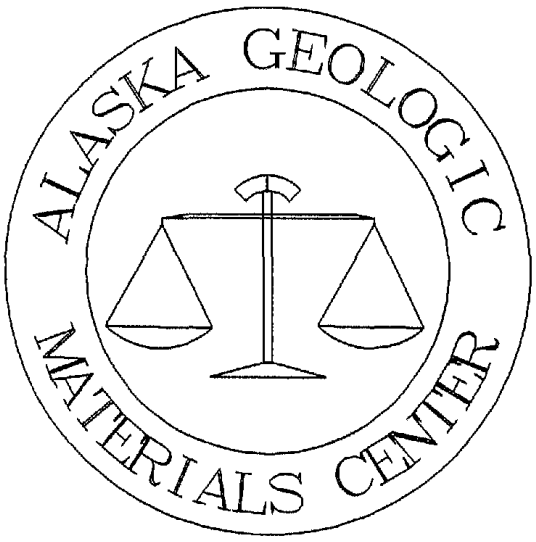
Map location and geological logs of core for 7 1991 diamond drill holes of the Deadman Prospect, Healy A-3 Quadrangle.



Received 17 January 1996

Total of 48 pages in report

Alaska Geologic Materials Center Data Report No. 262

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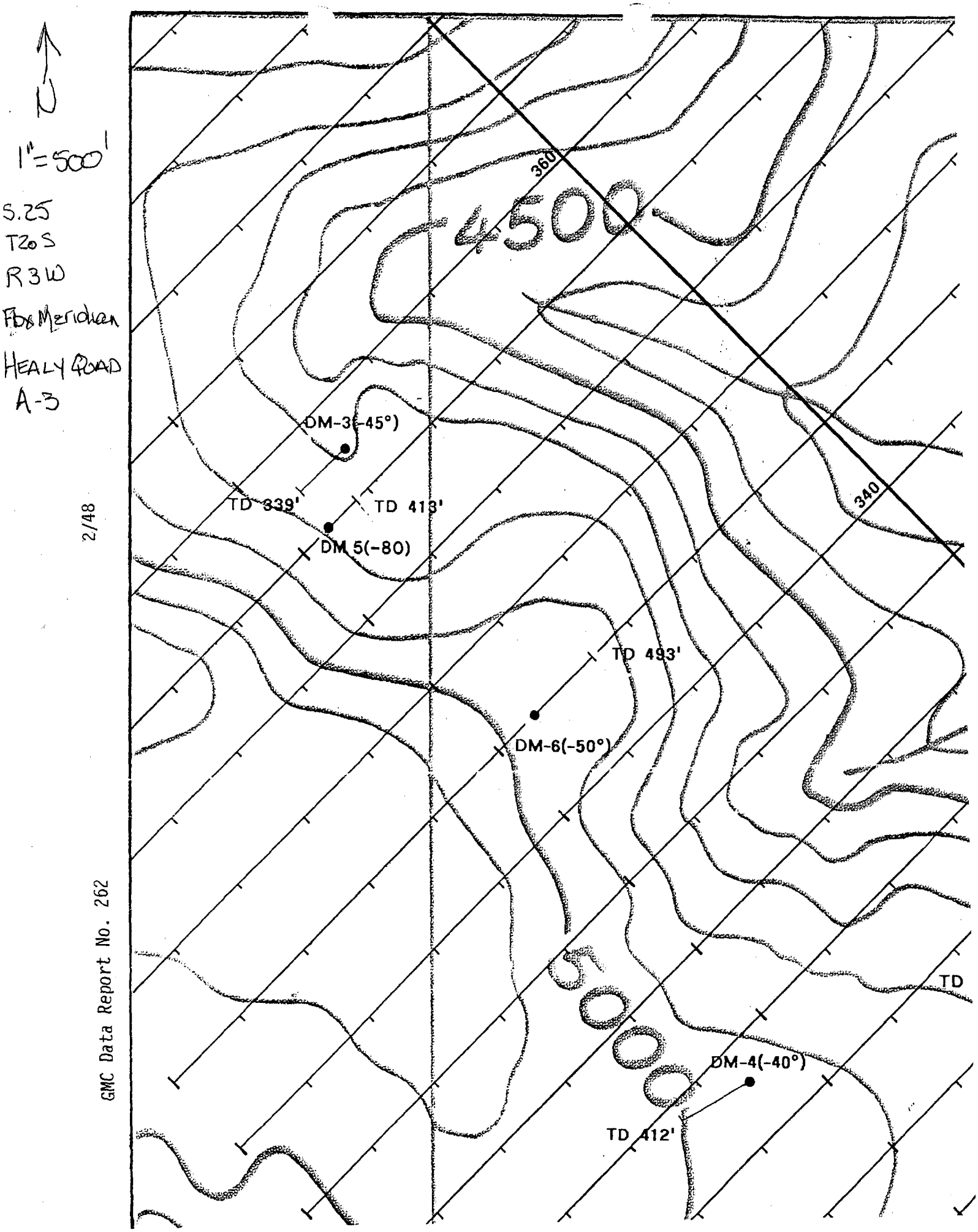
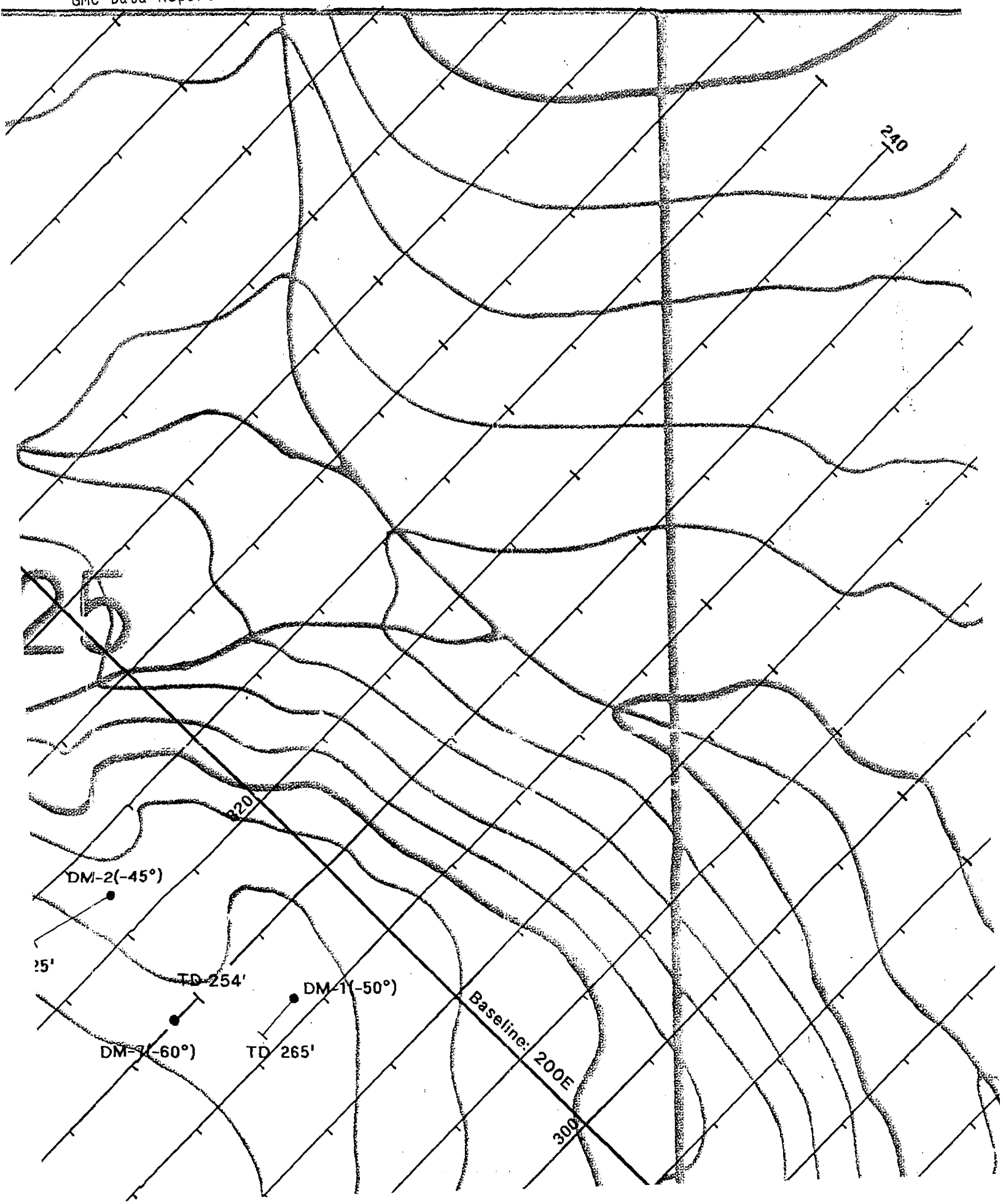

N
1"=500'
S.25
T20S
R3W
Fbs Meridian
HEALY ROAD
A-3
2/48
GMC Data Report No. 262
4500
360
340
DM-3(-45°)
TD 339'
TD 413'
DM 5(-80)
TD 493'
DM-6(-50°)
TD
DM-4(-40°)
TD 412'


240
220
DM-2(-45°)
TD 254'
DM-1(-50°)
DM-3(-60°)
TD 265'
Baseline:
200E
300

Appendix E

Drill Hole Core Logs

WORK DONE BY P.D.U.S.
in 1991 under agreement
with Comurco Alaska Exploration

DM-1 P 1 of 4

DIAMOND DRILL HOLE LOG

Company Placer Dome U.S.

