GDP0577

Bruce Morgan

OAK RIDGE GASEOUS DIFFUSION PLANT
K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

Contract: 0434 2DUE
RIS 2NAY

Producer: URENCO
Date received in laboratory: 18-Nov-83

Report Date: 12-DEC-83
Sample Number: 175138
Cylinder Number: R-28126

Property	Specification Limits	Analysis	
	Minimum		
Uranium Hexafluoride	99.5	99.99	Weight percent
Uranium		67.61	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	<0.01	Mole Percent
Antimony	1	---	uG/G U-normal
Bromine	5	---	uG/G U-normal
Chlorine	100	---	uG/G U-normal
Niobium	1	---	uG/G U-normal
Phosphorus	50	---	uG/G U-normal
Ruthenium	1	---	uG/G U-normal
Silicon	100	54	uG/G U-normal
Tantalum	1	---	uG/G U-normal
Titanium	1	---	uG/G U-normal
Elements forming non-volatile fluorides	300	40.0	uG/G U-normal
Chromium	1500	---	uG/G U-235
Molybdenum	200	---	uG/G U-235
Tungsten	200	---	uG/G U-235
Vanadium	200	---	uG/G U-235
Uranium-233	500	<100	uG/G U-235
Uranium-232	0.110	0.097	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	---	Percent of
Fission product beta	10	---	aged natural U
Transuranic alpha	1500	---	DPM alpha/G U
Technetium		---	uG/G U-normal
Uranium-234		.057	Weight Percent
Uranium-235		2.956	Weight Percent
Uranium-236		.63	Weight Percent

** Exceeds Specifications
R Revised Result

Reported by:

OR0014251

This report has been printed 2 times.

Reading Room Copy

Netherlands
1000

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Carolina Pur & Lt.
KSC 004 ? 3??

UF6 SUPPLEMENTAL ANALYSIS REPORT

Sample Number: 175138 Customer: URENCO

Cylinder Numbers	Chemical and Isotopic Analyses (Wt. %)	
	UF6	99.99
	U-234	.057
	U-235	2.956
	U-236	.63
	U (Total)	67.61

Spectrographic Analyses (Micrograms element per gram Uranium)

Element	us/gU	Element	us/gU
Al	<2	Mg	<2
B	<0.1	Mn	<2
Ba	<1	Mo	<2
Be	<0.1	Na	<2
Bi	<1	Ni	25
Ca	<2	P	<40
Cd	<0.1	Pb	<2
Co	<1	Sb	<2
Cr	<2	Si	<2
Cu	15	Sn	<2
Fe	<5	V	<2
Li	<2	Zn	<20

R Revised Result

Reported by:

Date:

Analyses contained hereon are furnished as a courtesy and should not be construed as a certification or warranty that the material will so conform.

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K-25 PROCESS SUPPORT DIVISION
URANIUM HEXAFLUORIDE ANALYSES

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Uranium		67.61	Weight percent
	Maximum		
Cylinder Vapor Pressure	75	---	psia
Hydrocarbons, chlorocarbons, partially substituted halohydrocarbons	0.01	<0.01	Mole Percent
Antimony	1	<1	uG/G U-normal
Bromine	5	<5	uG/G U-normal
Chlorine	100	34	uG/G U-normal
Niobium	1	<0.2	uG/G U-normal
Phosphorus	50	<20	uG/G U-normal
Ruthenium	1	<1	uG/G U-normal
Silicon	100	54	uG/G U-normal
Tantalum	1	<0.3	uG/G U-normal
Titanium	1	<0.3	uG/G U-normal
Elements forming non-volatile fluorides	300	40.0	uG/G U-normal
Chromium	1500	<170.0	uG/G U-235
Molybdenum	200	30.0	uG/G U-235
Tungsten	200	<20.0	uG/G U-235
Vanadium	200	<10.0	uG/G U-235
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Uranium-232	0.110	0.097	uG/G U-235
Boron equivalent cross section	8	NONE DET	uG/G U-normal
Fission product gamma	20	9	Percent of
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** Exceeds Specifications
R Revised Result

Reported by:

The following samples have been composited:
175138

01-06-84

This report has been printed 5 times.

UF6 SUPPLEMENTAL ANALYSIS REPORT

Sample Number: 175138 Customer: URENCO

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Be	<0.1	Na	<2
Bi	<1	Ni	25
Ca	<2	P	<40
Cd	<0.1	Pb	<2
Co	<1	Sb	<2
Cr	<2	Si	<2
Cu	15	Sn	<2
Fe	<5	V	<2
Li	<2	Zn	<20

R Revised Result

Reported by:

Date: 01-06-84

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