Amoco Minerals Australia Company

DRILL LOG — HOLE No. ZT-80A-3 —

PROJECT	ZEEHAN - TAS No. A79-60-B	ELEVATION meters	COMMENCED	9 April 80	
PROSPECT	AUSTRAL VALLEY	DIP COLLAR 55° GW	COMPLETED	22 April 80	
CO-ORDINATES	1610 N mN 1300E mE	CORE SIZE HQ, NQ	TOTAL LENGTH	373.5 meters	
BEARING	249 TN 238 MN 270 GN	LOGGED BY T.A. JONES			

BORE HOLE SURVEY Depth (m)	Dip	Bearing	INSTRUMENT Depth (m)	Dip	Bearing	Depth (m)	Dip	Bearing
50	56°	236°	200	60°	222°	350	57.5	199
100	58°	232°	250	61°	216°			
150	59.5°	227°	300	58°	196°			

METERAGE From	To	DESCRIPTION	MINERALIZATION %	SAMPLE NUMBER	METERAGE From	To	Length	ASSAYS Cu	Pb	Zn	Ag
0.00	15.00	TRICONE : 0-1.5m Alluvial Gravels Mt. Zeehan Conglomerate 1.5-10.0m Dolomite?? Completely weathered black silty clays. 10.0-15.0m Interbedded limestones and Dolomite		22117	15	16	1	14	56	45	<1
				22118	16	17	1	11	44	29	<1
				22119	17	18	1	8	37	40	<1
START HQ	CORING			22120	18	19	1	6	99	127	<1
				22121	19	20	1	10	50	180	<1
15.00	24.00	CALCLUTITE / DOLOMITE : Interbedded, foliated (possibly slumped) grey calclutites and dark grey dolomite. Rock extensively broken, had pugh zones prevalent and minor calcite veined.		22122	20	21	1	10	55	200	<1
				22123	21	22	1	12	53	179	<1
				22124	22	23	1	10	44	143	<1
				22125	23	24	1	8	44	148	<1
				22126	24	25	1	10	43	183	<1
24.00	33.00	DOLOMITE : Black, silty dolomite, siderite veined, brecciated in part, very clayey, highly weathered and minor calcite veined. Fine grained, disseminated pyrite present. NO CORE 28.50 - 31.20.	Disseminated minor pyrite.	22127	25	26	1	8	54	323	<1
				22128	26	27	1	10	84	220	<1
					27	28	1	CAVITY	NO	CORE	RECOVERY
				22129	28	29	1	9	196	520	<1
					29	30	1	CAVITY	NO	CORE	RECOVERY
33.00	40.50	CALCLUTITE : grey, heavily calcite veined (36.00 - 40.00) badly fractured and broken, brecciated (slumped?) and pughy calclutites and minor fossiliferous calcarenites.			30	31	1	CAVITY	NO	CORE	RECOVERY
				22130	31	32	1	19	215	2980	<1
				22131	32	33	1	17	60	228	<1
				22132	33	34	1	11	92	131	<1
					34	35	1	CAVITY	NO	CORE	RECOVERY
40.50	50.00	SANDSTONE : porous, coarse grained, grey, fossiliferous (41 - 42.50) slumped, well sorted, and weakly calcareous sandstone. Minor black pughy sections possibly completely weathered black Dolomite interbeds.			35	36	1	"	"	"	"
				22133	36	37	1	14	53	622	<1
				22134	37	38	1	12	92	290	<1
					38	39	1	CAVITY	NO	CORE	RECOVERY
					39	40	1	"	"	"	"
				22135	40	41	1	12	28	106	<1
50.00	64.90	DOLOMITE : Black and dark grey, very silty, calcareous, weakly calcite veined Dolomite. Core very clayey, badly broken with minor quartz veining (5cm). Recoveries a 50%. Minor fine grained pyrite.	Minor pyrite.	22136	41	42	1	10	22	87	<1
				22137	42	43	1	11	29	184	<1
				22138	43	44	1	12	44	227	<1
				22139	44	45	1	9	22	147	<1
				22140	45	46	1	8	14	68	<1
				22141	46	47	1	11	14	171	<1
64.90	67.60	ANKERITE / SIDERITE BRECCIA : containing weakly disseminated Pb/Zn (1-2%) mineralization. Rock is dark grey green in colour, very dense, and massive but badly fractured and broken. NO CORE RECOVERY 66.40 to 68.30 m.	1-2% Pb/Zn as disseminations.		47	48	1	CAVITY	NO	CORE	RECOVERY
					48	49	1	"	"	"	"
					49	50	1	"	"	"	"
				22142	50	51	1	12	48	120	<1
				21946	51	52	1	9	62	108	<1
				21947	52	53	1	10	77	198	<1
67.60	81.00	INTERBEDDED CALCLUTITES / DOLOMITES : Technically brecciated, heavily calcite veined, pughy in part, pughy over numerous zones and very cavernous. Possible Zone of Faulting (CRUSH ZONE).		21948	53	54	1	8	64	188	<1
				21949	54	55	1	6	107	322	<1
				21950	55	56	1	6	88	141	<1
				22001	56	57	1	8	117	418	<1
				22002	57	58	1	7	499	1720	1
				22003	58	59	1	45	804	2670	2
				22004	59	60	1	6	198	7470	1