Property DEADMAN	Hole No. DM-1
Location Lightning Zone	Bearing at Collar S 42° W
	Inclination at Collar -50°
Coord. - Collar N 31,305	
E 19,475	Length 265 feet
Elev. - Collar 4690'	Core Size BBBam (1 1/16")
Date started 8-11-91	
Completed 8-15-91	Logged by MKF

LEGEND — Lithology: Gneiss; Mafic Dike; Fault Gouge/Brx; Sulfidic Quartz Brx. — Alteration: Strong, Mod., Weak

Mineralization: Semi-massive + Stockwork; Vein/Stringer Zones; Minor veinlets/stringers; Disseminated

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL Sample	Interval	Au (ppb)	Ag	As	Pb	Zn	BOX
0-15: Overburden; Rubble + Rubble-crop gneiss.	0				GMC Data Report										
15-35: Medium- to coarse-grained biotite-quartz-feldspar gneiss, weakly altered (sericite, chlorite after feldspar + mafics). Minor Fe-stained fractures. 26-28: Pegmatite dike. Foliation at high angle to core:	10														
	20		~1% or less disseminated + stringer sulfide (Pyrite-Arsenopyrite) Minor dissem Po.		Moderate to Good No. 262		~80	1-1	20-23	<5	<.2	5	6	578	
	30		Apy												
35-63: Dk grey FG biotite-rich gneiss (or schist?). Weakly sericite-altered Thin FGS, qghanitic mafic dikes are present. 43-46: Abund fe-staining. This resembles a hornfels	40		Scattered Qtz-Py ± Apy stringers, up to 3% total sulfide. Po is dissem.		5/48			1-2	35-38	15	<.2	<5	6	470	
	50							1-3	43-47	<5	<2	65	84	758	
	55														

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL Sample	Interval	Au ppb	Ag ppm	As ppm	Pb ppm	Zn ppm	BOX
35-63 (cont.) As Above	55		As Above		600	4	80	1-4	55-60	<5	<.2	30	20	368	
	60				GMC Data Report										
63-74 Coarse-grained gneiss, with abund. vein-like felsic, locally pegmatitic segregations very weak sericite + chlorite ALT. gives way at 72' to heavy ser-clay	70		1 few Py > Aspy + Silica stringers (<1 mm)					1-5	66-68	<5	<.2	25	10	426	
* AT 73-74' A heavily argillized, chlorite altered matic dike intrudes along fault.	FAULT ZONE			72				1-6	70-73	<5	<.2	185	30	1?	
74-77: Yellowish, fault gouge or breccia. Milled silicified clasts. AT High angle to core.	80		} Broken, Heavy QTZ-Py > Aspy stringers/veinlets. 74-77: Perv. clay-sericite minor (<1%) Py visible but scoridite staining		Poor	6	50-60	1-7	74-77	45	21	2680	892	80	
77-81: "Lightning Vein" sulfidic, matrix-supported hydrothermal quartz breccia, with indistinct sulfidic clasts. Weakly vuggy, scor staining	Fault		77-81: Aspy > Py, dissem. thru matrix ± STO. Surfs. banded in places, Also partly replace clasts. Also note a dull grey metallic mineral (gn ?). Abund. Scoridite staining	81	No. 262			1-8	77-81	180	2.4	>10K	538	46	
	90				Very Poor		40	1-9	81-88	15	<.2	1320	86	866	
81-88: Fault gouge. Broken, ground, argillized + Sericitized gneiss. QTZ + Altered gneiss make up clasts of fault breccia. Shearing at ~60° angle to core.	100		81-88: Clay, sericite, QTZ & (Heavy) Feox make up entire rock nearly.	88	mod.		75	1-10	88-96	<5	<.2	400	6	584	
	Fault		88-96: Abund QTZ-sulfide veinlets					1-11	96-101	20	<.2	755	72	298	
88-96: Heavily altered matic dike mod-Hvy. Clay, Sericite, chlorite, clay (?)	110		96-108: Feox-stained QTZ-Sulf. Stringers. Aspy after Sericite (?)		6/48			1-12	101-108	<5	<.2	85	10	280	
96-108: CG gneiss, moderately sericite-chlorite altered to 103', weakly below.								1-14	110.5-115	45	<.2	175	6	214	
	120							1-15	115-120	<5	<.2	10	4	222	
108-120: Weak-moderately propylitized + chloritized matic dike. Clay is Also present.	125		108-120: A few scattered Fe-stained QTZ stringers up to 1.5 cm thick.	120	mod.	60-	75	1-16	120-125	<5	<.2	<5	4	156	

LITHOLOGY, ALTERATION, MISC.

120-197:
Weakly to moderately altered coarse grained gneiss.
Ser. after bio (+ Fspar?)
clay (illite) after ser (?) Broken
locally Aspy after sericite.
K-Feldspar Altered to apple green, cloudy mineral (mix ser + illite?).
Foliation at mod angle to core.

166-173:
Mod-intense Ser-clay-bleaching

FT. 125, 130, 140, Broken ?, 150, 160, 170, 180, 190, 195

GRAPHIC LOG

MINERALIZATION

120-197:
A few scattered FeO-stained qtz stringers.
clay +/or ser in thin seams or veinlets

166-173: Abund qtz-pyrite veinlets.

RECOVERY

Run	Run length	Core	%
	mod-good	60-75	

GMC Data Report No. 262

7/48

ANALYTICAL (ppb / ppm)

Sample	Interval	Au (ppb)	As	As	Pb	Zn
1-17	125-130	<5	<.2	<5	8	150
1-18	130-133	<5	<.2	5	6	160
1-19	133-143	<5	<.2	5	5	252
1-20	151-153	<5	<.2	30	4	102
1-21	163-166	<5	<.2	5	2	108
1-22	166-173	<5	<.2	10	8	96
1-23	179-184	<5	<.2	15	6	108

BOX

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL Sample	Interval	ppb Au	ppm Ag	As	Pb	Zn	BOX
As Above	195		As Above		Good	GMC Data Report No. 262	80								
197-216 Weakly to unaltered CG Gneiss	200		Minor (<1%) diss. Py.												
	210														
216-247 Moderately sericitized, argillic & chlorite-altered coarse-grained gneiss. Bleached loc. Sericite envelopes around siliceous, Py-bearing veins. AT 227', ALTERation weakens somewhat. Adularia (?) noted in sericite-clay (?) veinlets.	220		Clay + sericite in seams, veinlets, locally cut by Py ± chlorite stringers.					1-24	216-221	5	<.2	7.5	6	78	
	230							1-25	231-237	25	<.2	.5	6	100	
	240														
247-265 Abund. Chlorite. Dk grey FG bio-rich gneiss (or schist). WEAK sericite-clay alteration. Biotite locally appears secondary, ie, remobilized along vein-like structures. TD 265'	FAULT 250		At 250-252: Qtz-Py ± Aspy stringers, generally sparse.				8/48	1-26	248-250	<5	<.2	<5	2	178	
								1-27	250-252	25	<.2	<5	4	64	
	260							1-28	252-256	5	<.2	<5	<2	98	
	265							1-29	261-265	10	<.2	5	2	110	

DIAMOND DRILL HOLE LOG

DM-2

Page 1 of

Company Placer Dome U.S. Inc.

Property Deadman	Hole No. DM-2
Location South Bowl	Bearing at Collar S60°W
	Inclination at Collar -45°
Coord. - Collar N 32190	
E 17260	Length 524.5'
Elev. - Collar	Core Size BPBGM (1 5/16")
Date started August 17, 1991	
Completed	Logged by Peter Bowes

LEGEND — LITH: gneiss; mafic dikes; intermed. to felsic dikes; fault gouge. ALTERATION: strong; moderate; weak.

