	1030	1		X		
5	KIF-EEMBAY_GRID 40 SED-042310	EEMBAY_GRID 40	0	4.5	SED	G	N	04/23/2010	1046	1		X		
6	KIF-EEMBAY_GRID 40A SED-042310	EEMBAY_GRID 40A	4.5	12	SED	G	N	04/23/2010	1046	1		X		
7	KIF-EEMBAY_GRID 38 SED-042310	EEMBAY_GRID 38	0	6.5	SED	G	N	04/23/2010	1108	1		X		
8	KIF-EEMBAY_GRID 38A SED-042310	EEMBAY_GRID 38A	6.5	12	SED	G	N	04/23/2010	1108	1		X		
9	KIF-EEMBAY_GRID 36 SED-042310	EEMBAY_GRID 36	0	8	SED	G	N	04/23/2010	1123	1		X		
10	KIF-EEMBAY_GRID 36A SED-042310	EEMBAY_GRID 36A	8	12	SED	G	N	04/23/2010	1123	1		X		
11	KIF-EEMBAY_GRID 44 SED-042310	EEMBAY_GRID 44	0	12	SED	G	N	04/23/2010	1338	1		X		
12	KIF-EEMBAY_GRID 44A SED-042310	EEMBAY_GRID 44A	0	12	SED	G	N	04/23/2010	1338	1		X		

Additional Comments/Special Instructions: Note: These sample locations are not currently in <u>MAY-23-10</u> Equis. The COC was hand typed for legibility: <u>MAY-23-10</u> Report on dry-weight basis: <u>MAY-23-10</u> UPS Tracking No: <u>1Z 93A EK201 9585 3370</u>	SAMPLE REASON (check only one)		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	Sample Receipt Conditions				
	<input checked="" type="checkbox"/> Investigatory		<i>Chris Freshour / RSE</i>		<u>04/23/10</u>	<u>1430</u>	<i>Walter Martin / RSI</i>		<u>4/23/10</u>	<u>1430</u>		Y/N	Y/N	Y/N	
	<input type="checkbox"/> Split Comparison		<i>Walter Martin / RSI</i>		<u>4/20/10</u>	<u>1455</u>	<i>ASH / J. Moore / JLG</i>		<u>04/27/10</u>	<u>1030</u>		Y/N	Y/N	Y/N	
	<input type="checkbox"/> Split Legal											Y/N	Y/N	Y/N	
<input type="checkbox"/> Special Study		SHIPPING METHOD: (mark as appropriate)		SAMPLER NAME AND SIGNATURE											
<input type="checkbox"/> Plant Ops		UPS COURIER / FEDEX		PRINT Name of SAMPLER:		<i>Chris Freshour / RSE</i>									
<input type="checkbox"/> Oth:		US MAIL		SIGNATURE of SAMPLER:		<i>Chris Freshour</i>		DATE Signed: <u>4-23-10</u>		Time: <u>1045</u>		Temp in OC	Samples on Ice?	Sample Intact?	Trip Blank?



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

Page: 1 of 1
Cooler #: L or L

COC # P1DSED0423Y10A Rev 1
P1DSED0423Y10A
Jul 4-27-10

Required Ship to Lab:		Required Project Information:		Required Sampler Information:	
Lab Name: RJ Lee Group, Inc.	Site ID #: KIF	Sampler: Chris Freshour	TAT: Standard 5 day <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Mark One		
Address: 350 Hochberg Road Monroeville, PA 15146	Project #: Kingston Fossil Plant	Sampling Company: TVA - Kingston Fossil Ash Recovery Operations			
Lab PM: Keith Rickabough	Site Address: 714 Swan Pond Rd	Address:			
Phone/Fax: 724-387-1841	City: Hartman	City/State:	Phone #:		
Lab PM email:	State, Zip:	Reimbursement project?	Non-reimbursement project?	Mark one	
Applicable Lab Quote #:	Site PM Name: Bill Rogers	Send EDD to: TVAEDD@envstd.com			
	Phone/Fax: 865-717-1627	CC Hardcopy report to:			
	Site PM Email: wrogers@tva.gov	CC Hardcopy report to:			

ITEM #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Depth Unit:		MATRIX CODE	G-GRAB C-COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	NO. OF CONTAINERS	Comments/Lab Sample I.D.	None	PLW	ASH	LS
			Start Depth	End Depth											
	KIF-EEMBAY_GRID_38-SED-042310	EEMBAY_GRID_38	0	8	SED	G	N	04/23/2010	11 23	1					
	KIF-EEMBAY_GRID_36_A-SED-042310	EEMBAY_GRID_36	8	12	SED		N	04/23/2010	11 23	1					
	KIF-EEMBAY_GRID_38-SED-042310	EEMBAY_GRID_38	0	6.5	SED		N	04/23/2010	11 08	1					
	KIF-EEMBAY_GRID_38_A-SED-042310	EEMBAY_GRID_38	6.5	12	SED		N	04/23/2010	11 08	1					
	KIF-EEMBAY_GRID_40-SED-042310	EEMBAY_GRID_40	0	4.5	SED		N	04/23/2010	10 46	1					
	KIF-EEMBAY_GRID_40_A-SED-042310	EEMBAY_GRID_40	4.5	12	SED		N	04/23/2010	10 46	1					
	KIF-EEMBAY_GRID_43-SED-042310	EEMBAY_GRID_43	0	2	SED		N	04/23/2010	10 30	1					
	KIF-EEMBAY_GRID_43_A-SED-042310	EEMBAY_GRID_43	2	12	SED		N	04/23/2010	10 30	1					
	KIF-EEMBAY_GRID_44-SED-042310	EEMBAY_GRID_44	0	12	SED		N	04/23/2010	13 38	1					
	KIF-EEMBAY_GRID_44_A-SED-042310	EEMBAY_GRID_44	0	12	SED		N	04/23/2010	13 38	1					
	KIF-EEMBAY_GRID_46-SED-042310	EEMBAY_GRID_46	0	3	SED		N	04/23/2010	10 11	1					
	KIF-EEMBAY_GRID_46_A-SED-042310	EEMBAY_GRID_46	3	12	SED		N	04/23/2010	10 11	1					

Additional Comments/Special Instructions: USE THE NOMENCLATURE ON THIS COC FOR SAMPLE DOCUMENTATION FOR ALL LABORATORY DOCUMENTATION. THE SAMPLE IDs in this COC replace those in the original, attached COC, P1DSED0423Y10A, Pages 1 of 1. USE THE ORIGINAL, ATTACHED CHAIN TO TRACK CUSTODY.	SAMPLE REASON		REMOVED TO / LABEL / DATE		DATE		TIME		RECEIVED BY		AFFILIATION		DATE		TIME		Sample Receipt Conditions				
	(check only one)																	Y/N	Y/N	Y/N	
	<input checked="" type="checkbox"/> Investigatory																	Y/N	Y/N	Y/N	
	<input type="checkbox"/> Split Comparison																	Y/N	Y/N	Y/N	
	<input type="checkbox"/> Split Legal																	Y/N	Y/N	Y/N	
<input type="checkbox"/> Special Study		SHIPPING METHOD: <input type="checkbox"/> UPS <input type="checkbox"/> COURIER <input type="checkbox"/> FEDEX		SAMPLER NAME AND SIGNATURE		PRINT Name of SAMPLER:		SIGNATURE of SAMPLER:		DATE Signed		TIME:		Temp in OC		Samples on Ice?		Sample Intact?		Trip Blank?	
<input type="checkbox"/> Plant Ops		US MAIL																			
<input type="checkbox"/> Oth:																					

see original COC attached 4/27/10



RJ LeeGroup, Inc.
350 Hochberg Road, Monroeville, PA 15146
Tel: (724) 325-1776 | Fax: (724) 733-1799

Appendix B
Mineral Identification Report

Mineral Identification

Polarized Light Microscopy (PLM) Laboratory Report

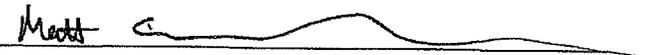
Dr. Bill Rogers
 Tennessee Valley Authority
 Kingston Fossil Plant
 714 Swan Pond Road
 Harriman, TN 37748 United States
 Email: wjrogers@tva.gov
 Main: 256-762-6904

Report Date: 04/29/2010
Sample Received Date: 04/27/2010
RJLG Project: TOH1009525-19
Client Project: COC # P1DSED0423Y10A
Purchase Order: 87083
Analytical Method: Fly Ash Determination by PLM

Customer Sample # :	RJLG ID	Date Analyzed	Date Collected	Area % Fly Ash	Non-Fly Ash Components	Comments
KIF-EEMBAY_GRID_36- SED-042310	10102907	04/28/2010	04/23/2010	<1%	Clay Opaques Organic Particulate Quartz	Rocky tan material.
KIF- EEMBAY_GRID_36_A- SED-042310	10102908	04/28/2010	04/23/2010	ND	Clay Opaques Organic Particulate Quartz	Brownish-orange rocky material.
KIF-EEMBAY_GRID_38- SED-042310	10102909	04/28/2010	04/23/2010	6%	Clay Opaques Organic Particulate Quartz	Light tan dense material.
KIF- EEMBAY_GRID_38_A- SED-042310	10102910	04/28/2010	04/23/2010	ND	Quartz Coal	Light tan-colored sample.
KIF-EEMBAY_GRID_40- SED-042310	10102911	04/28/2010	04/23/2010	9%	Opaques Organic Particulate Quartz	Gray/tan rocky material.
KIF- EEMBAY_GRID_40_A- SED-042310	10102912	04/28/2010	04/23/2010	5%	Organic Particulate Quartz Coal	Light tan-colored clay.

Customer Sample # :	RJLG ID	Date Analyzed	Date Collected	Area % Fly Ash	Non-Fly Ash Components	Comments
KIF-EEMBAY_GRID_43- SED-042310	10102913	04/28/2010	04/23/2010	11%	Clay Opagues Organic Particulate Quartz Coal	Rocky brown material.
KIF- EEMBAY_GRID_43_A- SED-042310	10102914	04/28/2010	04/23/2010	ND	Organic Particulate Quartz Coal	Light tan to tan-colored sample.
KIF-EEMBAY_GRID_44- AED-042310	10102916	04/28/2010	04/23/2010	10%	Feldspar Opagues Organic Particulate Quartz Coal	Brownish gray-colored sample.
KIF-EEMBAY_GRID_44- SED-042310	10102915	04/28/2010	04/23/2010	19%	Diatoms Opagues Organic Particulate Quartz	Gray dense material.
KIF-EEMBAY_GRID_46- SED-042310	10102917	04/28/2010	04/23/2010	ND	Feldspar Organic Particulate Quartz Coal	Light brown to gray-colored sample.
KIF-EEMBAY_GRID_46- SED-042310_QC1	10102918	04/28/2010	04/23/2010	ND	NA	Passes criteria.
KIF- EEMBAY_GRID_46_A- SED-042310	10102919	04/28/2010	04/23/2010	ND	Feldspar Quartz Coal	Grayish brown-colored sample.

Authorized Signature:



Matthew Sanchez
Manager Optical Group

Disclaimer Notes

- * Samples will be returned to client immediately upon the release of final report.
- * These results are submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which these results are used or interpreted.
- * This test report relates to the items tested.
- * Any reproduction of this document must include the entire document in order for the report to be valid.
- * This report may not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.
- * Sample(s) for this project were analyzed at our: Monroeville, PA (AIHA # 100364, NVLAP # 101208-0, NY ELAP # 10884) facility.
- * If RJ Lee Group, Inc. did not collect the samples analyzed, the verifiability of the laboratory's results is limited to the reported values.
- * For the purposes of this method, Fly Ash is defined as any particle consistent with Coal Ash.

Quartz - Angular anisotropic particulate with low relief.

Feldspar - Angular to blocky anisotropic particulate, low to moderate relief, biaxial, can have polysynthetic twinning.

Clay - Sheet silicates with polycrystalline or display non-uniform extinction with low to moderate relief, and zero to low birefringence. Clay also refers to particles that are less than 2.0 microns.

Opagues - Opaque is a generic term for a particle that does not transmit light. Opaque minerals are distinguished from opaque bottom ash based on morphology of fracture.

Fly Ash - Isotropic to opaque spheres, agglomeration of spheres, and angular ash particles.

Organic Particulate - Pollen, plant and insect matter, and carbonaceous matter.

Carbonates - High birefringent, can be rhombohedral, with high relief.

Diatoms - Silica rich isotropic particles with various morphologies.

Mica - Sheet silicate with moderate to high relief and low birefringence, mono-crystalline, and normal extinction.

Miscellaneous Silicate - Isotropic and anisotropic silicates, with low to high relief, identification unsure and beyond the scope of the method to identify.

Amphibole - Elongated anisotropic particulate with moderate to high relief.

Coal - Irregular to angular particles with moderate opacity, edges and thin particles are reddish brown in color.

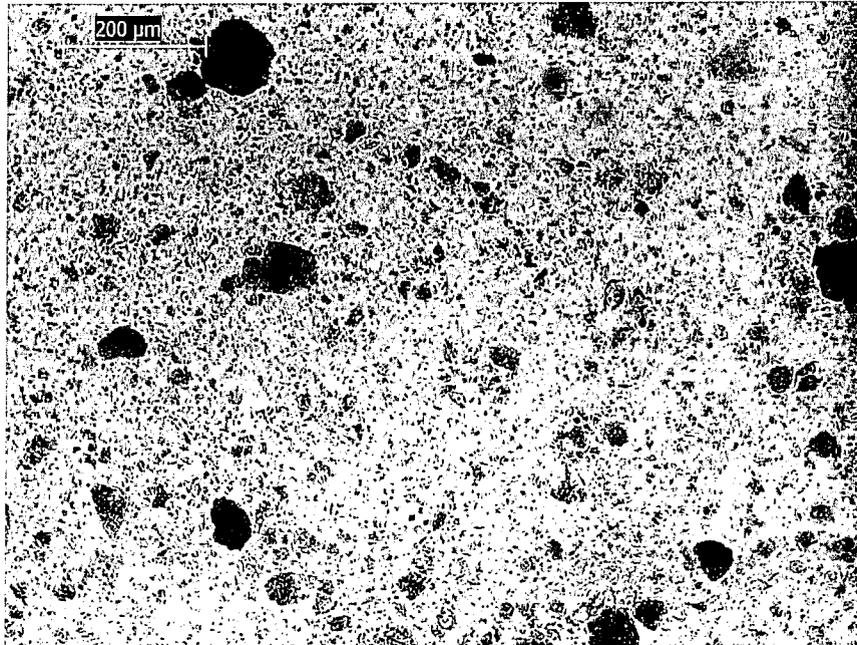
<1% Fly Ash - Fly Ash observed, none counted.



