Miller, Diane M. (CDC/NIOSH/EID)

From: jeff prager [j.prager@yahoo.com]
Sent: Monday, March 14, 2011 2:33 PM
To: NIOSH Docket Office (CDC)
Subject: RE: docket number NIOSH- 227
Attachments: Report Docket No. NIOSH 227 JP.pdf

As per your request the attached report has been reformatted to 8.5 x 11 inch standard sized paper with 0.5 inch page borders. It is also available for download at the link below:

http://www.datafilehost.com/download-dda104bd.html

Additional data not in this report:

The general population incidence of Myeloma, a rare blood plasma cancer, is 3.8 to 9.0 per 100,000 with 99% above the age of 65 and an average age of 71.

The population of 40,000 First Responders have experienced an incidence rate as of March 7 of 1 in 298.507 or rounded, 1 in 299. This figure is arrived at using the current deaths of patients from Myeloma which was 134 on March 7, 2011.

The First Responders that have died from Myeloma were all between 37 and 60.

Obviously the incidence of Myeloma in First Responders is alarming, to say the least. Rather, it's simply unprecedented in human history. Not Hiroshima, nor Nagasaki, nor Chernobyl produced these dramatic figures and these figures are the product of only the first ten years beyond the events of 911.

The factor missing from the US government response was empathy. I am not the only person that knows 911 was a nuclear event although I am one of a very few.

Cordially,

Jeff Prager
Minneapolis MN
612-353-6045

--- On **Mon, 3/14/11, NIOSH Docket Office (CDC) <*niocindocket@cdc.gov*>** wrote:

From: NIOSH Docket Office (CDC) <niocindocket@cdc.gov>
Subject: RE: docket number NIOSH- 227
To: "jeff prager" <j.prager@yahoo.com>
Date: Monday, March 14, 2011, 10:59 AM

Mr. Prager—we are not able to print the attachment. It is too large for all of our paper. Could you please send a smaller version of it? Thank you.

Diane M. Miller
NIOSH Docket Officer

513/533-8450
dmm2@cdc.gov

From: jeff prager [mailto:j.prager@yahoo.com]
Sent: Friday, March 11, 2011 11:54 PM
To: NIOSH Docket Office (CDC)
Subject: docket number NIOSH- 227

You may submit comments, identified by docket number NIOSH- 227, by any of the following methods: Mail: NIOSH Docket Office, Robert A. Taft Laboratories, MS-C34, 4676 Columbia Parkway, Cincinnati, OH 45226. Facsimile: (513) 533-8285. E-mail: nioshdocket@cdc.gov.

Document attached.

The attached document is part of a 3-part document posted to the internet on March 1st, 2011. The attached document is pages 21-42 of the larger 3-part document. For links to the larger document feel free to contact me.

Cordially,

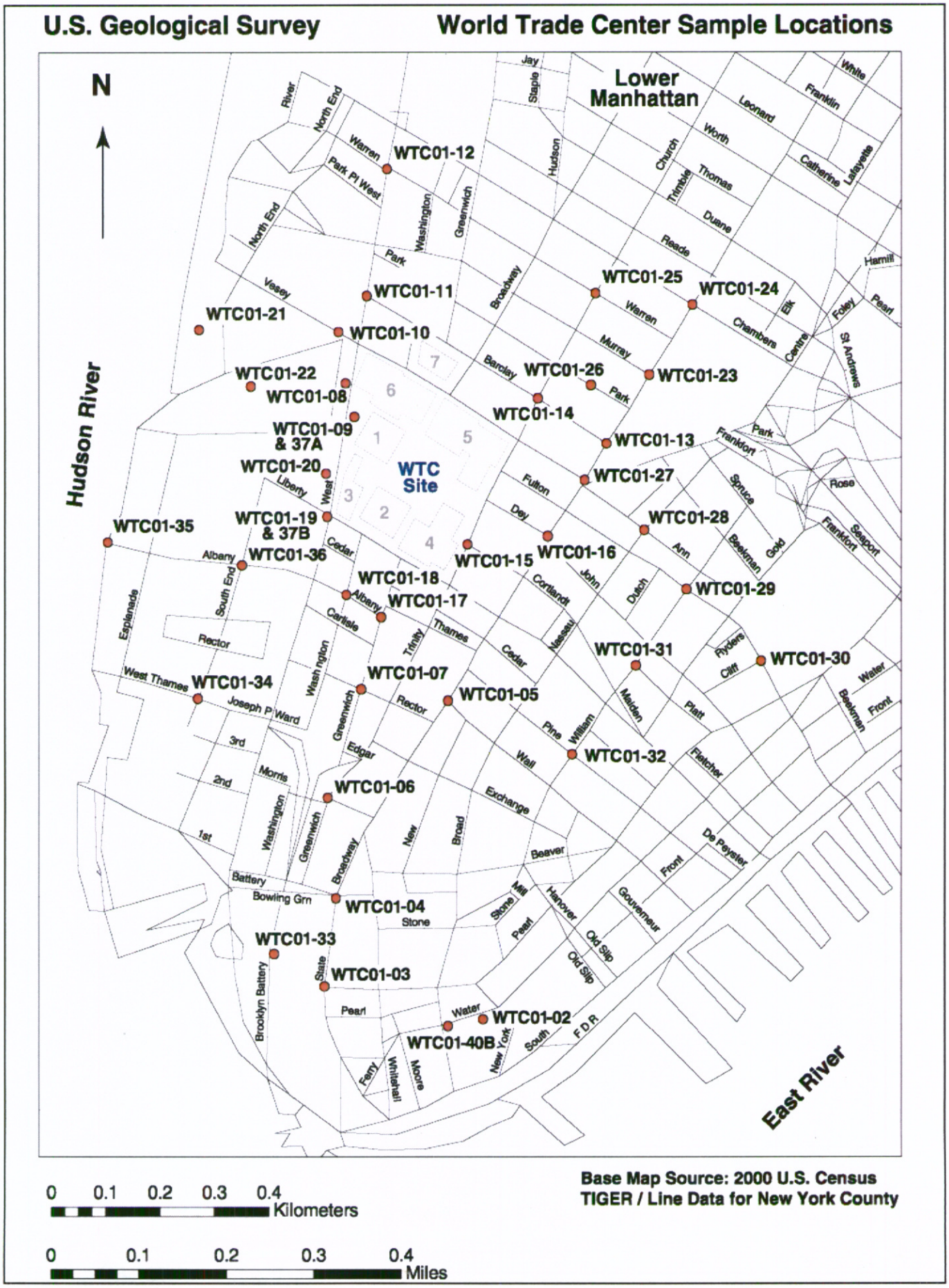
Jeff Prager
3591 Elliot Avenue
Minneapolis MN 55407
612-353-6045

Proof Of Advanced Fission Devices Used In New York City On September 11th, 2001

Jeff Prager

March 14th, 2011

This report uses Open Source USGS data found at the following web site:
http://pubs.usgs.gov/of/2001/ofr-01-0429/



Chemistry Table 1, continued				
	minimum	maximum	mean*	
Silicon %	11.4	26.3	14.8	
Calcium %	9.58	26.01	18.36	
Magnesium %	1.79	6.94	2.88	
Sulfur %	0.87	5.77	3.11	
Iron %	0.55	4.13	1.63	
Aluminum %	2.27	4.13	2.90	
Carbon, organic %	0.98	4.02	2.48	
Carbon, Carbonate %	1.24	1.89	1.55	
Sodium %	0.12	1.16	0.57	
Potassium %	0.28	0.69	0.50	
Titanium %	0.21	0.39	0.26	
Manganese %	0.07	0.19	0.11	
Phosphorous %	0.01	0.05	0.02	
Loss on Ignition %	7.96	22.8	16.35	
Barium ppm	317	3670	533.38	
Strontium ppm	378	3130	726.61	
Zinc ppm	57.4	2990	1004.70	
Lead ppm	9.13	756	166.75	
Copper ppm	10.3	438	136.31	
Cerium ppm	50.9	356	91.23	
Yttrium ppm	30.2	243	57.45	
Chromium ppm	86.5	224	116.61	
Nickel ppm	22.6	202	37.77	
Lanthanum ppm	25.8	175	45.96	
Antimony ppm	0.56	148	24.84	
Vanadium ppm	24.9	42.5	30.67	
Molybdenum ppm	0.85	42	11.34	
Lithium ppm	17.4	36.4	24.00	
Thorium ppm	5.36	30.7	9.31	
Rubidium ppm	8	25.2	19.01	
Cobalt ppm	1.7	13.9	6.36	
Niobium ppm	4.4	11	8.34	
Scandium ppm	4.4	9.8	6.63	
Uranium ppm	1.96	7.57	3.29	
Cadmium ppm	0.11	7.5	2.80	
Arsenic ppm	3.5	6.8	***	
Gallium ppm	2.8	6	4.15	
Beryllium ppm	1.8	4.2	2.96	
Silver ppm	0.96	3.8	1.66	
Cesium ppm	0.18	0.88	0.64	
Bismuth ppm	0.008	0.82	0.28	
Thallium ppm	0.02	0.13	0.08	

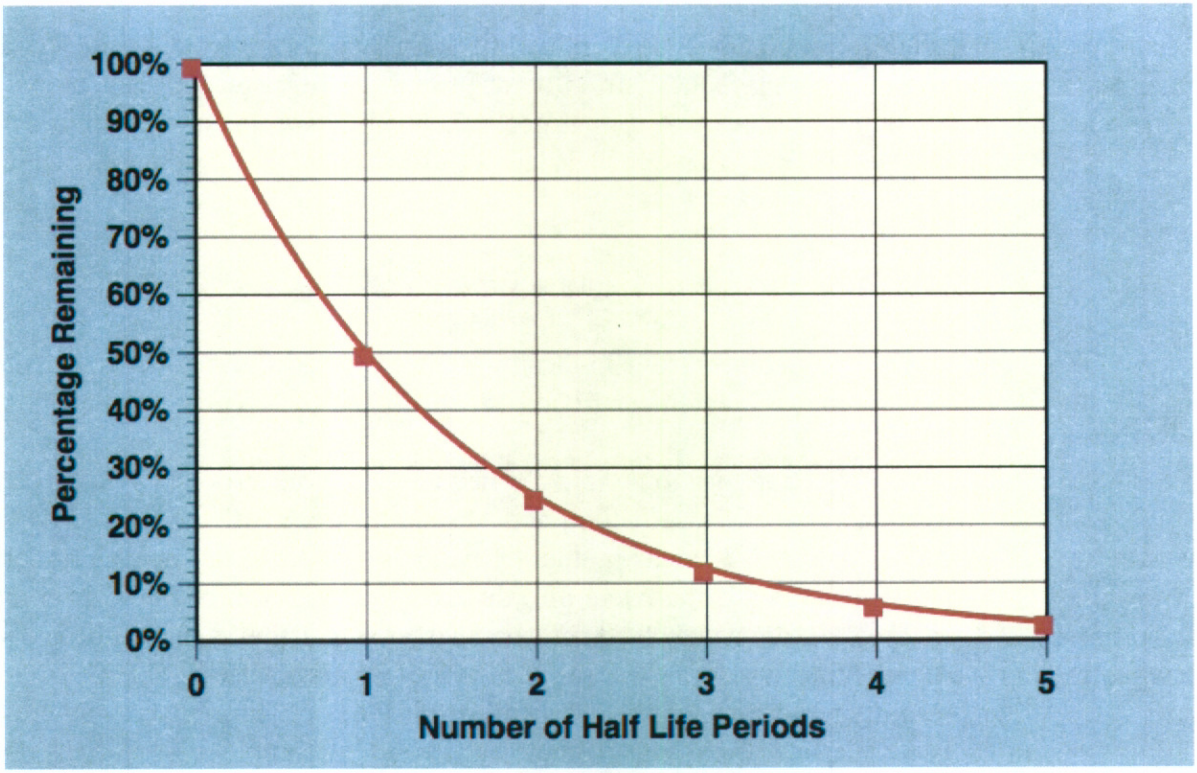
Table 1 • Top Ten Trace Elements

	Dust Samples (ppm)									
Outdoor Dust	**Ba**	**Sr**	**Zn**	**Pb**	**Cu**	**Ce**	**Y**	**Cr**	**Ni**	**La**
WTC 01-02	765	1000	2990	710	438	108	58.9	224	88.4	51
WTC 01-03	376	409	1200	176	142	50.9	30.2	98	30.8	25.8
WTC 01-14	461	643	1570	276	242	68.8	46.5	116	28.6	34.8
WTC 01-15	405	736	1110	152	367	64.9	46.1	129	32.9	32.7
WTC 01-16	3670	3130	1410	208	307	132	31.4	95.2	31.4	69.9
WTC 01-21	460	787	1500	278	153	77	54.5	104	31.2	38.6
WTC 01-22	452	710	1380	452	130	72	47.6	111	30.6	35.4
WTC 01-25	624	695	1910	756	251	85	61.6	134	39.2	43.5
WTC 01-27	470	701	1650	204	188	77.7	54.9	126	39.4	39.5
WTC 01-28	491	711	1720	234	218	75	53.8	106	26.1	38.4
Indoor Dust	**Ba**	**Sr**	**Zn**	**Pb**	**Cu**	**Ce**	**Y**	**Cr**	**Ni**	**La**
WTC 01-20	390	706	1330	153	176	61.6	44.1	94	29.8	31.3
WTC 01-36	438	823	1400	159	95	70.2	52.6	107	28.5	35.6
Girder Coating	**Ba**	**Sr**	**Zn**	**Pb**	**Cu**	**Ce**	**Y**	**Cr**	**Ni**	**La**
WTC 01-08	317	444	57.4	9.13	10.3	202	134	153	202	102
WTC 01-09	472	378	101	11.7	12.8	356	243	86.5	22.6	175

Ba	Barium
Sr	Strontium
Zn	Zinc
Pb	Lead
Cu	Copper
Ce	Cerium
Y	Yttrium
Cr	Chromium
Ni	Nickel
La	Lanthanum

Radioactive Half-Life Decay

Different radioactive isotopes take varying amounts of time to decay away into the next element along the chain. So the time it takes for half the atoms in a particular sample isotope to decay is called the Half Life of that isotope. Strontium 90, for example, has a Half Life of 28 years. This is illustrated in the graph below. After one Half Life period, 50% of the original amount remains, after two Half Life periods, 25% of the original amount remains and so on.



Understanding
The USGS Data

The incontrovertible evidence that the World Trade Center was brought down by thermonuclear controlled demolition is contained in the analysis of the dust from the buildings carried out by the United States Geological Survey carefully outlined in this report.

In the aftermath of the collapse, a USGS team took representative samples of the dust from 35 locations in Lower Manhattan near and around the site of the World Trade Center, ground zero. This included samples from two indoor sites in local buildings and two samples from the insulation coatings of the steel girders used in the construction of the towers, before those steel girders were quietly hauled away for safe disposal.

The USGS report that this data is taken from is titled, "Environmental Studies of the World Trade Center Area After the September 11, 2001 Attack" and was published to the USGS web site as Open Source with the Open File Report Number, OFR-01-0429, Version 1.1. It was published on November 27th, 2001.

The introduction to the report describes its context as follows:

"The information in this report describes the results of an interdisciplinary environmental characterization of the World Trade Center (WTC) area following requests from other Federal agencies after the attack on September 11, 2001. The scientific investigation included two main aspects: 1) imaging spectroscopy mapping of materials to cover a large area around the World Trade Center and 2) laboratory analysis of samples collected in the World Trade Center area."

Sample Collection Procedure

"A 2-person USGS crew collected grab samples from 35 localities within a 0.5-1 km radius circle centered on the World Trade Center site on the evenings of September 17 and 18, 2001.

Many of the streets bordering the collection locations were cleaned or were in the process of being cleaned at the time of sample collection. Given this limitation, collection of dust samples was restricted to undisturbed window ledges, car windshields, flower pots, protected areas in door entry ways, and steps. Occasionally, samples were collected from the sidewalk adjacent to walls that were afforded some degree of protection from the elements and cleanup process. In many cases the samples formed compact masses suggestive of having been dampened by rain and having dried in the intervening 3-4 days. Two samples of an insulation coating (WTC01-8 and 9) were collected from steel girders recently removed from the debris pile of the WTC. Samples were gathered by nitrile-gloved hand and put into doubled plastic sample bags (sample bag in another sample bag). Initially, Global Position Satellite (GPS) locations were collected for the sample collection locations, but this approach was abandoned because of difficulty in acquiring a satellite signal between tall buildings. Instead, sample locations were identified using road intersections where road signs remained intact. All but two of the samples were collected outdoors and had been subjected to wind and water during a rain storm the night of September 14th. One sample (WTC01-20) was collected indoors near the gymnasium in the World Trade Center Financial Center directly across West Street from the World Trade Center. Samples of concrete (WTC01-37A and 37B) were collected from the World Trade Center debris at the same location as WTC01-09. A sample of dust (WTC01-36) blown by the collapse into an open window of an apartment located 30 floors up and 0.4 km from the center of the World Trade Center site was also acquired a few days later."

This report then provides a rather detailed chemical analysis of the dust samples. The minimum, maximum and mean or averages appear at the table at the right, a photographic image taken directly from the web site. The web

site has numerous charts and various analyses of the collected data and that's what we'll be using here to demonstrate very basically, that thermonuclear demolition did, in fact, take place.

Dissecting the Data
What Does It All Mean?

The USGS data was divided into two basic categories; Major Elements and Trace Elements.

The major elements are classified as those elements found in high enough quantities to be measured in percentage terms by weight. This method included the very common everyday elements expected to be found in the rubble of demolished buildings and also includes some less common elements.

The trace elements are less common elements that are either found in very small quantities or should be found in very small quantities if they're found at all. They're shown in parts per million by weight or 1ppm = 1mg/kg.

The summary tables show Maximum, Minimum and Mean or average values over all of the sample locations. The girder coatings had very different values as compared to the indoor and outdoor samples.

The Major Elements

The most abundant elements were Silicon and Calcium as would be expected from normal building rubble and city dust. Concrete is 44% Calcium Oxide and 15% Silicon Dioxide (sand) with smaller percentages of Aluminum Oxide, Ferric Oxide, Magnesium Oxide and Gypsum (Calcium Sulphate). Plaster is also made from Gypsum. The major elements discovered at over 1% concentration correlate with this assertion.

However, the levels of Sodium and Potassium are unusual. Sodium and Potassium are not "rare" elements but the levels measured correlate strongly with some of the anomalous Trace elements from the samples. This will be looked at more carefully in the Trace element section in comparison to the findings on Zinc.

While the USGS includes Titanium and Manganese as percent measurements indicating they're considered Major elements they are more accurately described as Trace elements. The Titanium measured as 0.26% of the dust or 2600ppm on average and is present across nearly all sample locations at 0.25-0.3% except for the sample taken as WTC01-02, at the intersection of York and Water Streets, where Titanium measured 3900ppm. This is high and will also be discussed further in the section that follows on Trace elements.

Titanium Oxide is often added to cement and concrete to lighten the color and for very white cement and concrete as much as 5% Titanium Oxide can be added to the mixture. Since Titanium Oxide is expensive and the Twin Towers were 30% glass and 70% aluminum cladding, Titanium Oxide would have been used minimally.

The levels of Manganese average 0.11% or 1100ppm and this is high for Manganese since there aren't any building applications for it. There are interesting correlations regarding Manganese that will be discussed further.

So, thus far, Sodium and Potassium are unusually high and Titanium at an average of 2600ppm or 0.26% and Manganese at an average of 1100ppm or 0.11% are high and should be found in Trace quantities but were found in the Major Elements section of the USGS report. The levels of Sodium, Potassium, Titanium and Manganese are anomalous and deviate from what would be considered normal and standard and we'll discuss these momentarily.

The Trace Elements

A concentration of 1% is 1 part per 100 or 10,000 parts per million (ppm). Therefore, 1 part per million is 1 ten thousandth of a percent. Let's examine the top ten Trace Elements as they were classified by the USGS (chart 0n previous page). While these elements in these samples at these levels don't jump out at us we also need to understand, we aren't scientists and we aren't familiar with data such as this but, this sample data will stand out to anyone knowledgeable in this field. The figures for Barium, Strontium and Zinc literally leap off the page. Barium, Strontium and Zinc have the highest levels, the highest concentrations across ALL of the sampling locations.

We can see that the figures for Zinc and Strontium at location WTC01-02, New York and Water Streets, are extremely high and at sample location WTC01-16, Broadway and John Streets, the sample figures for Barium and Strontium are even higher, exceeding 3000ppm. The Zinc concentration exceeds 1000ppm for all samples taken except the girder coatings which were very likely buried and not exposed to the atmosphere.

The highest concentrations discovered were for Barium, Strontium and Zinc followed closely by Lead, Copper and Chromium. These concentrations far exceed what would normally be considered to be Trace amounts. There is between 1g/kg and 3g/kg of Zinc in the World Trade Center dust. There is more then 0.7g/kg of Strontium with over 3g/kg at one location. These quantities are unprecedented. To begin with, a Trace amount would be considered to be less then 10ppm but that doesn't mean that even 10ppm of some substances would be acceptable or normal. The following pages will examine this data in more detail.