SURVEY

Footage	Bearing	Inclination
Mineralization		
veins, stringer zones		
micro veinlets, fracture fillings		
dissemination		

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG (LITH / ALT / MIN)	MINERALIZATION	RECOVERY: Run	Run length	Core	%	ANALYTICAL: Sample	Interval	Au ppb	Ag ppm	As	Pb	Z	ROX
0.0 – 13.5 Colluvium, Overburden	0														
13.5 - 48 Coarse to medium grain gneiss. wk to mod sericite-chlorite alteration. Fe ox on fracture. Loc. qtz-feld pegmatite veins.	10		diss. py	10		GMC Data Report No. 262	40								
	20			20			70								
	30			30			70								
	40			40		9/48	80								
48 - 52 - broken, shearing.	50			50			70								

DM2 210 218

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG LITH/ALT/MIN	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL Sample	Interval	Au ppb	Ag ppm	As	Pb	Zn	BOX
48-52 mod. sericite alteration off shear, .3" qtz-py vn. as. feox	50		52.0 .3" qtz-py vn	50	GMC Data Report No. 262			DM2-1	51.-52.5	-5	-.2	30	6	88	
52-116 md to fine grain gneiss. wkly ser ± chl alteration loc mod. to int. in rock adj. to fx.	60			60			100								
	70			70			50								
78-88 md to fg			75-76.5 qtz-py vn/stfs.					DM2-2	75.0-76.5	20	1	85	6	34	
	80			80			70								
	90			90			100								
			98-101 py coating on fracture, qtz-py microvein					DM2-3	95.5-98.0	-5	-.2	15	8	11	
								DM2-4	98.0-102.5	-5	-.2	-5	18	118	
	100			100			100	DM2-5	102.5-105	35	-.2	30	12	122	
	110			110	10/48		100								
110-116 int. ser.-feox, min. chl								DM2-6	111-116	-5	-.2	50	8	100	
116-147 fine to md grain gneiss loc. fresh, predt. wk sericitized off fracture, with mod feox			119 clay-py remlets					DM2-7	116-121	-5	-.2	45	10	128	
	120			120			100								

DM-2 3/8

DM-2 3/8

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG LITH / ALT / MIN	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL Sample	Interval	Au ppb	Ag ppm	As	Pb	Zn	BOX
116-147 - continued fine to med grain gneiss loc. fresh, ptcd. wk. sericite alt., mod. FeOx	120		122.5 - qtz-py-clay on fracture	120	GMC Data Report No. 262										
	130		133.0 - chl-py along fracture	130			100	DM2-8	132-135	5	<.2	50	8	140	
	140		142.6-144 - clay-py gouge, blk. f.g. sulfide	140			100	DM2-9	137.5-142.5	15	<.2	105	4	78	
142-144 clay-sulfide gouge, sol. boiling texture?								DM2-10	142.5-146	30	0.4	1215	8	187	
147-175.5 md grain gneiss. Intense sericite-py alteration. Several orientations qtz-py microveinlets/fracture coatings. Loc. scorodite staining. Loc. gouge: 166', alteration decreasing at 168', restricted to adjacent to fracture.			147.5 py ± aspy w/ gouge					DM2-11	146-150	30	2	240	32	68	
	150		148-162 three generations qtz-py microveinlets and fracture coatings.	150			100	DM2-12	150-155	30	0.4	2.60	90	57	
								DM2-13	155-160	15	<.2	200	4	50	
	160		162-166 decreasing abundance of qtz-py microvns.	160			100	DM2-14	160-166	5	<.2	15	12	88	
166 broken, sulfide rich rbl, ab. ser. brecciation at 168			166-168 sulfide rich fault gouge					DM2-15	166-171	30	<.2	50	12	34	
	170		168-175.5 mod. ab chl-py microvns. <1% diss. py.	170			90								
175.5-201.0 md grained gneiss wk to mod chl-py ± sericite alteration with limited penetration off fracture.			175.5-187 minor qtz-py microvns., py disseminations		11/48										
	180			180			100	DM2-16	179.5-183.5	<5	<.2	20	<2	116	
	190			190			95								

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DM2 4/8

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG LITH/ALT/MIN	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL Sample	Interval	Au ppb	Ag ppm	As	Pb	Zn	BOX
175.5-201 - continued.	190		191-194 blk sulfide laminations in gouge	190	GMC Data Report No. 262										
194.5-201 int. gouge and altered gneiss															
201-242 fg gneiss, distinct segregation banding w/ biot. rich zones. minor pegmatitic zones, both concordant and discordant with foliation. Weak alteration.	200			200			70								
	210			210			100								
	220			220			100	DM2-19	221.5-224	-6	-.2	10	6	156	
	230		231 - clay-py veinlet	230			85	DM2-20	228.5-31.5	-5	-2	20	4	102	
								DM2-21	238.5-425	-5	-.2	20	2	122	
242-245 f.g. gneiss, mod to intensely sericitized, silicification off gtz vn at 243.5, open space w/ py < 1%	240		243.5 gtz-py vein <1% py in open space.	240	12/48		100	DM2-22	242.5-243.5	-5	-.2	70	0	102	
245-318 md to fine grain gneiss to schist. wk sericite ± py ± chl alteration, Int loc. off fracture. loc. more altered pegmatitic zones, with folds soft and yellow.								DM2-23	243.5-248	-5	-.2	5	10	106	
	250			250			100								
	260			260			100								

DM-2 5/8

DM-2 5/8

FT.	LITHOLOGY, ALTERATION, MISC.	MINERALIZATION	Run	%	Sample	Interval	Au ppb	Ag ppm	As	Pb	Zn
260	245-318 – continued md to fg gneiss. wk sericite ± py ± chl, loc. int. off. fracture. Loc pegmatite, more int. altered, felds soft, yellow.	262-265 qtz-py veinlets py pseudomorph after K feldspar?			DM2-24	[illegible]	-5	-.2	40	14	10[illegible]
270		269 py diss. in silic altered band .6"	270	90							
280		275-277 qtz-chl veinlets	280	80	DM2-25	284.5-290	-5	-.2	5	12	108
290			290	100	DM2-26	297.5-302.5	-5	-.2	-5	4	124
300		305.5 1-2" wide qtz/fn to bx, py lining open space	300	100	DM2-27	305.5-307	-5	.6	90	-2	86
310			310	100	DM2-28	311-314.5	-5	.6	65	-2	110
					DM2-29	315.5-318	-5	.4	175	28	86
320	318-330 f.g. gneiss and schist wk to mod sericite ± py ± chl. loc. 319-321 broken mod. alt., fault?	318-322 dism py-aspy in gouge	320	100	DM2-30	318-322	-5	.6	275	20	96
330			330	100							

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DM-2 6/8

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG LITH	ALT	MIN	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL Sample	Interval	Au ppb	Ag ppm	As	Pb	Zn	BOX
330-360 md to fine grain gneiss wk sericitic ±chl alt, loc. bleached, argillically alt'd gneiss above fault? contact w/ dike intensely argillized. contact ⊥ to core 361-366	330				332-334 qtz seam w/ v.fg blk sulfide, py cubes.	330	GMC Data Report No. 262										
					335-339 qtz veinlets w/ laminated blk sulfide.												
	340				343-349.5 py microvns in arg. alt schist,	340			100								
	350					350			100								
359.5-361.5 sulfide gouge w/ qtz frags round-movement?										DM2-34	359.5-361.5	5	1	56	12	66	
360-370.5 lt green to tan f-g sugary text dike. Mod. to int arg-chl alteration.	360				359.5-366.5 sulfide rich gouge and int. altd. gn and dike.	360			85	DM2-35	361.5-366.5	-5	1.2	5	6	82	
370.5-372.5 ser-chl-py altered gneiss ratt.					366-370.5 two sets py veinlets up to 5% trace chpy					DM2-36	366.5-370.5	-5	.2	-5	14	58	
	370					370			85	DM2-37	370.5-378	-5	-.2	35	8	90	
372.5-391 f-g. matic to inter. dike. Weak to mod arg-chl alteration. calc fracture coating gouge at	380					380	14/48		100	DM2-38	379-381.5	10	1	70	10	168	
	390					390			100								
391-419 lt green to tan porphyritic intermediate dike (andesitic) mod. arg. altrd. loc int. loc. ab. chl on fx surfaces with FeOx + clays.					392-396 py-aspy veinlets, perp. sets.					DM2-39	392-396.5	15	.6	785	10	168	
399' shear, gouge					397-400 3-5% py-aspy as clots, veinlets qtz vein rubble/frags					DM2-40	396.5-400	30	.8	1250	28	122	
	400					400			100								