6401 C?

Amoco Minerals Australia Company

DRILL LOG | HOLE No. |

METERAGE From	METERAGE To	DESCRIPTION	MINERALIZATION %	SAMPLE NUMBER	METERAGE From	METERAGE To	Length	ASSAYS Cu	Pb	Zn	Ag
81.00	94.50	CALCLUTITE: grey, slumped, in part pelletal, foliated weakly fossiliferous and moderately calcite veined cavernous calclutite. Minor thin (<2cm) dark grey carbonaceous dolomite interbeds. Cavity 89.5 - 90.60m. Bedding 45°toca at 87m		22005	60	61	1	7	894	6310	2
				22006	61	62	1	<5	289	2620	1
				22007	62	63	1	7	427	3070	<1
				22008	63	64	1	6	844	2270	<1
				22009	64	65	1	<5	8700	2230	4
				22010	65	66	1	<5	597	3250	2
94.50	105.00	DOLOMITE: dark grey to black, silty, heavily calcite veined, very soft and broken cavernous dolomite. Cavity 99-102 m. Minor push zones. Core very foliated with calcite veins oriented // to ca and sheared out remnants of bedding are oriented sub // to the c.a. Minor breccia zones prevalent (tectonic).		22011	66	67	1	8	319	6220	1
				-	67	68	1	NO	CORE	RECOVERY.	
				22012	68	69	1	<5	88	648	1
				22013	69	70	1	<5	106	740	1
				-	70	71	1	NO	CORE	RECOVERY	
				-	71	72	1	"	"	"	
				22014	72	73	1	<5	80	2470	1
					73	74	1	NO	CORE	RECOVERY	
105.00	134.00	CALCLUTITE: pale grey, very foliated (sub // to ca) weakly calcite veined, occasionally pelletal cavernous (generally push filled) competent rock. Cavities: 107-107.90, 108.50-111.10, 116.10-118.20, 131.80-132.60. No accurate bedding through massive but foliated sequence.		22015	74	75	1	<5	25	2680	1
				-	75	76	1	NO	CORE	RECOVERY	
				22016	76	77	1	<5	1269	4050	1
START NQ CORING 126 metres				22017	77	78	1	6	224	671	1
				22018	78	79	1	11	218	1840	1
				-	79	80	1	NO	CORE	RECOVERY	
				-	80	81	1	"	"	"	
134.00	145.00	INTERBEDDED CALCLUTITE / DOLOMITE: light grey non-fossiliferous and fossiliferous, foliated and weakly calcite veined calclutites and calcarenites with interbeds of dark grey silty dolomites from 5-20cm in width. The Dolomite is pyritic and carbonaceous. Bedding 32° to ca at 140m. Microfaulting and foliation distort bedding attitudes.	Fine grained disseminated pyrite.	22019	81	82	1	6	36	280	1
				22143	82	83	1	12	156	710	<1
				22144	83	84	1	10	163	690	<1
				22145	84	85	1	10	150	1080	<1
				22146	85	86	1	10	160	580	<1
				22147	86	87	1	10	116	484	<1
				22148	87	88	1	9	172	482	<1
				22149	88	89	1	11	70	138	<1
					89	90	1	NO	CORE	RECOVERY	
					90	91	1	"	"	"	
145.00	160.00	BRECCIATED CALCLUTITE: moderately to strongly calcite veined, brecciated, grey, foliated calclutites with minor interbeds of fossiliferous calcarenites and black carbonaceous dolomites (generally <2 cm in width).		22150	91	92	1	13	158	1190	<1
				22151	92	93	1	11	105	362	<1
				22152	93	94	1	8	38	168	<1
				22153	94	95	1	11	50	187	<1
				22154	95	96	1	13	82	346	<1
160.00	168.00	LIMESTONE: white to light grey, massive to laminar, spavry and micritic limestones possibly containing abundant but extremely fine grained pyrite disseminations. Core weakly calcite veined. Cavities 163 - 163.30, 164 - 164.50 m. Bedding 38° toca 164.50. Massive limestone has pygmatically folded and foliated very thin carbonaceous layers present approximately 0.5 mm thick.		22155	96	97	1	14	217	349	<1
				22156	97	98	1	13	184	494	<1
				22157	98	99	1	15	344	1570	<1
					99	100	1	NO	CORE	RECOVERY	
					100	101	1	"	"	"	
					101	102	1	"	"	"	
				22158	102	103	1	11	53	75	<1
				22159	103	104	1	11	147	770	<1
				22160	104	105	1	13	108	344	<1
				22161	105	106	1	11	54	95	<1
				22162	106	107	1	10	64	377	<1
					107	108	1	NO	CORE	RECOVERY	
				22163	108	109	1	11	127	750	<1
					109	110	1	NO	CORE	RECOVERY	
					110	111	1	"	"	"	
					111	112	1	MISSING SAMPLE			
					112	113	1	MISSING SAMPLE			

