

**COMPANY: Goldstream-Titan**  
**PROJECT: Hugo RL 8810**  
**HOLE NUMBER: HS 8**

<b>Commenced:</b>	09 Sept 96
<b>Completed:</b>	20 Sept 96
<b>Logged By:</b>	L A Newnham
<b>Drilled By:</b>	Dia. Drill Tas

Purpose of Hole
To confirm the high grade Zn-Au skarn intersection obtained in drill hole SMD 13 on the same site during a previous drilling program completed by Shell-CRA

Comments on Completion
.the Hugo Skarn was intersected directly beneath the Hugo Fault between 82.8- 116.3 m. The top section of the skarn may have been faulted off; a 17 m. thick Au-Zn anomalous zone was present in the top half of the skarn and the upper 9 m. of this assayed 2.34 g/t Au, 8.9 %Zn, 0.16 %Bi; the Shell-CRA hole on this same site was higher in Zn and lower in Au;

**Collar Details**

Grid	Northing	Easting	Elevation	Dip	Bearing
AMG	5,406,251	423703	638	-90	-

Length (m)
144.3

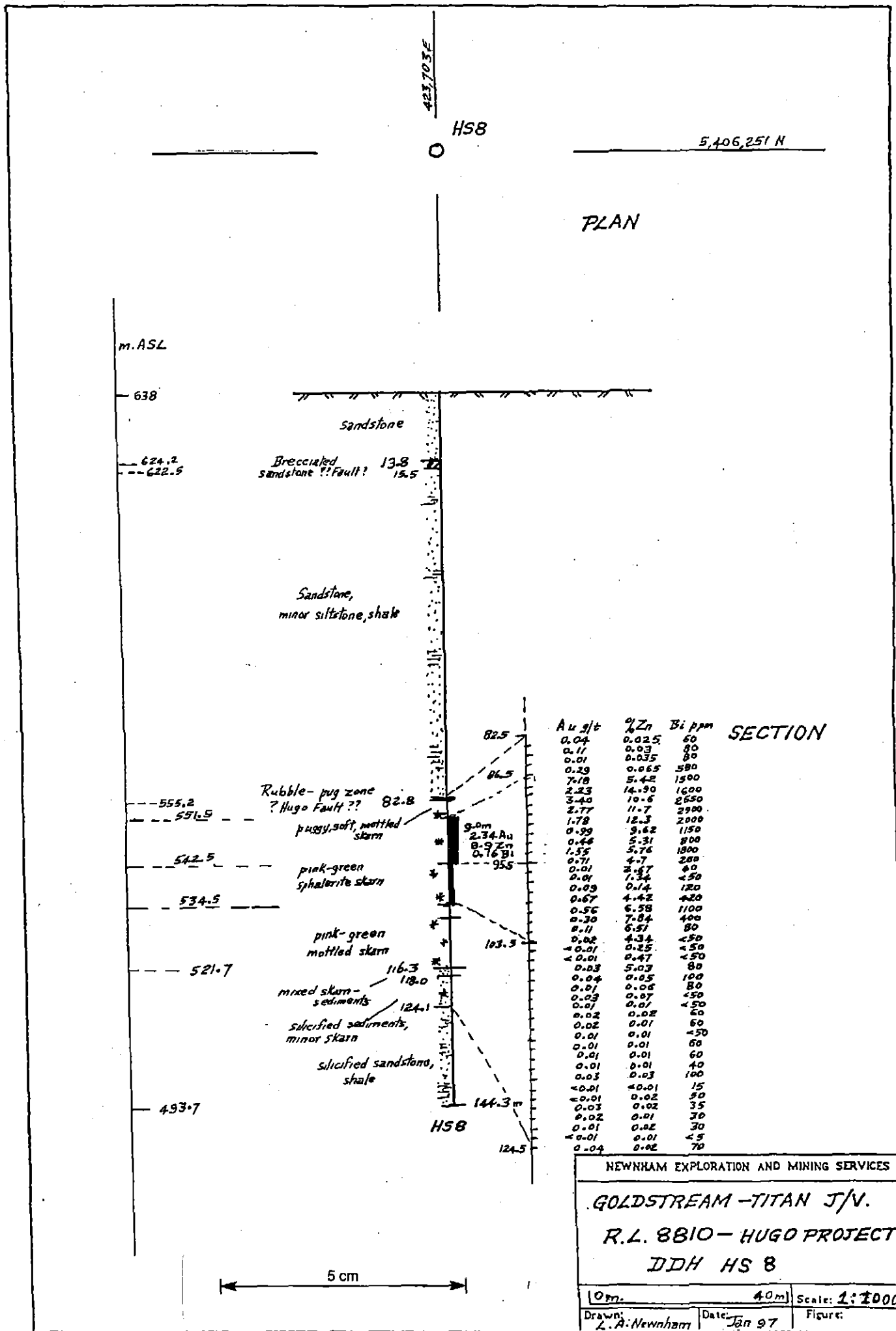
Hole Size	
To (m)	Size
60	HQ
144.3	NQ

Significant Core Loss Zones		
From	To	%Rec.
31.7	33.0	25
33.0	35.2	10
35.2	36.0	0
36.0	38.0	10

