

STONE PROPERTY
FORT STEELE MINING DISTRICT
1991/2 WORK PROPOSAL

Colin Burge

April 26, 1991

Target

Large tonnage massive sulphide deposit.

Objective

To complete all or part of the proposed work program by May 1, 1992 in order to salvage all or part of the Stoney property.

Geology

The Stoney property is underlain by Proterozoic age Aldridge formation siltstones, mudstones and quartzites. These sediments have been intruded by conformable gabbroic bodies known as the Moyie sills. The stratigraphy forms a broad, open, gently north plunging anticline (Moyie Anticline) that has been cut by the Moyie River NE-SW trending fault just north and east of the property.

Mineralization

The Aldridge formation hosts the monstrous Sullivan deposit located 65 km north of Stoney property. The Sullivan is a 160 Mt massive sulphide sheet grading 6.1% Pb, 5.9% Zn, 68 g/t Ag. The deposit measures 1.7 km by 1.3 km and is underlain by a tourmaline-chlorite-garnet pyrite stockwork/alteration zone. The hanging wall alteration assemblage is dominated by albite. The Sullivan occurs on the west limb of a broad northwest plunging anticline and is associated with a coarse polymictic conglomerate unit which may mark a graben margin. The orebody lies at the

transition between predominately thin bedded mudstones of the Lower Aldridge and overlying medium bedded Middle Aldridge quartz wackes. The regional structural and stratigraphic setting is identical to the Stoney property. Stratigraphic correlations of individual turbidite beds in the Aldridge Formation can be made across distances of as much as 300 km. (Hoy, 1989).

The only significant occurrence apart from the Sullivan in the Aldridge is the former St. Eugene Mine. The St. Eugene was a massive sulphide vein that produced 1 Mt of 14% Pb, 5% Zn and 7 opt Ag. The vein trend is normal to the anticlinal axis of the Moyie structure and occurs about 6 km north of the Stoney ground. The vein is hosted mainly by Middle Aldridge sediments but also cuts the overlying Creston Formation. Considerable deep drilling by Cominco and later by Falconbridge was done in an effort to test the Lower - Middle Aldridge contact below the St. Eugene.

The Tourm property (FL/St.Eug/Chevron JV) has been explored more than 10 years as a result of tourmaline showings on Mt Mahon. The tourmaline showings are 3 km south of the Stoney ground. Drilling on the property has intersected the following zones of interest:

1. Y-81-6 7m of MS bands, MS formed 20% of interval at a depth of 23m
2. Y-81-12 MS veins within tourmalinized garnet bearing sediments.
3. Y-81-10 Testing 2 channel Dighem anomaly, hit intense sericite alteration over entire hole.
4. 9cm of 3% Zn, 9% Pb, 8 opt Ag at 300m in an unknown hole.

The Stoney property covers the downdip potential of these zones.

History

The Stoney property was staked by Minnova as result of a compilation and lithogeochemical survey of the Aldridge Formation. The only work recorded on the claims is a soil survey by Kennco Exploration in 1966 (AR 813).

Minnova Programs

Recce mapping 1:10,000
Lithogeochemical sampling
Gravity survey
CSAMT survey 2X6 km lines
2-250 drill holes

1990 Program

The 1990 program consisted of contour soils, heavy mineral sampling and further lithogeochemical sampling. The objective was to obtain anomalies that may be emanating from productive horizons. A review of work on the Tourm-Mt Mahon property to the south was undertaken to determine the relationship between Stoney and the Mt. Mahon tourmalinite occurrence.

Results

The contour soils and heavy mineral program failed to identify any significant anomalous zones. Recce mapping and sampling discovered an extensive narrow sulphide horizon anomalous in Pb, Zn and Cu.

Section work and research of assessment filed on the neighbouring Tourm-Mt Mahon property indicates that the Stoney property is underlain by Middle Aldridge Formation units. It is now evident that all previous work on the Stoney, including drilling, has been carried out in what is considered hanging wall stratigraphy to the crucial Sullivan time horizon.

Exploration work conducted on the Tourm property has been intermittent and poorly executed. Several interesting intercepts have not been followed up with holes along strike or in the downdip direction. A series of weak dighem conductors and a gravity anomaly located downdip of MS intercepts have not yet been drill tested.

