

**FEASIBILITY STUDY**  
**FOR BOTTLED WATER PRODUCTION**  
**At Pt of SE 1/4 of 10-51-7-W5**

**CONTENTS**

Property

Background

Current 5 Gallon Bottle Business

Expansion of 5 Gallon Bottle Business

Plant Expansion for the purposes of producing

1 litre bottles and 500 ml bottles

Potential for 1 Litre and 500 ml Business

Summary

## PROPERTY

The property consists of the following (located about 12 minutes from Drayton Valley and about 1 hour from Edmonton):

- 26.89 acres of land (with the balance of the 1/4 Section available)
- source water spring(s)
- 2880 square foot shop (plant) with two 16 foot bay doors
- underground 100 barrel stainless tank that the spring flows into
- 500 gallon holding tank
- two Ozone units
- truck and all associated equipment
- License to Divert and Use Water for up to 6.8 million gallons per annum
- Food Establishment Permit - restricted to processing and sale of bottled water
- 5 gallon bottling plant
- an established business
- 1300 square foot two bedroom residence with office
- double car garage

## BACKGROUND

In August of 1985 an Interim Licence (under a list of terms and conditions) to divert and use up to 6.8 million Canadian gallons of water per annum from a spring pursuant to the Water Resources Act of Alberta Environment was granted to Sven Lund the owner of the property at that time. In November of 1987 the Licence to Divert and Use Water was granted to Sven Lund (having complied with the terms and conditions noted above). An amendment to that Licence was granted in January of 2005 changing the ownership to John Wallace Teeter and Dianne Ethel Hawkes (the current property owners).

The Food Establishment Permit was first issued as of October 1, 2004.

A Business License was obtained from Parkland County.

A report on water, collected from the storage tank, prepared by the Centre for Toxicology at the University of Calgary was filed with Health Region 6 in Spruce Grove, Alberta July 26, 2005. Another lab report done by Provincial Laboratory for Public Health (Microbiology) in Edmonton, Alberta was completed on the bottled water in question at the request of Da Kine Natural Spring Water ( the registered trade name that the business is operating under) on April 26, 2008. The results of this **Satisfactory** report and the first one mentioned above are available to prospective buyers.

The central Alberta Location is appealing in light of the savings on transportation costs from other places much further away.

The Health Inspector commented that this is the only bottling plant that bottles directly from source.

## **CURRENT 5 GALLON BOTTLE BUSINESS**

Annual Gross Sales of 5 Gallon Bottles to date:

2005 \$ 56,885

2006 \$ 59,366

2007 \$ 64,894

2008 \$ 70,853

Current customer base is over 250 regular customers within a radius of 100 kilometres of Drayton Valley. All sales are the result of testimonials from current customers, great water and friendly accommodating staff. The only advertising done to date is the semi-monthly advertisements in the Drayton Valley newspaper.

The current level of water usage is about 75,000 gallons per year from a potential of 6.8 million gallons per year.

The refillable/reusable 5 gallon bottles currently cost \$7.00 plus GST. All bottles require a \$10.00 deposit that is refundable upon return in good condition. Of course most customers simply replace one bottle with another one so that the refunds are not made. The result of this part of the business is that the bottles pretty much pay for themselves over a period of time including damages and/or loss.

Sales are currently made to two customer bases, wholesale at \$4.00 per bottle and delivery at \$7.00 per bottle. The current mix of these customers yield an average of \$4.92 per bottle.

Costs include: (current production is 60 bottles per hour with two staff)

Wages \$ .50 per bottle

Utilities .58 per bottle

Caps .15 per bottle

Clean & sterilize .02 per bottle

Total Cost \$ 1.35 per bottle

Gross Margin is  $\$4.92 - \$1.35 = \$3.57$  per bottle before overhead  
(property taxes, insurance, bank charges and interest, office supplies,  
advertising, automotive, repairs and maintenance etc.)

Current production of 15,000 bottles yields a gross margin of \$  
53,550.00 before overhead.

## **EXPANSION OF 5 GALLON BOTTLE BUSINESS**

The potential for expansion of this market is nearly limitless as the current level of usage is only 75,000 gallons. The potential usage is 6.8 million gallons or over 90 times as great as currently used.

The gross profit per bottle may decrease slightly as production is increased. However the lowest gross profit per bottle assuming all increase in production was sold to wholesale outlets would be \$ 4.00 (selling price) - \$ 1.35 (production costs, assuming no additional economies of scale because of larger operation) = \$ 2.65 per 5 gallon bottle.