METERAGE From	METERAGE To	DESCRIPTION	MINERALIZATION %	SAMPLE NUMBER	METERAGE From	METERAGE To	Length	ASSAYS Cu	Pb	Zn	Ag
168.00	199.60	Interbedded CALCLUTITES/DOLOMITES: grey, foliated, fossiliferous and non fossiliferous, pelletal in part, calclutites interbedded with black to dark grey occasionally laminar silty and carbonaceous dolomite. Core weakly calcite veined, and shows evidence of soft sediment slumping. Rock very cavernous: 168.10 - 168.40, 176.60 - 177.10 m. Bedding 41° to ca 184m; 33° to ca 196 m.		22166	113	114	1	20	103	458	<1
				22167	114	115	1	9	54	193	<1
				22168	115	116	1	12	104	449	<1
					116	117	1	NO	CORE	RECOVERY	CAVITY
					117	118	1	"	"	"	"
				22169	118	119	1	11	83	350	<1
				22170	119	120	1	11	145	462	<1
				22171	120	121	1	10	177	830	<1
				22172	121	122	1	14	638	2960	<1
199.60	202.50	LIMESTONE: Massive and laminar; white to light grey sparry and micritic limestones. Very thin <0.5mm carbonaceous laminae, often physically folded throughout. Rock foliated and microfaulted. Bedding 35° to ca 202m. Pugby core from 202 - 202.50m.		22173	122	123	1	12	92	315	<1
				22174	123	124	1	11	85	260	<1
				22175	124	125	1	11	44	660	<1
				22176	125	126	1	7	73	298	<1
				37637	126	127	3	10	85	600	<1
					127	128					
					128	129					
202.50	229.60	Interbedded CALCLUTITES/DOLOMITE: grey, slumped, foliated, in part pelletal, microfaulted, calclutites and more massive calcarenites; interbedded with black silty, carbonaceous and weakly pyritic dolomite. Dolomite beds generally <5cm in width. Dolomite beds highly contorted due to slumping of thin beds. Core weakly calcite veined and badly broken ground is only found in the badly foliated sections of core. Foliation is sub // to ca. Minor pugh zones present. Bedding 30° to ca at 216m.	Minor fine pyrite.	37638	129	130	3	22	170	1900	<1
					130	131					
					131	132					
				37639	132	133	3	14	32	110	<1
					133	134					
					134	135					
				37640	135	136	3	22	16	30	<1
					136	137					
					137	138					
				37641	138	139	3	14	12	24	<1
					139	140					
					140	141					
229.60	231.00	SANDY CALCARENITE: Grey, well bedded, laminar, weakly calcite veined, foliated (⊥ to bedding), coarse grained sandy calcarenite. Bedding 35° to c.a. at 230 metres		37642	141	142	3	14	40	120	<1
					142	143					
					143	144					
				37643	144	145	3	8	16	30	<1
					145	146					
231.00	234.80	CALCLUTITE: grey, extremely foliated, strongly calcite veined, massive calclutite with numerous thin dark grey silty dolomite interbeds (<0.5cm) Calclutite fossiliferous between 234.60 & 234.80m.			146	147					
				37644	147	148	3	10	12	55	<1
					148	149					
					149	150					
				37645	150	151	3	12	16	50	<1
234.80	240.00	SANDY CALCARENITE BRECCIA: slump brecciated, coarse grained, well sorted, massive sandy calcarenites grading downhole into bedded sandy calcarenites. Core weakly calcite veined. Sections of rock very porous & friable (generally browny/grey in colour) giving rise to poor recoveries. Bedding 45° to ca at 237.60 metres.			151	152					
					152	153					
				37646	153	154	3	8	260	46	<1
					154	155					
					155	156					
				37647	156	157	3	14	75	50	<1
					157	158					
					158	159					
240.00	251.00	CALCLUTITE: grey, very foliated, moderately calcite veined, in part pelletal, cavernous calclutites and dark grey sandy calcarenites. Minor amount of siderite veining, veining calcite, containing minor disseminated sphalerite. Cavities 242.20 - 242.90; 243.30 - 244.00; 244.60 - 249.50.	Minor sphalerite.	37648	159	160	3	150	95	55	1
					160	161					
					161	162					
				37649	162	163	3	10	28	38	1
					163	164					
					164	165					
				37650	165	166	3	10	105	155	1