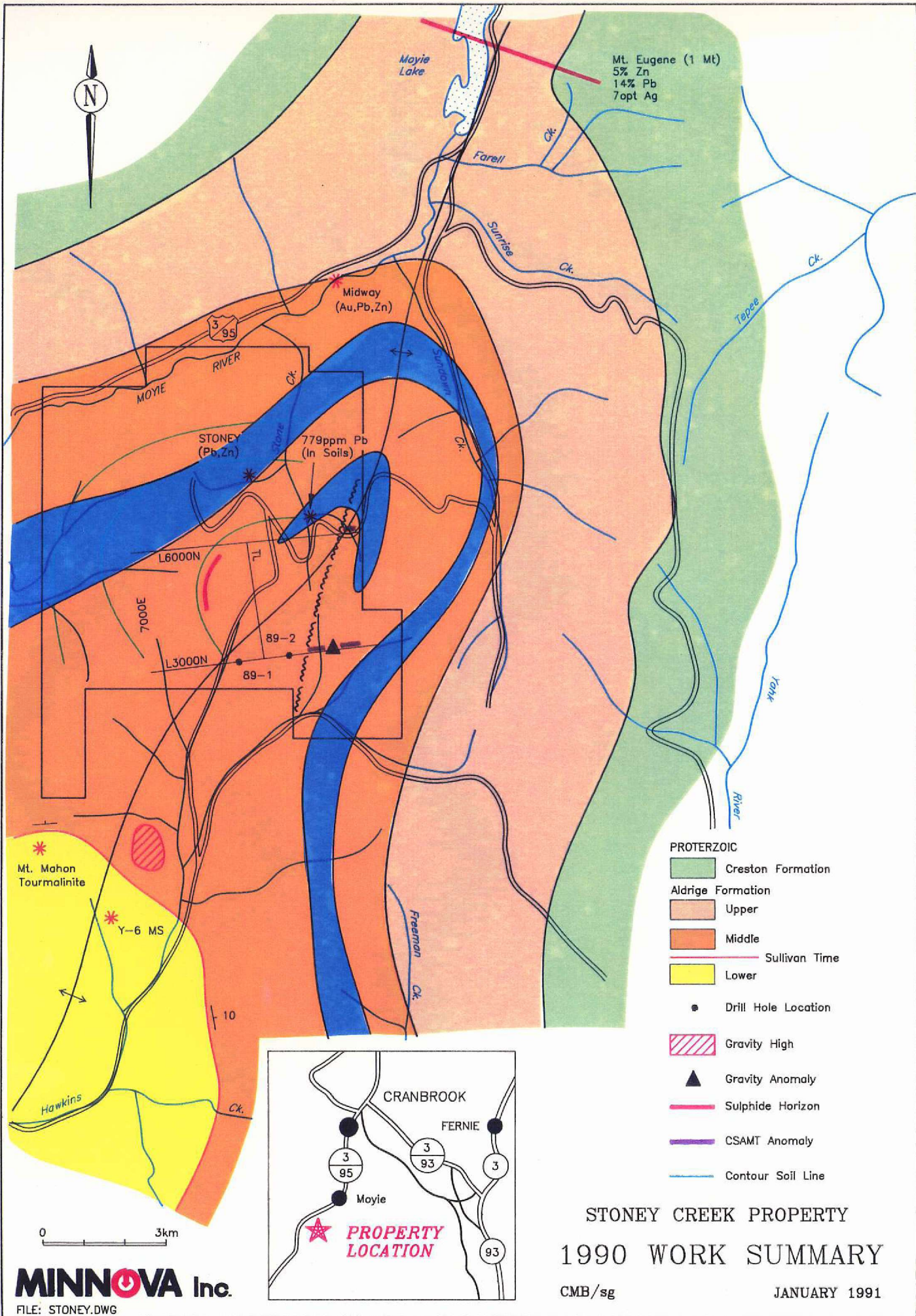
Conclusions

No significant mineral occurrences have been discovered to date on the Stoney property. The property is interpreted to be underlain by stratigraphy which forms the hanging wall to the Sullivan time horizon. Therefore exploration must directed at evaluating this contact. The Mt. Mahon tourmalinites showing is possibly the last significant showing in the Aldridge that has not been extensively drill tested. The potential rewards in the Aldridge formation are truly elephantine.

