

# ***METEORITES NEWS***

**JAPANESE COLLECTION OF ANTARCTIC METEORITES**

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# INTRODUCTION

## Classification and Description of Antarctic Meteorites

The Japanese collection of Antarctic meteorites increases in number up to about 9000 as of 1992, but a large number of the meteorites are not yet classified. In order to classify the Antarctic meteorites belonging to the National Institute of Polar Research (NIPR, Tokyo), the organization of Meteorite-Classification Committee was approved by NIPR on January 23, 1992, and set up in NIPR. The Committee consists of 12 members, and most of them are petrologists working on meteorites. The chairperson and vice chairperson are H. Takeda and H. Kojima, respectively.

First, the Committee assigned the role to the members for the classification as follows:

Macroscopic description of meteorite;

K. Yanai, H. Kojima, and N. Imae

Microscopic description and classification of chondrites;

Y. Ikeda, M. Kimura, T. Noguchi, H. Nagahara, H. Fujimaki,  
S. Matsunami, A. Tsuchiyama

Microscopic description and classification of achondrites and stony irons;

Y. Ikeda and H. Takeda

Classification of irons;

Y. Ikeda and K. Misawa

Secondly, the Committee decided not to follow the traditional way of meteorite description which has been written in sentence such as those in past METEORITES NEWS (NIPR) or Antarctic Meteorite NEWSLETTER (NASA), and decided to present the classification and description as a table (see Table 2). In order to do this, the Committee made a manual format (Table 1), by which each member carries out the microscopic description and classification by checking all of the articles. Table 1 consists of GENERAL DESCRIPTION (articles 1-1 to 1-7), MACROSCOPIC DESCRIPTION (2-1 to 2-8), MINERAL COMPOSITIONS (3-1 to 3-3), and MICROSCOPIC DESCRIPTION (4-1 to 11). Most of articles in the mineral composition and microscopic description were set up mainly for classification of chondrites, because about 90% of Antarctic meteorites are chondrites. Therefore, these articles in Table 1 are not enough for classification of achondrites and stony-irons, and detailed description for these meteorites will be presented as comments in article 11 (Table 3).

Thirdly, the Committee decided to start the classification of Yamato-79 series, because this series includes 4093 meteorites most of which are not classified.

This is the second report of the Committee to present the classification of about 400 Antarctic meteorites mainly ranging from Yamato-791001 to Yamato-791600 thin sections of which were ready. Hereafter, the Committee will continue to present new results as soon as possible.

The Committee will make a data base for description and classification of Antarctic meteorites belonging to NIPR, which include all data given by the Committee. All of the data will be available to all meteorite researchers who request it.

Table 1. The manual format for classification and description of Antarctic meteorites. Select one or two heads for each article in MARCOSCOPIC and MICROSCOPIC DESCRIPTIONS.

Articles	with or without heads
<b>GENERAL DESCRIPTION</b>	
1-1	Meteorite name
1-2	Group and type
1-3	Weight of meteorite in grams
1-4	Dimension in cm
1-5	No. of thin section used for classification
1-6	Tentative pairing due to the field occurrence
1-7	Bulk chemistry; Is there the major element chemical composition?
<b>MACROSCOPIC DESCRIPTION (observation by naked eyes)</b>	
2-1	Degree of fragmentation; what is the degree? 1: complete, 2: half, 3: fragment
2-2	Shape of meteorite; how is the shape? 1: rounded, 2: subrounded, 3: angular, 4: other
2-3	Fusion crust; how much is the fusion crust in a real percent of the surface? 1: complete(>80%), 2: half(80-20%), 3: less(<20%), 4: free
2-4	Evaporite; is it recognized on the meteorite surface? 1: free, 2: slight, 3: remarkable
2-5	Fracturing index; what is the degree? 1: A(free), 2: A/B, 3: B(moderate), 4: B/C, 5: C(remarkable)
2-6	Interior structure; how is the structure? 1: massive, 2: porous, 3: breccia, 4: other
2-7	Interior color; what is the color? 1: black, 2: brown, 3: brassy, 4: green, 5: gray, 6: other
2-8	Xenolithic clast; is it recognized? 1: free, 2: rare, 3: many
<b>MINERAL COMPOSITION (using an EPMA)</b>	
3-1	Average composition of olivine in fayalite mole%, the range and (Percent Mean Deviation)
3-2	Average composition of low-Ca pyroxene in ferrosilite mole%, the range and (Percent Mean Deviation)
3-3	Average composition of plagioclase in anorthite mole% and the range
<b>MICROSCOPIC DESCRIPTION (observation under microscope)</b>	
<b>MODE AND CHONDRULE SIZE</b>	
4-1	Fine-grained matrix in volume %; the matrix in chondrites is defined to be aggregates of minerals smaller than several microns across. Then, chondrule fragments and isolated mineral fragments, which are larger than about 10 microns across, are excluded. 1: free, 2: <20%, 3: 20-50%, 4: 50-80%, 5: >80%, 6: pass (select 1 for equilibrated chondrites, 6 for achondrites and stony-irons)
4-2	Chondrule average diameter in mm; apparent sizes of a few tens of chondrules were measured for unequilibrated chondrites with petrologic types 2 and 3. 1: free, 2: <0.4mm, 3: 0.4-0.9mm, 4: >0.9mm, 5: pass (select "pass" for equilibrated chondrites, achondrites and stony-irons, and "free" for CI group)

- 4-3 Modal ratios of metal and sulfide were estimated under a microscope; metal is taken as a total of metal and limonite.
- 1: metal is more, by a factor of 2 or more, than sulfide.
  - 2: metal is nearly equal to sulfide.
  - 3: metal is less, by a factor of 2 or more, than sulfide.
  - 4: magnetite is identified.
  - 5: chromite or ilmenite is the major opaque mineral.
  - 6: graphite is identified.
  - 7: no opaque mineral.
- 

#### CRYSTALLINITY OF CHONDRULE GROUNDMASS

- 5-1 Metamorphic plagioclase (or maskelynite) grains, larger than several microns across, is identified under a microscope; igneous plagioclase which crystallized directly from chondrule residual melts is excluded.
- 1: not present, 2: present but minor, 3: common, 4: pass  
(select "pass" for achondrites and stony-irons)
- 5-2 Crystallinity of chondrule groundmass; for the case of chondrites, the following number corresponds roughly to the petrologic types.
- 1: free from chondrule. (CI group)
  - 2: phyllosilicate is identified in chondrule groundmass. (CM group etc.)
  - 3: clean glass, as well as devitrified or cryptocrystalline groundmass, is observed in chondrule groundmass. Except shock-induced glass and fusion-crust glass. (petrologic type 3)
  - 4: no glass, but most are devitrified or cryptocrystalline. (petrologic type 4)
  - 5: recrystallized groundmass, including metamorphic plagioclase larger than several microns across, as well as devitrified and cryptocrystalline ones, is observed. (petrologic type 4)
  - 6: recrystallized groundmass, commonly including plagioclase, is common, but devitrified and cryptocrystalline ones are not observed. (petrologic type 6)
  - 7: chondrules outlines disappear by recrystallization. (petrologic type 7)
  - 8: pass for achondrites and stony-irons.
- 

#### SHOCK FEATURE

- 6-1 Olivine extinction; how many large olivine grains show undulatory extinction under crossed Nicols in grain number %.
- 1: olivine-free,
  - 2: <20%,
  - 3: >20%,
  - 4: mosaic extinction of olivine, as well as undulatory one
- 6-2 Crack and opaque vein;
- 1: free,
  - 2: crack, thinner than a few microns, is observed,
  - 3: opaque vein, wider than a few microns, is observed,
  - 4: brecciated vein, including many mineral and/or rock fragments, is observed
- 6-3 Shock-darkened and shock-melt pockets, or partially melt glass;
- 1: free,
  - 2: shock-darkened pocket is observed,
  - 3: shock-melt pocket is observed,
  - 4: meteorite experienced partial melting, and glass due to the melting occurs locally but not as pockets.

- 6-4 Degree of shock;  
1: slight, corresponding to 1 or 2 for the terms 6-1, 6-2, and 6-3.  
2: moderate, corresponding to 3 for the term 6-1 or 6-2, or both.  
3: heavy, corresponding to 4 for the term 6-1, 4 for the term 6-2, or 3 or 4 for the term 6-3.
- 

#### BRECCIA

- 7 1: non-breccia, including chondrites with brecciated veins.  
2: monomict breccia  
3: fine-grained massive breccia consisting mainly of fine-grained silicates of several to a few tens of microns, often including metal-sulfide spherules.  
4: polymict breccia, including clasts of different groups or petrologic types.
- 

#### INCLUSION AND XENOLITH

- 8 Ca- and Al-rich inclusion (CAI), amoeboid olivine inclusion (AOI), or xenolith is observed or not.  
1: not,  
2: CAI or AOI is observed,  
3: xenolith is observed
- 

#### TERRESTRIAL WEATHERING

- 9-1 Limonite veins are observed or not.  
1: not,  
2: minor; vein narrower than 50 microns is observed,  
3: remarkable; vein wider than 50 microns is observed
- 9-2 Staining is estimated by the proportion of yellow or brown area in percents.  
1: free, 2: slight(<20%), 3: remarkable(>20%)
- 9-3 Weathering Degree is estimated by the method of Ikeda and Kojima (1991, Proceedings of NIPR Symp. Antarc. Meteor. No. 4, 307-318) for chondrites; volume ratios of limonite to metal in a metal-limonite grain are measured for large grains under a microscope, and they are averaged to obtain the weathering index.  
A: <7.5%, A/B, B: 7.5%-35%, B/C, C: >35%, pass  
("pass" is for meteorites free of metal grains)
- 

#### FUSION CRUST

- 10 Fusion crust is observed under a microscope or not. If any, the average width of crust (fusion-glass zone + opacitized zone) is measured.  
1: free, 2: thin(<0.5mm), 3: thick(>0.5mm)
- 

#### NOTEWORTHY DESCRIPTION

- 11 Comments noteworthy to describe are given in sentences, and they are summarized in Table 3.
- 
-

Table 2. Classification of Antarctic Meteorites  
from Yamato-791001 to Yamato-79XXXX.

Meteorite	1-1	791001	791002	791003	791004	791005
Group, Type	4-4					
	5-3					
Weight (g)	1-3					
Dimension (cm)	1-4					
Thin section	1-5					
Tent. Pairing	1-6	no				
Bulk Comp.	1-7	no				
Fragmentation	2-1					
Shape	2-2					
Fusion	2-3					
Evaporite	2-4					
Fracturing	2-5					
Structure	2-6					
Color	2-7					
Xenolith	2-8					
Ol (Fa Mole%)	3-1					
Range		( )				
Low-Ca Pyx	3-2					
Range		( )				
Pl	3-3					
Range						
Matrix	4-1	1				
Chond. Size	4-2	5				
Metal, Sulf.	4-3	1				
Pl	5-1	1				
Groundmass	5-2	4				
Ol-extinct.	6-1	2				
Crack, Vein	6-2	1				
Shock pocket	6-3	1				
Shock Degree	6-4	1				
Breccia	7	1				
CAI, Xenolith	8	1				
Limonite	9-1	3				
Staining	9-2	3				
Weath. Index	9-3	B				
Fusion Crust	10	1				
Comments	11	no				

Table 3. Comments for Articles 1-6 (tentative pairing) and 11  
(noteworthy description) in Table 2.

Meteorite	Comments
Y-79XXXX:	
Y-79YYYY:	
Y-79ZZZZ:	



## **REQUIREMENTS AND PROCEDURES FOR RESEARCH USING THE JAPANESE NIPR ANTARCTIC METEORITE COLLECTION**

Requests for research samples are welcome from all qualified scientists. In general, requests are reviewed and considered by the Committee on Antarctic Meteorite Research (CAMR) of the National Institute of Polar Research (NIPR), which meets one to two times each year. Consortium-type sample requests may also be submitted. After a request is approved, samples are sent to the researcher from the Curator of Antarctic Meteorites, NIPR.

### **NIPR SAMPLE ALLOCATION POLICIES**

#### **I. Basic guidelines for allocation of meteorites at NIPR**

1. All samples are provided on a loan basis, and remain the property of NIPR.
2. The pristine mass of the meteorite other than small rare meteorites after allocation must be at least 2/3 of the original mass. Pristine mass is defined as that portion of a specimen which has never been allocated, after initial polished thin section (PTS) preparation.
3. The pristine mass of small rare meteorites (less than 50 grams) after allocation must be at least 80% of the original mass. Rare meteorites are defined as meteorites other than type 4-6 ordinary chondrites, including rare type portions of large meteorites.
4. Allocations of any rare meteorite should generally be limited to samples less than 1 gram.
5. The term of the PTS loan will be for no more than 12 months. PTS should be returned promptly upon completion of the proposed research period.
6. PTS of any small meteorite (less than 5 grams) will not be, in general, loaned out but will be available for on-site use by scientists visiting NIPR.
7. Allocations will not be allowed until the meteorite has been announced and typed (classified) in a published issue of Meteorites News or an NIPR catalog.
8. Allocation from any meteorite that is under consortium study will generally not be permitted.
9. Investigators are strongly encouraged to limit requests to not more than 10 samples per request/review cycle. Higher numbers of samples may be approved, but in general, only 10 samples will be eligible for expeditious allocation processing. Investigators who request more than 10 samples should designate a subset for high-priority processing. A request for a chip for analysis plus a corresponding thin section for petrologic study of the same meteorite or clast will generally be counted as a single request, in relation to the 10-sample limit.
10. Investigators are encouraged to use NIPR sample request forms. However, all sample requests that fully comply with the following guidelines will receive careful consideration. Requests should consist of three parts:
  - a. Background information: title of the research project; for the requesting scientist, his or her name, affiliation and position (e.g., University of Paris, Professor), and office address, including phone and preferably FAX and email; and for any coinvestigators, their name, affiliation, and position.
  - b. A text section, explaining the general nature and purpose of the proposed research, and including details on the justification for each individual sample request.
  - c. A *summary table*, with columns for each of the following information categories:
    - (1) Specimen name (e.g., Yamato-86032, or Y-86032).
    - (2) Preferred weight (the weight of sample you believe is justified for the proposed research).

- (3) Minimum weight (estimated weight below which the proposed research would not be worth pursuing; in general, approved allocations will be at or very near the *preferred* weight).
- (4) An instruction regarding preferred sampling site (e.g., fusion crust, inner part, outer part, central, etc.).
- (5) Sample form (e.g., single chip, cube, plate, fragments, many grains, powder, PTS, etc.).

## **II. Guidelines for expedited allocation by the Curator of the NIPR**

The following guidelines set forth the conditions under which the Curator of Antarctic Meteorites at NIPR can allocate samples without review and approval by the CAMR. If the Curator has any doubt about the allocation of any sample, the request should be referred to CAMR.

1. Allocation of polished thin sections except for destructive analysis  
The original mass of the meteorite must be larger than 5 grams for type 4-6 ordinary chondrites or over 10 grams for all other meteorites.
2. Allocation of samples in a form other than PTS
  - a. The total available pristine mass of the meteorite at NIPR must be larger than 20 grams for type 4-6 ordinary chondrites or over 50 grams for all other meteorites.
  - b. Allocations of up to 5 grams or 1 weight % of the original mass of type 4-6 ordinary chondrites (whichever is less) can be made by the Curator.

### **SAMPLE DISTRIBUTION**

1. Sublease (transfer) of sample is not permitted, except to persons listed as coinvestigators on the written request for samples. If sublease to a person not originally listed as coinvestigator becomes necessary, a new written request must be submitted to the Curator of Antarctic Meteorites.
2. Promptly upon completion of the proposed research, unused or remaining meteorite samples must be returned to the Curator of Antarctic Meteorites, NIPR.

### **REPORTING RESULTS**

1. Research results should be reported promptly, preferably by presentation at the annual NIPR Symposium on Antarctic Meteorites, and/or full-length publication in the Proceedings of the NIPR Symposium on Antarctic Meteorites. The Symposium is held once each year, customarily in early June. Papers submitted to the Proceedings are evaluated by the Editorial Committee of the NIPR, guided by two reviews for each paper.
2. For the reference of the Curator of Antarctic Meteorites, investigators are requested to send three copies of each full-length paper published on allocated samples, and one copy of each abstract about them, to the Curator. Reference copies of articles and abstracts published through NIPR are not necessary.

Mail requests to:

Dr. Hideyasu Kojima  
 Secretary, Committee on Antarctic Meteorite Research  
 National Institute of Polar Research (NIPR)  
 9-10, Kaga 1-chome, Itabashi-ku, Tokyo 173-8515, Japan  
 Phone: (81) 03-3962-2938, FAX: (81) 03-3962-5711  
 E-mail: curator@nipr.ac.jp

## NIPR Research Program for Antarctic Meteorites

Research project:

Date:

Period of the project (months):

Principal investigator

Name:

Signature \_\_\_\_\_

Affiliation & position:

Office address:

Phone: \_\_\_\_\_ ext. \_\_\_\_\_

FAX: \_\_\_\_\_

E-mail:

Coinvestigator(s)

Name(s):

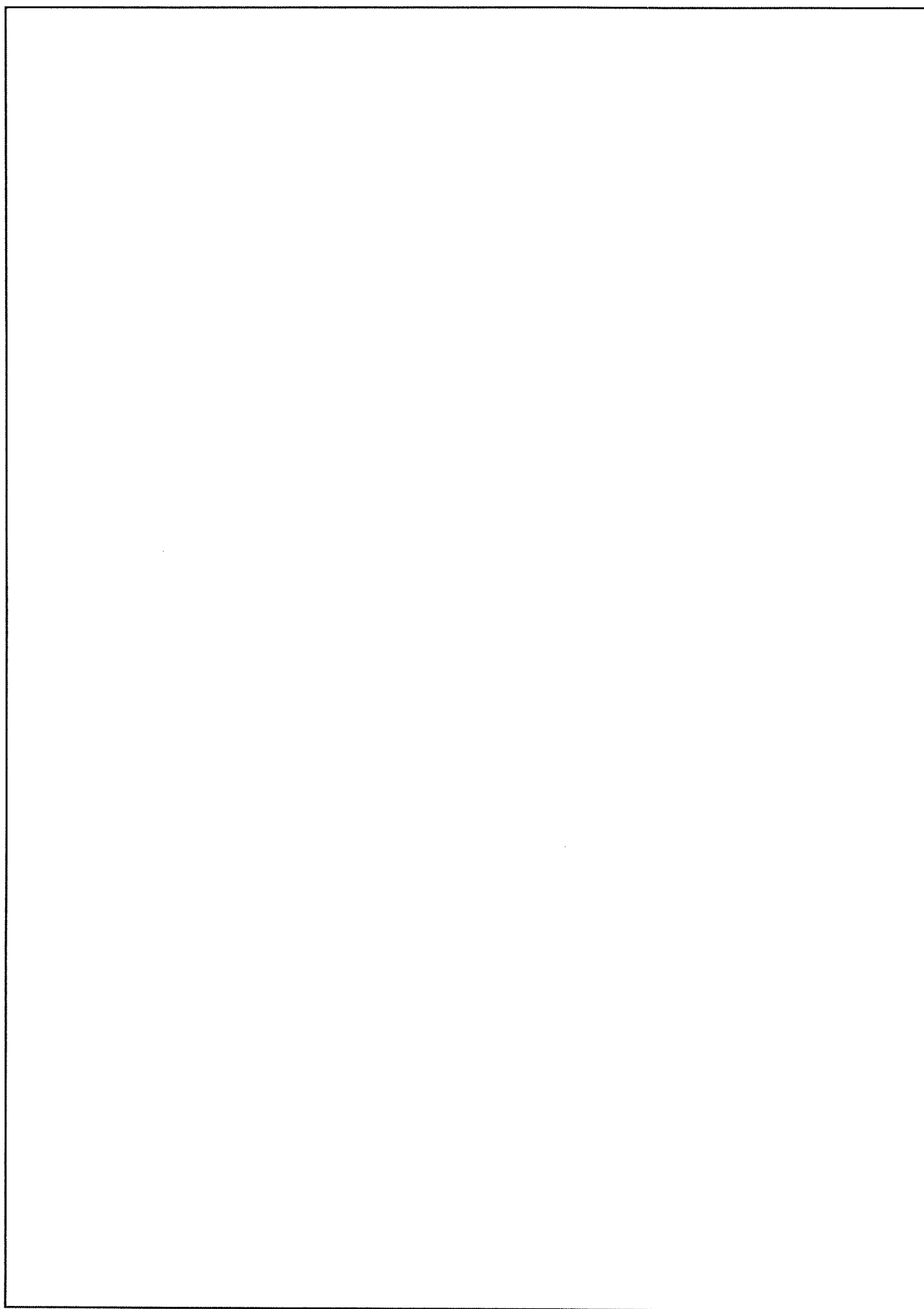
Affiliation(s) & position(s):

Description of research plan and justification for sample request:

*(continue)*

	specimen name (e.g., Y-86032)	preferred weight (e.g., 0.25 g)	minimum weight (e.g., 0.1 g)	sampling instructions (e.g., interior)	sample form (e.g., chip(s))
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

received



received

General	Meteorite	1-1	Y-790337	Y-790345	Y-790346	Y-790360
	Group & Type	1-2	H4	LL?	H5	H6
	Weight (gr.)	1-3	115.82	233.6	4.81	104.34
	Dimension (cm)	1-4	5.4x3.8x3.0	6.9x5.2x3.4	2.1x1.9x1.0	5.8x3.9x3.2
	Thin Section No.	1-5	91-1	60-1	61-1	73-1
	Tent. Pairing	1-6	no	no	no	no
	Bulk Comp.	1-7	no	no	no	no
Macroscopic	Fragmentation	2-1	1	1	3	1
	Shape	2-2	1	1	4	3
	Fusion Crust	2-3	1	1	3	1
	Evaporite	2-4	1	1	1	1
	Fracturing	2-5	B/C	A	B/C	B
	Structure	2-6	1	1	1	1
	Color	2-7	2	5	2	2
	Xenolith	2-8	1	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1	18.2	27.8	19.7	18.9
	Ol. Range		17.3-20.3	25.0-29.7	18.5-20.8	17.4-19.8
	Low-Ca Pyx.(PMD), Fs	3-2	16.8		17.0	16.7
	Pyx. Range		15.2-20.2	21.5-24.7	16.0-18.1	15.7-18.9
	Plagioclase (PMD), An	3-3				
	Pl. Range					
Microscopic	Matrix	4-1	1	1	1	1
	Chond. Size	4-2	5	5	5	5
	Metal, Sulfide	4-3	1	2	1	1
	Meta. Pl	5-1	1	3	?	3
	Chondrule Gdm	5-2	4	7	?	6
	Ol-extinct.	6-1	2	3	4	3
	Crack, Vein	6-2	1	4	4	3
	Shock Pocket	6-3	1	3	3	1
	Shock Degree	6-4	1	3	3	2
	Breccia	7	1	3?	2	1
	CAI, Xenolith	8	1	1	1	1
	Limonite	9-1	3	2	3	3
	Staining	9-2	3	2	3	3
	Weath. Index	9-3	B	A	C	C
	Fusion Crust	10	1	2	1	1
Comments	11	no	yes	yes	no	

General	Meteorite	1-1	Y-790382	Y-790386	Y-790393	Y-790397
	Group & Type	1-2	H5	H5	H4	LL6
	Weight (gr.)	1-3	113.61	148.86	54.80	161.99
	Dimension (cm)	1-4	5.3x3.9x3.0	6.6x3.9x3.0	5.6x2.4x2.2	8.0x5.5x2.8
	Thin Section No.	1-5	76-1	72-1	91-1	73-2
	Tent. Pairing	1-6	no	no	no	no
	Bulk Comp.	1-7	no	no	no	no
Macroscopic	Fragmentation	2-1	1	2	3	3
	Shape	2-2	1	3	2	2
	Fusion Crust	2-3	1	2	2	4
	Evaporite	2-4	1	1	1	1
	Fracturing	2-5	B/C	B	B	A
	Structure	2-6	1	1	1	2
	Color	2-7	2	2	2	4
	Xenolith	2-8	1	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1	18.6	19.1	18.9	29.5
	Ol. Range		17.6-20.5	18.1-21.2	17.7-22.8	26.6-33.0
	Low-Ca Pyx.(PMD), Fs	3-2	16.2	16.5	16.6	23.6
	Pyx. Range		15.7-16.7	15.7-17.6	14.6-19.5	20.9-26.4
	Plagioclase (PMD), An	3-3				
	Pl. Range					17.0
Microscopic	Matrix	4-1	1	1	1	1
	Chond. Size	4-2	5	5	5	5
	Metal, Sulfide	4-3	1	1	1	3
	Meta. Pl	5-1	2	2?		?
	Chondrule Gdm	5-2	5	5	4	7
	Ol-extinct.	6-1	3	3	2	2
	Crack, Vein	6-2	1	4	3	1
	Shock Pocket	6-3	1	3	1	4
	Shock Degree	6-4	2	3	2	3
	Breccia	7	1	1	1	1
	CAI, Xenolith	8	1	1	1	1
	Limonite	9-1	3	3	3	1
	Staining	9-2	3	3	3	1
	Weath. Index	9-3	C	C	C	A
	Fusion Crust	10	2	2	1	2
	Comments	11	no	no	no	yes

1-1	Y-790399	Y-790401	Y-790986	Y-791001	Y-791002	Y-791003	Y-791005
1-2	L6	H4	H3	L5	L6	H5	H5
1-3	141.42	389.5	135.79	289.83	91.93	24.45	11.15
1-4	5.7x5.9x3.3	6.7x6.6x4.8	4.6x4.5x3.7	7.2x6.3x4.0	5.2x4.5x2.8	3.9X1.5X2.0	2.2x2.0x1.4
1-5	91-1	72-1	60-3	72-1	81-1	51-1	51-1
1-6			no	no		no	no
1-7			no	no		no	no
2-1	2	2	2	1	2	1	1
2-2	3	3	2	1	2	3	2
2-3	2	1	1	2	2	1	1
2-4	1	1	1	1	1	1	1
2-5	A/B	A	A/B	A/B	B	A	A
2-6	1	1	1	1	1	1	1
2-7	5	2	5	5	5	5	5
2-8	1	1	1	1	1	1	1
3-1	24.8	18.5	17.0	23.8	24.8	18.2	18.2
	23.9-26.4	17.7-19.7	14.0-17.8	22.7-24.7	23.8-26.1	17.4-19.0	17.4-19.6
3-2	20.6	15.8	14.5	19.9	20.3	15.7	15.8
	19.8-21.0	15.1-16.9	5.8-34.9	19.1-20.7	19.4-20.7	14.9-16.5	14.8-17.0
3-3							
						10.4	
4-1	1	1	2	1	1	1	1
4-2	5	5	3	5	5	5	5
4-3	2	1	1	2	2	1	1
5-1	3	1	1	2	3	2	2
5-2	6	4	3	5	6	5	5
6-1	3	2	2	3	3	2	2
6-2	2	1	1	1	1	1	2
6-3	1	1	1	1	1	1	1
6-4	2	1	1	2	2	1	1
7	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1
9-1	2	2	2	2	2	2	3
9-2	2	3	2	3	3	3	3
9-3	B	B	A/B	B/C	C	B	C
10		3	1	1	1	2	2
11	no	no	yes	no	no	no	no