Amoco Minerals Australia Company

DRILL LOG — HOLE No. ZT-80R-3 — PAGE 4 OF 7

METERAGE From	METERAGE To	DESCRIPTION	MINERALIZATION %	SAMPLE NUMBER	METERAGE From	METERAGE To	Length	ASSAYS Cu	Pb	Zn	Ag
251.00	253.00	CALCLUTITE: well bedded, laminar, microfaulted, weakly calcite veined (minor siderite) grey and dark grey interbedded calclutites and silty calclutites. Bedding 37° to ca at 252.50 metres.			166	167					
					167	168					
				37651	168	169	3	6	60	115	1
					169	170					
					170	171					
253.00	256.80	DOLOMITE: black, silty, and occasionally sandy, calcareous, weakly calcite veined (minor hematite staining) dolomite. Minor interbedded laminar calclutites present. Zone cavernous from 253.30 - 254.50 m. Dolomite is very soft and decomposes rapidly on contact with air and water.		37652	171	172	3	14	30	65	1
					172	173					
					173	174					
				37653	174	175	3	10	22	26	1
					175	176					
					176	177					
				37654	177	178	3	8	28	32	1
					178	179					
256.80	272.50	SANDSTONE: fine grained, well sorted, grey, massive, calcite and quartz veined (minor siderite) brecciated in part sandstone interbedded with very soft, crumbly black to dark grey porous sandstones and dayey and silty black dolomites. Zone very cavernous: 256.80 - 265.30; 266.50 - 267.60; 268.60 - 272.20. No bedding attitudes in massive sequence. Pb/Zn mineralized siderite/calcite vein? 256.90?	Minor Pb/Zn assoc. with siderite vein.		179	180					
				37655	180	181	3	8	44	270	1
					181	182					
					182	183					
				37656	183	184	3	8	140	1200	2
					184	185					
					185	186					
				37657	186	187	3	8	290	1150	2
					187	188					
					188	189					
272.50	292.40	LIMESTONE: light grey, foliated, massive and laminar, moderately calcite veined calclutites with interbeds of grey calcareous sandy calcarenites. Tectonic breccia 273.50 - 273.80. Ground very cavernous: 273.80 - 274.50; 275 - 275.50; 276 - 280; 281 - 284; 285 - 291; Calcarenite core very porous, soft and badly fractured giving rise to poor recoveries.		37658	189	190	3	4	60	400	1
					190	191					
					191	192					
				37659	192	193	3	6	130	410	1
					193	194					
					194	195					
				37660	195	196	3	6	44	150	1
					196	197					
					197	198					
292.40	295.50	SIDERITE/ANKERITE MINERALIZED ROCK: grey green, massive, very dense, sideritic veined ankerite rock containing disseminated colloform? textured sphalerite with minor filligree textured galena. ± 2% Pb/Zn. The hangingwall is manifest by a Tectonic, siderite healed breccia. Cavity 292 - 292.80; 293.30 - 294.70.	Disseminated Pb/Zn mineralization averaging approx. 2% combined.	37661	198	199	3	6	50	140	1
					199	200					
					200	201					
				37662	201	202	3	8	36	70	1
					202	203					
					203	204					
295.50	316.10	Interbedded SILTSTONES/SANDSTONES: black and grey, weakly calcareous, vughy, porous, and very soft clayey siltstones and sandstones. Zone extremely cavernous: 295.50 - 297.30; 297.50 - 299.90; 300.80 - 301.20; 304.50 - 307.60; 309.80 - 312.20; 312.40 - 313.70. Core recovery was approximately 10%. Much of the core was washed during drilling.		37663	204	205	3	8	105	480	1
					205	206					
					206	207					
				37664	207	208	3	12	55	110	1
					208	209					
					209	210					
				37665	210	211	3	8	85	410	1
					211	212					
					212	213					
316.10	341.60	Interbedded SANDSTONES: light grey, very porous, friable, soft, quartzose coarse grained sandstones interbedded with more massive, dense and hard, weakly quartz veined, fine grained sandstones. Recoveries over the softer zones approximately 20%. No Core 324 - 326m		37666	213	214	3	16	160	850	2
					214	215					
					215	216					
				37667	216	217	3	8	90	220	<1
					217	218					
					218	219					