RJ LeeGroup, Inc.
350 Hochberg Road, Monroeville, PA 15146
Tel: (724) 325-1776 | Fax: (724) 733-1799

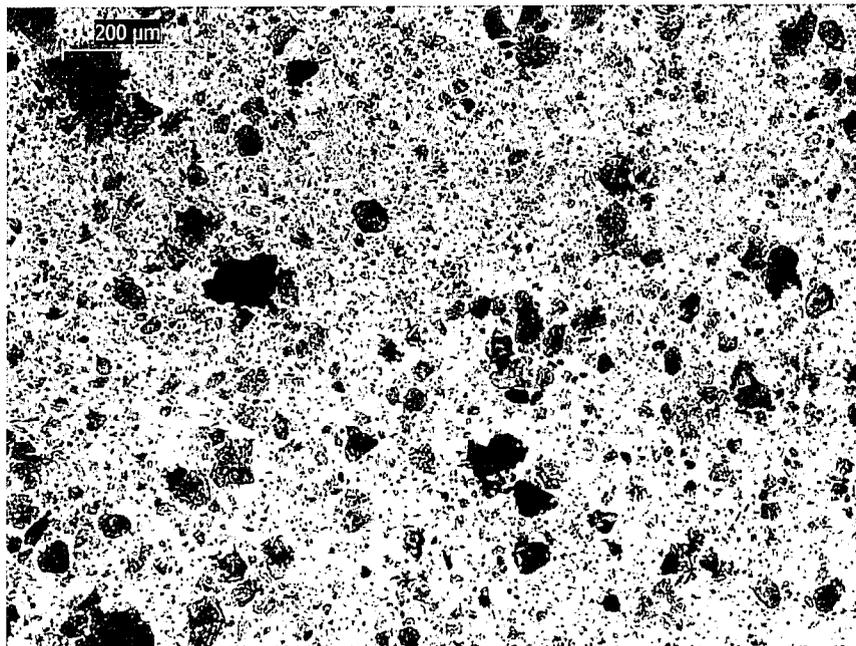
Appendix C

Polarized Light Microscopy Images



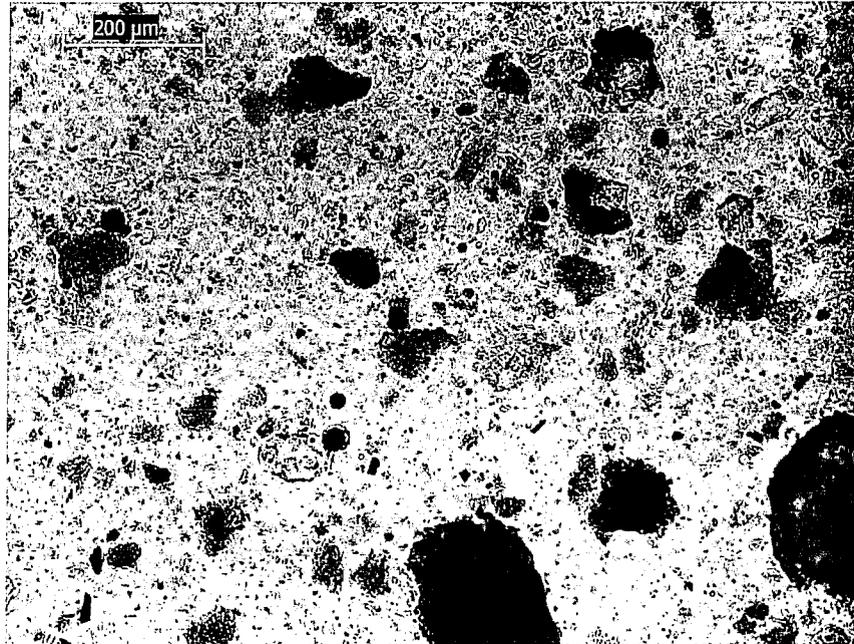
KIF-EEMBAY_GRID_36-SED-042310. RJLG ID 10102907.

Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



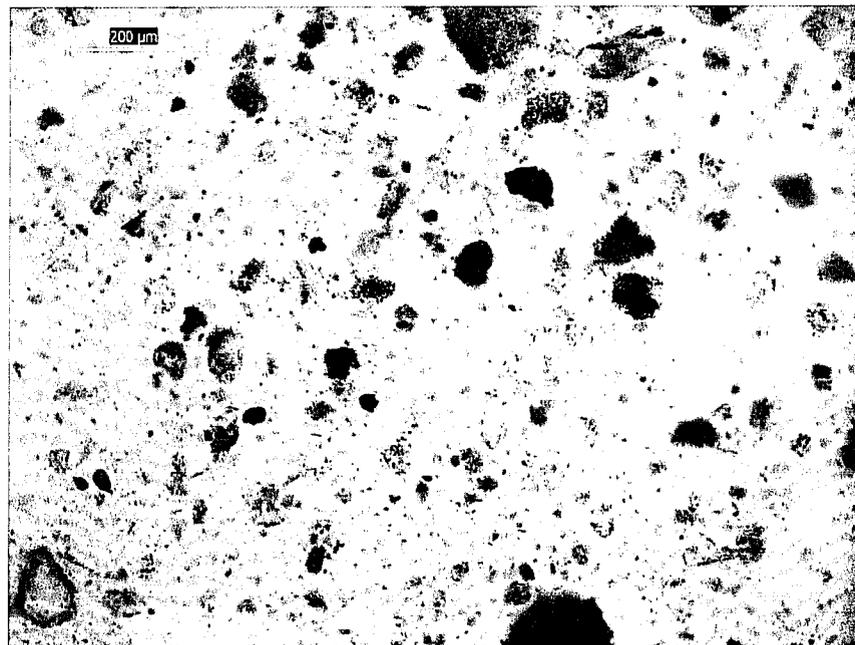
KIF-EEMBAY_GRID_36_A-SED-042310. RJLG ID 10102908.

Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



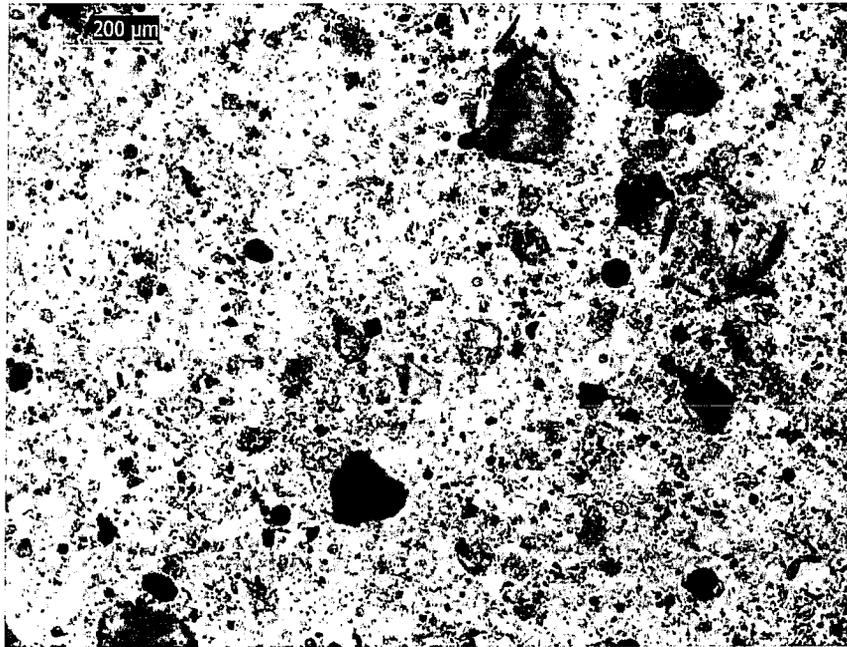
KIF-EEMBAY_GRID_38-SED-042310. RJLG ID 10102909.

Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



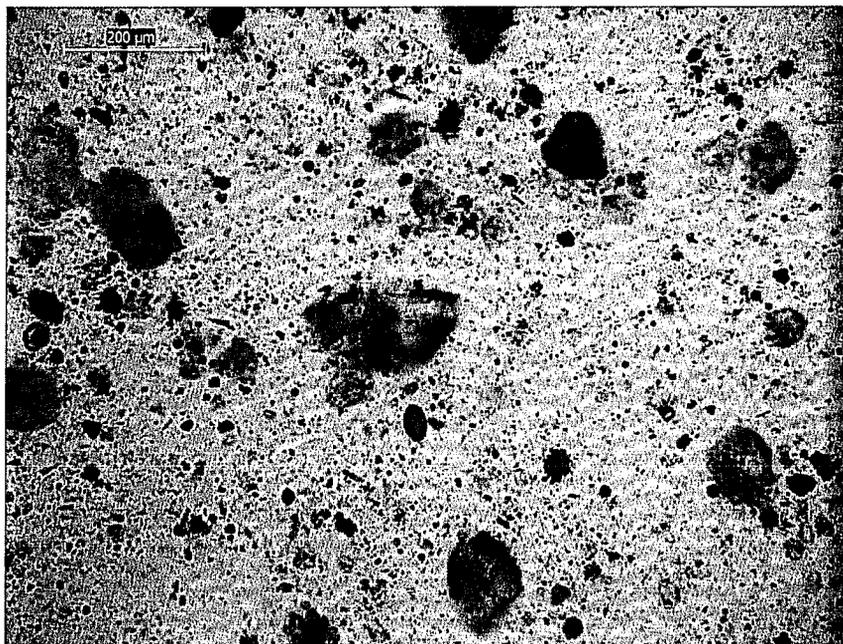
KIF-EEMBAY_GRID_38_A-SED-042310. RJLG ID 10102910.

Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



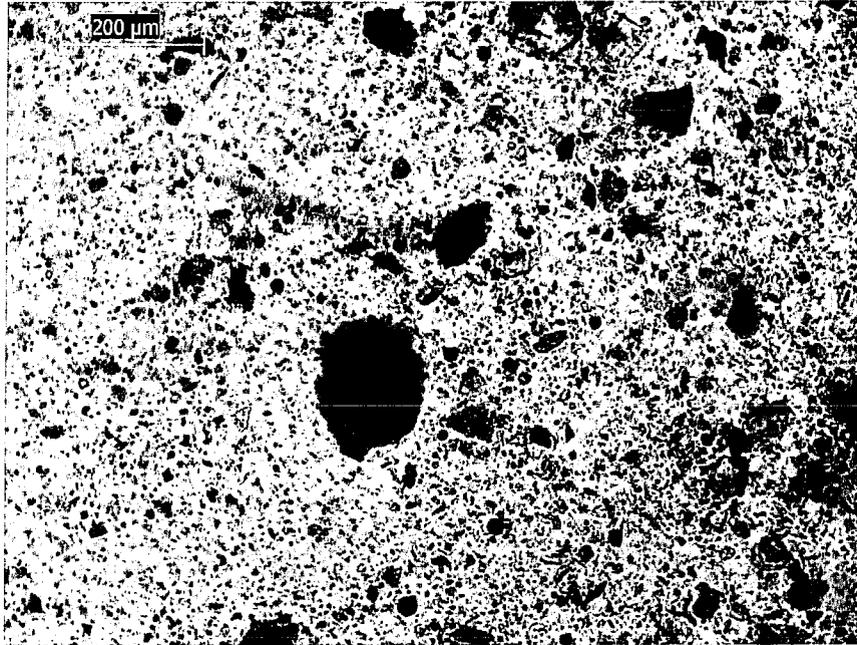
KIF-EEMBAY_GRID_40-SED-042310. RJLG ID 10102911.

Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



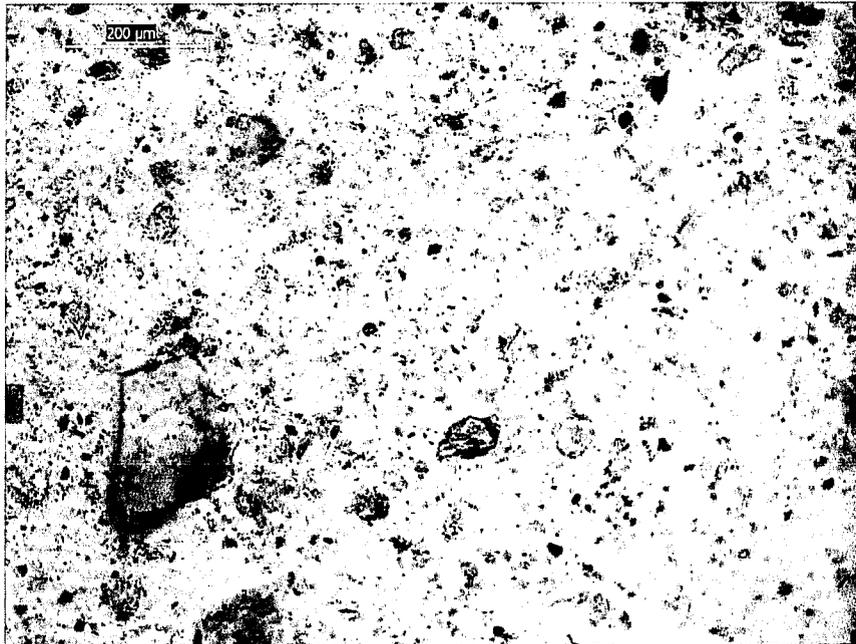
KIF-EEMBAY_GRID_40_A-SED-042310. RJLG ID 10102912.

Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



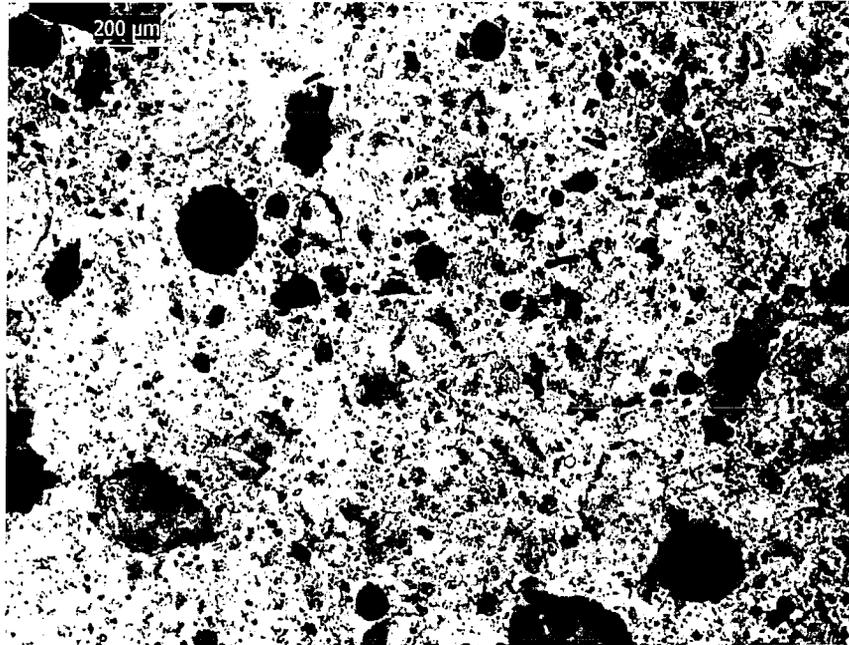
KIF-EEMBAY_GRID_43-SED-042310. RJLG ID 10102913.

Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



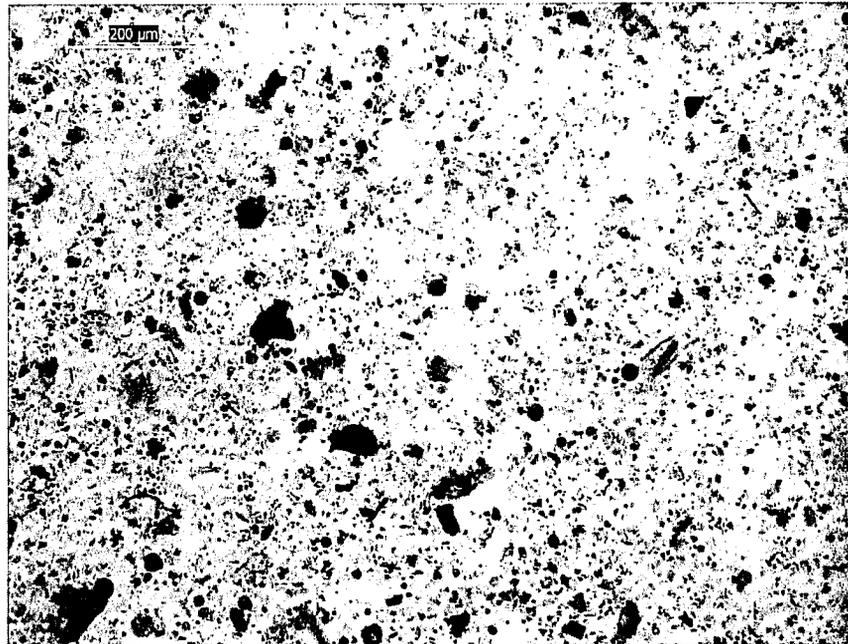
KIF-EEMBAY_GRID_43_A-SED-042310. RJLG ID 10102914.

Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



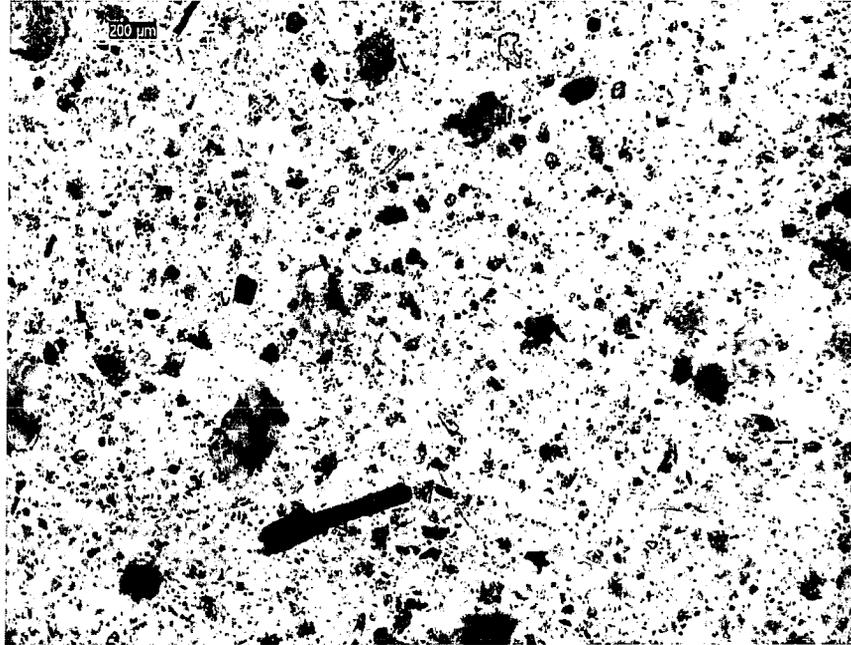
KIF-EEMBAY_GRID_44-SED-042310. RJLG ID 10102915.

Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



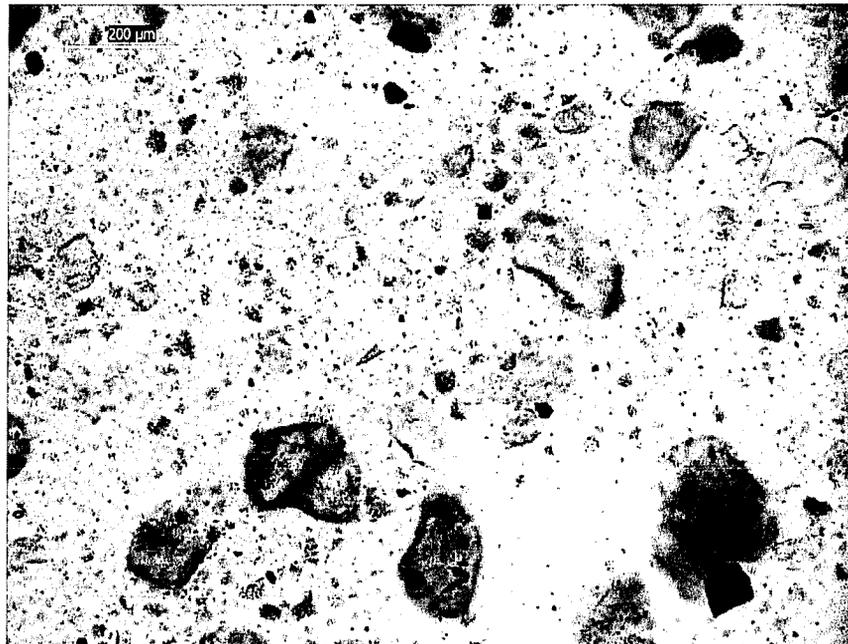
KIF-EEMBAY_GRID_44-AED-042310. RJLG ID 10102916.

Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



KIF-EEMBAY_GRID_46-SED-042310. RJLG ID 10102917.

Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



KIF-EEMBAY_GRID_46_A-SED-042310. RJLG ID 10102919.

Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



May 5, 2010

Dr. William Rogers
Kingston Fossil Plant
714 Swan Pond Road
Harriman, TN 37748

RE: Tennessee Valley Authority – Analytical Report
RJ Lee Group Project Number TOH1009525-21

The RJ Lee Group, Inc. Monroeville laboratory received twenty seven (27) samples on April 28, 2010 associated with Tennessee Valley Authority (TVA) Chain of Custody (COC) number P1DSED0426Y10A. The samples were logged into RJ Lee Group project number TOH1009525-21 and assigned RJLG sample numbers as indicated in Appendix A.

The samples were received in good condition with all custody seals in place and intact. Attached in Appendix A is the signed sample receipt confirmation form, COC, and sample receipt check list.

If you have any question or comments regarding the information contained in this report, please feel free to contact us.

These results are submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which the results are used or interpreted.

Sincerely,

Ryan Hall
Project Manager

RH/am

Attachments: Chain of Custody Forms
Mineral Identification Report



RJ Lee Group, Inc.
350 Hochberg Road, Monroeville, PA 15146
Tel: (724) 325-1776 | Fax: (724) 733-1799

Appendix A
Chain of Custody Forms



RJ Lee Group, Inc.
www.rjlg.com

Chain Of Custody

RJ Lee Group Work Order #: TOH1009525-21

Project Name / Case #: COC # P1DSED0426Y10A

Received From:	Relinquished To:
Mirtha Martin Tennessee Valley Authority 189 Lakeshore Drive Kingston Fossil Plant/TVA Harriman, TN 37748 United States Main: 225-931-5077	RJLee Group, Inc. 350 Hochberg Road Monroeville, PA 15146 United States Main: 724-325-1776 Fax: 724-325-1775

Sample ID	Client Sample ID	Date Received
10103079	KIF-EEMBAY_GRID_01-SED-042610	04/28/2010 10:30 AM EDT
10103080	KIF-EEMBAY_GRID_01-SED-042610_QC1	04/28/2010 10:30 AM EDT
10103081	KIF-EEMBAY_GRID_01_A-SED-042610	04/28/2010 10:30 AM EDT
10103082	KIF-EEMBAY_GRID_28-SED-042610	04/28/2010 10:30 AM EDT
10103083	KIF-EEMBAY_GRID_28_A-SED-042610	04/28/2010 10:30 AM EDT
10103084	KIF-EEMBAY_GRID_29-SED-042610	04/28/2010 10:30 AM EDT
10103085	KIF-EEMBAY_GRID_29_A-SED-042610	04/28/2010 10:30 AM EDT
10103086	KIF-EEMBAY_GRID_30-SED-042610	04/28/2010 10:30 AM EDT
10103087	KIF-EEMBAY_GRID_30_A-SED-042610	04/28/2010 10:30 AM EDT
10103088	KIF-EEMBAY_GRID_31-SED-042610	04/28/2010 10:30 AM EDT
10103089	KIF-EEMBAY_GRID_31_A-SED-042610	04/28/2010 10:30 AM EDT
10103090	KIF-EEMBAY_GRID_32-SED-042610	04/28/2010 10:30 AM EDT
10103091	KIF-EEMBAY_GRID_32_A-SED-042610	04/28/2010 10:30 AM EDT
10103092	KIF-EEMBAY_GRID_32_A-SED-042610_QC1	04/28/2010 10:30 AM EDT
10103093	KIF-EEMBAY_GRID_33-SED-042610	04/28/2010 10:30 AM EDT
10103094	KIF-EEMBAY_GRID_33_A-SED-042610	04/28/2010 10:30 AM EDT
10103095	KIF-EEMBAY_GRID_33_B-SED-042610	04/28/2010 10:30 AM EDT
10103096	KIF-EEMBAY_GRID_34-SED-042610	04/28/2010 10:30 AM EDT
10103097	KIF-EEMBAY_GRID_35-SED-042610	04/28/2010 10:30 AM EDT
10103098	KIF-EEMBAY_GRID_35_A-SED-042610	04/28/2010 10:30 AM EDT
10103099	KIF-EEMBAY_GRID_37-SED-042610	04/28/2010 10:30 AM EDT
10103100	KIF-EEMBAY_GRID_39-SED-042610	04/28/2010 10:30 AM EDT
10103101	KIF-EEMBAY_GRID_39_A-SED-042610	04/28/2010 10:30 AM EDT
10103102	KIF-EEMBAY_GRID_41-AED-042610	04/28/2010 10:30 AM EDT
10103103	KIF-EEMBAY_GRID_41-SED-042610	04/28/2010 10:30 AM EDT
10103104	KIF-EEMBAY_GRID_42-SED-042610	04/28/2010 10:30 AM EDT
10103118	KIF-EEMBAY_GRID_42_A-SED-042610	04/28/2010 10:30 AM EDT
10103119	KIF-EEMBAY_GRID_45-SED-042610	04/28/2010 10:30 AM EDT
10103120	KIF-EEMBAY_GRID_45_A-SED-042610	04/28/2010 10:30 AM EDT
10103121	KIF-EEMBAY_GRID_45_A-SED-042610_QC1	04/28/2010 10:30 AM EDT

	Received From: Mirtha Martin	<i>Method of Shipment:</i> UPS
	Company: Tennessee Valley Authority	Date: 04/28/2010
	Received By: Ashley Moore	<i>Package Condition Upon Receipt:</i> Sealed
	Company: RJ Lee Group, Inc.	Date: 04/28/2010

	Relinquished	<i>Method of Shipment:</i>
	Company:	Date:
	Received By:	<i>Package Condition Upon Receipt:</i>
	Company:	Date:

	Relinquished	<i>Method of Shipment:</i>
	Company:	Date:
	Received By:	<i>Package Condition Upon Receipt:</i>
	Company:	Date:

**RJ Lee Group
Sample Receipt and Log in Check List**

Client:	TVA	Date Received:	4/28/2010	Log in Date:	4/28/2010
Time Received:	10:30 AM	By:	Ashley Moore	COC#:	P1DSED0426Y10A
Project:	TOH1009525	# Coolers Received:	1	Means of Shipment:	UPS
Air Bill:	1Z939EX20190153260				

As Received Screen	Yes	No	Comments
Were the Coolers received in good condition?	✓		
Was there evidence of tampering?		✓	
Are Custody Seals intact and in good condition?	✓		
Were Coolers received between 2 and 4 degrees C?	✓		N/A
Were all samples intact?	✓		
Were all samples accurately labeled?	✓		
Was the COC received in good condition?	✓		
Did the sample ID on COC match the ID on the sample jars?	✓		
Were there any discrepancies among samples and COC?		✓	
Is the COC completely filled out?	✓		
Was the COC relinquished properly?	✓		

List any anomalies associated with Sample Receipt

N/A

Analyst Signature: Ashley Moore / RJLG 04-29-10

Manager Signature: [Signature] 04/29/10

CHAIN-OF-CUSTODY / Analytical Request Document

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COC # P1DSED0426Y10A

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Required Ship to Lab:		Required Project Information:		Required Sampler Information:	
Lab Name: RJ Lee Group	Site ID #: KIF	Project #	Kingston Fossil Plant	Sampler: <i>Stacey R. Goss</i>	TAT: Standard 5 day <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Mark One <input type="checkbox"/>
Address: 350 Hochberg Road Monroeville, PA 15146	Site Address: 714 Swan Pond Rd	City: Harriman	State, Zip: TN, 37748	Sampling Company: TVA - Kingston Fossil Ash Recovery Operations	Address: 714 Swan Pond Road
Lab PM: Keith Rickabaugh	City: Harriman	State, Zip: TN, 37748	Reimbursement project? <input type="checkbox"/>	City/State: Harriman, TN	Phone #: 865.717.6542
Phone/Fax: 724-387-1841	Site PM Name: Bill Rogers	Send EDD to: TVAEDD@envstd.com	Non-reimbursement project? <input type="checkbox"/>	Mark one	
Lab PM email:	Phone/Fax: 865.717.1627	CC Hardcopy report to:			
Applicable Lab Quote #:	Site PM Email: wjrogers@tva.gov	CC Hardcopy report to:			

ITEM #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth		MATRIX CODE	G=GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	#OF CONTAINERS	Comments/Lab Sample I.D.	ANALYSIS PLUM_ASH_S	None
			Start Depth	End Depth									
1	KIF-EEMBAY_GRID 31.A-SED-042610	EEMBAY_GRID 31.A	1.5	12	SED	G	N	04/26/10 04/23/2010	1509	1	(4oz)	X	
2	KIF-EEMBAY_GRID 29-SED-042610	EEMBAY_GRID 29	0	9	SED	G	N	04/26/10 04/23/2010	1515	1		X	
3	KIF-EEMBAY_GRID 29.A-SED-042610	EEMBAY_GRID 29.A	9	12	SED	G	N	04/26/10 04/23/2010	1515	1		X	
4	KIF-EEMBAY_GRID SED	EEMBAY_GRID			SED	G	N	04/23/2010			04/23/2010	X	
5	KIF-EEMBAY_GRID SED	EEMBAY_GRID			SED	G	N	04/23/2010			04/23/2010	X	
6	KIF-EEMBAY_GRID SED	EEMBAY_GRID			SED	G	N	04/23/2010			04/23/2010	X	
7	KIF-EEMBAY_GRID SED	EEMBAY_GRID			SED	G	N	04/23/2010			04/23/2010	X	
8	KIF-EEMBAY_GRID SED	EEMBAY_GRID			SED	G	N	04/23/2010			04/23/2010	X	
9	KIF-EEMBAY_GRID SED	EEMBAY_GRID			SED	G	N	04/23/2010			04/23/2010	X	
10	KIF-EEMBAY_GRID SED	EEMBAY_GRID			SED	G	N	04/23/2010			04/23/2010	X	
11	KIF-EEMBAY_GRID SED	EEMBAY_GRID			SED	G	N	04/23/2010			04/23/2010	X	
12	KIF-EEMBAY_GRID SED	EEMBAY_GRID			SED	G	N	04/23/2010			04/23/2010	X	

Additional Comments/Special Instructions:		SAMPLE REASON		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		Sample Receipt Conditions		
Notes: These sample locations are not currently in Equis. The COC was hand typed for legibility.		Investigatory		Stacey R. Goss / RSI		04/26/10		1509		Lyntha Martin / RSI		4/26/10		1516		Y/N Y/N Y/N		
Report on dry weight basis.		Split Comparison		Lyntha Martin / RSI		4/27/10		1506		Ashley Moore / RSI		4/28/10		1030		Y/N Y/N Y/N		
Sample Team: Stacey Goss RSI, Martine Greer RSI		Split Legal														Y/N Y/N Y/N		
UPS Tracking No: 12939 EX201 9D15 3260		Special Study		SHIPPING METHOD: (mark as appropriate)		UPS		COURIER / FEDEX		SAMPLER NAME AND SIGNATURE		PRINT Name of SAMPLER:		Stacey R. Goss		Temp in OC		
		Plant Ops		US MAIL		SIGNATURE of SAMPLER:		Stacey R. Goss		DATE Signed		04/26/10		Time: 1509		Samples on Ice? Sample intact? Trip Blank?		