Hole Condition on Completion
.All steel casing removed from hole

**Summary of Results:**

Depth		Recovery	Description	Assays						
From	To			%	Length	Au	Zn	Ag	As	Mo
86.5	95.5	100	Mottled light green-pink sphalerite rich skarn	9.0	2.34	8.9				0.16
86.5	103.5	100	Skarn	17.0	1.34	6.7				0.10



PLAN

SECTION

Au g/t	%Zn	Bi ppm
0.04	0.025	60
0.11	0.03	80
0.01	0.035	80
0.29	0.065	590
7.18	5.42	1500
2.23	14.90	1600
3.40	10.6	2650
2.77	11.7	2900
1.78	12.3	2000
0.99	9.82	1150
0.46	5.31	800
1.35	5.76	1800
0.71	4.7	280
0.01	3.67	60
0.01	1.34	<50
0.03	0.4	120
0.67	4.42	420
0.56	6.58	1100
0.30	7.84	400
0.11	6.51	80
0.02	4.34	<50
<0.01	0.25	<50
<0.01	0.47	<50
0.03	5.07	80
0.04	0.05	100
0.01	0.06	80
0.03	0.07	<50
0.01	0.07	<50
0.02	0.02	60
0.02	0.01	60
0.01	0.01	<50
0.01	0.01	60
0.01	0.01	60
0.01	0.01	40
0.03	0.03	100
<0.01	<0.01	15
<0.01	0.02	50
0.03	0.02	35
0.02	0.01	30
0.01	0.02	30
<0.01	0.01	<5
0.04	0.02	70

NEWNHAM EXPLORATION AND MINING SERVICES

**GOLDSTREAM-TITAN J/V.**

**R.L. 8810-HUGO PROJECT**

**DDH HS 8**

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Opp. 40m Scale: 1:1000

Drawn: L.A. Newham Date: Jan 97 Figure:

DOWN HOLE SURVEY DATA

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Depth (m)	Dip	Bearing (AMG)	Interval		Length (D)	Vertical Distance		Horizontal Distance		Co-ordinates			
			From	To		O. sin dip	R.L.	D. cos dip (HD)	Cumulative HD	N. distance HD. cos brg.	N. co-ordinate	E. distance HD. sin brg.	E. co-ordinate
COLLAR	-90	0					638.00		0.00		5,406,251.0		423,703.0
0	-90	0	0	25	25	25.00	613.00	0.00	0.00	0.00	5,406,251.0	0.00	423,703.0
50	-89	247	25	75	50	49.99	563.01	0.87	0.87	-0.34	5,406,250.7	-0.80	423,702.2
100	-89	34	75	122.15	47.15	47.14	515.86	0.82	1.70	0.68	5,406,251.3	0.46	423,702.7
144.3	-88	154	122.15	144.3	22.15	22.14	493.73	0.77	2.47	-0.69	5,406,250.6	0.34	423,703.0
144.3													

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Description		Core Recovery			RQD			Assays								
From	To		From	To	%	From	To	%	From	To						
0.0	13.8	<b>SANDSTONE:</b> light gray, medium-coarse grained pyritic sandstone, with occasional narrow dark brown altered siltstone beds; core has pervasive dendritic appearance due to fine anastomosing fractures filled with pyrite and fine mica; pyrite also common as disseminations and aggregates in sandstone, and smeared along joint planes; minor broken quartz veins below 12 m., core loss at 8m., in brown puggy clay zone; sandstone massive with no positive bedding; extensively broken and fractured, especially below 11.5m. several prominent joint sets 30, 70 CA; limonite common on joints;	0	2.2	82											
			2.2	5.2	100											
			5.2	8.2	87											
			8.2	13.8	100											
13.8	15.5	<b>BRECCIATED SANDSTONE-FAULT ZONE?</b> broken, brecciated, quartz veined pyritic sandstone; prominent sericitic pug-quartz breccia zone parallel CA for most of interval; coarse pyrite abundant throughout; core very broken and limonitic;	13.8	15.5	100											
15.5	82.8	<b>SANDSTONE, minor SILTSTONE and SHALE:</b> similar to unit above fault but more broken and becoming less pyritic with depth; joint set parallel to core axis results in very broken core; limonite common on joints; 27-29m: sandstone finer grained, dark gray, more silicified; possible bedding 80 CA; 31.7-38m: zone of major core loss; difficult to speculate what was lost; recovered core is very broken sandstone and some massive white quartz veins;	15.5	17.2	100											
			17.2	18.0	50											
			18.0	31.7	100											
			31.7	33.0	25											
			33.0	35.2	10											
			35.2	36.0	0											
			36.0	38.0	10											