Recommendations

- | | | |
|----|--|----------|
| 1. | Acquire the Tourm - Mt. Mahon property. | |
| 2. | AEM 45 km @ \$80/km. | \$35,000 |
| 3. | Drilling 280 meters @ \$90/m
(Extend ST-01) | \$25,200 |
| | Total | \$60,200 |

N.B. A minimum expenditure of \$10,000 is required in order to keep the southernmost group of Stone 11-16 and Stone 9 in good standing until 1993. The work must be performed on Stone 13 and 14.



Mt. Eugene (1 Mt)
5% Zn
14% Pb
7opt Ag

Midway
(Au,Pb,Zn)

STONEY
(Pb,Zn)

779ppm Pb
(In Soils)

L6000N

7000E

L3000N

89-2

89-1

Mt. Mahon
Tourmalinite

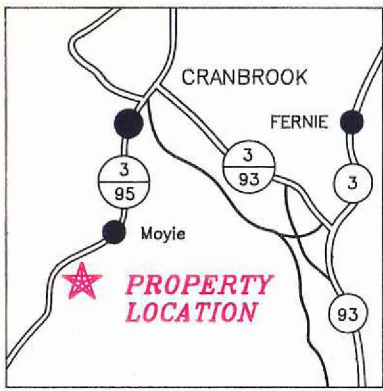
Y-6 MS

0 3km

MINNOVA Inc.

FILE: STONEY.DWG

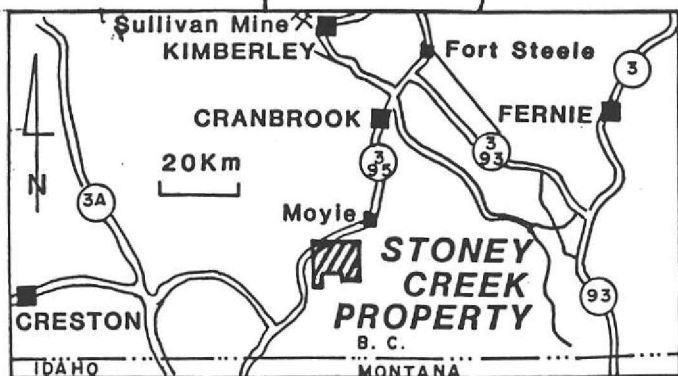
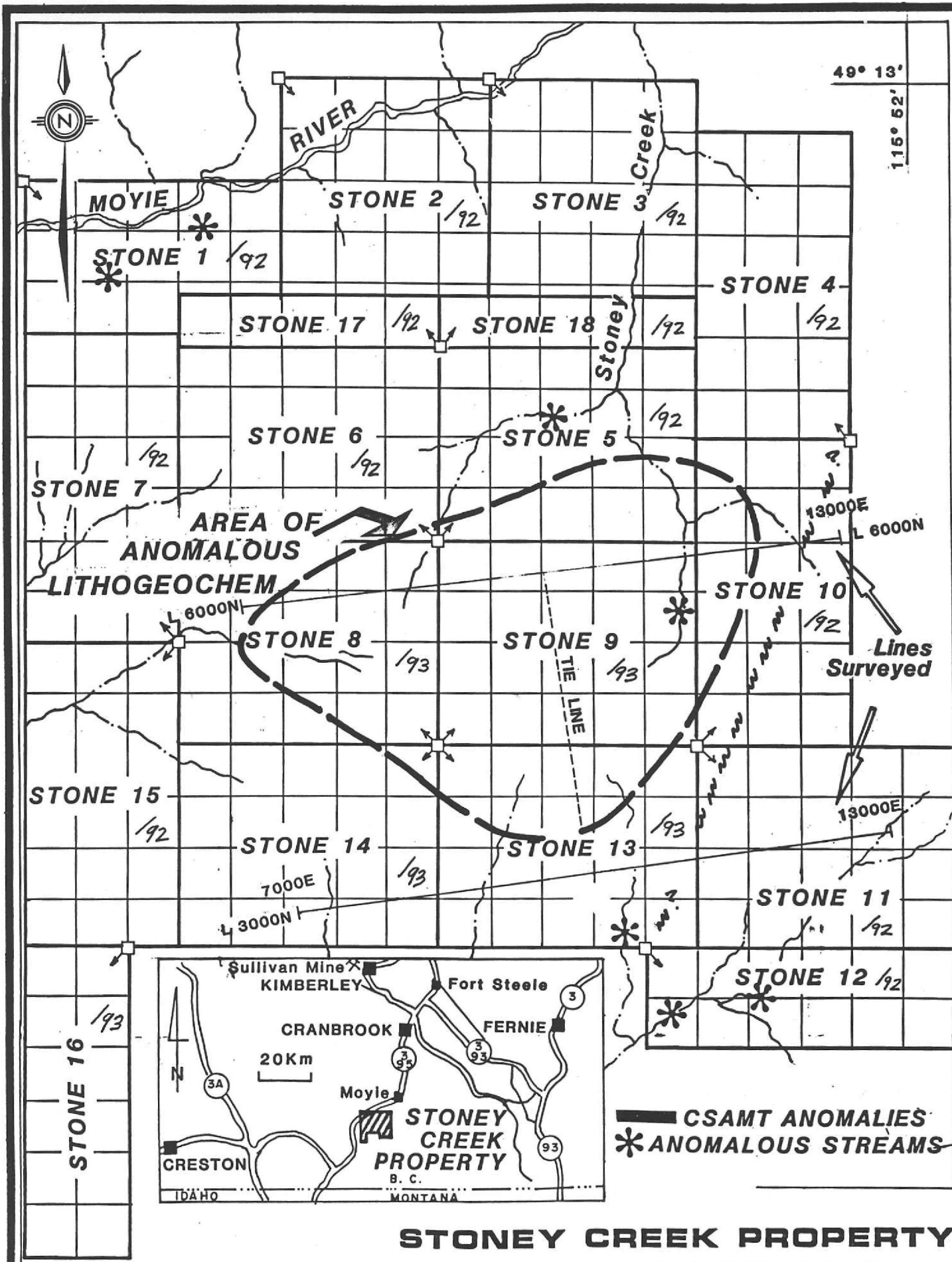
- PROTEROZOIC
- Creston Formation
 - Aldrige Formation
 - Upper
 - Middle
 - Lower
 - Sullivan Time
 - Drill Hole Location
 - Gravity High
 - Gravity Anomaly
 - Sulphide Horizon
 - CSAMT Anomaly
 - Contour Soil Line