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RECORD COPY

COC # P1DSED⁴²⁶ Y10A

Required Ship to Lab:		Required Project Information:		Required Sampler Information:	
Lab Name: R.J Lee Group	Site ID #: KIF	Sampler: <i>Stacey R. Goss</i>	TAT: Standard 5 day	<input checked="" type="checkbox"/> Rush	Mark One
Address: 350 Hochberg Road Monroeville, PA 15146	Project #	Kingston Fossil Plant	Sampling Company: TVA - Kingston Fossil Ash Recovery Operations		
	Site Address: 714 Swan Pond Rd	City/State: Harriman, TN	Address: 714 Swan Pond Road	Phone #: 865.717.6542	
Lab PM: Keith Rickabaugh	City: Harriman	State, Zip: TN, 37748	Reimbursement project?	Non-reimbursement project?	Mark one
Phone/Fax: 724-387-1841	Site PM Name: Bill Rogers	Send EDD to: TVAEDD@envstid.com	CC Hardcopy report to		
Lab PM email	Phone/Fax: 865.717.1627	CC Hardcopy report to			
Applicable Lab Quote #:	Site PM Email: wjrogers@tva.gov				

ITEM #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth		MATRIX CODE	G-GRAB	C-COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/Lab Sample I.D.	Analyte	PLM_ASH_\$
			Start Depth	End Depth										
1	KIF-EEMBAY_GRID_32 - SED-042610	EEMBAY_GRID_32	0	7	SED	G	N	04/26/10	1202	1	(4oz)			
2	KIF-EEMBAY_GRID_32.A - SED-042610	EEMBAY_GRID_32.A	3	12	SED	G	N	04/23/2010	1202	1			X	
3	KIF-EEMBAY_GRID_28 - SED-042610	EEMBAY_GRID_28	0	4	SED	G	N	04/23/2010	1347	1			X	
4	KIF-EEMBAY_GRID_28.A - SED-042610	EEMBAY_GRID_28.A	4	12	SED	G	N	04/23/2010	1347	1			X	
5	KIF-EEMBAY_GRID_30 - SED-042610	EEMBAY_GRID_30	0	8	SED	G	N	04/23/2010	1404	1			X	
6	KIF-EEMBAY_GRID_30.A - SED-042610	EEMBAY_GRID_30.A	8	12	SED	G	N	04/23/2010	1404	1			X	
7	KIF-EEMBAY_GRID_35 - SED-042610	EEMBAY_GRID_35	0	6	SED	G	N	04/23/2010	1420	1			X	
8	KIF-EEMBAY_GRID_35.A - SED-042610	EEMBAY_GRID_35.A	6	12	SED	G	N	04/23/2010	1420	1			X	
9	KIF-EEMBAY_GRID_33 - SED-042610	EEMBAY_GRID_33	0	4	SED	G	N	04/23/2010	1441	1			X	
10	KIF-EEMBAY_GRID_33.A - SED-042610	EEMBAY_GRID_33.A	4	6.5	SED	G	N	04/23/2010	1441	1			X	
11	KIF-EEMBAY_GRID_33.B - SED-042610	EEMBAY_GRID_33.B	6.5	12	SED	G	N	04/23/2010	1441	1			X	
12	KIF-EEMBAY_GRID_31 - SED-042610	EEMBAY_GRID_31	0	1.5	SED	G	N	04/23/2010	1509	1			X	

Additional Comments/Special Instructions:		SAMPLE REASON		RELINQUISHED BY/AFFILIATION		DATE	TIME	ACCEPTED BY/AFFILIATION		DATE	TIME	Sample Receipt Conditions				
Note: These sample locations are not currently in Equis. The COC was hand-typed for legibility.		(check only one)		<i>Stacey R. Goss / RSI</i>		04/26/10	1506	<i>Martha Martin / RSI</i>		4/27/10	15510		Y/N	Y/N	Y/N	
Report on dry weight basis.		<input checked="" type="checkbox"/> Investigatory		<i>Martha Martin / RSI</i>		4/27/10	1506	<i>ASHLY MOORE / RSLB</i>		04/28/10	1030		Y/N	Y/N	Y/N	
Sample Team: <i>Stacey Goss RSI</i>		<input type="checkbox"/> Split Comparison											Y/N	Y/N	Y/N	
<i>Marke Carter RSI</i>		<input type="checkbox"/> Split Legal											Y/N	Y/N	Y/N	
For UPS Tracking No. See pg. 1 of 3		<input type="checkbox"/> Special Study		SHIPPING METHOD: (mark as appropriate)		SAMPLER NAME AND SIGNATURE							Temp in OC	Samples on Ice?	Sample intact?	Trip Blank?
		<input type="checkbox"/> Plant Ops		<input checked="" type="checkbox"/> UPS <input type="checkbox"/> COURIER <input type="checkbox"/> FEDEX		PRINT Name of SAMPLER: <i>Stacey R. Goss</i>		SIGNATURE of SAMPLER: <i>Stacey R. Goss</i>		DATE Signed: 04/26/10	Time: 1202					
		<input type="checkbox"/> Oth:		US MAIL												

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COC # P1DSED 2726 Y10A



Required Ship to Lab:		Required Project Information:		Required Sampler Information:		TAT: Standard 5 day <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Mark One <input type="checkbox"/>	
Lab Name: RJ Lee Group	Site ID #: KIF	Address: 350 Hochberg Road Monroeville, PA 15146	Project #: Kingston Fossil Plant	Sampler: <u>Stacey R. Goss</u>	Sampling Company: TVA - Kingston Fossil Ash Recovery Operations	Address: 714 Swan Pond Road	
Lab PM: Keith Rickabaugh	City: Harriman	State, Zip: TN, 37748	Site Address: 714 Swan Pond Rd	City/State: Harriman, TN	Phone #: 865.717.6542	Reimbursement project? <input type="checkbox"/>	Non-reimbursement project? <input type="checkbox"/> Mark one <input type="checkbox"/>
Phone/Fax: 724-387-1841	Site PM Name: Bill Rogers	Phone/Fax: 865.717.1627	Site PM Email: wjrogers@tva.gov	Send EDD to: TVAEDD@envstd.com	CC Hardcopy report to:		
Applicable Lab Quote #:				CC Hardcopy report to:			

ITEM #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth		MATRIX CODE	G-GRAB	C-COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/Lab Sample I.D.	Process		Analysis	
			Start Depth	End Depth									None	None	PLM_ASHLS	
1	KIF-EEMBAY_GRID <u>1</u> SED <u>042610</u>	EEMBAY_GRID <u>1</u>	0	2	SED	G	N	<u>04/26/10</u> 04/23/2010	0856	1	(4oz)		X			
2	KIF-EEMBAY_GRID <u>1.A</u> SED <u>042610</u>	EEMBAY_GRID <u>1.A</u>	2	12	SED	G	N	04/23/2010	0856	1			X			
3	KIF-EEMBAY_GRID <u>45</u> SED <u>042610</u>	EEMBAY_GRID <u>45</u>	0	6.5	SED	G	N	04/23/2010	0912	1			X			
4	KIF-EEMBAY_GRID <u>45.A</u> SED <u>042610</u>	EEMBAY_GRID <u>45.A</u>	6.5	12	SED	G	N	04/23/2010	0912	1			X			
5	KIF-EEMBAY_GRID <u>42</u> SED <u>042610</u>	EEMBAY_GRID <u>42</u>	0	3	SED	G	N	04/23/2010	0927	1			X			
6	KIF-EEMBAY_GRID <u>42.A</u> SED <u>042610</u>	EEMBAY_GRID <u>42.A</u>	3	12	SED	G	N	04/23/2010	0927	1			X			
7	KIF-EEMBAY_GRID <u>41</u> SED <u>042610</u>	EEMBAY_GRID <u>41</u>	0	12	SED	G	N	04/23/2010	0945	1			X			
8	KIF-EEMBAY_GRID <u>41</u> SED <u>042610</u>	EEMBAY_GRID <u>41</u>	0	12	SED	G	N	04/23/2010	0945	1			X			
9	KIF-EEMBAY_GRID <u>37</u> SED <u>042610</u>	EEMBAY_GRID <u>37</u>	0	12	SED	G	N	04/23/2010	0956	1			X			
10	KIF-EEMBAY_GRID <u>39</u> SED <u>042610</u>	EEMBAY_GRID <u>39</u>	0	4.5	SED	G	N	04/23/2010	1006	1			X			
11	KIF-EEMBAY_GRID <u>39.A</u> SED <u>042610</u>	EEMBAY_GRID <u>39.A</u>	4.5	12	SED	G	N	04/23/2010	1006	1			X			
12	KIF-EEMBAY_GRID <u>34</u> SED <u>042610</u>	EEMBAY_GRID <u>34</u>	0	12	SED	G	N	04/23/2010	1151	1			X			

Additional Comments/Special Instructions:		SAMPLE REASON		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		Sample Receipt Conditions			
Note: These sample locations are not currently in Equip. - The GOC was hand typed for legibility. Report on dry weight basis. Sample Team: Stacey Goss RFI Mark Green RFI For UPS Tracking No. see pg. lot 3.		10 (check only one)		Stacey R. Goss / RSI		04/26/10		1556		Linda Martin / RSI		4/26/10		1556			Y/N	Y/N	Y/N
		<input checked="" type="checkbox"/> Investigatory		Linda Martin / RSI		4/27/10		1506		RSN / Moore / RSI		4/28/10		10:30			Y/N	Y/N	Y/N
		<input type="checkbox"/> Split Comparison															Y/N	Y/N	Y/N
		<input type="checkbox"/> Split Legal															Y/N	Y/N	Y/N
		<input type="checkbox"/> Special Study															Y/N	Y/N	Y/N
<input type="checkbox"/> Plant Ops				SHIPPING METHOD: (mark as appropriate)		UPS		COURIER / FEDEX		SAMPLER NAME AND SIGNATURE		Stacey R. Goss		DATE Signed		04.26.10		Time: 0856	
<input type="checkbox"/> Oth:				US MAIL						PRINT Name of SAMPLER:		Stacey R. Goss							
										SIGNATURE OF SAMPLER:		[Signature]							

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COC # P1DSED0426Y10A

P1DSED0426Y10A

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Required Ship to Lab:		Required Project Information:		Required Sampler Information:			
Lab Name: R J Lee Group, Inc.	Site ID #: KIF	Project #		Sampler: Stacey R Goss	TAT: Standard 5 day. <input checked="" type="checkbox"/> Rush		Mark One
Address: 350 Hochberg Road Monroeville, PA 15146		Kingston Fossil Plant		Sampling Company: TVA-Kingston Fossil Ash Recovery Operations			
		Site Address: 714 Swan Pond Rd		Address: 714 Swan Pond Road			
Lab PM: Keith Rickabough	City: Harriman	State: TN	Zip:	City/State: Harriman, TN	Phone #: 865-717-6542		
Phone/Fax: 724-387-1841	Site PM Name: Bill Rogers			Reimbursement project? <input type="checkbox"/>	Non-reimbursement project? <input type="checkbox"/>	Mark one	
Lab PM email:	Phone/Fax: 865-717-1627			Send EDD to: TVAEDD@erwstd.com			
Applicable Lab Quote #:	Site PM Email: wjrogers@tva.gov			CC Hardcopy report to:			
				CC Hardcopy report to:			

ITEM #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Depth Unit: IN		MATRIX CODE	G=GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME		# OF CONTAINERS	Comments/Lab Sample I.D.	Filter	N	PLM_ASH_S
			Start Depth	End Depth					Hour	Minute					
1	KIF-EEMBAY_GRID_01-SED-042610 ✓	EEMBAY_GRID_01	0	2	SED	G	N	04/26/2010	08	56	1				
2	KIF-EEMBAY_GRID_01_A-SED-042610 ✓	EEMBAY_GRID_01	2	12	SED		N	04/26/2010	08	56	1				
3	KIF-EEMBAY_GRID_28-SED-042610 ✓	EEMBAY_GRID_28	0	4	SED		N	04/26/2010	13	47	1				
4	KIF-EEMBAY_GRID_28_A-SED-042610 ✓	EEMBAY_GRID_28	4	12	SED		N	04/26/2010	13	47	1				
5	KIF-EEMBAY_GRID_29-SED-042610 ✓	EEMBAY_GRID_29	0	9	SED		N	04/26/2010	15	15	1				
6	KIF-EEMBAY_GRID_29_A-SED-042610 ✓	EEMBAY_GRID_29	9	12	SED		N	04/26/2010	15	15	1				
7	KIF-EEMBAY_GRID_30-SED-042610 ✓	EEMBAY_GRID_30	0	8	SED		N	04/26/2010	14	04	1				
8	KIF-EEMBAY_GRID_30_A-SED-042610 ✓	EEMBAY_GRID_30	8	12	SED		N	04/26/2010	14	04	1				
9	KIF-EEMBAY_GRID_31-SED-042610 ✓	EEMBAY_GRID_31	0	1.5	SED		N	04/26/2010	15	09	1				
10	KIF-EEMBAY_GRID_31_A-SED-042610 ✓	EEMBAY_GRID_31	1.5	12	SED		N	04/26/2010	15	09	1				
11	KIF-EEMBAY_GRID_32-SED-042610 ✓	EEMBAY_GRID_32	0	3	SED		N	04/26/2010	12	02	1				
12	KIF-EEMBAY_GRID_32_A-SED-042610 ✓	EEMBAY_GRID_32	3	12	SED		N	04/26/2010	12	02	1				

Additional Comments/Special Instructions:		SAMPLE REASON		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	Sample Receipt Conditions		
USE THE NOMENCLATURE ON THIS COC FOR SAMPLE DOCUMENTATION FOR ALL LABORATORY DOCUMENTATION. THE SAMPLE IDs on this COC replace those on the 3-page attached COC, P1DSED0426Y10A. USE THE ORIGINAL, ATTACHED 3-PAGE CHAIN TO TRACK CUSTODY.		(check only one)										Y/N	Y/N	Y/N
		<input checked="" type="checkbox"/> Investigatory										Y/N	Y/N	Y/N
		<input type="checkbox"/> Split Comparison										Y/N	Y/N	Y/N
		<input type="checkbox"/> Split Legal										Y/N	Y/N	Y/N
		<input type="checkbox"/> Special Study				SHIPPING METHOD: (mark as appropriate)		SAMPLER NAME AND SIGNATURE						
<input type="checkbox"/> Plant Ops		UPS COURIER / FEDEX		PRINT Name of SAMPLER:						Temp in OC	Samples on Ice?	Sample Intact?	Trip Blank?	
<input type="checkbox"/> Oth:		US MAIL		SIGNATURE of SAMPLER:				DATE Signed						Time:

