

**COMMODITY INSPECTION REPORT**

CONTRACT NO. SP0088-00-S-00136		COMMODITY ZIRCONIUM	CHECK <input checked="" type="checkbox"/> SALES <input type="checkbox"/> PROCUREMENT <input type="checkbox"/> OTHER
RELEASE OR S/I NO. 5F-NEW HAVEN		LOT NUMBER N/A	PROGRAM NDS
PURCHASER OR CONTRACTOR CMS ENTERPRISES DEVELOPMENT LLC, FAIRLANE PLAZA SOUTH		CONSIGNEE OR SUBCONTRACTOR COTTER CORPORATION	INSPECTION REPORT NO. 00136-7
PERSON CONTACTED (NAME & TITLE) FRED BROOKS, DEPOT MANAGER		ADDRESS 300 TOWN CENTER DRIVE DEARBORN MI 48126	DATE OF INSPECTION 4-8 Dec 00
INSPECTION, SAMPLING AND ANALYSIS		LOCATION OF MATERIAL INSPECTED 15411 Dawkins Ave, New Haven IN 46774-9644	
SAMPLES TAKEN N/A		DESCRIPTION OF PACKAGING (INCLUDE TYPE OF CONVEYANCE) Zirconium Ore material loaded from Pile No 111, into open top gondola cars using a Mitsubishi, Model MS 300 LS track hoe loader	
ANALYSIS		loader with a1.5 Cu Yd., back hoe type-bucket.	
BY CONTRACT SAMPLER/ANALYST		BY PURCHASER OR CONTRACTOR	
BY INSPECTOR		BY GOVERNMENT'S ANALYST	
[ ] YES [ X ] NO		WITNESSED [ ] YES [ X ] NO	
OTHER -		TYPES OF ANALYSES	
		NO. UNITS	
		PER	
		PER	
INSPECTION		IDENTITY OF SAMPLE N/A	
VISUAL		100% FORWARDING DATE	
DIMENSIONAL		N/A SAMPLE NO.	
FOR MARKING		100% LOT NO.	
DISTRIBUTION OF SAMPLES (GIVE COMPLETE ADDRESS)			
1. _____ 2. _____ N/A _____ 3. _____			

**Totals: 71**  
Notes: This report includes w/o 27 Nov 00.

**DESCRIBE METHOD OF INSPECTION, SAMPLING AND/OR SAMPLE PREPARATION (USE ATTACHED SHEETS, IF NECESSARY)**

This report is issued to reflect the shipment of Zirconium Ore, described below from the above mentioned storage site. The material was loaded on an AS-IS, WHERE-IS. Gondola cars/rail cars were inspected for cleanliness and soundness. Rejected gondola cars were welded by sub-contractor: Appalachian Railcar Services, Inc. 134 Silver Street Poca, WV 25159, (304)-755-8807. Prior to loading gondola cars' chute doors were covered with plastic and sealed with forms. Car numbers were recorded.

Rail cars are Light/ Heavy weighed at the New Haven Depot, Utilizing a Fairbanks Type Scale, Model No 12-1494/IND-R2500-1, No. 72830/H540131PP, with minimum graduations of 20/50 lbs. The scale was last tested and certified by Norfolk Southern and Fairbanks Scales on 7 Aug 00. See calibration certification, on file.

Scale was operated by OLNH personnel, in present of Mr. A J Ross, site representative for CMS during outloading.

See continuation Page No 2

This report include Pile No 111 Weighing/ outloading,/ radiation readings.

ITEM OR LOT NO.	No Railcars Loaded	QUANTITY ACCEPTED OR SOLD	QUANTITY REJECTED	APPROXIMATE VALUE QTY REJECTED	DESCRIPTION OF MATERIAL
1	71	Nt Wt Lbs 14,491,310	Pile 111	OSR No 20467	Zirconium Ore, Pile 111 Baddeleyite, Zirconium Dioxide Brazilian, Zr O2 67.63 Release Amt: Lbs 13,751,398 Release Date: 27-Nov-00 % Completed: 100 Date Shipped: 27-30 Nov and 01 Dec 00.
REASON FOR REJECTION					
N/A					

DISTRIBUTION	[ 1 ] DNSC-EQ A Bixler	[ 1 ] DNSC-EQNH Bill Till
	[ 1 ] DNSC-OLNH	[ 1 ] DNSC-EQBR Charles Delhoste <i>see 1/17/01</i>
	[ ] FINANCE	[ 1 ] DNSC-EQ K Patel

INSPECTOR (SIGNATURE) **K Patel, QAS** DATE **8-Jan-01**

Clean and soundness gondola cars were placed next Pile 111 by assigned DNSC-OLNH personnel. These gondola cars were loaded as described on previous page into description of packaging box. Loaded railcars were moved from Pile location to scale area to heavy weigh. Prior to movement (gondola car) from pile site, ore was removed from edge's of gondola cars.

