Meteorite Name:	**Johnstown**
Country:	USA
State/District:	Colorado, Weld Co.
Co-ordinates:	40°21'N, 104°54'W
Date of fall :	1924, July 06 (1620hrs)
Total known weight:	40.3kg (approx.)
Number of pieces:	27

Classification:

Type:	Stone ADIO
	Achondrite, Ca-poor , monomict diogenite
Remarks:	brecciated
Mineral Analyses:	Olivine Fa28 (28-29)
	Pyroxene Fs24 (23-25)
	Total iron: 12.9%
	plagioclase: An82-90 Ab10-18 Or0-1
	orthopyroxene: En72 -74 Fs23-25 Wo2-3
	clinopyroxene: En46 -47 Fs9-10 Wo44-45
	Fe-Ni metal: 3% Ni (approx.)
	accessory silica, troilite, chromite

Pairings: *not known*

Synonyms: *Elwell*
Jonstown
Weld County

Description and references:

After four explosions, twenty-seven stones fell near Johnstown; the total weight recovered was about 40.25kg, and the largest stone weighed about 23.5kg, M.H.Hey, Cat. Met., 1966, p.223. Description, E.O.Hovey et al., Am. Mus. Novit., 1925, (203). Al-26 data, K.Fuse and E.Anders, GCA, 1969, 33, p.653. Minor and trace element composition of orthopyroxene, B.Mason and A.L.Graham, Smithson. Contrib. Earth Sci., 1970, (3). Bulk analysis, 12.9% total Fe, B.Mason and E.Jarosewich, Meteoritics, 1971, 6, p.241. Concentrations of heavy elements, H.Hintenberger et al., Meteoritics, 1973, 8, p.380 (abs.). U and Th abundances, J.W.Morgan and J.F.Lovering, GCA, 1973, 37, p.1697. Noble gas data, cosmic-ray exposure ages, G.F.Herzog and P.J.Cressy,Jr., GCA, 1977, 41, p.127. Mineral chemistry, a monomict, brecciated diogenite, R.J.Floran et al., Meteoritics, 1977, 12, p.226 (abs.). Exposure age based on spallogenic Mn-53 content, P.Englert and W.Herr, GCA, 1978, 42, p.1635. Ti, Zr and Hf abundances, M.Shima, GCA, 1979, 43, p.353. Petrographic and chemical characterization of plagioclase clast, D.W.Mittlefehldt, GCA, 1979, 43, p.1917. UV reflectance spectra, J.K.Wagner

et al., LPSC, 1980, 11, p.1193 (abs.). Calculation of atmospheric ablation based on cosmic ray tracks and Ne isotopes, N.Bhandari et al., Nucl. Tracks, 1980, 4, p.213. Mineralogy, petrology and trace element geochemistry, R.J.Floran et al., GCA, 1981, 45, p.2385. Thermal history, H.Mori and H.Takeda, Earth Planet. Sci. Lett., 1981, 53, p.266. Rb-Sr study, J.L.Birck and C.J.Allegre, Earth Planet. Sci. Lett., 1981, 55, p.116. Be-10 data, R.K.Moniot et al., GCA, 1983, 47, p.1887. Trace element data, R.Wolf et al., GCA, 1983, 47, p.2257. Oxygen fugacity data, R.H.Hewins and G.C.Ulmer, GCA, 1984, 48, p.1555. Halogene concentrations, G.Dreibus et al., International Workshop on Antarctic Meteorites, LPI Tech. Rept., 1986 (No. 86-01), p.35. TL data, D.W.G.Sears et al., GCA, 1991, 55, p.3167, J.D.Batchelor and D.W.G.Sears, GCA, 1991, 55, p.3831. Study of Fe-Mg ordering in orthopyroxenes, G.M.Molin et al., Earth Planet. Sci. Lett., 1991, 105, p.260. Magnetic properties, D.W.Collinson and S.J.Morden, Earth Planet. Sci. Lett., 1994, 126, p.421. Major and trace element composition of bulk and mineral separates, D.W.Mittlefehldt, GCA, 1994, 58, p.1537. Analysis of major and minor elements in orthopyroxene, G.W.Fowler et al., GCA, 1994, 58, p.3921. Ti and trace element contents of orthopyroxene, G.W.Fowler et al., GCA, 1995, 59, p.3071. Analysis of modal abundances, L.E.Bowman et al., LPSC, 1996, 27, p.147 (abs.).