DM-2 7/8

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG LITH / ALT / MIN	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL Sample	Interval	Au ppb	Ag ppm	As	Pb	Zn →	BOX
391-419 - continued.	400			400	GMC Data Report No. 262			DM2-41	400-406	15	<.2	195	16	136	
	410			410			100								
419-430 md to coarse grain gneiss. Mod to intense sericite ± py ± chl alteration feld. altd to soft transparent blue. Mislatch at 427-430, milky qtz frags.	420		415-418 ab. vf-g. blk sulfide - py ? ps microveinlets, fx cont 418-419 sulfide rich gouge.	420			100	DM2-42	414.5-420.5	20	.8	20	4	132	
430-431 broken, rubble of matic dike, gneiss - fault contact?	430		427-438? Mislatch, qtz vein frags with ab py, trc asPy	430			60	DM2-43	430?-437	<5	<.2	255	14	92	
431-437.5 md to intensely argillized intermediate to matic dike w/ ab. chl.			435-437 3-5% asPy-Py -qtz - chl veinlets												
			437-446 min. py microveinls - frac. cont												
437.5-448.5 md to coarse grain gneiss. Moderate ser-chl-py altn., more intense surround fracture.	440			440			100								
448.5-450.5 fine grain matic dike. Moderately argillized sericitized mottled texture varying with alt. intensity.	450			450			100								
450.5-512.5 f-g. gneiss to schist, min. md grain gneiss. weak sericitic alt throughout, greater surrounding fracture. Loc. c-g. to pegmatitic zones with intense sericite-chl altn.	460			460	15/48		100								
	470			470			100								

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG LITH / ALT / MIN	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL Sample	Interval	Au ppb	Ag ppm	As	Pb	Zn	BOX
450.5-512.5 - continued	470			470	GMC Data Report No. 262										
	480			480			100								
	490			490			100	DM2-46	491-502	.5	.2	5	6	96	
	500			500			100								
	510		512.5 1" qtz vein abund. disem. py.	510			100								
512.5-515.5 badly broken cg gneiss. int. ser. altn.								DM2-44	513-515.5	.5	.6	105	14	102	
515.5-524.5 mod to fine grain gneiss. weakly sericitized to fresh.								DM2-45	515.5-522	.5	.2	5	6	94	
	520			520			80								
		TD 524.5					80								
					16/48										

DIAMOND DRILL HOLE LOG

Company Placer Dome L/S

Property Deadman — Hole No. DM-3
Location Gumrest — Bearing at Collar S 45° W
Inclination at Collar -45°
Coord. - Collar N 35800
E 18430 — Length 339'
Elev. - Collar — Core Size BQ&GM (1 7/16")
Date started
Completed — Logged by Peter Kyle

LEGEND — LITHOLOGY / ALTERATION
- gneiss / strong
- matic dikes / moderate
- intermediate to felsic dikes / weak
- fault gouge
- qtz breccia, vein

SURVEY — Footage / Bearing / Inclination
MINERALIZATION
- veins, stringer zones
- microveins, fracture coats
- dissemination

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG (LITH / ALT / MIN)	MINERALIZATION	RECOVERY: Run	Run length	Core	%	ANALYTICAL: Sample	Interval	Au ppb	Ag ppm	As	Pb	Zn	BOX
0.0 - 14.0 colluvium and overburden.	0														
	10			10	GMC Data Report No. 262		60								
14.0 - 38.5 coarse grain orthogneiss, weak ser-chl alt'n to fresh. qb. Foor along fracture	20			20			80								
	30			30			100								
								DM3-1	36-43	-5	-.2	25	12	262	
38.5 - 41.5 fine grain weakly porphyritic grn brn intermediate dike. Mod. abund. vesicles, sulfide within. wk arg. alt	40			40	17/48		100								
41.5 - 57.5 coarse grain orthogneiss wk ser-chl altd.			45-50 min qtz-py microveins												
	50			50			100								

DM3-3 2/6

DM3 2/6

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG LITH/ALT/MIN	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL Sample	Interval	Au ppb	Ag ppm	As	Pb	Zn	BOX
41.5-57.5 - continued	50		54-57.5 dism py-sph veinlets		GMC Data Report No. 262			DM3-2	53-63	<5	<.2	10	6	286	
57.5-63.0 f.g. biotite rich gneiss, wk sericitic alt. & ft fractures lined w/ chl-py	60		63-83 2-3% dism py	60			100	DM3-3	63-73	<5	<.2	<5	8	48	
63.0-86.0 medium to coarse grain gneiss. wk chl & sericite alt off fracture. py repl. minn throughout.	70			72			100								
	80			84			100								
86.0-87.0 dk gy to blk porphyritic mafic dike. py clots.								DM3-4	885-965	<5	<.2	15	6	236	
87.0-107.0 coarse grain gneiss. wk to moderate ser-chl alt, foliation 10-20° off core.	90			90			100								
	100		96.5-100.5 wispy sulphide rich lamination, high angle 3-4%	100			100	DM3-5	965-100.5	<5	.2	30	2	396	
107.0-111.8 dk brn v.f.g. biot rich schist. badly broken. wk ser. alt'n.			100.5-106 py microveins, fracture coats <1%		18/48										
	110		107-112 qb py fracture coating.	110			100	DM3-6	106.5-112	<5	<.2	30	12	348	
111.8-116 broken coarse grain gneiss. moderate ser-py alt'n, stained FeOx on fracture.			112-116 dism. py replacing sericite												
116-121.5 tan to gy fault gouge and rubble	120		116-121.5 py in gouge	120			60	DM3-7	115-125.5	<5	1.2	10	8	566	

DM - 3 3/6

DM - 3 3/6

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG	MINERALIZATION	RECOVERY				ANALYTICAL							BOX
		LITH / ALT / MIN		Run	Run length	Core	%	Sample	Interval	Au ppb	Ag ppm	As	Pb	Zn	
116-121.5 - continued 121.5-125.5 broken, intensely ser-alt'd gneiss; gouse at 125'	120		121.5-125.5 dism py 1% microveins, 2-3 v/ft	120	GMC Data Report No. 262										
125.5-139 coarse grain gneiss, mod ser-py altn	130			130			90								
139-149 coarse grain gneiss. Mod to intense sericite-py altn.	140		139-149 dism py 1% microveins, 3 v/ft	140			100	DM3-8	139-149	-5	.3	10	30	280	
149-159 coarse grain gneiss. wk to mod. ser-py altn.	150			150			100								
			155-158 dism py 1% microveins, 1-2 v/ft												
159-201 coarse grain gneiss wk to mod chl ± calc ± py ± gtz ± ser altn.	160			160			100	DM3-9	159-169	-5	-.2	-5	-2	190	
	170			170			100								
	180			180	19/48		100								
								DM3-10	186-197.5	-5	-.2	20	8	148	
	190			190			100								

DM-3 .16

DM3 4/6

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG LITH/ALT/MIN	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL Sample	Interval	Au ppb	As ppm	As	Pb	Zn	BOX
159-201 - continued	190			190											
	200			200			100								
201-202 dk brn to blk weakly porphyritic matic dike.															
202-217 coarse grain gneiss wk to moderate chl-py ± ser altn.	210			210			100								
								DM3-11	215.6-216.6	-5	-.2	-5	4	160	
217-219 dk grn to blk porphyritic matic dike.			217-225 min py dissm, microveins												
219-235 coarse grain gneiss, wk chl-py ± ser altn, loc mod.	220			220			100								
	230			230			90								
235-238 v.f.g chloritized, argillized matic dike?															
	240		238-242.5 dissm aspy, py, veinlets 2-3%	240			80	DM3-12	238-242.5	-5	1.2	1520	24	244	
238-242.5 coarse grain gneiss, int to mod. sericitized, as sceroadite								DM3-13	242.5-247	215	15.8	10000	172	10000	
242.6-247 sulfidic qtz vein/breccia and gouge, wht + gy qtz w/ wispy sulfide laminations. abund. sericite, sceroadite.			242-247 dissm aspy, py veinlets, euh. xtals aspy minor chpy? 4-5%												
	250		247-254 dissm aspy, py veinlets, two sets	250			60	DM3-14	247-254	175	13.2	7810	112	4394	
247-267 intermittent fault gouge and intensely argillized sericitized coarse grain gneiss. abundant sceroadite, sericite.															
			254-261.5 dissm aspy-py veinlets, 3-4%, min chpy.					DM3-15	254-261.5	65	20.4	3380	132	4502	
	260			260			70								

GMC Data Report No. 262

20/48

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG	MINERALIZATION
247-267 - continued.	260		261.5-265 dism aspy-py also as veinlets at as clots within veinlets
267-278 intensely sericitized, argillized gneiss with .5-1" qtz vein, and gouge zones.			265-269 dism aspy-py with isolated clots sl, total sulfide 0.5%
	270		269-278 dism aspy-py as veinlets. 3-4%
278-292.3 coarse grain gneiss, mod to intense arg-chl ± ser alt.			278-292 dism py as veinlets 2-3%
	280		
	290		
292.3-294.5 30% qtz vein material with int. altd. gneiss. Badly broken over interval. Rounded qtz frags - representing faulting?			292.3-294.5 1-10% aspy-sl-py-gn w/ qtz and in altered wallrk
294.5-303.5 coarse grain gneiss. mod to int ser-chl-py alt.			294.5-303.5 dism py minor veinlets, 2-3%
	300		
303.5-309 gouge with ground qtz, gn. loc. abundant sericite, chlorite. Hi grade sulfide in qtz at 308'. Highly mineralized gneiss.			308.5-307.0 3-4% aspy-py-sl in gouge
			307.0-307.8 hi grade aspy-sl-py-gn vein over .5'
309-312.5 broken, intensely altered gneiss, argillized, chloritized, minor sericite, gouge at 311.5	310		307.8-309 3-4% aspy-py-sl dism in gneiss
312.5-329 heavily fractured green, wkly porphyritic argillized, chloritized intermediate dike. gouge at 329.			309-312.5 3-4% py in altered gneiss.
	320		
			328.5-339 3-4% py in gouge and dism. in gneiss
	330		