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COC # P1DSED0426Y10A

P1DSED0426Y10A

RECORD COPY

Required Ship to Lab:		Required Project Information:		Required Sampler Information:		TAT: Standard 5 day		Rush		Mark One										
Lab Name: RJ Lee Group, Inc.		Site ID #: KIF		Sampler: Stacey R Goss		<input checked="" type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>										
Address: 350 Hochberg Road Monroeville, PA 15146		Project #: Kingslon Fossil Plant		Sampling Company: TVA-Kingston Fossil Ash Recovery Operations																
		Site Address: 714 Swan Pond Rd		Address: 714 Swan Pond Road																
Lab PM: Keith Ricketts		City: Harriman		City/State: Harriman, TN		Phone #: 865-717-6542														
Phone/Fax: 724-387-1841		State, Zip:		Reimbursement project?		Non-reimbursement project?				Mark one										
Lab PM email:		Site PM Name: Bill Rogers		Send EDD to: TVAEDD@envstd.com																
Applicable Lab Quote #:		Phone/Fax: 865-717-1627		CC Hardcopy report to:																
		Site PM Email: wjrogers@tva.gov		CC Hardcopy report to:																
ITEM #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Sample Depth		MATRIX CODE	G=GRAB C=COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME		#OF CONTAINERS	Comments/Lab Sample I.D.	PLM_ASH_S							
			Start Depth	End Depth					Unit	In				DATE	TIME					
1	KIF-EEMBAY_GRID_33-SED-042610 ✓	EEMBAY_GRID_33	0	4	SED	G	N	04/26/2010	14	41	1		X							
2	KIF-EEMBAY_GRID_33_A-SED-042610 ✓	EEMBAY_GRID_33	4	6.5	SED		N	04/26/2010	14	41	1		X							
3	KIF-EEMBAY_GRID_33_B-SED-042610 ✓	EEMBAY_GRID_33	6.5	12	SED		N	04/26/2010	14	41	1		X							
4	KIF-EEMBAY_GRID_34-SED-042610 ✓	EEMBAY_GRID_34	0	12	SED		N	04/26/2010	11	51	1		X							
5	KIF-EEMBAY_GRID_35-SED-042610 ✓	EEMBAY_GRID_35	0	6	SED		N	04/26/2010	14	20	1		X							
6	KIF-EEMBAY_GRID_35_A-SED-042610 ✓	EEMBAY_GRID_35	6	12	SED		N	04/26/2010	14	20	1		X							
7	KIF-EEMBAY_GRID_37-SED-042610 ✓	EEMBAY_GRID_37	0	12	SED		N	04/26/2010	09	56	1		X							
8	KIF-EEMBAY_GRID_39-SED-042610 ✓	EEMBAY_GRID_39	0	4.5	SED		N	04/26/2010	10	06	1		X							
9	KIF-EEMBAY_GRID_39_A-SED-042610 ✓	EEMBAY_GRID_39	4.5	12	SED		N	04/26/2010	10	06	1		X							
10	KIF-EEMBAY_GRID_41-AED-042610 ✓	EEMBAY_GRID_41	0	12	SED		N	04/26/2010	09	45	1		X							
11	KIF-EEMBAY_GRID_41-SED-042610 ✓	EEMBAY_GRID_41	6	12	SED		N	04/26/2010	09	45	1		X							
12	KIF-EEMBAY_GRID_42-SED-042610 ✓	EEMBAY_GRID_42	0	3	SED		N	04/26/2010	09	27	1		X							
Additional Comments/Special Instructions:			SAMPLE REASON		RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		Sample Receipt Conditions			
USE THE NOMENCLATURE ON THIS COC FOR SAMPLE DOCUMENTATION FOR ALL LABORATORY DOCUMENTATION. THE SAMPLE IDs on this COC replace those on the 3-page attached COC, P1DSED0426Y10A. USE THE ORIGINAL, ATTACHED 3-PAGE CHAIN TO TRACK CUSTODY.			(check only one)																	
			X Investigatory																	
			Split Comparison																	
			Split Legal																	
			Special Study		SHIPPING METHOD: (mark as appropriate)		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		Sample Receipt Conditions			
			Plant Ops		UPS COURIER \ FEDEX		PRINT Name of SAMPLER:													
			Oth:		US MAIL		SIGNATURE of SAMPLER:				DATE Signed		Time:				Temp in OC Samples on Ice? Sample intact? Trip Blank?			



CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed and accurate.

Page: 3 of 3
Cooler # 1 of 1

RECORD COPY

COC # P1DSED0426Y10A
P1DSED0426Y10A

Required Ship to Lab:		Required Project Information:				Required Sampler Information:						TAT: Standard 5 day <input checked="" type="checkbox"/> Rush <input type="checkbox"/> Mark One <input type="checkbox"/>			
Lab Name: R J Lee Group, Inc.		Site ID #: KIF		Sampler: Stacey R Goss		Sampling Company: TVA-Kingston Fossil Ash Recovery Operations									
Address: 350 Hochberg Road Monroeville, PA 15146		Project #: Kingston Fossil Plant		Address: 714 Swan Pond Road		City/State: Harriman, TN Phone #: 865-717-6542									
Lab PM: Keith Rickabough		City: Harriman State, Zip:		Reimbursement project? <input type="checkbox"/> Non-reimbursement project? <input type="checkbox"/> Mark one											
Phone/Fax: 724-387-1841		Site PM Name: Bill Rogers		Send EDD to: TVAEDD@envstd.com											
Lab PM email:		Phone/Fax: 865-717-1627		CC Hardcopy report to:											
Applicable Lab Quote #:		Site PM Email: wjrogers@tva.gov		CC Hardcopy report to:											
ITEM #	SAMPLE ID Samples IDs MUST BE UNIQUE	SAMPLE LOCATION	Depth Unit: in		MATRIX CODE	G-GRAB C-COMP	SAMPLE TYPE	SAMPLE DATE	SAMPLE TIME	# OF CONTAINERS	Comments/Lab Sample I.D.	Filtered	Preserve	none	PLM_ASH_IS
			Start Depth	End Depth											
1	KIF-EEMBAY_GRID_42_A-SED-042610 ✓	EEMBAY_GRID_42	3	12	SED	G	N	04/26/2010	09	27	1				
2	KIF-EEMBAY_GRID_45-SED-042610 ✓	EEMBAY_GRID_45	0	6.5	SED	↓	N	04/26/2010	09	12	1				
3	KIF-EEMBAY_GRID_45_A-SED-042610 ✓	EEMBAY_GRID_45	6.5	12	SED	↓	N	04/26/2010	09	12	1				
4	July 27, 10														
5															
6															
7															
8															
9															
10															
11															
12															

Additional Comments/Special Instructions: USE THE NOMENCLATURE ON THIS COC FOR SAMPLE DOCUMENTATION FOR ALL LABORATORY DOCUMENTATION. THE SAMPLE IDs on this COC replace those on the 3-page attached COC, P1DSED0426Y10A. USE THE ORIGINAL, ATTACHED 3-PAGE CHAIN TO TRACK CUSTODY.	SAMPLE REASON (check only one)	RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	Sample Receipt Conditions				
	<input checked="" type="checkbox"/> Investigatory										Y/N	Y/N	Y/N	
	<input type="checkbox"/> Split Comparison											Y/N	Y/N	Y/N
	<input type="checkbox"/> Split Legal											Y/N	Y/N	Y/N
	<input type="checkbox"/> Special Study											Y/N	Y/N	Y/N
Plant Ops	UPS	COURIER / FEDEX		PRINT Name of SAMPLER:		SAMPLER NAME AND SIGNATURE			Temp in OC	Samples on Ice?	Sample intact?	Trip Blank?		
Oth:	US MAIL			SIGNATURE of SAMPLER:		DATE Signed							Time:	



RJ LeeGroup, Inc.
350 Hochberg Road, Monroeville, PA 15146
Tel: (724) 325-1776 | Fax: (724) 733-1799

Appendix B
Mineral Identification Report



Mineral Identification

Polarized Light Microscopy (PLM) Laboratory Report

Dr. Bill Rogers
 Tennessee Valley Authority
 Kingston Fossil Plant
 714 Swan Pond Road
 Harriman, TN 37748 United States
 Email: wjrogers@tva.gov
 Main: 256-762-6904

Report Date: 05/05/2010
Sample Received Date: 04/28/2010
RJLG Project: TOH1009525-21
Client Project: KIF
Purchase Order: 87083
Analytical Method: Fly Ash Determination by PLM

Customer Sample # :	RJLG ID	Date Analyzed	Date Collected	Area % Fly Ash	Non-Fly Ash Components	Comments
KIF-EEMBAY_GRID_01- SED-042610	10103079	04/29/2010	04/26/2010	1%	Opagues Organic Particulate Quartz	Tannish brown-colored sample.
KIF-EEMBAY_GRID_01- SED-042610_QC1	10103080	05/04/2010	04/26/2010	1%	NA	Passes criteria.
KIF- EEMBAY_GRID_01_A- SED-042610	10103081	04/30/2010	04/26/2010	ND	Opagues Organic Particulate Quartz Coal	Rocky light orange colored material.
KIF-EEMBAY_GRID_28- SED-042610	10103082	04/30/2010	04/26/2010	42%	Feldspar Opagues Organic Particulate Quartz	Gray-colored sample.
KIF- EEMBAY_GRID_28_A- SED-042610	10103083	04/30/2010	04/26/2010	9%	Feldspar Opagues Organic Particulate Quartz	Tannish brown-colored sample.
KIF-EEMBAY_GRID_29- SED-042610	10103084	04/29/2010	04/26/2010	11%	Opagues Organic Particulate Quartz	Brownish tan-colored sample.

Customer Sample # :	RJLG ID	Date Analyzed	Date Collected	Area % Fly Ash	Non-Fly Ash Components	Comments
KIF-EEMBAY_GRID_29_A-SED-042610	10103085	04/29/2010	04/26/2010	8%	Clay Opagues Organic Particulate Quartz Coal	Dense brown/tan material.
KIF-EEMBAY_GRID_30-SED-042610	10103086	04/30/2010	04/26/2010	40%	Opagues Organic Particulate Quartz	Slate gray-colored sample.
KIF-EEMBAY_GRID_30_A-SED-042610	10103087	04/29/2010	04/26/2010	9%	Feldspar Opagues Organic Particulate Quartz	Grayish brown-colored sample.
KIF-EEMBAY_GRID_31-SED-042610	10103088	04/29/2010	04/26/2010	2%	Opagues Organic Particulate Quartz Coal	Sandy brown/orange material.
KIF-EEMBAY_GRID_31_A-SED-042610	10103089	04/29/2010	04/26/2010	1%	Feldspar Opagues Organic Particulate Quartz	Tannish brown-colored sample.
KIF-EEMBAY_GRID_32-SED-042610	10103090	04/30/2010	04/26/2010	26%	Opagues Organic Particulate Quartz	Slate gray-colored sample.
KIF-EEMBAY_GRID_32_A-SED-042610	10103091	04/29/2010	04/26/2010	2%	Feldspar Opagues Organic Particulate Quartz	Tannish brown-colored sample.
KIF-EEMBAY_GRID_32_A-SED-042610_QC1	10103092	05/04/2010	04/26/2010	<1%	NA	Passes criteria.

Customer Sample # :	RJLG ID	Date Analyzed	Date Collected	Area % Fly Ash	Non-Fly Ash Components	Comments
KIF-EEMBAY_GRID_33- SED-042610	10103093	04/30/2010	04/26/2010	3%	Feldspar Opagues Organic Particulate Quartz	Brown and orange-colored sample.
KIF- EEMBAY_GRID_33_A- SED-042610	10103094	04/30/2010	04/26/2010	6%	Feldspar Opagues Organic Particulate Quartz	Light brown-colored sample.
KIF- EEMBAY_GRID_33_B- SED-042610	10103095	04/29/2010	04/26/2010	1%	Opagues Organic Particulate Quartz Coal	Dense tan material.
KIF-EEMBAY_GRID_34- SED-042610	10103096	04/29/2010	04/26/2010	25%	Feldspar Opagues Organic Particulate Quartz	Tannish brown-colored sample.
KIF-EEMBAY_GRID_35- SED-042610	10103097	04/30/2010	04/26/2010	15%	Diatoms Opagues Organic Particulate Quartz Coal	Rocky tan material.
KIF- EEMBAY_GRID_35_A- SED-042610	10103098	04/30/2010	04/26/2010	<1%	Opagues Organic Particulate Quartz	Sandy orange material.
KIF-EEMBAY_GRID_37- SED-042610	10103099	04/29/2010	04/26/2010	7%	Feldspar Opagues Organic Particulate Quartz	Tannish brown-colored sample.
KIF-EEMBAY_GRID_39- SED-042610	10103100	04/29/2010	04/26/2010	4%	Opagues Organic Particulate Quartz	Brown sand material with white pebbles.

Customer Sample # :	RJLG ID	Date Analyzed	Date Collected	Area % Fly Ash	Non-Fly Ash Components	Comments
KIF-EEMBAY_GRID_39_A-SED-042610	10103101	04/29/2010	04/26/2010	1%	Opagues Organic Particulate Quartz	Sandy orange yellow material.
KIF-EEMBAY_GRID_41-AED-042610	10103102	04/29/2010	04/26/2010	18%	Opagues Organic Particulate Quartz Coal	Tannish gray-colored sample.
KIF-EEMBAY_GRID_41-SED-042610	10103103	04/30/2010	04/26/2010	19%	Clay Opagues Organic Particulate Quartz Coal	Dense gray sample.
KIF-EEMBAY_GRID_42-SED-042610	10103104	04/30/2010	04/26/2010	33%	Clay Diatoms Opagues Organic Particulate Quartz Coal	Rocky light gray material.
KIF-EEMBAY_GRID_42_A-SED-042610	10103118	04/30/2010	04/26/2010	ND	Opagues Organic Particulate Quartz Coal	Brownish-orange colored material.
KIF-EEMBAY_GRID_45-SED-042610	10103119	04/29/2010	04/26/2010	5%	Organic Particulate Quartz	Tannish brown colored sample.
KIF-EEMBAY_GRID_45_A-SED-042610	10103120	04/29/2010	04/26/2010	4%	Diatoms Opagues Organic Particulate Quartz Coal	Rocky tan/brown material.
KIF-EEMBAY_GRID_45_A-SED-042610_QC1	10103121	04/30/2010	04/26/2010	8%	NA	Passes criteria.

Authorized Signature: _____

Matthew Sanchez / am

Matthew Sanchez
Manager Optical Group

Disclaimer Notes

- * Samples will be returned to client immediately upon the release of final report.
- * These results are submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which these results are used or interpreted.
- * This test report relates to the items tested.
- * Any reproduction of this document must include the entire document in order for the report to be valid.
- * This report may not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.
- * Sample(s) for this project were analyzed at our: Monroeville, PA (AIHA # 100364, NVLAP # 101208-0, NY ELAP # 10884) facility.
- * If RJ Lee Group, Inc. did not collect the samples analyzed, the verifiability of the laboratory's results is limited to the reported values.
- * For the purposes of this method, Fly Ash is defined as any particle consistent with Coal Ash.
- * The method reporting level is 1% and anything <1% is considered a not-detected.

Quartz - Angular anisotropic particulate with low relief.

Feldspar - Angular to blocky anisotropic particulate, low to moderate relief, biaxial, can have polysynthetic twinning.

Clay - Sheet silicates with polycrystalline or display non-uniform extinction with low to moderate relief, and zero to low birefringence. Clay also refers to particles that are less than 2.0 microns.

Opagues - Opaque is a generic term for a particle that does not transmit light. Opaque minerals are distinguished from opaque bottom ash based on morphology of fracture.

Fly Ash - Isotropic to opaque spheres, agglomeration of spheres, and angular ash particles.

Organic Particulate - Pollen, plant and insect matter, and carbonaceous matter.

Carbonates - High birefringent, can be rhombohedral, with high relief.

Diatoms - Silica rich isotropic particles with various morphologies.

Mica - Sheet silicate with moderate to high relief and low birefringence, mono-crystalline, and normal extinction.

Miscellaneous Silicate - Isotropic and anisotropic silicates, with low to high relief, identification unsure and beyond the scope of the method to identify.

Amphibole - Elongated anisotropic particulate with moderate to high relief.

Coal - Irregular to angular particles with moderate opacity, edges and thin particles are reddish brown in color.

<1% Fly Ash - Fly Ash observed, none counted.

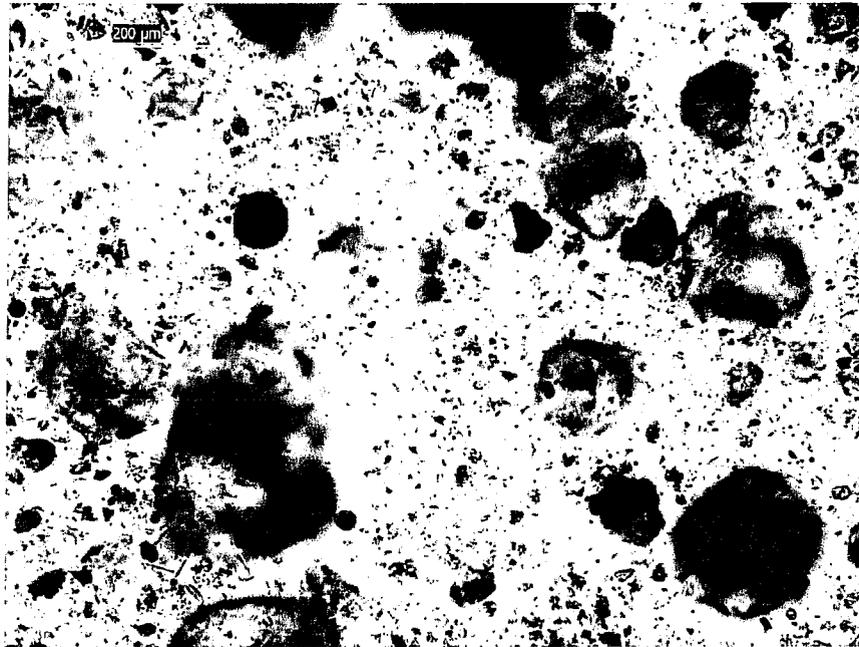
ND - No Fly Ash detected.