Barium and Strontium (graph on following page)

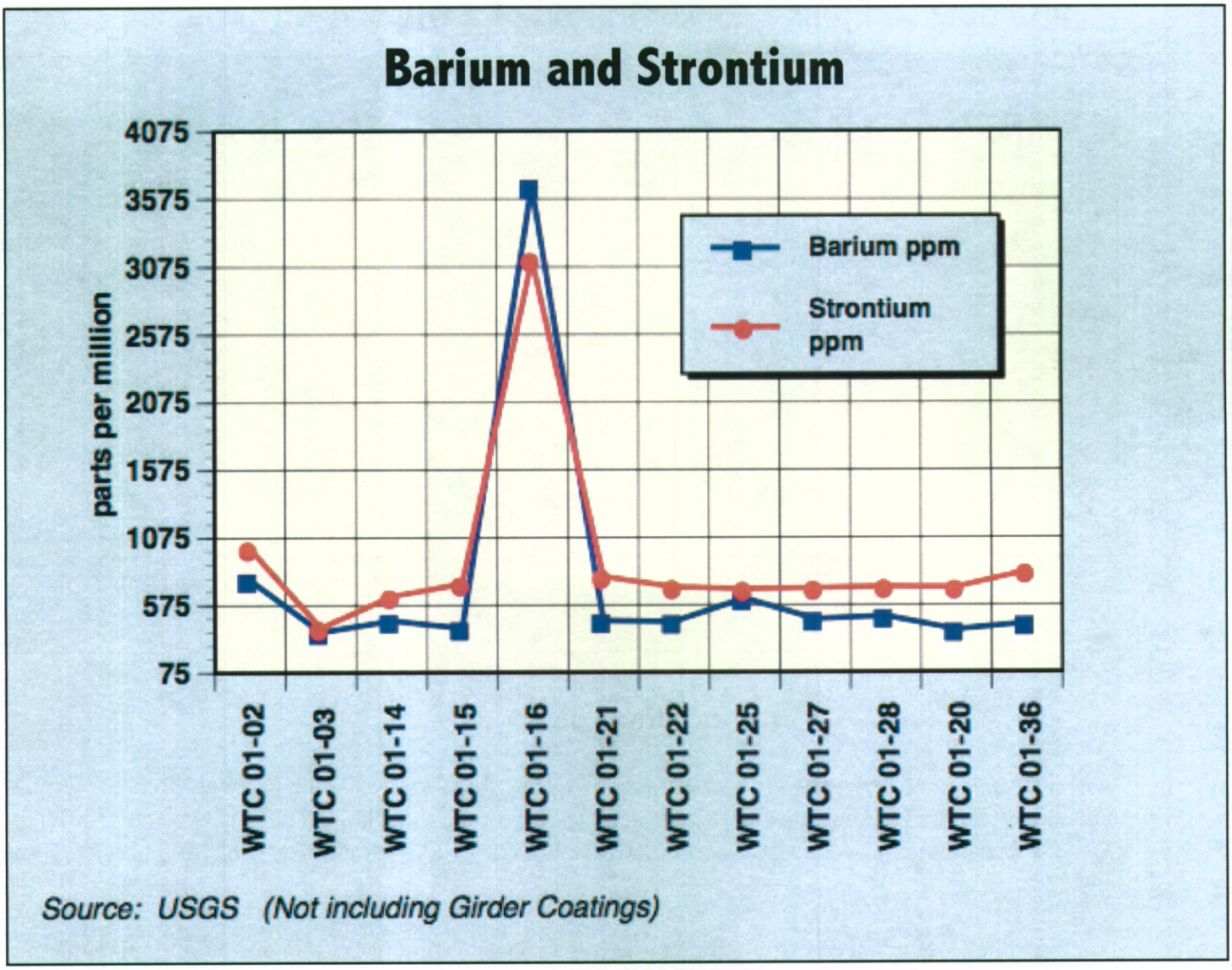
These elements are wholly out of place and do not belong in these samples at these levels. In fact, they don't belong in these samples at all, really. But, accounting for the fact that there are always disbelievers we'll plot these elements and discover their intimate relationships based on all various levels across all sampling locations.

The levels never fall below 400ppm for Barium and they never drop below 700ppm for Strontium and they reach over 3000ppm for both of them at WTC01-16, Broadway and John Streets. Why? Barium and Strontium are rare Trace elements with limited industrial uses. Strontium salts are mainly used to produce the red color in fireworks and Barium is used in some paints, in the manufacture of some glass products (CRT screens) and in vacuum tubes. Both elements are highly toxic, their levels are unprecedented, neither have building applications and shouldn't be present in building rubble and neither are valid in even Trace amounts, which would be less then 10ppm or 10mg/kg.

The enormous peak in Barium and Strontium concentration at WTC01-16 is readily apparent (chart at right). The concentration of the two elements reaches 3670ppm for Strontium and 3130 for Barium or over 0.3% by weight of the dust. This means that 0.37% of the sample was Barium and 0.31% of the sample was Strontium by weight at that location, WTC01-16, Broadway and John Streets. This is higher then the Titanium concentration at WTC01-16 of 0.25% or 2500ppm and higher then the Titanium Mean or average of 0.26% or 2600ppm.

Quite simply, this is astronomical. Barium and Strontium compounds are not valid constituents of concrete or any other building material including glass, aluminum, plaster and steel. They should not be there at these levels. Even at the other sampling locations the concentration does not fall below 400ppm for either Barium or Strontium, which is still an astronomically high level for these elements.

The Mean concentration for Barium including the very low girder coating samples is 533ppm and for Strontium it's 727ppm. These are not Trace amounts. They are highly dangerous and extremely toxic amounts. They are also critical components of nuclear fission and the decay process.



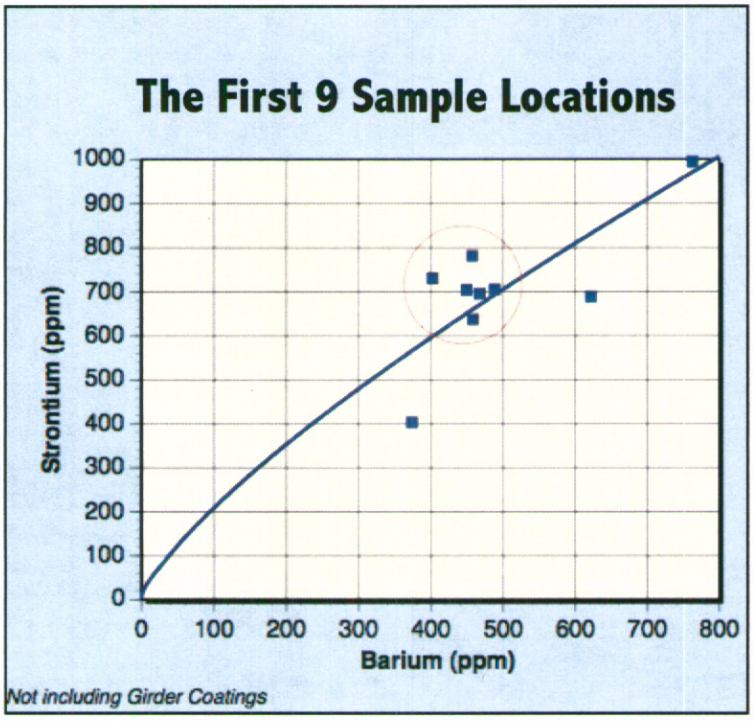
The Correlation Between Barium And Strontium

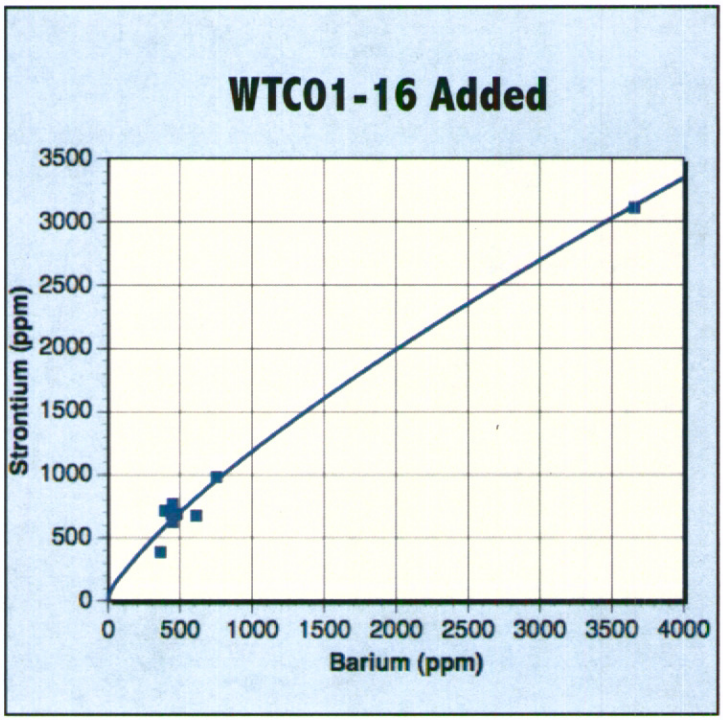
Produced By A Common Process

Here we're plotting the concentration of Barium at each location against the Strontium concentration. The correlation between the concentrations of the two elements, Barium and Strontium is very strong. The graph (on the following page) shows just the first 9 locations, where the concentration of both Barium and Strontium was below 1000ppm and the graph on the right adds the 10th data point at WTC01-16 where the concentration of Barium and Strontium both spiked over 3000ppm.

We can see that the data lies on an asymptotic curve. Looking at the left hand graph most of the points form a very tight cluster (circled in red), where the Barium concentration was between 400-500ppm and the Strontium concentration was between 700-800ppm. This is telling, that such a high number of samples had very similar concentration profiles. This shows a fairly homogenous dispersal of the radionucleides by the blast (with the exception of one data point at WTC01-16) and that the Barium and Strontium concentrations are related in a fairly distinct and narrow band – they were produced by a common process. The very high concentration at WTC01-16 tells us even more and fits the correlation perfectly – evidently the process that produced the Barium and Strontium was still ongoing at that location, leading to an extremely high concentration there.

WTC Dust Samples • Concentration of Barium vs Strontium





Correlation Coefficient

The quality of this correlation can be quantified statistically using what's known as the Product Moment Correlation Coefficient. Correlation Coefficients are used to estimate how strong the relationship is between two different things – e.g. between smoking and lung disease. If there is a high correlation coefficient the two things might be related or linked.

Using this method, the Coefficient of Correlation between the concentration of Barium and Strontium at the outdoor and indoor sampling locations is 0.99 to 2 decimal places (0.9897 to 4 decimal places). The Correlation Coefficient between the concentration of Barium and the concentration of Strontium is 0.9897. The maximum Correlation Coefficient that is mathematically possible is 1.0 and this would mean we have a perfect match between the two factors we're examining and the data points would lie on a straight line with no variation between them.

To obtain a Correlation Coefficient of 0.9897 with this number of measurements around Lower Manhattan is very, very significant indeed. What this means is that we can say that there's a 99% correlation in the variation in the concentration between these two elements. They vary in lockstep; they vary together, similarly. When one varies, so does the other. We can state with absolute mathematical certainty that any change in the concentration of one of these elements, either the Barium or Strontium, is matched by the same change in the concentration of the other.

Whatever process gave rise to the presence of the Barium or the Strontium must have produced the other as well. There is only one process that can account for this and produces both. A very well known process indeed that this report discusses intimately. Nuclear Fission.

But just to be sure, we can use another statistical procedure to test whether this correlation between the two values could have arisen by chance. For example, if there are only two data points one would invariably obtain a very good correlation between them, a correlation of 1 in fact, a prefect correlation. This is because if you only have two data points you can only draw a straight line to join them together.

The USGS took 12 measurements for Barium and Strontium. Using what is called a *t* test statistic, another statistical technique, we obtain a *t* value of 21.83 for the correlation coefficient of 0.99 with 12 data points. Without explaining this in detail, what this tells us is that the chance that such a high correlation coefficient could have arisen by chance with 12 measurements is vanishingly small. Nuclear Fission, confirmed. But there's much more.

The Girder Coatings

We know beyond doubt that the only process that can cause Barium and Strontium to be present in related or correlated quantities and any process that can also cause Barium and Strontium to have such strong relational concentrations across different samples, is nuclear fission. We know that if nuclear fission had occurred that Barium and Strontium would be present and a strong statistical correlation between the quantities of each would be found, and we have that, in spades. What else do we have? Quite a lot.

About 400ppm of Barium and Strontium were measured in two samples of insulation girder coatings (WTC01-08 and 01-09). The concentration of Strontium actually falls somewhat below that of Barium in the second girder sample, WTC01-09, as at WTC01-16, whereas in every other sample the level of Strontium discovered was higher then Barium. Given the elevated levels of Barium daughter products found in the second girder and even the highest level of Uranium found (7.57ppm just West of and behind Tower One) this shows that active fission was still ongoing in the second girder coating, in the very same way as at WTC01-16 and therefore more Barium was found then Strontium. In other samples where the rate of fission had slowed down to give way to decay, the concentrations of Barium and Strontium reverse, due to the different half lives. Barium isotopes have a shorter half life then Strontium isotopes so they decay more quickly and after a period of time when no new Barium or Strontium has been deposited, Strontium will exceed Barium. The fact that more Barium then Strontium was still found at WTC01-16 and WTC01-09 shows that the overall nuclear processes taking place were somewhat favoring Barium over Strontium – and hence Zinc as well, and we will explore this shortly.

The tighter cluster of Barium (400-500ppm) and Strontium (700-800ppm) concentrations across widely separated sampling locations in Lower Manhattan is cast iron proof that Nuclear Fission occurred. We know that Barium and Strontium are the characteristic signature of fission; they are formed by two of the most common Uranium fission pathways. The fact that their concentrations are so tightly coupled means that their source was at the very epicenter of the event which created the dust cloud that enveloped Manhattan. This was not a localized pre-existing chemical source which would only have contaminated a few closely spaced samples and left the remaining samples untouched.

The very high concentrations of Barium and Strontium at location WTC01-16 shows that active nuclear fission was still ongoing at that spot; the dust was still "hot" and new Barium and new Strontium were being actively generated, actively created by transmutation from their parent nuclei.

Zinc

Looking at the data for Zinc we see that the Zinc concentration for WTC01-02, Water Street at the intersection of New York, is 2990ppm and this immediately stands out. In fact, for the outdoor samples, Zinc is the most common Trace element at all sampling locations, with generally between 1000ppm and 2000ppm except for this spike of nearly 3000ppm at WTC01-02.

This equates to an enormous concentration of Zinc. 0.1% to 0.2% of Zinc in the dust overall and at WTC01-02, 0.299% of the dust was Zinc. This exceeds the concentration of the supposed "non-Trace" element Manganese and Phosphorous and almost equals the elevated Titanium concentration of 0.39% at that same location.

Where Does All The Zinc Come From?

In the chart (next page) we add the Zinc plot line in comparison with Barium and Strontium. The peak in Zinc concentration at WTC01-02 is also accompanied by a higher Barium and Strontium concentration for those elements than at any of the other locations except WTC01-16, but the concentrations of Zinc, Strontium and Barium all vary together in a similar way at all locations, except at WTC01-16 and in the girder coatings, which are the last two data points at the far right of the chart (at far right), WTC01-08 and WTC01-09.

If we include the data for WTC01-16, the Correlation Coefficient between the Zinc and Barium concentration is 0.007 to 3 decimal places, from which we can conclude that there is absolutely no correlation at all. But if we exclude that one sampling location, where Barium and Strontium concentrations peaked, the correlation coefficient between Zinc and Barium is 0.96 to two decimal places and between Zinc and Strontium, 0.66 to two decimal places. So what happened?

This shows that the Zinc and Barium concentrations are closely related and if we exclude what must have been an extraordinary event at WTC01-16 as an outlier, the correlation is very good. The Product Moment Correlation Coefficient is 0.96. We'll discuss why WTC01-16 might be so different momentarily. The concentration of Zinc is now 3 times the concentration of Barium but the correlation between Zinc and Strontium is not so clear, showing that the relationship must be more indirect. This is to be expected since Barium and Strontium are produced by different nuclear fission pathways.

In spent nuclear fuel, Strontium is found as Strontium Oxide (SrO) – the Strontium produced by the nuclear fission explosion under the Twin Towers will certainly have been oxidized to SrO by the heat. SrO is extremely soluble in water, so some of the Strontium concentration results obtained may have been distorted by the rain water which fell on New York a few days after the towers were destroyed.

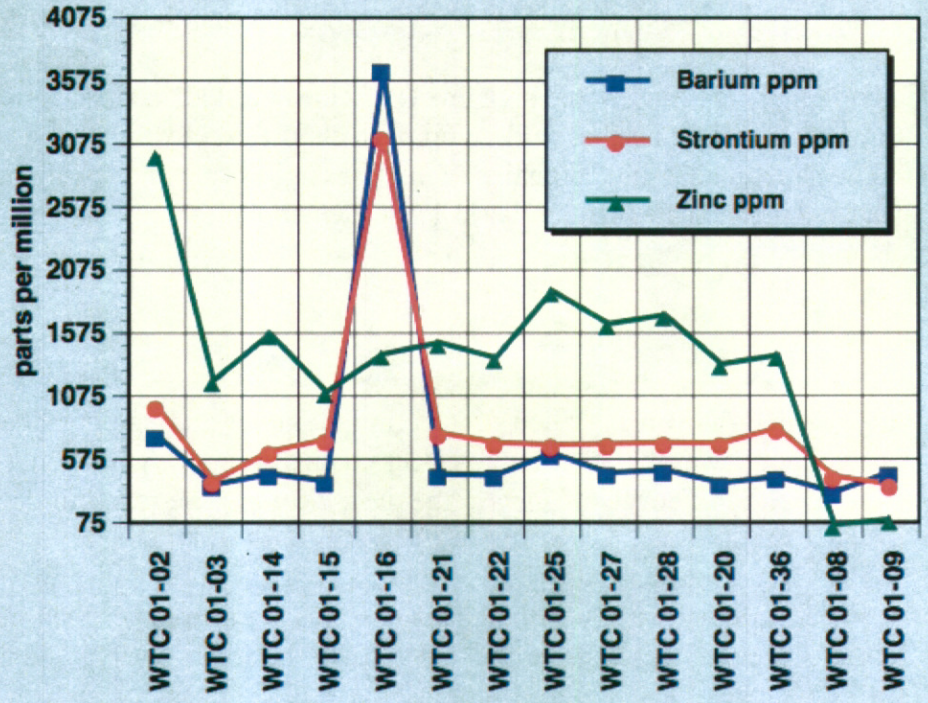
There is a very strong linear relationship between Barium and Zinc found at the World Trade Center. This may indicate that a closely related nuclear sub-process gave rise to them, which produced 3 times as much Zinc as Barium by weight. If so, that would be a very unusual nuclear event.

There is a lesser known nuclear process accounts for this, which would be indicative of very high energies indeed. This process is known as Ternary Fission.

Ternary Fission

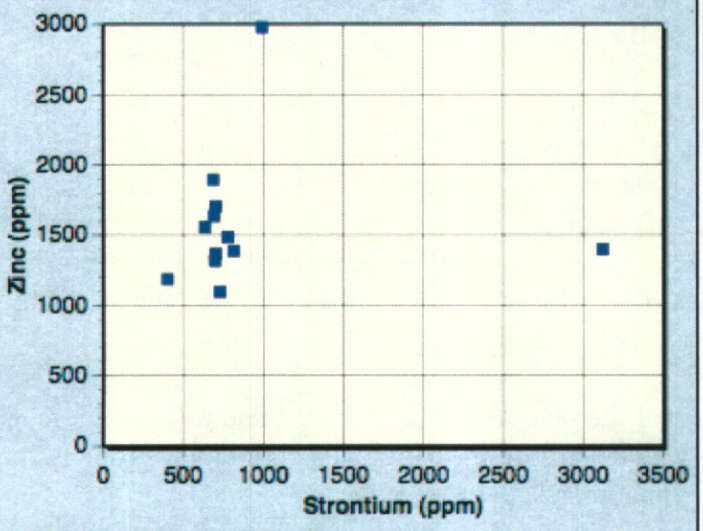
In Ternary Fission, an atom of uranium splits not into two atoms but three. One of the well-known by-products of atomic bombs is Carbon-14 and it is known that Carbon-14 is also a Ternary Fission product of nuclear reactors. So if a nuclear fission process produces Carbon-14, what are the other two products produced?

WTC Dust Samples • Zinc • Barium • Strontium



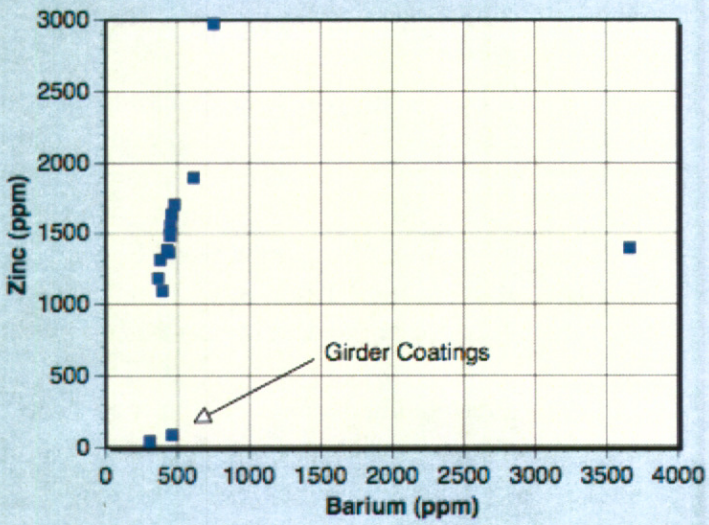
Source: USGS (Including Girder Coatings)

Zinc • Strontium



Not Including Girder Coatings

Zinc • Barium



Including Girder Coatings

In the first step, Uranium fissions into Radon, the heaviest of the inert or noble gases plus Carbon-14 plus a large burst of excess neutrons. We have seen that Uranium "likes" to use noble gas pathways, so the production of Radon and therefore the complementary fission fragment Carbon-14 must occur, accounting for the Carbon-14 produced by nuclear bombs.