RECOVERY

Run	Run length	Core	%
260			
270			100
280			90
290			40
300			70
310			70
320			90
330			80

GMC Data Report No. 262

21/48

ANALYTICAL

Sample	Interval	Au	Ag	As	Pb	Zn
		ppb	ppm			
DM3-16	261.5-265	105	18.4	2810	60	1666
DM3-17	265-269	295	17.8	6205	58	2420
DM3-18	269-278	2.0	2.6	815	30	461
DM3-19	278-285	-5	-.2	10	52	94
DM3-20	285-292.3	-5	-.2	15	16	78
DM3-21	292.3-295	810	10	10000	2564	10000
DM3-22	295-303.5	-5	-.2	85	8	118
DM3-23	303.5-309	45	8.6	3420	4224	5820
DM3-25	312.5-323	-5	-.2	30	18	162
DM3-24	328.5-339	-5	.6	25	12	70

BOX

DM-3 6/6

DM-3 6/6

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG	MINERALIZATION	RECOVERY				ANALYTICAL							BOX
				Run	Run length	Core	%	Sample	Interval						
329-339 coarse grained gneiss. mod to intensely arg-chl alt'd alt. decreasing towards 339 -	330				GMC Data Report No. 262		60								
LOST HOLE @ ~~339~~ 337'	340				22/48										

DIAMOND DRILL HOLE LOG

Company Placer Dome U.S. Inc.

LEGEND Lithology Alteration

Gneiss — Strong / Mod. / Weak

Mafic Dikes

Intermediate to Felsic Dikes

Fault Gouge

Mineralization

Veins + Stringer Zones (Pervasive)

Veinlets + Fracture Fill

Dissemination

Quartz veining / Breccia

Property DEADMAN	Hole No. DM-4
Location WEST Zone	Bearing at Collar S 60° W
	Inclination at Collar -40°
Coord. - Collar N 32,650	
E 17,750	Length 412 feet
Elev. - Collar 4900	Core Size BBBGM
Date started 9-1-91	
Completed 9-7-91	Logged by Mike Flaherty

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL Sample	Interval	PPB Au	ppm Ag	As	Pb	Zn	BOX
0-28.5 Colluvial Overburden	0				GMC Data Report No. 262										
	10														
	20														
Approx. Top of bedrock															
28.5-49 FG-med-grained biotite quartz-feldspar gneiss with a few scattered pegmatite dikes. Unaltered exc. minor FeOx on fractures. Foliation: 25°	30		minor FeOx		Good	~100		4-1	28.5-33	<5	<.2	10	<2	138	
	40				23/48										
49-71: clay-ser. Fault gouge. Same Lithology as above but intensively chloritized & sericitized.	50		Intense clay + ser. alt'n developed		mod	60	~70	4-2	49.5-51.5	240	1	5	10	124	
	55														

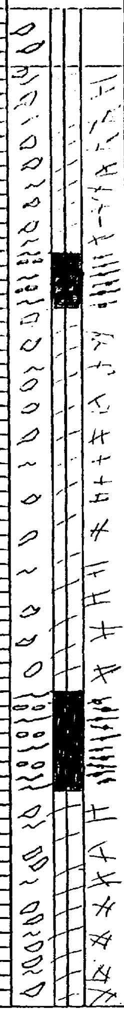
LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL Sample	Interval	Au	Ag	As	Pb	Zn	BOX
49-71 (cont.) As Above 59-70: Fault Zone?	55		Pyritic seams w/ intense chl Quartz-pyrite veins/Bx veins; 60°		mod	60-70		4-3	58-62	.05	4.2	1.5	14	152	
	65							4-4	62-64.5	.25	4.2	250	42	70	
								4-5	64.5-70	6.5	4.2	23	10	144	
71-112: FG-MG gneiss, relatively unaltered exc. for two broken (fault?) intervals. Highly variable foliation.	75				Good	80-90									
	85		Over 1 foot, sulfide in sheared gneiss w/ intense chlorite-ser-clay semipervasive + coat fractures.					4-6	79-87	.05	4.2	25	2	72	
1 ft Shear/fault = Zone															
	95							4-7	95-110	.05	.2	10	4	88	
106-110: Shear zone w/ chlorite-sericite clay coats frax.	105		Py semipervasive												
112-136: FG Porphyritic mafic dike with minor chlorite on fractures.	115				Good	~100									
Foliation: 20°	125														

GMC Data Report No. 262

24/48

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL ppm Sample	Interval	Au (ppb)	Ag	As	Pb	Zn	BOX
112-136 (cont.) As Above	125				Sond	~	100								
	130														
Fault(?)															
136-199: Generally unaltered, mostly fine-grained gneiss (or schist) some med-grained gneiss. Foliation poorly developed.	140		At faulted dike contact: Heavy clay-sericite + Py-Aspy dissem. ~2-5%		Sand	~	90-	100%							
147-151: Sheared! Abund. chlorite-sericite (gouge)	150		147-151: Pervasive black to dk grey clay-sulfide-silica(?) material.					4-8	147-153 ↓	25	<.2	40	42	70	
162-163: Fault(?)	160		162-163: As 147-151					4-9	160-164 ↓	<5	<.2	65	14	44	
	170														
Foliation: 45°	180														
								4-10	185-192 ↓	<5	<.2	15	8	78	
	190														
	195														

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG	MINERALIZATION
136-199 (cont) As above	195		
199-298: Foliation: 30-40° Alternating broken pyritized + pervasively sericitized gneiss and clay-rich gouge. * Think hitting this broken, sheared and altered gneiss at an oblique angle	200		Py-qtz-chlorite veinlets scattered. Chlorite, clay abundant + pervasive locally. Veins: 60°
212-216: Sheared, perv chlorite (~60° to core)	210		212-216 Pervasive black, sulfidic (+ qtz + clay ?) material.
	220		
	230		
Foliation: 20°	240		
243-250: Sheared, chl. + ser alteration is pervasive * Shearing subparallel with core.	250		243-250 Pervasive qtz-py-clay C? zone. (UFG black material) * Shearing subparallel with core
	260		
	265		



RECOVERY: Run length: Good; Core: 90-100 %

GMC Data Report No. 262

26/48

Sample	Interval	Au (ppb)	Ag (ppm)	As (ppm)	Pb (ppm)	Zn (ppm)
4-11	200-209	<5	.2	40	12	112
4-12	209-216	<5	.1	100	10	52
4-13	216-221	95	7	4610	22	46
4-14	221-231	30	1	330	10	12
4-15	231-241.5	15	<.2	65	<2	80
4-16	241.5-256.5	<5	<.2	20	4	98
4-17	256.5-266	<5	<.2	25	8	100

BOX

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL ppm Sample	Interval	(ppb) Au	Ag	As	Pb	Zn	BOX
199-298 (cont.) As Above	265		As Above. Py-chlor-qtz veinlets + fracture fill throughout interval.	mostly Good			~100	4-18	266-271	10	.8	50	2	92	
271-277: Shear zone oblique to sub-parallel w/ core	270		271-277: Pervasive qtz-clay-sulfide		80										
279-285: Altered intermediate comp. dike.	280		279-285: qtz-py-Aspy veining cuts intermediate dike.					4-19	271-285.5	25	.6	40	8	94	
			288-293: As 271-277					4-20	285.5-291.5	20	1	70	4	76	
	290				80			4-21	291.5-294	10	1.6	65	6	72	
* Both shearing + foliation parallel to core.								4-22	294-298	190	1.2	50	2	48	
298-300: Quartz Breccia.	300		Up to 3% Py-Aspy in qtz breccia (sulf. vein parallels core)					4-23	298-300	35	1.2	710	6	12	
300-320: Altered, sheared gneiss (FG-MG)			300-320: Abund. qtz-py veins. Aspy+ sulf. in interval overall is 2-20%					4-24	300-307	15	1	180	8	62	
312-316: Shear zone subparallel with core	310		312-316: Black sulfidic material. Veining decreases down ↓		80			4-25	307-312	110	.4	225	6	50	
								4-26	312-318	15	2.2	2020	2	14	
320-362: Sericitized gneiss, locally sheared, chloritized & sulfidized. Foliation highly variable orientations.	320		Scattered qtz-py (2-3%) veinlets < 2" thick			GMC Data Report No. 262	27/48	4-27	318-328	25	1	55	6	78	
			* veins + shears are mostly subparallel with core					4-28	328-334	10	.4	2820	2	52	
~1 ft. shear zone	330		qtz-sulfide					4-29	334-351						
	335														