Repositories of specimens:

21.8kg: New York, Amer. Mus. Nat. Hist. [main mass]
5.26kg: Denver, Colorado Mus. Nat. Hist.
2.48kg: Tempe, Arizona State Univ.
1638g: Chicago, Field Mus. Nat. Hist.
1.4kg: London, Nat. Hist. Mus.
1028g: Washington, U.S. Nat. Mus.
900g: Golden, Colorado School of Mines [approx. weight]
762g: Tucson, Haag Colln.
752g: Harvard Univ.
622g: Kankakee, Illinois, J.Schwade Colln.
594g: Oshkosh, Wisconsin, Public Mus.
489g: Adelaide, South Austr. Mus.
333g: Albuquerque, Univ. of New Mexico
322g: Mainz, Max-Planck-Inst. Chemie
165g: Heidelberg, Max-Planck-Inst.
165g: Vienna, Naturhist. Mus.
158g: Perth, West. Austr. Mus.
150g: Minsk, Geol. Mus.
130g: Watchung, N.J., DuPont Colln.
107g: Malta, Montana, M.Cilz Colln.
90g: Helsinki, Geol. Mus. Univ.
90g: Paris, Mus. d'Hist. Nat.
90g: Yale Univ., Peabody Mus.
82g: Fischerhude, Koblitz Colln.
80g: Bern, Naturhist. Mus.
61g: Sydney, Austr. Mus.
50g: Los Angeles, Univ. of Calif.

49g: Ottawa, Mus. Geol. Surv. Canada
33g: Copenhagen, Univ. Geol. Mus.
29g: Oxford, Univ. Mus.
28g: Moscow, Acad. Sci.
27.1g: Grenchen, T.Stuedi Colln.
26g: Paris, A.Carion Colln.
21g: Durango, Colorado, B.Reed Colln.
16.5g: Berlin, Mus. Naturk., Humboldt Univ.
16g: Calcutta, Mus. Geol. Surv . India
15g: Zürich, J.Nauber Colln.
13.9g: Colorado Springs, Tiara Observatory
13.8g: Köln, Univ.
13.3g: Tübingen, Min.-Petrogr. Inst.
12g: Northfield, Minnesota, Carleton College
11g: Augsburg, Heinlein Colln.
9.8g: Bonn, Min. Mus. Univ.
8.8g: Tokyo, NIPR
9.3g: Oeschgen, Beat Booz Colln.
7.6g: Zürich, ETH
6.9g: Gifhorn, Bartoschewitz Colln.
6.3g: Rome, Inst. Min. Mus.
6.2g: Münster, Univ.
4.8g: Freiburg, J.Otto Colln.
4.2g: Heidelberg, Min. Inst. Univ.
1.3g: Machecoul, Guibert Colln .
1g: Graz, M.Stangl Colln.
1.0g: Violau, Volkssternwarte
0.5g: Freiburg, Min.-Petrogr. Inst.

39 g Zeitschel

Repositories of prepared sections:

Chicago, Field Mus. Nat. Hist. (PTS)
Grenchen, T.Stuedi Colln. (TS)
Heidelberg, Max-Planck-Inst. (PS)
London, Nat. Hist. Mus. (TS)
Malta, Montana, M.Cilz Colln. (TS)
Oeschgen, Beat Booz Colln. (TS)
Paris, Mus. d'Hist. Nat. (TS)
Perth, West. Austr. Mus. (TS)
Stade, A.Seidel Colln. (TS)
Tempe, Arizona State Univ. (PS ,TS,PTS)
Vienna, Naturhist. Mus. (PTS)
Zürich, J.Nauber Colln. (TS)