RJ LeeGroup, Inc.
350 Hochberg Road, Monroeville, PA 15146
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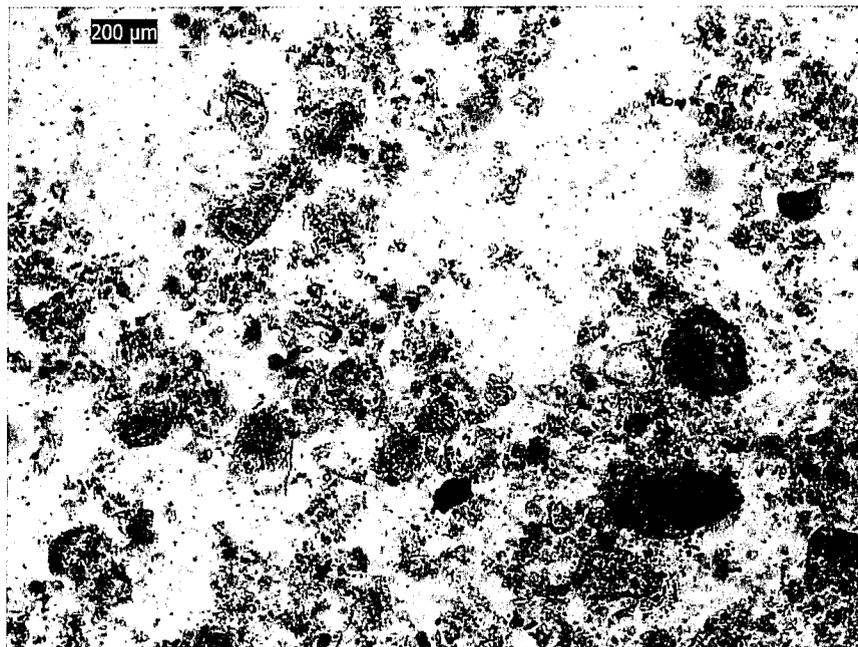
Appendix C

Polarized Light Microscopy Images



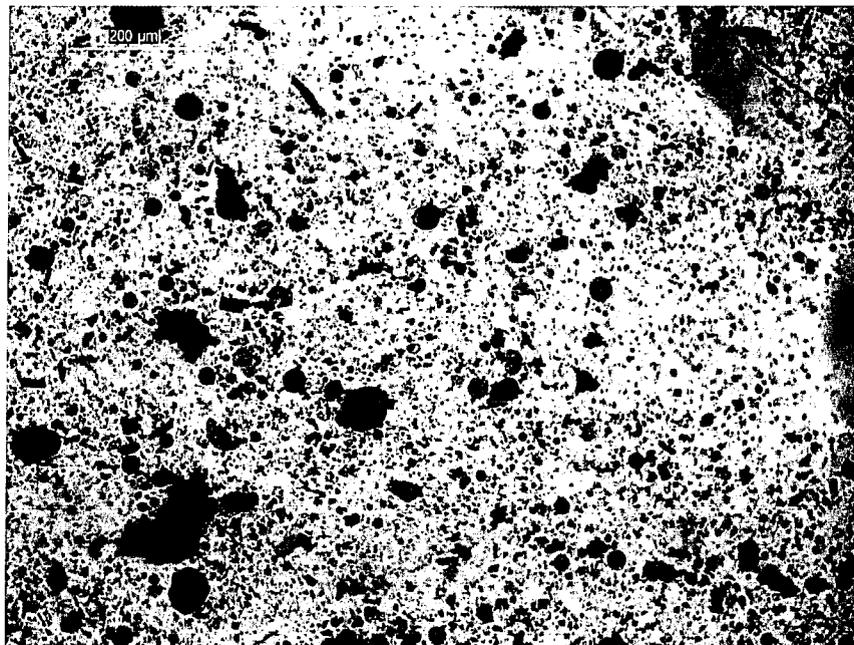
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Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



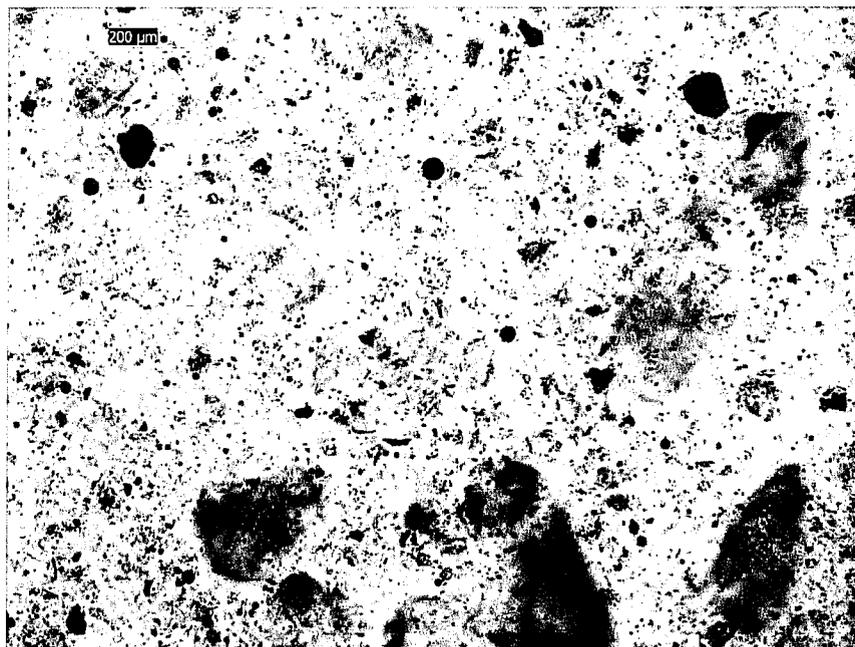
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Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



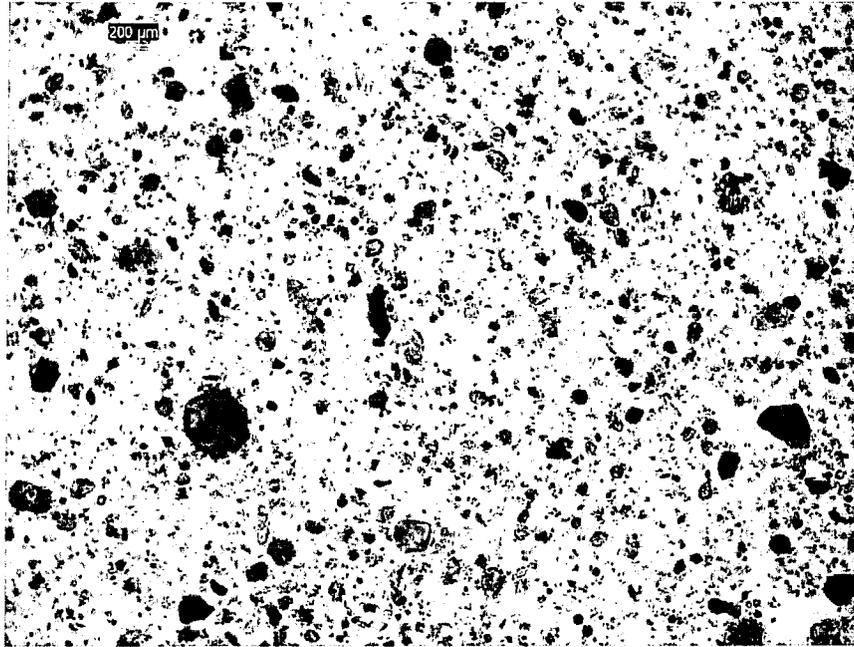
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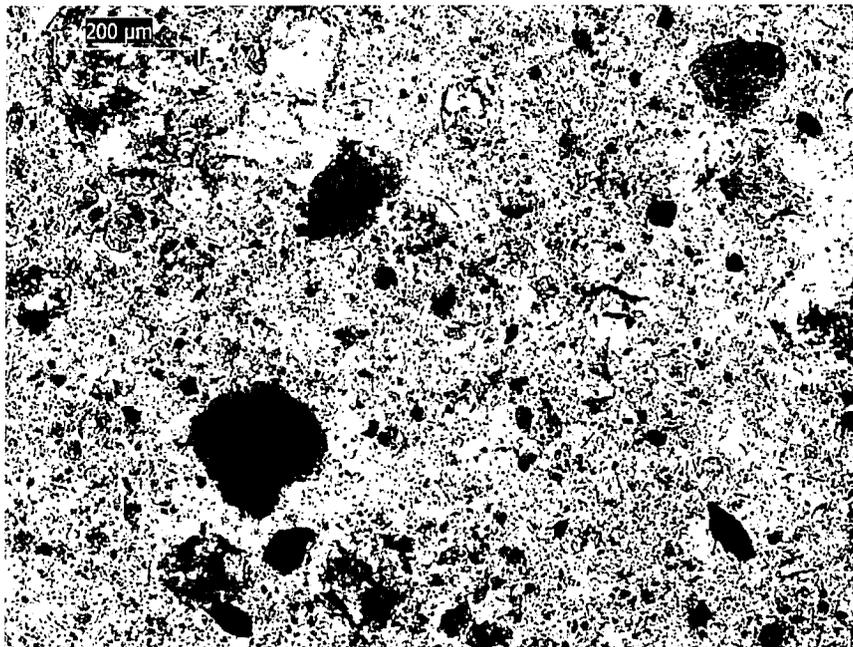
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Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



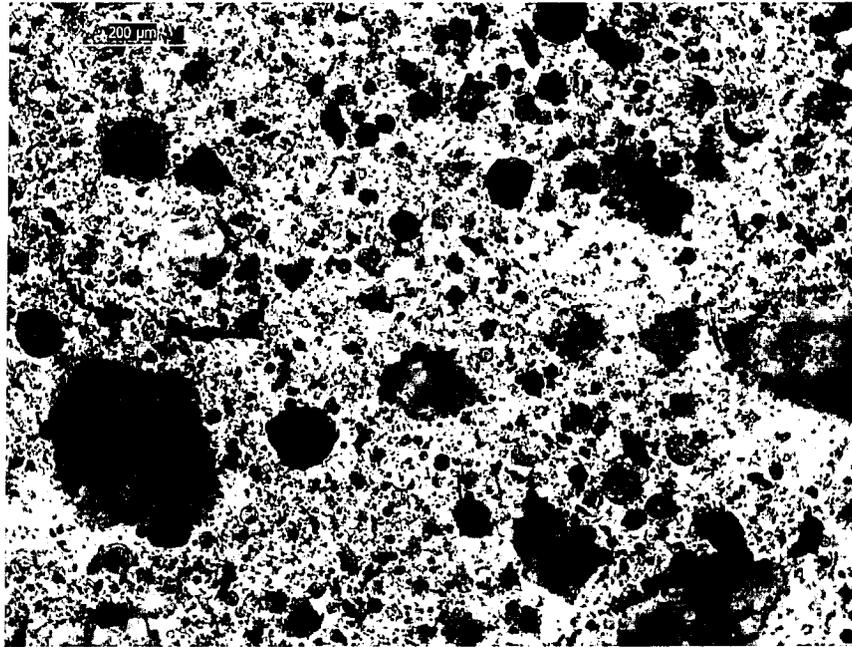
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Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



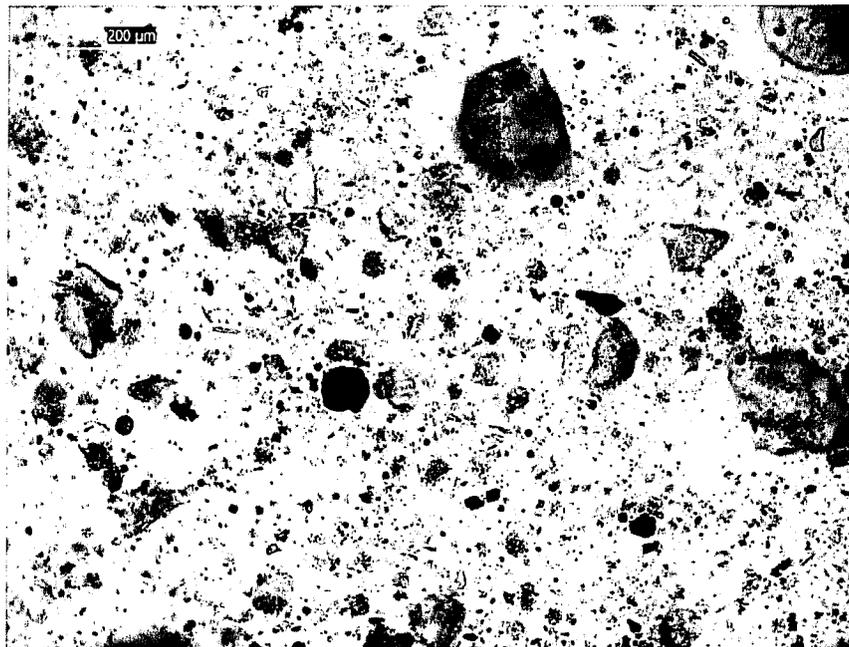
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Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



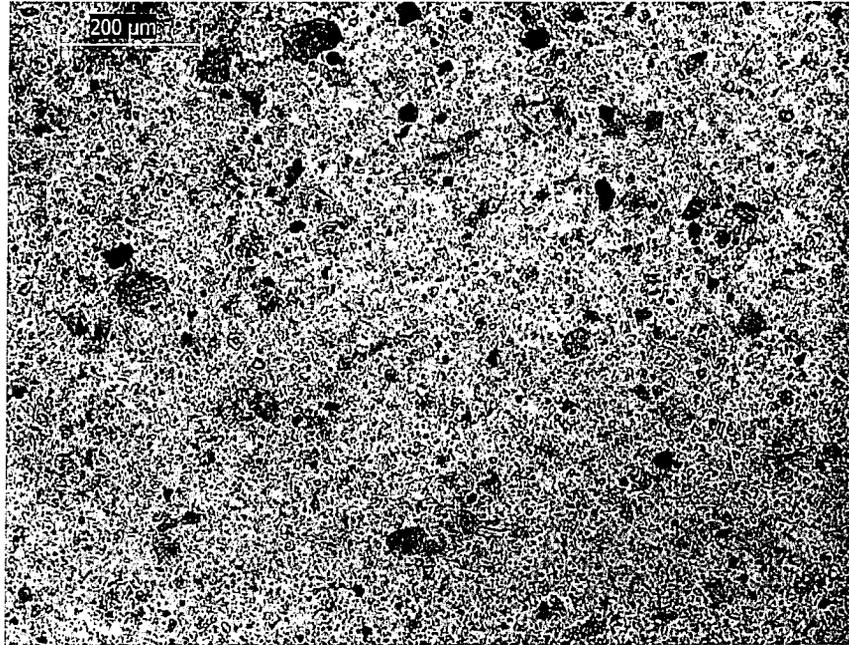
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Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



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Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