LITHOLOGY, ALTERATION, MISC.	FT.	MINERALIZATION	RECOVERY
320-362 (CONT.) As Above. Alteration generally weak sericite + clay.	335–360	As Above.	Good: 90-100
352-355 Sheared sub-parallel w/core	350	352-355 Black sulfidic material	~80
Fault / QTz Bxa	360	362 - 364: 2' quartz/breccia veining	
362-412 Intensively clay-altered (illite-sericite, some true clays are present) FG-MG gneiss with abundant gouge.	365–405	Scattered Py-QTz veins through clay-gouge. Also dissem Py + Aspy (after ser)	Estimate ~ 65-85
	376–378	376-378: Pervasive clay-silica-pyrite.	
400-406 Shearing intense	400–405	400-406 Pervas. Sulfide	

GMC Data Report No. 262

ANALYTICAL

Sample	Interval	Au (ppb)	Ag (ppm)	As (ppm)	Pb (ppm)	Zn (ppm)
4-29	334-351	220	.4	20	14	60
4-30	352-364	60	2.	7590	10	26
4-31	364-375	<5	1.8	420	6	52
4-32	375-385	<5	<.2	35	8	80
4-33	385-395	<5	<.2	20	8	64
4-34	395-403	<5	<.2	20	4	74
4-35	403-412	50	1.4	530	10	54

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG	MINERALIZATION	RECOVERY				ANALYTICAL			BOX
				Run	Run length	Core	%	Sample	Interval		
As Above	405		As Above					4-33	403-412		
	410										
TD 412'											

GMC Data Report No. 262

29/48

DIAMOND DRILL HOLE LOG

DM-5

P 1 of.

Company Placer Dome US

Property Deadman	Hole No. DM-5
Location Armrest	Bearing at Collar N 45° E
	Inclination at Collar -80°
Coord. - Collar N 35600	
E 18180	Length 413'
Elev. - Collar	Core Size NQ
Date started	
Completed	Logged by Paul Bowes

LEGEND

LITHOLOGY		ALTERATION	
gneiss		strong	
matic dikes		moderate	
intermediate to felsic dikes		weak	
fault gouge			
qtz breccia, rn	qp		

SURVEY

Footage	Bearing	Inclination
MINERALIZATION		
hi grade		
veins, stringers		
microvains, fracture coats		
dissemination		

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG (WTR / ALT / MIN)	MINERALIZATION	RECOVERY: Run	Run length	Core	%	ANALYTICAL: Sample	Interval	Au ppb	Ag ppm	As	Pb	Zn	BOX
0-50' Colluvium and overburden. abundant sands, frost.	0				GMC Data Report No. 262										
	10			10			60								
	20			20			60								
	30			30			40								
	40			40	30/48		40								
	50			50			60								

DM-5 2/7

DM-5 2/7

LITHOLOGY, ALTERATION, MISC.

50-56 coarse to medium grain gneiss. mod to intense arg-ser altn. Foliation 60° off CA.

56-62.5 gouge with ground qtz and silicified, sericitized gneiss frags.

62.5-67 coarse grain gneiss, mod to intense arg-ser altn.

67-70 intensely arg-ser altd aphanitic intermediate (?) dike.

70-100.5 mod to intense arg-ser altered coarse grain gneiss Loc. pegmatitic. Foliation 75° off CA.

100.5-149 intensely arg-ser ± chl alt'd gneiss with intermittent gouge and qtz sulfide veining / brecciation.

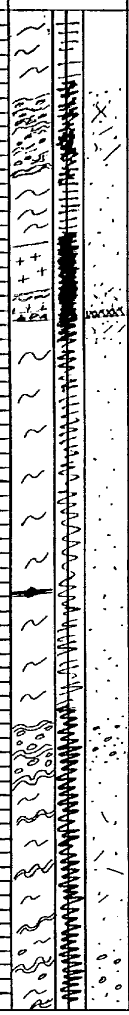
100-104.5 ground qtz in gouge, qtz-py clasts.

106-116 altd gneiss with clay seams / gouge along major fracture.

FT.

50, 60, 70, 80, 90, 100, 110, 120

GRAPHIC LOG



MINERALIZATION

50-56 dism py and microveins 1%

56-62.5 gouge with 4-5% aspy-py

62.5-67 2-3% dism py

71-73 hi grade qtz-al-aspy-py-gn vein

72-100.5 1-2% dism py and min. microvns

100.5-105 2-3% py clasts in gouge

106-116 1-2% py along fractures w/ clays.

116-130 dk gy to blk gouge (intermittent) py clasts, total sulfide 3-4%

RECOVERY

Run	Run length	Core	%
50			
60			80
70			80
80			90
90			100
100			100
110			100
120			100

GMC Data Report No. 262

31/48

ANALYTICAL

Sample	Interval	Au ppb	Ag ppm	As	Pb	Zn
DM5-1	55-62.5	30	.6	240	38	284
DM5-2	62.5-69	10	1.2	20	1376	598
DM5-3	69-73	195	32.8	6715	8596	9648
DM5-4	73-83	15	-.2	50	48	170
DM5-5	83-92	100	2.2	435	96	134
DM5-6	92-100.5	300	.8	705	8	92
DM5-7	100.5-106	300	18.6	510	8	178
DM5-8	106-113	25	.2	15	16	130
DM5-9	113-118.5	45	7.6	145	530	464
DM5-10	118.5-122.5	15	2.2	100	10	90

BOX

Dm-5 -,7

DM-5 3/7

GMC Data Report No. 262

32/48

LITHOLOGY, ALTERATION, MISC.

100.5-149 - Continued

130-149 intensely arg-ser altd gneiss with minor qtz-py veinlets.

149-179 porphyritic intermediate dike, loc. intensley bleached, argillized and sericitized. <10% sulfidic qtz vn/breccia

149-152 bleached dacitic dike, spherulitic txt

152-164 coarsely porphyritic int. dike, wk to mod. arg-chl altn., inc. microveins

164-165 gray gouge

165-171 argillized dike with silic overprint (?) qtz vn / bx along margin

171-172.5 int. arg-ser altd gneiss raft.

173-175.5 matrix supported breccia, translucent silica matrix, dike clasts. Trace mariposite-fuchsite clots.

175.5-179 intensly arg-ser altd int. dike.

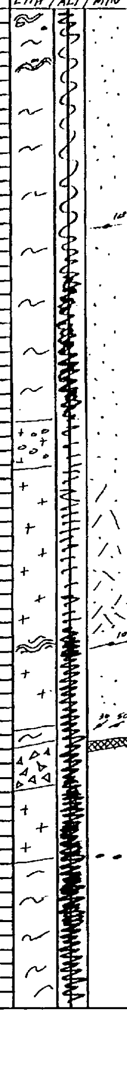
179-193 md grain gneiss, int arg-ser altn. Minor qtz-sulfide veining and local gouge.

FT.

120, 130, 140, 150, 160, 170, 180, 190

GRAPHIC LOG

LITH / ALT / MIN



MINERALIZATION

162-164 4-5% py-aspy microveins.

164-165 gy to blk sulfidic gouge

166 - .3" aspy veinlet

171-173 sulfide veinlets cutting lithology

173 4" aspy-sl-py-ga vein.

174-178 ground qtz-sulfide vein, 4-6% total sulfide 173.5-178

180 - sphallerite clots

182.5 qtz vein, py clots

RECOVERY

Run	Run length	Core	%
130			90
140			90
150			100
160			90
170			90
180			100
190			100

ANALYTICAL

Sample	Interval	Au ppb	Ag ppm	As	Pb	Zn
DM5-11	122.5-130.5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DM5-12	130.5-139	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DM5-13	139-148.5	-5	-.2	20	6	100
DM5-14	148.5-153.5	-5	.8	165	10	114
DM5-15	153.5-161.5	-5	-.2	55	2	142
DM5-16	161.5-165	-5	17.4	305	32	158
DM5-17	165-173.5	345	94.4	4725	110	736
DM5-18	173.5-178	1450	180.4	10000	776	10000
DM5-19	178-184	40	12	400	120	1882
DM5-20	184-190.5	10	4	105	20	508