<b>General</b>	<i>Meteorite</i>	1-1	Y-791006	Y-791007	Y-791008	Y-791009
	<i>Group &amp; Type</i>	1-2	H5	H5	L6	H5
	<i>Weight (gr.)</i>	1-3	25.21	147.15	117.17	42.08
	<i>Dimension (cm)</i>	1-4	3.3x2.6x1.8	5.5x4.8x2.9	6.1x4.0x3.4	3.4x3.1x2.3
	<i>Thin Section No.</i>	1-5	51-1	94-1	72-1	51-1
	<i>Tent. Pairing</i>	1-6	no	no	no	no
	<i>Bulk Comp.</i>	1-7	no	no		no
<b>Macroscopic</b>	<i>Fragmentation</i>	2-1	1	2	2	1
	<i>Shape</i>	2-2	3	3	3	3
	<i>Fusion Crust</i>	2-3	3	3	2	2
	<i>Evaporite</i>	2-4	1	1	1	1
	<i>Fracturing</i>	2-5	A/B	B	A/B	A
	<i>Structure</i>	2-6	1	1	1	1
	<i>Color</i>	2-7	2	2	5	2
	<i>Xenolith</i>	2-8	1	1	1	1
<b>Mineral Comp.</b>	<i>Olivine (PMD), Fa</i>	3-1	17.6	17.8	24.6	18.4
	<i>Ol. Range</i>		17.0-18.2	16.6-18.6	23.7-27.4	17.2-19.9
	<i>Low-Ca Pyx.(PMD), Fs</i>	3-2	15.7	15.4	20.5	16.6
	<i>Pyx. Range</i>		14.9-16.1	15.0-15.7	19.6-20.0	15.4-21.6
	<i>Plagioclase (PMD), An</i>	3-3				
	<i>Pl. Range</i>					
<b>Microscopic</b>	<i>Matrix</i>	4-1	1	1	1	1
	<i>Chond. Size</i>	4-2	5	5	5	5
	<i>Metal, Sulfide</i>	4-3	1	1	2	1
	<i>Meta. Pl</i>	5-1	2	2	3	2
	<i>Chondrule Gdm</i>	5-2	5	5	6	5
	<i>Ol-extinct.</i>	6-1	2	2	3	3
	<i>Crack, Vein</i>	6-2	2	1	3	3
	<i>Shock Pocket</i>	6-3	1	1	1	2
	<i>Shock Degree</i>	6-4	1	1	2	2
	<i>Breccia</i>	7	1	1	1	1
	<i>CAI, Xenolith</i>	8	1	1	1	1
	<i>Limonite</i>	9-1	3	2	1	3
	<i>Staining</i>	9-2	3	3	3	3
	<i>Weath. Index</i>	9-3	C	B	B	B
	<i>Fusion Crust</i>	10	1	1	2	2
	<i>Comments</i>	11	no	no	no	no



1-1	Y-791010	Y-791012	Y-791014	Y-791015	Y-791016	Y-791017	Y-791018
1-2	H5	H4	L3,4	H6	L6	H5	L6
1-3	73.18	14.56	6.40	4.74	4.34	10.70	7.20
1-4	5.2x3.4x2.6	3.0x2.0x1.6	1.7x1.4x1.3	1.9x1.3x1.0	2.1x1.6x0.7	2.3x1.7x1.3	1.8x1.6x1.4
1-5	81-1	51-1	51-1	51-1	51-1	51-1	51-1
1-6	no	no	no	no	no	no	no
1-7			no	no	no	no	no
2-1	1	1	1	3	3	1	2
2-2	2	2	3	3	3	3	3
2-3	1	1	2	3	4	2	2
2-4	1	1	1	1	1	1	1
2-5	A	B	A	A	B	A	A
2-6	1	1	1	1	1	1	1
2-7	5	2	5	5	5	5	5
2-8	1	1	1	1	1	1	1
3-1	18.8	18.2	20.9	19.3	24.8	18.3	24.5
	17.9-19.7	17.0-18.9	9.2-25.7	18.0-21.8	23.6-26.2	17.5-21.0	23.2-25.9
3-2	16.4	15.9	14.4	16.8	21.0	15.7	20.8
	15.5-17.4	15.4-16.6	3.7-28.2	15.8-17.7	20.5-22.3	15.2-16.7	19.9-22.0
3-3							
4-1	1	1	2	1	1	1	1
4-2	5	5	3	5	5	5	5
4-3	1	1	2	1	2	1	2
5-1	2	1	1	3	3	2	3
5-2	5	4	3	6	6	5	6
6-1	2	2	3	2	3	3	3
6-2	1	1	2	2	4	2	1
6-3	1	1	1	1	4	1	3
6-4	1	1	2	1	3	2	3
7	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1
9-1	2	2	1	2	2	2	1
9-2	3	3	2	2	2	2	2
9-3	B	B	A/B	B	B	B	B
10	3	2	1	1	1	2	3
11	no	no	yes	no	no	no	no

<b>General</b>	<b>Meteorite</b>	1-1	Y-791019	Y-791020	Y-791022	Y-791024
	<b>Group &amp; Type</b>	1-2	H5, 6	H4,5	L6	H4
	<b>Weight (gr.)</b>	1-3	18.29	288.26	223.38	353.70
	<b>Dimension (cm)</b>	1-4	3.3x2.0x1.5	8.4x5.7x4.0	6.3x5.2x4.0	6.7x6.1x5.4
	<b>Thin Section No.</b>	1-5	51-1	93-2	72-1	83-1
	<b>Tent. Pairing</b>	1-6	no	no	no	no
	<b>Bulk Comp.</b>	1-7		no	no	no
<b>Macroscopic</b>	<b>Fragmentation</b>	2-1	3	2	2	1
	<b>Shape</b>	2-2	3	3	2	2
	<b>Fusion Crust</b>	2-3	3	4	2	1
	<b>Evaporite</b>	2-4	1	1	1	1
	<b>Fracturing</b>	2-5	A/B	B	A/B	A/B
	<b>Structure</b>	2-6	1	1	1	1
	<b>Color</b>	2-7	5	2	5	5
	<b>Xenolith</b>	2-8	1	1	1	1
<b>Mineral Comp.</b>	<b>Olivine (PMD), Fa</b>	3-1	18.0	18.4	24.6	17.4
	<b>Ol. Range</b>		17.0-19.1	17.0-19.8	23.6-26.7	16.4-19.8
	<b>Low-Ca Pyx.(PMD), Fs</b>	3-2	16.0	15.9	20.8	15.7
	<b>Pyx. Range</b>		15.5-17.3	15.1-16.8	20.3-21.5	13.6-20.2
	<b>Plagioclase (PMD), An</b>	3-3				
	<b>Pl. Range</b>					
<b>Microscopic</b>	<b>Matrix</b>	4-1	1	1	1	1
	<b>Chond. Size</b>	4-2	5	5	5	5
	<b>Metal, Sulfide</b>	4-3	1	1	2	1
	<b>Meta. Pl</b>	5-1	2	2	3	2
	<b>Chondrule Gdm</b>	5-2	5	5	6	4
	<b>Ol-extinct.</b>	6-1	2	3	3	2
	<b>Crack, Vein</b>	6-2	1	1	3	1
	<b>Shock Pocket</b>	6-3	1	1	3	1
	<b>Shock Degree</b>	6-4	1	2	3	1
	<b>Breccia</b>	7	1	1	1	1
	<b>CAI, Xenolith</b>	8	1	1	1	1
	<b>Limonite</b>	9-1	2	2	2	2
	<b>Staining</b>	9-2	3	2	2	3
	<b>Weath. Index</b>	9-3	B	B	B	B
	<b>Fusion Crust</b>	10	3	1	1	1
	<b>Comments</b>	11	no	no	no	no

1-1	Y-791025	Y-791026	Y-791027	Y-791028	Y-791030	Y-791034	Y-791035
1-2	H4,5	H4	H5	H5	H5	L5,6	L4
1-3	106.80	354.72	646	1053	43.18	173.18	6.56
1-4	5.9x4.2x2.7	7.0x6.0x4.1	8.6x7.2x6.2	11.6x7.6x6.7	3.7x3.4x2.3	7.8x4.0x3.0	2.0x1.6x0.9
1-5	81-1	84-1	72-1	72-1	82-1	72-1	51-1
1-6	no	no	no	no	no	no	no
1-7		no	no	no	no	no	no
2-1	1	1	1	2	2	1	1
2-2	2	3	1	2	3	2	2
2-3	1	1	4	4	3	3	1
2-4	1	1	1	1	1	1	1
2-5	A	A/B	A	B	A/B	A/B	A
2-6	1	1	1	1	1	1	1
2-7	2	2	2	2	2	5	5
2-8	1	1	1	1	1	1	1
3-1	19.2	16.6	19.0	17.1	18.8	24.0	24.1
	18.0-20.2	15.7-17.9	18.2-20.0	15.9-19.2	17.5-19.6	22.4-25.0	22.7-28.1
3-2	17.1	14.8	16.6	14.9	16.3	20.2	20.4
	16.4-17.5	13.8-15.9	15.6-17.4	14.6-15.9	15.5-17.4	19.7-20.9	18.5-24.5
3-3							
4-1	1	1	1	1	1	1	1
4-2	5	5	5	5	5	5	5
4-3		1	1	1	1	2	2
5-1	2	2	2	2	2	3	2
5-2		4	5	5	5	5	4
6-1	3	2	2	3	2	3	3
6-2	2	1	1	2	1	2	1
6-3	1	1	1	1	1	4	1
6-4	2	1	1	2	1	3	2
7	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1
9-1	2	1	2	2	2	1	3
9-2	2	2	2	2	2	2	2
9-3	B	B	B	B	B/C	B	B
10	1	1	1	1	1	1	1
11	no	no	no	no	no	yes	no

<b>General</b>	<b>Meteorite</b>	1-1	Y-791036	Y-791037	Y-791038	Y-791039
	<b>Group &amp; Type</b>	1-2	H4,5	H5	H3	H4
	<b>Weight (gr.)</b>	1-3	122.82	11.82	26.33	8.17
	<b>Dimension (cm)</b>	1-4	5.2x4.6x2.6	2.2x2.0x1.5	3.5x2.0x2.0	2.7x2.2x0.8
	<b>Thin Section No.</b>	1-5	81-1	51-1	82-1	51-1
	<b>Tent. Pairing</b>	1-6	no	no	no	no
	<b>Bulk Comp.</b>	1-7	no	no	no	no
<b>Macroscopic</b>	<b>Fragmentation</b>	2-1	2	1	1	1
	<b>Shape</b>	2-2	3	3	2	3
	<b>Fusion Crust</b>	2-3	2	2	2	2
	<b>Evaporite</b>	2-4	1	1	1	1
	<b>Fracturing</b>	2-5	B	A	A/B	A/B
	<b>Structure</b>	2-6	3	1	1	1
	<b>Color</b>	2-7	5	5	1,5	5
	<b>Xenolith</b>	2-8	1	1	1	1
<b>Mineral Comp.</b>	<b>Olivine (PMD), Fa</b>	3-1	18.9	17.5	18.0	19.8
	<b>Ol. Range</b>		17.6-21.3	16.7-18.2	1.3-23.0	18.8-20.4
	<b>Low-Ca Pyx.(PMD), Fs</b>	3-2	16.1	15.3	11.6	16.3
	<b>Pyx. Range</b>		15.0-16.9	14.4-18.1	2.4-33.1	13.5-17.8
	<b>Plagioclase (PMD), An</b>	3-3				
	<b>Pl. Range</b>					
<b>Microscopic</b>	<b>Matrix</b>	4-1	1	1	2	1
	<b>Chond. Size</b>	4-2	5	5	3	5
	<b>Metal, Sulfide</b>	4-3	1	1	1	1
	<b>Meta. Pl</b>	5-1	2	2	1	2
	<b>Chondrule Gdm</b>	5-2	5	5	3	4
	<b>Ol-extinct.</b>	6-1	3	3	2	2
	<b>Crack, Vein</b>	6-2	2	3	1	1
	<b>Shock Pocket</b>	6-3	1	1	1	1
	<b>Shock Degree</b>	6-4	2	2	1	1
	<b>Breccia</b>	7	1	1	1	1
	<b>CAI, Xenolith</b>	8	1	1	1	1
	<b>Limonite</b>	9-1	2	3	2	2
	<b>Staining</b>	9-2	3	3	2	2
	<b>Weath. Index</b>	9-3	B	B	B	B
	<b>Fusion Crust</b>	10	3	2	1	2
	<b>Comments</b>	11	no	no	no	no

1-1	Y-791040	Y-791041	Y-791042	Y-791043	Y-791045	Y-791047	Y-791048
1-2	L5,6	H5	H4,5	H6	H5	H4,5	H6
1-3	14.88	62.77	95.07	23.30	20.27	163.44	205.53
1-4	2.4x2.1x1.9	4.1x3.2x2.1	4.7x4.6x2.3	3.0x2.6x1.8	3.3x2.2x1.7	5.5x5.2x3.5	5.8x4.6x4.7
1-5	51-1	51-1	81-1	51-1	51-1	74-2	72-2
1-6	no	no	no	no	no	no	no
1-7	no	no	no		no	no	no
2-1	1	2	2	1	1	2	1
2-2	3	3	3	2	3	3	3
2-3	1	2	2	1	1	3	2
2-4	1	1	1	1	1	1	1
2-5	A	A/B	A/B	A	A/B	A/B	A/B
2-6	1	1	1	1	1	1	1
2-7	2	5	2	5	5	2	5
2-8	1	1	1	1	1	1	1
3-1	25.0	18.6	18.1	18.4	18.6	17.2	19.0
	23.9-28.0	18.1-19.3	17.5-19.2	18.0-18.9	17.8-19.4	14.9-18.7	18.7-20.3
3-2	21.1	16.3	16.1	16.3	16.4	14.0	17.1
	19.5-25.0	15.1-17.2	15.1-17.3	15.3-17.4	13.0-17.7	5.2-19.5	16.0-18.1
3-3							
4-1	1	1	1	1	1	1	1
4-2	5	5	5	5	5	5	5
4-3	1	2	1	1	1	1	1
5-1	3		3			3	3
5-2	5,6	5	4,5	6	5	4,5	6
6-1	3	3	3	2	2	3	2
6-2	1	1	1	1	3	1	1
6-3	1	1	1	1	4	1	1
6-4	1	1	1	1	3	1	1
7	1	1	1	1	1?	1?	1
8	1	1	1	1	1	1	1
9-1	2	2	2	1	2	2	1
9-2	2	3	3	2	3	3	3
9-3	A	A/B	B	A/B	B	A/B	B
10	3	2	3	2	1	1	1
11	no	no	no	no	no	no	no

General	Meteorite	1-1	Y-791049	Y-791050	Y-791052	Y-791053
	Group & Type	1-2	Eucrite	H6	H3	H5
	Weight (gr.)	1-3	8.73	11.07	4.55	26.96
	Dimension (cm)	1-4	2.1x2.0x1.4	2.4x2.2x1.1	1.6x1.5x1.1	3.3x2.5x1.2
	Thin Section No.	1-5	91-1	51-1	51-1	51-1
	Tent. Pairing	1-6		no	no	no
	Bulk Comp.	1-7			no	no
Macroscopic	Fragmentation	2-1	2	1	1	1
	Shape	2-2	3	3	3	2
	Fusion Crust	2-3	3	3	2	1
	Evaporite	2-4	1	1	1	1
	Fracturing	2-5	A/B	A	A	A
	Structure	2-6	3	1	1	1
	Color	2-7	5	5	5	5
	Xenolith	2-8	1	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1		18.5	15.0	18.3
	Ol. Range			17.9-19.5	5.3-28.0	17.4-18.7
	Low-Ca Pyx.(PMD), Fs	3-2		16.1	11.7	16.2
	Pyx. Range		13.1-55.3	15.1-17.6	1.0-26.6	14.9-17.3
	Plagioclase (PMD), An	3-3				
	Pl. Range		69.8-85.9			
Microscopic	Matrix	4-1	6	1	2	1
	Chond. Size	4-2	5	5	3	5
	Metal, Sulfide	4-3	5	1	1	1
	Meta. Pl	5-1	4	3	1	
	Chondrule Gdm	5-2	8	6	3	5
	Ol-extinct.	6-1	1	3	2	2
	Crack, Vein	6-2	1	1	1	1
	Shock Pocket	6-3	4	1	1	1
	Shock Degree	6-4	3	1	1	1
	Breccia	7	1	1	1	1
	CAI, Xenolith	8	1	1	1	1
	Limonite	9-1	1	1	1	2
	Staining	9-2	1	3	3	3
	Weath. Index	9-3	pass	B	B	B
	Fusion Crust	10	1	1	2	2
	Comments	11	no	no	no	no

1-1	Y-791054	Y-791055	Y-791056	Y-791057	Y-791059	Y-791060	Y-791061
1-2	H4,5	H4,5	H6	H3	H6	H5,6	L6
1-3	13.58	19.07	38.28	66.68	12.30	8.67	10.39
1-4	2.5x2.2x1.4	3.1x2.4x1.6	3.3x2.7x2.4	4.8x4.4x2.0	2.3x1.8x1.7	2.2x1.5x1.4	2.1x1.7x1.7
1-5	51-1	51-1	51-1	51-1	51-1	51-1	51-1
1-6	no	no	no	no	no	no	no
1-7	no	no	no		no	no	no
2-1	1	1	1	2	1	1	1
2-2	3	3	2	2	3	3	3
2-3	3	3	1	2	3	1	2
2-4	1	1	1	1	1	1	1
2-5	A	A	A	A	A	1	B
2-6	1	1	1	1	1	1	1
2-7	2	5	5	5	5	2	5
2-8	1	1	1	1	1	1	1
3-1	18.6	17.8	18.7	18.2	18.5	18.6	25.1
	18.0-19.5	16.9-18.5	18.1-19.5	17.4-20.0	18.0-19.1	18.0-19.3	23.9-26.6
3-2	16.1	16.2	16.5	13.6	16.1	16.5	20.9
	14.2-17.7	14.8-18.8	15.6-17.6	7.4-28.4	15.4-17.1	15.6-17.3	19.0-23.4
3-3							
			11.8				
4-1	1	1	1	2	1	1	1
4-2	5	5	5	3	5	5	5
4-3	1	1	1	1	1	1	2
5-1	2	3	3	2		3	3
5-2	4,5	4,5	6	3	6	5,6	6
6-1	2	2	2	2	2	2	2
6-2	1	1	1	1	1	1	1
6-3	1	1	1	1	1	1	1
6-4	1	1	1	1	1	1	1
7	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1
9-1	2	2	2	1	2	2	1
9-2	2	3	3	2	2	3	3
9-3	A	B	B	B	A/B	B	B
10	2	2	2	1	1	2	2
11	no	no	no	no	no	no	no

General	Meteorite	1-1	Y-791062	Y-791064	Y-791065	Y-791067
	Group & Type	1-2	L5,6	How	H6	LL
	Weight (gr.)	1-3	7.49	12.92	9.56	234.59
	Dimension (cm)	1-4	2.0x1.5x1.9	2.8x1.7x1.3	2.3x1.8x1.4	6.0x5.7x4.3
	Thin Section No.	1-5	51-1	51-1	51-1	73-1
	Tent. Pairing	1-6	no		no	no
	Bulk Comp.	1-7	no	no		yes
Macroscopic	Fragmentation	2-1	3	3	3	1
	Shape	2-2	3	3	3	2
	Fusion Crust	2-3	3	3	1	1
	Evaporite	2-4	1	1	1	1
	Fracturing	2-5	A	A/B	A	A
	Structure	2-6	1	1	1	3
	Color	2-7	5	5	2	5
	Xenolith	2-8	1	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1	24.6		19.2	31.0
	Ol. Range		24.1-25.1		18.1-19.9	30.2-31.8
	Low-Ca Pyx.(PMD), Fs	3-2	20.8		16.8	24.8
	Pyx. Range		19.9-22.7	20.1-62.4	16.1-17.6	23.6-25.4
	Plagioclase (PMD), An	3-3				
	Pl. Range			82.0-95.6	11.3	
Microscopic	Matrix	4-1	1	6	1	1
	Chond. Size	4-2		5	5	5
	Metal, Sulfide	4-3	2	5	2	3
	Meta. Pl	5-1	3	4	3	3
	Chondrule Gdm	5-2	5,6	8	6	8
	Ol-extinct.	6-1	3	5	2	2
	Crack, Vein	6-2	1	5	1	1
	Shock Pocket	6-3	1	5	1	1
	Shock Degree	6-4	1	4	1	1
	Breccia	7	1	4	1	4
	CAI, Xenolith	8	1	1	1	1
	Limonite	9-1	1	1	1	2
	Staining	9-2	2	1	2	3
	Weath. Index	9-3	B	pass	A/B	A
	Fusion Crust	10	2	1	1	1
	Comments	11	no	no	no	no



1-1	Y-791068	Y-791069	Y-791070	Y-791071	Y-791072	Y-791073	Y-791074
1-2	H3	H5,6	H6	L6	Dio(B)	Dio(B)	How
1-3	18.07	114.46	5.63	10.23	11.40	33.10	27.19
1-4	2.9x2.2x1.4	4.8x4.0x3.3	2.5x1.9x0.9	2.5x2.7x1.5	2.3x2.2x1.6	3.8x2.5x2.1	4.2x2.8x2.1
1-5	51-1	73-1	51-1	51-1	101-1	71-1	91-1
1-6	no	no	no	no			
1-7	no	no	no	no	no	no	no
2-1	1	1	3	3	3	3	3
2-2	3	1	4	4	3	3	3
2-3	1	4	4	3	3	3	3
2-4	1	1	1	1	1	1	1
2-5	A	A	A	A/B	A	A	B
2-6	3	1	1	3	2	2	3
2-7	5	2	5	5	5	5	5
2-8	2	1	1	1	1	1	1
3-1	19.1	18.5	18.6	24.7			
	17.8-21.9	17.3-19.0	17.8-19.1	23.5-26.3			29.4
3-2	16.1	16.4	16.4	21.1			
	14.1-17.1	15.9-17.0	15.4-17.0	19.5-21.9	28.9-34.2	30.9-46.8	18.8-51.4
3-3							
					77.2-89.3	81.8-89.5	73.3-94.5
4-1	1	1	1	1	6	6	6
4-2	5	5	5	5	5	5	5
4-3	1	1	1	2	5	5	5
5-1	1	2	3	3	4	4	4
5-2	3	5	6	6	8	8	8
6-1	3	2	2	3	5	5	5
6-2	2	1	1	1	5	5	5
6-3	4	1	1	3	5	5	5
6-4	3	1	1	3	4	4	4
7	1	1	1	1	2	2	4
8	1	1	1	1	1	1	1
9-1	2	3	3	2	1	1	1
9-2	2	2	2	3	1	1	1
9-3	A	C	C	A/B	pass	pass	pass
10	2	1	1	1	1	1	1
11	yes	no	no	yes	no	yes	no

General	Meteorite	1-1	Y-791075	Y-791077	Y-791078	Y-791079
	Group & Type	1-2	H4	L6	H4	L5,6
	Weight (gr.)	1-3	9.89	77.93	37.03	59.10
	Dimension (cm)	1-4	3.1x2.0x1.0	5.4x3.7x3.0	3.2x2.9x2.0	4.2x3.8x2.5
	Thin Section No.	1-5	51-1	51-1	51-1	51-1
	Tent. Pairing	1-6	no	no	no	no
	Bulk Comp.	1-7	no	no	no	no
Macroscopic	Fragmentation	2-1	3	1	1	1
	Shape	2-2	4	3	3	2
	Fusion Crust	2-3	4	1	1	1
	Evaporite	2-4	1	1	1	1
	Fracturing	2-5	A	A	A/B	A
	Structure	2-6	1	1	1	1
	Color	2-7	5	5	2	5
	Xenolith	2-8	1	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1	17.8	24.5	18.6	24.9
	OI. Range		17.1-18.5	22.3-25.4	17.8-19.9	24.2-25.4
	Low-Ca Pyx.(PMD), Fs	3-2	15.6	20.4	16.2	21.5
	Pyx. Range		14.4-17.0	19.5-20.9	15.5-17.4	20.3-27.2
	Plagioclase (PMD), An	3-3				
	Pl. Range					10.0
Microscopic	Matrix	4-1	1	1	1	1
	Chond. Size	4-2	5	5	5	5
	Metal, Sulfide	4-3	1	2	2	2
	Meta. Pl	5-1	1	3	1	3
	Chondrule Gdm	5-2	4	6	4	5
	Ol-extinct.	6-1	3	4	3	3
	Crack, Vein	6-2	1	3	1	1
	Shock Pocket	6-3	1	2	1	1
	Shock Degree	6-4	2	3	2	2
	Breccia	7	1	1	1	1
	CAI, Xenolith	8	1	1	1	1
	Limonite	9-1	2	1	3	1
	Staining	9-2	1	2	3	3
	Weath. Index	9-3	B	A/B	B	B/C
	Fusion Crust	10	1	1	2	1
	Comments	11	no	no	no	no