STONEY CREEK PROPERTY
1990 WORK SUMMARY

CMB/sg

JANUARY 1991



——— CSAMT ANOMALIES
 * ANOMALOUS STREAMS

STONEY CREEK PROPERTY CLAIM CONFIGURATION

MINNOVA INC
EXPIRY DATE NOTICES

PROJECT NAME	PROJECT CLAIM NAME NUMBER	RECORD NUMBER	MONTH	UNITS	AREA RECORD (ha) DATE	EXPIRY DATE
STONE CLAIMS	62380 STONE 1	2880	05	15	375.00 05/01/87	05/01/92
STONE CLAIMS	62380 STONE 2	2881	05	20	500.00 05/01/87	05/01/92
STONE CLAIMS	62380 STONE 3	2882	05	20	500.00 05/01/87	05/01/92
STONE CLAIMS	62380 STONE 4	2883	05	18	450.00 05/01/87	05/01/92
STONE CLAIMS	62380 STONE 5	2884	05	20	500.00 05/01/87	05/01/92
STONE CLAIMS	62380 STONE 6	2885	05	20	500.00 05/01/87	05/01/92
STONE CLAIMS	62380 STONE 7	2886	05	18	450.00 05/01/87	05/01/92
STONE CLAIMS	62380 STONE 8	2887	05	20	500.00 05/01/87	05/01/93
STONE CLAIMS	62380 STONE 9	2888	05	20	500.00 05/01/87	05/01/93
STONE CLAIMS	62380 STONE 10	2889	05	18	450.00 05/01/87	05/01/92
STONE CLAIMS	62380 STONE 11	2890	05	20	500.00 05/01/87	05/01/92
STONE CLAIMS	62380 STONE 12	2891	05	12	300.00 05/01/87	05/01/92
STONE CLAIMS	62380 STONE 13	2892	05	20	500.00 05/01/87	05/01/93
STONE CLAIMS	62380 STONE 14	2893	05	20	500.00 05/01/87	05/01/93
STONE CLAIMS	62380 STONE 15	2894	05	18	450.00 05/01/87	05/01/92
STONE CLAIMS	62380 STONE 16	2895	05	12	300.00 05/01/87	05/01/93
STONE CLAIMS	62380 STONE 17	2985	09	5	125.00 09/16/87	09/16/92
STONE CLAIMS	62380 STONE 18	2986	09	5	125.00 09/16/87	09/16/92
*** Total ***				301	7525.00	