During gross weighing process, if gondola car is light/heavy in weight, then material either was added or removed by Land Rail, Inc outloader personnel. The commodity adjusted by KOBELCO Mark III SK 200LC track hoe loader with 1.5 Cu Yd., back hoe type-bucket. The excessive material placed either onto stone box (Marked: BH-9- Cyds, Union City, MI GME, own by Land Rail ,Inc) or small truck (MACK, Lic Plate No 5687E IN, capacity 26,000 Lbs, also own by Land Rail Inc). Dresser, 729 front end payloader was also used for material adjustment. This payloader was used to transferred material from pile site to scale site without spillage commodity.

For each gondola car's gross capacity weight was not more then 263,000 Lbs. This gross weight capacity was sum of marked load limit and marked light weight. Load limitations were IAW Federal, State, and Local regulations. All gondola cars were loaded IAW A J Ross instructions.

All gondola cars were shrink-wrapped prior to transporting from New Haven, IN to CANON CITY, CO, due to radioactive commodity was loaded, and to protect from wind. Materials/equipments/tools used: Polyethylene Plastic, tape, Propane heat gun, Propane, Ladder, Large Scaffold.

Shrink-wrap by: J John Hutchinson, owner and his workers of Dura-Wrap Containments & Plastics Supply, company. P. O. Box 2374, Palmer AK 99645. (907)-373-3443.

Zirconium ore has traces of natural radioactivity, therefore , who ever worked on this project were assigned TLD Badges on daily basis. This TLD badges recorded in Personnel Dosimetry Check Out Log, New Haven Depot.

While car is on scale or near by radiation reading was taken by the undersigned, QAS. See attached monitoring radiation sheet.

Date: 6-7 Dec 00: Pile No 111 has been shipped in its entirety. All recoverable ore has been removed. The half of pile was rest on an asphalt pad and other on natural soil ground. The pad was swept by backhoe (Make and Model: Caterpillar, 416B, 4x4) over and over. Material around track and on track was racked. Approx one inch baseline was removed. This cleaning took placed on 6 Dec and 7 Dec 00. Collected contaminated ore was move to contaminated Pile No 111A.

After, above clean up, the undersigned, QAS, asked, A J Ross, a contractor representative for CMS, any more cleanup will take place or not. Mr Ross answered no. Mr Depot Manager was informed. Radiation Surveys was conducted around track, on track, and pad, see diagrams for reading.  
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Pile No 111 has been shipped in its entirety. All recoverable ore has been removed.

## Monitoring Radiation For Cars

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**Date: 04 Dec 00:** This date outloading/weighing was not witnessed. Contractor was welding/fixing rejected cars. A total of 63 railcars cars were loaded w/o 27 Nov 00. Following cars are only monitored for Radiologic Readings, because theirs were Weighed/loaded/shrink wrapped w/o 27 Nov 00.

**Geiger Counter (GC):** Eberline Model E-520, S/N: 3135, Date Calibration: May 09, 2000; Calibration due date: 09 May 2001.

**Fag Meter (FAG):** FH40F6 Anzeigebler, Fag Kugelfischer - Werk Erlangen, Model No 5-0002, S/N: 77-390

Date-Calibration: 12-20-99, Due Date: 12-20-00.

<b>Contract No:</b>	<u>SP0833-00-S-00136</u>	<b>Weather:</b>	<u>30 F, Light wind, cold, Pt Cloudy</u>
<b>Release No:</b>	<u>5F New Haven</u>	<b>Location:</b>	<u>New haven, IN</u>
<b>Pile No</b>	<u>111</u>	<b>QAS:</b>	<u>Kanti Patel</u>
<b>Loaded/Weighed: w/o 27 Nov 00</b>		All reading are in mR/hr. Background: 025 MR/hr.	