Amoco Minerals Australia Company

DRILL LOG — HOLE No. ZT-80A-3 —

METERAGE From	METERAGE To	DESCRIPTION	MINERALIZATION %	SAMPLE NUMBER	METERAGE From	METERAGE To	Length	ASSAYS Cu	Pb	Zn	Ag
341.60	354.40	MINERALIZED SIDERITE/CALCITE ROCK: cream coloured dense, massive, siderite veined, weakly to moderately mineralized rock. Rock foliated, vuggy and the mineralization is either disseminated or veinleted galena with minor sphalerite. The core is badly fractured and broken giving recoveries varying from 45% to 75%. Layering in sections of the zone appears to be a primary feature enhanced by the influx of siderite into the sequence.	3.5% Pb/Zn combined.		219	220	3	8	40	95	<1
					220	221					
					221	222					
				37669	222	223	3	8	105	190	<1
					223	224					
					224	225					
				37670	225	226	3	8	70	230	<1
					226	227					
					227	228					
				37671	228	229	3	8	100	280	<1
354.40	373.50	SANDSTONE: interbedded medium to coarse grained dark grey, massive, well sorted, in part vuggy, weakly fossiliferous sandstones and cream to grey, coarse grained very soft and weakly clayey sandstones. Clayey sections have poor core recoveries. Recoveries overall 50-60%.			229	230					
					230	231					
				37672	231	232	3	6	24	130	<1
					232	233					
					233	234					
				37673	234	235	3	10	60	280	<1
					235	236					
					236	237					
END OF HOLE 373.50m.				37674	237	238	3	10	230	1000	1
					238	239					
					239	240					
				37675	240	241	3	8	125	2550	<1
					241	242					
					242	243					
				37676	243	244	3	8	65	2200	<1
					244	245					
					245	246					
					246	247		CAVITY	NO	CORE	
					247	248		"	"	"	
					248	249		"	"	"	
				37677	249	250	3	50	150	740	2
					250	251					
					251	252					
				37678	252	253	3	8	65	175	2
					253	254					
					254	255					
				37679	255	256	3	10	310	1350	3
					256	257					
					257	258					
					258	259		CAVITY	NO	CORE	
					259	260		"	"	"	
					260	261		"	"	"	
					261	262		"	"	"	
					262	263		"	"	"	
					263	264		"	"	"	
					264	265		"	"	"	
				37680	265	266	3	6	225	520	2
					266	267					
					267	268					
				37681	268	269	3	6	210	870	2
					269	270					
					270	271					
				37682	271	272	3	16	170	5500	2