In the second step, the Radon further fissions into Barium and Zinc with a further large release of neutrons.

This process would certainly partially account for the high levels of Zinc detected, in close correlation to Barium. Other interrelated processes must also have been at work to produce almost exactly three times the concentration of Zinc to Barium. This might lead into classified domains of nuclear engineering and testing but one conclusion can be drawn; the high levels of Zinc indicate that the World Trade Center nuclear explosions might have characteristics akin to a neutron bomb.

Girder Coatings

It's also very interesting to note that the concentration of Zinc in the indoor and outdoor dust samples is over 1000ppm but an order of magnitude lower than that in the girder coating samples, where only 50-100ppm Zinc was found. Whatever caused the elevated levels of Zinc in the dust, did not penetrate into the girder insulation coatings.

The Barium and particularly the Strontium levels in the girder coatings are also lower than in the dust but still fairly high, comparable to their levels in the dust. So this discrepancy between Barium and Zinc in the girder coatings, along with WTC01-16, suggests that there was not just one direct process at work for the generation of Zinc and Barium but a number of parallel processes – as one would expect from the different fission pathways that occur.

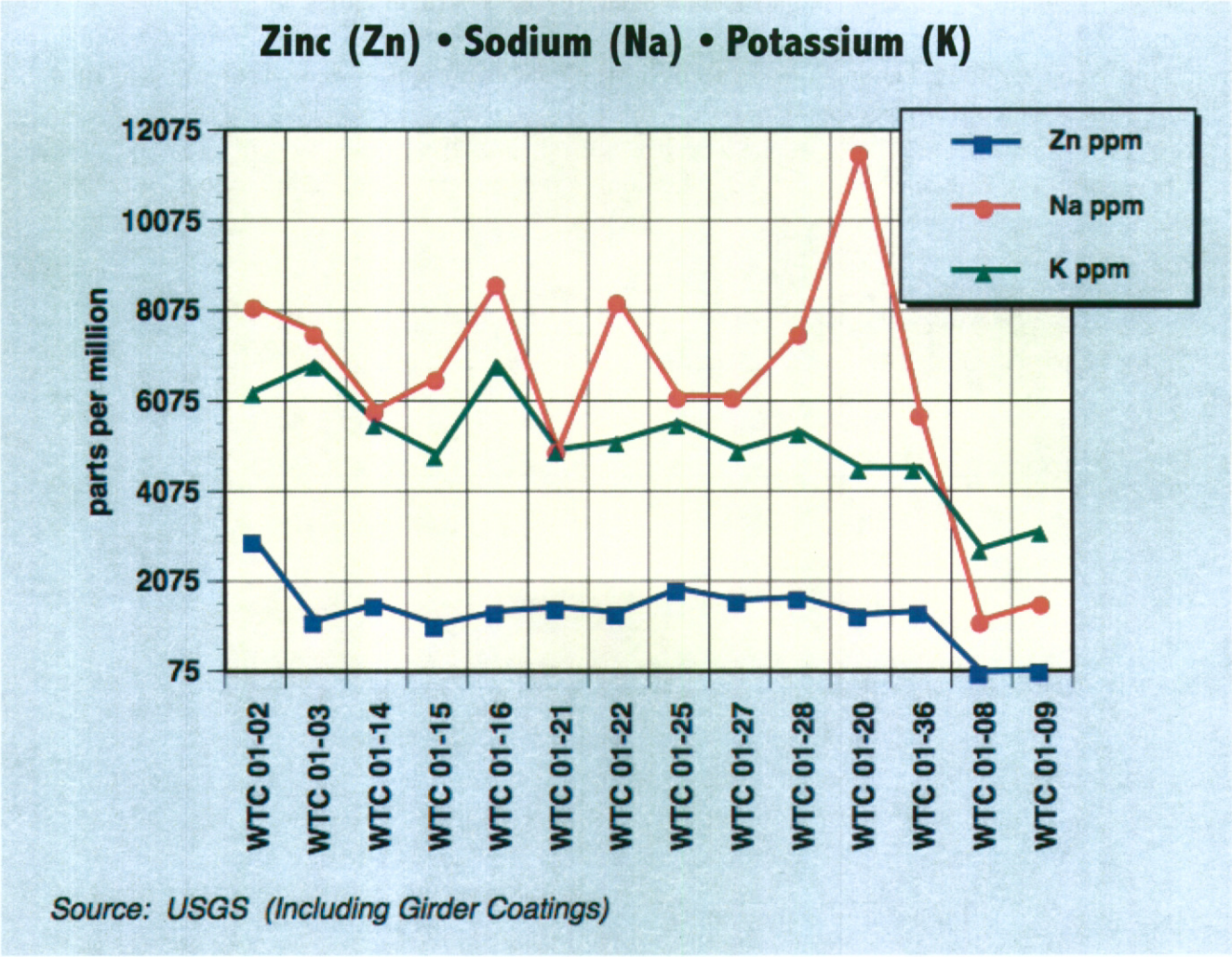
Very interestingly, the levels of further fission daughter nuclei of Barium and Strontium such as Cerium, Yttrium and Lanthanum are all an order of magnitude higher in the girder coatings then in the dust.

So we have an inverse relationship between the levels of Zinc, Barium and Strontium and the levels of further decay nuclei in the girder coatings.

This indicates that fission products, Barium and Strontium, were initially forced into girder coatings by the proximate force of the blast. These fission products had partially decayed into Cerium, Lanthanum and Yttrium by the time the samples were collected but no new Barium or Strontium had been deposited in the meantime. The girder coatings therefore trapped high levels of Cerium, Lanthanum and Yttrium but some of the oxides of these elements in the dust exposed to the weather were leached out by the rain. However, in the dust itself, spread out across Manhattan, more Barium, Strontium and Zinc was still being deposited from the decay of the heavy radioactive inert gases present and from new fission products being continually generated under the site.

These are not rare elements as such and the USGS classified them as "Major Elements" due to the high levels found. However, the variations in concentration of these two elements at the different sampling locations is very revealing and we have compared them to Zinc in the following analysis.

This graph (next page) shows that (*apart from the very high peak in Sodium levels for one of the indoor dust samples*) the Sodium and Potassium concentrations both display this now characteristic peak at location WTC01-16, the corner of Broadway and John Street. Sodium has the same peak as Zinc at WTC01-12, the corner of Warren and West, and like Zinc, falls to a minimum in the girder coatings – far below the concentrations found in the dust. Potassium is very similar except its concentration was not a peak at WTC01-02 Water and New York Streets, but somewhat lower then the next location, WTC01-03, State and Pearl Streets.



Sodium and Potassium

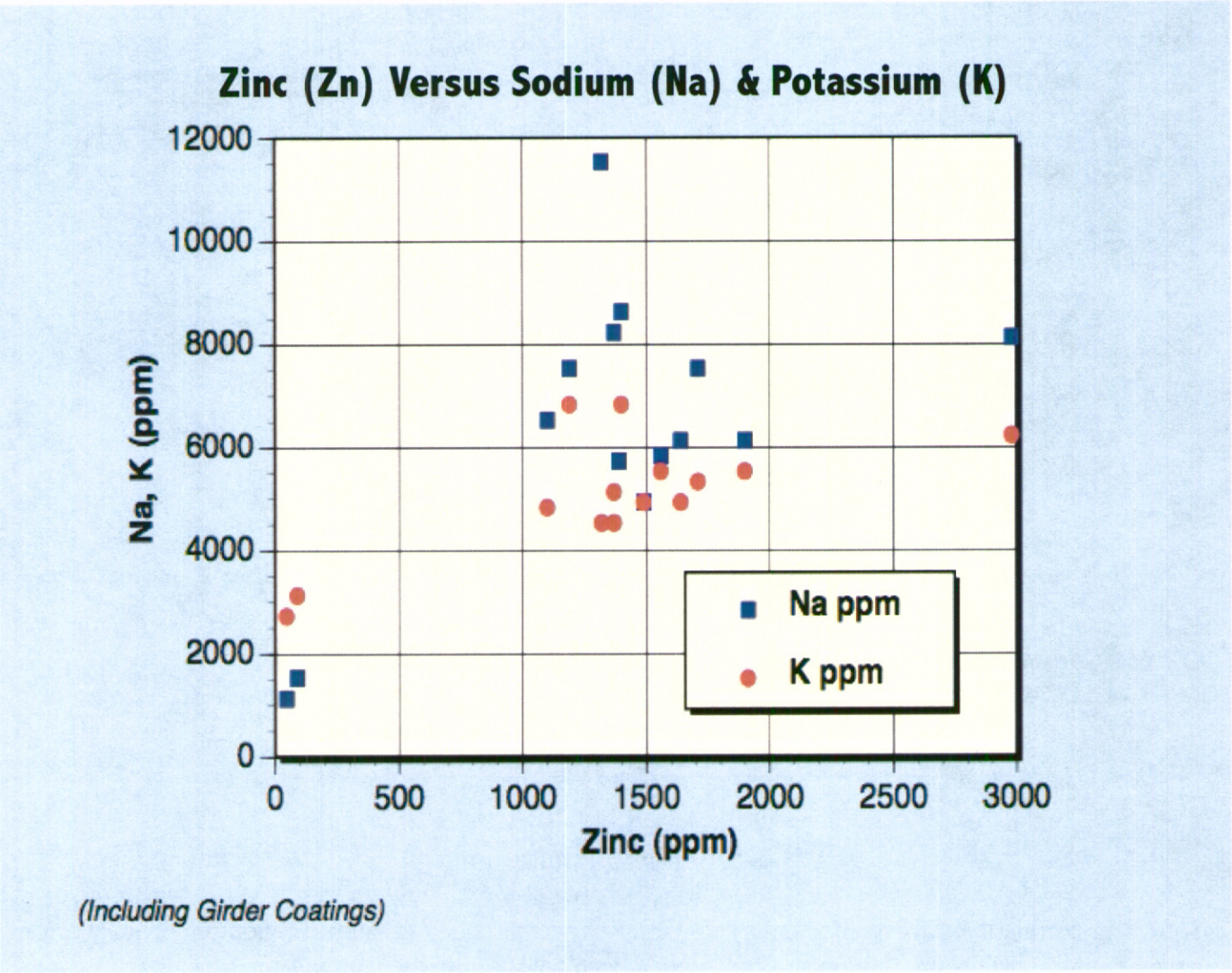
There are clear correlations and relationships here which show that the Potassium and Sodium concentrations did not arise at random. If they are products of radioactive decay, where did they come from?

Remember that Strontium is produced by a fission pathway that proceeds through the Noble Gas Krypton and then the Alkali Metal Rubidium. Similarly, Barium is produced through Xenon and the Alkali Metal Caesium. We know that Uranium fission favors these pathways through the Noble Gases – we will see later proof that Neon was produced along with the balancing Lead – we would also expect Argon.

Just as radioactive isotopes of Krypton and Xenon decay by beta particle emission to produce Rubidium and Caesium, radioactive isotopes of Neon and Argon also decay by beta emission to produce Sodium and Potassium. We would indeed expect to find anomalous levels of these elements present – what was found is again consistent with the occurrence of nuclear fission.

Just as radioactive isotopes of Krypton and Xenon decay by beta particle emission to produce Rubidium and Caesium, radioactive isotopes of Neon and Argon also decay by beta emission to produce Sodium and Potassium. We would indeed expect to find anomalous levels of these elements present – what was found is again consistent with the occurrence of nuclear fission.

If we plot Xenon against Sodium and Potassium in rank order, we obtain the following graph:



There is a very strong correlation between Zinc and Potassium. Between Zinc and Potassium there almost appear to be two relationships. On the one hand, as the concentration of Zinc increases, we see a linear increase in the level of Sodium, but on the other hand, as the level of Zinc approaches the 1500ppm level, the concentration of Sodium takes another route to shoot up past 8,000ppm to over 11,000ppm in one of the indoor dust samples. Is there a way of accounting for this?

Yes, there is. Potassium has 5 radioactive isotopes, which all decay in a similar time-scale, i.e. very quickly in a matter of hours or minutes. 4 of them decay by beta emission – which means the majority of Potassium will transmute into Calcium which in turn will change into Scandium and Titanium. This is generally going towards Zinc and we will see momentarily the strong correlation between Titanium and Zinc. We could have equally used Titanium here in comparison to Sodium and Potassium, but we want to show the clear relationship with an element classified by the USGS as a Trace element, since Titanium was classified as a "Major Element" by the USGS. However, Sodium has only two radioactive isotopes; one decays by beta emission with a long 15 year half life to form Magnesium, Aluminum, etc., while the other decays by positron emission back to Neon with a 2.6 year half

life. This means that as the concentration of this Sodium isotope increases it will anti-correlate with heavier elements such as Titanium, Zinc, etc. – it is decaying back towards Neon and lighter elements while the other Sodium isotope, decaying much more slowly and therefore having relatively less impact on the production of its heavier element daughter products, will correlate with the occurrence of heavier elements.

This is exactly what we see in the chart at the left – there appears to be two Sodiums, one that correlates with Zinc (heavier elements) and one that goes towards inverse proportionality – Zinc actually decreases as Sodium increases. This fits the behavior we would expect from the two Sodium isotopes.

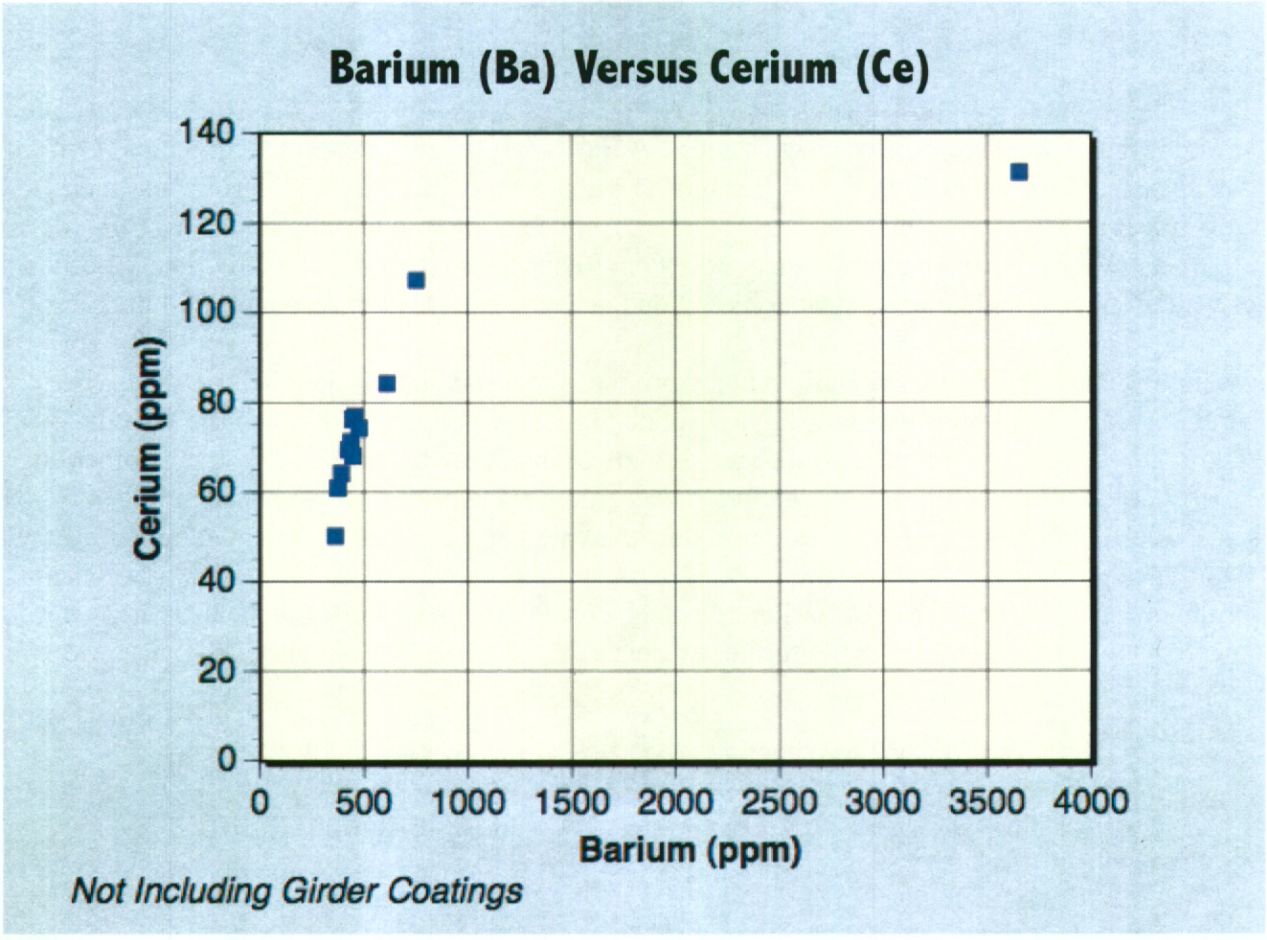
Other Trace Elements

We now examine the other Top Ten Trace Elements, many of which are well known decay products of the nuclear fission pathways. Their presence in such high quantities in the World Trade Center dust cannot be explained by any other mechanism.

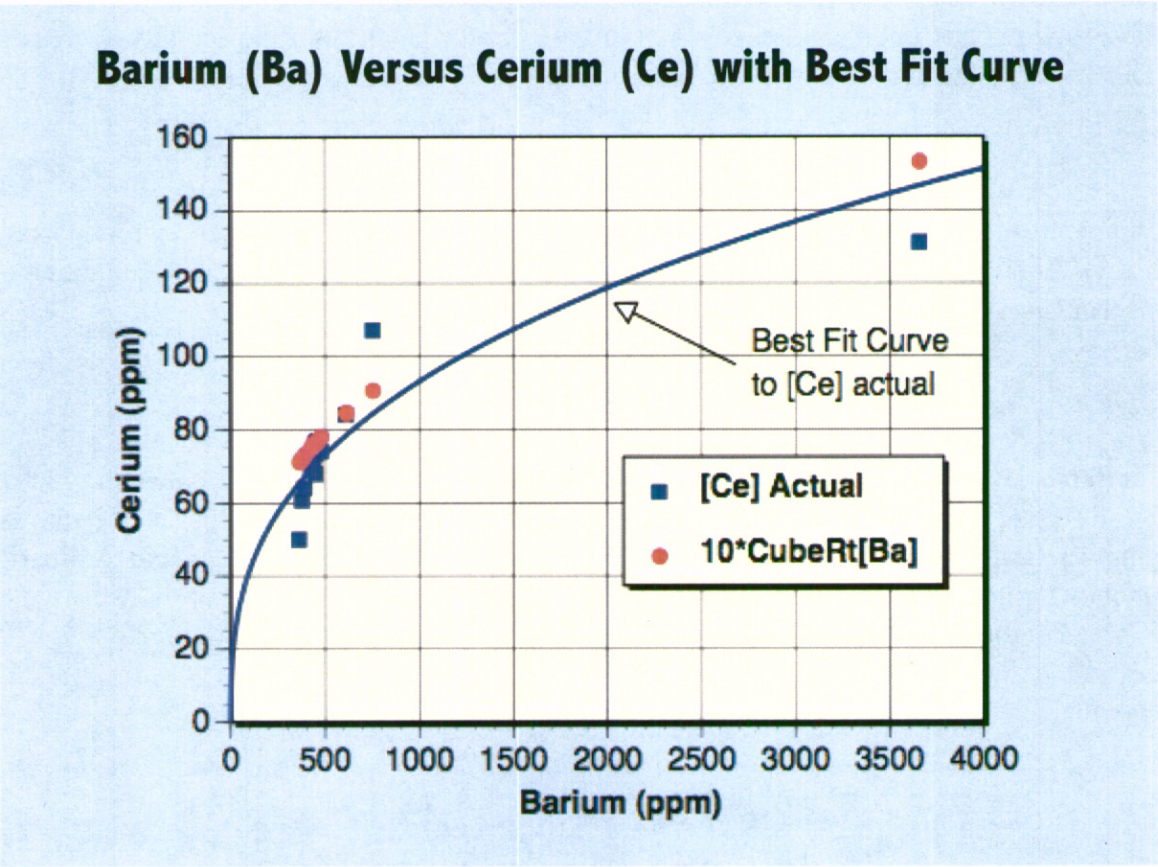
Cerium

In looking at Table 1 (on earlier page) of the trace elements, we see peaks in the concentration of Cerium at WTC01-02 and 01-16, i.e. at the same two locations as the Barium and Strontium peaks. Cerium is a very rare element – yet over 100ppm was discovered at WTC01-02 and 01-16, which again is an extraordinarily high level for that element. Cerium is the second daughter product of Barium in that disintegration pathway, coming after Lanthanum. The Coefficient of Correlation between Barium and Cerium is 0.84, very high.