Wt Cert Load No	CAR NUMBER	Tare Weight Lbs	Gross Weight Lbs	Net Weight Lbs	Instrument Used * GC/FAG	CONTACT	5 FT
74	AEPX 2456	59,950	262,850	202,900	GC	1.1-1.2	.4-.5
37	AEPX 2301	60,100	262,850	202,750	FAG	.9-1.1	.3-.4
25	AEPX1184	60,000	262,900	202,900	GC	1.1-1.2	.5-.6
22	AEPX2513	58,900	262,750	203,850	GC	1.3-1.4	.5-.7
19	AEPX3053	59,250	262,950	203,700	GC	1.0-1.2	.6-.8
13	AEPX994	59,950	262,900	202,950	GC	1.1-1.3	.5-.8
10	AEPX854	59,600	262,750	203,150	GC	1.2-1.5	.6-.9
9	AEPX2495	59,200	262,800	203,600	GC	1.1-1.2	.7-.9
18	AEPX2388	57,700	262,800	205,100	GC	1.1-1.3	.6-.8
17	AEPX2764	58,800	262,750	203,950	GC	1.2-1.3	.5-.6
20	AEPX761	60,550	262,750	202,200	GC	1.1-1.2	.4-.6
44	AEPX2474	60,450	262,850	202,400	GC	1.5-1.6	.9-1.2
43	AEPX2428	60,000	262,800	202,800	GC	1.2-1.5	.6-.9
50	AEPX1022	59,700	262,900	203,200	GC	1.2-1.6	.7-.9
49	AEPX778	59,750	262,800	203,050	GC	.9-1.2	.3-.4
				<b>3,048,500</b>			

## Monitoring Radiation For Cars

**Date: 05 Dec 00:** This date outloading was witnessed. Contractor was welding/fixing rejected cars.

Following cars are only monitored for Radiologic Readings while on scale or nearby.

Due to heavy wind contractor did not do shrink-wrapping.

This date Five cars were loaded. Heavy Weighed on 06 Dec 00.

**Weather:** 20 F, Windy, light coating on ground, ground is frozen

**Geiger Counter (GC):** Eberline Model E-520, S/N: 3135, Date Calibration: May 09, 2000; Calibration due date: 09 May 2001.

**Fag Meter (FAG):** FH40F6 Anzeigeber, Fag Kugelfischer - Werk Erlangen, Model No 5-0002, S/N: 77-390

Date-Calibration: 12-20-99, Due Date: 12-20-00.

**Contract No:** SP0833-00-S-00136

**Release No:** 5F New Haven

**Location:** New haven, IN

**Pile No** 111

**QAS:** Kanti Patel

Background: 025 MR/hr.

All reading are in mR/hr.

Wt Cert Load No	CAR NUMBER	Tare Weight Lbs	Gross Weight Lbs	Net Weight Lbs	Date Reading	Instrument Used * GC/FAG	CONTACT	20 FT
3	AEPX 693	58,400	262,900	204,500	6-Dec-00	FAG	.65-.85	.05-.110
2	AEPX 948	60,850	263,000	202,150	6-Dec-00	FAG	.8-1.09	.05-.09
1	AEPX582	59,050	262,900	203,850	6-Dec-00	FAG	.8-.9	.05-.08
15	AEPX2589	58,400	262,950	204,550	6-Dec-00	FAG	.85-1.08	.06-.1
14	AEPX2549	58,550	262,800	204,250	6-Dec-00	FAG	.8-1.02	.06-.09

**1,019,300**

### Monitoring Radiation For Cars

**Date: 06 Dec 00:** This date outloading/weighing was witnessed. Contractor was welding/fixing rejected cars.

Following cars are only monitored for Radiologic Readings. This date three cars were loaded from pile 111 and and addition six cars were loaded from pile No 111A, contaminated pile (See Next report Rel 4 New Haven).

14 Cars were heavy weighed (including pile 111A and 111). Shrink-wrapping continues.

The commodity recovering continued by Landrail, Inc.

**Geiger Counter (GC):** Eberline Model E-520, S/N: 3135, Date Calibration: May 09, 2000; Calibration due date: 09 May 2001.

**Fag Meter (FAG):** FH40F6 Anzeigeb, Fag Kugelfischer - Werk Erlangen, Model No 5-0002, S/N: 77-390

Date-Calibration: 12-20-99, Due Date: 12-20-00.

<b>Contract No:</b>	SP0833-00-S-00136	<b>Weather:</b>	14 F, Fair, cold, late after noon Approx one each snow.
<b>Release No:</b>	5F New Haven	<b>Location:</b>	New Haven, IN
<b>Pile No</b>	<b>111</b>	<b>QAS:</b>	Kanti Patel

All reading are in mR/hr.  
Background: 025 MR/hr.