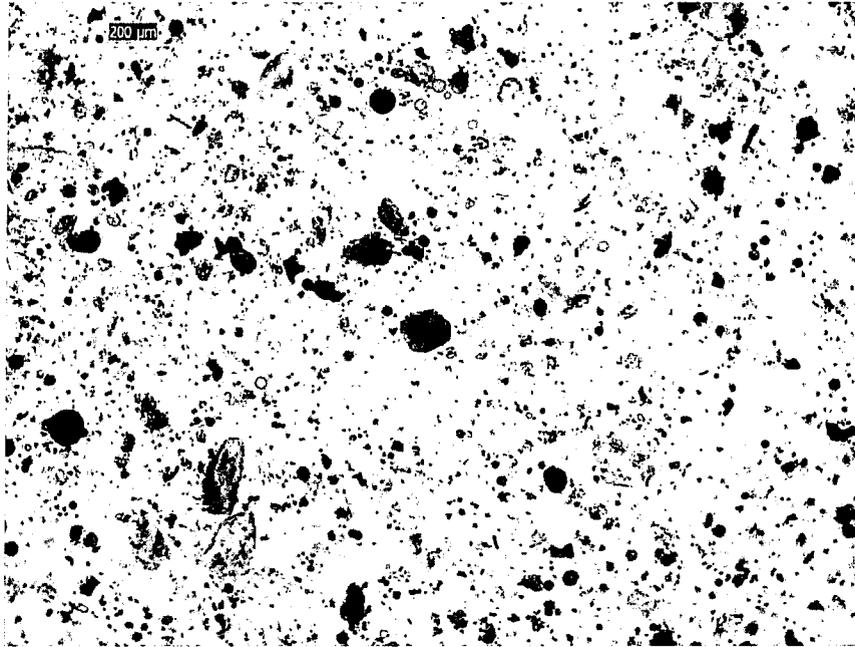
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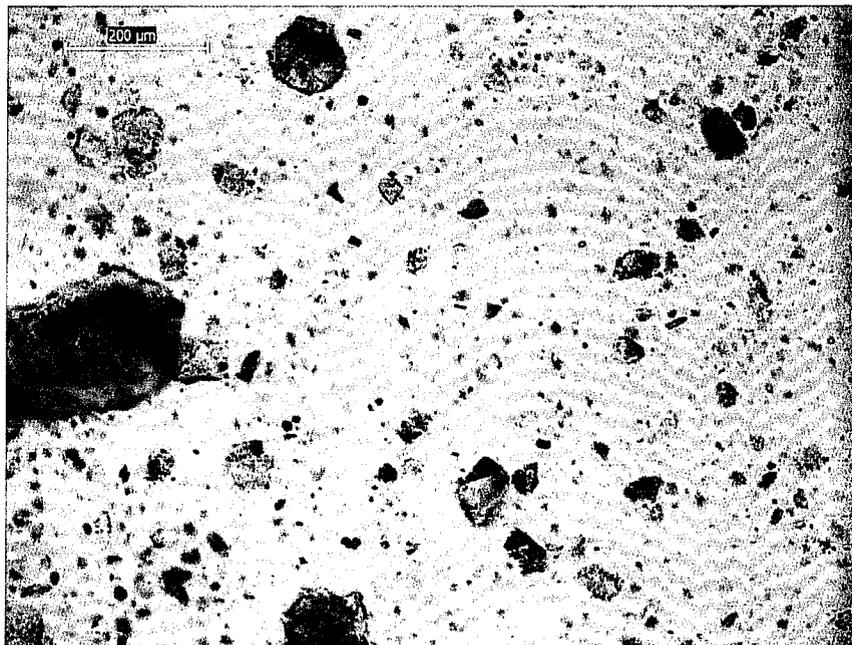
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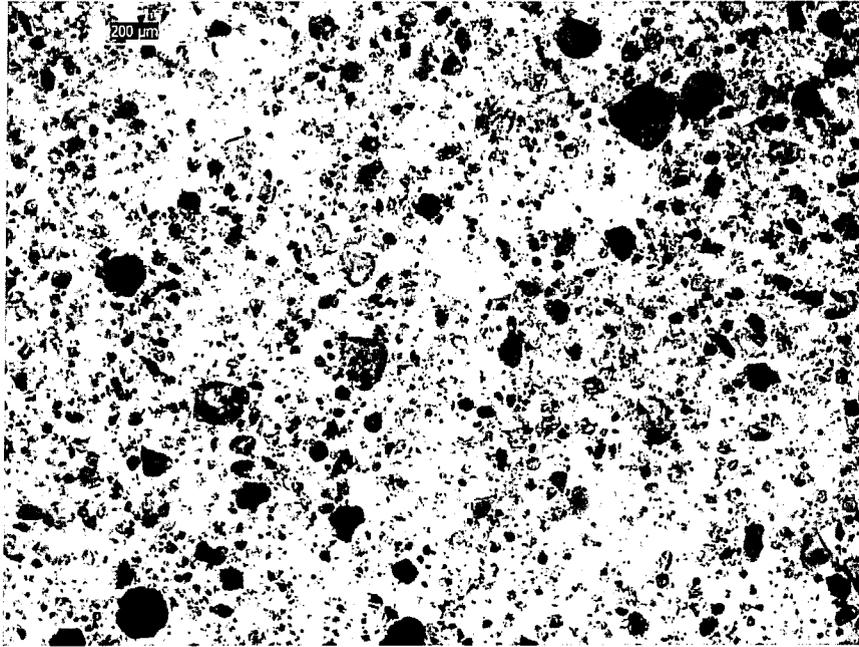
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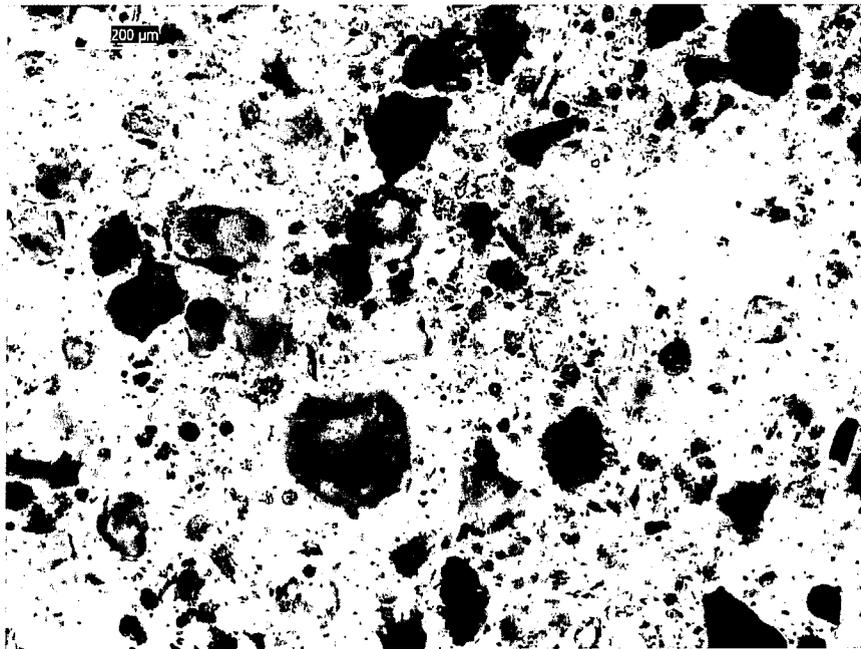
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Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



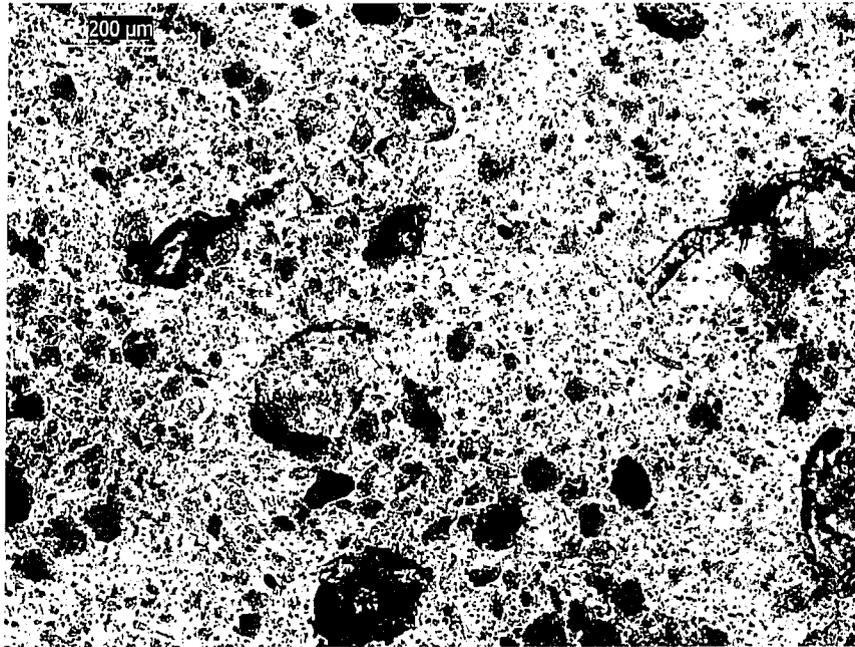
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Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



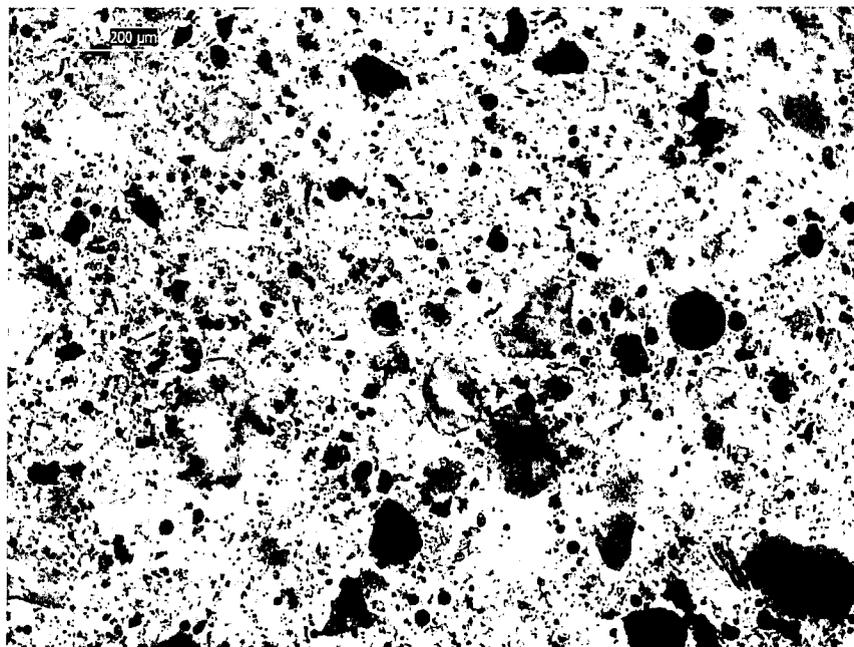
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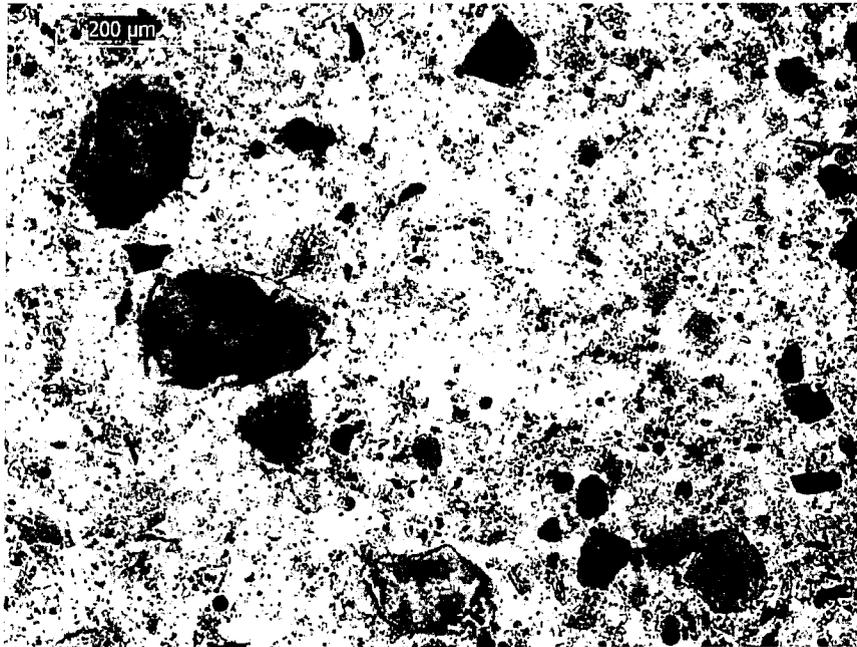
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Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



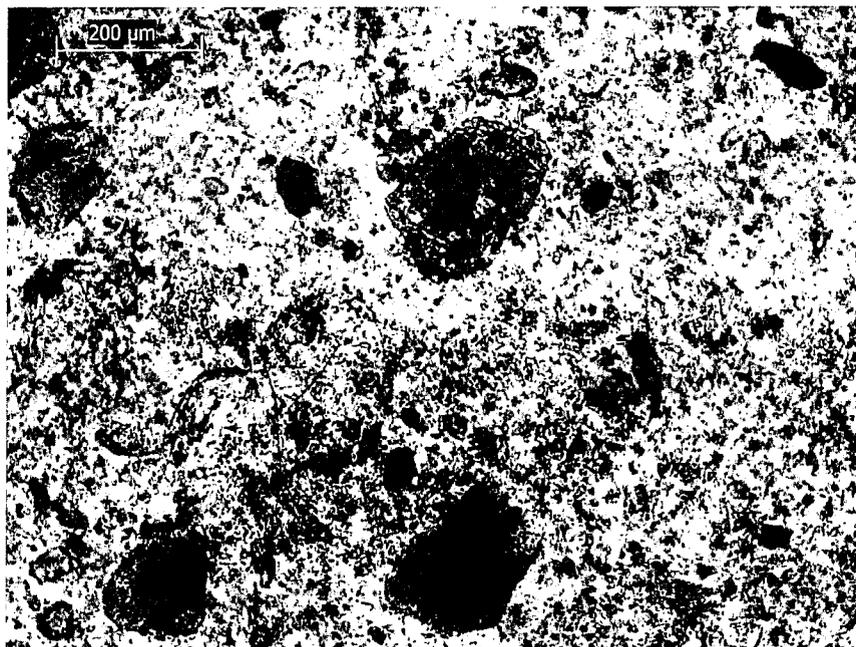
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Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



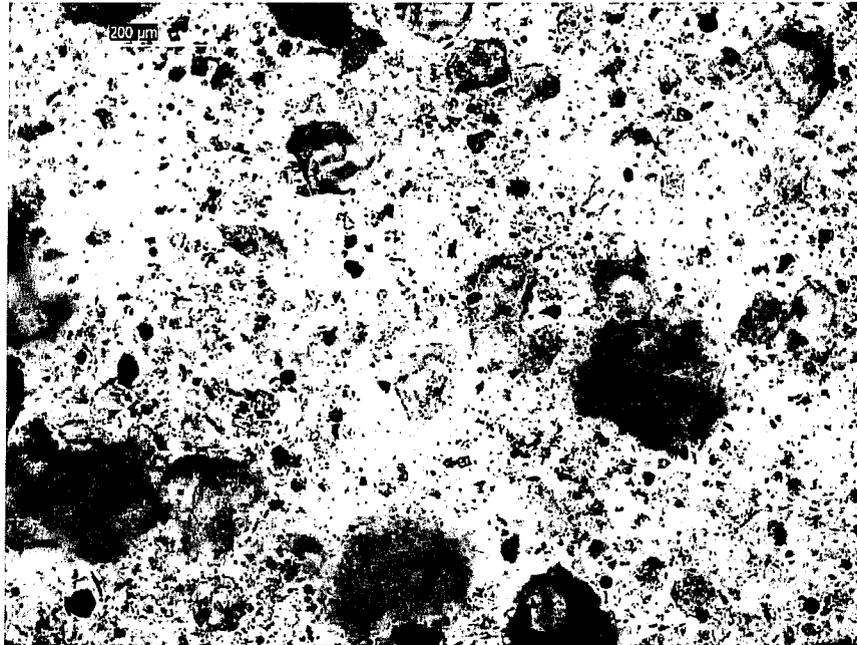
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Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