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Description		Core Recovery			RQD			Assays							
From	To	From	To	%	From	To	%	From	To						
.15.5 continued.....	82.8	.some redrilled core suggests probably a drilling problem rather than a ground problem													
		38.0-40.5m: softer finer grained brown sandstone-siltstone-altered shale unit with small augens of quartz and sandstone; pyritic; BCA 40;													
		38	41	80											
		clayey and pug in places; unit very broken;													
		40.5-62m: light gray sandstone interbedded with soft, cream siltstone-shale; wispy green sericite common in sandstone; thin white quartz veins increasing down hole at random angles but commonly at high angle to CA; pyrite as occasional disseminated coarse grains and blebs in quartz veins-decreasing down hole to 1-2%;													
		41	62	100											
		metasandstone becoming very siliceous below 50m. with numerous thin (<10mm) quartz veins with coarse euhedral pyrite; limonite abundant on joints;													
		below 55m. increase in number of soft buff brown altered shale-siltstone units, containing narrow 10-20mm. light gray sandstone beds;													
		REDUCED TO NQ AT 60M.													
		62.0-66.0m: metasiltstone-shale bed, BCA 60-70; pyrite common in fractures and thin quartz veins;													
		62.0	66.0	100											
		below 66m: light gray sandstone, intensely silicified with occasional soft light brown siltstone-shale beds;													
		66.0	69.3	100											
		69.3	72.2	69											
		72.2	78.3	100											
		BCA 70; core intensely fractured and broken with pyrite common on all fracture surfaces and in thin veins;													
		below 76m: mainly siltstone, light gray and very broken, cut by quartz veins and brecciated in places; minor disseminated pyrite;													
		78.3	81.3	67											
		81.3	82.8	100											
		78.0-82.8m: dark gray siltstone, extremely broken with soft soapy bright green sericite on most fracture surfaces; thin quartz veins and narrow breccia zones; 82.0-82.8m: core pug and rubble (HUGO FAULT ZONE?)													

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Description		Core Recovery			RQD			Assays											
From	To		From	To	%	From	To	%	From	To	Au	Zn	Ag	As	Mo	Bi			
82.8	116.3	<b>.SKARN:</b> sharp but very broken contact with unit above <b>82.8-85.0:</b> very soft, puggy, broken, mottled light green-pink skarn; no significant veining or sulfide mineralisation; <b>85.0-106.8m:</b> light pink-green mottled sphalerite skarn; (garnet-epidote? skarn); sphalerite is dark brown-black with dark streak (le) marmatite; occurs in large interconnected patches; abundant from 86.5- 93.0m. and 99.0-103.0m.; decreasing below 103m; coarse euhedral pyrite associated with sphalerite in places; 86.5-87.0m: some magnetite patches associated with sphalerite; minor amounts magnetite elsewhere in unit;  soft red amorphous mineral near top of unit possibly hematite after either magnetite or leached sphalerite; core soft and moderately broken; several joint sets- one 20 CA associated with thin veinlets of dark gray-black material (dark quartz-mica greisen?); other persistent joint sets at 40 and 60 CA; below 102m: 5-10mm. dark greisen veins with significant magnetite, semi parallel to core axis; <b>106.8-116.3m:</b> mottled pink-green skarn with substantially less sphalerite and pyrite; increasing component of dark green-gray moderately hard mineral and increasing dark gray-black 5-10mm greisen veining sub parallel to core axis; core generally competent but fracturing along greisen veins sub parallel to CA;																	
			82.8	105.3	100						82.5	83.5	0.04	0.025	4	<0.005	<20	60	
													0.02(dup)						
												83.5	84.5	0.11	0.03	2	<0.005	<20	80
												84.5	85.5	0.01	0.035	4	<0.005	<20	80
						105.3	108.3	95				85.5	86.5	0.29	0.065	10	<0.005	<20	580
												86.5	87.5	7.18	5.42	11	<0.005	40	1500
												87.5	88.5	2.23	14.9	8	<0.005	30	1600
												88.5	89.5	3.4	10.6	10	0.005	<20	2650
												89.5	90.5	2.77	11.7	10	<0.005	20	2900
												90.5	91.5	1.78	12.3	11	<0.005	<20	2000
												91.5	92.5	0.99	9.62	8	<0.005	20	1150
												92.5	93.5	0.46	5.31	9	<0.005	<20	800
												93.5	94.5	1.55	5.76	8	<0.005	<20	1800
												94.5	95.5	0.71	4.7	7	<0.005	<20	260
												95.5	96.5	0.01	2.67	8	<0.005	<20	60
												96.5	97.5	0.01	1.34	5	<0.005	<20	<50
												97.5	98.5	0.09	0.145	7	0.005	<20	120
												98.5	99.5	0.67	4.42	7	<0.005	<20	420
												99.5	100.5	0.56	6.58	8	<0.005	<20	1100
												100.5	101.5	0.3	7.84	8	<0.005	<20	400
												101.5	102.5	0.11	6.51	9	<0.005	<20	80
												102.5	103.5	0.02	4.34	7	<0.005	<20	<50
											0.03 (dup)								
									103.5	104.5	<0.01	0.255	7	<0.005	<20	<50			
									104.5	105.5	<0.01	0.475	19	<0.005	<20	<50			
									105.5	106.5	0.03	5.03	9	<0.005	<20	80			
			108.3	116.3	100						0.02(dup)								
									106.5	107.5	0.04	0.05	6	<0.005	<20	100			
									107.5	108.5	0.01	0.06	<2	<0.005	<20	80			
									108.5	109.5	0.03	0.07	6	<0.005	<20	<50			
									109.5	110.5	0.01	0.015	4	<0.005	30	<50			
									110.5	111.5	0.02	0.02	<2	<0.005	30	60			
									111.5	112.5	0.02	0.015	8	<0.005	<20	60			
											0.01(dup)								
									112.5	113.5	0.01	0.015	6	<0.005	<20	<50			
									113.5	114.5	0.01	0.015	5	<0.005	<20	60			
									114.5	115.5	0.01	0.015	5	<0.005	<20	60			
									115.5	116.5	0.01	0.015	<0.5	<0.005	6	40			
											0.03(dup)								
116.3	118.0	<b>MIXED SKARN-SEDIMENT ZONE:</b>  zone of mixed pink skarn and other fine grained calc. silicates, possibly including minor hornfelsed shale-siltstone beds;	116.3	118.0	100														