Wt Cert Load No	CAR NUMBER	Tare Weight Lbs	Gross Weight Lbs	Net Weight Lbs	Date Loaded	Date Weighed	Date Reading	Instrument Used * GC/FAG	CONTACT	20 FT
55	AEPX 2215	60,500	262,900	202,400	W/O 27 Nov	6-Dec-00	6-Dec-00	GC	.8-1.4	.04-.06
57	AEPX 996	59,050	262,800	203,750	W/O 27 Nov	6-Dec-00	6-Dec-00	GC	.8-1.2	.04-.07
58	AEPX2084	60,000	292,900	232,900	W/O 27 Nov	6-Dec-00	6-Dec-00	GC	.8-1.12	.04-.075
5	AEPX2821	57,250	262,850	205,600	6-Dec-00	6-Dec-00	6-Dec-00	FAG	.7-.95	.04-.15
4	AEPX2444	59,600	262,800	203,200	6-Dec-00	6-Dec-00	6-Dec-00	FAG	.7-.9	.03-.15
88	AEPX2652	57,300	256,850	199,550	6-Dec-00	6-Dec-00	6-Dec-00	GC	.8-1.0	.09-.15

**1,247,400**

**7 Dec 00:** This date pile No 111A was only loaded. See separate report for this pile.

Weather: 18 F, Cold, snowing after noon, approx 4"

## Monitoring Radiation For Cars

**Date: 08 Dec 00:** This date outloading/weighing was not performed.

Following cars are only monitored for Radiologic Readings, because these were Weighed/loaded/shrink-wrapped w/o 27 Nov 00.

**Geiger Counter (GC):** Eberline Model E-520, S/N: 3135, Date Calibration: May 09, 2000; Calibration due date: 09 May 2001.

**Fag Meter (FAG):** FH40F6 Anzeigebeher, Fag Kugelfischer - Werk Erlangen, Model No 5-0002, S/N: 77-390

Date-Calibration: 12-20-99, Due Date: 12-20-00.

<b>Contract No:</b>	<u>SP0833-00-S-00136</u>	<b>Weather:</b>	19 F, Light wind, cold, snow on ground
<b>Release No:</b>	<u>5F New Haven</u>	<b>Location:</b>	New haven, IN
<b>Pile No</b>	<u>111</u>	<b>QAS:</b>	Kanti Patel
<b>Loaded/Weighed: w/o 27 Nov 00</b>			

All reading are in mR/hr.  
Background: 025 MR/hr.

Wt Cert Load No	CAR NUMBER	Tare Weight Lbs	Gross Weight Lbs	Net Weight Lbs	Date Loaded/ Weighed	Reading Date	Instrument Used * GC/FAG	CONTACT	5 FT
47	AEPX 637	60,550	262,950	202,400	W/o 27 Nov 00	8-Dec-00	GC	.8-1.1	.2-4
45	AEPX1068	59,000	262,850	203,850	W/o 27 Nov 00	8-Dec-00	GC	.8-1.0	.2-4
51	AEPX8	60,250	262,950	202,700	W/o 27 Nov 00	8-Dec-00	GC	1.0-1.1	.3-4
40	AEPX782	57,300	262,950	262,850	W/o 27 Nov 00	8-Dec-00	GC	.8-1.1	.3-4
39	AEPX2364	60,300	262,900	202,600	W/o 27 Nov 00	8-Dec-00	GC	1.2-1.4	.4-5
38	AEPX264	59,550	262,950	203,400	W/o 27 Nov 00	8-Dec-00	GC	.9-1.2	.35-45
41	AEPX2994	57,600	263,000	205,400	W/o 27 Nov 00	8-Dec-00	GC	.9-1.0	.3-4
23	AEPX36	57,000	262,850	205,850	W/o 27 Nov 00	8-Dec-00	GC	1.1-1.2	.4-5
8	AEPX986	58,650	262,900	204,250	W/o 27 Nov 00	8-Dec-00	GC	1.0-1.3	.4-5

**1,893,300**

08 Dec 00: Pile No 111 has been depleted and after baseline cleaned, following Radiologic Readings were obtained. Area was covered with snow. Reading were obtained Approx one foot above ground level. Back ground Reading: .025 mR/hr. All Readings are in mR/hr. Red color row represent track. Diagram not to scale. Nos 1 thru 25 ( South side and North side) represent space between two fence poles.

		SOUTH																								
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
					.05-.06						.08-.12			.06-.08			.06-.08									
		Track		.04-.05		Track	.06 .07-.08			Track	.08-.09	Track				Track		.05-.06		Track		Track				
			.05-.08			.06-.10						.08-.12			.08-.12			.06-.09								
						.08-.15								.06-.08		.06-.08						.06-.15				
										.15-.25			.15-.28			.15-.20								.15-.17 .56		
EAST				.04-.08				.10-.20									.15-.25						.5-.7		WEST	
		.06 - .09								.15-.18			.08-.10											.5-.7		
					.06-.08																			.2-.3		
		Small gate				.05-.07				.05-.08						.05-.06								.2-.3		
				.06-.08																				.2-.3		
		.05-.08																						.4-.5		
						.08-.12	.04-.14									.2-.3							.08-.12			
							.08-.12	.06-.15	.08-.15	.2-.25	.2-.25			.2-.3												
		Gate																								
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
		NORTH																								