1-1	Y-791080	Y-791081	Y-791082	Y-791083	Y-791084	Y-791085	Y-791086
1-2	L5,6	L5,6	LL	L6	LL,L,5,6	H3	LL6
1-3	109.19	50.11	2.10	5.30	11.63	22.09	2.16
1-4	5.5x4.3x2.6	4.1x3.8x2.5	1.5x1.2x0.8	2.0x1.9x0.9	2.6x2.3x1.2	3.1x2.2x1.9	1.7x1.1x0.9
1-5	75-1	51-1	51-1	51-1	51-1	51-1	51-1
1-6	no	no	no	no	no	no	no
1-7	no	no	no	no	no	no	no
2-1	2	1	3	1	3	3	3
2-2	3	2	4	2	4	3	4
2-3	2	2	4	1	4	2	4
2-4	1	1	1	1	1	1	1
2-5	A/B	A	A	A	A	B	A
2-6	1	1	1	1	3	1	1
2-7	5	5	5	2	1	2	5
2-8	1	1	1	1	1	1	1
3-1	24.9	24.4	29.9	24.8		18.5	26.2
	24.3-25.7	23.5-25.0	25.6-31.8	23.7-29.3		16.7-19.2	25.6-26.8
3-2	20.9	20.5	24.3	20.4		15.9	22.0
	20.0-21.5	19.3-23.4	22.1-25.0	19.0-22.5		14.5-17.6	21.3-23.4
3-3							
			10.3, 11.1	41			
4-1	1	1	1	1	1	1	1
4-2	5	5	5	5	5	3	5
4-3	2	2	3	3	3	2	3
5-1	2	3	3	3	3		3
5-2	6	5	3,5,6	6	5,6	3	6
6-1	4	3	4	3	4	2	4
6-2	1	3	4	1	4	1	4
6-3	1	3	2	1	2	1	2
6-4	3	3	3	2	3	1	3
7	1	1	2	1	2	1	1
8	1	1	1	1	3	1	1
9-1	1	2	2	3	1	3	3
9-2	3	3	3	3	3	1	3
9-3	A	A/B	pass	C	A/B	C	B/C
10	1	1	1	3	1	1,2	2
11	no	no	yes	no	no	no	no

<b>General</b>	<b>Meteorite</b>	1-1	Y-791087	Y-791088	Y-791089	Y-791090
	<b>Group &amp; Type</b>	1-2	H3	H6	H5	H5
	<b>Weight (gr.)</b>	1-3	579.84	2138	4.77	81.39
	<b>Dimension (cm)</b>	1-4	8.8x7.2x4.7	13.7x12.1x7.9	1.7x1.5x1.2	4.9x3.7x2.7
	<b>Thin Section No.</b>	1-5	71-1	51-1	51-1	81-1
	<b>Tent. Pairing</b>	1-6	no	no	no	no
	<b>Bulk Comp.</b>	1-7	no	yes	no	no
<b>Macroscopic</b>	<b>Fragmentation</b>	2-1	2	1	2	1
	<b>Shape</b>	2-2	3	2	2	2
	<b>Fusion Crust</b>	2-3	1	3	2	2
	<b>Evaporite</b>	2-4	1	1	1	1
	<b>Fracturing</b>	2-5	A	A/B	A/B	A
	<b>Structure</b>	2-6	1	1,3	1	1
	<b>Color</b>	2-7	5	1	5	2
	<b>Xenolith</b>	2-8	1	1	1	1
<b>Mineral Comp.</b>	<b>Olivine (PMD), Fa</b>	3-1	17.3	17.8	19.3	17.7
	<b>Ol. Range</b>		16.3-19.3	16.6-19.8	18.6-19.7	16.5-18.8
	<b>Low-Ca Pyx. (PMD), Fs</b>	3-2	14.1	15.5	16.9	15.8
	<b>Pyx. Range</b>		8.1-23.2	14.6-16.3	16.4-19.5	14.2-17.0
	<b>Plagioclase (PMD), An</b>	3-3				
	<b>Pl. Range</b>				10.7-11.3	13.0
<b>Microscopic</b>	<b>Matrix</b>	4-1	2	1	1	1
	<b>Chond. Size</b>	4-2	3	5	5	5
	<b>Metal, Sulfide</b>	4-3	1	1	1	1
	<b>Meta. Pl</b>	5-1	1	2,3	2	2
	<b>Chondrule Gdm</b>	5-2	3	6	5	5
	<b>Ol-extinct.</b>	6-1	2	3	3	2
	<b>Crack, Vein</b>	6-2	1	1	3	1
	<b>Shock Pocket</b>	6-3	1	1	1	1
	<b>Shock Degree</b>	6-4	1	2	2	1
	<b>Breccia</b>	7	1	1	1	1
	<b>CAI, Xenolith</b>	8	1	1	1	1
	<b>Limonite</b>	9-1	3	3	2	3
	<b>Staining</b>	9-2	3	1	3	1
	<b>Weath. Index</b>	9-3	B/C	B/C	A	C
	<b>Fusion Crust</b>	10	1	1	3	2
<b>Comments</b>	11	no	yes	no	no	

1-1	Y-791091	Y-791092	Y-791093	Y-791094	Y-791095	Y-791096	Y-791097
1-2	L6	H4	H	H4	H4	H4	H4
1-3	177.91	4.21	4.12	1.17	1.40	75.59	25.43
1-4	6.5x4.3x3.6	1.6x1.4x0.8	1.6x1.5x1.0	1.5x1.1x0.4	1.2x1.0x0.7	4.6x4.0x2.6	4.3x2.5x1.5
1-5	53-1	51-1	51-1	51-1	51-1	81-1	51-1
1-6	no	no	no	no	no	no	no
1-7	no	no	no	no	no	no	no
2-1	1	1	3	3	3	1	1
2-2	3	3	4	4	4	1	2
2-3	1	1	4	4	4	1	1
2-4	1	1	1	1	1	1	1
2-5	A	A	A/B	A	A	A/B	A/B
2-6	1	1	1	1	1	1	1
2-7	2	5	2	2	5	2	5
2-8	1	1	1	1	1	1	1
3-1	24.0	18.5	18.2	19.9	18.6	18.1	18.7
	23.1-25.6	17.9-19.1	17.1-20.0	19.3-20.7	17.8-19.3	17.0-19.3	17.7-20.0
3-2	20.3	16.4	16.5	17.4	16.2	15.9	16.7
	19.0-22.6	15.7-17.4	15.7-19.0	16.0-19.5	15.5-16.8	15.6-16.3	15.6-19.4
3-3							
			13.1				
4-1	1	1	1	1	1	1	1
4-2	5	5	5	5	5	5	5
4-3	3	1	3	1	1	1	2
5-1	3	2	2	1	2	2	1
5-2	6	4	8	4	4	4	4
6-1	3	2	3	3	2	2	3
6-2	3	1	2	1	1	1	2
6-3	1	1	1	1	1	1	1
6-4	2	1	2	1	1	1	2
7	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1
9-1	3	2	3	2	2	2	2
9-2	3	3	3	3	2	3	3
9-3	B	B	B	B	B	B	B
10	2	3	1	1	2	2	1
11	yes	yes	yes	no	no	no	no

<b>General</b>	<b>Meteorite</b>	1-1	Y-791098	Y-791099	Y-791101	Y-791105
	<b>Group &amp; Type</b>	1-2	H4	LL5,6	LL5,6	H4
	<b>Weight (gr.)</b>	1-3	20.25	13.23	8.07	15.16
	<b>Dimension (cm)</b>	1-4	2.7x2.3x1.8	2.5x2.0x1.7	2.4x1.6x1.5	3.0x2.0x1.7
	<b>Thin Section No.</b>	1-5	51-1	51-1	51-1	51-1
	<b>Tent. Pairing</b>	1-6	no	no	no	no
	<b>Bulk Comp.</b>	1-7	no	no	no	no
<b>Macroscopic</b>	<b>Fragmentation</b>	2-1	1	1	3	1
	<b>Shape</b>	2-2	1	3	4	3
	<b>Fusion Crust</b>	2-3	1	2	4	2
	<b>Evaporite</b>	2-4	1	1	1	1
	<b>Fracturing</b>	2-5	A	A/B	A	A
	<b>Structure</b>	2-6	1	1	3	1
	<b>Color</b>	2-7	2	5	5	5
	<b>Xenolith</b>	2-8	1	1	1	1
<b>Mineral Comp.</b>	<b>Olivine (PMD), Fa</b>	3-1	18.7	30.7	31.0	18.1
	<b>Ol. Range</b>		17.2-19.3	27.0-33.4	26.1-32.8	17.4-19.3
	<b>Low-Ca Pyx.(PMD), Fs</b>	3-2	16.3	24.2	22.0	15.8
	<b>Pyx. Range</b>		15.6-19.6	16.3-32.1	4.2-26.4	14.9-16.4
	<b>Plagioclase (PMD), An</b>	3-3				
	<b>Pl. Range</b>			9.4-11.1	10.0-11.6	
<b>Microscopic</b>	<b>Matrix</b>	4-1		1	1	1
	<b>Chond. Size</b>	4-2		5	5	5
	<b>Metal, Sulfide</b>	4-3	1	3	3	1
	<b>Meta. Pl</b>	5-1	1	2	3	1
	<b>Chondrule Gdm</b>	5-2	4	5,6	5,6	4
	<b>Ol-extinct.</b>	6-1	2	4	5	2
	<b>Crack, Vein</b>	6-2	1	4	5	1
	<b>Shock Pocket</b>	6-3	1	2	5	1
	<b>Shock Degree</b>	6-4	1	4	4	1
	<b>Breccia</b>	7	1	4	4	1
	<b>CAI, Xenolith</b>	8	1	1	1	1
	<b>Limonite</b>	9-1	3	2	3	3
	<b>Staining</b>	9-2	3	2	3	3
	<b>Weath. Index</b>	9-3	C	pass	pass	C
	<b>Fusion Crust</b>	10	1	1	1	1
	<b>Comments</b>	11	yes	yes	yes	yes

1-1	Y-791106	Y-791107	Y-791108	Y-791113	Y-791128	Y-791131	Y-791138
1-2	H6	L5	LL5,6	H3	L4	CO3	H4
1-3	409.89	283.55	215.39	13.12	3.39	1.66	1.24
1-4	8.2x6.1x3.8	7.6x5.0x3.3	6.6x5.3x4.3	2.6x1.9x1.5	1.6x1.2x1.1	1.5x0.9x0.7	1.0x0.8x0.8
1-5	74-1	53-1	81-1	51-1	51-1	51-1	51-1
1-6	no	no	no	no	no	no	no
1-7	no	no	no	no	no	no	no
2-1	2	1	1	1	3	3	3
2-2	3	2	3	3	3	3	4
2-3	2	1	3	3	3	3	4
2-4	1	1	1	1	1	1	1
2-5	A/B	A	B	A	A	A	A
2-6	1	1	3	1	1	1	1
2-7	2	5	2	5	5	5	5
2-8	1	1	1	1	1	1	1
3-1	18.5	24.1	29.6	17.1	26.0	18.1	18.0
	17.5-19.3	22.0-25.7	21.0-33.1	1.8-21.1	25.1-28.8	0.3-44.5	17.2-18.7
3-2	16.1	20.5	24.0	12.2	21.3	5.5	16.0
	14.9-17.0	19.0-22.6	21.7-27.3	2.9-28.2	20.5-22.8	0.5-40.0	15.1-18.9
3-3							
						68.2	
4-1	1	1		2	1	3	1
4-2	5	5		3	5	2	5
4-3	1	3	3	1	2	3	1
5-1	3	2	1	1	1	2	
5-2	6	5	5,6	3	4	3	4
6-1	2	3	5	2	3	2	3
6-2	3	3	5	3	1	1	1
6-3	1	2	5	2	1	1	1
6-4	1	2	4	2	2	1	2
7	1	1	4	2	1	1	1
8	1	1	1	1	1	2	1
9-1	3	3	2	1	2	2	2
9-2	3	3	3	3	3	3	3
9-3	B	B	C	A/B	B	B	B
10	1	1	1	2	2	1	2
11	no	yes	yes	no	no	no	no

General	Meteorite	1-1	Y-791140	Y-791141	Y-791142	Y-791143
	Group & Type	1-2	H4	LL5,6	LL5	H4
	Weight (gr.)	1-3	0.48	16.20	0.44	190.39
	Dimension (cm)	1-4	1.0x0.6x0.3	2.8x2.5x1.5	1.0x0.5x0.4	6.0x5.4x3.1
	Thin Section No.	1-5	51-1	51-1	51-1	72-1
	Tent. Pairing	1-6	no	no	no	no
	Bulk Comp.	1-7		no	no	no
Macroscopic	Fragmentation	2-1	3	2	3	2
	Shape	2-2	4	3	4	3
	Fusion Crust	2-3	3	3	4	2
	Evaporite	2-4	1	1	1	1
	Fracturing	2-5	A	A	A	A
	Structure	2-6	1	3	1	1
	Color	2-7	5	1	5	5
	Xenolith	2-8	1	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1	19.3	28.0	27.6	18.4
	Ol. Range		17.3-30.6	4.6-32.0	26.5-29.4	16.9-20.9
	Low-Ca Pyx.(PMD), Fs	3-2	15.4	24.7	22.9	
	Pyx. Range		3.9-21.6	21.8-26.2	22.0-23.7	
	Plagioclase (PMD), An	3-3				
	Pl. Range			10.5-10.8		
Microscopic	Matrix	4-1	1	1	1	1
	Chond. Size	4-2	5	5	5	5
	Metal, Sulfide	4-3	1	3	3	1
	Meta. Pl	5-1	1	3	3	2
	Chondrule Gdm	5-2	4	5,6	5	4
	Ol-extinct.	6-1	2	5	3	2
	Crack, Vein	6-2	1	5	1	3
	Shock Pocket	6-3	1	5	3	1
	Shock Degree	6-4	1	2	3	2
	Breccia	7	1	4	1	1
	CAI, Xenolith	8	1	1	1	1
	Limonite	9-1	2	2	2	2
	Staining	9-2	3	3	2	3
	Weath. Index	9-3	B	B	B	B
	Fusion Crust	10	3	1	1	1
Comments	11	no	yes	no	no	



1-1	Y-791144	Y-791145	Y-791146	Y-791147	Y-791148	Y-791149	Y-791150
1-2	H4	L5	H4,5	H4,5	H3,4	L5	L5
1-3	144.92	136.82	94.24	44.35	58.36	58.84	75.92
1-4	4.8x4.2x4.2	5.4x4.5x3.4	5.3x3.0x2.7	3.3x2.9x2.7	4.8x2.8x2.4	3.7x2.9x2.8	4.9x3.2x2.7
1-5	54-1	94-1	81-1	51-1	51-1	51-1	81-2
1-6	no	no	no	no	no	no	no
1-7	no	no	no	no	no	no	no
2-1	1	1	1	1	1	1	1
2-2	3	2	3	2	3	3	2
2-3	2	2	1	1	1	1	2
2-4	1	1	1	1	1	1	1
2-5	A	A	A	A	A	A	A
2-6	1	1	1	1	1	1	1
2-7	2	2	2	1	2	5	5
2-8	1	1	1	1	1	1	1
3-1	18.0	24.3	19.1	18.8	17.5	24.8	24.6
	16.7-18.6	23.2-25.8	18.1-24.7	18.3-19.5	0.5-20.3	24.1-25.4	23.2-31.0
3-2	15.9	20.2	16.7	16.4	15.2	21.4	20.2
	14.4-19.0	19.2-21.9	15.8-18.2	15.6-17.0	5.8-22.0	19.8-23.9	19.7-21.5
3-3							
		10					9.9
4-1	1	1	1	1	2	1	1
4-2	5	5	5	5	3	5	5
4-3	1	2	1	1	1	2	2
5-1		3	2	2	1	2	2
5-2	4	5	5	5	3	5	5
6-1	2	3	2	2	2	3	3
6-2	1	1	1	1	1	1	1
6-3	1	2	1	1	1	1	3
6-4	1	2	1	1	1	2	3
7	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1
9-1	3	2	3	2	2	1	1
9-2	3	3	3	2	3	3	2
9-3	B	B	B	B	B	B	A/B
10	2	1	1	2	1	2	1
11	no	no	no	no	yes	no	no

<b>General</b>	<i>Meteorite</i>	1-1	Y-791151	Y-791152	Y-791153	Y-791154
	<i>Group &amp; Type</i>	1-2	H3,4	L5	H4	L5
	<i>Weight (gr.)</i>	1-3	14.11	16.48	3.17	6.76
	<i>Dimension (cm)</i>	1-4	2.2x2.0x1.2	2.7x1.8x1.9	1.6x1.2x1.0	2.4x1.3x1.2
	<i>Thin Section No.</i>	1-5	51-1	51-1	51-1	51-1
	<i>Tent. Pairing</i>	1-6	no	no	no	no
	<i>Bulk Comp.</i>	1-7	no	no		no
<b>Macroscopic</b>	<i>Fragmentation</i>	2-1	2	1	3	1
	<i>Shape</i>	2-2	3	2	3	3
	<i>Fusion Crust</i>	2-3	2	1	3	1
	<i>Evaporite</i>	2-4	1	1	1	1
	<i>Fracturing</i>	2-5	A/B	A	A/B	A
	<i>Structure</i>	2-6	1	1	1	1
	<i>Color</i>	2-7	2	5	5	5
	<i>Xenolith</i>	2-8	1	1	1	1
<b>Mineral Comp.</b>	<i>Olivine (PMD), Fa</i>	3-1	18.4	25.0	18.4	25.2
	<i>Ol. Range</i>		17.4-19.9	24.3-26.6	17.7-18.8	24.3-27.3
	<i>Low-Ca Pyx.(PMD), Fs</i>	3-2	16.7	21.4	16.2	21.1
	<i>Pyx. Range</i>		9.6-27.0	20.2-26.9	15.6-19.5	20.1-23.1
	<i>Plagioclase (PMD), An</i>	3-3				
	<i>Pl. Range</i>			9.7		
<b>Microscopic</b>	<i>Matrix</i>	4-1	2	1	1	1
	<i>Chond. Size</i>	4-2	3	5	5	5
	<i>Metal, Sulfide</i>	4-3	1	2	1	2
	<i>Meta. Pl</i>	5-1	1	2	1	2
	<i>Chondrule Gdm</i>	5-2	3	5	4	5
	<i>Ol-extinct.</i>	6-1	2	3	2	3
	<i>Crack, Vein</i>	6-2	1	1	1	2
	<i>Shock Pocket</i>	6-3	1	1	1	1
	<i>Shock Degree</i>	6-4	1	2	1	2
	<i>Breccia</i>	7	1	1	1	1
	<i>CAI, Xenolith</i>	8	1	1	1	1
	<i>Limonite</i>	9-1	3	2	2	2
	<i>Staining</i>	9-2	3	3	3	3
	<i>Weath. Index</i>	9-3	B/C	B	B	B
	<i>Fusion Crust</i>	10	1	2	3	2
	<i>Comments</i>	11	no	no	no	no

1-1	Y-791155	Y-791156	Y-791157	Y-791158	Y-791159	Y-791160	Y-791161
1-2	H6	L5	H4	H4	L5,6	L5,6	H5
1-3	2.11	1.32	48.44	22.89	7.41	5.57	4.05
1-4	1.9x1.5x0.5	1.4x1.0x0.5	4.5x3.2x1.9	2.7x2.4x1.9	2.0x1.6x1.5	2.1x1.8x1.0	1.7x1.4x0.8
1-5	51-1	51-1	51-1	51-1	51-1	51-1	51-1
1-6	no	no	no	no	no	no	no
1-7			no	no			no
2-1	3	3	1	2	3	1	1
2-2	4	4	1	3	4	2	2
2-3	3	3	4	4	3	1	2
2-4	1	1	1	1	1	1	1
2-5	A	A	A	A	A/B	A	A
2-6	1	1	1	1	1	1	1
2-7	5	5	2	2	2	2	5
2-8	1	1	1	1	1	1	1
3-1	19.2	25.2	17.8	18.5	24.7	25.0	18.9
	18.3-20.4	24.4-26.8	17.4-18.2	17.6-20.4	23.5-25.2	24.1-29.4	18.2-20.2
3-2	16.9	21.4	16.7	16.3	21.0	21.0	16.6
	15.8-20.2	20.0-30.4	15.0-26.6	14.9-18.0	20.5-21.8	19.9-25.2	15.3-18.6
3-3							
	12.1-12.7	11.3			9.9-10.8	9.8	
4-1	1	1	1	1	1	1	1
4-2	5	5	5	5	5	5	5
4-3	1	2	1	1	2	2	1
5-1	2	2		1	3	2	2
5-2	6	5	4	4	6	5	5
6-1	2	3	3	2	2	3	2
6-2	2	1	2	1	1	3	2
6-3	2	2	2	1	1	2	2
6-4	2	2	2	1	1	2	2
7	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1
9-1	2	1	2	2	2	2	2
9-2	2	3	3	3	2	3	3
9-3	B	B	B	B	B	B	B
10	3	2	1	2	1	2	3
11	no	no	no	no	no	no	no

General	Meteorite	1-1	Y-791162	Y-791163	Y-791164	Y-791165
	Group & Type	1-2	H4	H4	L5	H4
	Weight (gr.)	1-3	8.07	3.99	12.85	11.28
	Dimension (cm)	1-4	2.2x1.4x1.4	1.5x1.4x0.9	2.8x1.8x1.4	2.0x1.7x1.5
	Thin Section No.	1-5	51-1	51-1	51-1	51-1
	Tent. Pairing	1-6	no	no	no	no
	Bulk Comp.	1-7	no	no	no	no
Macroscopic	Fragmentation	2-1	1	2	1	1
	Shape	2-2	3	2	2	1
	Fusion Crust	2-3	1	2	1	1
	Evaporite	2-4	1	1	1	1
	Fracturing	2-5	A/B	A/B	A/B	A/B
	Structure	2-6	1	1	1	1
	Color	2-7	5	5	5	5
	Xenolith	2-8	1	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1	18.4	16.7	25.0	18.3
	Ol. Range		17.1-19.0	15.8-17.5	23.9-27.8	16.8-19.1
	Low-Ca Pyx. (PMD), Fs	3-2	15.9	14.7	21.1	16.0
	Pyx. Range		15.5-16.4	13.7-15.4	20.2-23.7	15.0-17.4
	Plagioclase (PMD), An	3-3				
	Pl. Range					
Microscopic	Matrix	4-1	1	1	1	1
	Chond. Size	4-2	5	5	5	5
	Metal, Sulfide	4-3	1	1	2	1
	Meta. Pl	5-1	1	1	2	1
	Chondrule Gdm	5-2	4	4	5	4
	Ol-extinct.	6-1	3	3	3	3
	Crack, Vein	6-2	3	1	4	2
	Shock Pocket	6-3	1	1	4	1
	Shock Degree	6-4	2	2	3	2
	Breccia	7	1	1	1	1
	CAI, Xenolith	8	1	1	1	1
	Limonite	9-1	2	2	2	2
	Staining	9-2	3	3	3	3
	Weath. Index	9-3	B	A/B	B	B
	Fusion Crust	10	2	2	2	2
	Comments	11	no	no	no	no

1-1	Y-791166	Y-791167	Y-791168	Y-791169	Y-791170	Y-791171	Y-791172
1-2	H5	L5	L3,4	H4	L5	L4	L6
1-3	4.81	10.33	10.11	7.88	6.78	10.43	5.68
1-4	1.8x1.6x0.7	2.1x1.8x1.6	2.4x1.7x1.4	1.8x1.6x1.5	2.3x1.7x1.1	1.9x1.9x1.7	2.5x1.1x1.0
1-5	51-1	51-1	51-1	51-1	51-1	51-1	51-1
1-6	no	no	no	no	no	no	no
1-7	no	no	no	no	no	no	no
2-1	1	1	1	1	3	1	1
2-2	1	2	2	2	3	2	2
2-3	2	2	1	1	2	2	1
2-4	1	1	1	1	1	1	1
2-5	A/B	A/B	A	A	A/B	A/B	A
2-6	1	3	1	1	1	3	1
2-7	5	5	5	1	5	5	5
2-8	1	2	1	1	1	1	1
3-1	19.2	24.7	22.8	18.7	24.8	24.4	24.6
	18.5-19.7	24.1-26.6	5.1-25.8	18.1-19.2	23.9-26.3	23.8-25.0	23.5-25.3
3-2	16.6	20.7	19.4	16.5	20.8	20.3	20.9
	15.9-17.8	20.1-22.2	16.3-21.8	15.7-18.5	20.1-22.5	19.0-21.5	20.0-21.8
3-3							
		10.7		24.5		10.3	
4-1	1	1	1	1		1	1
4-2	5	5	5	5		5	5
4-3	1	2	2	1	2	2	2
5-1	3	2	1	1	2	1	3
5-2	5	5	4	4	5	4	6
6-1	2	3	3	3	3	2	3
6-2	2	1	1	4	1	1	1
6-3	1	1	1	1	1	1	2
6-4	2	2	2	3	2	1	2
7	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1
9-1	2	2	2	2	2	2	2
9-2	3	3	3	3	3	3	3
9-3	A/B	B	B	B	B	C	B
10	1	2	1	1	2	2	2
11	no	no	yes	no	no	no	no

General	Meteorite	1-1	Y-791173	Y-791174	Y-791175	Y-791176
	Group & Type	1-2	H4	LL7	H5	H5
	Weight (gr.)	1-3	5.41	4.00	2.67	2.39
	Dimension (cm)	1-4	2.6x1.3x1.0	2.0x1.0x1.1	2.0x0.9x0.7	1.8x1.0x0.8
	Thin Section No.	1-5	51-1	51-1	51-1	51-1
	Tent. Pairing	1-6	no	no	no	no
	Bulk Comp.	1-7	no	no	no	no
Macroscopic	Fragmentation	2-1	1	3	1	3
	Shape	2-2	3	3	1	3
	Fusion Crust	2-3	2	2	1	3
	Evaporite	2-4	1	1	1	1
	Fracturing	2-5	A/B	A/B	A	A
	Structure	2-6	1	1	1	1
	Color	2-7	5	5	5	5
	Xenolith	2-8	2	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1	17.6	30.3	18.3	18.4
	Ol. Range		14.6-20.2	29.6-31.3	17.0-19.2	17.8-19.1
	Low-Ca Pyx.(PMD), Fs	3-2	16.2	24.9	16.0	16.2
	Pyx. Range		6.1-35.9	23.8-26.9	15.1-16.8	15.3-16.9
	Plagioclase (PMD), An	3-3				
	Pl. Range					
Microscopic	Matrix	4-1	1	1	1	1
	Chond. Size	4-2	5	5	5	5
	Metal, Sulfide	4-3	1	3	1	1
	Meta. Pl	5-1	1	3	2	2
	Chondrule Gdm	5-2	4	7	5	5
	Ol-extinct.	6-1	2	3	3	2
	Crack, Vein	6-2	1	2	2	1
	Shock Pocket	6-3	1	3	1	1
	Shock Degree	6-4	1	3	1	1
	Breccia	7	1	1	1	1
	CAI, Xenolith	8	1	1	1	1
	Limonite	9-1	2	1	2	3
	Staining	9-2	3	2	3	3
	Weath. Index	9-3	B	A	B	B
	Fusion Crust	10	1	2	1	3
	Comments	11	no	no	no	no