Below we plot the concentration of Barium against Cerium:



The data points in fact fit a cubic relationship in which the concentration of Cerium is approximately equal to 10 times the cube root of the Barium concentration. We show the data in the graph below with the actual Barium concentration now also plotted against the Cerium value calculated by the 'cube root' formula and a best fit curve to the actual data. The correlation between the actual Cerium values and the values predicted by this model is clearly of the same order. What does this tell us?



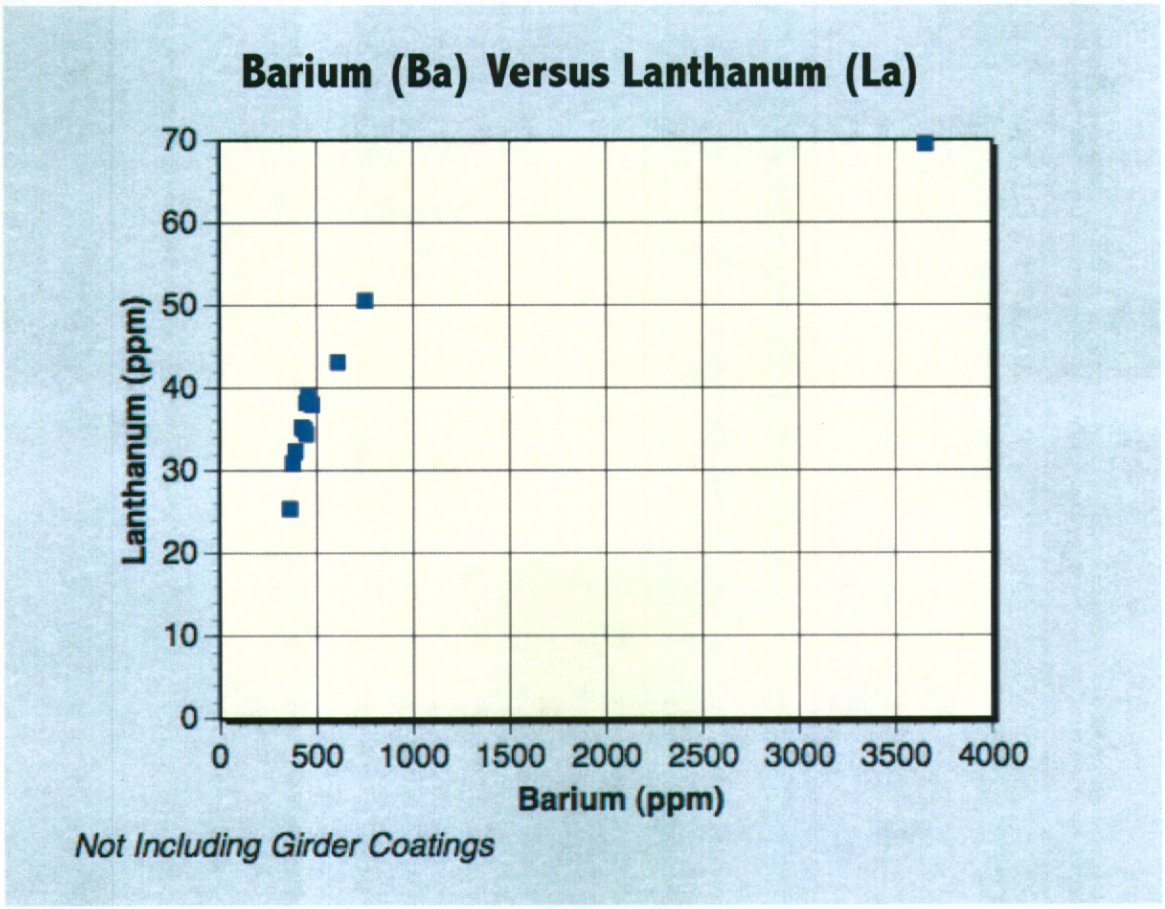
Since Cerium is the second daughter product of decay of Barium, we would expect the amount of Cerium present to increase linearly with the concentration of Barium. The first part of the curve, for Barium less then 1000ppm is more or less linear as expected. Why then does the relative concentration of Cerium fall at WTC01-16, Broadway and John Streets, where Barium was so high, at 3670ppm? This shows that at that location new Barium was still being actively produced, with intense nuclear fission and decay of intermediate products still ongoing.

There was not yet enough time for the Barium being produced to decay into its daughter products. The concentration of Uranium at this location was not the highest found though, which supports what we conjectured before; the Barium and Zinc was not just produced by direct fission of Uranium but by Ternary fission and other intermediate decay steps from the other elements that were produced. Another factor that has to be taken into consideration is the presence of different isotopes of the fission products; Barium and Strontium, discussed momentarily.

Since Cerium is the daughter product of Barium, this high correlation between Barium and Cerium concentrations in the expected exponential relationship is further evidence that Nuclear Fission has taken place. More proof follows.

Lanthanum

Lanthanum is the next element in the disintegration pathway of Barium, situated between Barium and Cerium. The concentration of Barium versus Lanthanum is plotted below.



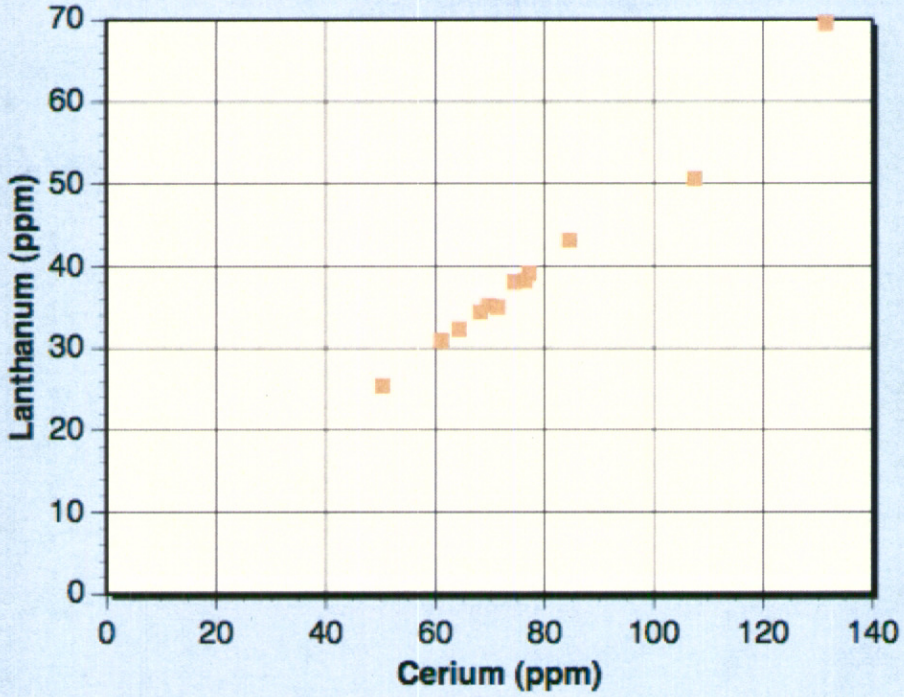
This graph is almost identical in form to the relationship between Barium and Cerium. A similar inverse exponential (cubic) relationship is clearly visible. In this case, Lanthanum is approximately equal to 5 times the cube root of Barium.

Lanthanum has a much shorter half life then Cerium; most of its isotopes have a half life of only a few hours whereas beta decay by Cerium is measured in half life periods of a month to 10 months. Ceriums beta decay going back to Lanthanum occurs more quickly but Lanthanum's beta decay going back to Barium occurs in a similar time-scale to that – a few hours, so we are left with the net effect of Lanthanums beta decay being much quicker than that of Cerium, so the concentration of Cerium remaining was higher than that of Lanthanum.

Cerium Versus Lanthanum

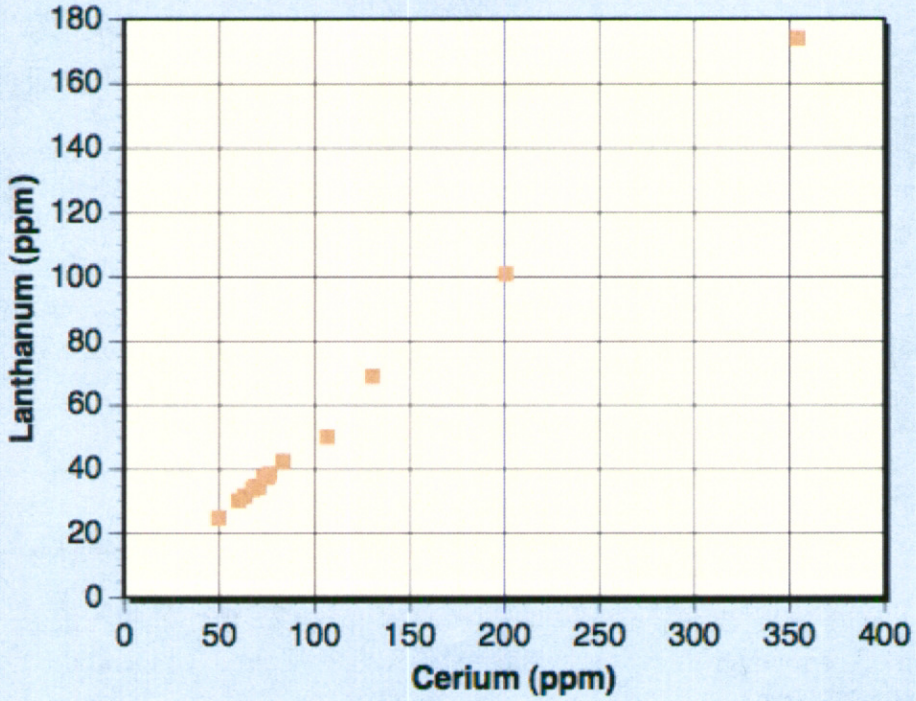
Next we show the relationship between Lanthanum and Cerium. We have an almost perfect linear correlation between the two. The graph (next page) confirms our two cubic models, which predict that the concentration of Lanthanum produced should be half the concentration of Cerium. Or, Cerium = two times Lanthanum. Given that Cerium follows Lanthanum in the fission pathway, that both elements are extremely rare except in nuclear events and the concentration of Lanthanum is almost perfectly correlated with the concentration of Cerium, the occurrence of Nuclear Fission of Uranium is the only possible explanation.

Cerium (Ce) Versus Lanthanum (La) Without Girder Coating Samples



Not Including Girder Coating Samples

Cerium (Ce) Versus Lanthanum (La) With Girder Coating Samples



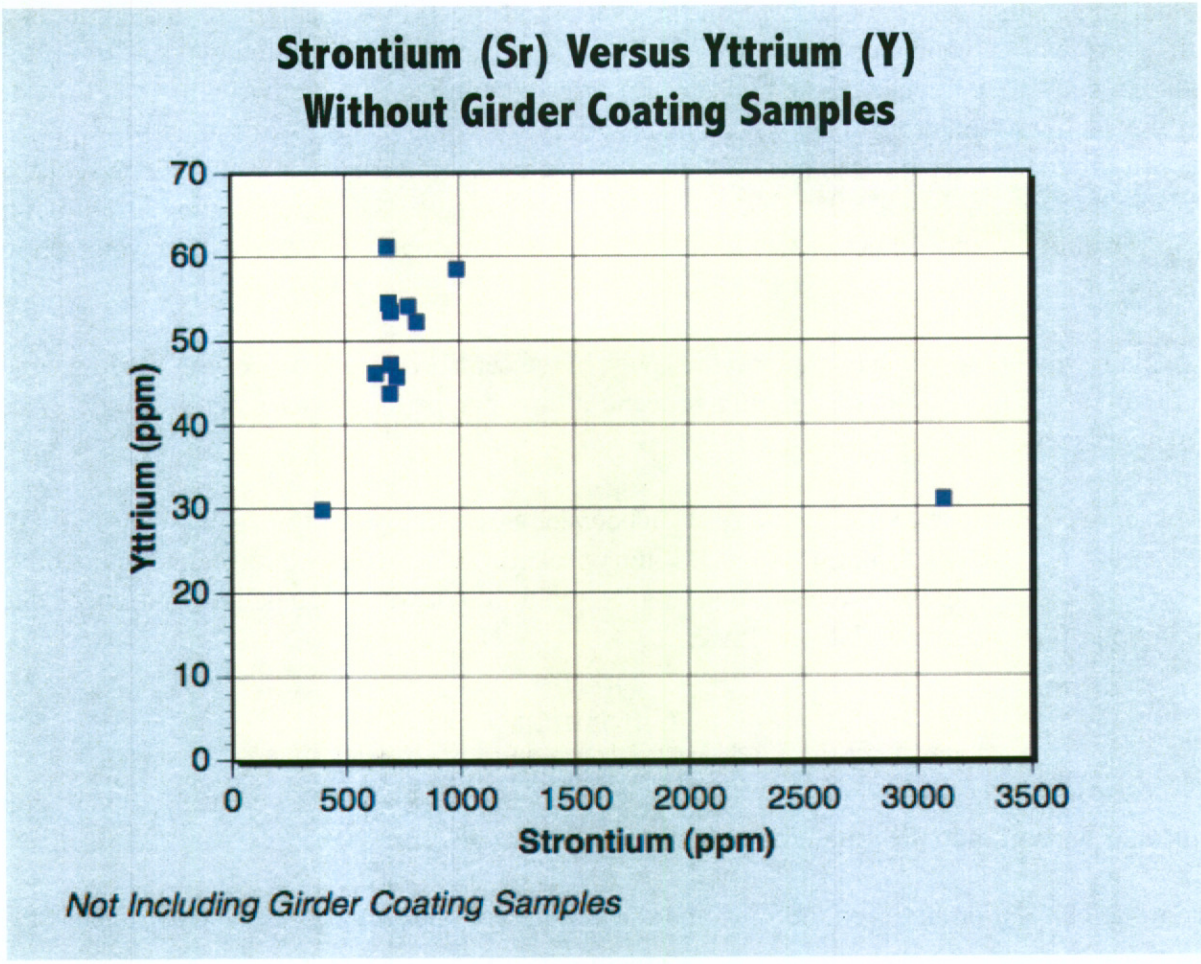
Including Girder Coating Samples

This data is shown again (graphs previous page) and includes the Girder Coatings (lower graph, two very high values based on Table 1 data.

These relationships in the data provide further overwhelming proof that Nuclear Fission of Uranium has taken place, with characteristic statistical relationships between the quantities of the different elements present that are indicative of the fission pathways of Uranium.

Yttrium

Yttrium is also a very rare element and should not be present in dust from a collapsed office building. Yttrium is the next decay element after Strontium. If we plot concentration of Strontium against Yttrium, we see what happens in the graph below.



Strontium 90 has a much longer half life (28.78 years) than most Barium isotopes so we would not expect to see as high a concentration of Strontium's daughter products as those that are produced from Barium. This is in fact what we see – the concentration of Cerium (next daughter product to Barium) is higher then Yttrium, the next daughter product to Strontium.

Another factor is that different isotopes of these daughter elements are produced with different half lives and, as before, they decay by different mechanisms – electron (beta particle) emission and electron capture (EC). The USGS of course have not analyzed which isotopes and what proportions were present for each element – Barium, Strontium, Zinc, Cerium, etc.

Although Strontium 90 is the main Strontium isotope produced which decays by emission, some Strontium 82, 83

and 85 is produced as well which decay by EC into Rubidium. Different Yttrium isotopes also decay by emission and EC both into Zirconium and back into Strontium. Examining the graph on the previous page we see what may look like two separate and distinct relationships between Yttrium and Strontium. One set of points seems to indicate a linear increasing relationship between the Strontium and Yttrium concentration, while another set shows Strontium reaching a maximum and decreasing again as Yttrium increases (ignoring the outlier with >3000ppm Strontium). We have seen this pattern with Sodium and we will see it again; the relationship where Strontium decreases as Yttrium increases can be explained by the influence of Yttrium isotopes decaying by electron emission into elements of higher atomic number – i.e, Zirconium while the other line is formed by those Yttrium isotopes that decay by EC back into Strontium – boosting the amount of Strontium present.

Also, if there was a significant time difference between the analysis of the samples, it would affect the comparison results because Yttrium 90 has a half life of only 2.67 days while Yttrium 91 has a half life of 58.5 days.

We know that some samples were collected on the evening of the 17th of September and some 24 hours later on the 18th of September, which may have had an effect on Yttrium 90 levels in the two sets of dust samples by removing them from the influence of the nuclear processes continuing in the environment. A time delay in the analysis of the samples would also have a significant effect. 24 hours is 3/8ths of the half life period, so some 23% of the Strontium 90 present in the dust will decay away in this time. Any Strontium 89 present would not be greatly effected by a time delay of 1 day since its half life is 52 days, so the corresponding Strontium made up of Sr89 and Sr90 would not show a noticeable difference; Yttrium made up of Y89 and Y90 would show a noticeable difference.

This may explain why in the graph on the previous page in the central cluster some of the Yttrium concentrations were lower than others for a similar Strontium concentration – maybe there was a significant delay between the times the analyses were performed.

Overall, we can see that there is a marked correlation between Strontium and Yttrium, with one outlier – WTC01-16 where the concentration of Strontium (and Barium) peaked. This was as we have said, evidently a location where energetic nuclear processes were still ongoing. New Strontium was being actively produced and therefore the concentration of Yttrium was relatively lower.

Chromium

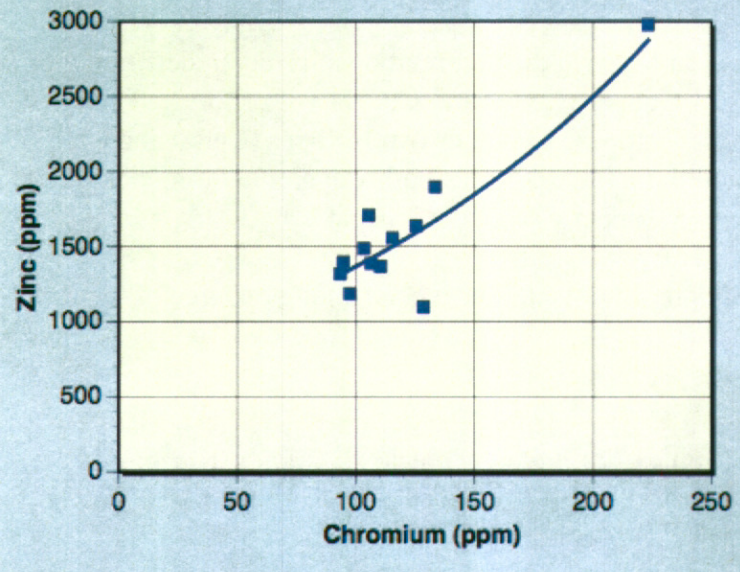
The presence of Chromium is also a tell tale signature of a nuclear detonation. It's concentration is shown plotted against Zinc and Vanadium in the graphs at the top of the next page.

There is a strong correlation between the Zinc and the Chromium concentration. The Coefficient of Correlation is high, 0.89.

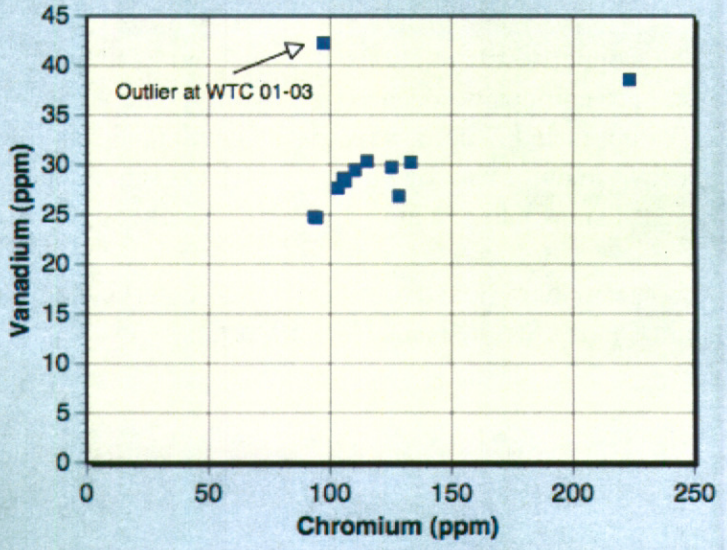
There is also an indication of strong correlation between Chromium and Vanadium with 6 points of lying on an almost perfect exponential curve, with one outlier, WTC01-03, the corner of State and Pearl Streets, of 42.5ppm where the Vanadium concentration reached its highest level.

The third graph (next page) plots Chromium against Nickel. There is a strong cluster in the two concentrations showing a very homogenous distribution in these elements.