Amoco Minerals Australia Company

DRILL LOG — HOLE No. ZT-80A-3 — PAGE 6 OF 7

METERAGE From	METERAGE To	DESCRIPTION	MINERALIZATION %	SAMPLE NUMBER	METERAGE From	METERAGE To	Length	ASSAYS Au	Pb	Zn	Ag
					272	273					
					273	274					
				37683	274	275	2	10	230	1350	1
					275	276					
					276	277		CAVITY	NO	CORE	
					277	278		"	"	"	
					278	279		"	"	"	
					279	280		"	"	"	
				37684	280	281	1	8	65	670	1
					281	282		CAVITY	NO	CORE	
					282	283		"	"	"	
					283	284		"	"	"	
					284	285	1	12	32	440	<1
					285	286		CAVITY	NO	CORE	
					286	287		"	"	"	
					287	288		"	"	"	
					288	289		"	"	"	
					289	290		"	"	"	
					290	291		"	"	"	
					291	292	1	10	32	85	<1
				22091	292	293	1	13	498	3640	1
				22092	293	294	1	7	535	3050	1
				22093	294	295	1	33	3600	2.75%	3
				22094	295	296	1	12	4200	1.36%	3
					296	297		CAVITY	NO	CORE	
					297	298	4	8	60	180	<1
					298	299					
					299	300					
					300	301					
					301	302	4	6	75	260	<1
					302	303					
					303	304					
					304	305					
					305	306		CAVITY	NO	CORE	
					306	307		"	"	"	
					307	308	3	12	590	420	<1
					308	309					
					309	310					
					310	311		CAVITY	NO	CORE	
					311	312		"	"	"	
					312	313		"	"	"	
					313	314	3	10	30	90	<1
					314	315					
					315	316					
					316	317		CAVITY	NO	CORE	
					317	318		"	"	"	
					318	319	3	12	18	60	<1
					319	320					
					320	321					
					321	322	3	6	8	24	<1
					322	323					
					323	324					
					324	325	3	8	14	38	<1

649190

Amoco Minerals Australia Company

DRILL LOG — HOLE No. ZT-80A-3 — PAGE 7 OF 7

METERAGE From	METERAGE To	DESCRIPTION	MINERALIZATION %	SAMPLE NUMBER	METERAGE From	METERAGE To	Length	ASSAYS Cu	Pb	Zn	Ag
					325	326					
					326	327					
					327	328	3	6	22	48	<1
					328	329					
					329	330					
					330	331	3	12	20	50	<1
					331	332					
					332	333					
					333	334	3	14	60	90	<1
					334	335					
					335	336					
					336	337	3	14	125	480	<1
					337	338					
					338	339					
					339	340	2	8	135	500	<1
					340	341					
				22095	341	342	2	7	4200	3390	2
					342	343					
				22096	343	344	2	<5	830	747	1
					344	345					
				22097	345	346	2	<5	2700	3160	2
					346	347					
				22098	347	348	1	<5	1.23%	2700	5
				22099	348	349	1	15	2.41%	2800	8
				22100	349	350	1	24	4.37%	4400	14
				22101	350	351	1	<5	9400	1210	6
				22102	351	352	1	<5	2300	2150	3
				22103	352	353	1	<5	3800	1670	4
				22104	353	354	1	<5	5500	819	6
				22105	354	355	1	<5	2900	1480	3
					355	356	1	NO	CORE	RECOVERY	
					356	357	1	"	"	"	
					357	358	1	"	"	"	
				22106	358	359	1	6	156	256	1
					359	360	3	10	120	310	<1
					360	361					
					361	362					
					362	363	3	8	40	60	<1
					363	364					
					364	365					
					365	366	3	4	40	44	<1
					366	367					
					367	368					
					368	369	3	10	30	110	<1
					369	370					
					370	371					
					371	372	3	14	16	36	<1
					372	373					
					373	374					
				END OF HOLE 373.50m.							

64-1691