1-1	Y-791177	Y-791179	Y-791181	Y-791184	Y-791186	Y-791187
1-2	H6	H5	H5	H5	Euc(mono)	Dio(B)
1-3	3.64	7.89	4.67	3.51	99.58	24.00
1-4	2.6x2.0x0.4	2.1x1.6x1.4	2.1x1.6x1.0	1.9x1.2x1.0	5.8x4.3x3.2	3.2x2.3x2.1
1-5	51-1	51-1	51-1	51-1	72-1	51-1
1-6	no	no	no	no	yes, Y-792510	yes, Y-75032
1-7	no			no		
2-1	1	1	3	3	1	1
2-2	4	2	4	4	2	2
2-3	4	2	3	2	2	2
2-4	1	1	1	1	1	1
2-5	A/B	B	B	B	A	A
2-6	1	1	1	1	3	3
2-7	5	5	5	5	5	1
2-8	1	1	1	1	3	3
3-1	19.2	18.6	18.3	18.5		
	18.4-19.9	18.0-19.3	17.6-19.2	17.7-19.9		
3-2	16.7	16.5	15.9	16.1		
	16.0-17.1	15.6-16.9	15.0-16.7	15.0-17.9	56.0-62.0	31.0-33.7
3-3						
	13.1				71.6-87.2	81.0-90.1
4-1	1	1	1	1	6	2, 6
4-2	5	5	5	5	5	5
4-3	1	1	1	1	5	3, 5
5-1	3	2	2	2	4	4
5-2	6	5	5	5	8	8
6-1	2	2	2	3	5	5
6-2	1	1	1	2	2	4
6-3	1	1	1	2	5	4
6-4	1	1	1	2	2	3
7	1	1	1	1	2	2
8	1	1	1	1		
9-1	3	2	2	2		1
9-2	2	3	3	3	2	2
9-3	B	B	B	B	pass	pass
10	1	3	3	3		1
11	no	no	no	no	yes	no

<b>General</b>	<i>Meteorite</i>	1-1	Y-791188	Y-791189	Y-791192	Y-791194
	<i>Group &amp; Type</i>	1-2	Dio(B)	Dio(B)	Euc	Dio
	<i>Weight (gr.)</i>	1-3	9.17	6.23	364.1	129.73
	<i>Dimension (cm)</i>	1-4	2.3x1.8x1.4	2.0x1.8x1.3	7.0x5.5x5.3	5.3x5.1x3.9
	<i>Thin Section No.</i>	1-5	51-1	51-1	91-3	91-1
	<i>Tent. Pairing</i>	1-6	yes, Y-75032	yes, Y-75032	yes, Y-75032	no
	<i>Bulk Comp.</i>	1-7				
<b>Macroscopic</b>	<i>Fragmentation</i>	2-1	1	1	1	2
	<i>Shape</i>	2-2	2	2	2	2
	<i>Fusion Crust</i>	2-3	2	2	4	3
	<i>Evaporite</i>	2-4	1	1	1	1
	<i>Fracturing</i>	2-5	A	A	A	A
	<i>Structure</i>	2-6	3	3	3	3
	<i>Color</i>	2-7	1	1	5	3
	<i>Xenolith</i>	2-8	3	2	3	1
<b>Mineral Comp.</b>	<i>Olivine (PMD), Fa</i>	3-1				
	<i>Ol. Range</i>					
	<i>Low-Ca Pyx. (PMD), Fs</i>	3-2				
	<i>Pyx. Range</i>		30.6-38.0	29.6-34.5	32.1-66.0	26.7-32.1
	<i>Plagioclase (PMD), An</i>	3-3				
	<i>Pl. Range</i>		84.7-87.5	83.6	82.2-97.4	83.1
<b>Microscopic</b>	<i>Matrix</i>	4-1	2	2	5	3
	<i>Chond. Size</i>	4-2	5	5	5	5
	<i>Metal, Sulfide</i>	4-3	3, 5	3, 5	5	5
	<i>Meta. Pl</i>	5-1		4	4	4
	<i>Chondrule Gdm</i>	5-2	8	8	8	8
	<i>Ol-extinct.</i>	6-1	5	5		
	<i>Crack, Vein</i>	6-2	4	4	4	2
	<i>Shock Pocket</i>	6-3	4	4	4	1
	<i>Shock Degree</i>	6-4	3	3	3	1
	<i>Breccia</i>	7	2	2	3, 4	2
	<i>CAI, Xenolith</i>	8				
	<i>Limonite</i>	9-1	1	1	2	2
	<i>Staining</i>	9-2	2	2	2	2
	<i>Weath. Index</i>	9-3	pass	pass	pass	pass
	<i>Fusion Crust</i>	10	1	1		1
	<i>Comments</i>	11	yes	yes	yes	yes



1-1	Y-791195	Y-791197	Y-791199	Y-791200	Y-791201
1-2	Euc	Ano(Br)	Dio(B)	Dio(B)	Dio(B) w/cum. Euc.
1-3	100.29	52.40	121.88	51.58	9.61
1-4	5.3x4.3x3.3	4.5x4.2x2.8	5.8x4.6x3.0	4.3x3.1x2.5	2.4x1.8x1.7
1-5	91-2	73-2	81-1	81-1	81-1
1-6	no	no	yes, Y-75032	yes, Y-75032	yes, Y-75032, Y-791200
1-7					
2-1	2	2	2	2	3
2-2	3	2	2	2	2
2-3	2	2	2	2	2
2-4	1	1	1	1	1
2-5	A	A	A	A	A
2-6	3	3	3	3	3
2-7	3	5	3	1	5
2-8	1	3	1	1	1
3-1					
		13.6-92.1			
3-2					
	54.4-56.5	14.1-58.9	30.8-41.7	29.9-47.3	28.8-47.6
3-3					
	88.5-92.0	92.0-98.2	75.3-92.1	85.2-91.5	87.7-93.1
4-1	1	4, 6	2	3	3
4-2	5	5	5	5	5
4-3	5		3, 5	3, 5	3, 5
5-1	4	4	4	4	4
5-2	8	8	8	8	8
6-1			5	5	5
6-2	1	2	4	4	4
6-3	1	3	4	4	4
6-4	1	2	3	3	3
7		4	2		5 (genomict)
8					
9-1	1				
9-2	1		2		
9-3	pass	pass	pass	pass	pass
10	1		1		
11	yes	yes	yes	yes	yes

<b>General</b>	<b>Meteorite</b>	1-1	Y-791202	Y-791203	Y-791204	Y-791205
	<b>Group &amp; Type</b>	1-2	Dio(B)	Dio	Dio(B)	H5
	<b>Weight (gr.)</b>	1-3	9.42	6.26	2.19	24.46
	<b>Dimension (cm)</b>	1-4	2.5x1.7x1.5	1.9x1.4x1.3	1.3x1.2x0.8	2.9x2.6x1.8
	<b>Thin Section No.</b>	1-5	51-1	51-1	51-1	51-1
	<b>Tent. Pairing</b>	1-6	yes, Y-75032	no	yes, Y-75032	no
	<b>Bulk Comp.</b>	1-7				no
<b>Macroscopic</b>	<b>Fragmentation</b>	2-1	3	3	1	2
	<b>Shape</b>	2-2	2	3	1	4
	<b>Fusion Crust</b>	2-3	2	2	1	4
	<b>Evaporite</b>	2-4	1	1	1	1
	<b>Fracturing</b>	2-5	A	A	A	B/C
	<b>Structure</b>	2-6	3	3	3	1
	<b>Color</b>	2-7	1	5	5	2
	<b>Xenolith</b>	2-8	1	1	1	1
<b>Mineral Comp.</b>	<b>Olivine (PMD), Fa</b>	3-1				18.4
	<b>Ol. Range</b>					17.4-21.3
	<b>Low-Ca Pyx. (PMD), Fs</b>	3-2				15.8
	<b>Pyx. Range</b>		29.6-34.7	27.5-31.9	30.1-33.6	14.3-16.5
	<b>Plagioclase (PMD), An</b>	3-3				
	<b>Pl. Range</b>		86.3-90.2		89.7	11.3
<b>Microscopic</b>	<b>Matrix</b>	4-1	3	3	3	1
	<b>Chond. Size</b>	4-2	5	5	5	5
	<b>Metal, Sulfide</b>	4-3	3, 5	5	3, 5	1
	<b>Meta. Pl</b>	5-1	4	4	4	2
	<b>Chondrule Gdm</b>	5-2	8	8	8	5
	<b>Ol-extinct.</b>	6-1	5	5	5	3
	<b>Crack, Vein</b>	6-2	4	2	4	2
	<b>Shock Pocket</b>	6-3	4	1	4	2
	<b>Shock Degree</b>	6-4	3	1	3	2
	<b>Breccia</b>	7	2	2	2	1
	<b>CAI, Xenolith</b>	8				1
	<b>Limonite</b>	9-1	2	2	2	3
	<b>Staining</b>	9-2	2	2	2	3
	<b>Weath. Index</b>	9-3	pass	pass	pass	B
	<b>Fusion Crust</b>	10	2		2	1
	<b>Comments</b>	11	yes	yes	yes	no

1-1	Y-791206	Y-791207	Y-791208	Y-791209	Y-791210	Y-791211
1-2	How	How	How	H5	H4,5	H4,5
1-3	20.05	4.14	47.91	3288	355.09	161.67
1-4	3.0x2.7x2.4	2.2x1.7x1.0	4.0x3.5x2.4	21.1x12.7x8.4	8.5x5.9x4.4	7.0x6.5x2.8
1-5	52-1	51-1	81-4	54-1	73-1	61-1
1-6	yes, Y-791208	yes, Y-791208	yes, Y-791208	no	no	no
1-7						no
2-1	3	3	2	2	3	2
2-2	3	2	1	2	4	4
2-3	2	3	2	3	4	4
2-4	1	1	1	1	1	1
2-5	A	A	A	B/C	B/C	B/C
2-6	3	3	3	1	1	1
2-7	5	5	5	2	2	2
2-8	1	1	1	1	2	1
3-1				17.6	18.2	18.3
	11.8-28.6	12.3-18.4	8.7-43.3	16.5-18.9	16.8-19.7	16.9-19.4
3-2				15.5	15.9	16.3
	15.1-51.3	11.0-47.7	13.3-60.0	14.6-16.3	14.6-17.2	15.2-17.6
3-3						
	85.3-93.6	86.8-94.3	87.8-94.9			
4-1	4	4	4	1	1	1
4-2	5	5	5	5	5	5
4-3	3, 5	3, 5	3, 5	1	1	1
5-1	4	4	4	2	2	2
5-2	8	8	8	5	4	4
6-1	5	5	5	2	3	3
6-2	2	2	2	1	3	2
6-3	2	2	2	1	1	1
6-4	2	2	2	1	2	2
7	4	4	4	1	1	1
8				1	1	1
9-1	2	2	2	2	2	3
9-2	2	2	2-3	3	2	2
9-3	pass	pass	pass	B	B	B
10	2	2	2	1	1	1
11	yes	yes	yes	no	no	no

<b>General</b>	<b>Meteorite</b>	1-1	Y-791217	Y-791218	Y-791224	Y-791243
	<b>Group &amp; Type</b>	1-2	H4	H4	H4,5	H4,5
	<b>Weight (gr.)</b>	1-3	157.31	40.04	26.51	9.75
	<b>Dimension (cm)</b>	1-4	5.7x4.2x4.3	4.5x3.2x1.9	3.9x2.4x1.7	2.5x1.5x1.1
	<b>Thin Section No.</b>	1-5	81-1	51-1	51-1	51-1
	<b>Tent. Pairing</b>	1-6	no	no	no	no
	<b>Bulk Comp.</b>	1-7		no	no	no
<b>Macroscopic</b>	<b>Fragmentation</b>	2-1	2	3	3	3
	<b>Shape</b>	2-2	3	4	3	3
	<b>Fusion Crust</b>	2-3	3	4	4	3
	<b>Evaporite</b>	2-4	1	1	1	1
	<b>Fracturing</b>	2-5	B/C	B/C	B/C	B
	<b>Structure</b>	2-6	1	1	1	1
	<b>Color</b>	2-7	2	2	2	2
	<b>Xenolith</b>	2-8	1	1	1	1
<b>Mineral Comp.</b>	<b>Olivine (PMD), Fa</b>	3-1	18.5	18.4	18.4	18.1
	<b>Ol. Range</b>		17.3-28.7	18.0-19.3	16.4-19.6	16.4-19.5
	<b>Low-Ca Pyx. (PMD), Fs</b>	3-2	16.8	16.2	16.2	16.2
	<b>Pyx. Range</b>		15.3-20.1	15.4-16.9	14.7-17.0	15.2-17.3
	<b>Plagioclase (PMD), An</b>	3-3				
	<b>Pl. Range</b>					12.4
<b>Microscopic</b>	<b>Matrix</b>	4-1	1	1	1	1
	<b>Chond. Size</b>	4-2	5	5	5	5
	<b>Metal, Sulfide</b>	4-3	1	1	1	1
	<b>Meta. Pl</b>	5-1	1	1	2	2
	<b>Chondrule Gdm</b>	5-2	4	4	4	4
	<b>Ol-extinct.</b>	6-1	3	3	3	3
	<b>Crack, Vein</b>	6-2	2	3	2	3
	<b>Shock Pocket</b>	6-3	1	1	1	1
	<b>Shock Degree</b>	6-4	2	2		2
	<b>Breccia</b>	7	1	1	1	1
	<b>CAI, Xenolith</b>	8	1	1	1	1
	<b>Limonite</b>	9-1	3	2	2	2
	<b>Staining</b>	9-2	2	2	2	2
	<b>Weath. Index</b>	9-3	B	B	B	B
	<b>Fusion Crust</b>	10	1	1	1	1
	<b>Comments</b>	11	no	no	no	no

1-1	Y-791255	Y-791270	Y-791312	Y-791313	Y-791314	Y-791315
1-2	H6	L6	H4,5	H5	H4	H3, 4
1-3	10.40	3.53	1841	640	626	352.57
1-4	2.4x2.1x1.2	1.9x1.7x0.8	13.1x9.9x11.0	10.1x8.4x4.5	8.3x8.0x5.5	7.3x7.0x4.2
1-5	51-1	51-1	71-1	93-1	81-1	81-2
1-6	no	no	no	no	no	no
1-7	no	no		no	no	no
2-1	3	3	1	1	1	2
2-2	2	2	1	1	2	2
2-3	3	3	1	1	2	1
2-4	1	1	1	1	1	1
2-5	A/B	A/B	A/B	B	B/C	A/B
2-6	1	1	1	1	1	1
2-7	5	5	5	2	2	5
2-8	1	1	1	1	1	1
3-1	18.3	23.9	18.4	18.2	18.8	17.8
	16.8-19.3	23.0-24.4	17.6-20.1	17.3-19.3	17.9-20.4	9.2-27.5
3-2	16.1	20.2	16.1	16.3	16.2	15.1
	15.1-16.9	19.7-20.8	15.5-17.9	15.3-17.8	14.3-17.4	0.7-18.1
3-3						
4-1	1	1	1	1	1	2
4-2	5	5	5	5	5	3
4-3	1	2	1	1	1	1
5-1	3	3	1	2	1	1
5-2	6	6	4	5	4	4
6-1	3	3	2	2	2	2
6-2	1	1	1	1	2	1
6-3	1	1	1	1	1	1
6-4	2	2	1	1	1	1
7	1	1	1	1	1	1
8	1	1	1	1	1	1
9-1	2	2	2	2	3	1
9-2	2	2	2	3	3	3
9-3	B	B	B	B/C	B	A/B
10	3	2	1	2	1	1
11	no	no	no	no	no	no

General	Meteorite	1-1	Y-791316	Y-791317	Y-791318	Y-791319
	Group & Type	1-2	L4, 5	L5, 6	H4	H5
	Weight (gr.)	1-3	283.11	164.42	265.96	137.40
	Dimension (cm)	1-4	6.3x5.8x4.2	6.0x4.5x3.5	6.9x5.4x4.7	4.3x4.1x4.0
	Thin Section No.	1-5	71-1	91-1	91-1	91-1
	Tent. Pairing	1-6	no			no
	Bulk Comp.	1-7	no			no
Macroscopic	Fragmentation	2-1	1	1	1	1
	Shape	2-2	2	1	1	2
	Fusion Crust	2-3	1	1	1	1
	Evaporite	2-4	1	1	1	1
	Fracturing	2-5	A/B	A/B	A	A/B
	Structure	2-6	1	1	1	1
	Color	2-7	5	5	2	5
	Xenolith	2-8	1	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1	24.5	24.8	17.6	24.0
	Ol. Range		23.8-25.4	23.5-25.7	16.9-19.5	23.2-24.6
	Low-Ca Pyx.(PMD), Fs	3-2	20.5	20.7	15.1	19.8
	Pyx. Range		19.2-22.0	19.8-22.1	14.4-15.9	18.7-20.5
	Plagioclase (PMD), An	3-3				
	Pl. Range		10.3	13.3		
Microscopic	Matrix	4-1	1	1	1	1
	Chond. Size	4-2	5	5	5	5
	Metal, Sulfide	4-3	2, 5	3, 5	2	1, 5
	Meta. Pl	5-1	1	3	1	2
	Chondrule Gdm	5-2	5	5	4	5
	Ol-extinct.	6-1	2	3	2	3
	Crack, Vein	6-2	1	3	1	1
	Shock Pocket	6-3	1	1	1	1
	Shock Degree	6-4	1	2	1	2
	Breccia	7	1	1	1	1
	CAI, Xenolith	8	1	1	1	1
	Limonite	9-1	3	3	1	2
	Staining	9-2	3	3	3	3
	Weath. Index	9-3	C	B/C	B/C	B
	Fusion Crust	10	1	1	2	3
	Comments	11	no	no	yes	yes

1-1	Y-791320	Y-791321	Y-791322	Y-791323	Y-791324	Y-791325	Y-791326
1-2	H5	H5	L6	H4	LL3	H3	LL4,5
1-3	128.09	65.21	141.06	134.20	20.67	9.02	7.00
1-4	4.7x3.9x3.1	3.8x3.0x2.9	6.2x4.8x4.2	7.5x3.5x2.8	3.3x2.4x2.0	2.2x1.6x1.3	2.6x1.5x1.3
1-5	51-1	51-1	81-1	911	51-1	51-1	51-1
1-6	no		no	no	no	no	no
1-7	no		no	no	no	no	no
2-1	1	1	2	3	1	1	1
2-2	2	2	2	2	3	3	3
2-3	1	1	2	2	1	1	1
2-4	1	1	1	1	1	1	1
2-5	A	A	A/B	A/B	A	A	A
2-6	1	1	1	1	1	1	1
2-7	2	2	5	2	1	5	5
2-8	1	1	1	1	1	1	1
3-1	17.3	19.2	24.2	18.6	12.1	17.6	28.2
	16.2-18.1	18.1-20.2	23.2-24.9	17.8-19.6	0.4-22.4	15.9-18.4	27.4-29.2
3-2	15.3	16.8	20.4	16.2	8.8	14.6	21.8
	14.2-15.7	15.6-17.4	19.3-21.8	15.1-17.0	1.0-31.3	3.7-24.7	14.5-25.3
3-3							
4-1	1	1	1	1	2	2	1
4-2	5	5	5	5	3	3	5
4-3	1	1	2	1	3		3
5-1	2	2	3	2	1	1	2
5-2	5	5	6	4	3	3	4,5
6-1	2	2	3	2	2	2	3
6-2	1	2	1	2	1	1	2
6-3	1	1	1	1	1	1	2
6-4	1	1	2	1	1	1	2
7	1	1	1	1	1	1	2
8	1	1	1	1	1	1	1
9-1	3	2	1	1	1	2	2
9-2	3	3	2	3	2	2	3
9-3	C	B	A/B	B	A	B	B
10	1	2	1	2	2	2	2
11	no	no	no	no	no	no	no

<b>General</b>	<b>Meteorite</b>	1-1	Y-791327	Y-791328	Y-791329	Y-791330
	<b>Group &amp; Type</b>	1-2	H4	H5	H4	H5
	<b>Weight (gr.)</b>	1-3	5.26	4.36	5.52	3.00
	<b>Dimension (cm)</b>	1-4	2.3x1.2x1.1	1.8x1.3x1.1	1.7x1.6x1.1	1.4x1.3x0.9
	<b>Thin Section No.</b>	1-5	51-1	51-1	51-1	51-1
	<b>Tent. Pairing</b>	1-6	no	no		no
	<b>Bulk Comp.</b>	1-7	no	no		no
<b>Macroscopic</b>	<b>Fragmentation</b>	2-1	1	1	1	1
	<b>Shape</b>	2-2	3	3	3	2
	<b>Fusion Crust</b>	2-3	1	1	1	1
	<b>Evaporite</b>	2-4	1	1	1	1
	<b>Fracturing</b>	2-5	A	A	A	A
	<b>Structure</b>	2-6	1	1	1	1
	<b>Color</b>	2-7	5	5	5	1
	<b>Xenolith</b>	2-8	1	1	1	1
<b>Mineral Comp.</b>	<b>Olivine (PMD), Fa</b>	3-1	18.6	18.3	18.3	18.9
	<b>Ol. Range</b>		17.9-19.3	17.4-18.9	17.7-19.0	18.0-24.2
	<b>Low-Ca Pyx.(PMD), Fs</b>	3-2	16.2	16.0	16.0	16.4
	<b>Pyx. Range</b>		14.9-17.0	14.3-16.7	14.9-16.7	15.5-17.9
	<b>Plagioclase (PMD), An</b>	3-3				
	<b>Pl. Range</b>					
<b>Microscopic</b>	<b>Matrix</b>	4-1	1	1	1	1
	<b>Chond. Size</b>	4-2	5	5	5	5
	<b>Metal, Sulfide</b>	4-3	1	1	1	1
	<b>Meta. Pl</b>	5-1	1	2	1	2
	<b>Chondrule Gdm</b>	5-2	4	5	4	5, 6
	<b>Ol-extinct.</b>	6-1	2	2	2	3
	<b>Crack, Vein</b>	6-2	1	1	1	4
	<b>Shock Pocket</b>	6-3	1	1	1	3
	<b>Shock Degree</b>	6-4	1	1	1	3
	<b>Breccia</b>	7	1	1	1	1
	<b>CAI, Xenolith</b>	8	1	1	1	1
	<b>Limonite</b>	9-1	2	2	2	3
	<b>Staining</b>	9-2	3	3	3	2
	<b>Weath. Index</b>	9-3	B	B	B	B
	<b>Fusion Crust</b>	10	2	2	2	2
	<b>Comments</b>	11	no	no	no	no



1-1	Y-791331	Y-791332	Y-791333	Y-791334	Y-791335	Y-791337	Y-791338
1-2	H6	LL6	H4	H4	H4	L6	L3
1-3	2.35	2.27	1.84	1.84	1.79	1.74	1.46
1-4	1.6x1.1x0.7	1.3x1.2x0.8	1.3x1.0x0.7	1.6x1.3x0.4	1.4x1.0x0.7	1.1x1.0x0.9	1.0x0.9x0.7
1-5	51-1	51-1	51-1	51-1	51-1	51-1	51-1
1-6	no			no	no		no
1-7	no			no	no		no
2-1	1	1	1	2	2	1	1
2-2	1	2	2	1	2	3	2
2-3	1	1	1	1	2	1	1
2-4	1	1	1	1	1	1	1
2-5	A	A	A	A/B	A/B	A	A
2-6	1	1	1	1	1	1	1
2-7	5	5	1	2	5	5	5
2-8	1	1	1	1	1	1	1
3-1	18.3	25.3	18.6	18.2	19.2	24.0	18.3
	1.9-20.1	24.1-26.1	17.0-22.2	13.3-18.9	18.5-20.9	23.3-25.1	5.8-20.5
3-2	16.8	21.0	16.5	16.4	16.8	20.0	12.6
	15.9-17.5	19.8-21.9	14.5-17.9	15.4-20.6	15.9-18.1	18.9-20.9	4.3-37.5
3-3							
4-1	1	1	1	1	1	1	1
4-2	5	5	5	5	5	5	3
4-3	1	2	1	1	1	2	2
5-1	2	3	1	2	1	3	1
5-2	6	6	4	4	4	6	3
6-1	3	2	3	2	2	4	2
6-2	4	1	1	3	1	3	1
6-3	2	1	1	1	1	1	1
6-4	2	1	2	2	1	3	1
7	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1
9-1	3	3	3	3	3	2	3
9-2	3	3	3	3	3	3	3
9-3	C	C	B/C	C	C	B	C
10	2	2	3	3	1	2	2
11	yes	no	no	yes	no	no	yes

General	Meteorite	1-1	Y-791339	Y-791340	Y-791341	Y-791342
	Group & Type	1-2	H5	H3	L6	L6
	Weight (gr.)	1-3	1.01	34.20	33.71	10.73
	Dimension (cm)	1-4	1.1x0.9x0.6	4.1x3.3x1.9	3.7x3.1x1.9	2.7x2.5x1.2
	Thin Section No.	1-5	51-1	91-1	51-1	51-1
	Tent. Pairing	1-6	no	no	no	no
	Bulk Comp.	1-7	no	no	no	no
Macroscopic	Fragmentation	2-1	1	2	3	3
	Shape	2-2	2	3	4	4
	Fusion Crust	2-3	1	3	2	2
	Evaporite	2-4	1	1	1	1
	Fracturing	2-5	A	B/C	A/B	A/B
	Structure	2-6	1	1	1	1
	Color	2-7	5	2	5	5
	Xenolith	2-8	1	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1	18.0	16.8	24.7	23.9
	Ol. Range		17.0-19.6	2.5-20.6	24.2-25.6	23.2-24.7
	Low-Ca Pyx.(PMD), Fs	3-2	15.8	14.3	20.8	20.1
	Pyx. Range		15.0-16.3	4.5-16.0	19.2-23.9	19.0-21.9
	Plagioclase (PMD), An	3-3				
	Pl. Range					10.8
Microscopic	Matrix	4-1	1	2	1	1
	Chond. Size	4-2	5	3	5	5
	Metal, Sulfide	4-3	1	1	2	2
	Meta. Pl	5-1	2	1	3	3
	Chondrule Gdm	5-2	5	3	6	6
	Ol-extinct.	6-1	2	2	2	2
	Crack, Vein	6-2	1	1	1	1
	Shock Pocket	6-3	1	1	2	1
	Shock Degree	6-4	1	1	2	1
	Breccia	7	1	1	1	1
	CAI, Xenolith	8	1	1	1	1
	Limonite	9-1	3	1	1	1
	Staining	9-2	3	2	2	2
	Weath. Index	9-3	C	A	A/B	A
	Fusion Crust	10	2	1	1	1
	Comments	11	no	no	no	no