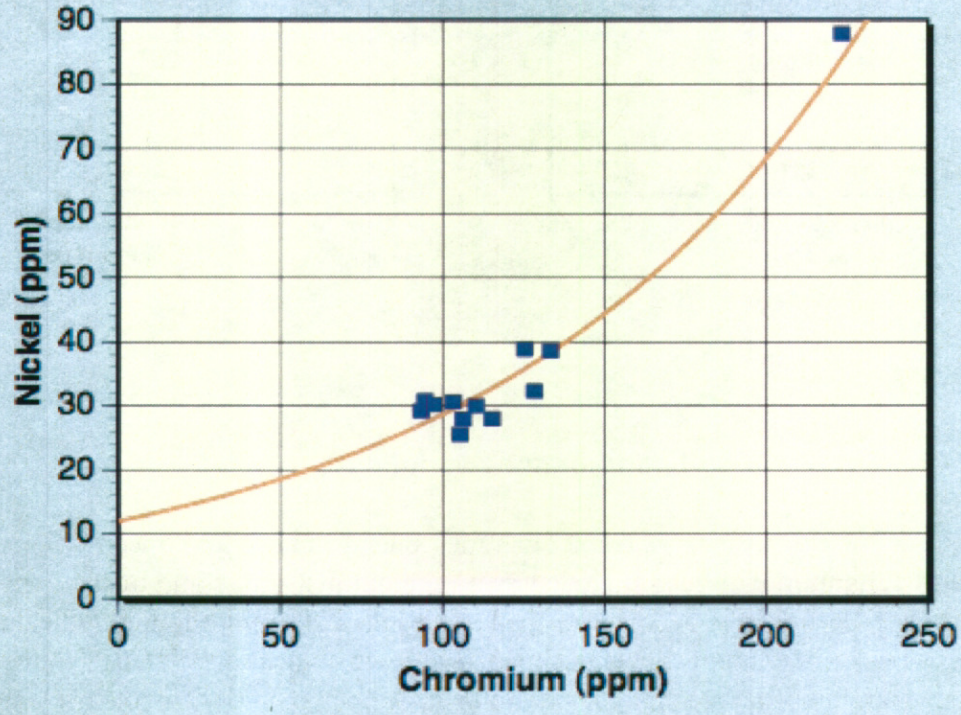
Chromium (CR) vs Zinc (Zn)



Chromium (CR) vs Vanadium (V)



Chromium (CR) vs Nickel (Ni)

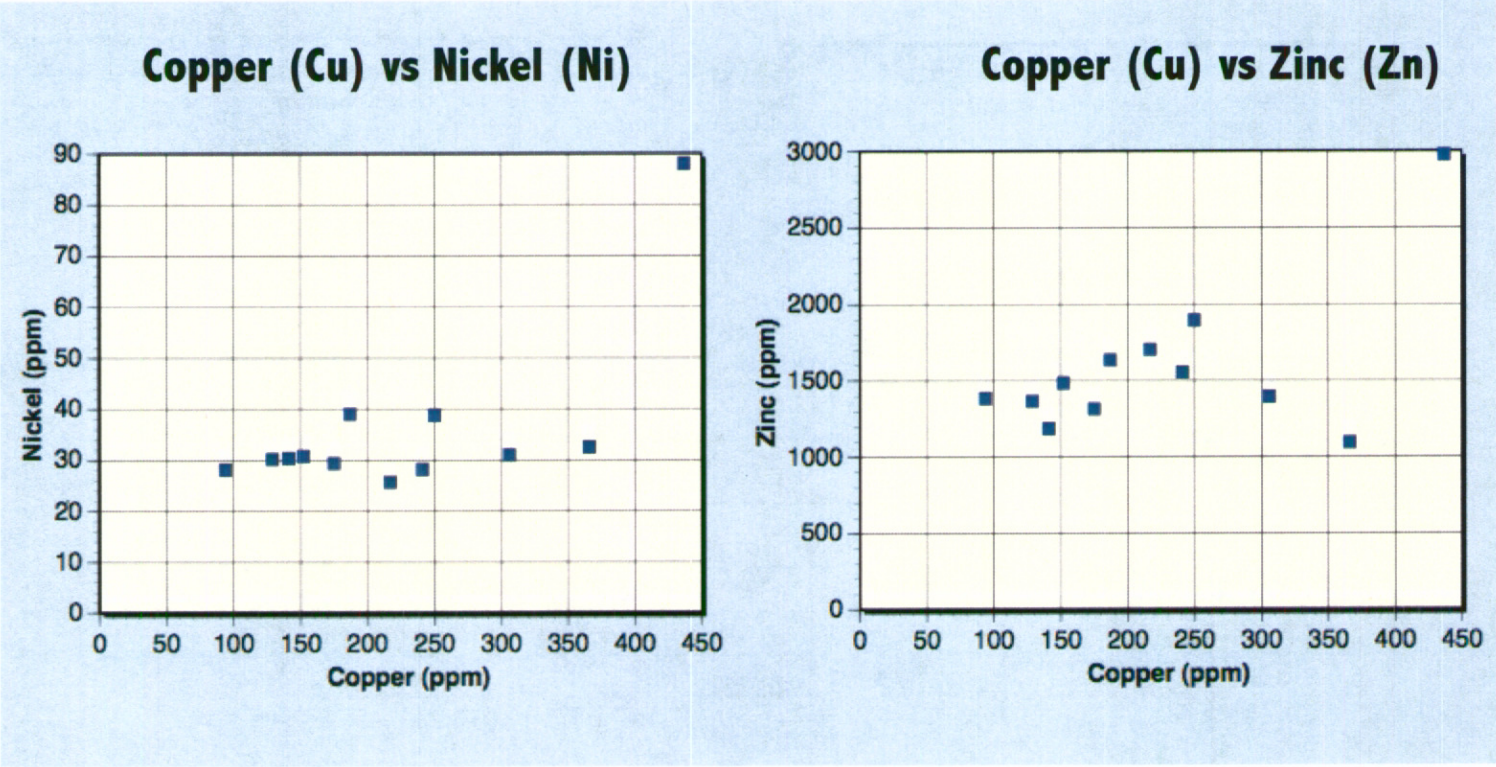


Copper

This element is also indicative. If we plot the concentration of Copper against Zinc and Nickel, we obtain the graphs seen below. The concentration of Nickel was almost the same everywhere, except for the peak of 88ppm matched by the Copper peak of 450ppm.

The Copper - Zinc relationship is very interesting, showing in fact two distinct relationships again depending on isotopic composition. There are two radioactive isotopes of Copper (Cu 64 and Cu 67) with short half lives of 12.7 hours and 2.58 days respectively which decay into Zinc isotopes. The other two isotopes (Cu 60 and Cu 61) decay the other way by positron emission into Nickel – and in fact Cu 64 goes both ways, into both Nickel and Zinc. This would explain why there strongly appear to be two Copper - Zinc relationships.

The decay of radioactive Copper by beta particle emission into Zinc would have been another source of the Zinc found in the World Trade Center Dust.

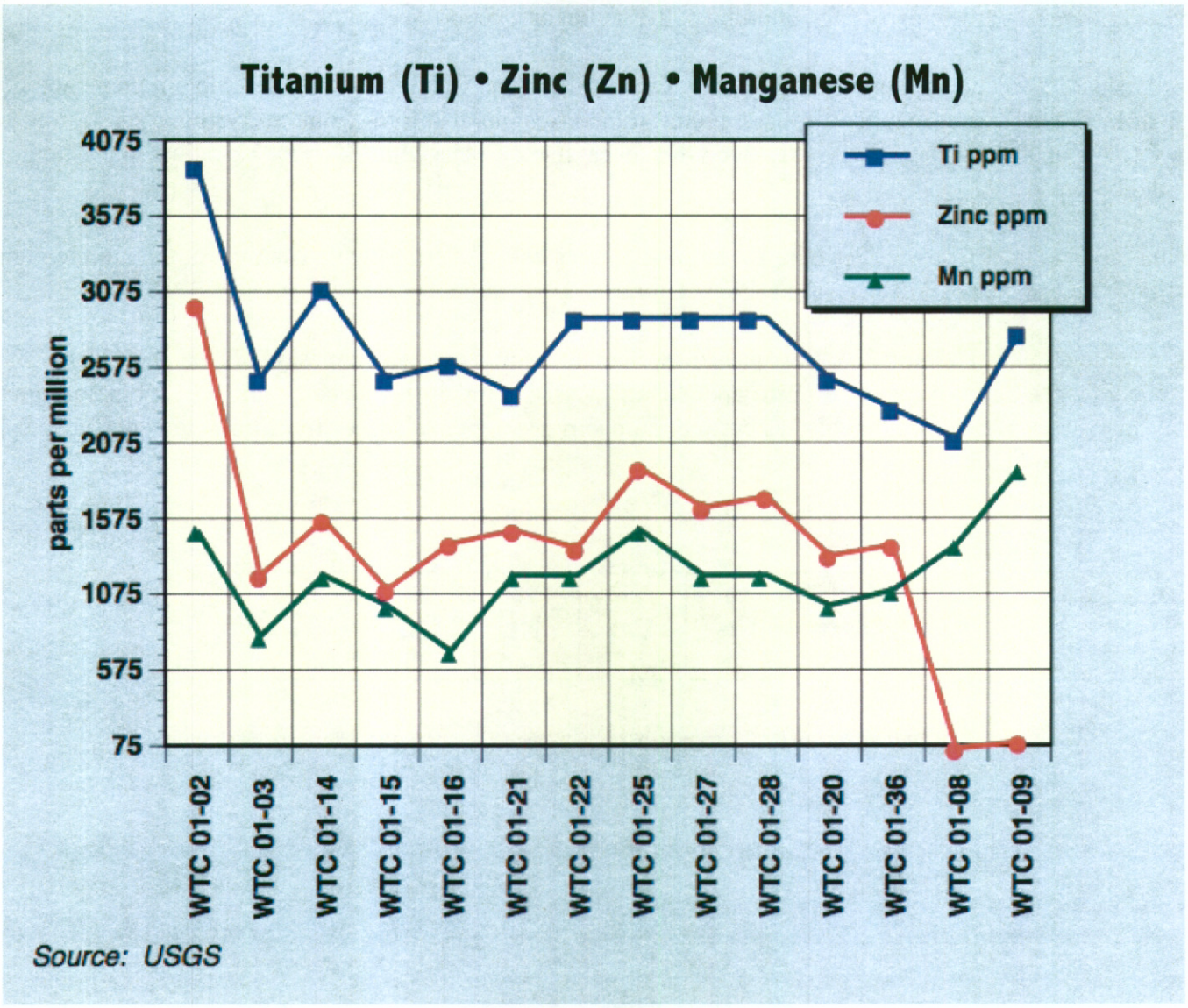


Titanium and Manganese

Titanium and Manganese are not present in Trace quantities but in quite high concentrations and as we have discussed earlier, even if Titanium had been included as a pigment (TiO) in some of the concrete when it was made this would be far from sufficient to account for the high levels of Titanium found in the dust. However, it is interesting that there is a peak in Titanium concentration of 3900ppm at location WTC01-02, the corners of Water and New York Streets, where the Zinc reached its maximum of 2990ppm and many other elements also peaked. Manganese also peaks with 1500ppm at WTC01-02 and WTC01-25, the corners of Warren and Church Streets, which correlates with the two Zinc peaks of 2990ppm and 1900ppm.

The chart (next page) shows that once again, the high levels of Titanium and Manganese detected were not naturally occurring; the correlations with each other are too marked. The main pathway we would expect for the

production of Titanium would be by beta decay of Argon, through Potassium, Calcium and Scandium. This is fission.



Titanium

Another possible mechanism for the production of the Titanium (graph next page) would be by ternary fission of Plutonium. Ordinary thermal nuclear reactions always produce Plutonium when the non-fissile U238 in the fuel (which is the majority of the Uranium in the device) absorbs neutrons: this produces Uranium 239 which then undergoes beta decay into Plutonium, with atomic number 94.

Plutonium would then undergo ternary fission into Xenon, Argon and Titanium.

While this reports central theme is conclusive nuclear fission in NYC on 911, there is another theoretical possibility and that is that the devices under the Twin Towers and Building 7 were of the Fast Fission Breeder type. In this type of nuclear device the fuel is made of a central Plutonium core surrounded by Uranium 238. As the central Plutonium core is fissioned to produce energy, the U238 jacket also captures neutrons and is converted into yet more Plutonium: the device "breeds" more fuel then it uses.

One advantage of this type of fission process is that since the Plutonium can only be fissioned by fast neutrons, no moderator is required to slow them down to produce slow neutrons as ordinarily required. This means the de-

vice size can be much smaller. This may have been a significant advantage if this were a clandestine underground installation under the Twin Towers and this report does not hypothesize this issue. This report confirms nuclear fission in NYC on 911 but does not seek to understand who was responsible, why this occurred or specifically whether this was a built-in part of the building construction or a covert operation.

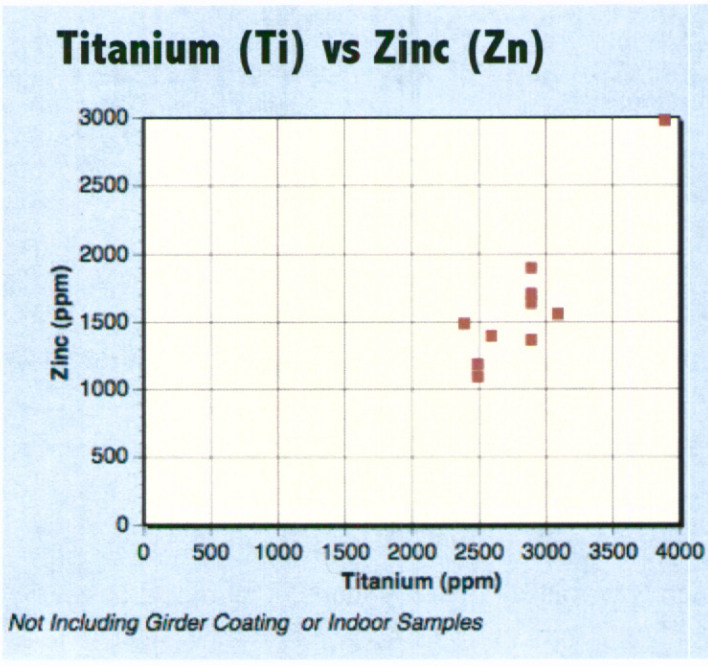
Uranium could also undergo ternary fission into Xenon, Argon and Calcium – with the Calcium then undergoing decay (which is it's primary mode) into Titanium: in fact it would also form from normal binary fission of Uranium into Argon and Tungsten, with the Argon then decaying to Potassium, Calcium, Scandium and Titanium as was said before.

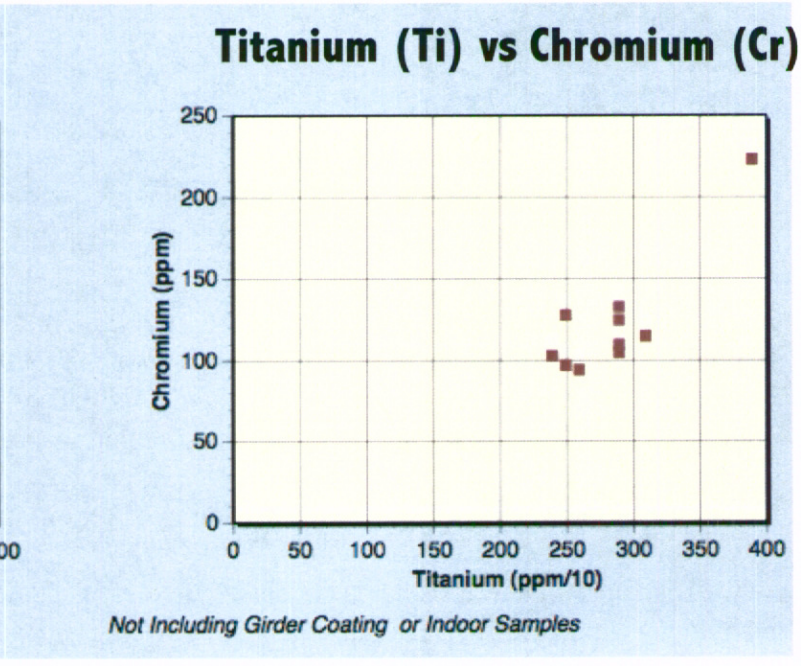
Looking at an extract from the Periodic Table of Elements below, starting with Titanium at the atomic number 22, we have the sequence Ti V Cr Mn Fe Co Ni Cu Zn.

This transmutation of Titanium into the succeeding elements would occur by emission of beta particles, as shown previously for the decay paths of Bromine and Xenon. We see many of the elements found in anomalous quantities in this part of the Periodic Table, where the radioactive isotopes of these "transition elements" as they are called interact complex decay patterns.

22	23	24	25	26	27	28	29	30
Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn

Ti	Titanium
V	Vanadium
Cr	Chromium
Mn	Manganese
Fe	Iron
Co	Cobalt
Ni	Nickel
Cu	Copper
Zn	Zinc

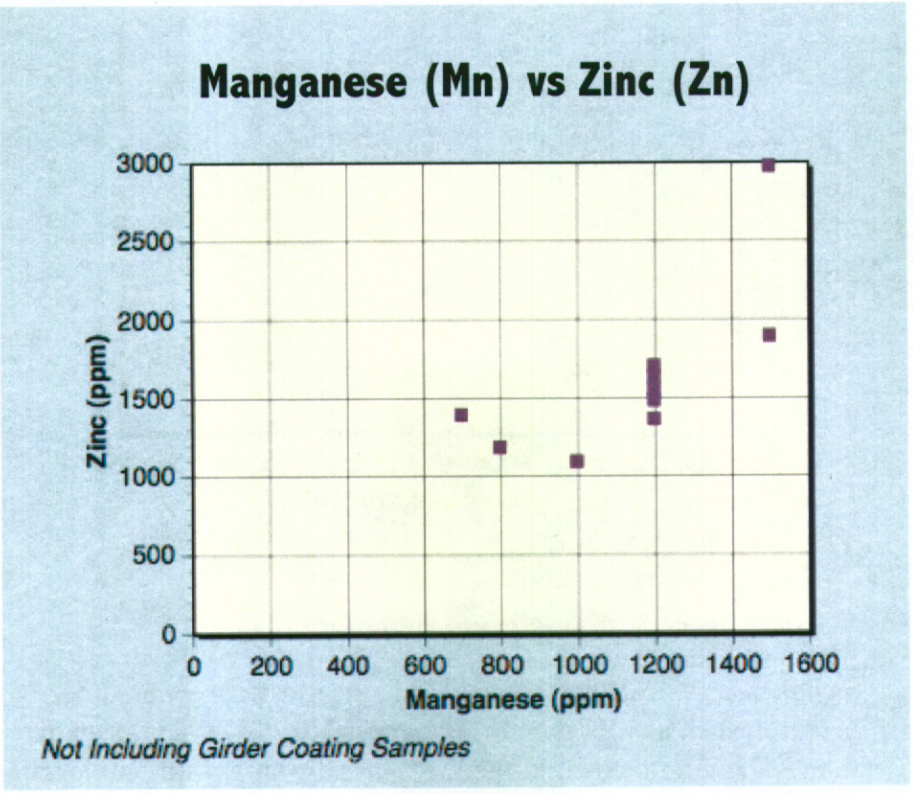


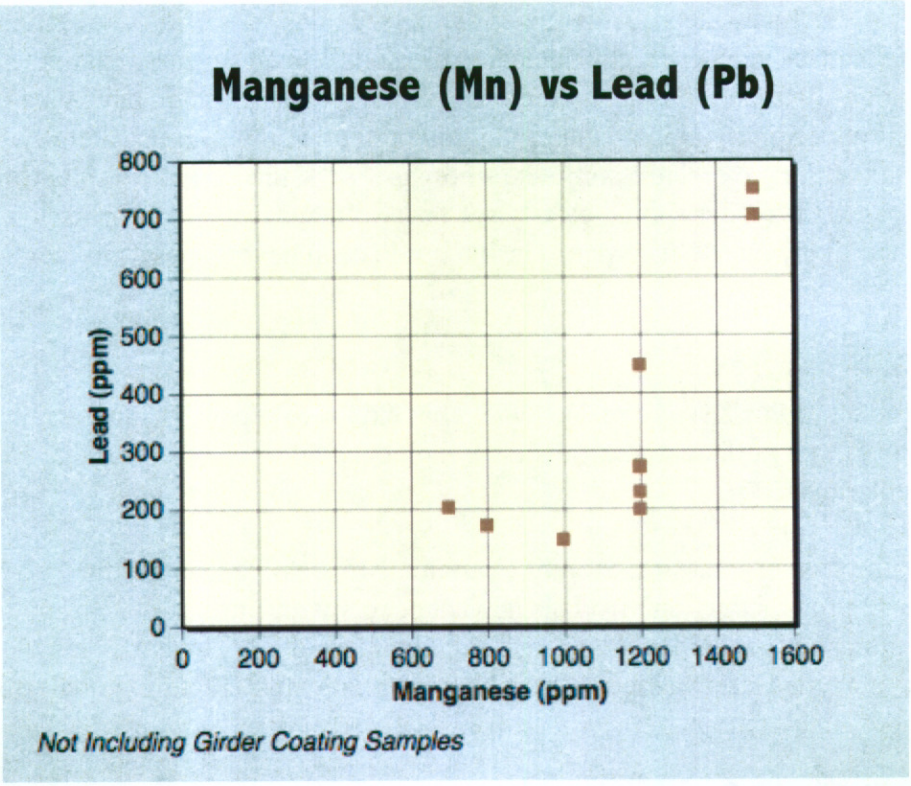


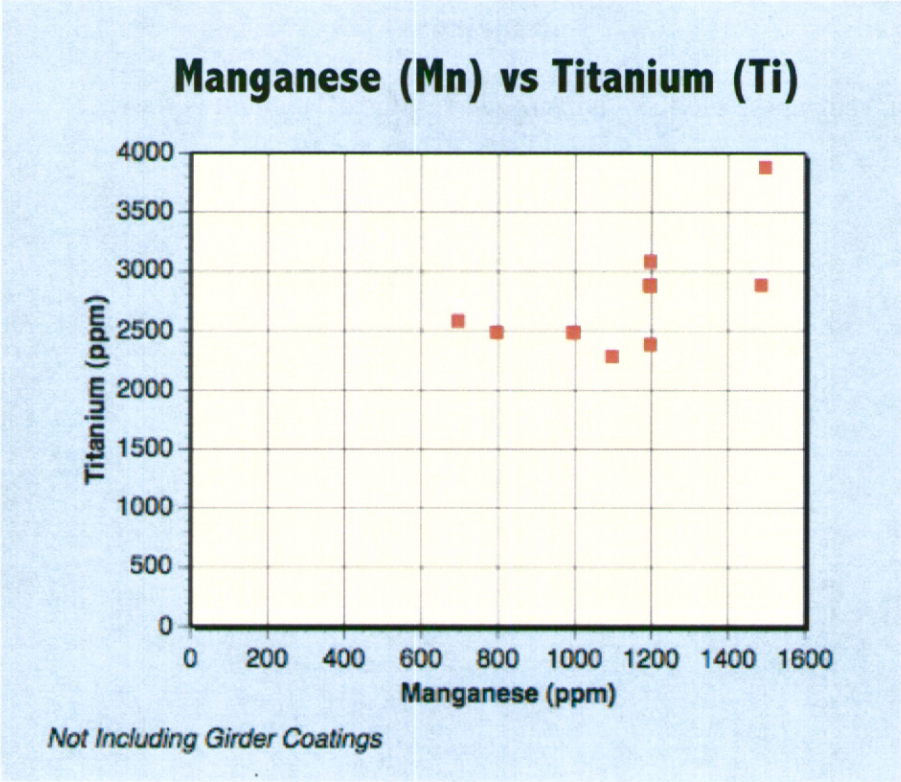
Again, there is a distinct correlation, with the concentration of all three metals peaking at a location WTC01-02, the corners of Water and New York Streets, which we have seen was a peak for many of the metals found, even common ones such as Iron and Aluminum. Again, proof of nuclear fission.