BOX

DM1-5 1/7

DM5 4/7

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG LITH / ALT / MIN	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL Sample	Interval	Au	Ag	As	Pb	Zn	BOX
										ppb	ppm				
179-193 continued.	190			190				DM5-21	183-193	1140	53	10000	0.44	11300	
193-230 coarse grain gneiss. wkly chloritized to fresh, mafics, unaltered. foliation 70° off CA.								DM5-22	193-199	-5	.4	110	2	280	
	200			200			90								
	210			210			100								
	220			220			100								
230 - 242 coarse grain gneiss wkly chloritized to fresh. Foliation 45° off CA.	230		230-232.5 py microveins, minor	230			100	DM5-23	230-233	-5	-.2	55	4	82	
	240		238-242.5 1% py microveins, dism.	240			100								
242-268 aphanitic intermediate to mafic dike. loc weakly to strongly porphyritic. wk arg-chl altn.															
247-255 wk to mod arg-chl altn. yellow oxide along fracture. md to cg gneiss	250		241-255 1-2% py as microveins, dism	250	GMC Data Report No. 262		90	DM5-24	249-254	-5	-.2	-5	2	70	
					33/48										
	260			260			100	DM5-25	258-263	-5	-.2	25	-2	68	

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DM-5 5/7

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL Sample	Interval	Au ppb	Ag ppm	As	Pb	Zn	BOX
242-268 continued.	260														
265.5-268 mod. wpg-chl altn.															
268-326.5 coarse grain gneiss, wk chl altn. local x cutting granitoid dikelets w/ py clots marginal, associated. Foliation 70° off core angle	270			270	GMC Data Report No. 262		100								
283.5 granitoid dikelet 35° off core angle	280			280			100								
	290			290			100								
	300			300			90								
	310			310			90								
	320			320	34.48		100								
326.5-333 f.g. rhyolitic dike? tiramme-like texture spherulitic. silicified.? Texture 40° off C.A.	330			330			100	DM5-26	326.5-333						

265.5-268 tr to 1% py as clots replacing phenocrysts in dike

DM-5 v-1,
DM-5 6/7

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL Sample	Interval	Au ppb	Ag ppm	As	Pb	Zn	BOX
326.5-333 continued.	330		333-341 < 1% py along fracture with chlorite	330	GMC Data Report No. 262										
341-413 coarse grain to medium grain gneiss. wk chloritic alteration throughout. Loc. weak sericite-pyrite altered.	340			340			100								
346-352 wk ser-py	350		346-352 py fracture coating / inclusions trace to 1%	350			100	DMS-27	349-353	-5	-.2	35	-2	60	
	360			360			100								
360-377 wk ser-py	370			370			100	DMS-28	366-371.5	-5	-.2	20	-2	40	
	380			380			100								
386-389 weak ser. alt, penetrative chl alt.	390		386-389 py microvns, dism,	390	35/48		100	DMS-29	386-390	-5	-.2	65	-2	70	
	400			400			100								

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LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG	MINERALIZATION	RECOVERY				ANALYTICAL							BOX
				Run	Run length	Core	%	Sample	Interval						
341-413 - continued	400														
TD = 413'	410			410			100								
	420			420											

GMC Data Report No. 262

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DIAMOND DRILL HOLE LOG

Company: Placer Dome U.S. Inc.

Property: DEADMAN	Hole No.: DM-6
Location: The Chair	Bearing at Collar: N45°E
	Inclination at Collar: -50°
Coord. - Collar N: [illegible]	
E: 15,850 E	Length: 193'
Elev. - Collar: 4942'	Core Size: NQ
Date started: 9-4-91	
Completed: [illegible]	Logged by: M. Flaherty

LEGEND

Lithology		Alteration		Mineralization	
Gneiss		Strong / Mod. / Weak		Veinlet/stringer zones	
Mafic Dikes				Mineralized (close-spaced) fractures / fill	
Int-Felsic Dikes				Disseminated	
Fault Gouge		Quartz Vein + Breccia			

LITHOLOGY, ALTERATION, MISC.	FT.	MINERALIZATION	RECOVERY (Run / Run length / Core / %)	Sample	Interval	Au ppb	Ag ppm	As ppm	Pb ppm	Zn ppm	BOX
0-14: Colluvial Overburden	0										
	10										
14-40: FG gneiss alternating with MG-CG weakly foliated granitic sills or dikes. Rock is pervasively Fe-oxidized, and is heavily fractured	20	Pervasive FeOX (minimal) (After py ?)	6,000 / 90%	DM 6-1	14-26 (12)	<5	.6	70	16	58	
Foliation 45°	30			6-2	26-40 (14)	<5	.4	25	10	98	
Depth of weathering related oxidation	40										
40-52: Relatively fresh FG gneiss.	50										
52-70: Same Lith as above, moderate chlorite alteration. Hvy. fracturing	55	Chlorite after mafics. FeOx on fractures only									

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LITHOLOGY, ALTERATION, MISC.	FT.	MINERALIZATION	RECOVERY (Core)	%
52-70 (cont.) Chlorite-Altered FG gneiss. Heavily Fractured (w/Feox coat)	60, 70	As above. Pyrite vein 6" thick within narrow shear zone. Dissem. Py (+Apy?) in VFG, <1-1%.	Good	>90
70-93: orange-Tan "Felsite" (or altered intermediate?) VFG dike rock. Siliceous + bleached. This probably due to Si flooding + acidic fluids. Feox is heavy on Frax but generally not pervasive. Few to no mafics visible. Incr. Frax	80, 90	Si microveinlets	Good	~85%
93-102: Heavily broken quartz-sulfide veined gneiss. Also, hvy. clay (illite?) + sericite. Veins/shears 50°	100	5-10% Apy-Py in Qtz veins + dissem. in gneiss	Moderate	75%
102-248 MG-CG gneiss, coarse (meta-intrusive?) bio-fspar gneiss is most prevalent. Perv. sericitized, argillized around narrow Qtz-Py-veined shears. FoL. 45-80°	110, 120, 125	Decreasing sericite-illite. Weak Alt.	Good	>90

ANALYTICAL

Sample	Interval	Au	Ag	As	Pb	Zn
6-3	[illegible]	70	.8			
6-4	60-70(10)	10	.2			
6-5	70-81(11)	<5	.4			
6-6	81-93(12)	<5	.4			
6-7	93-95(2)	<5	.6			
6-8	95-103(8)	<5	.6			
6-9	103-113(10)	<5	<.2			

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LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG (Lith / ALT / Min)	MINERALIZATION	RECOVERY (Run / Run length / Core / %)
102-248 (cont.): As Above. weakly sericitized MG-CG gneiss	125		As Above. (Chlorite v. weak)	Solid >90%
125-140: FG gneiss	130			
Foliation 45-60°	140			
Fault. 148-151: Shear zone w/dark grey to black sulfidic material (oriented at high angle to core's long axis)	150		148-151: Heavy Chlorite-Silica-Pyrite(?) mini. Broken qtz veins.	
Foliation <45° to subparallel w/core	160			
177-179: Clay-sericite alteration is pervasive in CG gneiss	170		2" thick qtz vein w/vugs lined with Pyrite + qtz crystals (cuts core at 50°, near perpindicular to foliation)	
	180			
Perv. Clay-Sericite alteration 1-2' above + below shear zone. 192-194: Shear zone similar but less intense than one above at 148-151 (high angle to long axis of core)	190		192-194: Chlorite + Dark Silica-Sulfide(?) matter.	
	195			

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ANALYTICAL (Au ppb; Ag, As, Pb, Zn ppm)

Sample	Interval	Au	Ag	As	Pb	Zn	BOX
DM 6-10	148-151 (3)	<5					
6-11	151-156 (5)	<5					
6-12	190-195 (5)	15					

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DM-6 4/8

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL ppm (ppb Au) Sample	Interval	Au	Ag	As	Pb	Zn	BOX
102-248 (cont.): As Above.	195		As Above		600 / GMC Data Report No. 262		~90%								
200-223: FG gneiss with Abund. Felsic Segregation (folded w/ Foliation)	200														
Foliation 45-60°			One-Foot-Thick Qtz segregation					DM6-13	208-213 (5)	<5					
	210		Quartz-Pyrite open-space vein. <1 foot												
	220							6-14	220-226 (6)	<5					
223-248: Pervasive Sericite-chl Alteration, increasing to moderate below 232'.			Trace sulfide √ to 248												
	232							6-15	232-238 (6)	<5					
			2-4" thick Qtz-Py (5% Py) Veins												
	248				40/48			6-16	243-248 (5)	<5					
248-254: Weakly Altered diabase (mafic) dike. Chlorite-Alteration	250		VFG Py-Po very sparse disem.			85-100% Recovery		6-17	248-254 (6)	<5					
FAult/shear → 254-260 Sheared Contact zone (mineralized)			Incr. sulfide, partly silicif.					6-18	254-256 (2)	<5					
								6-19	256-261 (5)	<5					
259-262: Qtz vein/Breccia	260		Qtz (+sulfide) flooding Open space veining: 260-290		Recovery ~100										
260-290: MG-CG weakly sericitized gneiss	265		250 ↓ Weak sericite (sporadic)												