1-1	Y-791343	Y-791344	Y-791345	Y-791346	Y-791347	Y-791348	Y-791349
1-2	L6	H4,5	H4	H5	H4	H4,5	H6
1-3	8.55	10.74	8.70	6.60	14.57	13.36	10.72
1-4	2.4x1.9x1.5	2.0x1.6x1.5	2.4x1.9x1.1	2.4x1.8x1.0	2.4x1.9x1.6	2.4x1.8x1.6	2.5x1.5x1.5
1-5	51-1	51-1	51-1	51-1	51-1	51-1	51-1
1-6	no	no	no	no	no	no	no
1-7	no	no	no	no	no	no	no
2-1	3	2	3	1	1	1	1
2-2	4	3	4	3	1	2	2
2-3	3	2	3	1	1	1	2
2-4	1	1	1	1	1	1	1
2-5	B	A	A	A/B	A	A	A
2-6	1	1	1	1	1	1	1
2-7	5	5	4	5	1	5	2
2-8	1	1	1	1	1	1	1
3-1	24.1	19.9	17.8	18.1	18.3	19.8	18.1
	23.1-25.8	19.3-21.0	16.5-22.1	17.5-18.7	17.2-20.8	18.8-21.2	17.2-18.8
3-2	20.3	16.8	15.6	15.7	16.1	17.3	15.9
	18.9-22.1	15.9-17.7	14.5-17.5	14.2-16.8	15.1-16.6	14.2-24.6	15.2-16.9
3-3							
					13.3		12.9
4-1	1	1	1	1	1	1	1
4-2	5	5	5	5	5	5	5
4-3	3	1	1	1	1	1	1
5-1	3	2	1	3	2	2	3
5-2	6	4,5	4	5	4	4,5	6
6-1	2	2	2	2	2	2	2
6-2	1	3	1	1	2	1	1
6-3	1	2	1	1	4	3	1
6-4	1	3	1	1	3	3	1
7	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1
9-1	1	2	2	1	2	1	2
9-2	2	2	2	1	2	2	3
9-3	A/B	A	A/B	A	B	B	B
10	1	1	2	2	1	1	1
11	no	no	no	no	no	no	no

<b>General</b>	<b>Meteorite</b>	1-1	Y-791350	Y-791351	Y-791352	Y-791353
	<b>Group &amp; Type</b>	1-2	L, LL5	H4	L, LL3	H6
	<b>Weight (gr.)</b>	1-3	13.01	6.15	3.86	6.32
	<b>Dimension (cm)</b>	1-4	2.5x2.1x1.5	1.8x1.4x1.3	1.7x1.4x1.0	2.0x1.4x1.2
	<b>Thin Section No.</b>	1-5	51-1	51-1	51-1	51-1
	<b>Tent. Pairing</b>	1-6	no	no	no	no
	<b>Bulk Comp.</b>	1-7	no	no	no	no
<b>Macroscopic</b>	<b>Fragmentation</b>	2-1	1	3	1	2
	<b>Shape</b>	2-2	2	3	3	3
	<b>Fusion Crust</b>	2-3	2	3	2	2
	<b>Evaporite</b>	2-4	1	1	1	1
	<b>Fracturing</b>	2-5	A	A/B	A	A
	<b>Structure</b>	2-6	1	1	1	1
	<b>Color</b>	2-7	5	2	5	5
	<b>Xenolith</b>	2-8	1	1	1	1
<b>Mineral Comp.</b>	<b>Olivine (PMD), Fa</b>	3-1	25.1	18.6	20.9	19.1
	<b>Ol. Range</b>		24.1-28.2	17.8-19.6	0.4-39.9	18.5-19.9
	<b>Low-Ca Pyx.(PMD), Fs</b>	3-2	20.9	16.1	14.3	16.8
	<b>Pyx. Range</b>		20.1-22.5	15.7-16.7	1.4-27.0	15.9-18.5
	<b>Plagioclase (PMD), An</b>	3-3				
	<b>Pl. Range</b>					
<b>Microscopic</b>	<b>Matrix</b>	4-1	1	1	2	1
	<b>Chond. Size</b>	4-2	5	5	3	5
	<b>Metal, Sulfide</b>	4-3	3, 5	1, 5	3	2, 5
	<b>Meta. Pl</b>	5-1	3	1	1	1
	<b>Chondrule Gdm</b>	5-2	5	4	3	6
	<b>Ol-extinct.</b>	6-1	3	2	3	2
	<b>Crack, Vein</b>	6-2	4	1	1	1
	<b>Shock Pocket</b>	6-3	3	1	2	1
	<b>Shock Degree</b>	6-4	3	1	2	1
	<b>Breccia</b>	7	1	1	1	1
	<b>CAI, Xenolith</b>	8	1	1	1	1
	<b>Limonite</b>	9-1	2	3	3	2
	<b>Staining</b>	9-2	3	3	3	2
	<b>Weath. Index</b>	9-3	C	C	C	B/C
	<b>Fusion Crust</b>	10	2	3	1	1
	<b>Comments</b>	11	no	no	no	no

1-1	Y-791354	Y-791355	Y-791356	Y-791357	Y-791358	Y-791359	Y-791360
1-2	H3, 4	H4	L, LL5,6	L4	H4	Br(H5/6, L4)	H4
1-3	5.20	4.71	2.37	2.78	2.74	2.05	2.14
1-4	2.0x1.3x1.1	1.8x1.5x1.0	1.4x1.0x0.8	1.4x1.3x0.9	1.6x1.1x0.9	1.4x1.2x0.6	1.4x1.1x0.9
1-5	51-1	51-1	51-1	51-1	51-1	51-1	51-1
1-6	no	no	no	no	no	no	no
1-7	no	no	no	no	no	no	no
2-1	1	2	3	3	3	1	3
2-2	1	3	3	3	3	1	4
2-3	1	2	2	3	3	1	4
2-4	1	1	1	1	1	1	1
2-5	A	A/B	A	A/B	A/B	A	A/B
2-6	1	1	1	1	1	1	1
2-7	1	5	5	5	5	5	5
2-8	1	1	1	1	1	1	1
3-1	18.2	17.5	25.5	23.6	18.9	19.3	18.6
	7.3-32.5	16.3-21.5	24.4-31.3	23.0-24.8	17.8-21.8	18.3-20.1	17.5-19.3
3-2	13.5	15.1	21.2	20.0	16.1	16.9	16.2
	4.0-16.4	12.3-16.7	19.4-30.6	19.0-23.2	14.9-17.0	15.5-21.9	15.5-17.0
3-3							
	6.2					11.2-11.9	
4-1	2	1	1	1	1	1	1
4-2	3	5	5	5	5	5	5
4-3	1, 5	1, 5	3, 5	2, 5	2	1, 5	1
5-1	1	1	3	1	1	1, 2	1
5-2	3	4	6	4	4	4, 5, 6	4
6-1	3	3	3	3	2	2	3
6-2	1	1	4	1	1	2	1
6-3	2	2	1	1	1	1	1
6-4	2	2	3	2	1	1	2
7	1	1	1	1	1	4	1
8	1	1	1	1	1	1	1
9-1	3	2	2	1	1	2	3
9-2	3	2	3	3	3	3	3
9-3	B	B	C	A/B	B/C	B/C	B/C
10	1	1	1	2	3	2	1
11	yes	no	yes	no	no	yes	no

General	Meteorite	1-1	Y-791362	Y-791363	Y-791364	Y-791366
	Group & Type	1-2	LL6	H4	H4	L4
	Weight (gr.)	1-3	3.42	6.83	45.04	23.04
	Dimension (cm)	1-4	2.1x1.8x0.7	1.7x1.5x1.2	3.4x3.5x2.1	3.4x2.5x1.8
	Thin Section No.	1-5	51-1	51-1	51-1	51-1
	Tent. Pairing	1-6	no		no	no
	Bulk Comp.	1-7	no		no	no
Macroscopic	Fragmentation	2-1	3	3	2	1
	Shape	2-2	4	3	3	3
	Fusion Crust	2-3	4	2	2	1
	Evaporite	2-4	1	1	1	1
	Fracturing	2-5	A/B	A/B	A/B	A
	Structure	2-6	2	1	1	1
	Color	2-7	5	1	5	1
	Xenolith	2-8	1	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1	30.8	18.4	17.9	23.6
	Ol. Range		30.0-31.7	17.7-19.2	17.1-19.0	23.2-24.3
	Low-Ca Pyx.(PMD), Fs	3-2	25.2	16.0	16.1	19.0
	Pyx. Range		24.5-26.7	15.2-17.3	15.2-18.8	13.5-21.6
	Plagioclase (PMD), An	3-3				
	Pl. Range		9.8, 11.1			
Microscopic	Matrix	4-1	1	1	1	1
	Chond. Size	4-2	5	5	5	5
	Metal, Sulfide	4-3	3	1	1	2
	Meta. Pl	5-1	3	1	1	1
	Chondrule Gdm	5-2	7	4	4	4
	Ol-extinct.	6-1	3	3	3	3
	Crack, Vein	6-2	2	1	3	2
	Shock Pocket	6-3	1	1	1	1
	Shock Degree	6-4	2	2	2	2
	Breccia	7	1	1	2	1
	CAI, Xenolith	8	1	1	1	1
	Limonite	9-1	1	2	2	1
	Staining	9-2	2	3	3	3
	Weath. Index	9-3	B	B	B	B
	Fusion Crust	10	1	3	3	2
Comments	11	no	no	no	no	

1-1	Y-791367	Y-791368	Y-791369	Y-791370	Y-791371	Y-791372	Y-791373
1-2	H5	L5	LL5,6	H3	L5	H5	H4
1-3	15.20	20.55	11.05	9.07	11.13	5.3	8.71
1-4	3.2x2.5x1.3	3.1x2.2x1.8	2.7x2.0x1.3	2.1x2.0x1.2	2.7x1.8x1.5	2.2x1.6x0.8	2.3x1.8x1.2
1-5	51-1	51-1	51-1	51-1	51-1	51-1	51-1
1-6	no	no	no	no	no		
1-7	no	no	no	no	no	no	no
2-1	1	1	3	3	2	2	2
2-2	2	1	4	2	3	2	2
2-3	2	1	3	2	2	2	2
2-4	1	1	1	1	1	1	1
2-5	A/B	A	A/B	A/B	A/B	A/B	A/B
2-6	1	3	3	3	3	1	1
2-7	5	5	5	5	5	2	2
2-8	1	1	1	1	1	1	1
3-1	18.3	24.9	30.1	16.9	24.0	18.5	17.6
	16.4-20.0	24.3-25.9	25.0-34.2	0.4-20.4	22.9-25.0	17.6-19.2	16.9-18.0
3-2	16.6	20.9	22.9	13.9	20.2	16.2	15.4
	15.2-18.5	19.9-25.0	6.2-26.1	3.1-27.9	19.1-22.4	15.4-17.2	14.9-15.9
3-3							
		10.3	10.5				
4-1	1	1	1	2	1	1	1
4-2	5	5	5	3	5	5	5
4-3	1	2	3	1	2	1	1
5-1	2	2	2	1	2	2	1
5-2	5	5	5,6	3	5	5	4
6-1	4	3	3	2	2	2	3
6-2	2	4	1	1	1	1	1
6-3	2	1	1	1	1	1	1
6-4	3	3	2	1	1	1	1
7	1	1	2	1	1	1	1
8	1	1	1	1	1	1	1
9-1	2	1	1	1	1	2	2
9-2	3	3	2	3	3	3	3
9-3	B	B	A/B	B	B	B	B
10	2	1	1	3	2	2	2
11	no	no	yes	no	no	no	no

<b>General</b>	<b>Meteorite</b>	1-1	Y-791374	Y-791375	Y-791376	Y-791377
	<b>Group &amp; Type</b>	1-2	L6	H6	L6	H3
	<b>Weight (gr.)</b>	1-3	6.30	5.20	4.94	4.74
	<b>Dimension (cm)</b>	1-4	1.8x1.4x1.2	1.8x1.7x1.2	1.6x1.4x1.3	1.9x1.6x1.0
	<b>Thin Section No.</b>	1-5	51-1	51-1	51-1	51-1
	<b>Tent. Pairing</b>	1-6	no	no	no	no
	<b>Bulk Comp.</b>	1-7	no	no	no	no
<b>Macroscopic</b>	<b>Fragmentation</b>	2-1	3	2	3	3
	<b>Shape</b>	2-2	3	2	2	2
	<b>Fusion Crust</b>	2-3	2	2	3	2
	<b>Evaporite</b>	2-4	1	1	1	1
	<b>Fracturing</b>	2-5	B	A/B	B	B
	<b>Structure</b>	2-6	1	1	3	1
	<b>Color</b>	2-7	2	2	3	3
	<b>Xenolith</b>	2-8	1	1	1	1
<b>Mineral Comp.</b>	<b>Olivine (PMD), Fa</b>	3-1	24.7	18.0	25.3	17.3
	<b>Ol. Range</b>		23.8-25.7	17.1-18.4	24.5-26.9	5.3-19.2
	<b>Low-Ca Pyx.(PMD), Fs</b>	3-2	20.8	15.9	20.9	15.0
	<b>Pyx. Range</b>		20.1-22.3	15.3-16.5	20.0-23.1	11.3-18.4
	<b>Plagioclase (PMD), An</b>	3-3				
	<b>Pl. Range</b>		10.2			
<b>Microscopic</b>	<b>Matrix</b>	4-1	1	1	1	2
	<b>Chond. Size</b>	4-2	5	5	5	3
	<b>Metal, Sulfide</b>	4-3	2	1	3	1
	<b>Meta. Pl</b>	5-1	3	3	3	1
	<b>Chondrule Gdm</b>	5-2	6	6	6	3
	<b>Ol-extinct.</b>	6-1	3	2	4	3
	<b>Crack, Vein</b>	6-2	2	1	3	2
	<b>Shock Pocket</b>	6-3	2	2	2	1
	<b>Shock Degree</b>	6-4	2	1	2	1
	<b>Breccia</b>	7	1	1	1	1
	<b>CAI, Xenolith</b>	8	1	1	1	1
	<b>Limonite</b>	9-1	2	2	2	2
	<b>Staining</b>	9-2	2	3	3	3
	<b>Weath. Index</b>	9-3	A/B	B	B/C	B
	<b>Fusion Crust</b>	10	2	2	3	2
	<b>Comments</b>	11	no	no	no	no



1-1	Y-791378	Y-791379	Y-791380	Y-791381	Y-791382	Y-791383
1-2	LL6	L6	L6	L4	H5	H4
1-3	2.14	4.49	6.97	24.41	16.36	11.96
1-4	1.6x1.1x1.0	1.7x1.4x1.1	1.9x1.7x1.2	3.7x2.4x1.7	2.5x2.1x1.9	2.9x2.0x1.4
1-5	51-1	51-1	51-1	51-1	51-1	51-1
1-6	no			no	no	no
1-7	no	no	no	no	no	no
2-1	3	2	1	1	1	3
2-2	3	2	2	1	2	3
2-3	3	2	1	1	2	3
2-4	1	1	1	1	1	1
2-5	B/C	A/B	A	A	B	A
2-6	1	1	1	1	1	1
2-7	3	3	5	2	2	2
2-8	1	1	1	1	1	1
3-1	29.9	24.5	25.1	24.8	18.6	18.8
	29.2-31.0	23.7-25.6	24.5-27.4	24.1-25.5	18.1-19.1	17.6-21.0
3-2	24.2	20.4	21.3	20.9	16.2	16.4
	23.4-25.2	19.7-21.5	19.6-23.0	19.7-23.6	15.7-16.9	15.5-18.0
3-3						
	9.3, 10.1	8.9, 9.7	9.8			
4-1	1	1	1	1	1	1
4-2	5	5	5	5	5	5
4-3	3	2	2	2	1	1
5-1	3	3	3	1	2	1
5-2	6	6	6	4	5	4
6-1	3	3	4	3	2	2
6-2	1	2	3	2	2	1
6-3	2	2	3	1	1	1
6-4	1	1	3	1	1	1
7	1	1	1	1	1	1
8	1	1	1	1	1	1
9-1	2	2	2	2	2	2
9-2	2	2	3	2	3	3
9-3	A/B	B	B	B	B	B
10	2	2	2	2	2	2
11	no	no	no	no	no	no

<b>General</b>	<b>Meteorite</b>	1-1	Y-791384	Y-791385	Y-791386	Y-791387
	<b>Group &amp; Type</b>	1-2	L6	H5	H3	H4
	<b>Weight (gr.)</b>	1-3	12.82	13.63	3.83	3.92
	<b>Dimension (cm)</b>	1-4	2.4x2.1x1.4	3.3x1.9x1.5	1.8x1.4x0.9	1.7x1.5x0.9
	<b>Thin Section No.</b>	1-5	51-1	51-1	51-1	51-1
	<b>Tent. Pairing</b>	1-6	no		no	no
	<b>Bulk Comp.</b>	1-7	no	no	no	no
<b>Macroscopic</b>	<b>Fragmentation</b>	2-1	2	3	1	3
	<b>Shape</b>	2-2	2	3	3	3
	<b>Fusion Crust</b>	2-3	2	2	3	4
	<b>Evaporite</b>	2-4	1	1	1	1
	<b>Fracturing</b>	2-5	A/B	B	A	B
	<b>Structure</b>	2-6	3	1	1	1
	<b>Color</b>	2-7	2	2	2	2
	<b>Xenolith</b>	2-8	1	1	1	1
<b>Mineral Comp.</b>	<b>Olivine (PMD), Fa</b>	3-1	25.2	18.6	17.1	17.9
	<b>Ol. Range</b>		24.4-26.1	18.1-19.1	16.4-17.8	11.0-18.8
	<b>Low-Ca Pyx.(PMD), Fs</b>	3-2	21.5	16.4	15.3	15.6
	<b>Pyx. Range</b>		19.4-23.1	15.3-18.6	13.9-16.8	10.1-16.9
	<b>Plagioclase (PMD), An</b>	3-3				
	<b>Pl. Range</b>					
<b>Microscopic</b>	<b>Matrix</b>	4-1	1	1	2	2
	<b>Chond. Size</b>	4-2	5	5	5	1
	<b>Metal, Sulfide</b>	4-3	2	1	1	1
	<b>Meta. Pl</b>	5-1	3	2	1	1
	<b>Chondrule Gdm</b>	5-2	6	5	4	4
	<b>Ol-extinct.</b>	6-1	4	3	2	2
	<b>Crack, Vein</b>	6-2	4	1	1	1
	<b>Shock Pocket</b>	6-3	4	1	1	2
	<b>Shock Degree</b>	6-4	3	1	1	1
	<b>Breccia</b>	7	1	1	1	1
	<b>CAI, Xenolith</b>	8	1	1	1	1
	<b>Limonite</b>	9-1	2	2	2	3
	<b>Staining</b>	9-2	3	3	3	3
	<b>Weath. Index</b>	9-3	B	B	B	B
	<b>Fusion Crust</b>	10	2	2	1	1
	<b>Comments</b>	11	no	no	no	no

1-1	Y-791388	Y-791389	Y-791390	Y-791391	Y-791392	Y-791398	Y-791399
1-2	LL5	H4	L4	L6	H5	H5	LL3
1-3	3.55	3.74	2.32	3.03	3.08	0.96	0.95
1-4	1.8x1.3x1.0	1.6x1.4x0.3	1.9x1.3x0.7	1.7x1.1x0.9	1.6x1.0x1.0	1.1x0.8x0.5	1.5x0.8x0.6
1-5	51-1	51-1	51-1	51-1	51-1	51-1	51-1
1-6	no	no	no	no	no	no	no
1-7	no	no	no	no	no	no	no
2-1	3	3	3	2	2	3	3
2-2	3	3	3	2	2	2	3
2-3	3	2	4	2	2	2	3
2-4	2	1	1	1	1	1	2
2-5	B	A	A/B	A	A	A/B	A
2-6	1	1	1	1	1	1	1
2-7	3	2	2	2	2	2	1
2-8	1	1	1	1	1	1	1
3-1	29.2	18.1	24.0	25.1	18.6	18.6	9.0
	28.3-29.8	17.2-19.0	23.2-24.5	24.4-26.0	17.8-19.2	17.7-19.4	0.4-24.6
3-2	23.6	16.3	19.8	21.2	16.8	16.7	11.5
	22.8-24.8	14.9-22.8	5.3-22.6	20.1-22.7	15.4-26.2	15.6-19.4	0.6-32.8
3-3							
				10.3			99.4
4-1	1	1	1	1	1	1	2
4-2	5	5	5	5	5	5	4
4-3	3	1	1	2	1	1	3
5-1	2	1	1	3	2	2	1
5-2	5	4	4	6	5	5	3
6-1	3	3	3	3	3	3	2
6-2	1	1	2	2	2	2	1
6-3	2	1	1	3	2	2	1
6-4	1	1	1	2	2	2	1
7	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1
9-1	2	2	2	2	3	3	2
9-2	2	3	3	2	3	3	2
9-3	A/B	B	B	A/B	B	B	A/B
10	2	2	1	1	2	2	2
11	no	no	no	no	no	no	no

General	Meteorite	1-1	Y-791406	Y-791408	Y-791410	Y-791411
	Group & Type	1-2	H5	H4	L5,6	H6
	Weight (gr.)	1-3	2048	45.93	16.69	4.96
	Dimension (cm)	1-4	16.5x10.0x7.8	4.3x3.5x1.5	2.5x2.2x1.7	1.6x1.3x1.1
	Thin Section No.	1-5	71-1	51-1	51-1	51-1
	Tent. Pairing	1-6	yes, Y-791406	yes, Y-791408	no	no
	Bulk Comp.	1-7	yes	no	no	no
Macroscopic	Fragmentation	2-1	2	2	1	1
	Shape	2-2	3	2	1	2
	Fusion Crust	2-3	2	2	3	1
	Evaporite	2-4	1	1	1	1
	Fracturing	2-5	B	B/C	A	A/B
	Structure	2-6	1	1	1	1
	Color	2-7	5	2	3	2
	Xenolith	2-8	1	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1	18.3	18.7	25.7	18.4
	Ol. Range		16.9-19.1	17.5-19.7	25.0-27.1	17.3-19.1
	Low-Ca Pyx.(PMD), Fs	3-2	15.7	16.5	21.5	16.2
	Pyx. Range		14.3-16.5	14.9-21.3	20.0-27.5	14.9-17.1
	Plagioclase (PMD), An	3-3				
	Pl. Range					
Microscopic	Matrix	4-1	1	1	1	1
	Chond. Size	4-2	5	5	5	5
	Metal, Sulfide	4-3	1	1	2	1
	Meta. Pl	5-1	2	1	2	3
	Chondrule Gdm	5-2	5	4	5	6
	Ol-extinct.	6-1	2	2	3	2
	Crack, Vein	6-2	1	2	2	2
	Shock Pocket	6-3	1	1	2	1
	Shock Degree	6-4	1	2	2	2
	Breccia	7	1	1	1	1
	CAI, Xenolith	8	1	1	1	1
	Limonite	9-1	2	3	2	3
	Staining	9-2	2	2	3	2
	Weath. Index	9-3	A/B	A/B	A/B	B
	Fusion Crust	10	1	2	1	3
	Comments	11	no	no	no	no

1-1	Y-791412	Y-791413	Y-791414	Y-791415	Y-791417	Y-791418
1-2	L6	L6	L6	L5	LL6	H4
1-3	24.98	203.61	52.96	22.46	39.68	16.16
1-4	3.2x2.3x1.7	7.5x4.6x4.5	6.2x3.9x2.1	3.1x2.9x2.6	4.1x3.1x2.5	3.0x2.3x1.1
1-5	51-1	62-1	51-1	51-1	81-1	51-1
1-6	no		yes, Y-791413	yes, Y-791413	no	no
1-7	no	yes	no	no	no	no
2-1	1	3	2	3	2	1
2-2	2	3	3	3	3	2
2-3	2	2	2	2	2	1
2-4	1	1	1	1	1	1
2-5	A	B	B	A	B/C	A
2-6	1	1	1	1	1	1
2-7	2	2	2	3	5	2
2-8	1	1	1	1	1	1
3-1	25.1	24.4	25.3	25.0	29.0	15.3
	24.3-26.1	22.9-26.0	24.5-26.8	24.6-26.4	28.1-30.1	14.5-16.6
3-2	21.3	20.5	21.6	21.8	23.6	13.4
	20.4-22.6	19.6-21.9	20.1-25.4	20.1-26.1	22.3-24.9	12.8-14.0
3-3						
		11.8	10.2		9.3-10.9	
4-1	1	1	1	1	1	1
4-2	5	5	5	5	5	5
4-3	2	2	2	2	3	1
5-1	3	3	3	2	3	1
5-2	6	6	6	5	6	4
6-1	3	2	3	3	3	2
6-2	4	2	3	2	1	2
6-3	3	3	3	2	1	1
6-4	3	2	2	2	2	1
7	2	1	1	1	2	1
8	1	1	1	1	1	1
9-1	2	2	2	2	1	2
9-2	2	2	3	2	2	2
9-3	A/B	A/B	A/B	A/B	A	A/B
10	1	1	1	2	1	3
11	no	no	no	no	no	no