Simply doubling sales, which should require only minimum effort would bring the annual gross margin up to \$ 93,300.00 (again before overhead).

Multiplying sales by 4 times (not unrealistic) would mean an annual gross margin of \$ 172,800.00.

Multiplying sales by 10 times (seems quite possible in today's market) would mean an annual gross margin of \$ 411,300.00. This increase in production would still only utilize 750,000 gallons out of the 6.8 million allowed by the licence.

It follows then that if one only used 50% of the allowed amount, the annual gross margin would be over \$ 1,800,000.00.

In conclusion, the profit from this operation is limited only by the resourcefulness, management skills and the efforts of the purchaser.

## **PLANT EXPANSION FOR THE PURPOSE OF PRODUCING 1 LITRE AND 500 ML BOTTLES**

Dakine Natural Spring Water approached a number of suppliers and received quotations for complete plant systems to blow bottles from Biota corn performs, to fill bottles with filtered water and to stretch-wrap bundles at a minimum rate of 2000/hour in the 500ml size. The quotations varied from \$ 380,000.00 (for a used plant) to the one from W. Amsler Equipment Inc. (which far exceeds output requirement) at \$774,123.00 plus freight from Richmond Hill, Ontario and installation or approximately \$ 800,000.00.

The quotation from W. Amsler Equipment Inc. will be used for the sake of this study. The total price of this system, with all options, including three sets of molds, and assuming that the three different bottles sizes are of the same neck diameter (28PCO, standard water bottle dimension) includes the following equipment:

- 2 Cavity WAE L22 Linear Reheat Stretch-Blow Molding Machine
- Compressor, Dryer and Filtration System
- Air Conveyor System
- 14/12/5 Rinser/Filler/Capper Mono-block Machine
- Bottle Capper Elevating Conveyor and Cap Hopper
- Pressure Sensitive Labeling System
- Date Code Printer
- Bottle Conveyors
- Shrink Bundler (Film Shrink Wrapping) Machine
- Roller Conveyor
- Stretch Wrapping Machine
- Water Treatment

This plant would require 3 people to handle the duties of running the system according to the supplier.

This supplier also declares that they can provide auxiliary equipment, including palletizers, leak detection, case packers etc.

The following drawing provided by them gives a good approximation of the smallest possible setup for the proposed system that they quoted for.

## POTENTIAL FOR 1 LITRE AND 500 ML BUSINESS

There appears to be no end to market availability for single consumer bottled water especially if biodegradable bottles are used. For example, the plant quoted on in this study is fully capable of using biodegradable performs at a slightly slower speed. The information provided and reviewed indicates a much better quality of water than most that is currently being bottled by other bottlers.

The potential for 1 litre bottles as per Licence is over 25 million bottles and for 500 ml bottles exceeds 50 million bottles.

Research has provided the following projected cost (A Packaging - a US firm provided their cost information):

Blowing, filling, capping, labelling and shrink wrapping at 94 cents for 12 bottles or slightly less than 8 cents per bottle for 500 ml bottles and about ½ cent more per bottle for 1 litre bottles.

Research also shows that 500 ml bottles sell within a range of 15 cents and \$1.25 retail per bottle. 1 litre bottles will provide a greater profit margin because they sell at a greater price with the cost being only 5% higher.

For illustrative purposes, a profit margin of 3 cents per 500 ml bottle and 6 cents per 1 litre bottle will be used (should be able to exceed this).

Using these assumptions, every million 500 ml bottles and/or ½ million 1 litre bottles sold would produce a gross margin of \$ 30,000.00. Therefore: use of 1/4 of licenced amount would provide a gross margin of \$ 375,000.00, ½ of licenced amount would provide a gross margin of \$ 750,000 and use of the maximum amount would provide a gross margin of \$1,500,000.00.

## **SUMMARY**

The potential for this piece of property is outstanding. An industrious owner could realistically recoup total cost of investment within two to three years. There are various alternatives to the business but it appears the most likely way to succeed in the shortest period of time would be through addition of a bottling plant. Rapid expansion of sales would seem to be more likely for the 500 ml and the 1 litre size bottles than for the 5 gallon bottle. However, a purchaser may wish to acquaint themselves with the business before major expansion and further investment . That is possible through the current business model which would provide an immediate and ongoing source of income.

Jack L. Isaman

Professional Accountant

Calgary, Alberta

August 29, 2008