Manganese

The concentration of Manganese plotted against Zinc, Lead and Titanium is shown in the following graphs.







In all three (3 previous graphs) cases we see an absolutely identical pattern. First, a decrease in Zinc, Lead and Titanium as Manganese increases, then at 1200ppm of Manganese (0.12%) there is an extraordinary increase in the quantity of Zinc, Lead and Titanium present in the dust. Finally, an asymptotic leveling off of even higher levels of Manganese.

It is therefore very indicative indeed that we have these complex correlations and relationships between these different metals. Data of this type has probably never before seen the light of day, revealing the complex fission events processes that take place in an energetic nuclear explosion. We can surmise that in the confined space of the nuclear blast, indeed not only ternary but quaternary and further levels of fission have taken place, with daughter nuclei not just decaying by ordinary alpha, beta or gamma radiation emission but literally being fissioned again by the intense neutron radiation, to create a complete smorgasbord of the Periodic Table. Combined with the data from the previous 55 pages the reader should clearly see that we've proven Nuclear Fission in NYC on 911, perhaps Ternary Fission and likely even Quaternary Fission but Fission nevertheless and there's much more.

Lead

Lead is yet another product of nuclear fission. We would not expect to see lead piping in a building of 1960s vintage, certainly not in quantities sufficient to produce the high concentrations of Lead that were seen and detected in the World Trade Center dust.

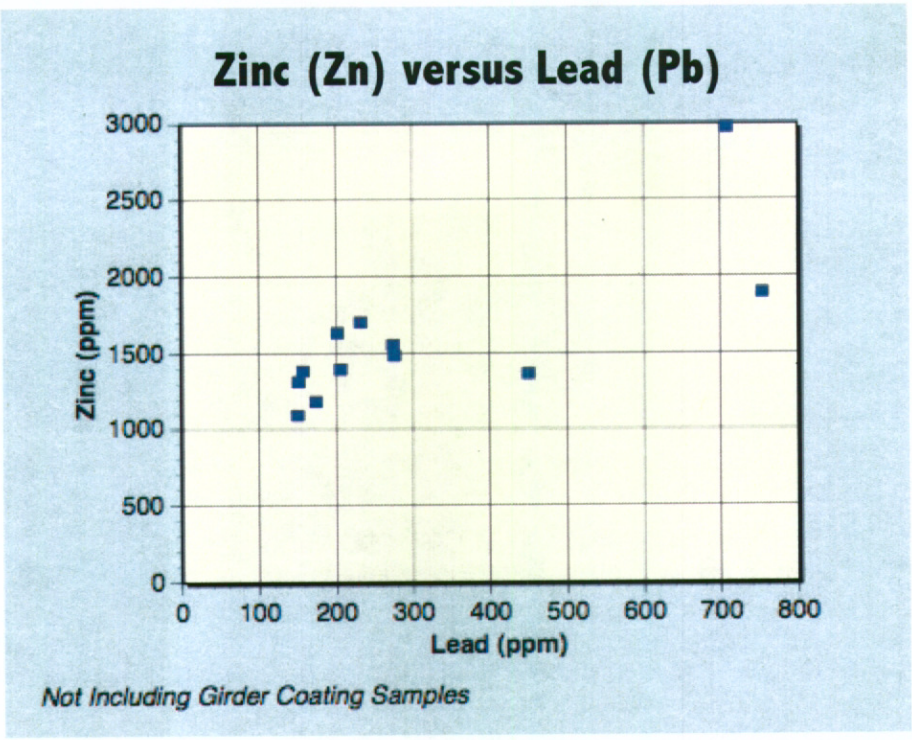
One of the frequent pathways for nuclear fission of Uranium is to a Noble Gas and the balancing element, which together add up to the 92 protons in Uranium. This is what occurs with Barium and Strontium, where the balancing Noble Gas is Krypton and Xenon. Lead has an atomic number of 82. The balancing element with an atomic number of 10 is Neon - a Noble Gas. Radioactive Lead is a well known product from nuclear fission and we would not be surprised to find it in the fallout.

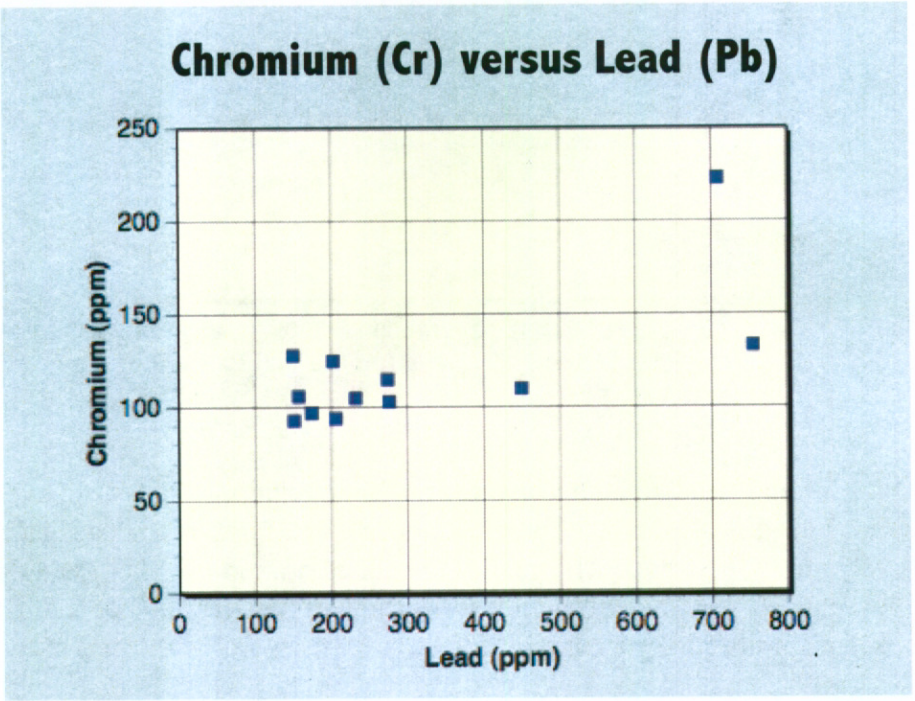
The nuclear equation for fission of Uranium to Lead follows a preferred Noble Gas pathway:

$$235/92U + 1/0Ne + 210/82Pb + 2\ 1/0\ n$$

There were two spikes (graphs at right) measured in the concentration of Lead of over 700ppm, at WTC01-02 and WTC01-25; these two locations also had the highest concentrations of Zinc (2990ppm and 1920ppm), Chromium (224ppm and 134ppm) and Manganese (1500ppm and 1500ppm).

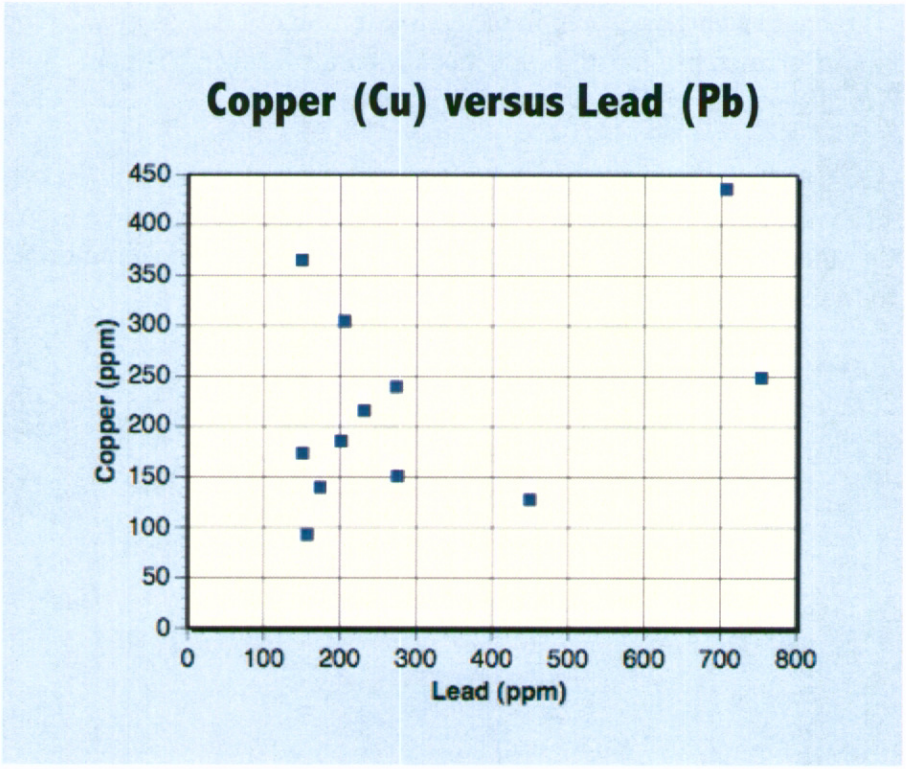
By inspection we can see that there is a power relationship between the concentration of Lead (right) and Zinc (right) and perhaps a linear relationship between Lead and Chromium. Referring back to the charts on the previous page we know that there must be a close relationship between Lead and Zinc because they both have an identical relationship to Manganese.

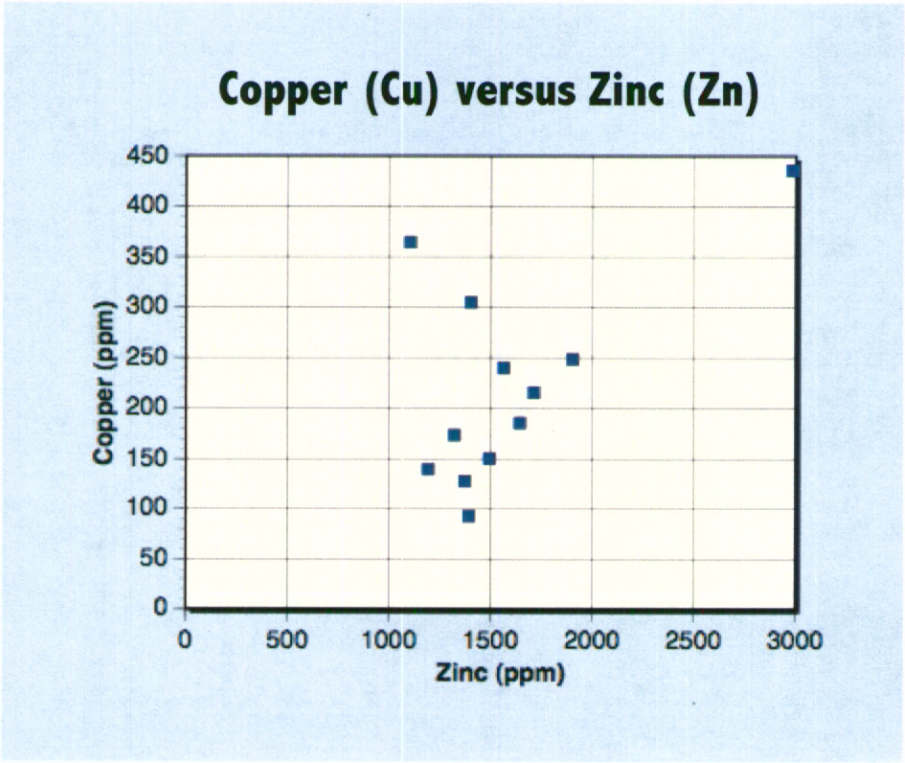




Copper, Zinc & Lead

Here we plot Copper against Lead and Copper against Zinc again for a comparion (below)





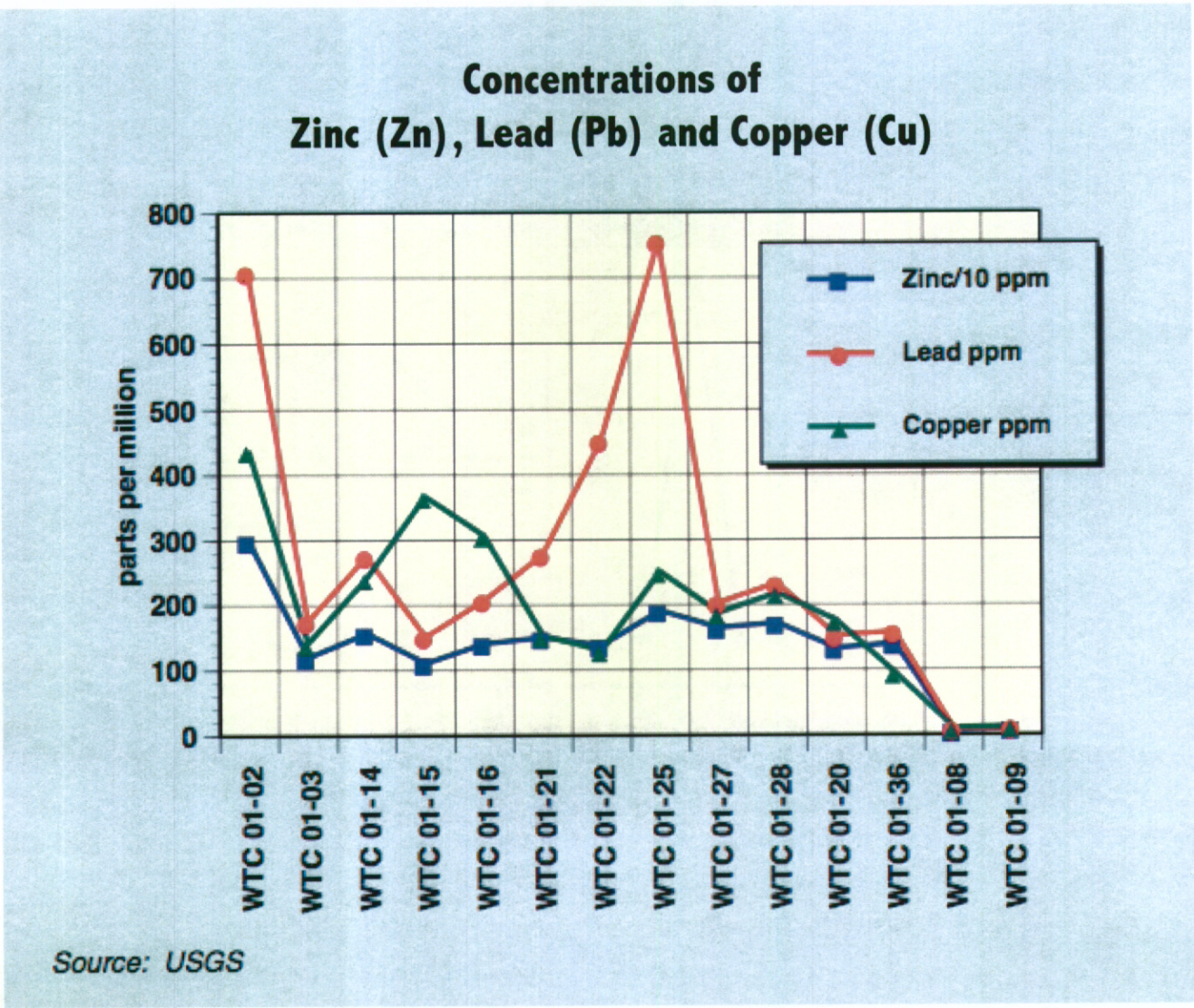
We can see clearly that Zinc and Lead both have exactly the same relationship to Copper. These correlations also show that the presence of Lead is also indicative that a nuclear explosion occurred. Earlier we commented that Copper transmutes into Zinc by beta decay. If we plot the concentration of Zinc, Lead and Copper together by location, the correlations can be seen in a different way. Particularly interesting is the dramatic fall in concentration of all of these elements in the Girder Coatings.

Concentrations Of Copper, Zinc & Lead

In this graph Zinc has been divided by a factor of 10 to avoid losing all the detail in the scaling if the 'Y' axis instead went up to 3000ppm. The variation in Lead is matched by the variation in Zinc almost perfectly across all sampling locations, including the Indoor and Girder Coating samples.

The concentration of Copper follows that of Zinc (image at right) with one distinct exception at WTC01-15, Trinity and Cortlandt Streets, just several hundred feet East of Building 4. As we have already seen in the graphs for Copper/Nickel/Zinc, there seem to be two Copper-Zinc relationships. If some of the Zinc was being formed by beta decay of Copper, then the high Copper at WTC01-15 could reduce Zinc, since formation of Zinc by that decay pathway would be retarded by material being held up at the Copper stage, before decaying on to Zinc. Therefore this graph along with the lower curve in the right-hand graph on the Copper page, does confirm that some of the Zinc was indeed being formed by beta decay of Copper.

These would at least be a very small mercy for the civilian population exposed in this event since the Zinc isotopes formed from Copper are stable – i.e. they are not radioactive.