<b>General</b>	<b>Meteorite</b>	1-1	Y-791419	Y-791420	Y-791421	Y-791422
	<b>Group &amp; Type</b>	1-2	H6	H5	L6	Dio(B)
	<b>Weight (gr.)</b>	1-3	37.61	18.91	811	61.80
	<b>Dimension (cm)</b>	1-4	3.2x2.6x2.4	2.5x2.4x1.9	10.3x8.1x7.0	4.4x3.8x2.7
	<b>Thin Section No.</b>	1-5	51-1	51-1	81-1	81-1
	<b>Tent. Pairing</b>	1-6	no	no	no	yes, Y-75032
	<b>Bulk Comp.</b>	1-7	no	no	yes	
<b>Macroscopic</b>	<b>Fragmentation</b>	2-1	1	3	1	2
	<b>Shape</b>	2-2	2	3	3	2
	<b>Fusion Crust</b>	2-3	2	3	2	2
	<b>Evaporite</b>	2-4	1	1	1	1
	<b>Fracturing</b>	2-5	B	B	A	A
	<b>Structure</b>	2-6	1	1	1	3
	<b>Color</b>	2-7	2	2	3	5
	<b>Xenolith</b>	2-8	1	1	1	1
<b>Mineral Comp.</b>	<b>Olivine (PMD), Fa</b>	3-1	18.5	18.7	24.4	
	<b>Ol. Range</b>		17.6-19.0	18.4-19.1	23.3-25.2	
	<b>Low-Ca Pyx.(PMD), Fs</b>	3-2	16.3	16.2	20.7	
	<b>Pyx. Range</b>		15.2-17.2	15.6-17.7	18.9-22.7	30.6-35.3
	<b>Plagioclase (PMD), An</b>	3-3				
	<b>Pl. Range</b>				10.6	69.7-91.7
<b>Microscopic</b>	<b>Matrix</b>	4-1	1	1	1	2
	<b>Chond. Size</b>	4-2	5	5	5	5
	<b>Metal, Sulfide</b>	4-3	1	1	2	3, 5
	<b>Meta. Pl</b>	5-1	3	2	3	4
	<b>Chondrule Gdm</b>	5-2	6	5	6	8
	<b>Ol-extinct.</b>	6-1	2	2	3	5
	<b>Crack, Vein</b>	6-2	1	2	1	4
	<b>Shock Pocket</b>	6-3	1	1	3	4
	<b>Shock Degree</b>	6-4	1	1	2	3
	<b>Breccia</b>	7	1	1	1	2
	<b>CAI, Xenolith</b>	8	1	1	1	
	<b>Limonite</b>	9-1	2	2	2	2
	<b>Staining</b>	9-2	2	2	3	2
	<b>Weath. Index</b>	9-3	A	A/B	B	pass
	<b>Fusion Crust</b>	10	2	2	2	1
	<b>Comments</b>	11	no	no	no	yes

1-1	Y-791423	Y-791424	Y-791425	Y-791426	Y-791427	Y-791428
1-2	H4	How	H4	L6	H4	H3
1-3	3.66	10.90	4.36	1.72	507.05	548.94
1-4	1.8x1.1x1.1	2.6x1.8x1.2	2.0x1.5x0.9	1.3x1.2x0.6	9.0x6.6x5.5	9.9x5.8x5.7
1-5	51-1	51-1	51-1	51-1	91-1	74-3
1-6	no	yes, Y-791208	no	no	no	no
1-7	no		no	no	yes	yes
2-1	1	1	3	2	1	1
2-2	2	2	2	2	2	2
2-3	1	3	2	2	1	2
2-4	1	1	1	1	1	1
2-5	A	A	A	B	B	B
2-6	1	3	1	1	1	1
2-7	2	5	2	2	5	3
2-8	1	1	1	1	1	1
3-1	19.1	35.1	18.3	25.4	18.5	17.4
	17.9-21.1		17.4-19.1	24.5-26.6	17.5-25.4	15.6-18.3
3-2	16.5		16.3	21.0	15.4	14.4
	15.6-17.9	13.6-55.1	15.5-17.1	20.3-22.2	14.7-15.9	5.3-26.3
3-3						
		84.7-95.6		12.4		
4-1	1	4	1	1	1	2
4-2	5	5	5	5	5	3
4-3	1	3, 5	1	2	1	1
5-1	1	4	1	3	1	1
5-2	4	8	4	6	4	3
6-1	2	5	2	3	2	2
6-2	1	2	1	2	1	1
6-3	1	2	1	2	1	1
6-4	1	2	1	2	1	1
7	1	4	1	1	1	1
8	1		1	1	1	1
9-1	2	3	2	2	2	2
9-2	2	2	2	2	2	2
9-3	A/B	pass	A/B	A/B	A/B	A/B
10	2	2	2	2	3	2
11	no	yes	no	no	no	no

General	Meteorite	1-1	Y-791429	Y-791430	Y-791431
	Group & Type	1-2	L3	H6	L6
	Weight (gr.)	1-3	223.53	45.93	281.60
	Dimension (cm)	1-4	5.6x5.1x4.6	3.5x3.1x2.7	7.2x5.0x4.8
	Thin Section No.	1-5	91-3	51-1	91-1
	Tent. Pairing	1-6	no	no	yes, Y-791431 with Y-791432
	Bulk Comp.	1-7	yes	no	yes
Macroscopic	Fragmentation	2-1	1	1	2
	Shape	2-2	2	1	3
	Fusion Crust	2-3	3	2	2
	Evaporite	2-4	1	1	1
	Fracturing	2-5	A/B	A/B	A
	Structure	2-6	1	1	1
	Color	2-7	1	2	3
	Xenolith	2-8	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1	22.1	18.4	23.8
	Ol. Range		15.9-24.1	17.5-19.3	22.8-25.4
	Low-Ca Pyx.(PMD), Fs	3-2	15.7	16.1	20.1
	Pyx. Range		8.1-24.4	15.8-16.5	19.4-21.5
	Plagioclase (PMD), An	3-3			
	Pl. Range				
Microscopic	Matrix	4-1	2	1	1
	Chond. Size	4-2	3	5	5
	Metal, Sulfide	4-3	2	1	2
	Meta. Pl	5-1	1	3	3
	Chondrule Gdm	5-2	3	6	6
	Ol-extinct.	6-1	3	2	3
	Crack, Vein	6-2	2	1	1
	Shock Pocket	6-3	2	1	1
	Shock Degree	6-4	2	1	2
	Breccia	7	1	1	1
	CAI, Xenolith	8	1	1	1
	Limonite	9-1	2	2	1
	Staining	9-2	2	2	3
	Weath. Index	9-3	B	B	B
	Fusion Crust	10	1	1	1
	Comments	11	no	no	no



1-1	Y-791433	Y-791434	Y-791435	Y-791436	Y-791437	Y-791438
1-2	CO3	H4	H4	H6	H6	Euc
1-3	3.13	265.20	15.09	6.68	28.20	20.18
1-4	1.7x1.1x1.0	6.3x5.0x4.9	2.8x2.0x1.5	2.2x1.6x1.1	3.7x2.3x2.2	2.7x2.5x2.1
1-5	51-1	81-1	51-1	51-1	51-1	51-1
1-6	no	no	no	no	no	no
1-7	no	yes	no	no		
2-1	2	2	3	2	2	2
2-2	2	3	3	3	3	3
2-3	2	2	3	2	2	2
2-4	1	1	1	1	1	1
2-5	A	B	B	A/B	B	A
2-6	1	1	1	1	1	3
2-7	1	3	2	2	2	5
2-8	1	1	1	1	1	1
3-1	19.5	18.3	18.4	18.9	18.1	
	0.5-44.2	16.9-20.9	17.0-19.6	18.2-20.3	17.5-18.8	
3-2	1.7	16.0	16.3	16.2	15.9	
	0.6-7.2	15.0-18.0	15.7-19.0	15.4-16.9	15.4-16.6	43.0-46.2
3-3						
	71.5				13.5	91.8-94.8
4-1	3	1	1	1	1	1
4-2	2	5	5	5	5	5
4-3	2	1	1	1	1	3, 5
5-1	1	1	1	3	3	4
5-2	3	4	4	6	6	8
6-1	2	3	3	2	2	5
6-2	1	1	1	1	1	3
6-3	1	1	1	1	1	2
6-4	1	2	2	1	1	2
7	1	1	1	1	1	1
8	2	1	1	1	1	
9-1	1	3	2	2	2	2
9-2	2	3	3	2	3	2
9-3	B	B/C	B	B	B	pass
10	1	1	1	3	2	2
11	yes	no	no	no	no	yes

General	Meteorite	1-1	Y-791439	Y-791440	Y-791441
	Group & Type	1-2	Dio	L6	L6
	Weight (gr.)	1-3	31.05	89.65	105.66
	Dimension (cm)	1-4	3.4x2.9x2.3	5.6x3.8x2.8	4.6x4.4x3.5
	Thin Section No.	1-5	51-2	81-1	74-1
	Tent. Pairing	1-6	yes, Y-75032, Y-791200	no	no
	Bulk Comp.	1-7		yes	yes
Macroscopic	Fragmentation	2-1	2	2	1
	Shape	2-2	2	2	3
	Fusion Crust	2-3	3	1	1
	Evaporite	2-4	1	1	1
	Fracturing	2-5	A	A	A
	Structure	2-6	3	1	1
	Color	2-7	5	5	5
	Xenolith	2-8	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1		24.1	24.1
	Ol. Range			22.7-25.7	23.0-25.1
	Low-Ca Pyx.(PMD), Fs	3-2		20.1	20.2
	Pyx. Range		30.8-60.7	18.5-21.1	19.0-21.0
	Plagioclase (PMD), An	3-3			
	Pl. Range		87.6-91.7		
Microscopic	Matrix	4-1	3	1	1
	Chond. Size	4-2	5	5	5
	Metal, Sulfide	4-3	3, 5	2	2
	Meta. Pl	5-1	4	3	3
	Chondrule Gdm	5-2	8	6	6
	Ol-extinct.	6-1	5	3	3
	Crack, Vein	6-2	4	3	1
	Shock Pocket	6-3	4	1	1
	Shock Degree	6-4	3	2	2
	Breccia	7	4	1	1
	CAI, Xenolith	8		1	1
	Limonite	9-1	2	2	1
	Staining	9-2	2	2	2
	Weath. Index	9-3	pass	B	B
	Fusion Crust	10		1	3
	Comments	11	yes	no	no

1-1	Y-791442	Y-791443	Y-791444	Y-791445	Y-791446	Y-791447	Y-791448
1-2	L6	L6	H4	H6	H4	H4	How
1-3	189.53	11.32	550.84	4.75	17.60	1.99	35.60
1-4	5.5x4.8x3.8	3.0x2.2x1.2	9.6x6.7x5.0	1.7x1.2x1.1	2.6x2.3x1.6	1.5x1.0x0.7	4.2x3.7x2.1
1-5	81-1	51-1	81-1	51-1	51-1	51-1	100-1
1-6		no	no	no	no	no	no
1-7	yes	no	yes	no	no	no	
2-1	1	1	1	1	1	1	2
2-2	2	3	2	1	2	2	2
2-3	2	2	1	1	2	1	2
2-4	1	1	1	1	1	1	1
2-5	A	A	B	A	A	A	A
2-6	1	1	1	1	1	1	3
2-7	5	2	3	3	2	2	2, 5
2-8	1	1	1	1	1	1	1
3-1	24.3	24.5	18.8	20.3	18.6	17.2	
	23.0-25.4	24.0-25.1	17.6-19.4	19.3-22.1	17.8-19.7	15.9-18.0	10.9-26.7
3-2	20.2	20.6	16.3	17.4	15.9	15.4	
	19.6-21.3	19.7-21.0	15.3-18.1	16.7-18.2	14.3-16.6	14.4-15.9	13.8-60.9
3-3							
	9.1-9.6	10.0,10.7		11.4		50.9	78.6-95.3
4-1	1	1	1	1	1	1	4
4-2	5	5	5	5	5	5	5
4-3	2	2	1	1	1	1	3, 5
5-1	3	3	1	3	1	1	4
5-2	6	6	4	6	4	4	8
6-1	3	3	3	2	3	2	5
6-2	3	3	1	1	2	1	2
6-3	1	2	1	1	1	1	2
6-4	2	2	2	1	2	1	2
7	1	1	1	1	1	1	4
8	1	1	1	1	1	1	
9-1	1	3	1	2	2	2	2
9-2	2	2	3	3	3	3	2
9-3	B	B	B	C	B/C	B	pass
10	1	3	1	2	2	3	1
11	no	no	no	no	no	no	yes

General	Meteorite	1-1	Y-791449	Y-791450	Y-791451	Y-791452
	Group & Type	1-2	L6	L6	L6	L5
	Weight (gr.)	1-3	108.33	192.86	8.07	204.59
	Dimension (cm)	1-4	4.8x4.2x3.5	6.5x5.8x3.9	2.1x1.7x1.4	7.3x4.8x3.4
	Thin Section No.	1-5	81-1	81-1	51-1	81-1
	Tent. Pairing	1-6	no	no	no	no
	Bulk Comp.	1-7	yes	yes	no	yes
Macroscopic	Fragmentation	2-1	1	1	1	1
	Shape	2-2	3	3	3	2
	Fusion Crust	2-3	2	2	1	2
	Evaporite	2-4	1	1	1	1
	Fracturing	2-5	A	A	A/B	A
	Structure	2-6	1	1	1	1
	Color	2-7	3	5	5	2
	Xenolith	2-8	1	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1	25.0	25.0	24.7	24.5
	Ol. Range		23.3-26.1	24.1-26.1	23.5-25.8	23.2-27.7
	Low-Ca Pyx. (PMD), Fs	3-2	21.0	20.9	20.9	20.3
	Pyx. Range		20.4-21.8	19.5-21.9	19.6-22.0	19.9-21.6
	Plagioclase (PMD), An	3-3				
	Pl. Range				9.8-10.8	
Microscopic	Matrix	4-1	1	1	1	1
	Chond. Size	4-2	5	5	5	5
	Metal, Sulfide	4-3	2	2	2	2
	Meta. Pl	5-1	3	3	3	2
	Chondrule Gdm	5-2	6	6	6	5
	Ol-extinct.	6-1	3	3	3	3
	Crack, Vein	6-2	3	3	4	3
	Shock Pocket	6-3	2	1	3	2
	Shock Degree	6-4	2	2	3	2
	Breccia	7	1	1	1	1
	CAI, Xenolith	8	1	1	1	1
	Limonite	9-1	2	1	1	2
	Staining	9-2	3	2	3	3
	Weath. Index	9-3	B	B	B	B
	Fusion Crust	10	1	1	2	2
	Comments	11	no	no	no	no

1-1	Y-791453	Y-791454	Y-791455	Y-791456	Y-791457	Y-791458	Y-791459
1-2	H4	H4	L6	L6	H4	H4	L6
1-3	158.89	8.40	54.83	37.05	41.39	8.04	23.65
1-4	5.3x4.7x3.5	2.3x1.9x1.2	4.1x2.5x2.5	3.9x2.5x2.0	3.2x2.7x2.7	2.5x1.7x1.1	4.1x2.1x1.8
1-5	72-1	51-1	51-1	51-1	51-1	51-1	51-1
1-6	no	no	no	no	no	no	no
1-7	yes	no	no	no	no	no	no
2-1	1	3	2	1	3	1	2
2-2	2	3	3	2	2	2	2
2-3	2	2	2	1	2	2	2
2-4	1	1	1	1	1	1	1
2-5	B/C	B	A	A/B	C	A	C
2-6	1	1	1	1	1	1	1
2-7	5	2	2	2	2	2	5
2-8	1	1	1	1	1	1	1
3-1	16.2	17.7	24.9	24.5	18.3	17.3	25.0
	15.5-18.1	6.0-19.4	23.5-28.0	23.8-25.5	17.4-21.7	16.7-18.2	24.1-25.8
3-2	14.6	15.2	20.7	20.7	15.8	15.3	20.6
	13.4-20.5	3.5-16.5	19.5-21.2	19.6-22.1	11.9-20.9	14.6-16.4	20.1-22.0
3-3							
							9.4-10.2
4-1	1	1	1	1	1	1	1
4-2	5	5	5	5	5	5	5
4-3	1	1	2	2	1	1	2
5-1	1	1	3	3	1	1	3
5-2	4	4	6	6	4	4	6
6-1	3	3	3	3	2	3	3
6-2	2	4	3	3	1	4	3
6-3	1	2	3	3	1	2	1
6-4	2	3	3	3	1	3	2
7	1	1	1	1	1	1	1
8	1	3	1	1	1	1	1
9-1	2	3	2	2	2	3	2
9-2	3	3	3	3	3	3	3
9-3	B	C	B	B	B	C	B
10	1	2	2	2	1	3	2
11	no	yes	no	no	no	no	no

General	Meteorite	1-1	Y-791460	Y-791461	Y-791462	Y-791463
	Group & Type	1-2	L6	L6	H5	L6
	Weight (gr.)	1-3	10.59	11.44	94.23	10.28
	Dimension (cm)	1-4	2.2x1.9x1.2	2.1x1.8x1.4	4.3x4.0x3.5	2.6x1.9x1.5
	Thin Section No.	1-5	51-1	51-1	81-1	51-1
	Tent. Pairing	1-6	no	no	no	no
	Bulk Comp.	1-7	no	no	no	no
Macroscopic	Fragmentation	2-1	1	1	1	2
	Shape	2-2	2	2	2	3
	Fusion Crust	2-3	1	1	2	2
	Evaporite	2-4	1	1	1	1
	Fracturing	2-5	A	A	A/B	A
	Structure	2-6	1	1	1	1
	Color	2-7	2	2	2	2
	Xenolith	2-8	1	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1	24.9	24.7	18.0	24.6
	Ol. Range		24.2-25.9	24.0-25.7	16.8-20.7	23.4-26.0
	Low-Ca Pyx.(PMD), Fs	3-2	20.6	21.1	16.0	20.9
	Pyx. Range		19.3-23.2	19.0-25.3	15.2-17.1	19.9-22.6
	Plagioclase (PMD), An	3-3				
	Pl. Range		9.6			
Microscopic	Matrix	4-1	1	1	1	1
	Chond. Size	4-2	5	5	5	5
	Metal, Sulfide	4-3	2	2	1	2
	Meta. Pl	5-1	3	3	2	3
	Chondrule Gdm	5-2	6	6	5	6
	Ol-extinct.	6-1	3	3	2	3
	Crack, Vein	6-2	4	4	1	1
	Shock Pocket	6-3	3	3	1	3
	Shock Degree	6-4	3	3	1	3
	Breccia	7	1	1	1	1
	CAI, Xenolith	8	1	1	1	1
	Limonite	9-1	2	2	3	2
	Staining	9-2	3	3	3	3
	Weath. Index	9-3	B	B	C	B
	Fusion Crust	10	2	2	2	2
	Comments	11	no	no	no	no

1-1	Y-791464	Y-791465	Y-791466	Y-791467	Y-791468	Y-791469
1-2	H4	H6	Dio(B)	Dio(B)	H5	H4
1-3	18.02	3.23	21.46	18.714	11.29	5.09
1-4	2.7x2.7x1.6	1.7x1.2x1.0	2.6x2.4x2.3	2.6x2.4x1.6	2.5x1.5x1.5	1.8x1.5x1.1
1-5	51-1	51-1	51-2	51-1	51-1	51-1
1-6	no	no	yes, Y-75032	yes, Y-75032	no	no
1-7	no	no			no	no
2-1	2	3	3	3	1	2
2-2	3	3	2	2	3	2
2-3	2	3	2	2	1	2
2-4	1	1	1	1	1	1
2-5	A/B	A	A	A	A	A/B
2-6	1	1	3	3	1	1
2-7	2	2	1	1	2	2
2-8	1	1	1	1	1	1
3-1	16.7	18.0			18.3	18.2
	16.4-17.2	17.0-19.3			17.3-20.2	17.1-19.6
3-2	14.6	15.8			16.0	16.0
	13.2-15.4	15.0-16.5	30.1-35.2	29.4-34.3	15.1-17.4	15.3-17.1
3-3						
		12.9	81.6-89.9	84.0-87.2		
4-1	1	1	3	3	1	1
4-2	5	5	5	5	5	5
4-3	1	1	3, 5	3, 5	1	1
5-1	1	3	4	4	2	1
5-2	4	6	8	8	5	4
6-1	2	2	5	5	2	2
6-2	1	1	4	4	2	1
6-3	1	1	4	4	2	1
6-4	1	1	3	3	1	1
7	1	1	2	2	1	1
8	1	1			1	1
9-1	3	3	1	2	3	2
9-2	2	3	1	2	3	3
9-3	C	C	pass	pass	C	B
10	1	2	2	2	3	2
11	no	no	yes	yes	no	no

<b>General</b>	<b>Meteorite</b>	1-1	Y-791470	Y-791471	Y-791472	Y-791473
	<b>Group &amp; Type</b>	1-2	H5	L6	H3	H4
	<b>Weight (gr.)</b>	1-3	6.96	141.83	7.00	6.81
	<b>Dimension (cm)</b>	1-4	2.3x2.0x0.9	5.8x4.7x2.4	1.9x1.4x1.2	2.3x2.1x0.8
	<b>Thin Section No.</b>	1-5	51-1	81-1	51-1	51-1
	<b>Tent. Pairing</b>	1-6	no	no	no	no
	<b>Bulk Comp.</b>	1-7	yes	yes	no	no
<b>Macroscopic</b>	<b>Fragmentation</b>	2-1	1	1	1	1
	<b>Shape</b>	2-2	3	3	3	3
	<b>Fusion Crust</b>	2-3	4	2	1	2
	<b>Evaporite</b>	2-4	1	1	1	1
	<b>Fracturing</b>	2-5	A	A/B	A/B	A
	<b>Structure</b>	2-6	1	1	1	1
	<b>Color</b>	2-7	1	2	2	2
	<b>Xenolith</b>	2-8	1	1	1	1
<b>Mineral Comp.</b>	<b>Olivine (PMD), Fa</b>	3-1	18.0	24.9	19.4	18.4
	<b>Ol. Range</b>		16.7-19.3	23.1-29.2	16.1-20.2	17.3-19.0
	<b>Low-Ca Pyx. (PMD), Fs</b>	3-2	15.5	20.7	15.5	16.0
	<b>Pyx. Range</b>		11.1-16.9	19.6-23.2	7.3-25.8	15.0-17.0
	<b>Plagioclase (PMD), An</b>	3-3				
	<b>Pl. Range</b>				0.6	
<b>Microscopic</b>	<b>Matrix</b>	4-1	1	1	2	1
	<b>Chond. Size</b>	4-2	5	5	3	5
	<b>Metal, Sulfide</b>	4-3	1	2	1	1
	<b>Meta. Pl</b>	5-1	2	3	1	1
	<b>Chondrule Gdm</b>	5-2	5	6	3	4
	<b>Ol-extinct.</b>	6-1	3	3	2	3
	<b>Crack, Vein</b>	6-2	1	2	1	1
	<b>Shock Pocket</b>	6-3	1	2	1	1
	<b>Shock Degree</b>	6-4	2	2	1	2
	<b>Breccia</b>	7	1	1	1	1
	<b>CAI, Xenolith</b>	8	1	1	1	1
	<b>Limonite</b>	9-1	2	2	3	3
	<b>Staining</b>	9-2	2	3	3	3
	<b>Weath. Index</b>	9-3	B	B	C	C
	<b>Fusion Crust</b>	10	1	2	2	3
<b>Comments</b>	11	no	no	no	no	



1-1	Y-791474	Y-791475	Y-791476	Y-791477	Y-791478	Y-791482
1-2	H4,5	H4,5	H4,5	H4,5	H4	H4
1-3	67.05	14.38	23.47	214.87	146.95	352.62
1-4	4.5x3.8x2.5	2.6x2.0x1.7	3.4x2.2x2.1	6.5x6.1x3.0	5.4x4.3x3.7	7.0x6.9x3.9
1-5	51-1	51-1	51-1	81-1	82-1	82-1
1-6	no	no	no	yes, Y-791477-791481	yes, Y-791477	no
1-7	no	no	no	no	no	yes
2-1	1	1	3	1	2	2
2-2	3	2	3	3	3	3
2-3	2	2	3	2	2	2
2-4	1	1	1	1	1	1
2-5	A/B	A	A	B	B/C	B/C
2-6	1	1	1	1	1	1
2-7	2	2	2	2	2	2
2-8	1	1	1	1	1	1
3-1	18.3	18.2	18.6	19.3	19.2	18.4
	17.5-19.2	17.6-19.2	17.7-19.6	18.0-22.2	18.0-24.9	17.3-21.4
3-2	16.6	16.1	16.6	16.3	16.4	17.7
	15.5-19.9	15.0-17.1	15.4-20.5	15.3-18.0	15.3-18.8	15.0-24.0
3-3						
	15.5					
4-1	1	1	1	1	1	1
4-2	5	5	5	5	5	5
4-3	1	1	1	1	1	1
5-1	2	2	2	2	2	1
5-2	4	4	4	4	4	4
6-1	3	3	3	3	3	2
6-2	1	2	2	1	1	1
6-3	1	1	1	1	1	1
6-4	2	2	2	2	2	1
7	1	1	1	1	1	1
8	1	1	1	1	1	1
9-1	2	2	2	2	2	2
9-2	3	3	3	3	3	3
9-3	C	B/C	B	B/C	B/C	B/C
10	3	2	1	2	1	1
11	no	no	no	no	no	no

General	Meteorite	1-1	Y-791483	Y-791485	Y-791486
	Group & Type	1-2	L6	LL4,5,6	L6
	Weight (gr.)	1-3	73.59	3.53	565.51
	Dimension (cm)	1-4	5.0x3.5x3.0	1.5x1.4x1.0	8.5x8.2x4.2
	Thin Section No.	1-5	82-1	51-1	82-1
	Tent. Pairing	1-6	yes, Y-791483 with Y-791484	no	no
	Bulk Comp.	1-7	no	no	yes
Macroscopic	Fragmentation	2-1	3	3	1
	Shape	2-2	3	3	3
	Fusion Crust	2-3	2	3	2
	Evaporite	2-4	1	1	1
	Fracturing	2-5	B/C	A/B	B
	Structure	2-6	1	1	1
	Color	2-7	5	2	5
	Xenolith	2-8	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1	24.7	29.5	24.0
	Ol. Range		24.0-25.7	25.2-32.7	22.5-26.3
	Low-Ca Pyx.(PMD), Fs	3-2	20.6	22.8	19.9
	Pyx. Range		19.9-21.6	9.7-34.5	18.5-20.5
	Plagioclase (PMD), An	3-3			
	Pl. Range		11.0		
Microscopic	Matrix	4-1	1	1	1
	Chond. Size	4-2	5	5	5
	Metal, Sulfide	4-3	2	3	2
	Meta. Pl	5-1	3	3	3
	Chondrule Gdm	5-2	6	5,6	6
	Ol-extinct.	6-1	3	3	3
	Crack, Vein	6-2	1	5	1
	Shock Pocket	6-3	1	5	2
	Shock Degree	6-4	2	4	2
	Breccia	7	1	4	1
	CAI, Xenolith	8	1	1	1
	Limonite	9-1	1	2	2
	Staining	9-2	3	2	3
	Weath. Index	9-3	A/B	C	A/B
	Fusion Crust	10	1	1	2
	Comments	11	no	yes	no