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LITHOLOGY, ALTERATION, MISC.	FT.	MINERALIZATION
260-290 (cont.) As Above. Sporadic, weak sericite alteration	265 / 270	As Above
Foliation: ~60°	280	
Broken, sheared (Fault?)	290	
290-298: variably sheared + sericitized MG-CG gneiss. 294-298: Fault gouge		290-298: Py-qtz veins. 294-298: Black pyritic(?) material w/ broken quartz veins.
298-300: Chl-altered FG mafic dike	300	Py ± qtz stringers + veinlets at variable orientations.
300-303: Sheared brecciated, sericitized gneiss		
303-311: Gneiss or porphyritic dike. Alteration (pervasive sericite after fspar + in seams) masks texture. 6" pegmatite	310	
311-316: Altered, intermediate dike. mod chlorite-illite alt.		Py-illite cut Q-Py stringers: 30°; varying orientations
316-323: dike contact. Pervasively sericite-illite altered CG gneiss. Foliation	320	Ser-illite in seams + after fspar
323-378: Relatively unaltered MG gneiss. Migmatitic textures abundant. Foliation: 50-70°	330 / 335	

RECOVERY: Recovery ~100

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ANALYTICAL ppm (Au ppb)

Sample	Interval	Au	Ag	As	Pb	Zn
6-20	290-294 (4)	25				
6-21	294-298 (4)	50				
6-22	298-300	65				
6-23	300-303	100				
6-24	303-311 (8)	40				
6-25	311-316 (5)	70				
6-26	316-323 (7)	<5				

BOX

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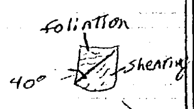
LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG	MINERALIZATION	RECOVERY				ANALYTICAL							BOX
				Run	Run length	Core	%	Sample	Interval	ppb Au	ppm Ag	ppm As	ppm Pb	ppm Zn	
323-378 (cont.) As Above. 338' ≤1 foot thick shear zone	335		338' ← Ground qtz. vein material resistible like rock. clays.		Recovery GMC Data Report No. 262		390	6-27	384-387 (3)	<5					
378-398: Heavily fractured gneiss w/ Abundant narrow, weakly altered (chlorite-Pyrite) MAFIC dikes intruding. Pervasive chlorite + illite + stringer chlorite-Pyrite near dike contacts, weak ALT/minz' in dikes away from contacts.	380		Py dissem. in dikes + w/chlor in stringers throughout. Py 2-3%		42/48			6-28	385-392 (7)	<5					
	390		ALT/minz' decreases					6-29	392-397 (5)	<5					
398-416 MG migmatitic gneiss similar to 323-378	400														
	405														

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL Sample	Interval	Au	Ag	As	Pb	Zn	BOX
398-416 (cont.) As Above. ALT. essentially nonexistent. 405-408: FG porphyritic mafic dike	405–416				Good Recovery (~100%)										
416-428: FG-MG diorite dike. Fresh, equicrystalline	416–428														
428-493' MG migmatitic gneiss similar to Above (398-416). Essentially unaltered 428-468, but weak shear-related alteration + weak Py mineralization below 468 (to 493').	428–468				43/48										
468-471: Pervasive chloritic shear zone w/assoc. perv. sericite-clay.	468–471		468-471: Dissem Py (<1%)					6-30	468-471(3)	<5					
* Below 471' sporadic narrow shearing with similar alteration + mineralization	471–475														



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LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL Sample	Interval	Au ppb	Ag ppm	As ppm	Pb ppm	Zn ppm	BOX
428-493 (cont.) weak to sporadic chlorite alt (+ser-illite)	475				Good (>90%)										
As Above	480														
Foliation variable but mainly ~60°					GMC Data Report No. 262			6-31	482-487(5)	<5					
	490														
TD 493'					44/48										

DM-7

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DIAMOND DRILL HOLE LOG

Company: Placer Dome U.S.

Property: Deadman | Hole No.: DM-7
Location: Lightning Zone | Bearing at Collar: N 45° E
Inclination at Collar: -60°
Coord. - Collar N: 31600
E: 19100 | Length: 254'
Elev. - Collar: | Core Size: NQ
Date started: | Logged by: Peter Bokis
Completed:

LEGEND
LITHOLOGY: gneiss; mafic dikes; intermediate to felsic dikes; fault gouge; qtz breccia/vn.
ALTERATION: strong; moderate; weak

SURVEY
Footage | Bearing | Inclination
MINERALIZATION: high grade; veins, stringer zones; microveins, fracture coats; dissemination

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG (LITH / ALT / MIN)	MINERALIZATION	RECOVERY: Run	Run length	Core	%	ANALYTICAL: Sample	Interval	Au ppb	Ag ppm	As	Pb	Zn	BOX
0-57' coarse grain gneiss. broken, feOx. locally weakly sericitized, also loc. wkly argillized to intensely arg!	0			0	GMC Data Report No. 262										
	10			10			90								
	20			20			100								
24-25 mafic to fg equigranular granitoid dike.															
26.5-27 int. arg. alt. in gneiss			26.5-27.5 fg. dism py												
	30			30			100	DM7-1	28-39	-5	.4	40	6	10	
36.5-37.5 mod arg. gneiss			36.5-37.5 fg. dism py												
38.5-39 int. arg. gneiss.					45/48										
	40			40			100	DM7-2	39-48	-5	.2	45	2	148	
46-48 minor gouge with shear															
	50			50			80	DM7-3	48-56.5	-5	.2	20	8	76 ~~148~~	

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG LITH / ALT / MIN	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL Sample	Interval	Au ppb	Ag ppm	As	Pb	Zn	BOX
50-51 med. grain equigranular granitoid dike	50	+++			GMC Data Report No. 262										
57-109 fine to medium grain gneiss. Prominent segregation banding. Gossanous along fracture. Foliation / comp. banding nearly horizontal with core angle. Lou. Coarser grain with weak sericitic - argillic alteration off fractures.	60			60											
77.5 weak sericitic altn.	70			70											
	80			80											
	90			90											
	100			100											
104-120 med to coarse grain gneiss. wk ser ± chl altn. Lenses(?) qtz - k spar pegmatite seams / dikes. Foliation 20° off core angle.	110			110	46/48			DM7-4	109.5-112.5	-5	-.2	15	4	92	
111-113 int. silicification mod chl-ser altn.								DM7-5	112.5-117.5	-5	-.2	30	8	100	
118.5 alk to blk porphyritic dike, cuts fol. at 45°	120		118-119 min microveins	120				DM7-6	117.5-126	-5	1	670	16	154	

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DM-7 3/4

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG (LITH / ALT / MIN)	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL Sample	Interval	Au ppb	Ag ppm	As	Pb	Zn	BOX
120-126. light pale green gray intermediate dike. Intense ser-chl altn. clasts of gneiss w/min dike.	120		120-126 py-aspy veinlets.	120	GMC Data Report No. 262										
125-126 gouge w/ lg px rose grz.								DM7-7	126-135	-5	.2	10	-2	108	
126-159 fresh fine to md grain gneiss, loc. garnet-tetrous. wk ser off fracture, fx coated with deep red FeOx or yel ser+clay. Foliation 70° off core.	130			130											
126-128 mod ser-sil altn.															
131-133 highly fx'd int ser altn.	140			140											
147-149 fg, increasing segregation.			147-149 py coating on fx, parallel to core.												
	150			150											
								DM7-8	158-163	-5	.2	40	2	116	
159-174 c. grain gneiss. mod ser-chl altn, coarsen to pegmatite loc.	160			160											
			163-164.5 .5" aspy. vein, also dism in gneiss.					DM7-9	163-164.5	3350	48.6	10000	110	96	
								DM7-10	164.5-167	-5	.2	390	4	6	
	170			170				DM7-11	169.5-176.5	-5	.2	80	2	100	
174-241 md to coarse grained gneiss. wk to mod ser-chl, chl-ser altn in zones 1-2" wide off fracture.					47/48										
176-185 fine grain, fresh.	180			180											
186-188 cg, mod ser altr, vel ox on fx															
188-194 fg to cg, 1% garnet	190			190											

LITHOLOGY, ALTERATION, MISC.	FT.	GRAPHIC LOG LITH / ALT / MIN	MINERALIZATION	RECOVERY Run	Run length	Core	%	ANALYTICAL Sample	Interval	Au ppb	Ag ppm	As	Pb	Zn	BOX
194-195 c-grain gneiss, int. sericitic alteration 195-254 coarse to fine grain gneiss. Fresh. Abundant ruby garnets, (3-4%). sericitic alteration immediately surrounding fracture, and in pegmatite zones. 241-244 highly siliceous dark green aphanitic dike. Rhyolite? spherulites filled w/ zeolite - sericite? Moderate argillic alteration at fracture. Dike 45° to CA. Cutting foliation.	190 200 210 220 230 240 250 260		194-195 aspy. micro veins w/ fr chpy repl. mica.	190 200 210 220 230 240 250 260		GMC Data Report No. 262 48/48								