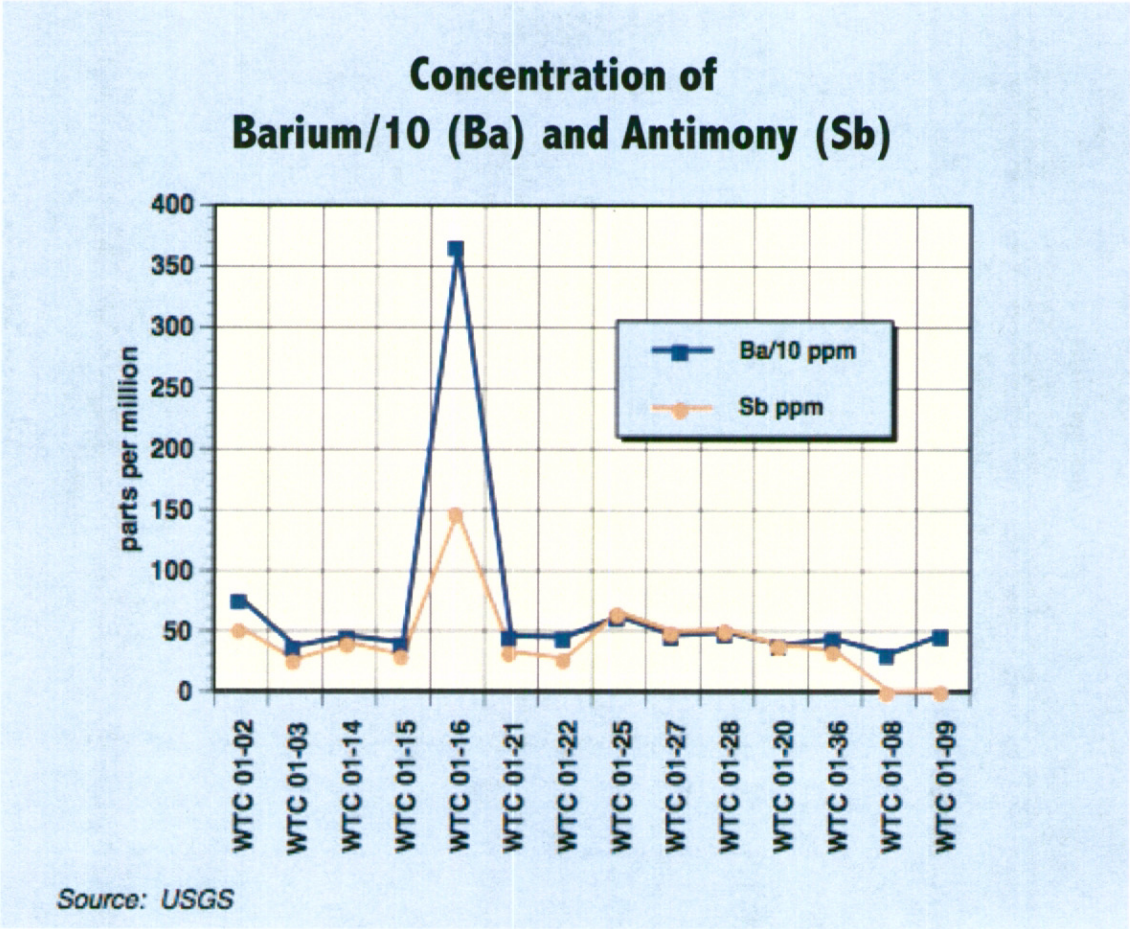
Antimony

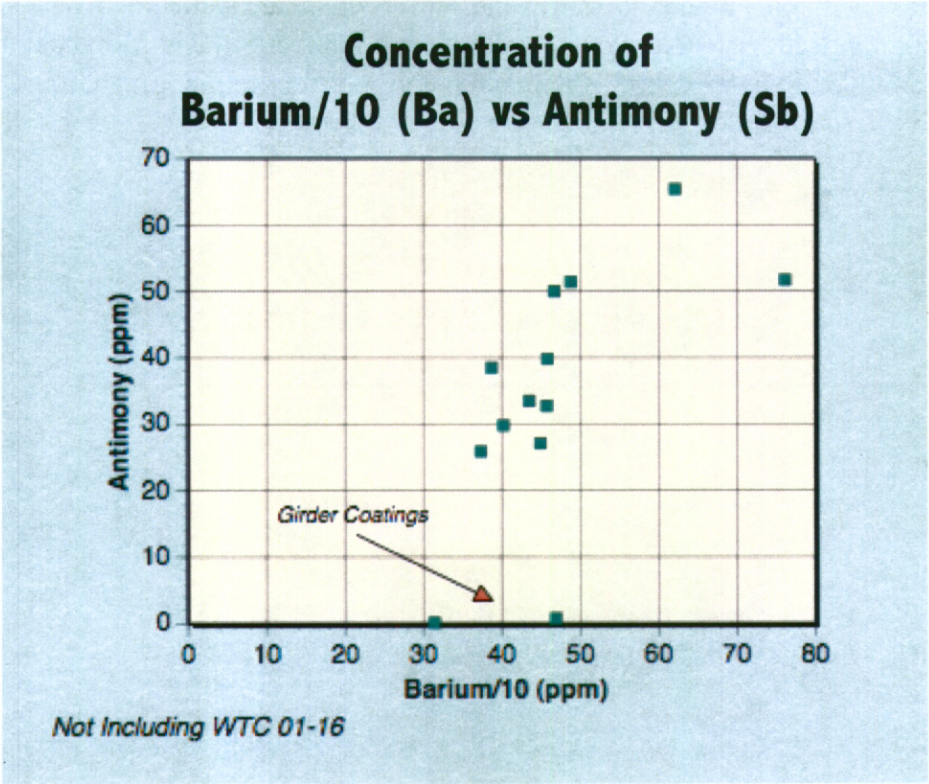
Antimony is a rare exotic metal used in engineering in small quantities for hardening other metals (e.g. bearings). The variation in concentration of Antimony (Sb) found in the dust very closely mirrors the level of Barium but then falls to practically nothing in the Girder Coatings. The graphs (this page and next page) shows the levels of Antimony measured at each location against the Barium concentration divided by 10.

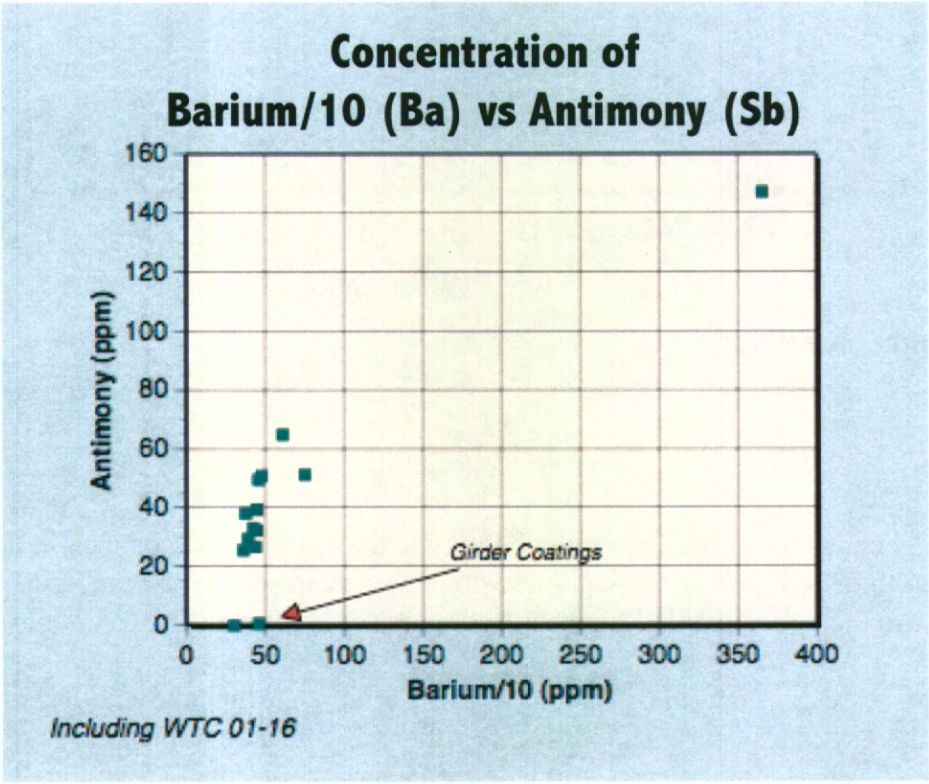
The next two graphs, arranged in rank order, both include and do not include the the massive spike in concentration at WTC01-16, the corners of Dey and Broadway.

Antimony has an atomic number of 51 and atomic weights ranging from 119 to 127. Barium has an atomic number of 56 with atomic weights ranging from 128 to 140. Some radioactive Xenon isotopes could transmute to Antimony via Iodine and Tellurium by electron capture, whereas as we know, Barium is formed from Xenon by electron (beta particle) emission – so we would expect a common source, isotopes of Xenon, for both the Barium and Antimony. The evident close correlation between Barium and Antimony in the graphs on the previous page is therefore very logical and can be explained by the nuclear chemistry of the equation below:

$$^{125}_{54}\mathrm{Xe} + e \rightarrow {}^{125}_{53}\mathrm{I}$$
$$^{125}_{53}\mathrm{I} + e \rightarrow {}^{125}_{52}\mathrm{Te}$$
$$^{125}_{52}\mathrm{Te} + e \rightarrow {}^{125}_{51}\mathrm{Sb}$$





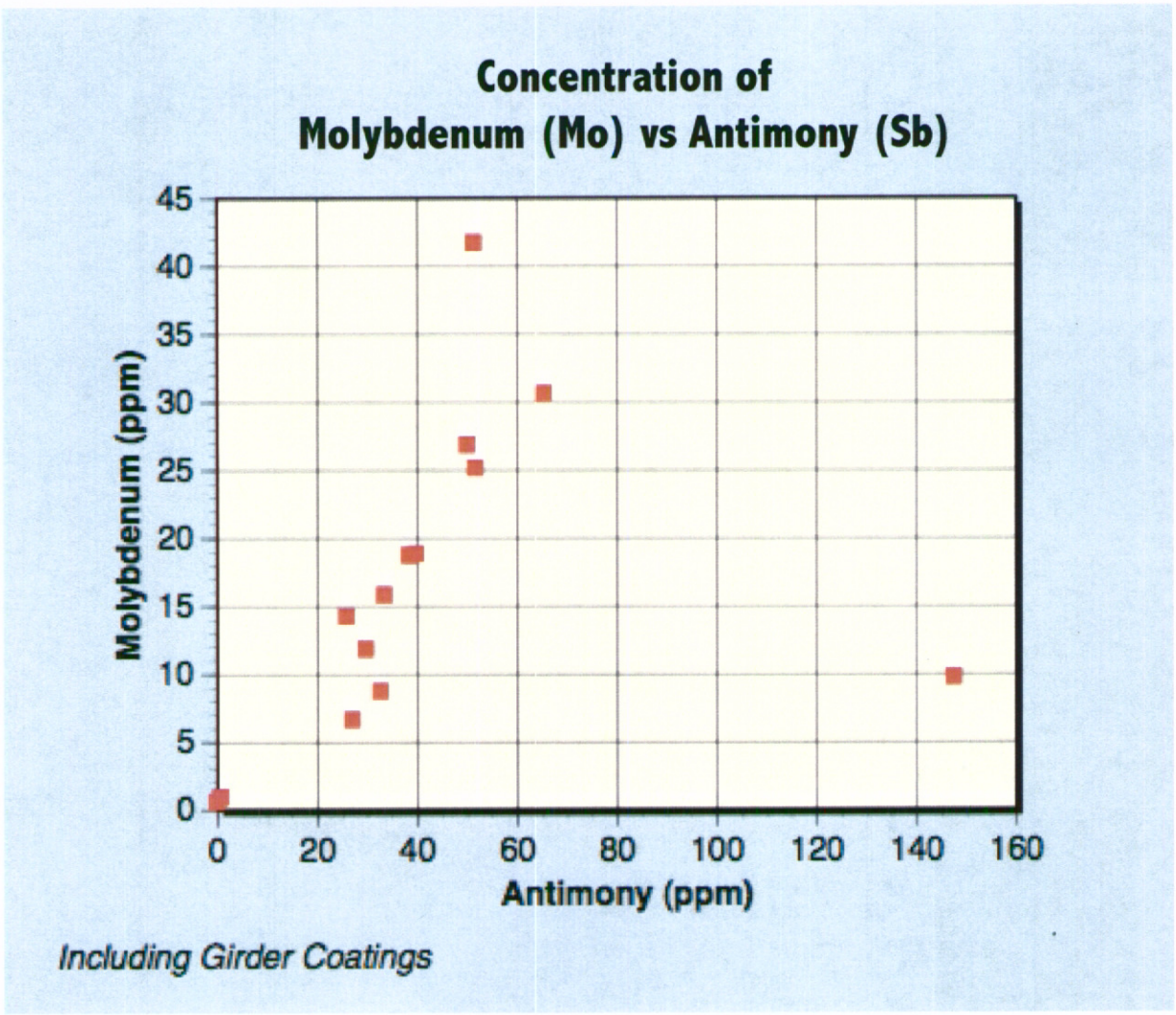


Molybdenum

There is a very interesting relationship between Antimony and Molybdenum. This is clearly not a random distribution – there is in fact an almost perfect linear relationship between Antimony and Molybdenum, with the usual exception of one sample where the Antimony concentration was exceedingly high at 148ppm, WTC01-16 again.

The atomic number of Antimony is 51; the atomic number of Molybdenum (below) is 42. Together this adds up

to 93 while Uranium has an atomic number of 92. Tin and Molybdenum are well known fission products. It seems that some of the Uranium indeed fissioned into Tin (with atomic number 50) and Molybdenum (42) and the Tin then decayed by beta emission into Antimony. The graph below is a very telling graph in the fission process that certainly occurred in New York City on September 11th, 2001.

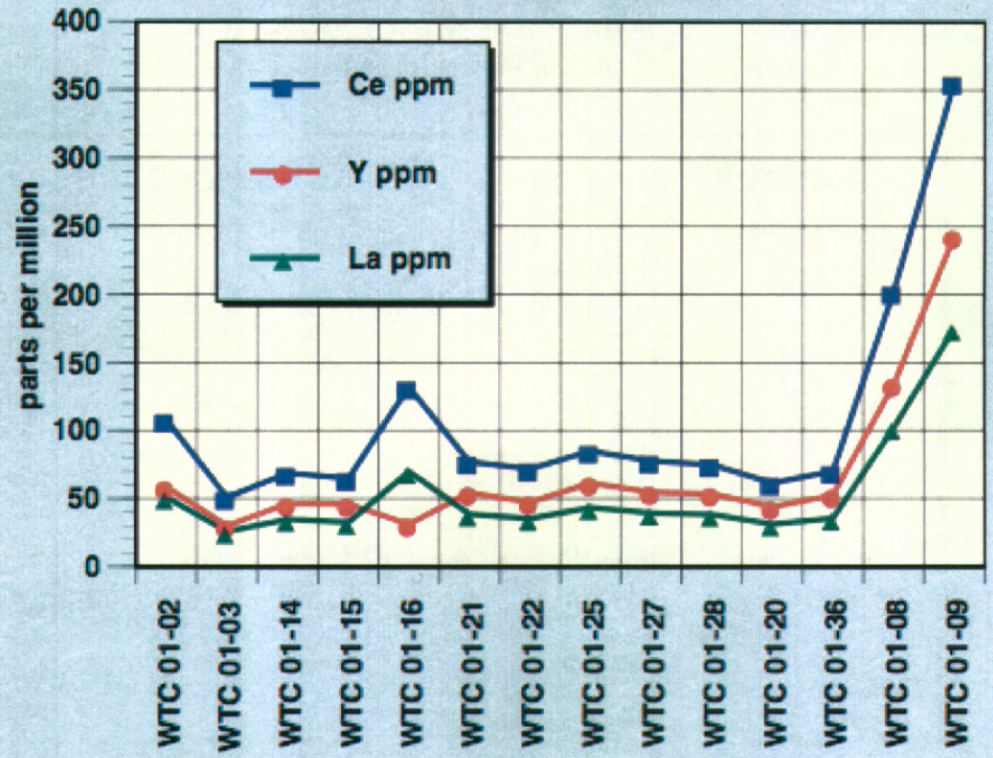


The Girder Coatings

In earlier graphs Zinc, Lead and Copper are all much lower in the Girder Coatings then in the dust, both indoor and outdoor. Referring to the Girder Coating chart (next page) we can see that a number of other elements also had their lowest levels in the girder coating samples: Antimony, Molybdenum and Cadmium.

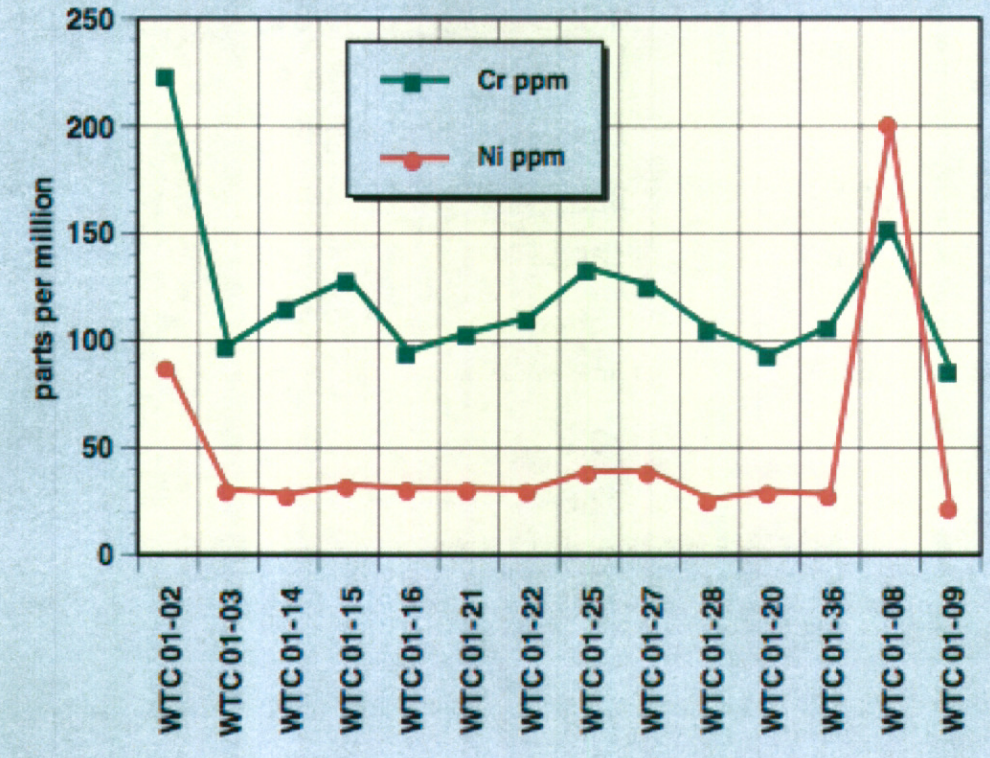
On the other hand, we saw earlier that the concentration of Cerium, Yttrium and Lanthanum are all in order of magnitude higher in the girder insulation coatings than in the dust. In fact, in the second girder at WTC01-09, West of and behind what was Building One, Cerium, Yttrium and Lanthanum at 356ppm, 243ppm and 175ppm respectively are 6 times as high as the lowest levels recorded for these elements in the dust, far exceeding "Trace" levels. Some other elements also recorded their highest levels in the girder coatings: Nickel in particular with 202ppm at WTC01-08, at the Southwest corner of what was left of Building Six, about 10 times as high as all the other measurements for Nickel – but then Nickel falls back again in the second girder coating, WTC01-09, West of and behind what was Building 1. This is illustrated in the two charts on the next page.

Dust Samples
Cerium • Yttrium • Lanthanum



Source: USGS

Dust Samples
Concentration of Cerium (Cr) and Nickel (Ni)



Source: USGS

Indoor Samples and Girder Coating Charts Part 1

	Indoor dust samples		Girder coatings	
	WTC 01-20	WTC 01-36	WTC 01-08	WTC 01-09
Silicon %	14.2	11.7	15.0	15.5
Calcium %	19.44	21.30	20.73	26.01
Magnesium %	2.59	2.88	6.94	3.23
Sulfur %	5.51	5.77	1.39	1.23
Iron %	1.25	1.38	1.25	0.55
Aluminum %	2.55	2.86	2.92	3.56
C (organic) %	2.68	2.32	2.48	2.45
C (CO3)%	1.27	1.50	1.89	1.86
Sodium %	1.16	0.58	0.12	0.16
Potassium %	0.46	0.46	0.28	0.32
Titanium %	0.25	0.23	0.21	0.28
Mn %	0.10	0.11	0.14	0.19
P %	0.02	0.02	0.01	0.01
Ignition Loss%	15.7	16.9	15.8	13
Barium ppm	390	438	317	472
Strontium ppm	706	823	444	378
Zinc ppm	1330	1400	57.4	101
Lead ppm	153	159	9.13	11.7
Copper ppm	176	95	10.3	12.8
Cerium ppm	61.6	70.2	202	356
Yttrium ppm	44.1	52.6	134	243
Cr ppm	94	107	153	86.5

	Indoor dust samples		Girder coatings	
Nickel ppm	29.8	28.5	202	22.6
La ppm	31.3	35.6	102	175
Antimony ppm	38.9	33.9	0.56	1.2
Vanadium ppm	25	28.6	30.5	40.1
Mo ppm	19	16.1	0.85	1.2
Lithium ppm	21.9	24.9	25.2	36.4
Thorium ppm	7.25	8.64	17.9	30.7
Rubidium ppm	18.9	21.1	8	8.2
Cobalt ppm	5	5.3	12.3	1.7
Niobium ppm	8	9	4.4	6.3
Scandium ppm	5.4	6.4	9.2	9.8
Uranium ppm	2.7	3.23	4.7	7.57
Cadmium ppm	4.2	5.8	0.11	0.21
Arsenic ppm	3.5	3.8	< 2	< 2
Gallium ppm	3.6	4	2.8	4.2
Beryllium ppm	2.5	3.1	4	4.2
Silver ppm	3.5	1.6	1.8	0.96
Cesium ppm	0.72	0.78	0.18	0.22
Bismuth ppm	0.64	0.82	0.008	0.01
Thallium ppm	0.09	0.09	0.02	0.02

Judging from the USGS map at the beginning of this report, location WTC01-09 was the closest sampling location to the Twin Towers. It is situated approximately 20 meters to the West of the North Tower, World Trade Center One.

As we have already shown, a nuclear blast very likely impregnated the girder coatings with the initial fission products Barium and Strontium. These would then have partially decayed away so that by the time of the analysis, high concentrations of their rare daughter products, Cerium, Yttrium and Lanthanum were trapped in the coating. Looking back at the graphs for the concentrations of Barium, Strontium and Zinc, we see that there are two places where Zinc is lower then Strontium and Barium; at location WTC01-16, Broadway and John Streets, and in the girder coatings. The high levels of Cerium, Lanthanum and Yttrium found in the girder coatings are also consistent with the still fairly high Strontium and Barium levels in the girders: so why should the level of Zinc be lower in the girders and at WTC01-16, given that otherwise Zinc is closely linked to Barium.

The answer is that Bromine, a fission fragment produced as you will remember by the initial fission of Uranium, decays by emission into Strontium by only 3 decay steps – and we know that Strontium is tightly coupled to Barium, since Barium is produced from the other fission fragment Xenon – while Zinc is produced from the Bromine fragment the other way by emission in 5 steps. Therefore depending upon the isotopic mixture produced and the half lives of all intermediary products, when very active decay is still ongoing in a sample which recently still had a high Uranium concentration, we are seeing a lot of Barium and Strontium being produced while Zinc has not yet formed: but later on (or in samples which are not as "hot") as the Barium and Strontium decay away, whatever pathways led to Zinc now predominate and create a high level of Zinc in the dust.