1-1	Y-791487	Y-791488	Y-791489	Y-791490	Y-791491	Y-791493
1-2	L4,5	H4	How	H5	Lod	Lod
1-3	13.95	8.08	5.51	10.19	31.60	5.136
1-4	2.6x2.1x1.1	2.1x1.9x0.9	2.1x1.6x1.4	1.8x1.6x1.4		1.7x0.9x0.9
1-5	51-1	51-1	51-1	51-1	51-1	91-3
1-6	no	no	no	no	yes, Y-791491	yes, Y-791491
1-7	no	no		no		
2-1	1	1	3	1	1	3
2-2	2	2	3	2	1	2
2-3	2	2	2	2	2	2
2-4	1	1	1	1	1	1
2-5	A	B	A	A/B	A	A
2-6	1	1	3	1	1	1
2-7	2	2	5	2	5	2
2-8	1	1	1	1	1	1
3-1	24.4	18.2		17.9	10.7	11.6
	23.4-26.5	17.0-18.7		17.3-18.6	9.8-12.4	10.2-13.5
3-2	20.3	16.1		15.5	11.7	12.2
	19.5-21.7	15.4-16.7	15.6-54.4	15.0-16.1	10.6-12.2	11.4-12.9
3-3						
			87.2-93.3			16.3-18.6
4-1	1	1	4	1	1	1
4-2	5	5	5	5	5	5
4-3	2	1	3, 5	1	1	1, 5
5-1	3	1	4	3	4	4
5-2	5,6	4	8	5	8	8
6-1	3	3	5	2	1	1
6-2	1	1	2	1	1	1
6-3	1	2	2	2	1	1
6-4	2	2	2	1	1	1
7	1	1	4	1	1	1
8	1	1		1		
9-1	2	2	2	2	3	2
9-2	3	3	2	3	2	2
9-3	B	B	pass	C	pass	pass
10	3	3	2	2	1	
11	no	no	yes	no	yes	yes

General	Meteorite	1-1	Y-791494	Y-791495	Y-791496	Y-791498
	Group & Type	1-2	L5	H5	L4,5	CR3
	Weight (gr.)	1-3	20.88	45.29	5.37	3.11
	Dimension (cm)	1-4	3.3x2.5x1.8	3.8x3.1x2.3	1.6x1.6x1.1	1.6x1.3x1.0
	Thin Section No.	1-5	51-1	51-1	51-1	51-1
	Tent. Pairing	1-6	no		no	no
	Bulk Comp.	1-7	no		no	no
Macroscopic	Fragmentation	2-1	2	2	1	3
	Shape	2-2	3	3	3	2
	Fusion Crust	2-3	2	2	1	2
	Evaporite	2-4	1	1	1	1
	Fracturing	2-5	A	A	A/B	A
	Structure	2-6	1	1	1	1
	Color	2-7	2	2	2	1
	Xenolith	2-8	1	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1	25.0	19.3	24.4	1.2
	Ol. Range		23.7-26.0	18.7-20.0	21.3-25.9	0.2-2.6
	Low-Ca Pyx.(PMD), Fs	3-2	20.7	17.0	20.5	1.6
	Pyx. Range		19.7-22.8	16.3-19.1	18.9-22.7	0.8-3.6
	Plagioclase (PMD), An	3-3				
	Pl. Range					
Microscopic	Matrix	4-1	1	1	1	3
	Chond. Size	4-2	5	5	5	4
	Metal, Sulfide	4-3	2	1	2	1
	Meta. Pl	5-1	3	2	2	1
	Chondrule Gdm	5-2	5	5	4,5	3
	Ol-extinct.	6-1	3	2	3	2
	Crack, Vein	6-2	2	1	1	1
	Shock Pocket	6-3	3	2	1	1
	Shock Degree	6-4	3	1	2	1
	Breccia	7	1	1	1	1
	CAI, Xenolith	8	1	1	1	2
	Limonite	9-1	2	2	1	2
	Staining	9-2	3	3	3	3
	Weath. Index	9-3	B/C	B	B	B/C
	Fusion Crust	10	2	2	2	2
	Comments	11	no	no	no	no

1-1	Y-791499	Y-791500	Y-791501	Y-791502	Y-791503	Y-791504	Y-791505
1-2	L6	H3,4	H4	H3,4	H5	H4	H4
1-3	9.94	1252	283.10	131.02	55.11	41.55	31.11
1-4	2.5x2.1x1.4	13x8.4x6.7	6.8x6.4x4.9	5.7x5.0x2.4	5.0x3.5x2.1	3.5x3.1x1.9	3.8x3.0x1.7
1-5	51-1	81-2	81-1	51-1	82-1	51-1	51-1
1-6	no	no	no	no	no	no	no
1-7	no	yes	yes	yes	no	no	no
2-1	3	1	1	1	2	1	3
2-2	3	2	2	2	3	3	3
2-3	3	1	2	1	2	2	3
2-4	1	1	1	1	1	1	1
2-5	A	B	A	A/B	B/C	A	A/B
2-6	1	1	1	1	1	1	1
2-7	5	5	2	5	2	2	2
2-8	1	1	1	1	1	1	1
3-1	24.9	16.8	17.6	17.0	17.9	18.3	18.7
	24.0-25.9	15.9-17.9	16.7-18.4	11.2-23.6	16.8-18.6	17.7-19.1	17.9-19.6
3-2	21.0	14.7	15.4	14.7	15.4	16.0	16.7
	20.0-21.3	10.7-17.3	14.3-16.6	4.8-19.8	14.7-16.0	15.1-16.9	15.8-20.6
3-3							
	9.5-10.9						
4-1	1	1	1	1	1	1	1
4-2	5	5	5	5	5	5	5
4-3	2	1	1	1	1	1	1
5-1	3	1	2	1	2	1	1
5-2	6	4	4	3	5	4	4
6-1	3	2	3	3	4	3	3
6-2	2	1	2	2	3	1	3
6-3	1	1	1	1	2	1	1
6-4	2	1	2	2	2	2	2
7	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1
9-1	2	1	2	2	2	3	3
9-2	2	3	3	3	3	3	3
9-3	A/B	A/B	B	A/B		B	B
10	2	2	1	3	2	2	2
11	no	no	no	no	yes	no	no

<b>General</b>	<i>Meteorite</i>	1-1	Y-791506	Y-791507	Y-791508	Y-791509
	<i>Group &amp; Type</i>	1-2	H4	H5	H5	H5
	<i>Weight (gr.)</i>	1-3	16.62	12.77	12.81	9.90
	<i>Dimension (cm)</i>	1-4	3.1x3.0x1.2	2.7x1.6x1.1	2.8x1.9x1.5	2.8x2.0x1.3
	<i>Thin Section No.</i>	1-5	51-1	51-1	51-1	51-1
	<i>Tent. Pairing</i>	1-6	no	no	no	no
	<i>Bulk Comp.</i>	1-7	no	no	no	no
<b>Macroscopic</b>	<i>Fragmentation</i>	2-1	3	3	3	3
	<i>Shape</i>	2-2	3	3	3	3
	<i>Fusion Crust</i>	2-3	3	3	3	3
	<i>Evaporite</i>	2-4	1	1	1	1
	<i>Fracturing</i>	2-5	B	A	B	A
	<i>Structure</i>	2-6	1	1	1	1
	<i>Color</i>	2-7	2	2	2	2
	<i>Xenolith</i>	2-8	1	1	1	1
<b>Mineral Comp.</b>	<i>Olivine (PMD), Fa</i>	3-1	18.2	19.2	18.5	18.6
	<i>Ol. Range</i>		16.9-19.0	17.2-24.2	17.5-19.7	18.0-19.4
	<i>Low-Ca Pyx. (PMD), Fs</i>	3-2	15.9	16.4	16.4	16.7
	<i>Pyx. Range</i>		15.2-17.1	15.7-18.9	15.4-19.9	15.6-20.2
	<i>Plagioclase (PMD), An</i>	3-3				
	<i>Pl. Range</i>					
<b>Microscopic</b>	<i>Matrix</i>	4-1	1	1	1	1
	<i>Chond. Size</i>	4-2	5	5	5	5
	<i>Metal, Sulfide</i>	4-3	1	1	1	1
	<i>Meta. Pl</i>	5-1	1	2	2	2
	<i>Chondrule Gdm</i>	5-2	4	5	5	5
	<i>Ol-extinct.</i>	6-1	3	3	3	3
	<i>Crack, Vein</i>	6-2	4	4	3	4
	<i>Shock Pocket</i>	6-3	2	2	2	2
	<i>Shock Degree</i>	6-4	3	2	2	3
	<i>Breccia</i>	7	1	1	1	1
	<i>CAI, Xenolith</i>	8	1	1	1	1
	<i>Limonite</i>	9-1	3	3	3	3
	<i>Staining</i>	9-2	3	3	3	3
	<i>Weath. Index</i>	9-3	B	C	C	B
	<i>Fusion Crust</i>	10	1	2	1	1
	<i>Comments</i>	11	no	yes	yes	yes

1-1	Y-791510	Y-791511	Y-791512	Y-791516	Y-791517	Y-791518	Y-791519
1-2	EH?	H5	H5	L6	L6	L6	H4
1-3	9.77	10.34	4.69	89.18	17.12	6.42	26.89
1-4	2.4x2.2x1.2	3.2x2.4x1.0	1.9x1.6x0.9	6.7x3.6x2.6	2.8x2.5x1.7	1.9x1.4x1.3	3.4x2.4x2.0
1-5	51-1	51-1	51-1	81-1	51-1	51-1	51-1
1-6	no	no	no	no	no	no	no
1-7	no	no	no	no	no	no	no
2-1	1	3	3	1	2	3	2
2-2	2	3	3	3	3	2	3
2-3	2	3	2	2	2	2	2
2-4	1	1	1	1	1	1	1
2-5	B	B	A/B	A/B	A/B	A/B	A
2-6	1	1	1	1	1	1	1
2-7	1, 2	2	2	5	2	2	2
2-8	1	1	1	1	1	1	1
3-1		18.5	19.0	24.4	24.9	24.7	17.1
		17.3-20.3	17.7-21.4	23.5-25.1	23.7-30.5	23.8-26.9	16.5-17.8
3-2	0.4	16.0	16.5	20.2	20.5	21.0	14.9
	0.1-4.2	15.3-18.5	15.9-18.4	19.3-21.1	20.0-21.7	19.6-23.5	13.7-17.0
3-3							
				9.9-10.7			
4-1	1	1	1	1	1		1
4-2	5	5	5	5	5		5
4-3	1	1	1	2	2	2	1
5-1	1	2	2	3	3	3	1
5-2	8	5	5	6	6	6	4
6-1	1	3	3	3	3	3	2
6-2	1	4	4	3	4	4	1
6-3	1	2	2	2	3	3	1
6-4	1	3	3	2	3	3	1
7	2	1	1	1	1	1	1
8	1	1	1	1	1	1	1
9-1	3	3	3	2	3	3	3
9-2	3	3	3	2	2	2	3
9-3	C	C	C	A/B	B	B	C
10	2	1	2	2	1	2	2
11	yes	no	yes	no	no	no	yes

General	Meteorite	1-1	Y-791520	Y-791521	Y-791522	Y-791523
	Group & Type	1-2	L5	L4	L5	L6
	Weight (gr.)	1-3	2.85	2.82	2.48	0.82
	Dimension (cm)	1-4	1.3x1.3x1.0	1.3x1.2x0.9	1.6x1.0x0.8	1.3x0.8x0.5
	Thin Section No.	1-5	51-1	51-1	51-1	51-1
	Tent. Pairing	1-6	no	no	no	no
	Bulk Comp.	1-7	no	no	no	no
Macroscopic	Fragmentation	2-1	3	3	1	3
	Shape	2-2	3	2	2	3
	Fusion Crust	2-3	2	3	1	2
	Evaporite	2-4	1	1	1	1
	Fracturing	2-5	A	A	A/B	A/B
	Structure	2-6	1	1	1	1
	Color	2-7	2	2	2	2
	Xenolith	2-8	1	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1	23.6	24.0	23.7	23.9
	Ol. Range		22.9-24.6	23.1-26.4	22.8-25.3	23.3-25.5
	Low-Ca Pyx.(PMD), Fs	3-2	19.7	20.3	20.6	20.6
	Pyx. Range		17.3-22.1	19.4-24.0	19.1-23.7	18.9-22.8
	Plagioclase (PMD), An	3-3				
	Pl. Range					11.0
Microscopic	Matrix	4-1	1	1	1	1
	Chond. Size	4-2	5	5	5	5
	Metal, Sulfide	4-3	2	2	2	3
	Meta. Pl	5-1	2	1	2	3
	Chondrule Gdm	5-2	5	4	5	6
	Ol-extinct.	6-1	3	3	3	3
	Crack, Vein	6-2	1	1	3	1
	Shock Pocket	6-3	1	2	2	3
	Shock Degree	6-4	1	2	2	2
	Breccia	7	1	1	1	1
	CAI, Xenolith	8	1	1	1	1
	Limonite	9-1	2	2	2	3
	Staining	9-2	2	2	2	3
	Weath. Index	9-3	A/B	B	B	B/C
	Fusion Crust	10	2	2	2	2
	Comments	11	no	no	no	no



1-1	Y-791524	Y-791525	Y-791526	Y-791527	Y-791528	Y-791529
1-2	H5	L6	H6	H4	L4	L6
1-3	0.68	0.71	6.47	4.14	1.40	0.77
1-4	1.3x0.8x0.4	0.9x0.7x0.5	1.7x1.7x1.3	2.2x1.4x0.9	1.2x0.9x0.7	1.1x1.0x0.4
1-5	51-1	51-1	51-1	51-1	51-1	51-1
1-6	no	no	no	no	no	no
1-7	no	no	no	no	no	no
2-1	3	3	1	3	1	3
2-2	3	3	2	3	3	3
2-3	3	2	2	4	1	2
2-4	1	1	1	1	1	1
2-5	A	A/B	B/C	B	A	A/B
2-6	1	1	1	1	1	1
2-7	2	2	2	2	5	5
2-8	1	1	1	1	1	1
3-1	18.7	23.9	18.3	18.0	24.2	24.0
	17.4-19.5	23.4-24.3	17.6-18.9	16.7-20.2	23.3-25.9	22.8-24.8
3-2	15.5	19.9	16.2	15.8	20.3	20.2
	13.9-18.6	19.3-20.5	15.4-16.6	15.4-16.8	16.9-21.8	19.5-21.1
3-3						
		10.0	11.8			
4-1	1	1	1	1	1	1
4-2	5	5	5	5	5	5
4-3	1	2	1	1	2	2
5-1	2	3	3	1	1	3
5-2	5	6	6	4	4	6
6-1	3	3	2	3	3	4
6-2	4	4	1	2	1	4
6-3	3	3	1	2	1	4
6-4	3	3	1	2	2	3
7	1	1	1	1	1	1
8	1	1	1	1	1	1
9-1	3	3	2	2	1	2
9-2	2	3	2	3	3	3
9-3	C	B/C	C	B	A/B	B
10	1	2	1	1	2	2
11	yes	yes	no	no	no	yes

General	Meteorite	1-1	Y-791531	Y-791535	Y-791536
	Group & Type	1-2	L4	H5	LL6
	Weight (gr.)	1-3	77.92	15.52	839
	Dimension (cm)	1-4	4.8x4.3x1.9	3.3x2.9x1.1	11.2x7.8x6.2
	Thin Section No.	1-5	81-2	51-1	82-2
	Tent. Pairing	1-6	yes, Y-791531-791533	no	no
	Bulk Comp.	1-7	no	no	yes
Macroscopic	Fragmentation	2-1	3	1	2
	Shape	2-2	3	2	3
	Fusion Crust	2-3	3	2	2
	Evaporite	2-4	1	1	1
	Fracturing	2-5	A/B	B	B
	Structure	2-6	1	1	1
	Color	2-7	2	5	5
	Xenolith	2-8	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1	24.0	18.9	31.5
	Ol. Range		23.2-25.2	17.8-19.8	30.3-32.8
	Low-Ca Pyx.(PMD), Fs	3-2	20.1	16.2	25.5
	Pyx. Range		19.6-20.7	15.8-16.5	25.2-25.8
	Plagioclase (PMD), An	3-3			10.8
	Pl. Range				10.4-11.4
Microscopic	Matrix	4-1	1	1	1
	Chond. Size	4-2	5	5	5
	Metal, Sulfide	4-3	2	1	3
	Meta. Pl	5-1	1	2	3
	Chondrule Gdm	5-2	4	5	6
	Ol-extinct.	6-1	3	3	3
	Crack, Vein	6-2	2	1	3
	Shock Pocket	6-3	1	1	2
	Shock Degree	6-4	2	2	2
	Breccia	7	1	1	2
	CAI, Xenolith	8	1	1	1
	Limonite	9-1	2	1	1
	Staining	9-2	3	3	2
	Weath. Index	9-3	B	A	A
	Fusion Crust	10	1	3	1
	Comments	11	no	no	yes

1-1	Y-791537	Y-791544	Y-791545	Y-791546	Y-791547	Y-791548	Y-791549
1-2	H3	H5	L4	H4	H4	H4	H4
1-3	66.18	1.58	195.17	76.87	2.92	2.10	1.90
1-4	4.8x4.0x3.4	1.3x1.1x0.8	6.2x6.0x3.9	4.5x3.4x2.5	1.5x1.3x0.9	1.6x0.9x0.8	1.3x0.8x0.7
1-5	51-1	51-1	71-1	81-1	51-1	51-1	51-1
1-6	no	no	no	no	no	no	no
1-7	no	no	yes	no	no	no	no
2-1	3	1	2	3	3	3	3
2-2	3	3	2	3	3	3	3
2-3	2	2	3	3	4	3	3
2-4	1	1	1	1	1	1	1
2-5	C	A/B	C	B	B	A	A
2-6	1	1	1	1	1	1	1
2-7	5	2	5	2	2	2	2
2-8	1	1	1	1	1	1	1
3-1	19.0	18.4	24.0	18.2	17.4	17.4	17.5
	17.5-20.7	17.8-19.3	23.2-24.6	16.2-21.7	16.9-19.2	16.8-18.8	16.7-18.3
3-2	13.0	16.1	20.0	16.2	15.5	15.4	15.2
	7.4-17.9	15.4-16.8	19.2-20.8	15.5-17.3	14.4-18.8	14.6-16.7	14.3-15.8
3-3							
				10.7			
4-1	1	1	1	1	1	1	1
4-2	3	5	5	5	5	5	5
4-3	1	1	2	1	3	2	2
5-1	1	2	1	1	1	1	1
5-2	3	5	4	4	4	4	4
6-1	3	2	3	2	2	1	2
6-2	2	1	1	1	1	1	1
6-3	1	1	1	1	1	1	1
6-4	2	1	2	1	1	1	1
7	1	1	2	1	1	1	1
8	1	1	1	1	1	1	1
9-1	2	3	2	3	2	3	2
9-2	3	2	3	3	3	2	3
9-3	A	C	B	B	B	B	C
10	1	2	1	3	1	2	2
11	no	no	no	no	no	no	no

General	Meteorite	1-1	Y-791550	Y-791555	Y-791556	Y-791557
	Group & Type	1-2	H4	?	H5	L5
	Weight (gr.)	1-3	1.17	1.06	129.25	90.65
	Dimension (cm)	1-4	1.0x0.9x0.6	1.8x0.9x0.3	5.6x5.0x2.5	5.6x4.0x2.6
	Thin Section No.	1-5	51-1	51-1	51-1	51-1
	Tent. Pairing	1-6	no	no	no	no
	Bulk Comp.	1-7	no	no	yes	no
Macroscopic	Fragmentation	2-1	3	1	3	2
	Shape	2-2	3	3	3	2
	Fusion Crust	2-3	4	4	3	2
	Evaporite	2-4	1	1	1	1
	Fracturing	2-5	A/B	C	A/B	B
	Structure	2-6	1	1	1	1
	Color	2-7	2	2	2	3
	Xenolith	2-8	1	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1	17.5	18.3	18.1	23.8
	Ol. Range		16.6-21.4	17.4-19.0	10.8-19.2	23.0-24.7
	Low-Ca Pyx.(PMD), Fs	3-2	15.5	16.1	16.1	20.4
	Pyx. Range		14.8-16.4	15.2-16.7	15.1-17.8	19.3-24.0
	Plagioclase (PMD), An	3-3				
	Pl. Range					
Microscopic	Matrix	4-1	1	1	1	1
	Chond. Size	4-2	5	5	5	5
	Metal, Sulfide	4-3	2	2	1	2
	Meta. Pl	5-1	1	2	2	2
	Chondrule Gdm	5-2	4	6	5	5
	Ol-extinct.	6-1	3	2	4	3
	Crack, Vein	6-2	1	1	2	1
	Shock Pocket	6-3	1	1	3	1
	Shock Degree	6-4	2	1	3	2
	Breccia	7	1	2	1	1
	CAI, Xenolith	8	1	1	1	1
	Limonite	9-1	3	3	3	2
	Staining	9-2	3	3	3	3
	Weath. Index	9-3	C	B	B/C	C
	Fusion Crust	10	1	1	3	3
	Comments	11	no	yes	no	yes

1-1	Y-791558	Y-791559	Y-791560	Y-791562	Y-791563	Y-791566
1-2	LL3	H6	H5	H4	H4	L6
1-3	101.64	26.21	61.67	205.32	487.87	497.17
1-4	5.4x4.7x2.9	2.9x2.3x2.3	4.8x3.5x3.1	6.7x5.3x3.6	7.6x5.9x5.1	10.7x7.3x4.5
1-5	51-1	51-1	71-1	71-1	81-1	72-1
1-6	no	no	yes, Y-791560		yes, Y-791563	
1-7	no	no				
2-1	1	1	2	1	1	1
2-2	3	2	2	2	2	2
2-3	2	2	2	1	1	2
2-4	1	1	1	1	1	1
2-5	A	B	A	B	B	A/B
2-6	1	1	1	1	1	1
2-7	1	2	2	3	2	5
2-8	1	1	1	1	1	1
3-1	13.6	19.2	18.5	18.9	17.7	24.3
	0.6-25.9	17.7-20.3	17.4-19.4	17.9-20.1	16.9-18.8	23.2-24.9
3-2	9.1	16.5	16.2	16.1	15.3	20.1
	1.7-37.8	15.0-17.6	15.3-17.4	12.0-17.3	14.7-15.8	19.2-20.8
3-3						
		30.2				
4-1	2	1	1	1	1	1
4-2	3	5	3	3	3	3
4-3	3	1	1	1	1	2
5-1	1	3	2	1	1	3
5-2	3	6	5	4	4	6
6-1	3	2	3	2	3	4
6-2	1	1	2	2	2	1
6-3	1	1	2	2	2	2
6-4	2	1	2	2	2	2
7		1	1	1	1	1
8		1	1	1	1	1
9-1	2	2	2	2	2	1
9-2	2	2	3	3	3	2
9-3	A	C	B/C	B/C	B/C	A/B
10	2	1	1	2	2	1
11	no	yes	no	no	no	no

General	Meteorite	1-1	Y-791567	Y-791568	Y-791569	Y-791571
	Group & Type	1-2	H4	L6	L6	L6
	Weight (gr.)	1-3	67.98	40.07	10.58	23.68
	Dimension (cm)	1-4	4.1x3.4x2.7	3.1x2.7x2.5	2.4x1.9x1.3	3.1x2.9x1.8
	Thin Section No.	1-5	51-1	82-1	51-1	51-1
	Tent. Pairing	1-6				
	Bulk Comp.	1-7				
Macroscopic	Fragmentation	2-1	1	1	1	3
	Shape	2-2	2	2	2	3
	Fusion Crust	2-3	2	1	1	2
	Evaporite	2-4	1	1	1	1
	Fracturing	2-5	A	A/B	A/B	A/B
	Structure	2-6	1	1	1	1
	Color	2-7	2	5	2	3
	Xenolith	2-8	1	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1	18.7	24.5	25.1	24.9
	Ol. Range		17.6-20.1	23.9-25.4	23.3-26.7	23.8-27.5
	Low-Ca Pyx.(PMD), Fs	3-2	16.5	20.5	21.4	20.8
	Pyx. Range		15.4-22.3	19.1-21.9	19.7-24.2	19.5-22.8
	Plagioclase (PMD), An	3-3				
	Pl. Range			9.7		
Microscopic	Matrix	4-1	1	1	1	1
	Chond. Size	4-2	3	5	5	5
	Metal, Sulfide	4-3	1	2	2	2
	Meta. Pl	5-1	1	3	3	3
	Chondrule Gdm	5-2	4	6	6	6
	Ol-extinct.	6-1	3		4	4
	Crack, Vein	6-2	2	2	4	2
	Shock Pocket	6-3	2	2	3	2
	Shock Degree	6-4	2	2	3	2
	Breccia	7	1	1	1	1
	CAI, Xenolith	8	1	1	1	1
	Limonite	9-1	2	2	2	2
	Staining	9-2	3	3	3	3
	Weath. Index	9-3	B/C	B	B	B
	Fusion Crust	10	2	2	2	2
	Comments	11	no	no	no	no

1-1	Y-791572	Y-791574	Y-791575	Y-791577	Y-791578	Y-791579	Y-791580
1-2	H4	L5	L6	L6	L6	L6	L6
1-3	6.31	199.73	3.19	481.41	191.44	108.06	114.60
1-4	2.7x1.8x0.8	6.8x4.8x4.0	2.2x1.4x0.6	8.2x6.8x5.4	7.0x5.6x3.4	6.6x4.9x2.6	5.0x4.2x3.9
1-5	51-1	81-1	51-1	72-1	51-1	51-1	51-1
1-6							
1-7							
2-1	1	1	1	1	2	3	3
2-2	2	2	2	3	3	3	2
2-3	2	2	1	2	2	2	2
2-4	1	1	1	1	2	1	1
2-5	A/B	A/B	A/B	C	C	C	C
2-6	1	1	1	1	1	1	1
2-7	2	2	3	5	5	4	5
2-8	1	1	1	1	1	1	1
3-1	17.9	24.2	24.3	24.6	24.6	24.5	24.6
	16.5-20.6	23.5-25.5	23.5-25.3	23.2-25.6	23.8-25.5	23.0-25.3	23.9-25.2
3-2	16.8	20.4	20.7	20.4	20.7	20.6	20.6
	14.9-21.1	19.9-21.9	19.7-22.3	19.6-23.4	20.0-21.2	20.0-21.3	19.9-21.6
3-3							
				10.0			9.8-10.1
4-1	1	1	1	1	1	1	1
4-2	3	3	5	5	5	5	5
4-3	1	2	2	2	2	2	2
5-1	1	2	3	3	3	3	3
5-2	4	5	6	6	6	6	6
6-1	4	4	3	4	3	3	3
6-2	2	2	2	2	2	2	2
6-3	2	2	2	2	2	2	2
6-4	2	2	2	2	2	2	2
7	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1
9-1	2	2	2	2	2	2	2
9-2	3	3	3	2	2	3	2
9-3	B	B	B/C	A	A/B	A/B	A/B
10	1	2	3	2	2	3	3
11	no	no	no	yes	no	no	no