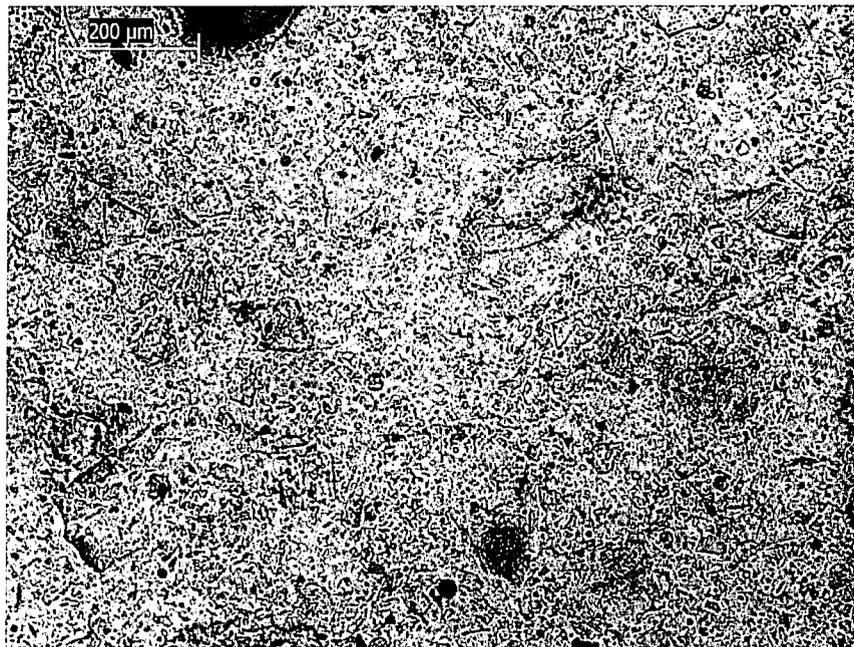
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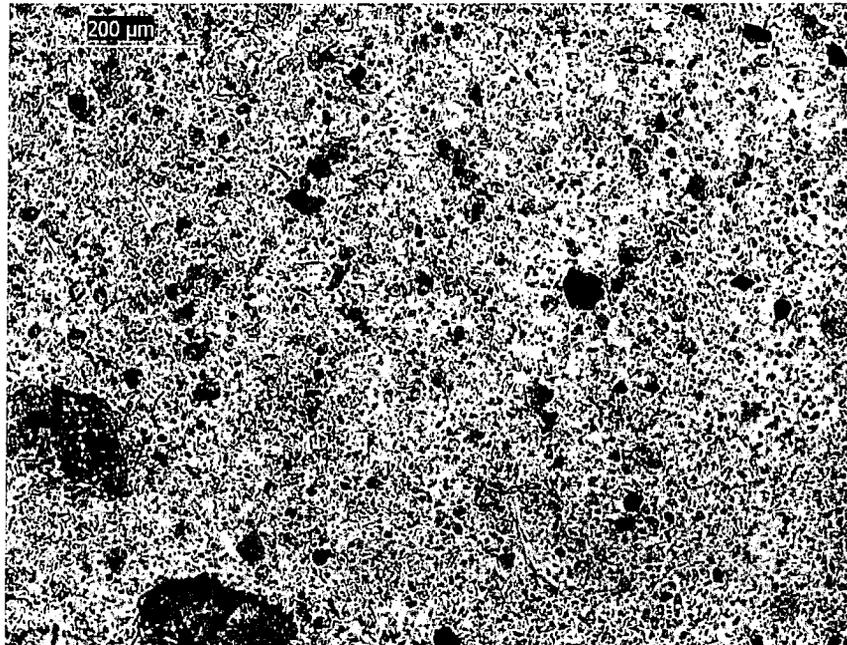
KIF-EEMBAY_GRID_37-SED-042610. RJLG ID 10103099.

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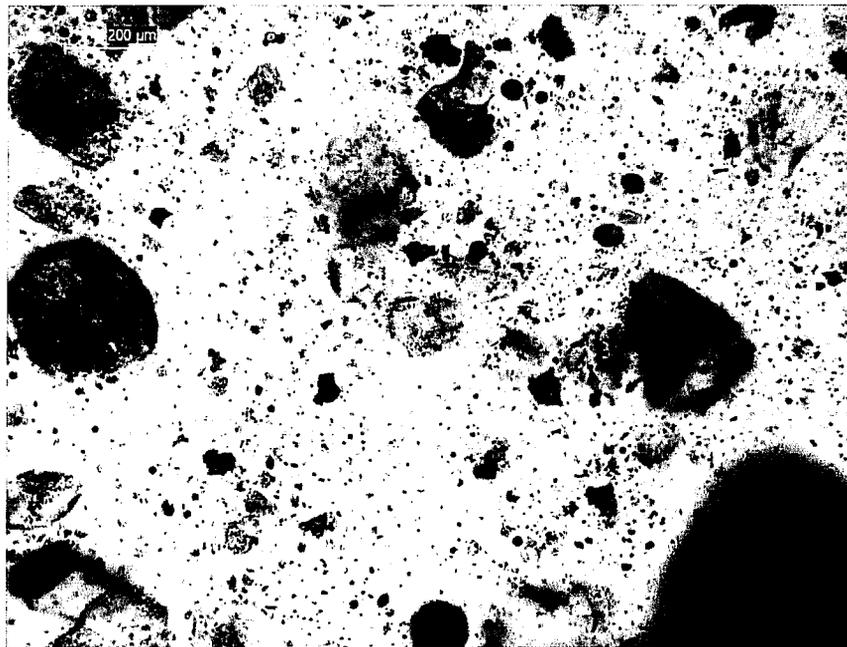
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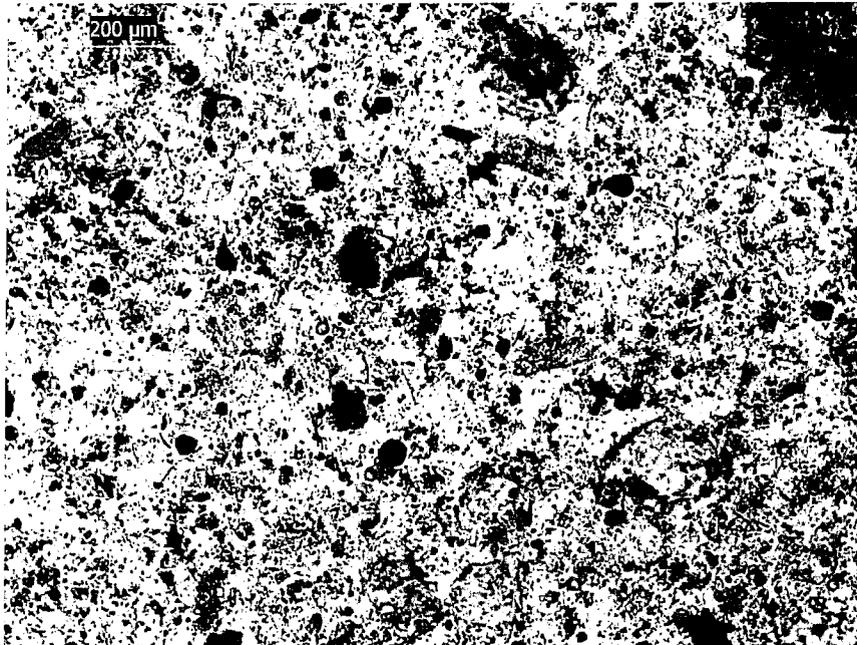
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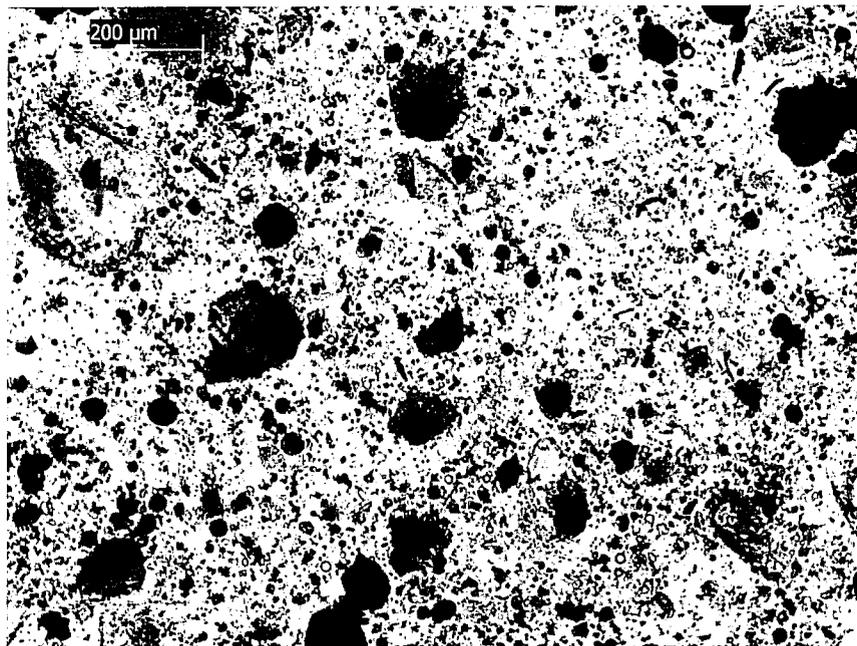
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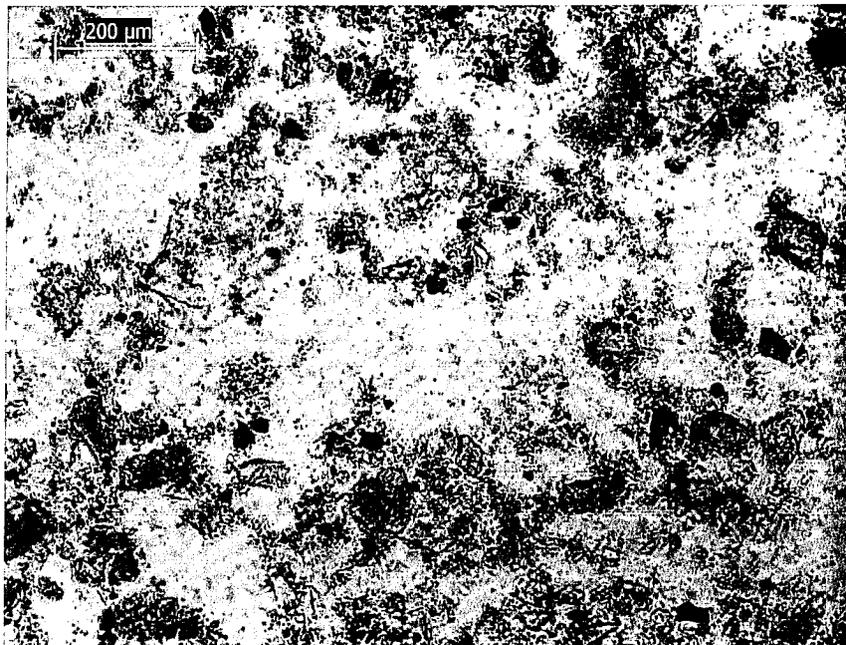
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Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



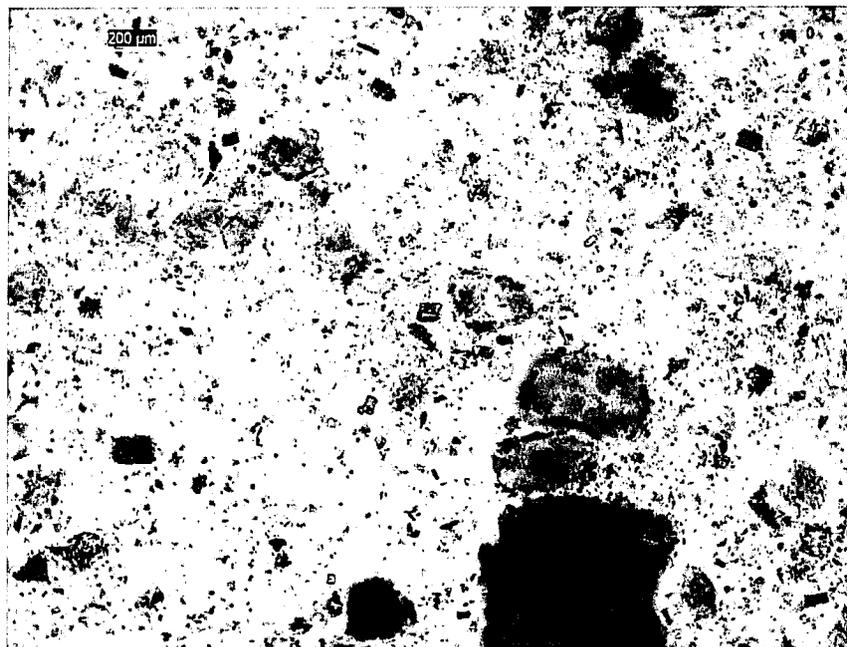
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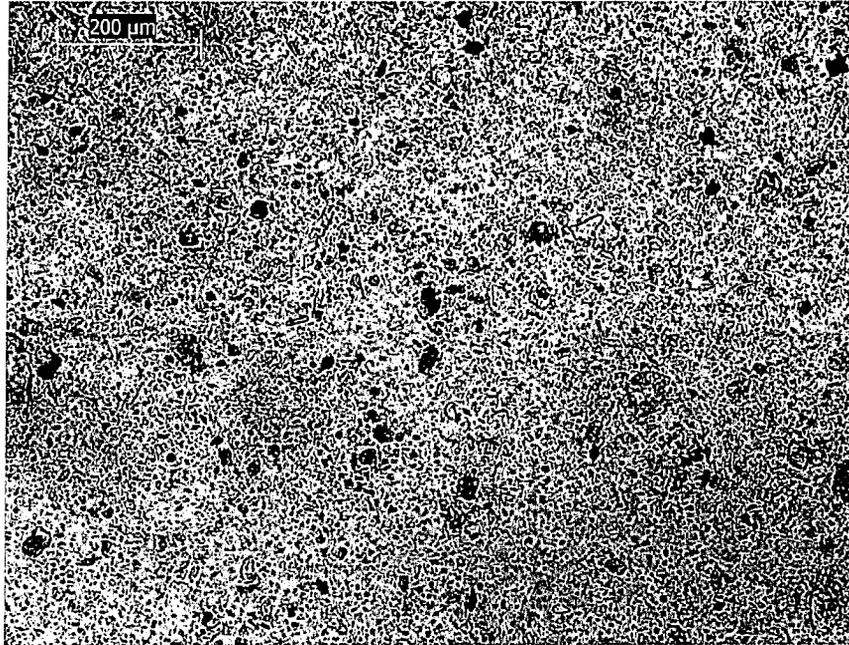
KIF-EEMBAY_GRID_42_A-SED-042610. RJLG ID 10103118.

Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



KIF-EEMBAY_GRID_45-SED-042610. RJLG ID 10103119.

Photomicrograph of sample in plane polarized light illustrating overall sample appearance.



KIF-EEMBAY_GRID_45_A-SED-042610. RJLG ID 10103120.

Photomicrograph of sample in plane polarized light illustrating overall sample appearance.