In fact, the analysis should be done the other way around: there is very little if any public data available on what mixture of fallout, fission products, isotopes and stable end products are produced when an atomic bomb explodes. The data is showing us what did happen. Another intriguing fact is that the concentration of Nickel and Chromium peaked in the first girder coating, WTC01-08, just meters west of Building 6 on West Street, particularly the Nickel, but fell again in the second girder coating. This could be explained by speculating that the first girder was contaminated with stainless steel, which contains Nickel and Chromium, but the second girder was not.

Whatever the physical mechanisms might be which account for these findings, the underlying mathematical correlations are self evident and lead ineluctably to the deduction that a nuclear explosion occurred in Manhattan on September 11th, 2001, in order to account for the presence of these elements. There is no other explanation. None.

Uranium and Thorium

Finally we come to the detection of measurable quantities of Thorium and Uranium in the dust from the World Trade Center, elements which only exist in radioactive form. The graphs (next page) plot the concentration of Thorium and Uranium detected at each sampling location. Again, the last two locations, WTC01-08 and WTC01-09, are for the two girder coating samples.

The Uranium concentration follows the same pattern as Thorium, although the graph scale does not show this markedly. Uranium follows the dip at WTC01-03 and WTC01-16 but the highest concentration of Uranium also matches Thorium in the second girder coating, WTC01-09, at 7.57ppm.

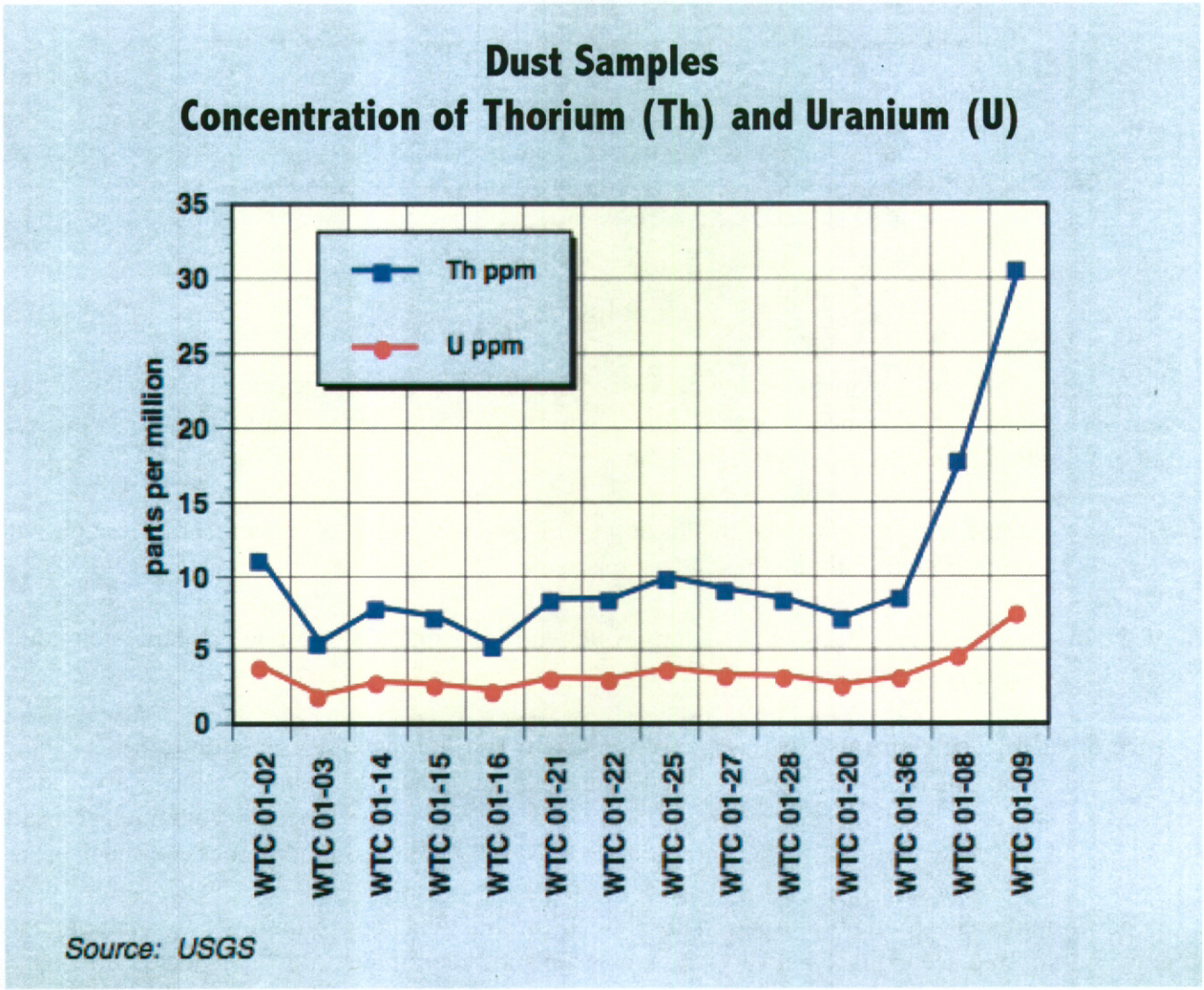
7.57 greatly exceeds normal Trace element levels.

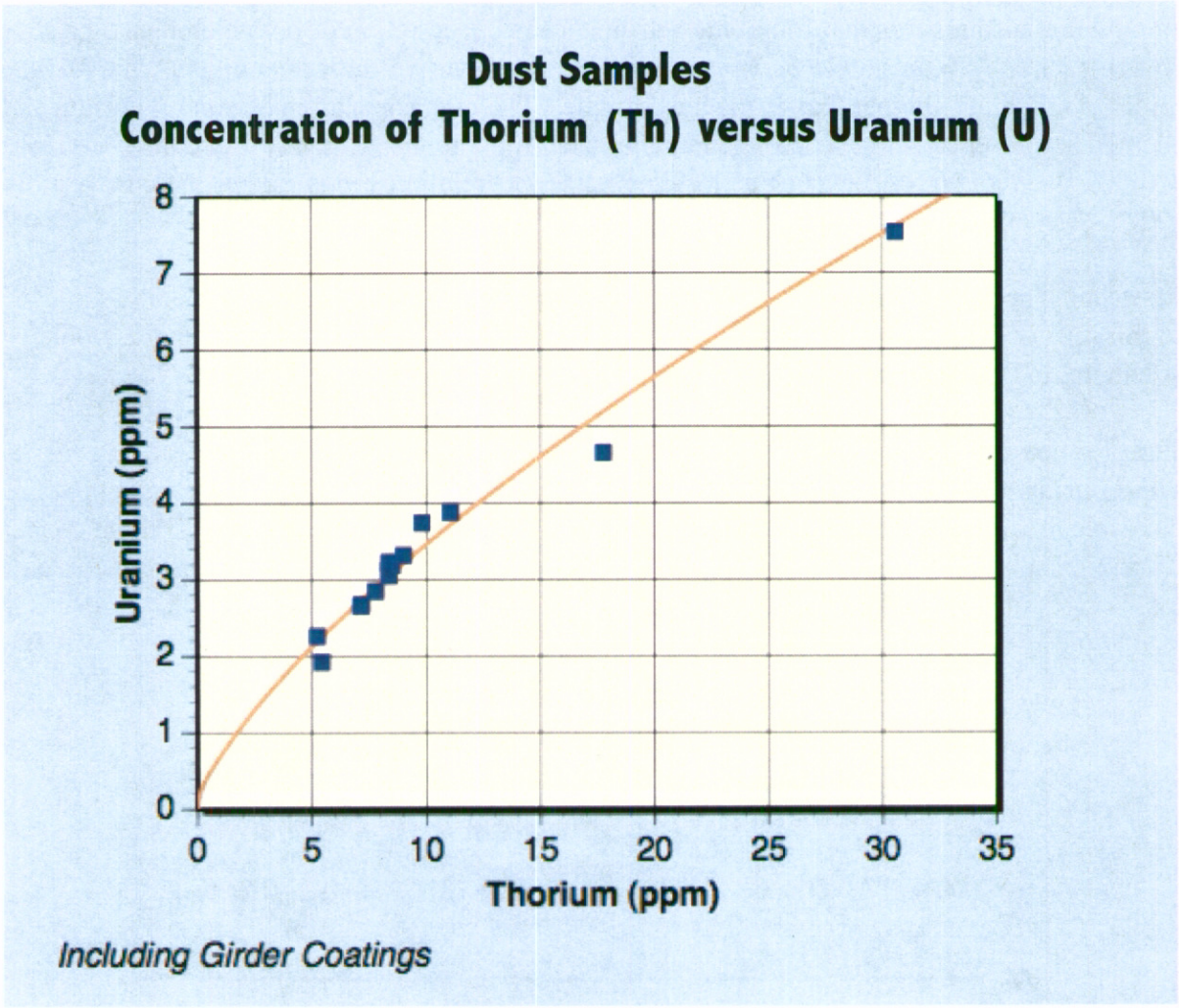
The second girder contained 30.7ppm of Thorium, 6 times as high as the lowest level of that element detected. Thorium is a radioactive element formed from Uranium by decay. It is very rare and should not be present in building rubble, ever.

The Thorium picture also mirrors that found for Yttrium. The concentration of both elements dips at WTC01-03 and WTC01-16 *(where so many other elements peaked)* but in the two girder coatings (WTC01-08 and 09) is nearly an order of magnitude higher than in the dust samples. The high correlation between Thorium and Uranium is self evident. The presence of these two elements in such high concentrations (*particularly in the two girder coatings at WTC01-08 and 01-09*) in such a close mathematical relationship is further incontrovertible evidence that a nuclear fission event has taken place.

As we said earlier, Thorium is formed from Uranium be alpha decay. An alpha particle is the same as a Helium nucleus, so this means we have one of the favored fission pathways: Uranium fissioning into a Noble Gas and the balancing element, in this case Helium and Thorium.

If the Helium formed follows the same pattern as Krypton and Xenon (*which decay by beta emission through Strontium and Barium*), then we would expect to find Lithium and Beryllium, the next elements after Helium in the Periodic Table, in quantities that correlate with Thorium. The USGS did measure the Lithium concentration in the dust: Thorium is plotted against Lithium on the next page, both including and excluding the two girder coating samples.





Conclusions

The graph of Thorium versus Lithium including the Girder Coatings has exactly the same form as the graph showing Thorium versus Uranium, also including the Girder Coatings. Without the two Girder Coatings the correlation of Thorium to Lithium in the dust is completely linear.

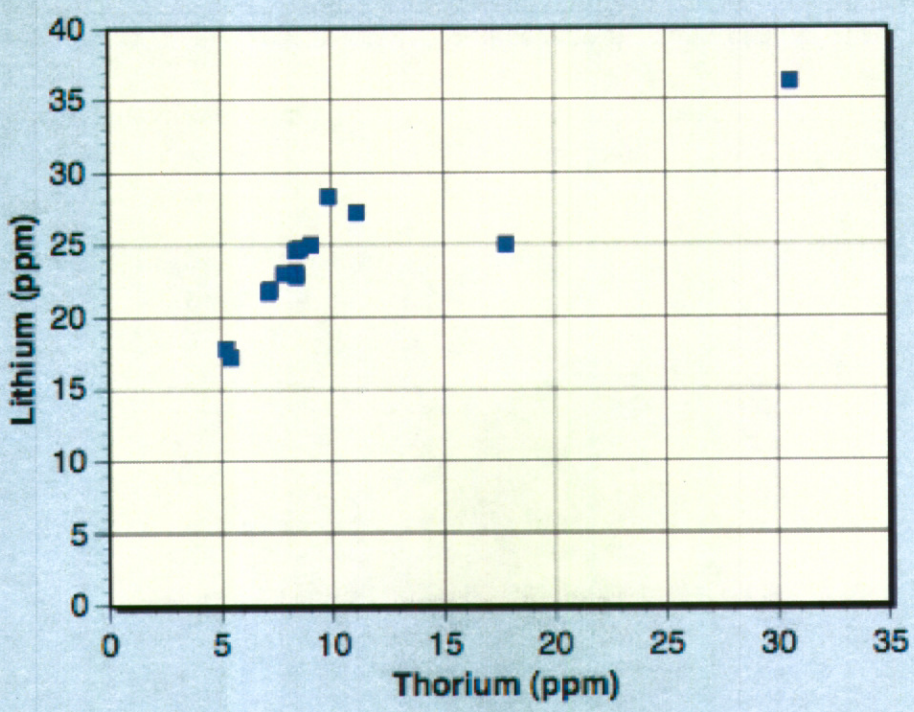
We therefore have compelling evidence that this fission pathway of Uranium to Thorium and Helium, with subsequent decay of the Helium into Lithium, has indeed taken place.

It is out of the question that all of these correlations which are the signature of a nuclear explosion could have occurred by chance. This is impossible.

The presence of rare Trace elements such as Cerium, Yttrium and Lanthanum is enough to raise eyebrows in themselves, let alone in quantities of 50ppm to well over 100ppm. When the quantities then vary widely from place to place but still correlate with each other according to the relationships expected from nuclear fission, it is beyond ALL doubt that the variations in concentration are due to that same common process of nuclear fission.

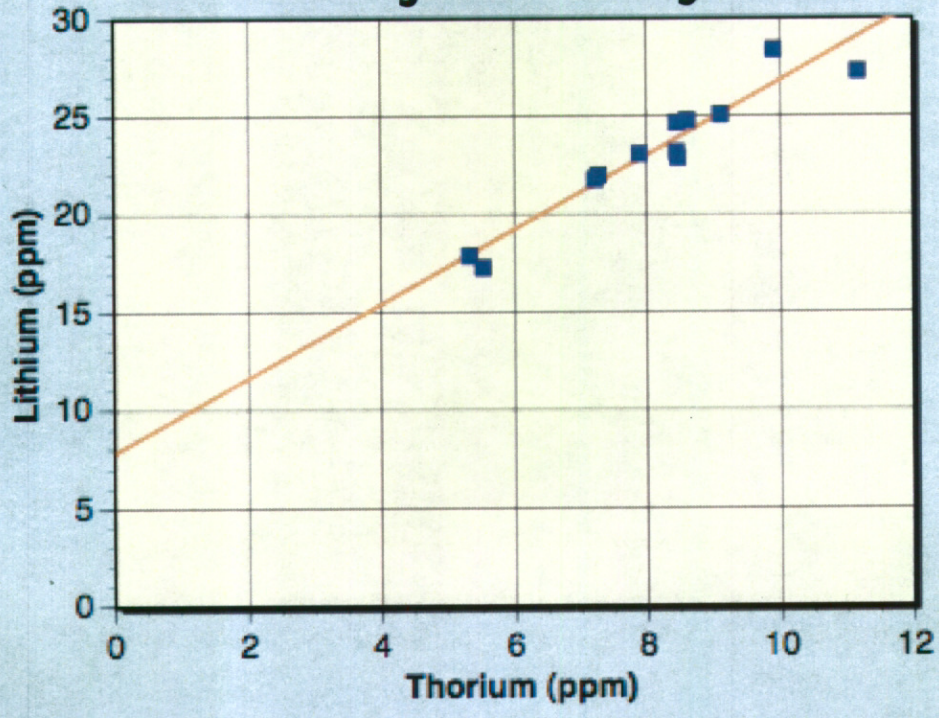
When we find Barium and Strontium present, in absolutely astronomical concentrations of over 400ppm to over 3000ppm, varying from place to place but varying in lockstep and according to known nuclear relationships – the implications are of the utmost seriousness.

Dust Samples
Concentration of Thorium (Th) versus Lithium (Li)
Including Girder Coatings



Including Girder Coatings

Dust Samples
Concentration of Thorium (Th) versus Lithium (Li)
Excluding Girder Coatings



Not including Girder Coatings

The presence of Thorium and Uranium correlated to each other by a clear mathematical power relationship – and to other radionucleide daughter products – leaves nothing more to be said.

This type of data has probably never been available to the public before. It is an unprecedented insight into the action of a nuclear device. Nuclear weapon scientists around the world will have seized this data to analyze it and try and determine exactly what type of device produced it.

September 11th, 2001, was the first Nuclear event within a major United States city and a global financial center of the world and this is the biggest secret of this century, until now.

Further Data

One of the most authoritative reports of the presence of molten steel that has been quoted was made by Dr. Keith Eaton, Chief Executive of the Institution of Structural Engineers.

Based in London, the IoSE is the largest professional body dedicated to structural engineering in the world. In 2002, Dr. Eaton and colleague Professor David Blockley visited New York and were given a guided tour of "Ground Zero". In the report which appeared in, "The Structural Engineer," Dr. Eaton was quoted as saying:

"They showed us many fascinating slides, ranging from molten metal which was still red hot weeks after the event, to 4-inch thick steel plates sheared and bent in the disaster,"

Other reports have also appeared stating that steel members had been literally evaporated by intense heat and there are several other reports of molten steel that are now extensively quoted.

This could not have been achieved by 10,000 gallons of kerosene much of which was expended in the initial fireball outside of the towers and energetic compounds are equally incapable of creating these various conditions. Thermate is the hangout.

Energy Balance Calculation

To illustrate this, here is a simple calculation.

The central core of the World Trade Center consisted of 47 regular steel box columns. These measured 36 by 90 centimeters and had a wall thickness of 10cms at the base, tapering to 6cms at the top (400 meters above). There were also 236 smaller exterior steel columns which we will not consider.

- The total volumes of steel is 7,874 kgm cubed.
- Therefore the mass of steel in the central column is:
- 3333.8 x 7,874 = 26,290 tons.
- The specific heat capacity for steel is 470J/kg.K

Therefore the amount of thermal energy that would be required to raise this amount of steel to 800 degrees Centigrade from room temperature to soften it so that it might lose structural rigidity (*which is extremely unlikely in any event*) would be:

- (800 - 25) C x 470K/kg. C x 26,290,000kg = 9.6×10^{12} J

The amount of thermal energy available from the 10,000 gallons of JetA in the alleged B767 aircraft is calculated as appears on the following page.

- The heat of combustion of JetA is 42.8 MJ/kg.
- JetA has a mass of 6.75 lb/USG or 3.07kg/USG.
- (10,000 x 3.07)kg x 42.8 MJ = 1.3×10^{12} J

This is only 13% of the energy required to soften the steel of the central core columns, even assuming an impossible 100% efficiency of heat transfer from fuel to steel. In reality, the efficiency of transfer would be very low – a few percent at best.

As another indicator, the thermal energy in the fuel could melt a total of 1300 tons of steel if all of its thermal energy was transferred to the steel without losses. The steel would soften and then immediately resolidify, lacking any further heat energy to maintain it in the molten state.

This is calculated as follows:

- Thermal Energy Avaialble from Fuel = 1.3×10^{12}J.
- Specific Heat Capacity of Steel is 470 J/kg.K
- Melting Point of Steel = 1538 degrees C.
- Latent Heat of Fusion of Steel = 277kJ/kg
- Energy to raise 1kg of steel to melting point and then melt it is (470 x (1538 - 25) + 277,00) J = 988.1kJ
- Mass of steel that can be raised from room temperature (25C) to 1538C and then melted by 1.3×10^{12}J is:
- 1.3 x 1012J / 988.1 x 103J

= 1,315 tonnes.

With a realistic conversion efficiency of only a fraction of a percent, it would be unlikely for even a few tons of the central steel support columns to have melted.

Without doing the same calculations for energetic compounds, which I believe are very likely a well planned and carefully conceived Limited Hangout, I think it's easy to see these poor excuses for reality are nothing short of scientific lies. It's obvious that only nuclear energy, not some secretive space weapon, not "thermate," and not conventional explosives nor all of them combined, but an advanced science we've been working with diligently for almost 60 years since it was developed. Because of this that science, today, is sophisticated and honed. It's a science wholly misunderstood by most and many have erroneous perceptions. It's complicated but it explains every anomaly we've seen. It's obvious that the official story that the steel supports of the towers were melted by burning jet fuel is woefully inadequate. Various internet sites have shown pictures of steel framed buildings that have not collapsed even after being subjected to intense fire for days. Fire has no effect whatsoever on the steel structure of buildings. The earth is round, it circles the sun, we understand gravity and this event was nuclear.

The Boiling Point Of Silicon Dioxide

We will look at this in more detail in the next section. However, an aerosol and air quality monitoring program set up by the University of California at Davis monitored particulate emissions from the World Trade Center site for a number of weeks after the collapse. The program was run by a world expert in atmospheric sciences, Professor Thomas Cahill.

A report on this monitoring appeared in a California newspaper. An extract is as follows:

"*The September 11th collapse of the 110-story skyscrapers crushed concrete, glass, computers, electrical wiring, carpeting, furniture and everything else in the buildings, then burned and broiled the compressed, pulverized mass for weeks. In the super-heated rubble the material disintegrated into extremely small particles, which were released into the air for weeks. "It's like having a large power plant at ground level with no stack,*" Cahill said.

In their press release on what the study revealed, the UC Davis team comment:

"There was also an unusual, very fine, silicon-containing aerosol. The latter type of aerosol can be produced only by very high temperatures, including vaporization of soil and glass."

The boiling point of silicon dioxide (glass) is about 2500C. The underground temperature must therefore have been at least 2500C to vaporize glass and soil.

Hypothesis

The authors of this report speculate that numerous advanced micro-nuclear devices were placed at every third or fifth floor of the Twin Towers and detonated in succession. The high heat for many months was the result of un-reacted elements which, while continuing to react in the Ground Zero pile, continued the process of fission. When that fissioning process was complete the fires cooled and allowed the Ground Zero heat to dissipate and the site was salvaged.

End Report