General	Meteorite	1-1	Y-791581	Y-791584	Y-791585	Y-791586
	Group & Type	1-2	L6	L6	L6	L6
	Weight (gr.)	1-3	9.61	2.52	79.19	219.68
	Dimension (cm)	1-4	3.3x1.5x1.2	1.5x1.2x1.0	4.4x3.7x3.0	8.2x6.6x2.8
	Thin Section No.	1-5	51-1	51-1	71-1	71-1
	Tent. Pairing	1-6				
	Bulk Comp.	1-7				
Macroscopic	Fragmentation	2-1	3	3	1	2
	Shape	2-2	3	3	2	3
	Fusion Crust	2-3	3	3	1	2
	Evaporite	2-4	1	1	1	1
	Fracturing	2-5	A/B	A/B	A/B	C
	Structure	2-6	1	1	1	1
	Color	2-7	5	5	5	5
	Xenolith	2-8	1	1	1	1
Mineral Comp.	Olivine (PMD), Fa	3-1	24.5	24.8	24.6	25.6
	Ol. Range		23.7-25.5	24.1-25.8	24.0-25.3	24.8-26.7
	Low-Ca Pyx.(PMD), Fs	3-2	20.6	20.8	20.6	21.6
	Pyx. Range		19.7-24.1	19.6-23.2	19.9-21.2	21.4-22.0
	Plagioclase (PMD), An	3-3				
	Pl. Range		10.3	10.0-10.3		9.8, 12.1
Microscopic	Matrix	4-1	1	1	1	1
	Chond. Size	4-2	5	5	5	5
	Metal, Sulfide	4-3	2	2	2	2
	Meta. Pl	5-1	3	3	3	3
	Chondrule Gdm	5-2	6	6	6	6
	Ol-extinct.	6-1	4	3	3	4
	Crack, Vein	6-2	4	2	1	4
	Shock Pocket	6-3	4	2	2	2
	Shock Degree	6-4	3	2	2	3
	Breccia	7	1	1	1	1
	CAI, Xenolith	8	1	1	1	1
	Limonite	9-1	2	2	1	2
	Staining	9-2	3	3	2	3
	Weath. Index	9-3	A/B	B	A	A/B
	Fusion Crust	10	1	2	1	2
	Comments	11	no	no	no	no



1-1	Y-791587	Y-791589	Y-791590	Y-791591	Y-791595	Y-791596	Y-791597
1-2	L4	H6	H4	L6	H5	LL4	H6
1-3	99.82	3.91	20.57	57.09	5.84	1.92	147.99
1-4	4.5x4.1x3.2	1.9x1.2x0.9	2.5x2.6x2.1	4.0x3.5x2.6	2.4x1.8x0.7	0.5x1.2x0.7	6.8x3.6x3.6
1-5	72-1	51-1	51-1	72-1	51-1	51-1	71-1
1-6							
1-7							
2-1	2	1	3	2	3	3	2
2-2	3	3	3	2	3	3	3
2-3	2	1	2	2	2	2	2
2-4	1	1	1	1	1	1	1
2-5	A/B	A	B	A/B	A	A	B
2-6	1	1	1	1	1	1	1
2-7	3	3	2	5	2	3	2
2-8	1	1	1	1	1	1	1
3-1	23.9	18.8	18.5	24.7	18.0	26.9	18.8
	23.0-24.6	17.5-19.8	17.7-19.7	23.8-25.5	16.7-19.1	25.6-29.0	17.9-19.9
3-2	20.0	16.3	16.4	20.7	15.8	22.0	16.3
	19.3-20.6	15.1-17.0	15.5-18.4	19.4-21.1	14.9-16.7	21.6-22.5	15.4-16.9
3-3							
		12.0			12.0		
4-1	1	1	1	1	1	1	1
4-2	3	5	5	5	5	5	5
4-3	2	1	1	2	1	3	1
5-1	1	3	1	3	2	1	3
5-2	4	6	4	6	5	4	6
6-1	4	2	3	2	2	3	2
6-2	1	4	1	1	2	1	1
6-3	2	1	1	1	1	1	1
6-4	2	2	2	1	1	2	1
7	1	1	1	1	1	1	1
8	1	1	1	1	1	1	1
9-1	2	2	2	1	2	2	3
9-2	3	3	3	2	3	2	3
9-3	A/B	B	B	A	B	A	B
10	2	2	2	1	2	2	1
11	no	no	no	no	no	no	no

<b>General</b>	<b>Meteorite</b>	1-1	Y-791598	Y-791599	Y-791600
	<b>Group &amp; Type</b>	1-2	L4	L5	H4
	<b>Weight (gr.)</b>	1-3	8.16	8.55	0.74
	<b>Dimension (cm)</b>	1-4	2.9x1.8x1.0	2.6x1.8x1.0	1.0x0.9x0.4
	<b>Thin Section No.</b>	1-5	51-1	51-1	51-1
	<b>Tent. Pairing</b>	1-6			
	<b>Bulk Comp.</b>	1-7			
<b>Macroscopic</b>	<b>Fragmentation</b>	2-1	3	3	3
	<b>Shape</b>	2-2	3	3	3
	<b>Fusion Crust</b>	2-3	3	3	4
	<b>Evaporite</b>	2-4	1	1	1
	<b>Fracturing</b>	2-5	A	A	A
	<b>Structure</b>	2-6	1	1	1
	<b>Color</b>	2-7	2	2	2
	<b>Xenolith</b>	2-8	1	1	1
<b>Mineral Comp.</b>	<b>Olivine (PMD), Fa</b>	3-1	24.0	23.9	17.3
	<b>Ol. Range</b>		22.9-25.6	22.4-28.7	16.7-18.1
	<b>Low-Ca Pyx.(PMD), Fs</b>	3-2	20.0	20.3	15.4
	<b>Pyx. Range</b>		19.1-21.4	19.5-21.9	14.4-16.9
	<b>Plagioclase (PMD), An</b>	3-3			
	<b>Pl. Range</b>				
<b>Microscopic</b>	<b>Matrix</b>	4-1	1	1	1
	<b>Chond. Size</b>	4-2	5	5	5
	<b>Metal, Sulfide</b>	4-3	2	2	1
	<b>Meta. Pl</b>	5-1	1	2	1
	<b>Chondrule Gdm</b>	5-2	4	5	4
	<b>Ol-extinct.</b>	6-1	3	3	2
	<b>Crack, Vein</b>	6-2	1	1	1
	<b>Shock Pocket</b>	6-3	2	3	1
	<b>Shock Degree</b>	6-4	2	2	1
	<b>Breccia</b>	7	1	1	1
	<b>CAI, Xenolith</b>	8	1	1	1
	<b>Limonite</b>	9-1	2	1	2
	<b>Staining</b>	9-2	3	3	3
	<b>Weath. Index</b>	9-3	B	A	B
	<b>Fusion Crust</b>	10	1	2	1
	<b>Comments</b>	11	no	no	no

**Y-791186, 72-1: Eucrite (monomict)**

This PTS shows a partially brecciated, coarse, subophitic texture and contains no mesostasis. The pyroxenes often display well developed herring-bone texture of twinning. They contain coarse augite exsolution lamellae up to 10 $\mu$ m thick with (001) in common with the host low-Ca pyroxene, which is partly inverted to orthopyroxene. The pyroxene rims display finer and denser exsolution lamellae than the cores. The largest pyroxene crystal (partly inverted) reaches up to 2.3 x 0.9 mm in size. The plagioclase laths often include thin cores or tubes of pyroxene and reach up to 3.2 x 0.3 mm in size. Monomict eucrite similar to Y-792510.

**Y-791187, 51-1: Diogenite (B)**

Angular fragments of shocked pyroxene are set in a dark brown glassy matrix with fine fragments of pyroxene and rare plagioclase. One pyroxene crystal shows fine exsolution texture. Plagioclase grains are rare and show undulatory extinction. One lithic clast consists of these pyroxene crystals. Similar to Y-75032-type diogenite.

**Y-791188, 51-1: Diogenite (B)**

Several large lithic clasts of pyroxene and small angular fragments of pyroxene and rare plagioclase are set in a dark glassy matrix. A few pyroxene in a lithic clast show fine exsolution lamellae decollated by blebby augite. Pyroxene crystals show partly darkened texture. Similar to Y-75032-type diogenite.

**Y-791189, 51-1: Diogenite (B)**

Large brecciated lithic clasts are penetrated by glassy veins including small angular pyroxene fragments. Shocked plagioclase fragments are rare but present in the matrix. Blebby augite are rarely found in pyroxene in a large lithic clast. A few pyroxene crystals show partly darkened texture. Similar to Y-75032.

**Y-791192, 91-3: Eucrite****(unusual breccia of cumulae eucrites and one ordinary eucrite?)**

Small angular to subangular fragments of pyroxene and minor plagioclase, are set in dark glassy matrix. Sizes of the fragments are fairly uniform except for one eucritic lithic clast. This clast show dark fine-grained variolitic texture of brown pyroxene and white plagioclase. This breccia is similar to Y-75032-type achondrite, especially to Y-791439, but contains an unusual eucritic clast and less diogenitic components as in Y-75032. Unusual howardite or polymict eucrite with affinity to Y-75032.

**Y-791194, 91-1: Diogenite (monomict)**

Angular fragments of pyroxene are set in a much comminuted matrix of the same materials. Plagioclase was not detected. A few crystals show fine exsolution on (100). Diogenitic pyroxene crystals are not shocked. Monomict diogenite.

**Y-791195, 91-2: Eucrite (unbrecciated)**

Unbrecciated, eucrites with medium-grained, granular pyroxene and plagioclase. Rare subrounded grains of opaque mineral (chromite) poikilistically enclose silicates. White plagioclase regions consist of much smaller polygonal, occasionally rounded crystals. Veins with much fine-grained silicates can be recognized. Because of slightly more Mg-rich chemistry of pyroxene, Y-791195 was classified as a cumulate eucrite, but it may a metamorphosed ordinary eucrite, which have suffered from extensive recrystallization by metamorphic events.

### **Y-791197, 73-2: Lunar-Anorthositic Breccia**

Y-791197 is a polymict microbreccia containing clasts in a dark brown glassy matrix, similar to lunar anorthositic regolith breccias. Two or more types of clasts are observed in the thin section, such as polymineralic, monomineralic and melt clasts. Most of larger clasts are polymineralic, frequently composed of calcic plagioclase, olivine, and pyroxene; less commonly plagioclases, or plagioclases alone. Smaller clasts are mineral fragments dominantly plagioclases, with some pyroxenes and olivines, and melted lithic fragments. The clasts also show a variety of textures, including troctolitic, gabbroic, diabasic, basaltic and shock-melted glassy clasts. Most of them are more feldspathic than the HED achondrites. Y-791197 appears to be a regolith breccia with glass spherules and abundant clasts, especially feldspathic clasts, set in a dark brown glassy matrix. The PTS shows that recrystallized matrix breccias containing plagioclase fragments are the other abundant clasts. The matrix glass compositions scatter around those of the bulk rock and are similar to those of the Apollo 16 regolith breccias.

The poikilitic matrix texture is not as well developed as that observed in the Apollo 16 regolith breccias, and it is very fine-grained and can be designated them as micropoikilitic breccias. One clast (HPF) consists of dark yellowish brown to reddish brown iron-rich pyroxene, small amounts of plagioclase, fayalite, and dark mesostasis-like materials including fayalite, minor silica mineral and ilmenite. A poikilitic clast (PK1) clast has a texture with a few subround plagioclase crystals up to 0.2 mm in diameter set in a fine grayish poikilitic-like matrix. Fine-grained (up to 30 microns) olivine and pyroxene are rarely found in the matrix. The plagioclase compositions are calcic and the An contents range from 95 to 97. The Fa contents of olivine range from 36 to 49. Other small lithic clasts are: noritic and troctolitic anorthosites and shocked anorthosites. One clast (SA) consists of rounded euhedral pleonaste spinel enclosed in anorthite. This clast could be a fragment of spinel cataclasite.

### **Y-791199, 81-1: Diogenite (B)**

This specimen is similar to the Y-75032-type achondrite, but the crystalline portion is more abundant in hand specimen. In two thin sections, brecciated areas are also small and form veins filling the interstices of the two crystalline clasts of pyroxene. Plagioclase (An90 to An82) and chromite grains up to 0.3 mm in diameter are present in the vein matrix. The pyroxene compositions cluster around Ca<sub>2.5</sub>Mg<sub>64.5</sub>Fe<sub>33.0</sub>. The two crystalline clasts are present. A pyroxenite clast, 5.8 x 3.3 mm in size, consists of coarse-grained orthopyroxene up to 3 mm in diameter with thin blebby curtain-like inclusions of augite aligned along the *c* direction, and of three small triangular plagioclase grains (An74-81) at the interstices of grain boundaries of pyroxene. The pyroxene may originally have been low-Ca pigeonite. Modal abundance of this Na-rich plagioclase in the clast is 1 %. An orthopyroxenite clast, 5.4 x 1.5 mm in size, possibly contains primary orthopyroxene with fine regular lamellae and fine chromite inclusions. Many tiny chromite grains decorate subgrain boundaries. The bulk chemical composition of the pyroxene in another clast is more Ca-rich and Fe-rich than that of the orthopyroxenite clast. Modal abundance of minerals in a thin section are: possible low-Ca inverted pigeonite, 49 % (area), orthopyroxene 21 %, matrix 29 % (fine mineral fragments and glass), and plagioclase 0.6 %. This specimen has more predominant diogenitic features because of more pyroxene.

### **Y-791200, 81-1: Diogenite (Type B diogenitic with cumulate eucrites)**

This specimen is texturally similar to the Y-75032-type achondrite and includes small amounts of a cumulate-eucrite component. A coarse-grained noritic clast, which is exposed on the surface of the hand specimen, has inverted pigeonite with blebby inclusions of augite but is not present in the thin section examined. Very dark glassy

matrix fills the interstices between subangular fragments of shocked pyroxene. Plagioclase and chromite are not rare as fragments, but are very rare in the lithic clasts. The plagioclase is actually devitrified maskelynite and the largest fragment, probably from a noritic source rock, is 1.2 x 0.65 mm in size. The modal abundance of plagioclase is 9 % for this thin section, and 10 % for another. This specimen has some of the features of a cumulate eucrite, and may be polymict or more precisely termed genomict.

One large pyroxenite clast, 1.6 x 1.4 mm in size, consists of a few grains of orthopyroxene with irregularly thickened and thinned lamella-like inclusions of augite on (100). The pyroxene may be low-Ca inverted pigeonite. A very small plagioclase grain is in the rim of this clast. Another gabbroic clast, 1.2 x 1.3 mm in size, consists almost entirely of shocked low-Ca pyroxene  $\text{Ca}_3\text{Mg}_62\text{Fe}_{35}$ , small 'primary' augite grains  $\text{Ca}_{40}\text{Mg}_{44}\text{Fe}_{17}$  (bulk), 0.75 x 0.34 mm in size, with fine exsolution lamellae plagioclase (An<sub>82</sub>).

The alumina contents in the shocked glass range from 5-7 wt %. The large size of augite indicates that it is not granule exsolution.

### **Y-791201, 81-1: Diogenite**

#### **(genomict cumulate eucrites with diogenitic components)**

This specimen is a polymict or genomict cumulate eucrite with a small diogenitic component, or a norite-pyroxenite breccia, but it is texturally similar to the Y-75032-type achondrites. It is not a howardite because neither basalt nor olivine are present. Subangular lithic clasts and fragments of shocked pyroxene and plagioclase are set in a very dark brown glassy matrix with chromite, troilite, and more comminuted minerals. Some lithic clasts are composed of pyroxene, plagioclase, and minor chromite and troilite, but some pyroxene-only rocks and plagioclase-poor rocks are present. Devitrified, shocked plagioclase fragments are more abundant than those in other Y-75032-type achondrites. The modal abundance of plagioclase is 25 %.

The Mg/(Mg+Fe) atomic ratios of pyroxene range from 0.7 to 0.5 and cover the entire range between Fe-rich diogenites and cumulate eucrites. The An contents of plagioclase range from 86 to 93. One large noritic clast, 4.1 x 1.5 mm in size, texturally similar to the Moama cumulate eucrite, is attached to one side of the thin section. It consists of 36 % orthopyroxene, 61 % plagioclase (An<sub>89</sub>), and 3 % blebby augite. Round pyroxene grains about 1 mm in diameter with blebby inclusions of augite aligned along one crystallographic direction may be low-Ca inverted pigeonite. The bulk pyroxene composition  $\text{Ca}_7\text{Mg}_{58}\text{Fe}_{35}$  is intermediate in Mg/(Mg+Fe) ratio between the pyroxene fragments in the matrix. The Mg/(Mg+Fe) ratios of many other small lithic clasts, with approximately half pyroxene and half plagioclase, are a little above 0.5. Plagioclase is shocked, but only a part of the crystal is maskelynite.

### **Y-791202, 51-1: Diogenite (B)**

Very coarse-grained pyroxenite fragments and their comminuted fragments are set in a glassy matrix. Pyroxene crystals often include dark-colored feathery materials produced by extensive shock. Pyroxene and plagioclase show undulatory extinctions. Plagioclase grains are present as rare fragments in the matrix and as rare interstitial grains in a lithic clasts. Similar to Y-75032.

### **Y-791203, 51-1: Diogenite (monomict diogenite typical types)**

Fragments of pyroxene are set in much comminuted grains of the same materials. Rare large irregular shaped chromite grains are present in the matrix. A large fragment of single crystal pyroxene is present along an edge. Monomict diogenite. Pyroxene exsolution has not been observed.

**Y-791204, 51-1: Diogenite (B)**

Large fragments of pyroxenite are mixed with their comminuted fragments set in a dark glassy matrix. Pyroxene crystals include feathery dark-glassy materials. Some pyroxene crystals show fine non-straight exsolution on (100). Small amounts of plagioclase are present as fine fragments or interstitial materials in pyroxenites. Similar to Y-75032.

**Y-791206, 52-1: Howardite**

Diogenitic and eucritic clasts and their mineral fragments including olivine, pyroxene, Ca-rich plagioclase are set in a much comminuted matrix. Dark glassy materials are not rare. One eucritic clast includes rounded pyroxenes with "clouding". Howardite similar to Y-791208.

**Y-791207, 51-1: Howardite**

Polymict breccia with diogenitic and eucritic components. Howardite similar to Y-791208. Among recognized fragments, there are pyroxene fragments with fine exsolution lamellae, shocked diogenitic clast, dark brown glassy clasts with fine white mineral fragments, and Mg-rich olivine. Some low-Ca pyroxenes are as Mg-rich as Fa<sub>10</sub>.

**Y-791208, 81-4: Howardite**

The thin section shows abundant lithic and mineral fragments, similar to diogenites, cumulate eucrites, and eucrites. Considerable amount of weathering is indicated by large areas of brown rusty staining, which extends into the interior. Two large lithic clasts are found. One clast, 1.2 x 0.9 mm in size, consists of a partly inverted pigeonite crystal texturally similar to that in Nagaria and a homogeneous plagioclase Ab<sub>8.2</sub>An<sub>91.5</sub>Or<sub>0.3</sub>. The pyroxene with bulk chemical composition Ca<sub>14</sub>Mg<sub>50</sub>Fe<sub>36</sub>, show exsolved (001) augite lamellae up to 10µm thick. Another clast 2.6 x 2.3 mm in size displays a gabbroic texture with crystals of pigeonite and plagioclase (An<sub>90</sub>). The pigeonite crystals Ca<sub>12</sub>Mg<sub>40</sub>Fe<sub>48</sub> have round outline and show clouding common in the ordinary eucrites and fine regular exsolution lamellae of augite on (001). Angular and subangular fragments of pyroxene, olivine and calcic plagioclase are set in a much comminuted matrix of the same materials. A fragment of partly inverted pigeonite with coarse exsolution lamellae is present. Typical howardite

**Y-791422, 81-1: Diogenite (B)**

Dark brown glassy matrix extends into fractures of pyroxene fragments. Pyroxene crystals are heavily shocked, and give dark brown blush-colored appearance. Some pyroxenes include blebby inclusions of augite. This meteorite is similar to Y-75032-type achondrites.

**Y791424, 51-1: Howardite**

Fragments of Mg-rich pyroxene, calcic plagioclase and rare olivine are set in a much comminuted matrix. Notable minerals are large rectangular chromite, shocked diogenitic pyroxene, and partly inverted pyroxene with thick exsolution lamellae. One clast with brownish matrix shows a breccia in a breccia texture. Howardite similar to Y-791208.

**Y-791438, 51-1: Eucrite (magnesian non-cumulate eucrite)**

Y-791438 is a crystalline, magnesian non-cumulate eucrite. Y-791438 is composed mainly of plagioclase (36 vol.%) and pyroxene. Minor minerals include ilmenite, chromite, troilite, Ca phosphates and zircon. The texture of Y-791438 is slightly

disturbed by shock events, but the original texture seems to have been ophitic with the sizes of pyroxene ranging from 0.5 to 1 mm in length and those of plagioclase from 0.2 to 0.8 mm. Pigeonite crystals show fine exsolution lamellae (width 1 to 2 microns) of augite on (001). A large grain of pigeonite may be partly inverted to orthopyroxenes in different orientations, but this texture is different from that of cumulate eucrites in that the width of exsolution lamellae of cumulate eucrite is more than 10 microns and orthopyroxene crystals grow in much larger scale. There is another portion in Y-791438, with very different appearance indicating a secondary shock event. About a half of the pyroxene grain-boundaries are covered with fuzzy glassy materials with chemical compositions intermediate between augite and plagioclase. Globules of Fe-S ranging from 0.5 mm to 1 mm microns in diameter often observed in such areas. The bulk composition of the pigeonite is  $\text{Ca}_8\text{Mg}_{50}\text{Fe}_{42}$ , which is similar to those of cumulate eucrites. Most of the plagioclase crystals shows slight normal zoning. The An contents of plagioclase range from An95 to An90. The range of An is smaller than that in ordinary eucrites, but larger than those of cumulate eucrites.

#### **Y-791439, 51-2: Diogenite**

##### **(cumulate eucrite breccia with minor diogenitic and eucritic components)**

Y-791439 is texturally similar to Y-75032, but it contains more abundant clasts of cumulate eucrite than does Y-75032; six clasts (to 2.8 x 2.3 mm) are observed in the PTS. Pyroxene chemical compositions of Y-791439 are divided into four types: D, B, MC, JV. The D-type pyroxenes are the most magnesian in the meteorite, and are similar to Fe-rich diogenites. The B-type pyroxenes are the most abundant, and many of them preserve the original lithic clast shape. The chemical compositions of B-type pyroxenes are slightly more Fe-rich than Binda, but many of them have blebs typical of the Binda cumulate eucrite. The MC-type and JV-type pyroxenes are severely brecciated. The chemical compositions of MC-type are close to those of Moore County and those of rare JV to Juvinas. Minor plagioclase grains are present in the matrix. Y-791439 is classified as an unusual howardite rich in cumulate eucrite components with minor diogenite and rare ordinary eucrite components.

#### **Y-791448, 100-1: Howardite**

Angular fragments of Mg-rich pyroxene, olivine, calcic plagioclase and eucritic pyroxene are set in a much comminuted matrix. Pyroxene fragments with coarse to fine exsolution, rounded brown glassy materials are among the noticeable materials. Howardite.

#### **Y-791466, 51-2: Diogenite (B)**

Y-791466 is a brecciated pyroxene-rich rocks, texturally similar to Y-75032. Dark brown glassy materials are penetrated into fractures of pyroxene clasts and matrices. The chemistries of pyroxene are also similar to those in Y-75032. It contains minor shocked plagioclase grains both in lithic clasts and as fragments in the matrix. The chemical compositions of plagioclase range from An68 to An94, but those of pyroxenes are fairly constant as those in Y-75032.

#### **Y-791467, 51-1: Diogenite (B)**

Subrounded fragments of pyroxene with glassy tint are set in a dark brown glassy matrix. Rare fragments of plagioclase are observed. Some pyroxene grains include elongated blebby inclusions of augite. Similar to the Y-75032-type achondrites.

#### **Y-791489, 51-1: Howardite**

Fragments of Mg-rich pyroxene, eucritic pyroxene and calcic plagioclase are set in

fine-grained matrix of a similar materials. Part of the matrix turned into glassy materials. A large clast of orthopyroxene shows shock-bent fine exsolution lamellae. Howardite rich in diogenite.

#### **Y-791491, 51-1: Lodranite**

PTS shows a coarse-grained aggregate (1 mm in size) with granular texture, consisting mainly of olivine (42 vol%), orthopyroxene (28 %) and Ni-Fe-troilite 30 %, with minor amounts of Aug (0.1 %), plagioclase (0.3 %), Cl-apatite, chromite (0.1%) and merrillite (0.2%). Nickel-iron, plagioclase, and augite fill the interstices of mafic silicates and often show concave, rounded boundaries. Plagioclase occurs as a film mantling an olivine crystal and fills interstices of olivine and orthopyroxene together with merrillite, metal, and augite. The textures and mineral distribution are the same as those of the Y-791493 lodranite. Chemical compositions of olivine cores are uniform throughout the PTS. Chemical compositions of orthopyroxene are roughly uniform for major elements, but the CaO contents are variable within a crystal.

#### **Y-791492, 81-1: Howardite**

A thin section shows complex breccia of angular fragments up to 2 mm long, of orthopyroxene, inverted pigeonite, pigeonite, olivine, plagioclase, chromite, ilmenite, silica, and other opaque minerals set in a matrix of comminuted mineral fragments. Lithic clasts are rather rare in comparison with other Yamato-79 howardites. The matrix does not show rusty staining as was observed in Y-791208. Many orthopyroxene fragments do not show the exsolution of augite that was observed in diogenites, but they may be similar to diogenites. One orthopyroxene fragment has a small chromite attached to the edge. Two subrounded fragments of cumulate eucrite pyroxene include oriented blebby inclusions of augite. Fe-rich eucritic pigeonite shows exsolution of augite on (001). Three small eucritic lithic clasts were observed in which pigeonite also shows exsolution.

#### **Y-791493, 91-3: Lodranite**

Y791493 is a unique meteorite similar to Lodran, but it differs from Lodran in that it contains plagioclase. Y-791493 consists of small spinel, large euhedral olivine and orthopyroxene, anhedral clinopyroxene, metallic iron-nickel, troilite, plagioclase, and merrillite. Orthopyroxene and clinopyroxene show compositional zoning formed during cooling. The composition of spinel shows a strong size dependence due to differences in crystallization and in subsolidus equilibration (Mg and Fe).