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Description			Core Recovery			RQD			Assays							
From	To		From	To	%	From	To	%	From	To	Au	Zn	Ag	As	Mo	Bi
.116.3 cont.....	118.0	numerous 1-10 mm. dark gray-black greisen veins; no mineralisation observed;							116.5	117.5	0.03	0.03	<0.5	<0.005	27	100
118.0	124.1	<b>INTERBEDDED SILICEOUS SEDIMENTS and MINOR SKARN UNITS:</b>	118	124.1	100				117.5	118.5	<0.01	<0.01	<0.5	<0.005	2	15
		light gray and greenish intensely altered fine grained siliceous sediments, interbedded with pink (garnet)-green (epidote?) skarn; minor blebs silvery mineral in skarn, possibly bismuthinite or fine mica; interval cut by several generations of greisen veins - abundant 1-5 mm. dark gray veins often sub parallel to core axds, comprised mainly of magnetite and dark mica; other wider zoned veins with quartz-topaz-fluorite centres and mica-magnetite selvages, occasionally containing fine grained acicular mineral (?? arsenopyrite); mica very weathered/altered to soft sericite resulting in very broken core, especially in silicified units;							118.5	119.5	<0.01	0.02	<0.5	<0.005	26	50
									119.5	120.5	0.03	0.02	<0.5	<0.005	40	35
									120.5	121.5	0.02	0.01	<0.5	<0.005	230	30
									121.5	122.5	0.01	0.02	<0.5	<0.005	80	30
									122.5	123.5	<0.01	0.01	<0.5	<0.005	59	5
									123.5	124.5	0.04	0.02	<0.5	<0.005	32	70
											Sn	W				
									115.5	116.5	250	105				
									116.5	117.5	150	2350				
									117.5	118.5	130	25				
									118.5	119.5	115	50				
									119.5	120.5	230	280				
									120.5	121.5	175	15				
									121.5	122.5	76	130				
									122.5	123.5	150	<10				
124.1	144.3	<b>SILICIFIED SHALE and SANDSTONE:</b>	124.1	144.3	100				123.5	124.5	165	650				
		light gray silicified siltstone with minor brown sandstone beds, grading down hole into micaceous greisenised sandstones; BCA becomes regular 80 CA; below 130 m., dark gray sandstone, pyritic, micaceous; occasional 5-20 mm. quartz-mica-pyrite greisen veins parallel to bedding; unit extensively broken along joints and greisen veins but becoming more competent below 135 m.														
		<b>END OF HOLE</b>														

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